TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

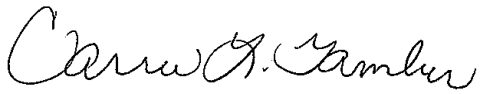
ANALYTICAL REPORT

Job Number: 180-64650-1

Job Description: Harley Davidson

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

Attention: Allan Miller



Approved for release.
Carrie L Gamber
Senior Project Manager
3/31/2017 11:37 AM

Carrie L Gamber, Senior Project Manager
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2428
carrie.gamber@testamericainc.com
03/31/2017

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	RPD of the LCS and LCSD exceeds the control limits
^c	CCV Recovery is outside acceptance limits.
*	LCS or LCSD 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.

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-64650-1

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 03/28/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 C.

VOLATILES

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 180-206745 recovered outside control limits for the following analytes: 1,1-Dichloroethene, Acrylonitrile, Carbon disulfide and trans-1,2-Dichloroethene.

The laboratory control sample (LCS) for preparation batch 180-206745 and analytical batch 180-206732 recovered outside control limits for the following analytes: Chloroethane and trans-1,2-Dichloroethene. A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

The laboratory control sample (LCSD) for preparation batch 180-206745 and analytical batch 180-206732 recovered outside control limits for the following analytes: trans-1,2-Dichloroethene. A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

The continuing calibration verification (CCV) associated with batch 180-206732 recovered outside acceptance criteria, low biased, for Bromomethane, Chloromethane, Chloroethane, Methylene Chloride and Vinyl chloride. A CCV (LOQV) at the reporting limit (RL) standard was analyzed, and the target analyte was detected.

The continuing calibration verification (CCV) analyzed in batch 180-206859 was outside the method criteria for the following analytes: 1,4-Dioxane, 2-Butanone (MEK), and Acetone were >20% high. 2-Hexanone was >50% high and ND in all of the samples. 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.

PERCENT SOLIDS

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

Client Sample ID: HD-SPBA-SB-006-0/1-0 — Lab Sample ID: 180-64650-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	2.3	J ^c	5.8	0.65	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-SPBA-SB-006-5/5.5-0 — Lab Sample ID: 180-64650-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	2.8	J ^c	5.2	0.58	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-SPBA-SB-006-10/10.5-0 — Lab Sample ID: 180-64650-3

No Detections.

Client Sample ID: HD-SPBA-SB-006-15/15.5-0 — Lab Sample ID: 180-64650-4

No Detections.

Client Sample ID: HD-SPBA-SB-006-20/20.5-0 — Lab Sample ID: 180-64650-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.8	J ^c	4.9	0.55	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	1.2	J	4.9	1.2	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-SPBA-SB-006-25/25.5-0 — Lab Sample ID: 180-64650-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.9	J ^c	4.5	0.50	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-SPBA-SB-006-30/30.5-0 — Lab Sample ID: 180-64650-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.2	J ^c	3.6	0.40	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	1.1	J	3.6	0.89	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-SPBA-SB-006-35/35.5-0 — Lab Sample ID: 180-64650-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.69	J ^c	3.9	0.44	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	1.4	J	3.9	0.97	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-SPBA-SB-006-40/40.5-0 — Lab Sample ID: 180-64650-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19		17	8.9	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	1.3	J ^c	4.3	0.48	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: HD-QC1-0/1-2 — Lab Sample ID: 180-64650-10

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-QC1-0/1-2
Date Collected: 03/27/17 12:00
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			03/30/17 17:55	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			03/30/17 17:55	1
Bromomethane	1.0	U	1.0	0.59	ug/L			03/30/17 17:55	1
Chloroethane	1.0	U	1.0	0.58	ug/L			03/30/17 17:55	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			03/30/17 17:55	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			03/30/17 17:55	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			03/30/17 17:55	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			03/30/17 17:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			03/30/17 17:55	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			03/30/17 17:55	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			03/30/17 17:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/30/17 17:55	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			03/30/17 17:55	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			03/30/17 17:55	1
Chloroform	1.0	U	1.0	0.27	ug/L			03/30/17 17:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			03/30/17 17:55	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			03/30/17 17:55	1
Benzene	1.0	U	1.0	0.18	ug/L			03/30/17 17:55	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			03/30/17 17:55	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			03/30/17 17:55	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			03/30/17 17:55	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			03/30/17 17:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			03/30/17 17:55	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			03/30/17 17:55	1
Toluene	1.0	U	1.0	0.16	ug/L			03/30/17 17:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			03/30/17 17:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			03/30/17 17:55	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			03/30/17 17:55	1
2-Hexanone	5.0	U ^c	5.0	2.0	ug/L			03/30/17 17:55	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			03/30/17 17:55	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			03/30/17 17:55	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			03/30/17 17:55	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			03/30/17 17:55	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			03/30/17 17:55	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			03/30/17 17:55	1
Styrene	1.0	U	1.0	0.22	ug/L			03/30/17 17:55	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/30/17 17:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			03/30/17 17:55	1
Acrylonitrile	20	U	20	3.3	ug/L			03/30/17 17:55	1
1,4-Dioxane	200	U ^c	200	16	ug/L			03/30/17 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*72 - 134*		*03/30/17 17:55*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*03/30/17 17:55*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 120*		*03/30/17 17:55*	*1*
Dibromofluoromethane (Surr)	*105*		*77 - 127*		*03/30/17 17:55*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-0/1-0
Date Collected: 03/27/17 11:35
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-1
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	5.8	U	5.8	3.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,1,1-Trichloroethane	5.8	U	5.8	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,1,2,2-Tetrachloroethane	5.8	U	5.8	4.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,1,2-Trichloroethane	5.8	U	5.8	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,1-Dichloroethane	5.8	U	5.8	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,1-Dichloroethene	5.8	U *	5.8	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,2-Dichloroethane	5.8	U	5.8	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,2-Dichloropropane	5.8	U	5.8	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
2-Butanone (MEK)	5.8	U	5.8	3.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
2-Hexanone	5.8	U	5.8	4.8	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
4-Methyl-2-pentanone (MIBK)	5.8	U	5.8	4.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Acetone	23	U	23	12	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Benzene	5.8	U	5.8	3.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Bromoform	5.8	U	5.8	5.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Bromomethane	5.8	U ^c	5.8	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Carbon disulfide	5.8	U *	5.8	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Carbon tetrachloride	5.8	U	5.8	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Chlorobenzene	5.8	U	5.8	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Dibromochloromethane	5.8	U	5.8	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,4-Dioxane	1200	U	1200	29	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Chloroform	5.8	U	5.8	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Chloromethane	5.8	U ^c	5.8	3.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Chloroethane	5.8	U ^c *	5.8	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
cis-1,2-Dichloroethene	5.8	U	5.8	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
cis-1,3-Dichloropropene	5.8	U	5.8	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Bromodichloromethane	5.8	U	5.8	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Ethylbenzene	5.8	U	5.8	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
1,2-Dibromoethane (EDB)	5.8	U	5.8	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Methyl tert-butyl ether	5.8	U	5.8	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Methylene Chloride	**2.3**	**J ^c**	5.8	0.65	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Styrene	5.8	U	5.8	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Tetrachloroethene	5.8	U	5.8	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Toluene	5.8	U	5.8	4.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
trans-1,2-Dichloroethene	5.8	U *	5.8	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
trans-1,3-Dichloropropene	5.8	U	5.8	2.8	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Trichloroethene	5.8	U	5.8	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Acrylonitrile	58	U *	58	29	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Vinyl chloride	5.8	U ^c	5.8	3.0	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Xylenes, Total	12	U	12	5.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1
Bromochloromethane	5.8	U	5.8	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*68 - 121*	*03/29/17 07:00*	*03/29/17 11:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*52 - 124*	*03/29/17 07:00*	*03/29/17 11:33*	*1*
4-Bromofluorobenzene (Surr)	*85*		*63 - 120*	*03/29/17 07:00*	*03/29/17 11:33*	*1*
Toluene-d8 (Surr)	*98*		*72 - 127*	*03/29/17 07:00*	*03/29/17 11:33*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-5/5.5-0
Date Collected: 03/27/17 13:35
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-2
Matrix: Solid
Percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	5.2	U	5.2	2.8	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,1,1-Trichloroethane	5.2	U	5.2	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,1,2,2-Tetrachloroethane	5.2	U	5.2	4.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,1,2-Trichloroethane	5.2	U	5.2	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,1-Dichloroethane	5.2	U	5.2	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,1-Dichloroethene	5.2	U *	5.2	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,2-Dichloroethane	5.2	U	5.2	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,2-Dichloropropane	5.2	U	5.2	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
2-Butanone (MEK)	5.2	U	5.2	3.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
2-Hexanone	5.2	U	5.2	4.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
4-Methyl-2-pentanone (MIBK)	5.2	U	5.2	3.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Acetone	21	U	21	11	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Benzene	5.2	U	5.2	3.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Bromoform	5.2	U	5.2	4.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Bromomethane	5.2	U ^c	5.2	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Carbon disulfide	5.2	U *	5.2	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Carbon tetrachloride	5.2	U	5.2	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Chlorobenzene	5.2	U	5.2	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Dibromochloromethane	5.2	U	5.2	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,4-Dioxane	1000	U	1000	26	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Chloroform	5.2	U	5.2	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Chloromethane	5.2	U ^c	5.2	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Chloroethane	5.2	U ^c *	5.2	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
cis-1,2-Dichloroethene	5.2	U	5.2	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
cis-1,3-Dichloropropene	5.2	U	5.2	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Bromodichloromethane	5.2	U	5.2	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Ethylbenzene	5.2	U	5.2	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
1,2-Dibromoethane (EDB)	5.2	U	5.2	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Methyl tert-butyl ether	5.2	U	5.2	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Methylene Chloride	**2.8**	**J ^c**	5.2	0.58	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Styrene	5.2	U	5.2	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Tetrachloroethene	5.2	U	5.2	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Toluene	5.2	U	5.2	3.8	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
trans-1,2-Dichloroethene	5.2	U *	5.2	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
trans-1,3-Dichloropropene	5.2	U	5.2	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Trichloroethene	5.2	U	5.2	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Acrylonitrile	52	U *	52	26	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Vinyl chloride	5.2	U ^c	5.2	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Xylenes, Total	10	U	10	4.7	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1
Bromochloromethane	5.2	U	5.2	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*91*		*68 - 121*	*03/29/17 07:00*	*03/29/17 11:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*52 - 124*	*03/29/17 07:00*	*03/29/17 11:55*	*1*
4-Bromofluorobenzene (Surr)	*87*		*63 - 120*	*03/29/17 07:00*	*03/29/17 11:55*	*1*
Toluene-d8 (Surr)	*96*		*72 - 127*	*03/29/17 07:00*	*03/29/17 11:55*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-10/10.5-0
Date Collected: 03/27/17 13:50
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-3
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	4.6	U	4.6	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,1,1-Trichloroethane	4.6	U	4.6	0.99	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,1,2,2-Tetrachloroethane	4.6	U	4.6	3.6	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,1,2-Trichloroethane	4.6	U	4.6	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,1-Dichloroethane	4.6	U	4.6	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,1-Dichloroethene	4.6	U *	4.6	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,2-Dichloroethane	4.6	U	4.6	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,2-Dichloropropane	4.6	U	4.6	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
2-Butanone (MEK)	4.6	U	4.6	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
2-Hexanone	4.6	U	4.6	3.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
4-Methyl-2-pentanone (MIBK)	4.6	U	4.6	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Acetone	18	U	18	9.4	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Benzene	4.6	U	4.6	2.8	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Bromoform	4.6	U	4.6	4.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Bromomethane	4.6	U ^c	4.6	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Carbon disulfide	4.6	U *	4.6	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Carbon tetrachloride	4.6	U	4.6	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Chlorobenzene	4.6	U	4.6	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Dibromochloromethane	4.6	U	4.6	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,4-Dioxane	910	U	910	23	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Chloroform	4.6	U	4.6	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Chloromethane	4.6	U ^c	4.6	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Chloroethane	4.6	U ^c *	4.6	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
cis-1,2-Dichloroethene	4.6	U	4.6	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
cis-1,3-Dichloropropene	4.6	U	4.6	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Bromodichloromethane	4.6	U	4.6	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Ethylbenzene	4.6	U	4.6	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
1,2-Dibromoethane (EDB)	4.6	U	4.6	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Methyl tert-butyl ether	4.6	U	4.6	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Methylene Chloride	4.6	U ^c	4.6	0.51	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Styrene	4.6	U	4.6	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Tetrachloroethene	4.6	U	4.6	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Toluene	4.6	U	4.6	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
trans-1,2-Dichloroethene	4.6	U *	4.6	0.94	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
trans-1,3-Dichloropropene	4.6	U	4.6	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Trichloroethene	4.6	U	4.6	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Acrylonitrile	46	U *	46	23	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Vinyl chloride	4.6	U ^c	4.6	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Xylenes, Total	9.1	U	9.1	4.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1
Bromochloromethane	4.6	U	4.6	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*68 - 121*	*03/29/17 07:00*	*03/29/17 12:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*52 - 124*	*03/29/17 07:00*	*03/29/17 12:18*	*1*
4-Bromofluorobenzene (Surr)	*91*		*63 - 120*	*03/29/17 07:00*	*03/29/17 12:18*	*1*
Toluene-d8 (Surr)	*93*		*72 - 127*	*03/29/17 07:00*	*03/29/17 12:18*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-15/15.5-0
Date Collected: 03/27/17 14:00
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-4
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	4.1	U	4.1	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,1,1-Trichloroethane	4.1	U	4.1	0.88	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,1,2,2-Tetrachloroethane	4.1	U	4.1	3.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,1,2-Trichloroethane	4.1	U	4.1	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,1-Dichloroethane	4.1	U	4.1	0.92	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,1-Dichloroethene	4.1	U *	4.1	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,2-Dichloroethane	4.1	U	4.1	0.91	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,2-Dichloropropane	4.1	U	4.1	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
2-Butanone (MEK)	4.1	U	4.1	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
2-Hexanone	4.1	U	4.1	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
4-Methyl-2-pentanone (MIBK)	4.1	U	4.1	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Acetone	16	U	16	8.4	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Benzene	4.1	U	4.1	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Bromoform	4.1	U	4.1	3.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Bromomethane	4.1	U ^c	4.1	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Carbon disulfide	4.1	U *	4.1	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Carbon tetrachloride	4.1	U	4.1	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Chlorobenzene	4.1	U	4.1	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Dibromochloromethane	4.1	U	4.1	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,4-Dioxane	810	U	810	20	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Chloroform	4.1	U	4.1	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Chloromethane	4.1	U ^c	4.1	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Chloroethane	4.1	U ^c *	4.1	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
cis-1,2-Dichloroethene	4.1	U	4.1	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
cis-1,3-Dichloropropene	4.1	U	4.1	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Bromodichloromethane	4.1	U	4.1	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Ethylbenzene	4.1	U	4.1	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
1,2-Dibromoethane (EDB)	4.1	U	4.1	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Methyl tert-butyl ether	4.1	U	4.1	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Methylene Chloride	4.1	U ^c	4.1	0.45	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Styrene	4.1	U	4.1	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Tetrachloroethene	4.1	U	4.1	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Toluene	4.1	U	4.1	3.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
trans-1,2-Dichloroethene	4.1	U *	4.1	0.83	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
trans-1,3-Dichloropropene	4.1	U	4.1	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Trichloroethene	4.1	U	4.1	0.92	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Acrylonitrile	41	U *	41	20	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Vinyl chloride	4.1	U ^c	4.1	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Xylenes, Total	8.1	U	8.1	3.7	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1
Bromochloromethane	4.1	U	4.1	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*68 - 121*	*03/29/17 07:00*	*03/29/17 12:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*52 - 124*	*03/29/17 07:00*	*03/29/17 12:40*	*1*
4-Bromofluorobenzene (Surr)	*94*		*63 - 120*	*03/29/17 07:00*	*03/29/17 12:40*	*1*
Toluene-d8 (Surr)	*99*		*72 - 127*	*03/29/17 07:00*	*03/29/17 12:40*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-20/20.5-0
Date Collected: 03/27/17 14:25
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-5
Matrix: Solid
Percent Solids: 78.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	4.9	U	4.9	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,1,1-Trichloroethane	4.9	U	4.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,1,2,2-Tetrachloroethane	4.9	U	4.9	3.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,1,2-Trichloroethane	4.9	U	4.9	2.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,1-Dichloroethane	4.9	U	4.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,1-Dichloroethene	4.9	U *	4.9	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,2-Dichloroethane	4.9	U	4.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,2-Dichloropropane	4.9	U	4.9	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
2-Butanone (MEK)	4.9	U	4.9	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
2-Hexanone	4.9	U	4.9	4.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
4-Methyl-2-pentanone (MIBK)	4.9	U	4.9	3.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Acetone	20	U	20	10	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Benzene	4.9	U	4.9	3.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Bromoform	4.9	U	4.9	4.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Bromomethane	4.9	U ^c	4.9	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Carbon disulfide	4.9	U *	4.9	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Carbon tetrachloride	4.9	U	4.9	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Chlorobenzene	4.9	U	4.9	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Dibromochloromethane	4.9	U	4.9	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,4-Dioxane	980	U	980	25	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Chloroform	4.9	U	4.9	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Chloromethane	4.9	U ^c	4.9	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Chloroethane	4.9	U ^c *	4.9	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
cis-1,2-Dichloroethene	4.9	U	4.9	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
cis-1,3-Dichloropropene	4.9	U	4.9	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Bromodichloromethane	4.9	U	4.9	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Ethylbenzene	4.9	U	4.9	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
1,2-Dibromoethane (EDB)	4.9	U	4.9	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Methyl tert-butyl ether	4.9	U	4.9	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Methylene Chloride	**1.8**	**J ^c**	4.9	0.55	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Styrene	4.9	U	4.9	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Tetrachloroethene	**1.2**	**J**	4.9	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Toluene	4.9	U	4.9	3.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
trans-1,2-Dichloroethene	4.9	U *	4.9	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
trans-1,3-Dichloropropene	4.9	U	4.9	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Trichloroethene	4.9	U	4.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Acrylonitrile	49	U *	49	25	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Vinyl chloride	4.9	U ^c	4.9	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Xylenes, Total	9.8	U	9.8	4.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1
Bromochloromethane	4.9	U	4.9	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*68 - 121*	*03/29/17 07:00*	*03/29/17 13:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*52 - 124*	*03/29/17 07:00*	*03/29/17 13:03*	*1*
4-Bromofluorobenzene (Surr)	*93*		*63 - 120*	*03/29/17 07:00*	*03/29/17 13:03*	*1*
Toluene-d8 (Surr)	*101*		*72 - 127*	*03/29/17 07:00*	*03/29/17 13:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-25/25.5-0
Date Collected: 03/27/17 14:50
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-6
Matrix: Solid
Percent Solids: 89.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	4.5	U	4.5	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,1,1-Trichloroethane	4.5	U	4.5	0.97	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,1,2,2-Tetrachloroethane	4.5	U	4.5	3.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,1,2-Trichloroethane	4.5	U	4.5	2.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,1-Dichloroethane	4.5	U	4.5	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,1-Dichloroethene	4.5	U *	4.5	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,2-Dichloroethane	4.5	U	4.5	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,2-Dichloropropane	4.5	U	4.5	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
2-Butanone (MEK)	4.5	U	4.5	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
2-Hexanone	4.5	U	4.5	3.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
4-Methyl-2-pentanone (MIBK)	4.5	U	4.5	3.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Acetone	18	U	18	9.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Benzene	4.5	U	4.5	2.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Bromoform	4.5	U	4.5	4.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Bromomethane	4.5	U ^c	4.5	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Carbon disulfide	4.5	U *	4.5	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Carbon tetrachloride	4.5	U	4.5	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Chlorobenzene	4.5	U	4.5	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Dibromochloromethane	4.5	U	4.5	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,4-Dioxane	900	U	900	23	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Chloroform	4.5	U	4.5	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Chloromethane	4.5	U ^c	4.5	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Chloroethane	4.5	U ^c *	4.5	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
cis-1,2-Dichloroethene	4.5	U	4.5	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
cis-1,3-Dichloropropene	4.5	U	4.5	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Bromodichloromethane	4.5	U	4.5	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Ethylbenzene	4.5	U	4.5	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
1,2-Dibromoethane (EDB)	4.5	U	4.5	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Methyl tert-butyl ether	4.5	U	4.5	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Methylene Chloride	**1.9**	**J ^c**	4.5	0.50	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Styrene	4.5	U	4.5	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Tetrachloroethene	4.5	U	4.5	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Toluene	4.5	U	4.5	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
trans-1,2-Dichloroethene	4.5	U *	4.5	0.93	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
trans-1,3-Dichloropropene	4.5	U	4.5	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Trichloroethene	4.5	U	4.5	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Acrylonitrile	45	U *	45	23	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Vinyl chloride	4.5	U ^c	4.5	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Xylenes, Total	9.0	U	9.0	4.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1
Bromochloromethane	4.5	U	4.5	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*68 - 121*	*03/29/17 07:00*	*03/29/17 13:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*52 - 124*	*03/29/17 07:00*	*03/29/17 13:25*	*1*
4-Bromofluorobenzene (Surr)	*93*		*63 - 120*	*03/29/17 07:00*	*03/29/17 13:25*	*1*
Toluene-d8 (Surr)	*99*		*72 - 127*	*03/29/17 07:00*	*03/29/17 13:25*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-30/30.5-0
Date Collected: 03/27/17 15:15
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-7
Matrix: Solid
Percent Solids: 86.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	3.6	U	3.6	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,1,1-Trichloroethane	3.6	U	3.6	0.77	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,1,2,2-Tetrachloroethane	3.6	U	3.6	2.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,1,2-Trichloroethane	3.6	U	3.6	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,1-Dichloroethane	3.6	U	3.6	0.81	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,1-Dichloroethene	3.6	U *	3.6	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,2-Dichloroethane	3.6	U	3.6	0.80	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,2-Dichloropropane	3.6	U	3.6	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
2-Butanone (MEK)	3.6	U	3.6	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
2-Hexanone	3.6	U	3.6	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
4-Methyl-2-pentanone (MIBK)	3.6	U	3.6	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Acetone	14	U	14	7.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Benzene	3.6	U	3.6	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Bromoform	3.6	U	3.6	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Bromomethane	3.6	U ^c	3.6	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Carbon disulfide	3.6	U *	3.6	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Carbon tetrachloride	3.6	U	3.6	0.98	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Chlorobenzene	3.6	U	3.6	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Dibromochloromethane	3.6	U	3.6	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,4-Dioxane	720	U	720	18	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Chloroform	3.6	U	3.6	0.90	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Chloromethane	3.6	U ^c	3.6	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Chloroethane	3.6	U ^c *	3.6	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
cis-1,2-Dichloroethene	3.6	U	3.6	0.96	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
cis-1,3-Dichloropropene	3.6	U	3.6	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Bromodichloromethane	3.6	U	3.6	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Ethylbenzene	3.6	U	3.6	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
1,2-Dibromoethane (EDB)	3.6	U	3.6	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Methyl tert-butyl ether	3.6	U	3.6	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Methylene Chloride	**1.2**	**J ^c**	3.6	0.40	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Styrene	3.6	U	3.6	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Tetrachloroethene	**1.1**	**J**	3.6	0.89	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Toluene	3.6	U	3.6	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
trans-1,2-Dichloroethene	3.6	U *	3.6	0.73	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
trans-1,3-Dichloropropene	3.6	U	3.6	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Trichloroethene	3.6	U	3.6	0.81	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Acrylonitrile	36	U *	36	18	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Vinyl chloride	3.6	U ^c	3.6	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Xylenes, Total	7.2	U	7.2	3.3	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1
Bromochloromethane	3.6	U	3.6	1.0	ug/Kg	☼	03/29/17 07:00	03/29/17 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*68 - 121*	*03/29/17 07:00*	*03/29/17 13:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*124*		*52 - 124*	*03/29/17 07:00*	*03/29/17 13:48*	*1*
4-Bromofluorobenzene (Surr)	*96*		*63 - 120*	*03/29/17 07:00*	*03/29/17 13:48*	*1*
Toluene-d8 (Surr)	*100*		*72 - 127*	*03/29/17 07:00*	*03/29/17 13:48*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-35/35.5-0
Date Collected: 03/27/17 15:50
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-8
Matrix: Solid
Percent Solids: 87.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	3.9	U	3.9	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,1,1-Trichloroethane	3.9	U	3.9	0.85	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,1,2,2-Tetrachloroethane	3.9	U	3.9	3.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,1,2-Trichloroethane	3.9	U	3.9	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,1-Dichloroethane	3.9	U	3.9	0.88	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,1-Dichloroethene	3.9	U *	3.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,2-Dichloroethane	3.9	U	3.9	0.88	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,2-Dichloropropane	3.9	U	3.9	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
2-Butanone (MEK)	3.9	U	3.9	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
2-Hexanone	3.9	U	3.9	3.2	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	2.8	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Acetone	16	U	16	8.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Benzene	3.9	U	3.9	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Bromoform	3.9	U	3.9	3.6	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Bromomethane	3.9	U ^c	3.9	1.4	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Carbon disulfide	3.9	U *	3.9	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Carbon tetrachloride	3.9	U	3.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Chlorobenzene	3.9	U	3.9	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Dibromochloromethane	3.9	U	3.9	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,4-Dioxane	780	U	780	20	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Chloroform	3.9	U	3.9	0.98	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Chloromethane	3.9	U ^c	3.9	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Chloroethane	3.9	U ^c *	3.9	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
cis-1,2-Dichloroethene	3.9	U	3.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
cis-1,3-Dichloropropene	3.9	U	3.9	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Bromodichloromethane	3.9	U	3.9	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Ethylbenzene	3.9	U	3.9	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
1,2-Dibromoethane (EDB)	3.9	U	3.9	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Methyl tert-butyl ether	3.9	U	3.9	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Methylene Chloride	**0.69**	**J ^c**	3.9	0.44	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Styrene	3.9	U	3.9	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Tetrachloroethene	**1.4**	**J**	3.9	0.97	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Toluene	3.9	U	3.9	2.9	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
trans-1,2-Dichloroethene	3.9	U *	3.9	0.80	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
trans-1,3-Dichloropropene	3.9	U	3.9	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Trichloroethene	3.9	U	3.9	0.88	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Acrylonitrile	39	U *	39	20	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Vinyl chloride	3.9	U ^c	3.9	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Xylenes, Total	7.8	U	7.8	3.6	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1
Bromochloromethane	3.9	U	3.9	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*68 - 121*	*03/29/17 07:00*	*03/29/17 14:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*124*		*52 - 124*	*03/29/17 07:00*	*03/29/17 14:10*	*1*
4-Bromofluorobenzene (Surr)	*96*		*63 - 120*	*03/29/17 07:00*	*03/29/17 14:10*	*1*
Toluene-d8 (Surr)	*99*		*72 - 127*	*03/29/17 07:00*	*03/29/17 14:10*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: HD-SPBA-SB-006-40/40.5-0
Date Collected: 03/27/17 16:30
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-9
Matrix: Solid
Percent Solids: 79.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	4.3	U	4.3	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,1,1-Trichloroethane	4.3	U	4.3	0.94	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,1,2,2-Tetrachloroethane	4.3	U	4.3	3.5	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,1,2-Trichloroethane	4.3	U	4.3	2.4	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,1-Dichloroethane	4.3	U	4.3	0.98	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,1-Dichloroethene	4.3	U *	4.3	1.3	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,2-Dichloroethane	4.3	U	4.3	0.97	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,2-Dichloropropane	4.3	U	4.3	1.6	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
2-Butanone (MEK)	4.3	U	4.3	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
2-Hexanone	4.3	U	4.3	3.5	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	3.1	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Acetone	**19**		17	8.9	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Benzene	4.3	U	4.3	2.6	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Bromoform	4.3	U	4.3	4.0	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Bromomethane	4.3	U ^c	4.3	1.5	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Carbon disulfide	4.3	U *	4.3	1.8	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Carbon tetrachloride	4.3	U	4.3	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Chlorobenzene	4.3	U	4.3	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Dibromochloromethane	4.3	U	4.3	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,4-Dioxane	870	U	870	22	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Chloroform	4.3	U	4.3	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Chloromethane	4.3	U ^c	4.3	2.3	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Chloroethane	4.3	U ^c *	4.3	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
cis-1,2-Dichloroethene	4.3	U	4.3	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
cis-1,3-Dichloropropene	4.3	U	4.3	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Bromodichloromethane	4.3	U	4.3	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Ethylbenzene	4.3	U	4.3	1.7	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
1,2-Dibromoethane (EDB)	4.3	U	4.3	1.9	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Methyl tert-butyl ether	4.3	U	4.3	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Methylene Chloride	**1.3**	**J ^c**	4.3	0.48	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Styrene	4.3	U	4.3	2.0	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Tetrachloroethene	4.3	U	4.3	1.1	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Toluene	4.3	U	4.3	3.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
trans-1,2-Dichloroethene	4.3	U *	4.3	0.89	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
trans-1,3-Dichloropropene	4.3	U	4.3	2.1	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Trichloroethene	4.3	U	4.3	0.98	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Acrylonitrile	43	U *	43	22	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Vinyl chloride	4.3	U ^c	4.3	2.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Xylenes, Total	8.7	U	8.7	4.0	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1
Bromochloromethane	4.3	U	4.3	1.2	ug/Kg	☼	03/29/17 07:00	03/29/17 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*68 - 121*	*03/29/17 07:00*	*03/29/17 16:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*121*		*52 - 124*	*03/29/17 07:00*	*03/29/17 16:41*	*1*
4-Bromofluorobenzene (Surr)	*89*		*63 - 120*	*03/29/17 07:00*	*03/29/17 16:41*	*1*
Toluene-d8 (Surr)	*103*		*72 - 127*	*03/29/17 07:00*	*03/29/17 16:41*	*1*

General Chemistry

Client Sample ID: HD-SPBA-SB-006-0/1-0
Date Collected: 03/27/17 11:35
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.8		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	84.2		0.1	0.1	%			03/28/17 13:15	1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-5/5.5-0
Date Collected: 03/27/17 13:35
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.1		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	85.9		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-10/10.5-0
Date Collected: 03/27/17 13:50
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	82.2		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-15/15.5-0
Date Collected: 03/27/17 14:00
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.9		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	84.1		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-20/20.5-0
Date Collected: 03/27/17 14:25
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.6		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	78.4		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-25/25.5-0
Date Collected: 03/27/17 14:50
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.9		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	89.1		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-30/30.5-0
Date Collected: 03/27/17 15:15
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.8		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	86.2		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-35/35.5-0
Date Collected: 03/27/17 15:50
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.7		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	87.3		0.1	0.1	%			03/28/17 13:15	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

General Chemistry

Client Sample ID: HD-SPBA-SB-006-40/40.5-0
Date Collected: 03/27/17 16:30
Date Received: 03/28/17 09:00

Lab Sample ID: 180-64650-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.5		0.1	0.1	%			03/28/17 13:15	1
Percent Solids	79.5		0.1	0.1	%			03/28/17 13:15	1

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

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

Method: 8260C - Volatile Organic Compounds by GC/MS

Prep: 5035

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	5.0	2.7	ug/Kg	8260C
1,1,1-Trichloroethane	5.0	1.1	ug/Kg	8260C
1,1,2,2-Tetrachloroethane	5.0	4.0	ug/Kg	8260C
1,1,2-Trichloroethane	5.0	2.8	ug/Kg	8260C
1,1-Dichloroethane	5.0	1.1	ug/Kg	8260C
1,1-Dichloroethene	5.0	1.5	ug/Kg	8260C
1,2-Dibromoethane (EDB)	5.0	2.1	ug/Kg	8260C

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

Prep: 5035

Analyte	RL	MDL	Units	Method
1,2-Dichloroethane	5.0	1.1	ug/Kg	8260C
1,2-Dichloropropane	5.0	1.9	ug/Kg	8260C
1,4-Dioxane	1000	25	ug/Kg	8260C
2-Butanone (MEK)	5.0	3.0	ug/Kg	8260C
2-Hexanone	5.0	4.1	ug/Kg	8260C
4-Methyl-2-pentanone (MIBK)	5.0	3.6	ug/Kg	8260C
Acetone	20	10	ug/Kg	8260C
Acrylonitrile	50	25	ug/Kg	8260C
Benzene	5.0	3.0	ug/Kg	8260C
Bromochloromethane	5.0	1.4	ug/Kg	8260C
Bromodichloromethane	5.0	2.0	ug/Kg	8260C
Bromoform	5.0	4.6	ug/Kg	8260C
Bromomethane	5.0	1.7	ug/Kg	8260C
Carbon disulfide	5.0	2.1	ug/Kg	8260C
Carbon tetrachloride	5.0	1.4	ug/Kg	8260C
Chlorobenzene	5.0	2.2	ug/Kg	8260C
Chloroethane	5.0	2.1	ug/Kg	8260C
Chloroform	5.0	1.3	ug/Kg	8260C
Chloromethane	5.0	2.6	ug/Kg	8260C
cis-1,2-Dichloroethene	5.0	1.3	ug/Kg	8260C
cis-1,3-Dichloropropene	5.0	2.2	ug/Kg	8260C
Dibromochloromethane	5.0	2.5	ug/Kg	8260C
Ethylbenzene	5.0	2.0	ug/Kg	8260C
Methyl tert-butyl ether	5.0	2.5	ug/Kg	8260C
Methylene Chloride	5.0	0.56	ug/Kg	8260C
Styrene	5.0	2.3	ug/Kg	8260C
Tetrachloroethene	5.0	1.2	ug/Kg	8260C
Toluene	5.0	3.6	ug/Kg	8260C
trans-1,2-Dichloroethene	5.0	1.0	ug/Kg	8260C
trans-1,3-Dichloropropene	5.0	2.4	ug/Kg	8260C
Trichloroethene	5.0	1.1	ug/Kg	8260C
Vinyl chloride	5.0	2.6	ug/Kg	8260C
Xylenes, Total	10	4.6	ug/Kg	8260C

General Chemistry

Analyte	RL	MDL	Units	Method
Percent Moisture	0.1	0.1	%	2540G
Percent Solids	0.1	0.1	%	2540G

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(72-134)	(80-120)	(72-120)	(77-127)
180-64650-10	HD-QC1-0/1-2	96	93	99	105
LCS 180-206859/10	Lab Control Sample	97	101	100	95
MB 180-206859/5	Method Blank	99	100	103	100

Surrogate Legend

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

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DBFM	12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(68-121)	(52-124)	(63-120)	(72-127)
180-64650-1	HD-SPBA-SB-006-0/1-0	95	103	85	98
180-64650-2	HD-SPBA-SB-006-5/5.5-0	91	94	87	96
180-64650-3	HD-SPBA-SB-006-10/10.5-0	94	109	91	93
180-64650-4	HD-SPBA-SB-006-15/15.5-0	97	116	94	99
180-64650-5	HD-SPBA-SB-006-20/20.5-0	92	108	93	101
180-64650-6	HD-SPBA-SB-006-25/25.5-0	96	114	93	99
180-64650-7	HD-SPBA-SB-006-30/30.5-0	101	124	96	100
180-64650-8	HD-SPBA-SB-006-35/35.5-0	98	124	96	99
180-64650-9	HD-SPBA-SB-006-40/40.5-0	97	121	89	103
LCS 180-206745/2-A	Lab Control Sample	99	118	94	92
LCSD 180-206745/3-A	Lab Control Sample Dup	98	119	93	94
MB 180-206745/1-A	Method Blank	98	108	94	99

Surrogate Legend

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

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

Lab Sample ID: MB 180-206859/5
Matrix: Water
Analysis Batch: 206859

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			03/30/17 10:50	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			03/30/17 10:50	1
Bromomethane	1.0	U	1.0	0.59	ug/L			03/30/17 10:50	1
Chloroethane	1.0	U	1.0	0.58	ug/L			03/30/17 10:50	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			03/30/17 10:50	1
Acetone	5.0	U	5.0	3.1	ug/L			03/30/17 10:50	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			03/30/17 10:50	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			03/30/17 10:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			03/30/17 10:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			03/30/17 10:50	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			03/30/17 10:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/30/17 10:50	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			03/30/17 10:50	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			03/30/17 10:50	1
Chloroform	1.0	U	1.0	0.27	ug/L			03/30/17 10:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			03/30/17 10:50	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			03/30/17 10:50	1
Benzene	1.0	U	1.0	0.18	ug/L			03/30/17 10:50	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			03/30/17 10:50	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			03/30/17 10:50	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			03/30/17 10:50	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			03/30/17 10:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			03/30/17 10:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			03/30/17 10:50	1
Toluene	1.0	U	1.0	0.16	ug/L			03/30/17 10:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			03/30/17 10:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			03/30/17 10:50	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			03/30/17 10:50	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			03/30/17 10:50	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			03/30/17 10:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			03/30/17 10:50	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			03/30/17 10:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			03/30/17 10:50	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			03/30/17 10:50	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			03/30/17 10:50	1
Styrene	1.0	U	1.0	0.22	ug/L			03/30/17 10:50	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/30/17 10:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			03/30/17 10:50	1
Acrylonitrile	20	U	20	3.3	ug/L			03/30/17 10:50	1
1,4-Dioxane	200	U	200	16	ug/L			03/30/17 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 134*		*03/30/17 10:50*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/30/17 10:50*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 120*		*03/30/17 10:50*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 127*		*03/30/17 10:50*	*1*

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

Lab Sample ID: LCS 180-206859/10
Matrix: Water
Analysis Batch: 206859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	10.2		ug/L		102	51 - 150
Vinyl chloride	10.0	10.5		ug/L		105	61 - 138
Bromomethane	10.0	10.8		ug/L		108	39 - 150
Chloroethane	10.0	10.9		ug/L		109	53 - 148
1,1-Dichloroethene	10.0	9.73		ug/L		97	71 - 122
Acetone	20.0	22.0		ug/L		110	10 - 150
Carbon disulfide	10.0	9.43		ug/L		94	57 - 137
Methylene Chloride	10.0	9.78		ug/L		98	71 - 129
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 121
Methyl tert-butyl ether	10.0	9.93		ug/L		99	68 - 124
1,1-Dichloroethane	10.0	9.89		ug/L		99	76 - 126
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 120
Bromochloromethane	10.0	9.42		ug/L		94	76 - 120
2-Butanone (MEK)	20.0	23.2		ug/L		116	41 - 150
Chloroform	10.0	9.75		ug/L		98	78 - 122
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	57 - 128
Carbon tetrachloride	10.0	10.3		ug/L		103	59 - 145
Benzene	10.0	10.2		ug/L		102	80 - 121
1,2-Dichloroethane	10.0	9.52		ug/L		95	72 - 126
Trichloroethene	10.0	9.52		ug/L		95	79 - 120
1,2-Dichloropropane	10.0	9.57		ug/L		96	78 - 123
Bromodichloromethane	10.0	9.14		ug/L		91	72 - 124
cis-1,3-Dichloropropene	10.0	9.06		ug/L		91	67 - 127
4-Methyl-2-pentanone (MIBK)	20.0	19.5		ug/L		97	49 - 147
Toluene	10.0	10.4		ug/L		104	80 - 125
trans-1,3-Dichloropropene	10.0	9.03		ug/L		90	63 - 144
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	77 - 127
Tetrachloroethene	10.0	10.0		ug/L		100	80 - 122
2-Hexanone	20.0	23.4		ug/L		117	40 - 150
Dibromochloromethane	10.0	8.90		ug/L		89	71 - 134
1,2-Dibromoethane (EDB)	10.0	9.71		ug/L		97	79 - 126
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.56		ug/L		96	75 - 135
Ethylbenzene	10.0	10.2		ug/L		102	80 - 123
Xylenes, Total	20.0	20.7		ug/L		104	80 - 123
Styrene	10.0	10.4		ug/L		104	80 - 125
Bromoform	10.0	8.58		ug/L		86	62 - 138
1,1,2,2-Tetrachloroethane	10.0	10.6		ug/L		106	78 - 135
Acrylonitrile	100	106		ug/L		106	66 - 146
1,4-Dioxane	200	270		ug/L		135	10 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*72 - 134*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*72 - 120*
Dibromofluoromethane (Surr)	*95*		*77 - 127*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 180-206745/1-A
Matrix: Solid
Analysis Batch: 206732

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206745

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.7	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,1,1-Trichloroethane	5.0	U	5.0	1.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	4.0	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,1,2-Trichloroethane	5.0	U	5.0	2.8	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,1-Dichloroethane	5.0	U	5.0	1.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,2-Dichloropropane	5.0	U	5.0	1.9	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
2-Butanone (MEK)	5.0	U	5.0	3.0	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
2-Hexanone	5.0	U	5.0	4.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.6	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Acetone	20	U	20	10	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Benzene	5.0	U	5.0	3.0	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Bromoform	5.0	U	5.0	4.6	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Bromomethane	5.0	U	5.0	1.7	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Carbon disulfide	5.0	U	5.0	2.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Carbon tetrachloride	5.0	U	5.0	1.4	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Chlorobenzene	5.0	U	5.0	2.2	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Dibromochloromethane	5.0	U	5.0	2.5	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,4-Dioxane	1000	U	1000	25	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Chloroform	5.0	U	5.0	1.3	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Chloromethane	5.0	U	5.0	2.6	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Chloroethane	5.0	U	5.0	2.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
cis-1,2-Dichloroethene	5.0	U	5.0	1.3	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
cis-1,3-Dichloropropene	5.0	U	5.0	2.2	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Bromodichloromethane	5.0	U	5.0	2.0	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Ethylbenzene	5.0	U	5.0	2.0	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
1,2-Dibromoethane (EDB)	5.0	U	5.0	2.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Methyl tert-butyl ether	5.0	U	5.0	2.5	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Methylene Chloride	5.0	U	5.0	0.56	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Styrene	5.0	U	5.0	2.3	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Tetrachloroethene	5.0	U	5.0	1.2	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Toluene	5.0	U	5.0	3.6	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
trans-1,2-Dichloroethene	5.0	U	5.0	1.0	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
trans-1,3-Dichloropropene	5.0	U	5.0	2.4	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Trichloroethene	5.0	U	5.0	1.1	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Acrylonitrile	50	U	50	25	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Vinyl chloride	5.0	U	5.0	2.6	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Xylenes, Total	10	U	10	4.6	ug/Kg		03/29/17 07:00	03/29/17 11:10	1
Bromochloromethane	5.0	U	5.0	1.4	ug/Kg		03/29/17 07:00	03/29/17 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*68 - 121*	*03/29/17 07:00*	*03/29/17 11:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*52 - 124*	*03/29/17 07:00*	*03/29/17 11:10*	*1*
4-Bromofluorobenzene (Surr)	*94*		*63 - 120*	*03/29/17 07:00*	*03/29/17 11:10*	*1*
Toluene-d8 (Surr)	*99*		*72 - 127*	*03/29/17 07:00*	*03/29/17 11:10*	*1*

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

Lab Sample ID: LCS 180-206745/2-A
Matrix: Solid
Analysis Batch: 206732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	40.0	43.1		ug/Kg		108	76 - 124
1,1,1-Trichloroethane	40.0	49.6		ug/Kg		124	67 - 126
1,1,2,2-Tetrachloroethane	40.0	39.2		ug/Kg		98	60 - 139
1,1,2-Trichloroethane	40.0	39.4		ug/Kg		99	70 - 128
1,1-Dichloroethane	40.0	32.5		ug/Kg		81	66 - 124
1,1-Dichloroethene	40.0	27.1		ug/Kg		68	59 - 129
1,2-Dichloroethane	40.0	49.4		ug/Kg		124	61 - 127
1,2-Dichloropropane	40.0	40.5		ug/Kg		101	72 - 122
2-Butanone (MEK)	40.0	45.6		ug/Kg		114	35 - 149
2-Hexanone	40.0	52.4		ug/Kg		131	32 - 150
4-Methyl-2-pentanone (MIBK)	40.0	43.3		ug/Kg		108	44 - 148
Acetone	40.0	38.2		ug/Kg		95	20 - 150
Benzene	40.0	39.7		ug/Kg		99	77 - 120
Bromoform	40.0	40.3		ug/Kg		101	53 - 140
Bromomethane	40.0	57.6		ug/Kg		144	25 - 150
Carbon disulfide	40.0	27.2		ug/Kg		68	50 - 127
Carbon tetrachloride	40.0	47.2		ug/Kg		118	69 - 122
Chlorobenzene	40.0	38.5		ug/Kg		96	79 - 120
Dibromochloromethane	40.0	37.4		ug/Kg		94	70 - 132
Chloroform	40.0	44.1		ug/Kg		110	72 - 120
Chloromethane	40.0	32.6		ug/Kg		81	44 - 131
Chloroethane	40.0	60.7	*	ug/Kg		152	22 - 150
cis-1,2-Dichloroethene	40.0	38.2		ug/Kg		95	80 - 118
cis-1,3-Dichloropropene	40.0	42.2		ug/Kg		106	73 - 120
Bromodichloromethane	40.0	47.0		ug/Kg		118	70 - 125
Ethylbenzene	40.0	39.2		ug/Kg		98	78 - 125
1,2-Dibromoethane (EDB)	40.0	39.9		ug/Kg		100	70 - 131
Methyl tert-butyl ether	40.0	35.7		ug/Kg		89	48 - 132
Methylene Chloride	40.0	26.5		ug/Kg		66	58 - 127
Styrene	40.0	39.5		ug/Kg		99	83 - 129
Tetrachloroethene	40.0	44.1		ug/Kg		110	78 - 129
Toluene	40.0	39.4		ug/Kg		99	78 - 124
trans-1,2-Dichloroethene	40.0	28.5	*	ug/Kg		71	77 - 121
trans-1,3-Dichloropropene	40.0	43.2		ug/Kg		108	74 - 129
Trichloroethene	40.0	40.2		ug/Kg		100	76 - 119
Acrylonitrile	400	320		ug/Kg		80	60 - 140
Vinyl chloride	40.0	33.8		ug/Kg		85	63 - 124
Xylenes, Total	80.0	77.6		ug/Kg		97	83 - 126
Bromochloromethane	40.0	40.3		ug/Kg		101	67 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*68 - 121*
1,2-Dichloroethane-d4 (Surr)	*118*		*52 - 124*
4-Bromofluorobenzene (Surr)	*94*		*63 - 120*
Toluene-d8 (Surr)	*92*		*72 - 127*

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

Lab Sample ID: LCSD 180-206745/3-A
Matrix: Solid
Analysis Batch: 206732

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 206745

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			40.0	42.6		ug/Kg		107	76 - 124	1	22
1,1,1-Trichloroethane			40.0	46.1		ug/Kg		115	67 - 126	7	31
1,1,2,2-Tetrachloroethane			40.0	39.2		ug/Kg		98	60 - 139	0	24
1,1,2-Trichloroethane			40.0	39.7		ug/Kg		99	70 - 128	1	22
1,1-Dichloroethane			40.0	39.8		ug/Kg		99	66 - 124	20	23
1,1-Dichloroethene			40.0	36.6	*	ug/Kg		91	59 - 129	30	25
1,2-Dichloroethane			40.0	49.2		ug/Kg		123	61 - 127	0	23
1,2-Dichloropropane			40.0	39.0		ug/Kg		98	72 - 122	4	20
2-Butanone (MEK)			40.0	45.2		ug/Kg		113	35 - 149	1	36
2-Hexanone			40.0	48.0		ug/Kg		120	32 - 150	9	32
4-Methyl-2-pentanone (MIBK)			40.0	44.3		ug/Kg		111	44 - 148	2	30
Acetone			40.0	43.2		ug/Kg		108	20 - 150	12	40
Benzene			40.0	38.6		ug/Kg		97	77 - 120	3	20
Bromoform			40.0	41.4		ug/Kg		103	53 - 140	3	23
Bromomethane			40.0	52.9		ug/Kg		132	25 - 150	9	40
Carbon disulfide			40.0	34.7	*	ug/Kg		87	50 - 127	24	23
Carbon tetrachloride			40.0	43.9		ug/Kg		110	69 - 122	7	22
Chlorobenzene			40.0	38.8		ug/Kg		97	79 - 120	1	20
Dibromochloromethane			40.0	39.0		ug/Kg		98	70 - 132	4	20
Chloroform			40.0	42.8		ug/Kg		107	72 - 120	3	25
Chloromethane			40.0	31.2		ug/Kg		78	44 - 131	4	27
Chloroethane			40.0	53.8		ug/Kg		135	22 - 150	12	40
cis-1,2-Dichloroethene			40.0	38.4		ug/Kg		96	80 - 118	1	20
cis-1,3-Dichloropropene			40.0	43.0		ug/Kg		107	73 - 120	2	20
Bromodichloromethane			40.0	45.6		ug/Kg		114	70 - 125	3	21
Ethylbenzene			40.0	38.5		ug/Kg		96	78 - 125	2	21
1,2-Dibromoethane (EDB)			40.0	40.6		ug/Kg		102	70 - 131	2	20
Methyl tert-butyl ether			40.0	43.8		ug/Kg		109	48 - 132	20	36
Methylene Chloride			40.0	34.8		ug/Kg		87	58 - 127	27	28
Styrene			40.0	39.1		ug/Kg		98	83 - 129	1	20
Tetrachloroethene			40.0	43.6		ug/Kg		109	78 - 129	1	20
Toluene			40.0	39.3		ug/Kg		98	78 - 124	0	21
trans-1,2-Dichloroethene			40.0	37.3	*	ug/Kg		93	77 - 121	27	20
trans-1,3-Dichloropropene			40.0	43.2		ug/Kg		108	74 - 129	0	20
Trichloroethene			40.0	39.9		ug/Kg		100	76 - 119	1	21
Acrylonitrile			400	427	*	ug/Kg		107	60 - 140	29	20
Vinyl chloride			40.0	31.6		ug/Kg		79	63 - 124	7	27
Xylenes, Total			80.0	77.4		ug/Kg		97	83 - 126	0	20
Bromochloromethane			40.0	39.0		ug/Kg		98	67 - 126	3	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*68 - 121*
1,2-Dichloroethane-d4 (Surr)	*119*		*52 - 124*
4-Bromofluorobenzene (Surr)	*93*		*63 - 120*
Toluene-d8 (Surr)	*94*		*72 - 127*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

