

ANALYTICAL REPORT

Job Number: 180-71858-1

Job Description: Harley Davidson

For:

Groundwater Sciences Corporation
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Harrisburg, PA 17110-9307

Attention: Christopher O'Neil



Approved for release.
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11/9/2017 9:58 AM

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Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
^c	CCV Recovery is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-71858-1

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 10/28/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.1 C.

VOLATILES

The following samples was diluted to bring the concentration of target analytes within the calibration range: HD-MW-92-0/1-0 (180-71858-1) and HD-CW-7A-0/1-0 (180-71858-6). Elevated reporting limits (RLs) are provided.

Surrogate recovery for the following samples was outside the upper control limit: HD-MW-4 (COLE)-0/1-0 (180-71858-3), HD-CW-1-0/1-0 (180-71858-5) and HD-QC6-0/1-2 (180-71858-7). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

The laboratory control sample (LCS) for analytical batch 180-227871 and 180-228278 recovered outside control limits for the following analytes: Acetone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Tetrachloroethene failed the recovery criteria low for the MS of sample HD-COLE-F-0/1-0 (180-71858-10) in batch 180-228278. Chloromethane failed the recovery criteria high.

Due to the time change, the CCVIS has date/time of 11/5/17 at 00:00. The correct date/time should be 11/6/17 at 00:00: (CCVIS 180-228044/2)

The continuing calibration verification (CCV) analyzed in batch 180-227871 was outside the method criteria for the following analytes: 1,4-Dioxane, 2-Butanone (MEK), Acetone, 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 analytes is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-228044 was outside the method criteria for the following analytes: 1,4-Dioxane, Acetone, 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 analytes is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-228278 was outside the method criteria for the following analytes: 1,4-Dioxane, Acetone, Acrylonitrile, Chloromethane and Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

Client Sample ID: HD-MW-92-0/1-0

Lab Sample ID: 180-71858-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	74		2.0	0.93	ug/L	2		8260C	Total/NA

Client Sample ID: HD-MW-18S-0/1-0

Lab Sample ID: 180-71858-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14		1.0	0.71	ug/L	1		8260C	Total/NA
Trichloroethene	4.1		1.0	0.69	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-4 (COLE)-0/1-0

Lab Sample ID: 180-71858-3

No Detections.

Client Sample ID: HD-MW-151-0/1-0

Lab Sample ID: 180-71858-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.4		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-CW-1-0/1-0

Lab Sample ID: 180-71858-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.79	J ^c	1.0	0.69	ug/L	1		8260C	Total/NA

Client Sample ID: HD-CW-7A-0/1-0

Lab Sample ID: 180-71858-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	52		2.0	1.4	ug/L	2		8260C	Total/NA
Tetrachloroethene	3.4		2.0	0.93	ug/L	2		8260C	Total/NA

Client Sample ID: HD-QC6-0/1-2

Lab Sample ID: 180-71858-7

No Detections.

Client Sample ID: HD-COLE-B-0/1-0

Lab Sample ID: 180-71858-8

No Detections.

Client Sample ID: HD-COLE-D-0/1-0

Lab Sample ID: 180-71858-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.75	J	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	20		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-COLE-F-0/1-0

Lab Sample ID: 180-71858-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	5.0	F1	1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-COLE (FLUSH)-0/1-0

Lab Sample ID: 180-71858-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

Client Sample ID: HD-COLE STEEL-0/1-0

Lab Sample ID: 180-71858-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	6.1		1.0	0.71	ug/L	1		8260C	Total/NA
Trichloroethene	7.0		1.0	0.69	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-MW-92-0/1-0

Date Collected: 10/27/17 08:27

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U ^c	2.0	1.8	ug/L			11/08/17 05:53	2
Vinyl chloride	2.0	U ^c	2.0	1.8	ug/L			11/08/17 05:53	2
Bromomethane	2.0	U	2.0	1.8	ug/L			11/08/17 05:53	2
Chloroethane	2.0	U	2.0	1.8	ug/L			11/08/17 05:53	2
1,1-Dichloroethene	2.0	U	2.0	1.1	ug/L			11/08/17 05:53	2
Acetone	10	U ^c *	10	6.9	ug/L			11/08/17 05:53	2
Carbon disulfide	2.0	U	2.0	1.8	ug/L			11/08/17 05:53	2
Methylene Chloride	2.0	U	2.0	0.72	ug/L			11/08/17 05:53	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.3	ug/L			11/08/17 05:53	2
Methyl tert-butyl ether	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
1,1-Dichloroethane	2.0	U	2.0	1.3	ug/L			11/08/17 05:53	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.4	ug/L			11/08/17 05:53	2
Bromochloromethane	2.0	U	2.0	1.3	ug/L			11/08/17 05:53	2
2-Butanone (MEK)	10	U	10	5.2	ug/L			11/08/17 05:53	2
Chloroform	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
1,1,1-Trichloroethane	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
Carbon tetrachloride	2.0	U	2.0	1.8	ug/L			11/08/17 05:53	2
Benzene	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
1,2-Dichloroethane	2.0	U	2.0	1.1	ug/L			11/08/17 05:53	2
Trichloroethene	2.0	U	2.0	1.4	ug/L			11/08/17 05:53	2
1,2-Dichloropropane	2.0	U	2.0	1.3	ug/L			11/08/17 05:53	2
Bromodichloromethane	2.0	U	2.0	1.3	ug/L			11/08/17 05:53	2
cis-1,3-Dichloropropene	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
4-Methyl-2-pentanone (MIBK)	10	U	10	6.2	ug/L			11/08/17 05:53	2
Toluene	2.0	U	2.0	0.91	ug/L			11/08/17 05:53	2
trans-1,3-Dichloropropene	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
1,1,2-Trichloroethane	2.0	U	2.0	0.91	ug/L			11/08/17 05:53	2
Tetrachloroethene	74		2.0	0.93	ug/L			11/08/17 05:53	2
2-Hexanone	10	U	10	6.6	ug/L			11/08/17 05:53	2
Dibromochloromethane	2.0	U	2.0	1.7	ug/L			11/08/17 05:53	2
1,2-Dibromoethane (EDB)	2.0	U	2.0	1.0	ug/L			11/08/17 05:53	2
Chlorobenzene	2.0	U	2.0	1.0	ug/L			11/08/17 05:53	2
1,1,1,2-Tetrachloroethane	2.0	U	2.0	1.1	ug/L			11/08/17 05:53	2
Ethylbenzene	2.0	U	2.0	1.0	ug/L			11/08/17 05:53	2
Xylenes, Total	4.0	U	4.0	1.8	ug/L			11/08/17 05:53	2
Styrene	2.0	U	2.0	0.94	ug/L			11/08/17 05:53	2
Bromoform	2.0	U	2.0	2.0	ug/L			11/08/17 05:53	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	1.2	ug/L			11/08/17 05:53	2
Acrylonitrile	40	U ^c	40	16	ug/L			11/08/17 05:53	2
1,4-Dioxane	400	U	400	27	ug/L			11/08/17 05:53	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		65 - 121		11/08/17 05:53	2
Toluene-d8 (Surr)	88		73 - 120		11/08/17 05:53	2
4-Bromofluorobenzene (Surr)	88		80 - 120		11/08/17 05:53	2
Dibromofluoromethane (Surr)	106		73 - 120		11/08/17 05:53	2

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-MW-18S-0/1-0

Date Collected: 10/27/17 08:40

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/08/17 06:16	1
Vinyl chloride	1.0	U ^c	1.0	0.88	ug/L			11/08/17 06:16	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/08/17 06:16	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/08/17 06:16	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/08/17 06:16	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/08/17 06:16	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/08/17 06:16	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/08/17 06:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/08/17 06:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/08/17 06:16	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/08/17 06:16	1
cis-1,2-Dichloroethene	14		1.0	0.71	ug/L			11/08/17 06:16	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/08/17 06:16	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/08/17 06:16	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/08/17 06:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 06:16	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/08/17 06:16	1
Benzene	1.0	U	1.0	0.60	ug/L			11/08/17 06:16	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 06:16	1
Trichloroethene	4.1		1.0	0.69	ug/L			11/08/17 06:16	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/08/17 06:16	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/08/17 06:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/08/17 06:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/08/17 06:16	1
Toluene	1.0	U	1.0	0.46	ug/L			11/08/17 06:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/08/17 06:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/08/17 06:16	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/08/17 06:16	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/08/17 06:16	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/08/17 06:16	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/08/17 06:16	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/08/17 06:16	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 06:16	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/08/17 06:16	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/08/17 06:16	1
Styrene	1.0	U	1.0	0.47	ug/L			11/08/17 06:16	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/08/17 06:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 06:16	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/08/17 06:16	1
1,4-Dioxane	200	U	200	14	ug/L			11/08/17 06:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		65 - 121		11/08/17 06:16	1
Toluene-d8 (Surr)	92		73 - 120		11/08/17 06:16	1
4-Bromofluorobenzene (Surr)	90		80 - 120		11/08/17 06:16	1
Dibromofluoromethane (Surr)	106		73 - 120		11/08/17 06:16	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-MW-4 (COLE)-0/1-0

Date Collected: 10/27/17 09:35

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/03/17 06:01	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/03/17 06:01	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/03/17 06:01	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/03/17 06:01	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/03/17 06:01	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/03/17 06:01	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/03/17 06:01	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/03/17 06:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/03/17 06:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/03/17 06:01	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/03/17 06:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/03/17 06:01	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/03/17 06:01	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/03/17 06:01	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/03/17 06:01	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 06:01	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/03/17 06:01	1
Benzene	1.0	U	1.0	0.60	ug/L			11/03/17 06:01	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 06:01	1
Trichloroethene	1.0	U ^c	1.0	0.69	ug/L			11/03/17 06:01	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/03/17 06:01	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/03/17 06:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/03/17 06:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/03/17 06:01	1
Toluene	1.0	U	1.0	0.46	ug/L			11/03/17 06:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/03/17 06:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/03/17 06:01	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/03/17 06:01	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/03/17 06:01	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/03/17 06:01	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/03/17 06:01	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/03/17 06:01	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 06:01	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/03/17 06:01	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/03/17 06:01	1
Styrene	1.0	U	1.0	0.47	ug/L			11/03/17 06:01	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/03/17 06:01	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 06:01	1
Acrylonitrile	20	U	20	7.8	ug/L			11/03/17 06:01	1
1,4-Dioxane	200	U	200	14	ug/L			11/03/17 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125	X	65 - 121		11/03/17 06:01	1
Toluene-d8 (Surr)	94		73 - 120		11/03/17 06:01	1
4-Bromofluorobenzene (Surr)	86		80 - 120		11/03/17 06:01	1
Dibromofluoromethane (Surr)	118		73 - 120		11/03/17 06:01	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-MW-151-0/1-0

Date Collected: 10/27/17 10:54

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/08/17 09:27	1
Vinyl chloride	1.0	U ^c	1.0	0.88	ug/L			11/08/17 09:27	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/08/17 09:27	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/08/17 09:27	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/08/17 09:27	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/08/17 09:27	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/08/17 09:27	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/08/17 09:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/08/17 09:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/08/17 09:27	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/08/17 09:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/08/17 09:27	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/08/17 09:27	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/08/17 09:27	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/08/17 09:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 09:27	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/08/17 09:27	1
Benzene	1.0	U	1.0	0.60	ug/L			11/08/17 09:27	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 09:27	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/08/17 09:27	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/08/17 09:27	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/08/17 09:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/08/17 09:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/08/17 09:27	1
Toluene	1.0	U	1.0	0.46	ug/L			11/08/17 09:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/08/17 09:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/08/17 09:27	1
Tetrachloroethene	1.4		1.0	0.47	ug/L			11/08/17 09:27	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/08/17 09:27	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/08/17 09:27	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/08/17 09:27	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/08/17 09:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 09:27	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/08/17 09:27	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/08/17 09:27	1
Styrene	1.0	U	1.0	0.47	ug/L			11/08/17 09:27	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/08/17 09:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 09:27	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/08/17 09:27	1
1,4-Dioxane	200	U	200	14	ug/L			11/08/17 09:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		65 - 121		11/08/17 09:27	1
Toluene-d8 (Surr)	95		73 - 120		11/08/17 09:27	1
4-Bromofluorobenzene (Surr)	94		80 - 120		11/08/17 09:27	1
Dibromofluoromethane (Surr)	102		73 - 120		11/08/17 09:27	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-CW-1-0/1-0

Date Collected: 10/27/17 09:20

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/03/17 06:48	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/03/17 06:48	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/03/17 06:48	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/03/17 06:48	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/03/17 06:48	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/03/17 06:48	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/03/17 06:48	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/03/17 06:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/03/17 06:48	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/03/17 06:48	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/03/17 06:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/03/17 06:48	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/03/17 06:48	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/03/17 06:48	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/03/17 06:48	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 06:48	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/03/17 06:48	1
Benzene	1.0	U	1.0	0.60	ug/L			11/03/17 06:48	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 06:48	1
Trichloroethene	0.79	J ^c	1.0	0.69	ug/L			11/03/17 06:48	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/03/17 06:48	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/03/17 06:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/03/17 06:48	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/03/17 06:48	1
Toluene	1.0	U	1.0	0.46	ug/L			11/03/17 06:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/03/17 06:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/03/17 06:48	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/03/17 06:48	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/03/17 06:48	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/03/17 06:48	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/03/17 06:48	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/03/17 06:48	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 06:48	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/03/17 06:48	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/03/17 06:48	1
Styrene	1.0	U	1.0	0.47	ug/L			11/03/17 06:48	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/03/17 06:48	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 06:48	1
Acrylonitrile	20	U	20	7.8	ug/L			11/03/17 06:48	1
1,4-Dioxane	200	U	200	14	ug/L			11/03/17 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	123	X	65 - 121		11/03/17 06:48	1
Toluene-d8 (Surr)	95		73 - 120		11/03/17 06:48	1
4-Bromofluorobenzene (Surr)	83		80 - 120		11/03/17 06:48	1
Dibromofluoromethane (Surr)	116		73 - 120		11/03/17 06:48	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-CW-7A-0/1-0

Date Collected: 10/27/17 07:50

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U ^c	2.0	1.8	ug/L			11/08/17 06:40	2
Vinyl chloride	2.0	U ^c	2.0	1.8	ug/L			11/08/17 06:40	2
Bromomethane	2.0	U	2.0	1.8	ug/L			11/08/17 06:40	2
Chloroethane	2.0	U	2.0	1.8	ug/L			11/08/17 06:40	2
1,1-Dichloroethene	2.0	U	2.0	1.1	ug/L			11/08/17 06:40	2
Acetone	10	U ^c *	10	6.9	ug/L			11/08/17 06:40	2
Carbon disulfide	2.0	U	2.0	1.8	ug/L			11/08/17 06:40	2
Methylene Chloride	2.0	U	2.0	0.72	ug/L			11/08/17 06:40	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.3	ug/L			11/08/17 06:40	2
Methyl tert-butyl ether	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
1,1-Dichloroethane	2.0	U	2.0	1.3	ug/L			11/08/17 06:40	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.4	ug/L			11/08/17 06:40	2
Bromochloromethane	2.0	U	2.0	1.3	ug/L			11/08/17 06:40	2
2-Butanone (MEK)	10	U	10	5.2	ug/L			11/08/17 06:40	2
Chloroform	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
1,1,1-Trichloroethane	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
Carbon tetrachloride	2.0	U	2.0	1.8	ug/L			11/08/17 06:40	2
Benzene	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
1,2-Dichloroethane	2.0	U	2.0	1.1	ug/L			11/08/17 06:40	2
Trichloroethene	52		2.0	1.4	ug/L			11/08/17 06:40	2
1,2-Dichloropropane	2.0	U	2.0	1.3	ug/L			11/08/17 06:40	2
Bromodichloromethane	2.0	U	2.0	1.3	ug/L			11/08/17 06:40	2
cis-1,3-Dichloropropene	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
4-Methyl-2-pentanone (MIBK)	10	U	10	6.2	ug/L			11/08/17 06:40	2
Toluene	2.0	U	2.0	0.91	ug/L			11/08/17 06:40	2
trans-1,3-Dichloropropene	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
1,1,2-Trichloroethane	2.0	U	2.0	0.91	ug/L			11/08/17 06:40	2
Tetrachloroethene	3.4		2.0	0.93	ug/L			11/08/17 06:40	2
2-Hexanone	10	U	10	6.6	ug/L			11/08/17 06:40	2
Dibromochloromethane	2.0	U	2.0	1.7	ug/L			11/08/17 06:40	2
1,2-Dibromoethane (EDB)	2.0	U	2.0	1.0	ug/L			11/08/17 06:40	2
Chlorobenzene	2.0	U	2.0	1.0	ug/L			11/08/17 06:40	2
1,1,1,2-Tetrachloroethane	2.0	U	2.0	1.1	ug/L			11/08/17 06:40	2
Ethylbenzene	2.0	U	2.0	1.0	ug/L			11/08/17 06:40	2
Xylenes, Total	4.0	U	4.0	1.8	ug/L			11/08/17 06:40	2
Styrene	2.0	U	2.0	0.94	ug/L			11/08/17 06:40	2
Bromoform	2.0	U	2.0	2.0	ug/L			11/08/17 06:40	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	1.2	ug/L			11/08/17 06:40	2
Acrylonitrile	40	U ^c	40	16	ug/L			11/08/17 06:40	2
1,4-Dioxane	400	U	400	27	ug/L			11/08/17 06:40	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		65 - 121		11/08/17 06:40	2
Toluene-d8 (Surr)	93		73 - 120		11/08/17 06:40	2
4-Bromofluorobenzene (Surr)	87		80 - 120		11/08/17 06:40	2
Dibromofluoromethane (Surr)	104		73 - 120		11/08/17 06:40	2

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-QC6-0/1-2

Date Collected: 10/27/17 12:00

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/03/17 07:12	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/03/17 07:12	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/03/17 07:12	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/03/17 07:12	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/03/17 07:12	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/03/17 07:12	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/03/17 07:12	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/03/17 07:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/03/17 07:12	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/03/17 07:12	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/03/17 07:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/03/17 07:12	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/03/17 07:12	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/03/17 07:12	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/03/17 07:12	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 07:12	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/03/17 07:12	1
Benzene	1.0	U	1.0	0.60	ug/L			11/03/17 07:12	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 07:12	1
Trichloroethene	1.0	U ^c	1.0	0.69	ug/L			11/03/17 07:12	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/03/17 07:12	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/03/17 07:12	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/03/17 07:12	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/03/17 07:12	1
Toluene	1.0	U	1.0	0.46	ug/L			11/03/17 07:12	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/03/17 07:12	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/03/17 07:12	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/03/17 07:12	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/03/17 07:12	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/03/17 07:12	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/03/17 07:12	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/03/17 07:12	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 07:12	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/03/17 07:12	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/03/17 07:12	1
Styrene	1.0	U	1.0	0.47	ug/L			11/03/17 07:12	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/03/17 07:12	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 07:12	1
Acrylonitrile	20	U	20	7.8	ug/L			11/03/17 07:12	1
1,4-Dioxane	200	U	200	14	ug/L			11/03/17 07:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	126	X	65 - 121		11/03/17 07:12	1
Toluene-d8 (Surr)	95		73 - 120		11/03/17 07:12	1
4-Bromofluorobenzene (Surr)	85		80 - 120		11/03/17 07:12	1
Dibromofluoromethane (Surr)	112		73 - 120		11/03/17 07:12	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-COLE-B-0/1-0

Date Collected: 10/27/17 10:10

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/06/17 04:37	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/06/17 04:37	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/06/17 04:37	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/06/17 04:37	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/06/17 04:37	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/06/17 04:37	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/06/17 04:37	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/06/17 04:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/06/17 04:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/06/17 04:37	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/06/17 04:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/06/17 04:37	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/06/17 04:37	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/06/17 04:37	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/06/17 04:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/06/17 04:37	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/06/17 04:37	1
Benzene	1.0	U	1.0	0.60	ug/L			11/06/17 04:37	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/06/17 04:37	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/06/17 04:37	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/06/17 04:37	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/06/17 04:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/06/17 04:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/06/17 04:37	1
Toluene	1.0	U	1.0	0.46	ug/L			11/06/17 04:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/06/17 04:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/06/17 04:37	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/06/17 04:37	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/06/17 04:37	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/06/17 04:37	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/06/17 04:37	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/06/17 04:37	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/06/17 04:37	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/06/17 04:37	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/06/17 04:37	1
Styrene	1.0	U	1.0	0.47	ug/L			11/06/17 04:37	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/06/17 04:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/06/17 04:37	1
Acrylonitrile	20	U	20	7.8	ug/L			11/06/17 04:37	1
1,4-Dioxane	200	U	200	14	ug/L			11/06/17 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		65 - 121		11/06/17 04:37	1
Toluene-d8 (Surr)	92		73 - 120		11/06/17 04:37	1
4-Bromofluorobenzene (Surr)	89		80 - 120		11/06/17 04:37	1
Dibromofluoromethane (Surr)	111		73 - 120		11/06/17 04:37	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-COLE-D-0/1-0

Date Collected: 10/27/17 12:00

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/08/17 07:04	1
Vinyl chloride	1.0	U ^c	1.0	0.88	ug/L			11/08/17 07:04	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/08/17 07:04	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/08/17 07:04	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/08/17 07:04	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/08/17 07:04	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/08/17 07:04	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/08/17 07:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/08/17 07:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/08/17 07:04	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/08/17 07:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/08/17 07:04	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/08/17 07:04	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/08/17 07:04	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/08/17 07:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 07:04	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/08/17 07:04	1
Benzene	1.0	U	1.0	0.60	ug/L			11/08/17 07:04	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 07:04	1
Trichloroethene	0.75	J	1.0	0.69	ug/L			11/08/17 07:04	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/08/17 07:04	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/08/17 07:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/08/17 07:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/08/17 07:04	1
Toluene	1.0	U	1.0	0.46	ug/L			11/08/17 07:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/08/17 07:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/08/17 07:04	1
Tetrachloroethene	20		1.0	0.47	ug/L			11/08/17 07:04	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/08/17 07:04	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/08/17 07:04	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/08/17 07:04	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/08/17 07:04	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 07:04	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/08/17 07:04	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/08/17 07:04	1
Styrene	1.0	U	1.0	0.47	ug/L			11/08/17 07:04	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/08/17 07:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 07:04	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/08/17 07:04	1
1,4-Dioxane	200	U	200	14	ug/L			11/08/17 07:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		65 - 121		11/08/17 07:04	1
Toluene-d8 (Surr)	90		73 - 120		11/08/17 07:04	1
4-Bromofluorobenzene (Surr)	83		80 - 120		11/08/17 07:04	1
Dibromofluoromethane (Surr)	110		73 - 120		11/08/17 07:04	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-COLE-F-0/1-0

Date Collected: 10/27/17 11:05

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U F1 ^c	1.0	0.90	ug/L			11/08/17 03:02	1
Vinyl chloride	1.0	U ^c	1.0	0.88	ug/L			11/08/17 03:02	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/08/17 03:02	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/08/17 03:02	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/08/17 03:02	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/08/17 03:02	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/08/17 03:02	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/08/17 03:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/08/17 03:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/08/17 03:02	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/08/17 03:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/08/17 03:02	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/08/17 03:02	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/08/17 03:02	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/08/17 03:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 03:02	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/08/17 03:02	1
Benzene	1.0	U	1.0	0.60	ug/L			11/08/17 03:02	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 03:02	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/08/17 03:02	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/08/17 03:02	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/08/17 03:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/08/17 03:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/08/17 03:02	1
Toluene	1.0	U	1.0	0.46	ug/L			11/08/17 03:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/08/17 03:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/08/17 03:02	1
Tetrachloroethene	5.0	F1	1.0	0.47	ug/L			11/08/17 03:02	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/08/17 03:02	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/08/17 03:02	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/08/17 03:02	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/08/17 03:02	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 03:02	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/08/17 03:02	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/08/17 03:02	1
Styrene	1.0	U	1.0	0.47	ug/L			11/08/17 03:02	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/08/17 03:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 03:02	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			11/08/17 03:02	1
1,4-Dioxane	200	U	200	14	ug/L			11/08/17 03:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		65 - 121		11/08/17 03:02	1
Toluene-d8 (Surr)	108		73 - 120		11/08/17 03:02	1
4-Bromofluorobenzene (Surr)	89		80 - 120		11/08/17 03:02	1
Dibromofluoromethane (Surr)	118		73 - 120		11/08/17 03:02	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-COLE (FLUSH)-0/1-0

Date Collected: 10/27/17 10:30

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/03/17 07:36	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/03/17 07:36	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/03/17 07:36	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/03/17 07:36	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/03/17 07:36	1
Acetone	5.0	U ^c *	5.0	3.4	ug/L			11/03/17 07:36	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/03/17 07:36	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/03/17 07:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/03/17 07:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/03/17 07:36	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/03/17 07:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/03/17 07:36	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/03/17 07:36	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/03/17 07:36	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/03/17 07:36	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 07:36	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/03/17 07:36	1
Benzene	1.0	U	1.0	0.60	ug/L			11/03/17 07:36	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 07:36	1
Trichloroethene	1.0	U ^c	1.0	0.69	ug/L			11/03/17 07:36	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/03/17 07:36	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/03/17 07:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/03/17 07:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/03/17 07:36	1
Toluene	1.0	U	1.0	0.46	ug/L			11/03/17 07:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/03/17 07:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/03/17 07:36	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/03/17 07:36	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/03/17 07:36	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/03/17 07:36	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/03/17 07:36	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/03/17 07:36	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 07:36	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/03/17 07:36	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/03/17 07:36	1
Styrene	1.0	U	1.0	0.47	ug/L			11/03/17 07:36	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/03/17 07:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 07:36	1
Acrylonitrile	20	U	20	7.8	ug/L			11/03/17 07:36	1
1,4-Dioxane	200	U	200	14	ug/L			11/03/17 07:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		65 - 121		11/03/17 07:36	1
Toluene-d8 (Surr)	93		73 - 120		11/03/17 07:36	1
4-Bromofluorobenzene (Surr)	83		80 - 120		11/03/17 07:36	1
Dibromofluoromethane (Surr)	116		73 - 120		11/03/17 07:36	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Client Sample ID: HD-COLE STEEL-0/1-0

Date Collected: 10/27/17 11:45

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/06/17 02:50	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/06/17 02:50	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/06/17 02:50	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/06/17 02:50	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/06/17 02:50	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/06/17 02:50	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/06/17 02:50	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/06/17 02:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/06/17 02:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/06/17 02:50	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/06/17 02:50	1
cis-1,2-Dichloroethene	6.1		1.0	0.71	ug/L			11/06/17 02:50	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/06/17 02:50	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/06/17 02:50	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/06/17 02:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/06/17 02:50	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/06/17 02:50	1
Benzene	1.0	U	1.0	0.60	ug/L			11/06/17 02:50	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/06/17 02:50	1
Trichloroethene	7.0		1.0	0.69	ug/L			11/06/17 02:50	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/06/17 02:50	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/06/17 02:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/06/17 02:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/06/17 02:50	1
Toluene	1.0	U	1.0	0.46	ug/L			11/06/17 02:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/06/17 02:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/06/17 02:50	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/06/17 02:50	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/06/17 02:50	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/06/17 02:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/06/17 02:50	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/06/17 02:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/06/17 02:50	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/06/17 02:50	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/06/17 02:50	1
Styrene	1.0	U	1.0	0.47	ug/L			11/06/17 02:50	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/06/17 02:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/06/17 02:50	1
Acrylonitrile	20	U	20	7.8	ug/L			11/06/17 02:50	1
1,4-Dioxane	200	U	200	14	ug/L			11/06/17 02:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		65 - 121		11/06/17 02:50	1
Toluene-d8 (Surr)	94		73 - 120		11/06/17 02:50	1
4-Bromofluorobenzene (Surr)	90		80 - 120		11/06/17 02:50	1
Dibromofluoromethane (Surr)	107		73 - 120		11/06/17 02:50	1

Default Detection Limits

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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: 180-71858-1

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)
180-71858-1	HD-MW-92-0/1-0	110	88	88	106
180-71858-2	HD-MW-18S-0/1-0	110	92	90	106
180-71858-3	HD-MW-4 (COLE)-0/1-0	125 X	94	86	118
180-71858-4	HD-MW-151-0/1-0	112	95	94	102
180-71858-5	HD-CW-1-0/1-0	123 X	95	83	116
180-71858-6	HD-CW-7A-0/1-0	112	93	87	104
180-71858-7	HD-QC6-0/1-2	126 X	95	85	112
180-71858-8	HD-COLE-B-0/1-0	117	92	89	111
180-71858-9	HD-COLE-D-0/1-0	115	90	83	110
180-71858-10	HD-COLE-F-0/1-0	102	108	89	118
180-71858-10 MS	HD-COLE-F-0/1-0	92	93	89	84
180-71858-11	HD-COLE (FLUSH)-0/1-0	121	93	83	116
180-71858-12	HD-COLE STEEL-0/1-0	116	94	90	107
LCS 180-227871/3	Lab Control Sample	109	116	110	103
LCS 180-228044/3	Lab Control Sample	106	110	101	99
LCS 180-228278/3	Lab Control Sample	99	112	106	97
MB 180-227871/5	Method Blank	113	92	86	102
MB 180-228044/5	Method Blank	110	91	88	105
MB 180-228278/5	Method Blank	107	90	91	97

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: 180-71858-1

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

Lab Sample ID: MB 180-227871/5

Matrix: Water

Analysis Batch: 227871

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			11/03/17 00:58	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/03/17 00:58	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/03/17 00:58	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/03/17 00:58	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/03/17 00:58	1
Acetone	5.0	U	5.0	3.4	ug/L			11/03/17 00:58	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/03/17 00:58	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/03/17 00:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/03/17 00:58	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/03/17 00:58	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/03/17 00:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/03/17 00:58	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/03/17 00:58	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/03/17 00:58	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/03/17 00:58	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 00:58	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/03/17 00:58	1
Benzene	1.0	U	1.0	0.60	ug/L			11/03/17 00:58	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 00:58	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/03/17 00:58	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/03/17 00:58	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/03/17 00:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/03/17 00:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/03/17 00:58	1
Toluene	1.0	U	1.0	0.46	ug/L			11/03/17 00:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/03/17 00:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/03/17 00:58	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/03/17 00:58	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/03/17 00:58	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/03/17 00:58	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/03/17 00:58	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/03/17 00:58	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/03/17 00:58	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/03/17 00:58	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/03/17 00:58	1
Styrene	1.0	U	1.0	0.47	ug/L			11/03/17 00:58	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/03/17 00:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/03/17 00:58	1
Acrylonitrile	20	U	20	7.8	ug/L			11/03/17 00:58	1
1,4-Dioxane	200	U	200	14	ug/L			11/03/17 00:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		65 - 121		11/03/17 00:58	1
Toluene-d8 (Surr)	92		73 - 120		11/03/17 00:58	1
4-Bromofluorobenzene (Surr)	86		80 - 120		11/03/17 00:58	1
Dibromofluoromethane (Surr)	102		73 - 120		11/03/17 00:58	1

TestAmerica Pittsburgh

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Lab Sample ID: LCS 180-227871/3

Matrix: Water

Analysis Batch: 227871

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	12.9		ug/L		129	49 - 135
Vinyl chloride	10.0	11.0		ug/L		110	52 - 136
Bromomethane	10.0	10.7		ug/L		107	37 - 150
Chloroethane	10.0	12.8		ug/L		128	44 - 139
1,1-Dichloroethene	10.0	10.1		ug/L		101	64 - 131
Acetone	20.0	30.4	*	ug/L		152	24 - 150
Carbon disulfide	10.0	10.9		ug/L		109	20 - 150
Methylene Chloride	10.0	9.30		ug/L		93	66 - 123
trans-1,2-Dichloroethene	10.0	9.51		ug/L		95	70 - 123
Methyl tert-butyl ether	10.0	9.19		ug/L		92	66 - 130
1,1-Dichloroethane	10.0	10.2		ug/L		102	66 - 122
cis-1,2-Dichloroethene	10.0	9.18		ug/L		92	73 - 120
Bromochloromethane	10.0	9.37		ug/L		94	73 - 122
2-Butanone (MEK)	20.0	26.0		ug/L		130	37 - 150
Chloroform	10.0	9.12		ug/L		91	72 - 123
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	66 - 129
Carbon tetrachloride	10.0	10.4		ug/L		104	58 - 145
Benzene	10.0	9.04		ug/L		90	75 - 123
1,2-Dichloroethane	10.0	10.3		ug/L		103	63 - 130
Trichloroethene	10.0	8.71		ug/L		87	74 - 121
1,2-Dichloropropane	10.0	9.50		ug/L		95	67 - 119
Bromodichloromethane	10.0	9.00		ug/L		90	62 - 127
cis-1,3-Dichloropropene	10.0	8.52		ug/L		85	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	24.4		ug/L		122	41 - 135
Toluene	10.0	10.2		ug/L		102	76 - 129
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	61 - 136
1,1,2-Trichloroethane	10.0	9.79		ug/L		98	74 - 126
Tetrachloroethene	10.0	9.70		ug/L		97	76 - 128
2-Hexanone	20.0	24.3		ug/L		121	37 - 150
Dibromochloromethane	10.0	10.3		ug/L		103	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.43		ug/L		94	76 - 128
Chlorobenzene	10.0	9.21		ug/L		92	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	70 - 130
Ethylbenzene	10.0	9.44		ug/L		94	77 - 124
Xylenes, Total	20.0	18.3		ug/L		91	76 - 124
Styrene	10.0	9.56		ug/L		96	80 - 125
Bromoform	10.0	8.89		ug/L		89	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.09		ug/L		91	72 - 128
Acrylonitrile	100	111		ug/L		111	60 - 130
1,4-Dioxane	200	169	J	ug/L		85	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		65 - 121
Toluene-d8 (Surr)	116		73 - 120
4-Bromofluorobenzene (Surr)	110		80 - 120
Dibromofluoromethane (Surr)	103		73 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Lab Sample ID: MB 180-228044/5
Matrix: Water
Analysis Batch: 228044

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			11/06/17 02:14	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/06/17 02:14	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/06/17 02:14	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/06/17 02:14	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/06/17 02:14	1
Acetone	5.0	U	5.0	3.4	ug/L			11/06/17 02:14	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/06/17 02:14	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/06/17 02:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/06/17 02:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/06/17 02:14	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/06/17 02:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/06/17 02:14	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/06/17 02:14	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/06/17 02:14	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/06/17 02:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/06/17 02:14	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/06/17 02:14	1
Benzene	1.0	U	1.0	0.60	ug/L			11/06/17 02:14	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/06/17 02:14	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/06/17 02:14	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/06/17 02:14	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/06/17 02:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/06/17 02:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/06/17 02:14	1
Toluene	1.0	U	1.0	0.46	ug/L			11/06/17 02:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/06/17 02:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/06/17 02:14	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/06/17 02:14	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/06/17 02:14	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/06/17 02:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/06/17 02:14	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/06/17 02:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/06/17 02:14	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/06/17 02:14	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/06/17 02:14	1
Styrene	1.0	U	1.0	0.47	ug/L			11/06/17 02:14	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/06/17 02:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/06/17 02:14	1
Acrylonitrile	20	U	20	7.8	ug/L			11/06/17 02:14	1
1,4-Dioxane	200	U	200	14	ug/L			11/06/17 02:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		65 - 121		11/06/17 02:14	1
Toluene-d8 (Surr)	91		73 - 120		11/06/17 02:14	1
4-Bromofluorobenzene (Surr)	88		80 - 120		11/06/17 02:14	1
Dibromofluoromethane (Surr)	105		73 - 120		11/06/17 02:14	1

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Lab Sample ID: LCS 180-228044/3

Matrix: Water

Analysis Batch: 228044

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	12.8		ug/L		128	49 - 135
Vinyl chloride	10.0	10.4		ug/L		104	52 - 136
Bromomethane	10.0	10.8		ug/L		108	37 - 150
Chloroethane	10.0	12.3		ug/L		123	44 - 139
1,1-Dichloroethene	10.0	8.99		ug/L		90	64 - 131
Acetone	20.0	27.6		ug/L		138	24 - 150
Carbon disulfide	10.0	9.56		ug/L		96	20 - 150
Methylene Chloride	10.0	8.46		ug/L		85	66 - 123
trans-1,2-Dichloroethene	10.0	8.18		ug/L		82	70 - 123
Methyl tert-butyl ether	10.0	8.79		ug/L		88	66 - 130
1,1-Dichloroethane	10.0	9.21		ug/L		92	66 - 122
cis-1,2-Dichloroethene	10.0	8.27		ug/L		83	73 - 120
Bromochloromethane	10.0	8.22		ug/L		82	73 - 122
2-Butanone (MEK)	20.0	23.1		ug/L		116	37 - 150
Chloroform	10.0	8.18		ug/L		82	72 - 123
1,1,1-Trichloroethane	10.0	8.81		ug/L		88	66 - 129
Carbon tetrachloride	10.0	8.97		ug/L		90	58 - 145
Benzene	10.0	8.02		ug/L		80	75 - 123
1,2-Dichloroethane	10.0	9.50		ug/L		95	63 - 130
Trichloroethene	10.0	7.71		ug/L		77	74 - 121
1,2-Dichloropropane	10.0	8.82		ug/L		88	67 - 119
Bromodichloromethane	10.0	7.87		ug/L		79	62 - 127
cis-1,3-Dichloropropene	10.0	8.07		ug/L		81	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	22.6		ug/L		113	41 - 135
Toluene	10.0	8.86		ug/L		89	76 - 129
trans-1,3-Dichloropropene	10.0	9.69		ug/L		97	61 - 136
1,1,2-Trichloroethane	10.0	9.07		ug/L		91	74 - 126
Tetrachloroethene	10.0	8.57		ug/L		86	76 - 128
2-Hexanone	20.0	22.4		ug/L		112	37 - 150
Dibromochloromethane	10.0	9.23		ug/L		92	63 - 131
1,2-Dibromoethane (EDB)	10.0	8.73		ug/L		87	76 - 128
Chlorobenzene	10.0	8.50		ug/L		85	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.47		ug/L		95	70 - 130
Ethylbenzene	10.0	8.32		ug/L		83	77 - 124
Xylenes, Total	20.0	16.3		ug/L		81	76 - 124
Styrene	10.0	8.53		ug/L		85	80 - 125
Bromoform	10.0	8.52		ug/L		85	54 - 136
1,1,2,2-Tetrachloroethane	10.0	8.61		ug/L		86	72 - 128
Acrylonitrile	100	104		ug/L		104	60 - 130
1,4-Dioxane	200	200		ug/L		100	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		65 - 121
Toluene-d8 (Surr)	110		73 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	99		73 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Lab Sample ID: MB 180-228278/5
Matrix: Water
Analysis Batch: 228278

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			11/08/17 02:29	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/08/17 02:29	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/08/17 02:29	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/08/17 02:29	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/08/17 02:29	1
Acetone	5.0	U	5.0	3.4	ug/L			11/08/17 02:29	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/08/17 02:29	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/08/17 02:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/08/17 02:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/08/17 02:29	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/08/17 02:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/08/17 02:29	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/08/17 02:29	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/08/17 02:29	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/08/17 02:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 02:29	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/08/17 02:29	1
Benzene	1.0	U	1.0	0.60	ug/L			11/08/17 02:29	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 02:29	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/08/17 02:29	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/08/17 02:29	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/08/17 02:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/08/17 02:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/08/17 02:29	1
Toluene	1.0	U	1.0	0.46	ug/L			11/08/17 02:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/08/17 02:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/08/17 02:29	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/08/17 02:29	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/08/17 02:29	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/08/17 02:29	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/08/17 02:29	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/08/17 02:29	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/08/17 02:29	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/08/17 02:29	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/08/17 02:29	1
Styrene	1.0	U	1.0	0.47	ug/L			11/08/17 02:29	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/08/17 02:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/08/17 02:29	1
Acrylonitrile	20	U	20	7.8	ug/L			11/08/17 02:29	1
1,4-Dioxane	200	U	200	14	ug/L			11/08/17 02:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		65 - 121		11/08/17 02:29	1
Toluene-d8 (Surr)	90		73 - 120		11/08/17 02:29	1
4-Bromofluorobenzene (Surr)	91		80 - 120		11/08/17 02:29	1
Dibromofluoromethane (Surr)	97		73 - 120		11/08/17 02:29	1

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Lab Sample ID: LCS 180-228278/3

Matrix: Water

Analysis Batch: 228278

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	12.4		ug/L		124	49 - 135
Vinyl chloride	10.0	10.1		ug/L		101	52 - 136
Bromomethane	10.0	6.46		ug/L		65	37 - 150
Chloroethane	10.0	8.54		ug/L		85	44 - 139
1,1-Dichloroethene	10.0	8.67		ug/L		87	64 - 131
Acetone	20.0	31.4	*	ug/L		157	24 - 150
Carbon disulfide	10.0	9.12		ug/L		91	20 - 150
Methylene Chloride	10.0	8.54		ug/L		85	66 - 123
trans-1,2-Dichloroethene	10.0	8.48		ug/L		85	70 - 123
Methyl tert-butyl ether	10.0	9.44		ug/L		94	66 - 130
1,1-Dichloroethane	10.0	8.83		ug/L		88	66 - 122
cis-1,2-Dichloroethene	10.0	8.07		ug/L		81	73 - 120
Bromochloromethane	10.0	8.61		ug/L		86	73 - 122
2-Butanone (MEK)	20.0	26.7		ug/L		134	37 - 150
Chloroform	10.0	8.14		ug/L		81	72 - 123
1,1,1-Trichloroethane	10.0	8.26		ug/L		83	66 - 129
Carbon tetrachloride	10.0	8.37		ug/L		84	58 - 145
Benzene	10.0	8.06		ug/L		81	75 - 123
1,2-Dichloroethane	10.0	9.57		ug/L		96	63 - 130
Trichloroethene	10.0	7.44		ug/L		74	74 - 121
1,2-Dichloropropane	10.0	8.48		ug/L		85	67 - 119
Bromodichloromethane	10.0	7.89		ug/L		79	62 - 127
cis-1,3-Dichloropropene	10.0	8.20		ug/L		82	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	22.7		ug/L		114	41 - 135
Toluene	10.0	8.81		ug/L		88	76 - 129
trans-1,3-Dichloropropene	10.0	9.61		ug/L		96	61 - 136
1,1,2-Trichloroethane	10.0	9.46		ug/L		95	74 - 126
Tetrachloroethene	10.0	8.12		ug/L		81	76 - 128
2-Hexanone	20.0	24.1		ug/L		121	37 - 150
Dibromochloromethane	10.0	9.19		ug/L		92	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.09		ug/L		91	76 - 128
Chlorobenzene	10.0	8.60		ug/L		86	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.14		ug/L		91	70 - 130
Ethylbenzene	10.0	8.38		ug/L		84	77 - 124
Xylenes, Total	20.0	16.9		ug/L		85	76 - 124
Styrene	10.0	8.44		ug/L		84	80 - 125
Bromoform	10.0	8.34		ug/L		83	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.11		ug/L		91	72 - 128
Acrylonitrile	100	116		ug/L		116	60 - 130
1,4-Dioxane	200	196	J	ug/L		98	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		65 - 121
Toluene-d8 (Surr)	112		73 - 120
4-Bromofluorobenzene (Surr)	106		80 - 120
Dibromofluoromethane (Surr)	97		73 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

Lab Sample ID: 180-71858-10 MS

Matrix: Water

Analysis Batch: 228278

Client Sample ID: HD-COLE-F-0/1-0

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	1.0	U F1 ^c	10.0	13.7	F1	ug/L		137	49 - 135
Vinyl chloride	1.0	U ^c	10.0	11.4		ug/L		114	52 - 136
Bromomethane	1.0	U	10.0	12.6		ug/L		126	37 - 150
Chloroethane	1.0	U	10.0	13.4		ug/L		134	44 - 139
1,1-Dichloroethene	1.0	U	10.0	10.4		ug/L		104	64 - 131
Acetone	5.0	U ^c *	20.0	18.8		ug/L		94	24 - 150
Carbon disulfide	1.0	U	10.0	11.6		ug/L		116	20 - 150
Methylene Chloride	1.0	U	10.0	9.62		ug/L		96	66 - 123
trans-1,2-Dichloroethene	1.0	U	10.0	9.99		ug/L		100	70 - 123
Methyl tert-butyl ether	1.0	U	10.0	9.22		ug/L		92	66 - 130
1,1-Dichloroethane	1.0	U	10.0	10.2		ug/L		102	66 - 122
cis-1,2-Dichloroethene	1.0	U	10.0	9.35		ug/L		94	73 - 120
Bromochloromethane	1.0	U	10.0	9.39		ug/L		94	73 - 122
2-Butanone (MEK)	5.0	U	20.0	18.8		ug/L		94	37 - 150
Chloroform	1.0	U	10.0	9.17		ug/L		92	72 - 123
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	66 - 129
Carbon tetrachloride	1.0	U	10.0	10.3		ug/L		103	58 - 145
Benzene	1.0	U	10.0	9.29		ug/L		93	75 - 123
1,2-Dichloroethane	1.0	U	10.0	9.72		ug/L		97	63 - 130
Trichloroethene	1.0	U	10.0	8.69		ug/L		87	74 - 121
1,2-Dichloropropane	1.0	U	10.0	9.92		ug/L		99	67 - 119
Bromodichloromethane	1.0	U	10.0	8.98		ug/L		90	62 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	8.81		ug/L		88	61 - 127
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	21.8		ug/L		109	41 - 135
Toluene	1.0	U	10.0	10.3		ug/L		103	76 - 129
trans-1,3-Dichloropropene	1.0	U	10.0	10.0		ug/L		100	61 - 136
1,1,2-Trichloroethane	1.0	U	10.0	9.73		ug/L		97	74 - 126
Tetrachloroethene	5.0	F1	10.0	10.3	F1	ug/L		53	76 - 128
2-Hexanone	5.0	U	20.0	19.2		ug/L		96	37 - 150
Dibromochloromethane	1.0	U	10.0	10.4		ug/L		104	63 - 131
1,2-Dibromoethane (EDB)	1.0	U	10.0	9.35		ug/L		93	76 - 128
Chlorobenzene	1.0	U	10.0	9.72		ug/L		97	79 - 124
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.3		ug/L		103	70 - 130
Ethylbenzene	1.0	U	10.0	9.78		ug/L		98	77 - 124
Xylenes, Total	2.0	U	20.0	19.5		ug/L		97	76 - 124
Styrene	1.0	U	10.0	9.46		ug/L		95	80 - 125
Bromoform	1.0	U	10.0	9.03		ug/L		90	54 - 136
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.01		ug/L		90	72 - 128
Acrylonitrile	20	U ^c	100	104		ug/L		104	60 - 130
1,4-Dioxane	200	U	200	158	J	ug/L		79	26 - 150

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	92		65 - 121
Toluene-d8 (Surr)	93		73 - 120
4-Bromofluorobenzene (Surr)	89		80 - 120
Dibromofluoromethane (Surr)	84		73 - 120

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

GC/MS VOA

Analysis Batch: 227871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71858-3	HD-MW-4 (COLE)-0/1-0	Total/NA	Water	8260C	
180-71858-5	HD-CW-1-0/1-0	Total/NA	Water	8260C	
180-71858-7	HD-QC6-0/1-2	Total/NA	Water	8260C	
180-71858-11	HD-COLE (FLUSH)-0/1-0	Total/NA	Water	8260C	
MB 180-227871/5	Method Blank	Total/NA	Water	8260C	
LCS 180-227871/3	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 228044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71858-8	HD-COLE-B-0/1-0	Total/NA	Water	8260C	
180-71858-12	HD-COLE STEEL-0/1-0	Total/NA	Water	8260C	
MB 180-228044/5	Method Blank	Total/NA	Water	8260C	
LCS 180-228044/3	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 228278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71858-1	HD-MW-92-0/1-0	Total/NA	Water	8260C	
180-71858-2	HD-MW-18S-0/1-0	Total/NA	Water	8260C	
180-71858-4	HD-MW-151-0/1-0	Total/NA	Water	8260C	
180-71858-6	HD-CW-7A-0/1-0	Total/NA	Water	8260C	
180-71858-9	HD-COLE-D-0/1-0	Total/NA	Water	8260C	
180-71858-10	HD-COLE-F-0/1-0	Total/NA	Water	8260C	
MB 180-228278/5	Method Blank	Total/NA	Water	8260C	
LCS 180-228278/3	Lab Control Sample	Total/NA	Water	8260C	
180-71858-10 MS	HD-COLE-F-0/1-0	Total/NA	Water	8260C	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

Client Sample ID: HD-MW-92-0/1-0

Date Collected: 10/27/17 08:27

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	5 mL	5 mL	228278	11/08/17 05:53	PJJ	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-18S-0/1-0

Date Collected: 10/27/17 08:40

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228278	11/08/17 06:16	PJJ	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-4 (COLE)-0/1-0

Date Collected: 10/27/17 09:35

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227871	11/03/17 06:01	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-151-0/1-0

Date Collected: 10/27/17 10:54

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228278	11/08/17 09:27	PJJ	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-CW-1-0/1-0

Date Collected: 10/27/17 09:20

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227871	11/03/17 06:48	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-CW-7A-0/1-0

Date Collected: 10/27/17 07:50

Date Received: 10/28/17 09:00

Lab Sample ID: 180-71858-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	5 mL	5 mL	228278	11/08/17 06:40	PJJ	TAL PIT
Instrument ID: CHHP5										

TestAmerica Pittsburgh

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

Client Sample ID: HD-QC6-0/1-2

Lab Sample ID: 180-71858-7

Date Collected: 10/27/17 12:00

Matrix: Water

Date Received: 10/28/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227871	11/03/17 07:12	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-COLE-B-0/1-0

Lab Sample ID: 180-71858-8

Date Collected: 10/27/17 10:10

Matrix: Water

Date Received: 10/28/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228044	11/06/17 04:37	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-COLE-D-0/1-0

Lab Sample ID: 180-71858-9

Date Collected: 10/27/17 12:00

Matrix: Water

Date Received: 10/28/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228278	11/08/17 07:04	PJJ	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-COLE-F-0/1-0

Lab Sample ID: 180-71858-10

Date Collected: 10/27/17 11:05

Matrix: Water

Date Received: 10/28/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228278	11/08/17 03:02	PJJ	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-COLE (FLUSH)-0/1-0

Lab Sample ID: 180-71858-11

Date Collected: 10/27/17 10:30

Matrix: Water

Date Received: 10/28/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227871	11/03/17 07:36	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-COLE STEEL-0/1-0

Lab Sample ID: 180-71858-12

Date Collected: 10/27/17 11:45

Matrix: Water

Date Received: 10/28/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	228044	11/06/17 02:50	FBB	TAL PIT
Instrument ID: CHHP5										

TestAmerica Pittsburgh

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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

PJJ = Patrick Journet

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71858-1

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: 180-71858-1

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: 180-71858-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-71858-1	HD-MW-92-0/1-0	Water	10/27/17 08:27	10/28/17 09:00
180-71858-2	HD-MW-18S-0/1-0	Water	10/27/17 08:40	10/28/17 09:00
180-71858-3	HD-MW-4 (COLE)-0/1-0	Water	10/27/17 09:35	10/28/17 09:00
180-71858-4	HD-MW-151-0/1-0	Water	10/27/17 10:54	10/28/17 09:00
180-71858-5	HD-CW-1-0/1-0	Water	10/27/17 09:20	10/28/17 09:00
180-71858-6	HD-CW-7A-0/1-0	Water	10/27/17 07:50	10/28/17 09:00
180-71858-7	HD-QC6-0/1-2	Water	10/27/17 12:00	10/28/17 09:00
180-71858-8	HD-COLE-B-0/1-0	Water	10/27/17 10:10	10/28/17 09:00
180-71858-9	HD-COLE-D-0/1-0	Water	10/27/17 12:00	10/28/17 09:00
180-71858-10	HD-COLE-F-0/1-0	Water	10/27/17 11:05	10/28/17 09:00
180-71858-11	HD-COLE (FLUSH)-0/1-0	Water	10/27/17 10:30	10/28/17 09:00
180-71858-12	HD-COLE STEEL-0/1-0	Water	10/27/17 11:45	10/28/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

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.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 227871Lab Sample ID: CCVIS 180-227871/2 Client Sample ID: _____Date Analyzed: 11/02/17 22:22 Lab File ID: 51102D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloropropene	6.78	Poor chromatography	bungardf	11/02/17 23:03

Lab Sample ID: MB 180-227871/5 Client Sample ID: _____Date Analyzed: 11/03/17 00:58 Lab File ID: 51102D05.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.45	Poor chromatography	bungardf	11/03/17 01:28

Lab Sample ID: 180-71858-5 Client Sample ID: HD-CW-1-0/1-0Date Analyzed: 11/03/17 06:48 Lab File ID: 51102D19.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	9.58	Poor chromatography	bungardf	11/05/17 20:02

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 228044

Lab Sample ID: CCVIS 180-228044/2 Client Sample ID: _____

Date Analyzed: 11/05/17 00:28 Lab File ID: 51105D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.90	Poor chromatography	bungardf	11/06/17 00:23
n-Butylbenzene	13.14	Poor chromatography	bungardf	11/06/17 00:22

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 228278Lab Sample ID: CCVIS 180-228278/2 Client Sample ID: _____Date Analyzed: 11/08/17 00:13 Lab File ID: 51107D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 03:34

Lab Sample ID: MB 180-228278/5 Client Sample ID: _____Date Analyzed: 11/08/17 02:29 Lab File ID: 51107D05.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 03:34

Lab Sample ID: 180-71858-10 Client Sample ID: _____Date Analyzed: 11/08/17 03:02 Lab File ID: 51107D06.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 03:32

Lab Sample ID: 180-71858-1 Client Sample ID: _____Date Analyzed: 11/08/17 05:53 Lab File ID: 51107D13.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 18:10

Lab Sample ID: 180-71858-2 Client Sample ID: HD-MW-18S-0/1-0Date Analyzed: 11/08/17 06:16 Lab File ID: 51107D14.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.03	Poor chromatography	bungardf	11/08/17 18:05
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 18:09

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 228278Lab Sample ID: 180-71858-6 Client Sample ID: _____Date Analyzed: 11/08/17 06:40 Lab File ID: 51107D15.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 18:09

Lab Sample ID: 180-71858-9 Client Sample ID: _____Date Analyzed: 11/08/17 07:04 Lab File ID: 51107D16.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 18:09

Lab Sample ID: 180-71858-4 Client Sample ID: _____Date Analyzed: 11/08/17 09:27 Lab File ID: 51107D22.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene (IS)	7.34	Poor chromatography	bungardf	11/08/17 18:12

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
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_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
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_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_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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00260	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

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
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00100	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	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_00269	11/06/17	11/01/17	Methanol, Lot 2469119	10 mL	VOA8260GAS1ST_00207	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
					VOA8260VOAPRI_00264	1 mL	Chloromethane	25 ug/mL	
							Vinyl chloride	25 ug/mL	
							1,1,1,2-Tetrachloroethane	25 ug/mL	
							1,1,1-Trichloroethane	25 ug/mL	
							1,1,2,2-Tetrachloroethane	25 ug/mL	
							1,1,2-Trichloroethane	25 ug/mL	
							1,1-Dichloroethane	25 ug/mL	
							1,1-Dichloroethene	25 ug/mL	
							1,2-Dibromoethane (EDB)	25 ug/mL	
							1,2-Dichloroethane	25 ug/mL	
							1,2-Dichloropropane	25 ug/mL	
							1,4-Dioxane	500 ug/mL	
							Acrylonitrile	250 ug/mL	
							Benzene	25 ug/mL	
							Bromochloromethane	25 ug/mL	
							Bromodichloromethane	25 ug/mL	
							Bromoform	25 ug/mL	
							Carbon disulfide	25 ug/mL	
							Carbon tetrachloride	25 ug/mL	
							Chlorobenzene	25 ug/mL	
							Chloroform	25 ug/mL	
							cis-1,2-Dichloroethene	25 ug/mL	
							cis-1,3-Dichloropropene	25 ug/mL	
							Dibromochloromethane	25 ug/mL	
							Ethylbenzene	25 ug/mL	
							Methyl tert-butyl ether	25 ug/mL	
							Methylene Chloride	25 ug/mL	
Styrene	25 ug/mL								
Tetrachloroethene	25 ug/mL								
Toluene	25 ug/mL								
trans-1,2-Dichloroethene	25 ug/mL								
trans-1,3-Dichloropropene	25 ug/mL								
Trichloroethene	25 ug/mL								
Xylenes, Total	50 ug/mL								
.VOA8260GAS1ST_00207	01/31/20		Restek, Lot A0124278				(Purchased Reagent)	Bromomethane	2500 ug/mL
								Chloroethane	2500 ug/mL
								Chloromethane	2500 ug/mL
								Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00264	11/06/17	10/06/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA1_00066	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA1_00066	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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
VOABFB25_00090							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
.VOABFB50_00093	08/10/17	07/10/17	Methanol, Lot 2019056	50 mL	VOABFB50_00093	5 mL	BFB	25 ug/mL
..VOABFBRES_00058	11/30/21		Restek, Lot A0122647		VOABFBRES_00058	1 mL	BFB	50 ug/mL
					(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00094							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
.VOABFB50_00096	11/09/17	10/09/17	Methanol, Lot 2469125	50 mL	VOABFB50_00096	5 mL	BFB	25 ug/mL
..VOABFBRES_00055	11/30/21		Restek, Lot A0122647		VOABFBRES_00055	1 mL	BFB	50 ug/mL
					(Purchased Reagent)		BFB	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
voaWAcrol1stRe_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_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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-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_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
voaWKetmix1st_00004	07/29/17	06/29/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00099	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00099	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
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_00203



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 Lot No.: A0124278

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

Container Size : 2 mL Pkg Amt: > 1 mL

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

CERTIFIED VALUES

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

8	Trichlorofluoromethane (CFC-11)	2,501.5 $\mu\text{g/mL}$	+/-	16.5404	$\mu\text{g/mL}$	Gravimetric
	CAS # 75-69-4 (Lot SHBG7531V)		+/-	140.4793	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/-	143.7562	$\mu\text{g/mL}$	Stressed

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

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

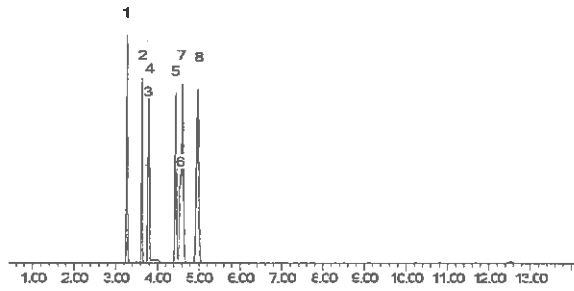
Carrier Gas:
 helium-constant flow 2.0 mL/min.

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_00207



CERTIFIED REFERENCE MATERIAL

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

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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. : 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 $\mu\text{g/mL}$	+/-	16.5404	$\mu\text{g/mL}$	Gravimetric
	CAS # 75-69-4 (Lot SHBG7531V)		+/-	140.4793	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/-	143.7562	$\mu\text{g/mL}$	Stressed

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

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

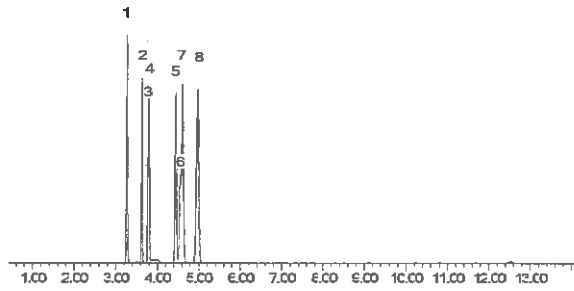
Carrier Gas:
 helium-constant flow 2.0 mL/min.

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

Inj. Temp:
 200°C

Det. Temp:
 250°C

Det. Type:
 MSD



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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_00217

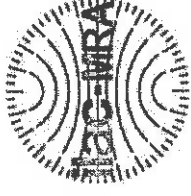


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Catalog No. : 569722.SEC Lot No.: A0128832

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_00123



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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_00099



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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00100



CERTIFIED REFERENCE MATERIAL

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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_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_00065



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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) 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)

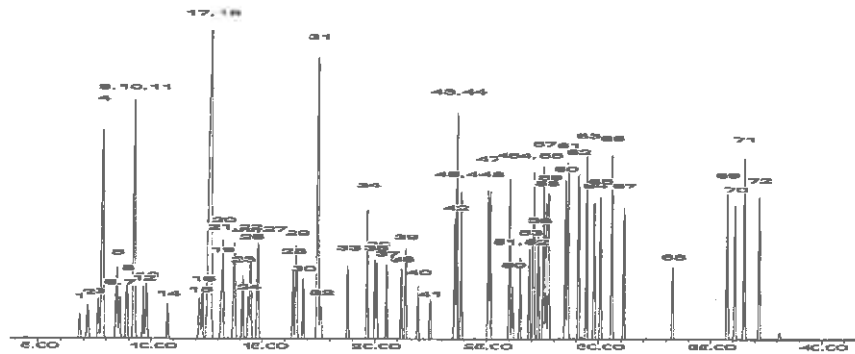
Carrier Gas:
helium-constant pressure 30 psi

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_00066



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)

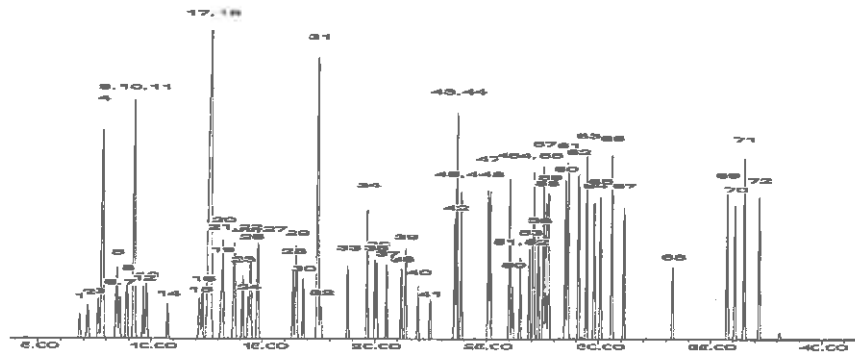
Carrier Gas:
helium-constant pressure 30 psi

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

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

56	Bromobenzene 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:

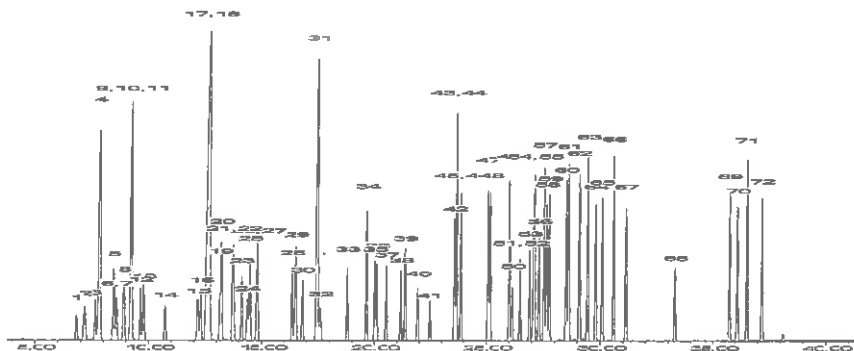
200°C

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

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

VOA8260VARES_00083



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00115



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Belleville, PA 16823-8812
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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_00055



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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_00058



CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
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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

VOACEVERES_00127



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569723 Lot No.: A0123891

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

Container Size : 2 mL Pkg Amt: > 1 mL

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

2406027
28
29
30

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOARESEE1ST_00045



CERTIFIED REFERENCE MATERIAL

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 Bellefonte, PA 16823-8812
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL Lot No.: 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.: 180-71858-1

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-92-0/1-0	180-71858-1	106	110	88	88
HD-MW-18S-0/1-0	180-71858-2	106	110	92	90
HD-MW-4 (COLE) -0/1-0	180-71858-3	118	125 X	94	86
HD-MW-151-0/1-0	180-71858-4	102	112	95	94
HD-CW-1-0/1-0	180-71858-5	116	123 X	95	83
HD-CW-7A-0/1-0	180-71858-6	104	112	93	87
HD-QC6-0/1-2	180-71858-7	112	126 X	95	85
HD-COLE-B-0/1-0	180-71858-8	111	117	92	89
HD-COLE-D-0/1-0	180-71858-9	110	115	90	83
HD-COLE-F-0/1-0	180-71858-10	118	102	108	89
HD-COLE (FLUSH) -0/1-0	180-71858-11	116	121	93	83
HD-COLE STEEL-0/1-0	180-71858-12	107	116	94	90
	MB 180-227871/5	102	113	92	86
	MB 180-228044/5	105	110	91	88
	MB 180-228278/5	97	107	90	91
	LCS 180-227871/3	103	109	116	110
	LCS 180-228044/3	99	106	110	101
	LCS 180-228278/3	97	99	112	106
HD-COLE-F-0/1-0 MS	180-71858-10 MS	84	92	93	89

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

QC LIMITS
73-120
65-121
73-120
80-120

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51102D03.D

Lab ID: LCS 180-227871/3

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.9	129	49-135	
Vinyl chloride	10.0	11.0	110	52-136	
Bromomethane	10.0	10.7	107	37-150	
Chloroethane	10.0	12.8	128	44-139	
1,1-Dichloroethene	10.0	10.1	101	64-131	
Acetone	20.0	30.4	152	24-150	*
Carbon disulfide	10.0	10.9	109	20-150	
Methylene Chloride	10.0	9.30	93	66-123	
trans-1,2-Dichloroethene	10.0	9.51	95	70-123	
Methyl tert-butyl ether	10.0	9.19	92	66-130	
1,1-Dichloroethane	10.0	10.2	102	66-122	
cis-1,2-Dichloroethene	10.0	9.18	92	73-120	
Bromochloromethane	10.0	9.37	94	73-122	
2-Butanone (MEK)	20.0	26.0	130	37-150	
Chloroform	10.0	9.12	91	72-123	
1,1,1-Trichloroethane	10.0	10.1	101	66-129	
Carbon tetrachloride	10.0	10.4	104	58-145	
Benzene	10.0	9.04	90	75-123	
1,2-Dichloroethane	10.0	10.3	103	63-130	
Trichloroethene	10.0	8.71	87	74-121	
1,2-Dichloropropane	10.0	9.50	95	67-119	
Bromodichloromethane	10.0	9.00	90	62-127	
cis-1,3-Dichloropropene	10.0	8.52	85	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	24.4	122	41-135	
Toluene	10.0	10.2	102	76-129	
trans-1,3-Dichloropropene	10.0	10.1	101	61-136	
1,1,2-Trichloroethane	10.0	9.79	98	74-126	
Tetrachloroethene	10.0	9.70	97	76-128	
2-Hexanone	20.0	24.3	121	37-150	
Dibromochloromethane	10.0	10.3	103	63-131	
1,2-Dibromoethane (EDB)	10.0	9.43	94	76-128	
Chlorobenzene	10.0	9.21	92	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.1	101	70-130	
Ethylbenzene	10.0	9.44	94	77-124	
Xylenes, Total	20.0	18.3	91	76-124	
Styrene	10.0	9.56	96	80-125	
Bromoform	10.0	8.89	89	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.09	91	72-128	
Acrylonitrile	100	111	111	60-130	
1,4-Dioxane	200	169 J	85	26-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51105D03.D

Lab ID: LCS 180-228044/3

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.8	128	49-135	
Vinyl chloride	10.0	10.4	104	52-136	
Bromomethane	10.0	10.8	108	37-150	
Chloroethane	10.0	12.3	123	44-139	
1,1-Dichloroethene	10.0	8.99	90	64-131	
Acetone	20.0	27.6	138	24-150	
Carbon disulfide	10.0	9.56	96	20-150	
Methylene Chloride	10.0	8.46	85	66-123	
trans-1,2-Dichloroethene	10.0	8.18	82	70-123	
Methyl tert-butyl ether	10.0	8.79	88	66-130	
1,1-Dichloroethane	10.0	9.21	92	66-122	
cis-1,2-Dichloroethene	10.0	8.27	83	73-120	
Bromochloromethane	10.0	8.22	82	73-122	
2-Butanone (MEK)	20.0	23.1	116	37-150	
Chloroform	10.0	8.18	82	72-123	
1,1,1-Trichloroethane	10.0	8.81	88	66-129	
Carbon tetrachloride	10.0	8.97	90	58-145	
Benzene	10.0	8.02	80	75-123	
1,2-Dichloroethane	10.0	9.50	95	63-130	
Trichloroethene	10.0	7.71	77	74-121	
1,2-Dichloropropane	10.0	8.82	88	67-119	
Bromodichloromethane	10.0	7.87	79	62-127	
cis-1,3-Dichloropropene	10.0	8.07	81	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	22.6	113	41-135	
Toluene	10.0	8.86	89	76-129	
trans-1,3-Dichloropropene	10.0	9.69	97	61-136	
1,1,2-Trichloroethane	10.0	9.07	91	74-126	
Tetrachloroethene	10.0	8.57	86	76-128	
2-Hexanone	20.0	22.4	112	37-150	
Dibromochloromethane	10.0	9.23	92	63-131	
1,2-Dibromoethane (EDB)	10.0	8.73	87	76-128	
Chlorobenzene	10.0	8.50	85	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.47	95	70-130	
Ethylbenzene	10.0	8.32	83	77-124	
Xylenes, Total	20.0	16.3	81	76-124	
Styrene	10.0	8.53	85	80-125	
Bromoform	10.0	8.52	85	54-136	
1,1,2,2-Tetrachloroethane	10.0	8.61	86	72-128	
Acrylonitrile	100	104	104	60-130	
1,4-Dioxane	200	200	100	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.: 180-71858-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51107D03.D

Lab ID: LCS 180-228278/3

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.4	124	49-135	
Vinyl chloride	10.0	10.1	101	52-136	
Bromomethane	10.0	6.46	65	37-150	
Chloroethane	10.0	8.54	85	44-139	
1,1-Dichloroethene	10.0	8.67	87	64-131	
Acetone	20.0	31.4	157	24-150	*
Carbon disulfide	10.0	9.12	91	20-150	
Methylene Chloride	10.0	8.54	85	66-123	
trans-1,2-Dichloroethene	10.0	8.48	85	70-123	
Methyl tert-butyl ether	10.0	9.44	94	66-130	
1,1-Dichloroethane	10.0	8.83	88	66-122	
cis-1,2-Dichloroethene	10.0	8.07	81	73-120	
Bromochloromethane	10.0	8.61	86	73-122	
2-Butanone (MEK)	20.0	26.7	134	37-150	
Chloroform	10.0	8.14	81	72-123	
1,1,1-Trichloroethane	10.0	8.26	83	66-129	
Carbon tetrachloride	10.0	8.37	84	58-145	
Benzene	10.0	8.06	81	75-123	
1,2-Dichloroethane	10.0	9.57	96	63-130	
Trichloroethene	10.0	7.44	74	74-121	
1,2-Dichloropropane	10.0	8.48	85	67-119	
Bromodichloromethane	10.0	7.89	79	62-127	
cis-1,3-Dichloropropene	10.0	8.20	82	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	22.7	114	41-135	
Toluene	10.0	8.81	88	76-129	
trans-1,3-Dichloropropene	10.0	9.61	96	61-136	
1,1,2-Trichloroethane	10.0	9.46	95	74-126	
Tetrachloroethene	10.0	8.12	81	76-128	
2-Hexanone	20.0	24.1	121	37-150	
Dibromochloromethane	10.0	9.19	92	63-131	
1,2-Dibromoethane (EDB)	10.0	9.09	91	76-128	
Chlorobenzene	10.0	8.60	86	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.14	91	70-130	
Ethylbenzene	10.0	8.38	84	77-124	
Xylenes, Total	20.0	16.9	85	76-124	
Styrene	10.0	8.44	84	80-125	
Bromoform	10.0	8.34	83	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.11	91	72-128	
Acrylonitrile	100	116	116	60-130	
1,4-Dioxane	200	196 J	98	26-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71858-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51107D07.D

Lab ID: 180-71858-10 MS

Client ID: HD-COLE-F-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	13.7	137	49-135	F1
Vinyl chloride	10.0	1.0 U	11.4	114	52-136	
Bromomethane	10.0	1.0 U	12.6	126	37-150	
Chloroethane	10.0	1.0 U	13.4	134	44-139	
1,1-Dichloroethene	10.0	1.0 U	10.4	104	64-131	
Acetone	20.0	5.0 U	18.8	94	24-150	
Carbon disulfide	10.0	1.0 U	11.6	116	20-150	
Methylene Chloride	10.0	1.0 U	9.62	96	66-123	
trans-1,2-Dichloroethene	10.0	1.0 U	9.99	100	70-123	
Methyl tert-butyl ether	10.0	1.0 U	9.22	92	66-130	
1,1-Dichloroethane	10.0	1.0 U	10.2	102	66-122	
cis-1,2-Dichloroethene	10.0	1.0 U	9.35	94	73-120	
Bromochloromethane	10.0	1.0 U	9.39	94	73-122	
2-Butanone (MEK)	20.0	5.0 U	18.8	94	37-150	
Chloroform	10.0	1.0 U	9.17	92	72-123	
1,1,1-Trichloroethane	10.0	1.0 U	10.4	104	66-129	
Carbon tetrachloride	10.0	1.0 U	10.3	103	58-145	
Benzene	10.0	1.0 U	9.29	93	75-123	
1,2-Dichloroethane	10.0	1.0 U	9.72	97	63-130	
Trichloroethene	10.0	1.0 U	8.69	87	74-121	
1,2-Dichloropropane	10.0	1.0 U	9.92	99	67-119	
Bromodichloromethane	10.0	1.0 U	8.98	90	62-127	
cis-1,3-Dichloropropene	10.0	1.0 U	8.81	88	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	21.8	109	41-135	
Toluene	10.0	1.0 U	10.3	103	76-129	
trans-1,3-Dichloropropene	10.0	1.0 U	10.0	100	61-136	
1,1,2-Trichloroethane	10.0	1.0 U	9.73	97	74-126	
Tetrachloroethene	10.0	5.0	10.3	53	76-128	F1
2-Hexanone	20.0	5.0 U	19.2	96	37-150	
Dibromochloromethane	10.0	1.0 U	10.4	104	63-131	
1,2-Dibromoethane (EDB)	10.0	1.0 U	9.35	93	76-128	
Chlorobenzene	10.0	1.0 U	9.72	97	79-124	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.3	103	70-130	
Ethylbenzene	10.0	1.0 U	9.78	98	77-124	
Xylenes, Total	20.0	2.0 U	19.5	97	76-124	
Styrene	10.0	1.0 U	9.46	95	80-125	
Bromoform	10.0	1.0 U	9.03	90	54-136	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.01	90	72-128	
Acrylonitrile	100	20 U	104	104	60-130	
1,4-Dioxane	200	200 U	158 J	79	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.: 180-71858-1
 SDG No.: _____
 Lab File ID: 51102D05.D Lab Sample ID: MB 180-227871/5
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 11/03/2017 00:58
 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 180-227871/3	51102D03.D	11/02/2017 23:57
HD-MW-4 (COLE)-0/1-0	180-71858-3	51102D17.D	11/03/2017 06:01
HD-CW-1-0/1-0	180-71858-5	51102D19.D	11/03/2017 06:48
HD-QC6-0/1-2	180-71858-7	51102D20.D	11/03/2017 07:12
HD-COLE (FLUSH)-0/1-0	180-71858-11	51102D21.D	11/03/2017 07:36