Method: 2540G - SM 2540G

Lab Sample ID: 180-64650-1 DU
Matrix: Solid
Analysis Batch: 206679

Client Sample ID: HD-SPBA-SB-006-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	15.8			15.5		%				2	20
Percent Solids	84.2			84.5		%				0.3	20

GC/MS VOA

Analysis Batch: 206732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-64650-1	HD-SPBA-SB-006-0/1-0	Total/NA	Solid	8260C	206745
180-64650-2	HD-SPBA-SB-006-5/5.5-0	Total/NA	Solid	8260C	206745
180-64650-3	HD-SPBA-SB-006-10/10.5-0	Total/NA	Solid	8260C	206745
180-64650-4	HD-SPBA-SB-006-15/15.5-0	Total/NA	Solid	8260C	206745
180-64650-5	HD-SPBA-SB-006-20/20.5-0	Total/NA	Solid	8260C	206745
180-64650-6	HD-SPBA-SB-006-25/25.5-0	Total/NA	Solid	8260C	206745
180-64650-7	HD-SPBA-SB-006-30/30.5-0	Total/NA	Solid	8260C	206745
180-64650-8	HD-SPBA-SB-006-35/35.5-0	Total/NA	Solid	8260C	206745
180-64650-9	HD-SPBA-SB-006-40/40.5-0	Total/NA	Solid	8260C	206745
MB 180-206745/1-A	Method Blank	Total/NA	Solid	8260C	206745
LCS 180-206745/2-A	Lab Control Sample	Total/NA	Solid	8260C	206745
LCSD 180-206745/3-A	Lab Control Sample Dup	Total/NA	Solid	8260C	206745

Prep Batch: 206745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-64650-1	HD-SPBA-SB-006-0/1-0	Total/NA	Solid	5035	
180-64650-2	HD-SPBA-SB-006-5/5.5-0	Total/NA	Solid	5035	
180-64650-3	HD-SPBA-SB-006-10/10.5-0	Total/NA	Solid	5035	
180-64650-4	HD-SPBA-SB-006-15/15.5-0	Total/NA	Solid	5035	
180-64650-5	HD-SPBA-SB-006-20/20.5-0	Total/NA	Solid	5035	
180-64650-6	HD-SPBA-SB-006-25/25.5-0	Total/NA	Solid	5035	
180-64650-7	HD-SPBA-SB-006-30/30.5-0	Total/NA	Solid	5035	
180-64650-8	HD-SPBA-SB-006-35/35.5-0	Total/NA	Solid	5035	
180-64650-9	HD-SPBA-SB-006-40/40.5-0	Total/NA	Solid	5035	
MB 180-206745/1-A	Method Blank	Total/NA	Solid	5035	
LCS 180-206745/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 180-206745/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 206859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-64650-10	HD-QC1-0/1-2	Total/NA	Water	8260C	
MB 180-206859/5	Method Blank	Total/NA	Water	8260C	
LCS 180-206859/10	Lab Control Sample	Total/NA	Water	8260C	

General Chemistry

Analysis Batch: 206679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-64650-1	HD-SPBA-SB-006-0/1-0	Total/NA	Solid	2540G	
180-64650-2	HD-SPBA-SB-006-5/5.5-0	Total/NA	Solid	2540G	
180-64650-3	HD-SPBA-SB-006-10/10.5-0	Total/NA	Solid	2540G	
180-64650-4	HD-SPBA-SB-006-15/15.5-0	Total/NA	Solid	2540G	
180-64650-5	HD-SPBA-SB-006-20/20.5-0	Total/NA	Solid	2540G	
180-64650-6	HD-SPBA-SB-006-25/25.5-0	Total/NA	Solid	2540G	
180-64650-7	HD-SPBA-SB-006-30/30.5-0	Total/NA	Solid	2540G	
180-64650-8	HD-SPBA-SB-006-35/35.5-0	Total/NA	Solid	2540G	
180-64650-9	HD-SPBA-SB-006-40/40.5-0	Total/NA	Solid	2540G	
180-64650-1 DU	HD-SPBA-SB-006-0/1-0	Total/NA	Solid	2540G	

Client Sample ID: HD-SPBA-SB-006-0/1-0
Lab Sample ID: 180-64650-1
Date Collected: 03/27/17 11:35
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-0/1-0
Lab Sample ID: 180-64650-1
Date Collected: 03/27/17 11:35
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.0861 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 11:33	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-5/5.5-0
Lab Sample ID: 180-64650-2
Date Collected: 03/27/17 13:35
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-5/5.5-0
Lab Sample ID: 180-64650-2
Date Collected: 03/27/17 13:35
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.6074 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 11:55	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-10/10.5-0
Lab Sample ID: 180-64650-3
Date Collected: 03/27/17 13:50
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-10/10.5-0
Lab Sample ID: 180-64650-3
Date Collected: 03/27/17 13:50
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.6558 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT

Client Sample ID: HD-SPBA-SB-006-10/10.5-0
Lab Sample ID: 180-64650-3
Date Collected: 03/27/17 13:50
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 82.2

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	206732	03/29/17 12:18	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-15/15.5-0
Lab Sample ID: 180-64650-4
Date Collected: 03/27/17 14:00
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-15/15.5-0
Lab Sample ID: 180-64650-4
Date Collected: 03/27/17 14:00
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7.3014 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 12:40	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-20/20.5-0
Lab Sample ID: 180-64650-5
Date Collected: 03/27/17 14:25
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-20/20.5-0
Lab Sample ID: 180-64650-5
Date Collected: 03/27/17 14:25
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.4913 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 13:03	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-25/25.5-0
Lab Sample ID: 180-64650-6
Date Collected: 03/27/17 14:50
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT

Client Sample ID: HD-SPBA-SB-006-25/25.5-0
Lab Sample ID: 180-64650-6
Date Collected: 03/27/17 14:50
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-25/25.5-0
Lab Sample ID: 180-64650-6
Date Collected: 03/27/17 14:50
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.2162 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 13:25	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-30/30.5-0
Lab Sample ID: 180-64650-7
Date Collected: 03/27/17 15:15
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-30/30.5-0
Lab Sample ID: 180-64650-7
Date Collected: 03/27/17 15:15
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			8.0990 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 13:48	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-35/35.5-0
Lab Sample ID: 180-64650-8
Date Collected: 03/27/17 15:50
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-35/35.5-0
Lab Sample ID: 180-64650-8
Date Collected: 03/27/17 15:50
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7.3052 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT

Client Sample ID: HD-SPBA-SB-006-35/35.5-0

Lab Sample ID: 180-64650-8
Date Collected: 03/27/17 15:50
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 87.3

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	206732	03/29/17 14:10	PJJ	TAL PIT
	Instrument ID: CHHP3									

Client Sample ID: HD-SPBA-SB-006-40/40.5-0

Lab Sample ID: 180-64650-9
Date Collected: 03/27/17 16:30
Matrix: Solid
Date Received: 03/28/17 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	2540G		1			206679	03/28/17 13:15	JHC	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-SPBA-SB-006-40/40.5-0

Lab Sample ID: 180-64650-9
Date Collected: 03/27/17 16:30
Matrix: Solid
Date Received: 03/28/17 09:00
Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7.2465 g	5 mL	206745	03/29/17 07:00	PJJ	TAL PIT
Total/NA	Analysis	8260C		1	5 mL	5 mL	206732	03/29/17 16:41	PJJ	TAL PIT
	Instrument ID: CHHP3									

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

Lab Sample ID: 180-64650-10
Date Collected: 03/27/17 12:00
Matrix: Water
Date Received: 03/28/17 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	206859	03/30/17 17:55	DLF	TAL PIT
	Instrument ID: CHHP6									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

PJJ = Patrick Journet

Batch Type: Analysis

DLF = Donald Ferguson

JHC = Joshua Cookson

PJJ = Patrick Journet

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

Laboratory: TestAmerica Pittsburgh

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-17 *

Analysis Method	Prep Method	Matrix	Analyte

* Certification renewal pending - certification considered valid.

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-64650-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL PIT
2540G	SM 2540G	SM22	TAL PIT

Protocol References:

SM22 = SM22

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: 180-64650-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-64650-1	HD-SPBA-SB-006-0/1-0	Solid	03/27/17 11:35	03/28/17 09:00
180-64650-2	HD-SPBA-SB-006-5/5.5-0	Solid	03/27/17 13:35	03/28/17 09:00
180-64650-3	HD-SPBA-SB-006-10/10.5-0	Solid	03/27/17 13:50	03/28/17 09:00
180-64650-4	HD-SPBA-SB-006-15/15.5-0	Solid	03/27/17 14:00	03/28/17 09:00
180-64650-5	HD-SPBA-SB-006-20/20.5-0	Solid	03/27/17 14:25	03/28/17 09:00
180-64650-6	HD-SPBA-SB-006-25/25.5-0	Solid	03/27/17 14:50	03/28/17 09:00
180-64650-7	HD-SPBA-SB-006-30/30.5-0	Solid	03/27/17 15:15	03/28/17 09:00
180-64650-8	HD-SPBA-SB-006-35/35.5-0	Solid	03/27/17 15:50	03/28/17 09:00
180-64650-9	HD-SPBA-SB-006-40/40.5-0	Solid	03/27/17 16:30	03/28/17 09:00
180-64650-10	HD-QC1-0/1-2	Water	03/27/17 12:00	03/28/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP3 Analysis Batch Number: 189436

Lab Sample ID: IC 180-189436/4 Client Sample ID:

Date Analyzed: 09/28/16 12:01 Lab File ID: 30928K04.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroethane	2.41	Poor chromatography	gordonk	09/28/16 12:24
Trichlorofluoromethane	2.72	Poor chromatography	gordonk	09/28/16 12:24
Ethyl ether	3.18	Poor chromatography	gordonk	09/28/16 12:24
1,1-Dichloroethene	3.44	Poor chromatography	gordonk	09/28/16 12:24
Allyl chloride	4.02	Poor chromatography	gordonk	09/28/16 12:24
Methylene Chloride	4.23	Poor chromatography	gordonk	09/28/16 12:24

Lab Sample ID: IC 180-189436/5 Client Sample ID:

Date Analyzed: 09/28/16 12:24 Lab File ID: 30928K05.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.73	Poor chromatography	gordonk	09/28/16 12:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 206518

Lab Sample ID: IC 180-206518/6 Client Sample ID:

Date Analyzed: 03/27/17 12:56 Lab File ID: 60327006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroethane	2.25	Incomplete Integration	fergusond	03/28/17 09:07
Acrylonitrile	4.32	Incomplete Integration	fergusond	03/28/17 09:07
2,2-Dichloropropane	5.76	Incomplete Integration	fergusond	03/28/17 09:07
Isobutyl alcohol	6.76	Poor chromatography	fergusond	03/28/17 09:07

Lab Sample ID: IC 180-206518/7 Client Sample ID:

Date Analyzed: 03/27/17 13:20 Lab File ID: 60327007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.77	Incomplete Integration	fergusond	03/28/17 09:07
1,4-Dioxane	7.87	Incomplete Integration	fergusond	03/28/17 09:07

Lab Sample ID: ICIS 180-206518/8 Client Sample ID:

Date Analyzed: 03/27/17 13:45 Lab File ID: 60327008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.87	Incomplete Integration	fergusond	03/28/17 09:07

Lab Sample ID: IC 180-206518/10 Client Sample ID:

Date Analyzed: 03/27/17 14:33 Lab File ID: 60327010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.88	Incomplete Integration	fergusond	03/28/17 09:08

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 206518

Lab Sample ID: IC 180-206518/13 Client Sample ID:

Date Analyzed: 03/27/17 15:45 Lab File ID: 60327013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.07	Incomplete Integration	fergusond	03/28/17 09:08
1,4-Dioxane	7.87	Incomplete Integration	fergusond	03/28/17 09:08

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 206859

Lab Sample ID: CCVIS 180-206859/2 Client Sample ID:

Date Analyzed: 03/30/17 09:32 Lab File ID: 60330002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.11	Incomplete Integration	fergusond	03/30/17 10:39
1,4-Dioxane	7.87	Incomplete Integration	fergusond	03/30/17 10:39

Lab Sample ID: MB 180-206859/5 Client Sample ID:

Date Analyzed: 03/30/17 10:50 Lab File ID: 60330005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	3.93	Split Peak	fergusond	03/30/17 11:30

Lab Sample ID: LCS 180-206859/10 Client Sample ID:

Date Analyzed: 03/30/17 13:03 Lab File ID: 60330010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.87	Incomplete Integration	fergusond	03/30/17 13:23

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260INT_00061	10/22/16	09/22/16	Methanol, Lot 136118	10 mL	VOA8260INTRES_00126	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_00126	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_00067	04/13/17	03/13/17	Methanol, Lot 118655	10 mL	VOA8260INTRES_00132	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_00132	03/31/21		Restek, Lot A0118105		(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_00059	10/22/16	09/22/16	Methanol, Lot 136118	100 mL	VOA8260SURRES_00116	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_00116	07/31/20		Restek, Lot A0112455		(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_00066	04/13/17	03/13/17	Methanol, Lot 118655	100 mL	VOA8260SURRES_00123	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_00123	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_00235	04/04/17	03/28/17	Methanol, Lot 2019054	10 mL	VOA8260GAS2ND_00186	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00233	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-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00186	11/30/18		Restek, Lot A0115484		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00233	04/14/17	03/14/17	Methanol, Lot 118655	10 mL	VOA8260KET2ND_00090	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA2_00058	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
..VOA8260KET2ND_00090	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
..VOA8260MEGA2_00058	07/31/18		Restek, Lot A0120604		(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.: 180-64650-1

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
VOA8260VOAPRI_00213	10/05/16	09/28/16	Methanol, Lot 136118	10 mL	VOA8260GAS1ST_00166	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00210	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00166	10/31/18		Restek, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00210	10/07/16	09/07/16	Methanol, Lot 127999	10 mL	VOA8260KET1ST_00074	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_00053	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00074	11/30/18		Restek, Lot A0115554		(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_00053	03/31/18		Restek, Lot A0108177		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00243	03/27/17	03/20/17	Methanol, Lot 118655	10 mL	VOA8260GAS1ST_00187	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00242	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00187	01/31/20		Restek, Lot A0124278		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00242	04/14/17	03/14/17	Methanol, Lot 118655	10 mL	VOA8260KET1ST_00085	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_00060	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	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	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00085	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_00060	03/31/18		Restek, Lot A0108177		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00244	04/04/17	03/28/17	Methanol, Lot 2019054	10 mL	VOA8260GAS1ST_00188	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00242	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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00188	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_00242	04/14/17	03/14/17	Methanol, Lot 118655	10 mL	VOA8260KET1ST_00085	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_00060	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							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
..VOA8260KET1ST_00085	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	12500 ug/mL
..VOA8260MEGA1_00060	03/31/18		Restek, Lot A0108177		(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
voaW2cle1stRe_00007	03/29/17	03/22/17	Methanol, Lot 127999	10 mL	VOACEVERES_00114	0.2 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00114	11/30/18		Restek, Lot A0115628		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaWAcro1stRe_00008	10/01/16	09/01/16	Methanol, Lot 2019052	100 mL	VOAACRORES_00102	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00102	10/31/16		Restek, Lot A0119846		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWAcro1stRe_00011	04/07/17	03/07/17	Methanol, Lot 127999	100 mL	VOAACRORES_00109	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00109	03/31/17		Restek, Lot A0122668		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1stR_00005	04/22/17	03/22/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00044	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichloro-1-(triflouromethyl)-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_00044	01/31/18		Restek, Lot A0120234		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(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_00017	04/10/17	03/10/17	Methanol, Lot 127999	50 mL	VOA8260KET2ND_00089	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_00089	03/31/19		Restek, Lot A0118013		(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_00002	04/22/17	03/22/17	Methanol, Lot 127999	50 mL	VOA8260KET1ST_00086	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_00086	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_00008	09/30/16	09/06/16	Methanol, Lot 2019052	25 mL	VOA8260VARES_00069	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00069	09/30/16		Restek, Lot A0118255		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
voaWVA1stRest_00012	04/01/17	03/01/17	Methanol, Lot 127999	25 mL	VOA8260VARES_00076	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00076	06/30/17		Restek, Lot A0123626		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00166

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.:** A0115012

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 : October 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 **Purity** 99% (Lot Q167-08)	2,502.3 µg/mL	+/- 17.1236 +/- 140.5935 +/- 143.8698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 **Purity** 99% (Lot SHBF7067V)	2,506.2 µg/mL	+/- 15.8909 +/- 140.6631 +/- 143.9478	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 **Purity** 99% (Lot 25LPST)	2,507.2 µg/mL	+/- 16.0743 +/- 140.7405 +/- 144.0261	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 **Purity** 99% (Lot SHBF3387V)	2,517.0 µg/mL	+/- 17.1894 +/- 141.4157 +/- 144.7114	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 **Purity** 99% (Lot 101604)	2,511.3 µg/mL	+/- 17.3826 +/- 141.1222 +/- 144.4097	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 **Purity** 99% (Lot SHBD1717V)	2,497.4 µg/mL	+/- 16.0992 +/- 140.2015 +/- 143.4741	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 **Purity** 99% (Lot Q9B-58)	2,516.3 µg/mL	+/- 19.2032 +/- 141.6354 +/- 144.9242	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,512.2	µg/mL	+/-	18.6489	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBF6387V)			+/-	141.3341	µg/mL	Unstressed
	Purity 99%				+/-	144.6191	µg/mL	Stressed

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

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

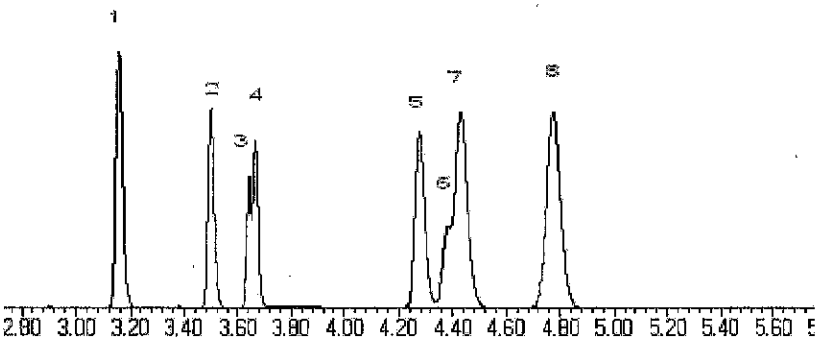
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

Date Mixed: 29-Oct-2015 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 02-Nov-2015

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

Reagent

VOA8260GAS1ST_00187

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0124278

Description : 8260 List 1 / Std #3 Gases (2015)

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

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

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

CERTIFIED VALUES

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

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

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

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

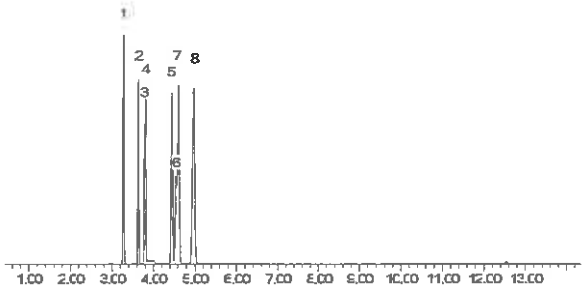
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 17-Jan-2017 **Balance:** 1125113331

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_00188

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 569722 **Lot No.:** A0124278

Description : 8260 List 1 / Std #3 Gases (2015)

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

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

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

CERTIFIED VALUES

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

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

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

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

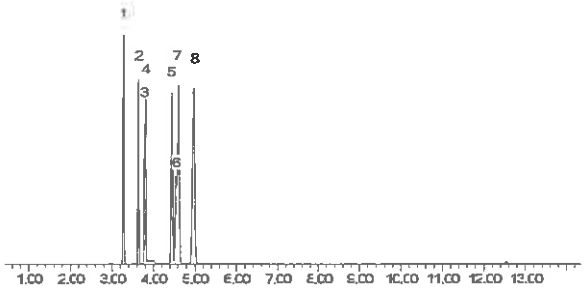
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 17-Jan-2017 **Balance:** 1125113331

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_00186

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Catalog No. : 569722.sec **Lot No.:** A0115484

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 : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC (Lot 22274) Purity 99%	2,505.6 µg/mL	+/- 16.6251 +/- 140.7169 +/- 143.9990	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC (Lot 18343) Purity 99%	2,517.3 µg/mL	+/- 17.3796 +/- 141.4522 +/- 144.7477	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride CAS # 75-01-4.SEC (Lot MKBK6872V) Purity 99%	2,510.2 µg/mL	+/- 16.6342 +/- 140.9727 +/- 144.2609	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene CAS # 106-99-0.SEC (Lot 22331) Purity 99%	2,516.5 µg/mL	+/- 17.4874 +/- 141.4240 +/- 144.7182	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC (Lot Q119-46) Purity 99%	2,511.5 µg/mL	+/- 16.8310 +/- 141.0664 +/- 144.3557	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC (Lot 00004202) Purity 99%	2,504.8 µg/mL	+/- 16.4341 +/- 140.6469 +/- 143.9283	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC (Lot SHBC0858V) Purity 99%	2,500.5 µg/mL	+/- 16.1659 +/- 140.3776 +/- 143.6540	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,524.5	µg/mL	+/-	16.8928	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q12B-59)			+/-	141.7952	µg/mL	Unstressed
	Purity 99%				+/-	145.1017	µg/mL	Stressed

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

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

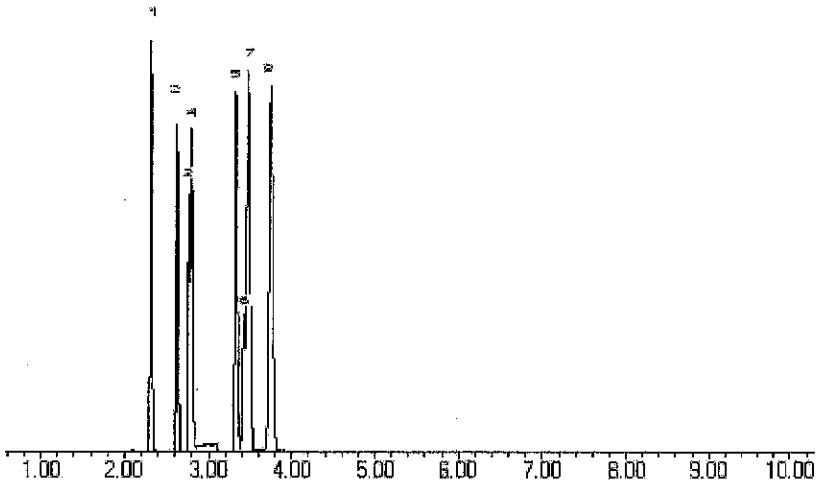
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

Date Mixed: 17-Nov-2015 **Balance:** 1127510105

Jennifer L. Pollino - QC Analyst

Date Passed: 10-Dec-2015

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

Reagent

VOA8260INTRES_00126

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568718 **Lot No.:** A0113246

Description : 8260 Internal Standard 2014

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

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

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

CERTIFIED VALUES

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

Reagent

VOA8260INTRES_00132

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568718 **Lot No.:** A0118105

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 : March 31, 2021 **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 I201P6)	5,023.8 µg/mL	+/- 29.2073 µg/mL +/- 107.5597 µg/mL +/- 110.6867 µg/mL		Gravimetric Unstressed Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 **Purity** 99%	(Lot M276)	1,251.1 µg/mL	+/- 7.2740 µg/mL +/- 26.7862 µg/mL +/- 27.5649 µg/mL		Gravimetric Unstressed Stressed
3	Fluorobenzene **CAS #** 462-06-6 **Purity** 99%	(Lot BCBK8171V)	250.2 µg/mL	+/- 1.4578 µg/mL +/- 5.3567 µg/mL +/- 5.5123 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 **Purity** 99%	(Lot I-19239)	5,005.7 µg/mL	+/- 29.1020 µg/mL +/- 107.1722 µg/mL +/- 110.2879 µg/mL		Gravimetric Unstressed Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	250.1 µg/mL	+/- 1.4575 µg/mL +/- 5.3556 µg/mL +/- 5.5112 µg/mL		Gravimetric Unstressed Stressed
6	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	250.0 µg/mL	+/- 1.4566 µg/mL +/- 5.3524 µg/mL +/- 5.5079 µg/mL		Gravimetric Unstressed Stressed

Reagent

VOA8260KET1ST_00074

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

Catalog No. : 569721 **Lot No.:** A0115554

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 : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 **Purity** 99%	(Lot 07196AK)	12,501.8 µg/mL	+/- 72.6865 µg/mL +/- 754.2890 µg/mL +/- 756.0798 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 98%	(Lot SHBG0444V)	12,499.7 µg/mL	+/- 72.6744 µg/mL +/- 754.1625 µg/mL +/- 755.9530 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99%	(Lot SHBF9556V)	12,500.6 µg/mL	+/- 72.6796 µg/mL +/- 754.2166 µg/mL +/- 756.0072 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99%	(Lot MKBT3158V)	12,502.4 µg/mL	+/- 72.6900 µg/mL +/- 754.3252 µg/mL +/- 756.1161 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00085

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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	+/- 72.7778 µg/mL		Gravimetric
	CAS # 67-64-1	(Lot SHBH0922V)		+/- 755.2362 µg/mL		Unstressed
	Purity 99%			+/- 757.0293 µg/mL		Stressed
2	2-Butanone (MEK)		12,521.8 µg/mL	+/- 72.8025 µg/mL		Gravimetric
	CAS # 78-93-3	(Lot SHBF2461V)		+/- 755.4927 µg/mL		Unstressed
	Purity 99%			+/- 757.2863 µg/mL		Stressed
3	4-Methyl-2-pentanone (MIBK)		12,519.8 µg/mL	+/- 72.7909 µg/mL		Gravimetric
	CAS # 108-10-1	(Lot SHBG3630V)		+/- 755.3720 µg/mL		Unstressed
	Purity 99%			+/- 757.1654 µg/mL		Stressed
4	2-Hexanone		12,508.5 µg/mL	+/- 72.7255 µg/mL		Gravimetric
	CAS # 591-78-6	(Lot MKBW0198V)		+/- 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_00086

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

Catalog No. : 569721 **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	+/- 72.7778 µg/mL		Gravimetric
	CAS # 67-64-1	(Lot SHBH0922V)		+/- 755.2362 µg/mL		Unstressed
	Purity 99%			+/- 757.0293 µg/mL		Stressed
2	2-Butanone (MEK)		12,521.8 µg/mL	+/- 72.8025 µg/mL		Gravimetric
	CAS # 78-93-3	(Lot SHBF2461V)		+/- 755.4927 µg/mL		Unstressed
	Purity 99%			+/- 757.2863 µg/mL		Stressed
3	4-Methyl-2-pentanone (MIBK)		12,519.8 µg/mL	+/- 72.7909 µg/mL		Gravimetric
	CAS # 108-10-1	(Lot SHBG3630V)		+/- 755.3720 µg/mL		Unstressed
	Purity 99%			+/- 757.1654 µg/mL		Stressed
4	2-Hexanone		12,508.5 µg/mL	+/- 72.7255 µg/mL		Gravimetric
	CAS # 591-78-6	(Lot MKBW0198V)		+/- 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_00089

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Catalog No. : 569721.sec **Lot No.:** A0118013

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 : March 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1.SEC (Lot P14A572) **Purity** 99%	12,550.0 µg/mL	+/- 73.4830 µg/mL +/- 757.2470 µg/mL +/- 759.0446 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3.SEC (Lot RA58J) **Purity** 99%	12,603.0 µg/mL	+/- 73.7933 µg/mL +/- 760.4450 µg/mL +/- 762.2502 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1.SEC (Lot E29T040) **Purity** 99%	12,591.5 µg/mL	+/- 73.7260 µg/mL +/- 759.7511 µg/mL +/- 761.5546 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6.SEC (Lot V3NRA) **Purity** 99%	12,588.0 µg/mL	+/- 73.7055 µg/mL +/- 759.5399 µg/mL +/- 761.3429 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET2ND_00090

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 List 1/ Std #2 Ketones (2015)

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00053

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

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Certificate #3222.01

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ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720 **Lot No.:** A0118177

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : March 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%	2,503.5 µg/mL	+/- 14.5556 µg/mL +/- 151.0472 µg/mL +/- 151.4059 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00004562) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 150.8361 µg/mL +/- 151.1942 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethane **CAS #** 75-34-3 (Lot 00008621) **Purity** 99%	2,500.1 µg/mL	+/- 14.5359 µg/mL +/- 150.8436 µg/mL +/- 151.2017 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBD0362V) **Purity** 99%	25,033.4 µg/mL	+/- 145.5386 µg/mL +/- 1,510.3737 µg/mL +/- 1,513.9596 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBF2149V) **Purity** 98%	2,502.9 µg/mL	+/- 14.5522 µg/mL +/- 151.0123 µg/mL +/- 151.3708 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9 (Lot SHBD7134V) **Purity** 98%	12,508.6 µg/mL	+/- 72.7223 µg/mL +/- 754.6987 µg/mL +/- 756.4905 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot SHBF8133V) **Purity** 99%	2,500.0 µg/mL	+/- 19.2743 µg/mL +/- 151.3663 µg/mL +/- 151.7231 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBF9870V)	2,521.4	µg/mL	+/- 14.6595 +/- 152.1257 +/- 152.4869	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot S20A856)	2,516.0	µg/mL	+/- 14.6282 +/- 151.8014 +/- 152.1618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot J08Z057)	25,001.3	µg/mL	+/- 145.3518 +/- 1,508.4355 +/- 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 98%	(Lot MKBV2831V)	2,507.8	µg/mL	+/- 14.5807 +/- 151.3079 +/- 151.6671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBF7674V)	2,512.4	µg/mL	+/- 14.6072 +/- 151.5827 +/- 151.9426	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 99%	(Lot 73896KMV)	2,508.1	µg/mL	+/- 14.5825 +/- 151.3263 +/- 151.6856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 99%	(Lot BCBL9720V)	2,507.6	µg/mL	+/- 14.5795 +/- 151.2961 +/- 151.6553	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot MKBH9850V)	2,509.8	µg/mL	+/- 14.5919 +/- 151.4243 +/- 151.7838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBD1647V)	62,815.4	µg/mL	+/- 365.1949 +/- 3,789.9281 +/- 3,798.9260	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot MKBV2134V)	2,510.0	µg/mL	+/- 14.5934 +/- 151.4394 +/- 151.7990	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Bromochloromethane **CAS #** 74-97-5 **Purity** 99%	(Lot 00004559)	2,507.0	µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBG2910V)	5,025.3	µg/mL	+/- 29.2172 +/- 303.1956 +/- 303.9154	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15MW0705)	2,508.9	µg/mL	+/- 14.5868 +/- 151.3715 +/- 151.7309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKBV3194V)	2,503.4	µg/mL	+/- 14.5548 +/- 151.0397 +/- 151.3983	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot PR09161302)	2,507.4	µg/mL	+/- 14.5781 +/- 151.2810 +/- 151.6402	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,505.9	µg/mL	+/- 14.5694 +/- 151.1905 +/- 151.5495	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot MKBV6176V)	2,510.8	µg/mL	+/- +/- +/-	14.5977 151.4847 151.8443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot MKBV4565V)	2,511.1	µg/mL	+/- +/- +/-	14.5999 151.5073 151.8670	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBG1169V)	2,502.9	µg/mL	+/- +/- +/-	14.5519 151.0095 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBF0943V)	2,500.4	µg/mL	+/- +/- +/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane **CAS #** 108-87-2 **Purity** 99%	(Lot 50996APV)	2,503.9	µg/mL	+/- +/- +/-	14.5577 151.0699 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,523.5	µg/mL	+/- +/- +/-	14.6718 152.2539 152.6154	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane **CAS #** 75-27-4 **Purity** 98%	(Lot MKBL1617V)	2,509.0	µg/mL	+/- +/- +/-	14.5878 151.3818 151.7412	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBG6312V)	50,018.1	µg/mL	+/- +/- +/-	290.7945 3,017.8137 3,024.9785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2,511.4	µg/mL	+/- +/- +/-	14.6013 151.5222 151.8820	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,506.0	µg/mL	+/- +/- +/-	14.5701 151.1981 151.5571	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot MKBV5601V)	2,515.5	µg/mL	+/- +/- +/-	14.6253 151.7713 152.1316	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,503.1	µg/mL	+/- +/- +/-	14.5534 151.0246 151.3832	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2,508.0	µg/mL	+/- +/- +/-	14.5817 151.3188 151.6780	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,508.4	µg/mL	+/- +/- +/-	14.5839 151.3414 151.7007	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,522.8	µg/mL	+/- +/- +/-	14.6675 152.2087 152.5701	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2,518.9	µg/mL	+/- +/- +/-	14.6450 151.9749 152.3357	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,505.4	µg/mL	+/-	14.5664	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBQ6577V)			+/-	151.1601	µg/mL	Unstressed
	Purity 98%				+/-	151.5190	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	151.1453	µg/mL	Unstressed
	Purity 99%				+/-	151.5041	µg/mL	Stressed
42	Chlorobenzene		2,505.6	µg/mL	+/-	14.5679	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBF0505V)			+/-	151.1755	µg/mL	Unstressed
	Purity 99%				+/-	151.5344	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	151.1453	µg/mL	Unstressed
	Purity 99%				+/-	151.5041	µg/mL	Stressed
44	Ethylbenzene		2,506.1	µg/mL	+/-	14.5708	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBG5920V)			+/-	151.2056	µg/mL	Unstressed
	Purity 99%				+/-	151.5646	µg/mL	Stressed
45	m-Xylene		1,254.4	µg/mL	+/-	7.2930	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF8095V)			+/-	75.6820	µg/mL	Unstressed
	Purity 99%				+/-	75.8617	µg/mL	Stressed
46	p-Xylene		1,250.0	µg/mL	+/-	7.2676	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	75.4180	µg/mL	Unstressed
	Purity 99%				+/-	75.5971	µg/mL	Stressed
47	o-Xylene		2,506.3	µg/mL	+/-	14.5716	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBF7003V)			+/-	151.2132	µg/mL	Unstressed
	Purity 99%				+/-	151.5722	µg/mL	Stressed
48	Styrene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot MKBS7097V)			+/-	151.0699	µg/mL	Unstressed
	Purity 99%				+/-	151.4285	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,509.4	µg/mL	+/-	14.5897	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10185056)			+/-	151.4017	µg/mL	Unstressed
	Purity 99%				+/-	151.7612	µg/mL	Stressed
50	bromoform		2,503.3	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	151.0322	µg/mL	Unstressed
	Purity 99%				+/-	151.3907	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)			+/-	151.1378	µg/mL	Unstressed
	Purity 99%				+/-	151.4966	µg/mL	Stressed
52	chloroform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot MKBV2089V)			+/-	151.3037	µg/mL	Unstressed
	Purity 99%				+/-	151.6629	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,504.8	µg/mL	+/-	14.5628	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)			+/-	151.1227	µg/mL	Unstressed
	Purity 99%				+/-	151.4815	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.7	µg/mL	+/-	14.5334	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP6041V)			+/-	150.8172	µg/mL	Unstressed
	Purity 95%				+/-	151.1753	µg/mL	Stressed
55	n-Propylbenzene		2,507.5	µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBJ0332V)			+/-	151.2886	µg/mL	Unstressed
	Purity 99%				+/-	151.6478	µg/mL	Stressed

56	Bromobenzene		2,515.1	µg/mL	+/-	14.6232	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot MKBD4032V)			+/-	151.7486	µg/mL	Unstressed
	Purity 99%				+/-	152.1089	µg/mL	Stressed
57	1,2,4-Trimethylbenzene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBJ6229V)			+/-	151.0566	µg/mL	Unstressed
	Purity 98%				+/-	151.4152	µg/mL	Stressed
58	2-Chlorotoluene		2,502.1	µg/mL	+/-	14.5476	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBH8892V)			+/-	150.9643	µg/mL	Unstressed
	Purity 99%				+/-	151.3227	µg/mL	Stressed
59	4-Chlorotoluene		2,512.6	µg/mL	+/-	14.6086	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	151.5978	µg/mL	Unstressed
	Purity 99%				+/-	151.9577	µg/mL	Stressed
60	tert-Butylbenzene		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot S52237V)			+/-	151.3037	µg/mL	Unstressed
	Purity 99%				+/-	151.6629	µg/mL	Stressed
61	1,3,5-Trimethylbenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBJ6245V)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
62	sec-Butylbenzene		2,521.8	µg/mL	+/-	14.6617	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBK3151V)			+/-	152.1484	µg/mL	Unstressed
	Purity 99%				+/-	152.5096	µg/mL	Stressed
63	p-Isopropyltoluene (p-Cymene)		2,502.6	µg/mL	+/-	14.5505	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKBK4439V)			+/-	150.9945	µg/mL	Unstressed
	Purity 99%				+/-	151.3529	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,505.8	µg/mL	+/-	14.5686	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBM5751V)			+/-	151.1830	µg/mL	Unstressed
	Purity 99%				+/-	151.5419	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,504.1	µg/mL	+/-	14.5592	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	151.0850	µg/mL	Unstressed
	Purity 99%				+/-	151.4437	µg/mL	Stressed
66	n-Butylbenzene		2,503.3	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09418JJV)			+/-	151.0322	µg/mL	Unstressed
	Purity 99%				+/-	151.3907	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,505.5	µg/mL	+/-	14.5672	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	151.1679	µg/mL	Unstressed
	Purity 99%				+/-	151.5268	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.6	µg/mL	+/-	14.5854	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01-JM)			+/-	151.3565	µg/mL	Unstressed
	Purity 99%				+/-	151.7158	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,518.6	µg/mL	+/-	14.6435	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot 26896BM)			+/-	151.9598	µg/mL	Unstressed
	Purity 99%				+/-	152.3206	µg/mL	Stressed
70	Hexachlorobutadiene		2,499.9	µg/mL	+/-	14.5344	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	150.8275	µg/mL	Unstressed
	Purity 98%				+/-	151.1856	µg/mL	Stressed
71	Naphthalene		2,514.9	µg/mL	+/-	14.6217	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	151.7336	µg/mL	Unstressed
	Purity 99%				+/-	152.0938	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,502.0 µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBS4859V)		+/-	150.9567	µg/mL	Unstressed
	Purity 99%			+/-	151.3151	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)

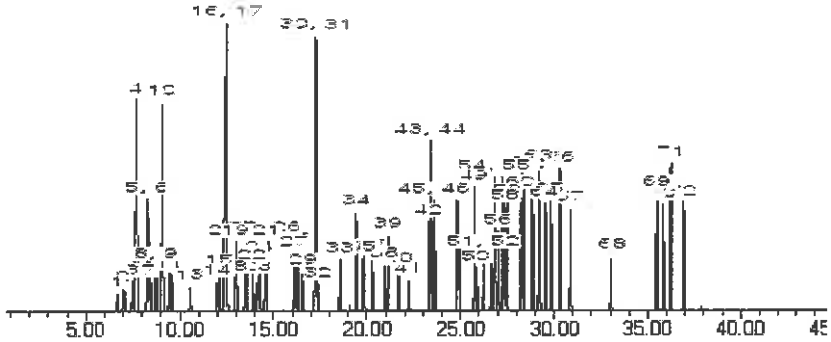
Carrier Gas:
helium-constant pressure 30 psi

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.

Rebecca Hauver

Date Mixed: 21-Mar-2016 **Balance:** 1125113331

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 28-Mar-2016

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

Reagent

VOA8260MEGA1_00060

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720 **Lot No.:** A0118177

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : March 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%	2,503.5 µg/mL	+/- 14.5556 µg/mL +/- 151.0472 µg/mL +/- 151.4059 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00004562) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 150.8361 µg/mL +/- 151.1942 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethane **CAS #** 75-34-3 (Lot 00008621) **Purity** 99%	2,500.1 µg/mL	+/- 14.5359 µg/mL +/- 150.8436 µg/mL +/- 151.2017 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBD0362V) **Purity** 99%	25,033.4 µg/mL	+/- 145.5386 µg/mL +/- 1,510.3737 µg/mL +/- 1,513.9596 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBF2149V) **Purity** 98%	2,502.9 µg/mL	+/- 14.5522 µg/mL +/- 151.0123 µg/mL +/- 151.3708 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9 (Lot SHBD7134V) **Purity** 98%	12,508.6 µg/mL	+/- 72.7223 µg/mL +/- 754.6987 µg/mL +/- 756.4905 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot SHBF8133V) **Purity** 99%	2,500.0 µg/mL	+/- 19.2743 µg/mL +/- 151.3663 µg/mL +/- 151.7231 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBF9870V)	2,521.4	µg/mL	+/- +/- +/-	14.6595 152.1257 152.4869	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot S20A856)	2,516.0	µg/mL	+/- +/- +/-	14.6282 151.8014 152.1618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot J08Z057)	25,001.3	µg/mL	+/- +/- +/-	145.3518 1,508.4355 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 98%	(Lot MKBV2831V)	2,507.8	µg/mL	+/- +/- +/-	14.5807 151.3079 151.6671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBF7674V)	2,512.4	µg/mL	+/- +/- +/-	14.6072 151.5827 151.9426	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 99%	(Lot 73896KMV)	2,508.1	µg/mL	+/- +/- +/-	14.5825 151.3263 151.6856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 99%	(Lot BCBL9720V)	2,507.6	µg/mL	+/- +/- +/-	14.5795 151.2961 151.6553	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot MKBH9850V)	2,509.8	µg/mL	+/- +/- +/-	14.5919 151.4243 151.7838	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBD1647V)	62,815.4	µg/mL	+/- +/- +/-	365.1949 3,789.9281 3,798.9260	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot MKBV2134V)	2,510.0	µg/mL	+/- +/- +/-	14.5934 151.4394 151.7990	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Bromochloromethane **CAS #** 74-97-5 **Purity** 99%	(Lot 00004559)	2,507.0	µg/mL	+/- +/- +/-	14.5759 151.2584 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBG2910V)	5,025.3	µg/mL	+/- +/- +/-	29.2172 303.1956 303.9154	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15MW0705)	2,508.9	µg/mL	+/- +/- +/-	14.5868 151.3715 151.7309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKBV3194V)	2,503.4	µg/mL	+/- +/- +/-	14.5548 151.0397 151.3983	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot PR09161302)	2,507.4	µg/mL	+/- +/- +/-	14.5781 151.2810 151.6402	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,505.9	µg/mL	+/- +/- +/-	14.5694 151.1905 151.5495	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot MKBV6176V)	2,510.8	µg/mL	+/- 14.5977 +/- 151.4847 +/- 151.8443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot MKBV4565V)	2,511.1	µg/mL	+/- 14.5999 +/- 151.5073 +/- 151.8670	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBG1169V)	2,502.9	µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBF0943V)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane **CAS #** 108-87-2 **Purity** 99%	(Lot 50996APV)	2,503.9	µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,523.5	µg/mL	+/- 14.6718 +/- 152.2539 +/- 152.6154	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane **CAS #** 75-27-4 **Purity** 98%	(Lot MKBL1617V)	2,509.0	µg/mL	+/- 14.5878 +/- 151.3818 +/- 151.7412	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBG6312V)	50,018.1	µg/mL	+/- 290.7945 +/- 3,017.8137 +/- 3,024.9785	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2,511.4	µg/mL	+/- 14.6013 +/- 151.5222 +/- 151.8820	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,506.0	µg/mL	+/- 14.5701 +/- 151.1981 +/- 151.5571	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot MKBV5601V)	2,515.5	µg/mL	+/- 14.6253 +/- 151.7713 +/- 152.1316	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,503.1	µg/mL	+/- 14.5534 +/- 151.0246 +/- 151.3832	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2,508.0	µg/mL	+/- 14.5817 +/- 151.3188 +/- 151.6780	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,508.4	µg/mL	+/- 14.5839 +/- 151.3414 +/- 151.7007	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,522.8	µg/mL	+/- 14.6675 +/- 152.2087 +/- 152.5701	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2,518.9	µg/mL	+/- 14.6450 +/- 151.9749 +/- 152.3357	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane **CAS #** 124-48-1 **Purity** 98%	(Lot MKBQ6577V)	2,505.4	µg/mL	+/- +/- +/-	14.5664 151.1601 151.5190	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBH3877V)	2,505.1	µg/mL	+/- +/- +/-	14.5650 151.1453 151.5041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBF0505V)	2,505.6	µg/mL	+/- +/- +/-	14.5679 151.1755 151.5344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	2,505.1	µg/mL	+/- +/- +/-	14.5650 151.1453 151.5041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBG5920V)	2,506.1	µg/mL	+/- +/- +/-	14.5708 151.2056 151.5646	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBF8095V)	1,254.4	µg/mL	+/- +/- +/-	7.2930 75.6820 75.8617	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBF3427V)	1,250.0	µg/mL	+/- +/- +/-	7.2676 75.4180 75.5971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBF7003V)	2,506.3	µg/mL	+/- +/- +/-	14.5716 151.2132 151.5722	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKBS7097V)	2,503.9	µg/mL	+/- +/- +/-	14.5577 151.0699 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	2,509.4	µg/mL	+/- +/- +/-	14.5897 151.4017 151.7612	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBC3410V)	2,503.3	µg/mL	+/- +/- +/-	14.5541 151.0322 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	2,505.0	µg/mL	+/- +/- +/-	14.5643 151.1378 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	chloroform **CAS #** 67-66-3 **Purity** 99%	(Lot MKBV2089V)	2,507.8	µg/mL	+/- +/- +/-	14.5803 151.3037 151.6629	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	2,504.8	µg/mL	+/- +/- +/-	14.5628 151.1227 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene **CAS #** 110-57-6 **Purity** 95%	(Lot MKBP6041V)	2,499.7	µg/mL	+/- +/- +/-	14.5334 150.8172 151.1753	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot MKBJ0332V)	2,507.5	µg/mL	+/- +/- +/-	14.5788 151.2886 151.6478	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot MKBD4032V)	2,515.1	µg/mL	+/- 14.6232 +/- 151.7486 +/- 152.1089	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ6229V)	2,503.7	µg/mL	+/- 14.5565 +/- 151.0566 +/- 151.4152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBH8892V)	2,502.1	µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	2,512.6	µg/mL	+/- 14.6086 +/- 151.5978 +/- 151.9577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot S52237V)	2,507.8	µg/mL	+/- 14.5803 +/- 151.3037 +/- 151.6629	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBJ6245V)	2,502.5	µg/mL	+/- 14.5498 +/- 150.9869 +/- 151.3454	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBK3151V)	2,521.8	µg/mL	+/- 14.6617 +/- 152.1484 +/- 152.5096	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBK4439V)	2,502.6	µg/mL	+/- 14.5505 +/- 150.9945 +/- 151.3529	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBM5751V)	2,505.8	µg/mL	+/- 14.5686 +/- 151.1830 +/- 151.5419	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS1350V)	2,504.1	µg/mL	+/- 14.5592 +/- 151.0850 +/- 151.4437	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)	2,505.5	µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01-JM)	2,508.6	µg/mL	+/- 14.5854 +/- 151.3565 +/- 151.7158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot 26896BM)	2,518.6	µg/mL	+/- 14.6435 +/- 151.9598 +/- 152.3206	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 98%	(Lot J31X013)	2,499.9	µg/mL	+/- 14.5344 +/- 150.8275 +/- 151.1856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBH4351V)	2,514.9	µg/mL	+/- 14.6217 +/- 151.7336 +/- 152.0938	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.0 µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBS4859V)		+/-	150.9567	µg/mL	Unstressed
	Purity 99%			+/-	151.3151	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)

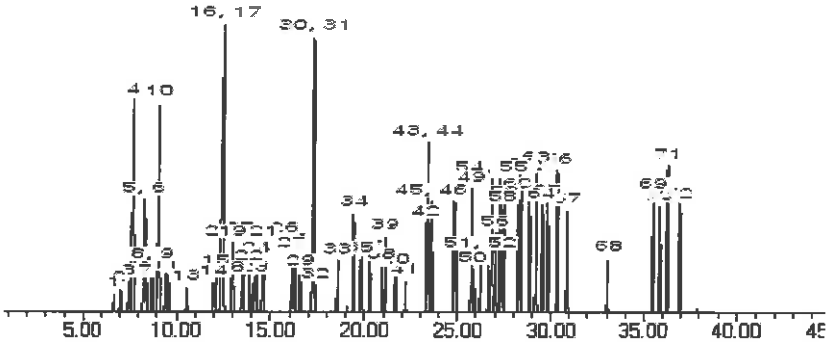
Carrier Gas:
helium-constant pressure 30 psi

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.