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab File ID: 51105D05.D Lab Sample ID: MB 180-228044/5
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 11/06/2017 02:14
 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 180-228044/3	51105D03.D	11/06/2017 01:16
HD-COLE STEEL-0/1-0	180-71858-12	51105D06.D	11/06/2017 02:50
HD-COLE-B-0/1-0	180-71858-8	51105D10.D	11/06/2017 04:37

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
SDG No.: _____
Lab File ID: 51107D05.D Lab Sample ID: MB 180-228278/5
Matrix: Water Heated Purge: (Y/N) N
Instrument ID: CHHP5 Date Analyzed: 11/08/2017 02:29
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 180-228278/3	51107D03.D	11/08/2017 01:32
HD-COLE-F-0/1-0	180-71858-10	51107D06.D	11/08/2017 03:02
HD-COLE-F-0/1-0 MS	180-71858-10 MS	51107D07.D	11/08/2017 03:29
HD-MW-92-0/1-0	180-71858-1	51107D13.D	11/08/2017 05:53
HD-MW-18S-0/1-0	180-71858-2	51107D14.D	11/08/2017 06:16
HD-CW-7A-0/1-0	180-71858-6	51107D15.D	11/08/2017 06:40
HD-COLE-D-0/1-0	180-71858-9	51107D16.D	11/08/2017 07:04
HD-MW-151-0/1-0	180-71858-4	51107D22.D	11/08/2017 09:27

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab File ID: 51102D01.D BFB Injection Date: 11/02/2017
 Instrument ID: CHHP5 BFB Injection Time: 21:51
 Analysis Batch No.: 227871

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.1
75	30.0 - 60.0 % of mass 95	50.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	5.4
173	Less than 2.0 % of mass 174	0.8 (1.0) 1
174	50.0 - 120.00 % of mass 95	74.1
175	5.0 - 9.0 % of mass 174	5.3 (7.1) 1
176	95.0 - 101.0 % of mass 174	73.4 (99.1) 1
177	5.0 - 9.0 % of mass 176	4.5 (6.1) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-227871/2	51102D02.D	11/02/2017	22:22
	LCS 180-227871/3	51102D03.D	11/02/2017	23:57
	MB 180-227871/5	51102D05.D	11/03/2017	00:58
HD-MW-4 (COLE)-0/1-0	180-71858-3	51102D17.D	11/03/2017	06:01
HD-CW-1-0/1-0	180-71858-5	51102D19.D	11/03/2017	06:48
HD-QC6-0/1-2	180-71858-7	51102D20.D	11/03/2017	07:12
HD-COLE (FLUSH)-0/1-0	180-71858-11	51102D21.D	11/03/2017	07:36

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab File ID: 51105D01.D BFB Injection Date: 11/05/2017
 Instrument ID: CHHP5 BFB Injection Time: 00:00
 Analysis Batch No.: 228044

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	18.9
75	30.0 - 60.0 % of mass 95	47.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.1
173	Less than 2.0 % of mass 174	0.7 (0.9) 1
174	50.0 - 120.00 % of mass 95	71.2
175	5.0 - 9.0 % of mass 174	6.4 (9.0) 1
176	95.0 - 101.0 % of mass 174	69.0 (96.9) 1
177	5.0 - 9.0 % of mass 176	4.9 (7.1) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-228044/2	51105D02.D	11/05/2017	00:28
	LCS 180-228044/3	51105D03.D	11/06/2017	01:16
	MB 180-228044/5	51105D05.D	11/06/2017	02:14
HD-COLE STEEL-0/1-0	180-71858-12	51105D06.D	11/06/2017	02:50
HD-COLE-B-0/1-0	180-71858-8	51105D10.D	11/06/2017	04:37

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab File ID: 51107D01.D BFB Injection Date: 11/07/2017
 Instrument ID: CHHP5 BFB Injection Time: 23:03
 Analysis Batch No.: 228278

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	18.3
75	30.0 - 60.0 % of mass 95	48.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	5.9
173	Less than 2.0 % of mass 174	0.4 (0.6) 1
174	50.0 - 120.00 % of mass 95	67.8
175	5.0 - 9.0 % of mass 174	5.4 (7.9) 1
176	95.0 - 101.0 % of mass 174	67.3 (99.2) 1
177	5.0 - 9.0 % of mass 176	4.5 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-228278/2	51107D02.D	11/08/2017	00:13
	LCS 180-228278/3	51107D03.D	11/08/2017	01:32
	MB 180-228278/5	51107D05.D	11/08/2017	02:29
HD-COLE-F-0/1-0	180-71858-10	51107D06.D	11/08/2017	03:02
HD-COLE-F-0/1-0 MS	180-71858-10 MS	51107D07.D	11/08/2017	03:29
HD-MW-92-0/1-0	180-71858-1	51107D13.D	11/08/2017	05:53
HD-MW-18S-0/1-0	180-71858-2	51107D14.D	11/08/2017	06:16
HD-CW-7A-0/1-0	180-71858-6	51107D15.D	11/08/2017	06:40
HD-COLE-D-0/1-0	180-71858-9	51107D16.D	11/08/2017	07:04
HD-MW-151-0/1-0	180-71858-4	51107D22.D	11/08/2017	09:27

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Sample No.: CCVIS 180-227871/2 Date Analyzed: 11/02/2017 22:22
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51102D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	TBA _d 9		FB		CBN _Z d ₅		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	191856	4.39	471598	7.34	105369	10.43	
UPPER LIMIT	383712	4.89	943196	7.84	210738	10.93	
LOWER LIMIT	95928	3.89	235799	6.84	52685	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-227871/3	241036	4.38	521636	7.34	114496	10.43	
MB 180-227871/5	241706	4.37	543946	7.34	131498	10.43	
180-71858-3	HD-MW-4 (COLE)-0/1-0	195861	4.36	453831	7.34	107897	10.43
180-71858-5	HD-CW-1-0/1-0	198826	4.36	457194	7.34	108954	10.43
180-71858-7	HD-QC6-0/1-2	180735	4.36	443568	7.34	105678	10.43
180-71858-11	HD-COLE (FLUSH)-0/1-0	208762	4.35	480307	7.34	120434	10.44

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.: 180-71858-1
 SDG No.: _____
 Sample No.: CCVIS 180-227871/2 Date Analyzed: 11/02/2017 22:22
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51102D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		157848	12.77				
UPPER LIMIT		315696	13.27				
LOWER LIMIT		78924	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-227871/3		166527	12.77				
MB 180-227871/5		185242	12.77				
180-71858-3	HD-MW-4 (COLE)-0/1-0	148238	12.77				
180-71858-5	HD-CW-1-0/1-0	150242	12.77				
180-71858-7	HD-QC6-0/1-2	144744	12.77				
180-71858-11	HD-COLE (FLUSH)-0/1-0	156304	12.77				

DCBd4 = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Sample No.: CCVIS 180-228044/2 Date Analyzed: 11/05/2017 00:28
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51105D02.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	250601	4.38	535684	7.34	127084	10.43	
UPPER LIMIT	501202	4.88	1071368	7.84	254168	10.93	
LOWER LIMIT	125301	3.88	267842	6.84	63542	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228044/3	261140	4.38	569714	7.34	126036	10.43	
MB 180-228044/5	275258	4.36	579207	7.34	144472	10.43	
180-71858-12	HD-COLE STEEL-0/1-0	266115	4.36	543224	7.34	131349	10.43
180-71858-8	HD-COLE-B-0/1-0	221918	4.37	518258	7.34	123659	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.: 180-71858-1
 SDG No.: _____
 Sample No.: CCVIS 180-228044/2 Date Analyzed: 11/05/2017 00:28
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51105D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	DCBd4		AREA #	RT #	AREA #	RT #	AREA #	RT #
	AREA #	RT #						
12/24 HOUR STD	177650	12.77						
UPPER LIMIT	355300	13.27						
LOWER LIMIT	88825	12.27						
LAB SAMPLE ID	CLIENT SAMPLE ID							
LCS 180-228044/3		184179	12.78					
MB 180-228044/5		205573	12.78					
180-71858-12	HD-COLE STEEL-0/1-0	189253	12.77					
180-71858-8	HD-COLE-B-0/1-0	181417	12.77					

DCBd4 = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Sample No.: CCVIS 180-228278/2 Date Analyzed: 11/08/2017 00:13
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51107D02.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	265706	4.38	569496	7.34	122941	10.43	
UPPER LIMIT	531412	4.88	1138992	7.84	245882	10.93	
LOWER LIMIT	132853	3.88	284748	6.84	61471	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228278/3	261520	4.39	565705	7.34	124950	10.43	
MB 180-228278/5	252842	4.37	562349	7.34	137042	10.43	
180-71858-10	HD-COLE-F-0/1-0	187612	4.36	438770	7.34	108600	10.43
180-71858-10 MS	HD-COLE-F-0/1-0 MS	233662	4.36	571148	7.34	124828	10.43
180-71858-1	HD-MW-92-0/1-0	232349	4.36	523784	7.34	125533	10.43
180-71858-2	HD-MW-18S-0/1-0	222491	4.36	513890	7.34	119838	10.43
180-71858-6	HD-CW-7A-0/1-0	214414	4.37	491375	7.34	118042	10.44
180-71858-9	HD-COLE-D-0/1-0	211161	4.36	473914	7.34	112487	10.43
180-71858-4	HD-MW-151-0/1-0	235516	4.35	527782	7.34	121582	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.: 180-71858-1
 SDG No.: _____
 Sample No.: CCVIS 180-228278/2 Date Analyzed: 11/08/2017 00:13
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51107D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		171348	12.77				
UPPER LIMIT		342696	13.27				
LOWER LIMIT		85674	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228278/3		174005	12.77				
MB 180-228278/5		193669	12.77				
180-71858-10	HD-COLE-F-0/1-0	159201	12.77				
180-71858-10 MS	HD-COLE-F-0/1-0 MS	179504	12.77				
180-71858-1	HD-MW-92-0/1-0	171480	12.77				
180-71858-2	HD-MW-18S-0/1-0	164481	12.77				
180-71858-6	HD-CW-7A-0/1-0	153264	12.77				
180-71858-9	HD-COLE-D-0/1-0	153111	12.77				
180-71858-4	HD-MW-151-0/1-0	174536	12.77				

DCBd4 = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-92-0/1-0 Lab Sample ID: 180-71858-1
 Matrix: Water Lab File ID: 51107D13.D
 Analysis Method: 8260C Date Collected: 10/27/2017 08:27
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 05:53
 Soil Aliquot Vol: _____ Dilution Factor: 2
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U ^c	2.0	1.8
75-01-4	Vinyl chloride	2.0	U ^c	2.0	1.8
74-83-9	Bromomethane	2.0	U	2.0	1.8
75-00-3	Chloroethane	2.0	U	2.0	1.8
75-35-4	1,1-Dichloroethene	2.0	U	2.0	1.1
67-64-1	Acetone	10	U ^c *	10	6.9
75-15-0	Carbon disulfide	2.0	U	2.0	1.8
75-09-2	Methylene Chloride	2.0	U	2.0	0.72
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	1.3
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	1.2
75-34-3	1,1-Dichloroethane	2.0	U	2.0	1.3
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	1.4
74-97-5	Bromochloromethane	2.0	U	2.0	1.3
78-93-3	2-Butanone (MEK)	10	U	10	5.2
67-66-3	Chloroform	2.0	U	2.0	1.2
71-55-6	1,1,1-Trichloroethane	2.0	U	2.0	1.2
56-23-5	Carbon tetrachloride	2.0	U	2.0	1.8
71-43-2	Benzene	2.0	U	2.0	1.2
107-06-2	1,2-Dichloroethane	2.0	U	2.0	1.1
79-01-6	Trichloroethene	2.0	U	2.0	1.4
78-87-5	1,2-Dichloropropane	2.0	U	2.0	1.3
75-27-4	Bromodichloromethane	2.0	U	2.0	1.3
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	6.2
108-88-3	Toluene	2.0	U	2.0	0.91
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	1.2
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.91
127-18-4	Tetrachloroethene	74		2.0	0.93
591-78-6	2-Hexanone	10	U	10	6.6
124-48-1	Dibromochloromethane	2.0	U	2.0	1.7
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	1.0
108-90-7	Chlorobenzene	2.0	U	2.0	1.0
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	1.1
100-41-4	Ethylbenzene	2.0	U	2.0	1.0
1330-20-7	Xylenes, Total	4.0	U	4.0	1.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-92-0/1-0 Lab Sample ID: 180-71858-1
 Matrix: Water Lab File ID: 51107D13.D
 Analysis Method: 8260C Date Collected: 10/27/2017 08:27
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 05:53
 Soil Aliquot Vol: _____ Dilution Factor: 2
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	2.0	U	2.0	0.94
75-25-2	Bromoform	2.0	U	2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	1.2
107-13-1	Acrylonitrile	40	U ^c	40	16
123-91-1	1,4-Dioxane	400	U	400	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		65-121
2037-26-5	Toluene-d8 (Surr)	88		73-120
460-00-4	4-Bromofluorobenzene (Surr)	88		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D13.D
 Lims ID: 180-71858-B-1
 Client ID: HD-MW-92-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 05:53:30 ALS Bottle#: 13 Worklist Smp#: 13
 Purge Vol: 5.000 mL Dil. Factor: 2.0000
 Sample Info: 180-0019208-013
 Misc. Info.: 180-71858-B-1
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:05:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.360	4.383	-0.023	0	232349	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.338	0.002	98	523784	50.0	M
* 3 Chlorobenzene-d5	119	10.430	10.428	0.002	88	125533	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	97	171480	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.623	6.621	0.002	93	133326	52.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.986	0.008	0	168289	54.8	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	94	439894	44.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.613	-0.004	84	158535	43.9	
12 Chloromethane	50		1.889				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.333				ND	
16 Chloroethane	64		2.431				ND	
22 1,1-Dichloroethene	96		3.428				ND	
24 Acetone	43		3.537				ND	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.231				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.638				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.298				ND	
52 Chloroform	83	6.434	6.438	-0.004	87	3414	0.6729	
53 1,1,1-Trichloroethane	97		6.596				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.723	7.721	0.002	90	8696	2.71	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.080				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.281				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.877				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.560	9.558	0.002	94	443324	185.7	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.753				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\20171107-19208.b\51107D13.D

Injection Date: 08-Nov-2017 05:53:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-B-1

Lab Sample ID: 180-71858-1

Worklist Smp#: 13

Client ID: HD-MW-92-0/1-0

Purge Vol: 5.000 mL

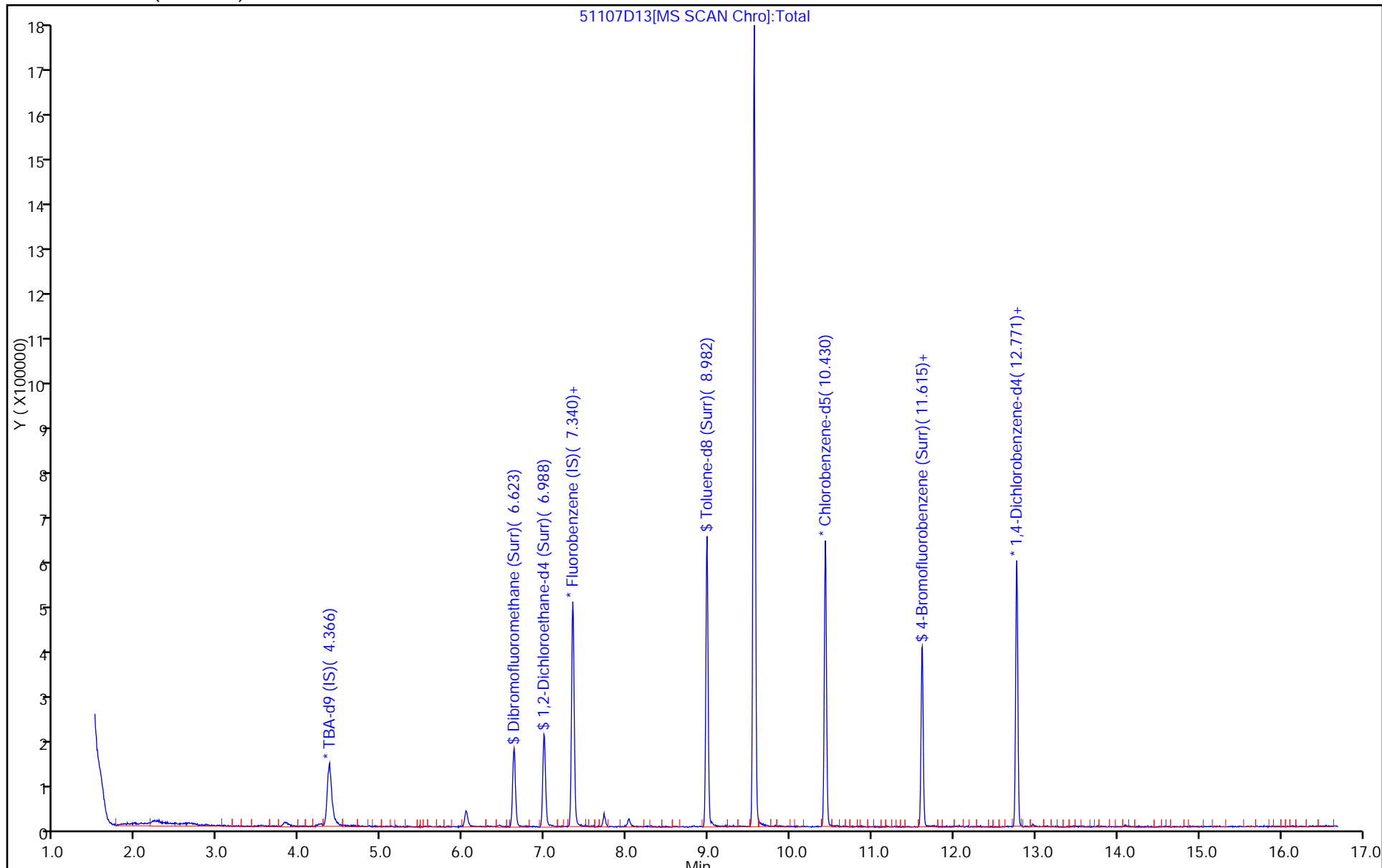
Dil. Factor: 2.0000

ALS Bottle#: 13

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D13.D
 Lims ID: 180-71858-B-1
 Client ID: HD-MW-92-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 05:53:30 ALS Bottle#: 13 Worklist Smp#: 13
 Purge Vol: 5.000 mL Dil. Factor: 2.0000
 Sample Info: 180-0019208-013
 Misc. Info.: 180-71858-B-1
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf Date: 08-Nov-2017 18:05:35

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.9	105.81
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.8	109.50
\$ 7 Toluene-d8 (Surr)	50.0	44.0	88.06
\$ 8 4-Bromofluorobenzene (Surr)	50.0	43.9	87.87

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D13.D

Injection Date: 08-Nov-2017 05:53:30

Instrument ID: CHHP5

Lims ID: 180-71858-B-1

Lab Sample ID: 180-71858-1

Client ID: HD-MW-92-0/1-0

Operator ID: 034635

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 2.0000

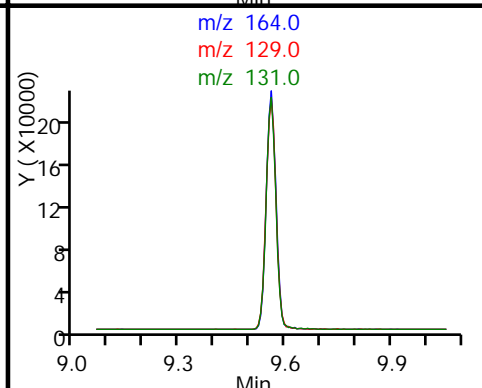
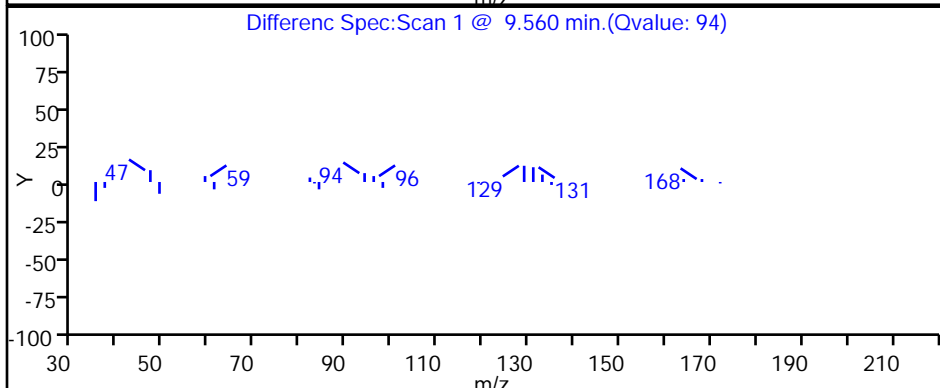
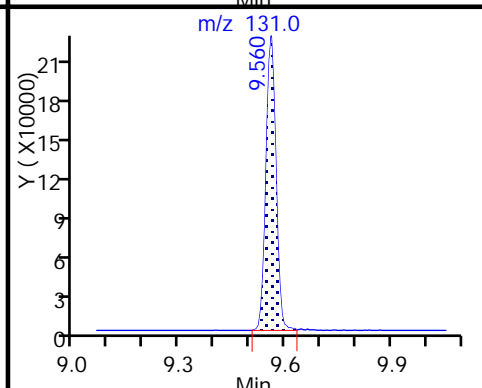
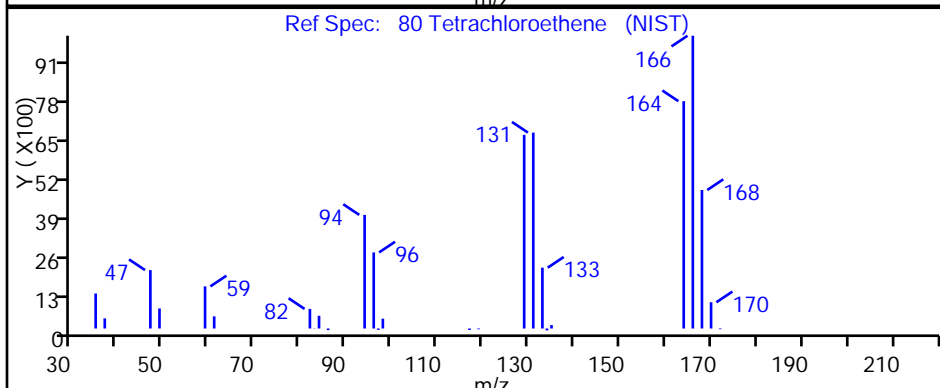
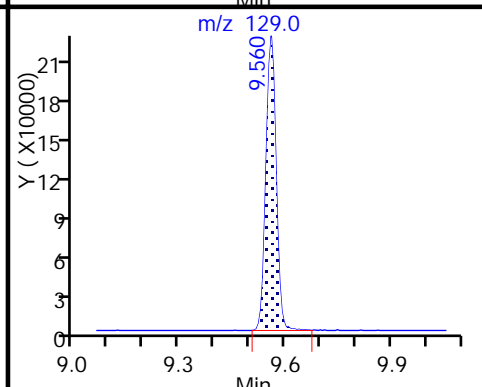
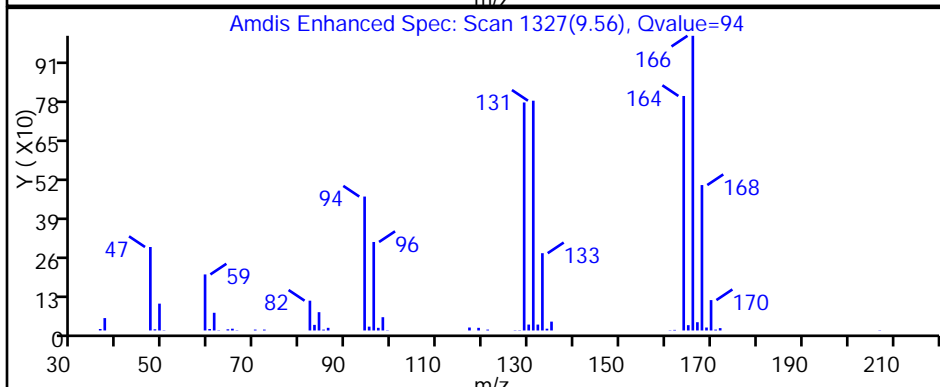
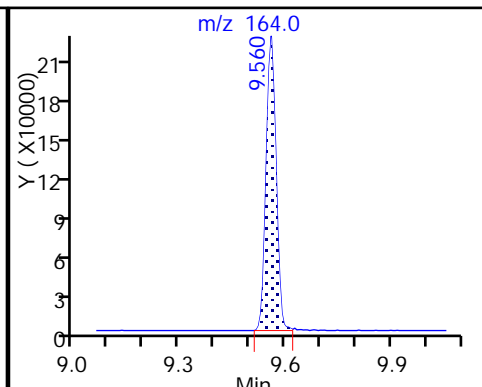
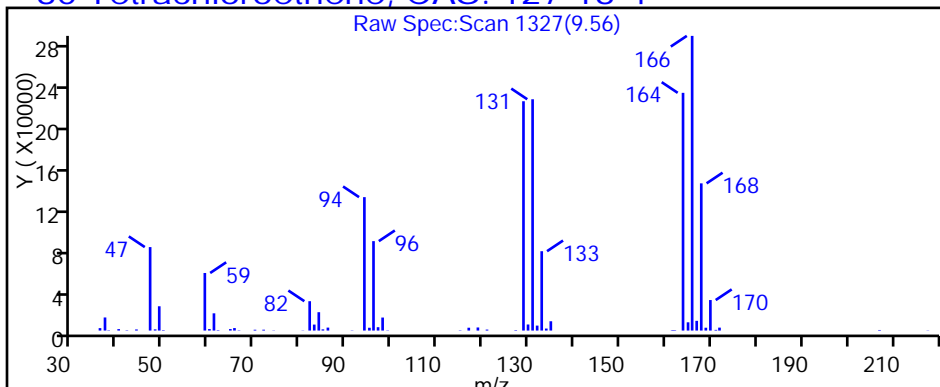
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

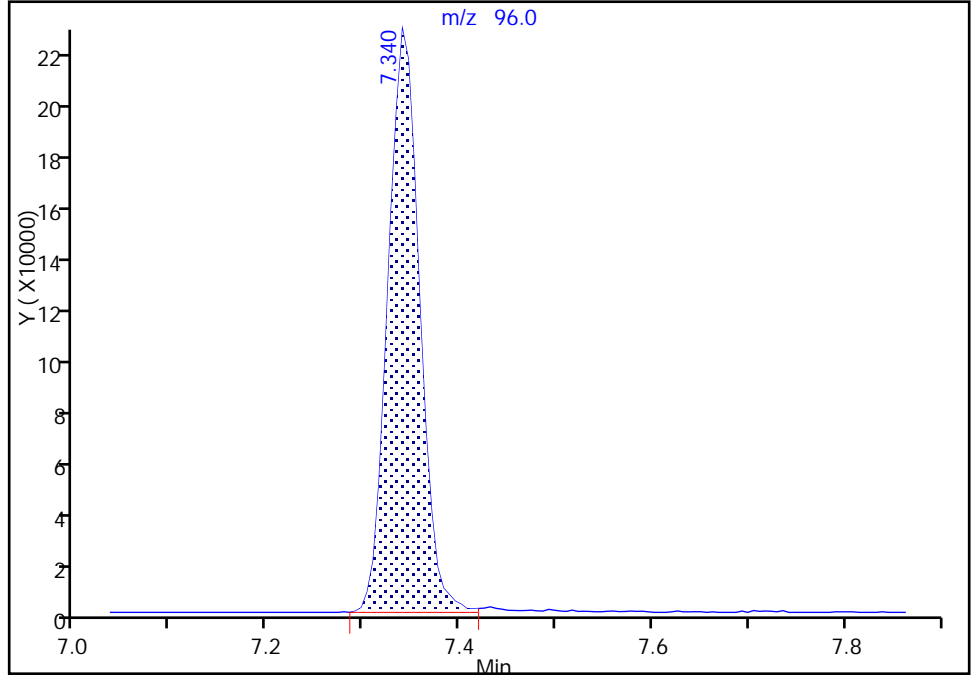
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D13.D
Injection Date: 08-Nov-2017 05:53:30 Instrument ID: CHHP5
Lims ID: 180-71858-B-1 Lab Sample ID: 180-71858-1
Client ID: HD-MW-92-0/1-0
Operator ID: 034635 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

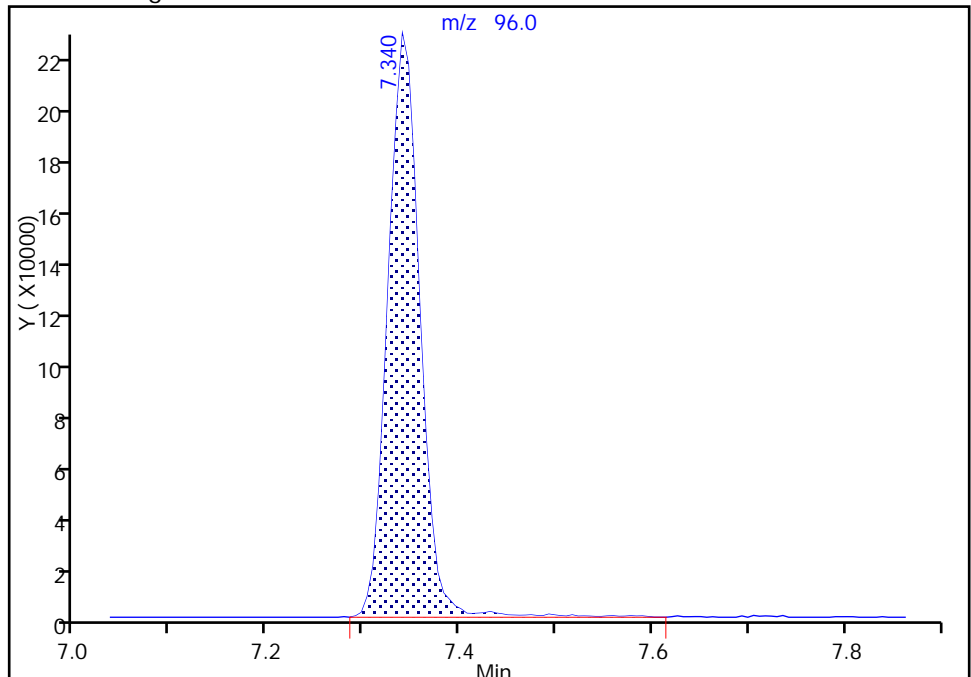
RT: 7.34
Area: 516460
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 523784
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 18:10:09
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-18S-0/1-0 Lab Sample ID: 180-71858-2
 Matrix: Water Lab File ID: 51107D14.D
 Analysis Method: 8260C Date Collected: 10/27/2017 08:40
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 06:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 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 ^c	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	14		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	4.1		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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-18S-0/1-0 Lab Sample ID: 180-71858-2
 Matrix: Water Lab File ID: 51107D14.D
 Analysis Method: 8260C Date Collected: 10/27/2017 08:40
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 06:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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 ^c	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)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D14.D
 Lims ID: 180-71858-A-2
 Client ID: HD-MW-18S-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 06:16:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-014
 Misc. Info.: 180-71858-A-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:06:46

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.383	-0.022	0	222491	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.338	0.003	98	513890	50.0	M
* 3 Chlorobenzene-d5	119	10.430	10.428	0.002	86	119838	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	97	164481	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.623	6.621	0.002	93	130911	52.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.986	0.002	0	165145	54.8	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.980	0.003	94	440140	46.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.616	11.613	0.003	85	154428	44.8	
12 Chloromethane	50		1.889				ND	
13 Vinyl chloride	62	2.025	2.017	0.008	25	6800	2.23	M
15 Bromomethane	94		2.333				ND	
16 Chloroethane	64		2.431				ND	
22 1,1-Dichloroethene	96		3.428				ND	
24 Acetone	43	3.534	3.537	-0.003	68	13862	10.3	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.231				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.638				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96	6.015	6.013	0.003	80	227029	69.2	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.298				ND	
52 Chloroform	83		6.438				ND	
53 1,1,1-Trichloroethane	97		6.596				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.730	7.721	0.009	96	64468	20.5	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.080				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.281				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.877				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.560	9.558	0.002	1	637	0.2795	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.753				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\20171107-19208.b\51107D14.D

Injection Date: 08-Nov-2017 06:16:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-A-2

Lab Sample ID: 180-71858-2

Worklist Smp#: 14

Client ID: HD-MW-18S-0/1-0

Purge Vol: 5.000 mL

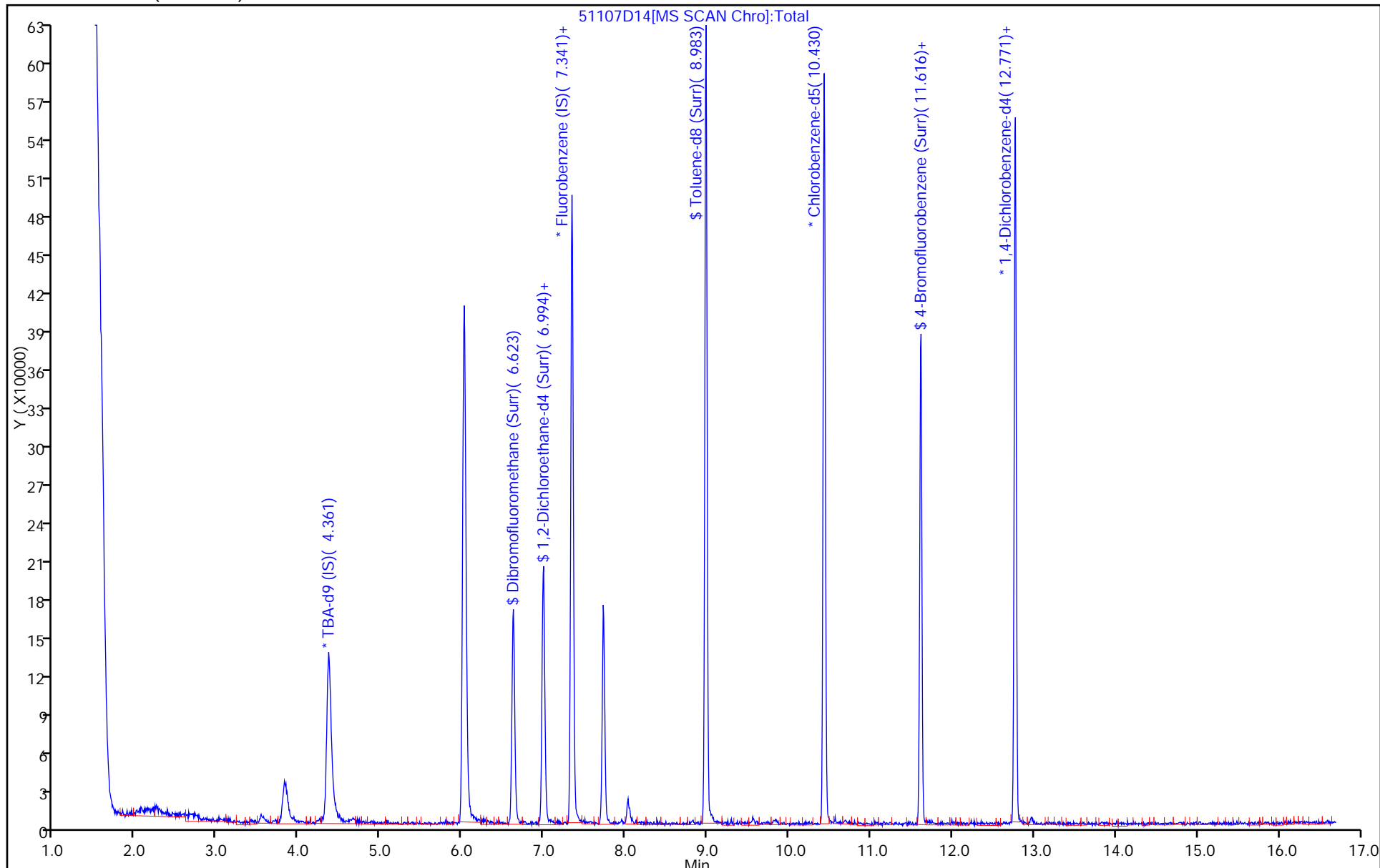
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D14.D
 Lims ID: 180-71858-A-2
 Client ID: HD-MW-18S-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 06:16:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-014
 Misc. Info.: 180-71858-A-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf Date: 08-Nov-2017 18:06:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.9	105.89
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.8	109.52
\$ 7 Toluene-d8 (Surr)	50.0	46.1	92.30
\$ 8 4-Bromofluorobenzene (Surr)	50.0	44.8	89.66

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D14.D

Injection Date: 08-Nov-2017 06:16:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-2

Lab Sample ID: 180-71858-2

Client ID: HD-MW-18S-0/1-0

Operator ID: 034635

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

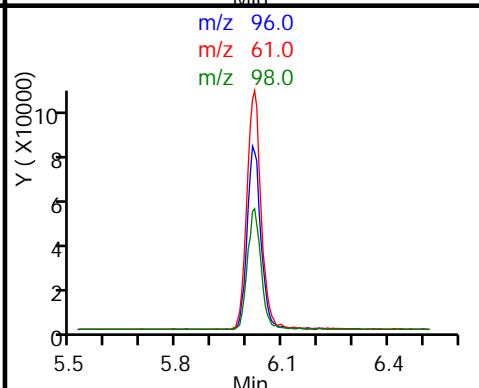
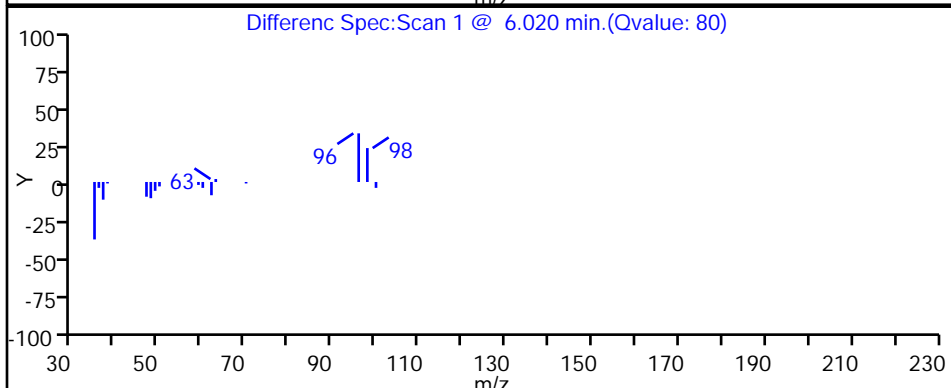
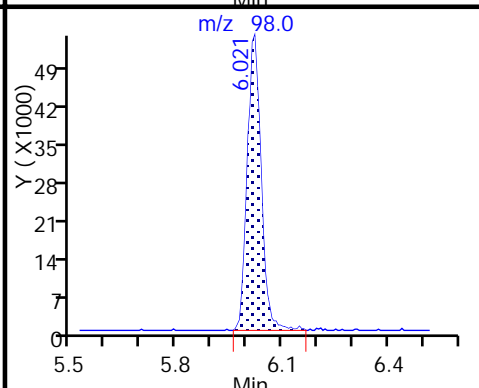
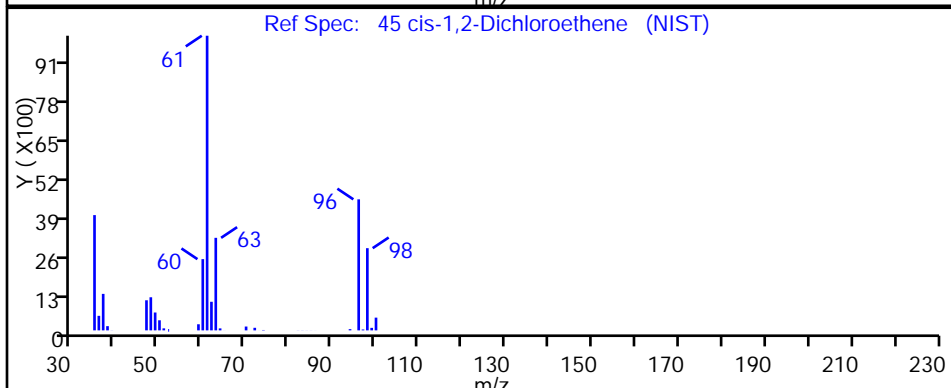
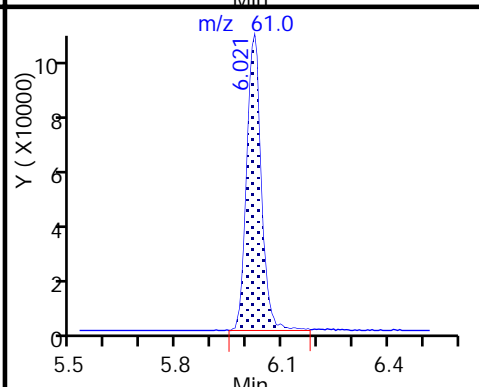
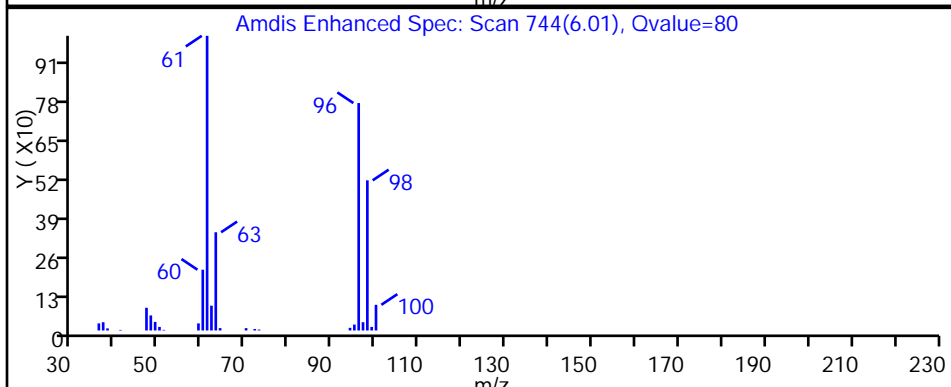
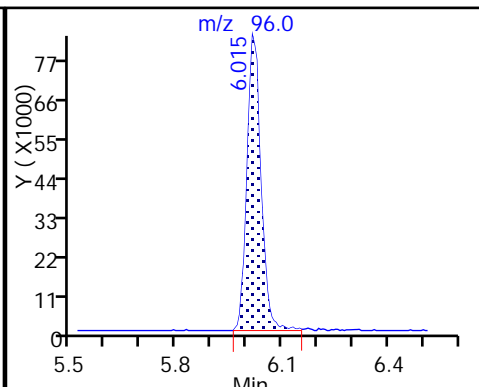
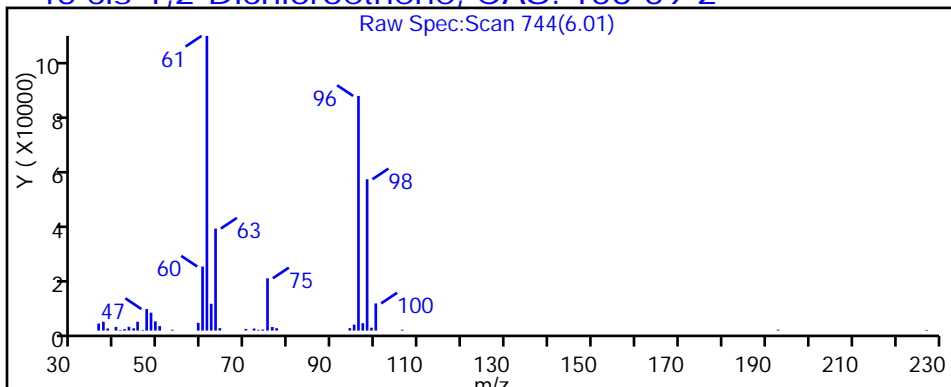
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D14.D

Injection Date: 08-Nov-2017 06:16:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-2

Lab Sample ID: 180-71858-2

Client ID: HD-MW-18S-0/1-0

Operator ID: 034635

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

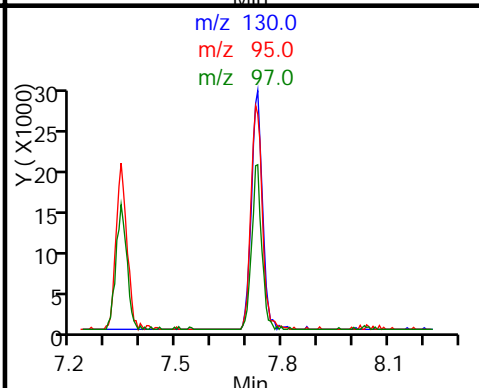
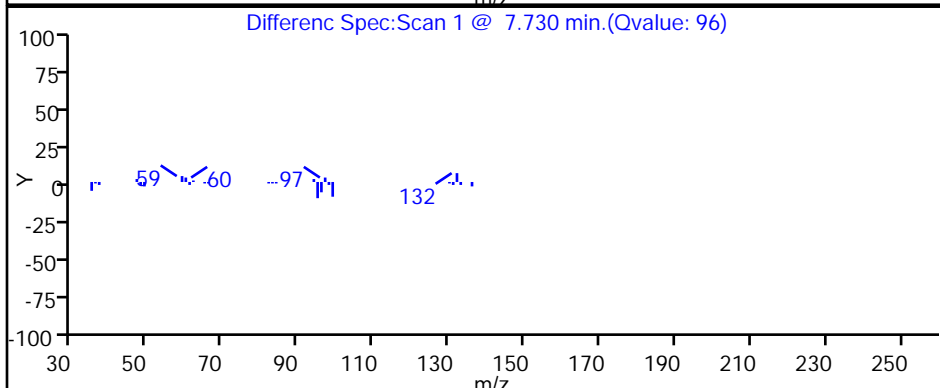
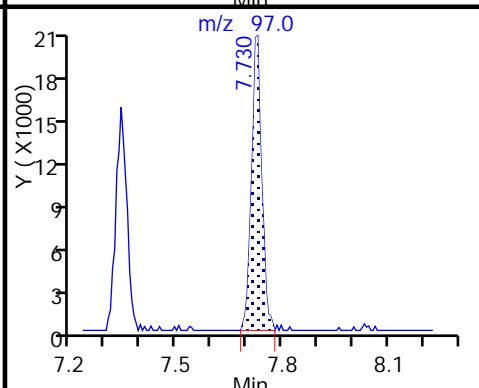
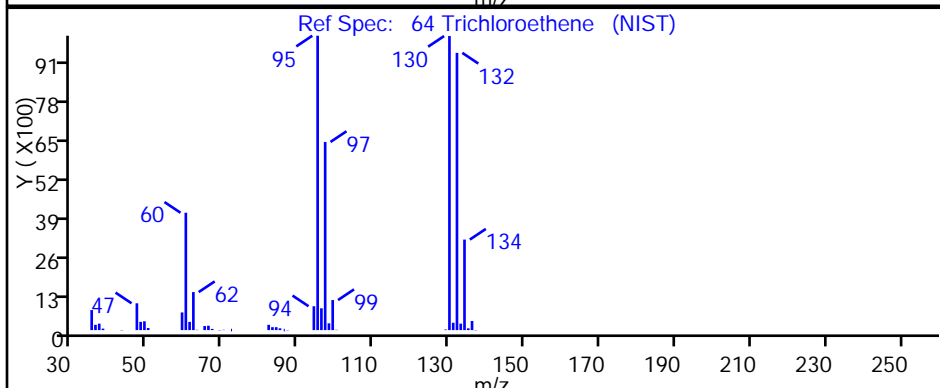
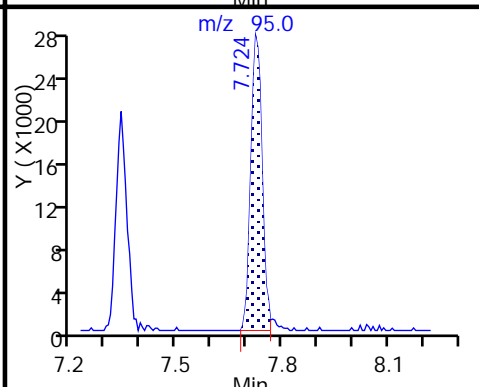
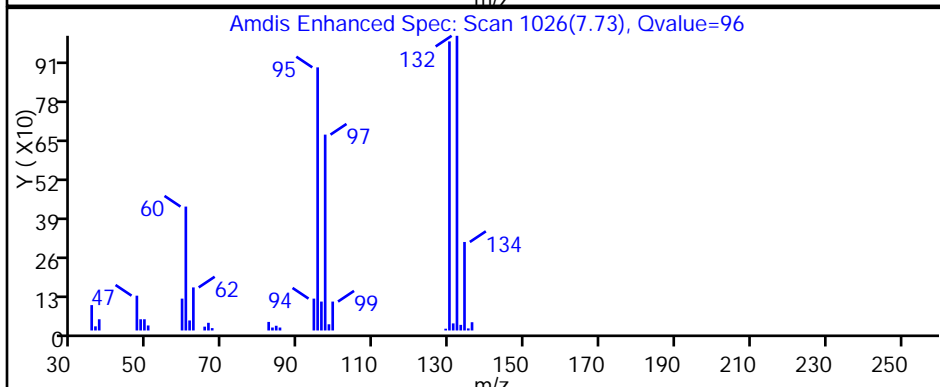
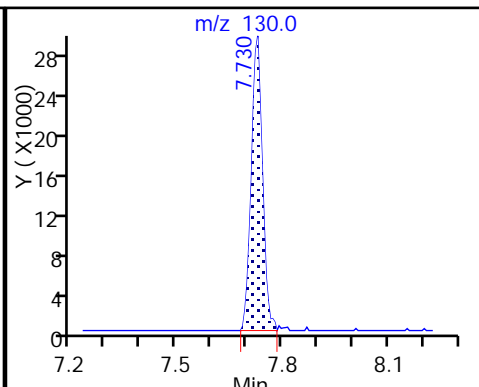
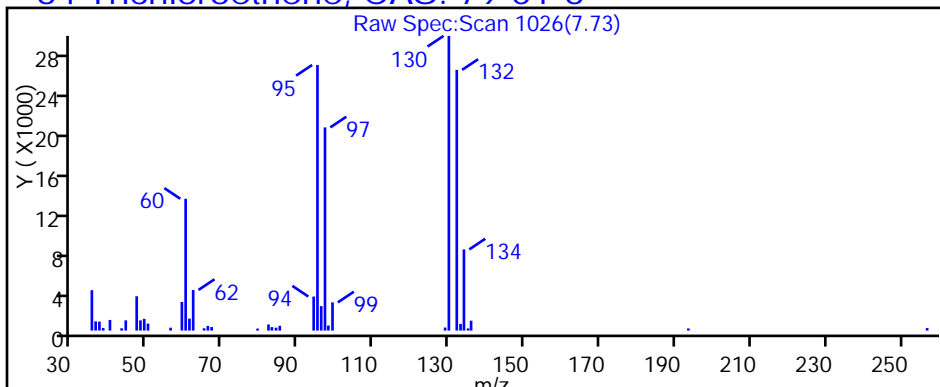
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

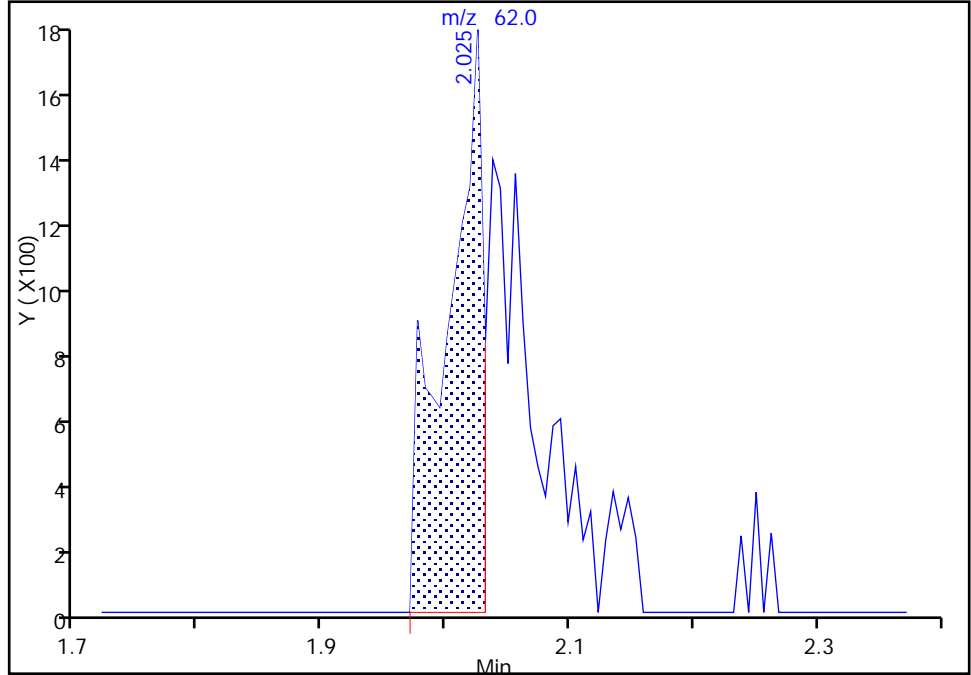
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D14.D
Injection Date: 08-Nov-2017 06:16:30 Instrument ID: CHHP5
Lims ID: 180-71858-A-2 Lab Sample ID: 180-71858-2
Client ID: HD-MW-18S-0/1-0
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4

Signal: 1

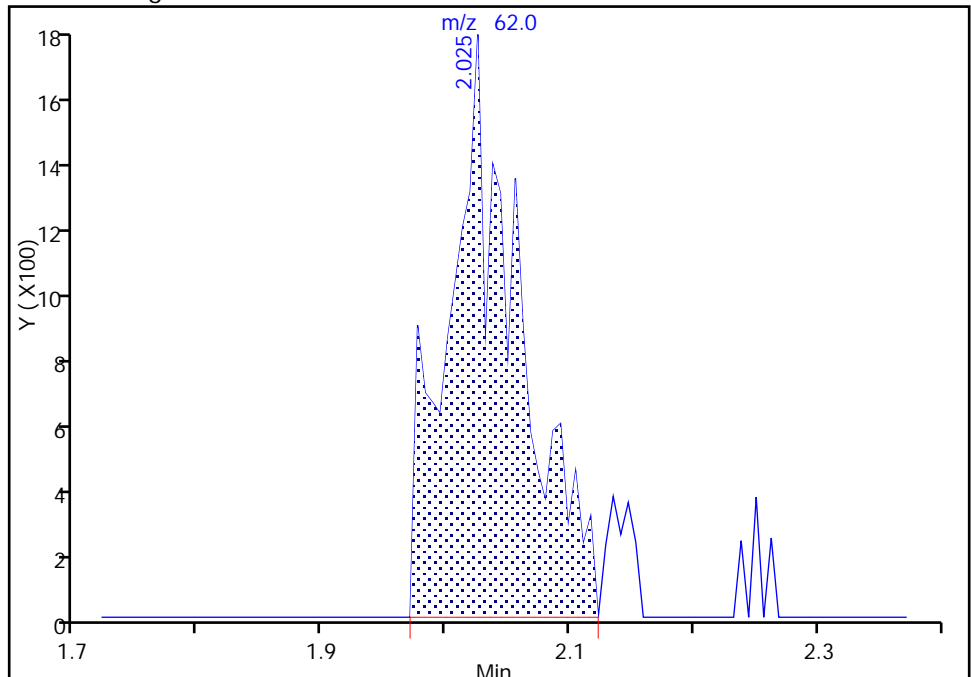
RT: 2.03
Area: 3467
Amount: 1.153705
Amount Units: ng

Processing Integration Results



RT: 2.03
Area: 6800
Amount: 2.231067
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 18:05:58
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

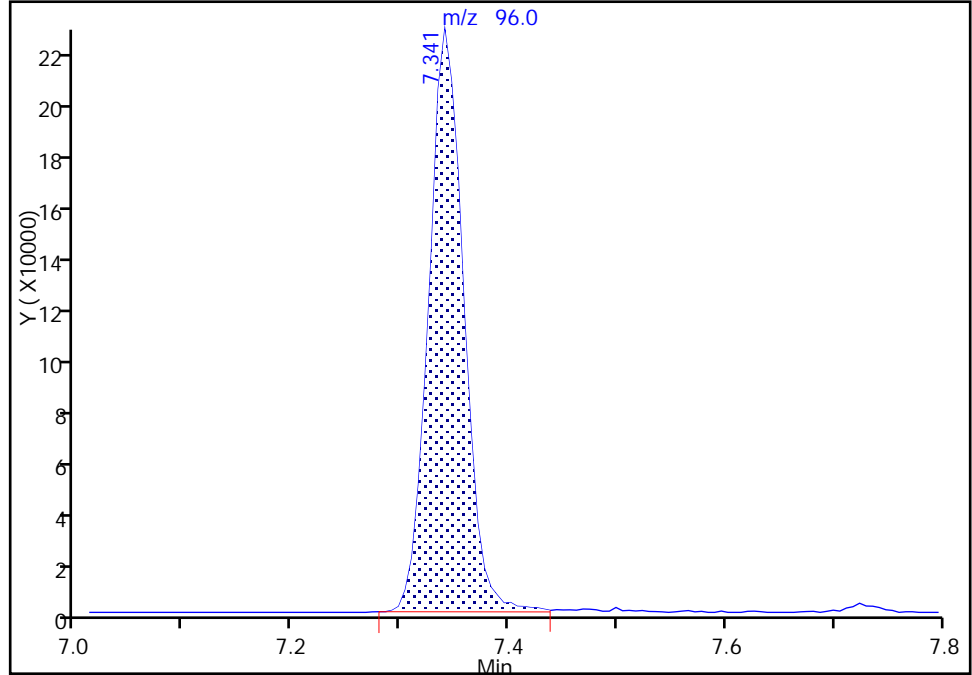
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D14.D
Injection Date: 08-Nov-2017 06:16:30 Instrument ID: CHHP5
Lims ID: 180-71858-A-2 Lab Sample ID: 180-71858-2
Client ID: HD-MW-18S-0/1-0
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

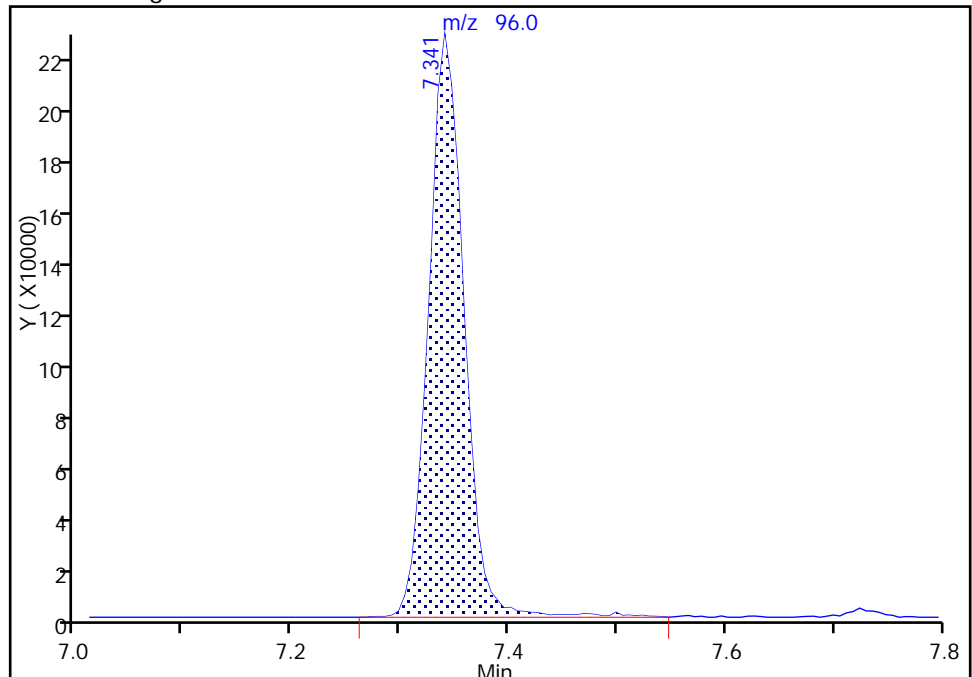
RT: 7.34
Area: 506679
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 513890
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 18:09:52
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-4 (COLE)-0/1-0 Lab Sample ID: 180-71858-3
 Matrix: Water Lab File ID: 51102D17.D
 Analysis Method: 8260C Date Collected: 10/27/2017 09:35
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 06:01
 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.: 227871 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 ^c	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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-4 (COLE)-0/1-0 Lab Sample ID: 180-71858-3
 Matrix: Water Lab File ID: 51102D17.D
 Analysis Method: 8260C Date Collected: 10/27/2017 09:35
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 06:01
 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.: 227871 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	125	X	65-121
2037-26-5	Toluene-d8 (Surr)	94		73-120
460-00-4	4-Bromofluorobenzene (Surr)	86		80-120
1868-53-7	Dibromofluoromethane (Surr)	118		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D17.D
 Lims ID: 180-71858-C-3
 Client ID: HD-MW-4 (COLE)-0/1-0
 Sample Type: Client
 Inject. Date: 03-Nov-2017 06:01:30 ALS Bottle#: 17 Worklist Smp#: 17
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-017
 Misc. Info.: 180-71858-C-3
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 05-Nov-2017 20:00:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.388	-0.024	0	195861	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.337	0.006	98	453831	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	86	107897	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.768	0.000	97	148238	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.620	0.000	93	128942	59.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.991	0.000	0	166304	62.4	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	95	403882	47.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	83	133282	43.0	
12 Chloromethane	50		1.888				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.332				ND	
16 Chloroethane	64		2.430				ND	
22 1,1-Dichloroethene	96		3.427				ND	
24 Acetone	43	3.543	3.536	0.007	69	8698	7.33	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.236				ND	
33 Acrylonitrile	53		4.619				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.668				ND	
37 1,1-Dichloroethane	63		5.276				ND	
45 cis-1,2-Dichloroethene	96		6.012				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83		6.437				ND	
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.772				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130		7.727				ND	
67 1,2-Dichloropropane	63		8.000				ND	
70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.274				ND	
74 cis-1,3-Dichloropropene	75		8.724				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.046				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164		9.557				ND	
82 2-Hexanone	43		9.703				ND	
84 Chlorodibromomethane	129		9.855				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.554				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_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\20171102-19153.b\51102D17.D

Injection Date: 03-Nov-2017 06:01:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-C-3

Lab Sample ID: 180-71858-3

Worklist Smp#: 17

Client ID: HD-MW-4 (COLE)-0/1-0

Purge Vol: 5.000 mL

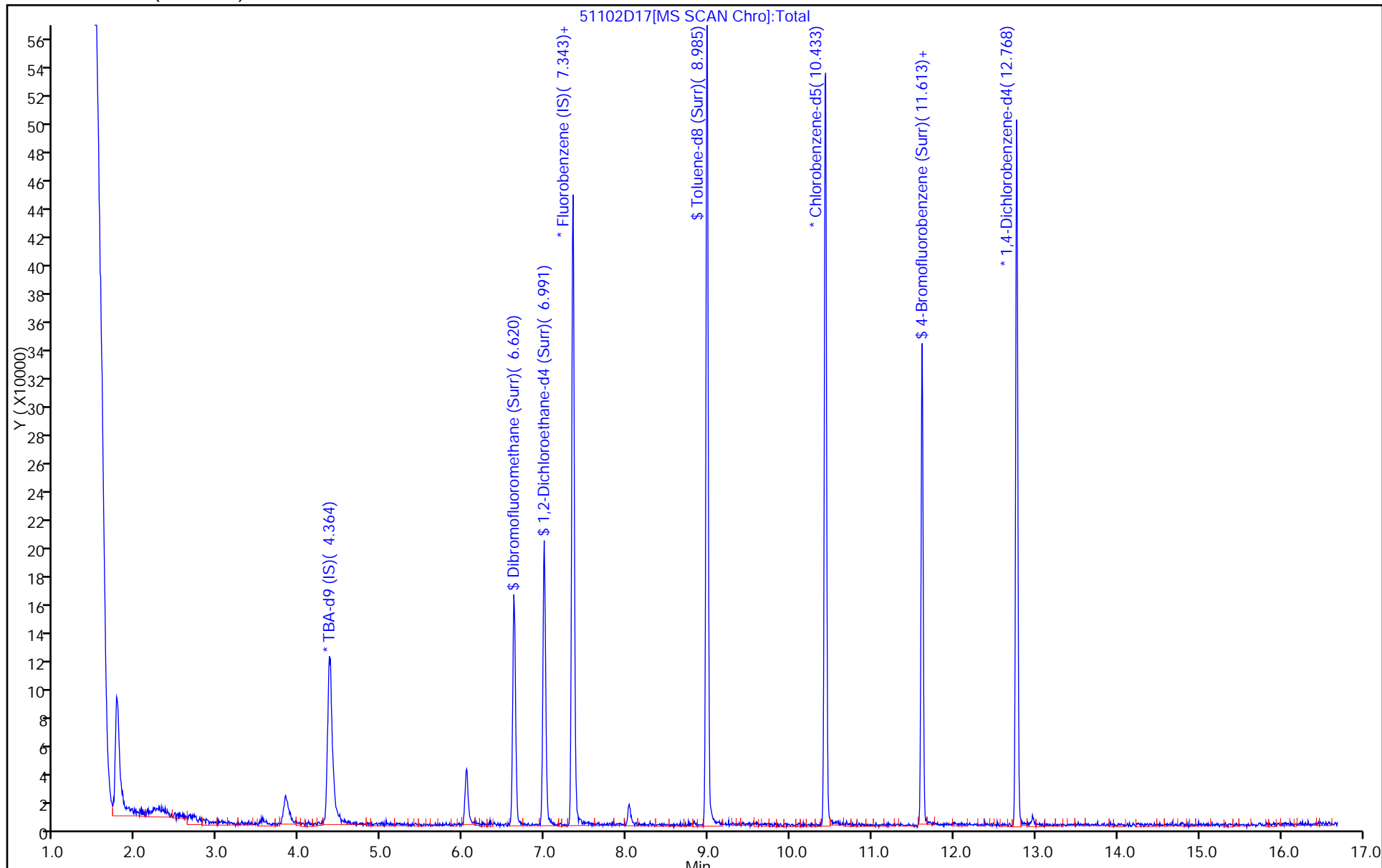
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D17.D
 Lims ID: 180-71858-C-3
 Client ID: HD-MW-4 (COLE)-0/1-0
 Sample Type: Client
 Inject. Date: 03-Nov-2017 06:01:30 ALS Bottle#: 17 Worklist Smp#: 17
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-017
 Misc. Info.: 180-71858-C-3
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf Date: 05-Nov-2017 20:00:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	59.0	118.10
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	62.4	124.89
\$ 7 Toluene-d8 (Surr)	50.0	47.0	94.07
\$ 8 4-Bromofluorobenzene (Surr)	50.0	43.0	85.95

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-151-0/1-0 Lab Sample ID: 180-71858-4
 Matrix: Water Lab File ID: 51107D22.D
 Analysis Method: 8260C Date Collected: 10/27/2017 10:54
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 09:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 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 ^c	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	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	1.4		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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-MW-151-0/1-0 Lab Sample ID: 180-71858-4
 Matrix: Water Lab File ID: 51107D22.D
 Analysis Method: 8260C Date Collected: 10/27/2017 10:54
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 09:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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 ^c	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)	112		65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D22.D
 Lims ID: 180-71858-A-4
 Client ID: HD-MW-151-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 09:27:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-022
 Misc. Info.: 180-71858-A-4
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:13:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.383	-0.029	0	235516	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.338	0.002	98	527782	50.0	M
* 3 Chlorobenzene-d5	119	10.429	10.428	0.001	87	121582	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	97	174536	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.621	0.001	93	128959	50.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	173972	56.2	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	94	461219	47.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.613	-0.004	83	164883	47.2	
12 Chloromethane	50		1.889				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.333				ND	
16 Chloroethane	64		2.431				ND	
22 1,1-Dichloroethene	96		3.428				ND	
24 Acetone	43	3.545	3.537	0.008	66	8800	6.38	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.231				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.638				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.298				ND	
52 Chloroform	83	6.440	6.438	0.002	1	563	0.1101	
53 1,1,1-Trichloroethane	97		6.596				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.723	7.721	0.002	92	2299	0.7119	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.080				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.281				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.877				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.560	9.558	0.002	95	15952	6.90	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.753				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\20171107-19208.b\51107D22.D

Injection Date: 08-Nov-2017 09:27:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-A-4

Lab Sample ID: 180-71858-4

Worklist Smp#: 22

Client ID: HD-MW-151-0/1-0

Purge Vol: 5.000 mL

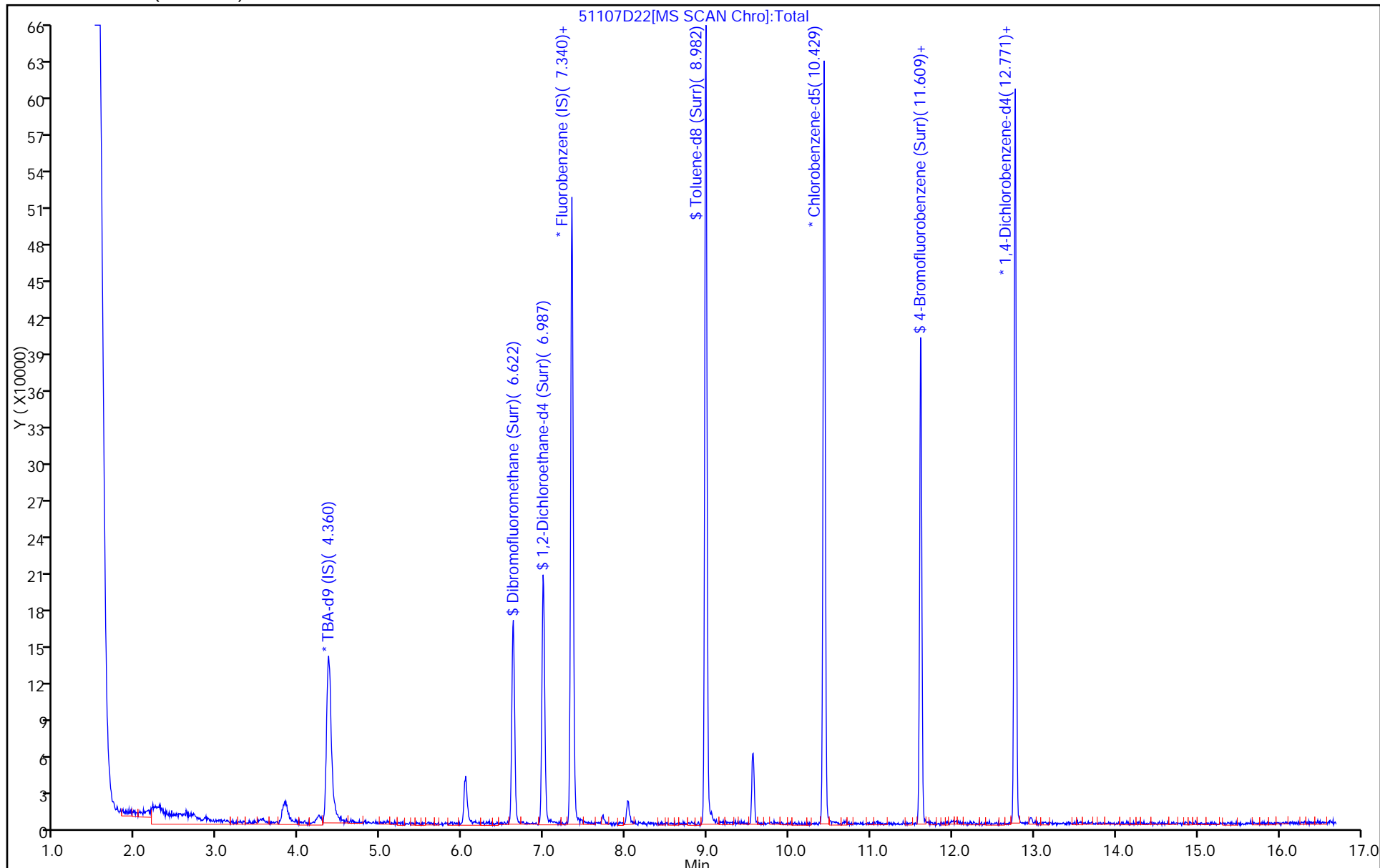
Dil. Factor: 1.0000

ALS Bottle#: 22

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D22.D
 Lims ID: 180-71858-A-4
 Client ID: HD-MW-151-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 09:27:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-022
 Misc. Info.: 180-71858-A-4
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:13:27

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.8	101.57
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.2	112.34
\$ 7 Toluene-d8 (Surr)	50.0	47.7	95.33
\$ 8 4-Bromofluorobenzene (Surr)	50.0	47.2	94.36

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D22.D

Injection Date: 08-Nov-2017 09:27:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-4