Rebecca Hauver

Date Mixed: 21-Mar-2016 **Balance:** 1125113331

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 28-Mar-2016

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

Reagent

VOA8260MEGA2_00058

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

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CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720.sec **Lot No.:** A0120604

Description : 8260 List 1 / Std #1 MegaMix (2015)

8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : July 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.SEC (Lot F23X068) **Purity** 98%	2,501.1 µg/mL	+/- 14.5415 µg/mL +/- 150.9014 µg/mL +/- 151.2597 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 150.9040 µg/mL +/- 151.2622 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 2767000) **Purity** 99%	2,500.8 µg/mL	+/- 14.5396 µg/mL +/- 150.8813 µg/mL +/- 151.2395 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,004.1 µg/mL	+/- 145.3683 µg/mL +/- 1,508.6067 µg/mL +/- 1,512.1884 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,501.0 µg/mL	+/- 14.5410 µg/mL +/- 150.8964 µg/mL +/- 151.2547 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9.SEC (Lot 6WOXM) **Purity** 99%	12,501.6 µg/mL	+/- 72.6817 µg/mL +/- 754.2781 µg/mL +/- 756.0689 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot VEBOC) **Purity** 98%	2,501.0 µg/mL	+/- 14.5408 µg/mL +/- 150.8940 µg/mL +/- 151.2522 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
9	Carbon disulfide		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
10	Acrylonitrile		25,020.0	µg/mL	+/-	145.4608	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot UERIL-DA)			+/-	1,509.5667	µg/mL	Unstressed
	Purity 99%				+/-	1,513.1507	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,500.8	µg/mL	+/-	14.5401	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	150.8866	µg/mL	Unstressed
	Purity 98%				+/-	151.2448	µg/mL	Stressed
12	n-Hexane (C6)		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
13	1,1-Dichloroethane		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 5035700)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot GI01)			+/-	150.8738	µg/mL	Unstressed
	Purity 99%				+/-	151.2320	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,501.3	µg/mL	+/-	14.5426	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	150.9125	µg/mL	Unstressed
	Purity 97%				+/-	151.2708	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,503.0	µg/mL	+/-	363.3788	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot 83NHH)			+/-	3,771.0811	µg/mL	Unstressed
	Purity 99%				+/-	3,780.0343	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
18	Bromochloromethane		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 1775400)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
19	Tetrahydrofuran		5,000.3	µg/mL	+/-	29.0719	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot K3V7J-SJ)			+/-	301.6872	µg/mL	Unstressed
	Purity 99%				+/-	302.4035	µg/mL	Stressed
20	1,1,1-Trichloroethane		2,501.3	µg/mL	+/-	14.5429	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot CS160712)			+/-	150.9162	µg/mL	Unstressed
	Purity 98%				+/-	151.2745	µg/mL	Stressed
21	Cyclohexane		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%				+/-	151.2093	µg/mL	Stressed
22	1,1-Dichloropropene		2,500.4	µg/mL	+/-	14.5378	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 4672600)			+/-	150.8626	µg/mL	Unstressed
	Purity 96%				+/-	151.2208	µg/mL	Stressed
23	Carbon tetrachloride		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed

24	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
25	1,2-Dichloroethane **CAS #** 107-06-2.SEC **Purity** 99%	(Lot FO6PK)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene **CAS #** 71-43-2.SEC **Purity** 99%	(Lot B28Y008)	2,500.6	µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene **CAS #** 79-01-6.SEC **Purity** 99%	(Lot H04X050)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane **CAS #** 108-87-2.SEC **Purity** 99%	(Lot 24MSD-CD)	2,501.9	µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	(Lot OGG01)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 99%	(Lot 10171168)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	(Lot CHA4A)	50,014.8	µg/mL	+/- 290.7749 +/- 3,017.6100 +/- 3,024.7743	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	(Lot FGI01-OICH)	2,501.4	µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	(Lot 7ZLXJ-TJ)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	(Lot YND2B-BD)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	(Lot MLWYK-LS)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 99%	(Lot 2ECIC)	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 3440900)	2,500.5	µg/mL	+/- 14.5379 +/- 150.8644 +/- 151.2226	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	(Lot AGN01-EFPC)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	(Lot F09W014)	2,501.5	µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	(Lot 10181507)	2,501.9	µg/mL	+/- +/- +/-	14.5461 150.9491 151.3074	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	(Lot 3505900)	2,500.1	µg/mL	+/- +/- +/-	14.5359 150.8436 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	(Lot 1161936)	2,501.5	µg/mL	+/- +/- +/-	14.5439 150.9266 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 98%	(Lot GC01)	2,501.0	µg/mL	+/- +/- +/-	14.5408 150.8940 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	Ethylbenzene **CAS #** 100-41-4.SEC **Purity** 99%	(Lot PI4SE)	2,501.4	µg/mL	+/- +/- +/-	14.5432 150.9190 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	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
46	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	(Lot GM01)	1,250.8	µg/mL	+/- +/- +/-	7.2720 75.4633 75.6425	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	(Lot FGL01-KTPK)	2,501.0	µg/mL	+/- +/- +/-	14.5410 150.8964 151.2547	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)	2,500.4	µg/mL	+/- +/- +/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform **CAS #** 75-25-2.SEC **Purity** 99%	(Lot 5139000)	2,500.3	µg/mL	+/- +/- +/-	14.5367 150.8512 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5.SEC **Purity** 99%	(Lot CFA4D-AQ)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Chloroform **CAS #** 67-66-3.SEC **Purity** 99%	(Lot 1297547)	2,500.6	µg/mL	+/- +/- +/-	14.5388 150.8738 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4.SEC **Purity** 98%	(Lot OGI01)	2,501.5	µg/mL	+/- +/- +/-	14.5436 150.9236 151.2819	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)	2,500.5	µg/mL	+/- +/- +/-	14.5379 150.8644 151.2226	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)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene **CAS #** 95-63-6.SEC **Purity** 99%	(Lot SC7LO-QA)	2,500.6	µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8.SEC **Purity** 99%	(Lot SW8QG-AO)	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.SEC **Purity** 99%	(Lot P4XHJ-AO)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6.SEC **Purity** 99%	(Lot OGN01-CAI)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene **CAS #** 108-67-8.SEC **Purity** 99%	(Lot FGH02-CMLN)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8.SEC **Purity** 99%	(Lot OGN01-IMA)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) **CAS #** 99-87-6.SEC **Purity** 96%	(Lot 1195000)	2,501.5	µg/mL	+/- 14.5441 +/- 150.9278 +/- 151.2861	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1.SEC **Purity** 99%	(Lot FMDFD)	2,501.6	µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7.SEC **Purity** 99%	(Lot 4Y5DC)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8.SEC **Purity** 99%	(Lot OGN01-PNP)	2,501.4	µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1.SEC **Purity** 99%	(Lot 4NRGF-OT)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8.SEC **Purity** 97%	(Lot LC00408V)	2,500.3	µg/mL	+/- 14.5369 +/- 150.8539 +/- 151.2121	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1.SEC **Purity** 99%	(Lot 3LYYC)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3.SEC **Purity** 98%	(Lot 4974700)	2,500.7	µg/mL	+/- 14.5394 +/- 150.8792 +/- 151.2374	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3.SEC **Purity** 99%	(Lot SKZ5N)	2,500.0	µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,501.6 µg/mL	+/-	14.5444	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.9310	µg/mL	Unstressed
	Purity 98%			+/-	151.2893	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)

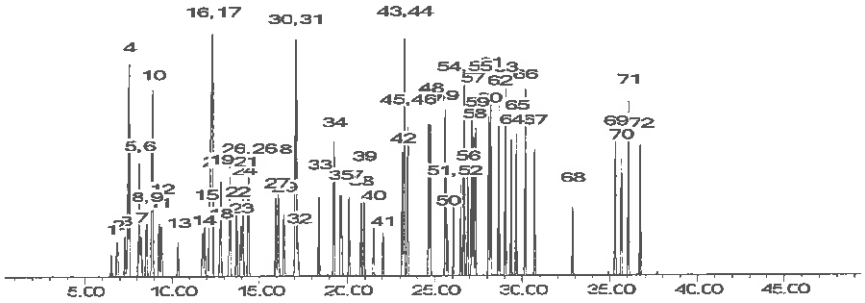
Carrier Gas:
helium-constant pressure 30 psi

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 J Maye

Date Mixed: 25-Jul-2016 **Balance:** 1127510105

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 28-Jul-2016

Manufactured under Restek's ISO 9001:2008
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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.:** A0112455

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 : July 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 022012) **Purity** 99%	2,509.6 µg/mL	+/- 14.5910 µg/mL +/- 28.2993 µg/mL +/- 32.5644 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 14C-191) **Purity** 99%	2,507.5 µg/mL	+/- 14.5788 µg/mL +/- 28.2757 µg/mL +/- 32.5371 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-26282) **Purity** 99%	2,509.0 µg/mL	+/- 14.5875 µg/mL +/- 28.2926 µg/mL +/- 32.5566 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KOV) **Purity** 99%	2,506.0 µg/mL	+/- 14.5701 µg/mL +/- 28.2587 µg/mL +/- 32.5176 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260SURRES_00123

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

Catalog No. : 567650 **Lot No.:** A0114901

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260VARES_00069

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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. : 569724 **Lot No.:** A0118255

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 : September 30, 2016 **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)	5,003.0 µg/mL	+/- 29.3604 +/- 301.8795 +/- 302.5961	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

Reagent

VOA8260VARES_00076

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724 **Lot No.:** A0123626

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 : June 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	Vinyl acetate	5,033.0 µg/mL	+/- 29.5365	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 303.6897	µg/mL	Unstressed
	Purity 99%		+/- 304.4106	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_00102

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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. : 568720 **Lot No.:** A0119846

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 : October 31, 2016 **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 (Lot 160518JLM) **Purity** 99%	19,873.0 µg/mL	+/- 116.3608 µg/mL +/- 637.1909 µg/mL +/- 740.6647 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOAACRORES_00109

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.:** A0122668

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 : March 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	Acrolein		19,840.0	µg/mL	+/- 116.1676	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot A160912JLM)			+/- 636.1328	µg/mL	Unstressed
	Purity 99%				+/- 739.4348	µg/mL	Stressed

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

Reagent

VOACEVERES_00114

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3223.02

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.:** A0115628

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 : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,509.2 µg/mL	+/- 14.5887	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBK2735V)		+/- 53.7223	µg/mL	Unstressed
	Purity 99%		+/- 55.2841	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_00044

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ILAC-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

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

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

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

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-SPBA-SB-006-0/1-0	180-64650-1	95	103	98	85
HD-SPBA-SB-006-5/5.5-0	180-64650-2	91	94	96	87
HD-SPBA-SB-006-10/10.5-0	180-64650-3	94	109	93	91
HD-SPBA-SB-006-15/15.5-0	180-64650-4	97	116	99	94
HD-SPBA-SB-006-20/20.5-0	180-64650-5	92	108	101	93
HD-SPBA-SB-006-25/25.5-0	180-64650-6	96	114	99	93
HD-SPBA-SB-006-30/30.5-0	180-64650-7	101	124	100	96
HD-SPBA-SB-006-35/35.5-0	180-64650-8	98	124	99	96
HD-SPBA-SB-006-40/40.5-0	180-64650-9	97	121	103	89
	MB 180-206745/1-A	98	108	99	94
	LCS 180-206745/2-A	99	118	92	94
	LCSD 180-206745/3-A	98	119	94	93

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	68-121
DCA = 1,2-Dichloroethane-d4 (Surr)	52-124
TOL = Toluene-d8 (Surr)	72-127
BFB = 4-Bromofluorobenzene (Surr)	63-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 3032904.D

Lab ID: LCS 180-206745/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	43.1	108	76-124	
1,1,1-Trichloroethane	40.0	49.6	124	67-126	
1,1,2,2-Tetrachloroethane	40.0	39.2	98	60-139	
1,1,2-Trichloroethane	40.0	39.4	99	70-128	
1,1-Dichloroethane	40.0	32.5	81	66-124	
1,1-Dichloroethene	40.0	27.1	68	59-129	
1,2-Dichloroethane	40.0	49.4	124	61-127	
1,2-Dichloropropane	40.0	40.5	101	72-122	
2-Butanone (MEK)	40.0	45.6	114	35-149	
2-Hexanone	40.0	52.4	131	32-150	
4-Methyl-2-pentanone (MIBK)	40.0	43.3	108	44-148	
Acetone	40.0	38.2	95	20-150	
Benzene	40.0	39.7	99	77-120	
Bromoform	40.0	40.3	101	53-140	
Bromomethane	40.0	57.6	144	25-150	
Carbon disulfide	40.0	27.2	68	50-127	
Carbon tetrachloride	40.0	47.2	118	69-122	
Chlorobenzene	40.0	38.5	96	79-120	
Dibromochloromethane	40.0	37.4	94	70-132	
Chloroform	40.0	44.1	110	72-120	
Chloromethane	40.0	32.6	81	44-131	
Chloroethane	40.0	60.7	152	22-150	*
cis-1,2-Dichloroethene	40.0	38.2	95	80-118	
cis-1,3-Dichloropropene	40.0	42.2	106	73-120	
Bromodichloromethane	40.0	47.0	118	70-125	
Ethylbenzene	40.0	39.2	98	78-125	
1,2-Dibromoethane (EDB)	40.0	39.9	100	70-131	
Methyl tert-butyl ether	40.0	35.7	89	48-132	
Methylene Chloride	40.0	26.5	66	58-127	
Styrene	40.0	39.5	99	83-129	
Tetrachloroethene	40.0	44.1	110	78-129	
Toluene	40.0	39.4	99	78-124	
trans-1,2-Dichloroethene	40.0	28.5	71	77-121	*
trans-1,3-Dichloropropene	40.0	43.2	108	74-129	
Trichloroethene	40.0	40.2	100	76-119	
Acrylonitrile	400	320	80	60-140	
Vinyl chloride	40.0	33.8	85	63-124	
Xylenes, Total	80.0	77.6	97	83-126	
Bromochloromethane	40.0	40.3	101	67-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 3032905.D

Lab ID: LCSD 180-206745/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	42.6	107	1	22	76-124	
1,1,1-Trichloroethane	40.0	46.1	115	7	31	67-126	
1,1,2,2-Tetrachloroethane	40.0	39.2	98	0	24	60-139	
1,1,2-Trichloroethane	40.0	39.7	99	1	22	70-128	
1,1-Dichloroethane	40.0	39.8	99	20	23	66-124	
1,1-Dichloroethene	40.0	36.6	91	30	25	59-129	*
1,2-Dichloroethane	40.0	49.2	123	0	23	61-127	
1,2-Dichloropropane	40.0	39.0	98	4	20	72-122	
2-Butanone (MEK)	40.0	45.2	113	1	36	35-149	
2-Hexanone	40.0	48.0	120	9	32	32-150	
4-Methyl-2-pentanone (MIBK)	40.0	44.3	111	2	30	44-148	
Acetone	40.0	43.2	108	12	40	20-150	
Benzene	40.0	38.6	97	3	20	77-120	
Bromoform	40.0	41.4	103	3	23	53-140	
Bromomethane	40.0	52.9	132	9	40	25-150	
Carbon disulfide	40.0	34.7	87	24	23	50-127	*
Carbon tetrachloride	40.0	43.9	110	7	22	69-122	
Chlorobenzene	40.0	38.8	97	1	20	79-120	
Dibromochloromethane	40.0	39.0	98	4	20	70-132	
Chloroform	40.0	42.8	107	3	25	72-120	
Chloromethane	40.0	31.2	78	4	27	44-131	
Chloroethane	40.0	53.8	135	12	40	22-150	
cis-1,2-Dichloroethene	40.0	38.4	96	1	20	80-118	
cis-1,3-Dichloropropene	40.0	43.0	107	2	20	73-120	
Bromodichloromethane	40.0	45.6	114	3	21	70-125	
Ethylbenzene	40.0	38.5	96	2	21	78-125	
1,2-Dibromoethane (EDB)	40.0	40.6	102	2	20	70-131	
Methyl tert-butyl ether	40.0	43.8	109	20	36	48-132	
Methylene Chloride	40.0	34.8	87	27	28	58-127	
Styrene	40.0	39.1	98	1	20	83-129	
Tetrachloroethene	40.0	43.6	109	1	20	78-129	
Toluene	40.0	39.3	98	0	21	78-124	
trans-1,2-Dichloroethene	40.0	37.3	93	27	20	77-121	*
trans-1,3-Dichloropropene	40.0	43.2	108	0	20	74-129	
Trichloroethene	40.0	39.9	100	1	21	76-119	
Acrylonitrile	400	427	107	29	20	60-140	*
Vinyl chloride	40.0	31.6	79	7	27	63-124	
Xylenes, Total	80.0	77.4	97	0	20	83-126	
Bromochloromethane	40.0	39.0	98	3	29	67-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab File ID: 3032908.D Lab Sample ID: MB 180-206745/1-A

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: CHHP3 Date Analyzed: 03/29/2017 11:10

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 180-206745/2-A	3032904.D	03/29/2017 09:40
	LCSD 180-206745/3-A	3032905.D	03/29/2017 10:03
HD-SPBA-SB-006-0/1-0	180-64650-1	3032909.D	03/29/2017 11:33
HD-SPBA-SB-006-5/5.5-0	180-64650-2	3032910.D	03/29/2017 11:55
HD-SPBA-SB-006-10/10.5-0	180-64650-3	3032911.D	03/29/2017 12:18
HD-SPBA-SB-006-15/15.5-0	180-64650-4	3032912.D	03/29/2017 12:40
HD-SPBA-SB-006-20/20.5-0	180-64650-5	3032913.D	03/29/2017 13:03
HD-SPBA-SB-006-25/25.5-0	180-64650-6	3032914.D	03/29/2017 13:25
HD-SPBA-SB-006-30/30.5-0	180-64650-7	3032915.D	03/29/2017 13:48
HD-SPBA-SB-006-35/35.5-0	180-64650-8	3032916.D	03/29/2017 14:10
HD-SPBA-SB-006-40/40.5-0	180-64650-9	3032922.D	03/29/2017 16:41

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab File ID: 30928K01.D BFB Injection Date: 09/28/2016

Instrument ID: CHHP3 BFB Injection Time: 10:45

Analysis Batch No.: 189436

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	44.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	76.9	
175	5.0 - 9.0 % of mass 174	5.8	(7.5) 1
176	95.0 - 101.0 % of mass 174	73.5	(95.6) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-189436/4	30928K04.D	09/28/2016	12:01
	IC 180-189436/5	30928K05.D	09/28/2016	12:24
	IC 180-189436/6	30928K06.D	09/28/2016	12:47
	ICIS 180-189436/7	30928K07.D	09/28/2016	13:10
	IC 180-189436/8	30928K08.D	09/28/2016	13:33
	IC 180-189436/9	30928K09.D	09/28/2016	13:56
	IC 180-189436/10	30928K10.D	09/28/2016	14:19

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab File ID: 3032901.D BFB Injection Date: 03/29/2017

Instrument ID: CHHP3 BFB Injection Time: 07:22

Analysis Batch No.: 206732

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.8	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	80.8	
175	5.0 - 9.0 % of mass 174	6.1	(7.5) 1
176	95.0 - 101.0 % of mass 174	77.4	(95.8) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-206732/2	3032902A.D	03/29/2017	08:35
	LCS 180-206745/2-A	3032904.D	03/29/2017	09:40
	LCSD 180-206745/3-A	3032905.D	03/29/2017	10:03
	MB 180-206745/1-A	3032908.D	03/29/2017	11:10
HD-SPBA-SB-006-0/1-0	180-64650-1	3032909.D	03/29/2017	11:33
HD-SPBA-SB-006-5/5.5-0	180-64650-2	3032910.D	03/29/2017	11:55
HD-SPBA-SB-006-10/10.5-0	180-64650-3	3032911.D	03/29/2017	12:18
HD-SPBA-SB-006-15/15.5-0	180-64650-4	3032912.D	03/29/2017	12:40
HD-SPBA-SB-006-20/20.5-0	180-64650-5	3032913.D	03/29/2017	13:03
HD-SPBA-SB-006-25/25.5-0	180-64650-6	3032914.D	03/29/2017	13:25
HD-SPBA-SB-006-30/30.5-0	180-64650-7	3032915.D	03/29/2017	13:48
HD-SPBA-SB-006-35/35.5-0	180-64650-8	3032916.D	03/29/2017	14:10
HD-SPBA-SB-006-40/40.5-0	180-64650-9	3032922.D	03/29/2017	16:41

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Sample No.: CCVIS 180-206732/2 Date Analyzed: 03/29/2017 08:35

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 3032902A.D Heated Purge: (Y/N) Y

Calibration ID: 32996

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		87862	4.44	289816	7.35	65170	10.44
UPPER LIMIT		175724	4.94	579632	7.85	130340	10.94
LOWER LIMIT		43931	3.94	144908	6.85	32585	9.94
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-206745/2-A		72751	4.49	266148	7.35	61578	10.44
LCSD 180-206745/3-A		96032	4.49	275951	7.35	62320	10.44
MB 180-206745/1-A		81937	4.41	364394	7.36	80147	10.44
180-64650-1	HD-SPBA-SB-006-0/1-0	70422	4.41	367229	7.36	78328	10.44
180-64650-2	HD-SPBA-SB-006-5/5.5-0	61592	4.41	377180	7.36	80377	10.44
180-64650-3	HD-SPBA-SB-006-10/10.5-0	88970	4.41	393046	7.36	85560	10.44
180-64650-4	HD-SPBA-SB-006-15/15.5-0	82664	4.41	352265	7.36	75663	10.45
180-64650-5	HD-SPBA-SB-006-20/20.5-0	45940	4.41	265755	7.36	54860	10.45
180-64650-6	HD-SPBA-SB-006-25/25.5-0	44182	4.41	251597	7.36	53722	10.44
180-64650-7	HD-SPBA-SB-006-30/30.5-0	55427	4.41	253614	7.36	54597	10.44
180-64650-8	HD-SPBA-SB-006-35/35.5-0	53482	4.41	238286	7.36	51430	10.45
180-64650-9	HD-SPBA-SB-006-40/40.5-0	45464	4.40	232498	7.36	47167	10.44

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = 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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Sample No.: CCVIS 180-206732/2 Date Analyzed: 03/29/2017 08:35

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 3032902A.D Heated Purge: (Y/N) Y

Calibration ID: 32996

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		105728	12.76				
UPPER LIMIT		211456	13.26				
LOWER LIMIT		52864	12.26				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-206745/2-A		101865	12.76				
LCSD 180-206745/3-A		100756	12.76				
MB 180-206745/1-A		126558	12.77				
180-64650-1	HD-SPBA-SB-006-0/1-0	105657	12.77				
180-64650-2	HD-SPBA-SB-006-5/5.5-0	119343	12.76				
180-64650-3	HD-SPBA-SB-006-10/10.5-0	134432	12.77				
180-64650-4	HD-SPBA-SB-006-15/15.5-0	120832	12.76				
180-64650-5	HD-SPBA-SB-006-20/20.5-0	86571	12.77				
180-64650-6	HD-SPBA-SB-006-25/25.5-0	84219	12.77				
180-64650-7	HD-SPBA-SB-006-30/30.5-0	86888	12.77				
180-64650-8	HD-SPBA-SB-006-35/35.5-0	83998	12.76				
180-64650-9	HD-SPBA-SB-006-40/40.5-0	68450	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 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-0/1-0 | Lab Sample ID: 180-64650-1

Matrix: Solid | Lab File ID: 3032909.D

Analysis Method: 8260C | Date Collected: 03/27/2017 11:35

Sample wt/vol: 5.0861(g) | Date Analyzed: 03/29/2017 11:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.8 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U	5.8	3.2
71-55-6	1,1,1-Trichloroethane	5.8	U	5.8	1.3
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U	5.8	4.6
79-00-5	1,1,2-Trichloroethane	5.8	U	5.8	3.3
75-34-3	1,1-Dichloroethane	5.8	U	5.8	1.3
75-35-4	1,1-Dichloroethene	5.8	U *	5.8	1.7
107-06-2	1,2-Dichloroethane	5.8	U	5.8	1.3
78-87-5	1,2-Dichloropropane	5.8	U	5.8	2.2
78-93-3	2-Butanone (MEK)	5.8	U	5.8	3.5
591-78-6	2-Hexanone	5.8	U	5.8	4.8
108-10-1	4-Methyl-2-pentanone (MIBK)	5.8	U	5.8	4.2
67-64-1	Acetone	23	U	23	12
71-43-2	Benzene	5.8	U	5.8	3.5
75-25-2	Bromoform	5.8	U	5.8	5.3
74-83-9	Bromomethane	5.8	U ^c	5.8	2.0
75-15-0	Carbon disulfide	5.8	U *	5.8	2.5
56-23-5	Carbon tetrachloride	5.8	U	5.8	1.6
108-90-7	Chlorobenzene	5.8	U	5.8	2.6
124-48-1	Dibromochloromethane	5.8	U	5.8	2.9
123-91-1	1,4-Dioxane	1200	U	1200	29
67-66-3	Chloroform	5.8	U	5.8	1.5
74-87-3	Chloromethane	5.8	U ^c	5.8	3.1
75-00-3	Chloroethane	5.8	U ^c *	5.8	2.5
156-59-2	cis-1,2-Dichloroethene	5.8	U	5.8	1.6
10061-01-5	cis-1,3-Dichloropropene	5.8	U	5.8	2.6
75-27-4	Bromodichloromethane	5.8	U	5.8	2.3
100-41-4	Ethylbenzene	5.8	U	5.8	2.3
106-93-4	1,2-Dibromoethane (EDB)	5.8	U	5.8	2.5
1634-04-4	Methyl tert-butyl ether	5.8	U	5.8	2.9
75-09-2	Methylene Chloride	2.3	J ^c	5.8	0.65
100-42-5	Styrene	5.8	U	5.8	2.7
127-18-4	Tetrachloroethene	5.8	U	5.8	1.5
108-88-3	Toluene	5.8	U	5.8	4.2
156-60-5	trans-1,2-Dichloroethene	5.8	U *	5.8	1.2
10061-02-6	trans-1,3-Dichloropropene	5.8	U	5.8	2.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-0/1-0 | Lab Sample ID: 180-64650-1

Matrix: Solid | Lab File ID: 3032909.D

Analysis Method: 8260C | Date Collected: 03/27/2017 11:35

Sample wt/vol: 5.0861(g) | Date Analyzed: 03/29/2017 11:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.8 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	5.8	U	5.8	1.3
107-13-1	Acrylonitrile	58	U *	58	29
75-01-4	Vinyl chloride	5.8	U ^c	5.8	3.0
1330-20-7	Xylenes, Total	12	U	12	5.3
74-97-5	Bromochloromethane	5.8	U	5.8	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	95		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		52-124
460-00-4	4-Bromofluorobenzene (Surr)	85		63-120
2037-26-5	Toluene-d8 (Surr)	98		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032909.D
Lims ID: 180-64650-B-1-B
Client ID: HD-SPBA-SB-006-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2017 11:33:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-1-B
Misc. Info.: 180-0016077-009
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 11:52:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.409	4.436	-0.027	97	70422	5000.0	
* 2 Fluorobenzene (IS)	96	7.359	7.350	0.009	98	367229	250.0	
* 3 Chlorobenzene-d5	119	10.444	10.440	0.004	90	78328	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.764	0.004	97	105657	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.611	6.602	0.009	94	74655	236.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.973	0.009	93	93799	258.4	
$ 7 Toluene-d8 (Surr)	98	9.008	9.005	0.003	94	331781	244.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.608	0.004	90	117448	213.4	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43	3.588	3.584	0.004	65	4671	49.1	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.239	4.223	0.016	95	4679	9.80	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164		9.619				ND	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

Reagents:

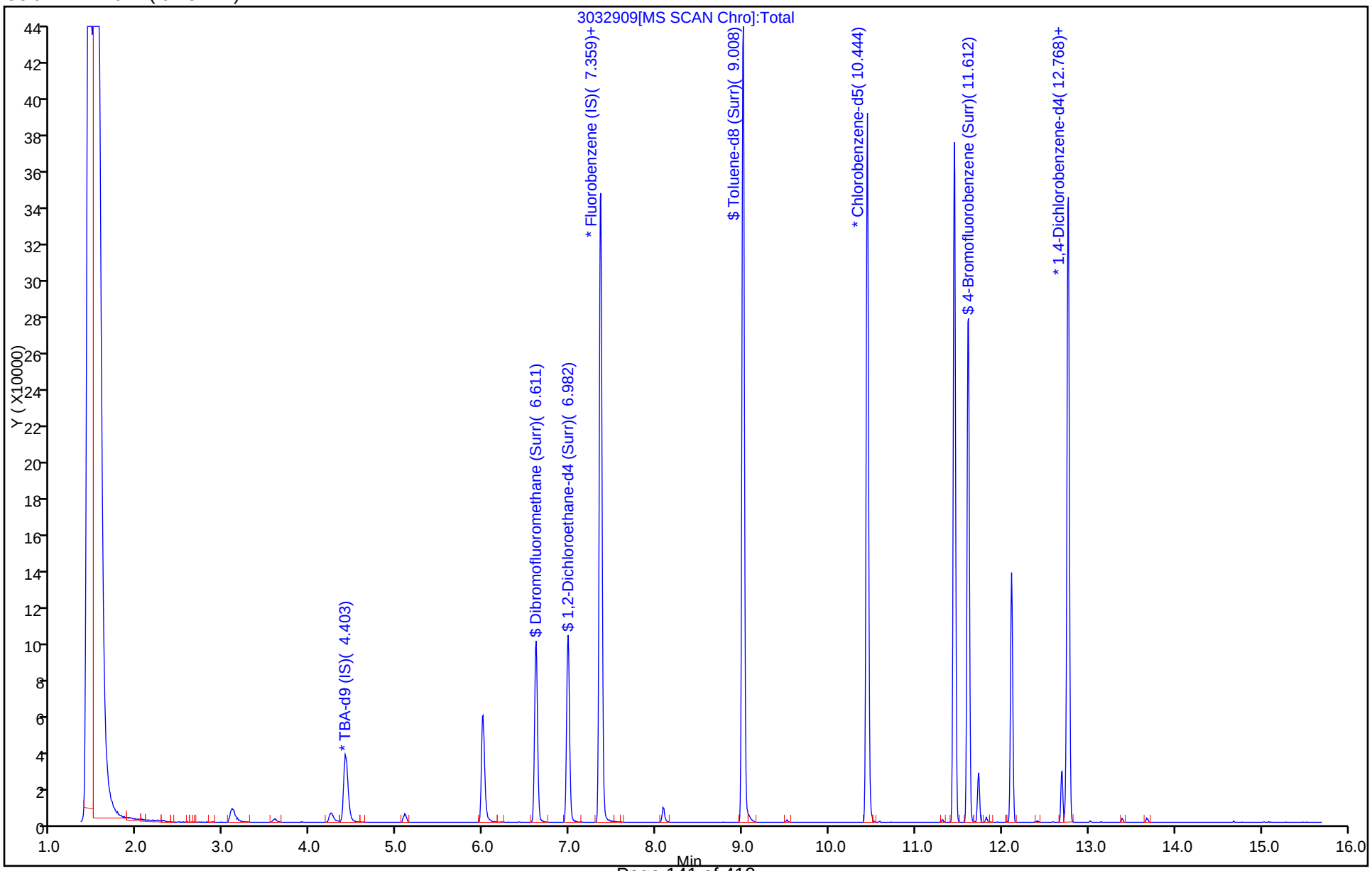
VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 29-Mar-2017 14:04:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032909.D				
Injection Date:	29-Mar-2017 11:33:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-1-B	Lab Sample ID:	180-64650-1	Worklist Smp#:	9
Client ID:	HD-SPBA-SB-006-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032909.D
Lims ID: 180-64650-B-1-B
Client ID: HD-SPBA-SB-006-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2017 11:33:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-1-B
Misc. Info.: 180-0016077-009
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 11:52:47

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	236.7	94.69
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	258.4	103.35
$ 7 Toluene-d8 (Surr)	250.0	244.6	97.85
$ 8 4-Bromofluorobenzene (Surr)	250.0	213.4	85.35

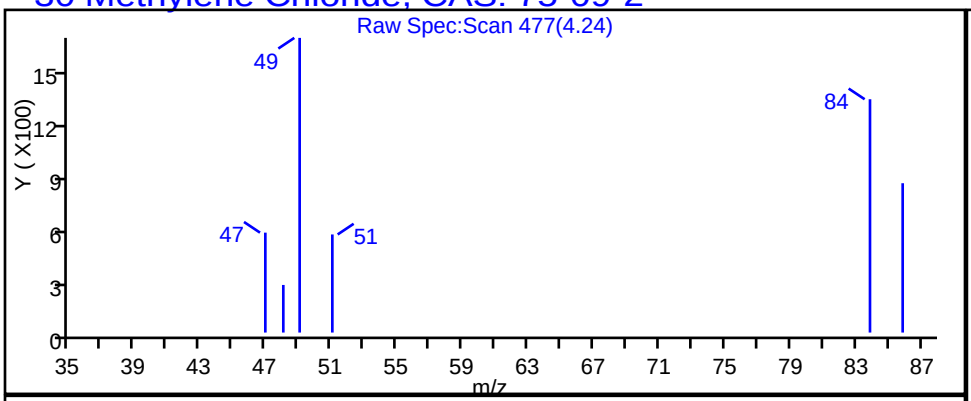
Report Date: 29-Mar-2017 14:04:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

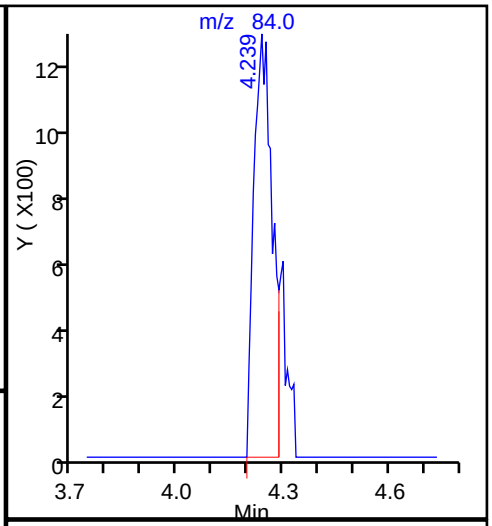
TestAmerica Pittsburgh

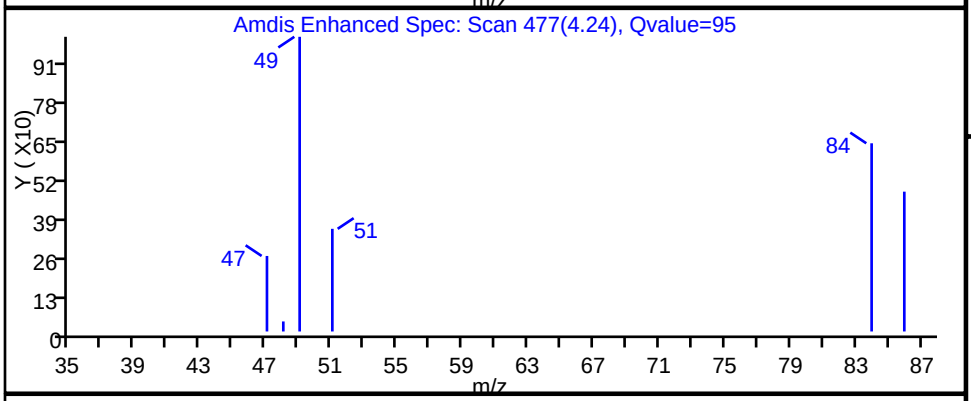
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032909.D

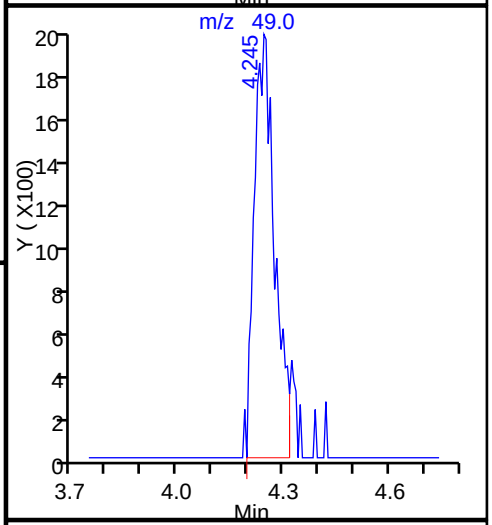
Injection Date:	29-Mar-2017 11:33:30	Instrument ID:	CHHP3
Lims ID:	180-64650-B-1-B	Lab Sample ID:	180-64650-1
Client ID:	HD-SPBA-SB-006-0/1-0		
Operator ID:	034635	ALS Bottle#:	9 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

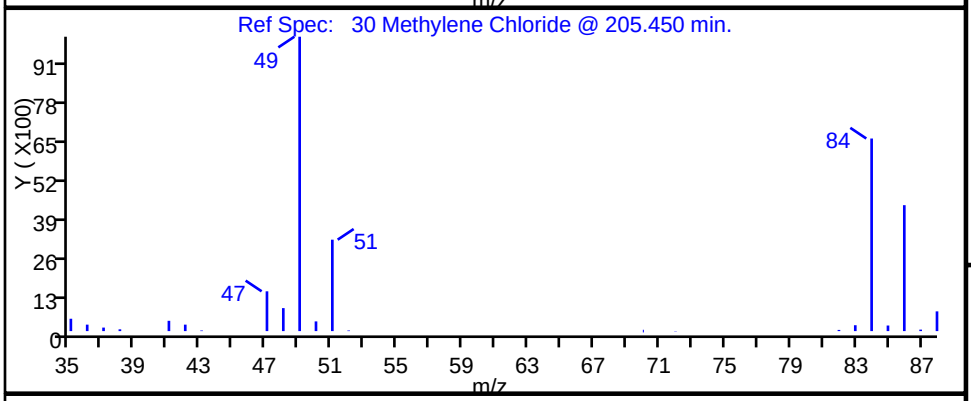
30 Methylene Chloride, CAS: 75-09-2

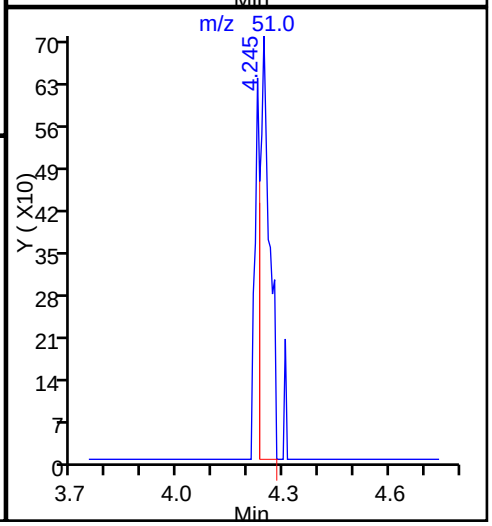


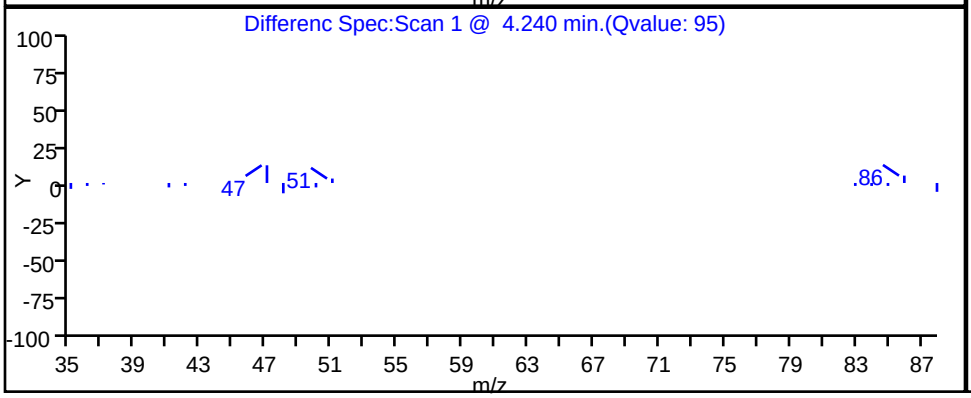












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-5/5.5-0 | Lab Sample ID: 180-64650-2

Matrix: Solid | Lab File ID: 3032910.D

Analysis Method: 8260C | Date Collected: 03/27/2017 13:35

Sample wt/vol: 5.6074(g) | Date Analyzed: 03/29/2017 11:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.1 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U	5.2	2.8
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	1.1
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	4.1
79-00-5	1,1,2-Trichloroethane	5.2	U	5.2	2.9
75-34-3	1,1-Dichloroethane	5.2	U	5.2	1.2
75-35-4	1,1-Dichloroethene	5.2	U *	5.2	1.5
107-06-2	1,2-Dichloroethane	5.2	U	5.2	1.2
78-87-5	1,2-Dichloropropane	5.2	U	5.2	1.9
78-93-3	2-Butanone (MEK)	5.2	U	5.2	3.1
591-78-6	2-Hexanone	5.2	U	5.2	4.2
108-10-1	4-Methyl-2-pentanone (MIBK)	5.2	U	5.2	3.7
67-64-1	Acetone	21	U	21	11
71-43-2	Benzene	5.2	U	5.2	3.1
75-25-2	Bromoform	5.2	U	5.2	4.7
74-83-9	Bromomethane	5.2	U ^c	5.2	1.8
75-15-0	Carbon disulfide	5.2	U *	5.2	2.2
56-23-5	Carbon tetrachloride	5.2	U	5.2	1.4
108-90-7	Chlorobenzene	5.2	U	5.2	2.3
124-48-1	Dibromochloromethane	5.2	U	5.2	2.6
123-91-1	1,4-Dioxane	1000	U	1000	26
67-66-3	Chloroform	5.2	U	5.2	1.3
74-87-3	Chloromethane	5.2	U ^c	5.2	2.7
75-00-3	Chloroethane	5.2	U ^c *	5.2	2.2
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	1.4
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	2.3
75-27-4	Bromodichloromethane	5.2	U	5.2	2.1
100-41-4	Ethylbenzene	5.2	U	5.2	2.1
106-93-4	1,2-Dibromoethane (EDB)	5.2	U	5.2	2.2
1634-04-4	Methyl tert-butyl ether	5.2	U	5.2	2.6
75-09-2	Methylene Chloride	2.8	J ^c	5.2	0.58
100-42-5	Styrene	5.2	U	5.2	2.4
127-18-4	Tetrachloroethene	5.2	U	5.2	1.3
108-88-3	Toluene	5.2	U	5.2	3.8
156-60-5	trans-1,2-Dichloroethene	5.2	U *	5.2	1.1
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	2.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-5/5.5-0 | Lab Sample ID: 180-64650-2

Matrix: Solid | Lab File ID: 3032910.D

Analysis Method: 8260C | Date Collected: 03/27/2017 13:35

Sample wt/vol: 5.6074(g) | Date Analyzed: 03/29/2017 11:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.1 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	5.2	U	5.2	1.2
107-13-1	Acrylonitrile	52	U *	52	26
75-01-4	Vinyl chloride	5.2	U ^c	5.2	2.7
1330-20-7	Xylenes, Total	10	U	10	4.7
74-97-5	Bromochloromethane	5.2	U	5.2	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	91		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		52-124
460-00-4	4-Bromofluorobenzene (Surr)	87		63-120
2037-26-5	Toluene-d8 (Surr)	96		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032910.D
Lims ID: 180-64650-B-2-B
Client ID: HD-SPBA-SB-006-5/5.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 11:55:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-2-B
Misc. Info.: 180-0016077-010
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:02:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.405	4.436	-0.031	97	61592	5000.0	
* 2 Fluorobenzene (IS)	96	7.361	7.350	0.011	98	377180	250.0	
* 3 Chlorobenzene-d5	119	10.440	10.440	0.000	90	80377	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.764	12.764	0.000	98	119343	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.607	6.602	0.005	94	73401	226.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.978	6.973	0.005	92	87973	235.9	
$ 7 Toluene-d8 (Surr)	98	9.004	9.005	-0.001	93	334060	240.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.608	0.000	87	123076	217.9	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43		3.584				ND	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.241	4.223	0.018	97	6666	13.6	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164		9.619				ND	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

Reagents:

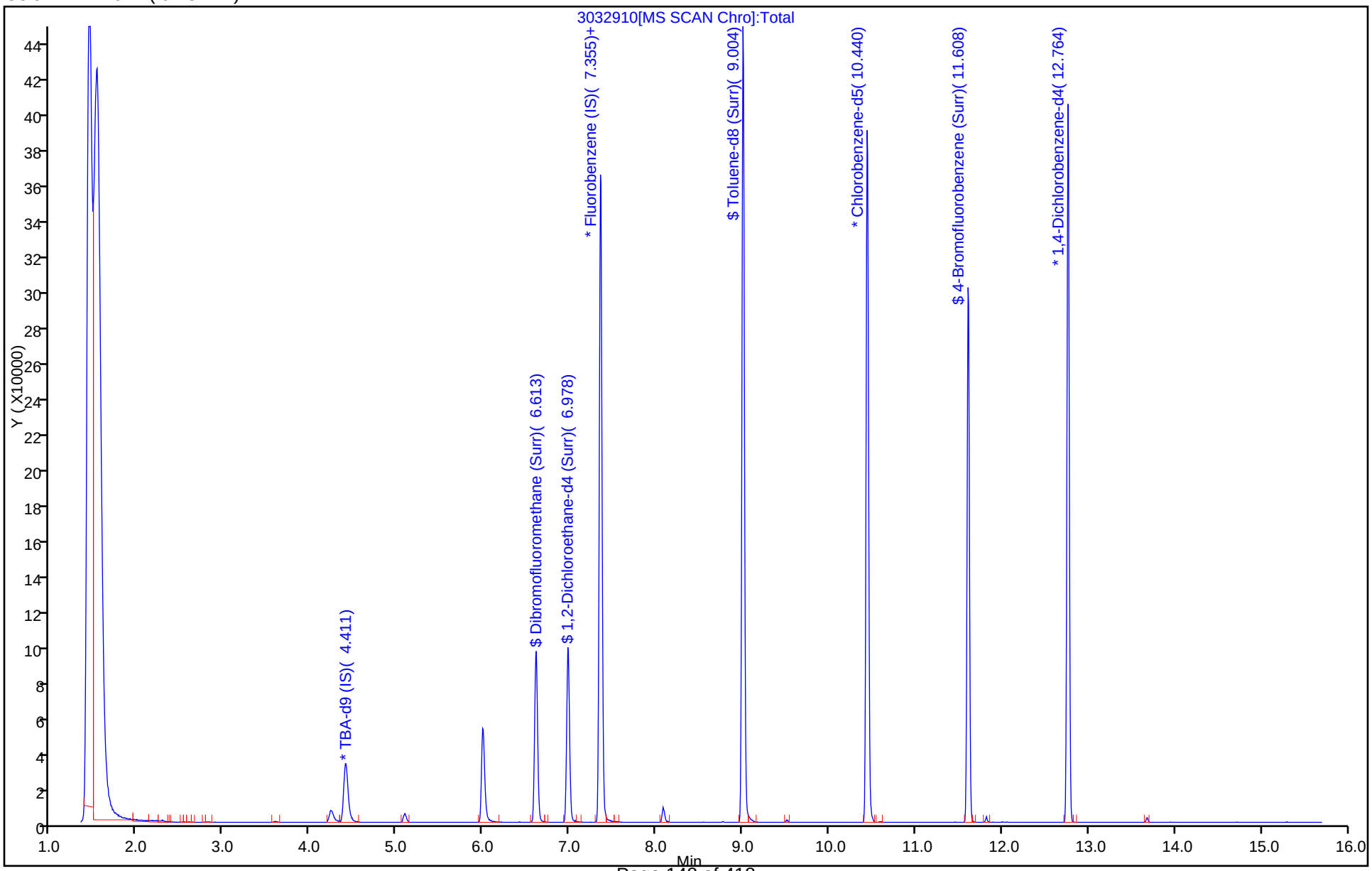
VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 29-Mar-2017 14:04:28 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032910.D				
Injection Date:	29-Mar-2017 11:55:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-2-B	Lab Sample ID:	180-64650-2	Worklist Smp#:	10
Client ID:	HD-SPBA-SB-006-5/5.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032910.D
Lims ID: 180-64650-B-2-B
Client ID: HD-SPBA-SB-006-5/5.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 11:55:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-2-B
Misc. Info.: 180-0016077-010
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:02:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	226.6	90.64
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	235.9	94.37
$ 7 Toluene-d8 (Surr)	250.0	240.0	96.01
$ 8 4-Bromofluorobenzene (Surr)	250.0	217.9	87.16