Lab Sample ID: 180-71858-4

Client ID: HD-MW-151-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

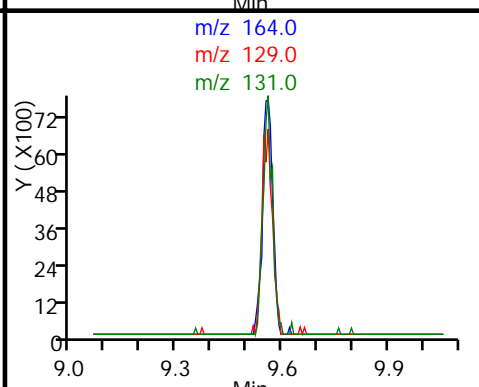
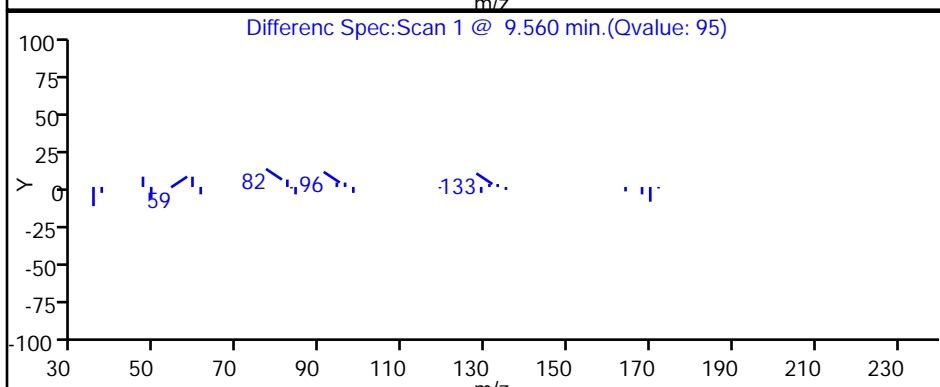
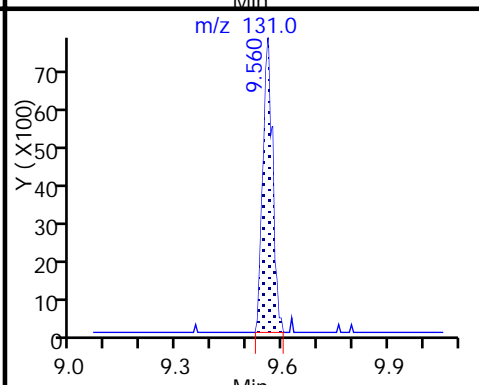
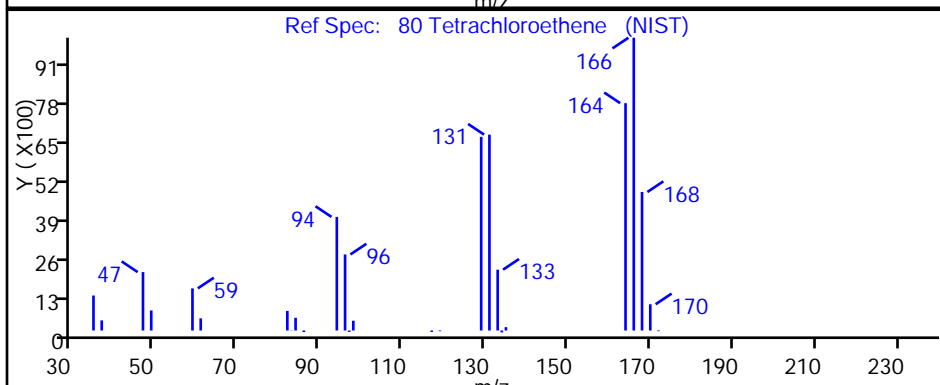
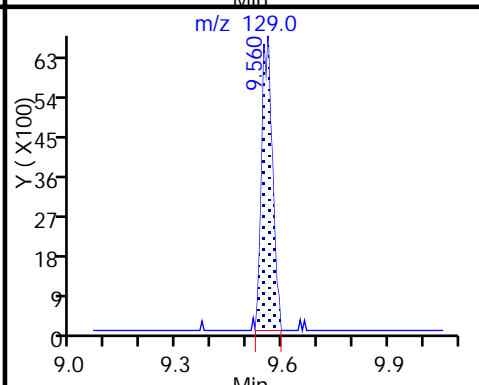
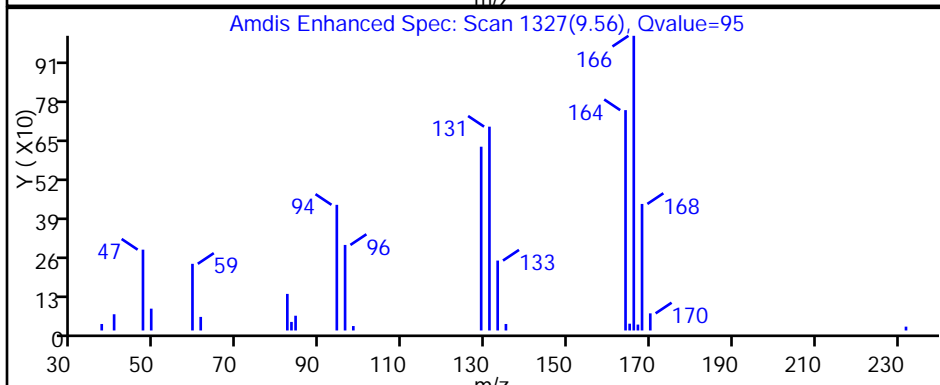
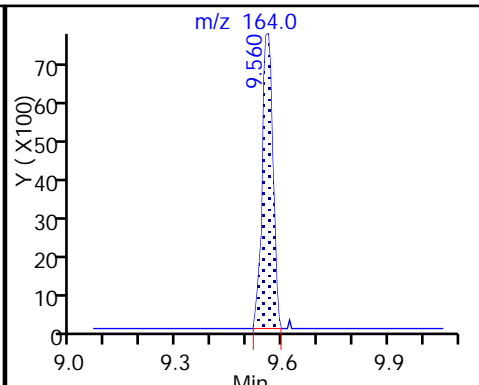
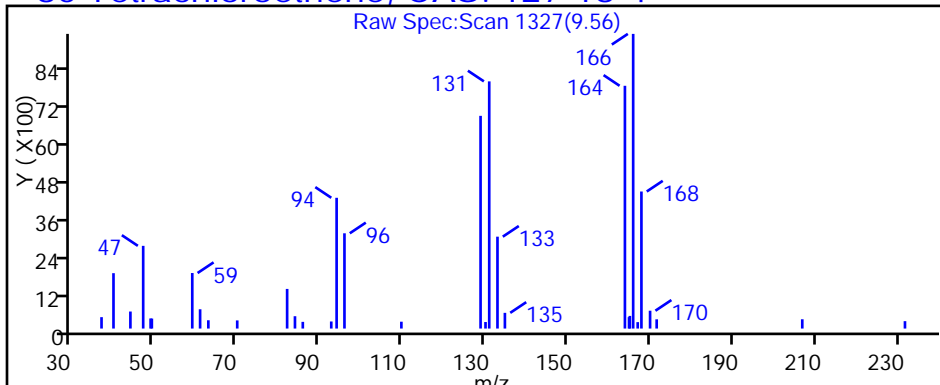
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

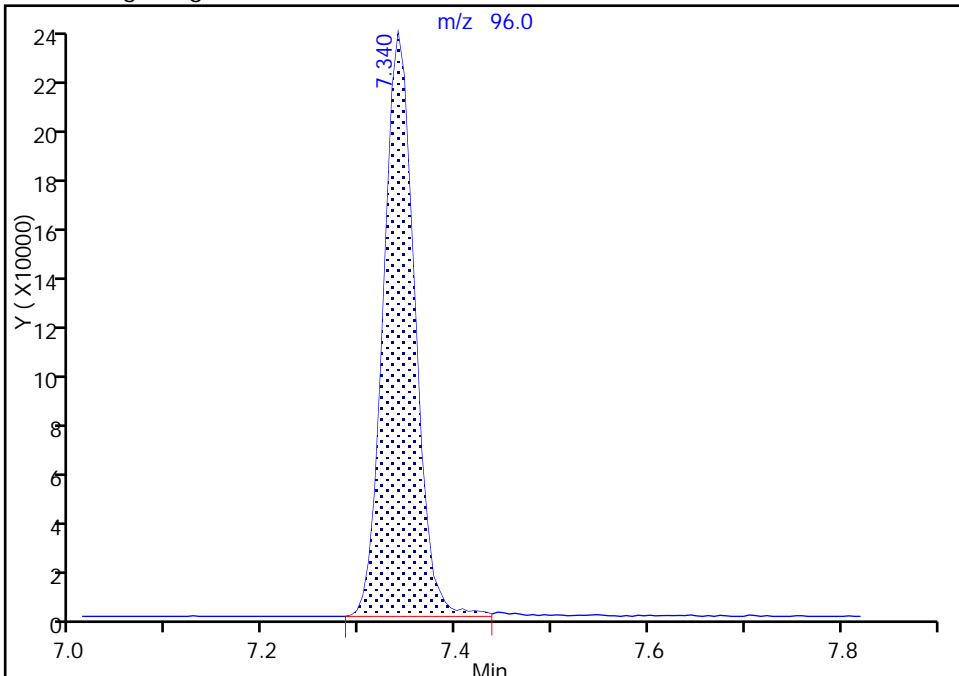
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D22.D
Injection Date: 08-Nov-2017 09:27:30 Instrument ID: CHHP5
Lims ID: 180-71858-A-4 Lab Sample ID: 180-71858-4
Client ID: HD-MW-151-0/1-0
Operator ID: 034635 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

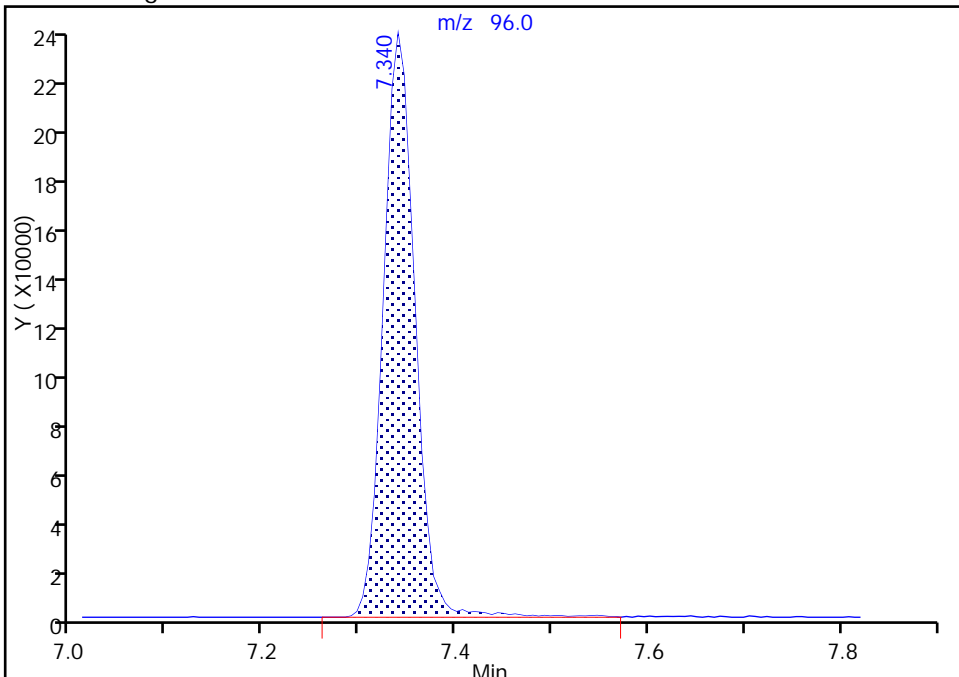
RT: 7.34
Area: 522902
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 527782
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 18:12:56
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-CW-1-0/1-0 Lab Sample ID: 180-71858-5
 Matrix: Water Lab File ID: 51102D19.D
 Analysis Method: 8260C Date Collected: 10/27/2017 09:20
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 06:48
 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.: 227871 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 ^c	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	0.79	J ^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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-CW-1-0/1-0 Lab Sample ID: 180-71858-5
 Matrix: Water Lab File ID: 51102D19.D
 Analysis Method: 8260C Date Collected: 10/27/2017 09:20
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 06:48
 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.: 227871 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	123	X	65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	116		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D19.D
 Lims ID: 180-71858-B-5
 Client ID: HD-CW-1-0/1-0
 Sample Type: Client
 Inject. Date: 03-Nov-2017 06:48:30 ALS Bottle#: 19 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-019
 Misc. Info.: 180-71858-B-5
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 05-Nov-2017 20:02:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.388	-0.025	0	198826	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.337	0.006	98	457194	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.433	-0.001	87	108954	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.768	0.006	97	150242	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.619	6.620	-0.001	93	127642	58.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.991	-0.007	0	165257	61.6	
\$ 7 Toluene-d8 (Surr)	98	8.985	8.979	0.006	94	411123	47.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	85	130524	41.7	
12 Chloromethane	50		1.888				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.332				ND	
16 Chloroethane	64		2.430				ND	
22 1,1-Dichloroethene	96		3.427				ND	
24 Acetone	43	3.548	3.536	0.012	94	19970	16.7	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.236				ND	
33 Acrylonitrile	53		4.619				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.668				ND	
37 1,1-Dichloroethane	63		5.276				ND	
45 cis-1,2-Dichloroethene	96		6.012				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83		6.437				ND	
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.772				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130	7.726	7.727	0.000	96	11092	3.96	
67 1,2-Dichloropropane	63		8.000				ND	
70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.274				ND	
74 cis-1,3-Dichloropropene	75		8.724				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.046				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164	9.575	9.557	0.018	85	1503	0.7254	M
82 2-Hexanone	43		9.703				ND	
84 Chlorodibromomethane	129		9.855				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.554				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_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\20171102-19153.b\51102D19.D

Injection Date: 03-Nov-2017 06:48:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-B-5

Lab Sample ID: 180-71858-5

Worklist Smp#: 19

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

Purge Vol: 5.000 mL

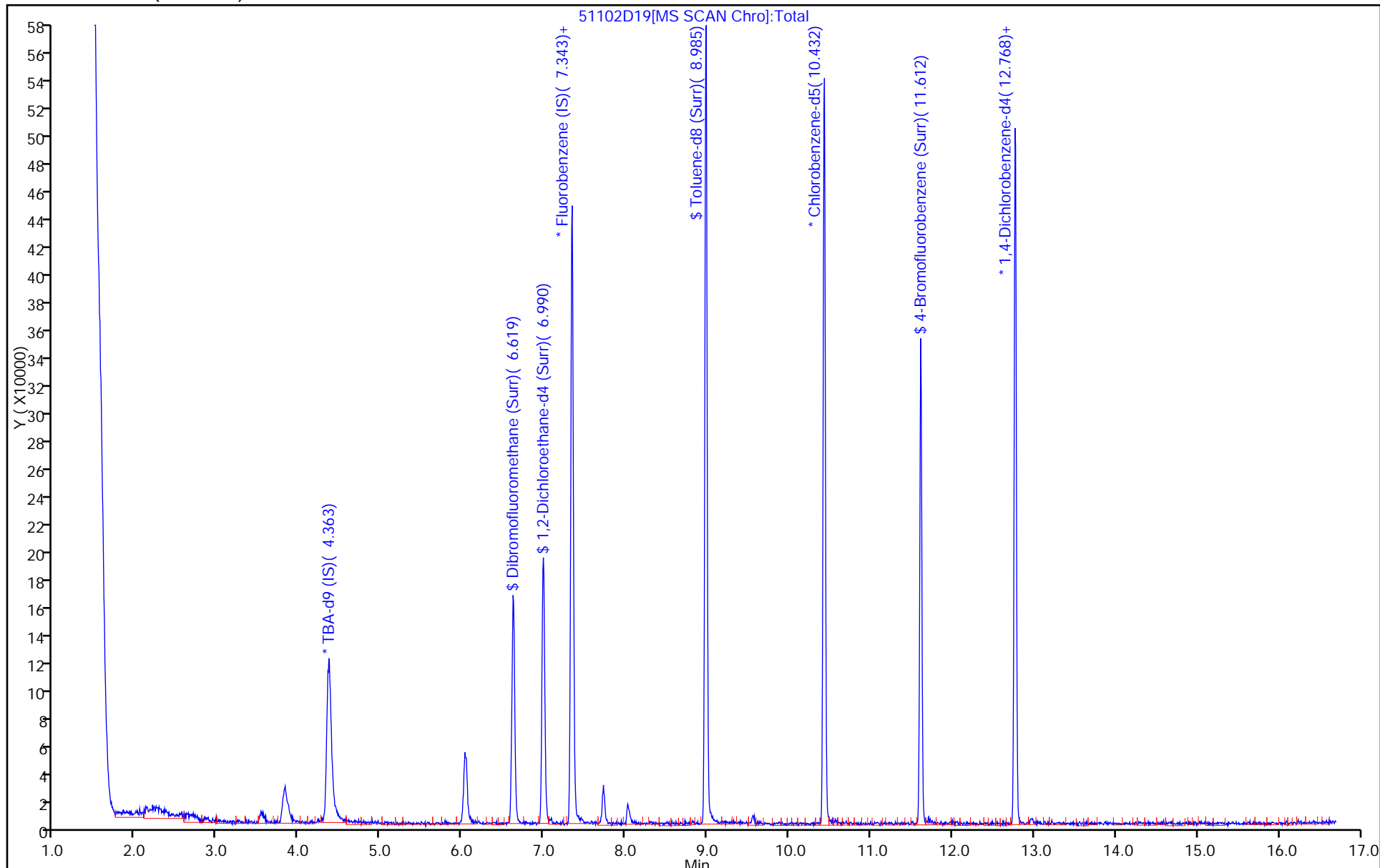
Dil. Factor: 1.0000

ALS Bottle#: 19

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D19.D
 Lims ID: 180-71858-B-5
 Client ID: HD-CW-1-0/1-0
 Sample Type: Client
 Inject. Date: 03-Nov-2017 06:48:30 ALS Bottle#: 19 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-019
 Misc. Info.: 180-71858-B-5
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf Date: 05-Nov-2017 20:02:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	58.0	116.05
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	61.6	123.19
\$ 7 Toluene-d8 (Surr)	50.0	47.4	94.82
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.7	83.35

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D19.D

Injection Date: 03-Nov-2017 06:48:30

Instrument ID: CHHP5

Lims ID: 180-71858-B-5

Lab Sample ID: 180-71858-5

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

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

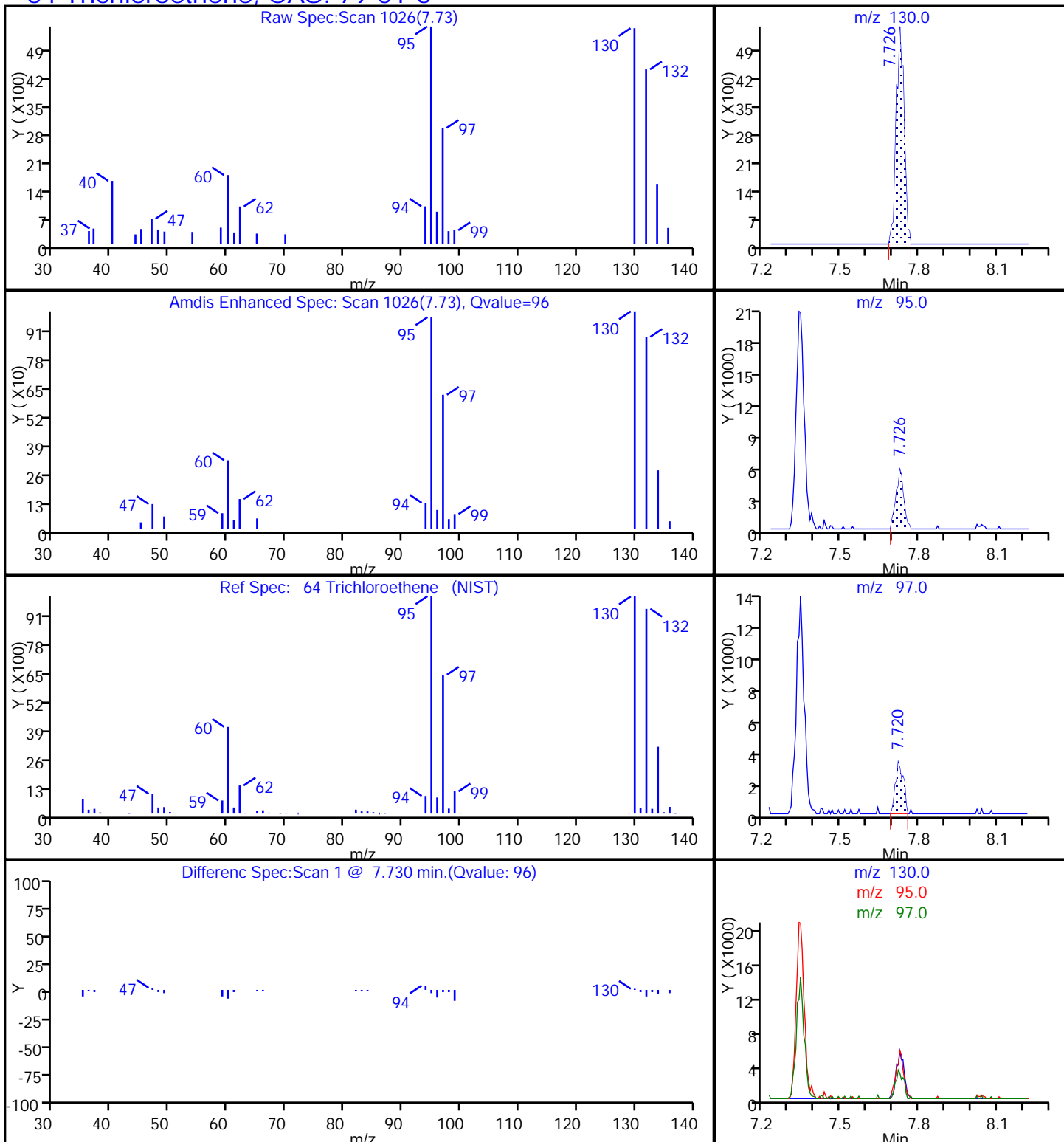
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

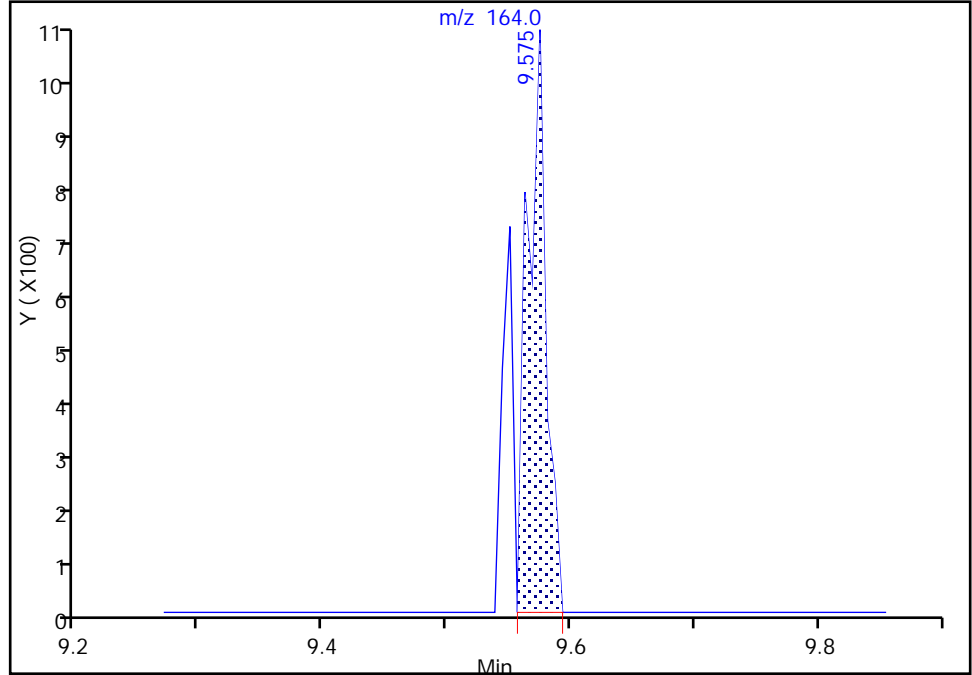
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D19.D
Injection Date: 03-Nov-2017 06:48:30 Instrument ID: CHHP5
Lims ID: 180-71858-B-5 Lab Sample ID: 180-71858-5
Client ID: HD-CW-1-0/1-0
Operator ID: 034635 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4

Signal: 1

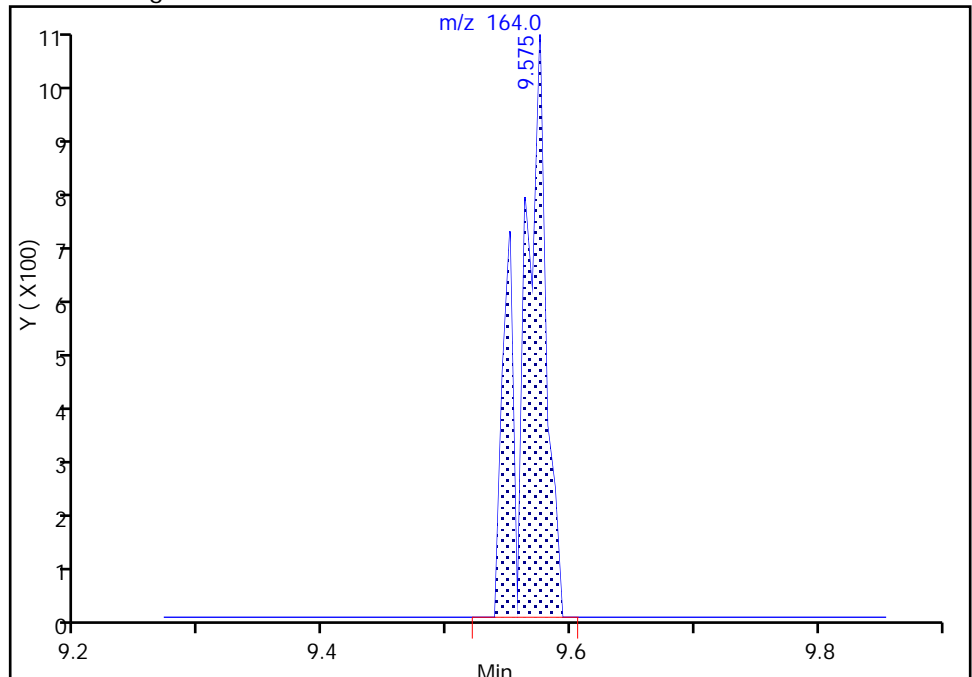
RT: 9.57
Area: 1087
Amount: 0.524645
Amount Units: ng

Processing Integration Results



RT: 9.57
Area: 1503
Amount: 0.725429
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 05-Nov-2017 20:02:31
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-CW-7A-0/1-0 Lab Sample ID: 180-71858-6
 Matrix: Water Lab File ID: 51107D15.D
 Analysis Method: 8260C Date Collected: 10/27/2017 07:50
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 06:40
 Soil Aliquot Vol: _____ Dilution Factor: 2
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U ^c	2.0	1.8
75-01-4	Vinyl chloride	2.0	U ^c	2.0	1.8
74-83-9	Bromomethane	2.0	U	2.0	1.8
75-00-3	Chloroethane	2.0	U	2.0	1.8
75-35-4	1,1-Dichloroethene	2.0	U	2.0	1.1
67-64-1	Acetone	10	U ^c *	10	6.9
75-15-0	Carbon disulfide	2.0	U	2.0	1.8
75-09-2	Methylene Chloride	2.0	U	2.0	0.72
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	1.3
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	1.2
75-34-3	1,1-Dichloroethane	2.0	U	2.0	1.3
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	1.4
74-97-5	Bromochloromethane	2.0	U	2.0	1.3
78-93-3	2-Butanone (MEK)	10	U	10	5.2
67-66-3	Chloroform	2.0	U	2.0	1.2
71-55-6	1,1,1-Trichloroethane	2.0	U	2.0	1.2
56-23-5	Carbon tetrachloride	2.0	U	2.0	1.8
71-43-2	Benzene	2.0	U	2.0	1.2
107-06-2	1,2-Dichloroethane	2.0	U	2.0	1.1
79-01-6	Trichloroethene	52		2.0	1.4
78-87-5	1,2-Dichloropropane	2.0	U	2.0	1.3
75-27-4	Bromodichloromethane	2.0	U	2.0	1.3
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	6.2
108-88-3	Toluene	2.0	U	2.0	0.91
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	1.2
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.91
127-18-4	Tetrachloroethene	3.4		2.0	0.93
591-78-6	2-Hexanone	10	U	10	6.6
124-48-1	Dibromochloromethane	2.0	U	2.0	1.7
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	1.0
108-90-7	Chlorobenzene	2.0	U	2.0	1.0
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	1.1
100-41-4	Ethylbenzene	2.0	U	2.0	1.0
1330-20-7	Xylenes, Total	4.0	U	4.0	1.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-CW-7A-0/1-0 Lab Sample ID: 180-71858-6
 Matrix: Water Lab File ID: 51107D15.D
 Analysis Method: 8260C Date Collected: 10/27/2017 07:50
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 06:40
 Soil Aliquot Vol: _____ Dilution Factor: 2
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	2.0	U	2.0	0.94
75-25-2	Bromoform	2.0	U	2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	1.2
107-13-1	Acrylonitrile	40	U ^c	40	16
123-91-1	1,4-Dioxane	400	U	400	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	87		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D15.D
 Lims ID: 180-71858-A-6
 Client ID: HD-CW-7A-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 06:40:30 ALS Bottle#: 15 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 2.0000
 Sample Info: 180-0019208-015
 Misc. Info.: 180-71858-A-6
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:07:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.366	4.383	-0.017	0	214414	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.338	0.001	98	491375	50.0	M
* 3 Chlorobenzene-d5	119	10.435	10.428	0.007	86	118042	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.769	0.001	97	153264	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.621	0.001	93	122785	51.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	161542	56.0	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	94	434882	46.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.613	-0.005	84	147731	43.5	
12 Chloromethane	50		1.889				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.333				ND	
16 Chloroethane	64		2.431				ND	
22 1,1-Dichloroethene	96		3.428				ND	
24 Acetone	43	3.557	3.537	0.020	67	4670	3.63	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.231				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.638				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96	6.014	6.013	0.002	51	7297	2.33	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.298				ND	
52 Chloroform	83	6.445	6.438	0.007	91	11503	2.42	
53 1,1,1-Trichloroethane	97		6.596				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.729	7.721	0.007	97	391386	130.2	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.080				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.281				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.877				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.553	9.558	-0.005	94	19272	8.59	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.753				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\20171107-19208.b\51107D15.D

Injection Date: 08-Nov-2017 06:40:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-A-6

Lab Sample ID: 180-71858-6

Worklist Smp#: 15

Client ID: HD-CW-7A-0/1-0

Purge Vol: 5.000 mL

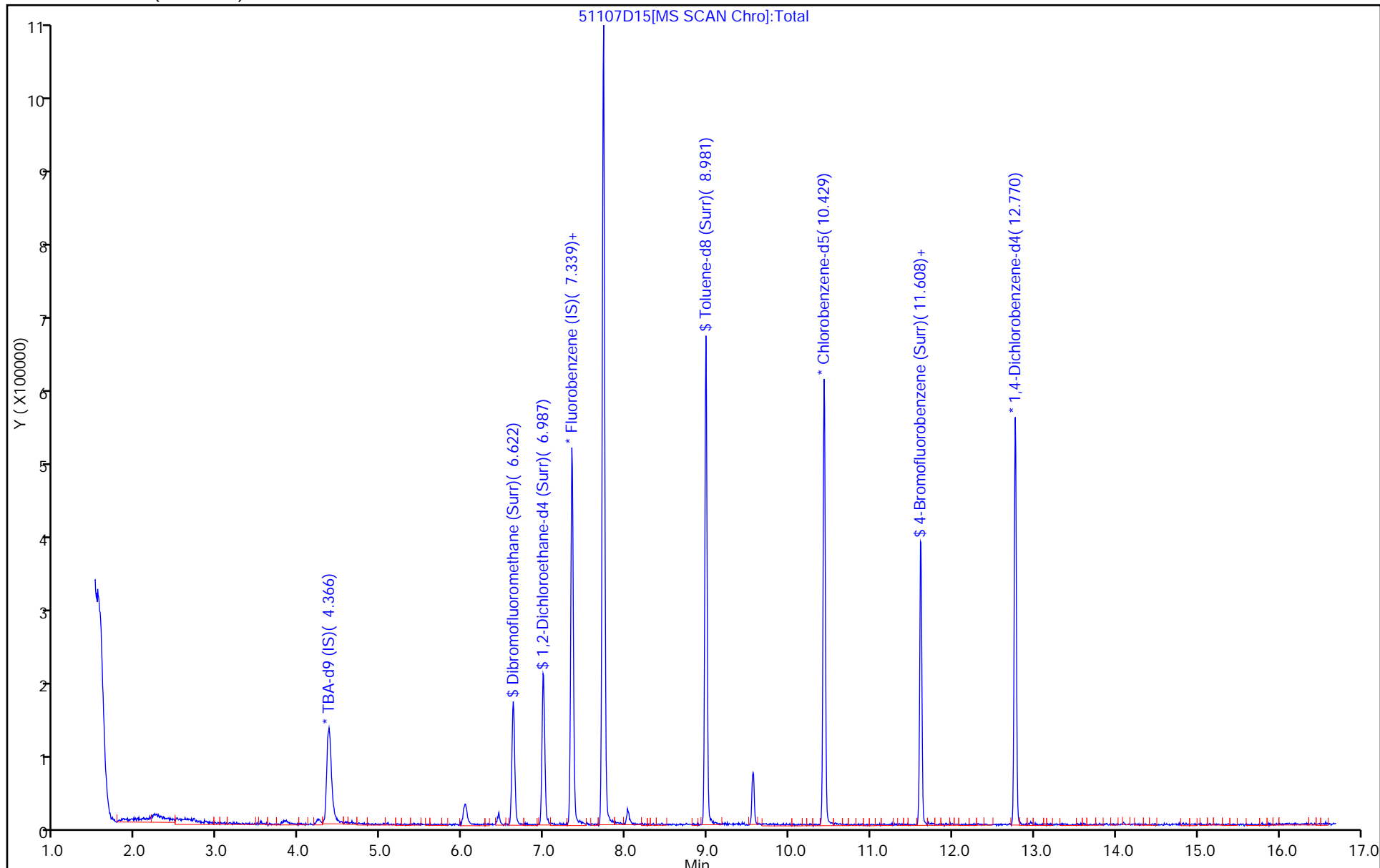
Dil. Factor: 2.0000

ALS Bottle#: 15

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D15.D
 Lims ID: 180-71858-A-6
 Client ID: HD-CW-7A-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 06:40:30 ALS Bottle#: 15 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 2.0000
 Sample Info: 180-0019208-015
 Misc. Info.: 180-71858-A-6
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:07:26

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.9	103.87
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.0	112.04
\$ 7 Toluene-d8 (Surr)	50.0	46.3	92.58
\$ 8 4-Bromofluorobenzene (Surr)	50.0	43.5	87.08

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D15.D

Injection Date: 08-Nov-2017 06:40:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-6

Lab Sample ID: 180-71858-6

Client ID: HD-CW-7A-0/1-0

Operator ID: 034635

ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 2.0000

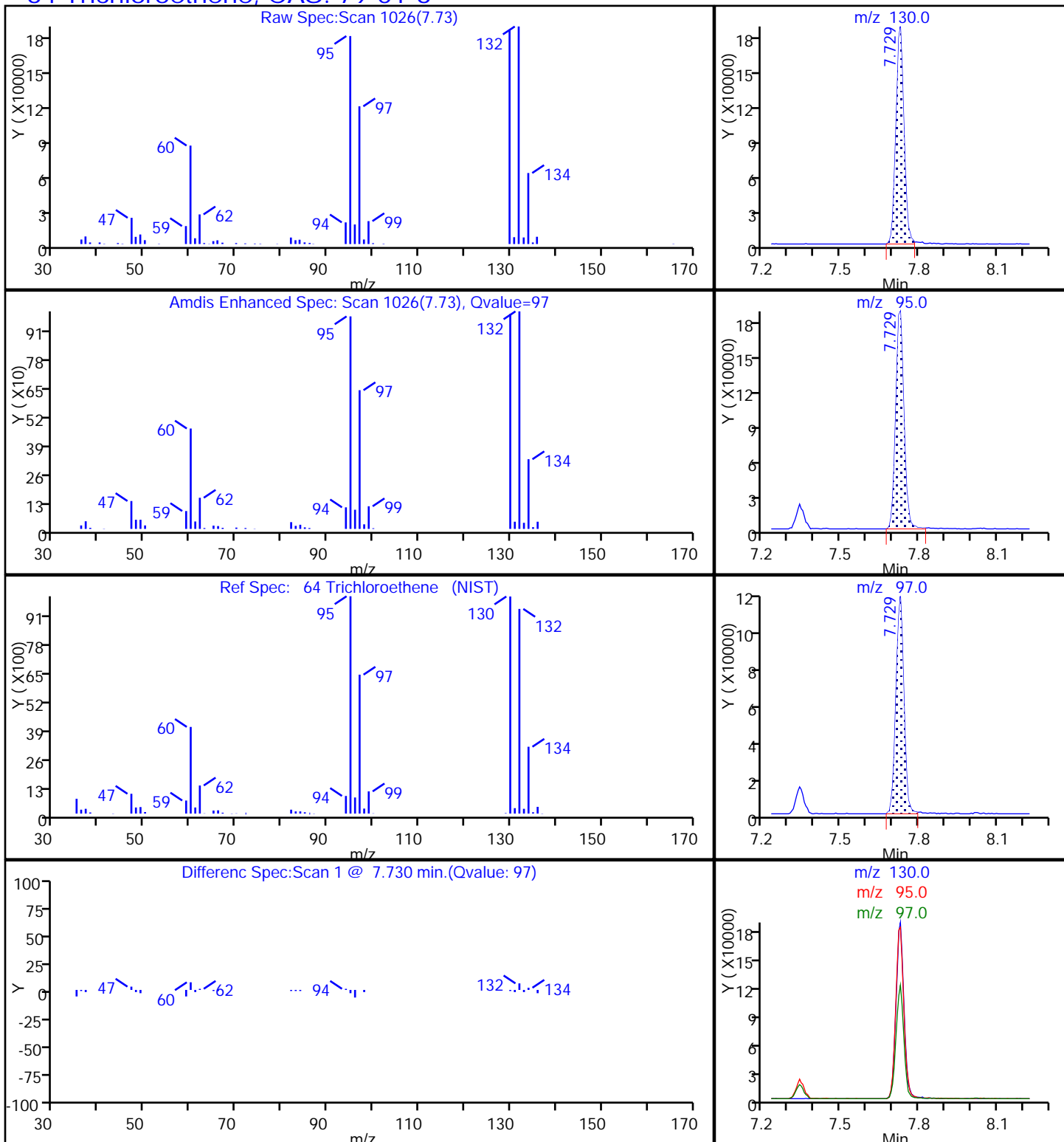
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D15.D

Injection Date: 08-Nov-2017 06:40:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-6

Lab Sample ID: 180-71858-6

Client ID: HD-CW-7A-0/1-0

Operator ID: 034635

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 2.0000

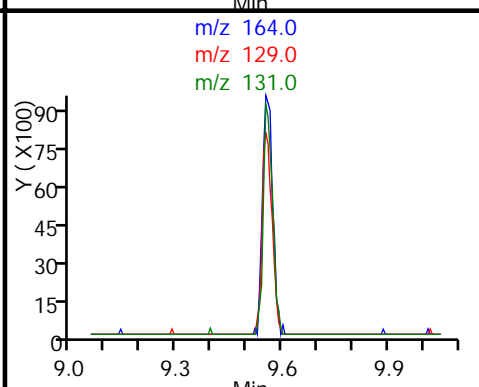
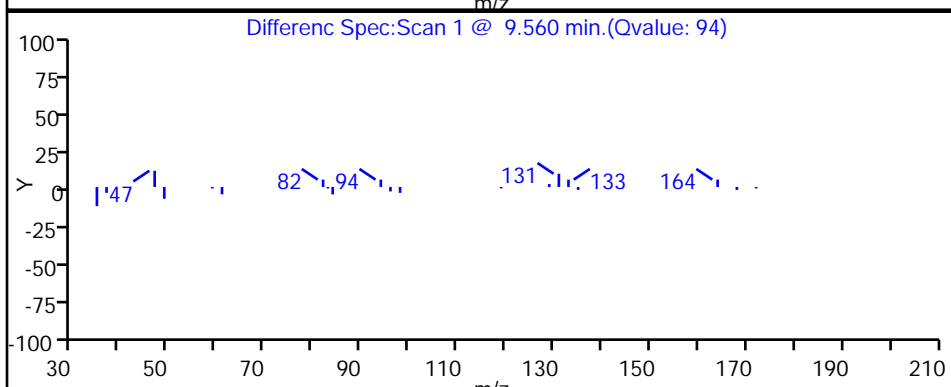
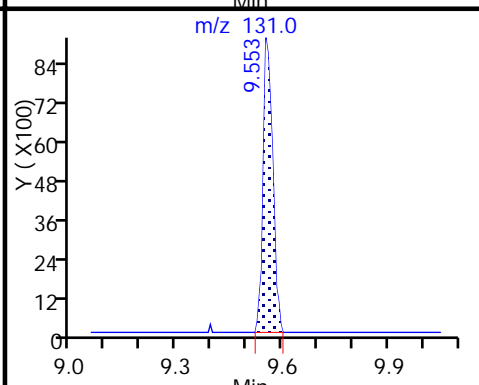
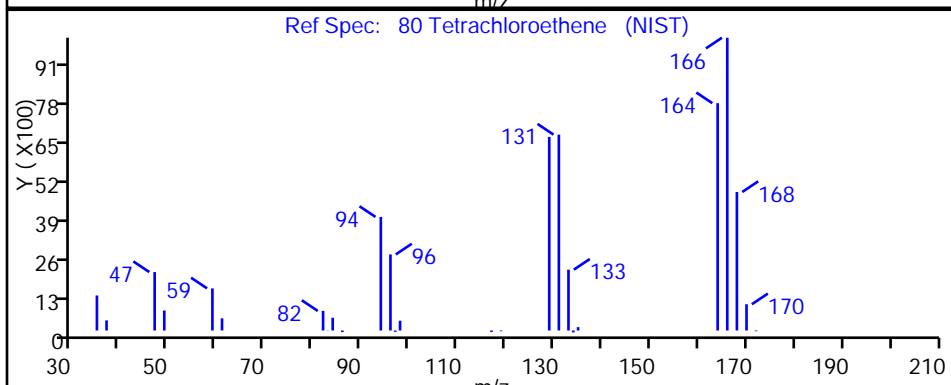
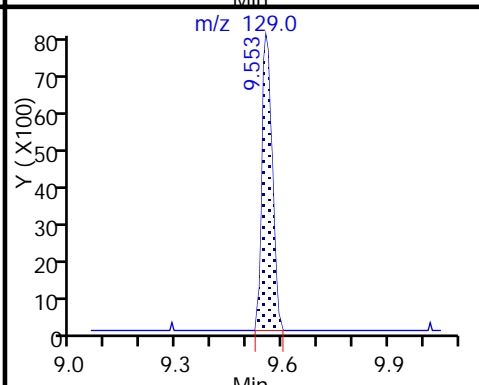
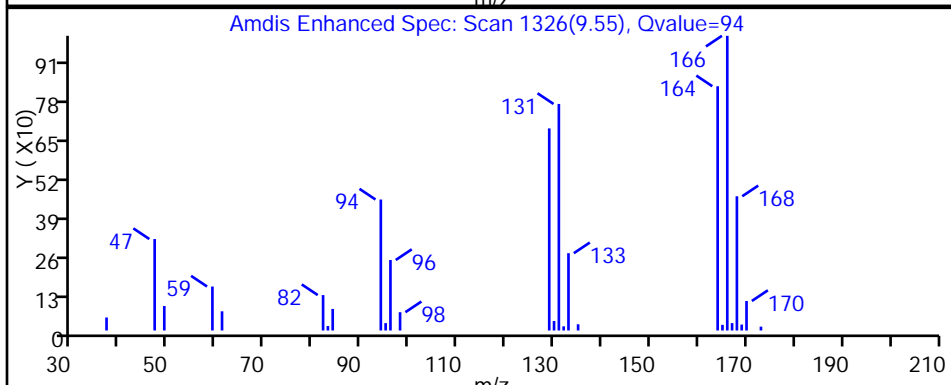
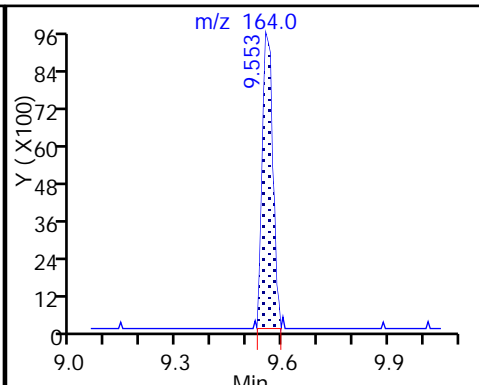
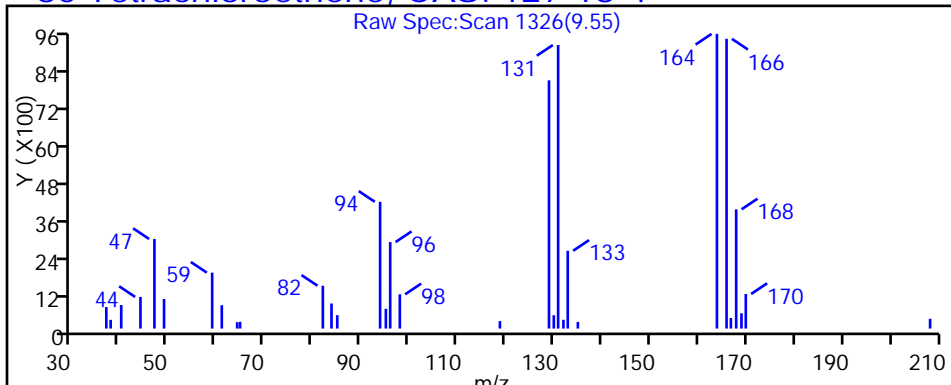
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

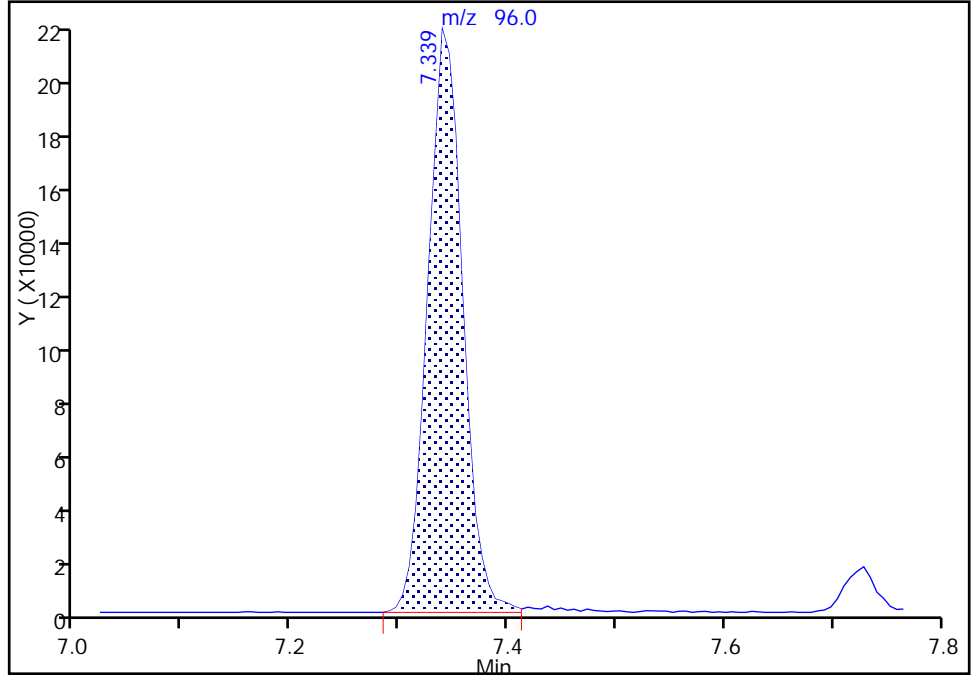
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D15.D
Injection Date: 08-Nov-2017 06:40:30 Instrument ID: CHHP5
Lims ID: 180-71858-A-6 Lab Sample ID: 180-71858-6
Client ID: HD-CW-7A-0/1-0
Operator ID: 034635 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

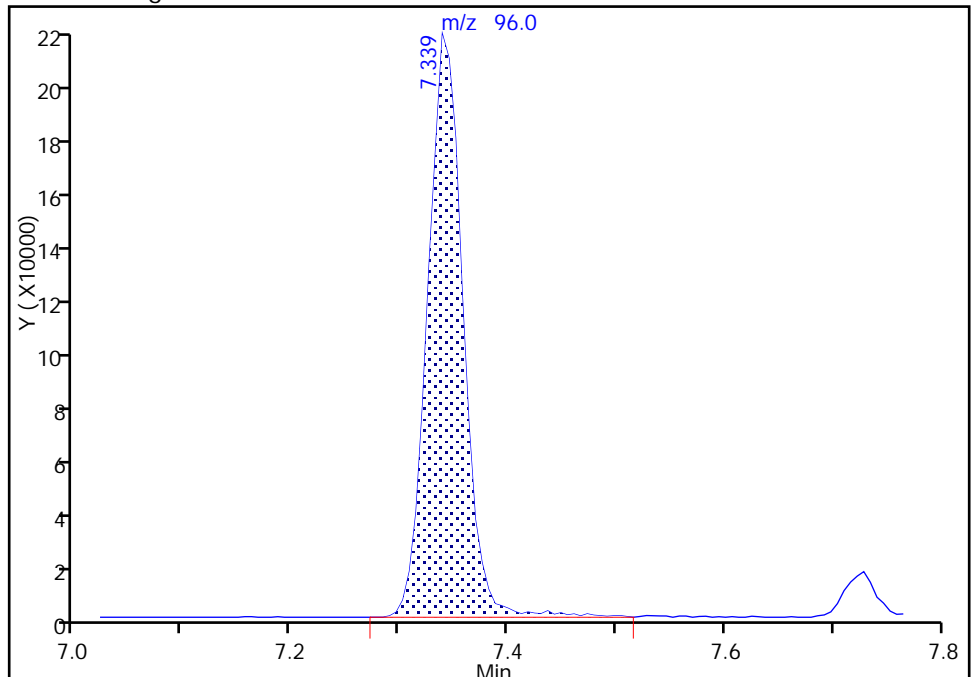
RT: 7.34
Area: 485547
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 491375
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 18:09:36
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-QC6-0/1-2 Lab Sample ID: 180-71858-7
 Matrix: Water Lab File ID: 51102D20.D
 Analysis Method: 8260C Date Collected: 10/27/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 07:12
 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.: 227871 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 ^c	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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-QC6-0/1-2 Lab Sample ID: 180-71858-7
 Matrix: Water Lab File ID: 51102D20.D
 Analysis Method: 8260C Date Collected: 10/27/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 07:12
 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.: 227871 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	126	X	65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	85		80-120
1868-53-7	Dibromofluoromethane (Surr)	112		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D20.D
 Lims ID: 180-71858-B-7
 Client ID: HD-QC6-0/1-2
 Sample Type: Client
 Inject. Date: 03-Nov-2017 07:12:30 ALS Bottle#: 20 Worklist Smp#: 20
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-020
 Misc. Info.: 180-71858-B-7
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 05-Nov-2017 20:03:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.357	4.388	-0.031	0	180735	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.337	0.006	99	443568	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	86	105678	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.768	0.006	97	144744	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.620	0.000	92	119176	55.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.991	0.000	0	164521	63.2	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	94	399854	47.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	85	128405	42.3	
12 Chloromethane	50		1.888				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.332				ND	
16 Chloroethane	64		2.430				ND	
22 1,1-Dichloroethene	96		3.427				ND	
24 Acetone	43	3.561	3.536	0.025	78	8741	7.54	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.236				ND	
33 Acrylonitrile	53		4.619				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.668				ND	
37 1,1-Dichloroethane	63		5.276				ND	
45 cis-1,2-Dichloroethene	96		6.012				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83		6.437				ND	M
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.772				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130		7.727				ND	
67 1,2-Dichloropropane	63		8.000				ND	
70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.274				ND	
74 cis-1,3-Dichloropropene	75		8.724				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.046				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164		9.557				ND	
82 2-Hexanone	43		9.703				ND	
84 Chlorodibromomethane	129		9.855				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.554				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_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\20171102-19153.b\51102D20.D

Injection Date: 03-Nov-2017 07:12:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-B-7

Lab Sample ID: 180-71858-7

Worklist Smp#: 20

Client ID: HD-QC6-0/1-2

Purge Vol: 5.000 mL

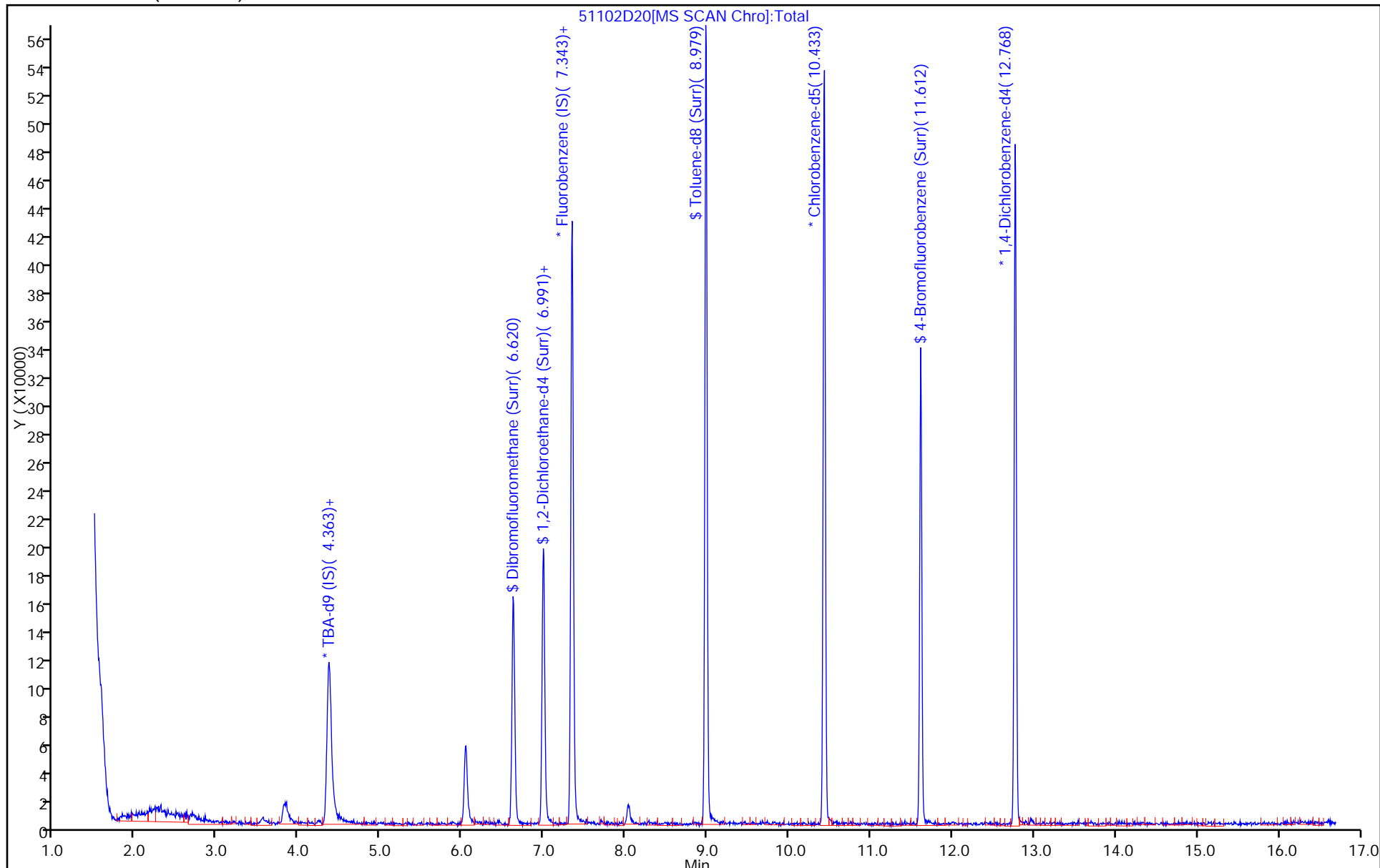
Dil. Factor: 1.0000

ALS Bottle#: 20

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D20.D
 Lims ID: 180-71858-B-7
 Client ID: HD-QC6-0/1-2
 Sample Type: Client
 Inject. Date: 03-Nov-2017 07:12:30 ALS Bottle#: 20 Worklist Smp#: 20
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-020
 Misc. Info.: 180-71858-B-7
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf Date: 05-Nov-2017 20:03:30

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	55.8	111.68
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	63.2	126.41
\$ 7 Toluene-d8 (Surr)	50.0	47.5	95.08
\$ 8 4-Bromofluorobenzene (Surr)	50.0	42.3	84.54

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-B-0/1-0 Lab Sample ID: 180-71858-8
 Matrix: Water Lab File ID: 51105D10.D
 Analysis Method: 8260C Date Collected: 10/27/2017 10:10
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 04:37
 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.: 228044 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 ^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	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.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-B-0/1-0 Lab Sample ID: 180-71858-8
 Matrix: Water Lab File ID: 51105D10.D
 Analysis Method: 8260C Date Collected: 10/27/2017 10:10
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 04:37
 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.: 228044 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)	117		65-121
2037-26-5	Toluene-d8 (Surr)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	111		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D10.D
 Lims ID: 180-71858-C-8
 Client ID: HD-COLE-B-0/1-0
 Sample Type: Client
 Inject. Date: 06-Nov-2017 04:37:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-010
 Misc. Info.: 180-71858-C-8
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 20:18:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.376	-0.011	0	221918	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.344	0.000	99	518258	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	83	123659	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.768	0.001	97	181417	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.620	0.001	93	138476	55.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.992	6.991	0.001	0	178581	58.7	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	95	451232	45.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	85	158801	44.7	
12 Chloromethane	50		1.895				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.375				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.434				ND	
24 Acetone	43	3.550	3.531	0.019	81	10476	7.73	
26 Carbon disulfide	76		3.719				ND	
31 Methylene Chloride	84		4.236				ND	
33 Acrylonitrile	53		4.619				ND	
34 trans-1,2-Dichloroethene	96		4.644				ND	
35 Methyl tert-butyl ether	73		4.662				ND	
37 1,1-Dichloroethane	63		5.282				ND	
45 cis-1,2-Dichloroethene	96		6.018				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.298				ND	
52 Chloroform	83		6.444				ND	
53 1,1,1-Trichloroethane	97		6.602				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				ND	
67 1,2-Dichloropropane	63		8.001				ND	
70 1,4-Dioxane	88		8.086				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.274				ND	
74 cis-1,3-Dichloropropene	75		8.724				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91	9.041	9.053	-0.012	50	5011	0.4064	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164		9.563				ND	
82 2-Hexanone	43		9.703				ND	
84 Chlorodibromomethane	129		9.861				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.464				ND	
89 1,1,1,2-Tetrachloroethane	131		10.555				ND	
90 Ethylbenzene	106		10.561				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.747				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\20171105-19180.b\51105D10.D

Injection Date: 06-Nov-2017 04:37:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-C-8

Lab Sample ID: 180-71858-8

Worklist Smp#: 10

Client ID: HD-COLE-B-0/1-0

Purge Vol: 5.000 mL

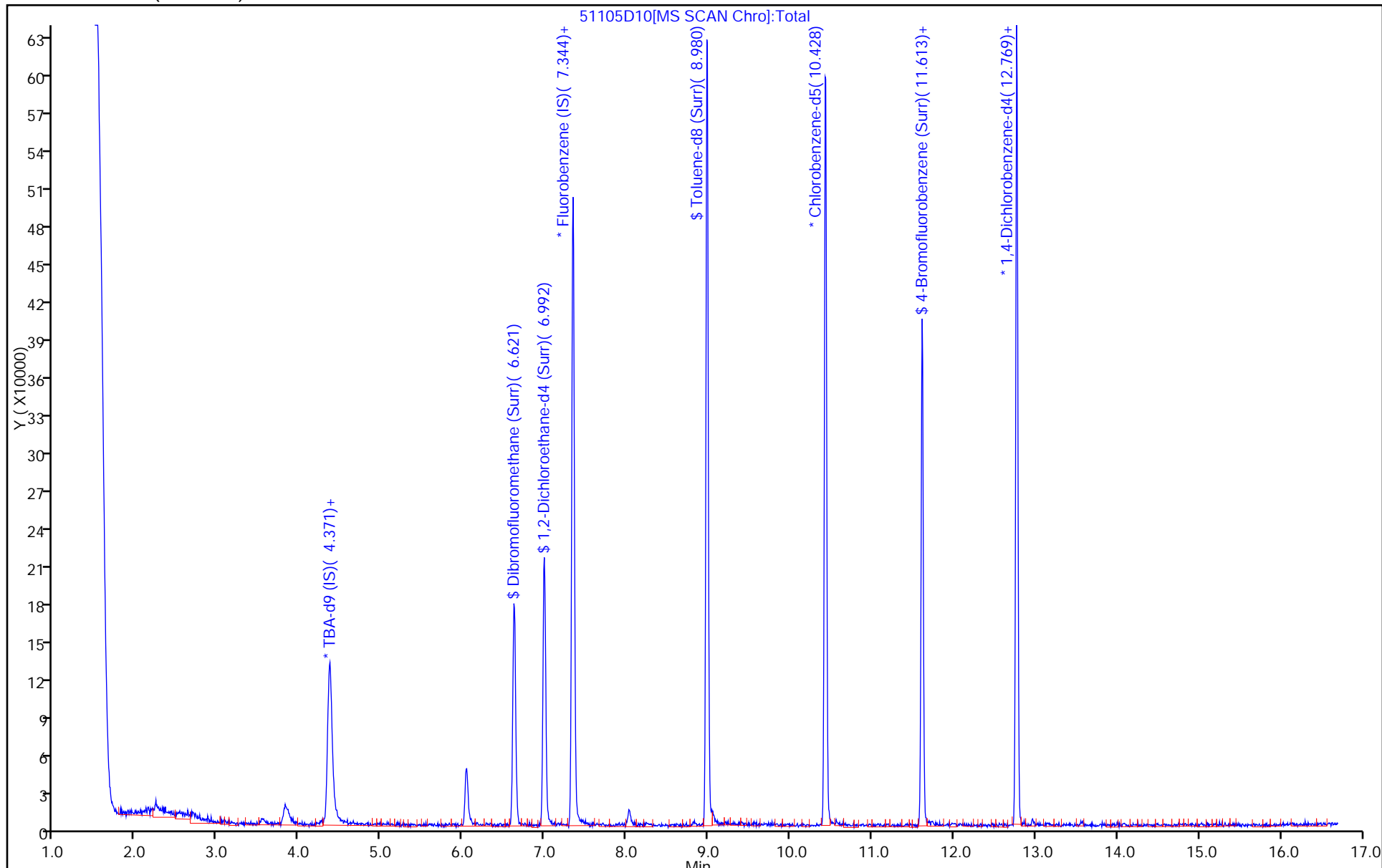
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D10.D
 Lims ID: 180-71858-C-8
 Client ID: HD-COLE-B-0/1-0
 Sample Type: Client
 Inject. Date: 06-Nov-2017 04:37:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-010
 Misc. Info.: 180-71858-C-8
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 20:18:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	55.5	111.07
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.7	117.44
\$ 7 Toluene-d8 (Surr)	50.0	45.8	91.70
\$ 8 4-Bromofluorobenzene (Surr)	50.0	44.7	89.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-D-0/1-0 Lab Sample ID: 180-71858-9
 Matrix: Water Lab File ID: 51107D16.D
 Analysis Method: 8260C Date Collected: 10/27/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 07:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 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 ^c	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	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	0.75	J	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	20		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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-D-0/1-0 Lab Sample ID: 180-71858-9
 Matrix: Water Lab File ID: 51107D16.D
 Analysis Method: 8260C Date Collected: 10/27/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 07:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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 ^c	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)	115		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)	110		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D16.D
 Lims ID: 180-71858-A-9
 Client ID: HD-COLE-D-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 07:04:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-016
 Misc. Info.: 180-71858-A-9
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

First Level Reviewer: bungardf

Date: 08-Nov-2017 18:08:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.383	-0.025	0	211161	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.338	0.000	98	473914	50.0	M
* 3 Chlorobenzene-d5	119	10.433	10.428	0.005	87	112487	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.769	-0.001	97	153111	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.621	-0.001	92	125204	54.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.997	6.986	0.011	0	159431	57.3	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	94	402920	45.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	85	134542	41.6	
12 Chloromethane	50		1.889				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.333				ND	
16 Chloroethane	64		2.431				ND	
22 1,1-Dichloroethene	96		3.428				ND	
24 Acetone	43	3.537	3.537	0.000	77	7191	5.80	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.231				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.638				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
37 1,1-Dichloroethane	63		5.271				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.298				ND	
52 Chloroform	83	6.438	6.438	0.000	91	4810	1.05	
53 1,1,1-Trichloroethane	97		6.596				ND	
56 Carbon tetrachloride	117		6.767				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.727	7.721	0.006	97	10872	3.75	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.080				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.281				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.877				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.557	9.558	-0.001	95	217974	101.9	
82 2-Hexanone	43		9.704				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.753				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\20171107-19208.b\51107D16.D

Injection Date: 08-Nov-2017 07:04:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-A-9

Lab Sample ID: 180-71858-9

Worklist Smp#: 16

Client ID: HD-COLE-D-0/1-0

Purge Vol: 5.000 mL

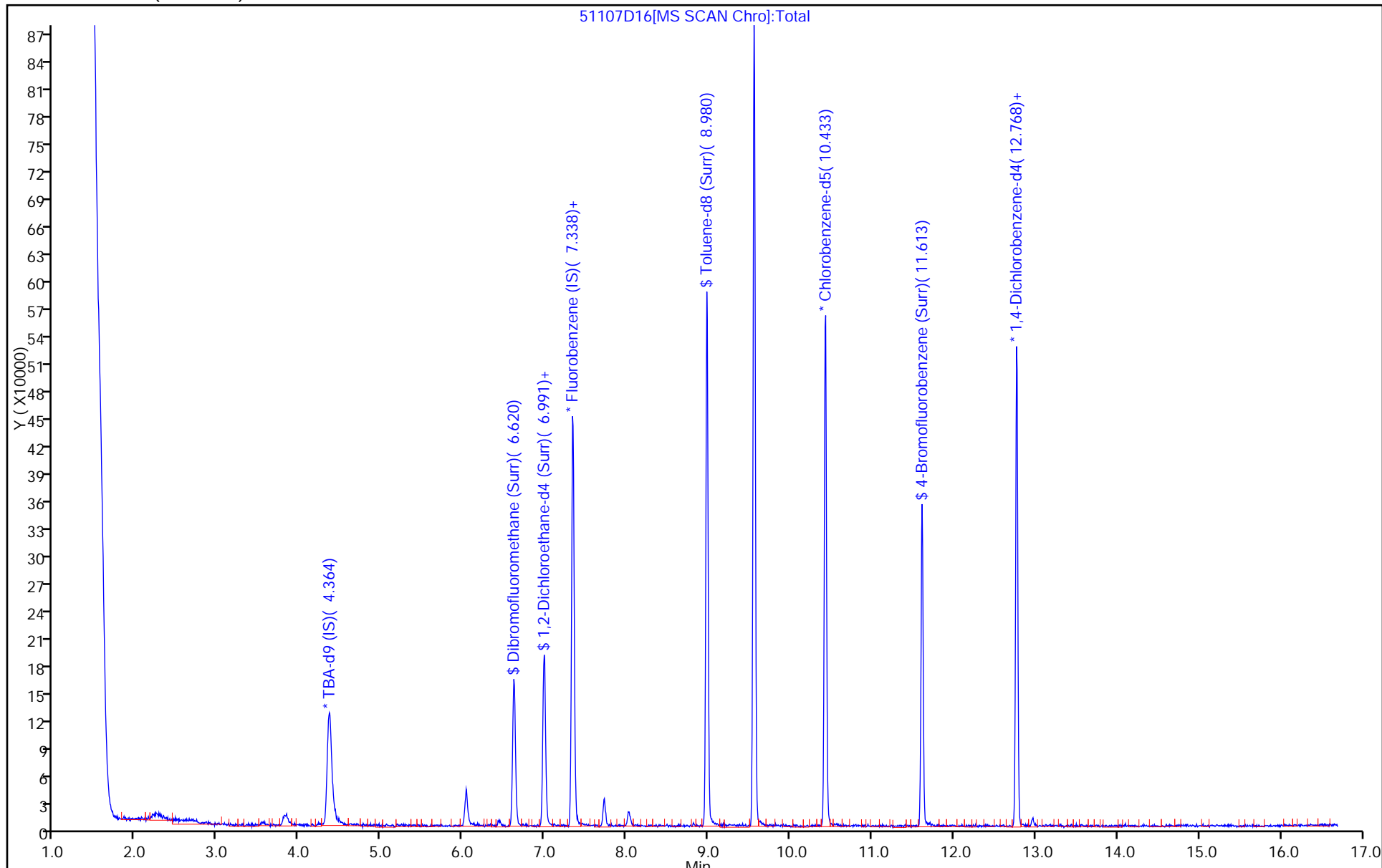
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D16.D
 Lims ID: 180-71858-A-9
 Client ID: HD-COLE-D-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 07:04:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-016
 Misc. Info.: 180-71858-A-9
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 18:15:11 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: XAWRK024

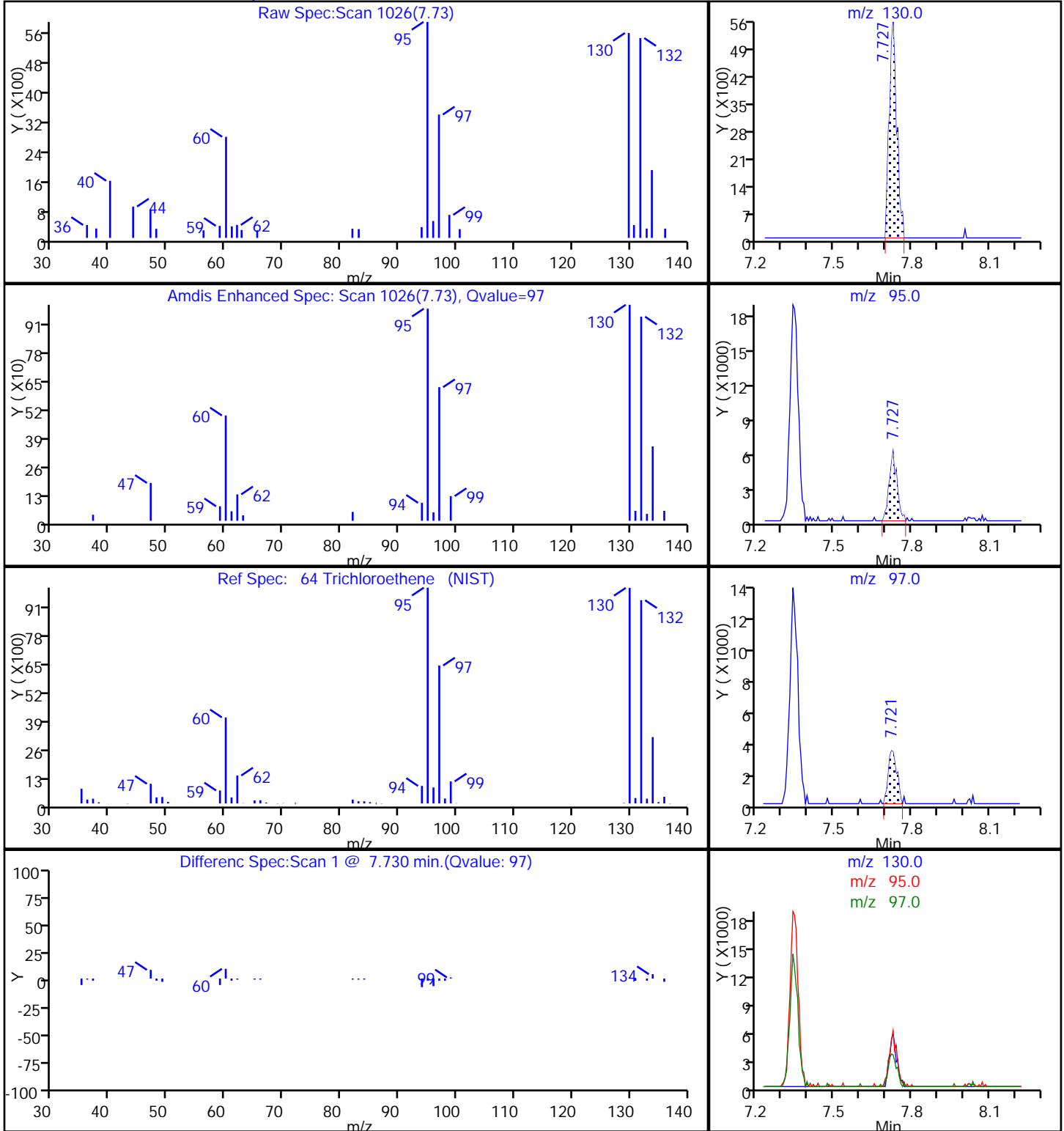
First Level Reviewer: bungardf Date: 08-Nov-2017 18:08:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	54.9	109.82
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	57.3	114.65
\$ 7 Toluene-d8 (Surr)	50.0	45.0	90.01
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.6	83.22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D16.D
Injection Date: 08-Nov-2017 07:04:30 Instrument ID: CHHP5
Lims ID: 180-71858-A-9 Lab Sample ID: 180-71858-9
Client ID: HD-COLE-D-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\20171107-19208.b\51107D16.D

Injection Date: 08-Nov-2017 07:04:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-9

Lab Sample ID: 180-71858-9

Client ID: HD-COLE-D-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

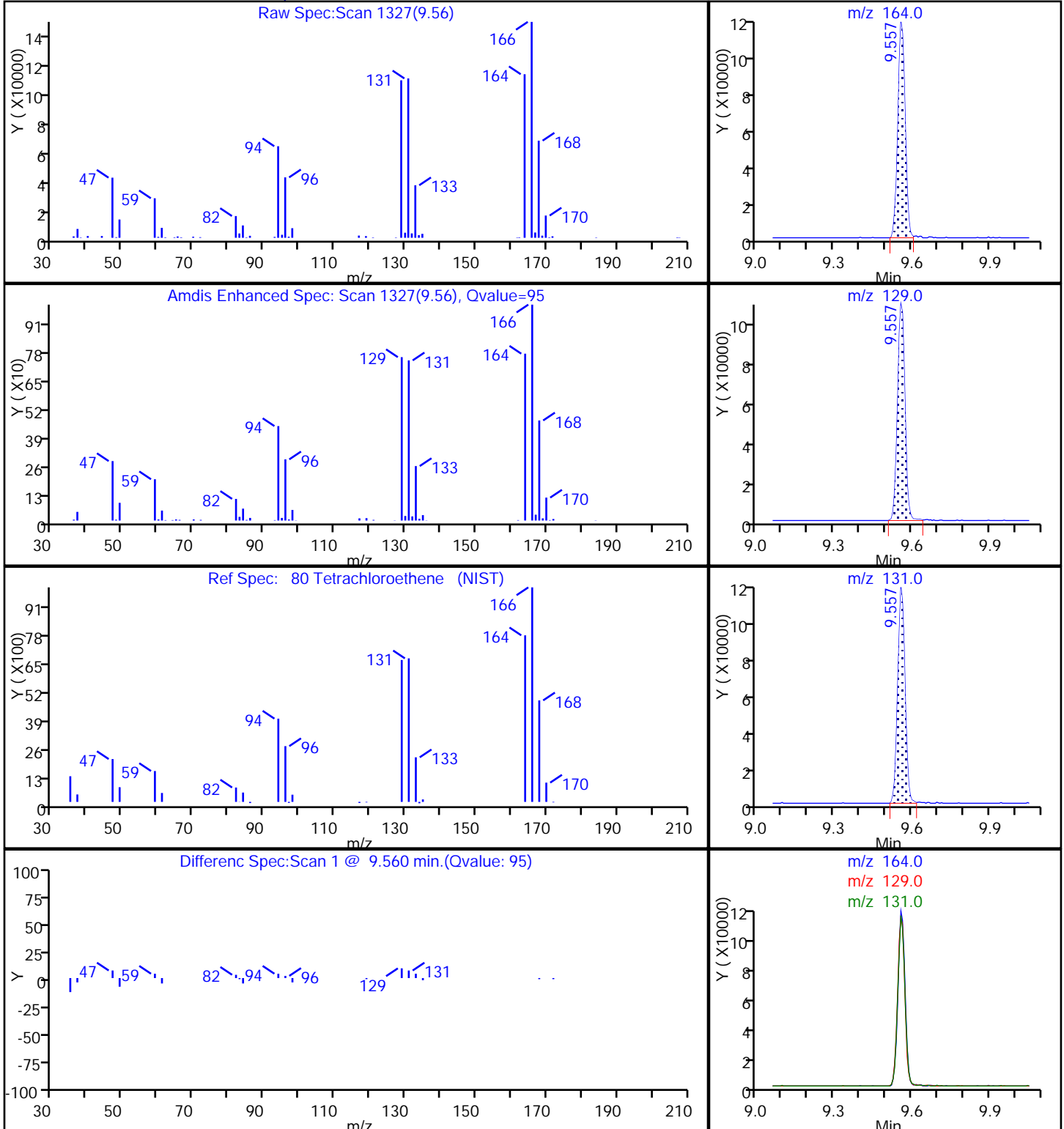
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