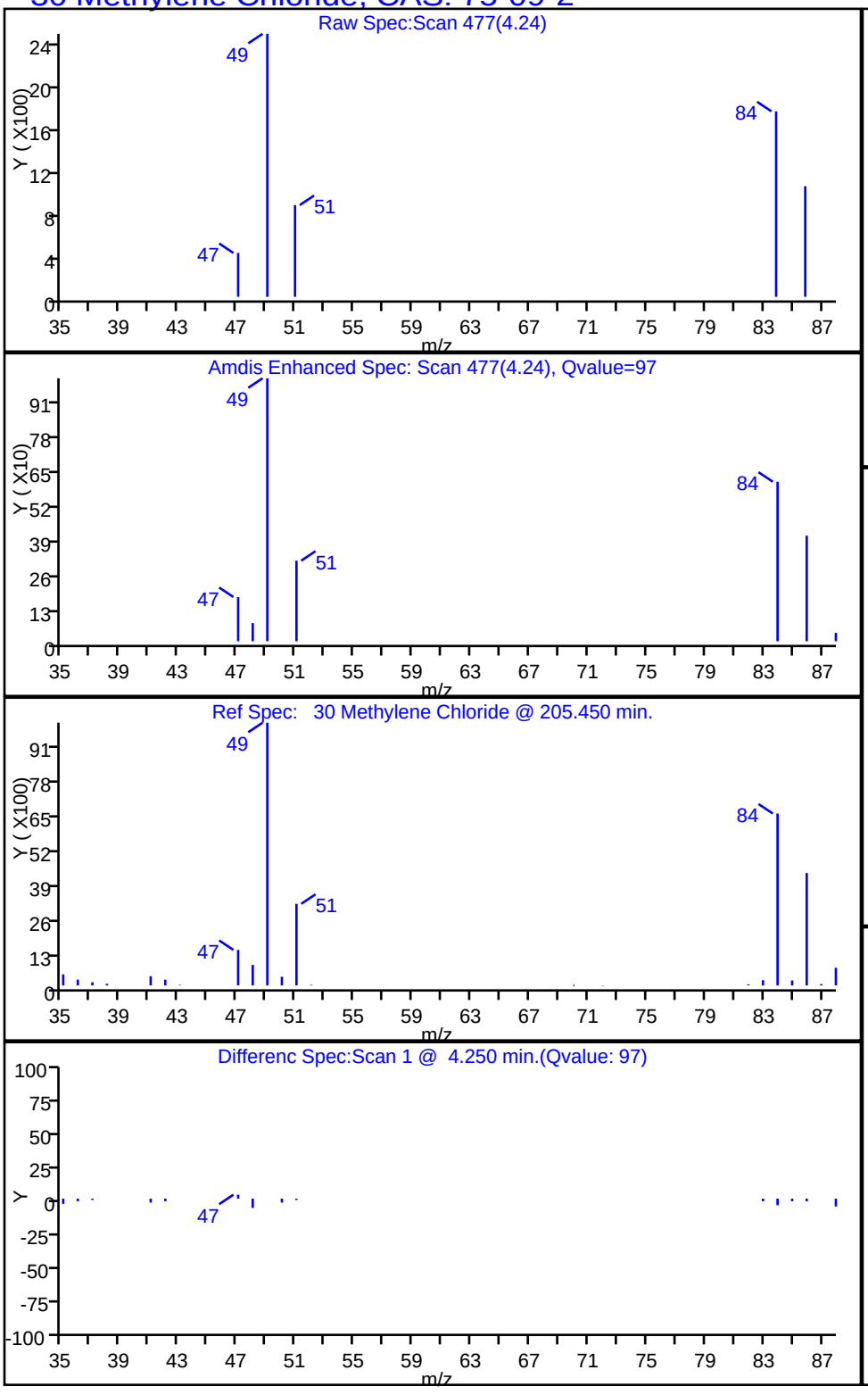
Report Date: 29-Mar-2017 14:04:28 Chrom Revision: 2.2 13-Mar-2017 15:50:30

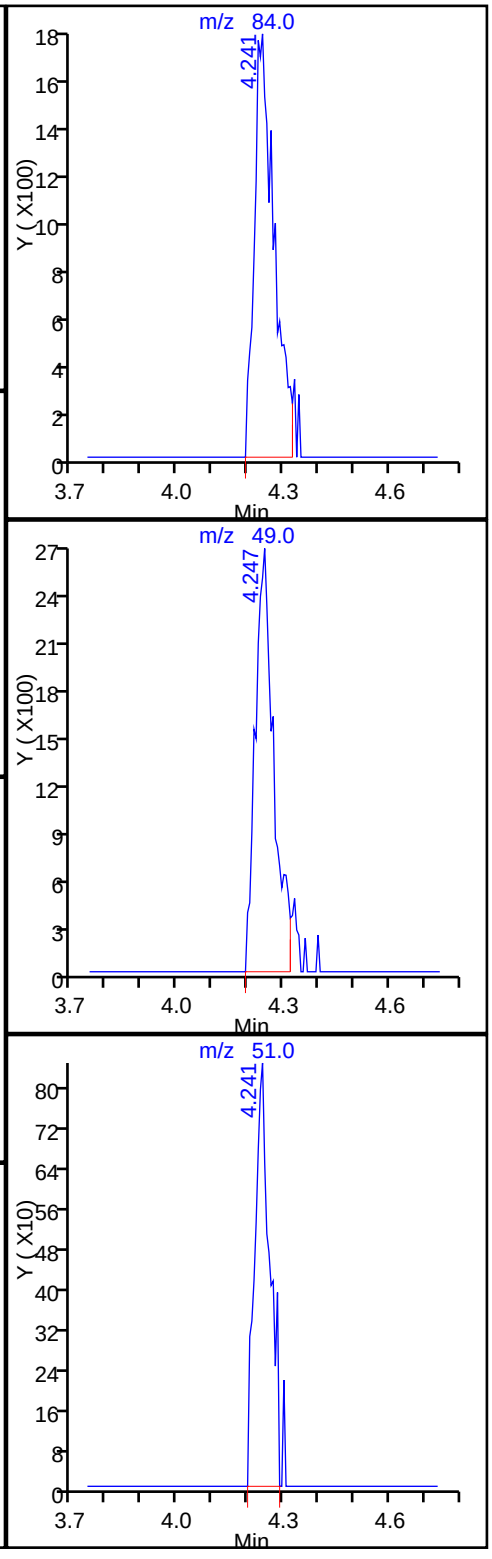
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032910.D

Injection Date:	29-Mar-2017 11:55:30	Instrument ID:	CHHP3
Lims ID:	180-64650-B-2-B	Lab Sample ID:	180-64650-2
Client ID:	HD-SPBA-SB-006-5/5.5-0		
Operator ID:	034635	ALS Bottle#:	10 Worklist Smp#: 10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

30 Methylene Chloride, CAS: 75-09-2





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-10/10.5-0 | Lab Sample ID: 180-64650-3

Matrix: Solid | Lab File ID: 3032911.D

Analysis Method: 8260C | Date Collected: 03/27/2017 13:50

Sample wt/vol: 6.6558(g) | Date Analyzed: 03/29/2017 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.8 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U	4.6	2.5
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.99
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	3.6
79-00-5	1,1,2-Trichloroethane	4.6	U	4.6	2.6
75-34-3	1,1-Dichloroethane	4.6	U	4.6	1.0
75-35-4	1,1-Dichloroethene	4.6	U *	4.6	1.3
107-06-2	1,2-Dichloroethane	4.6	U	4.6	1.0
78-87-5	1,2-Dichloropropane	4.6	U	4.6	1.7
78-93-3	2-Butanone (MEK)	4.6	U	4.6	2.7
591-78-6	2-Hexanone	4.6	U	4.6	3.7
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	4.6	3.3
67-64-1	Acetone	18	U	18	9.4
71-43-2	Benzene	4.6	U	4.6	2.8
75-25-2	Bromoform	4.6	U	4.6	4.2
74-83-9	Bromomethane	4.6	U ^c	4.6	1.6
75-15-0	Carbon disulfide	4.6	U *	4.6	1.9
56-23-5	Carbon tetrachloride	4.6	U	4.6	1.2
108-90-7	Chlorobenzene	4.6	U	4.6	2.0
124-48-1	Dibromochloromethane	4.6	U	4.6	2.3
123-91-1	1,4-Dioxane	910	U	910	23
67-66-3	Chloroform	4.6	U	4.6	1.1
74-87-3	Chloromethane	4.6	U ^c	4.6	2.4
75-00-3	Chloroethane	4.6	U ^c *	4.6	2.0
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	1.2
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	2.0
75-27-4	Bromodichloromethane	4.6	U	4.6	1.8
100-41-4	Ethylbenzene	4.6	U	4.6	1.8
106-93-4	1,2-Dibromoethane (EDB)	4.6	U	4.6	2.0
1634-04-4	Methyl tert-butyl ether	4.6	U	4.6	2.3
75-09-2	Methylene Chloride	4.6	U ^c	4.6	0.51
100-42-5	Styrene	4.6	U	4.6	2.1
127-18-4	Tetrachloroethene	4.6	U	4.6	1.1
108-88-3	Toluene	4.6	U	4.6	3.3
156-60-5	trans-1,2-Dichloroethene	4.6	U *	4.6	0.94
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	2.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-10/10.5-0 | Lab Sample ID: 180-64650-3

Matrix: Solid | Lab File ID: 3032911.D

Analysis Method: 8260C | Date Collected: 03/27/2017 13:50

Sample wt/vol: 6.6558(g) | Date Analyzed: 03/29/2017 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.8 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.6	U	4.6	1.0
107-13-1	Acrylonitrile	46	U *	46	23
75-01-4	Vinyl chloride	4.6	U ^c	4.6	2.3
1330-20-7	Xylenes, Total	9.1	U	9.1	4.2
74-97-5	Bromochloromethane	4.6	U	4.6	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	94		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		52-124
460-00-4	4-Bromofluorobenzene (Surr)	91		63-120
2037-26-5	Toluene-d8 (Surr)	93		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032911.D
Lims ID: 180-64650-B-3-B
Client ID: HD-SPBA-SB-006-10/10.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 12:18:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-3-B
Misc. Info.: 180-0016077-011
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:02:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.406	4.436	-0.030	98	88970	5000.0	
* 2 Fluorobenzene (IS)	96	7.357	7.350	0.007	98	393046	250.0	
* 3 Chlorobenzene-d5	119	10.441	10.440	0.001	90	85560	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.765	12.764	0.001	97	134432	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.608	6.602	0.006	94	79308	234.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.980	6.973	0.007	92	106130	273.1	
$ 7 Toluene-d8 (Surr)	98	9.005	9.005	0.000	93	344373	232.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.608	0.001	88	136075	226.3	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43		3.584				ND	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84		4.223				ND	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164		9.619				ND	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

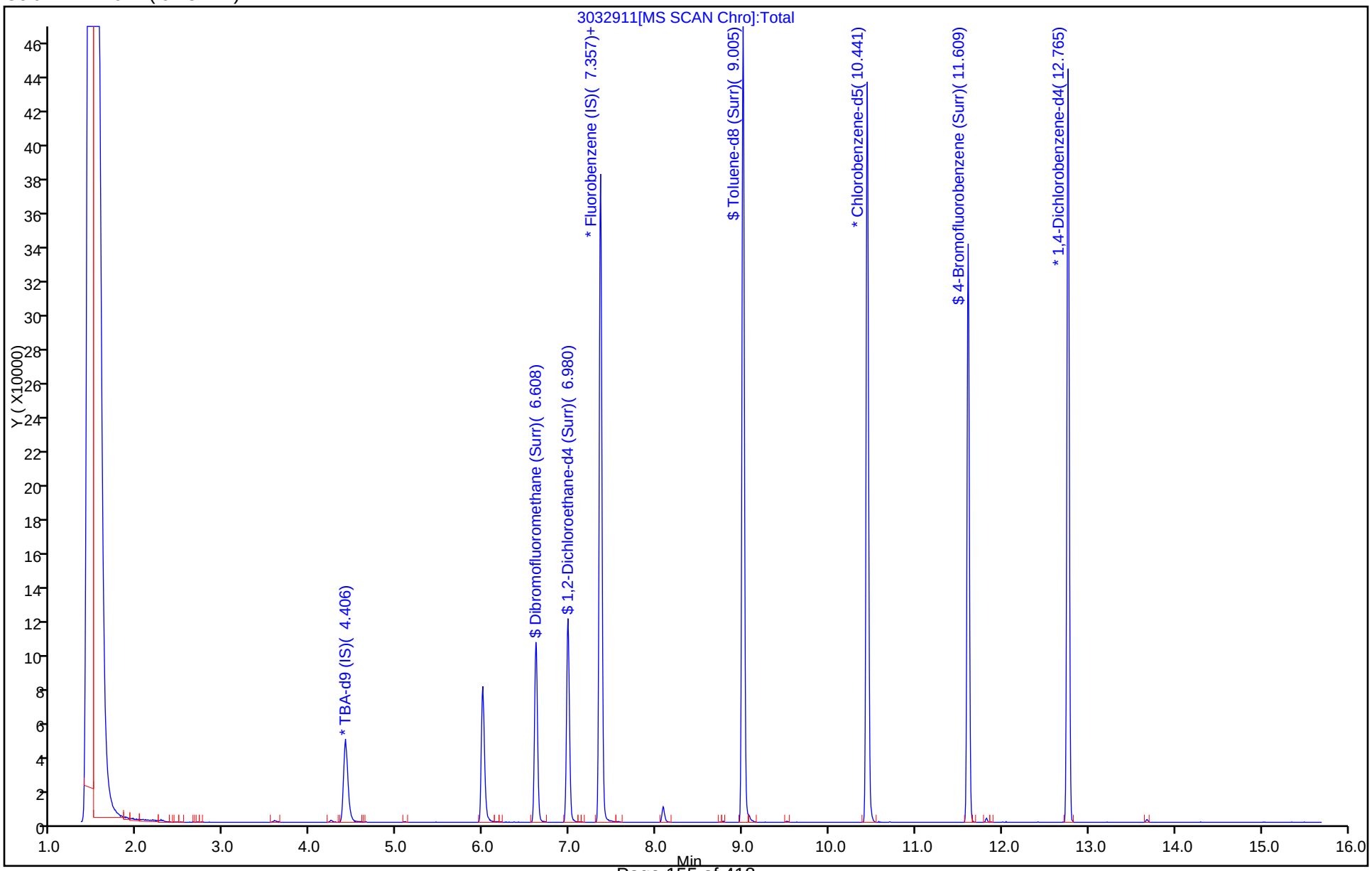
Report Date: 29-Mar-2017 14:04:26 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032911.D

Injection Date:	29-Mar-2017 12:18:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-3-B	Lab Sample ID:	180-64650-3	Worklist Smp#:	11
Client ID:	HD-SPBA-SB-006-10/10.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032911.D
Lims ID: 180-64650-B-3-B
Client ID: HD-SPBA-SB-006-10/10.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 12:18:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-3-B
Misc. Info.: 180-0016077-011
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:02:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	234.9	93.98
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	273.1	109.25
$ 7 Toluene-d8 (Surr)	250.0	232.5	92.98
$ 8 4-Bromofluorobenzene (Surr)	250.0	226.3	90.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-15/15.5-0 | Lab Sample ID: 180-64650-4

Matrix: Solid | Lab File ID: 3032912.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:00

Sample wt/vol: 7.3014(g) | Date Analyzed: 03/29/2017 12:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.9 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.1	U	4.1	2.2
71-55-6	1,1,1-Trichloroethane	4.1	U	4.1	0.88
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U	4.1	3.2
79-00-5	1,1,2-Trichloroethane	4.1	U	4.1	2.3
75-34-3	1,1-Dichloroethane	4.1	U	4.1	0.92
75-35-4	1,1-Dichloroethene	4.1	U *	4.1	1.2
107-06-2	1,2-Dichloroethane	4.1	U	4.1	0.91
78-87-5	1,2-Dichloropropane	4.1	U	4.1	1.5
78-93-3	2-Butanone (MEK)	4.1	U	4.1	2.4
591-78-6	2-Hexanone	4.1	U	4.1	3.3
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1	U	4.1	2.9
67-64-1	Acetone	16	U	16	8.4
71-43-2	Benzene	4.1	U	4.1	2.5
75-25-2	Bromoform	4.1	U	4.1	3.7
74-83-9	Bromomethane	4.1	U ^c	4.1	1.4
75-15-0	Carbon disulfide	4.1	U *	4.1	1.7
56-23-5	Carbon tetrachloride	4.1	U	4.1	1.1
108-90-7	Chlorobenzene	4.1	U	4.1	1.8
124-48-1	Dibromochloromethane	4.1	U	4.1	2.0
123-91-1	1,4-Dioxane	810	U	810	20
67-66-3	Chloroform	4.1	U	4.1	1.0
74-87-3	Chloromethane	4.1	U ^c	4.1	2.2
75-00-3	Chloroethane	4.1	U ^c *	4.1	1.7
156-59-2	cis-1,2-Dichloroethene	4.1	U	4.1	1.1
10061-01-5	cis-1,3-Dichloropropene	4.1	U	4.1	1.8
75-27-4	Bromodichloromethane	4.1	U	4.1	1.6
100-41-4	Ethylbenzene	4.1	U	4.1	1.6
106-93-4	1,2-Dibromoethane (EDB)	4.1	U	4.1	1.7
1634-04-4	Methyl tert-butyl ether	4.1	U	4.1	2.0
75-09-2	Methylene Chloride	4.1	U ^c	4.1	0.45
100-42-5	Styrene	4.1	U	4.1	1.9
127-18-4	Tetrachloroethene	4.1	U	4.1	1.0
108-88-3	Toluene	4.1	U	4.1	3.0
156-60-5	trans-1,2-Dichloroethene	4.1	U *	4.1	0.83
10061-02-6	trans-1,3-Dichloropropene	4.1	U	4.1	2.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-15/15.5-0 | Lab Sample ID: 180-64650-4

Matrix: Solid | Lab File ID: 3032912.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:00

Sample wt/vol: 7.3014(g) | Date Analyzed: 03/29/2017 12:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.9 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.1	U	4.1	0.92
107-13-1	Acrylonitrile	41	U *	41	20
75-01-4	Vinyl chloride	4.1	U ^c	4.1	2.1
1330-20-7	Xylenes, Total	8.1	U	8.1	3.7
74-97-5	Bromochloromethane	4.1	U	4.1	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	97		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		52-124
460-00-4	4-Bromofluorobenzene (Surr)	94		63-120
2037-26-5	Toluene-d8 (Surr)	99		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032912.D
Lims ID: 180-64650-B-4-B
Client ID: HD-SPBA-SB-006-15/15.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 12:40:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-4-B
Misc. Info.: 180-0016077-012
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:02:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.411	4.436	-0.025	98	82664	5000.0	
* 2 Fluorobenzene (IS)	96	7.355	7.350	0.005	98	352265	250.0	
* 3 Chlorobenzene-d5	119	10.445	10.440	0.005	90	75663	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.763	12.764	-0.001	97	120832	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.613	6.602	0.011	94	73647	243.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.973	0.011	92	100910	289.8	
$ 7 Toluene-d8 (Surr)	98	9.004	9.005	-0.001	93	325415	248.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.608	-0.001	88	125352	235.8	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43	3.583	3.584	-0.001	67	1911	20.9	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84		4.223				ND	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164		9.619				ND	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

Reagents:

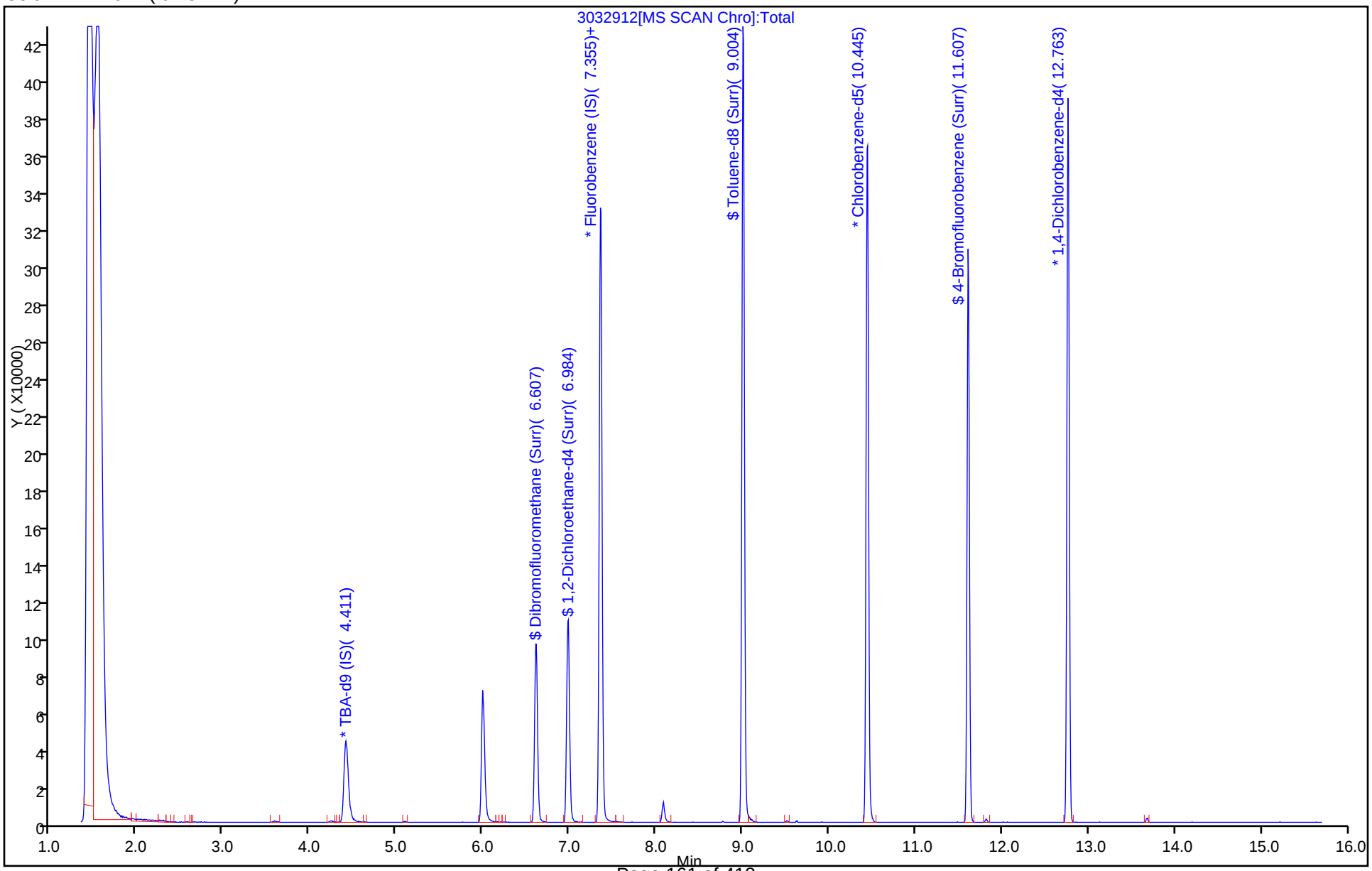
VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 29-Mar-2017 14:04:25 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032912.D				
Injection Date:	29-Mar-2017 12:40:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-4-B	Lab Sample ID:	180-64650-4	Worklist Smp#:	12
Client ID:	HD-SPBA-SB-006-15/15.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032912.D
Lims ID: 180-64650-B-4-B
Client ID: HD-SPBA-SB-006-15/15.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 12:40:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-4-B
Misc. Info.: 180-0016077-012
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:02:10

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	243.4	97.37
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	289.8	115.90
$ 7 Toluene-d8 (Surr)	250.0	248.4	99.36
$ 8 4-Bromofluorobenzene (Surr)	250.0	235.8	94.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-20/20.5-0 | Lab Sample ID: 180-64650-5

Matrix: Solid | Lab File ID: 3032913.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:25

Sample wt/vol: 6.4913(g) | Date Analyzed: 03/29/2017 13:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 21.6 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	4.9	2.7
71-55-6	1,1,1-Trichloroethane	4.9	U	4.9	1.1
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	4.9	3.9
79-00-5	1,1,2-Trichloroethane	4.9	U	4.9	2.8
75-34-3	1,1-Dichloroethane	4.9	U	4.9	1.1
75-35-4	1,1-Dichloroethene	4.9	U *	4.9	1.4
107-06-2	1,2-Dichloroethane	4.9	U	4.9	1.1
78-87-5	1,2-Dichloropropane	4.9	U	4.9	1.8
78-93-3	2-Butanone (MEK)	4.9	U	4.9	2.9
591-78-6	2-Hexanone	4.9	U	4.9	4.0
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9	U	4.9	3.5
67-64-1	Acetone	20	U	20	10
71-43-2	Benzene	4.9	U	4.9	3.0
75-25-2	Bromoform	4.9	U	4.9	4.5
74-83-9	Bromomethane	4.9	U ^c	4.9	1.7
75-15-0	Carbon disulfide	4.9	U *	4.9	2.1
56-23-5	Carbon tetrachloride	4.9	U	4.9	1.3
108-90-7	Chlorobenzene	4.9	U	4.9	2.2
124-48-1	Dibromochloromethane	4.9	U	4.9	2.4
123-91-1	1,4-Dioxane	980	U	980	25
67-66-3	Chloroform	4.9	U	4.9	1.2
74-87-3	Chloromethane	4.9	U ^c	4.9	2.6
75-00-3	Chloroethane	4.9	U ^c *	4.9	2.1
156-59-2	cis-1,2-Dichloroethene	4.9	U	4.9	1.3
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	2.2
75-27-4	Bromodichloromethane	4.9	U	4.9	2.0
100-41-4	Ethylbenzene	4.9	U	4.9	2.0
106-93-4	1,2-Dibromoethane (EDB)	4.9	U	4.9	2.1
1634-04-4	Methyl tert-butyl ether	4.9	U	4.9	2.5
75-09-2	Methylene Chloride	1.8	J ^c	4.9	0.55
100-42-5	Styrene	4.9	U	4.9	2.3
127-18-4	Tetrachloroethene	1.2	J	4.9	1.2
108-88-3	Toluene	4.9	U	4.9	3.6
156-60-5	trans-1,2-Dichloroethene	4.9	U *	4.9	1.0
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-20/20.5-0 | Lab Sample ID: 180-64650-5

Matrix: Solid | Lab File ID: 3032913.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:25

Sample wt/vol: 6.4913(g) | Date Analyzed: 03/29/2017 13:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 21.6 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.9	U	4.9	1.1
107-13-1	Acrylonitrile	49	U *	49	25
75-01-4	Vinyl chloride	4.9	U ^c	4.9	2.5
1330-20-7	Xylenes, Total	9.8	U	9.8	4.5
74-97-5	Bromochloromethane	4.9	U	4.9	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	92		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		52-124
460-00-4	4-Bromofluorobenzene (Surr)	93		63-120
2037-26-5	Toluene-d8 (Surr)	101		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032913.D
Lims ID: 180-64650-B-5-B
Client ID: HD-SPBA-SB-006-20/20.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 13:03:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-5-B
Misc. Info.: 180-0016077-013
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:38:19 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:38:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.407	4.436	-0.029	99	45940	5000.0	s
* 2 Fluorobenzene (IS)	96	7.357	7.350	0.007	98	265755	250.0	
* 3 Chlorobenzene-d5	119	10.448	10.440	0.008	93	54860	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.765	12.764	0.001	98	86571	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.609	6.602	0.007	93	52453	229.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.980	6.973	0.007	90	71142	270.8	
$ 7 Toluene-d8 (Surr)	98	9.006	9.005	0.001	94	239619	252.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.608	0.001	93	89852	233.1	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43		3.584				ND	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.242	4.223	0.019	97	3228	9.34	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164	9.614	9.619	-0.005	89	1245	6.00	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

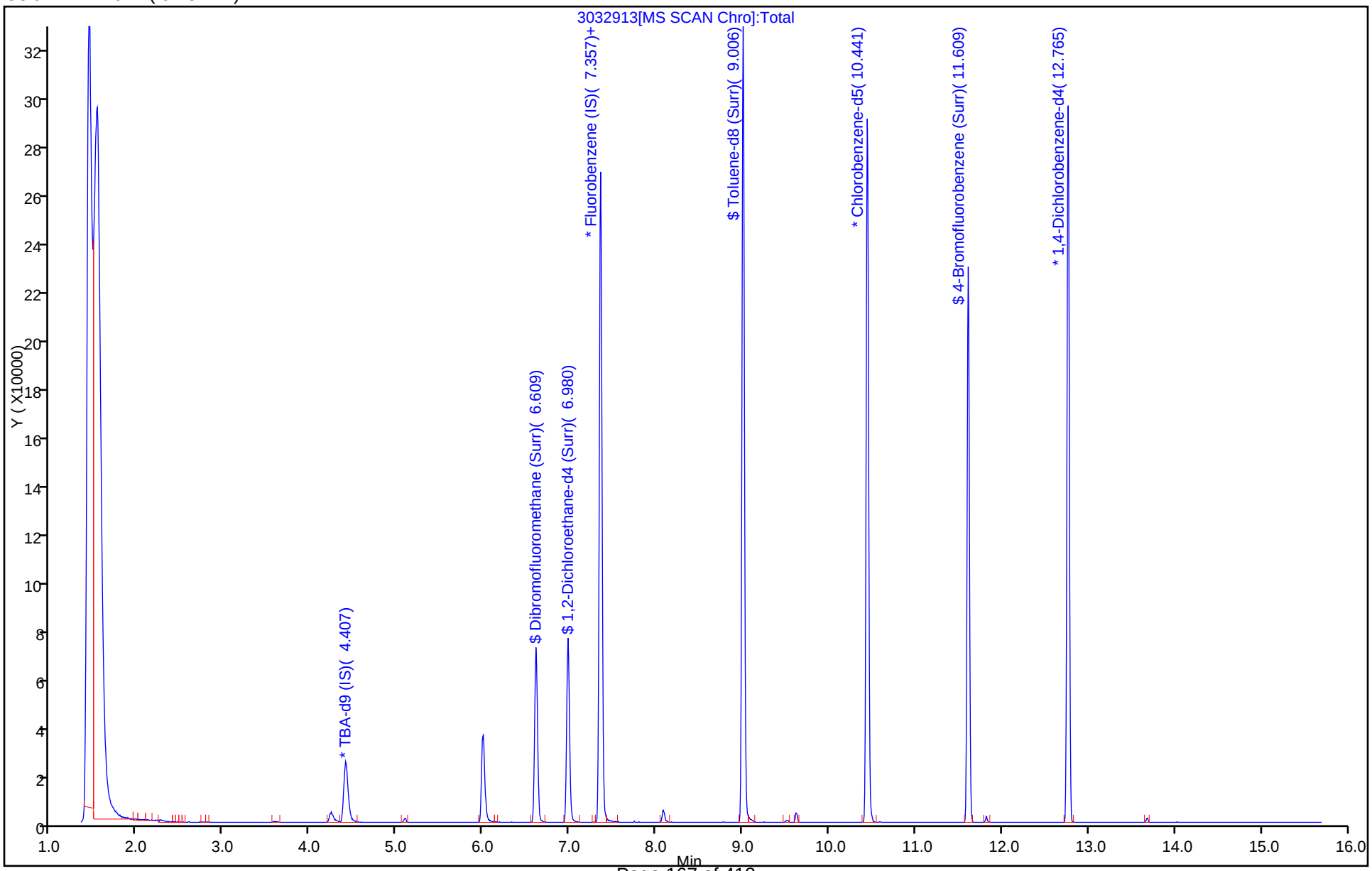
Report Date: 29-Mar-2017 14:38:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032913.D

Injection Date:	29-Mar-2017 13:03:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-5-B	Lab Sample ID:	180-64650-5	Worklist Smp#:	13
Client ID:	HD-SPBA-SB-006-20/20.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032913.D
Lims ID: 180-64650-B-5-B
Client ID: HD-SPBA-SB-006-20/20.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 13:03:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-5-B
Misc. Info.: 180-0016077-013
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:38:19 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:38:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	229.8	91.93
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	270.8	108.31
$ 7 Toluene-d8 (Surr)	250.0	252.3	100.90
$ 8 4-Bromofluorobenzene (Surr)	250.0	233.1	93.23

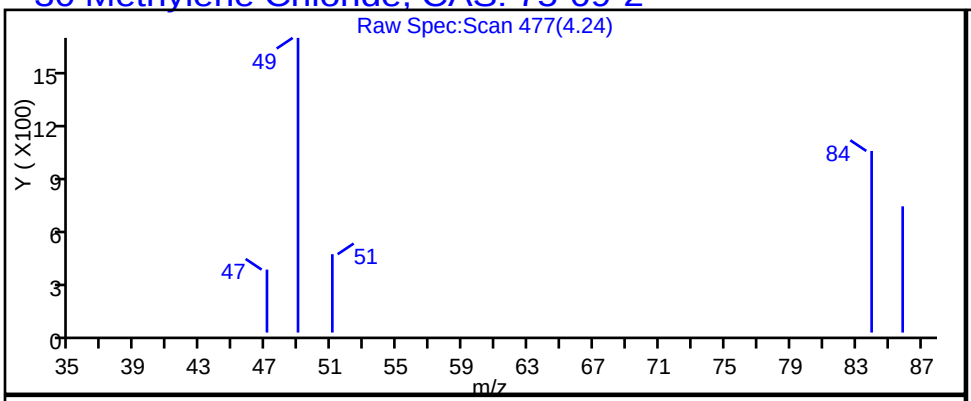
Report Date: 29-Mar-2017 14:38:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

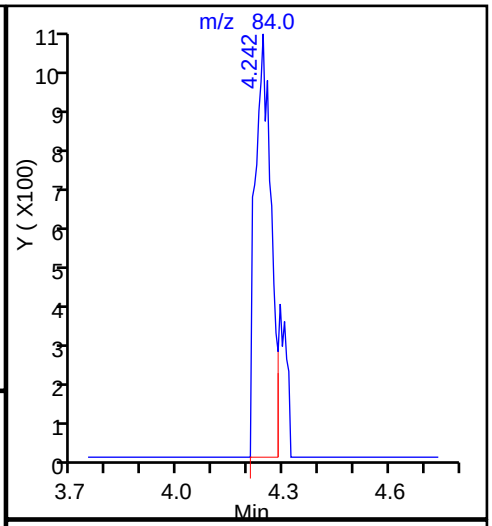
TestAmerica Pittsburgh

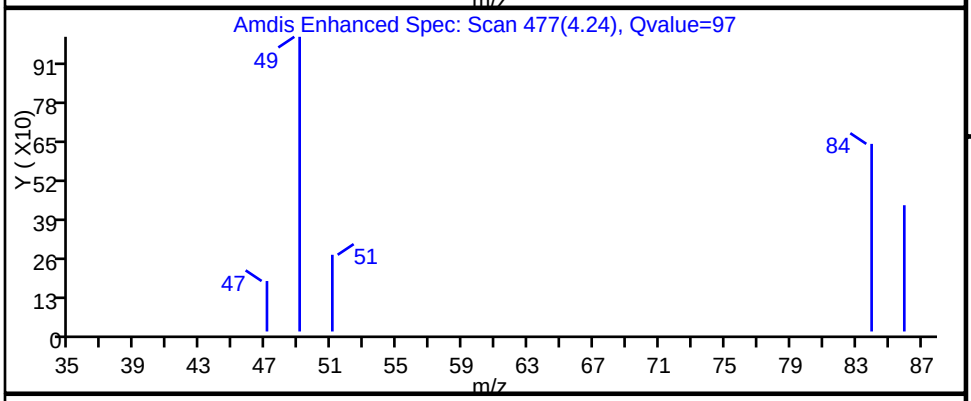
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032913.D

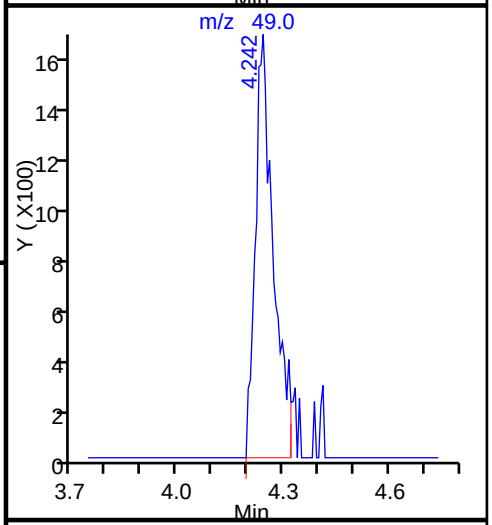
Injection Date:	29-Mar-2017 13:03:30	Instrument ID:	CHHP3		
Lims ID:	180-64650-B-5-B	Lab Sample ID:	180-64650-5		
Client ID:	HD-SPBA-SB-006-20/20.5-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

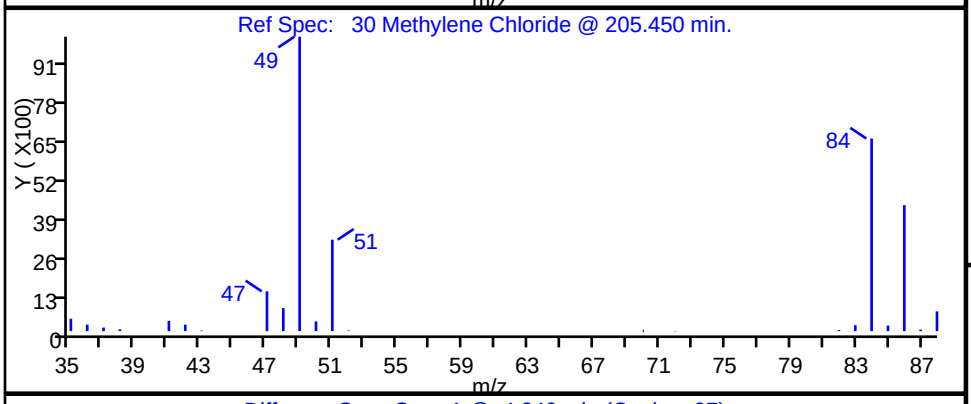
30 Methylene Chloride, CAS: 75-09-2

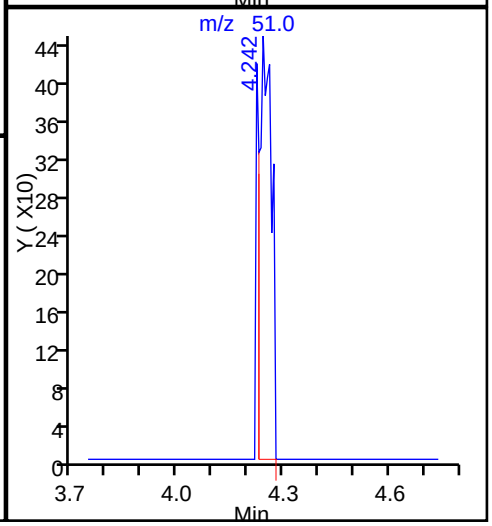


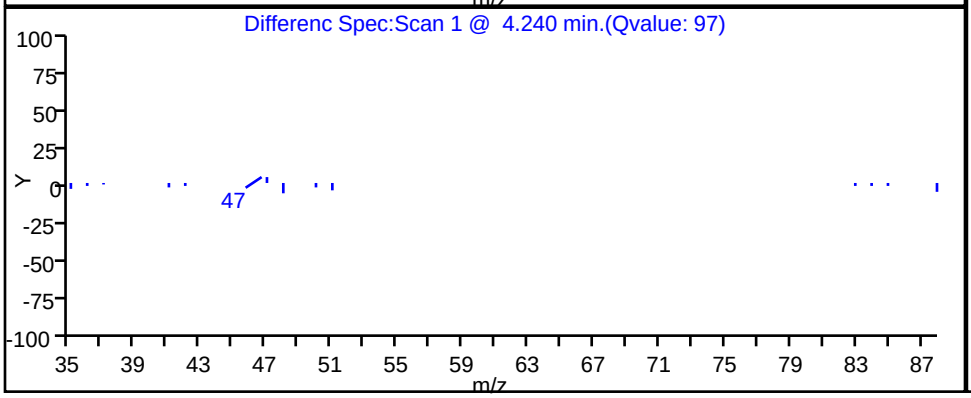












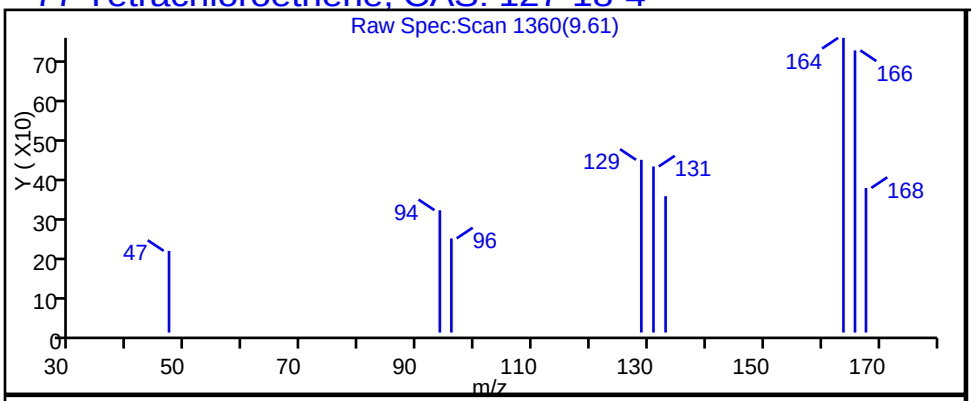
Report Date: 29-Mar-2017 14:38:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

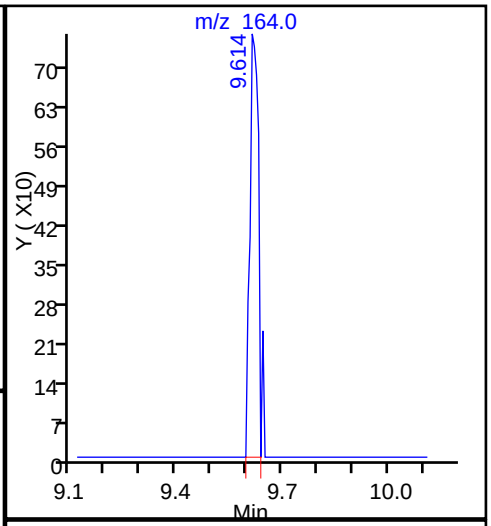
TestAmerica Pittsburgh

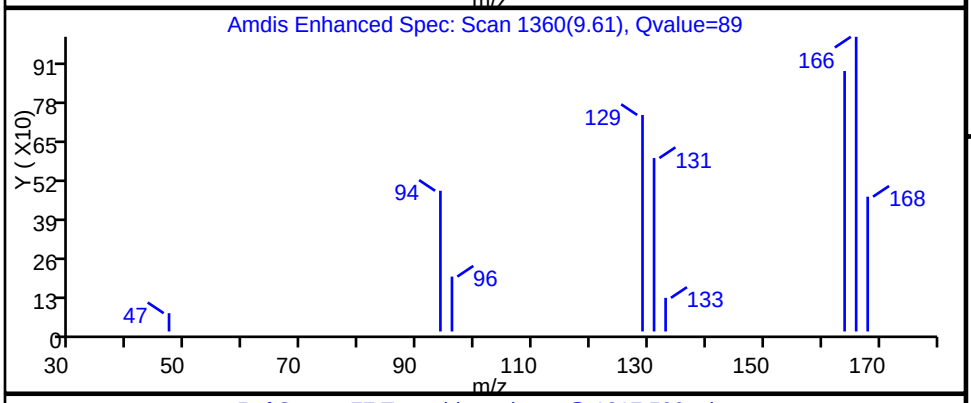
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032913.D

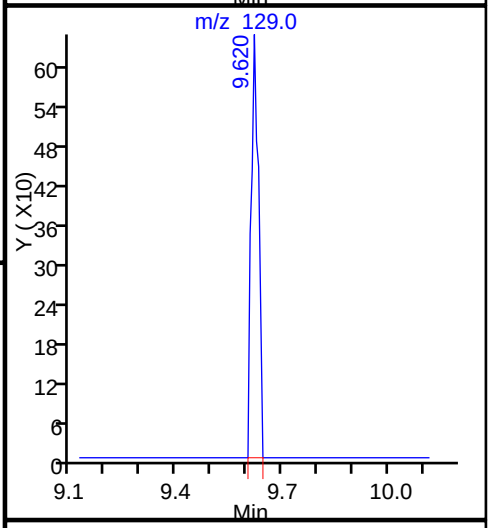
Injection Date:	29-Mar-2017 13:03:30	Instrument ID:	CHHP3		
Lims ID:	180-64650-B-5-B	Lab Sample ID:	180-64650-5		
Client ID:	HD-SPBA-SB-006-20/20.5-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

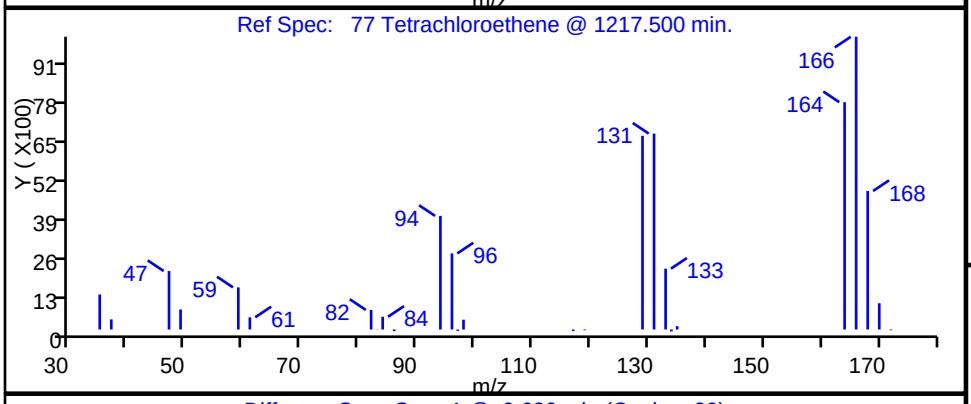
77 Tetrachloroethene, CAS: 127-18-4

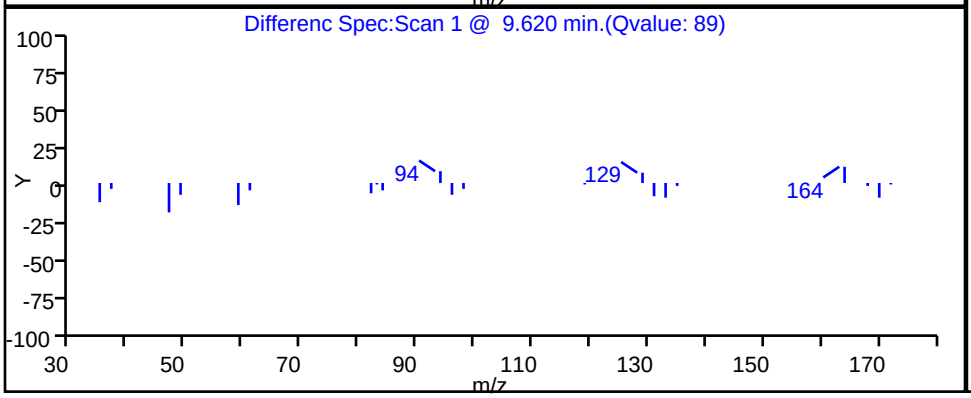


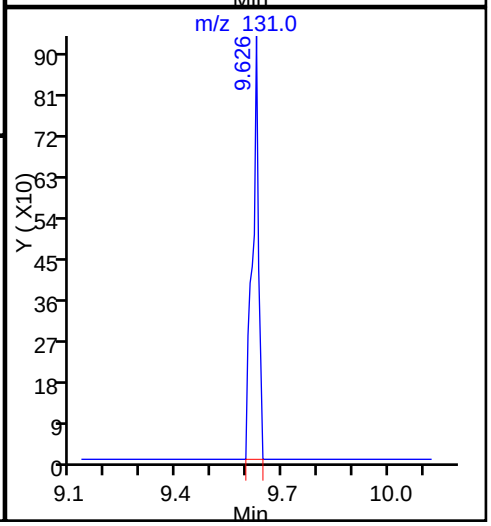












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-25/25.5-0 | Lab Sample ID: 180-64650-6

Matrix: Solid | Lab File ID: 3032914.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:50

Sample wt/vol: 6.2162(g) | Date Analyzed: 03/29/2017 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 10.9 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.5	U	4.5	2.4
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.97
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	3.6
79-00-5	1,1,2-Trichloroethane	4.5	U	4.5	2.5
75-34-3	1,1-Dichloroethane	4.5	U	4.5	1.0
75-35-4	1,1-Dichloroethene	4.5	U *	4.5	1.3
107-06-2	1,2-Dichloroethane	4.5	U	4.5	1.0
78-87-5	1,2-Dichloropropane	4.5	U	4.5	1.7
78-93-3	2-Butanone (MEK)	4.5	U	4.5	2.7
591-78-6	2-Hexanone	4.5	U	4.5	3.7
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5	U	4.5	3.2
67-64-1	Acetone	18	U	18	9.3
71-43-2	Benzene	4.5	U	4.5	2.7
75-25-2	Bromoform	4.5	U	4.5	4.1
74-83-9	Bromomethane	4.5	U ^c	4.5	1.6
75-15-0	Carbon disulfide	4.5	U *	4.5	1.9
56-23-5	Carbon tetrachloride	4.5	U	4.5	1.2
108-90-7	Chlorobenzene	4.5	U	4.5	2.0
124-48-1	Dibromochloromethane	4.5	U	4.5	2.2
123-91-1	1,4-Dioxane	900	U	900	23
67-66-3	Chloroform	4.5	U	4.5	1.1
74-87-3	Chloromethane	4.5	U ^c	4.5	2.4
75-00-3	Chloroethane	4.5	U ^c *	4.5	1.9
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	1.2
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	2.0
75-27-4	Bromodichloromethane	4.5	U	4.5	1.8
100-41-4	Ethylbenzene	4.5	U	4.5	1.8
106-93-4	1,2-Dibromoethane (EDB)	4.5	U	4.5	1.9
1634-04-4	Methyl tert-butyl ether	4.5	U	4.5	2.3
75-09-2	Methylene Chloride	1.9	J ^c	4.5	0.50
100-42-5	Styrene	4.5	U	4.5	2.1
127-18-4	Tetrachloroethene	4.5	U	4.5	1.1
108-88-3	Toluene	4.5	U	4.5	3.3
156-60-5	trans-1,2-Dichloroethene	4.5	U *	4.5	0.93
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	2.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-25/25.5-0 | Lab Sample ID: 180-64650-6

Matrix: Solid | Lab File ID: 3032914.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:50

Sample wt/vol: 6.2162(g) | Date Analyzed: 03/29/2017 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 10.9 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.5	U	4.5	1.0
107-13-1	Acrylonitrile	45	U *	45	23
75-01-4	Vinyl chloride	4.5	U ^c	4.5	2.3
1330-20-7	Xylenes, Total	9.0	U	9.0	4.1
74-97-5	Bromochloromethane	4.5	U	4.5	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	96		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		52-124
460-00-4	4-Bromofluorobenzene (Surr)	93		63-120
2037-26-5	Toluene-d8 (Surr)	99		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032914.D
Lims ID: 180-64650-B-6-B
Client ID: HD-SPBA-SB-006-25/25.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 13:25:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-6-B
Misc. Info.: 180-0016077-014
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:01:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.409	4.436	-0.027	99	44182	5000.0	s
* 2 Fluorobenzene (IS)	96	7.359	7.350	0.009	97	251597	250.0	
* 3 Chlorobenzene-d5	119	10.444	10.440	0.004	92	53722	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.764	0.004	98	84219	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.605	6.602	0.003	94	51831	239.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.973	0.009	90	70651	284.0	
$ 7 Toluene-d8 (Surr)	98	9.008	9.005	0.003	94	230061	247.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.606	11.608	-0.002	87	88060	233.3	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43		3.584				ND	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.239	4.223	0.016	96	3466	10.6	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164	9.623	9.619	0.004	86	945	4.65	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

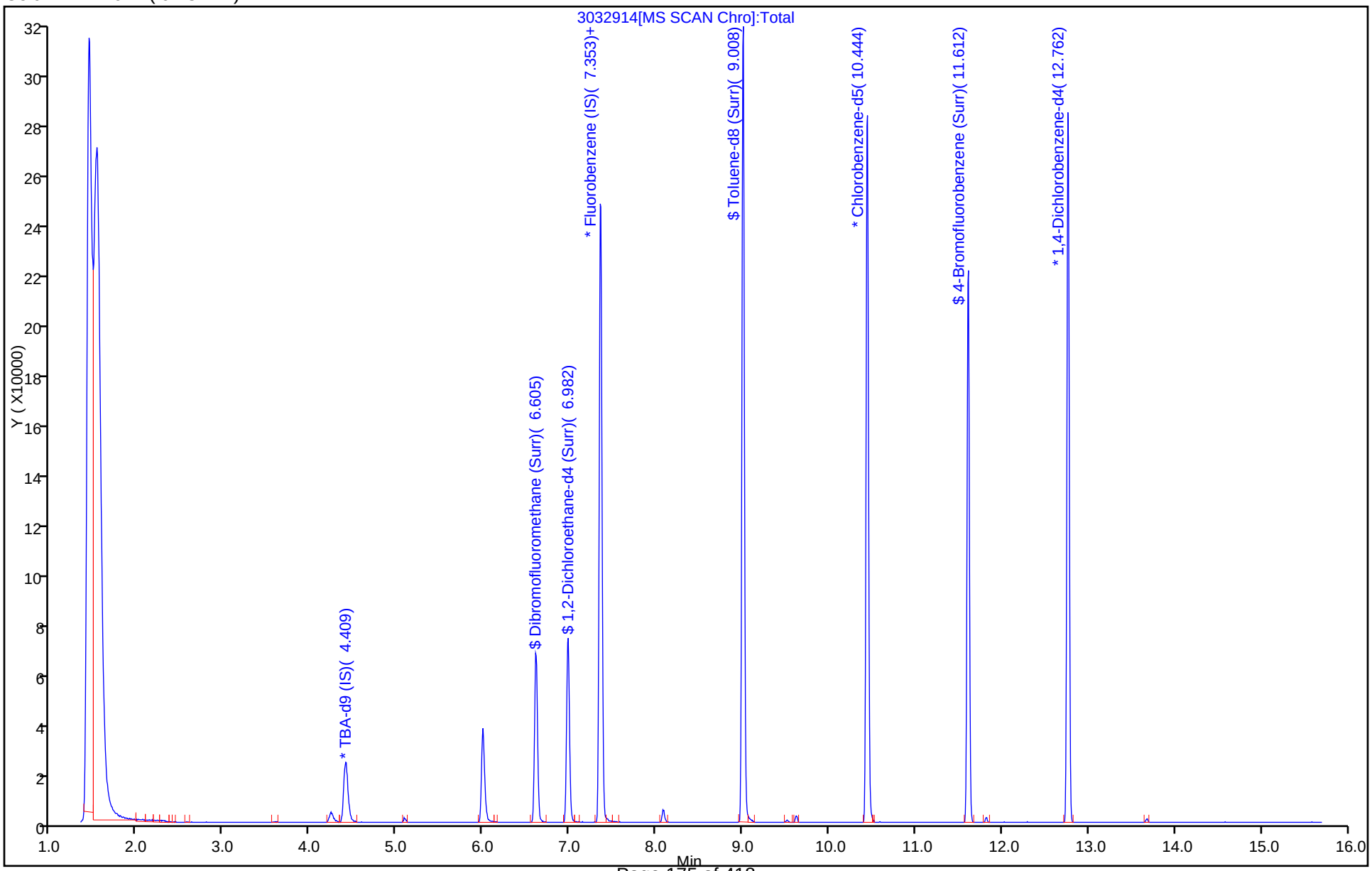
Report Date: 29-Mar-2017 14:04:23 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032914.D

Injection Date:	29-Mar-2017 13:25:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-6-B	Lab Sample ID:	180-64650-6	Worklist Smp#:	14
Client ID:	HD-SPBA-SB-006-25/25.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032914.D
Lims ID: 180-64650-B-6-B
Client ID: HD-SPBA-SB-006-25/25.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 13:25:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-6-B
Misc. Info.: 180-0016077-014
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:01:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	239.9	95.95
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	284.0	113.62
$ 7 Toluene-d8 (Surr)	250.0	247.3	98.93
$ 8 4-Bromofluorobenzene (Surr)	250.0	233.3	93.31

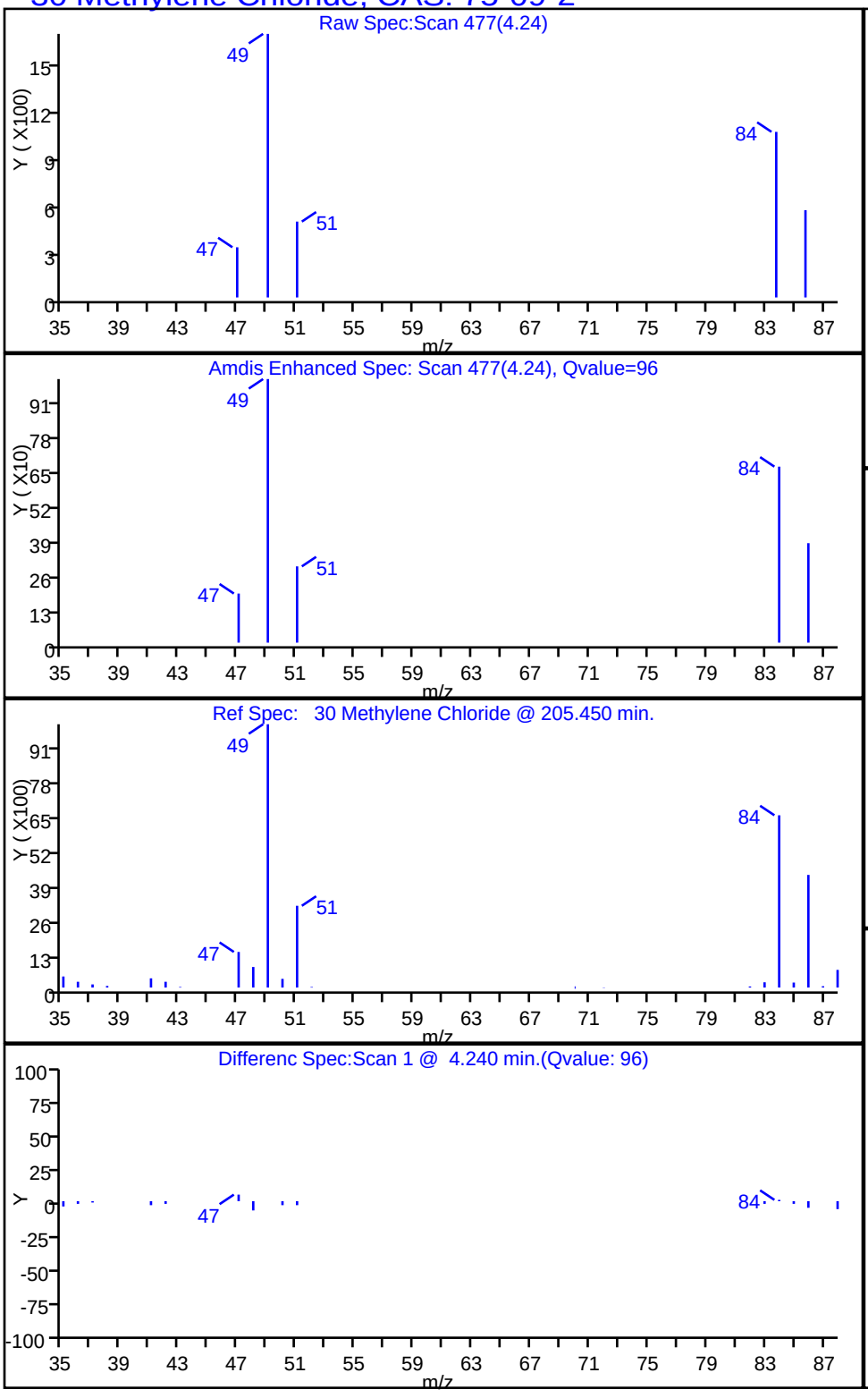
Report Date: 29-Mar-2017 14:04:23 Chrom Revision: 2.2 13-Mar-2017 15:50:30

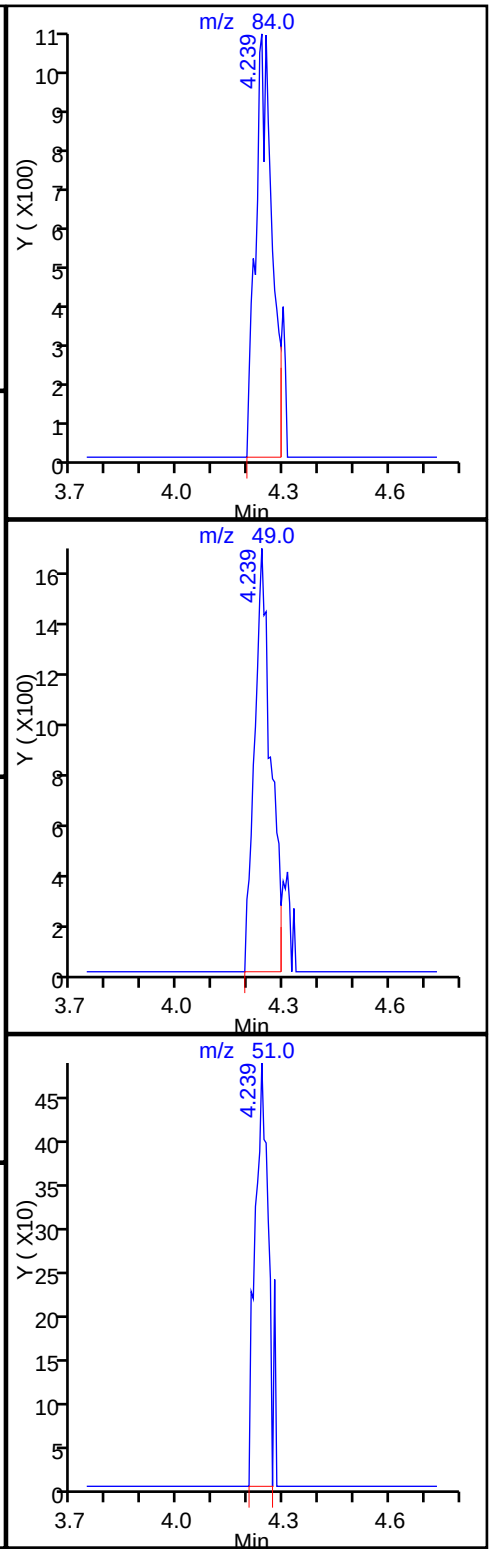
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032914.D

Injection Date:	29-Mar-2017 13:25:30	Instrument ID:	CHHP3		
Lims ID:	180-64650-B-6-B	Lab Sample ID:	180-64650-6		
Client ID:	HD-SPBA-SB-006-25/25.5-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

30 Methylene Chloride, CAS: 75-09-2





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-30/30.5-0 | Lab Sample ID: 180-64650-7

Matrix: Solid | Lab File ID: 3032915.D

Analysis Method: 8260C | Date Collected: 03/27/2017 15:15

Sample wt/vol: 8.0990(g) | Date Analyzed: 03/29/2017 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.8 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.6	U	3.6	1.9
71-55-6	1,1,1-Trichloroethane	3.6	U	3.6	0.77
79-34-5	1,1,2,2-Tetrachloroethane	3.6	U	3.6	2.8
79-00-5	1,1,2-Trichloroethane	3.6	U	3.6	2.0
75-34-3	1,1-Dichloroethane	3.6	U	3.6	0.81
75-35-4	1,1-Dichloroethene	3.6	U *	3.6	1.0
107-06-2	1,2-Dichloroethane	3.6	U	3.6	0.80
78-87-5	1,2-Dichloropropane	3.6	U	3.6	1.3
78-93-3	2-Butanone (MEK)	3.6	U	3.6	2.1
591-78-6	2-Hexanone	3.6	U	3.6	2.9
108-10-1	4-Methyl-2-pentanone (MIBK)	3.6	U	3.6	2.6
67-64-1	Acetone	14	U	14	7.4
71-43-2	Benzene	3.6	U	3.6	2.2
75-25-2	Bromoform	3.6	U	3.6	3.3
74-83-9	Bromomethane	3.6	U ^c	3.6	1.2
75-15-0	Carbon disulfide	3.6	U *	3.6	1.5
56-23-5	Carbon tetrachloride	3.6	U	3.6	0.98
108-90-7	Chlorobenzene	3.6	U	3.6	1.6
124-48-1	Dibromochloromethane	3.6	U	3.6	1.8
123-91-1	1,4-Dioxane	720	U	720	18
67-66-3	Chloroform	3.6	U	3.6	0.90
74-87-3	Chloromethane	3.6	U ^c	3.6	1.9
75-00-3	Chloroethane	3.6	U ^c *	3.6	1.5
156-59-2	cis-1,2-Dichloroethene	3.6	U	3.6	0.96
10061-01-5	cis-1,3-Dichloropropene	3.6	U	3.6	1.6
75-27-4	Bromodichloromethane	3.6	U	3.6	1.4
100-41-4	Ethylbenzene	3.6	U	3.6	1.4
106-93-4	1,2-Dibromoethane (EDB)	3.6	U	3.6	1.5
1634-04-4	Methyl tert-butyl ether	3.6	U	3.6	1.8
75-09-2	Methylene Chloride	1.2	J ^c	3.6	0.40
100-42-5	Styrene	3.6	U	3.6	1.7
127-18-4	Tetrachloroethene	1.1	J	3.6	0.89
108-88-3	Toluene	3.6	U	3.6	2.6
156-60-5	trans-1,2-Dichloroethene	3.6	U *	3.6	0.73
10061-02-6	trans-1,3-Dichloropropene	3.6	U	3.6	1.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-30/30.5-0 | Lab Sample ID: 180-64650-7

Matrix: Solid | Lab File ID: 3032915.D

Analysis Method: 8260C | Date Collected: 03/27/2017 15:15

Sample wt/vol: 8.0990(g) | Date Analyzed: 03/29/2017 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.8 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	3.6	U	3.6	0.81
107-13-1	Acrylonitrile	36	U *	36	18
75-01-4	Vinyl chloride	3.6	U ^c	3.6	1.8
1330-20-7	Xylenes, Total	7.2	U	7.2	3.3
74-97-5	Bromochloromethane	3.6	U	3.6	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	101		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		52-124
460-00-4	4-Bromofluorobenzene (Surr)	96		63-120
2037-26-5	Toluene-d8 (Surr)	100		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032915.D
Lims ID: 180-64650-B-7-B
Client ID: HD-SPBA-SB-006-30/30.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 13:48:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-7-B
Misc. Info.: 180-0016077-015
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:38:19 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:38:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.412	4.436	-0.024	99	55427	5000.0	
* 2 Fluorobenzene (IS)	96	7.357	7.350	0.007	97	253614	250.0	
* 3 Chlorobenzene-d5	119	10.441	10.440	0.001	93	54597	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.765	12.764	0.001	98	86888	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.608	6.602	0.006	94	55043	252.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.973	0.006	90	77919	310.8	
$ 7 Toluene-d8 (Surr)	98	9.005	9.005	0.000	94	237389	251.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.608	0.001	87	91601	238.8	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43		3.584				ND	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.236	4.223	0.013	95	2769	8.40	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164	9.626	9.619	0.007	86	1551	7.51	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

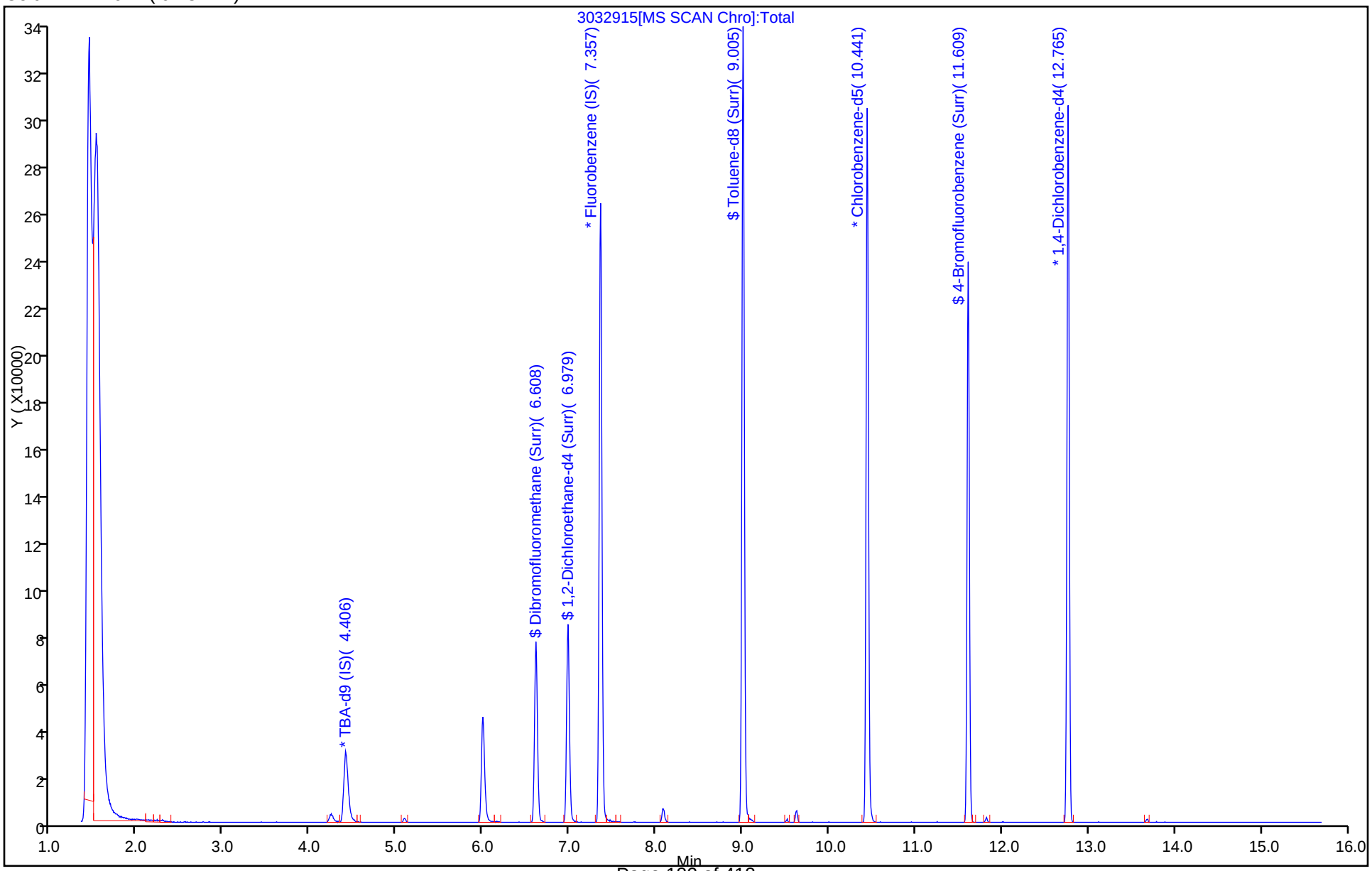
Report Date: 29-Mar-2017 14:38:28 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032915.D

Injection Date:	29-Mar-2017 13:48:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-7-B	Lab Sample ID:	180-64650-7	Worklist Smp#:	15
Client ID:	HD-SPBA-SB-006-30/30.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032915.D
Lims ID: 180-64650-B-7-B
Client ID: HD-SPBA-SB-006-30/30.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 13:48:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-7-B
Misc. Info.: 180-0016077-015
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:38:19 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:38:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	252.7	101.09
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	310.8	124.31
$ 7 Toluene-d8 (Surr)	250.0	251.1	100.45
$ 8 4-Bromofluorobenzene (Surr)	250.0	238.8	95.50

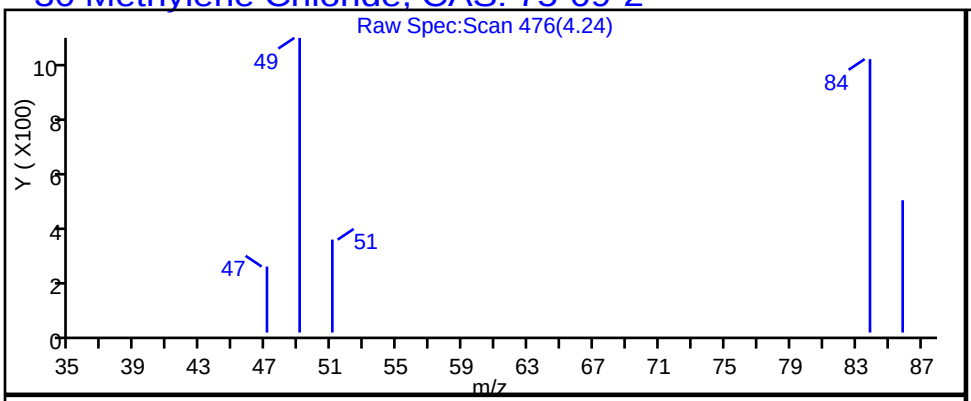
Report Date: 29-Mar-2017 14:38:28 Chrom Revision: 2.2 13-Mar-2017 15:50:30

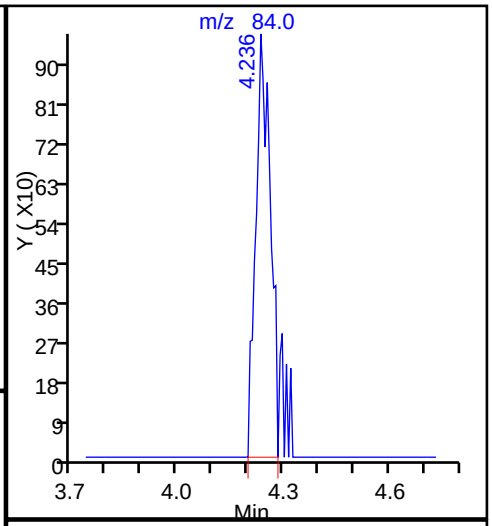
TestAmerica Pittsburgh

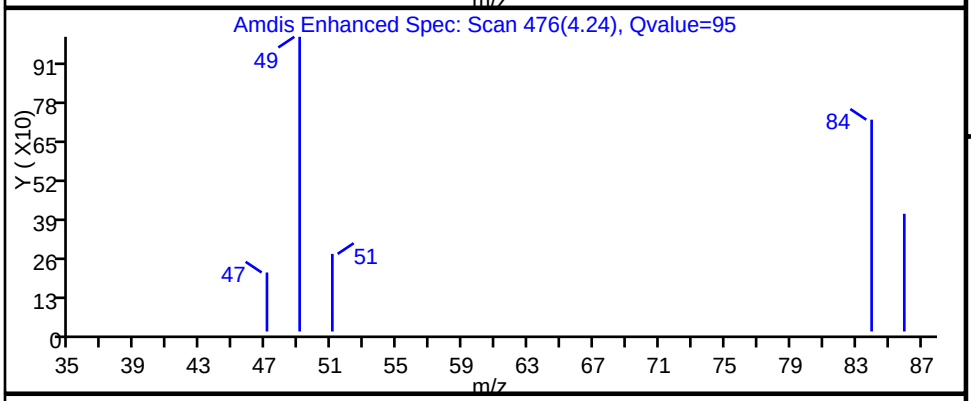
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032915.D

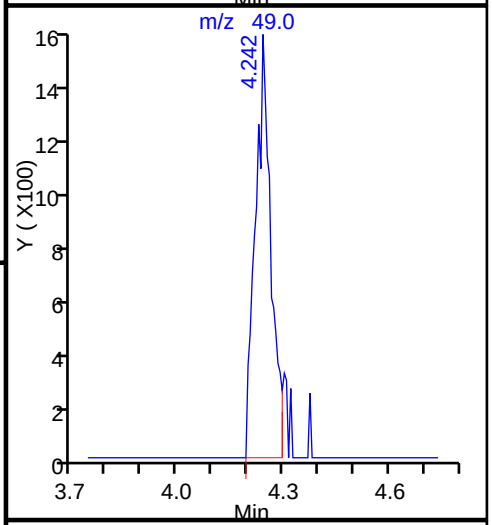
Injection Date:	29-Mar-2017 13:48:30	Instrument ID:	CHHP3
Lims ID:	180-64650-B-7-B	Lab Sample ID:	180-64650-7
Client ID:	HD-SPBA-SB-006-30/30.5-0		
Operator ID:	034635	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

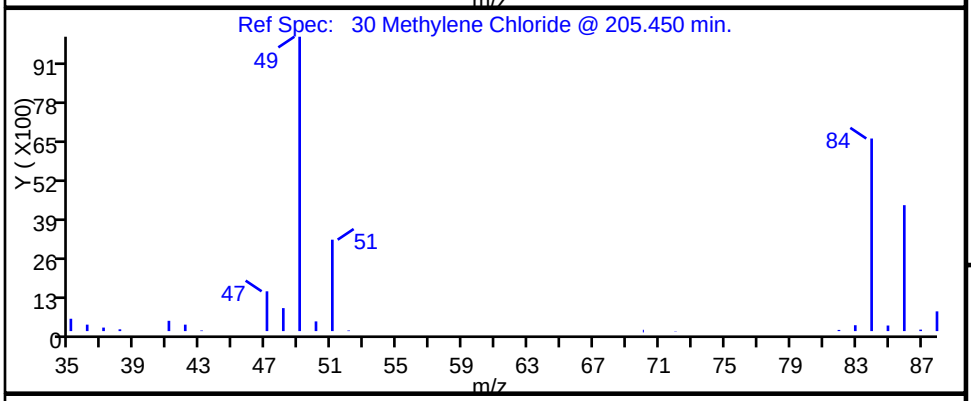
30 Methylene Chloride, CAS: 75-09-2

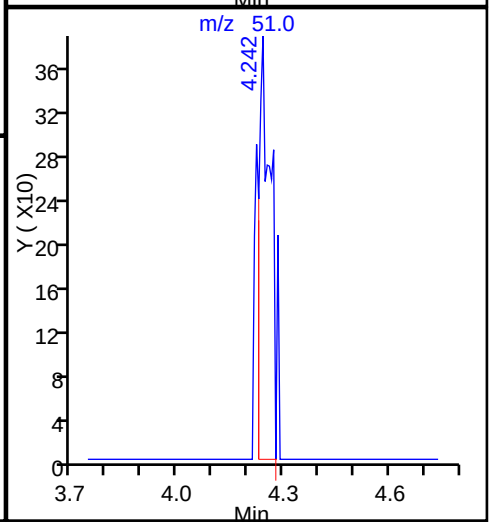


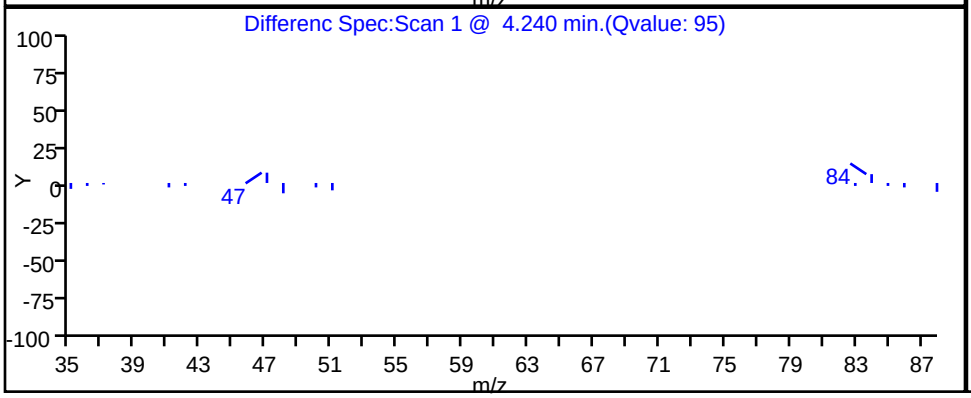












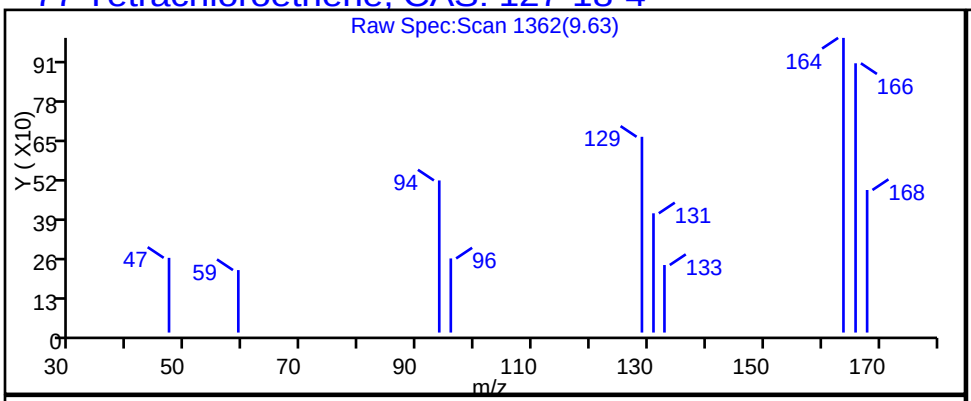
Report Date: 29-Mar-2017 14:38:28 Chrom Revision: 2.2 13-Mar-2017 15:50:30

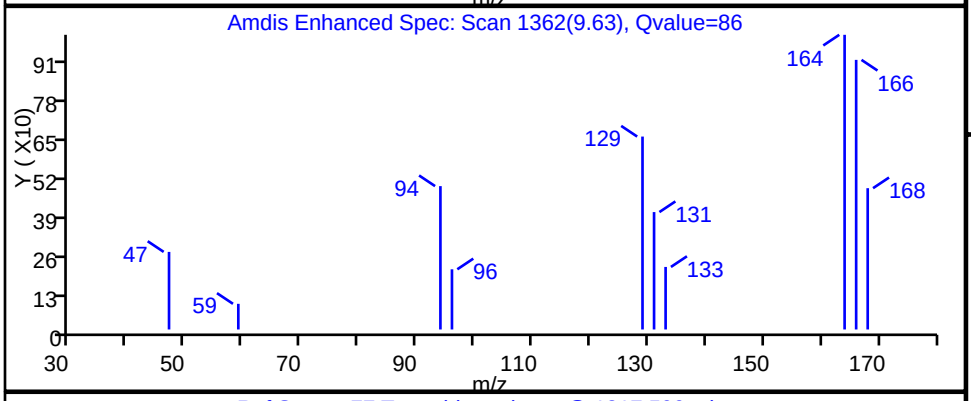
TestAmerica Pittsburgh

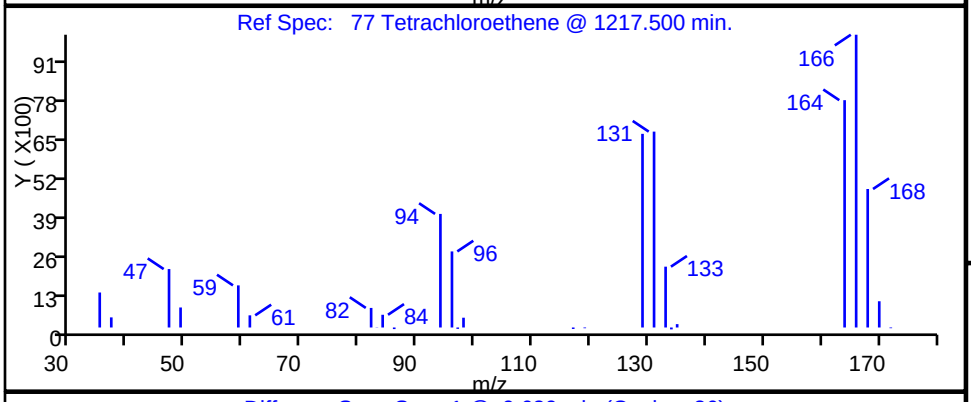
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032915.D

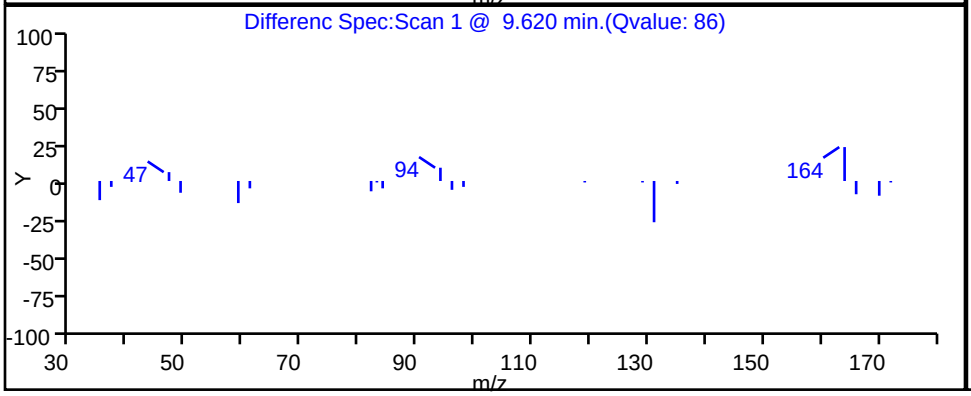
Injection Date:	29-Mar-2017 13:48:30	Instrument ID:	CHHP3		
Lims ID:	180-64650-B-7-B	Lab Sample ID:	180-64650-7		
Client ID:	HD-SPBA-SB-006-30/30.5-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

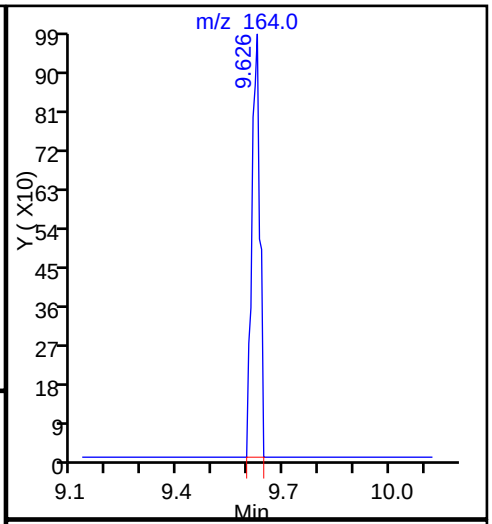
77 Tetrachloroethene, CAS: 127-18-4

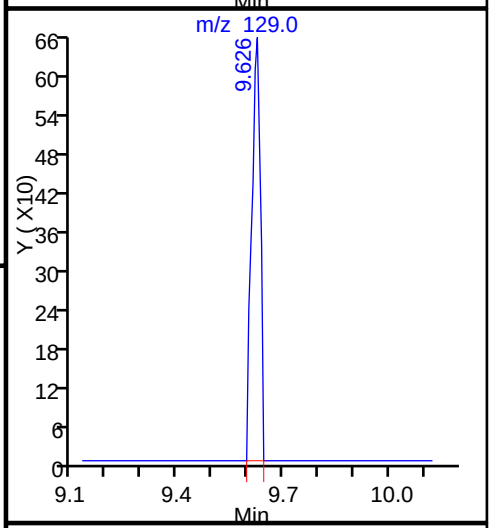


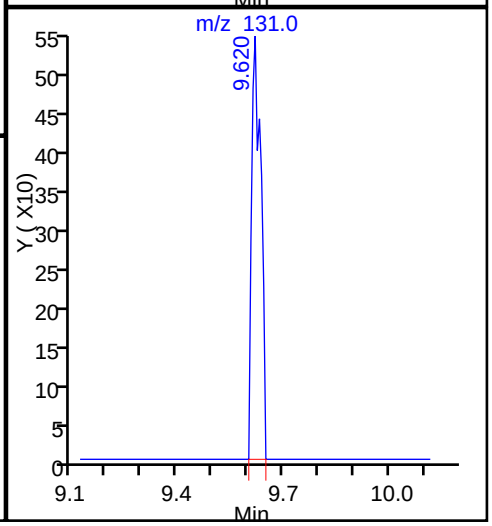












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-35/35.5-0 | Lab Sample ID: 180-64650-8

Matrix: Solid | Lab File ID: 3032916.D

Analysis Method: 8260C | Date Collected: 03/27/2017 15:50

Sample wt/vol: 7.3052(g) | Date Analyzed: 03/29/2017 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.7 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.9	U	3.9	2.1
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.85
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	3.1
79-00-5	1,1,2-Trichloroethane	3.9	U	3.9	2.2
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.88
75-35-4	1,1-Dichloroethene	3.9	U *	3.9	1.1
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.88
78-87-5	1,2-Dichloropropane	3.9	U	3.9	1.5
78-93-3	2-Butanone (MEK)	3.9	U	3.9	2.3
591-78-6	2-Hexanone	3.9	U	3.9	3.2
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	2.8
67-64-1	Acetone	16	U	16	8.1
71-43-2	Benzene	3.9	U	3.9	2.4
75-25-2	Bromoform	3.9	U	3.9	3.6
74-83-9	Bromomethane	3.9	U ^c	3.9	1.4
75-15-0	Carbon disulfide	3.9	U *	3.9	1.7
56-23-5	Carbon tetrachloride	3.9	U	3.9	1.1
108-90-7	Chlorobenzene	3.9	U	3.9	1.7
124-48-1	Dibromochloromethane	3.9	U	3.9	1.9
123-91-1	1,4-Dioxane	780	U	780	20
67-66-3	Chloroform	3.9	U	3.9	0.98
74-87-3	Chloromethane	3.9	U ^c	3.9	2.1
75-00-3	Chloroethane	3.9	U ^c *	3.9	1.7
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	1.1
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	1.7
75-27-4	Bromodichloromethane	3.9	U	3.9	1.6
100-41-4	Ethylbenzene	3.9	U	3.9	1.6
106-93-4	1,2-Dibromoethane (EDB)	3.9	U	3.9	1.7
1634-04-4	Methyl tert-butyl ether	3.9	U	3.9	2.0
75-09-2	Methylene Chloride	0.69	J ^c	3.9	0.44
100-42-5	Styrene	3.9	U	3.9	1.8
127-18-4	Tetrachloroethene	1.4	J	3.9	0.97
108-88-3	Toluene	3.9	U	3.9	2.9
156-60-5	trans-1,2-Dichloroethene	3.9	U *	3.9	0.80
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	1.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-35/35.5-0 | Lab Sample ID: 180-64650-8

Matrix: Solid | Lab File ID: 3032916.D

Analysis Method: 8260C | Date Collected: 03/27/2017 15:50

Sample wt/vol: 7.3052(g) | Date Analyzed: 03/29/2017 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.7 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	3.9	U	3.9	0.88
107-13-1	Acrylonitrile	39	U *	39	20
75-01-4	Vinyl chloride	3.9	U ^c	3.9	2.0
1330-20-7	Xylenes, Total	7.8	U	7.8	3.6
74-97-5	Bromochloromethane	3.9	U	3.9	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	98		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		52-124
460-00-4	4-Bromofluorobenzene (Surr)	96		63-120
2037-26-5	Toluene-d8 (Surr)	99		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032916.D
Lims ID: 180-64650-B-8-B
Client ID: HD-SPBA-SB-006-35/35.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 14:10:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-8-B
Misc. Info.: 180-0016077-016
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:38:19 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:37:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.410	4.436	-0.026	98	53482	5000.0	
* 2 Fluorobenzene (IS)	96	7.361	7.350	0.011	97	238286	250.0	
* 3 Chlorobenzene-d5	119	10.445	10.440	0.005	93	51430	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.763	12.764	-0.001	98	83998	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.602	0.004	94	50366	246.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.973	0.010	91	72887	309.4	
$ 7 Toluene-d8 (Surr)	98	9.003	9.005	-0.002	94	219811	246.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.608	-0.001	88	86500	239.3	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43		3.584				ND	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.252	4.223	0.029	1	1366	4.41	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164	9.624	9.619	0.005	94	1789	9.19	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

Reagents:

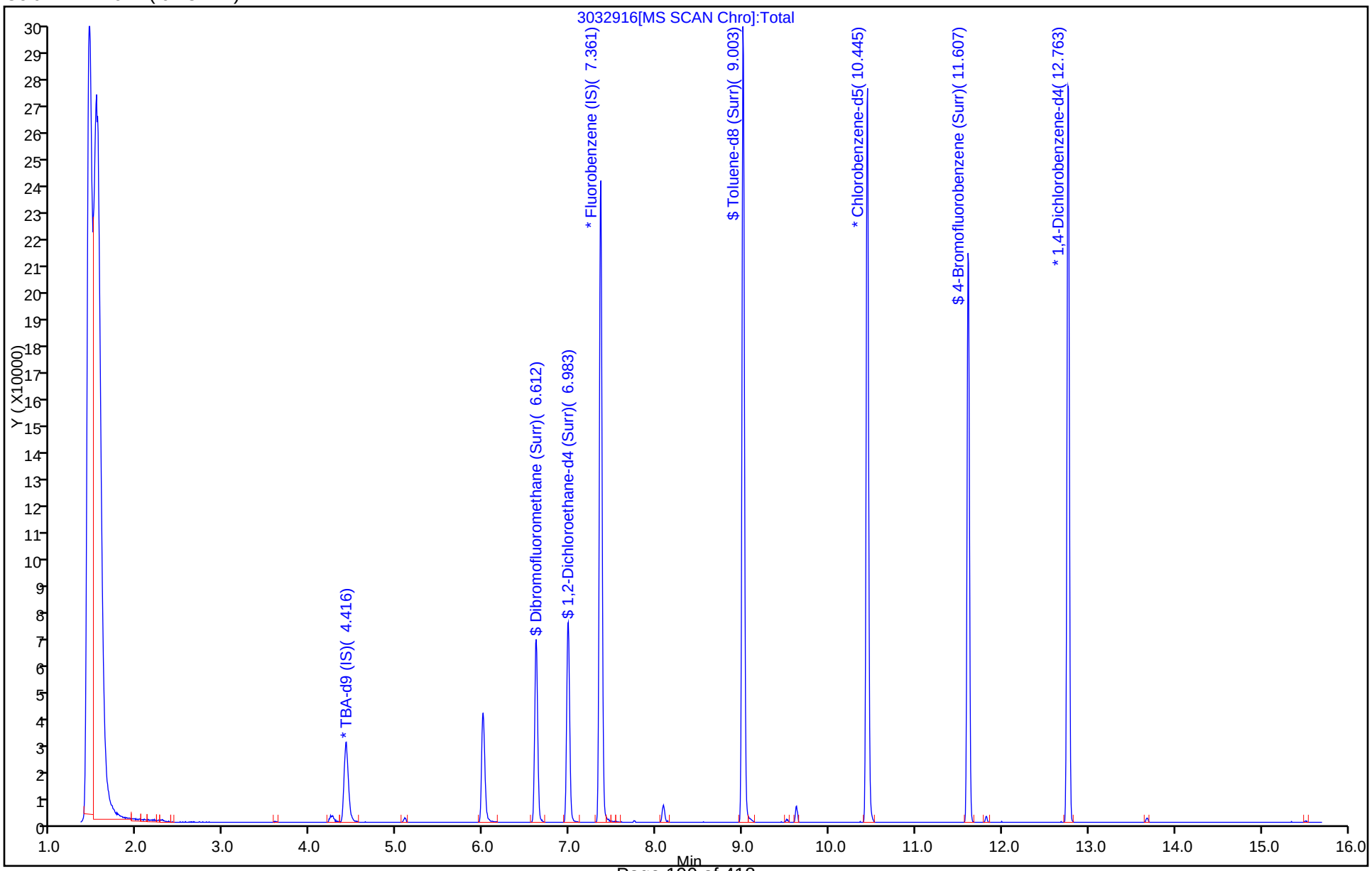
VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 29-Mar-2017 14:38:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032916.D				
Injection Date:	29-Mar-2017 14:10:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-B-8-B	Lab Sample ID:	180-64650-8	Worklist Smp#:	16
Client ID:	HD-SPBA-SB-006-35/35.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032916.D
Lims ID: 180-64650-B-8-B
Client ID: HD-SPBA-SB-006-35/35.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 14:10:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-B-8-B
Misc. Info.: 180-0016077-016
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:38:19 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 14:37:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	246.1	98.45
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	309.4	123.76
$ 7 Toluene-d8 (Surr)	250.0	246.8	98.73
$ 8 4-Bromofluorobenzene (Surr)	250.0	239.3	95.74

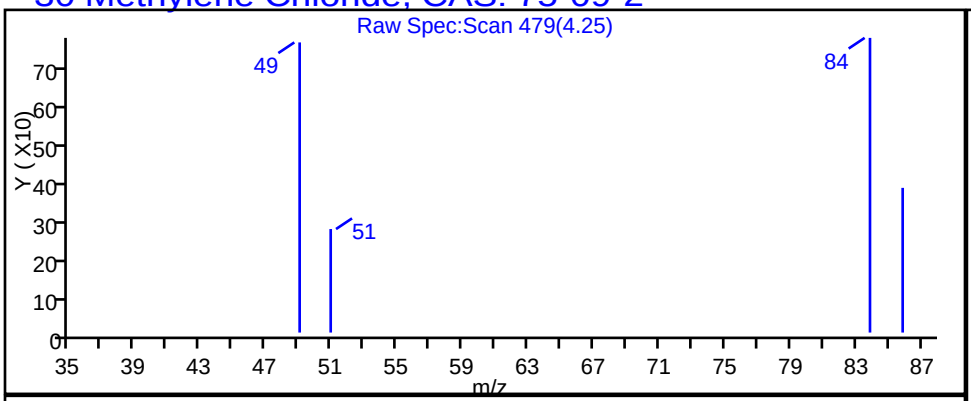
Report Date: 29-Mar-2017 14:38:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