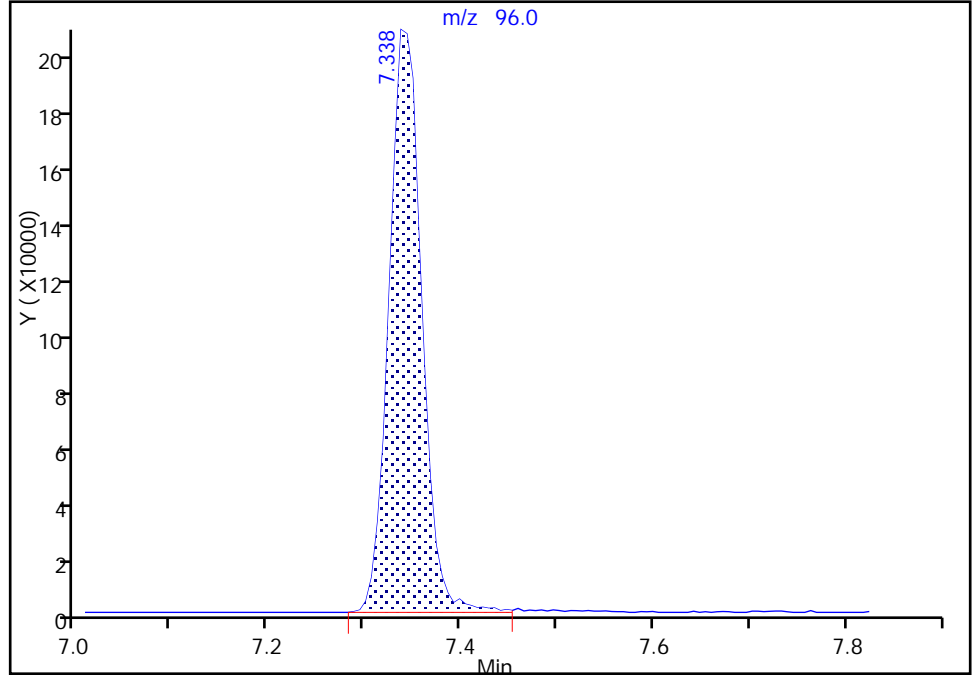
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Injection Date: 08-Nov-2017 07:04:30 Instrument ID: CHHP5
Lims ID: 180-71858-A-9 Lab Sample ID: 180-71858-9
Client ID: HD-COLE-D-0/1-0
Operator ID: 034635 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

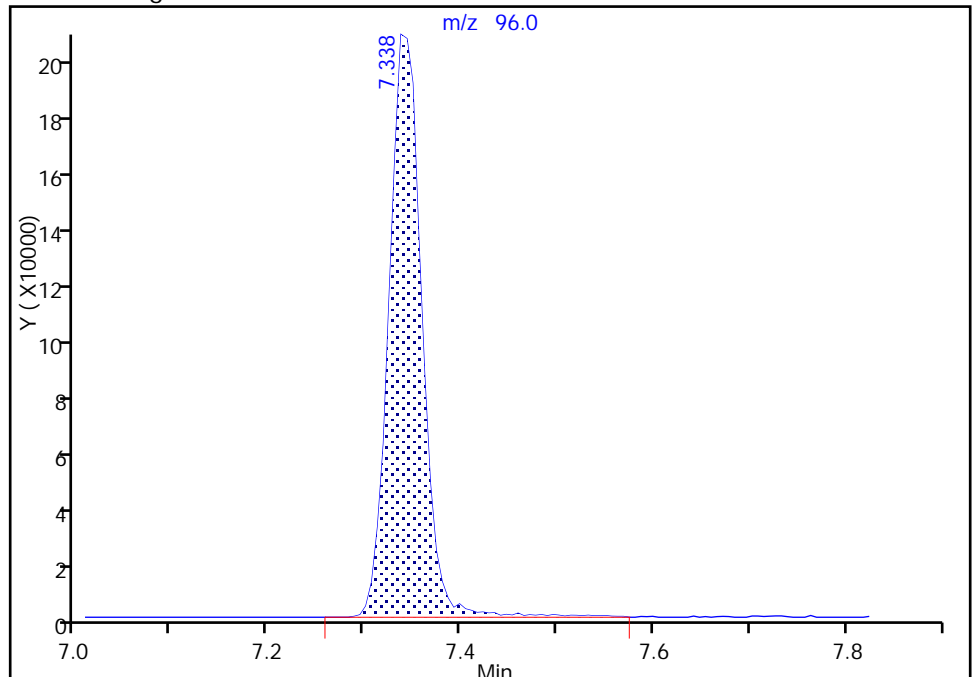
RT: 7.34
Area: 469952
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 473914
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 18:09:20
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-F-0/1-0 Lab Sample ID: 180-71858-10
 Matrix: Water Lab File ID: 51107D06.D
 Analysis Method: 8260C Date Collected: 10/27/2017 11:05
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 03:02
 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.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U F1 ^c	1.0	0.90
75-01-4	Vinyl chloride	1.0	U ^c	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	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	5.0	F1	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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-F-0/1-0 Lab Sample ID: 180-71858-10
 Matrix: Water Lab File ID: 51107D06.D
 Analysis Method: 8260C Date Collected: 10/27/2017 11:05
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 03:02
 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.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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 ^c	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)	102		65-121
2037-26-5	Toluene-d8 (Surr)	108		73-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	118		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D06.D
 Lims ID: 180-71858-A-10
 Client ID: HD-COLE-F-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 03:02:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-006
 Misc. Info.: 180-71858-A-10
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 08:55:00 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: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 03:33:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.383	-0.019	0	187612	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.338	0.005	98	438770	50.0	M
* 3 Chlorobenzene-d5	119	10.433	10.428	0.005	85	108600	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.769	0.005	95	159201	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.621	-0.001	93	124946	59.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.986	0.005	0	131566	51.1	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.980	-0.001	93	466123	53.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	-0.001	88	139110	44.6	
11 Dichlorodifluoromethane	85		1.683				ND	
12 Chloromethane	50		1.889				ND	
14 Butadiene	39		2.011				ND	
13 Vinyl chloride	62		2.017				ND	
15 Bromomethane	94		2.333				ND	
16 Chloroethane	64		2.431				ND	
17 Dichlorofluoromethane	67		2.759				ND	
18 Trichlorofluoromethane	101		2.802				ND	
19 Ethanol	45		2.821				ND	
20 Ethyl ether	59		3.136				ND	
21 Acrolein	56		3.312				ND	
22 1,1-Dichloroethene	96		3.428				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.501				ND	
24 Acetone	43	3.543	3.537	0.006	72	6629	5.78	
25 Iodomethane	142		3.610				ND	
26 Carbon disulfide	76		3.708				ND	
27 Isopropyl alcohol	45	3.816	3.816	0.000	98	80201	466.9	
29 Acetonitrile	41		3.981				ND	
28 3-Chloro-1-propene	76		4.006				ND	
30 Methyl acetate	43		4.036				ND	
31 Methylene Chloride	84		4.231				ND	
32 2-Methyl-2-propanol	59		4.510				ND	
33 Acrylonitrile	53		4.608				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.638				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
36 Hexane	57		5.052				ND	
37 1,1-Dichloroethane	63		5.271				ND	
38 Vinyl acetate	43		5.319				ND	
39 2-Chloro-1,3-butadiene	53		5.367				ND	
41 Isopropyl ether	45		5.367				ND	
40 Isopropyl ether TIC	45		5.410				ND	
42 Tert-butyl ethyl ether	59		5.835				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
44 2,2-Dichloropropane	97		6.006				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.025				ND	
48 Ethyl acetate	43		6.097				ND	
47 Propionitrile	54		6.103				ND	
50 Methacrylonitrile	41		6.273				ND	
49 Chlorobromomethane	128		6.298				ND	
51 Tetrahydrofuran	42		6.310				ND	
52 Chloroform	83	6.431	6.438	-0.007	19	1169	0.2751	
53 1,1,1-Trichloroethane	97		6.596				ND	
54 Cyclohexane	56		6.657				ND	
56 Carbon tetrachloride	117		6.767				ND	
55 1,1-Dichloropropene	75		6.779				ND	
57 Isobutyl alcohol	41		6.986				ND	
58 Benzene	78		6.998				ND	
59 1,2-Dichloroethane	62		7.071				ND	
151 Isooctane	57		7.149				ND	
61 Tert-amyl methyl ether	73		7.173				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.350				ND	
63 n-Butanol	56		7.684				ND	
64 Trichloroethene	130	7.727	7.721	0.006	91	4451	1.66	
65 Ethyl acrylate	55		7.848				ND	
66 Methylcyclohexane	83		7.959				ND	
67 1,2-Dichloropropane	63		7.995				ND	
70 1,4-Dioxane	88		8.080				ND	
69 Methyl methacrylate	69		8.086				ND	
68 Dibromomethane	93		8.086				ND	
71 Dichlorobromomethane	83		8.281				ND	
73 2-Chloroethyl vinyl ether	63		8.579				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.877				ND	
76 Toluene	91		9.047				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
78 Ethyl methacrylate	69		9.357				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.557	9.558	-0.001	96	52036	25.2	
81 1,3-Dichloropropane	76		9.649				ND	
82 2-Hexanone	43		9.704				ND	
83 n-Butyl acetate	43		9.825				ND	
84 Chlorodibromomethane	129		9.856				ND	
85 Ethylene Dibromide	107		9.971				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.434				ND	
87 Chlorobenzene	112		10.458				ND	
88 4-Chlorobenzotrifluoride	180		10.519				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
95 Cyclohexanol	57		11.288				ND	
96 2-Chlorobenzotrifluoride	180		11.346				ND	
97 Isopropylbenzene	105		11.437				ND	
98 Cyclohexanone	55		11.528				ND	
99 1,1,2,2-Tetrachloroethane	83		11.753				ND	
100 Bromobenzene	156		11.753				ND	
102 trans-1,4-Dichloro-2-buten	53		11.790				ND	
101 1,2,3-Trichloropropane	110		11.802				ND	
103 N-Propylbenzene	120		11.857				ND	
104 2-Chlorotoluene	126		11.936				ND	
105 3-Chlorotoluene	126		12.003				ND	
106 1,3,5-Trimethylbenzene	105		12.033				ND	
107 4-Chlorotoluene	126		12.063				ND	
108 tert-Butylbenzene	119		12.349				ND	
110 1,2,4-Trimethylbenzene	105		12.410				ND	
111 1,2-dichloro-4-(trifluorom	214		12.453				ND	
112 sec-Butylbenzene	105		12.574				ND	
113 1,3-Dichlorobenzene	146		12.696				ND	
114 4-Isopropyltoluene	119		12.726				ND	
115 1,4-Dichlorobenzene	146		12.793				ND	
117 1,2,3-Trimethylbenzene	105		12.823				ND	
116 2,4-Dichloro-1-(triflourom	214		12.824				ND	
118 2,5-Dichlorobenzotrifluori	214		12.866				ND	
119 Benzyl chloride	91		12.908				ND	
120 n-Butylbenzene	91		13.134				ND	
121 1,2-Dichlorobenzene	146		13.152				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.943				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.082				ND	
124 1,3,5-Trichlorobenzene	180		14.130				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.502				ND	
126 1,2,4-Trichlorobenzene	180		14.764				ND	
127 Hexachlorobutadiene	225		14.910				ND	
128 Naphthalene	128		15.031				ND	
129 1,2,3-Trichlorobenzene	180		15.256				ND	
131 2,4,5-Trichlorotoluene	159		16.028				ND	
130 2,3,6-Trichlorotoluene	159		16.126				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
S 154 Total BTEX	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96		1.000				ND	
S 133 Xylenes, Total	106		1.000				ND	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000				ND	
T 153 1,2 Epoxybutane TIC	42		6.253				ND	
T 137 Tetrahydrofuran TIC	42		6.253				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\20171107-19208.b\51107D06.D

Injection Date: 08-Nov-2017 03:02:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-A-10

Lab Sample ID: 180-71858-10

Worklist Smp#: 6

Client ID: HD-COLE-F-0/1-0

Purge Vol: 5.000 mL

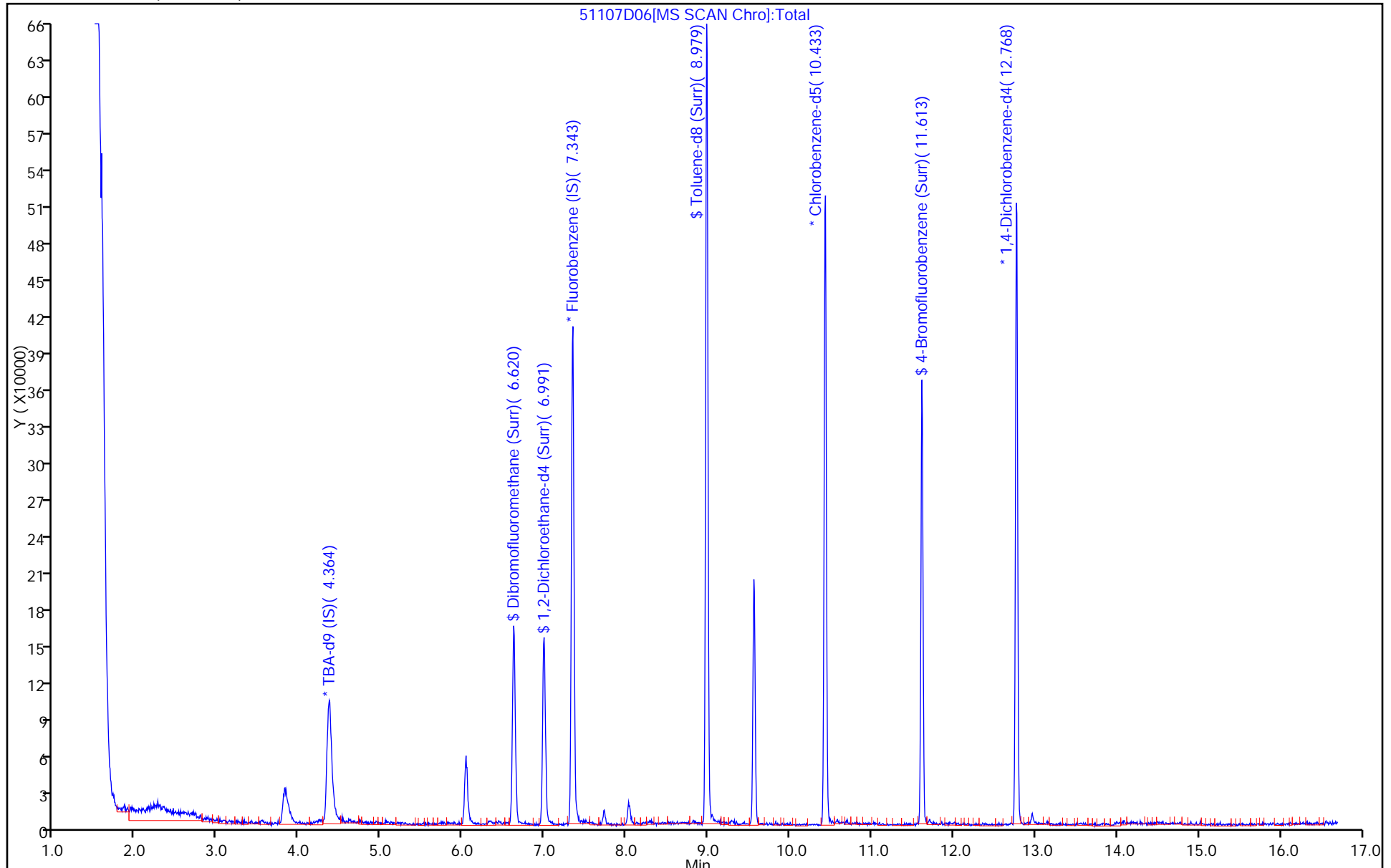
Dil. Factor: 1.0000

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\20171107-19208.b\51107D06.D
 Lims ID: 180-71858-A-10
 Client ID: HD-COLE-F-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2017 03:02:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-006
 Misc. Info.: 180-71858-A-10
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 08:55:00 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: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 03:33:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	59.2	118.37
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.1	102.19
\$ 7 Toluene-d8 (Surr)	50.0	53.9	107.86
\$ 8 4-Bromofluorobenzene (Surr)	50.0	44.6	89.13

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D06.D

Injection Date: 08-Nov-2017 03:02:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-10

Lab Sample ID: 180-71858-10

Client ID: HD-COLE-F-0/1-0

Operator ID: 034635

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

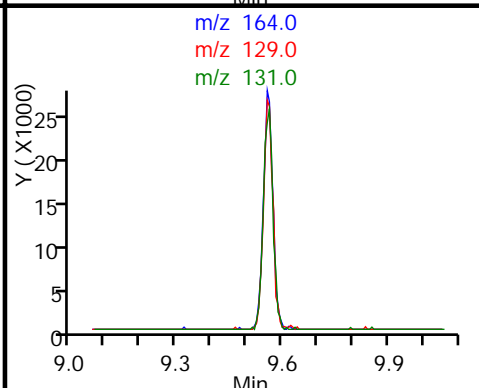
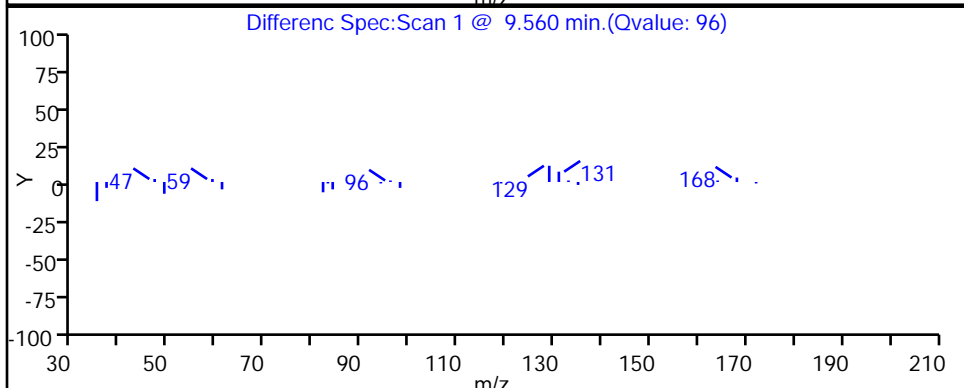
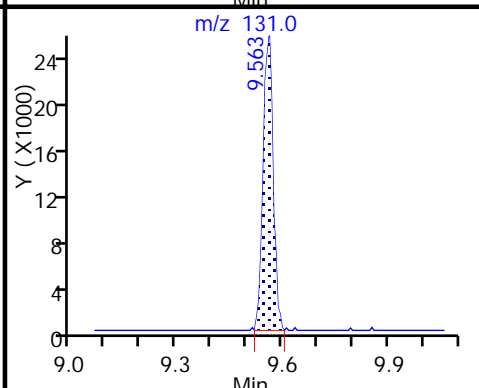
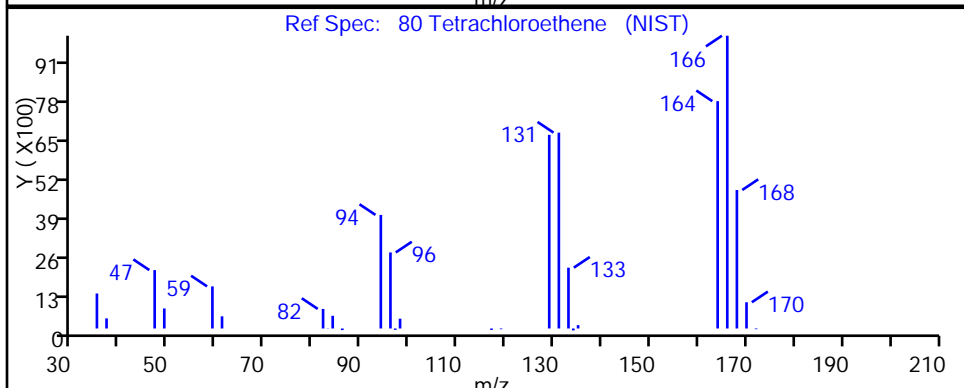
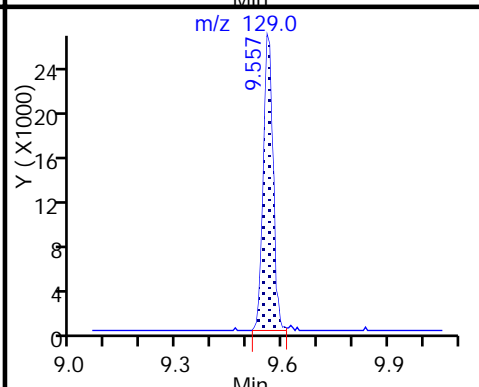
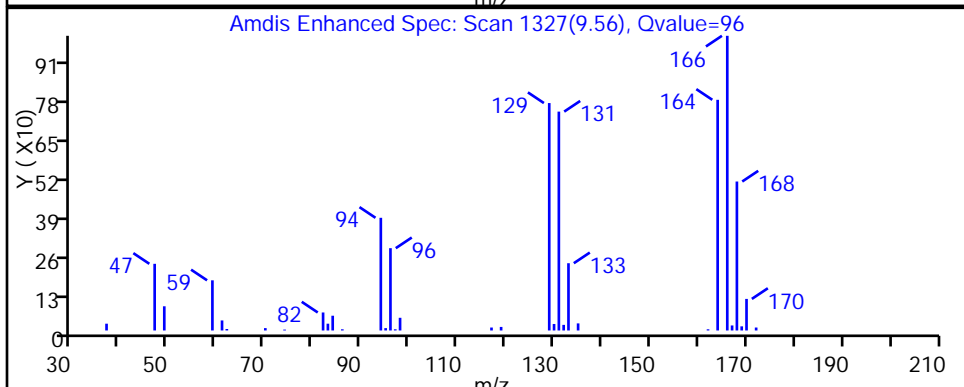
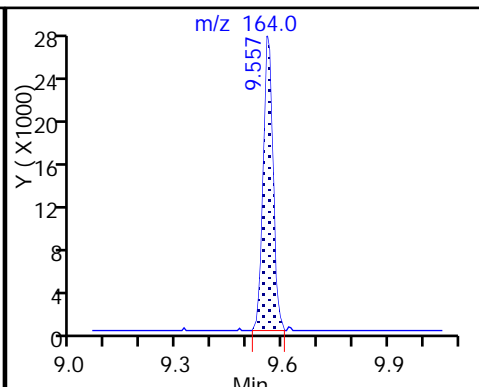
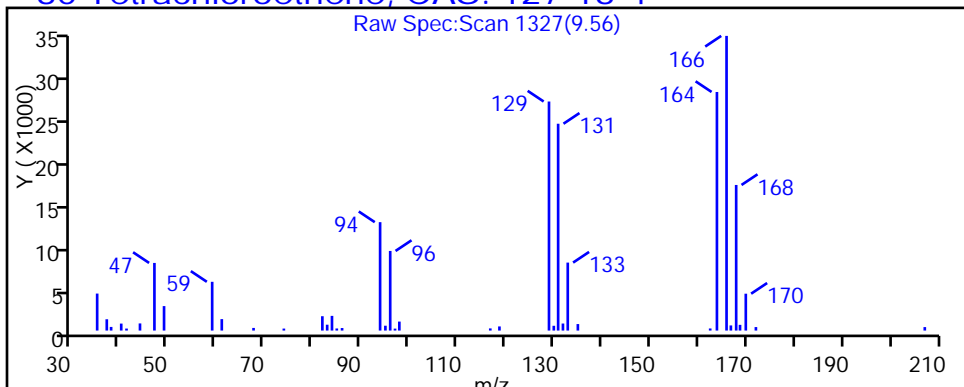
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

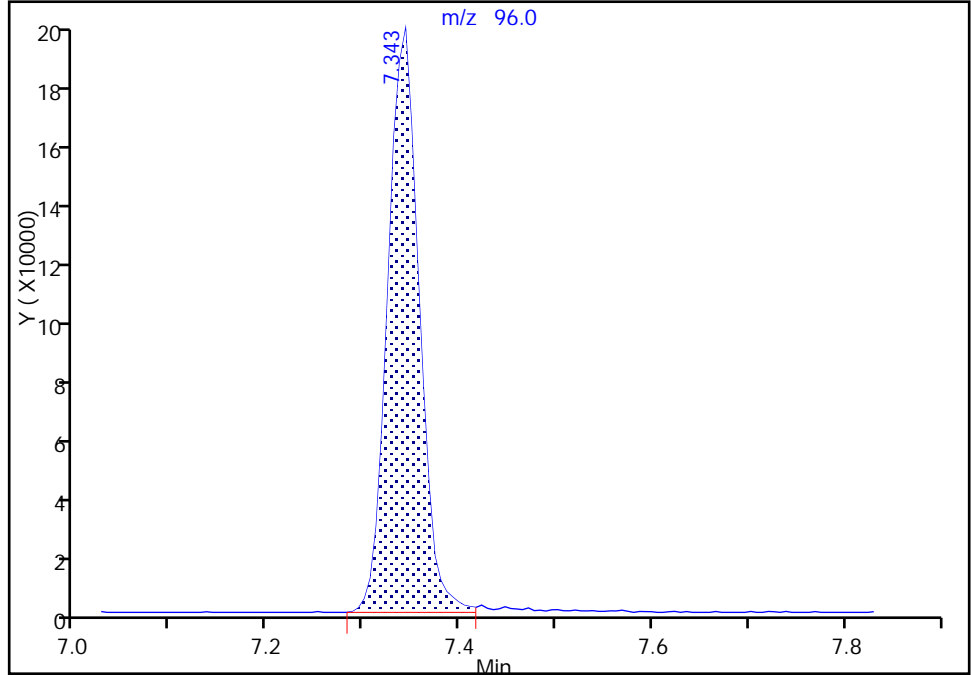
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D06.D				
Injection Date:	08-Nov-2017 03:02:30	Instrument ID:	CHHP5		
Lims ID:	180-71858-A-10	Lab Sample ID:	180-71858-10		
Client ID:	HD-COLE-F-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector:	MS SCAN		

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

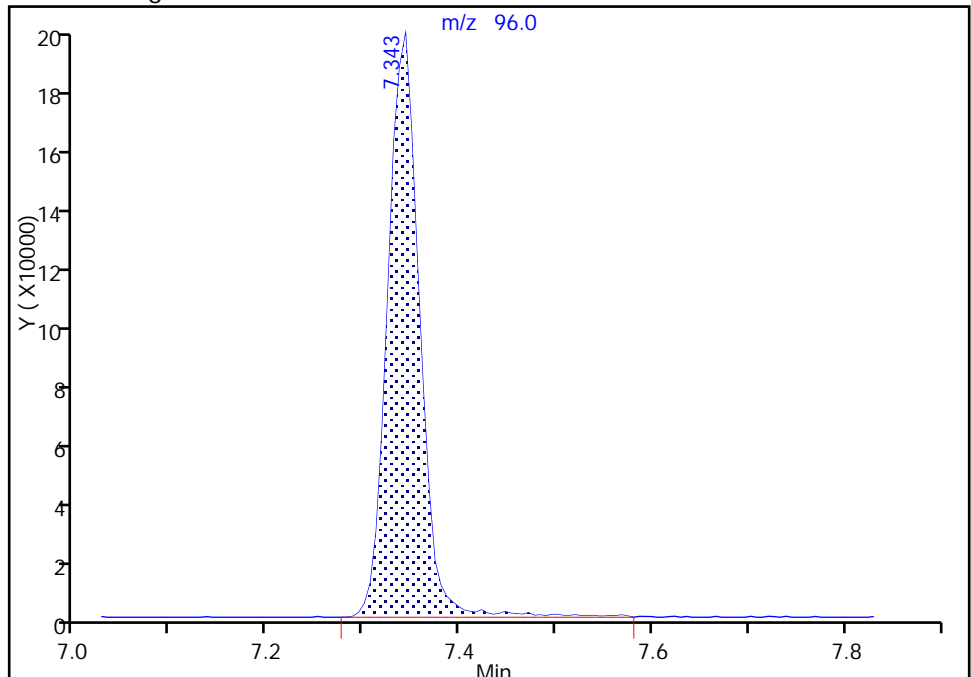
RT: 7.34
Area: 430786
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 438770
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 03:32:32
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE (FLUSH)-0/1-0 Lab Sample ID: 180-71858-11
 Matrix: Water Lab File ID: 51102D21.D
 Analysis Method: 8260C Date Collected: 10/27/2017 10:30
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 07:36
 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.: 227871 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 ^c	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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE (FLUSH)-0/1-0 Lab Sample ID: 180-71858-11
 Matrix: Water Lab File ID: 51102D21.D
 Analysis Method: 8260C Date Collected: 10/27/2017 10:30
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 07:36
 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.: 227871 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-42-5	Styrene	1.0	U	1.0	0.47
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)	121		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)	116		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D21.D
 Lims ID: 180-71858-C-11
 Client ID: HD-COLE (FLUSH)-0/1-0
 Sample Type: Client
 Inject. Date: 03-Nov-2017 07:36:30 ALS Bottle#: 21 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-021
 Misc. Info.: 180-71858-C-11
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 05-Nov-2017 20:04:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.388	-0.034	0	208762	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.337	0.003	98	480307	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.433	0.002	87	120434	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.768	0.003	97	156304	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.620	0.002	92	133548	57.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.991	-0.004	0	170843	60.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.979	0.003	94	443535	46.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.612	0.003	84	144067	41.6	
12 Chloromethane	50		1.888				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.332				ND	
16 Chloroethane	64		2.430				ND	
22 1,1-Dichloroethene	96		3.427				ND	
24 Acetone	43	3.533	3.536	-0.003	86	8933	7.11	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.236				ND	
33 Acrylonitrile	53		4.619				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.668				ND	
37 1,1-Dichloroethane	63		5.276				ND	
45 cis-1,2-Dichloroethene	96		6.012				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83		6.437				ND	
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.772				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130		7.727				ND	
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		8.274				ND	
74 cis-1,3-Dichloropropene	75		8.724				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.046				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164	9.554	9.557	-0.003	81	1343	0.5864	
82 2-Hexanone	43		9.703				ND	
84 Chlorodibromomethane	129		9.855				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.554				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_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\20171102-19153.b\51102D21.D

Injection Date: 03-Nov-2017 07:36:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-C-11

Lab Sample ID: 180-71858-11

Worklist Smp#: 21

Client ID: HD-COLE (FLUSH)-0/1-0

Purge Vol: 5.000 mL

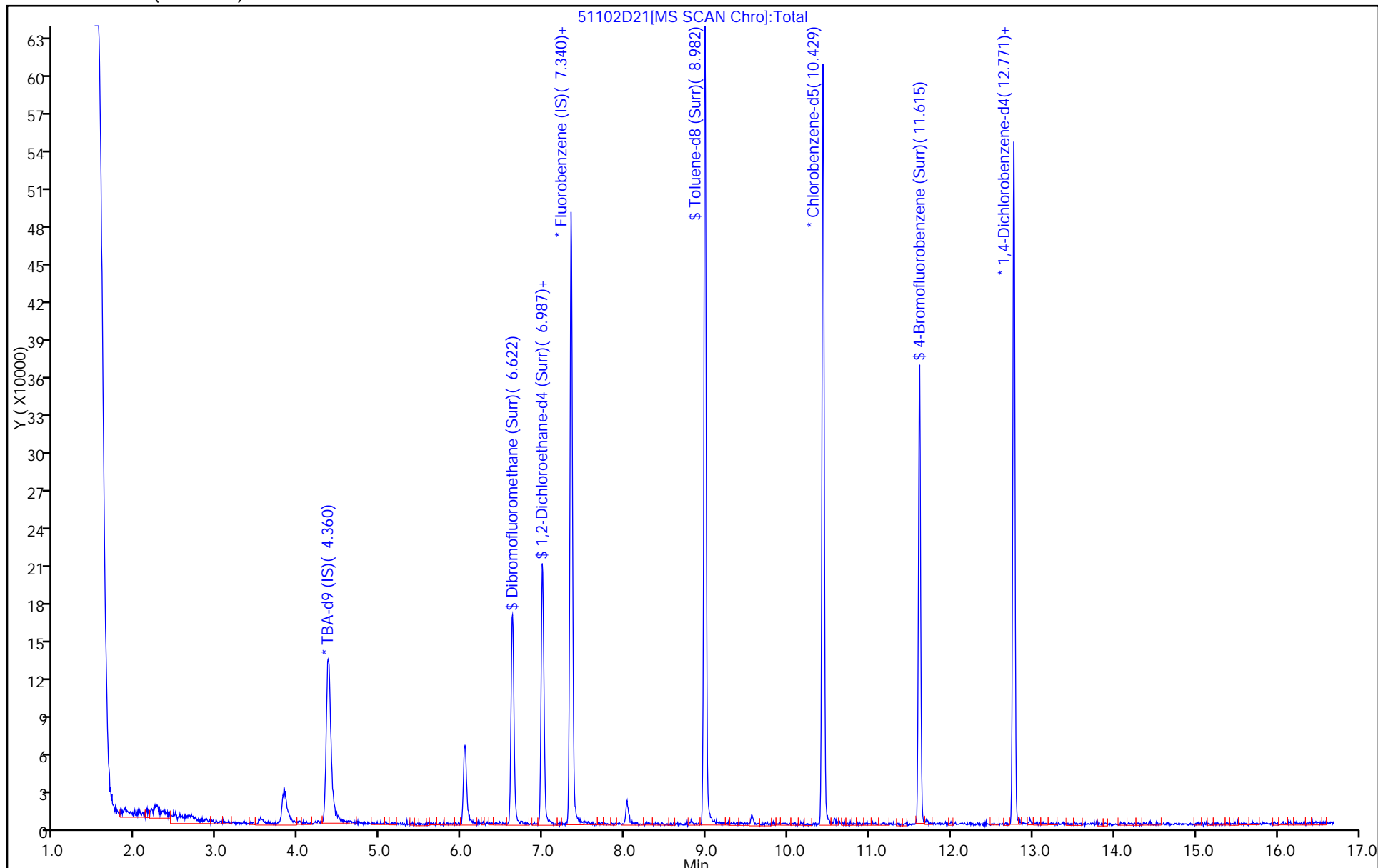
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D21.D
 Lims ID: 180-71858-C-11
 Client ID: HD-COLE (FLUSH)-0/1-0
 Sample Type: Client
 Inject. Date: 03-Nov-2017 07:36:30 ALS Bottle#: 21 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-021
 Misc. Info.: 180-71858-C-11
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf Date: 05-Nov-2017 20:04:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	57.8	115.58
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	60.6	121.22
\$ 7 Toluene-d8 (Surr)	50.0	46.3	92.55
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.6	83.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE STEEL-0/1-0 Lab Sample ID: 180-71858-12
 Matrix: Water Lab File ID: 51105D06.D
 Analysis Method: 8260C Date Collected: 10/27/2017 11:45
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 02:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228044 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 ^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	6.1		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	7.0		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.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE STEEL-0/1-0 Lab Sample ID: 180-71858-12
 Matrix: Water Lab File ID: 51105D06.D
 Analysis Method: 8260C Date Collected: 10/27/2017 11:45
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 02:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228044 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)	94		73-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D06.D
 Lims ID: 180-71858-A-12
 Client ID: HD-COLE STEEL-0/1-0
 Sample Type: Client
 Inject. Date: 06-Nov-2017 02:50:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-006
 Misc. Info.: 180-71858-A-12
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 02:15:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.376	-0.015	0	266115	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.344	-0.003	99	543224	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.433	-0.003	87	131349	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.768	0.004	97	189253	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.623	6.620	0.003	93	139632	53.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.991	0.003	0	184573	57.9	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.980	0.003	95	493621	47.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.616	11.613	0.003	84	169954	45.0	
11 Dichlorodifluoromethane	85		1.688				ND	
12 Chloromethane	50		1.895				ND	
13 Vinyl chloride	62		2.017				ND	
14 Butadiene	39		2.017				ND	
15 Bromomethane	94		2.375				ND	
16 Chloroethane	64		2.461				ND	
17 Dichlorofluoromethane	67		2.771				ND	
18 Trichlorofluoromethane	101		2.801				ND	
19 Ethanol	45	2.756	2.821	-0.065	0	516	NC	
20 Ethyl ether	59		3.136				ND	
21 Acrolein	56		3.318				ND	
22 1,1-Dichloroethene	96		3.434				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.506				ND	
24 Acetone	43	3.552	3.531	0.021	82	14694	10.3	
25 Iodomethane	142		3.640				ND	
26 Carbon disulfide	76		3.719				ND	
27 Isopropyl alcohol	45	3.832	3.816	0.016	95	90313	427.8	
29 Acetonitrile	41		3.981				ND	
28 3-Chloro-1-propene	76		4.017				ND	
30 Methyl acetate	43		4.042				ND	
31 Methylene Chloride	84		4.236				ND	
32 2-Methyl-2-propanol	59		4.510				ND	
33 Acrylonitrile	53		4.619				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.644				ND	
35 Methyl tert-butyl ether	73		4.662				ND	
36 Hexane	57		5.063				ND	
37 1,1-Dichloroethane	63		5.282				ND	
38 Vinyl acetate	43		5.325				ND	
39 2-Chloro-1,3-butadiene	53		5.367				ND	
41 Isopropyl ether	45		5.367				ND	
40 Isopropyl ether TIC	45		5.410				ND	
42 Tert-butyl ethyl ether	59		5.835				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
45 cis-1,2-Dichloroethene	96	6.021	6.018	0.003	82	105976	30.6	
44 2,2-Dichloropropane	97		6.018				ND	
46 2-Butanone (MEK)	43		6.030				ND	
48 Ethyl acetate	43		6.097				ND	
47 Propionitrile	54		6.103				ND	
50 Methacrylonitrile	41		6.273				ND	
49 Chlorobromomethane	128		6.298				ND	
51 Tetrahydrofuran	42		6.310				ND	
52 Chloroform	83		6.444				ND	
53 1,1,1-Trichloroethane	97		6.602				ND	
54 Cyclohexane	56		6.675				ND	
56 Carbon tetrachloride	117		6.766				ND	
55 1,1-Dichloropropene	75		6.784				ND	
57 Isobutyl alcohol	41		6.985				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
151 Isooctane	57		7.149				ND	
61 Tert-amyl methyl ether	73		7.173				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.356				ND	
63 n-Butanol	56		7.684				ND	
64 Trichloroethene	130	7.730	7.727	0.003	97	116330	35.0	
65 Ethyl acrylate	55		7.848				ND	
66 Methylcyclohexane	83		7.958				ND	
67 1,2-Dichloropropane	63		8.001				ND	
69 Methyl methacrylate	69		8.086				ND	
68 Dibromomethane	93		8.086				ND	
70 1,4-Dioxane	88		8.086				ND	
71 Dichlorobromomethane	83		8.274				ND	
73 2-Chloroethyl vinyl ether	63		8.578				ND	
74 cis-1,3-Dichloropropene	75		8.724				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.876				ND	
76 Toluene	91	9.050	9.053	-0.003	25	2071	0.1581	
77 trans-1,3-Dichloropropene	75		9.296				ND	
78 Ethyl methacrylate	69		9.357				ND	
79 1,1,2-Trichloroethane	97		9.491				ND	
80 Tetrachloroethene	164	9.555	9.563	-0.008	91	3356	1.34	
81 1,3-Dichloropropane	76		9.649				ND	
82 2-Hexanone	43		9.703				ND	
83 n-Butyl acetate	43		9.825				ND	
84 Chlorodibromomethane	129		9.861				ND	
85 Ethylene Dibromide	107		9.971				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.433				ND	
87 Chlorobenzene	112		10.464				ND	
88 4-Chlorobenzotrifluoride	180		10.518				ND	
89 1,1,1,2-Tetrachloroethane	131		10.555				ND	
90 Ethylbenzene	106		10.561				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.272				ND	
95 Cyclohexanol	57		11.288				ND	
96 2-Chlorobenzotrifluoride	180		11.339				ND	
97 Isopropylbenzene	105		11.437				ND	
98 Cyclohexanone	55		11.528				ND	
99 1,1,2,2-Tetrachloroethane	83		11.747				ND	
100 Bromobenzene	156		11.753				ND	
102 trans-1,4-Dichloro-2-buten	53		11.789				ND	
101 1,2,3-Trichloropropane	110		11.808				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		12.039				ND	
107 4-Chlorotoluene	126		12.063				ND	
108 tert-Butylbenzene	119		12.349				ND	
110 1,2,4-Trimethylbenzene	105		12.410				ND	
111 1,2-dichloro-4-(trifluorom	214		12.452				ND	
112 sec-Butylbenzene	105		12.574				ND	
113 1,3-Dichlorobenzene	146		12.689				ND	
114 4-Isopropyltoluene	119		12.732				ND	
115 1,4-Dichlorobenzene	146		12.793				ND	
117 1,2,3-Trimethylbenzene	105		12.823				ND	
116 2,4-Dichloro-1-(triflourom	214		12.823				ND	
118 2,5-Dichlorobenzotrifluori	214		12.866				ND	
119 Benzyl chloride	91		12.908				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		14.088				ND	
124 1,3,5-Trichlorobenzene	180		14.130				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.502				ND	
126 1,2,4-Trichlorobenzene	180		14.769				ND	
127 Hexachlorobutadiene	225		14.915				ND	
128 Naphthalene	128		15.031				ND	
129 1,2,3-Trichlorobenzene	180		15.256				ND	
131 2,4,5-Trichlorotoluene	159		16.028				ND	
130 2,3,6-Trichlorotoluene	159		16.125				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
S 154 Total BTEX	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96				0		30.6	
S 133 Xylenes, Total	106		1.000				ND	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000				ND	
T 153 1,2 Epoxybutane TIC	42		6.253				ND	
T 137 Tetrahydrofuran TIC	42	6.326	6.253	0.073	30	1302	0	

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\20171105-19180.b\51105D06.D

Injection Date: 06-Nov-2017 02:50:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-A-12

Lab Sample ID: 180-71858-12

Worklist Smp#: 6

Client ID: HD-COLE STEEL-0/1-0

Purge Vol: 5.000 mL

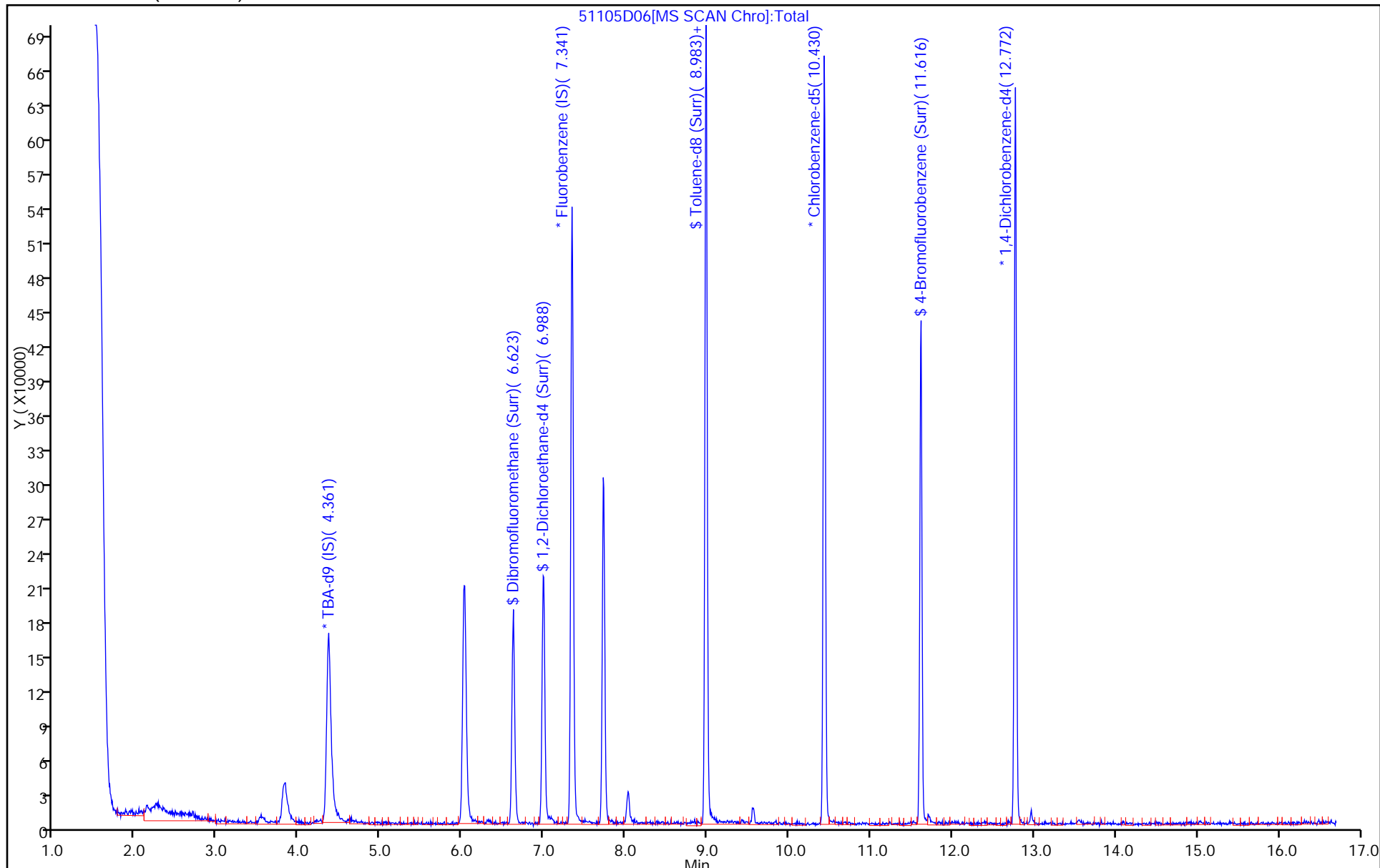
Dil. Factor: 1.0000

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\20171105-19180.b\51105D06.D
 Lims ID: 180-71858-A-12
 Client ID: HD-COLE STEEL-0/1-0
 Sample Type: Client
 Inject. Date: 06-Nov-2017 02:50:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-006
 Misc. Info.: 180-71858-A-12
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 02:15:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	53.4	106.85
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	57.9	115.80
\$ 7 Toluene-d8 (Surr)	50.0	47.2	94.44
\$ 8 4-Bromofluorobenzene (Surr)	50.0	45.0	90.03

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D06.D

Injection Date: 06-Nov-2017 02:50:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-12

Lab Sample ID: 180-71858-12

Client ID: HD-COLE STEEL-0/1-0

Operator ID: 034635

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

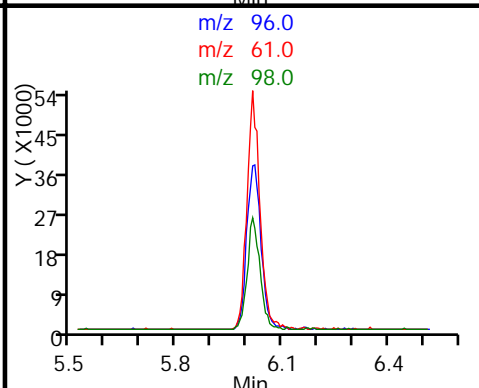
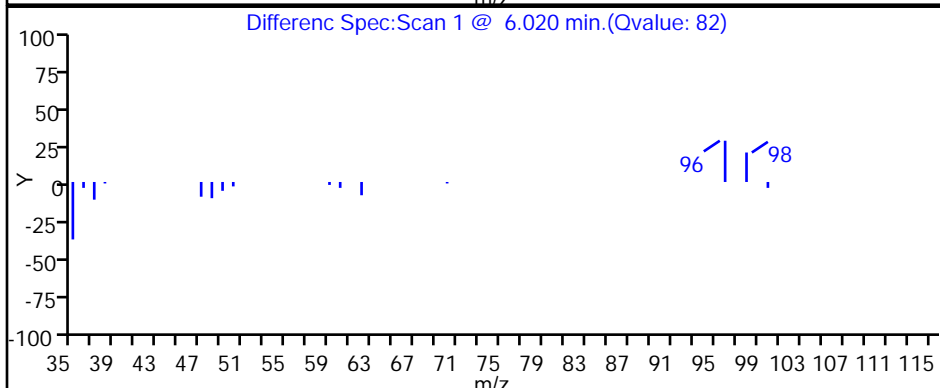
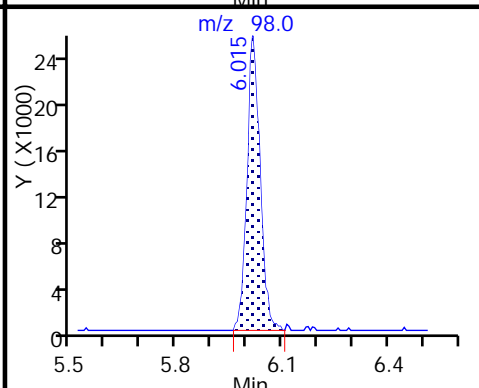
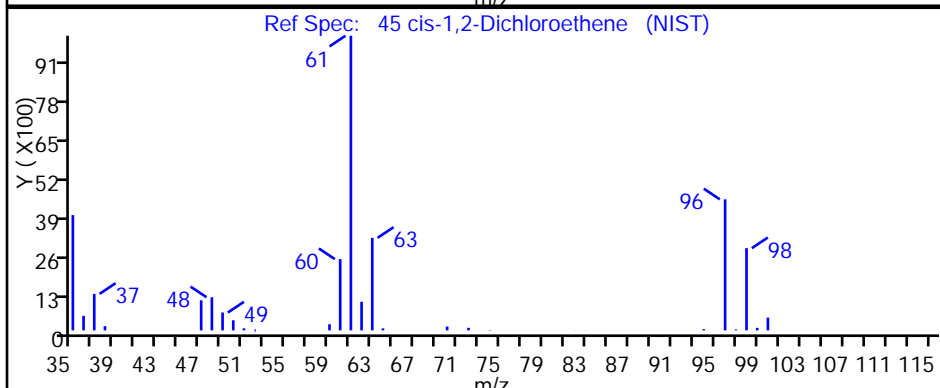
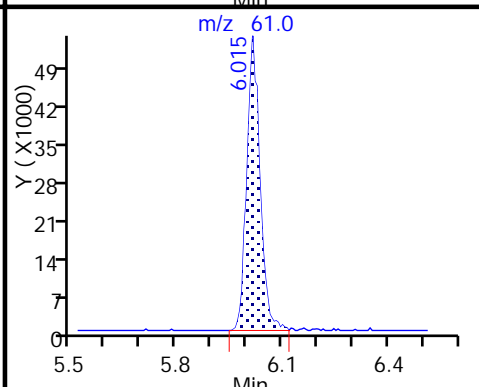
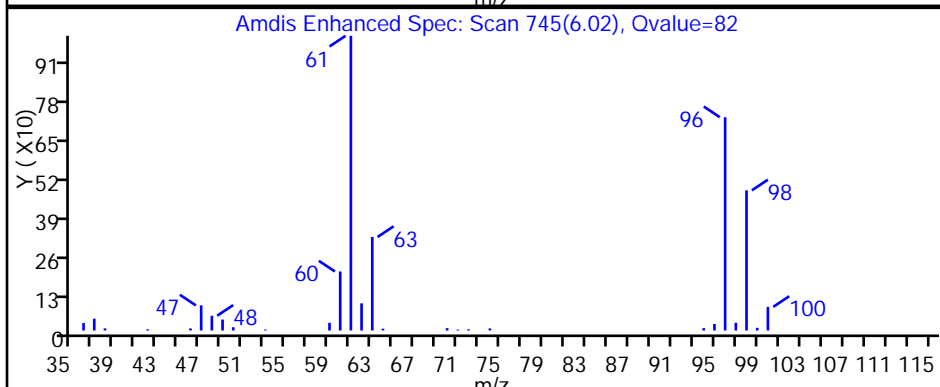
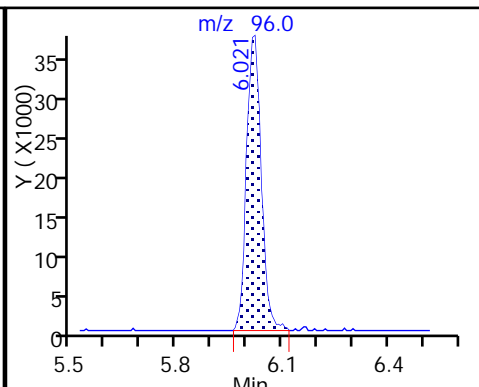
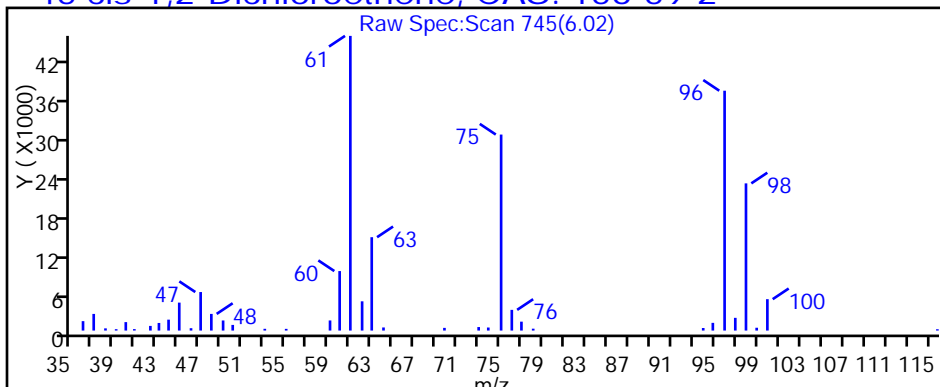
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D06.D

Injection Date: 06-Nov-2017 02:50:30

Instrument ID: CHHP5

Lims ID: 180-71858-A-12

Lab Sample ID: 180-71858-12

Client ID: HD-COLE STEEL-0/1-0

Operator ID: 034635

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

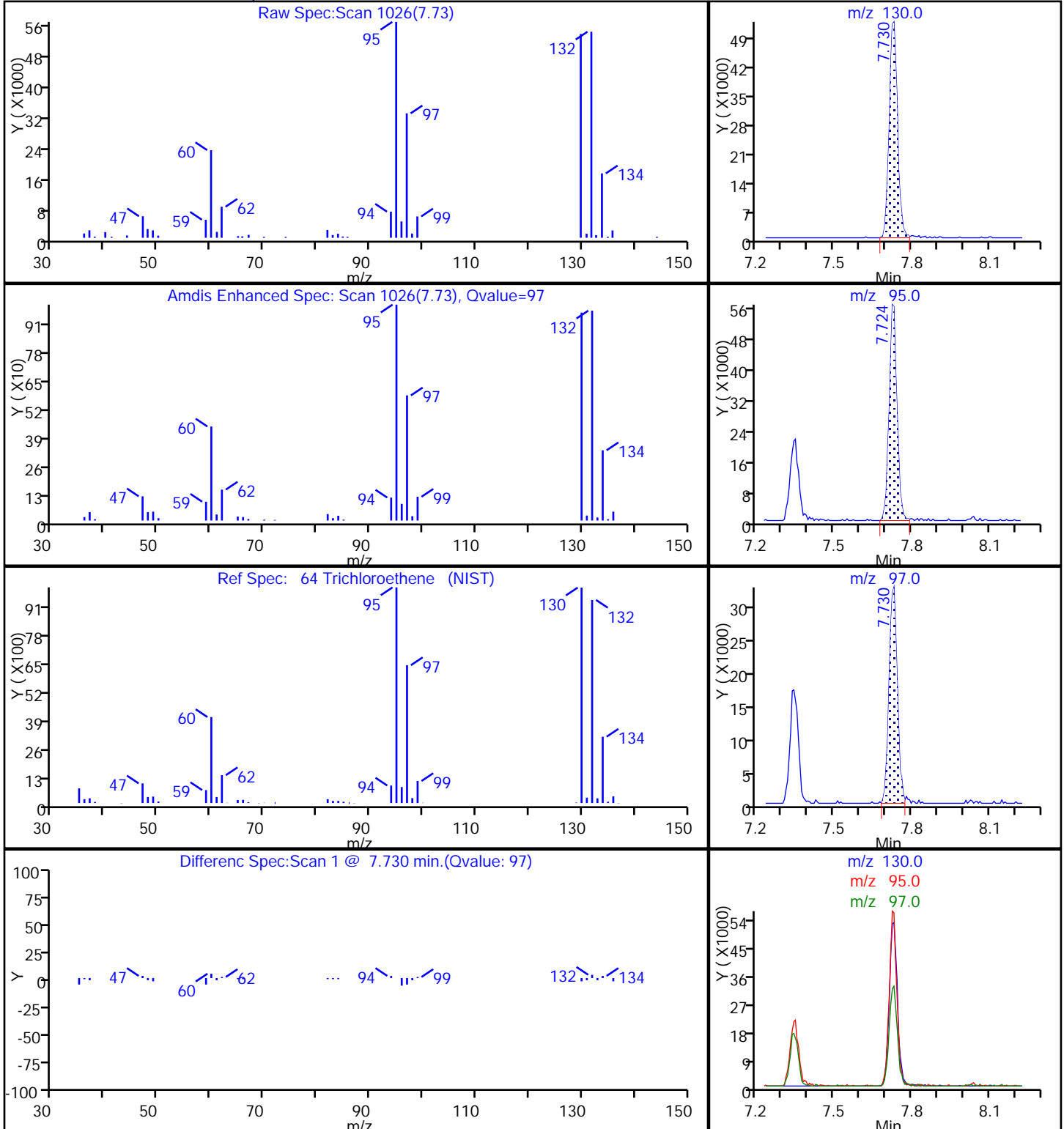
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1

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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1

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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1 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.: 180-71858-1

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.: 180-71858-1

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.: 180-71858-1 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.: 180-71858-1 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

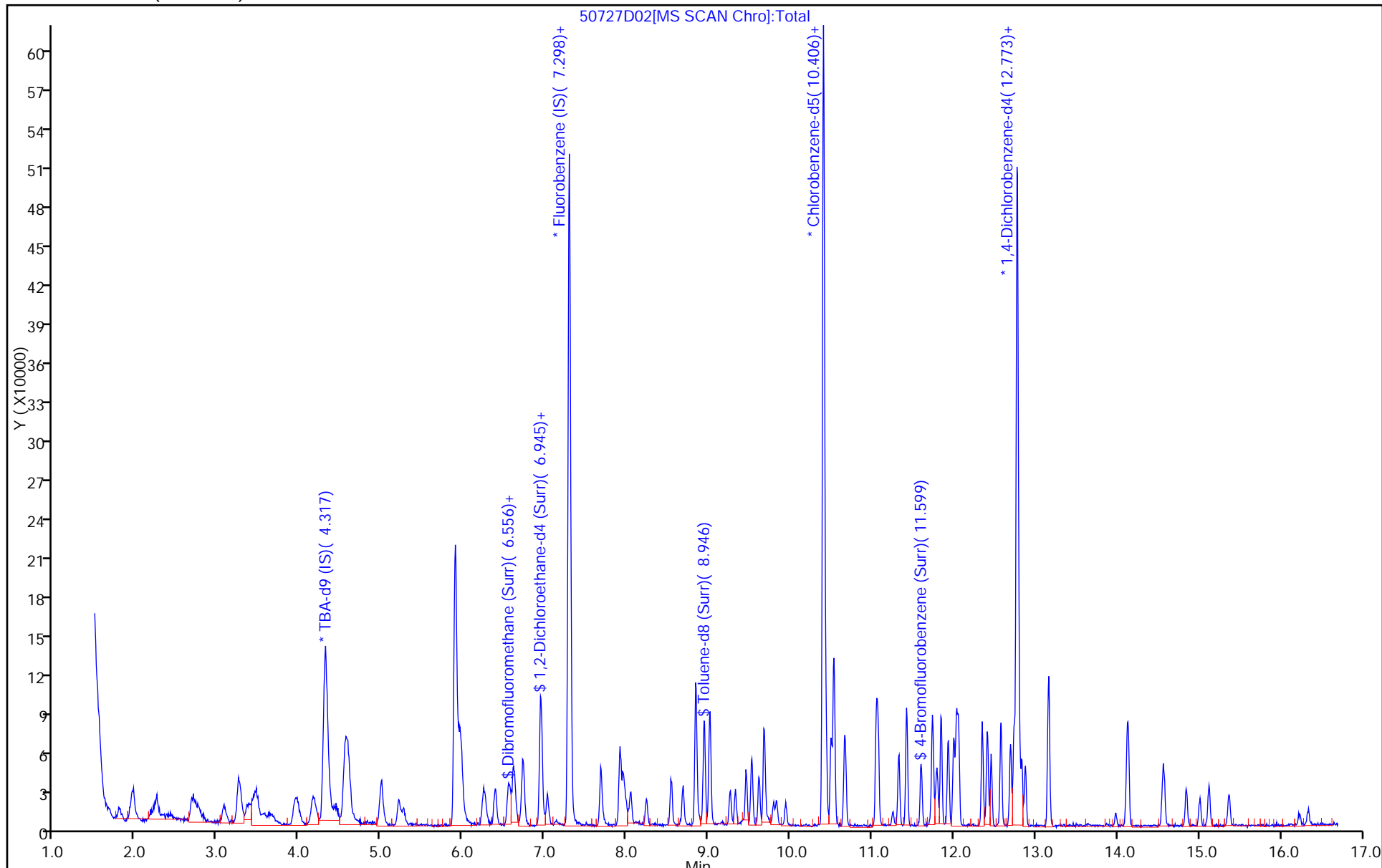
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

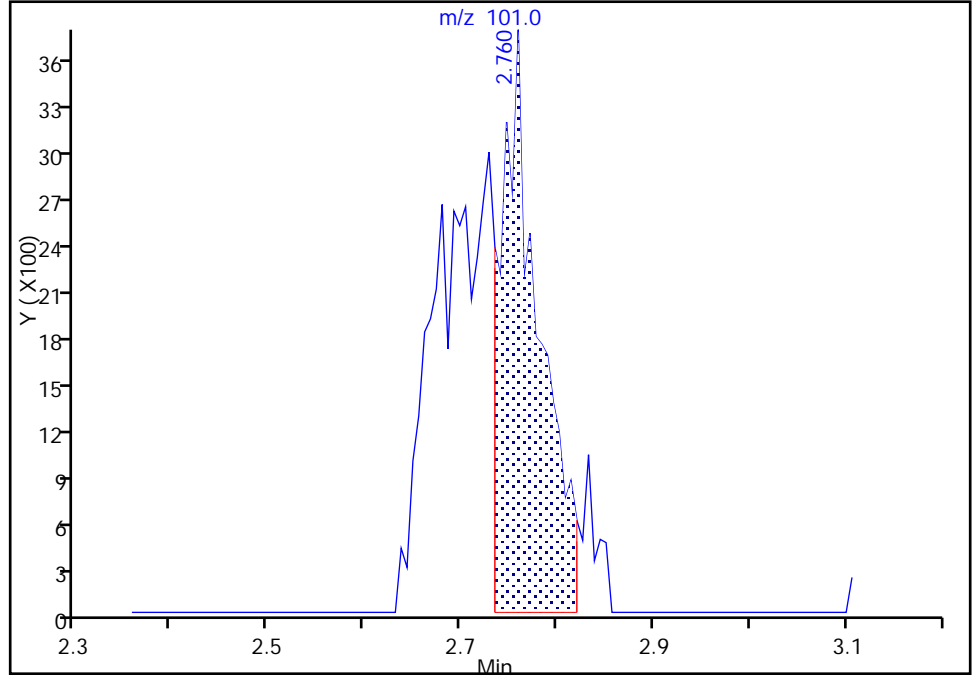
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
Injection Date: 27-Jul-2017 00:51:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

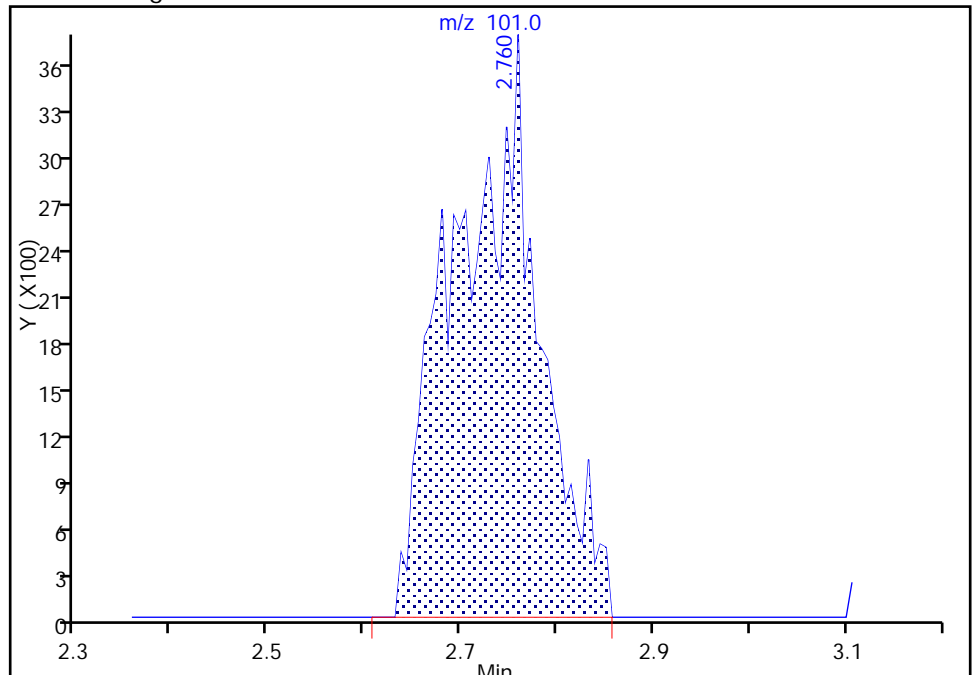
RT: 2.76
Area: 10302
Amount: 3.465076
Amount Units: ng

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

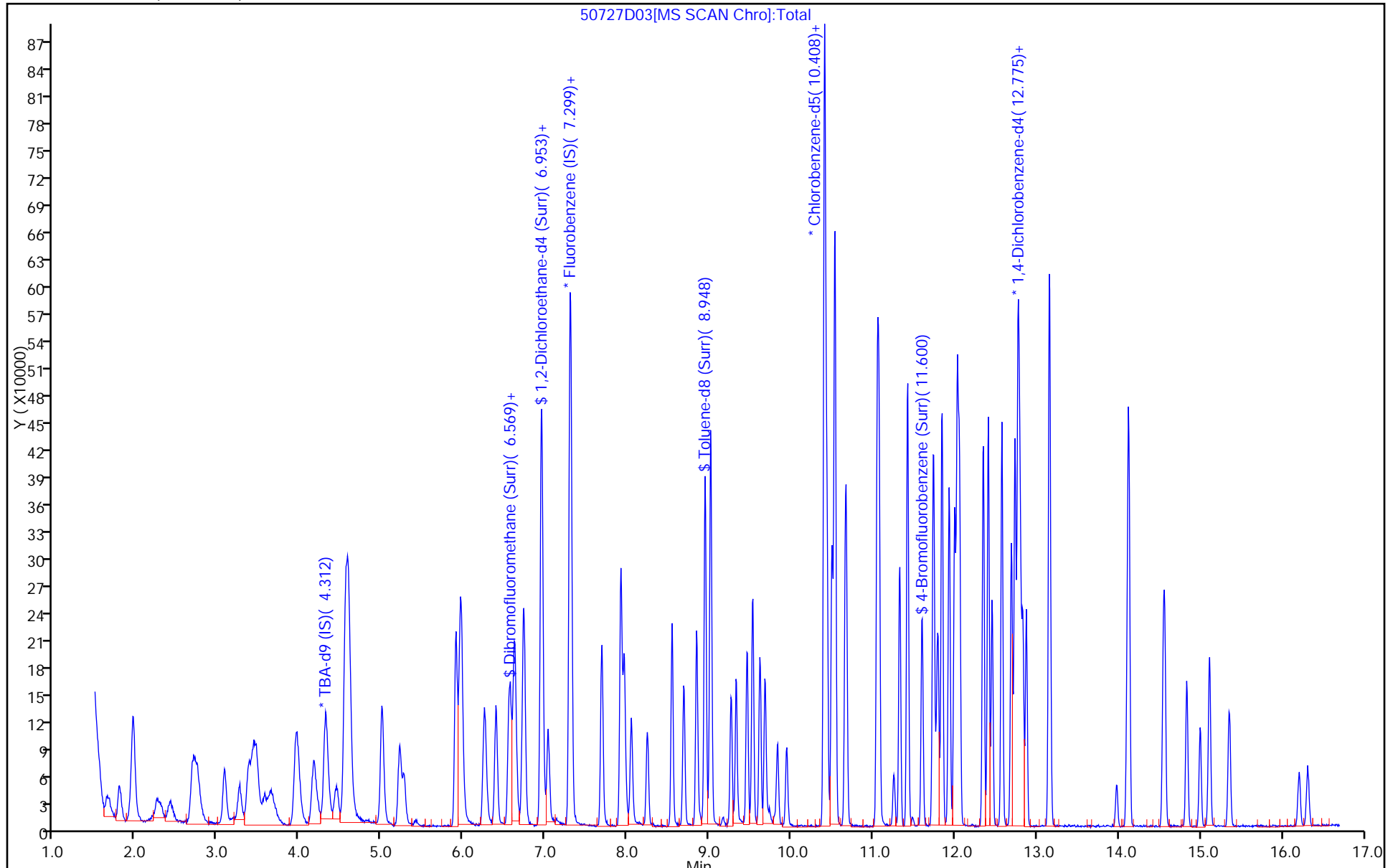
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

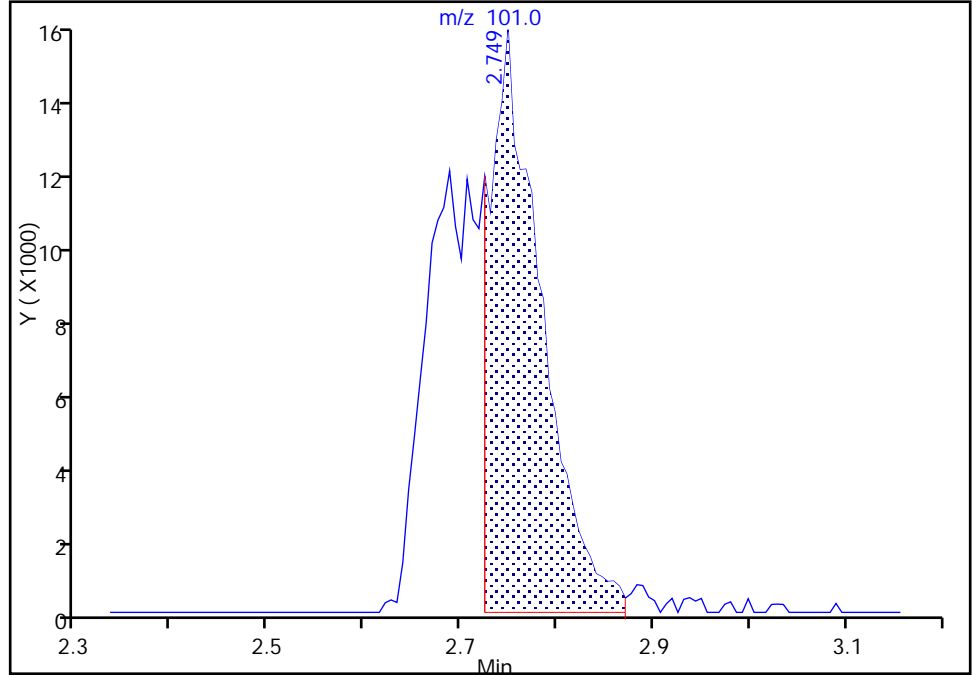
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Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

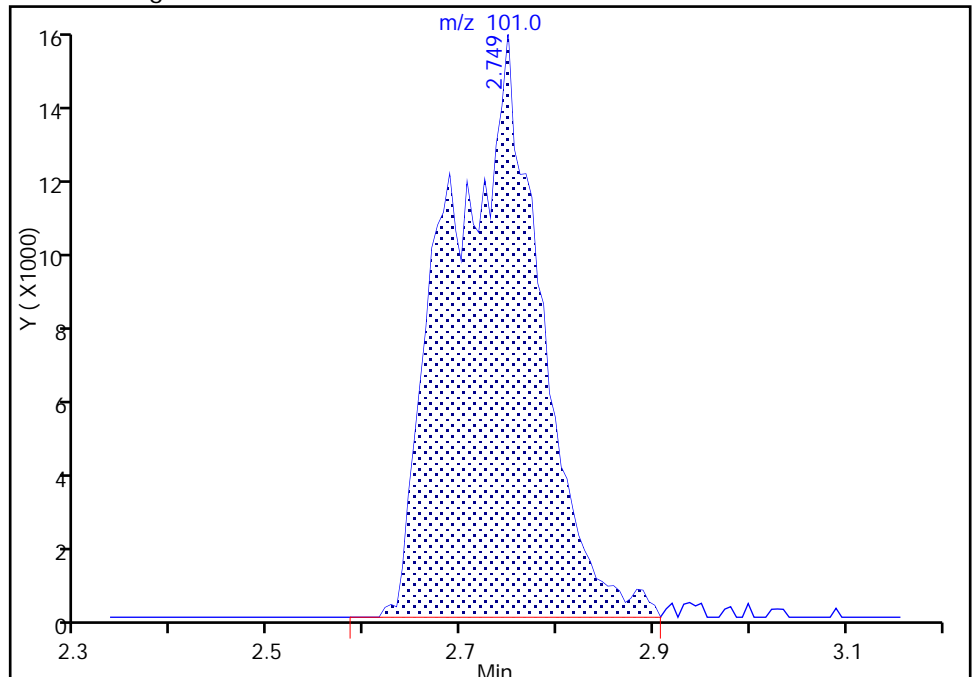
RT: 2.75
Area: 59636
Amount: 17.371088
Amount Units: ng

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

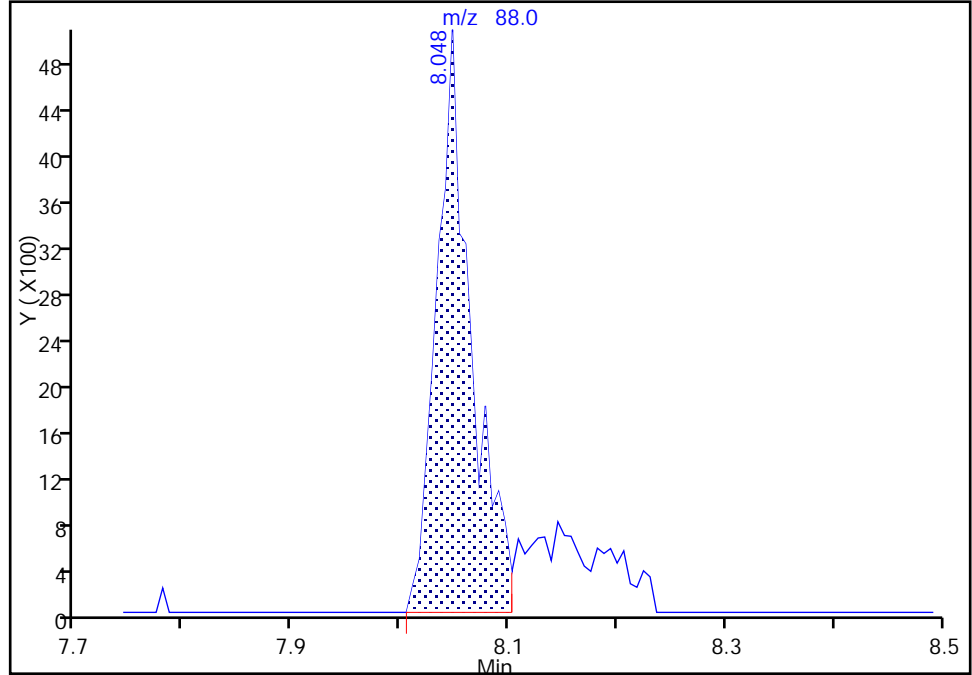
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