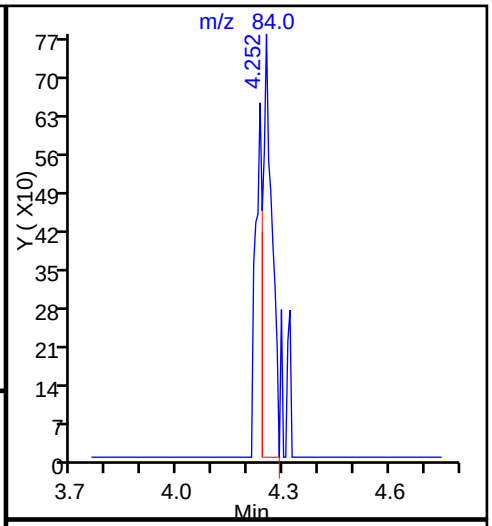
TestAmerica Pittsburgh

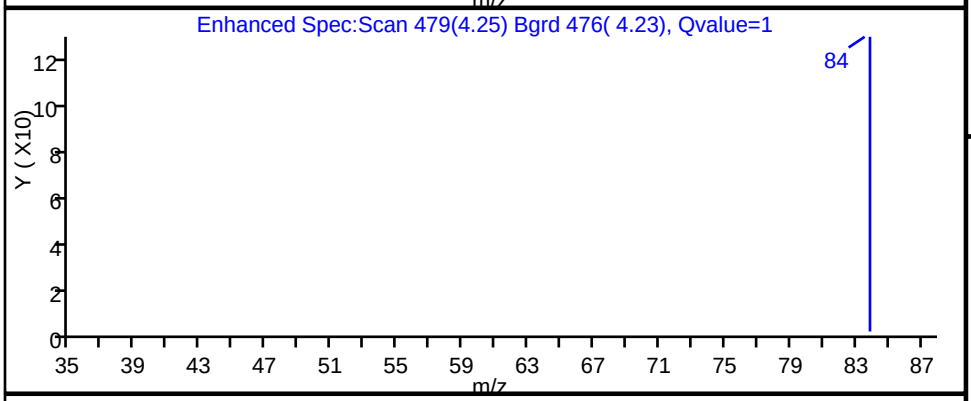
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032916.D

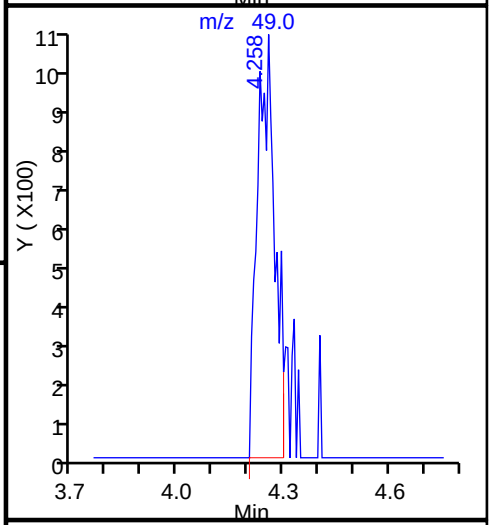
Injection Date:	29-Mar-2017 14:10:30	Instrument ID:	CHHP3		
Lims ID:	180-64650-B-8-B	Lab Sample ID:	180-64650-8		
Client ID:	HD-SPBA-SB-006-35/35.5-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

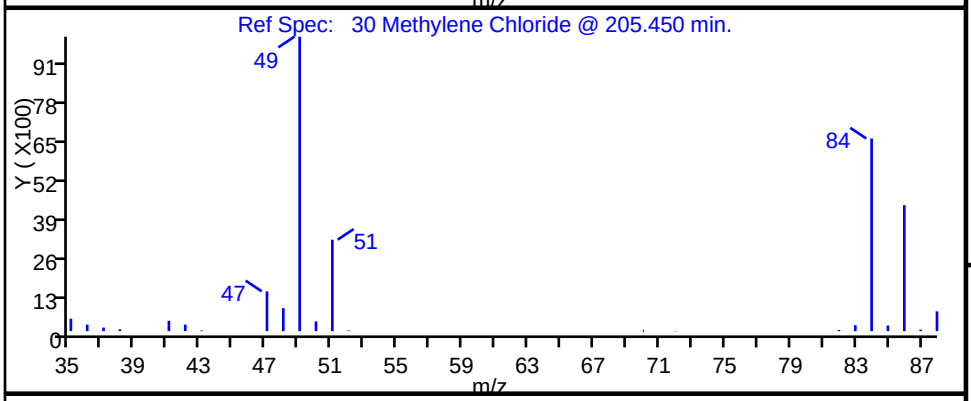
30 Methylene Chloride, CAS: 75-09-2

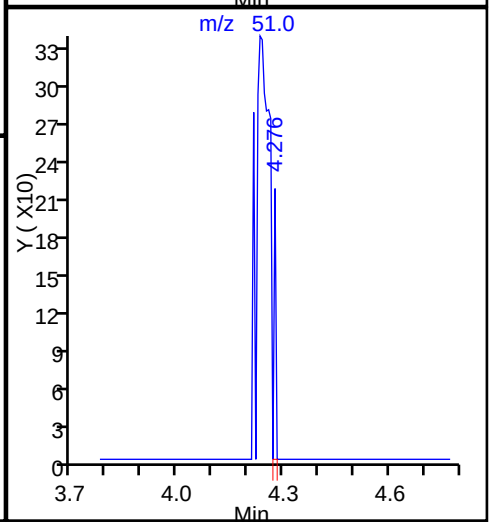


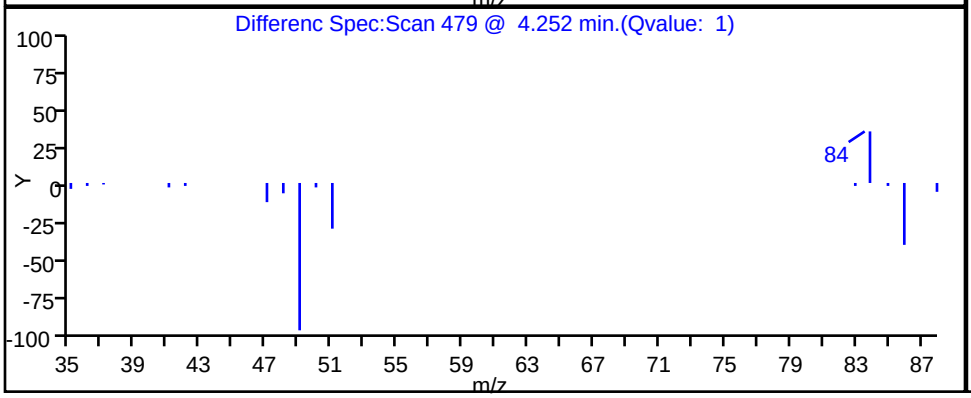










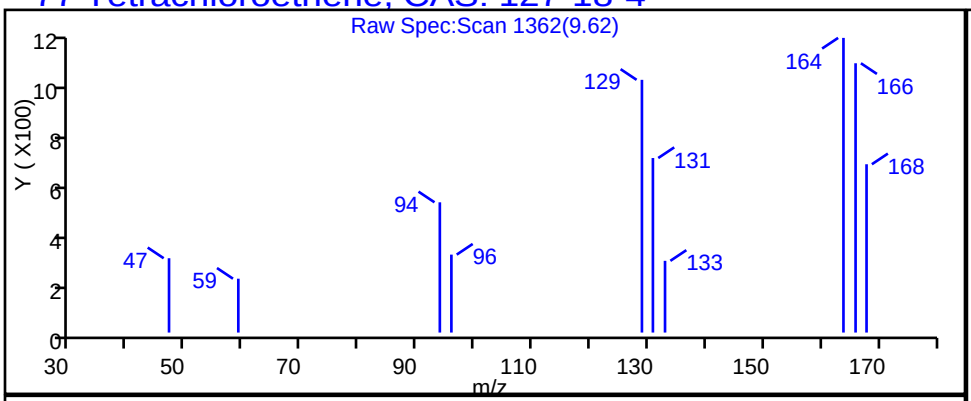


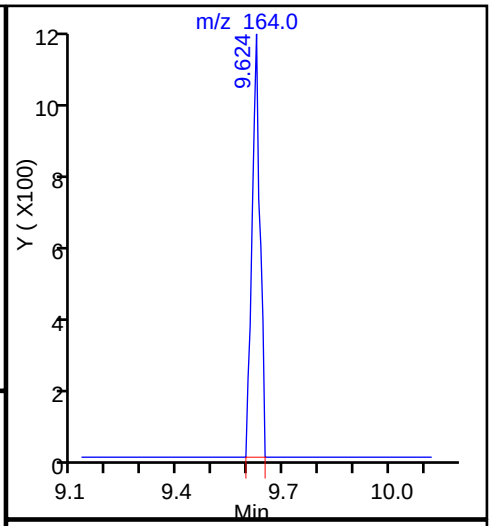
Report Date: 29-Mar-2017 14:38:27 Chrom Revision: 2.2 13-Mar-2017 15:50:30

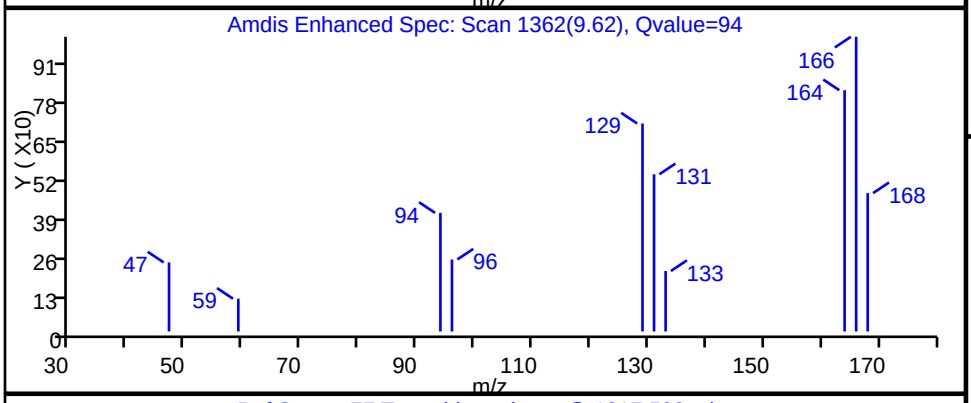
TestAmerica Pittsburgh

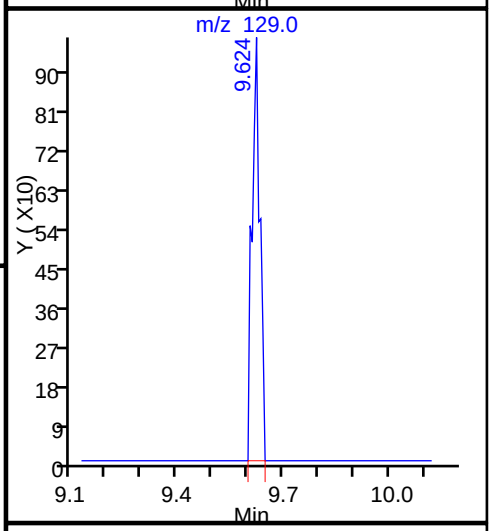
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032916.D		
Injection Date:	29-Mar-2017 14:10:30	Instrument ID:	CHHP3
Lims ID:	180-64650-B-8-B	Lab Sample ID:	180-64650-8
Client ID:	HD-SPBA-SB-006-35/35.5-0		
Operator ID:	034635	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

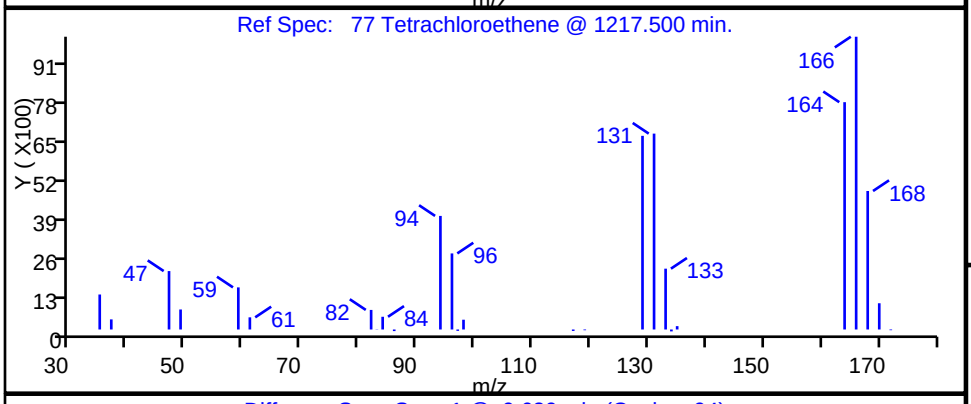
77 Tetrachloroethene, CAS: 127-18-4

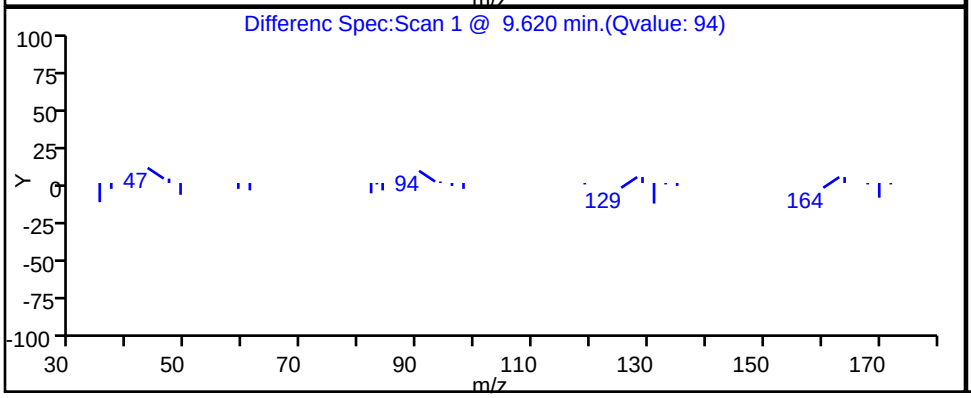


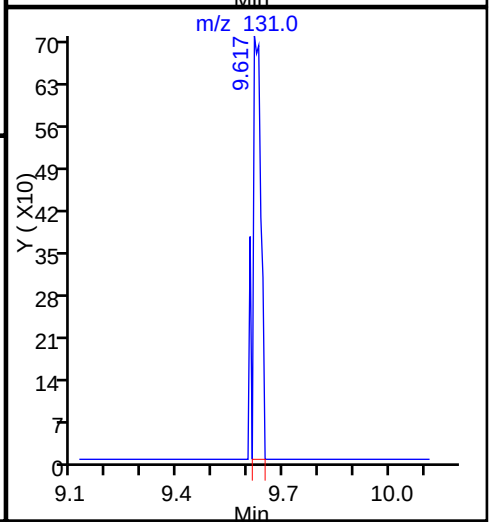












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-40/40.5-0 Lab Sample ID: 180-64650-9

Matrix: Solid Lab File ID: 3032922.D

Analysis Method: 8260C Date Collected: 03/27/2017 16:30

Sample wt/vol: 7.2465(g) Date Analyzed: 03/29/2017 16:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 20.5 Level: (low/med) Low

Analysis Batch No.: 206732 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.3	U	4.3	2.4
71-55-6	1,1,1-Trichloroethane	4.3	U	4.3	0.94
79-34-5	1,1,2,2-Tetrachloroethane	4.3	U	4.3	3.5
79-00-5	1,1,2-Trichloroethane	4.3	U	4.3	2.4
75-34-3	1,1-Dichloroethane	4.3	U	4.3	0.98
75-35-4	1,1-Dichloroethene	4.3	U *	4.3	1.3
107-06-2	1,2-Dichloroethane	4.3	U	4.3	0.97
78-87-5	1,2-Dichloropropane	4.3	U	4.3	1.6
78-93-3	2-Butanone (MEK)	4.3	U	4.3	2.6
591-78-6	2-Hexanone	4.3	U	4.3	3.5
108-10-1	4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	3.1
67-64-1	Acetone	19		17	8.9
71-43-2	Benzene	4.3	U	4.3	2.6
75-25-2	Bromoform	4.3	U	4.3	4.0
74-83-9	Bromomethane	4.3	U ^c	4.3	1.5
75-15-0	Carbon disulfide	4.3	U *	4.3	1.8
56-23-5	Carbon tetrachloride	4.3	U	4.3	1.2
108-90-7	Chlorobenzene	4.3	U	4.3	1.9
124-48-1	Dibromochloromethane	4.3	U	4.3	2.2
123-91-1	1,4-Dioxane	870	U	870	22
67-66-3	Chloroform	4.3	U	4.3	1.1
74-87-3	Chloromethane	4.3	U ^c	4.3	2.3
75-00-3	Chloroethane	4.3	U ^c *	4.3	1.9
156-59-2	cis-1,2-Dichloroethene	4.3	U	4.3	1.2
10061-01-5	cis-1,3-Dichloropropene	4.3	U	4.3	1.9
75-27-4	Bromodichloromethane	4.3	U	4.3	1.7
100-41-4	Ethylbenzene	4.3	U	4.3	1.7
106-93-4	1,2-Dibromoethane (EDB)	4.3	U	4.3	1.9
1634-04-4	Methyl tert-butyl ether	4.3	U	4.3	2.2
75-09-2	Methylene Chloride	1.3	J ^c	4.3	0.48
100-42-5	Styrene	4.3	U	4.3	2.0
127-18-4	Tetrachloroethene	4.3	U	4.3	1.1
108-88-3	Toluene	4.3	U	4.3	3.2
156-60-5	trans-1,2-Dichloroethene	4.3	U *	4.3	0.89
10061-02-6	trans-1,3-Dichloropropene	4.3	U	4.3	2.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-SPBA-SB-006-40/40.5-0 | Lab Sample ID: 180-64650-9

Matrix: Solid | Lab File ID: 3032922.D

Analysis Method: 8260C | Date Collected: 03/27/2017 16:30

Sample wt/vol: 7.2465(g) | Date Analyzed: 03/29/2017 16:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 20.5 | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.3	U	4.3	0.98
107-13-1	Acrylonitrile	43	U *	43	22
75-01-4	Vinyl chloride	4.3	U ^c	4.3	2.2
1330-20-7	Xylenes, Total	8.7	U	8.7	4.0
74-97-5	Bromochloromethane	4.3	U	4.3	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	97		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	121		52-124
460-00-4	4-Bromofluorobenzene (Surr)	89		63-120
2037-26-5	Toluene-d8 (Surr)	103		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032922.D
Lims ID: 180-64650-C-9-B
Client ID: HD-SPBA-SB-006-40/40.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 16:41:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-C-9-B
Misc. Info.: 180-0016077-022
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 06:42:16 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: journetp Date: 30-Mar-2017 06:42:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.403	4.436	-0.033	98	45464	5000.0	s
* 2 Fluorobenzene (IS)	96	7.360	7.350	0.010	97	232498	250.0	
* 3 Chlorobenzene-d5	119	10.444	10.440	0.004	93	47167	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.764	0.004	97	68450	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.605	6.602	0.003	93	48584	243.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.973	0.009	90	69429	302.1	
$ 7 Toluene-d8 (Surr)	98	9.008	9.005	0.003	94	209872	257.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.608	0.004	88	73343	221.3	
11 Chloromethane	50		1.814				ND	
12 Vinyl chloride	62		1.960				ND	
14 Bromomethane	94		2.301				ND	
15 Chloroethane	64		2.429				ND	
21 1,1-Dichloroethene	96		3.432				ND	
23 Acetone	43	3.588	3.584	0.004	96	6460	107.2	
25 Carbon disulfide	76		3.767				ND	
30 Methylene Chloride	84	4.245	4.223	0.022	96	2346	7.76	
32 Acrylonitrile	53		4.631				ND	
33 trans-1,2-Dichloroethene	96		4.649				ND	
34 Methyl tert-butyl ether	73		4.698				ND	
36 1,1-Dichloroethane	63		5.251				ND	
42 cis-1,2-Dichloroethene	96		6.012				ND	
43 2-Butanone (MEK)	43		6.066				ND	
47 Chlorobromomethane	128		6.298				ND	
49 Chloroform	83		6.419				ND	
50 1,1,1-Trichloroethane	97		6.614				ND	
53 Carbon tetrachloride	117		6.803				ND	
55 Benzene	78		7.034				ND	
56 1,2-Dichloroethane	62		7.058				ND	
60 Trichloroethene	130		7.745				ND	
64 1,2-Dichloropropane	63		7.977				ND	
67 1,4-Dioxane	88		8.129				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.275				ND	
71 cis-1,3-Dichloropropene	75		8.731				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.895				ND	
73 Toluene	91		9.072				ND	
74 trans-1,3-Dichloropropene	75		9.291				ND	
76 1,1,2-Trichloroethane	97		9.473				ND	
77 Tetrachloroethene	164		9.619				ND	
79 2-Hexanone	43		9.729				ND	
81 Chlorodibromomethane	129		9.863				ND	
82 Ethylene Dibromide	107		9.978				ND	
83 Chlorobenzene	112		10.471				ND	
85 1,1,1,2-Tetrachloroethane	131		10.550				ND	
86 Ethylbenzene	106		10.580				ND	
87 m-Xylene & p-Xylene	106		10.696				ND	
88 o-Xylene	106		11.091				ND	
89 Styrene	104		11.104				ND	
90 Bromoform	173		11.286				ND	
93 1,1,2,2-Tetrachloroethane	83		11.742				ND	
S 129 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

s - Failed ISTD Recovery Test

Reagents:

VOA8260INT_00067	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added: 10.00	Units: uL	Run Reagent

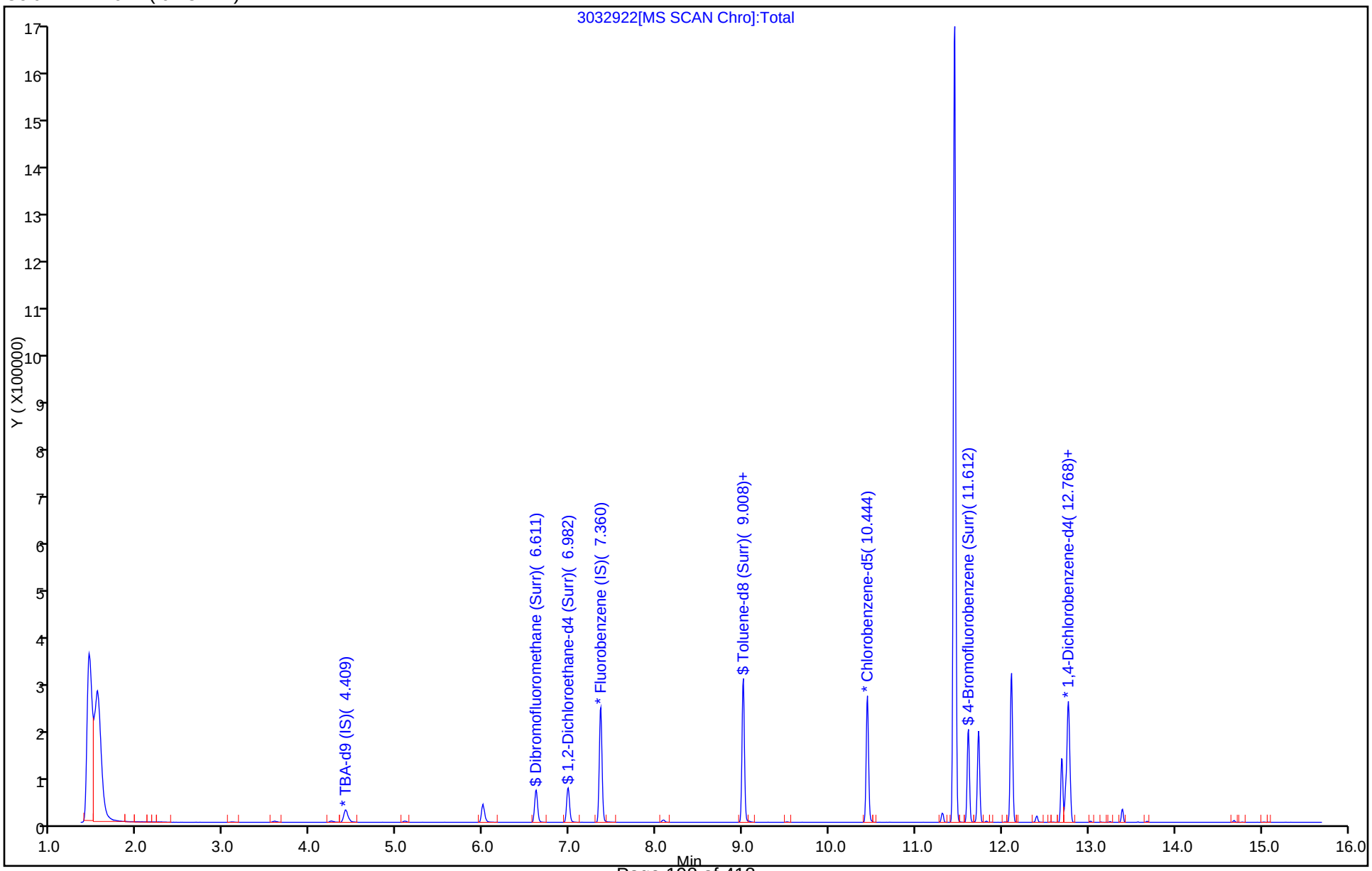
Report Date: 30-Mar-2017 06:42:30 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032922.D

Injection Date:	29-Mar-2017 16:41:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	180-64650-C-9-B	Lab Sample ID:	180-64650-9	Worklist Smp#:	22
Client ID:	HD-SPBA-SB-006-40/40.5-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032922.D
Lims ID: 180-64650-C-9-B
Client ID: HD-SPBA-SB-006-40/40.5-0
Sample Type: Client
Inject. Date: 29-Mar-2017 16:41:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-64650-C-9-B
Misc. Info.: 180-0016077-022
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 06:42:16 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: journetp Date: 30-Mar-2017 06:42:16

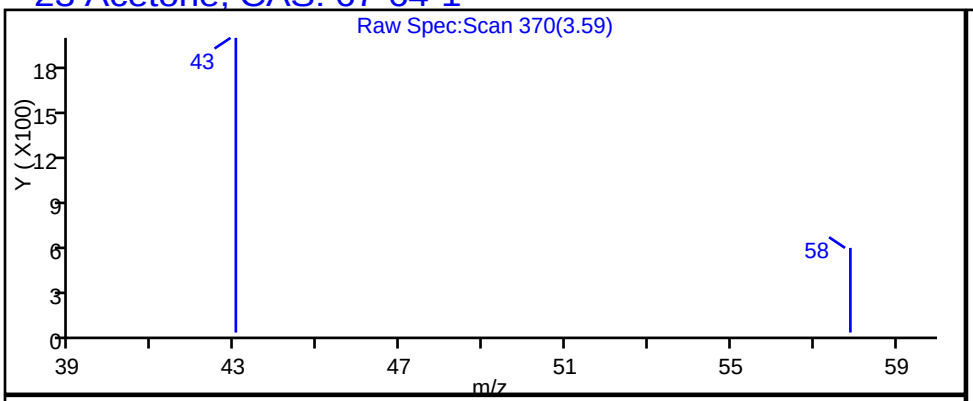
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	243.3	97.33
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	302.1	120.82
$ 7 Toluene-d8 (Surr)	250.0	257.0	102.79
$ 8 4-Bromofluorobenzene (Surr)	250.0	221.3	88.51

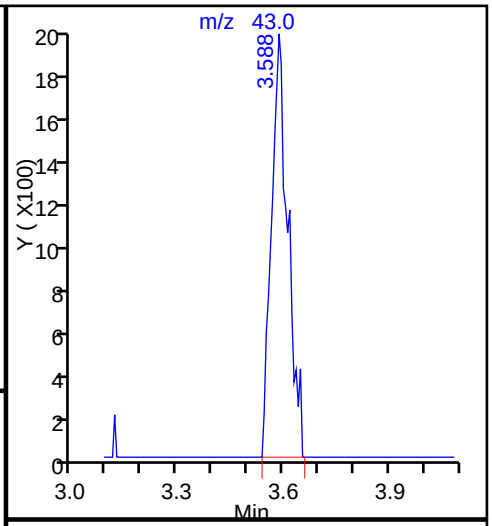
Report Date: 30-Mar-2017 06:42:30 Chrom Revision: 2.2 13-Mar-2017 15:50:30

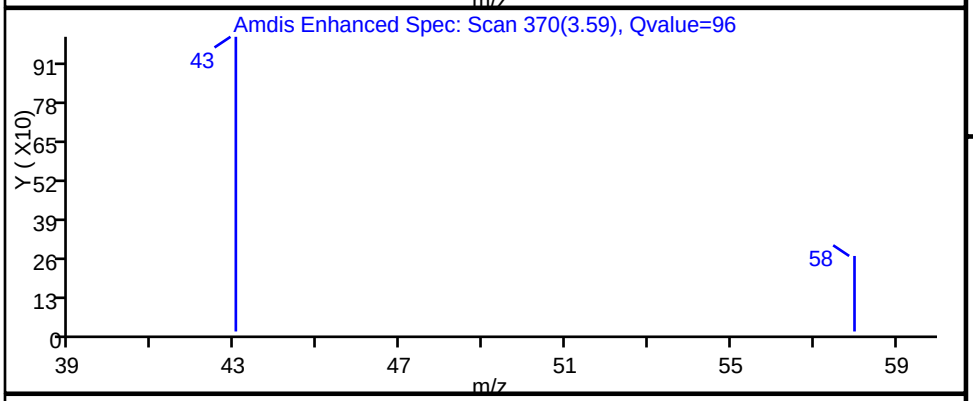
TestAmerica Pittsburgh

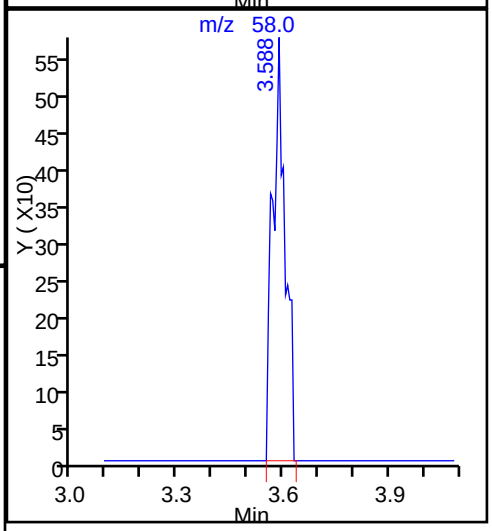
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032922.D		
Injection Date:	29-Mar-2017 16:41:30	Instrument ID:	CHHP3
Lims ID:	180-64650-C-9-B	Lab Sample ID:	180-64650-9
Client ID:	HD-SPBA-SB-006-40/40.5-0		
Operator ID:	034635	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

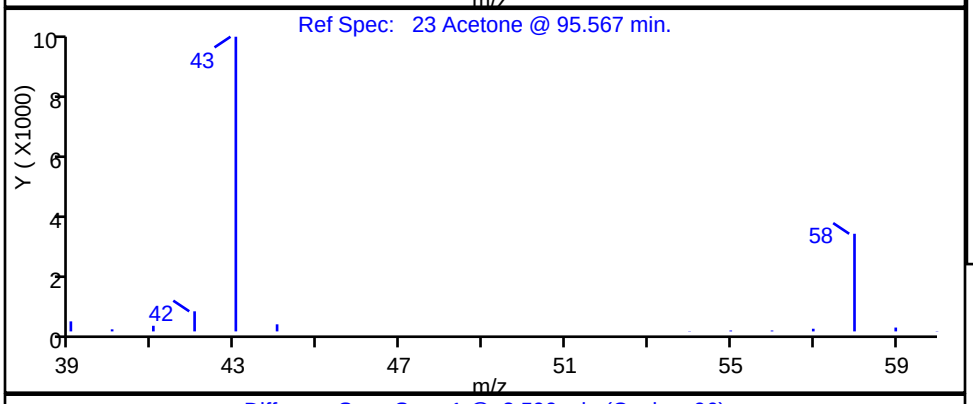
23 Acetone, CAS: 67-64-1

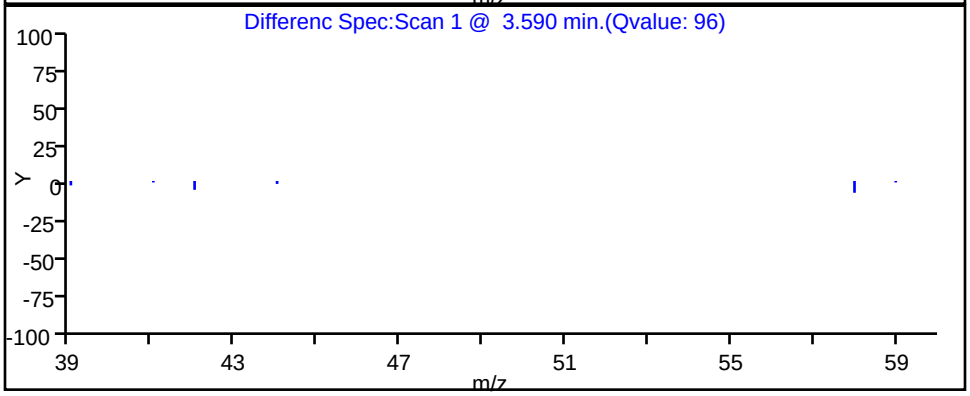










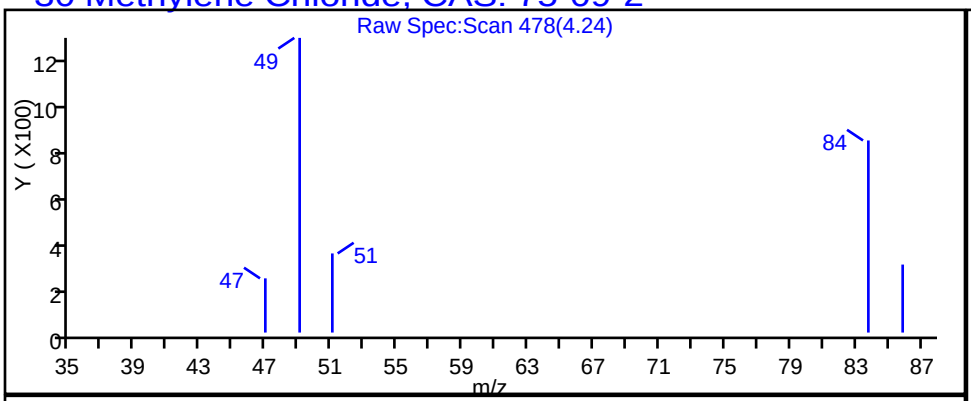


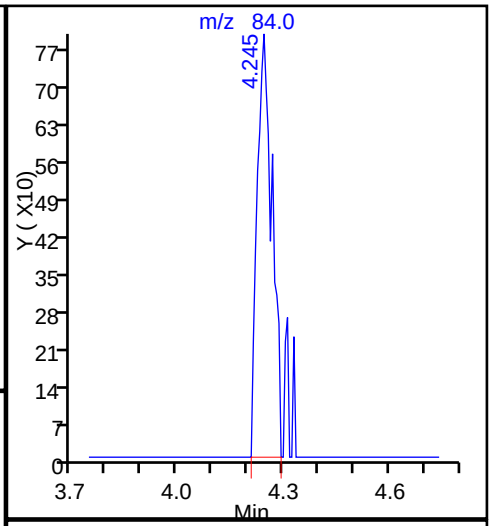
Report Date: 30-Mar-2017 06:42:30 Chrom Revision: 2.2 13-Mar-2017 15:50:30

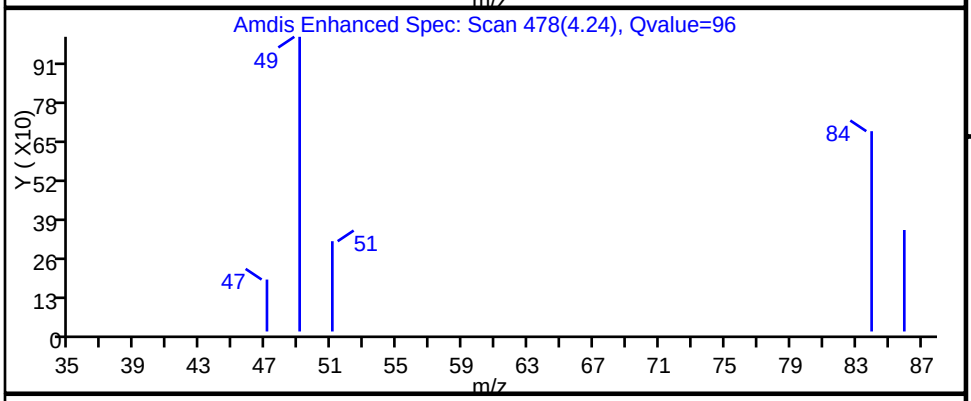
TestAmerica Pittsburgh

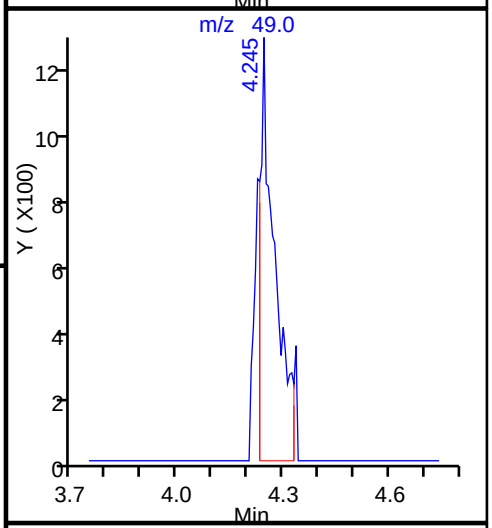
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032922.D		
Injection Date:	29-Mar-2017 16:41:30	Instrument ID:	CHHP3
Lims ID:	180-64650-C-9-B	Lab Sample ID:	180-64650-9
Client ID:	HD-SPBA-SB-006-40/40.5-0		
Operator ID:	034635	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