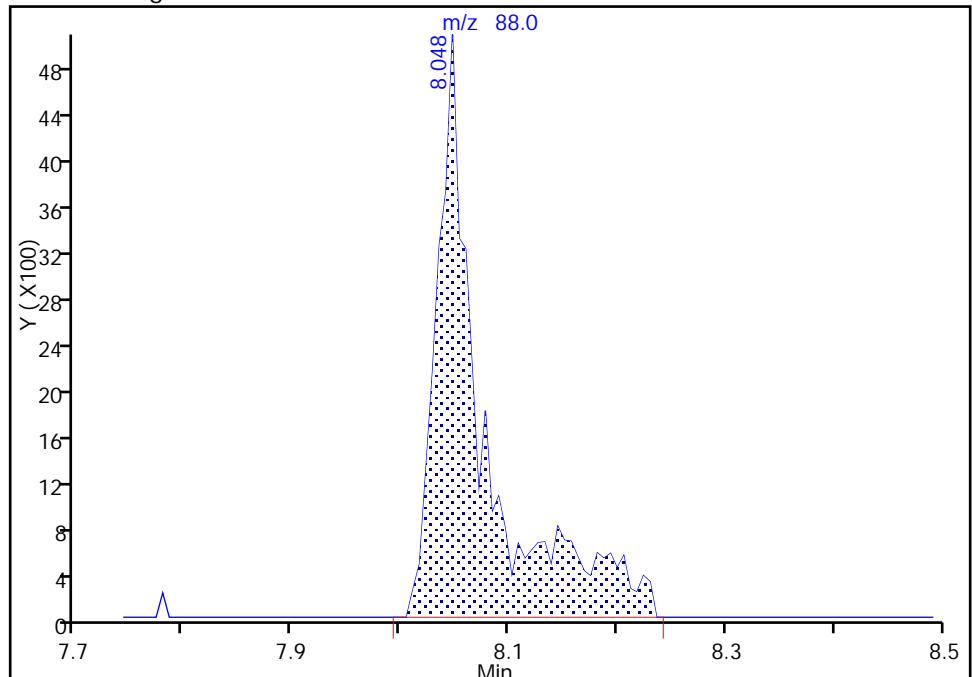
RT: 8.05
Area: 11273
Amount: 403.3803
Amount Units: ng

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

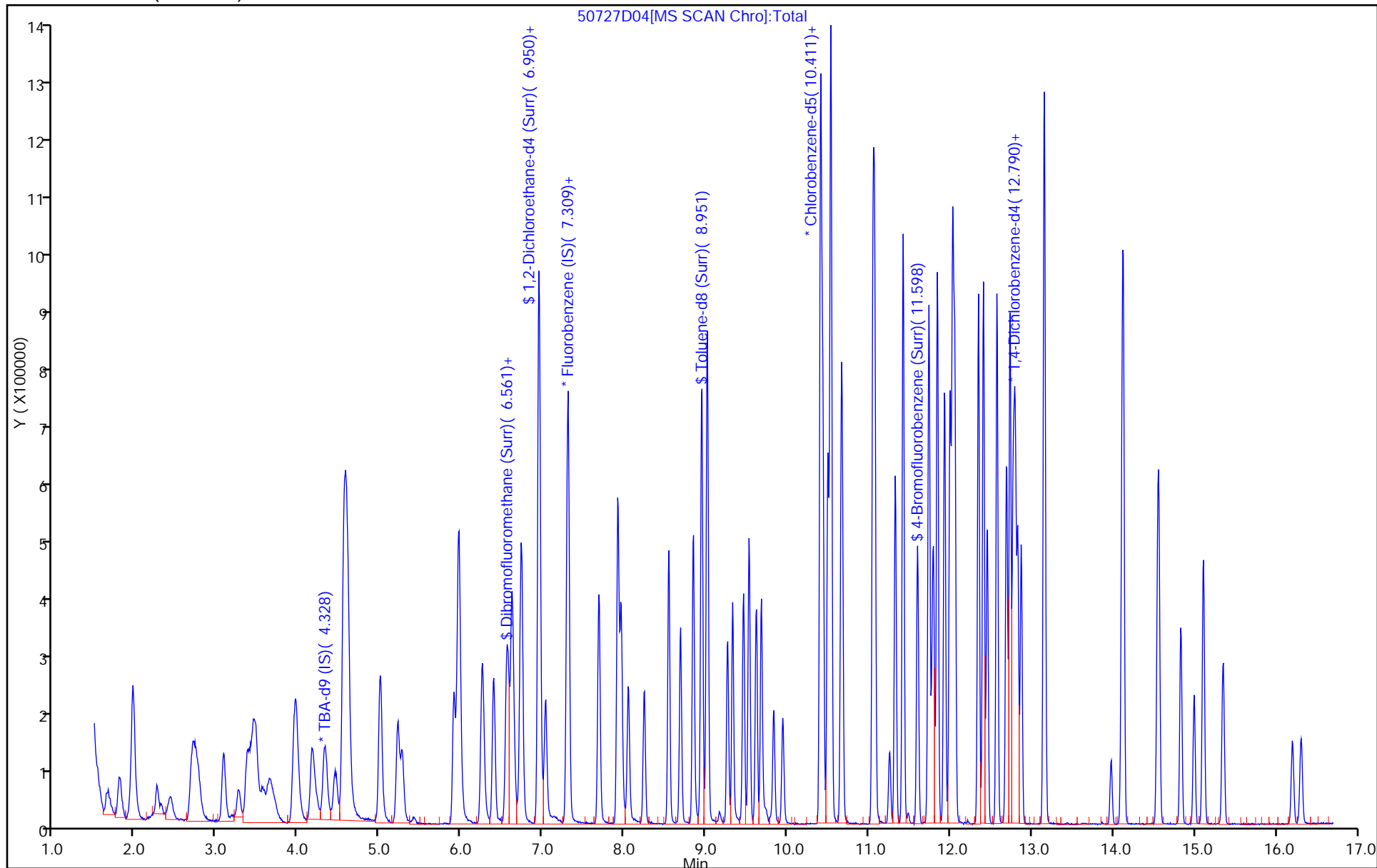
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

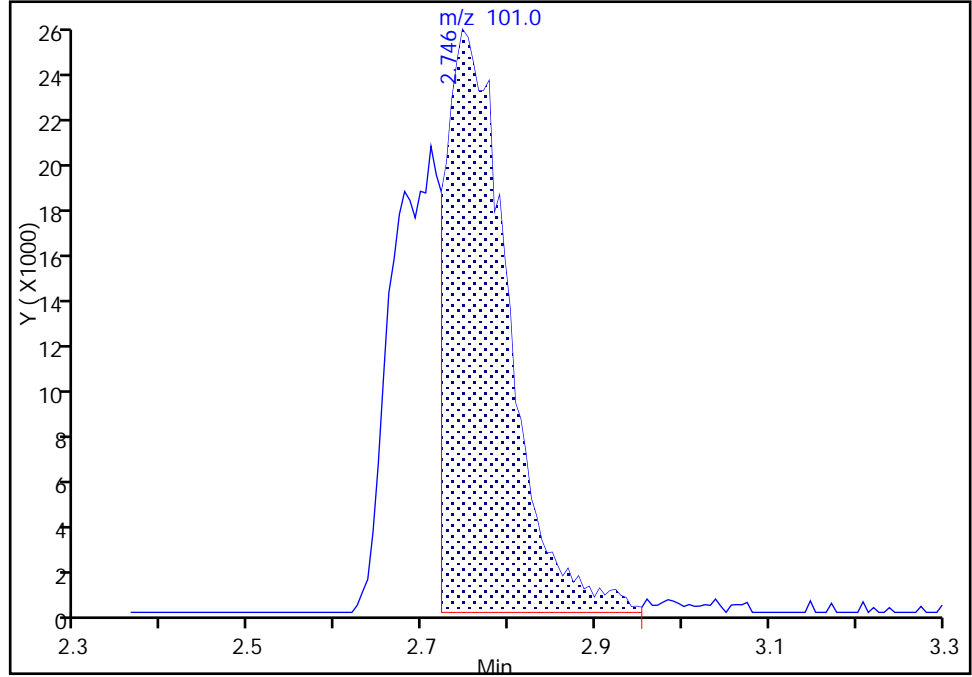
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Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

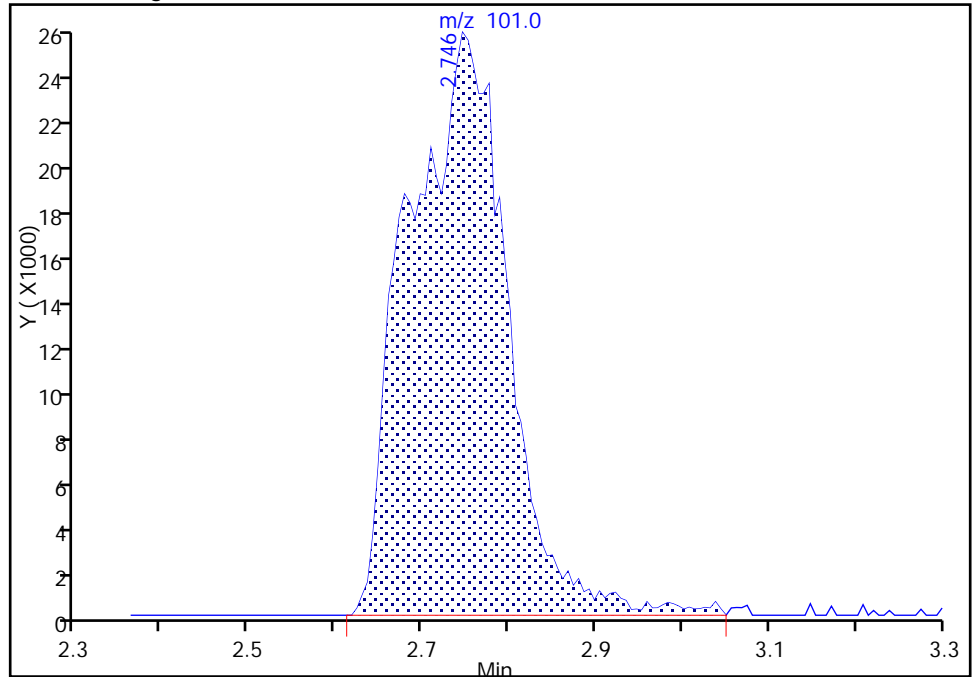
RT: 2.75
Area: 129465
Amount: 34.020484
Amount Units: ng

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

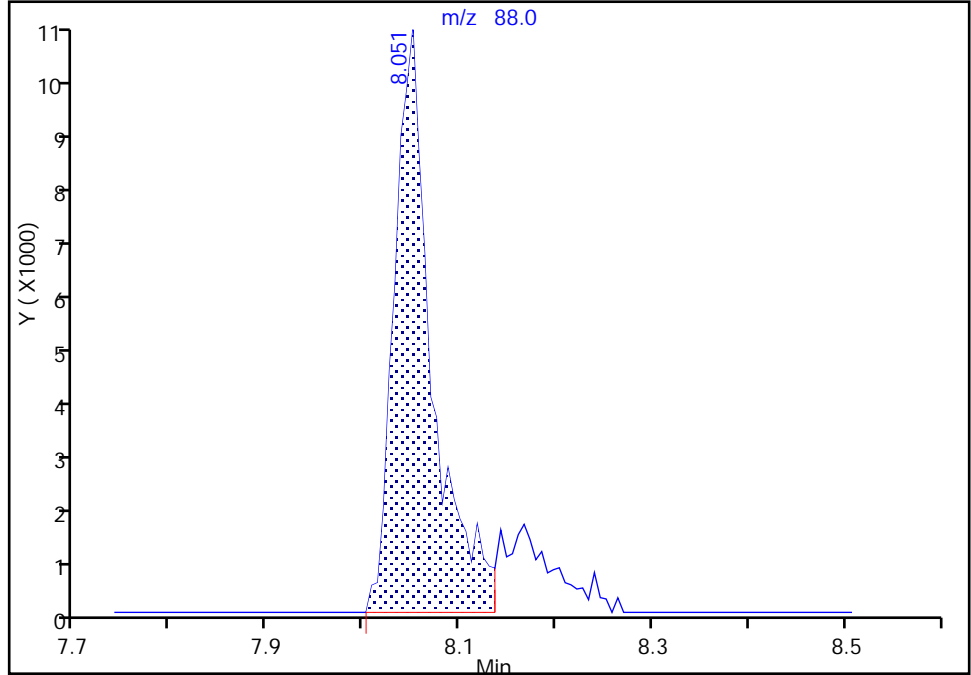
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Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

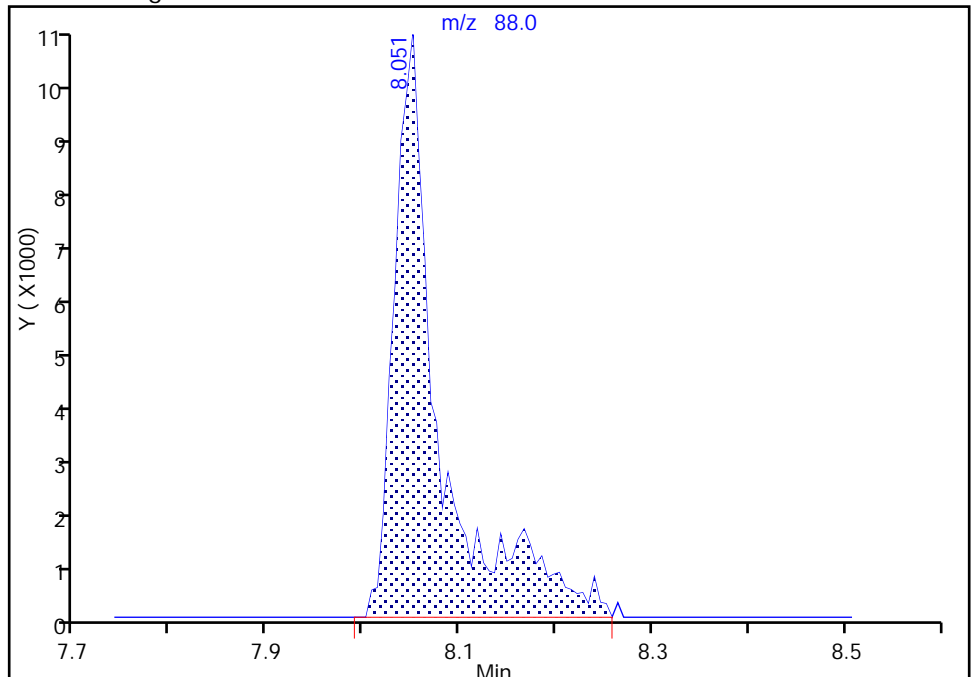
RT: 8.05
Area: 27736
Amount: 937.4398
Amount Units: ng

Processing Integration Results



RT: 8.05
Area: 33209
Amount: 1068.7953
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:15:41
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 27-Jul-2017 02:02:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-005
 Misc. Info.: IC VSTD15
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:55 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:16:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.323	4.323	0.000	0	240814	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	98	519897	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	84	132905	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	91	174376	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	93	193042	75.0	77.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.945	6.945	0.000	0	234269	75.0	76.8	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	780569	75.0	73.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	88	289432	75.0	75.8	
11 Dichlorodifluoromethane	85	1.646	1.646	0.000	98	226899	75.0	75.1	
12 Chloromethane	50	1.804	1.804	0.000	99	232300	75.0	76.5	
13 Vinyl chloride	62	1.944	1.944	0.000	98	221295	75.0	71.8	
14 Butadiene	39	1.969	1.969	0.000	96	204212	75.0	72.9	
15 Bromomethane	94	2.254	2.254	0.000	90	112119	75.0	76.9	
16 Chloroethane	64	2.419	2.419	0.000	99	128899	75.0	76.1	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	327021	75.0	76.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	94	283194	75.0	74.8	
20 Ethyl ether	59	3.076	3.076	0.000	87	188662	75.0	76.6	
21 Acrolein	56	3.252	3.252	0.000	99	115103	175.0	185.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	97	190985	75.0	75.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	92	206212	75.0	73.8	
24 Acetone	43	3.477	3.477	0.000	100	227784	150.0	167.5	
25 Iodomethane	142	3.562	3.562	0.000	96	304618	75.0	76.2	
26 Carbon disulfide	76	3.648	3.648	0.000	98	403056	75.0	72.2	
28 3-Chloro-1-propene	76	3.946	3.946	0.000	92	121734	75.0	74.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	419273	150.0	155.7	
31 Methylene Chloride	84	4.165	4.165	0.000	87	242665	75.0	78.8	
32 2-Methyl-2-propanol	59	4.451	4.451	0.000	95	204334	750.0	717.5	
33 Acrylonitrile	53	4.554	4.554	0.000	98	1029651	750.0	786.5	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	222245	75.0	76.6	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	95	613933	75.0	78.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.998	4.998	0.000	93	266987	75.0	71.7	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	379320	75.0	75.2	
38 Vinyl acetate	43	5.272	5.272	0.000	97	400099	75.0	78.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	93	48893	75.0	76.2	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	259385	75.0	78.2	
46 2-Butanone (MEK)	43	5.978	5.978	0.000	98	321867	150.0	166.3	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	113290	75.0	76.8	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	176266	150.0	156.4	
52 Chloroform	83	6.391	6.391	0.000	93	389323	75.0	77.3	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	285488	75.0	74.9	
54 Cyclohexane	56	6.622	6.622	0.000	88	345041	75.0	73.4	
56 Carbon tetrachloride	117	6.726	6.726	0.000	97	238173	75.0	75.1	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	98	312373	75.0	75.9	
57 Isobutyl alcohol	41	6.945	6.945	0.000	61	216532	1875.0	2093.1	
58 Benzene	78	6.951	6.951	0.000	97	981851	75.0	77.7	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	98	292683	75.0	79.4	
62 n-Heptane	43	7.316	7.316	0.000	88	214813	75.0	72.2	
64 Trichloroethene	130	7.687	7.687	0.000	98	241861	75.0	76.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	358781	75.0	74.6	
67 1,2-Dichloropropane	63	7.961	7.961	0.000	96	227133	75.0	77.2	
68 Dibromomethane	93	8.046	8.046	0.000	95	135198	75.0	78.4	
70 1,4-Dioxane	88	8.052	8.052	0.000	38	46920	1500.0	1567.5	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	268080	75.0	79.2	
73 2-Chloroethyl vinyl ether	63	8.545	8.545	0.000	92	343066	150.0	162.0	
74 cis-1,3-Dichloropropene	75	8.685	8.685	0.000	96	320956	75.0	78.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	95	542662	150.0	159.2	
76 Toluene	91	9.019	9.019	0.000	99	1000479	75.0	75.5	
77 trans-1,3-Dichloropropene	75	9.269	9.269	0.000	93	278226	75.0	77.2	
78 Ethyl methacrylate	69	9.330	9.330	0.000	87	352819	75.0	81.1	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	209928	75.0	76.0	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	184171	75.0	72.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	88	397870	75.0	78.0	
82 2-Hexanone	43	9.682	9.682	0.000	93	419354	150.0	160.4	
84 Chlorodibromomethane	129	9.834	9.834	0.000	91	181267	75.0	77.7	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	223815	75.0	79.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	352260	75.0	77.1	
87 Chlorobenzene	112	10.437	10.437	0.000	94	660247	75.0	76.5	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	327327	75.0	77.7	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	92	212641	75.0	77.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	371119	75.0	77.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	452043	75.0	76.8	
92 o-Xylene	106	11.051	11.051	0.000	95	440285	75.0	78.5	
93 Styrene	104	11.069	11.069	0.000	94	745860	75.0	78.6	
94 Bromoform	173	11.252	11.252	0.000	96	112077	75.0	77.3	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	348911	75.0	79.8	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	1080505	75.0	78.9	
100 Bromobenzene	156	11.739	11.739	0.000	95	261052	75.0	77.1	
99 1,1,2,2-Tetrachloroethane	83	11.745	11.745	0.000	95	316221	75.0	77.4	
102 trans-1,4-Dichloro-2-buten	53	11.775	11.775	0.000	82	83561	75.0	81.9	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	109372	75.0	78.3	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	291693	75.0	75.4	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	256066	75.0	76.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	97	289960	75.0	79.7	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	94	866332	75.0	78.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	269544	75.0	74.7	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	721573	75.0	78.0	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	884487	75.0	78.6	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	219982	75.0	78.1	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	993968	75.0	77.0	
113 1,3-Dichlorobenzene	146	12.688	12.688	0.000	97	462404	75.0	76.5	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	96	837492	75.0	77.9	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	96	474362	75.0	76.4	
116 2,4-Dichloro-1-(trifluorom	214	12.828	12.828	0.000	94	206368	75.0	78.6	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	217211	75.0	76.6	
120 n-Butylbenzene	91	13.150	13.150	0.000	98	671190	75.0	76.5	
121 1,2-Dichlorobenzene	146	13.156	13.156	0.000	98	437966	75.0	76.0	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	83	47827	75.0	74.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	889724	225.0	243.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	620870	150.0	164.2	
126 1,2,4-Trichlorobenzene	180	14.829	14.829	0.000	94	200638	75.0	76.1	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	73984	75.0	76.7	
128 Naphthalene	128	15.103	15.103	0.000	97	733996	75.0	81.7	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	184932	75.0	76.8	
131 2,4,5-Trichlorotoluene	159	16.198	16.198	0.000	0	91488	75.0	79.9	
130 2,3,6-Trichlorotoluene	159	16.307	16.307	0.000	98	89402	75.0	83.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		150.0	154.8	
S 133 Xylenes, Total	106				0		150.0	155.3	
S 135 1,3-Dichloropropene, Total	1				0		150.0	155.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 3.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 3.00	Units: uL
voaW2clev1stR_00013	Amount Added: 3.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 7.00	Units: uL
voaWVA1stRest_00017	Amount Added: 3.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 3.00	Units: uL
voaWKetmix1st_00004	Amount Added: 3.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D

Injection Date: 27-Jul-2017 02:02:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD15

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

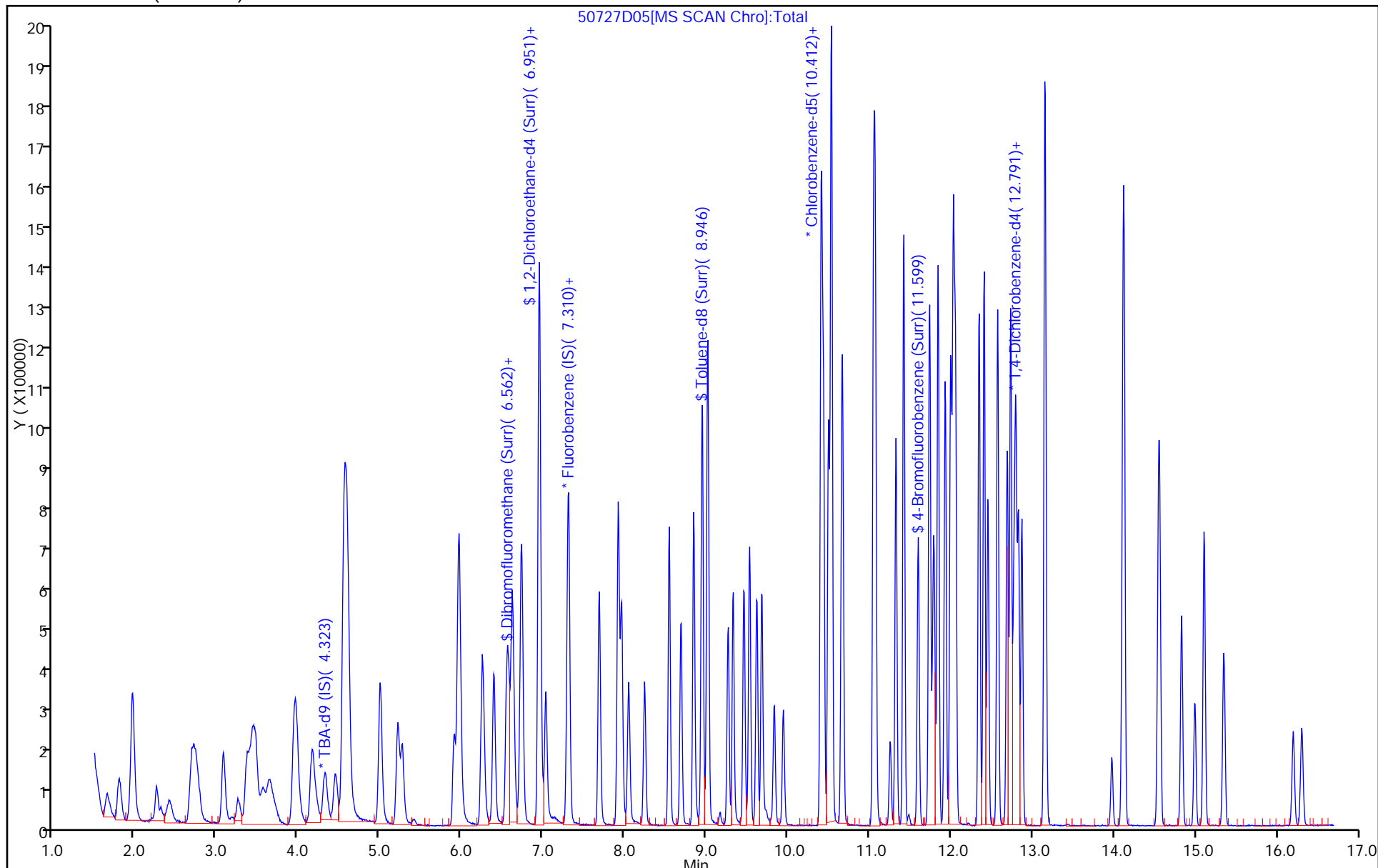
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 27-Jul-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-006
 Misc. Info.: IC VSTD20
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:58 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:06:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.316	4.323	-0.007	0	252187	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	520193	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	132635	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	95	171832	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	93	257355	100.0	102.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	307676	100.0	100.8	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.946	-0.001	92	1040595	100.0	98.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	390879	100.0	102.5	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	286388	100.0	94.7	
12 Chloromethane	50	1.797	1.804	-0.007	99	302276	100.0	99.4	
13 Vinyl chloride	62	1.949	1.944	0.005	98	291558	100.0	94.5	
14 Butadiene	39	1.962	1.969	-0.006	92	260580	100.0	93.0	
15 Bromomethane	94	2.260	2.254	0.006	90	161865	100.0	111.0	
16 Chloroethane	64	2.412	2.419	-0.007	99	172552	100.0	101.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	97	436022	100.0	101.7	
18 Trichlorofluoromethane	101	2.734	2.741	-0.007	96	371684	100.0	98.1	
20 Ethyl ether	59	3.081	3.076	0.005	89	262150	100.0	106.3	
21 Acrolein	56	3.264	3.252	0.012	99	130923	200.0	210.7	
22 1,1-Dichloroethene	96	3.373	3.368	0.005	98	247279	100.0	97.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.446	3.441	0.005	93	263603	100.0	94.3	
24 Acetone	43	3.476	3.477	-0.001	100	316026	200.0	232.3	
25 Iodomethane	142	3.562	3.562	0.000	98	408622	100.0	102.2	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	561008	100.0	100.4	
28 3-Chloro-1-propene	76	3.951	3.946	0.005	92	164305	100.0	99.8	
30 Methyl acetate	43	3.969	3.976	-0.007	97	558912	200.0	207.5	
31 Methylene Chloride	84	4.164	4.165	-0.001	93	323324	100.0	106.0	
32 2-Methyl-2-propanol	59	4.444	4.451	-0.007	94	283777	1000.0	951.5	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	1387354	1000.0	1059.2	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	98	296608	100.0	102.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	822838	100.0	105.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	4.998	0.005	92	337300	100.0	90.6	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	510811	100.0	101.2	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	532250	100.0	103.7	
44 2,2-Dichloropropane	97	5.959	5.959	-0.001	57	65750	100.0	102.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	347303	100.0	104.6	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	426755	200.0	220.4	
49 Chlorobromomethane	128	6.251	6.245	0.005	94	155416	100.0	105.4	
51 Tetrahydrofuran	42	6.263	6.263	0.000	86	224432	200.0	199.0	
52 Chloroform	83	6.390	6.391	-0.001	92	517765	100.0	102.8	
53 1,1,1-Trichloroethane	97	6.555	6.549	0.006	98	383868	100.0	100.7	
54 Cyclohexane	56	6.622	6.622	0.000	89	446560	100.0	94.9	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	96	317033	100.0	99.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	98	408627	100.0	99.2	
58 Benzene	78	6.956	6.951	0.005	97	1307056	100.0	103.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	91	290317	2500.0	2804.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	385206	100.0	104.5	
62 n-Heptane	43	7.315	7.316	-0.001	89	279216	100.0	93.8	
64 Trichloroethene	130	7.686	7.687	-0.001	98	329499	100.0	103.5	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	467268	100.0	97.1	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	96	309491	100.0	105.1	
68 Dibromomethane	93	8.051	8.046	0.005	96	184529	100.0	106.9	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	65688	2000.0	2193.3	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	99	366097	100.0	108.1	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	467677	200.0	220.7	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	447138	100.0	108.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.842	8.843	-0.001	95	738839	200.0	217.2	
76 Toluene	91	9.018	9.019	-0.001	99	1332783	100.0	100.8	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	92	396221	100.0	110.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	483364	100.0	111.4	
79 1,1,2-Trichloroethane	97	9.456	9.457	-0.001	90	283688	100.0	103.0	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	244346	100.0	96.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	89	518120	100.0	101.7	
82 2-Hexanone	43	9.676	9.682	-0.006	94	581383	200.0	222.8	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	254603	100.0	109.3	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	294438	100.0	104.2	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	94	461082	100.0	101.2	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	877804	100.0	102.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	420704	100.0	100.0	
90 Ethylbenzene	106	10.533	10.534	-0.001	98	499116	100.0	103.8	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	92	289044	100.0	105.6	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	610286	100.0	103.9	
92 o-Xylene	106	11.050	11.051	-0.001	95	592117	100.0	105.8	
93 Styrene	104	11.075	11.069	0.006	94	1002147	100.0	105.8	
94 Bromoform	173	11.251	11.252	-0.001	97	157509	100.0	108.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	97	454842	100.0	104.3	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	1415676	100.0	103.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	412534	100.0	101.1	
100 Bromobenzene	156	11.738	11.739	-0.001	95	348475	100.0	104.5	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	82	104361	100.0	103.8	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	144469	100.0	105.0	
103 N-Propylbenzene	120	11.841	11.842	-0.001	98	387234	100.0	101.6	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	344800	100.0	104.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.994	0.005	96	381649	100.0	106.5	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	1140888	100.0	104.6	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	369832	100.0	104.0	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	931884	100.0	102.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	1156912	100.0	104.4	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	277157	100.0	99.8	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	1298722	100.0	102.1	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	97	613101	100.0	102.9	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	1086140	100.0	102.5	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	94	622850	100.0	101.8	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.828	-0.001	96	267418	100.0	103.4	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.870	-0.001	0	279514	100.0	100.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	97	885288	100.0	102.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	97	577962	100.0	101.8	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	85	68470	100.0	108.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	1151252	300.0	319.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	814032	200.0	218.5	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	266863	100.0	102.7	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	97	94134	100.0	99.0	
128 Naphthalene	128	15.102	15.103	-0.001	97	990398	100.0	111.9	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	97	247660	100.0	104.3	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	122498	100.0	108.5	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	96	115009	100.0	109.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	209.7	
S 134 1,2-Dichloroethene, Total	96				0		200.0	206.9	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 4.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 4.00	Units: uL
voaW2clev1stR_00013	Amount Added: 4.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 8.00	Units: uL
voaWVA1stRest_00017	Amount Added: 4.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 4.00	Units: uL
voaWKetmix1st_00004	Amount Added: 4.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D

Injection Date: 27-Jul-2017 02:26:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD20

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

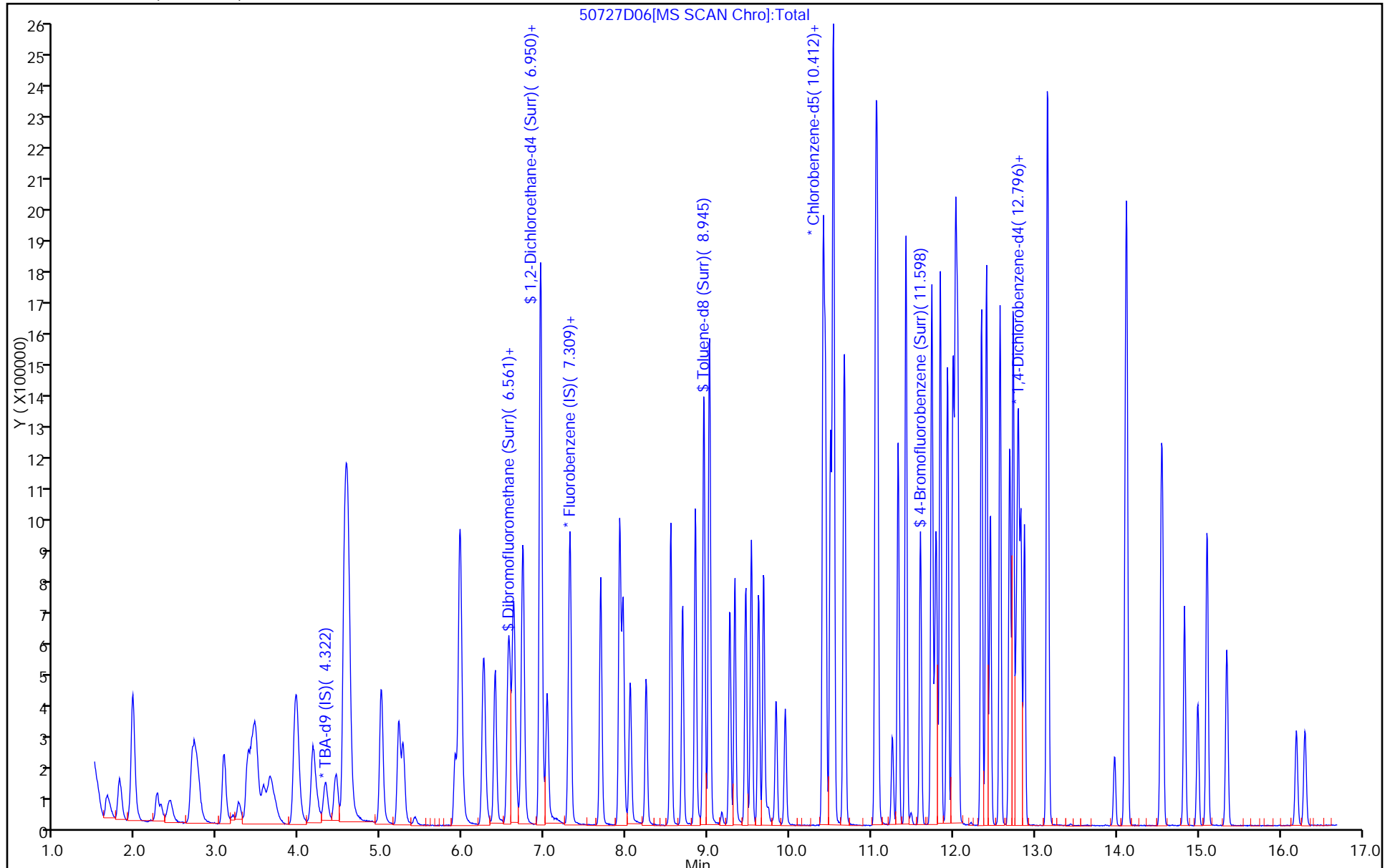
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 27-Jul-2017 03:13:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-008
 Misc. Info.: IC VSTD40
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:02 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:34:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.337	4.323	0.013	0	252542	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	99	561296	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	56	150914	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.773	-0.005	90	189484	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.575	6.574	0.001	94	522323	200.0	193.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.946	6.945	0.001	0	628942	200.0	190.9	
\$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	2000995	200.0	166.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.594	11.599	-0.005	92	793129	200.0	182.8	
11 Dichlorodifluoromethane	85	1.654	1.646	0.008	99	569791	200.0	174.6	
12 Chloromethane	50	1.812	1.804	0.008	99	580608	200.0	177.0	
13 Vinyl chloride	62	1.958	1.944	0.014	97	577090	200.0	173.4	
14 Butadiene	39	1.970	1.969	0.002	94	512032	200.0	169.3	
15 Bromomethane	94	2.268	2.254	0.014	91	289712	200.0	184.1	
16 Chloroethane	64	2.426	2.419	0.007	99	322589	200.0	176.3	
17 Dichlorofluoromethane	67	2.706	2.699	0.007	97	819020	200.0	177.0	
18 Trichlorofluoromethane	101	2.761	2.741	0.020	97	710415	200.0	173.7	
20 Ethyl ether	59	3.077	3.076	0.001	88	510033	200.0	191.7	
21 Acrolein	56	3.260	3.252	0.008	100	179414	250.0	267.6	
22 1,1-Dichloroethene	96	3.369	3.368	0.001	96	489503	200.0	178.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.442	3.441	0.001	93	534815	200.0	177.3	
24 Acetone	43	3.485	3.477	0.008	100	522287	400.0	355.8	
25 Iodomethane	142	3.576	3.562	0.014	98	834240	200.0	193.3	
26 Carbon disulfide	76	3.649	3.648	0.001	99	1211678	200.0	200.9	
28 3-Chloro-1-propene	76	3.947	3.946	0.001	92	366340	200.0	206.3	
30 Methyl acetate	43	3.978	3.976	0.002	97	1173609	400.0	403.7	
31 Methylene Chloride	84	4.166	4.165	0.001	88	653341	200.0	201.5	
32 2-Methyl-2-propanol	59	4.464	4.451	0.013	93	519054	2000.0	1737.9	
33 Acrylonitrile	53	4.562	4.554	0.008	99	2794353	2000.0	1977.2	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	97	571864	200.0	182.6	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	95	1751345	200.0	208.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.000	4.998	0.002	92	708650	200.0	176.3	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	1041269	200.0	191.3	
38 Vinyl acetate	43	5.273	5.272	0.001	97	1200052	200.0	216.8	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	88	125406	200.0	180.9	
45 cis-1,2-Dichloroethene	96	5.967	5.965	0.002	80	687049	200.0	191.8	
46 2-Butanone (MEK)	43	5.979	5.978	0.001	98	795793	400.0	380.9	
49 Chlorobromomethane	128	6.247	6.245	0.002	94	313977	200.0	197.3	
51 Tetrahydrofuran	42	6.265	6.263	0.002	86	488432	400.0	401.4	
52 Chloroform	83	6.393	6.391	0.002	93	1037446	200.0	190.8	
53 1,1,1-Trichloroethane	97	6.551	6.549	0.002	98	777880	200.0	189.0	
54 Cyclohexane	56	6.618	6.622	-0.004	90	922281	200.0	181.6	
56 Carbon tetrachloride	117	6.721	6.726	-0.005	97	646700	200.0	188.8	
55 1,1-Dichloropropene	75	6.739	6.738	0.001	97	825970	200.0	185.8	
57 Isobutyl alcohol	41	6.946	6.945	0.001	51	587752	5000.0	5262.5	
58 Benzene	78	6.952	6.951	0.001	97	2487856	200.0	182.3	
59 1,2-Dichloroethane	62	7.031	7.030	0.001	97	767974	200.0	193.0	
62 n-Heptane	43	7.311	7.316	-0.005	87	573064	200.0	178.3	
64 Trichloroethene	130	7.682	7.687	-0.005	98	647404	200.0	188.5	
66 Methylcyclohexane	83	7.920	7.918	0.002	87	950167	200.0	183.0	
67 1,2-Dichloropropane	63	7.962	7.961	0.001	96	624637	200.0	196.5	
68 Dibromomethane	93	8.047	8.046	0.001	95	374289	200.0	201.0	
70 1,4-Dioxane	88	8.041	8.052	-0.011	39	135844	4000.0	4203.6	
71 Dichlorobromomethane	83	8.242	8.241	0.001	99	752352	200.0	205.8	
73 2-Chloroethyl vinyl ether	63	8.546	8.545	0.001	93	977190	400.0	427.3	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	933591	200.0	210.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.844	8.843	0.001	95	1476808	400.0	381.5	
76 Toluene	91	9.015	9.019	-0.004	98	2540251	200.0	168.8	
77 trans-1,3-Dichloropropene	75	9.264	9.269	-0.005	92	850338	200.0	207.7	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	1001550	200.0	202.8	
79 1,1,2-Trichloroethane	97	9.459	9.457	0.002	91	569083	200.0	181.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	486427	200.0	169.5	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	1058308	200.0	182.6	
82 2-Hexanone	43	9.678	9.682	-0.004	93	1109580	400.0	373.7	
84 Chlorodibromomethane	129	9.830	9.834	-0.004	89	540065	200.0	203.8	
85 Ethylene Dibromide	107	9.945	9.944	0.001	98	607203	200.0	188.9	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	93	869071	200.0	167.6	
87 Chlorobenzene	112	10.432	10.437	-0.005	93	1704167	200.0	174.0	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	96	810848	200.0	169.4	
89 1,1,1,2-Tetrachloroethane	131	10.529	10.528	0.001	94	590452	200.0	189.5	
90 Ethylbenzene	106	10.536	10.534	0.002	98	972676	200.0	177.9	
91 m-Xylene & p-Xylene	106	10.669	10.668	0.001	0	1217768	200.0	182.2	
92 o-Xylene	106	11.053	11.051	0.002	95	1159372	200.0	182.1	
93 Styrene	104	11.071	11.069	0.002	94	1967591	200.0	182.6	
94 Bromoform	173	11.253	11.252	0.001	96	350923	200.0	213.1	
96 2-Chlorobenzotrifluoride	180	11.326	11.325	0.001	96	875687	200.0	176.5	
97 Isopropylbenzene	105	11.418	11.422	-0.004	96	2665903	200.0	171.5	
100 Bromobenzene	156	11.734	11.739	-0.005	95	711710	200.0	193.5	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	93	870164	200.0	187.5	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	85	225821	200.0	203.6	
101 1,2,3-Trichloropropane	110	11.795	11.793	0.002	85	299299	200.0	197.2	
103 N-Propylbenzene	120	11.844	11.842	0.002	97	774184	200.0	184.2	
104 2-Chlorotoluene	126	11.929	11.927	0.002	97	700158	200.0	192.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	742625	200.0	187.9	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	94	2188229	200.0	182.0	
107 4-Chlorotoluene	126	12.056	12.055	0.001	95	738280	200.0	188.2	
108 tert-Butylbenzene	119	12.342	12.347	-0.005	93	1809964	200.0	180.0	
110 1,2,4-Trimethylbenzene	105	12.403	12.408	-0.005	97	2260604	200.0	184.9	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	97	542681	200.0	177.2	
112 sec-Butylbenzene	105	12.574	12.572	0.002	95	2474312	200.0	176.4	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	1215884	200.0	185.0	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	96	2107989	200.0	180.4	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	1249173	200.0	185.1	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.828	0.001	95	497225	200.0	174.4	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	580659	200.0	188.5	
120 n-Butylbenzene	91	13.151	13.150	0.001	96	1729209	200.0	181.5	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	97	1161072	200.0	185.4	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	85	151695	200.0	218.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	2228710	600.0	561.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.551	14.555	-0.004	0	1589536	400.0	386.9	
126 1,2,4-Trichlorobenzene	180	14.830	14.829	0.001	94	552245	200.0	192.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	180140	200.0	171.8	
128 Naphthalene	128	15.104	15.103	0.001	97	2008065	200.0	205.7	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	96	497473	200.0	190.0	
131 2,4,5-Trichlorotoluene	159	16.199	16.198	0.001	0	253594	200.0	203.8	
130 2,3,6-Trichlorotoluene	159	16.303	16.307	-0.004	97	237299	200.0	205.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	374.5	
S 133 Xylenes, Total	106				0		400.0	364.3	
S 135 1,3-Dichloropropene, Total	1				0		400.0	418.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 8.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 8.00	Units: uL
voaW2clev1stR_00013	Amount Added: 8.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 10.00	Units: uL
voaWVA1stRest_00017	Amount Added: 8.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 8.00	Units: uL
voaWKetmix1st_00004	Amount Added: 8.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D

Injection Date: 27-Jul-2017 03:13:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD40

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

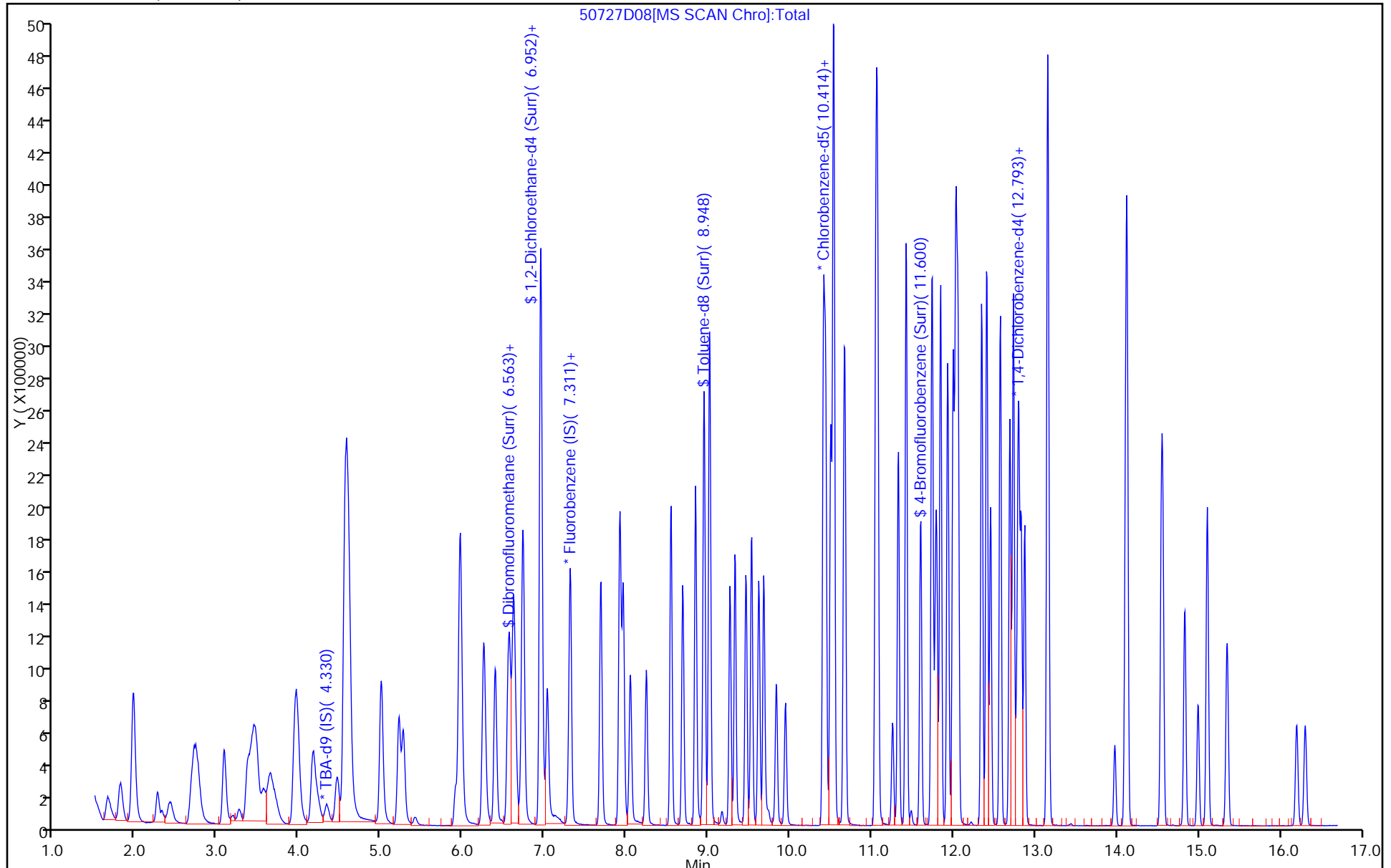
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 27-Jul-2017 04:00:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-010
 Misc. Info.: IC VSTD35
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:06 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 04:42:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.323	0.005	0	232894	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.296	7.298	-0.002	94	610088	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.406	-0.001	86	155120	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.773	-0.002	90	193547	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.572	6.574	-0.002	94	505019	175.0	172.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.943	6.945	-0.002	0	575099	175.0	160.6	
\$ 7 Toluene-d8 (Surr)	98	8.951	8.946	0.005	92	1992609	175.0	161.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.597	11.599	-0.002	87	748217	175.0	167.8	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	647803	175.0	182.6	
12 Chloromethane	50	1.809	1.804	0.005	99	595751	175.0	167.1	
13 Vinyl chloride	62	1.961	1.944	0.017	98	632153	175.0	174.7	
14 Butadiene	39	1.967	1.969	-0.001	93	579584	175.0	176.3	
15 Bromomethane	94	2.265	2.254	0.011	91	285707	175.0	167.0	
16 Chloroethane	64	2.417	2.419	-0.002	99	340168	175.0	171.1	
17 Dichlorofluoromethane	67	2.703	2.699	0.004	97	845136	175.0	168.0	
18 Trichlorofluoromethane	101	2.746	2.741	0.005	96	769762	175.0	173.1	
20 Ethyl ether	59	3.074	3.076	-0.002	88	475422	175.0	164.4	
21 Acrolein	56	3.269	3.252	0.017	99	154738	225.0	212.3	
22 1,1-Dichloroethene	96	3.372	3.368	0.004	96	540044	175.0	180.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.452	3.441	0.011	92	571742	175.0	174.4	
24 Acetone	43	3.482	3.477	0.005	99	447756	350.0	280.6	
25 Iodomethane	142	3.561	3.562	-0.001	96	811997	175.0	173.1	
26 Carbon disulfide	76	3.646	3.648	-0.002	99	1310811	175.0	200.0	
28 3-Chloro-1-propene	76	3.944	3.946	-0.002	93	365237	175.0	189.2	
30 Methyl acetate	43	3.975	3.976	-0.001	97	1009713	350.0	319.6	
31 Methylene Chloride	84	4.163	4.165	-0.002	89	602402	175.0	170.4	
32 2-Methyl-2-propanol	59	4.455	4.451	0.004	93	524619	1750.0	1904.7	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	2362587	1750.0	1538.0	
34 trans-1,2-Dichloroethene	96	4.577	4.584	-0.007	98	595572	175.0	175.0	
35 Methyl tert-butyl ether	73	4.601	4.603	-0.002	96	1597553	175.0	175.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.997	4.998	-0.001	91	760411	175.0	174.1	
37 1,1-Dichloroethane	63	5.216	5.217	-0.001	96	1024340	175.0	173.1	
38 Vinyl acetate	43	5.270	5.272	-0.002	97	1068205	175.0	177.5	
44 2,2-Dichloropropane	97	5.958	5.959	-0.001	91	136605	175.0	181.3	
45 cis-1,2-Dichloroethene	96	5.964	5.965	-0.001	79	671208	175.0	172.4	
46 2-Butanone (MEK)	43	5.982	5.978	0.004	100	686266	350.0	302.2	
49 Chlorobromomethane	128	6.250	6.245	0.005	95	291754	175.0	168.6	
51 Tetrahydrofuran	42	6.262	6.263	-0.001	87	396477	350.0	299.8	
52 Chloroform	83	6.396	6.391	0.005	92	989929	175.0	167.5	
53 1,1,1-Trichloroethane	97	6.554	6.549	0.005	98	811476	175.0	181.4	
54 Cyclohexane	56	6.621	6.622	-0.001	90	1012965	175.0	183.5	
56 Carbon tetrachloride	117	6.718	6.726	-0.008	97	682784	175.0	183.4	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	97	866715	175.0	179.4	
57 Isobutyl alcohol	41	6.950	6.945	0.005	91	452876	4375.0	3730.6	
58 Benzene	78	6.956	6.951	0.005	97	2459963	175.0	165.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	708898	175.0	163.9	
62 n-Heptane	43	7.315	7.316	-0.001	88	633483	175.0	181.4	
64 Trichloroethene	130	7.686	7.687	-0.001	98	648262	175.0	173.7	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	1041060	175.0	184.4	
67 1,2-Dichloropropane	63	7.959	7.961	-0.002	95	596512	175.0	172.7	
68 Dibromomethane	93	8.045	8.046	-0.001	96	342853	175.0	169.4	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	115916	3500.0	3300.1	
71 Dichlorobromomethane	83	8.239	8.241	-0.002	100	712434	175.0	179.3	
73 2-Chloroethyl vinyl ether	63	8.543	8.545	-0.002	92	864836	350.0	347.9	
74 cis-1,3-Dichloropropene	75	8.689	8.685	0.004	96	881560	175.0	182.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.841	8.843	-0.002	95	1265241	350.0	318.0	
76 Toluene	91	9.018	9.019	-0.001	98	2496911	175.0	161.4	
77 trans-1,3-Dichloropropene	75	9.267	9.269	-0.002	93	781619	175.0	185.7	
78 Ethyl methacrylate	69	9.328	9.330	-0.002	88	905216	175.0	178.4	
79 1,1,2-Trichloroethane	97	9.462	9.457	0.005	90	523017	175.0	162.3	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	498519	175.0	169.0	
81 1,3-Dichloropropane	76	9.620	9.615	0.005	89	969241	175.0	162.7	
82 2-Hexanone	43	9.681	9.682	-0.001	94	977068	350.0	320.2	
84 Chlorodibromomethane	129	9.833	9.834	-0.001	90	489506	175.0	179.7	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	550826	175.0	166.7	
86 3-Chlorobenzotrifluoride	180	10.411	10.412	-0.001	93	874266	175.0	164.0	
87 Chlorobenzene	112	10.435	10.437	-0.002	94	1645967	175.0	163.5	
88 4-Chlorobenzotrifluoride	180	10.496	10.498	-0.002	95	826850	175.0	168.1	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	93	554351	175.0	173.1	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	962208	175.0	171.2	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1197380	175.0	174.3	
92 o-Xylene	106	11.050	11.051	-0.001	95	1130677	175.0	172.8	
93 Styrene	104	11.068	11.069	-0.001	94	1866053	175.0	168.4	
94 Bromoform	173	11.257	11.252	0.005	97	310948	175.0	183.7	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	96	840920	175.0	164.9	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	2681266	175.0	167.8	
100 Bromobenzene	156	11.737	11.739	-0.002	95	659984	175.0	175.7	
99 1,1,2,2-Tetrachloroethane	83	11.737	11.745	-0.008	94	762601	175.0	159.9	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	86	199800	175.0	176.4	
101 1,2,3-Trichloropropane	110	11.792	11.793	-0.001	85	255265	175.0	164.7	
103 N-Propylbenzene	120	11.841	11.842	-0.001	97	786064	175.0	183.1	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	666236	175.0	179.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.993	11.994	-0.001	96	680717	175.0	168.7	
106 1,3,5-Trimethylbenzene	105	12.029	12.031	-0.002	94	2153457	175.0	175.3	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	95	719035	175.0	179.5	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	1844417	175.0	179.6	
110 1,2,4-Trimethylbenzene	105	12.406	12.408	-0.002	97	2182090	175.0	174.8	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.456	-0.001	97	525922	175.0	168.1	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	2514051	175.0	175.5	
113 1,3-Dichlorobenzene	146	12.692	12.688	0.004	96	1146674	175.0	170.8	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	2114911	175.0	177.2	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	95	1174377	175.0	170.4	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.828	-0.002	96	501975	175.0	172.4	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.870	0.005	0	541324	175.0	172.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	96	1748217	175.0	179.6	
121 1,2-Dichlorobenzene	146	13.161	13.156	0.005	97	1081541	175.0	169.1	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	86	125814	175.0	177.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	2069215	525.0	509.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	1443949	350.0	344.1	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	511830	175.0	174.8	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	98	182711	175.0	170.6	
128 Naphthalene	128	15.101	15.103	-0.002	97	1761559	175.0	176.7	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	96	453926	175.0	169.7	
131 2,4,5-Trichlorotoluene	159	16.196	16.198	-0.002	0	235417	175.0	185.2	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	97	211883	175.0	179.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	347.1	
S 134 1,2-Dichloroethene, Total	96				0		350.0	347.4	
S 135 1,3-Dichloropropene, Total	1				0		350.0	368.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 7.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 9.00	Units: uL
voaWVA1stRest_00017	Amount Added: 7.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 7.00	Units: uL
voaW2clev1stR_00013	Amount Added: 7.00	Units: uL
voaWKetmix1st_00004	Amount Added: 7.00	Units: uL
VOA8260SURR_00071	Amount Added: 7.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D

Injection Date: 27-Jul-2017 04:00:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD35

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

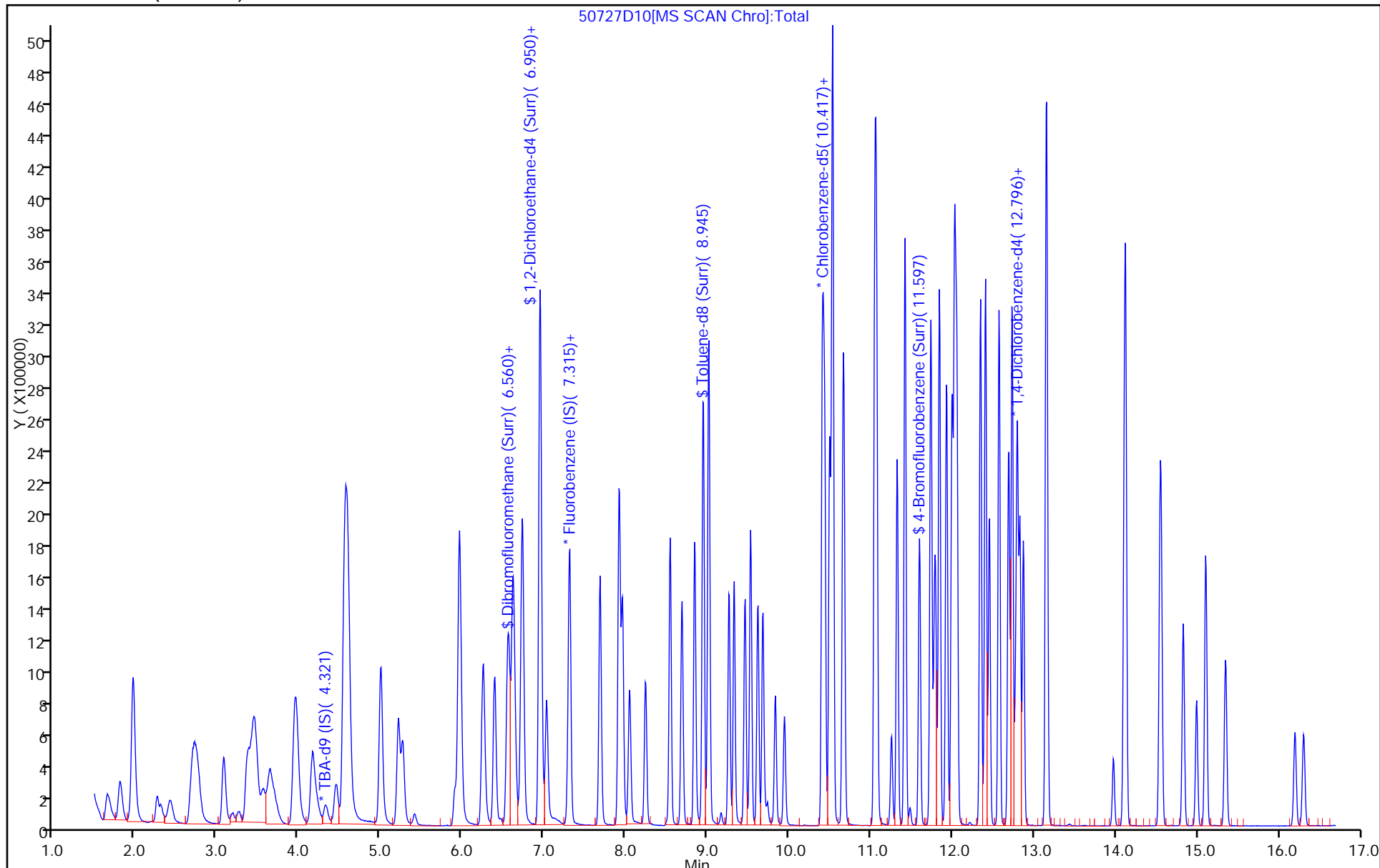
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 27-Jul-2017 04:24:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-011
 Misc. Info.: IC VSTD50
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 05:09:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.341	4.323	0.018	0	184114	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	99	607808	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	161595	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	89	194624	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	94	681339	250.0	233.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	795993	250.0	223.2	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	2678162	250.0	208.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	1033645	250.0	222.5	
11 Dichlorodifluoromethane	85	1.652	1.646	0.006	99	857078	250.0	242.5	
12 Chloromethane	50	1.804	1.804	0.000	99	811941	250.0	228.6	
13 Vinyl chloride	62	1.956	1.944	0.012	98	867536	250.0	240.7	
14 Butadiene	39	1.968	1.969	0.000	94	815610	250.0	249.1	
15 Bromomethane	94	2.266	2.254	0.012	90	377950	250.0	221.8	
16 Chloroethane	64	2.406	2.419	-0.013	99	414342	250.0	209.1	
17 Dichlorofluoromethane	67	2.698	2.699	-0.001	97	1057272	250.0	211.0	
18 Trichlorofluoromethane	101	2.728	2.741	-0.013	97	1017488	250.0	229.7	
20 Ethyl ether	59	3.069	3.076	-0.007	88	612640	250.0	212.6	
21 Acrolein	56	3.264	3.252	0.012	98	183852	275.0	253.2	
22 1,1-Dichloroethene	96	3.367	3.368	-0.001	97	745282	250.0	250.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.441	-0.013	92	774058	250.0	237.0	
24 Acetone	43	3.483	3.477	0.006	100	630881	500.0	396.9	
25 Iodomethane	142	3.580	3.562	0.018	97	1099819	250.0	235.3	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	1856339	250.0	284.2	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	93	500032	250.0	260.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	1447736	500.0	459.9	
31 Methylene Chloride	84	4.164	4.165	-0.001	88	813282	250.0	232.1	
32 2-Methyl-2-propanol	59	4.468	4.451	0.017	94	568135	2500.0	2609.2	
33 Acrylonitrile	53	4.553	4.554	-0.001	98	3495451	2500.0	2284.0	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	98	806194	250.0	237.8	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	96	2170401	250.0	238.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.998	-0.007	92	1101558	250.0	253.1	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	1376176	250.0	233.4	
38 Vinyl acetate	43	5.271	5.272	-0.001	97	1523056	250.0	254.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	91	188250	250.0	250.8	
45 cis-1,2-Dichloroethene	96	5.959	5.965	-0.006	79	900432	250.0	232.2	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	962704	500.0	425.5	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	394763	250.0	229.0	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	609910	500.0	462.9	
52 Chloroform	83	6.391	6.391	0.000	92	1319564	250.0	224.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	1097196	250.0	246.2	
54 Cyclohexane	56	6.616	6.622	-0.006	90	1394833	250.0	253.7	
56 Carbon tetrachloride	117	6.719	6.726	-0.007	97	923177	250.0	248.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	96	1178056	250.0	244.7	
57 Isobutyl alcohol	41	6.950	6.945	0.005	68	715201	6250.0	5913.6	
58 Benzene	78	6.950	6.951	-0.001	97	3249284	250.0	219.9	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	969148	250.0	225.0	
62 n-Heptane	43	7.309	7.316	-0.007	89	922592	250.0	265.1	
64 Trichloroethene	130	7.686	7.687	-0.001	98	887332	250.0	238.6	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	1432791	250.0	254.8	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	95	793667	250.0	230.6	
68 Dibromomethane	93	8.045	8.046	-0.001	97	470836	250.0	233.5	
70 1,4-Dioxane	88	8.039	8.052	-0.013	38	187034	5000.0	5344.8	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	945026	250.0	238.8	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	1234429	500.0	498.5	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	1203144	250.0	250.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.842	8.843	-0.001	94	1863520	500.0	449.6	
76 Toluene	91	9.019	9.019	0.000	97	3254284	250.0	202.0	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	93	1070347	250.0	244.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	88	1271580	250.0	240.5	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	718069	250.0	213.9	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	683462	250.0	222.4	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	89	1320887	250.0	212.9	
82 2-Hexanone	43	9.676	9.682	-0.006	93	1418811	500.0	446.3	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	672369	250.0	237.0	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	773664	250.0	224.7	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	1290067	250.0	232.3	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	2170926	250.0	207.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	1226371	250.0	239.3	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	94	751692	250.0	225.4	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	1304914	250.0	222.8	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1614353	250.0	225.6	
92 o-Xylene	106	11.051	11.051	0.000	95	1518391	250.0	222.7	
93 Styrene	104	11.069	11.069	0.000	94	2462559	250.0	213.4	
94 Bromoform	173	11.257	11.252	0.005	98	443094	250.0	251.3	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	95	1244752	250.0	234.2	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	3502176	250.0	210.4	
100 Bromobenzene	156	11.738	11.739	-0.001	95	889999	250.0	235.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	1078742	250.0	217.1	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	84	299994	250.0	263.4	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	84	371250	250.0	238.1	
103 N-Propylbenzene	120	11.841	11.842	-0.001	96	1069171	250.0	247.7	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	907016	250.0	243.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	1010916	250.0	249.1	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	95	2828999	250.0	229.0	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	970169	250.0	240.8	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	92	2446270	250.0	236.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	2860516	250.0	227.8	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	96	801099	250.0	254.7	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	95	3330508	250.0	231.2	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	96	1545747	250.0	229.0	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	95	2809716	250.0	234.1	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	1574222	250.0	227.2	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.828	-0.001	94	771761	250.0	263.5	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	797256	250.0	252.0	
120 n-Butylbenzene	91	13.149	13.150	-0.001	95	2372703	250.0	242.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	96	1435184	250.0	223.1	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	86	182290	250.0	255.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	3049908	750.0	747.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	2191624	500.0	519.4	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	755690	250.0	256.7	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	282046	250.0	261.8	
128 Naphthalene	128	15.102	15.103	-0.001	98	2561966	250.0	255.5	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	693791	250.0	258.0	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	452516	250.0	354.0	
130 2,3,6-Trichlorotoluene	159	16.301	16.307	-0.006	98	417201	250.0	350.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		500.0	470.0	
S 133 Xylenes, Total	106				0		500.0	448.3	
S 135 1,3-Dichloropropene, Total	1				0		500.0	494.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00263	Amount Added: 10.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 11.00	Units: uL
voaWVA1stRest_00017	Amount Added: 10.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 10.00	Units: uL
voaW2clev1stR_00013	Amount Added: 10.00	Units: uL
voaWKetmix1st_00004	Amount Added: 10.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 10.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Injection Date: 27-Jul-2017 04:24:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD50

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

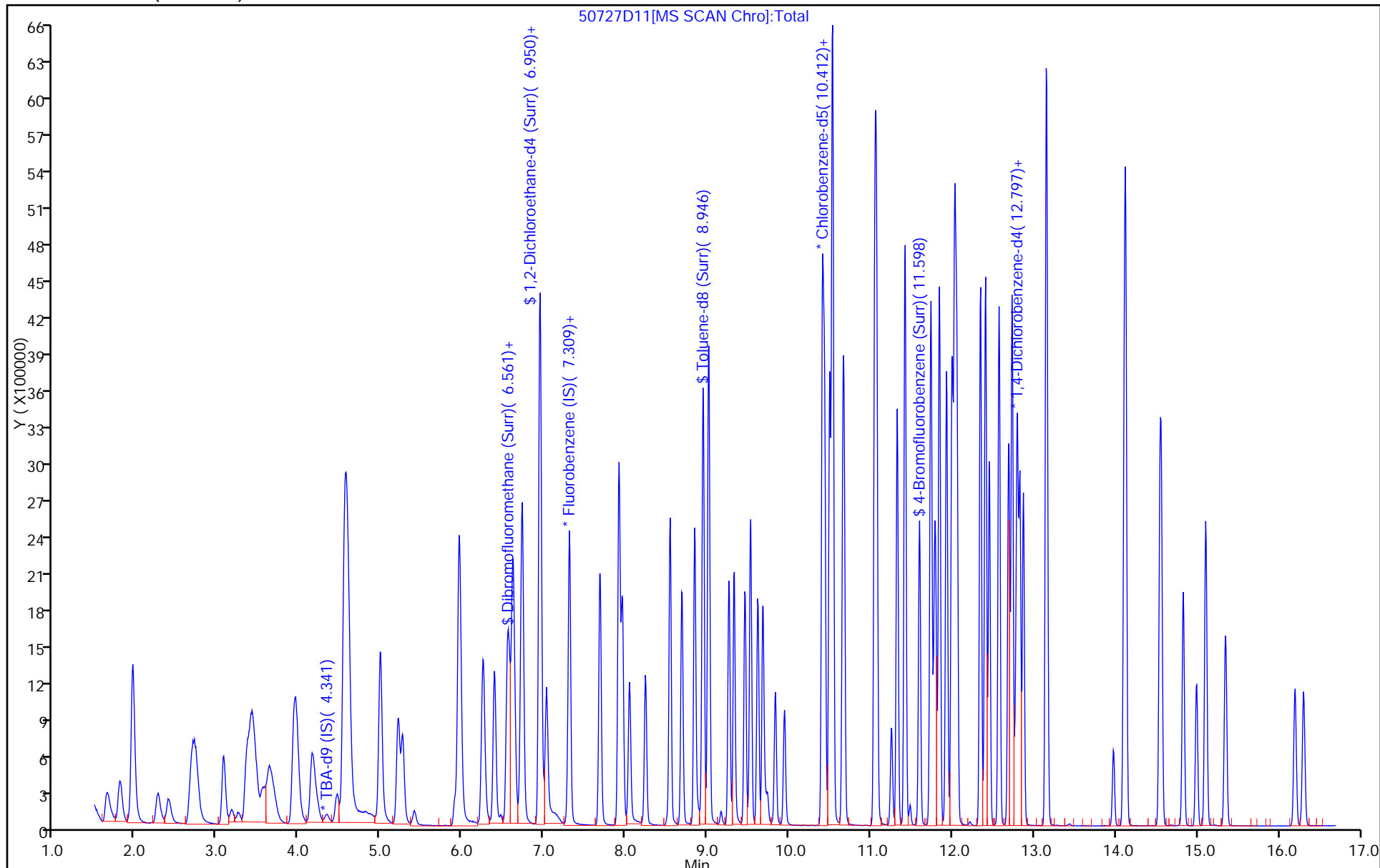
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-227871/2 Calibration Date: 11/02/2017 22:22
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51102D02.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	0.2498	0.1000	8.59	10.0	-14.1	20.0
Chloromethane	Ave	0.2922	0.3475	0.1000	11.9	10.0	18.9	20.0
Vinyl chloride	Ave	0.2965	0.2874	0.1000	9.69	10.0	-3.1	20.0
1,3-Butadiene	Ave	0.2694	0.3468	0.0100	12.9	10.0	28.8*	20.0
Bromomethane	Ave	0.1402	0.1069	0.0500	7.62	10.0	-23.8*	20.0
Chloroethane	Ave	0.1630	0.1606	0.0500	9.85	10.0	-1.5	20.0
Trichlorofluoromethane	Ave	0.3643	0.4063	0.1000	11.2	10.0	11.5	20.0
Ethyl ether	Ave	0.2370	0.2865	0.0100	12.1	10.0	20.9*	20.0
Acrolein	Ave	0.0597	0.0369	0.0100	18.5	30.0	-38.2*	20.0
1,1-Dichloroethene	Ave	0.2448	0.2278	0.1000	9.30	10.0	-7.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2521	0.1000	9.39	10.0	-6.1	20.0
Acetone	Ave	0.1308	0.2023	0.0500	30.9	20.0	54.7*	20.0
Iodomethane	Ave	0.3845	0.3524	0.0100	9.17	10.0	-8.3	20.0
Carbon disulfide	Ave	0.5372	0.4747	0.1000	8.84	10.0	-11.6	20.0
Allyl chloride	Ave	0.1582	0.1351	0.0100	8.54	10.0	-14.6	20.0
Methyl acetate	Ave	0.2589	0.3024	0.1000	23.4	20.0	16.8	20.0
Methylene Chloride	Lin2		0.2821	0.1000	9.26	10.0	-7.4	20.0
tert-Butyl alcohol	Ave	1.183	1.323	0.0100	112	100	11.9	20.0
Acrylonitrile	Ave	0.1259	0.1501	0.0100	119	100	19.2	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2501	0.1000	8.96	10.0	-10.4	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6939	0.1000	9.28	10.0	-7.2	20.0
Hexane	Ave	0.3580	0.3315	0.0100	9.26	10.0	-7.4	20.0
1,1-Dichloroethane	Ave	0.4850	0.4695	0.2000	9.68	10.0	-3.2	20.0
Vinyl acetate	Ave	0.4932	0.6948	0.0100	14.1	10.0	40.9*	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2738	0.1000	8.58	10.0	-14.2	20.0
2,2-Dichloropropane	Ave	0.0617	0.0631	0.0100	10.2	10.0	2.1	20.0
2-Butanone (MEK)	Ave	0.1861	0.2357	0.0500	25.3	20.0	26.6*	20.0
Bromochloromethane	Ave	0.1418	0.1350	0.0100	9.52	10.0	-4.8	20.0
Tetrahydrofuran	Ave	0.1084	0.1064	0.0100	19.6	20.0	-1.8	20.0
Chloroform	Ave	0.4843	0.4259	0.2000	8.79	10.0	-12.1	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3387	0.1000	9.24	10.0	-7.6	20.0
Cyclohexane	Ave	0.4524	0.4200	0.1000	9.28	10.0	-7.2	20.0
Carbon tetrachloride	Ave	0.3051	0.2975	0.1000	9.75	10.0	-2.5	20.0
1,1-Dichloropropene	Ave	0.3961	0.3175	0.0100	8.02	10.0	-19.8	20.0
Isobutyl alcohol	Ave	0.0099	0.0108	0.0100	272	250	8.7	20.0
Benzene	Ave	1.216	1.076	0.5000	8.85	10.0	-11.5	20.0
1,2-Dichloroethane	Ave	0.3544	0.3759	0.1000	10.6	10.0	6.1	20.0
n-Heptane	Ave	0.2863	0.3010	0.0100	10.5	10.0	5.1	20.0
Trichloroethene	Ave	0.3059	0.2414	0.2000	7.89	10.0	-21.1*	20.0
Methylcyclohexane	Ave	0.4626	0.3345	0.1000	7.23	10.0	-27.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-227871/2 Calibration Date: 11/02/2017 22:22
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51102D02.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	0.2596	0.1000	9.17	10.0	-8.3	20.0
1,4-Dioxane	Ave	0.0029	0.0025*	0.0100	174	200	-12.8	20.0
Dibromomethane	Ave	0.1659	0.1582	0.0100	9.54	10.0	-4.6	20.0
Bromodichloromethane	Ave	0.3256	0.2819	0.2000	8.66	10.0	-13.4	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1760	0.0100	17.3	20.0	-13.6	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3320	0.2000	8.39	10.0	-16.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.407	0.1000	21.9	20.0	9.7	20.0
Toluene	Ave	4.986	4.699	0.4000	9.42	10.0	-5.8	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.298	0.1000	9.57	10.0	-4.3	20.0
Ethyl methacrylate	Ave	1.636	1.243	0.0100	7.60	10.0	-24.0*	20.0
1,1,2-Trichloroethane	Ave	1.039	1.011	0.1000	9.74	10.0	-2.6	20.0
Tetrachloroethene	Ave	0.9508	0.8371	0.2000	8.80	10.0	-12.0	20.0
1,3-Dichloropropane	Ave	1.920	1.725	0.0100	8.98	10.0	-10.2	20.0
2-Hexanone	Ave	0.9836	1.075	0.1000	21.9	20.0	9.3	20.0
Dibromochloromethane	Ave	0.8779	0.9051	0.1000	10.3	10.0	3.1	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9757	0.1000	9.16	10.0	-8.4	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.917	0.0100	11.2	10.0	11.6	20.0
Chlorobenzene	Ave	3.246	2.890	0.5000	8.90	10.0	-11.0	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.882	0.0100	11.9	10.0	18.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.038	0.0100	10.1	10.0	0.6	20.0
Ethylbenzene	Ave	1.812	1.547	0.1000	8.54	10.0	-14.6	20.0
m-Xylene & p-Xylene	Ave	2.214	1.899	0.1000	8.58	10.0	-14.2	20.0
o-Xylene	Ave	2.110	1.763	0.3000	8.36	10.0	-16.4	20.0
Styrene	Ave	3.571	3.141	0.3000	8.80	10.0	-12.0	20.0
Bromoform	Ave	0.5456	0.4824	0.1000	8.84	10.0	-11.6	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.908	0.0100	11.6	10.0	16.1	20.0
Isopropylbenzene	Ave	5.150	4.265	0.1000	8.28	10.0	-17.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.505	0.3000	9.79	10.0	-2.1	20.0
Bromobenzene	Ave	0.9704	0.7643	0.0100	7.88	10.0	-21.2*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3274	0.0100	11.2	10.0	11.9	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3361	0.0100	8.39	10.0	-16.1	20.0
N-Propylbenzene	Ave	1.109	0.8594	0.0100	7.75	10.0	-22.5*	20.0
2-Chlorotoluene	Ave	0.9585	0.7422	0.0100	7.74	10.0	-22.6*	20.0
3-Chlorotoluene	Ave	1.043	1.082	0.0100	10.4	10.0	3.8	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.675	0.0100	8.43	10.0	-15.7	20.0
4-Chlorotoluene	Ave	1.035	0.8441	0.0100	8.15	10.0	-18.5	20.0
tert-Butylbenzene	Ave	2.653	1.872	0.0100	7.05	10.0	-29.5*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.595	0.0100	8.05	10.0	-19.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7837	0.0100	9.70	10.0	-3.0	20.0
sec-Butylbenzene	Ave	3.701	2.789	0.0100	7.54	10.0	-24.6*	20.0
1,3-Dichlorobenzene	Ave	1.734	1.507	0.6000	8.69	10.0	-13.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-227871/2 Calibration Date: 11/02/2017 22:22
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51102D02.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	2.444	0.0100	7.93	10.0	-20.7*	20.0
1,4-Dichlorobenzene	Ave	1.780	1.566	0.5000	8.80	10.0	-12.0	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6799	0.0100	9.04	10.0	-9.6	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.8138	0.0100	10.0	10.0	0.1	20.0
n-Butylbenzene	Ave	2.514	1.856	0.0100	7.38	10.0	-26.2*	20.0
1,2-Dichlorobenzene	Ave	1.653	1.495	0.4000	9.05	10.0	-9.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1578	0.0500	8.60	10.0	-14.0	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.139	0.0100	32.6	30.0	8.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.157	0.0100	21.3	20.0	6.7	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.6315	0.2000	8.35	10.0	-16.5	20.0
Hexachlorobutadiene	Ave	0.2767	0.2124	0.0100	7.68	10.0	-23.2*	20.0
Naphthalene	Ave	2.576	1.992	0.0100	7.73	10.0	-22.7*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.5719	0.0100	8.28	10.0	-17.2	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2719	0.0100	8.28	10.0	-17.2	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.2920	0.0100	9.56	10.0	-4.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2617		10.9	10.0	8.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3350		11.4	10.0	14.2	20.0
Toluene-d8 (Surr)	Ave	3.979	4.537		11.4	10.0	14.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.543		10.7	10.0	7.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D02.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 02-Nov-2017 22:22:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-002
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 02-Nov-2017 23:17:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.388	4.388	0.000	0	191856	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.337	0.000	97	471598	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	86	105369	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.768	0.000	93	157848	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.620	0.000	93	123427	50.0	54.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.991	0.000	0	157995	50.0	57.1	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	94	478085	50.0	57.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	85	162587	50.0	53.7	
11 Dichlorodifluoromethane	85	1.688	1.688	0.000	98	117791	50.0	43.0	
12 Chloromethane	50	1.888	1.888	0.000	99	163893	50.0	59.5	
13 Vinyl chloride	62	2.010	2.010	0.000	66	135533	50.0	48.5	
14 Butadiene	39	2.016	2.016	0.000	95	163564	50.0	64.4	
15 Bromomethane	94	2.332	2.332	0.000	87	50397	50.0	38.1	
16 Chloroethane	64	2.430	2.430	0.000	99	75723	50.0	49.3	
18 Trichlorofluoromethane	101	2.722	2.722	0.000	88	191618	50.0	55.8	
17 Dichlorofluoromethane	67	2.758	2.758	0.000	97	217538	50.0	55.9	
20 Ethyl ether	59	3.129	3.129	0.000	96	135114	50.0	60.4	
21 Acrolein	56	3.324	3.324	0.000	98	52197	150.0	92.7	
22 1,1-Dichloroethene	96	3.427	3.427	0.000	97	107408	50.0	46.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.488	3.488	0.000	93	118905	50.0	46.9	
24 Acetone	43	3.536	3.536	0.000	100	190786	100.0	154.7	
25 Iodomethane	142	3.622	3.622	0.000	97	166199	50.0	45.8	
26 Carbon disulfide	76	3.713	3.713	0.000	99	223885	50.0	44.2	
28 3-Chloro-1-propene	76	4.023	4.023	0.000	96	63726	50.0	42.7	
30 Methyl acetate	43	4.035	4.035	0.000	99	285206	100.0	116.8	
31 Methylene Chloride	84	4.236	4.236	0.000	98	133033	50.0	46.3	
32 2-Methyl-2-propanol	59	4.509	4.509	0.000	91	126936	500.0	559.4	
33 Acrylonitrile	53	4.619	4.619	0.000	100	708007	500.0	596.2	
34 trans-1,2-Dichloroethene	96	4.643	4.643	0.000	98	117924	50.0	44.8	
35 Methyl tert-butyl ether	73	4.668	4.668	0.000	97	327224	50.0	46.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.063	5.063	0.000	95	156323	50.0	46.3	
37 1,1-Dichloroethane	63	5.276	5.276	0.000	97	221410	50.0	48.4	
38 Vinyl acetate	43	5.324	5.324	0.000	97	327669	50.0	70.4	
45 cis-1,2-Dichloroethene	96	6.012	6.012	0.000	83	129126	50.0	42.9	
44 2,2-Dichloropropane	97	6.018	6.018	0.000	61	29732	50.0	51.1	
46 2-Butanone (MEK)	43	6.030	6.030	0.000	99	222287	100.0	126.6	
49 Chlorobromomethane	128	6.297	6.297	0.000	95	63679	50.0	47.6	
51 Tetrahydrofuran	42	6.310	6.310	0.000	92	100373	100.0	98.2	
52 Chloroform	83	6.437	6.437	0.000	94	200828	50.0	44.0	
53 1,1,1-Trichloroethane	97	6.595	6.595	0.000	97	159748	50.0	46.2	
54 Cyclohexane	56	6.662	6.662	0.000	95	198060	50.0	46.4	
56 Carbon tetrachloride	117	6.772	6.772	0.000	96	140295	50.0	48.8	
55 1,1-Dichloropropene	75	6.784	6.784	0.000	93	149721	50.0	40.1	M
57 Isobutyl alcohol	41	6.991	6.991	0.000	88	127534	1250.0	1359.1	
58 Benzene	78	6.997	6.997	0.000	96	507473	50.0	44.3	
59 1,2-Dichloroethane	62	7.076	7.076	0.000	97	177282	50.0	53.0	
62 n-Heptane	43	7.356	7.356	0.000	88	141927	50.0	52.6	
64 Trichloroethene	130	7.727	7.727	0.000	98	113828	50.0	39.4	
66 Methylcyclohexane	83	7.958	7.958	0.000	93	157757	50.0	36.2	
67 1,2-Dichloropropane	63	8.000	8.000	0.000	94	122412	50.0	45.8	
70 1,4-Dioxane	88	8.085	8.085	0.000	44	23666	1000.0	871.6	
68 Dibromomethane	93	8.085	8.085	0.000	97	74592	50.0	47.7	
71 Dichlorobromomethane	83	8.274	8.274	0.000	98	132921	50.0	43.3	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	93	165972	100.0	86.4	
74 cis-1,3-Dichloropropene	75	8.724	8.724	0.000	93	156545	50.0	42.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.876	8.876	0.000	99	296478	100.0	109.7	
76 Toluene	91	9.046	9.046	0.000	98	495078	50.0	47.1	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	96	136769	50.0	47.8	
78 Ethyl methacrylate	69	9.356	9.356	0.000	91	130975	50.0	38.0	
79 1,1,2-Trichloroethane	97	9.490	9.490	0.000	93	106556	50.0	48.7	
80 Tetrachloroethene	164	9.557	9.557	0.000	96	88199	50.0	44.0	
81 1,3-Dichloropropane	76	9.648	9.648	0.000	98	181745	50.0	44.9	
82 2-Hexanone	43	9.703	9.703	0.000	99	226583	100.0	109.3	
84 Chlorodibromomethane	129	9.855	9.855	0.000	89	95367	50.0	51.5	
85 Ethylene Dibromide	107	9.971	9.971	0.000	97	102812	50.0	45.8	
86 3-Chlorobenzotrifluoride	180	10.433	10.433	0.000	90	201974	50.0	55.8	
87 Chlorobenzene	112	10.457	10.457	0.000	94	304504	50.0	44.5	
88 4-Chlorobenzotrifluoride	180	10.518	10.518	0.000	96	198252	50.0	59.3	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.554	0.000	93	109420	50.0	50.3	
90 Ethylbenzene	106	10.560	10.560	0.000	98	163057	50.0	42.7	
91 m-Xylene & p-Xylene	106	10.688	10.688	0.000	0	200119	50.0	42.9	
92 o-Xylene	106	11.071	11.071	0.000	96	185764	50.0	41.8	
93 Styrene	104	11.089	11.089	0.000	95	331013	50.0	44.0	
94 Bromoform	173	11.272	11.272	0.000	93	50826	50.0	44.2	
96 2-Chlorobenzotrifluoride	180	11.339	11.339	0.000	96	201086	50.0	58.0	
97 Isopropylbenzene	105	11.436	11.436	0.000	96	449346	50.0	41.4	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.752	0.000	86	158580	50.0	48.9	
100 Bromobenzene	156	11.752	11.752	0.000	96	120643	50.0	39.4	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.789	0.000	80	51673	50.0	55.9	
101 1,2,3-Trichloropropane	110	11.807	11.807	0.000	87	53049	50.0	42.0	
103 N-Propylbenzene	120	11.856	11.856	0.000	99	135652	50.0	38.7	
104 2-Chlorotoluene	126	11.941	11.941	0.000	96	117154	50.0	38.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	98	170756	50.0	51.9	
106 1,3,5-Trimethylbenzene	105	12.038	12.038	0.000	96	422259	50.0	42.2	
107 4-Chlorotoluene	126	12.069	12.069	0.000	96	133241	50.0	40.8	
108 tert-Butylbenzene	119	12.348	12.348	0.000	94	295426	50.0	35.3	
110 1,2,4-Trimethylbenzene	105	12.409	12.409	0.000	96	409632	50.0	40.2	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.452	0.000	93	123701	50.0	48.5	
112 sec-Butylbenzene	105	12.573	12.573	0.000	94	440276	50.0	37.7	
113 1,3-Dichlorobenzene	146	12.689	12.689	0.000	98	237871	50.0	43.5	
114 4-Isopropyltoluene	119	12.731	12.731	0.000	97	385831	50.0	39.6	
115 1,4-Dichlorobenzene	146	12.792	12.792	0.000	96	247245	50.0	44.0	
116 2,4-Dichloro-1-(trifluorom	214	12.823	12.823	0.000	92	107315	50.0	45.2	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.865	0.000	0	128461	50.0	50.1	
120 n-Butylbenzene	91	13.139	13.139	0.000	98	292966	50.0	36.9	
121 1,2-Dichlorobenzene	146	13.151	13.151	0.000	96	236040	50.0	45.2	
122 1,2-Dibromo-3-Chloropropan	75	13.942	13.942	0.000	75	24903	50.0	43.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.088	14.088	0.000	0	539467	150.0	163.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.507	14.507	0.000	0	365125	100.0	106.7	
126 1,2,4-Trichlorobenzene	180	14.763	14.763	0.000	94	99675	50.0	41.7	
127 Hexachlorobutadiene	225	14.909	14.909	0.000	92	33534	50.0	38.4	
128 Naphthalene	128	15.030	15.030	0.000	97	314490	50.0	38.7	
129 1,2,3-Trichlorobenzene	180	15.261	15.261	0.000	95	90271	50.0	41.4	
131 2,4,5-Trichlorotoluene	159	16.028	16.028	0.000	0	42912	50.0	41.4	
130 2,3,6-Trichlorotoluene	159	16.125	16.125	0.000	96	46086	50.0	47.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	87.7	
S 133 Xylenes, Total	106				0		100.0	84.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added: 6.00	Units: uL	
voaW2clev1stR_00024	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00269	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\20171102-19153.b\51102D02.D

Injection Date: 02-Nov-2017 22:22:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

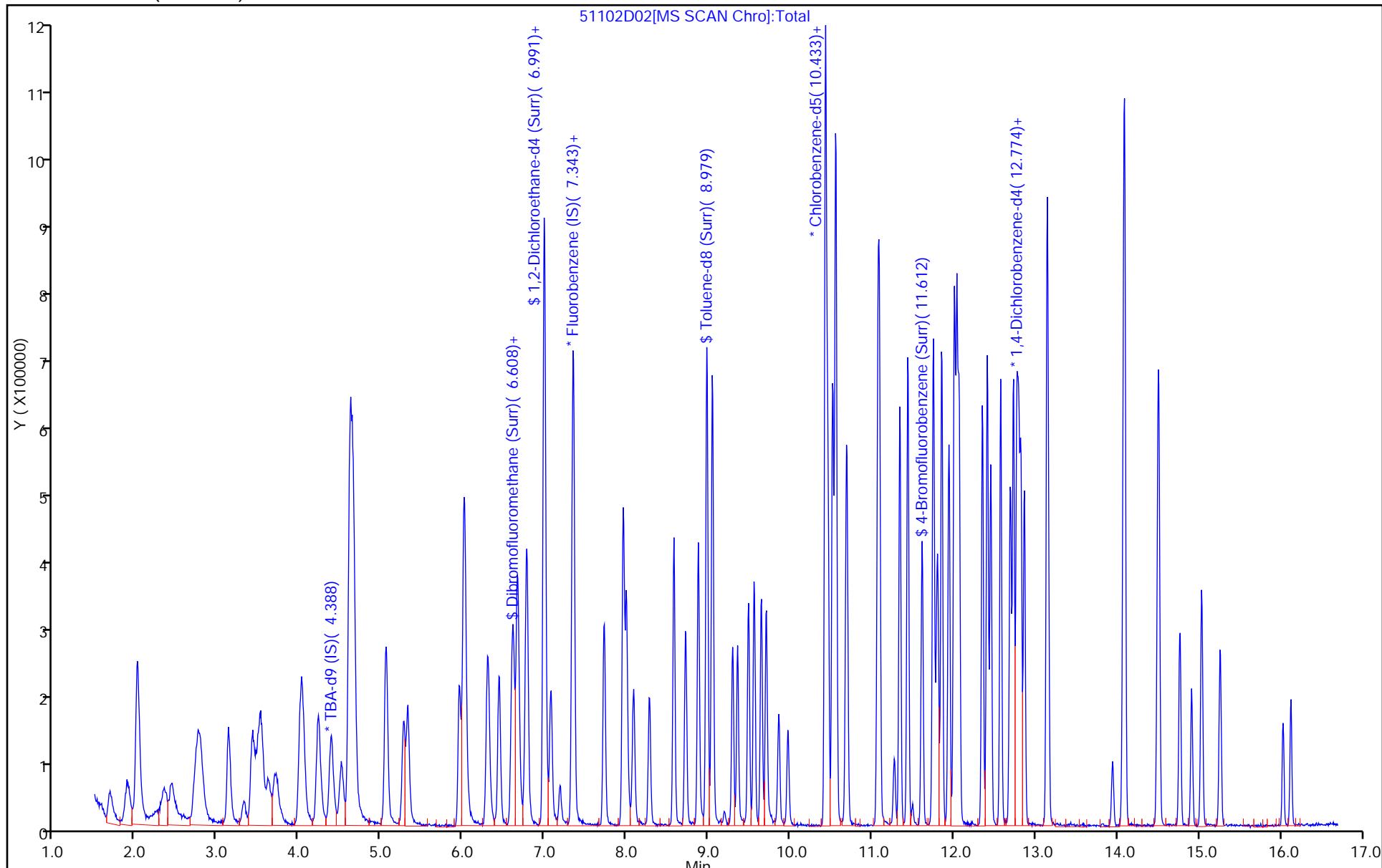
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

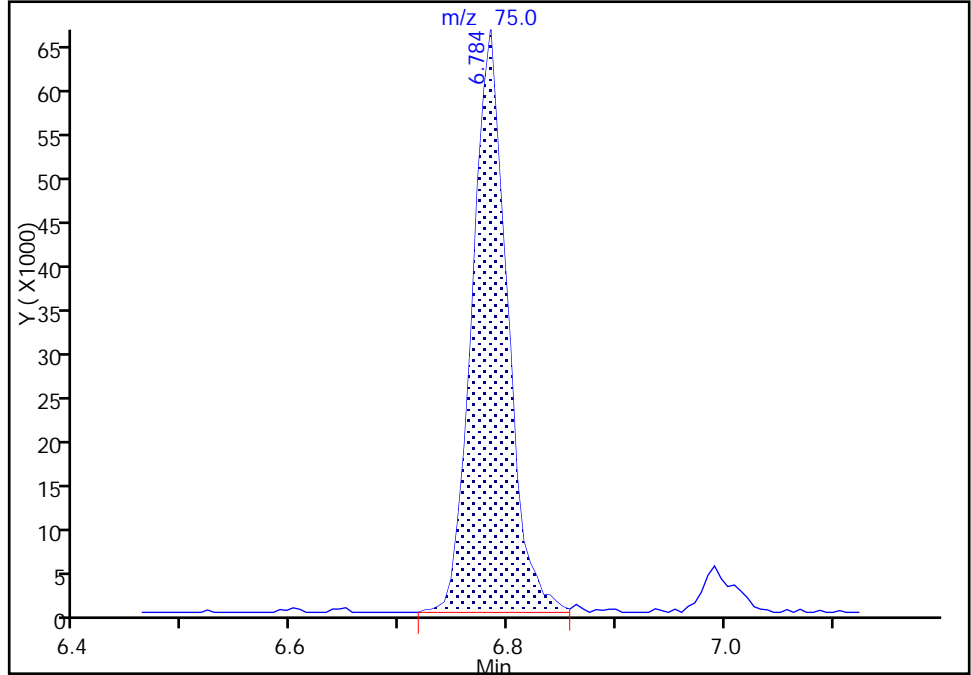
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D02.D
Injection Date: 02-Nov-2017 22:22:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

55 1,1-Dichloropropene, CAS: 563-58-6

Signal: 1

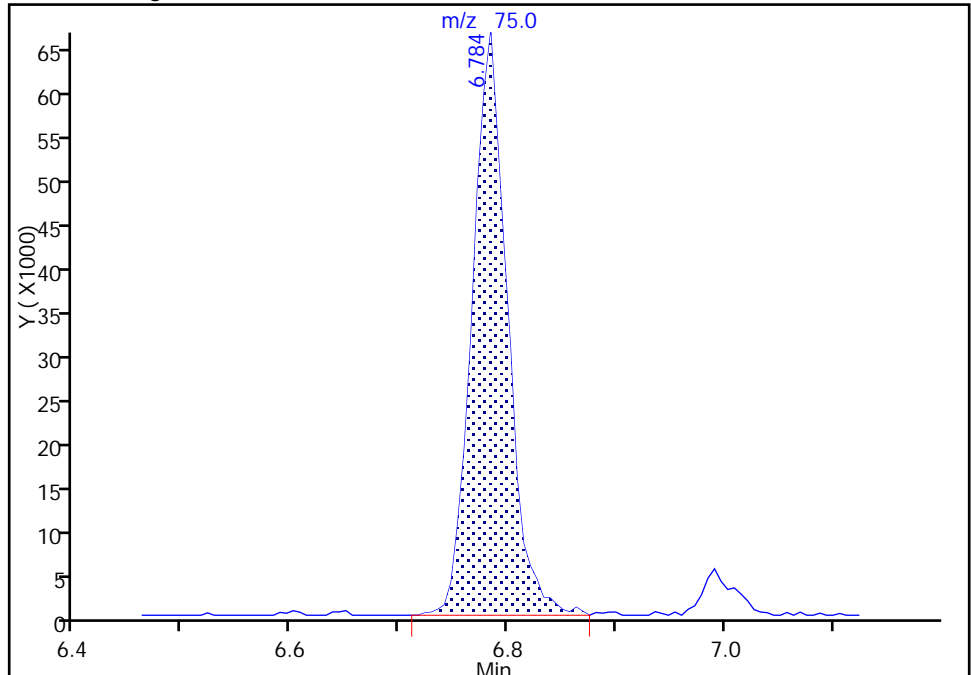
RT: 6.78
Area: 149244
Amount: 39.952457
Amount Units: ng

Processing Integration Results



RT: 6.78
Area: 149721
Amount: 40.080150
Amount Units: ng

Manual Integration Results



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228044/2 Calibration Date: 11/05/2017 00:28
 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: 51105D02.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	0.3817	0.1000	13.1	10.0	31.3*	20.0
Chloromethane	Ave	0.2922	0.4220	0.1000	14.4	10.0	44.4*	20.0
1,3-Butadiene	Ave	0.2694	0.3976	0.0100	14.8	10.0	47.6*	20.0
Vinyl chloride	Ave	0.2965	0.3492	0.1000	11.8	10.0	17.7	20.0
Bromomethane	Ave	0.1402	0.1781	0.0500	12.7	10.0	27.0*	20.0
Chloroethane	Ave	0.1630	0.2294	0.0500	14.1	10.0	40.8*	20.0
Trichlorofluoromethane	Ave	0.3643	0.4345	0.1000	11.9	10.0	19.3	20.0
Ethyl ether	Ave	0.2370	0.2791	0.0100	11.8	10.0	17.8	20.0
Acrolein	Ave	0.0597	0.0766	0.0100	38.5	30.0	28.2*	20.0
1,1-Dichloroethene	Ave	0.2448	0.2410	0.1000	9.84	10.0	-1.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2692	0.1000	10.0	10.0	0.2	20.0
Acetone	Ave	0.1308	0.1876	0.0500	28.7	20.0	43.5*	20.0
Iodomethane	Ave	0.3845	0.3801	0.0100	9.89	10.0	-1.1	20.0
Carbon disulfide	Ave	0.5372	0.5560	0.1000	10.3	10.0	3.5	20.0
Allyl chloride	Ave	0.1582	0.1440	0.0100	9.10	10.0	-9.0	20.0
Methyl acetate	Ave	0.2589	0.2903	0.1000	22.4	20.0	12.1	20.0
Methylene Chloride	Lin2		0.2756	0.1000	9.03	10.0	-9.7	20.0
tert-Butyl alcohol	Ave	1.183	1.325	0.0100	112	100	12.1	20.0
Acrylonitrile	Ave	0.1259	0.1431	0.0100	114	100	13.6	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2584	0.1000	9.26	10.0	-7.4	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7117	0.1000	9.52	10.0	-4.8	20.0
Hexane	Ave	0.3580	0.3717	0.0100	10.4	10.0	3.8	20.0
1,1-Dichloroethane	Ave	0.4850	0.4956	0.2000	10.2	10.0	2.2	20.0
Vinyl acetate	Ave	0.4932	0.6337	0.0100	12.8	10.0	28.5*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0725	0.0100	11.7	10.0	17.4	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2968	0.1000	9.30	10.0	-7.0	20.0
2-Butanone (MEK)	Ave	0.1861	0.2135	0.0500	22.9	20.0	14.7	20.0
Bromochloromethane	Ave	0.1418	0.1359	0.0100	9.58	10.0	-4.2	20.0
Tetrahydrofuran	Ave	0.1084	0.1050	0.0100	19.4	20.0	-3.1	20.0
Chloroform	Ave	0.4843	0.4486	0.2000	9.26	10.0	-7.4	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3636	0.1000	9.92	10.0	-0.8	20.0
Cyclohexane	Ave	0.4524	0.4601	0.1000	10.2	10.0	1.7	20.0
Carbon tetrachloride	Ave	0.3051	0.3108	0.1000	10.2	10.0	1.9	20.0
1,1-Dichloropropene	Ave	0.3961	0.3465	0.0100	8.75	10.0	-12.5	20.0
Isobutyl alcohol	Ave	0.0099	0.0121	0.0100	303	250	21.1*	20.0
Benzene	Ave	1.216	1.120	0.5000	9.21	10.0	-7.9	20.0
1,2-Dichloroethane	Ave	0.3544	0.3693	0.1000	10.4	10.0	4.2	20.0
n-Heptane	Ave	0.2863	0.3397	0.0100	11.9	10.0	18.7	20.0
Trichloroethene	Ave	0.3059	0.2611	0.2000	8.54	10.0	-14.6	20.0
Methylcyclohexane	Ave	0.4626	0.3675	0.1000	7.94	10.0	-20.6*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228044/2 Calibration Date: 11/05/2017 00:28
 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: 51105D02.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	0.2793	0.1000	9.86	10.0	-1.4	20.0
1,4-Dioxane	Ave	0.0029	0.0030*	0.0100	206	200	3.1	20.0
Dibromomethane	Ave	0.1659	0.1582	0.0100	9.54	10.0	-4.6	20.0
Bromodichloromethane	Ave	0.3256	0.2941	0.2000	9.03	10.0	-9.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1828	0.0100	17.9	20.0	-10.3	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3633	0.2000	9.19	10.0	-8.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.278	0.1000	19.9	20.0	-0.3	20.0
Toluene	Ave	4.986	4.701	0.4000	9.43	10.0	-5.7	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.304	0.1000	9.61	10.0	-3.9	20.0
Ethyl methacrylate	Ave	1.636	1.238	0.0100	7.57	10.0	-24.3*	20.0
1,1,2-Trichloroethane	Ave	1.039	0.9734	0.1000	9.37	10.0	-6.3	20.0
Tetrachloroethene	Ave	0.9508	0.8349	0.2000	8.78	10.0	-12.2	20.0
1,3-Dichloropropane	Ave	1.920	1.699	0.0100	8.85	10.0	-11.5	20.0
2-Hexanone	Ave	0.9836	1.041	0.1000	21.2	20.0	5.8	20.0
Dibromochloromethane	Ave	0.8779	0.8537	0.1000	9.72	10.0	-2.8	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9908	0.1000	9.30	10.0	-7.0	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.722	0.0100	10.0	10.0	0.2	20.0
Chlorobenzene	Ave	3.246	2.980	0.5000	9.18	10.0	-8.2	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.653	0.0100	10.4	10.0	4.2	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	0.996	0.0100	9.65	10.0	-3.5	20.0
Ethylbenzene	Ave	1.812	1.549	0.1000	8.55	10.0	-14.5	20.0
m-Xylene & p-Xylene	Ave	2.214	1.891	0.1000	8.54	10.0	-14.6	20.0
o-Xylene	Ave	2.110	1.829	0.3000	8.67	10.0	-13.3	20.0
Styrene	Ave	3.571	3.261	0.3000	9.13	10.0	-8.7	20.0
Bromoform	Ave	0.5456	0.4688	0.1000	8.59	10.0	-14.1	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.688	0.0100	10.3	10.0	2.6	20.0
Isopropylbenzene	Ave	5.150	4.368	0.1000	8.48	10.0	-15.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.408	0.3000	9.15	10.0	-8.5	20.0
Bromobenzene	Ave	0.9704	0.8189	0.0100	8.44	10.0	-15.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3351	0.0100	11.5	10.0	14.5	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3541	0.0100	8.84	10.0	-11.6	20.0
N-Propylbenzene	Ave	1.109	0.9389	0.0100	8.47	10.0	-15.3	20.0
2-Chlorotoluene	Ave	0.9585	0.8195	0.0100	8.55	10.0	-14.5	20.0
3-Chlorotoluene	Ave	1.043	1.066	0.0100	10.2	10.0	2.2	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.765	0.0100	8.71	10.0	-12.9	20.0
4-Chlorotoluene	Ave	1.035	0.8847	0.0100	8.55	10.0	-14.5	20.0
tert-Butylbenzene	Ave	2.653	2.065	0.0100	7.78	10.0	-22.2*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.778	0.0100	8.61	10.0	-13.9	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7173	0.0100	8.88	10.0	-11.2	20.0
sec-Butylbenzene	Ave	3.701	2.991	0.0100	8.08	10.0	-19.2	20.0
1,3-Dichlorobenzene	Ave	1.734	1.555	0.6000	8.97	10.0	-10.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228044/2 Calibration Date: 11/05/2017 00:28
 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: 51105D02.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	2.564	0.0100	8.32	10.0	-16.8	20.0
1,4-Dichlorobenzene	Ave	1.780	1.630	0.5000	9.16	10.0	-8.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6447	0.0100	8.57	10.0	-14.3	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.7467	0.0100	9.19	10.0	-8.1	20.0
n-Butylbenzene	Ave	2.514	2.025	0.0100	8.05	10.0	-19.5	20.0
1,2-Dichlorobenzene	Ave	1.653	1.541	0.4000	9.33	10.0	-6.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1555	0.0500	8.47	10.0	-15.3	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.008	0.0100	28.8	30.0	-3.9	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.013	0.0100	18.7	20.0	-6.6	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5775	0.2000	7.64	10.0	-23.6*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2265	0.0100	8.19	10.0	-18.1	20.0
Naphthalene	Ave	2.576	1.861	0.0100	7.23	10.0	-27.7*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.5214	0.0100	7.55	10.0	-24.5*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2092	0.0100	6.37	10.0	-36.3*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.2135	0.0100	6.99	10.0	-30.1*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2523		10.5	10.0	4.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3278		11.2	10.0	11.7	20.0
Toluene-d8 (Surr)	Ave	3.979	4.150		10.4	10.0	4.3	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\20171105-19180.b\51105D02.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 05-Nov-2017 00:28:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-002
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 00:03:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.376	4.376	0.000	0	250601	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.344	0.000	97	535684	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	86	127084	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.768	0.000	95	177650	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.620	0.000	93	135164	50.0	52.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.991	0.000	0	175595	50.0	55.9	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	94	527436	50.0	52.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	85	178860	50.0	49.0	
11 Dichlorodifluoromethane	85	1.688	1.688	0.000	99	204490	50.0	65.6	
12 Chloromethane	50	1.895	1.895	0.000	98	226041	50.0	72.2	M
13 Vinyl chloride	62	2.017	2.017	0.000	65	187032	50.0	58.9	
14 Butadiene	39	2.017	2.017	0.000	94	213009	50.0	73.8	
15 Bromomethane	94	2.375	2.375	0.000	88	95409	50.0	63.5	
16 Chloroethane	64	2.461	2.461	0.000	98	122887	50.0	70.4	
17 Dichlorofluoromethane	67	2.771	2.771	0.000	98	269785	50.0	61.1	
18 Trichlorofluoromethane	101	2.801	2.801	0.000	95	232764	50.0	59.6	
20 Ethyl ether	59	3.136	3.136	0.000	96	149496	50.0	58.9	
21 Acrolein	56	3.318	3.318	0.000	98	123080	150.0	192.4	
22 1,1-Dichloroethene	96	3.434	3.434	0.000	97	129071	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.506	3.506	0.000	92	144192	50.0	50.1	
24 Acetone	43	3.531	3.531	0.000	99	201010	100.0	143.5	
25 Iodomethane	142	3.640	3.640	0.000	97	203599	50.0	49.4	
26 Carbon disulfide	76	3.719	3.719	0.000	100	297838	50.0	51.7	
28 3-Chloro-1-propene	76	4.017	4.017	0.000	90	77130	50.0	45.5	
30 Methyl acetate	43	4.042	4.042	0.000	99	311031	100.0	112.1	
31 Methylene Chloride	84	4.236	4.236	0.000	98	147645	50.0	45.1	
32 2-Methyl-2-propanol	59	4.510	4.510	0.000	94	166085	500.0	560.4	
33 Acrylonitrile	53	4.619	4.619	0.000	99	766441	500.0	568.2	
34 trans-1,2-Dichloroethene	96	4.644	4.644	0.000	97	138422	50.0	46.3	
35 Methyl tert-butyl ether	73	4.662	4.662	0.000	97	381226	50.0	47.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.063	5.063	0.000	95	199104	50.0	51.9	
37 1,1-Dichloroethane	63	5.282	5.282	0.000	97	265465	50.0	51.1	
38 Vinyl acetate	43	5.325	5.325	0.000	97	339453	50.0	64.2	
45 cis-1,2-Dichloroethene	96	6.018	6.018	0.000	82	158981	50.0	46.5	
44 2,2-Dichloropropane	97	6.018	6.018	0.000	64	38838	50.0	58.7	
46 2-Butanone (MEK)	43	6.030	6.030	0.000	99	228700	100.0	114.7	
49 Chlorobromomethane	128	6.298	6.298	0.000	96	72791	50.0	47.9	
51 Tetrahydrofuran	42	6.310	6.310	0.000	91	112541	100.0	96.9	
52 Chloroform	83	6.444	6.444	0.000	95	240285	50.0	46.3	
53 1,1,1-Trichloroethane	97	6.602	6.602	0.000	98	194766	50.0	49.6	
54 Cyclohexane	56	6.675	6.675	0.000	95	246449	50.0	50.9	
56 Carbon tetrachloride	117	6.766	6.766	0.000	95	166501	50.0	50.9	
55 1,1-Dichloropropene	75	6.784	6.784	0.000	93	185597	50.0	43.7	
57 Isobutyl alcohol	41	6.985	6.985	0.000	90	161308	1250.0	1513.3	
58 Benzene	78	6.997	6.997	0.000	97	600036	50.0	46.1	
59 1,2-Dichloroethane	62	7.076	7.076	0.000	97	197852	50.0	52.1	
62 n-Heptane	43	7.356	7.356	0.000	91	181968	50.0	59.3	
64 Trichloroethene	130	7.727	7.727	0.000	97	139890	50.0	42.7	
66 Methylcyclohexane	83	7.958	7.958	0.000	94	196852	50.0	39.7	
67 1,2-Dichloropropane	63	8.001	8.001	0.000	95	149596	50.0	49.3	
68 Dibromomethane	93	8.086	8.086	0.000	96	84762	50.0	47.7	
70 1,4-Dioxane	88	8.086	8.086	0.000	50	31807	1000.0	1031.3	
71 Dichlorobromomethane	83	8.274	8.274	0.000	97	157538	50.0	45.2	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	93	195826	100.0	89.7	
74 cis-1,3-Dichloropropene	75	8.724	8.724	0.000	93	194618	50.0	45.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.876	8.876	0.000	98	324936	100.0	99.7	
76 Toluene	91	9.053	9.053	0.000	98	597470	50.0	47.2	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	97	165734	50.0	48.1	
78 Ethyl methacrylate	69	9.357	9.357	0.000	92	157317	50.0	37.8	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	92	123705	50.0	46.9	
80 Tetrachloroethene	164	9.563	9.563	0.000	96	106096	50.0	43.9	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	96	215870	50.0	44.2	
82 2-Hexanone	43	9.703	9.703	0.000	99	264507	100.0	105.8	
84 Chlorodibromomethane	129	9.861	9.861	0.000	92	108497	50.0	48.6	
85 Ethylene Dibromide	107	9.971	9.971	0.000	98	125908	50.0	46.5	
86 3-Chlorobenzotrifluoride	180	10.433	10.433	0.000	87	218882	50.0	50.1	
87 Chlorobenzene	112	10.464	10.464	0.000	95	378762	50.0	45.9	
88 4-Chlorobenzotrifluoride	180	10.518	10.518	0.000	95	210036	50.0	52.1	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.555	0.000	93	126596	50.0	48.3	
90 Ethylbenzene	106	10.561	10.561	0.000	99	196916	50.0	42.8	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	240373	50.0	42.7	
92 o-Xylene	106	11.072	11.072	0.000	96	232448	50.0	43.3	
93 Styrene	104	11.090	11.090	0.000	96	414442	50.0	45.7	
94 Bromoform	173	11.272	11.272	0.000	95	59577	50.0	43.0	
96 2-Chlorobenzotrifluoride	180	11.339	11.339	0.000	96	214486	50.0	51.3	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	555074	50.0	42.4	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.747	0.000	85	178877	50.0	45.8	
100 Bromobenzene	156	11.753	11.753	0.000	97	145473	50.0	42.2	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.789	0.000	83	59522	50.0	57.3	
101 1,2,3-Trichloropropane	110	11.808	11.808	0.000	86	62900	50.0	44.2	
103 N-Propylbenzene	120	11.856	11.856	0.000	99	166786	50.0	42.3	
104 2-Chlorotoluene	126	11.941	11.941	0.000	96	145585	50.0	42.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	97	189319	50.0	51.1	
106 1,3,5-Trimethylbenzene	105	12.039	12.039	0.000	97	491261	50.0	43.6	
107 4-Chlorotoluene	126	12.063	12.063	0.000	96	157158	50.0	42.7	
108 tert-Butylbenzene	119	12.349	12.349	0.000	94	366897	50.0	38.9	
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	97	493525	50.0	43.1	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.452	0.000	93	127436	50.0	44.4	
112 sec-Butylbenzene	105	12.574	12.574	0.000	94	531344	50.0	40.4	
113 1,3-Dichlorobenzene	146	12.689	12.689	0.000	98	276239	50.0	44.8	
114 4-Isopropyltoluene	119	12.732	12.732	0.000	97	455463	50.0	41.6	
115 1,4-Dichlorobenzene	146	12.793	12.793	0.000	96	289647	50.0	45.8	
116 2,4-Dichloro-1-(trifluorom	214	12.823	12.823	0.000	94	114534	50.0	42.8	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.866	0.000	0	132654	50.0	45.9	
120 n-Butylbenzene	91	13.139	13.139	0.000	97	359767	50.0	40.3	M
121 1,2-Dichlorobenzene	146	13.151	13.151	0.000	96	273798	50.0	46.6	
122 1,2-Dibromo-3-Chloropropan	75	13.942	13.942	0.000	74	27618	50.0	42.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.088	14.088	0.000	0	536967	150.0	144.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.502	0.000	0	359849	100.0	93.4	
126 1,2,4-Trichlorobenzene	180	14.769	14.769	0.000	95	102597	50.0	38.2	
127 Hexachlorobutadiene	225	14.915	14.915	0.000	94	40238	50.0	40.9	
128 Naphthalene	128	15.031	15.031	0.000	97	330635	50.0	36.1	
129 1,2,3-Trichlorobenzene	180	15.256	15.256	0.000	95	92620	50.0	37.7	
131 2,4,5-Trichlorotoluene	159	16.028	16.028	0.000	0	37171	50.0	31.9	
130 2,3,6-Trichlorotoluene	159	16.125	16.125	0.000	97	37923	50.0	34.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	92.8	
S 133 Xylenes, Total	106				0		100.0	86.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaW2clev1stR_00024	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00269	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\20171105-19180.b\51105D02.D

Injection Date: 05-Nov-2017 00:28:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

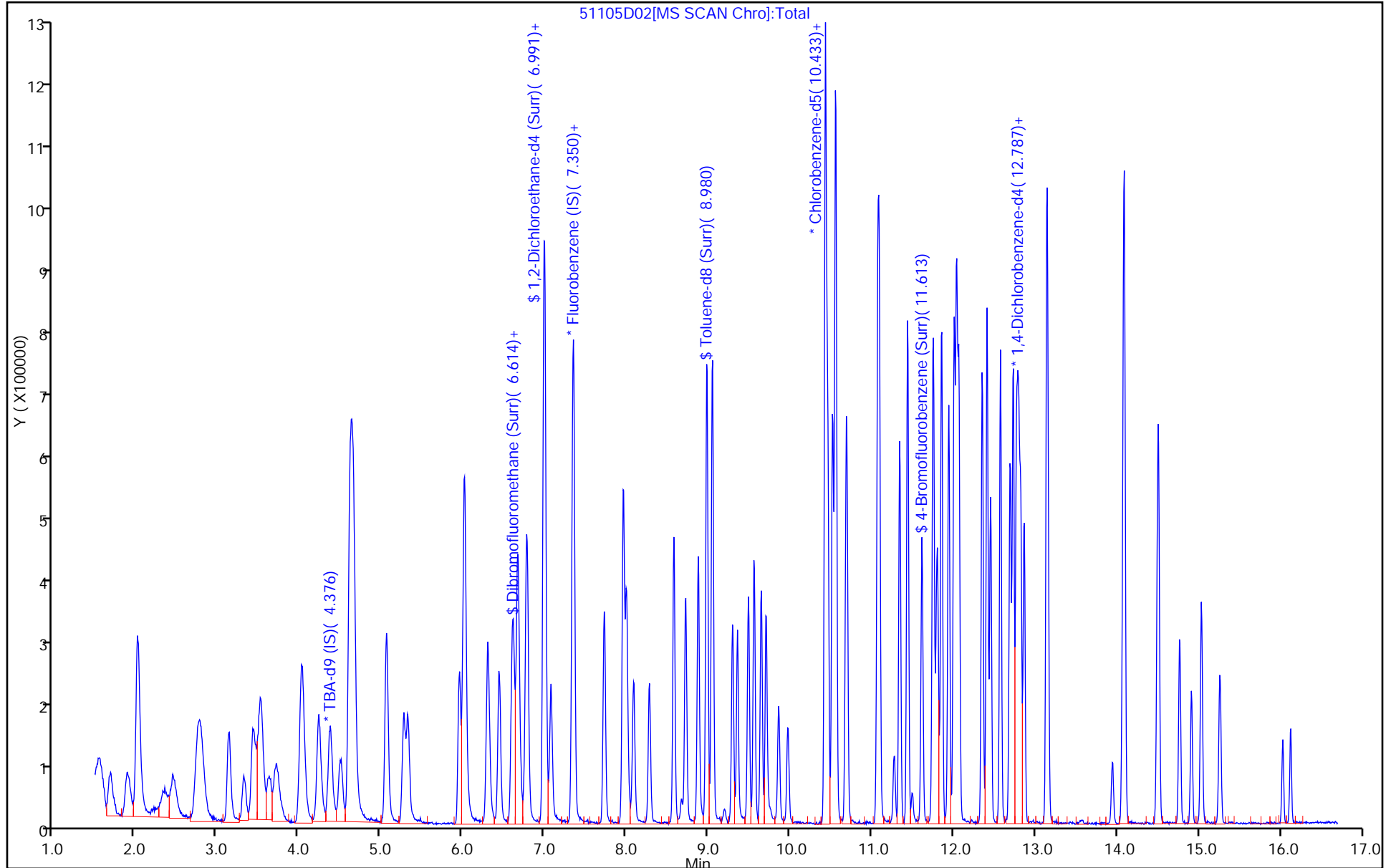
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

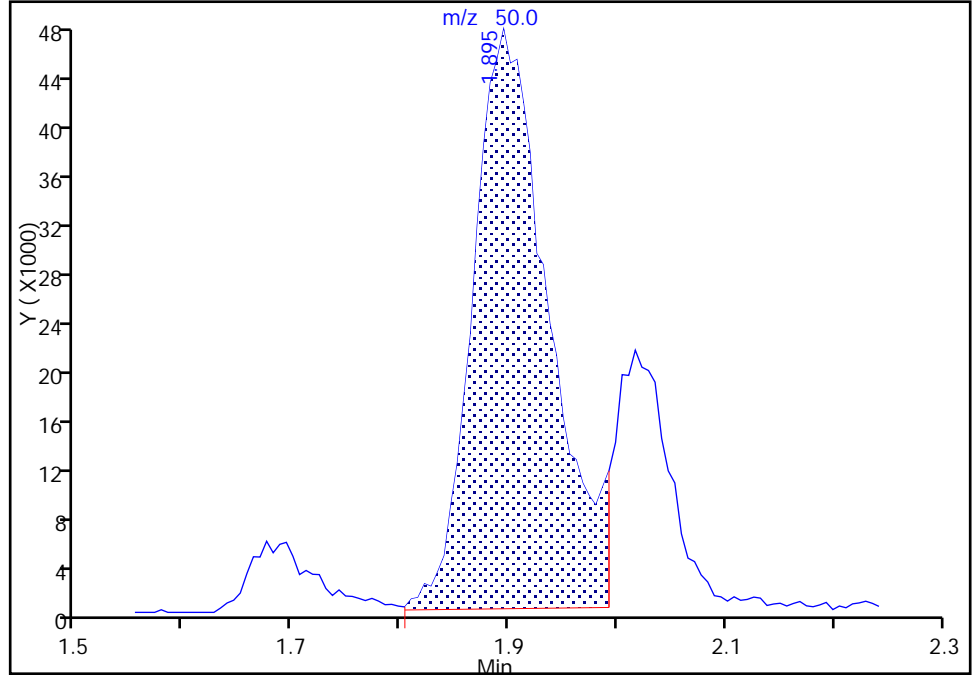
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Injection Date: 05-Nov-2017 00:28:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

12 Chloromethane, CAS: 74-87-3

Signal: 1

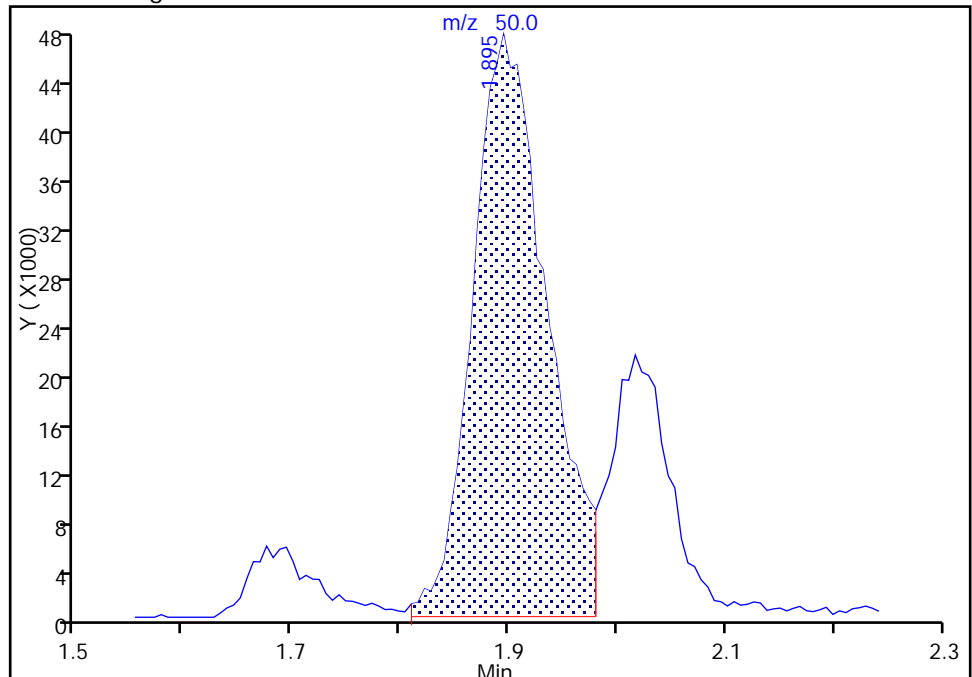
RT: 1.89
Area: 231169
Amount: 73.844625
Amount Units: ng

Processing Integration Results



RT: 1.89
Area: 226041
Amount: 72.206537
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 06-Nov-2017 00:23:36
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

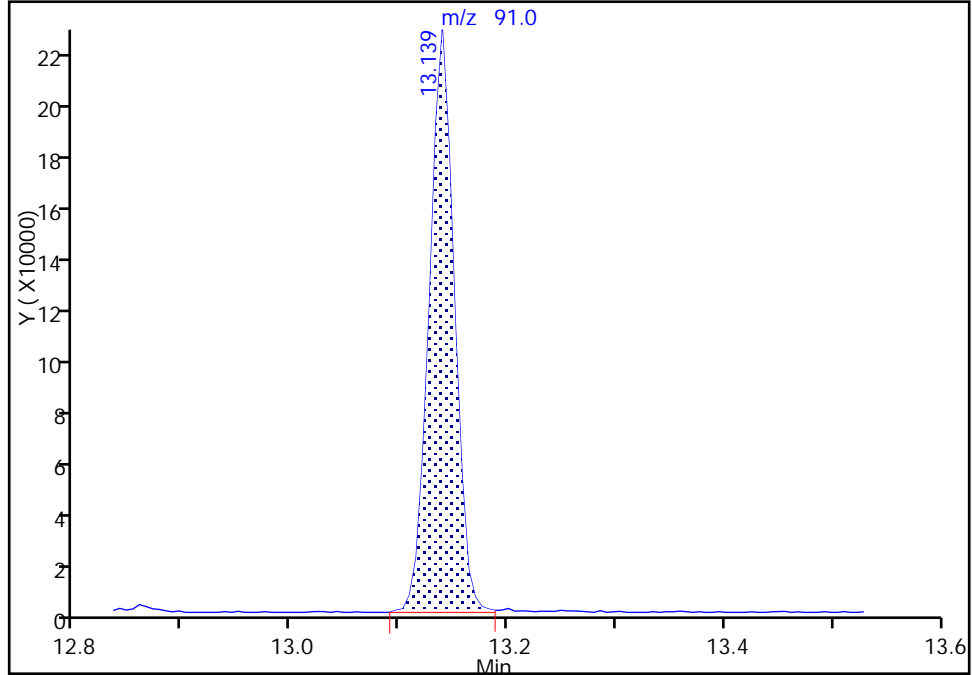
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D02.D
Injection Date: 05-Nov-2017 00:28:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

120 n-Butylbenzene, CAS: 104-51-8

Signal: 1

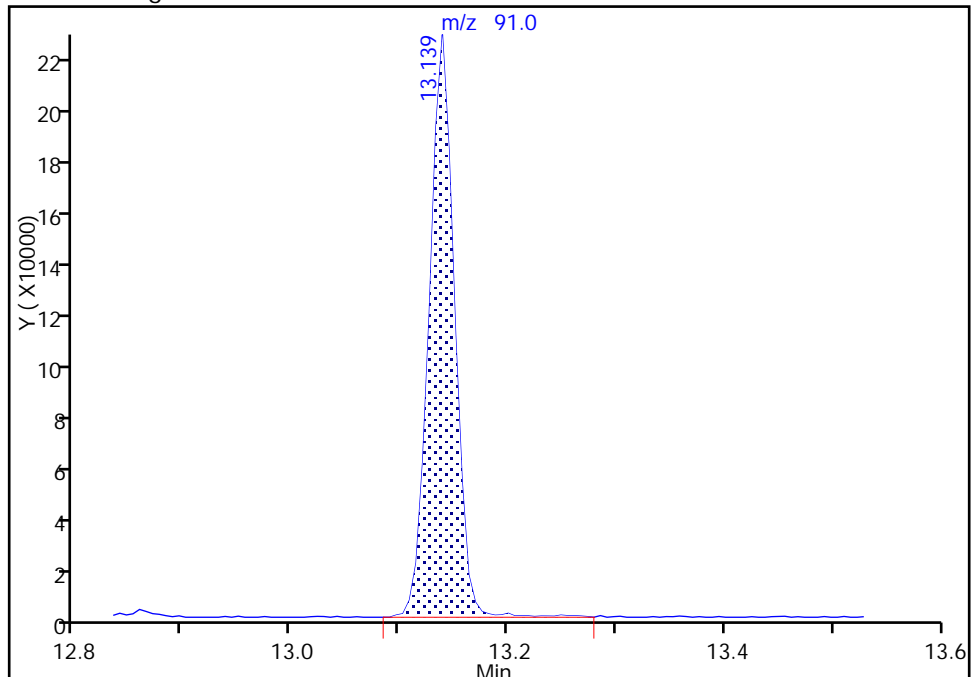
RT: 13.14
Area: 356871
Amount: 39.946085
Amount Units: ng

Processing Integration Results



RT: 13.14
Area: 359767
Amount: 40.270247
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 06-Nov-2017 00:22:59
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228278/2 Calibration Date: 11/08/2017 00:13
 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: 51107D02.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	0.3614	0.1000	12.4	10.0	24.3*	20.0
Chloromethane	Ave	0.2922	0.4067	0.1000	13.9	10.0	39.2*	20.0
1,3-Butadiene	Ave	0.2694	0.4368	0.0100	16.2	10.0	62.2*	20.0
Vinyl chloride	Ave	0.2965	0.3596	0.1000	12.1	10.0	21.3*	20.0
Bromomethane	Ave	0.1402	0.1241	0.0500	8.85	10.0	-11.5	20.0
Chloroethane	Ave	0.1630	0.1833	0.0500	11.2	10.0	12.5	20.0
Trichlorofluoromethane	Ave	0.3643	0.4355	0.1000	12.0	10.0	19.5	20.0
Ethyl ether	Ave	0.2370	0.2920	0.0100	12.3	10.0	23.2*	20.0
Acrolein	Ave	0.0597	0.0713	0.0100	35.8	30.0	19.3	20.0
1,1-Dichloroethene	Ave	0.2448	0.2542	0.1000	10.4	10.0	3.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2845	0.1000	10.6	10.0	5.9	20.0
Acetone	Ave	0.1308	0.1649	0.0500	25.2	20.0	26.1*	20.0
Iodomethane	Ave	0.3845	0.3945	0.0100	10.3	10.0	2.6	20.0
Carbon disulfide	Ave	0.5372	0.5868	0.1000	10.9	10.0	9.2	20.0
Allyl chloride	Ave	0.1582	0.1520	0.0100	9.61	10.0	-3.9	20.0
Methyl acetate	Ave	0.2589	0.3208	0.1000	24.8	20.0	23.9*	20.0
Methylene Chloride	Lin2		0.2969	0.1000	9.78	10.0	-2.2	20.0
tert-Butyl alcohol	Ave	1.183	1.315	0.0100	111	100	11.2	20.0
Acrylonitrile	Ave	0.1259	0.1564	0.0100	124	100	24.3*	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2804	0.1000	10.1	10.0	0.5	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7973	0.1000	10.7	10.0	6.6	20.0
Hexane	Ave	0.3580	0.4199	0.0100	11.7	10.0	17.3	20.0
1,1-Dichloroethane	Ave	0.4850	0.5077	0.2000	10.5	10.0	4.7	20.0
Vinyl acetate	Ave	0.4932	0.6204	0.0100	12.6	10.0	25.8*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0726	0.0100	11.8	10.0	17.6	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3081	0.1000	9.66	10.0	-3.4	20.0
2-Butanone (MEK)	Ave	0.1861	0.2134	0.0500	22.9	20.0	14.6	20.0
Bromochloromethane	Ave	0.1418	0.1382	0.0100	9.75	10.0	-2.5	20.0
Tetrahydrofuran	Ave	0.1084	0.1145	0.0100	21.1	20.0	5.6	20.0
Chloroform	Ave	0.4843	0.4573	0.2000	9.44	10.0	-5.6	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3660	0.1000	9.99	10.0	-0.1	20.0
Cyclohexane	Ave	0.4524	0.5140	0.1000	11.4	10.0	13.6	20.0
Carbon tetrachloride	Ave	0.3051	0.3030	0.1000	9.93	10.0	-0.7	20.0
1,1-Dichloropropene	Ave	0.3961	0.3619	0.0100	9.14	10.0	-8.6	20.0
Isobutyl alcohol	Ave	0.0099	0.0118	0.0100	297	250	18.7	20.0
Benzene	Ave	1.216	1.145	0.5000	9.42	10.0	-5.8	20.0
1,2-Dichloroethane	Ave	0.3544	0.3725	0.1000	10.5	10.0	5.1	20.0
n-Heptane	Ave	0.2863	0.3575	0.0100	12.5	10.0	24.9*	20.0
Trichloroethene	Ave	0.3059	0.2674	0.2000	8.74	10.0	-12.6	20.0
Methylcyclohexane	Ave	0.4626	0.4097	0.1000	8.86	10.0	-11.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228278/2 Calibration Date: 11/08/2017 00:13
 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: 51107D02.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	0.2733	0.1000	9.65	10.0	-3.5	20.0
1,4-Dioxane	Ave	0.0029	0.0034*	0.0100	233	200	16.3	20.0
Dibromomethane	Ave	0.1659	0.1631	0.0100	9.83	10.0	-1.7	20.0
Bromodichloromethane	Ave	0.3256	0.2940	0.2000	9.03	10.0	-9.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1748	0.0100	17.2	20.0	-14.2	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3695	0.2000	9.34	10.0	-6.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.296	0.1000	20.2	20.0	1.1	20.0
Toluene	Ave	4.986	5.241	0.4000	10.5	10.0	5.1	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.486	0.1000	11.0	10.0	9.6	20.0
Ethyl methacrylate	Ave	1.636	1.448	0.0100	8.85	10.0	-11.5	20.0
1,1,2-Trichloroethane	Ave	1.039	1.088	0.1000	10.5	10.0	4.8	20.0
Tetrachloroethene	Ave	0.9508	0.8995	0.2000	9.46	10.0	-5.4	20.0
1,3-Dichloropropane	Ave	1.920	1.908	0.0100	9.94	10.0	-0.6	20.0
2-Hexanone	Ave	0.9836	1.023	0.1000	20.8	20.0	4.0	20.0
Dibromochloromethane	Ave	0.8779	0.9206	0.1000	10.5	10.0	4.9	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.082	0.1000	10.2	10.0	1.6	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.875	0.0100	10.9	10.0	9.1	20.0
Chlorobenzene	Ave	3.246	3.231	0.5000	9.95	10.0	-0.5	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.833	0.0100	11.6	10.0	15.6	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.083	0.0100	10.5	10.0	4.9	20.0
Ethylbenzene	Ave	1.812	1.798	0.1000	9.92	10.0	-0.8	20.0
m-Xylene & p-Xylene	Ave	2.214	2.163	0.1000	9.77	10.0	-2.3	20.0
o-Xylene	Ave	2.110	2.050	0.3000	9.72	10.0	-2.8	20.0
Styrene	Ave	3.571	3.520	0.3000	9.86	10.0	-1.4	20.0
Bromoform	Ave	0.5456	0.5000	0.1000	9.16	10.0	-8.4	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.844	0.0100	11.2	10.0	12.2	20.0
Isopropylbenzene	Ave	5.150	5.015	0.1000	9.74	10.0	-2.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.483	0.3000	9.64	10.0	-3.6	20.0
Bromobenzene	Ave	0.9704	0.8746	0.0100	9.01	10.0	-9.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3643	0.0100	12.4	10.0	24.5*	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3596	0.0100	8.98	10.0	-10.2	20.0
N-Propylbenzene	Ave	1.109	1.014	0.0100	9.14	10.0	-8.6	20.0
2-Chlorotoluene	Ave	0.9585	0.8759	0.0100	9.14	10.0	-8.6	20.0
3-Chlorotoluene	Ave	1.043	1.098	0.0100	10.5	10.0	5.3	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.997	0.0100	9.44	10.0	-5.6	20.0
4-Chlorotoluene	Ave	1.035	0.9783	0.0100	9.45	10.0	-5.5	20.0
tert-Butylbenzene	Ave	2.653	2.349	0.0100	8.85	10.0	-11.5	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.001	0.0100	9.30	10.0	-7.0	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7918	0.0100	9.80	10.0	-2.0	20.0
sec-Butylbenzene	Ave	3.701	3.326	0.0100	8.99	10.0	-10.1	20.0
1,3-Dichlorobenzene	Ave	1.734	1.644	0.6000	9.48	10.0	-5.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228278/2 Calibration Date: 11/08/2017 00:13
 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: 51107D02.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	2.848	0.0100	9.24	10.0	-7.6	20.0
1,4-Dichlorobenzene	Ave	1.780	1.710	0.5000	9.61	10.0	-3.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7365	0.0100	9.79	10.0	-2.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.8402	0.0100	10.3	10.0	3.4	20.0
n-Butylbenzene	Ave	2.514	2.243	0.0100	8.92	10.0	-10.8	20.0
1,2-Dichlorobenzene	Ave	1.653	1.650	0.4000	9.98	10.0	-0.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1597	0.0500	8.70	10.0	-13.0	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.153	0.0100	33.0	30.0	9.9	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.199	0.0100	22.1	20.0	10.6	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.7183	0.2000	9.50	10.0	-5.0	20.0
Hexachlorobutadiene	Ave	0.2767	0.2670	0.0100	9.65	10.0	-3.5	20.0
Naphthalene	Ave	2.576	2.426	0.0100	9.42	10.0	-5.8	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.6433	0.0100	9.31	10.0	-6.9	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.3191	0.0100	9.72	10.0	-2.8	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.3129	0.0100	10.2	10.0	2.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2353		9.78	10.0	-2.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2947		10.0	10.0	0.4	20.0
Toluene-d8 (Surr)	Ave	3.979	4.375		11.0	10.0	9.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.475		10.3	10.0	2.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D02.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 08-Nov-2017 00:13:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-002
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub29
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 09:23:41 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 00:44:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.383	4.383	0.000	0	265706	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.338	0.000	97	569496	50.0	50.0	M
* 3 Chlorobenzene-d5	119	10.428	10.428	0.000	86	122941	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.769	0.000	93	171348	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.621	0.000	93	134016	50.0	48.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	167808	50.0	50.2	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	94	537806	50.0	55.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	87	181381	50.0	51.3	
11 Dichlorodifluoromethane	85	1.683	1.683	0.000	99	205806	50.0	62.1	
12 Chloromethane	50	1.889	1.889	0.000	99	231610	50.0	69.6	
14 Butadiene	39	2.011	2.011	0.000	94	248756	50.0	81.1	
13 Vinyl chloride	62	2.017	2.017	0.000	66	204816	50.0	60.6	
15 Bromomethane	94	2.333	2.333	0.000	89	70674	50.0	44.3	
16 Chloroethane	64	2.431	2.431	0.000	99	104398	50.0	56.2	
17 Dichlorofluoromethane	67	2.759	2.759	0.000	98	273453	50.0	58.2	
18 Trichlorofluoromethane	101	2.802	2.802	0.000	88	247989	50.0	59.8	
20 Ethyl ether	59	3.136	3.136	0.000	94	166270	50.0	61.6	
21 Acrolein	56	3.312	3.312	0.000	100	121745	150.0	179.0	
22 1,1-Dichloroethene	96	3.428	3.428	0.000	96	144787	50.0	51.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.501	3.501	0.000	95	162003	50.0	52.9	
24 Acetone	43	3.537	3.537	0.000	99	187794	100.0	126.1	
25 Iodomethane	142	3.610	3.610	0.000	98	224688	50.0	51.3	
26 Carbon disulfide	76	3.708	3.708	0.000	99	334170	50.0	54.6	
28 3-Chloro-1-propene	76	4.006	4.006	0.000	90	86586	50.0	48.1	
30 Methyl acetate	43	4.036	4.036	0.000	99	365427	100.0	123.9	
31 Methylene Chloride	84	4.231	4.231	0.000	99	169080	50.0	48.9	
32 2-Methyl-2-propanol	59	4.510	4.510	0.000	91	174733	500.0	556.1	
33 Acrylonitrile	53	4.608	4.608	0.000	100	890914	500.0	621.3	
34 trans-1,2-Dichloroethene	96	4.638	4.638	0.000	99	159667	50.0	50.3	
35 Methyl tert-butyl ether	73	4.656	4.656	0.000	98	454069	50.0	53.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.052	5.052	0.000	95	239144	50.0	58.6	
37 1,1-Dichloroethane	63	5.271	5.271	0.000	97	289131	50.0	52.3	
38 Vinyl acetate	43	5.319	5.319	0.000	97	353293	50.0	62.9	
44 2,2-Dichloropropane	97	6.006	6.006	0.000	64	41348	50.0	58.8	
45 cis-1,2-Dichloroethene	96	6.013	6.013	0.000	82	175464	50.0	48.3	
46 2-Butanone (MEK)	43	6.025	6.025	0.000	99	243043	100.0	114.6	
49 Chlorobromomethane	128	6.298	6.298	0.000	96	78692	50.0	48.7	
51 Tetrahydrofuran	42	6.310	6.310	0.000	94	130369	100.0	105.6	
52 Chloroform	83	6.438	6.438	0.000	94	260431	50.0	47.2	
53 1,1,1-Trichloroethane	97	6.596	6.596	0.000	99	208457	50.0	49.9	
54 Cyclohexane	56	6.657	6.657	0.000	95	292743	50.0	56.8	
56 Carbon tetrachloride	117	6.767	6.767	0.000	97	172541	50.0	49.7	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	93	206074	50.0	45.7	
57 Isobutyl alcohol	41	6.986	6.986	0.000	91	168150	1250.0	1483.9	
58 Benzene	78	6.998	6.998	0.000	97	652043	50.0	47.1	
59 1,2-Dichloroethane	62	7.071	7.071	0.000	96	212123	50.0	52.6	
62 n-Heptane	43	7.350	7.350	0.000	94	203617	50.0	62.4	
64 Trichloroethene	130	7.721	7.721	0.000	97	152295	50.0	43.7	
66 Methylcyclohexane	83	7.959	7.959	0.000	95	233346	50.0	44.3	
67 1,2-Dichloropropane	63	7.995	7.995	0.000	93	155654	50.0	48.3	
70 1,4-Dioxane	88	8.080	8.080	0.000	48	38121	1000.0	1162.6	
68 Dibromomethane	93	8.086	8.086	0.000	95	92875	50.0	49.2	
71 Dichlorobromomethane	83	8.281	8.281	0.000	98	167413	50.0	45.1	
73 2-Chloroethyl vinyl ether	63	8.579	8.579	0.000	92	199134	100.0	85.8	
74 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	93	210438	50.0	46.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.877	0.000	98	318736	100.0	101.1	
76 Toluene	91	9.047	9.047	0.000	98	644299	50.0	52.6	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	97	182724	50.0	54.8	
78 Ethyl methacrylate	69	9.357	9.357	0.000	92	177957	50.0	44.2	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	91	133807	50.0	52.4	
80 Tetrachloroethene	164	9.558	9.558	0.000	94	110586	50.0	47.3	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	96	234609	50.0	49.7	
82 2-Hexanone	43	9.704	9.704	0.000	99	251577	100.0	104.0	
84 Chlorodibromomethane	129	9.856	9.856	0.000	90	113181	50.0	52.4	
85 Ethylene Dibromide	107	9.971	9.971	0.000	98	133018	50.0	50.8	
86 3-Chlorobenzotrifluoride	180	10.434	10.434	0.000	93	230471	50.0	54.6	
87 Chlorobenzene	112	10.458	10.458	0.000	95	397197	50.0	49.8	
88 4-Chlorobenzotrifluoride	180	10.519	10.519	0.000	96	225405	50.0	57.8	
89 1,1,1,2-Tetrachloroethane	131	10.549	10.549	0.000	94	133127	50.0	52.5	
90 Ethylbenzene	106	10.555	10.555	0.000	98	221048	50.0	49.6	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	265863	50.0	48.8	
92 o-Xylene	106	11.072	11.072	0.000	96	252082	50.0	48.6	
93 Styrene	104	11.090	11.090	0.000	95	432802	50.0	49.3	
94 Bromoform	173	11.273	11.273	0.000	94	61473	50.0	45.8	
96 2-Chlorobenzotrifluoride	180	11.346	11.346	0.000	96	226739	50.0	56.1	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	616590	50.0	48.7	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.753	0.000	85	182315	50.0	48.2	
100 Bromobenzene	156	11.753	11.753	0.000	93	149855	50.0	45.1	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.790	0.000	82	62419	50.0	62.2	
101 1,2,3-Trichloropropane	110	11.802	11.802	0.000	87	61616	50.0	44.9	
103 N-Propylbenzene	120	11.857	11.857	0.000	99	173667	50.0	45.7	
104 2-Chlorotoluene	126	11.936	11.936	0.000	97	150079	50.0	45.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.003	12.003	0.000	97	188108	50.0	52.6	
106 1,3,5-Trimethylbenzene	105	12.033	12.033	0.000	94	513460	50.0	47.2	
107 4-Chlorotoluene	126	12.063	12.063	0.000	96	167636	50.0	47.3	
108 tert-Butylbenzene	119	12.349	12.349	0.000	94	402487	50.0	44.3	
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	97	514240	50.0	46.5	
111 1,2-dichloro-4-(trifluorom	214	12.453	12.453	0.000	94	135665	50.0	49.0	
112 sec-Butylbenzene	105	12.574	12.574	0.000	94	569862	50.0	44.9	
113 1,3-Dichlorobenzene	146	12.696	12.696	0.000	98	281755	50.0	47.4	
114 4-Isopropyltoluene	119	12.726	12.726	0.000	97	487935	50.0	46.2	
115 1,4-Dichlorobenzene	146	12.793	12.793	0.000	95	293064	50.0	48.0	
116 2,4-Dichloro-1-(trifluorom	214	12.824	12.824	0.000	92	126196	50.0	48.9	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.866	0.000	0	143963	50.0	51.7	
120 n-Butylbenzene	91	13.134	13.134	0.000	98	384351	50.0	44.6	
121 1,2-Dichlorobenzene	146	13.152	13.152	0.000	98	282711	50.0	49.9	
122 1,2-Dibromo-3-Chloropropan	75	13.943	13.943	0.000	79	27363	50.0	43.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.082	0.000	0	592445	150.0	164.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.502	0.000	0	410833	100.0	110.6	
126 1,2,4-Trichlorobenzene	180	14.764	14.764	0.000	93	123082	50.0	47.5	
127 Hexachlorobutadiene	225	14.910	14.910	0.000	93	45751	50.0	48.2	
128 Naphthalene	128	15.031	15.031	0.000	97	415670	50.0	47.1	
129 1,2,3-Trichlorobenzene	180	15.256	15.256	0.000	96	110226	50.0	46.6	
131 2,4,5-Trichlorotoluene	159	16.028	16.028	0.000	0	54673	50.0	48.6	
130 2,3,6-Trichlorotoluene	159	16.126	16.126	0.000	95	53610	50.0	51.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.5	
S 133 Xylenes, Total	106				0		100.0	97.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	101.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00014	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\20171107-19208.b\51107D02.D

Injection Date: 08-Nov-2017 00:13:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

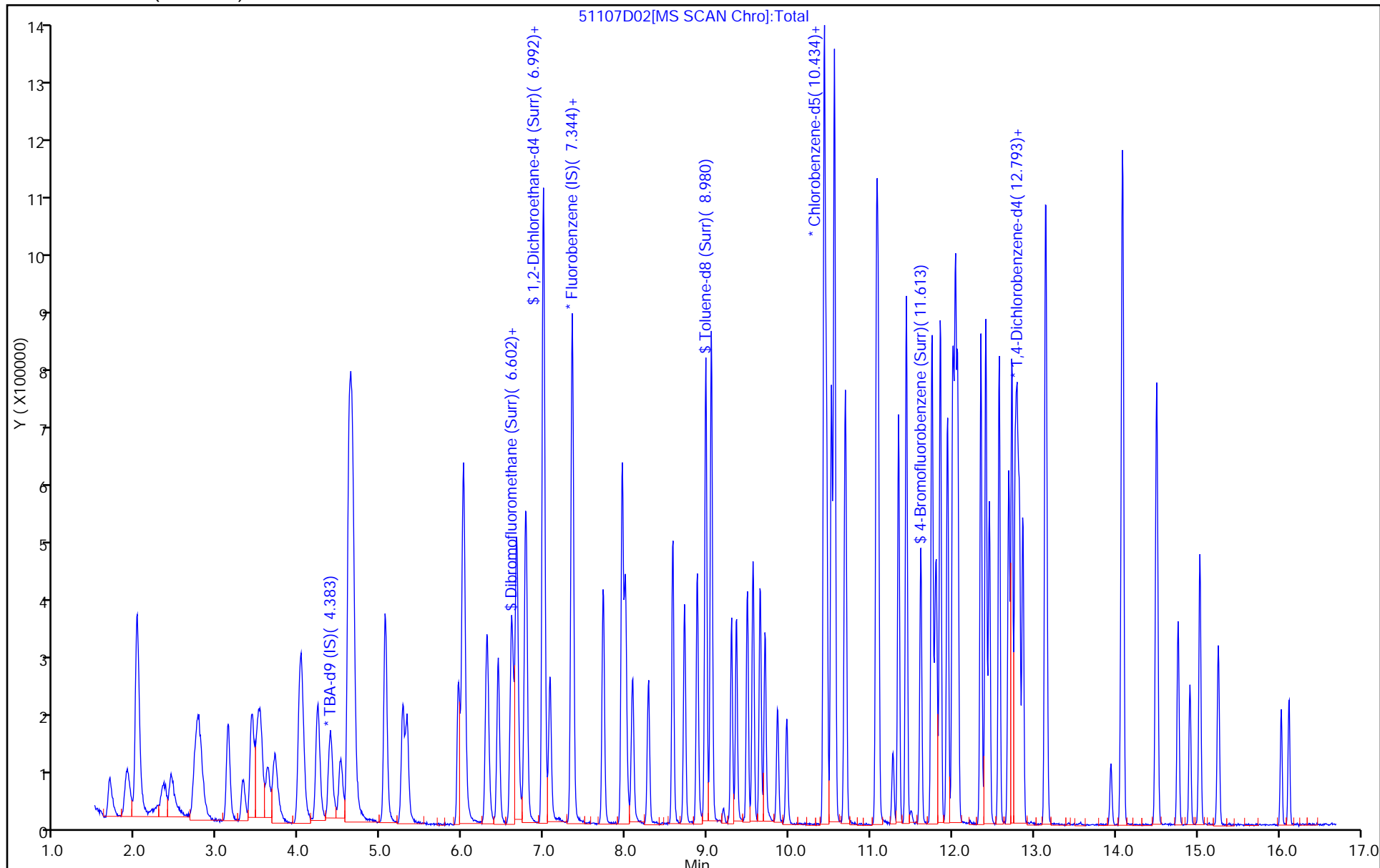
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