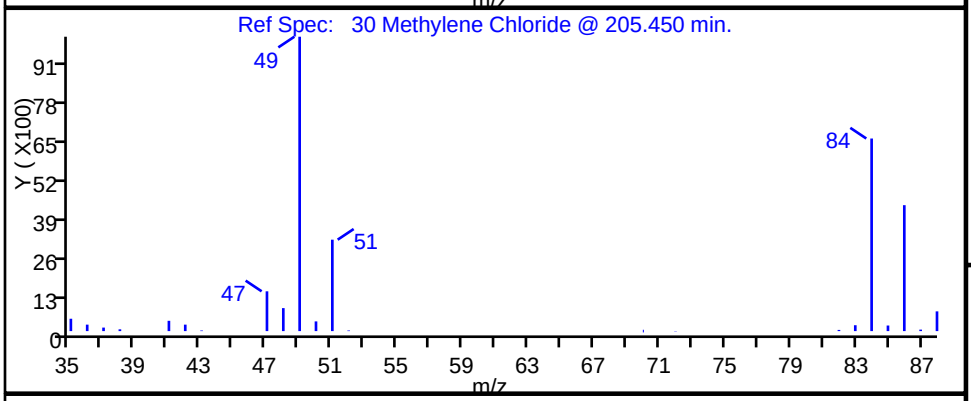
30 Methylene Chloride, CAS: 75-09-2

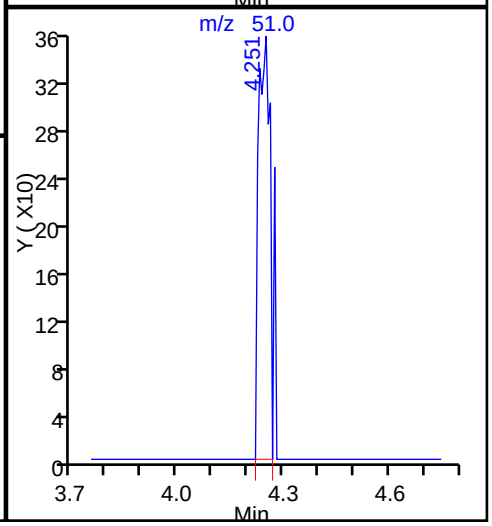


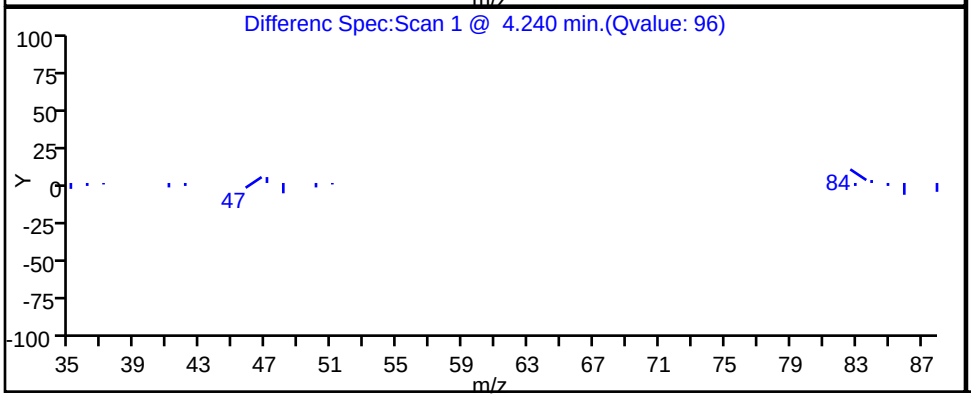












FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-189436/4	30928K04.D
Level 2	IC 180-189436/5	30928K05.D
Level 3	IC 180-189436/6	30928K06.D
Level 4	ICIS 180-189436/7	30928K07.D
Level 5	IC 180-189436/8	30928K08.D
Level 6	IC 180-189436/9	30928K09.D
Level 7	IC 180-189436/10	30928K10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3194 0.3211	0.2985 0.3086	0.2996	0.3265	0.3363	Ave		0.3157			0.1000	4.5		20.0			
Chloromethane	0.4458 0.4506	0.4422 0.4269	0.4097	0.4759	0.4768	Ave		0.4468			0.1000	5.4		20.0			
Vinyl chloride	0.3610 0.3768	0.3517 0.3615	0.3424	0.3828	0.3951	Ave		0.3673			0.1000	5.0		20.0			
1,3-Butadiene	0.3438 0.3322	0.3355 0.3215	0.3155	0.3513	0.3638	Ave		0.3377			0.0100	5.0		20.0			
Bromomethane	0.0820 0.0869	0.0832 0.0858	0.0852	0.0874	0.0884	Ave		0.0856			0.0500	2.7		20.0			
Chloroethane	0.0927 0.0912	0.0911 0.0873	0.0933	0.0921	0.0928	Ave		0.0915			0.0500	2.2		20.0			
Dichlorofluoromethane	0.3386 +++++	0.3393 +++++	0.3420	0.3180	0.3020	Ave		0.3280			0.0100	5.3		20.0			
Trichlorofluoromethane	0.2618 +++++	0.2411 +++++	0.2509	0.2306	0.2231	Ave		0.2415			0.1000	6.4		20.0			
Ethyl ether	0.2188 0.2257	0.2198 0.2151	0.2249	0.2328	0.2372	Ave		0.2249			0.0100	3.5		20.0			
Acrolein	0.0419 0.0400	0.0429 0.0362	0.0400	0.0439	0.0413	Ave		0.0409			0.0100	6.2		20.0			
1,1-Dichloroethene	0.2586 0.2817	0.2572 0.2740	0.2637	0.2823	0.2893	Ave		0.2724			0.1000	4.7		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2662 0.2662	0.2644 0.2511	0.2574	0.2738	0.2866	Ave		0.2665			0.1000	4.3		20.0			
Acetone	0.0765 0.0564	0.0722 0.0567	0.0684	0.0609	0.0623	Ave		0.0648			0.0500	12.0		20.0			
Iodomethane	0.3316 0.3839	0.3557 0.3695	0.3532	0.3854	0.3849	Ave		0.3663			0.0100	5.6		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.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.5107 0.8155	0.5321 0.8209	0.6602	0.7419	0.7825	Lin2	-8.294	0.7889			0.1000				0.9920		0.9900
Allyl chloride	0.1152 0.1658	0.1343 0.1744	0.1528	0.1680	0.1719	Ave		0.1546			0.0100	14.4		20.0			
Methyl acetate	0.1483 0.1567	0.1521 0.1542	0.1559	0.1628	0.1731	Ave		0.1576			0.1000	5.2		20.0			
Methylene Chloride	0.4154 0.2965	0.3431 0.2879	0.3083	0.3119	0.3122	Ave		0.3251			0.1000	13.3		20.0			
tert-Butyl alcohol	1.1143 1.2814	1.2395 1.2742	1.2448	1.2759	1.3488	Ave		1.2541			0.0100	5.7		20.0			
Acrylonitrile	0.0832 0.0830	0.0857 0.0790	0.0834	0.0880	0.0915	Ave		0.0848			0.0100	4.8		20.0			
trans-1,2-Dichloroethene	0.2820 0.2868	0.2875 0.2736	0.2741	0.2971	0.3030	Ave		0.2863			0.1000	3.8		20.0			
Methyl tert-butyl ether	0.6046 0.6105	0.6003 0.6147	0.6001	0.6249	0.6656	Ave		0.6173			0.1000	3.7		20.0			
Hexane	0.5488 0.4970	0.5076 0.4813	0.5117	0.5078	0.5262	Ave		0.5115			0.0100	4.2		20.0			
1,1-Dichloroethane	0.4981 0.5023	0.4839 0.4877	0.4936	0.5130	0.5315	Ave		0.5015			0.2000	3.3		20.0			
Vinyl acetate	0.3654 0.4024	0.3941 0.4023	0.4291	0.4233	0.4380	Ave		0.4078			0.0100	6.1		20.0			
2,2-Dichloropropane	1.1560 0.2824	0.7006 0.2470	0.4129	0.3555	0.3541	Lin2	22.858	0.2419			0.0100				0.9970		0.9900
cis-1,2-Dichloroethene	0.3060 0.3216	0.3028 0.3066	0.3119	0.3249	0.3320	Ave		0.3151			0.1000	3.5		20.0			
2-Butanone (MEK)	0.1106 0.0884	0.0962 0.0829	0.1018	0.0887	0.0945	Ave		0.0947			0.0500	9.8		20.0			
Bromochloromethane	0.1065 0.1245	0.1168 0.1224	0.1110	0.1235	0.1259	Ave		0.1186			0.0100	6.3		20.0			
Tetrahydrofuran	0.0620 0.0640	0.0575 0.0631	0.0576	0.0646	0.0664	Ave		0.0622			0.0100	5.5		20.0			
Chloroform	0.4520 0.4627	0.4262 0.4377	0.4472	0.4580	0.4761	Ave		0.4514			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3055 0.3649	0.3047 0.3379	0.3308	0.3458	0.3668	Ave		0.3366			0.1000	7.5		20.0			
Cyclohexane	0.6350 0.6046	0.6011 0.5711	0.5944	0.6178	0.6393	Ave		0.6090			0.1000	3.9		20.0			
Carbon tetrachloride	0.2032 0.2886	0.2086 0.2806	0.2489	0.2583	0.2782	Ave		0.2523			0.1000	13.7		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	0.3657 0.3726	0.3516 0.3518	0.3751	0.3770	0.3858	Ave		0.3685			0.0100	3.5		20.0			
Isobutyl alcohol	0.0049 0.0058	0.0053 0.0055	0.0055	0.0055	0.0060	Ave		0.0055		*	0.0100	6.1		20.0			
Benzene	1.1325 1.0860	1.0773 0.9977	1.1006	1.1249	1.1371	Ave		1.0937			0.5000	4.4		20.0			
1,2-Dichloroethane	0.3170 0.3030	0.2788 0.2733	0.2988	0.2953	0.3160	Ave		0.2975			0.1000	5.6		20.0			
n-Heptane	0.4732 0.4920	0.4561 0.4601	0.4870	0.4757	0.5045	Ave		0.4784			0.0100	3.6		20.0			
Trichloroethene	0.2464 0.2803	0.2465 0.2695	0.2612	0.2785	0.2822	Ave		0.2664			0.2000	5.8		20.0			
Methylcyclohexane	0.5789 0.5870	0.5790 0.5431	0.5649	0.5916	0.6070	Ave		0.5788			0.1000	3.5		20.0			
1,2-Dichloropropane	0.2459 0.2734	0.2519 0.2625	0.2688	0.2691	0.2772	Ave		0.2641			0.1000	4.3		20.0			
Dibromomethane	0.1169 0.1347	0.1116 0.1269	0.1214	0.1284	0.1311	Ave		0.1244			0.0100	6.6		20.0			
1,4-Dioxane	0.0017 0.0023	0.0019 0.0023	0.0020	0.0022	0.0023	Ave		0.0021		*	0.0100	10.7		20.0			
Bromodichloromethane	0.1909 0.3024	0.1962 0.3045	0.2459	0.2631	0.2776	Ave		0.2544			0.2000	18.2		20.0			
cis-1,3-Dichloropropene	0.2475 0.4123	0.2768 0.4026	0.3464	0.3655	0.3897	Ave		0.3487			0.2000	18.3		20.0			
4-Methyl-2-pentanone (MIBK)	0.7487 0.8578	0.7606 0.8266	0.8010	0.8470	0.8622	Ave		0.8148			0.1000	5.7		20.0			
Toluene	5.2701 4.9072	5.0127 4.3602	5.1702	5.1595	5.2279	Ave		5.0154			0.4000	6.3		20.0			
trans-1,3-Dichloropropene	0.8948 1.5064	1.0383 1.4517	1.2158	1.3525	1.4463	Ave		1.2723			0.1000	18.3		20.0			
Ethyl methacrylate	1.0190 1.2597	1.0933 1.1621	1.1846	1.2194	1.2830	Ave		1.1745			0.0100	7.9		20.0			
1,1,2-Trichloroethane	0.8446 0.8881	0.8155 0.8307	0.8402	0.8885	0.9021	Ave		0.8585			0.1000	3.9		20.0			
Tetrachloroethene	0.9314 0.9633	0.9185 0.9167	0.9351	0.9668	0.9902	Ave		0.9460			0.2000	2.9		20.0			
1,3-Dichloropropane	1.6014 1.5750	1.5164 1.4150	1.5677	1.6070	1.6280	Ave		1.5587			0.0100	4.7		20.0			
2-Hexanone	0.4455 0.5788	0.4956 0.5279	0.5749	0.5250	0.5770	Ave		0.5321			0.1000	9.4		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.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.4377 0.8623	0.4866 0.8472	0.6341	0.7204	0.7726	Lin1	-15.36	0.8543			0.1000				0.9970		0.9900
1,2-Dibromoethane (EDB)	0.7506 0.8837	0.7619 0.8294	0.8152	0.8564	0.8821	Ave		0.8256			0.1000	6.5		20.0			
Chlorobenzene	3.4322 3.2657	3.1955 2.9926	3.2142	3.3603	3.3751	Ave		3.2622			0.5000	4.5		20.0			
1,1,1,2-Tetrachloroethane	0.8033 1.0378	0.7819 0.9747	0.9131	0.9760	1.0185	Ave		0.9293			0.0100	10.9		20.0			
Ethylbenzene	1.8555 1.8183	1.8038 1.6428	1.8371	1.8715	1.9098	Ave		1.8198			0.1000	4.7		20.0			
m-Xylene & p-Xylene	2.3869 2.2926	2.2340 2.0897	2.2905	2.3757	2.3522	Ave		2.2888			0.1000	4.5		20.0			
o-Xylene	2.2640 2.2408	2.2347 2.0093	2.2246	2.3503	2.3671	Ave		2.2416			0.3000	5.2		20.0			
Styrene	3.8519 3.6458	3.6150 3.1633	3.6862	3.8714	3.9230	Ave		3.6795			0.3000	7.0		20.0			
Bromoform	0.2315 0.5202	0.2408 0.5594	0.3370	0.3923	0.4407	Qua	-14.94	0.4940	0.0000627		0.1000				0.9990		0.9900
Isopropylbenzene	6.4125 5.8750	6.0558 5.0630	6.0817	6.3238	6.3604	Ave		6.0246			0.1000	7.7		20.0			
1,1,2,2-Tetrachloroethane	1.0101 1.1159	1.0586 1.0252	1.0447	1.1225	1.1627	Ave		1.0771			0.3000	5.3		20.0			
Bromobenzene	0.7798 0.8155	0.7782 0.7883	0.7944	0.8313	0.8276	Ave		0.8022			0.0100	2.8		20.0			
1,2,3-Trichloropropane	0.1981 0.2106	0.1983 0.2008	0.2115	0.2059	0.2207	Ave		0.2066			0.0100	4.0		20.0			
trans-1,4-Dichloro-2-butene	0.1531 0.2084	0.1563 0.1939	0.1832	0.2013	0.2090	Ave		0.1864			0.0100	12.6		20.0			
N-Propylbenzene	1.0438 1.0528	1.0101 0.9874	1.0454	1.0618	1.0703	Ave		1.0388			0.0100	2.8		20.0			
2-Chlorotoluene	0.8288 0.8688	0.8444 0.8334	0.8513	0.9015	0.8888	Ave		0.8596			0.0100	3.2		20.0			
1,3,5-Trimethylbenzene	3.2270 3.0967	3.1789 2.7047	3.1890	3.3099	3.3023	Ave		3.1441			0.0100	6.6		20.0			
4-Chlorotoluene	0.8915 0.8645	0.8437 0.8076	0.8541	0.8760	0.8842	Ave		0.8602			0.0100	3.3		20.0			
tert-Butylbenzene	2.8319 2.8094	2.6783 2.5214	2.7669	2.9068	2.9267	Ave		2.7773			0.0100	5.1		20.0			
1,2,4-Trimethylbenzene	3.3825 3.2137	3.2402 2.8119	3.3223	3.3935	3.3853	Ave		3.2499			0.0100	6.3		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.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	4.3449 4.2083	4.2765 3.6485	4.3266	4.4520	4.4507	Ave		4.2439			0.0100	6.5		20.0			
1,3-Dichlorobenzene	1.6943 1.7104	1.6128 1.6077	1.6373	1.7250	1.7280	Ave		1.6737			0.6000	3.2		20.0			
4-Isopropyltoluene	3.4723 3.3489	3.3745 2.9090	3.4467	3.5582	3.5399	Ave		3.3785			0.0100	6.5		20.0			
1,4-Dichlorobenzene	1.6013 1.6774	1.5908 1.5771	1.5924	1.6781	1.7114	Ave		1.6326			0.5000	3.3		20.0			
n-Butylbenzene	3.4238 3.3711	3.2923 2.8654	3.4234	3.5394	3.5915	Ave		3.3582			0.0100	7.1		20.0			
1,2-Dichlorobenzene	1.5233 1.5343	1.4657 1.4130	1.4980	1.5757	1.5807	Ave		1.5129			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	0.0549 0.1186	0.0609 0.1182	0.0795	0.0965	0.0992	Qua	-3.729	0.1211	0.0000004		0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	1.0515 1.1828	1.0166 1.1345	1.1089	1.1542	1.1807	Ave		1.1185			0.2000	5.7		20.0			
Hexachlorobutadiene	0.6199 0.7298	0.6604 0.6871	0.6750	0.7108	0.7370	Ave		0.6886			0.0100	6.0		20.0			
Naphthalene	1.8684 2.2518	1.9288 2.1021	2.1212	2.2476	2.2784	Ave		2.1140			0.0100	7.7		20.0			
1,2,3-Trichlorobenzene	0.8398 0.9942	0.8454 0.9619	0.9227	0.9666	0.9718	Ave		0.9289			0.0100	6.7		20.0			
Dibromofluoromethane (Surr)	0.2078 0.2203	0.2031 0.2111	0.2167	0.2233	0.2207	Ave		0.2147				3.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2583 0.2475	0.2413 0.2358	0.2523	0.2487	0.2462	Ave		0.2472				2.9		20.0			
Toluene-d8 (Surr)	4.5930 4.1951	4.3214 3.7863	4.5108	4.5100	4.3846	Ave		4.3288				6.3		20.0			
4-Bromofluorobenzene (Surr)	1.9412 1.7202	1.7479 1.5577	1.7374	1.8221	1.7711	Ave		1.7568				6.6		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-189436/4	30928K04.D
Level 2	IC 180-189436/5	30928K05.D
Level 3	IC 180-189436/6	30928K06.D
Level 4	ICIS 180-189436/7	30928K07.D
Level 5	IC 180-189436/8	30928K08.D
Level 6	IC 180-189436/9	30928K09.D
Level 7	IC 180-189436/10	30928K10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	14161 332266	25119 663252	63216	107126	142555	25.0 625	50.0 1250	125	200	250
Chloromethane	FB	Ave	19764 466333	37209 917519	86443	156155	202121	25.0 625	50.0 1250	125	200	250
Vinyl chloride	FB	Ave	16003 389919	29592 777037	72244	125625	167499	25.0 625	50.0 1250	125	200	250
1,3-Butadiene	FB	Ave	15240 343755	28233 691063	66573	115290	154201	25.0 625	50.0 1250	125	200	250
Bromomethane	FB	Ave	3635 89939	7000 184332	17971	28683	37491	25.0 625	50.0 1250	125	200	250
Chloroethane	FB	Ave	4111 94382	7669 187713	19675	30213	39327	25.0 625	50.0 1250	125	200	250
Dichlorofluoromethane	FB	Ave	15013 +++++	28552 +++++	72152	104352	128027	25.0 +++++	50.0 +++++	125	200	250
Trichlorofluoromethane	FB	Ave	11607 +++++	20283 +++++	52935	75680	94571	25.0 +++++	50.0 +++++	125	200	250
Ethyl ether	FB	Ave	9702 233578	18491 462309	47444	76390	100537	25.0 625	50.0 1250	125	200	250
Acrolein	FB	Ave	37122 74434	45169 77788	50612	63042	70099	500 1125	625 1250	750	875	1000
1,1-Dichloroethene	FB	Ave	11465 291498	21645 588948	55628	92625	122617	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	11800 275470	22244 539659	54304	89846	121494	25.0 625	50.0 1250	125	200	250
Acetone	FB	Ave	3393 58409	6071 121884	14439	19970	26415	25.0 625	50.0 1250	125	200	250
Iodomethane	FB	Ave	14700 397275	29931 794299	74517	126481	163145	25.0 625	50.0 1250	125	200	250
Carbon disulfide	FB	Lin2	22642 843942	44773 1764493	139282	243457	331726	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Ave	5107 171617	11300 374889	32240	55131	72859	25.0 625	50.0 1250	125	200	250
Methyl acetate	FB	Ave	32864 810786	63995 1656860	164444	267111	366916	125 3125	250 6250	625	1000	1250
Methylene Chloride	FB	Ave	18414 306849	28872 618832	65042	102363	132352	25.0 625	50.0 1250	125	200	250
tert-Butyl alcohol	TBAd9	Ave	6996 190192	14873 412009	35819	60767	86310	250 6250	500 12500	1250	2000	2500
Acrylonitrile	FB	Ave	36893 859430	72119 1697712	175922	288616	388073	250 6250	500 12500	1250	2000	2500
trans-1,2-Dichloroethene	FB	Ave	12502 296753	24189 588010	57828	97479	128449	25.0 625	50.0 1250	125	200	250
Methyl tert-butyl ether	FB	Ave	26805 631821	50513 1321166	126609	205052	282152	25.0 625	50.0 1250	125	200	250
Hexane	FB	Ave	24328 514346	42710 1034526	107963	166631	223048	25.0 625	50.0 1250	125	200	250
1,1-Dichloroethane	FB	Ave	22084 519828	40717 1048311	104137	168347	225290	25.0 625	50.0 1250	125	200	250
Vinyl acetate	FB	Ave	16197 416385	33159 864758	90526	138910	185680	25.0 625	50.0 1250	125	200	250
2,2-Dichloropropane	FB	Lin2	51247 292205	58948 530858	87113	116657	150096	25.0 625	50.0 1250	125	200	250
cis-1,2-Dichloroethene	FB	Ave	13564 332783	25477 659039	65812	106616	140744	25.0 625	50.0 1250	125	200	250
2-Butanone (MEK)	FB	Ave	4903 91515	8097 178131	21485	29091	40054	25.0 625	50.0 1250	125	200	250
Bromochloromethane	FB	Ave	4720 128830	9826 263106	23425	40529	53352	25.0 625	50.0 1250	125	200	250
Tetrahydrofuran	FB	Ave	5497 132471	9678 271157	24318	42418	56275	50.0 1250	100 2500	250	400	500
Chloroform	FB	Ave	20040 478867	35859 940874	94350	150288	201837	25.0 625	50.0 1250	125	200	250
1,1,1-Trichloroethane	FB	Ave	13542 377655	25640 726257	69795	113470	155486	25.0 625	50.0 1250	125	200	250
Cyclohexane	FB	Ave	28150 625634	50580 1227556	125400	202721	271013	25.0 625	50.0 1250	125	200	250
Carbon tetrachloride	FB	Ave	9007 298659	17554 603105	52516	84752	117922	25.0 625	50.0 1250	125	200	250
1,1-Dichloropropene	FB	Ave	16212 385589	29582 756170	79130	123712	163539	25.0 625	50.0 1250	125	200	250
Isobutyl alcohol	FB	Ave	5427 148998	11200 296132	29098	45416	63276	625 15625	1250 31250	3125	5000	6250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	50208 1123832	90647 2144503	232198	369141	482005	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane	FB	Ave	14052 313603	23459 587510	63033	96913	133964	25.0 625	50.0 1250	125	200	250
n-Heptane	FB	Ave	20977 509163	38375 988930	102749	156116	213850	25.0 625	50.0 1250	125	200	250
Trichloroethene	FB	Ave	10922 290022	20740 579172	55100	91393	119637	25.0 625	50.0 1250	125	200	250
Methylcyclohexane	FB	Ave	25666 607448	48716 1167362	119189	194134	257324	25.0 625	50.0 1250	125	200	250
1,2-Dichloropropane	FB	Ave	10902 282926	21192 564168	56716	88293	117517	25.0 625	50.0 1250	125	200	250
Dibromomethane	FB	Ave	5183 139416	9388 272810	25613	42132	55579	25.0 625	50.0 1250	125	200	250
1,4-Dioxane	FB	Ave	1526 47573	3268 97707	8576	14467	19812	500 12500	1000 25000	2500	4000	5000
Bromodichloromethane	FB	Ave	8463 312900	16506 654512	51875	86330	117682	25.0 625	50.0 1250	125	200	250
cis-1,3-Dichloropropene	FB	Ave	10971 426650	23292 865270	73094	119934	165215	25.0 625	50.0 1250	125	200	250
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	7151 200129	14216 405877	37323	61528	81071	25.0 625	50.0 1250	125	200	250
Toluene	CBNZ d5	Ave	50337 1144841	93693 2140861	240917	374778	491565	25.0 625	50.0 1250	125	200	250
trans-1,3-Dichloropropene	CBNZ d5	Ave	8547 351451	19408 712764	56652	98247	135996	25.0 625	50.0 1250	125	200	250
Ethyl methacrylate	CBNZ d5	Ave	9733 293888	20436 570595	55199	88572	120641	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloroethane	CBNZ d5	Ave	8067 207192	15243 407852	39149	64541	84820	25.0 625	50.0 1250	125	200	250
Tetrachloroethene	CBNZ d5	Ave	8896 224742	17167 450114	43573	70227	93107	25.0 625	50.0 1250	125	200	250
1,3-Dichloropropane	CBNZ d5	Ave	15296 367447	28344 694789	73049	116730	153076	25.0 625	50.0 1250	125	200	250
2-Hexanone	CBNZ d5	Ave	4255 135034	9264 259178	26787	38135	54256	25.0 625	50.0 1250	125	200	250
Dibromochloromethane	CBNZ d5	Lin1	4181 201165	9095 415965	29545	52328	72645	25.0 625	50.0 1250	125	200	250
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	7169 206157	14241 407229	37988	62204	82943	25.0 625	50.0 1250	125	200	250
Chlorobenzene	CBNZ d5	Ave	32783 761888	59728 1469381	149771	244089	317352	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	7673 242114	14614 478563	42546	70892	95765	25.0 625	50.0 1250	125	200	250
Ethylbenzene	CBNZ d5	Ave	17723 424204	33715 806603	85605	135942	179578	25.0 625	50.0 1250	125	200	250
m-Xylene & p-Xylene	CBNZ d5	Ave	22798 534853	41757 1026028	106729	172568	221174	25.0 625	50.0 1250	125	200	250
o-Xylene	CBNZ d5	Ave	21625 522777	41770 986570	103659	170724	222572	25.0 625	50.0 1250	125	200	250
Styrene	CBNZ d5	Ave	36791 850572	67569 1553170	171767	281211	368874	25.0 625	50.0 1250	125	200	250
Bromoform	CBNZ d5	Qua	2211 121357	4500 274645	15703	28493	41437	25.0 625	50.0 1250	125	200	250
Isopropylbenzene	CBNZ d5	Ave	61249 1370632	113190 2485952	283389	459353	598056	25.0 625	50.0 1250	125	200	250
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	9648 260344	19787 503358	48678	81535	109330	25.0 625	50.0 1250	125	200	250
Bromobenzene	DCBd 4	Ave	12269 299985	23494 594994	57321	97010	125885	25.0 625	50.0 1250	125	200	250
1,2,3-Trichloropropane	DCBd 4	Ave	3116 77469	5986 151593	15261	24031	33577	25.0 625	50.0 1250	125	200	250
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2408 76650	4719 146337	13216	23494	31784	25.0 625	50.0 1250	125	200	250
N-Propylbenzene	DCBd 4	Ave	16422 387245	30494 745292	75436	123916	162802	25.0 625	50.0 1250	125	200	250
2-Chlorotoluene	DCBd 4	Ave	13039 319563	25491 629050	61426	105211	135190	25.0 625	50.0 1250	125	200	250
1,3,5-Trimethylbenzene	DCBd 4	Ave	50771 1139050	95971 2041575	230110	386264	502296	25.0 625	50.0 1250	125	200	250
4-Chlorotoluene	DCBd 4	Ave	14026 317977	25470 609579	61626	102234	134496	25.0 625	50.0 1250	125	200	250
tert-Butylbenzene	DCBd 4	Ave	44554 1033400	80857 1903165	199650	339227	445165	25.0 625	50.0 1250	125	200	250
1,2,4-Trimethylbenzene	DCBd 4	Ave	53217 1182105	97822 2122433	239725	396029	514932	25.0 625	50.0 1250	125	200	250
sec-Butylbenzene	DCBd 4	Ave	68359 1547965	129108 2753940	312191	519553	676978	25.0 625	50.0 1250	125	200	250
1,3-Dichlorobenzene	DCBd 4	Ave	26657 629151	48691 1213495	118142	201314	262845	25.0 625	50.0 1250	125	200	250
4-Isopropyltoluene	DCBd 4	Ave	54630 1231816	101876 2195730	248705	415244	538443	25.0 625	50.0 1250	125	200	250
1,4-Dichlorobenzene	DCBd 4	Ave	25193 616991	48026 1190434	114901	195837	260315	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	53867 1240017	99396 2162864	247025	413050	546287	25.0 625	50.0 1250	125	200	250
1,2-Dichlorobenzene	DCBd 4	Ave	23966 564358	44249 1066534	108088	183886	240428	25.0 625	50.0 1250	125	200	250
1,2-Dibromo-3-Chloropropane	DCBd 4	Qua	864 43612	1840 89230	5735	11262	15094	25.0 625	50.0 1250	125	200	250
1,2,4-Trichlorobenzene	DCBd 4	Ave	16544 435079	30690 856304	80017	134701	179588	25.0 625	50.0 1250	125	200	250
Hexachlorobutadiene	DCBd 4	Ave	9753 268455	19938 518614	48705	82951	112098	25.0 625	50.0 1250	125	200	250
Naphthalene	DCBd 4	Ave	29395 828277	58230 1586726	153060	262292	346553	25.0 625	50.0 1250	125	200	250
1,2,3-Trichlorobenzene	DCBd 4	Ave	13213 365707	25522 726049	66578	112800	147820	25.0 625	50.0 1250	125	200	250
Dibromofluoromethane (Surr)	FB	Ave	9211 228018	17085 453748	45722	73275	93537	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane-d4 (Surr)	FB	Ave	11452 256136	20302 506847	53220	81608	104369	25.0 625	50.0 1250	125	200	250
Toluene-d8 (Surr)	CBNZ d5	Ave	43870 978717	80773 1859075	210191	327597	412279	25.0 625	50.0 1250	125	200	250
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	18541 401319	32671 764809	80956	132353	166536	25.0 625	50.0 1250	125	200	250

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 189436

SDG No.:

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/28/2016 12:01 Calibration End Date: 09/28/2016 14:19 Calibration ID: 32996

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-189436/4	30928K04.D
Level 2	IC 180-189436/5	30928K05.D
Level 3	IC 180-189436/6	30928K06.D
Level 4	ICIS 180-189436/7	30928K07.D
Level 5	IC 180-189436/8	30928K08.D
Level 6	IC 180-189436/9	30928K09.D
Level 7	IC 180-189436/10	30928K10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Carbon disulfide	6.8 4.9	-11.5	-7.9	-0.7	3.4	5.1	30 30	30	30	30	30	30
2,2-Dichloropropane	-0.1 -5.5	0.6	-4.9	-0.3	8.6	1.6	30 30	30	30	30	30	30
Dibromochloromethane	23.1 0.6	-7.1	-11.4	-6.7	-2.4	3.8	30 30	30	30	30	30	30
Bromoform	66.9 -0.2	8.5	-8.9	-7.6	-1.8	1.9	70 70	70	70	70	70	70
1,2-Dibromo-3-Chloropropane	68.5 -0.3	11.9	-9.7	-4.9	-5.8	2.7	70 70	70	70	70	70	70

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Sep-2016 12:01:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-004
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:31 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 12:24:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.441	4.441	0.000	98	125571	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.355	7.355	0.000	99	443322	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.439	10.439	0.000	88	95515	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.763	12.763	0.000	97	157330	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.600	6.600	0.000	93	9211	25.0	24.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.971	6.971	0.000	95	11452	25.0	26.1	
$ 7 Toluene-d8 (Surr)	98	9.003	9.003	0.000	94	43870	25.0	26.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.607	0.000	86	18541	25.0	27.6	
10 Dichlorodifluoromethane	85	1.660	1.660	0.000	98	14161	25.0	25.3	
11 Chloromethane	50	1.812	1.812	0.000	99	19764	25.0	24.9	
12 Vinyl chloride	62	1.971	1.971	0.000	97	16003	25.0	24.6	
13 Butadiene	39	1.989	1.989	0.000	90	15240	25.0	25.5	
14 Bromomethane	94	2.287	2.287	0.000	82	3635	25.0	24.0	
15 Chloroethane	64	2.409	2.409	0.000	94	4111	25.0	25.3	M
16 Dichlorofluoromethane	67	2.701	2.701	0.000	96	15013	25.0	25.8	
17 Trichlorofluoromethane	101	2.719	2.719	0.000	14	11607	25.0	27.1	M
19 Ethyl ether	59	3.175	3.175	0.000	89	9702	25.0	24.3	M
20 Acrolein	56	3.327	3.327	0.000	99	37122	500.0	512.0	
21 1,1-Dichloroethene	96	3.443	3.443	0.000	1	11465	25.0	23.7	M
22 1,1,2-Trichloro-1,2,2-trif	101	3.510	3.510	0.000	93	11800	25.0	25.0	
23 Acetone	43	3.601	3.601	0.000	86	3393	25.0	29.5	
24 Iodomethane	142	3.638	3.638	0.000	99	14700	25.0	22.6	
25 Carbon disulfide	76	3.723	3.723	0.000	98	22642	25.0	26.7	
28 3-Chloro-1-propene	76	4.021	4.021	0.000	94	5107	25.0	18.6	M
29 Methyl acetate	43	4.124	4.124	0.000	98	32864	125.0	117.6	
30 Methylene Chloride	84	4.228	4.228	0.000	93	18414	25.0	31.9	M
31 2-Methyl-2-propanol	59	4.574	4.574	0.000	95	6996	250.0	222.1	
32 Acrylonitrile	53	4.641	4.641	0.000	99	36893	250.0	245.2	
33 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	96	12502	25.0	24.6	
34 Methyl tert-butyl ether	73	4.708	4.708	0.000	98	26805	25.0	24.5	
35 Hexane	57	5.073	5.073	0.000	90	24328	25.0	26.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.250	5.250	0.000	96	22084	25.0	24.8	
37 Vinyl acetate	43	5.383	5.383	0.000	97	16197	25.0	22.4	
41 2,2-Dichloropropane	77	5.992	5.992	0.000	38	51247	25.0	25.0	
42 cis-1,2-Dichloroethene	96	6.016	6.016	0.000	84	13564	25.0	24.3	
43 2-Butanone (MEK)	43	6.077	6.077	0.000	96	4903	25.0	29.2	
47 Chlorobromomethane	128	6.302	6.302	0.000	95	4720	25.0	22.4	
48 Tetrahydrofuran	42	6.381	6.381	0.000	91	5497	50.0	49.9	
49 Chloroform	83	6.424	6.424	0.000	94	20040	25.0	25.0	
50 1,1,1-Trichloroethane	97	6.618	6.618	0.000	98	13542	25.0	22.7	
51 Cyclohexane	56	6.679	6.679	0.000	89	28150	25.0	26.1	
53 Carbon tetrachloride	117	6.807	6.807	0.000	65	9007	25.0	20.1	
52 1,1-Dichloropropene	75	6.807	6.807	0.000	94	16212	25.0	24.8	
54 Isobutyl alcohol	41	7.026	7.026	0.000	39	5427	625.0	556.2	
55 Benzene	78	7.038	7.038	0.000	97	50208	25.0	25.9	
56 1,2-Dichloroethane	62	7.056	7.056	0.000	95	14052	25.0	26.6	
59 n-Heptane	43	7.367	7.367	0.000	94	20977	25.0	24.7	
60 Trichloroethene	130	7.744	7.744	0.000	96	10922	25.0	23.1	
63 Methylcyclohexane	83	7.951	7.951	0.000	94	25666	25.0	25.0	
64 1,2-Dichloropropane	63	7.981	7.981	0.000	80	10902	25.0	23.3	
65 Dibromomethane	93	8.097	8.097	0.000	95	5183	25.0	23.5	
67 1,4-Dioxane	88	8.145	8.145	0.000	65	1526	500.0	406.8	
68 Dichlorobromomethane	83	8.273	8.273	0.000	97	8463	25.0	18.8	
71 cis-1,3-Dichloropropene	75	8.729	8.729	0.000	95	10971	25.0	17.7	
72 4-Methyl-2-pentanone (MIBK	43	8.894	8.894	0.000	95	7151	25.0	23.0	
73 Toluene	91	9.070	9.070	0.000	98	50337	25.0	26.3	
74 trans-1,3-Dichloropropene	75	9.289	9.289	0.000	92	8547	25.0	17.6	
75 Ethyl methacrylate	69	9.392	9.392	0.000	90	9733	25.0	21.7	
76 1,1,2-Trichloroethane	97	9.472	9.472	0.000	91	8067	25.0	24.6	
77 Tetrachloroethene	164	9.618	9.618	0.000	97	8896	25.0	24.6	
78 1,3-Dichloropropane	76	9.636	9.636	0.000	91	15296	25.0	25.7	
79 2-Hexanone	43	9.733	9.733	0.000	93	4255	25.0	20.9	
81 Chlorodibromomethane	129	9.861	9.861	0.000	88	4181	25.0	30.8	
82 Ethylene Dibromide	107	9.977	9.977	0.000	97	7169	25.0	22.7	
83 Chlorobenzene	112	10.469	10.469	0.000	94	32783	25.0	26.3	
85 1,1,1,2-Tetrachloroethane	131	10.542	10.542	0.000	90	7673	25.0	21.6	
86 Ethylbenzene	106	10.579	10.579	0.000	99	17723	25.0	25.5	
87 m-Xylene & p-Xylene	106	10.694	10.694	0.000	99	22798	25.0	26.1	
88 o-Xylene	106	11.090	11.090	0.000	96	21625	25.0	25.3	
89 Styrene	104	11.102	11.102	0.000	93	36791	25.0	26.2	
90 Bromoform	173	11.291	11.291	0.000	21	2211	25.0	41.7	
91 Isopropylbenzene	105	11.461	11.461	0.000	96	61249	25.0	26.6	
93 1,1,2,2-Tetrachloroethane	83	11.741	11.741	0.000	95	9648	25.0	23.4	
94 Bromobenzene	156	11.759	11.759	0.000	95	12269	25.0	24.3	
95 1,2,3-Trichloropropane	110	11.789	11.789	0.000	85	3116	25.0	24.0	
96 trans-1,4-Dichloro-2-buten	53	11.802	11.802	0.000	68	2408	25.0	20.5	
97 N-Propylbenzene	120	11.868	11.868	0.000	99	16422	25.0	25.1	
98 2-Chlorotoluene	126	11.948	11.948	0.000	95	13039	25.0	24.1	
99 1,3,5-Trimethylbenzene	105	12.039	12.039	0.000	93	50771	25.0	25.7	
100 4-Chlorotoluene	126	12.063	12.063	0.000	98	14026	25.0	25.9	
101 tert-Butylbenzene	119	12.373	12.373	0.000	92	44554	25.0	25.5	
103 1,2,4-Trimethylbenzene	105	12.416	12.416	0.000	94	53217	25.0	26.0	
104 sec-Butylbenzene	105	12.592	12.592	0.000	94	68359	25.0	25.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.696	12.696	0.000	97	26657	25.0	25.3	
106 4-Isopropyltoluene	119	12.732	12.732	0.000	97	54630	25.0	25.7	
107 1,4-Dichlorobenzene	146	12.787	12.787	0.000	91	25193	25.0	24.5	
110 n-Butylbenzene	91	13.146	13.146	0.000	98	53867	25.0	25.5	
111 1,2-Dichlorobenzene	146	13.158	13.158	0.000	95	23966	25.0	25.2	
112 1,2-Dibromo-3-Chloropropan	75	13.937	13.937	0.000	75	864	25.0	42.1	
114 1,2,4-Trichlorobenzene	180	14.776	14.776	0.000	94	16544	25.0	23.5	
115 Hexachlorobutadiene	225	14.953	14.953	0.000	93	9753	25.0	22.5	
116 Naphthalene	128	15.026	15.026	0.000	97	29395	25.0	22.1	
117 1,2,3-Trichlorobenzene	180	15.275	15.275	0.000	93	13213	25.0	22.6	
S 129 Xylenes, Total	106				0		50.0	51.3	
S 130 1,2-Dichloroethene, Total	96				0		50.0	48.9	
S 131 1,3-Dichloropropene, Total	1				0		50.0	35.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00059	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added:	1.00	Units: uL	
voaWVA1stRest_00008	Amount Added:	1.00	Units: uL	
voaWAcro1stRe_00008	Amount Added:	20.00	Units: uL	
VOA8260INT_00061	Amount Added:	10.00	Units: uL	Run Reagent

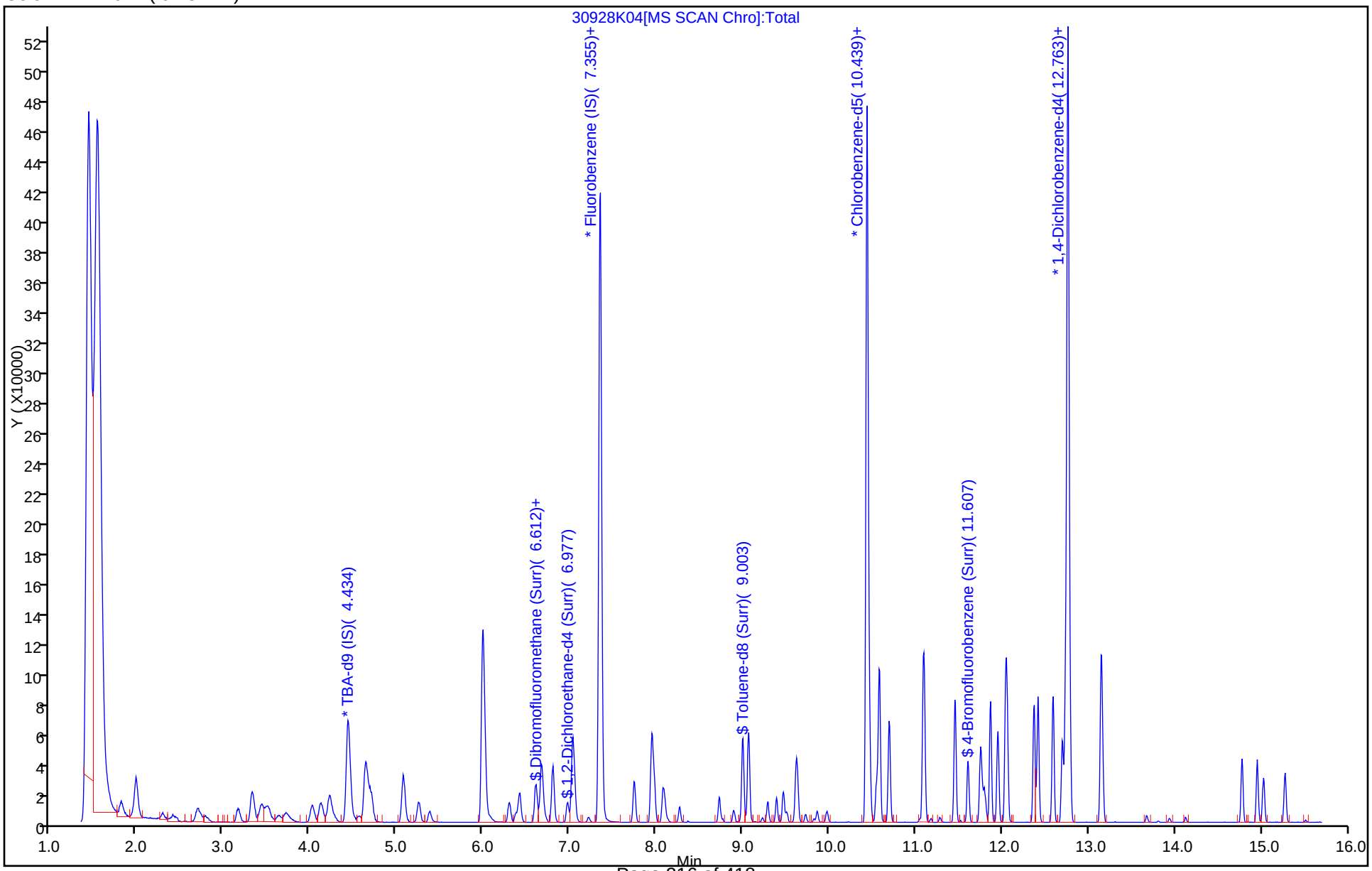
Report Date: 26-Jan-2017 10:28:32 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D

Injection Date:	28-Sep-2016 12:01:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	IC VSTD5			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

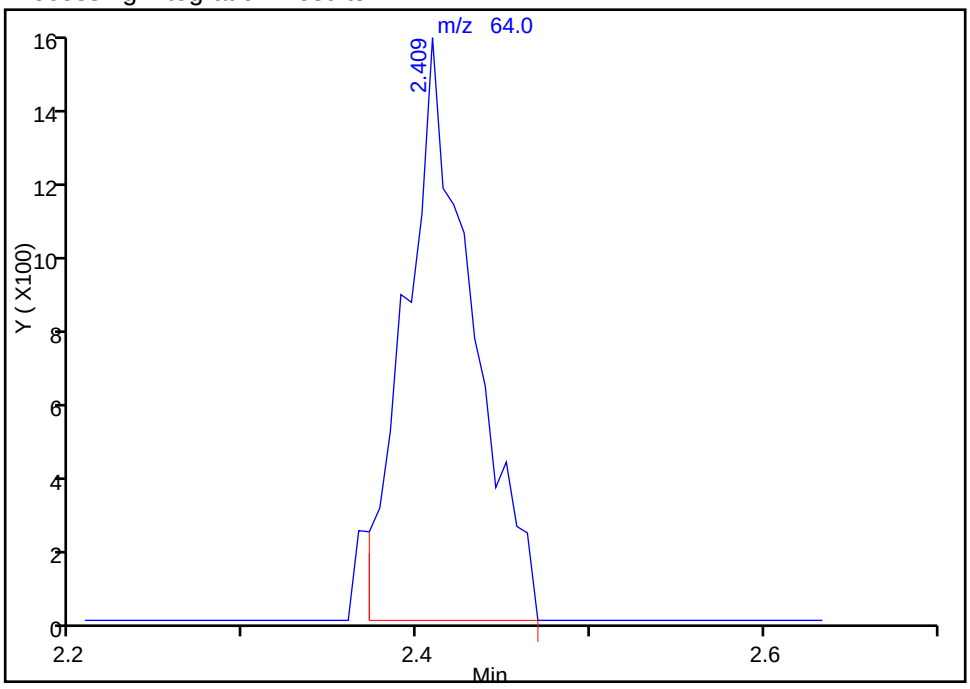
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D
Injection Date: 28-Sep-2016 12:01:30 Instrument ID: CHHP3
Lims ID: IC VSTD5
Client ID:
Operator ID: 10099 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_S_CHHP3 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

15 Chloroethane, CAS: 75-00-3

Signal: 1

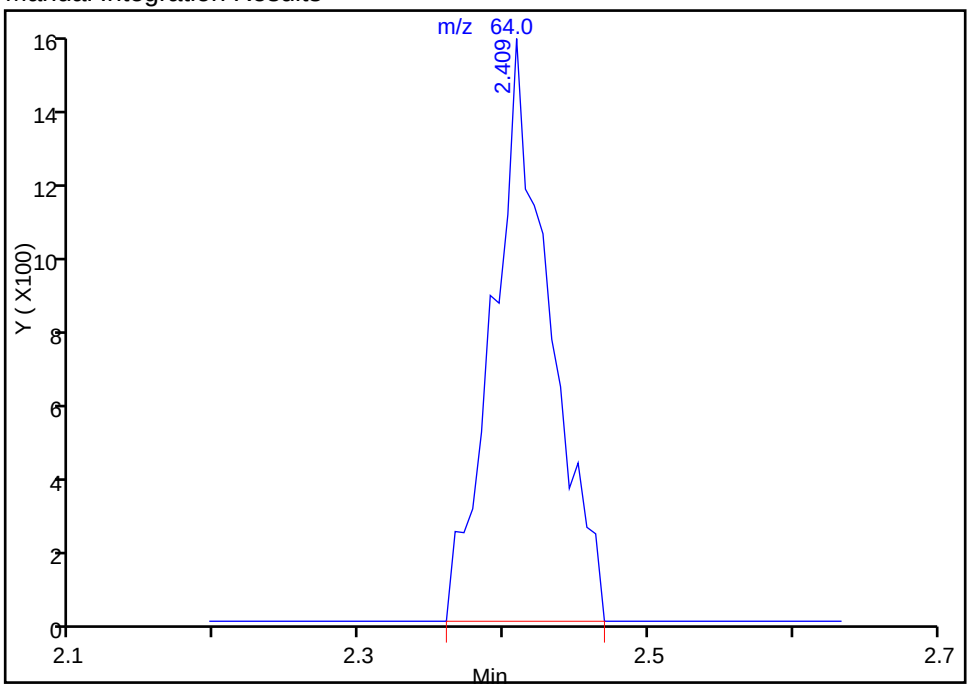
Processing Integration Results

RT: 2.41
Area: 4026
Amount: 25.000000
Amount Units: ng



Manual Integration Results

RT: 2.41
Area: 4111
Amount: 25.336112
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:24:58
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh

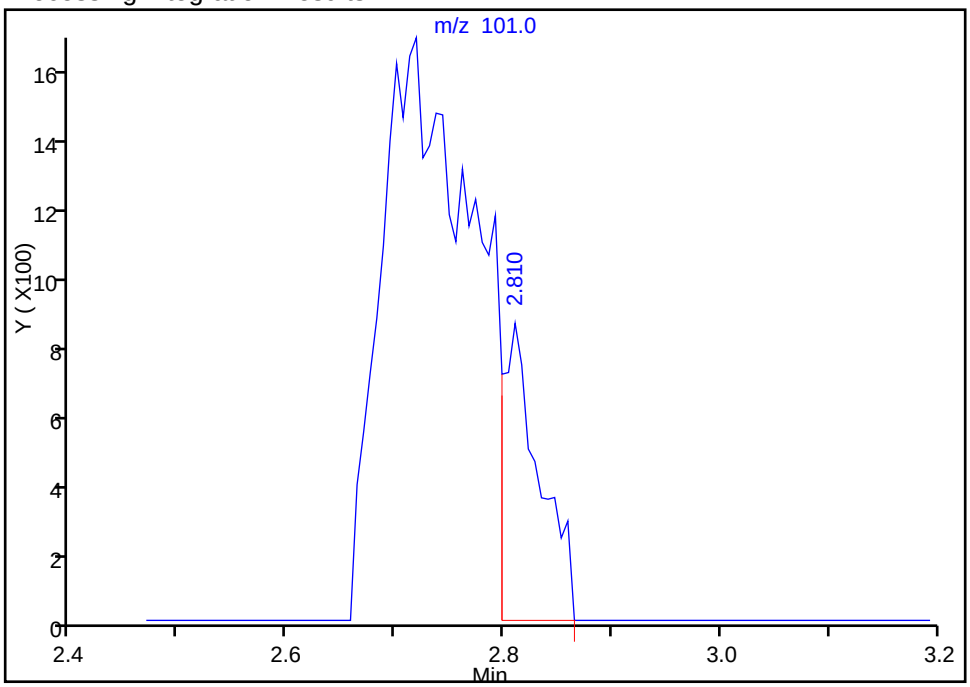
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D				
Injection Date:	28-Sep-2016 12:01:30	Instrument ID:	CHHP3		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	10099	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

17 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

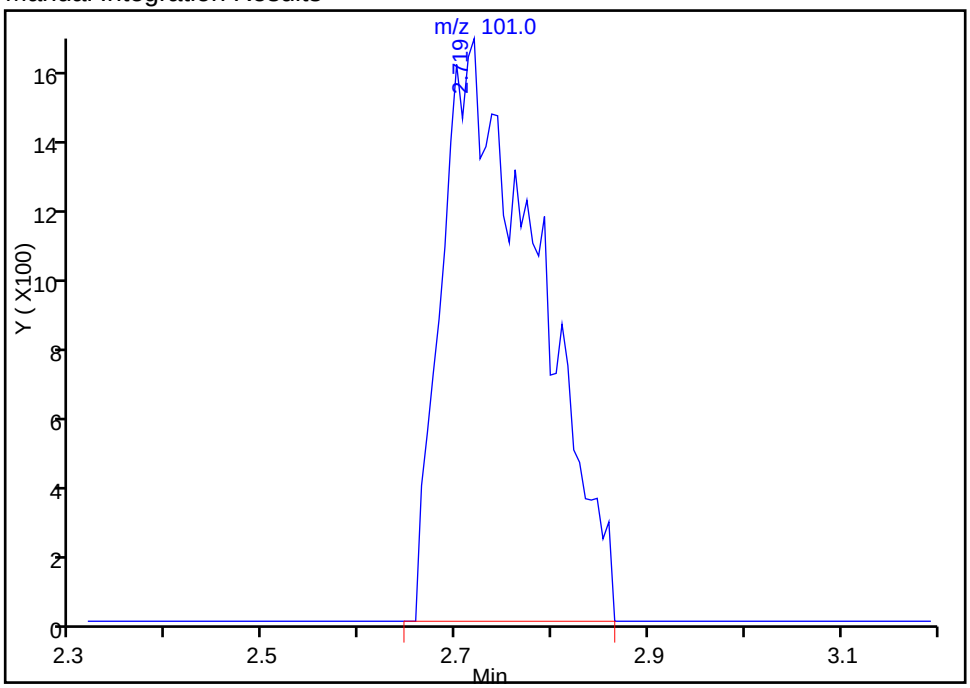
Processing Integration Results

RT: 2.81
Area: 2030
Amount: 25.000000
Amount Units: ng



Manual Integration Results

RT: 2.72
Area: 11607
Amount: 27.103419
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:24:58
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

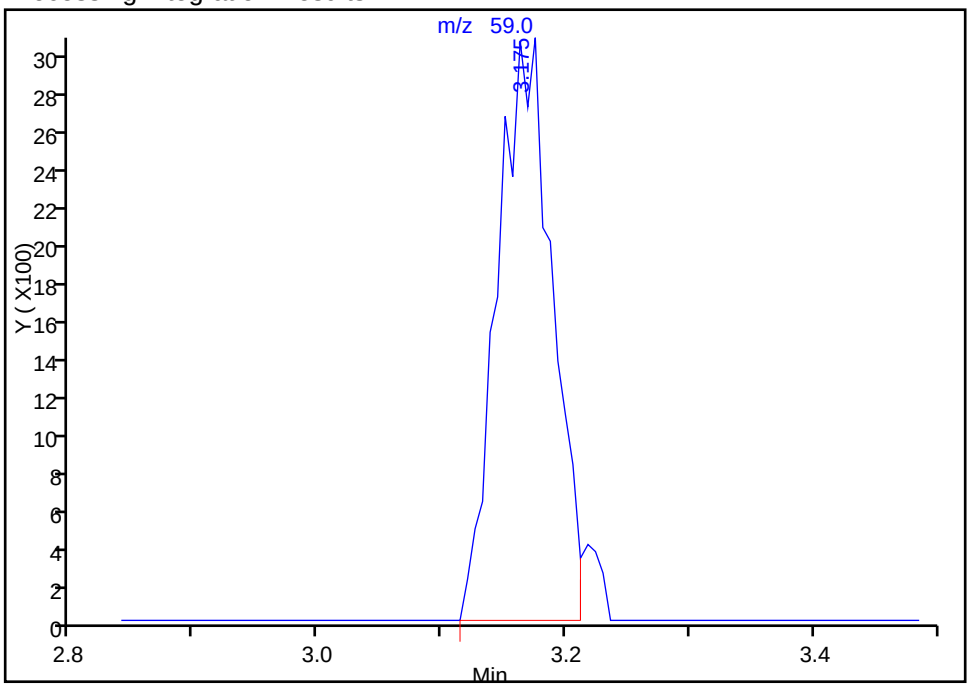
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D
Injection Date: 28-Sep-2016 12:01:30 Instrument ID: CHHP3
Lims ID: IC VSTD5
Client ID:
Operator ID: 10099 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_S_CHHP3 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

19 Ethyl ether, CAS: 60-29-7

Signal: 1

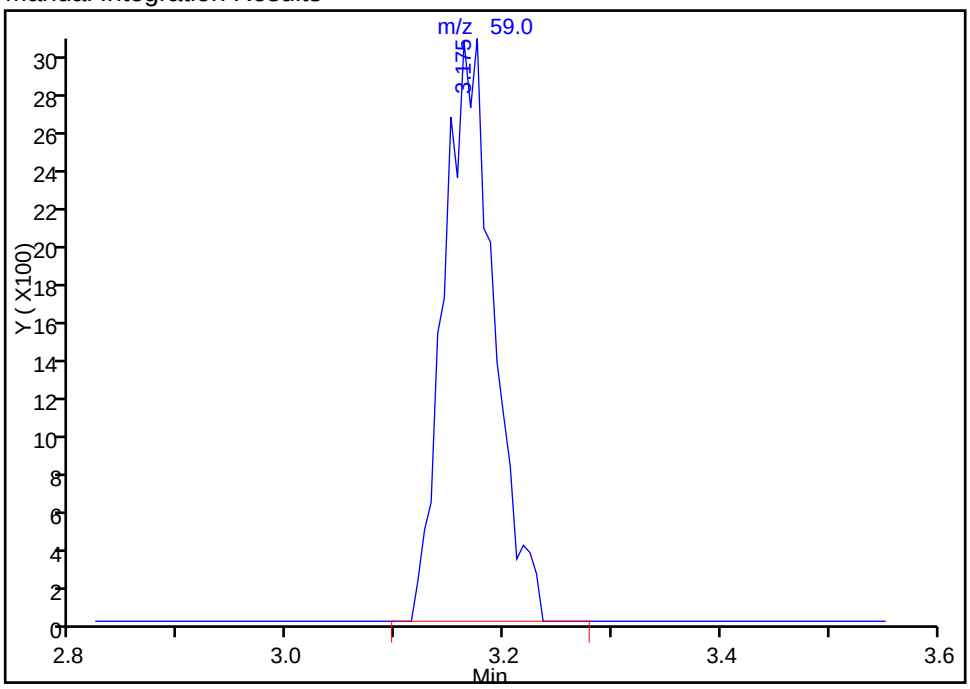
Processing Integration Results

RT: 3.18
Area: 9339
Amount: 25.000000
Amount Units: ng



Manual Integration Results

RT: 3.18
Area: 9702
Amount: 24.328166
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:24:58
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh

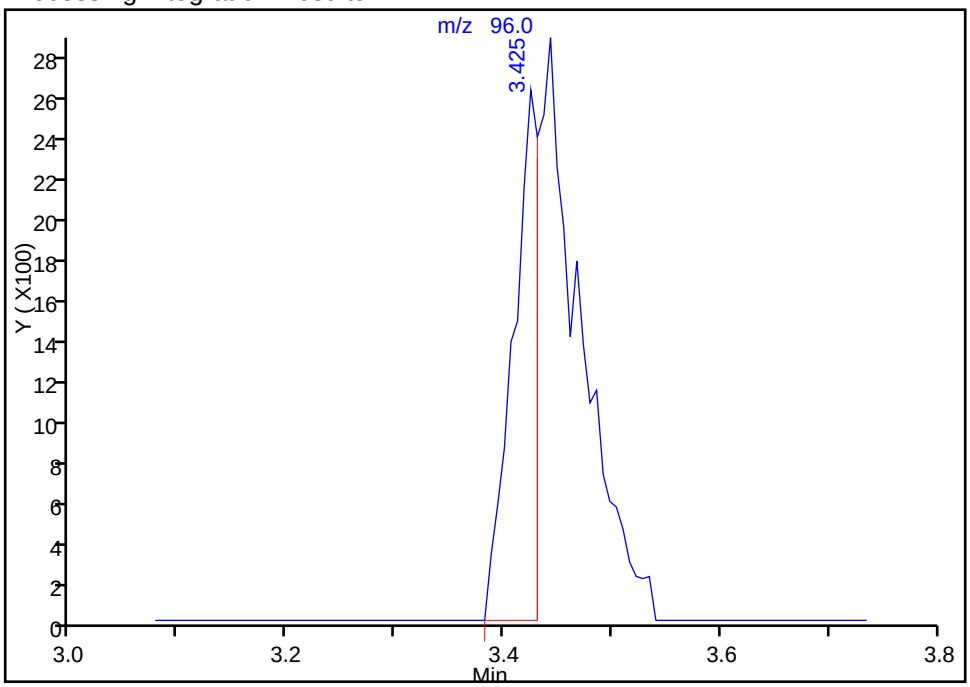
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D
Injection Date: 28-Sep-2016 12:01:30 Instrument ID: CHHP3
Lims ID: IC VSTD5
Client ID:
Operator ID: 10099 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_S_CHHP3 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