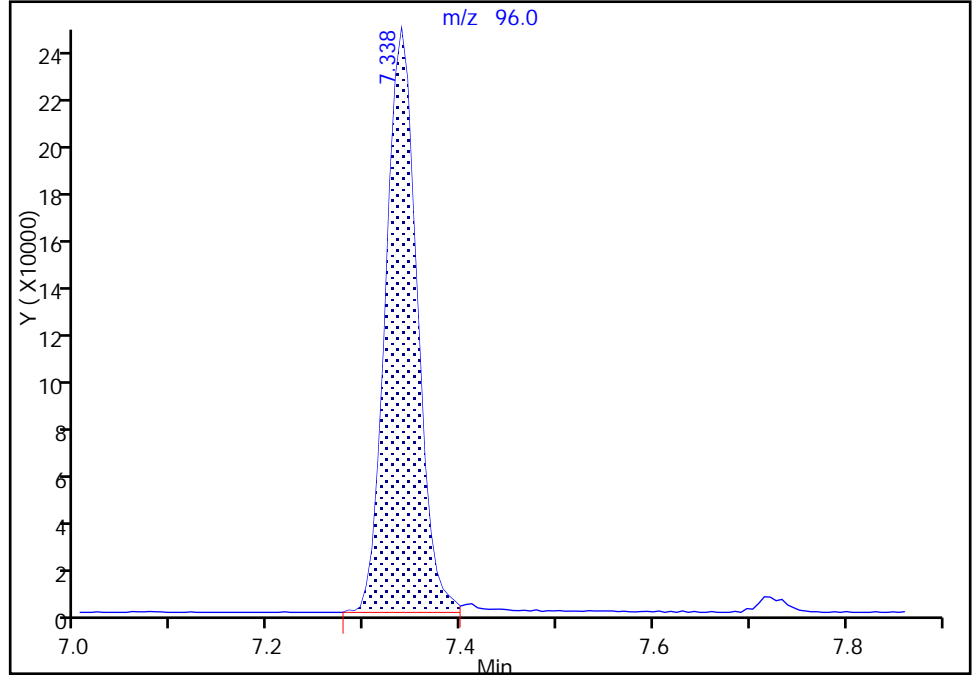
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Injection Date: 08-Nov-2017 00:13:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

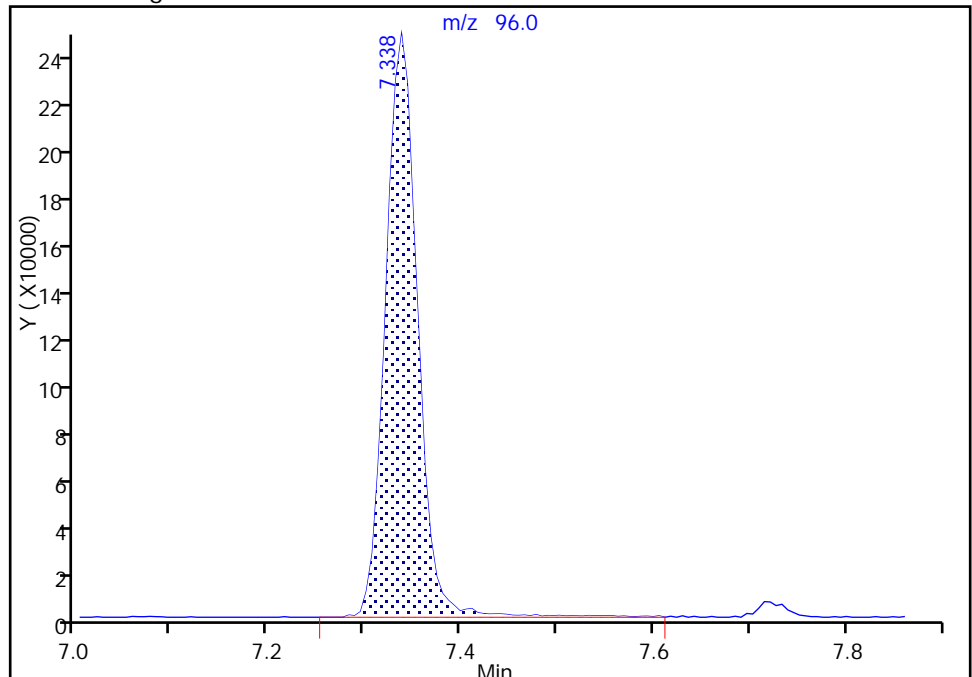
RT: 7.34
Area: 558477
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 569496
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 03:34:49
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

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

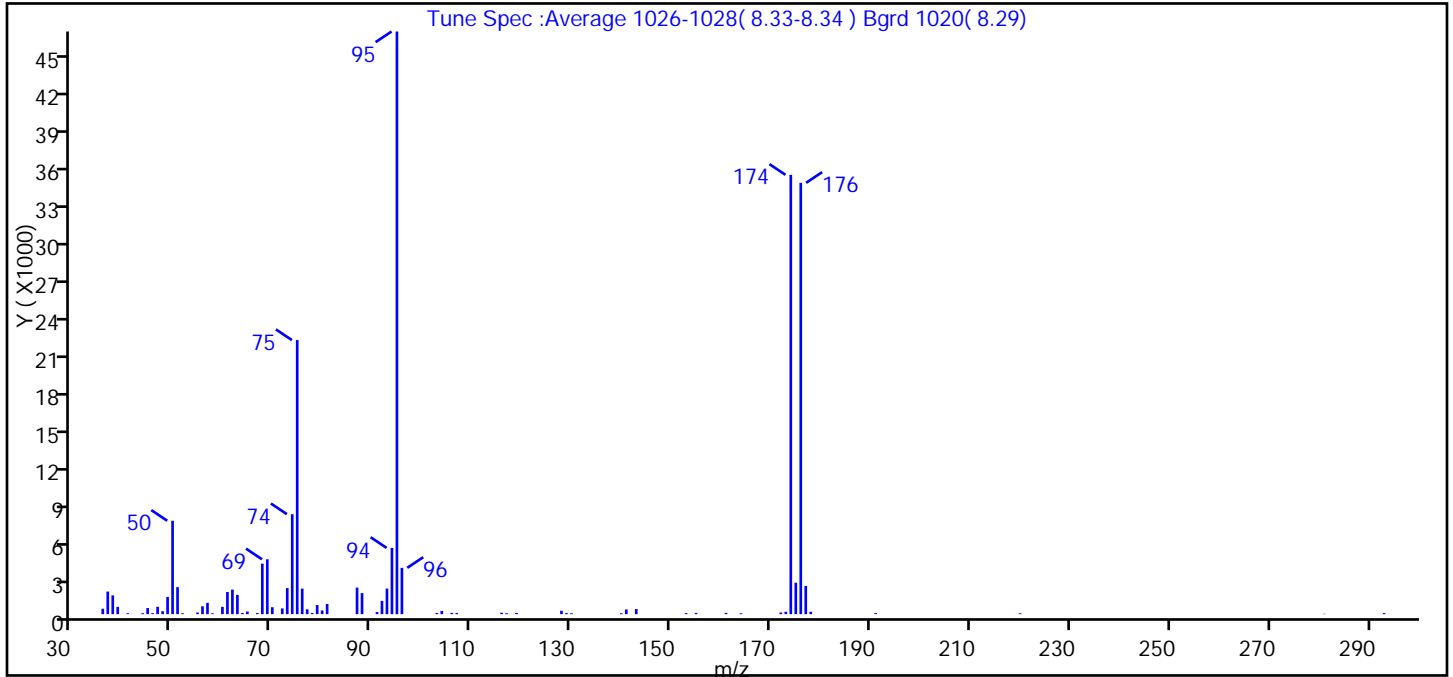
Reagents:

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)

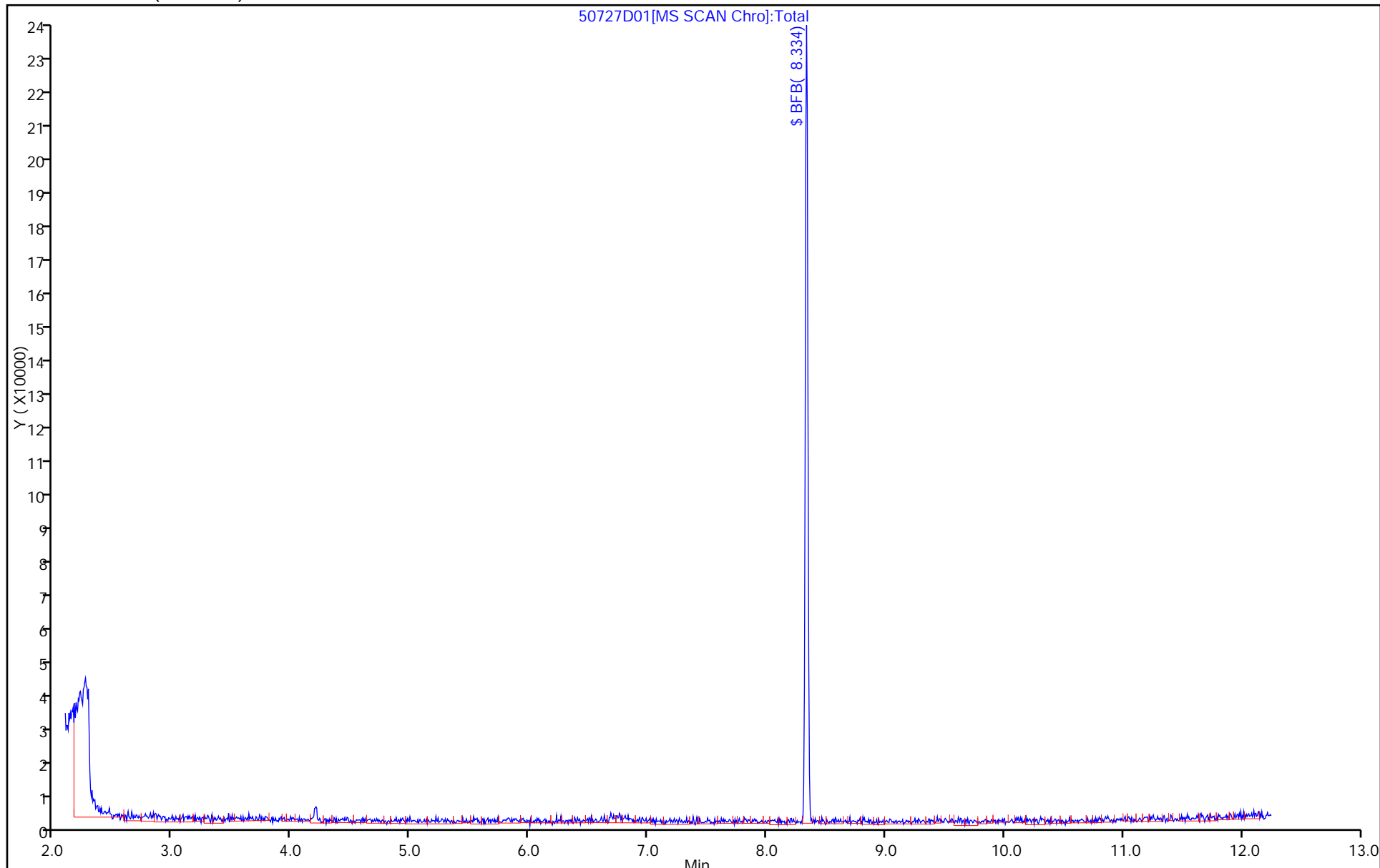
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 Injection Date: 27-Jul-2017 00:22:30
 Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1020(8.29)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 74

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
Lims ID: BFB
Client ID:
Injection Vol: 5.0 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#: 1
ALS Bottle#: 1



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 02-Nov-2017 21:51:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:35 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK012

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.342	8.342	0.000	0	14334	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

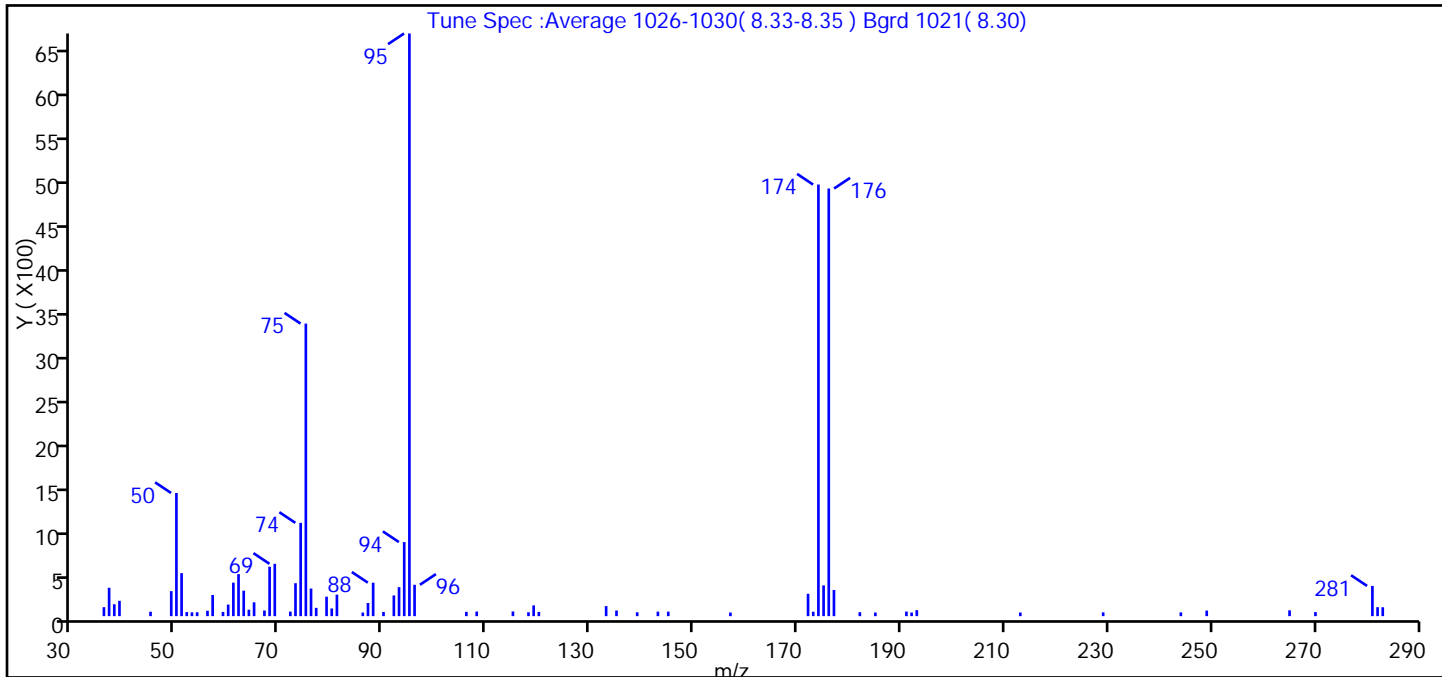
Reagents:

VOABFB25_00094 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D01.D
 Injection Date: 02-Nov-2017 21:51:30 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	21.1
75	30 to 60% of m/z 95	50.2
96	5 to 9% of m/z 95	5.4
173	Less than 2% of m/z 174	0.8 (1.0)
174	50 to 120% of m/z 95	74.1
175	5 to 9% of m/z 174	5.3 (7.1)
176	Greater than 95% but less than 101% of m/z 174	73.4 (99.1)
177	5 to 9% of m/z 176	4.5 (6.1)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D01.D\MSVOA_LL_CHHP5.rsl\spec

Injection Date: 02-Nov-2017 21:51:30

Spectrum: Tune Spec :Average 1026-1030(8.33-8.35) Bgrd 1021(8.30)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 73

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	102	65.00	157	94.00	841	176.00	4854
37.00	322	67.00	64	95.00	6614	177.00	297
38.00	135	68.00	561	96.00	356	182.00	45
39.00	174	69.00	594	106.00	49	185.00	41
45.00	50	72.00	51	108.00	52	191.00	52
49.00	284	73.00	374	115.00	53	192.00	41
50.00	1398	74.00	1059	118.00	44	193.00	68
51.00	488	75.00	3321	119.00	122	213.00	41
52.00	46	76.00	313	120.00	48	229.00	43
53.00	43	77.00	94	133.00	114	244.00	43
54.00	44	79.00	221	135.00	64	249.00	63
56.00	61	80.00	87	139.00	44	265.00	66
57.00	240	81.00	244	143.00	51	270.00	46
59.00	48	86.00	41	145.00	51	281.00	343
60.00	131	87.00	149	157.00	41	282.00	102
61.00	380	88.00	380	172.00	254	283.00	101
62.00	477	90.00	48	173.00	50		
63.00	289	92.00	235	174.00	4899		
64.00	73	93.00	329	175.00	349		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D01.D

Injection Date: 02-Nov-2017 21:51:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

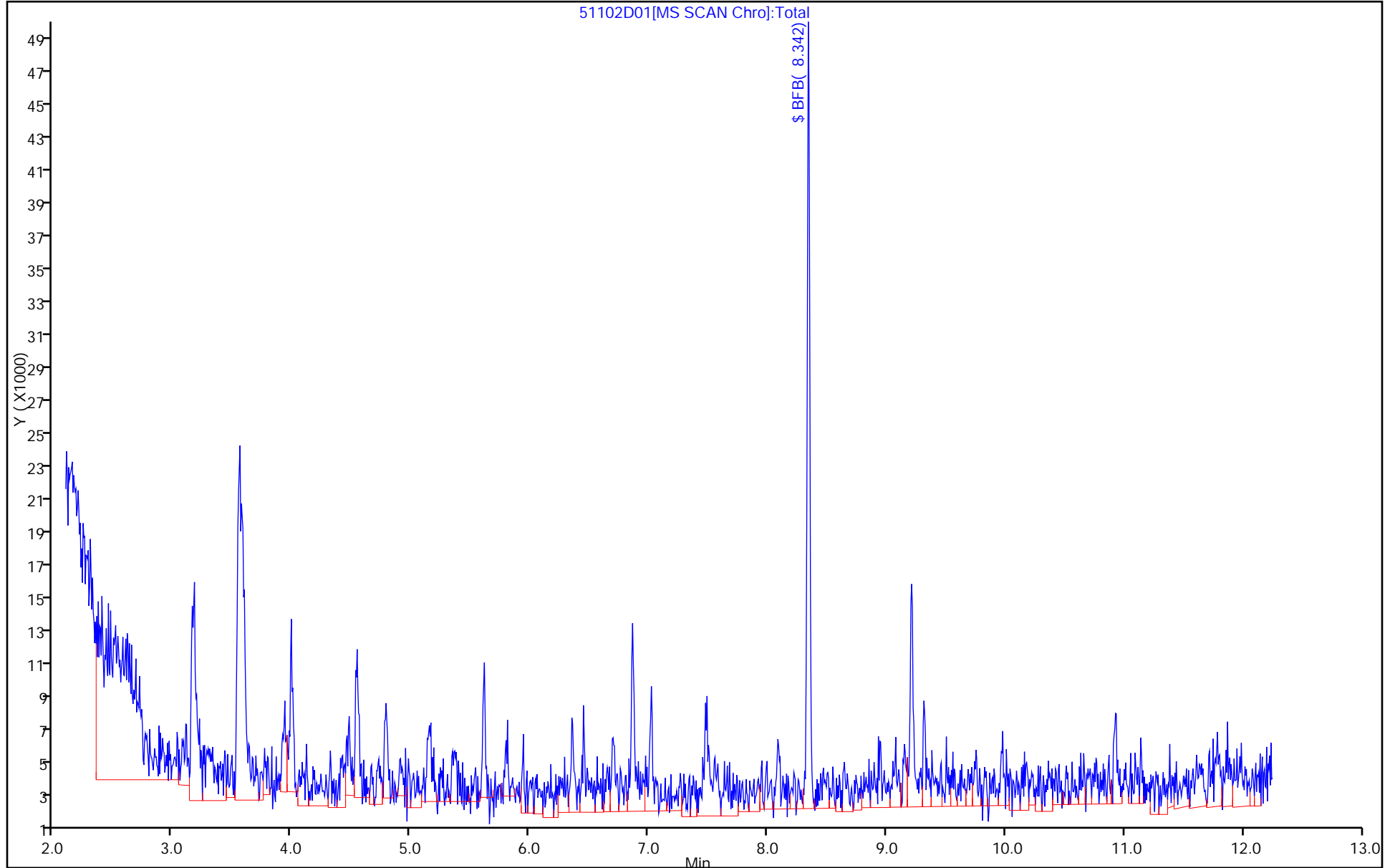
Dil. Factor: 1.0000

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\20171105-19180.b\51105D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 05-Nov-2017 00:00:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:29 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: 05-Nov-2017 23:38:02

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	8.338	8.338	0.000	0	71116	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

VOABFB25_00094

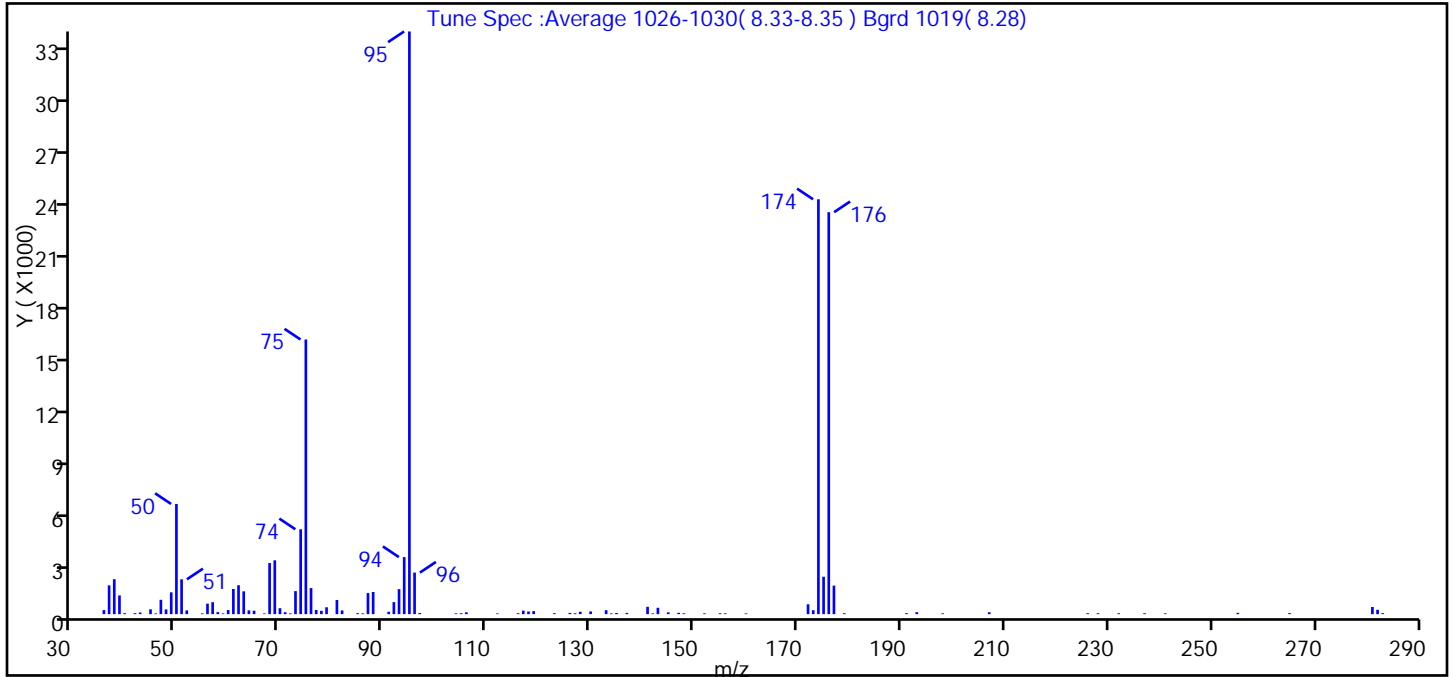
Amount Added: 1.00

Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D01.D
 Injection Date: 05-Nov-2017 00:00:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.9
75	30 to 60% of m/z 95	47.1
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.7 (0.9)
174	50 to 120% of m/z 95	71.2
175	5 to 9% of m/z 174	6.4 (9.0)
176	Greater than 95% but less than 101% of m/z 174	69.0 (96.9)
177	5 to 9% of m/z 176	4.9 (7.1)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D01.D\MSVOA_LL_CHHP5.rsl\spec
 Injection Date: 05-Nov-2017 00:00:30
 Spectrum: Tune Spec :Average 1026-1030(8.33-8.35) Bgrd 1019(8.28)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	235	65.00	200	96.00	2400	152.00	44
37.00	1662	67.00	41	97.00	68	155.00	52
38.00	2018	68.00	2953	104.00	46	156.00	48
39.00	1081	69.00	3111	105.00	54	160.00	42
40.00	57	70.00	343	106.00	106	172.00	570
42.00	58	71.00	110	112.00	41	173.00	226
43.00	95	72.00	44	116.00	54	174.00	23968
45.00	278	73.00	1330	117.00	202	175.00	2160
46.00	43	74.00	4904	118.00	153	176.00	23224
47.00	829	75.00	15867	119.00	175	177.00	1649
48.00	273	76.00	1506	123.00	54	179.00	51
49.00	1261	77.00	241	126.00	72	191.00	57
50.00	6366	78.00	194	127.00	51	193.00	113
51.00	2012	79.00	397	128.00	139	198.00	47
52.00	216	81.00	817	130.00	158	207.00	110
55.00	44	82.00	214	133.00	227	226.00	53
56.00	605	85.00	57	134.00	44	228.00	52
57.00	690	86.00	45	135.00	66	232.00	51
58.00	117	87.00	1218	137.00	72	237.00	52
59.00	41	88.00	1279	141.00	425	241.00	44
60.00	236	91.00	138	142.00	44	255.00	74
61.00	1455	92.00	694	143.00	367	265.00	58
62.00	1670	93.00	1444	145.00	104	281.00	415
63.00	1319	94.00	3296	147.00	78	282.00	252
64.00	219	95.00	33664	148.00	49	283.00	58

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D01.D

Injection Date: 05-Nov-2017 00:00:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

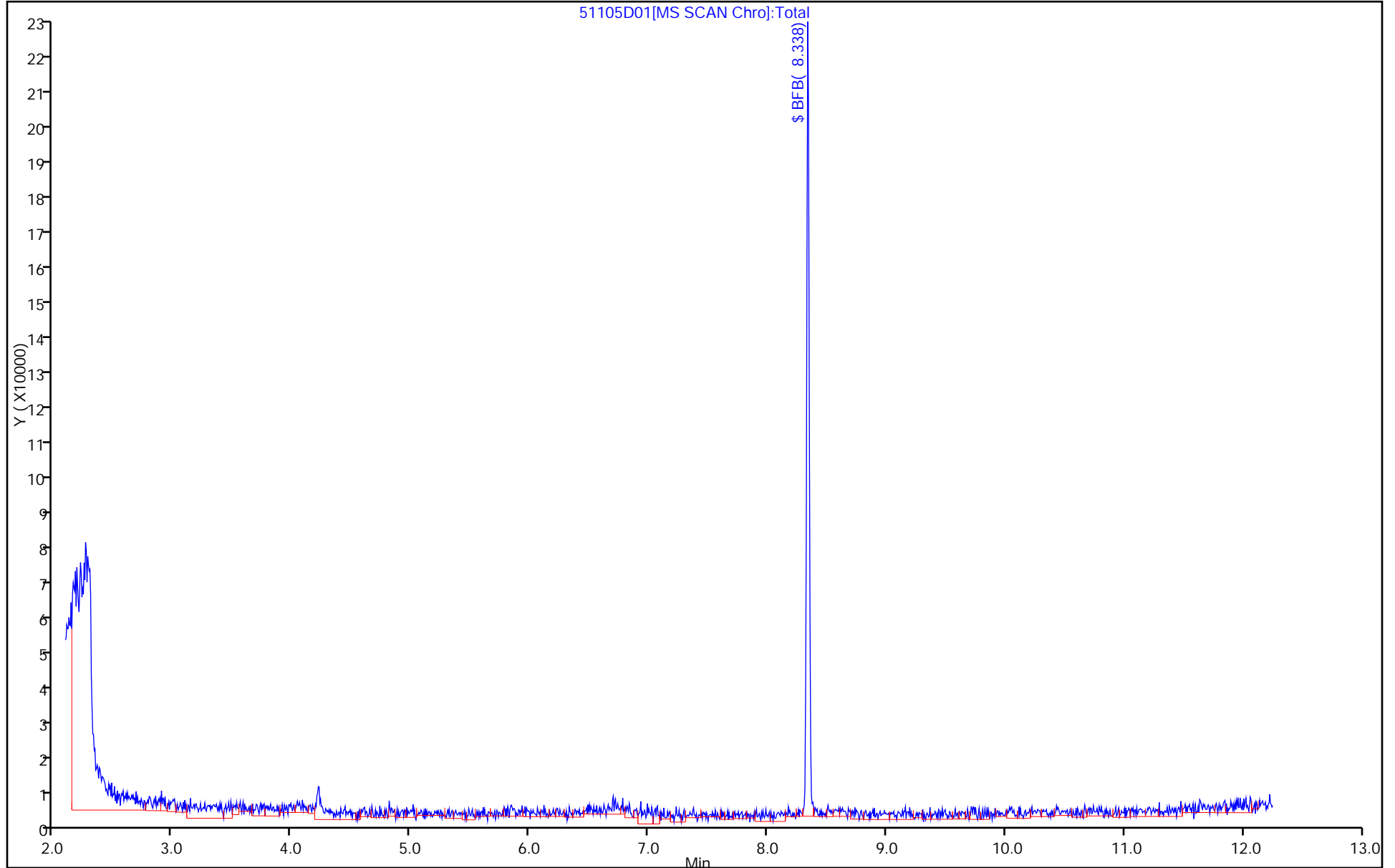
Dil. Factor: 1.0000

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\20171107-19208.b\51107D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 07-Nov-2017 23:03:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 08:55:39 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: XAWRK018

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.335	8.335	0.000	0	99267	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

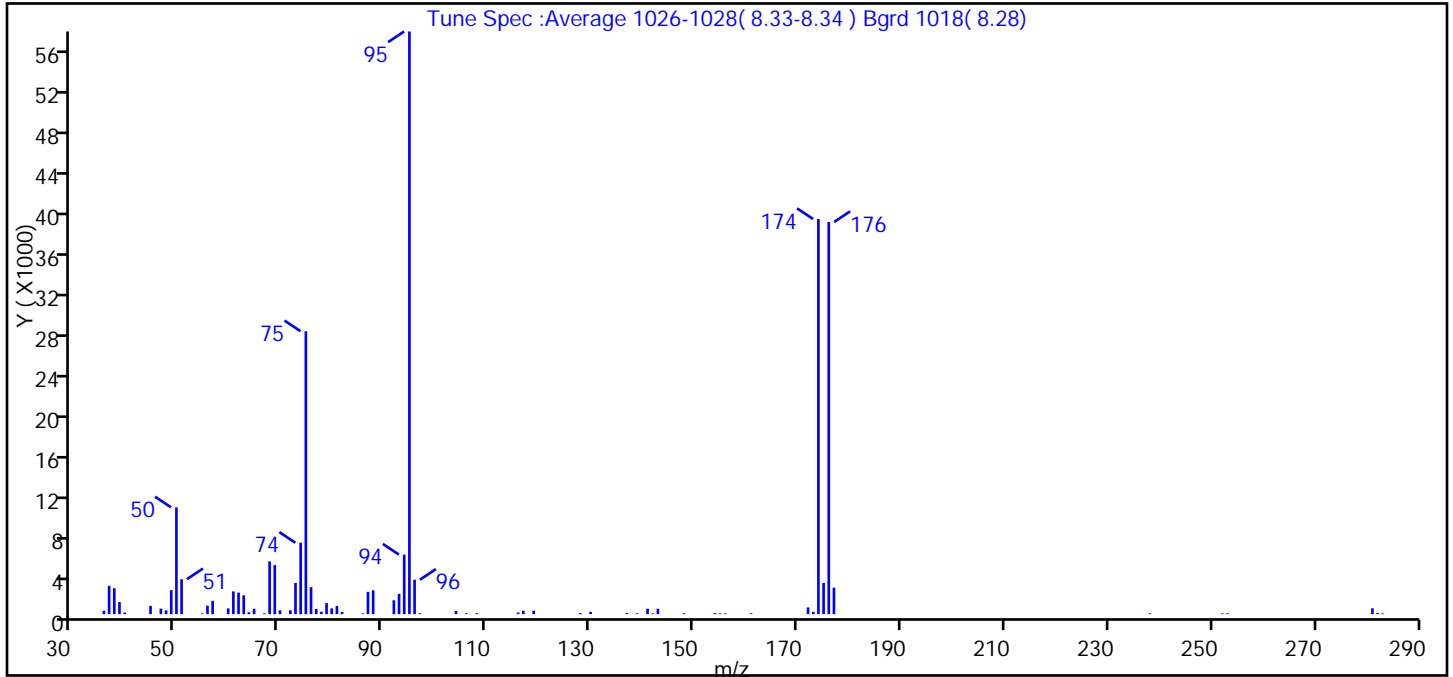
Reagents:

VOABFB25_00094 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D01.D
 Injection Date: 07-Nov-2017 23:03:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.3
75	30 to 60% of m/z 95	48.6
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.4 (0.6)
174	50 to 120% of m/z 95	67.8
175	5 to 9% of m/z 174	5.4 (7.9)
176	Greater than 95% but less than 101% of m/z 174	67.3 (99.2)
177	5 to 9% of m/z 176	4.5 (6.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D01.D\MSVOA_LL_CHHP5.rsl\spec

Injection Date: 07-Nov-2017 23:03:30

Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1018(8.28)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	339	65.00	534	92.00	1375	148.00	88
37.00	2804	67.00	82	93.00	2009	154.00	98
38.00	2565	68.00	5221	94.00	5888	155.00	80
39.00	1192	69.00	4850	95.00	57616	156.00	76
40.00	147	70.00	373	96.00	3402	161.00	82
45.00	820	72.00	379	97.00	89	172.00	664
47.00	547	73.00	3082	104.00	322	173.00	227
48.00	368	74.00	7059	106.00	81	174.00	39072
49.00	2373	75.00	27976	108.00	94	175.00	3089
50.00	10558	76.00	2668	116.00	164	176.00	38776
51.00	3454	77.00	515	117.00	337	177.00	2615
55.00	68	78.00	237	119.00	345	238.00	76
56.00	840	79.00	1090	128.00	114	252.00	72
57.00	1311	80.00	570	130.00	221	253.00	78
60.00	568	81.00	810	137.00	104	281.00	574
61.00	2253	82.00	213	139.00	74	282.00	110
62.00	2130	86.00	70	141.00	537	283.00	71
63.00	1864	87.00	2202	142.00	78		
64.00	187	88.00	2357	143.00	540		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D01.D

Injection Date: 07-Nov-2017 23:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

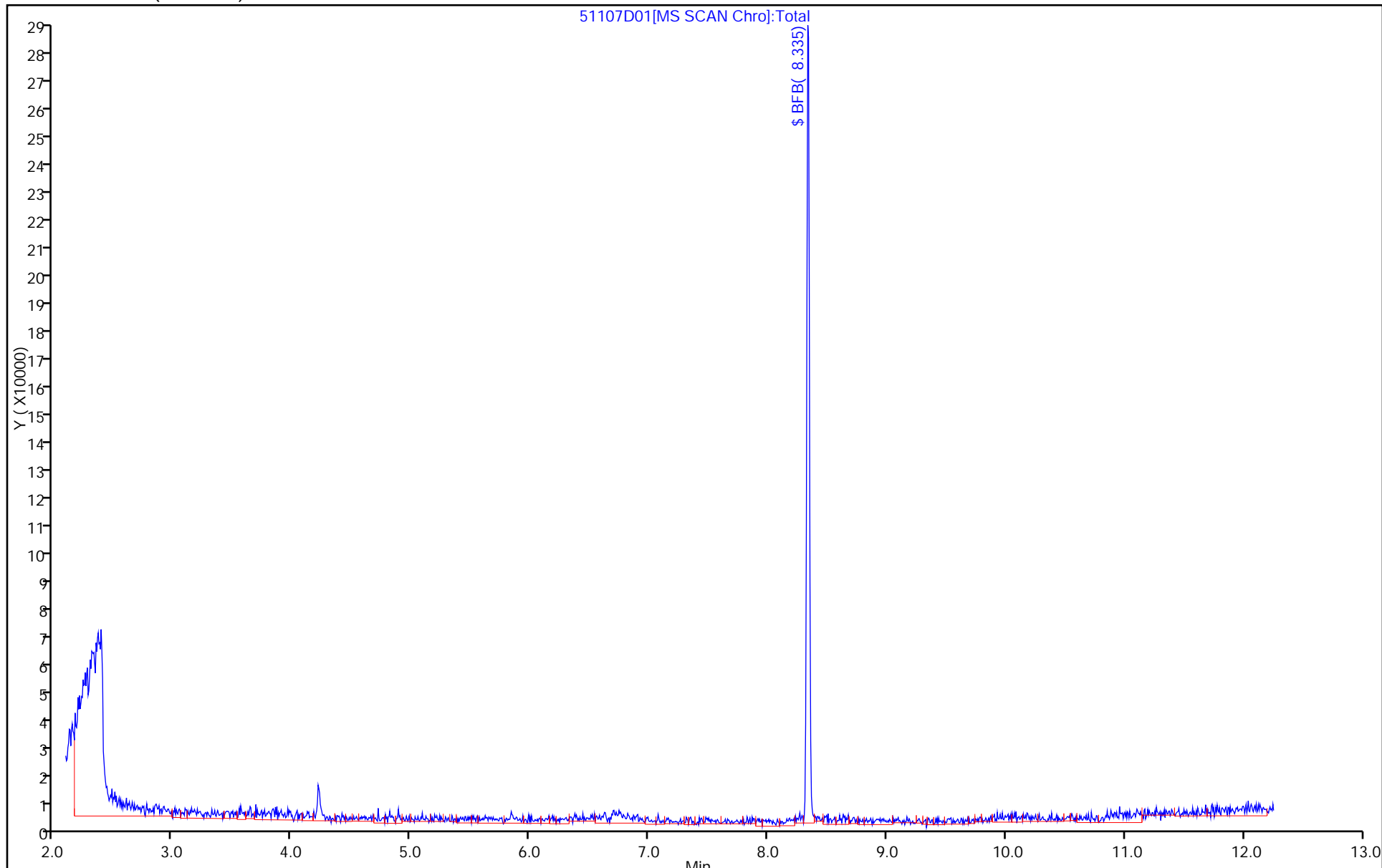
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-227871/5
 Matrix: Water Lab File ID: 51102D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 00:58
 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.: 227871 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.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-227871/5
 Matrix: Water Lab File ID: 51102D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/03/2017 00:58
 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.: 227871 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)	113		65-121
2037-26-5	Toluene-d8 (Surr)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	86		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 03-Nov-2017 00:58:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-005
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 03-Nov-2017 01:29:20

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	4.388	-0.022	0	241706	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.337	0.003	98	543946	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.433	-0.004	87	131498	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.768	0.002	96	185242	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.620	0.002	93	133249	50.0	50.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.991	-0.004	0	179797	50.0	56.3	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.979	0.002	94	481034	50.0	46.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.612	-0.003	86	163164	50.0	43.2	
11 Dichlorodifluoromethane	85		1.688					ND	
12 Chloromethane	50		1.888					ND	
13 Vinyl chloride	62		2.010					ND	
14 Butadiene	39		2.016					ND	
15 Bromomethane	94		2.332					ND	
16 Chloroethane	64		2.430					ND	
18 Trichlorofluoromethane	101		2.722					ND	
17 Dichlorofluoromethane	67		2.758					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.129					ND	
21 Acrolein	56		3.324					ND	
22 1,1-Dichloroethene	96		3.427					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.488					ND	
24 Acetone	43		3.536					ND	
25 Iodomethane	142		3.622					ND	
26 Carbon disulfide	76		3.713					ND	
27 Isopropyl alcohol	45		3.816					ND	
29 Acetonitrile	41		3.981					ND	
28 3-Chloro-1-propene	76		4.023					ND	
30 Methyl acetate	43		4.035					ND	
31 Methylene Chloride	84		4.236					ND	
32 2-Methyl-2-propanol	59		4.509					ND	
33 Acrylonitrile	53		4.619					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		4.668					ND	
36 Hexane	57		5.063					ND	
37 1,1-Dichloroethane	63		5.276					ND	
38 Vinyl acetate	43		5.324					ND	
39 2-Chloro-1,3-butadiene	53		5.367					ND	
41 Isopropyl ether	45		5.367					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.835					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.012					ND	
44 2,2-Dichloropropane	97		6.018					ND	
46 2-Butanone (MEK)	43		6.030					ND	
48 Ethyl acetate	43		6.097					ND	
47 Propionitrile	54		6.103					ND	
50 Methacrylonitrile	41		6.273					ND	
49 Chlorobromomethane	128		6.297					ND	
51 Tetrahydrofuran	42		6.310					ND	
52 Chloroform	83	6.452	6.437	0.015	7	2965		0.5628	M
53 1,1,1-Trichloroethane	97		6.595					ND	
54 Cyclohexane	56		6.662					ND	
56 Carbon tetrachloride	117		6.772					ND	
55 1,1-Dichloropropene	75		6.784					ND	
57 Isobutyl alcohol	41		6.991					ND	
58 Benzene	78		6.997					ND	
59 1,2-Dichloroethane	62		7.076					ND	
151 Isooctane	57		7.149					ND	
61 Tert-amyl methyl ether	73		7.173					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.356					ND	
63 n-Butanol	56		7.684					ND	
64 Trichloroethene	130		7.727					ND	
65 Ethyl acrylate	55		7.848					ND	
66 Methylcyclohexane	83		7.958					ND	
67 1,2-Dichloropropane	63		8.000					ND	
70 1,4-Dioxane	88		8.085					ND	
68 Dibromomethane	93		8.085					ND	
69 Methyl methacrylate	69		8.086					ND	
71 Dichlorobromomethane	83		8.274					ND	
73 2-Chloroethyl vinyl ether	63		8.578					ND	
74 cis-1,3-Dichloropropene	75		8.724					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.876					ND	
76 Toluene	91		9.046					ND	
77 trans-1,3-Dichloropropene	75		9.296					ND	
78 Ethyl methacrylate	69		9.356					ND	
79 1,1,2-Trichloroethane	97		9.490					ND	
80 Tetrachloroethene	164		9.557					ND	
81 1,3-Dichloropropane	76		9.648					ND	
82 2-Hexanone	43		9.703					ND	
83 n-Butyl acetate	43		9.825					ND	
84 Chlorodibromomethane	129		9.855					ND	
85 Ethylene Dibromide	107		9.971					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.433					ND	
87 Chlorobenzene	112		10.457					ND	
88 4-Chlorobenzotrifluoride	180		10.518					ND	
89 1,1,1,2-Tetrachloroethane	131		10.554					ND	
90 Ethylbenzene	106		10.560					ND	
91 m-Xylene & p-Xylene	106		10.688					ND	
92 o-Xylene	106		11.071					ND	
93 Styrene	104		11.089					ND	
94 Bromoform	173		11.272					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.339					ND	
97 Isopropylbenzene	105		11.436					ND	
98 Cyclohexanone	55		11.528					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		12.069					ND	
108 tert-Butylbenzene	119		12.348					ND	
110 1,2,4-Trimethylbenzene	105		12.409					ND	
111 1,2-dichloro-4-(trifluorom	214		12.452					ND	
112 sec-Butylbenzene	105		12.573					ND	
113 1,3-Dichlorobenzene	146		12.689					ND	
114 4-Isopropyltoluene	119		12.731					ND	
115 1,4-Dichlorobenzene	146		12.792					ND	
116 2,4-Dichloro-1-(triflourom	214		12.823					ND	
117 1,2,3-Trimethylbenzene	105		12.823					ND	
118 2,5-Dichlorobenzotrifluori	214		12.865					ND	
119 Benzyl chloride	91		12.908					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		14.088					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.507					ND	
126 1,2,4-Trichlorobenzene	180		14.763					ND	
127 Hexachlorobutadiene	225		14.909					ND	
128 Naphthalene	128		15.030					ND	
129 1,2,3-Trichlorobenzene	180		15.261					ND	
131 2,4,5-Trichlorotoluene	159		16.028					ND	
130 2,3,6-Trichlorotoluene	159		16.125					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42		6.253					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\20171102-19153.b\51102D05.D

Injection Date: 03-Nov-2017 00:58:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

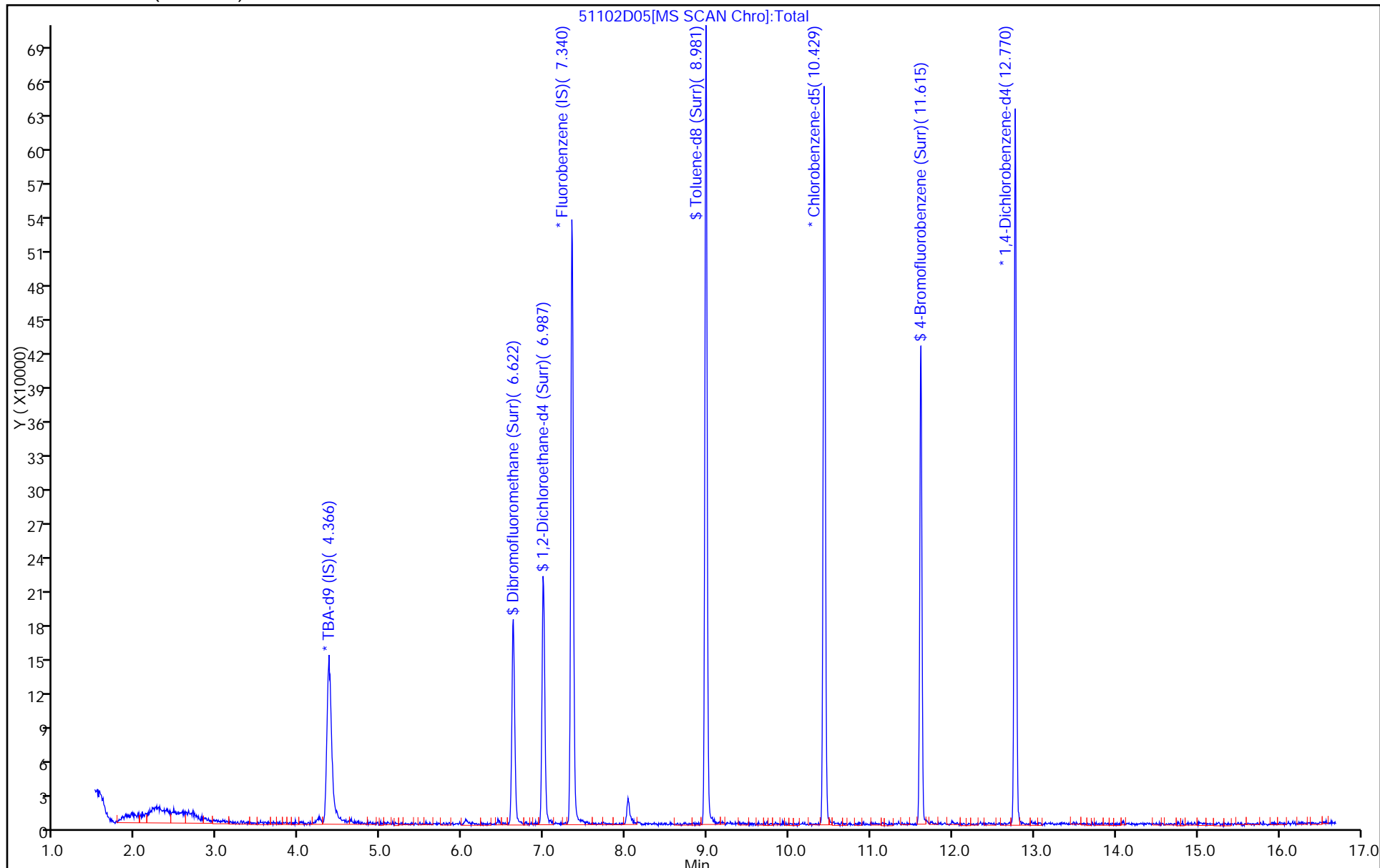
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 03-Nov-2017 00:58:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-005
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf Date: 03-Nov-2017 01:29:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.9	101.83
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.3	112.65
\$ 7 Toluene-d8 (Surr)	50.0	46.0	91.93
\$ 8 4-Bromofluorobenzene (Surr)	50.0	43.2	86.34

TestAmerica Pittsburgh

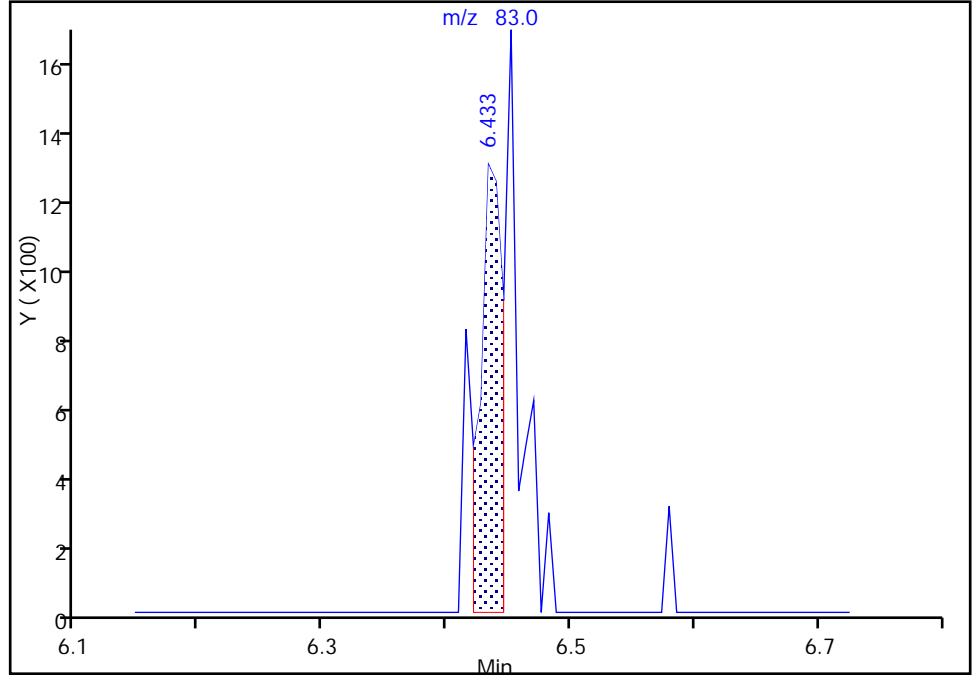
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D05.D
Injection Date: 03-Nov-2017 00:58:30 Instrument ID: CHHP5
Lims ID: MB
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

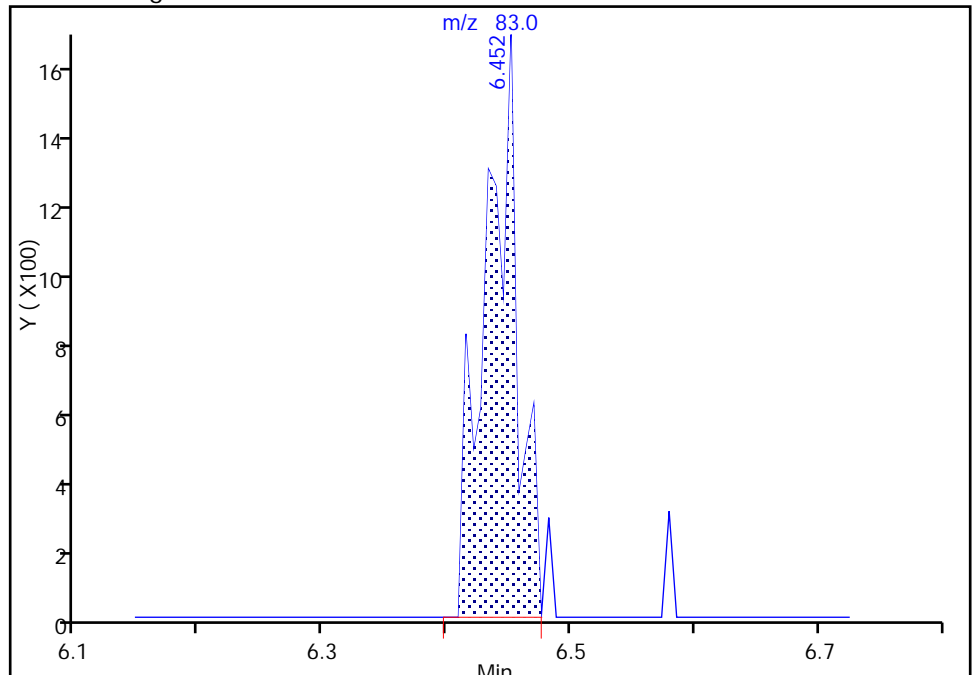
RT: 6.43
Area: 1582
Amount: 0.300275
Amount Units: ng

Processing Integration Results



RT: 6.45
Area: 2965
Amount: 0.562779
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 03-Nov-2017 01:28:37
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228044/5
 Matrix: Water Lab File ID: 51105D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 02:14
 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.: 228044 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.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228044/5
 Matrix: Water Lab File ID: 51105D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 02:14
 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.: 228044 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)	91		73-120
460-00-4	4-Bromofluorobenzene (Surr)	88		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 06-Nov-2017 02:14:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-005
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 01:41:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.376	-0.012	0	275258	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.344	0.000	98	579207	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	87	144472	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.768	0.007	97	205573	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.626	6.620	0.006	92	146975	50.0	52.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.991	0.000	0	186687	50.0	54.9	
\$ 7 Toluene-d8 (Surr)	98	8.986	8.980	0.006	95	523629	50.0	45.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	87	182419	50.0	43.9	
11 Dichlorodifluoromethane	85		1.688					ND	
12 Chloromethane	50		1.895					ND	
13 Vinyl chloride	62		2.017					ND	
14 Butadiene	39	2.199	2.017	0.182	1	1313		0.4208	
15 Bromomethane	94		2.375					ND	
16 Chloroethane	64		2.461					ND	
17 Dichlorofluoromethane	67		2.771					ND	
18 Trichlorofluoromethane	101		2.801					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.136					ND	
21 Acrolein	56		3.318					ND	
22 1,1-Dichloroethene	96		3.434					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.506					ND	
24 Acetone	43		3.531					ND	
25 Iodomethane	142		3.640					ND	
26 Carbon disulfide	76		3.719					ND	
27 Isopropyl alcohol	45		3.816					ND	
29 Acetonitrile	41		3.981					ND	
28 3-Chloro-1-propene	76		4.017					ND	
30 Methyl acetate	43		4.042					ND	
31 Methylene Chloride	84	4.242	4.236	0.006	63	3917		-2.16	
32 2-Methyl-2-propanol	59		4.510					ND	
33 Acrylonitrile	53		4.619					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		4.644					ND	
35 Methyl tert-butyl ether	73		4.662					ND	
36 Hexane	57		5.063					ND	
37 1,1-Dichloroethane	63		5.282					ND	
38 Vinyl acetate	43		5.325					ND	
39 2-Chloro-1,3-butadiene	53		5.367					ND	
41 Isopropyl ether	45		5.367					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.835					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.018					ND	
44 2,2-Dichloropropane	97		6.018					ND	
46 2-Butanone (MEK)	43		6.030					ND	
48 Ethyl acetate	43	6.067	6.097	-0.030	1	533		0.0948	
47 Propionitrile	54		6.103					ND	
50 Methacrylonitrile	41		6.273					ND	
49 Chlorobromomethane	128		6.298					ND	
51 Tetrahydrofuran	42		6.310					ND	
52 Chloroform	83	6.450	6.444	0.006	3	1932		0.3444	
53 1,1,1-Trichloroethane	97		6.602					ND	
54 Cyclohexane	56		6.675					ND	
56 Carbon tetrachloride	117		6.766					ND	
55 1,1-Dichloropropene	75		6.784					ND	
57 Isobutyl alcohol	41		6.985					ND	
58 Benzene	78		6.997					ND	
59 1,2-Dichloroethane	62		7.076					ND	
151 Isooctane	57	7.338	7.149	0.189	33	20574		-0.3590	
61 Tert-amyl methyl ether	73		7.173					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43	7.368	7.356	0.012	1	274		0.0826	
63 n-Butanol	56		7.684					ND	
64 Trichloroethene	130		7.727					ND	
65 Ethyl acrylate	55		7.848					ND	
66 Methylcyclohexane	83		7.958					ND	
67 1,2-Dichloropropane	63		8.001					ND	
69 Methyl methacrylate	69		8.086					ND	
68 Dibromomethane	93		8.086					ND	
70 1,4-Dioxane	88		8.086					ND	
71 Dichlorobromomethane	83		8.274					ND	
73 2-Chloroethyl vinyl ether	63		8.578					ND	
74 cis-1,3-Dichloropropene	75		8.724					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.876					ND	
76 Toluene	91		9.053					ND	
77 trans-1,3-Dichloropropene	75		9.296					ND	
78 Ethyl methacrylate	69		9.357					ND	
79 1,1,2-Trichloroethane	97		9.491					ND	
80 Tetrachloroethene	164		9.563					ND	
81 1,3-Dichloropropane	76		9.649					ND	
82 2-Hexanone	43		9.703					ND	
83 n-Butyl acetate	43		9.825					ND	
84 Chlorodibromomethane	129		9.861					ND	
85 Ethylene Dibromide	107		9.971					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.433					ND	
87 Chlorobenzene	112		10.464					ND	
88 4-Chlorobenzotrifluoride	180		10.518					ND	
89 1,1,1,2-Tetrachloroethane	131		10.555					ND	
90 Ethylbenzene	106		10.561					ND	
91 m-Xylene & p-Xylene	106		10.689					ND	
92 o-Xylene	106		11.072					ND	
93 Styrene	104		11.090					ND	
94 Bromoform	173		11.272					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.339					ND	
97 Isopropylbenzene	105		11.437					ND	
98 Cyclohexanone	55		11.528					ND	
99 1,1,2,2-Tetrachloroethane	83		11.747					ND	
100 Bromobenzene	156		11.753					ND	
102 trans-1,4-Dichloro-2-buten	53		11.789					ND	
101 1,2,3-Trichloropropane	110		11.808					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		12.039					ND	
107 4-Chlorotoluene	126		12.063					ND	
108 tert-Butylbenzene	119		12.349					ND	
110 1,2,4-Trimethylbenzene	105		12.410					ND	
111 1,2-dichloro-4-(trifluorom	214		12.452					ND	
112 sec-Butylbenzene	105		12.574					ND	
113 1,3-Dichlorobenzene	146		12.689					ND	
114 4-Isopropyltoluene	119		12.732					ND	
115 1,4-Dichlorobenzene	146		12.793					ND	
117 1,2,3-Trimethylbenzene	105		12.823					ND	
116 2,4-Dichloro-1-(triflourom	214		12.823					ND	
118 2,5-Dichlorobenzotrifluori	214		12.866					ND	
119 Benzyl chloride	91		12.908					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		14.088					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.502					ND	
126 1,2,4-Trichlorobenzene	180		14.769					ND	
127 Hexachlorobutadiene	225		14.915					ND	
128 Naphthalene	128		15.031					ND	
129 1,2,3-Trichlorobenzene	180		15.256					ND	
131 2,4,5-Trichlorotoluene	159		16.028					ND	
130 2,3,6-Trichlorotoluene	159		16.125					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42		6.253					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\20171105-19180.b\51105D05.D

Injection Date: 06-Nov-2017 02:14:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

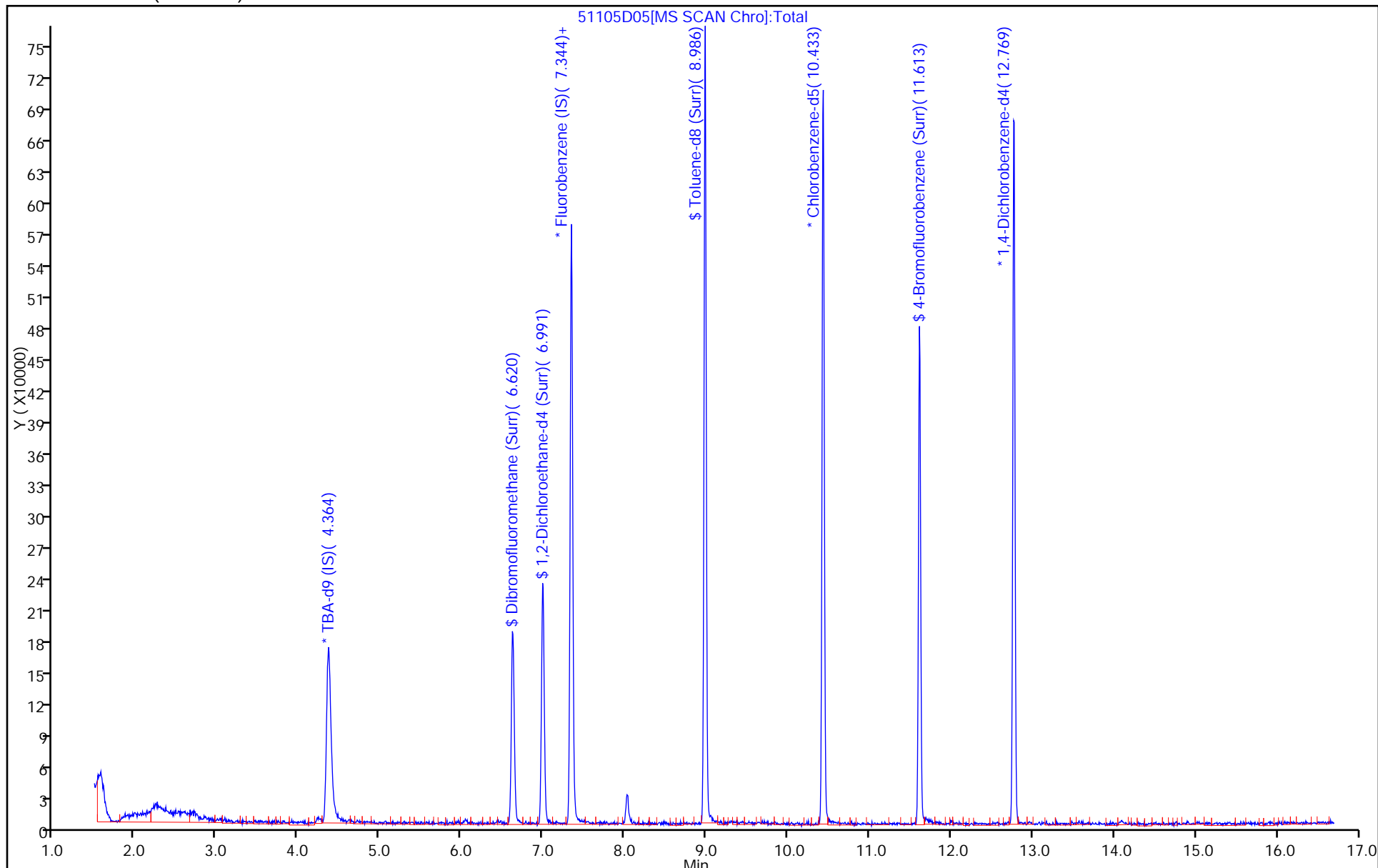
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 06-Nov-2017 02:14:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-005
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 01:41:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.7	105.48
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.9	109.85
\$ 7 Toluene-d8 (Surr)	50.0	45.5	91.08
\$ 8 4-Bromofluorobenzene (Surr)	50.0	43.9	87.86

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228278/5
 Matrix: Water Lab File ID: 51107D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 02:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 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.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228278/5
 Matrix: Water Lab File ID: 51107D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 02:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 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)	107		65-121
2037-26-5	Toluene-d8 (Surr)	90		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\20171107-19208.b\51107D05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 08-Nov-2017 02:29:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-005
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 08:55:00 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: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 02:53:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.372	4.383	-0.011	0	252842	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.338	0.002	98	562349	50.0	50.0	M
* 3 Chlorobenzene-d5	119	10.429	10.428	0.001	86	137042	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	97	193669	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.621	0.001	92	130664	50.0	48.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	176333	50.0	53.4	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	94	492736	50.0	45.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.613	-0.004	83	180102	50.0	45.7	
11 Dichlorodifluoromethane	85		1.683					ND	
12 Chloromethane	50		1.889					ND	
14 Butadiene	39		2.011					ND	
13 Vinyl chloride	62		2.017					ND	
15 Bromomethane	94		2.333					ND	
16 Chloroethane	64		2.431					ND	
17 Dichlorofluoromethane	67		2.759					ND	
18 Trichlorofluoromethane	101		2.802					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.136					ND	
21 Acrolein	56		3.312					ND	
22 1,1-Dichloroethene	96		3.428					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.501					ND	
24 Acetone	43		3.537					ND	
25 Iodomethane	142		3.610					ND	
26 Carbon disulfide	76		3.708					ND	
27 Isopropyl alcohol	45		3.816					ND	
29 Acetonitrile	41		3.981					ND	
28 3-Chloro-1-propene	76		4.006					ND	
30 Methyl acetate	43		4.036					ND	
31 Methylene Chloride	84		4.231					ND	
32 2-Methyl-2-propanol	59		4.510					ND	
33 Acrylonitrile	53		4.608					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		4.638					ND	
35 Methyl tert-butyl ether	73		4.656					ND	
36 Hexane	57		5.052					ND	
37 1,1-Dichloroethane	63		5.271					ND	
38 Vinyl acetate	43		5.319					ND	
39 2-Chloro-1,3-butadiene	53		5.367					ND	
41 Isopropyl ether	45		5.367					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.835					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.006					ND	
45 cis-1,2-Dichloroethene	96		6.013					ND	
46 2-Butanone (MEK)	43		6.025					ND	
48 Ethyl acetate	43		6.097					ND	
47 Propionitrile	54		6.103					ND	
50 Methacrylonitrile	41		6.273					ND	
49 Chlorobromomethane	128		6.298					ND	
51 Tetrahydrofuran	42		6.310					ND	
52 Chloroform	83	6.434	6.438	-0.004	45	2991		0.5491	
53 1,1,1-Trichloroethane	97		6.596					ND	
54 Cyclohexane	56		6.657					ND	
56 Carbon tetrachloride	117		6.767					ND	
55 1,1-Dichloropropene	75		6.779					ND	
57 Isobutyl alcohol	41		6.986					ND	
58 Benzene	78		6.998					ND	
59 1,2-Dichloroethane	62		7.071					ND	
151 Isooctane	57		7.149					ND	
61 Tert-amyl methyl ether	73		7.173					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.350					ND	
63 n-Butanol	56		7.684					ND	
64 Trichloroethene	130		7.721					ND	
65 Ethyl acrylate	55		7.848					ND	
66 Methylcyclohexane	83		7.959					ND	
67 1,2-Dichloropropane	63		7.995					ND	
70 1,4-Dioxane	88		8.080					ND	
69 Methyl methacrylate	69		8.086					ND	
68 Dibromomethane	93		8.086					ND	
71 Dichlorobromomethane	83		8.281					ND	
73 2-Chloroethyl vinyl ether	63		8.579					ND	
74 cis-1,3-Dichloropropene	75		8.719					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.877					ND	
76 Toluene	91		9.047					ND	
77 trans-1,3-Dichloropropene	75		9.296					ND	
78 Ethyl methacrylate	69		9.357					ND	
79 1,1,2-Trichloroethane	97		9.491					ND	
80 Tetrachloroethene	164		9.558					ND	
81 1,3-Dichloropropane	76		9.649					ND	
82 2-Hexanone	43		9.704					ND	
83 n-Butyl acetate	43		9.825					ND	
84 Chlorodibromomethane	129		9.856					ND	
85 Ethylene Dibromide	107		9.971					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.434					ND	
87 Chlorobenzene	112		10.458					ND	
88 4-Chlorobenzotrifluoride	180		10.519					ND	
89 1,1,1,2-Tetrachloroethane	131		10.549					ND	
90 Ethylbenzene	106		10.555					ND	
91 m-Xylene & p-Xylene	106		10.689					ND	
92 o-Xylene	106		11.072					ND	
93 Styrene	104		11.090					ND	
94 Bromoform	173		11.273					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.346					ND	
97 Isopropylbenzene	105		11.437					ND	
98 Cyclohexanone	55		11.528					ND	
99 1,1,2,2-Tetrachloroethane	83		11.753					ND	
100 Bromobenzene	156		11.753					ND	
102 trans-1,4-Dichloro-2-buten	53		11.790					ND	
101 1,2,3-Trichloropropane	110		11.802					ND	
103 N-Propylbenzene	120		11.857					ND	
104 2-Chlorotoluene	126		11.936					ND	
105 3-Chlorotoluene	126		12.003					ND	
106 1,3,5-Trimethylbenzene	105		12.033					ND	
107 4-Chlorotoluene	126		12.063					ND	
108 tert-Butylbenzene	119		12.349					ND	
110 1,2,4-Trimethylbenzene	105		12.410					ND	
111 1,2-dichloro-4-(trifluorom	214		12.453					ND	
112 sec-Butylbenzene	105		12.574					ND	
113 1,3-Dichlorobenzene	146		12.696					ND	
114 4-Isopropyltoluene	119		12.726					ND	
115 1,4-Dichlorobenzene	146	12.795	12.793	0.002	1	1589		0.2304	
117 1,2,3-Trimethylbenzene	105		12.823					ND	
116 2,4-Dichloro-1-(triflourom	214		12.824					ND	
118 2,5-Dichlorobenzotrifluori	214		12.866					ND	
119 Benzyl chloride	91		12.908					ND	
120 n-Butylbenzene	91		13.134					ND	
121 1,2-Dichlorobenzene	146		13.152					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.943					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.082					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.502					ND	
126 1,2,4-Trichlorobenzene	180		14.764					ND	
127 Hexachlorobutadiene	225		14.910					ND	
128 Naphthalene	128	15.039	15.031	0.008	1	1130		0.1133	
129 1,2,3-Trichlorobenzene	180		15.256					ND	
131 2,4,5-Trichlorotoluene	159		16.028					ND	
130 2,3,6-Trichlorotoluene	159		16.126					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42		6.253					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\20171107-19208.b\51107D05.D

Injection Date: 08-Nov-2017 02:29:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

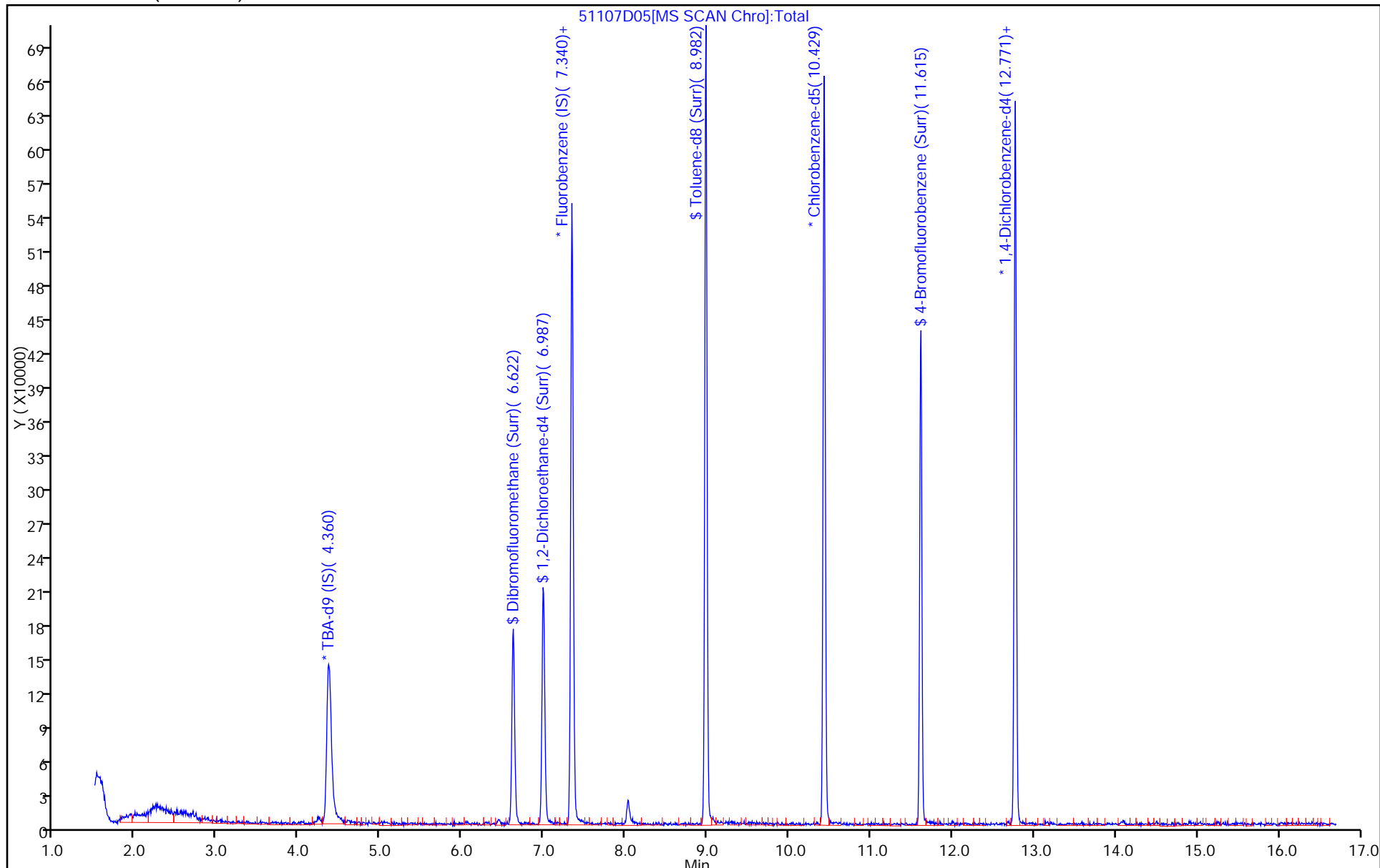
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 08-Nov-2017 02:29:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-005
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 08:55:00 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: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 02:53:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.3	96.58
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.4	106.87
\$ 7 Toluene-d8 (Surr)	50.0	45.2	90.35
\$ 8 4-Bromofluorobenzene (Surr)	50.0	45.7	91.44

TestAmerica Pittsburgh

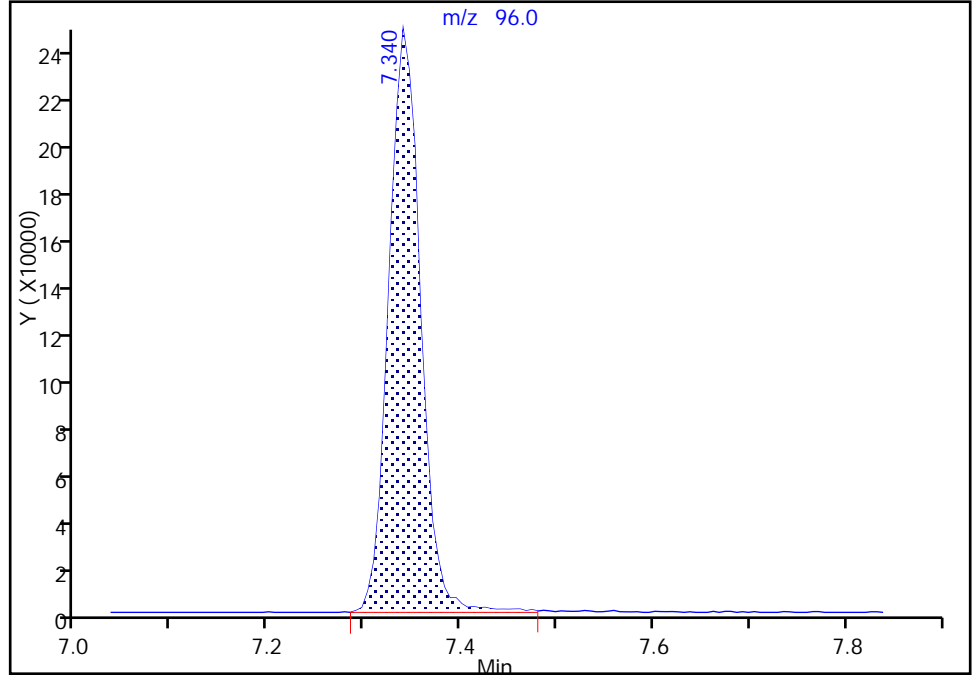
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D05.D
Injection Date: 08-Nov-2017 02:29:30 Instrument ID: CHHP5
Lims ID: MB
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

* 2 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

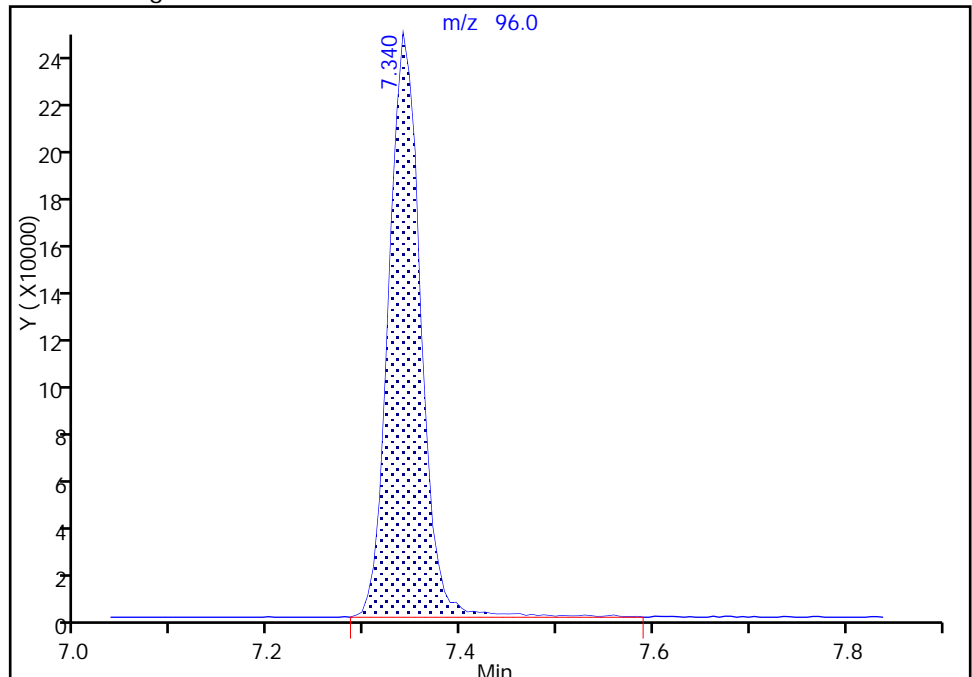
RT: 7.34
Area: 559392
Amount: 50.000000
Amount Units: ng

Processing Integration Results



RT: 7.34
Area: 562349
Amount: 50.000000
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Nov-2017 03:34:26
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-227871/3
 Matrix: Water Lab File ID: 51102D03.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/02/2017 23:57
 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.: 227871 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.9		1.0	0.90
75-01-4	Vinyl chloride	11.0		1.0	0.88
74-83-9	Bromomethane	10.7		1.0	0.89
75-00-3	Chloroethane	12.8		1.0	0.90
75-35-4	1,1-Dichloroethene	10.1		1.0	0.55
67-64-1	Acetone	30.4		5.0	3.4
75-15-0	Carbon disulfide	10.9		1.0	0.88
75-09-2	Methylene Chloride	9.30		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.51		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.19		1.0	0.59
75-34-3	1,1-Dichloroethane	10.2		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.18		1.0	0.71
74-97-5	Bromochloromethane	9.37		1.0	0.63
78-93-3	2-Butanone (MEK)	26.0		5.0	2.6
67-66-3	Chloroform	9.12		1.0	0.60
71-55-6	1,1,1-Trichloroethane	10.1		1.0	0.60
56-23-5	Carbon tetrachloride	10.4		1.0	0.88
71-43-2	Benzene	9.04		1.0	0.60
107-06-2	1,2-Dichloroethane	10.3		1.0	0.57
79-01-6	Trichloroethene	8.71		1.0	0.69
78-87-5	1,2-Dichloropropane	9.50		1.0	0.66
75-27-4	Bromodichloromethane	9.00		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.52		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	24.4		5.0	3.1
108-88-3	Toluene	10.2		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.1		1.0	0.58
79-00-5	1,1,2-Trichloroethane	9.79		1.0	0.45
127-18-4	Tetrachloroethene	9.70		1.0	0.47
591-78-6	2-Hexanone	24.3		5.0	3.3
124-48-1	Dibromochloromethane	10.3		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	9.43		1.0	0.50
108-90-7	Chlorobenzene	9.21		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.1		1.0	0.57
100-41-4	Ethylbenzene	9.44		1.0	0.51
1330-20-7	Xylenes, Total	18.3		2.0	0.89
100-42-5	Styrene	9.56		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-227871/3
 Matrix: Water Lab File ID: 51102D03.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/02/2017 23:57
 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.: 227871 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.89		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.09		1.0	0.60
107-13-1	Acrylonitrile	111		20	7.8
123-91-1	1,4-Dioxane	169	J	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)	116		73-120
460-00-4	4-Bromofluorobenzene (Surr)	110		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-Nov-2017 23:57:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-003
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 03-Nov-2017 00:18:56

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.377	4.388	-0.011	0	241036	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.337	0.001	98	521636	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.428	10.433	-0.005	86	114496	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.768	0.001	95	166527	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.620	0.001	93	129643	50.0	51.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.991	-0.005	0	166864	50.0	54.5	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	94	529410	50.0	58.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	85	180535	50.0	54.9	
11 Dichlorodifluoromethane	85	1.695	1.688	0.007	99	148394	50.0	48.9	
12 Chloromethane	50	1.902	1.888	0.014	99	197090	50.0	64.7	
13 Vinyl chloride	62	2.023	2.010	0.013	64	169724	50.0	54.9	
14 Butadiene	39	2.023	2.016	0.007	95	209347	50.0	74.5	
15 Bromomethane	94	2.364	2.332	0.032	75	78527	50.0	53.7	
16 Chloroethane	64	2.473	2.430	0.043	98	109040	50.0	64.1	
18 Trichlorofluoromethane	101	2.741	2.722	0.019	89	231508	50.0	60.9	
17 Dichlorofluoromethane	67	2.759	2.758	0.001	98	264897	50.0	61.6	
20 Ethyl ether	59	3.130	3.129	0.001	96	138738	50.0	56.1	
21 Acrolein	56	3.318	3.324	-0.006	97	73343	150.0	117.7	
22 1,1-Dichloroethene	96	3.428	3.427	0.001	95	129551	50.0	50.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.507	3.488	0.019	91	138677	50.0	49.5	
24 Acetone	43	3.537	3.536	0.001	99	207604	100.0	152.2	
25 Iodomethane	142	3.623	3.622	0.001	97	194091	50.0	48.4	
26 Carbon disulfide	76	3.714	3.713	0.001	100	304665	50.0	54.4	
28 3-Chloro-1-propene	76	4.018	4.023	-0.005	90	79219	50.0	48.0	
30 Methyl acetate	43	4.036	4.035	0.001	98	296977	100.0	109.9	
31 Methylene Chloride	84	4.237	4.236	0.001	98	147829	50.0	46.5	
32 2-Methyl-2-propanol	59	4.510	4.509	0.001	92	132940	500.0	466.4	
33 Acrylonitrile	53	4.614	4.619	-0.005	100	730976	500.0	556.5	
34 trans-1,2-Dichloroethene	96	4.644	4.643	0.001	72	138429	50.0	47.6	
35 Methyl tert-butyl ether	73	4.662	4.668	-0.006	97	358604	50.0	46.0	
36 Hexane	57	5.058	5.063	-0.005	94	196329	50.0	52.6	

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	5.276	0.001	96	257705	50.0	50.9	
38 Vinyl acetate	43	5.331	5.324	0.007	97	332450	50.0	64.6	
45 cis-1,2-Dichloroethene	96	6.013	6.012	0.000	83	152771	50.0	45.9	
44 2,2-Dichloropropane	97	6.019	6.018	0.001	80	37589	50.0	58.4	
46 2-Butanone (MEK)	43	6.025	6.030	-0.005	98	252473	100.0	130.0	
49 Chlorobromomethane	128	6.292	6.297	-0.005	95	69340	50.0	46.9	
51 Tetrahydrofuran	42	6.310	6.310	0.000	90	104464	100.0	92.4	
52 Chloroform	83	6.444	6.437	0.007	94	230461	50.0	45.6	
53 1,1,1-Trichloroethane	97	6.596	6.595	0.001	98	194053	50.0	50.7	
54 Cyclohexane	56	6.669	6.662	0.007	96	249961	50.0	53.0	
56 Carbon tetrachloride	117	6.767	6.772	-0.005	98	165219	50.0	51.9	
55 1,1-Dichloropropene	75	6.779	6.784	-0.005	93	186338	50.0	45.1	
57 Isobutyl alcohol	41	6.979	6.991	-0.012	92	142626	1250.0	1374.1	
58 Benzene	78	6.998	6.997	0.001	97	573380	50.0	45.2	
59 1,2-Dichloroethane	62	7.071	7.076	-0.005	97	190919	50.0	51.6	
62 n-Heptane	43	7.356	7.356	0.000	92	178263	50.0	59.7	
64 Trichloroethene	130	7.727	7.727	0.001	97	139039	50.0	43.6	
66 Methylcyclohexane	83	7.959	7.958	0.001	94	202876	50.0	42.0	
67 1,2-Dichloropropane	63	8.001	8.000	0.001	95	140233	50.0	47.5	
70 1,4-Dioxane	88	8.080	8.085	-0.005	45	25439	1000.0	847.0	
68 Dibromomethane	93	8.080	8.085	-0.005	96	79684	50.0	46.0	
71 Dichlorobromomethane	83	8.275	8.274	0.001	99	152939	50.0	45.0	
73 2-Chloroethyl vinyl ether	63	8.579	8.578	0.001	93	170583	100.0	80.3	
74 cis-1,3-Dichloropropene	75	8.719	8.724	-0.005	93	175792	50.0	42.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.876	0.001	98	358170	100.0	122.0	
76 Toluene	91	9.047	9.046	0.001	99	583577	50.0	51.1	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	96	156805	50.0	50.5	
78 Ethyl methacrylate	69	9.357	9.356	0.001	93	148020	50.0	39.5	
79 1,1,2-Trichloroethane	97	9.491	9.490	0.001	93	116466	50.0	49.0	
80 Tetrachloroethene	164	9.558	9.557	0.001	93	105618	50.0	48.5	
81 1,3-Dichloropropane	76	9.649	9.648	0.001	97	203210	50.0	46.2	
82 2-Hexanone	43	9.704	9.703	0.001	99	273111	100.0	121.3	
84 Chlorodibromomethane	129	9.856	9.855	0.001	89	103919	50.0	51.7	
85 Ethylene Dibromide	107	9.971	9.971	0.000	97	114971	50.0	47.1	
86 3-Chlorobenzotrifluoride	180	10.434	10.433	0.001	88	195750	50.0	49.8	
87 Chlorobenzene	112	10.458	10.457	0.001	93	342305	50.0	46.1	
88 4-Chlorobenzotrifluoride	180	10.519	10.518	0.001	96	191959	50.0	52.9	
89 1,1,1,2-Tetrachloroethane	131	10.549	10.554	-0.005	93	119231	50.0	50.5	
90 Ethylbenzene	106	10.561	10.560	0.001	98	195842	50.0	47.2	
91 m-Xylene & p-Xylene	106	10.695	10.688	0.007	0	233143	50.0	46.0	
92 o-Xylene	106	11.072	11.071	0.001	96	219425	50.0	45.4	
93 Styrene	104	11.090	11.089	0.001	95	390967	50.0	47.8	
94 Bromoform	173	11.273	11.272	0.001	94	55525	50.0	44.4	
96 2-Chlorobenzotrifluoride	180	11.340	11.339	0.001	94	191721	50.0	50.9	
97 Isopropylbenzene	105	11.437	11.436	0.001	96	539490	50.0	45.7	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.752	-0.005	83	160108	50.0	45.5	
100 Bromobenzene	156	11.747	11.752	-0.005	96	134121	50.0	41.5	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.789	0.001	72	56792	50.0	58.3	
101 1,2,3-Trichloropropane	110	11.808	11.807	0.001	84	54226	50.0	40.7	
103 N-Propylbenzene	120	11.851	11.856	-0.005	98	167108	50.0	45.2	
104 2-Chlorotoluene	126	11.942	11.941	0.001	96	136968	50.0	42.9	
105 3-Chlorotoluene	126	12.009	12.008	0.001	97	166589	50.0	48.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.039	12.038	0.001	94	467046	50.0	44.2	
107 4-Chlorotoluene	126	12.063	12.069	-0.006	98	148339	50.0	43.0	
108 tert-Butylbenzene	119	12.349	12.348	0.001	94	360771	50.0	40.8	
110 1,2,4-Trimethylbenzene	105	12.410	12.409	0.001	97	472545	50.0	44.0	
111 1,2-dichloro-4-(trifluorom	214	12.453	12.452	0.001	94	111369	50.0	41.4	
112 sec-Butylbenzene	105	12.574	12.573	0.001	94	526026	50.0	42.7	
113 1,3-Dichlorobenzene	146	12.690	12.689	0.001	98	255975	50.0	44.3	
114 4-Isopropyltoluene	119	12.732	12.731	0.001	97	449091	50.0	43.7	
115 1,4-Dichlorobenzene	146	12.793	12.792	0.001	95	264724	50.0	44.6	
116 2,4-Dichloro-1-(trifluorom	214	12.824	12.823	0.001	93	103153	50.0	41.2	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.865	0.001	0	109472	50.0	40.4	
120 n-Butylbenzene	91	13.140	13.139	0.001	98	343345	50.0	41.0	
121 1,2-Dichlorobenzene	146	13.152	13.151	0.001	97	247641	50.0	45.0	
122 1,2-Dibromo-3-Chloropropan	75	13.936	13.942	-0.006	78	24940	50.0	40.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.088	-0.006	0	491487	150.0	140.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.507	-0.005	0	333290	100.0	92.3	
126 1,2,4-Trichlorobenzene	180	14.770	14.763	0.007	94	101496	50.0	40.3	
127 Hexachlorobutadiene	225	14.910	14.909	0.001	96	39575	50.0	42.9	
128 Naphthalene	128	15.031	15.030	0.001	97	319956	50.0	37.3	
129 1,2,3-Trichlorobenzene	180	15.256	15.261	-0.005	94	90416	50.0	39.3	
131 2,4,5-Trichlorotoluene	159	16.028	16.028	0.000	0	36174	50.0	33.1	
130 2,3,6-Trichlorotoluene	159	16.120	16.125	-0.005	95	38043	50.0	37.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	93.5	
S 133 Xylenes, Total	106				0		100.0	91.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	93.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added: 6.00	Units: uL	
voaW2clev1stR_00024	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00269	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\20171102-19153.b\51102D03.D

Injection Date: 02-Nov-2017 23:57:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

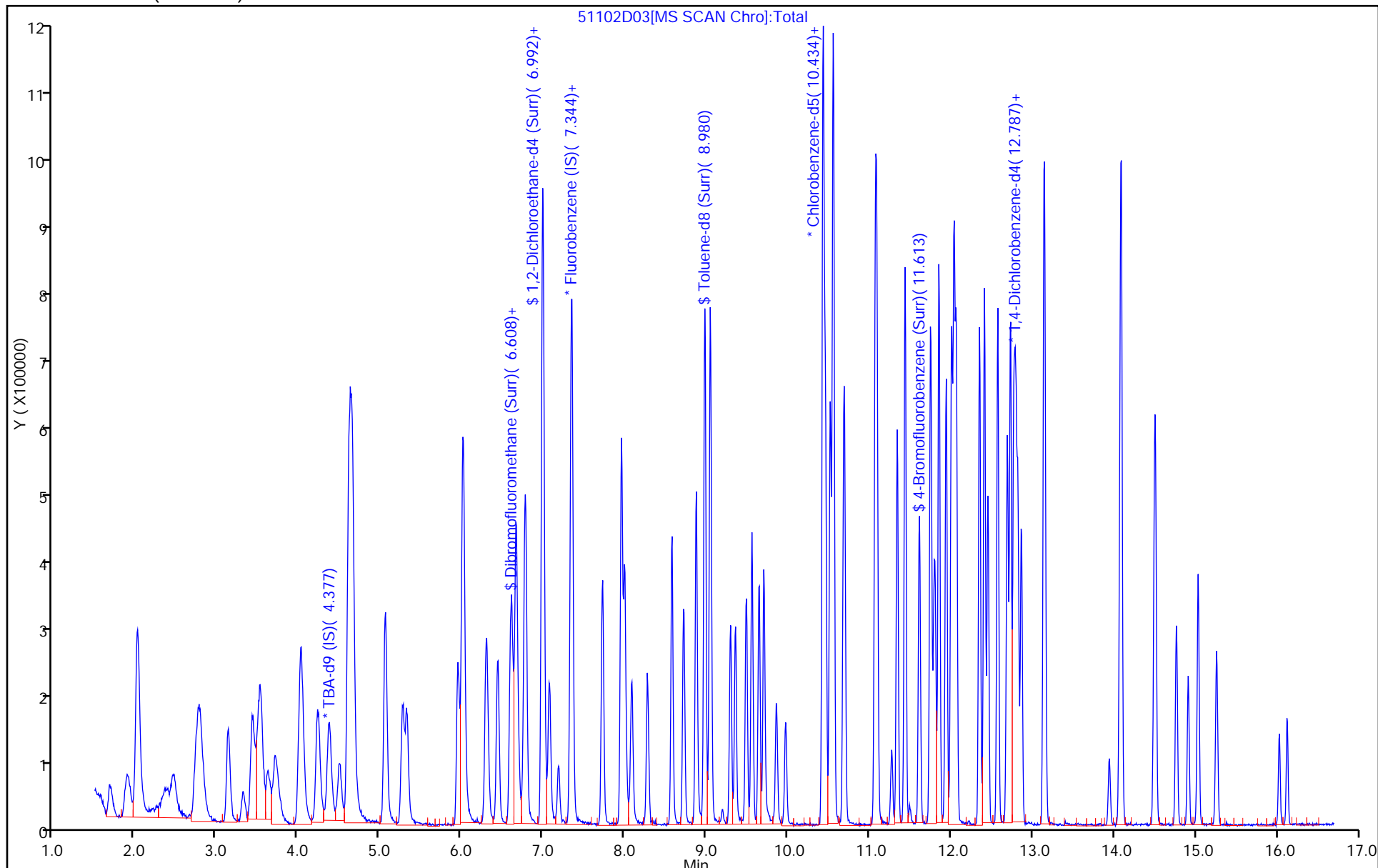
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\51102D03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-Nov-2017 23:57:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019153-003
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171102-19153.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 05-Nov-2017 20:10:37 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: XAWRK012

First Level Reviewer: bungardf

Date: 03-Nov-2017 00:18:56

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.7	103.31
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.5	109.02
\$ 7 Toluene-d8 (Surr)	50.0	58.1	116.19
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.9	109.71

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228044/3
 Matrix: Water Lab File ID: 51105D03.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 01:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228044 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.8		1.0	0.90
75-01-4	Vinyl chloride	10.4		1.0	0.88
74-83-9	Bromomethane	10.8		1.0	0.89
75-00-3	Chloroethane	12.3		1.0	0.90
75-35-4	1,1-Dichloroethene	8.99		1.0	0.55
67-64-1	Acetone	27.6		5.0	3.4
75-15-0	Carbon disulfide	9.56		1.0	0.88
75-09-2	Methylene Chloride	8.46		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	8.18		1.0	0.67
1634-04-4	Methyl tert-butyl ether	8.79		1.0	0.59
75-34-3	1,1-Dichloroethane	9.21		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	8.27		1.0	0.71
74-97-5	Bromochloromethane	8.22		1.0	0.63
78-93-3	2-Butanone (MEK)	23.1		5.0	2.6
67-66-3	Chloroform	8.18		1.0	0.60
71-55-6	1,1,1-Trichloroethane	8.81		1.0	0.60
56-23-5	Carbon tetrachloride	8.97		1.0	0.88
71-43-2	Benzene	8.02		1.0	0.60
107-06-2	1,2-Dichloroethane	9.50		1.0	0.57
79-01-6	Trichloroethene	7.71		1.0	0.69
78-87-5	1,2-Dichloropropane	8.82		1.0	0.66
75-27-4	Bromodichloromethane	7.87		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.07		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	22.6		5.0	3.1
108-88-3	Toluene	8.86		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.69		1.0	0.58
79-00-5	1,1,2-Trichloroethane	9.07		1.0	0.45
127-18-4	Tetrachloroethene	8.57		1.0	0.47
591-78-6	2-Hexanone	22.4		5.0	3.3
124-48-1	Dibromochloromethane	9.23		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.73		1.0	0.50
108-90-7	Chlorobenzene	8.50		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	9.47		1.0	0.57
100-41-4	Ethylbenzene	8.32		1.0	0.51
1330-20-7	Xylenes, Total	16.3		2.0	0.89
100-42-5	Styrene	8.53		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228044/3
 Matrix: Water Lab File ID: 51105D03.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/06/2017 01:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228044 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.52		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	8.61		1.0	0.60
107-13-1	Acrylonitrile	104		20	7.8
123-91-1	1,4-Dioxane	200		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)	110		73-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 06-Nov-2017 01:16:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-003
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 01:35:44

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	4.376	0.001	0	261140	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.344	-0.006	97	569714	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	86	126036	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.768	0.007	94	184179	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.620	0.001	92	135977	50.0	49.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.992	6.991	0.001	0	177154	50.0	53.0	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	94	549363	50.0	54.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	85	183370	50.0	50.6	
11 Dichlorodifluoromethane	85	1.677	1.688	-0.011	100	186134	50.0	56.2	
12 Chloromethane	50	1.895	1.895	0.000	99	212971	50.0	64.0	
13 Vinyl chloride	62	2.017	2.017	0.000	94	176402	50.0	52.2	
14 Butadiene	39	2.023	2.017	0.006	98	199380	50.0	65.0	
15 Bromomethane	94	2.388	2.375	0.013	90	86657	50.0	54.2	
16 Chloroethane	64	2.461	2.461	0.001	99	114515	50.0	61.7	
17 Dichlorofluoromethane	67	2.765	2.771	-0.006	98	255311	50.0	54.4	
18 Trichlorofluoromethane	101	2.796	2.801	-0.005	97	230232	50.0	55.5	M
20 Ethyl ether	59	3.130	3.136	-0.006	94	144596	50.0	53.5	
21 Acrolein	56	3.319	3.318	0.000	98	128510	150.0	188.9	
22 1,1-Dichloroethene	96	3.422	3.434	-0.012	95	125353	50.0	44.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.513	3.506	0.007	92	137689	50.0	45.0	
24 Acetone	43	3.537	3.531	0.006	100	205879	100.0	138.2	
25 Iodomethane	142	3.629	3.640	-0.011	96	193318	50.0	44.1	
26 Carbon disulfide	76	3.714	3.719	-0.005	99	292666	50.0	47.8	
28 3-Chloro-1-propene	76	4.012	4.017	-0.005	90	72800	50.0	40.4	
30 Methyl acetate	43	4.042	4.042	0.000	99	305664	100.0	103.6	
31 Methylene Chloride	84	4.237	4.236	0.001	96	147757	50.0	42.3	
32 2-Methyl-2-propanol	59	4.504	4.510	-0.006	92	150505	500.0	487.3	
33 Acrylonitrile	53	4.614	4.619	-0.005	99	748214	500.0	521.6	
34 trans-1,2-Dichloroethene	96	4.650	4.644	0.006	94	130001	50.0	40.9	
35 Methyl tert-butyl ether	73	4.662	4.662	0.000	97	374639	50.0	44.0	
36 Hexane	57	5.064	5.063	0.001	96	189626	50.0	46.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.283	5.282	0.001	96	254379	50.0	46.0	
38 Vinyl acetate	43	5.325	5.325	0.000	97	361168	50.0	64.3	
45 cis-1,2-Dichloroethene	96	6.013	6.018	-0.005	83	150341	50.0	41.4	
44 2,2-Dichloropropane	97	6.013	6.018	-0.005	70	35192	50.0	50.0	
46 2-Butanone (MEK)	43	6.025	6.030	-0.005	99	245258	100.0	115.6	
49 Chlorobromomethane	128	6.292	6.298	-0.006	93	66421	50.0	41.1	
51 Tetrahydrofuran	42	6.317	6.310	0.007	90	111040	100.0	89.9	
52 Chloroform	83	6.444	6.444	0.000	94	225629	50.0	40.9	
53 1,1,1-Trichloroethane	97	6.602	6.602	0.000	98	183919	50.0	44.0	
54 Cyclohexane	56	6.669	6.675	-0.006	97	236313	50.0	45.8	
56 Carbon tetrachloride	117	6.767	6.766	0.001	97	155937	50.0	44.9	
55 1,1-Dichloropropene	75	6.785	6.784	0.001	94	176286	50.0	39.1	
57 Isobutyl alcohol	41	6.986	6.985	0.001	93	155064	1250.0	1367.9	
58 Benzene	78	6.998	6.997	0.001	98	555790	50.0	40.1	
59 1,2-Dichloroethane	62	7.077	7.076	0.001	97	191730	50.0	47.5	
62 n-Heptane	43	7.357	7.356	0.001	93	169079	50.0	51.8	
64 Trichloroethene	130	7.721	7.727	-0.006	97	134346	50.0	38.5	
66 Methylcyclohexane	83	7.965	7.958	0.007	94	187450	50.0	35.6	
67 1,2-Dichloropropane	63	7.995	8.001	-0.006	94	142208	50.0	44.1	
68 Dibromomethane	93	8.086	8.086	0.000	97	78876	50.0	41.7	
70 1,4-Dioxane	88	8.080	8.086	-0.006	51	32858	1000.0	1001.7	
71 Dichlorobromomethane	83	8.275	8.274	0.001	97	146039	50.0	39.4	
73 2-Chloroethyl vinyl ether	63	8.579	8.578	0.001	92	174876	100.0	75.3	
74 cis-1,3-Dichloropropene	75	8.725	8.724	0.001	93	181752	50.0	40.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.876	0.001	99	364868	100.0	112.9	
76 Toluene	91	9.047	9.053	-0.006	99	557028	50.0	44.3	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	97	165634	50.0	48.4	
78 Ethyl methacrylate	69	9.357	9.357	0.000	92	150711	50.0	36.5	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	92	118765	50.0	45.4	
80 Tetrachloroethene	164	9.558	9.563	-0.005	94	102643	50.0	42.8	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	97	204823	50.0	42.3	
82 2-Hexanone	43	9.704	9.703	0.001	98	277201	100.0	111.8	
84 Chlorodibromomethane	129	9.862	9.861	0.001	91	102092	50.0	46.1	
85 Ethylene Dibromide	107	9.971	9.971	0.000	98	117253	50.0	43.7	
86 3-Chlorobenzotrifluoride	180	10.434	10.433	0.001	86	217547	50.0	50.2	
87 Chlorobenzene	112	10.458	10.464	-0.006	93	347745	50.0	42.5	
88 4-Chlorobenzotrifluoride	180	10.519	10.518	0.001	96	211144	50.0	52.8	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.555	0.000	92	123160	50.0	47.3	
90 Ethylbenzene	106	10.555	10.561	-0.006	98	189913	50.0	41.6	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	229182	50.0	41.1	
92 o-Xylene	106	11.066	11.072	-0.006	97	214833	50.0	40.4	
93 Styrene	104	11.090	11.090	0.000	95	383764	50.0	42.6	
94 Bromoform	173	11.279	11.272	0.007	95	58554	50.0	42.6	
96 2-Chlorobenzotrifluoride	180	11.346	11.339	0.007	96	216649	50.0	52.3	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	533991	50.0	41.1	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.747	0.000	85	166959	50.0	43.1	
100 Bromobenzene	156	11.747	11.753	-0.006	96	138414	50.0	38.7	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.789	0.001	83	58684	50.0	54.4	
101 1,2,3-Trichloropropane	110	11.808	11.808	0.000	86	58480	50.0	39.6	
103 N-Propylbenzene	120	11.851	11.856	-0.005	98	159620	50.0	39.1	
104 2-Chlorotoluene	126	11.942	11.941	0.001	96	130978	50.0	37.1	
105 3-Chlorotoluene	126	12.003	12.008	-0.005	96	183232	50.0	47.7	

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	12.039	0.000	96	454865	50.0	38.9	
107 4-Chlorotoluene	126	12.063	12.063	0.000	96	149584	50.0	39.2	
108 tert-Butylbenzene	119	12.349	12.349	0.000	94	347221	50.0	35.5	
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	97	464711	50.0	39.1	
111 1,2-dichloro-4-(trifluorom	214	12.453	12.452	0.001	95	127782	50.0	42.9	
112 sec-Butylbenzene	105	12.574	12.574	0.000	94	502554	50.0	36.9	
113 1,3-Dichlorobenzene	146	12.690	12.689	0.001	98	261940	50.0	41.0	
114 4-Isopropyltoluene	119	12.732	12.732	0.000	97	417851	50.0	36.8	
115 1,4-Dichlorobenzene	146	12.793	12.793	0.000	96	268533	50.0	40.9	
116 2,4-Dichloro-1-(trifluorom	214	12.824	12.823	0.001	91	112727	50.0	40.7	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.866	0.000	0	129243	50.0	43.2	
120 n-Butylbenzene	91	13.140	13.139	0.001	97	327472	50.0	35.4	
121 1,2-Dichlorobenzene	146	13.152	13.151	0.001	97	253922	50.0	41.7	
122 1,2-Dibromo-3-Chloropropan	75	13.943	13.942	0.001	75	27597	50.0	40.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.088	-0.006	0	553762	150.0	143.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.502	0.000	0	371051	100.0	92.9	
126 1,2,4-Trichlorobenzene	180	14.764	14.769	-0.005	94	103049	50.0	37.0	
127 Hexachlorobutadiene	225	14.910	14.915	-0.005	93	38917	50.0	38.2	
128 Naphthalene	128	15.031	15.031	0.000	97	321464	50.0	33.9	
129 1,2,3-Trichlorobenzene	180	15.262	15.256	0.006	96	92133	50.0	36.2	
131 2,4,5-Trichlorotoluene	159	16.029	16.028	0.001	0	38924	50.0	32.2	
130 2,3,6-Trichlorotoluene	159	16.126	16.125	0.001	97	40849	50.0	36.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	82.3	
S 133 Xylenes, Total	106				0		100.0	81.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	88.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaW2clev1stR_00024	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00269	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\20171105-19180.b\51105D03.D

Injection Date: 06-Nov-2017 01:16:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

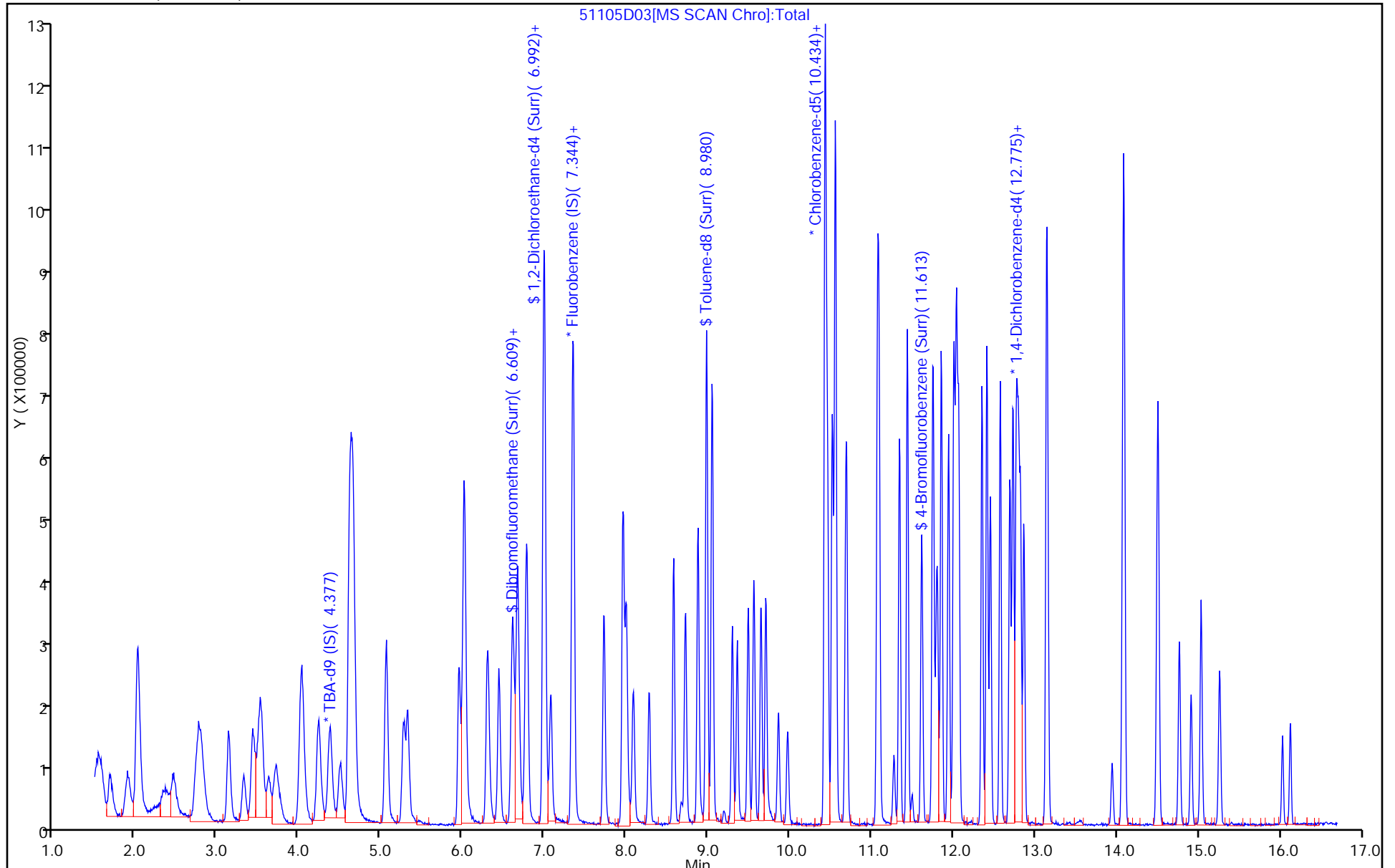
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\51105D03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 06-Nov-2017 01:16:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019180-003
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171105-19180.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 06-Nov-2017 20:28:31 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: 06-Nov-2017 01:35:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.6	99.21
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.0	105.98
\$ 7 Toluene-d8 (Surr)	50.0	54.8	109.53
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.6	101.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228278/3
 Matrix: Water Lab File ID: 51107D03.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 01:32
 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.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.4		1.0	0.90
75-01-4	Vinyl chloride	10.1		1.0	0.88
74-83-9	Bromomethane	6.46		1.0	0.89
75-00-3	Chloroethane	8.54		1.0	0.90
75-35-4	1,1-Dichloroethene	8.67		1.0	0.55
67-64-1	Acetone	31.4		5.0	3.4
75-15-0	Carbon disulfide	9.12		1.0	0.88
75-09-2	Methylene Chloride	8.54		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	8.48		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.44		1.0	0.59
75-34-3	1,1-Dichloroethane	8.83		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	8.07		1.0	0.71
74-97-5	Bromochloromethane	8.61		1.0	0.63
78-93-3	2-Butanone (MEK)	26.7		5.0	2.6
67-66-3	Chloroform	8.14		1.0	0.60
71-55-6	1,1,1-Trichloroethane	8.26		1.0	0.60
56-23-5	Carbon tetrachloride	8.37		1.0	0.88
71-43-2	Benzene	8.06		1.0	0.60
107-06-2	1,2-Dichloroethane	9.57		1.0	0.57
79-01-6	Trichloroethene	7.44		1.0	0.69
78-87-5	1,2-Dichloropropane	8.48		1.0	0.66
75-27-4	Bromodichloromethane	7.89		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.20		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	22.7		5.0	3.1
108-88-3	Toluene	8.81		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.61		1.0	0.58
79-00-5	1,1,2-Trichloroethane	9.46		1.0	0.45
127-18-4	Tetrachloroethene	8.12		1.0	0.47
591-78-6	2-Hexanone	24.1		5.0	3.3
124-48-1	Dibromochloromethane	9.19		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	9.09		1.0	0.50
108-90-7	Chlorobenzene	8.60		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	9.14		1.0	0.57
100-41-4	Ethylbenzene	8.38		1.0	0.51
1330-20-7	Xylenes, Total	16.9		2.0	0.89
100-42-5	Styrene	8.44		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228278/3
 Matrix: Water Lab File ID: 51107D03.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 01:32
 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.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.34		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.11		1.0	0.60
107-13-1	Acrylonitrile	116		20	7.8
123-91-1	1,4-Dioxane	196	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	112		73-120
460-00-4	4-Bromofluorobenzene (Surr)	106		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 08-Nov-2017 01:32:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-003
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 07:21:15 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: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 01:58:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.389	4.383	0.006	0	261520	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.338	0.000	97	565705	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.428	10.428	0.000	86	124950	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.769	0.000	94	174005	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.621	0.000	93	131643	50.0	48.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	163722	50.0	49.3	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	94	555030	50.0	55.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.613	0.001	84	189515	50.0	52.8	
11 Dichlorodifluoromethane	85	1.671	1.683	-0.012	99	175298	50.0	53.3	
12 Chloromethane	50	1.896	1.889	0.007	99	205406	50.0	62.1	
14 Butadiene	39	2.017	2.011	0.006	94	195945	50.0	64.3	
13 Vinyl chloride	62	2.011	2.017	-0.006	65	168863	50.0	50.3	
15 Bromomethane	94	2.333	2.333	0.000	90	51257	50.0	32.3	
16 Chloroethane	64	2.437	2.431	0.006	98	78762	50.0	42.7	
17 Dichlorofluoromethane	67	2.753	2.759	-0.006	98	240151	50.0	51.5	
18 Trichlorofluoromethane	101	2.771	2.802	-0.031	95	203757	50.0	49.4	
20 Ethyl ether	59	3.124	3.136	-0.012	96	154016	50.0	57.4	
21 Acrolein	56	3.313	3.312	0.001	99	123709	150.0	183.1	
22 1,1-Dichloroethene	96	3.422	3.428	-0.006	98	120091	50.0	43.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.495	3.501	-0.006	95	130495	50.0	42.9	
24 Acetone	43	3.544	3.537	0.007	100	232548	100.0	157.2	
25 Iodomethane	142	3.617	3.610	0.007	96	189844	50.0	43.6	
26 Carbon disulfide	76	3.708	3.708	0.000	99	277118	50.0	45.6	
28 3-Chloro-1-propene	76	4.006	4.006	0.000	91	76186	50.0	42.6	
30 Methyl acetate	43	4.042	4.036	0.006	99	339478	100.0	115.9	
31 Methylene Chloride	84	4.225	4.231	-0.006	98	148037	50.0	42.7	
32 2-Methyl-2-propanol	59	4.511	4.510	0.001	92	163544	500.0	528.8	
33 Acrylonitrile	53	4.608	4.608	0.000	100	826445	500.0	580.2	
34 trans-1,2-Dichloroethene	96	4.638	4.638	0.000	85	133847	50.0	42.4	
35 Methyl tert-butyl ether	73	4.669	4.656	0.013	97	399550	50.0	47.2	
36 Hexane	57	5.058	5.052	0.006	95	200939	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.271	5.271	0.000	96	242323	50.0	44.2	
38 Vinyl acetate	43	5.325	5.319	0.006	97	378109	50.0	67.8	
44 2,2-Dichloropropane	97	6.007	6.006	0.001	60	34836	50.0	49.9	
45 cis-1,2-Dichloroethene	96	6.013	6.013	0.001	84	145656	50.0	40.4	
46 2-Butanone (MEK)	43	6.025	6.025	0.000	100	281210	100.0	133.5	
49 Chlorobromomethane	128	6.292	6.298	-0.006	95	69066	50.0	43.1	
51 Tetrahydrofuran	42	6.305	6.310	-0.005	97	129746	100.0	105.8	
52 Chloroform	83	6.438	6.438	0.000	95	222954	50.0	40.7	
53 1,1,1-Trichloroethane	97	6.596	6.596	0.000	99	171244	50.0	41.3	
54 Cyclohexane	56	6.663	6.657	0.006	95	247563	50.0	48.4	
56 Carbon tetrachloride	117	6.767	6.767	0.000	97	144499	50.0	41.9	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	92	172110	50.0	38.4	
57 Isobutyl alcohol	41	6.986	6.986	0.000	90	157160	1250.0	1396.2	
58 Benzene	78	6.998	6.998	0.000	97	554633	50.0	40.3	
59 1,2-Dichloroethane	62	7.071	7.071	0.000	96	191917	50.0	47.9	
62 n-Heptane	43	7.351	7.350	0.001	94	176450	50.0	54.5	
64 Trichloroethene	130	7.728	7.721	0.007	95	128699	50.0	37.2	
66 Methylcyclohexane	83	7.959	7.959	0.000	94	196113	50.0	37.5	
67 1,2-Dichloropropane	63	7.995	7.995	0.000	95	135798	50.0	42.4	
70 1,4-Dioxane	88	8.080	8.080	0.000	48	31931	1000.0	980.4	
68 Dibromomethane	93	8.080	8.086	-0.006	95	80511	50.0	42.9	
71 Dichlorobromomethane	83	8.275	8.281	-0.006	97	145240	50.0	39.4	
73 2-Chloroethyl vinyl ether	63	8.573	8.579	-0.006	92	195335	100.0	84.7	
74 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	92	183440	50.0	41.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.877	0.000	98	363902	100.0	113.5	
76 Toluene	91	9.047	9.047	0.000	98	548611	50.0	44.0	
77 trans-1,3-Dichloropropene	75	9.297	9.296	0.001	97	162968	50.0	48.1	
78 Ethyl methacrylate	69	9.357	9.357	0.000	92	167290	50.0	40.9	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	91	122816	50.0	47.3	
80 Tetrachloroethene	164	9.558	9.558	0.000	95	96485	50.0	40.6	
81 1,3-Dichloropropane	76	9.643	9.649	-0.006	97	209313	50.0	43.6	
82 2-Hexanone	43	9.704	9.704	0.000	99	296632	100.0	120.7	
84 Chlorodibromomethane	129	9.856	9.856	0.000	91	100847	50.0	46.0	
85 Ethylene Dibromide	107	9.972	9.971	0.001	98	120959	50.0	45.4	
86 3-Chlorobenzotrifluoride	180	10.434	10.434	0.000	88	215743	50.0	50.2	
87 Chlorobenzene	112	10.458	10.458	0.000	94	348727	50.0	43.0	
88 4-Chlorobenzotrifluoride	180	10.519	10.519	0.000	97	204418	50.0	51.6	
89 1,1,1,2-Tetrachloroethane	131	10.549	10.549	0.000	95	117843	50.0	45.7	
90 Ethylbenzene	106	10.555	10.555	0.000	98	189740	50.0	41.9	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	234730	50.0	42.4	
92 o-Xylene	106	11.072	11.072	0.000	97	221981	50.0	42.1	
93 Styrene	104	11.091	11.090	0.001	95	376559	50.0	42.2	
94 Bromoform	173	11.267	11.273	-0.006	94	56864	50.0	41.7	
96 2-Chlorobenzotrifluoride	180	11.340	11.346	-0.006	94	211844	50.0	51.6	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	527044	50.0	41.0	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.753	-0.006	85	175043	50.0	45.6	
100 Bromobenzene	156	11.753	11.753	0.000	94	138628	50.0	41.0	
102 trans-1,4-Dichloro-2-buten	53	11.784	11.790	-0.006	82	58598	50.0	57.5	
101 1,2,3-Trichloropropane	110	11.802	11.802	0.000	85	61200	50.0	43.9	
103 N-Propylbenzene	120	11.851	11.857	-0.006	99	150290	50.0	38.9	
104 2-Chlorotoluene	126	11.942	11.936	0.006	97	132572	50.0	39.7	
105 3-Chlorotoluene	126	12.009	12.003	0.006	97	187047	50.0	51.5	

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	12.033	12.033	0.000	95	454251	50.0	41.1	
107 4-Chlorotoluene	126	12.064	12.063	0.001	97	141099	50.0	39.2	
108 tert-Butylbenzene	119	12.349	12.349	0.000	94	350214	50.0	37.9	
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	97	457752	50.0	40.8	
111 1,2-dichloro-4-(trifluorom	214	12.453	12.453	0.000	94	121463	50.0	43.2	
112 sec-Butylbenzene	105	12.574	12.574	0.000	94	496878	50.0	38.6	
113 1,3-Dichlorobenzene	146	12.696	12.696	0.000	99	253791	50.0	42.1	
114 4-Isopropyltoluene	119	12.726	12.726	0.000	97	429409	50.0	40.0	
115 1,4-Dichlorobenzene	146	12.793	12.793	0.000	95	267147	50.0	43.1	
116 2,4-Dichloro-1-(trifluorom	214	12.824	12.824	0.000	94	117237	50.0	44.8	
118 2,5-Dichlorobenzotrifluori	214	12.860	12.866	-0.006	0	125221	50.0	44.3	
120 n-Butylbenzene	91	13.134	13.134	0.000	97	337069	50.0	38.5	
121 1,2-Dichlorobenzene	146	13.152	13.152	0.000	97	256255	50.0	44.6	
122 1,2-Dibromo-3-Chloropropan	75	13.937	13.943	-0.006	79	27592	50.0	43.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.083	14.082	0.001	0	579728	150.0	158.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.502	0.000	0	395115	100.0	104.7	
126 1,2,4-Trichlorobenzene	180	14.764	14.764	0.000	94	110058	50.0	41.8	
127 Hexachlorobutadiene	225	14.910	14.910	0.000	94	39470	50.0	41.0	
128 Naphthalene	128	15.031	15.031	0.000	97	384251	50.0	42.9	
129 1,2,3-Trichlorobenzene	180	15.256	15.256	0.000	95	101952	50.0	42.4	
131 2,4,5-Trichlorotoluene	159	16.029	16.028	0.001	0	44788	50.0	39.2	
130 2,3,6-Trichlorotoluene	159	16.126	16.126	0.000	97	48866	50.0	46.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	82.8	
S 133 Xylenes, Total	106				0		100.0	84.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00014	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\20171107-19208.b\51107D03.D

Injection Date: 08-Nov-2017 01:32:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

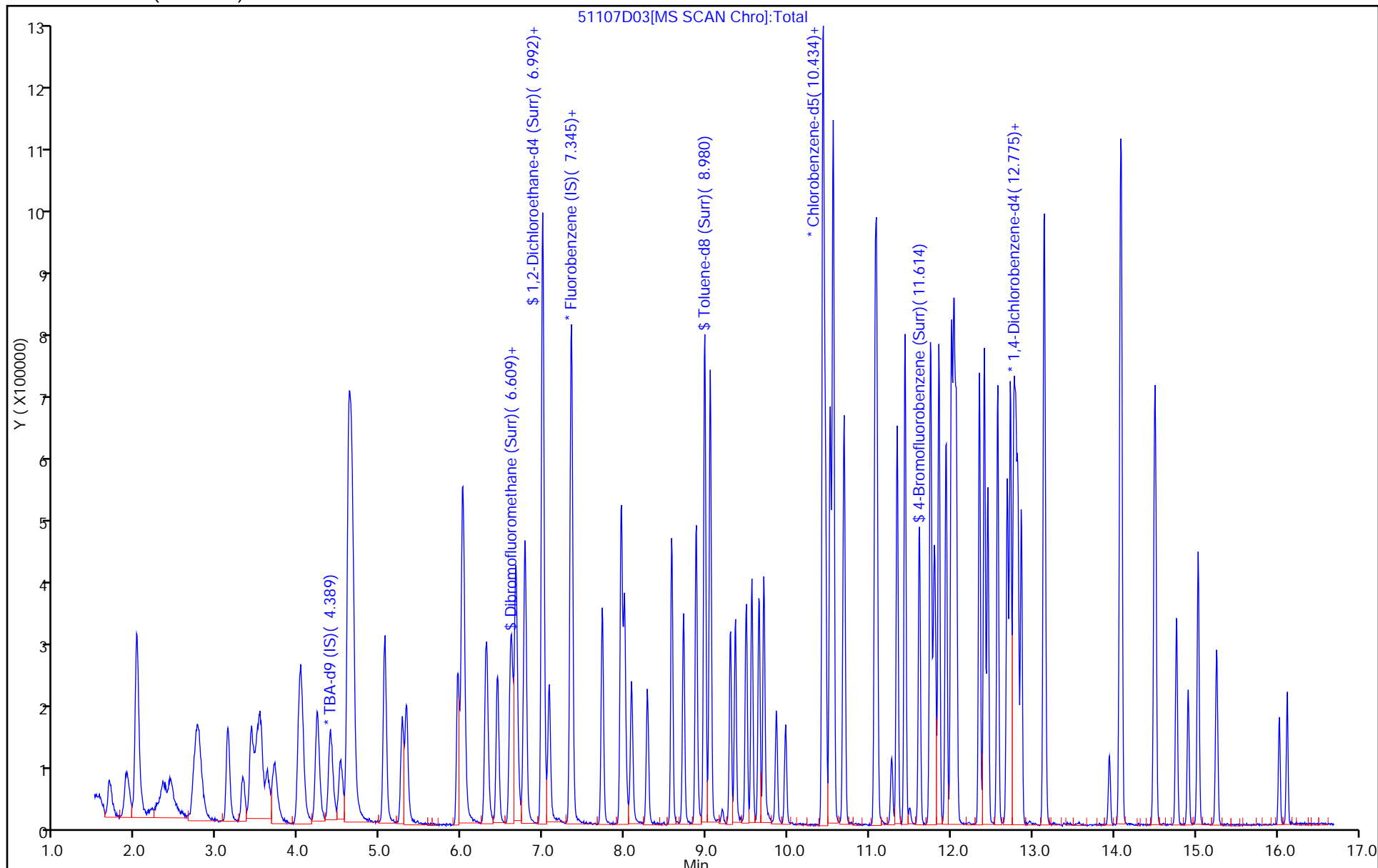
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 08-Nov-2017 01:32:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-003
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 07:21:15 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: XAWRK018

First Level Reviewer: bungardf Date: 08-Nov-2017 01:58:05

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.4	96.73
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.3	98.63
\$ 7 Toluene-d8 (Surr)	50.0	55.8	111.63
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.8	105.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-F-0/1-0 MS Lab Sample ID: 180-71858-10 MS
 Matrix: Water Lab File ID: 51107D07.D
 Analysis Method: 8260C Date Collected: 10/27/2017 11:05
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 03:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13.7		1.0	0.90
75-01-4	Vinyl chloride	11.4		1.0	0.88
74-83-9	Bromomethane	12.6		1.0	0.89
75-00-3	Chloroethane	13.4		1.0	0.90
75-35-4	1,1-Dichloroethene	10.4		1.0	0.55
67-64-1	Acetone	18.8		5.0	3.4
75-15-0	Carbon disulfide	11.6		1.0	0.88
75-09-2	Methylene Chloride	9.62		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.99		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.22		1.0	0.59
75-34-3	1,1-Dichloroethane	10.2		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.35		1.0	0.71
74-97-5	Bromochloromethane	9.39		1.0	0.63
78-93-3	2-Butanone (MEK)	18.8		5.0	2.6
67-66-3	Chloroform	9.17		1.0	0.60
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.60
56-23-5	Carbon tetrachloride	10.3		1.0	0.88
71-43-2	Benzene	9.29		1.0	0.60
107-06-2	1,2-Dichloroethane	9.72		1.0	0.57
79-01-6	Trichloroethene	8.69		1.0	0.69
78-87-5	1,2-Dichloropropane	9.92		1.0	0.66
75-27-4	Bromodichloromethane	8.98		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.81		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	21.8		5.0	3.1
108-88-3	Toluene	10.3		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.58
79-00-5	1,1,2-Trichloroethane	9.73		1.0	0.45
127-18-4	Tetrachloroethene	10.3		1.0	0.47
591-78-6	2-Hexanone	19.2		5.0	3.3
124-48-1	Dibromochloromethane	10.4		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	9.35		1.0	0.50
108-90-7	Chlorobenzene	9.72		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.3		1.0	0.57
100-41-4	Ethylbenzene	9.78		1.0	0.51
1330-20-7	Xylenes, Total	19.5		2.0	0.89
100-42-5	Styrene	9.46		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1
 SDG No.: _____
 Client Sample ID: HD-COLE-F-0/1-0 MS Lab Sample ID: 180-71858-10 MS
 Matrix: Water Lab File ID: 51107D07.D
 Analysis Method: 8260C Date Collected: 10/27/2017 11:05
 Sample wt/vol: 5 (mL) Date Analyzed: 11/08/2017 03:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228278 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.03		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.01		1.0	0.60
107-13-1	Acrylonitrile	104		20	7.8
123-91-1	1,4-Dioxane	158	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	84		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D07.D
 Lims ID: 180-71858-C-10 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 08-Nov-2017 03:29:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-007
 Misc. Info.: 180-71858-C-10 MS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 07:21:15 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: XAWRK018

First Level Reviewer: bungardf

Date: 08-Nov-2017 03:50:49

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.383	-0.019	0	233662	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.338	0.000	97	571148	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.428	-0.001	87	124828	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.769	-0.001	93	179504	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.626	6.621	0.005	92	116105	50.0	42.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.986	-0.001	0	154880	50.0	46.2	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	94	460881	50.0	46.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.613	-0.006	85	160366	50.0	44.7	
11 Dichlorodifluoromethane	85	1.676	1.683	-0.007	99	189603	50.0	57.1	
12 Chloromethane	50	1.901	1.889	0.012	99	228847	50.0	68.6	
14 Butadiene	39	2.017	2.011	0.006	92	222346	50.0	72.3	
13 Vinyl chloride	62	2.029	2.017	0.012	68	193323	50.0	57.1	
15 Bromomethane	94	2.369	2.333	0.036	92	101191	50.0	63.2	
16 Chloroethane	64	2.454	2.431	0.023	98	124346	50.0	66.8	
17 Dichlorofluoromethane	67	2.765	2.759	0.006	97	307883	50.0	65.4	
18 Trichlorofluoromethane	101	2.807	2.802	0.005	92	254015	50.0	61.0	
20 Ethyl ether	59	3.129	3.136	-0.007	96	158866	50.0	58.7	
21 Acrolein	56	3.324	3.312	0.012	98	115432	150.0	169.2	
22 1,1-Dichloroethene	96	3.421	3.428	-0.007	95	146036	50.0	52.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.513	3.501	0.012	93	158104	50.0	51.5	
24 Acetone	43	3.525	3.537	-0.012	99	140652	100.0	94.2	
25 Iodomethane	142	3.622	3.610	0.012	97	218975	50.0	49.9	
26 Carbon disulfide	76	3.707	3.708	-0.001	99	355330	50.0	57.9	
28 3-Chloro-1-propene	76	4.017	4.006	0.011	91	87913	50.0	48.7	
30 Methyl acetate	43	4.042	4.036	0.006	98	304832	100.0	103.1	
31 Methylene Chloride	84	4.236	4.231	0.005	98	167060	50.0	48.1	
32 2-Methyl-2-propanol	59	4.498	4.510	-0.012	91	141678	500.0	512.7	
33 Acrylonitrile	53	4.613	4.608	0.005	100	745269	500.0	518.2	
34 trans-1,2-Dichloroethene	96	4.650	4.638	0.012	97	159116	50.0	49.9	
35 Methyl tert-butyl ether	73	4.662	4.656	0.006	97	394035	50.0	46.1	
36 Hexane	57	5.057	5.052	0.005	95	226547	50.0	55.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.276	5.271	0.005	96	282066	50.0	50.9	
38 Vinyl acetate	43	5.319	5.319	0.000	97	336319	50.0	59.7	
44 2,2-Dichloropropane	97	6.006	6.006	0.000	64	41608	50.0	59.0	
45 cis-1,2-Dichloroethene	96	6.018	6.013	0.006	83	170362	50.0	46.8	
46 2-Butanone (MEK)	43	6.030	6.025	0.005	99	200099	100.0	94.1	
49 Chlorobromomethane	128	6.298	6.298	0.000	95	76023	50.0	46.9	
51 Tetrahydrofuran	42	6.310	6.310	0.000	92	112206	100.0	90.6	
52 Chloroform	83	6.438	6.438	0.000	95	253668	50.0	45.9	
53 1,1,1-Trichloroethane	97	6.602	6.596	0.006	98	218093	50.0	52.1	
54 Cyclohexane	56	6.669	6.657	0.012	95	284400	50.0	55.0	
56 Carbon tetrachloride	117	6.772	6.767	0.005	96	179778	50.0	51.6	
55 1,1-Dichloropropene	75	6.778	6.779	-0.001	93	208664	50.0	46.1	
57 Isobutyl alcohol	41	6.985	6.986	-0.001	57	135233	1250.0	1189.9	
58 Benzene	78	6.997	6.998	-0.001	97	645290	50.0	46.5	
59 1,2-Dichloroethane	62	7.076	7.071	0.005	97	196775	50.0	48.6	
62 n-Heptane	43	7.350	7.350	0.000	93	193561	50.0	59.2	
64 Trichloroethene	130	7.721	7.721	0.000	97	151825	50.0	43.4	
66 Methylcyclohexane	83	7.958	7.959	-0.001	95	215950	50.0	40.9	
67 1,2-Dichloropropane	63	8.001	7.995	0.006	95	160446	50.0	49.6	
70 1,4-Dioxane	88	8.086	8.080	0.006	45	25913	1000.0	788.0	
68 Dibromomethane	93	8.086	8.086	0.000	98	81360	50.0	42.9	
71 Dichlorobromomethane	83	8.274	8.281	-0.007	99	166944	50.0	44.9	
73 2-Chloroethyl vinyl ether	63	8.572	8.579	-0.007	92	37875	100.0	16.3	
74 cis-1,3-Dichloropropene	75	8.718	8.719	-0.001	93	198984	50.0	44.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.870	8.877	-0.007	98	349755	100.0	109.2	
76 Toluene	91	9.047	9.047	0.000	98	641994	50.0	51.6	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	97	169997	50.0	50.2	
78 Ethyl methacrylate	69	9.357	9.357	0.000	93	160566	50.0	39.3	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	93	126108	50.0	48.6	
80 Tetrachloroethene	164	9.557	9.558	-0.001	94	122550	50.0	51.6	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	98	210353	50.0	43.9	
82 2-Hexanone	43	9.703	9.704	-0.001	99	236165	100.0	96.2	
84 Chlorodibromomethane	129	9.861	9.856	0.005	90	114065	50.0	52.0	
85 Ethylene Dibromide	107	9.971	9.971	0.000	97	124304	50.0	46.7	
86 3-Chlorobenzotrifluoride	180	10.433	10.434	-0.001	87	215287	50.0	50.2	
87 Chlorobenzene	112	10.457	10.458	-0.001	94	393679	50.0	48.6	
88 4-Chlorobenzotrifluoride	180	10.518	10.519	-0.001	96	205507	50.0	51.9	
89 1,1,1,2-Tetrachloroethane	131	10.549	10.549	0.000	93	133275	50.0	51.7	
90 Ethylbenzene	106	10.555	10.555	0.000	98	221140	50.0	48.9	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	272065	50.0	49.2	
92 o-Xylene	106	11.072	11.072	0.000	96	252974	50.0	48.0	
93 Styrene	104	11.090	11.090	0.000	96	421825	50.0	47.3	
94 Bromoform	173	11.272	11.273	-0.001	95	61495	50.0	45.1	
96 2-Chlorobenzotrifluoride	180	11.339	11.346	-0.007	96	209533	50.0	51.0	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	622268	50.0	48.4	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.753	-0.006	82	172909	50.0	45.0	
100 Bromobenzene	156	11.753	11.753	0.000	96	147513	50.0	42.3	
102 trans-1,4-Dichloro-2-buten	53	11.783	11.790	-0.007	72	55996	50.0	53.3	
101 1,2,3-Trichloropropane	110	11.808	11.802	0.006	87	56507	50.0	39.3	
103 N-Propylbenzene	120	11.850	11.857	-0.007	98	179815	50.0	45.2	
104 2-Chlorotoluene	126	11.941	11.936	0.005	97	152576	50.0	44.3	
105 3-Chlorotoluene	126	12.008	12.003	0.005	97	179101	50.0	47.8	

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	12.033	12.033	0.000	94	510535	50.0	44.8	
107 4-Chlorotoluene	126	12.063	12.063	0.000	96	161885	50.0	43.6	
108 tert-Butylbenzene	119	12.349	12.349	0.000	95	397241	50.0	41.7	
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	97	509200	50.0	44.0	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.453	-0.001	90	113562	50.0	39.1	
112 sec-Butylbenzene	105	12.574	12.574	0.000	94	577642	50.0	43.5	
113 1,3-Dichlorobenzene	146	12.689	12.696	-0.007	98	279583	50.0	44.9	
114 4-Isopropyltoluene	119	12.726	12.726	0.000	97	484439	50.0	43.8	
115 1,4-Dichlorobenzene	146	12.793	12.793	0.000	95	286663	50.0	44.8	
116 2,4-Dichloro-1-(trifluorom	214	12.817	12.824	-0.007	93	106843	50.0	39.6	
118 2,5-Dichlorobenzotrifluori	214	12.860	12.866	-0.006	0	117856	50.0	40.4	
120 n-Butylbenzene	91	13.139	13.134	0.005	98	380516	50.0	42.2	
121 1,2-Dichlorobenzene	146	13.151	13.152	-0.001	97	268989	50.0	45.3	
122 1,2-Dibromo-3-Chloropropan	75	13.936	13.943	-0.007	78	24582	50.0	37.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.082	0.000	0	522821	150.0	138.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.502	0.000	0	362334	100.0	93.1	
126 1,2,4-Trichlorobenzene	180	14.763	14.764	-0.001	95	105538	50.0	38.9	
127 Hexachlorobutadiene	225	14.903	14.910	-0.007	92	38999	50.0	39.3	
128 Naphthalene	128	15.031	15.031	0.000	97	319952	50.0	34.6	
129 1,2,3-Trichlorobenzene	180	15.256	15.256	0.000	96	94363	50.0	38.0	
131 2,4,5-Trichlorotoluene	159	16.022	16.028	-0.006	0	34327	50.0	29.1	
130 2,3,6-Trichlorotoluene	159	16.119	16.126	-0.007	96	35944	50.0	32.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.7	
S 133 Xylenes, Total	106				0		100.0	97.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00014	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\20171107-19208.b\51107D07.D

Injection Date: 08-Nov-2017 03:29:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-71858-C-10 MS

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

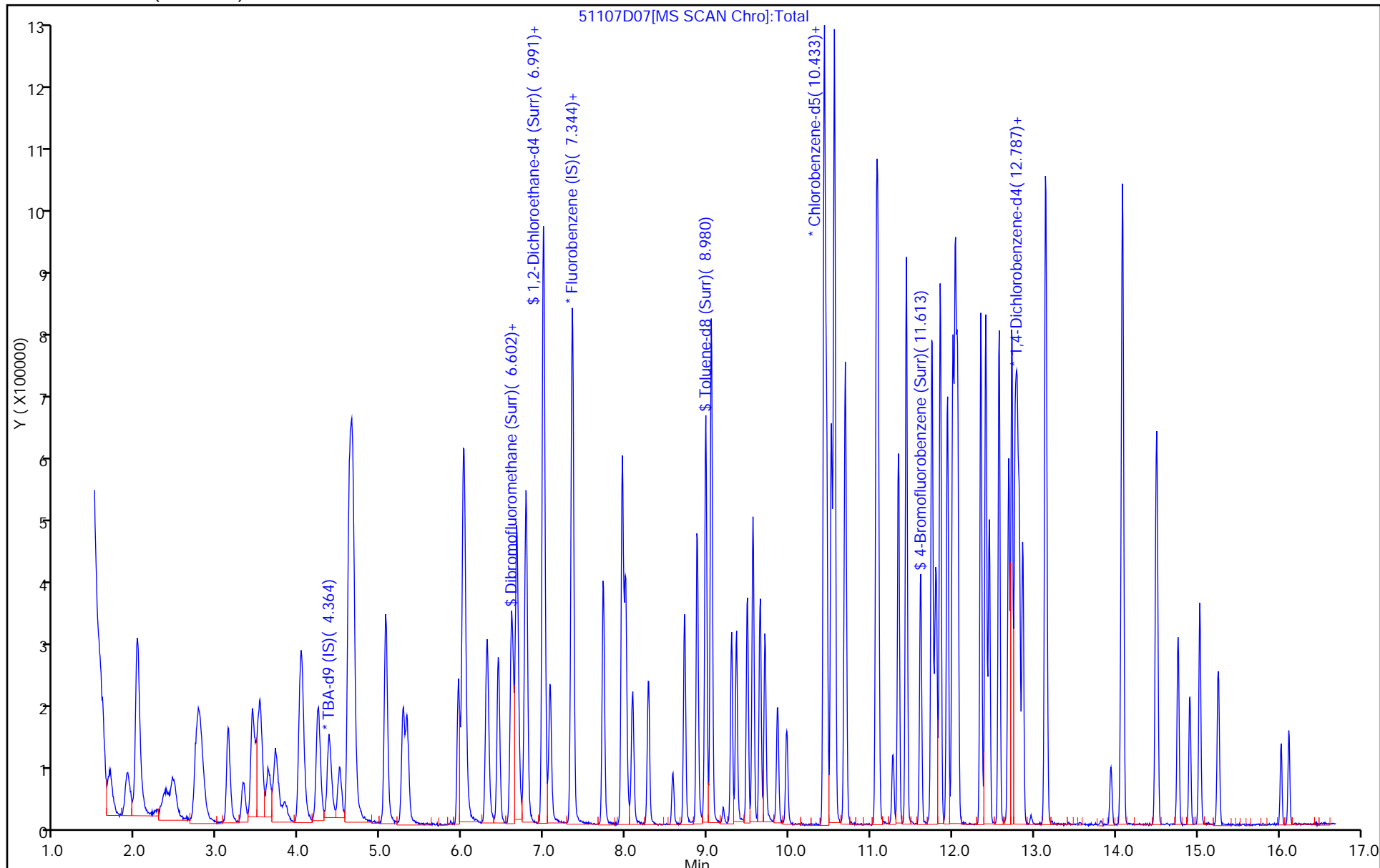
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\51107D07.D
 Lims ID: 180-71858-C-10 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 08-Nov-2017 03:29:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019208-007
 Misc. Info.: 180-71858-C-10 MS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171107-19208.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 08-Nov-2017 07:21:15 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: XAWRK018

First Level Reviewer: bungardf Date: 08-Nov-2017 03:50:49

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	42.2	84.50
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.2	92.42
\$ 7 Toluene-d8 (Surr)	50.0	46.4	92.78
\$ 8 4-Bromofluorobenzene (Surr)	50.0	44.7	89.39

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 07/27/2017 00:22Analysis 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		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.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 11/02/2017 21:51

Analysis Batch Number: 227871 End Date: 11/03/2017 09:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-227871/1		11/02/2017 21:51	1	51102D01.D	DB-624 0.18 (mm)
CCVIS 180-227871/2		11/02/2017 22:22	1	51102D02.D	DB-624 0.18 (mm)
ZZZZZ		11/02/2017 22:22	1		DB-624 0.18 (mm)
LCS 180-227871/3		11/02/2017 23:57	1	51102D03.D	DB-624 0.18 (mm)
ZZZZZ		11/03/2017 00:34	1		DB-624 0.18 (mm)
MB 180-227871/5		11/03/2017 00:58	1	51102D05.D	DB-624 0.18 (mm)
180-71858-3		11/03/2017 06:01	1	51102D17.D	DB-624 0.18 (mm)
ZZZZZ		11/03/2017 06:24	1		DB-624 0.18 (mm)
180-71858-5		11/03/2017 06:48	1	51102D19.D	DB-624 0.18 (mm)
180-71858-7		11/03/2017 07:12	1	51102D20.D	DB-624 0.18 (mm)
180-71858-11		11/03/2017 07:36	1	51102D21.D	DB-624 0.18 (mm)
ZZZZZ		11/03/2017 08:00	1		DB-624 0.18 (mm)
ZZZZZ		11/03/2017 08:47	2		DB-624 0.18 (mm)
ZZZZZ		11/03/2017 09:11	5		DB-624 0.18 (mm)
ZZZZZ		11/03/2017 09:36	10		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 11/05/2017 00:00Analysis Batch Number: 228044 End Date: 11/06/2017 10:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228044/1		11/05/2017 00:00	1	51105D01.D	DB-624 0.18 (mm)
CCVIS 180-228044/2		11/05/2017 00:28	1	51105D02.D	DB-624 0.18 (mm)
ZZZZZ		11/05/2017 00:28	1		DB-624 0.18 (mm)
LCS 180-228044/3		11/06/2017 01:16	1	51105D03.D	DB-624 0.18 (mm)
ZZZZZ		11/06/2017 01:50	1		DB-624 0.18 (mm)
MB 180-228044/5		11/06/2017 02:14	1	51105D05.D	DB-624 0.18 (mm)
180-71858-12		11/06/2017 02:50	1	51105D06.D	DB-624 0.18 (mm)
180-71858-8		11/06/2017 04:37	1	51105D10.D	DB-624 0.18 (mm)
ZZZZZ		11/06/2017 05:01	10		DB-624 0.18 (mm)
ZZZZZ		11/06/2017 05:25	2		DB-624 0.18 (mm)
ZZZZZ		11/06/2017 05:49	1		DB-624 0.18 (mm)
ZZZZZ		11/06/2017 06:13	5		DB-624 0.18 (mm)
ZZZZZ		11/06/2017 06:37	12.5		DB-624 0.18 (mm)
ZZZZZ		11/06/2017 10:13	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71858-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 11/07/2017 23:03

Analysis Batch Number: 228278 End Date: 11/08/2017 10:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228278/1		11/07/2017 23:03	1	51107D01.D	DB-624 0.18 (mm)
CCVIS 180-228278/2		11/08/2017 00:13	1	51107D02.D	DB-624 0.18 (mm)
ZZZZZ		11/08/2017 00:13	1		DB-624 0.18 (mm)
LCS 180-228278/3		11/08/2017 01:32	1	51107D03.D	DB-624 0.18 (mm)
ZZZZZ		11/08/2017 02:06	1		DB-624 0.18 (mm)
MB 180-228278/5		11/08/2017 02:29	1	51107D05.D	DB-624 0.18 (mm)
180-71858-10		11/08/2017 03:02	1	51107D06.D	DB-624 0.18 (mm)
180-71858-10 MS		11/08/2017 03:29	1	51107D07.D	DB-624 0.18 (mm)
ZZZZZ		11/08/2017 04:42	1		DB-624 0.18 (mm)
ZZZZZ		11/08/2017 05:05	1		DB-624 0.18 (mm)
ZZZZZ		11/08/2017 05:29	2		DB-624 0.18 (mm)
180-71858-1		11/08/2017 05:53	2	51107D13.D	DB-624 0.18 (mm)
180-71858-2		11/08/2017 06:16	1	51107D14.D	DB-624 0.18 (mm)
180-71858-6		11/08/2017 06:40	2	51107D15.D	DB-624 0.18 (mm)
180-71858-9		11/08/2017 07:04	1	51107D16.D	DB-624 0.18 (mm)
ZZZZZ		11/08/2017 07:52	1		DB-624 0.18 (mm)
ZZZZZ		11/08/2017 08:15	1		DB-624 0.18 (mm)
ZZZZZ		11/08/2017 08:39	1		DB-624 0.18 (mm)
ZZZZZ		11/08/2017 09:03	1		DB-624 0.18 (mm)
180-71858-4		11/08/2017 09:27	1	51107D22.D	DB-624 0.18 (mm)
ZZZZZ		11/08/2017 09:50	2		DB-624 0.18 (mm)
ZZZZZ		11/08/2017 10:14	2		DB-624 0.18 (mm)

Shipping and Receiving Documents

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

Project Manager: Christopher D. O'neil
Tel/Fax: 717-901-8176 / (717) 657-1611

Site Contact: Kaitlin B. Franssen
Lab Contact: Carrie Gamber

Analysis Turnaround Time
Calendar (C) or Work Days (W)
 2 weeks
 1 week
 5 days
 1 day

DATE DIFFERENT FROM BELOW STANDARD

Carrier: FEDEX
COC No: TAP2017/02701
Job No: 10012.32.0002
Container No:
SDG No:

Sample Identification

Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
10/27/17	0827	GW	W	3
10/27/17	0840	GW	W	3
10/27/17	0935	GW	W	3
10/27/17	1054	GW	W	3
10/27/17	0920	GW	W	3
10/27/17	0750	GW	W	3
10/27/17	1200	Amphibole	W	2
10/27/17	1010	GW	W	3
10/27/17	1200	GW	V	3
10/27/17	1105	GW	W	3
10/27/17	1030	GW	W	3
10/27/17	1145	GW	V	3

Field Filter	Y	N	Y	N	Y	N	Y	N	Y	N
Number of Containers	1	1	2	1	1					
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Unpreserved 7= Zinc Acetate & NaOH	2	1	1	4	5	1				

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Months

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by: [Signature] WOLF
Date/Time: 10/27/17 1240
Company: GSC

Relinquished by: [Signature] TAPKER
Date/Time: 10/27/17 1015
Company: TAP

Relinquished by: [Signature] [Name]
Date/Time: 10/28/17 9:00
Company: [Name]





180-71858 Waybill

ORIGIN ID: KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1010 WEST 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

SH
C
BILL

R1639
ST F1

5
12:00

TO **SAMPLE RECEIPT**
TEST AMERICA - PITTSBURGH
301 ALPHA DR

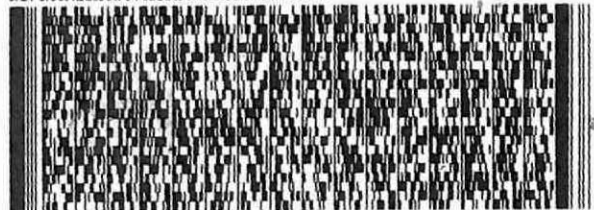
PITTSBURGH PA 15238

(412) 963-7058

REF:

INV:

DEPT:



FedEx
Express



J17211709130110

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7706 1071 3208
0201

EXP 10/18
X0 AGCA

15238
PA-US PIT

Uncorrected temp
Thermometer ID

61.1 °C
12

CF 0 Initials TS

PT-WI-SR-001 effective 7/25/13



Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-71858-1

Login Number: 71858
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	