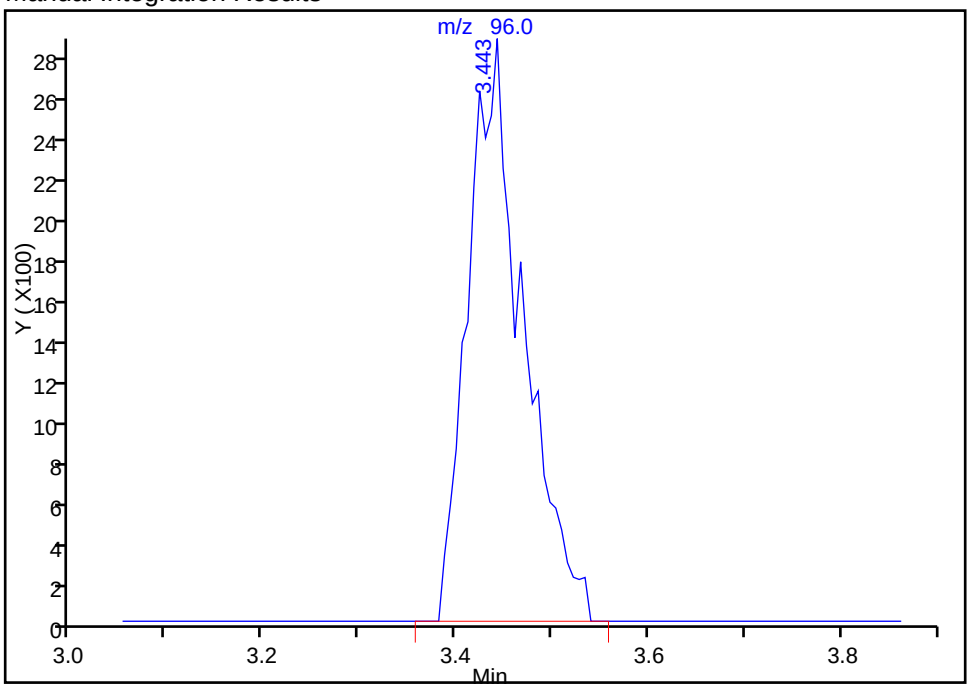
Processing Integration Results

RT: 3.42
Area: 4306
Amount: 25.000000
Amount Units: ng



Manual Integration Results

RT: 3.44
Area: 11465
Amount: 23.735781
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:24:58
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

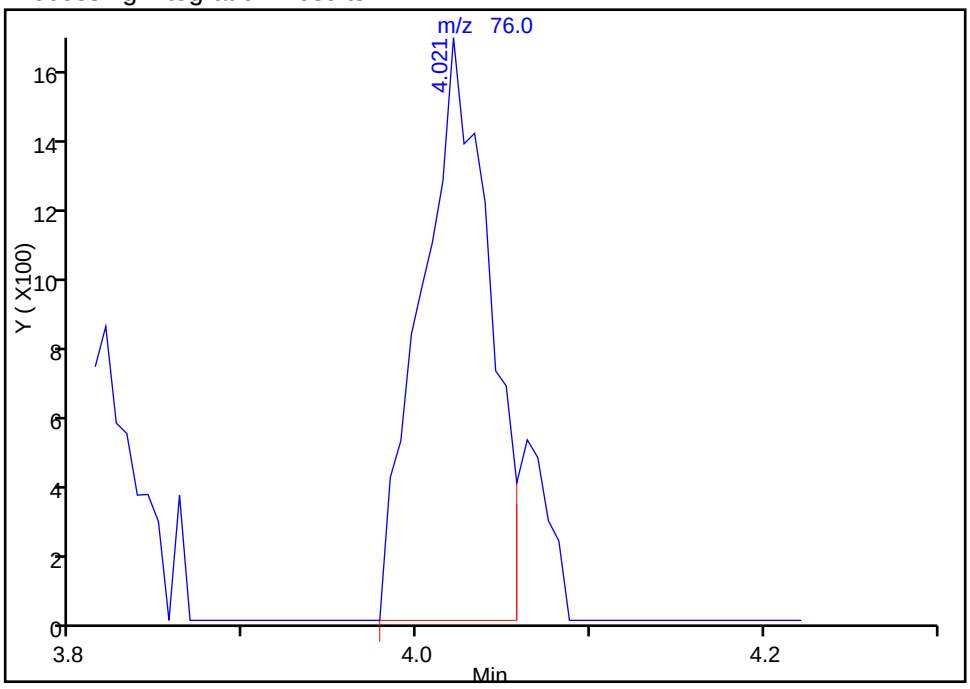
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D
Injection Date: 28-Sep-2016 12:01:30 Instrument ID: CHHP3
Lims ID: IC VSTD5
Client ID:
Operator ID: 10099 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_S_CHHP3 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

Signal: 1

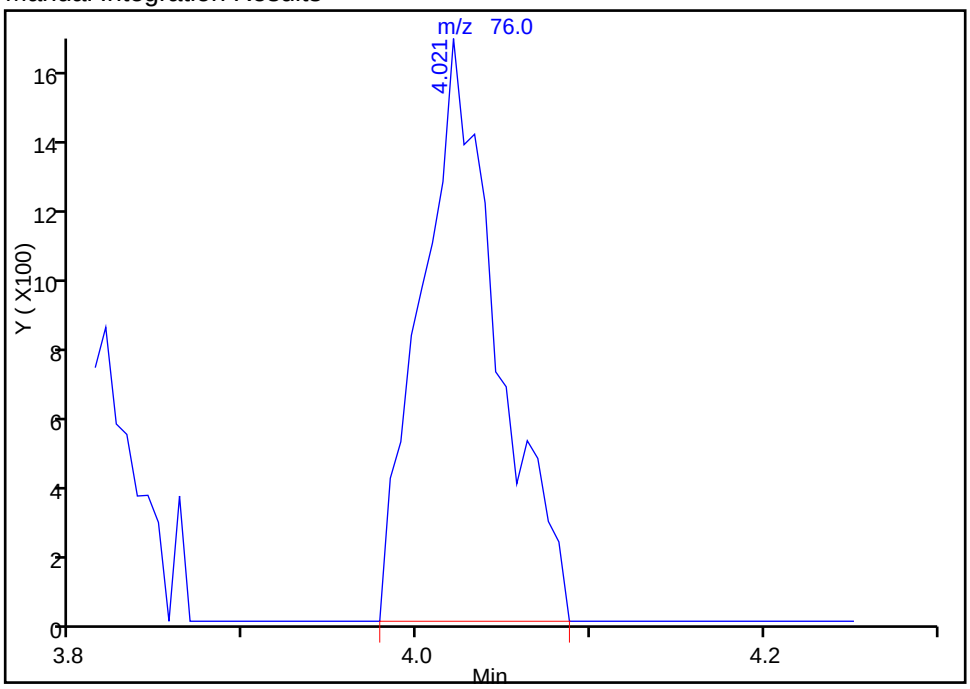
Processing Integration Results

RT: 4.02
Area: 4559
Amount: 25.000000
Amount Units: ng



Manual Integration Results

RT: 4.02
Area: 5107
Amount: 18.624346
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:24:58
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

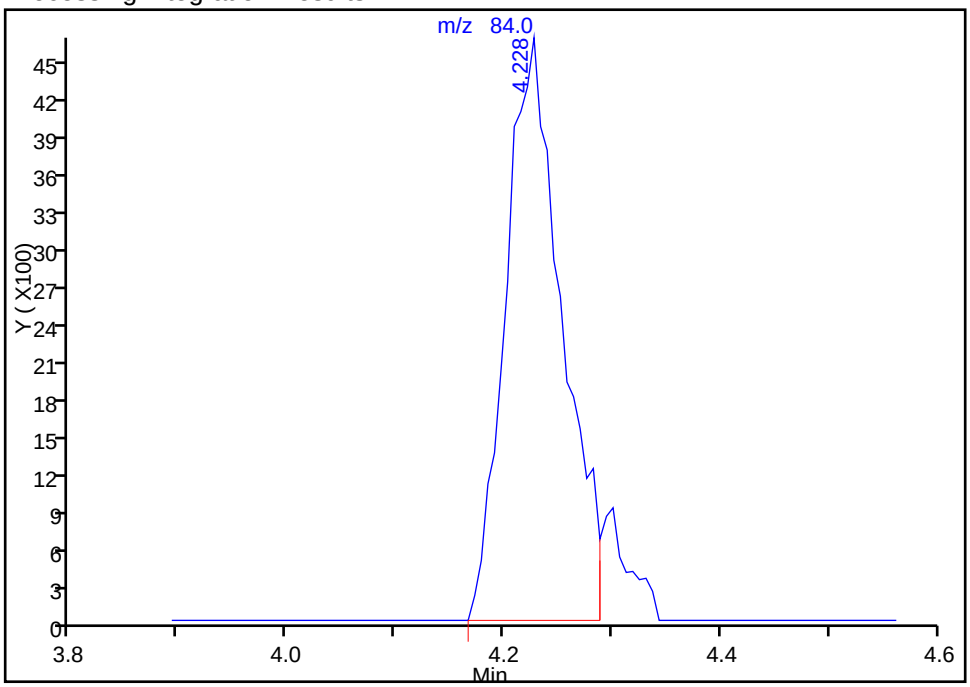
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K04.D
Injection Date: 28-Sep-2016 12:01:30 Instrument ID: CHHP3
Lims ID: IC VSTD5
Client ID:
Operator ID: 10099 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_S_CHHP3 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

30 Methylene Chloride, CAS: 75-09-2

Signal: 1

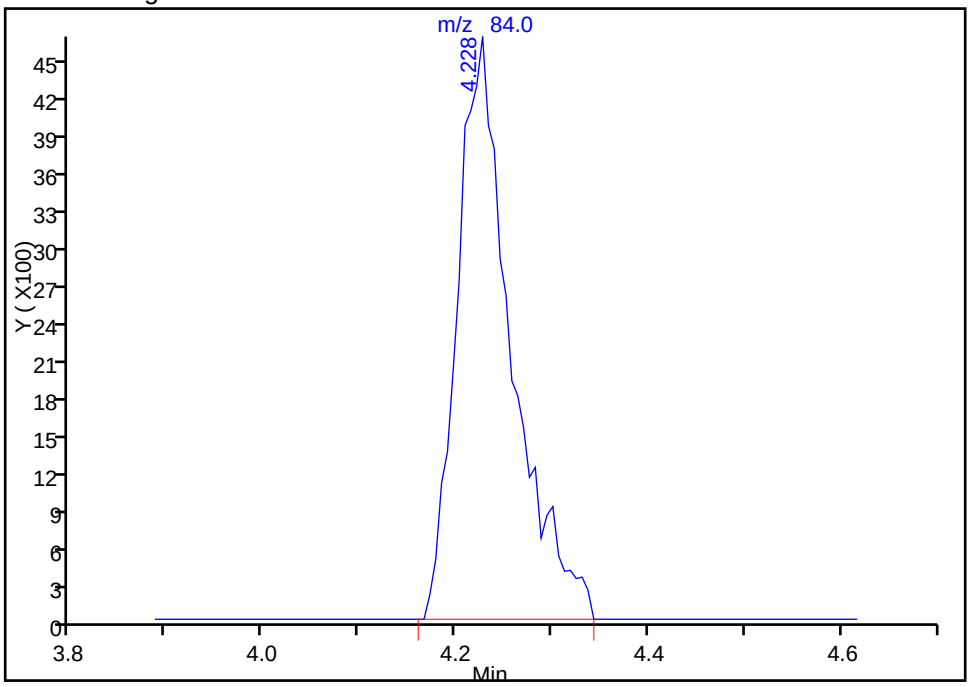
Processing Integration Results

RT: 4.23
Area: 16980
Amount: 25.000000
Amount Units: ng



Manual Integration Results

RT: 4.23
Area: 18414
Amount: 31.945896
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:24:58
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K05.D
Lims ID: IC VSTD10
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Sep-2016 12:24:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-005
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:33 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 12:45:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.453	4.441	0.012	98	119994	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.354	7.355	-0.001	99	420700	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.439	10.439	0.000	87	93456	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.763	12.763	0.000	97	150950	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.600	6.600	0.000	93	17085	50.0	47.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.971	6.971	0.000	96	20302	50.0	48.8	
$ 7 Toluene-d8 (Surr)	98	9.003	9.003	0.000	92	80773	50.0	49.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.607	0.000	87	32671	50.0	49.7	
10 Dichlorodifluoromethane	85	1.660	1.660	0.000	98	25119	50.0	47.3	
11 Chloromethane	50	1.812	1.812	0.000	99	37209	50.0	49.5	
12 Vinyl chloride	62	1.971	1.971	0.000	98	29592	50.0	47.9	
13 Butadiene	39	1.989	1.989	0.000	90	28233	50.0	49.7	
14 Bromomethane	94	2.299	2.287	0.012	90	7000	50.0	48.6	
15 Chloroethane	64	2.409	2.409	0.000	96	7669	50.0	49.8	
16 Dichlorofluoromethane	67	2.694	2.701	-0.007	97	28552	50.0	51.7	
17 Trichlorofluoromethane	101	2.731	2.719	0.012	51	20283	50.0	49.9	M
19 Ethyl ether	59	3.163	3.175	-0.012	91	18491	50.0	48.9	
20 Acrolein	56	3.327	3.327	0.000	99	45169	625.0	656.5	
21 1,1-Dichloroethene	96	3.431	3.443	-0.012	94	21645	50.0	47.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.510	3.510	0.000	92	22244	50.0	49.6	
23 Acetone	43	3.595	3.601	-0.006	99	6071	50.0	55.7	
24 Iodomethane	142	3.631	3.638	-0.007	95	29931	50.0	48.6	
25 Carbon disulfide	76	3.723	3.723	0.000	99	44773	50.0	44.2	
28 3-Chloro-1-propene	76	4.021	4.021	0.000	94	11300	50.0	43.4	
29 Methyl acetate	43	4.118	4.124	-0.006	98	63995	250.0	241.3	
30 Methylene Chloride	84	4.221	4.228	-0.007	95	28872	50.0	52.8	
31 2-Methyl-2-propanol	59	4.568	4.574	-0.006	98	14873	500.0	494.2	
32 Acrylonitrile	53	4.635	4.641	-0.006	98	72119	500.0	505.2	
33 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	98	24189	50.0	50.2	
34 Methyl tert-butyl ether	73	4.702	4.708	-0.006	96	50513	50.0	48.6	
35 Hexane	57	5.073	5.073	0.000	90	42710	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.256	5.250	0.006	95	40717	50.0	48.3	
37 Vinyl acetate	43	5.377	5.383	-0.006	97	33159	50.0	48.3	
41 2,2-Dichloropropane	77	5.992	5.992	0.000	40	58948	50.0	50.3	
42 cis-1,2-Dichloroethene	96	6.010	6.016	-0.006	83	25477	50.0	48.0	
43 2-Butanone (MEK)	43	6.071	6.077	-0.006	99	8097	50.0	50.8	
47 Chlorobromomethane	128	6.302	6.302	0.000	96	9826	50.0	49.2	
48 Tetrahydrofuran	42	6.381	6.381	0.000	92	9678	100.0	92.5	
49 Chloroform	83	6.424	6.424	0.000	94	35859	50.0	47.2	
50 1,1,1-Trichloroethane	97	6.612	6.618	-0.006	98	25640	50.0	45.3	
51 Cyclohexane	56	6.673	6.679	-0.006	90	50580	50.0	49.4	
53 Carbon tetrachloride	117	6.801	6.807	-0.006	65	17554	50.0	41.3	
52 1,1-Dichloropropene	75	6.807	6.807	0.000	96	29582	50.0	47.7	
55 Benzene	78	7.038	7.038	0.000	96	90647	50.0	49.3	
54 Isobutyl alcohol	41	7.026	7.026	0.000	93	11200	1250.0	1209.6	
56 1,2-Dichloroethane	62	7.056	7.056	0.000	95	23459	50.0	46.9	
59 n-Heptane	43	7.367	7.367	0.000	92	38375	50.0	47.7	
60 Trichloroethene	130	7.744	7.744	0.000	97	20740	50.0	46.3	
63 Methylcyclohexane	83	7.951	7.951	0.000	91	48716	50.0	50.0	
64 1,2-Dichloropropane	63	7.981	7.981	0.000	89	21192	50.0	47.7	
65 Dibromomethane	93	8.097	8.097	0.000	97	9388	50.0	44.8	
67 1,4-Dioxane	88	8.145	8.145	0.000	56	3268	1000.0	918.0	
68 Dichlorobromomethane	83	8.267	8.273	-0.006	98	16506	50.0	38.6	
71 cis-1,3-Dichloropropene	75	8.729	8.729	0.000	96	23292	50.0	39.7	
72 4-Methyl-2-pentanone (MIBK	43	8.900	8.894	0.006	94	14216	50.0	46.7	
73 Toluene	91	9.070	9.070	0.000	99	93693	50.0	50.0	
74 trans-1,3-Dichloropropene	75	9.289	9.289	0.000	92	19408	50.0	40.8	
75 Ethyl methacrylate	69	9.392	9.392	0.000	90	20436	50.0	46.5	
76 1,1,2-Trichloroethane	97	9.471	9.472	-0.001	89	15243	50.0	47.5	
77 Tetrachloroethene	164	9.617	9.618	-0.001	98	17167	50.0	48.5	
78 1,3-Dichloropropane	76	9.636	9.636	0.000	89	28344	50.0	48.6	
79 2-Hexanone	43	9.727	9.733	-0.006	96	9264	50.0	46.6	
81 Chlorodibromomethane	129	9.867	9.861	0.006	89	9095	50.0	46.5	
82 Ethylene Dibromide	107	9.976	9.977	0.000	98	14241	50.0	46.1	
83 Chlorobenzene	112	10.469	10.469	0.000	95	59728	50.0	49.0	
85 1,1,1,2-Tetrachloroethane	131	10.548	10.542	0.006	93	14614	50.0	42.1	
86 Ethylbenzene	106	10.579	10.579	0.000	98	33715	50.0	49.6	
87 m-Xylene & p-Xylene	106	10.694	10.694	0.000	99	41757	50.0	48.8	
88 o-Xylene	106	11.090	11.090	0.000	97	41770	50.0	49.8	
89 Styrene	104	11.102	11.102	0.000	93	67569	50.0	49.1	
90 Bromoform	173	11.278	11.291	-0.013	95	4500	50.0	54.2	
91 Isopropylbenzene	105	11.461	11.461	0.000	96	113190	50.0	50.3	
93 1,1,2,2-Tetrachloroethane	83	11.741	11.741	0.000	95	19787	50.0	49.1	
94 Bromobenzene	156	11.759	11.759	0.000	95	23494	50.0	48.5	
95 1,2,3-Trichloropropane	110	11.789	11.789	0.000	85	5986	50.0	48.0	
96 trans-1,4-Dichloro-2-buten	53	11.801	11.802	-0.001	71	4719	50.0	41.9	
97 N-Propylbenzene	120	11.868	11.868	0.000	99	30494	50.0	48.6	
98 2-Chlorotoluene	126	11.954	11.948	0.006	96	25491	50.0	49.1	
99 1,3,5-Trimethylbenzene	105	12.045	12.039	0.006	94	95971	50.0	50.6	
100 4-Chlorotoluene	126	12.057	12.063	-0.006	98	25470	50.0	49.0	
101 tert-Butylbenzene	119	12.367	12.373	-0.006	92	80857	50.0	48.2	
103 1,2,4-Trimethylbenzene	105	12.416	12.416	0.000	94	97822	50.0	49.9	
104 sec-Butylbenzene	105	12.592	12.592	0.000	94	129108	50.0	50.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.696	12.696	0.000	97	48691	50.0	48.2	
106 4-Isopropyltoluene	119	12.732	12.732	0.000	97	101876	50.0	49.9	
107 1,4-Dichlorobenzene	146	12.787	12.787	0.000	95	48026	50.0	48.7	
110 n-Butylbenzene	91	13.146	13.146	0.000	98	99396	50.0	49.0	
111 1,2-Dichlorobenzene	146	13.158	13.158	0.000	97	44249	50.0	48.4	
112 1,2-Dibromo-3-Chloropropan	75	13.943	13.937	0.006	75	1840	50.0	56.0	
114 1,2,4-Trichlorobenzene	180	14.776	14.776	0.000	94	30690	50.0	45.4	
115 Hexachlorobutadiene	225	14.953	14.953	0.000	94	19938	50.0	48.0	
116 Naphthalene	128	15.026	15.026	0.000	97	58230	50.0	45.6	
117 1,2,3-Trichlorobenzene	180	15.275	15.275	0.000	94	25522	50.0	45.5	
S 130 1,2-Dichloroethene, Total	96				0		100.0	98.3	
S 129 Xylenes, Total	106				0		100.0	98.7	
S 131 1,3-Dichloropropene, Total	1				0		100.0	80.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00008	Amount Added: 25.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 2.00	Units: uL	
VOA8260SURR_00059	Amount Added: 2.00	Units: uL	
VOA8260INT_00061	Amount Added: 10.00	Units: uL	Run Reagent

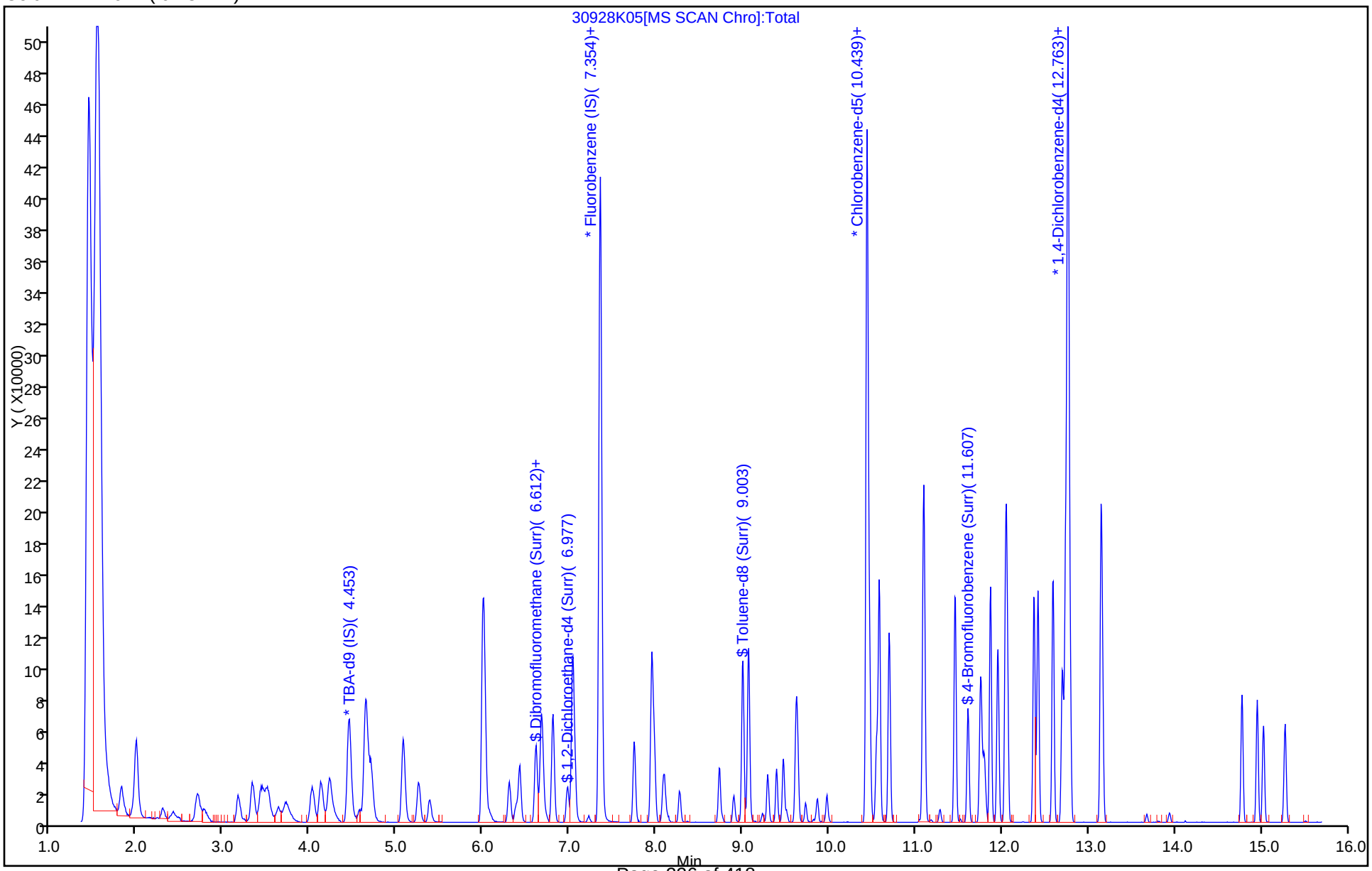
Report Date: 26-Jan-2017 10:28:34 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K05.D

Injection Date:	28-Sep-2016 12:24:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	IC VSTD10			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

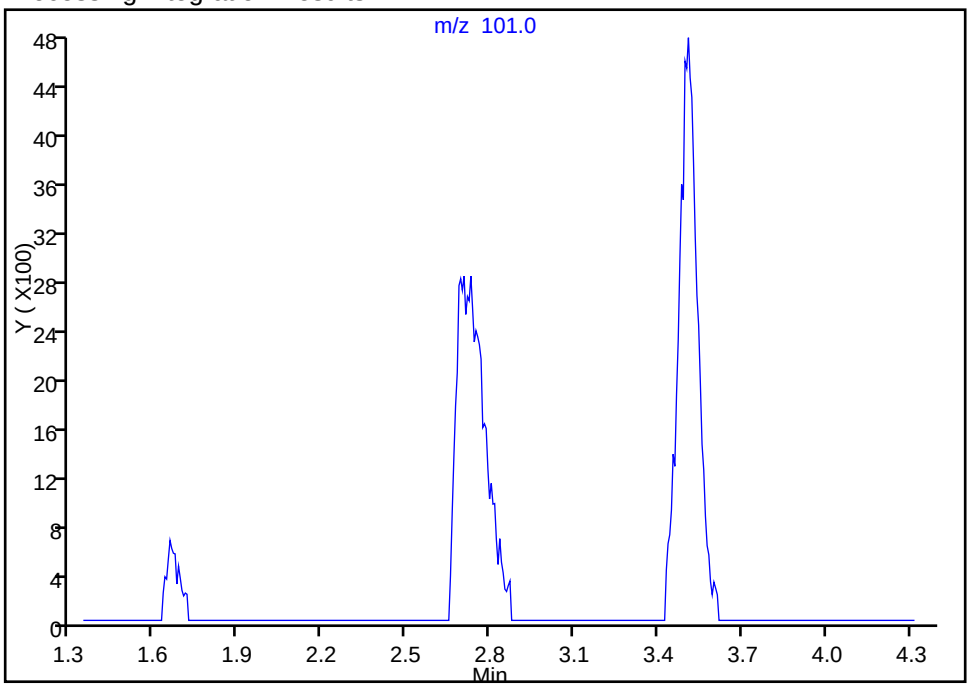
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K05.D				
Injection Date:	28-Sep-2016 12:24:30	Instrument ID:	CHHP3		
Lims ID:	IC VSTD10				
Client ID:					
Operator ID:	10099	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

17 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

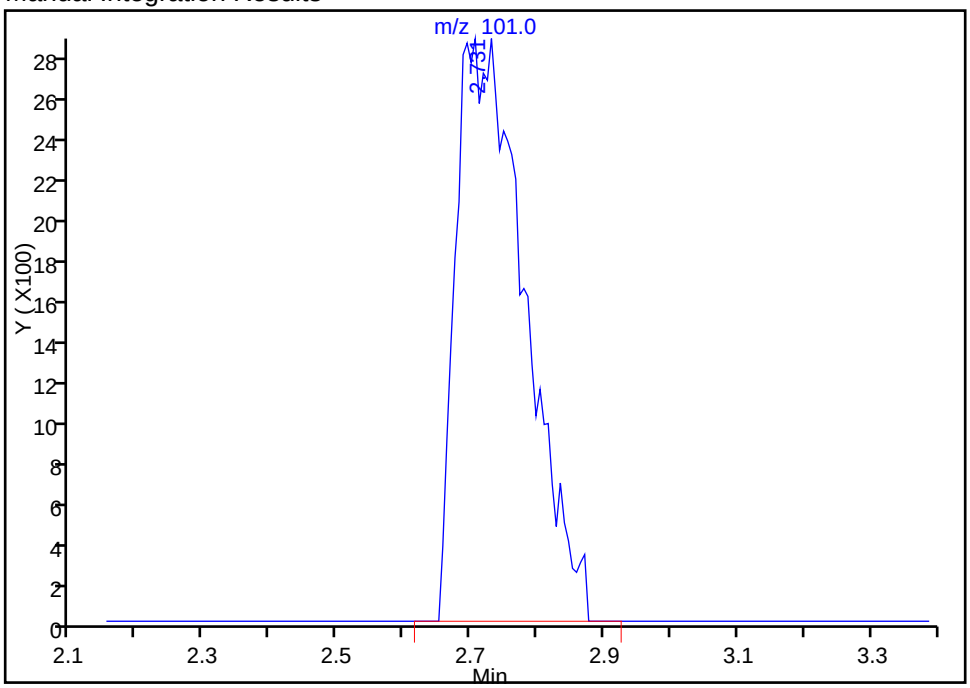
Not Detected
Expected RT: 2.72

Processing Integration Results



Manual Integration Results

RT: 2.73
Area: 20283
Amount: 49.909482
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:45:53
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

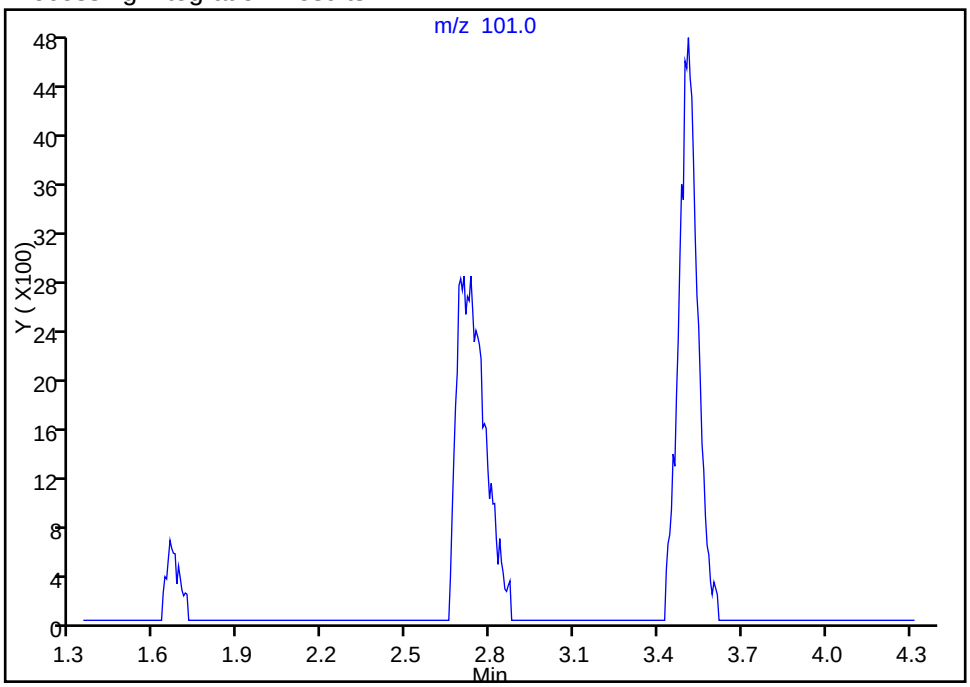
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K05.D
Injection Date: 28-Sep-2016 12:24:30 Instrument ID: CHHP3
Lims ID: IC VSTD10
Client ID:
Operator ID: 10099 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_S_CHHP3 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

17 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

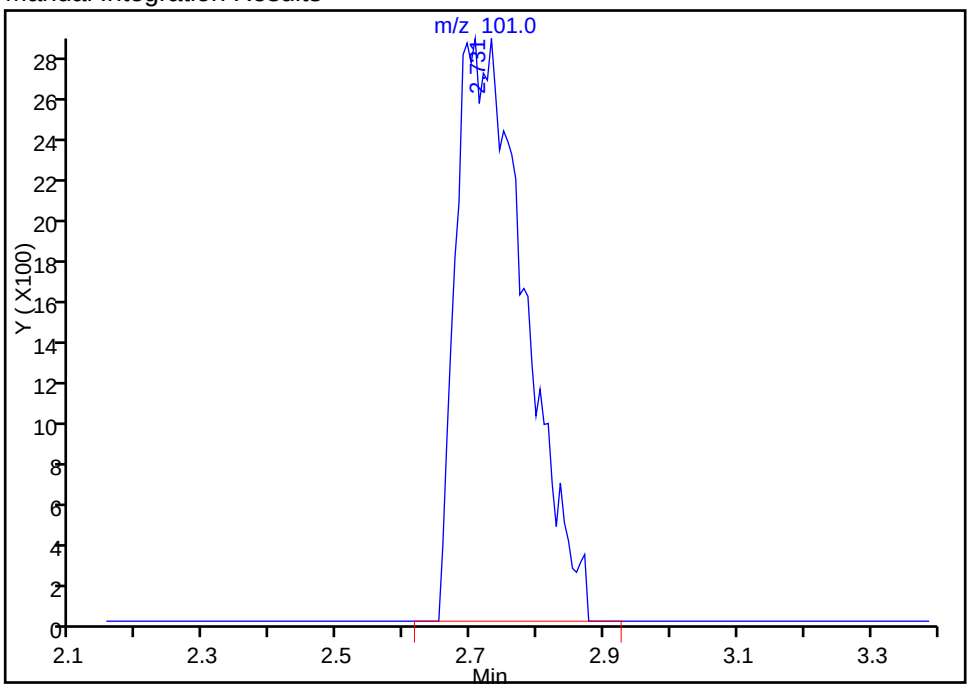
Not Detected
Expected RT: 2.72

Processing Integration Results



Manual Integration Results

RT: 2.73
Area: 20283
Amount: 49.909482
Amount Units: ng



Reviewer: gordonk, 28-Sep-2016 12:45:53
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K06.D
Lims ID: IC VSTD25
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 28-Sep-2016 12:47:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-006
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:35 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 13:27:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.443	4.441	0.002	98	115100	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.351	7.355	-0.004	98	421962	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.441	10.439	0.002	88	93194	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.765	12.763	0.002	96	144314	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.600	0.003	92	45722	125.0	126.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.971	0.003	95	53220	125.0	127.6	
$ 7 Toluene-d8 (Surr)	98	8.999	9.003	-0.004	92	210191	125.0	130.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.607	0.002	85	80956	125.0	123.6	
10 Dichlorodifluoromethane	85	1.669	1.660	0.009	99	63216	125.0	118.6	
11 Chloromethane	50	1.809	1.812	-0.003	99	86443	125.0	114.6	
12 Vinyl chloride	62	1.973	1.971	0.002	98	72244	125.0	116.5	
13 Butadiene	39	1.985	1.989	-0.004	89	66573	125.0	116.8	
14 Bromomethane	94	2.295	2.287	0.008	89	17971	125.0	124.4	
15 Chloroethane	64	2.417	2.409	0.008	98	19675	125.0	127.4	
16 Dichlorofluoromethane	67	2.691	2.701	-0.010	97	72152	125.0	130.3	
17 Trichlorofluoromethane	101	2.715	2.719	-0.004	90	52935	125.0	129.9	
19 Ethyl ether	59	3.165	3.175	-0.010	92	47444	125.0	125.0	
20 Acrolein	56	3.330	3.327	0.003	100	50612	750.0	733.4	
21 1,1-Dichloroethene	96	3.439	3.443	-0.004	96	55628	125.0	121.0	
22 1,1,2-Trichloro-1,2,2-trif	101	3.506	3.510	-0.004	94	54304	125.0	120.7	
23 Acetone	43	3.591	3.601	-0.010	99	14439	125.0	132.1	
24 Iodomethane	142	3.640	3.638	0.002	95	74517	125.0	120.5	
25 Carbon disulfide	76	3.737	3.723	0.014	99	139282	125.0	115.1	
28 3-Chloro-1-propene	76	4.017	4.021	-0.004	94	32240	125.0	123.5	
29 Methyl acetate	43	4.120	4.124	-0.004	98	164444	625.0	618.3	
30 Methylene Chloride	84	4.236	4.228	0.008	96	65042	125.0	118.6	
31 2-Methyl-2-propanol	59	4.565	4.574	-0.009	97	35819	1250.0	1240.7	
32 Acrylonitrile	53	4.638	4.641	-0.003	99	175922	1250.0	1228.6	
33 trans-1,2-Dichloroethene	96	4.650	4.647	0.003	98	57828	125.0	119.7	
34 Methyl tert-butyl ether	73	4.704	4.708	-0.004	96	126609	125.0	121.5	
35 Hexane	57	5.076	5.073	0.003	90	107963	125.0	125.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.258	5.250	0.008	96	104137	125.0	123.0	
37 Vinyl acetate	43	5.380	5.383	-0.003	97	90526	125.0	131.5	
41 2,2-Dichloropropane	77	6.000	5.992	0.008	81	87113	125.0	118.9	
42 cis-1,2-Dichloroethene	96	6.019	6.016	0.003	84	65812	125.0	123.7	
43 2-Butanone (MEK)	43	6.067	6.077	-0.010	100	21485	125.0	134.4	
47 Chlorobromomethane	128	6.304	6.302	0.002	95	23425	125.0	117.0	
48 Tetrahydrofuran	42	6.377	6.381	-0.004	89	24318	250.0	231.7	
49 Chloroform	83	6.420	6.424	-0.004	95	94350	125.0	123.8	
50 1,1,1-Trichloroethane	97	6.615	6.618	-0.003	98	69795	125.0	122.8	
51 Cyclohexane	56	6.676	6.679	-0.003	89	125400	125.0	122.0	
52 1,1-Dichloropropene	75	6.809	6.807	0.002	96	79130	125.0	127.2	
53 Carbon tetrachloride	117	6.803	6.807	-0.004	97	52516	125.0	123.3	
54 Isobutyl alcohol	41	7.022	7.026	-0.004	95	29098	3125.0	3133.3	
55 Benzene	78	7.034	7.038	-0.004	97	232198	125.0	125.8	
56 1,2-Dichloroethane	62	7.059	7.056	0.003	97	63033	125.0	125.5	
59 n-Heptane	43	7.369	7.367	0.002	93	102749	125.0	127.3	
60 Trichloroethene	130	7.746	7.744	0.002	99	55100	125.0	122.6	
63 Methylcyclohexane	83	7.953	7.951	0.002	93	119189	125.0	122.0	
64 1,2-Dichloropropane	63	7.977	7.981	-0.004	91	56716	125.0	127.2	
65 Dibromomethane	93	8.099	8.097	0.002	97	25613	125.0	122.0	
67 1,4-Dioxane	88	8.136	8.145	-0.009	95	8576	2500.0	2401.9	
68 Dichlorobromomethane	83	8.275	8.273	0.002	99	51875	125.0	120.8	
71 cis-1,3-Dichloropropene	75	8.732	8.729	0.003	96	73094	125.0	124.2	
72 4-Methyl-2-pentanone (MIBK	43	8.896	8.894	0.002	96	37323	125.0	122.9	
73 Toluene	91	9.066	9.070	-0.004	98	240917	125.0	128.9	
74 trans-1,3-Dichloropropene	75	9.291	9.289	0.002	93	56652	125.0	119.4	
75 Ethyl methacrylate	69	9.395	9.392	0.003	90	55199	125.0	126.1	
76 1,1,2-Trichloroethane	97	9.474	9.472	0.002	89	39149	125.0	122.3	
77 Tetrachloroethene	164	9.620	9.618	0.002	98	43573	125.0	123.6	
78 1,3-Dichloropropane	76	9.638	9.636	0.002	91	73049	125.0	125.7	
79 2-Hexanone	43	9.729	9.733	-0.004	96	26787	125.0	135.0	
81 Chlorodibromomethane	129	9.863	9.861	0.002	92	29545	125.0	110.7	
82 Ethylene Dibromide	107	9.979	9.977	0.003	99	37988	125.0	123.4	
83 Chlorobenzene	112	10.466	10.469	-0.003	94	149771	125.0	123.2	
85 1,1,1,2-Tetrachloroethane	131	10.551	10.542	0.009	93	42546	125.0	122.8	
86 Ethylbenzene	106	10.581	10.579	0.002	98	85605	125.0	126.2	
87 m-Xylene & p-Xylene	106	10.697	10.694	0.003	100	106729	125.0	125.1	
88 o-Xylene	106	11.092	11.090	0.002	94	103659	125.0	124.1	
89 Styrene	104	11.104	11.102	0.002	92	171767	125.0	125.2	
90 Bromoform	173	11.287	11.291	-0.004	95	15703	125.0	113.9	
91 Isopropylbenzene	105	11.457	11.461	-0.004	96	283389	125.0	126.2	
93 1,1,2,2-Tetrachloroethane	83	11.743	11.741	0.002	94	48678	125.0	121.2	
94 Bromobenzene	156	11.761	11.759	0.002	94	57321	125.0	123.8	
95 1,2,3-Trichloropropane	110	11.792	11.789	0.003	83	15261	125.0	128.0	
96 trans-1,4-Dichloro-2-buten	53	11.804	11.802	0.002	73	13216	125.0	122.8	
97 N-Propylbenzene	120	11.865	11.868	-0.003	99	75436	125.0	125.8	
98 2-Chlorotoluene	126	11.950	11.948	0.002	96	61426	125.0	123.8	
99 1,3,5-Trimethylbenzene	105	12.041	12.039	0.002	94	230110	125.0	126.8	
100 4-Chlorotoluene	126	12.059	12.063	-0.004	98	61626	125.0	124.1	
101 tert-Butylbenzene	119	12.370	12.373	-0.003	92	199650	125.0	124.5	
103 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	98	239725	125.0	127.8	
104 sec-Butylbenzene	105	12.589	12.592	-0.003	94	312191	125.0	127.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.698	12.696	0.002	97	118142	125.0	122.3	
106 4-Isopropyltoluene	119	12.735	12.732	0.003	97	248705	125.0	127.5	
107 1,4-Dichlorobenzene	146	12.789	12.787	0.002	94	114901	125.0	121.9	
110 n-Butylbenzene	91	13.142	13.146	-0.004	98	247025	125.0	127.4	
111 1,2-Dichlorobenzene	146	13.161	13.158	0.002	96	108088	125.0	123.8	
112 1,2-Dibromo-3-Chloropropan	75	13.933	13.937	-0.004	79	5735	125.0	112.8	
114 1,2,4-Trichlorobenzene	180	14.779	14.776	0.003	95	80017	125.0	123.9	
115 Hexachlorobutadiene	225	14.955	14.953	0.002	96	48705	125.0	122.5	
116 Naphthalene	128	15.022	15.026	-0.004	97	153060	125.0	125.4	
117 1,2,3-Trichlorobenzene	180	15.278	15.275	0.003	94	66578	125.0	124.2	
S 129 Xylenes, Total	106				0		250.0	249.1	
S 130 1,2-Dichloroethene, Total	96				0		250.0	243.4	
S 131 1,3-Dichloropropene, Total	1				0		250.0	243.6	

Reagents:

VOA8260VOAPRI_00213	Amount Added:	5.00	Units: uL	
VOA8260SURR_00059	Amount Added:	5.00	Units: uL	
voaWVA1stRest_00008	Amount Added:	5.00	Units: uL	
voaWAcro1stRe_00008	Amount Added:	30.00	Units: uL	
VOA8260INT_00061	Amount Added:	10.00	Units: uL	Run Reagent

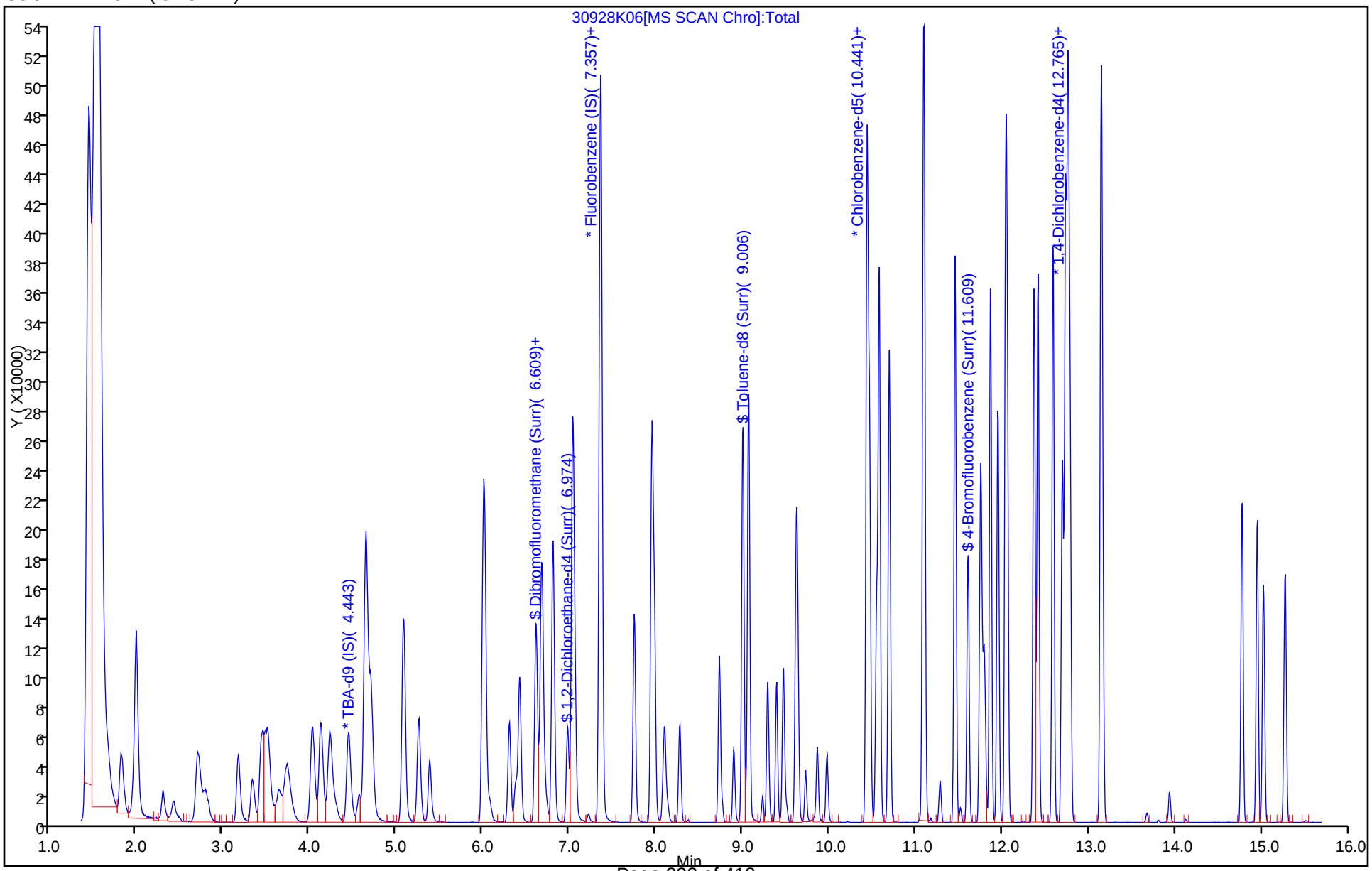
Report Date: 26-Jan-2017 10:28:36 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K06.D

Injection Date:	28-Sep-2016 12:47:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	IC VSTD25			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K07.D
Lims ID: ICIS VSTD40
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 28-Sep-2016 13:10:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-007
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:37 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 18:25:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.464	4.464	0.000	97	119071	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.347	7.347	0.000	99	410192	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.438	10.438	0.000	88	90798	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.761	12.761	0.000	96	145876	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.599	6.599	0.000	94	73275	200.0	208.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.970	6.970	0.000	95	81608	200.0	201.2	
$ 7 Toluene-d8 (Surr)	98	9.002	9.002	0.000	92	327597	200.0	208.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.606	11.606	0.000	86	132353	200.0	207.4	
10 Dichlorodifluoromethane	85	1.659	1.659	0.000	100	107126	200.0	206.8	
11 Chloromethane	50	1.823	1.823	0.000	100	156155	200.0	213.0	
12 Vinyl chloride	62	1.982	1.982	0.000	79	125625	200.0	208.4	
13 Butadiene	39	1.988	1.988	0.000	88	115290	200.0	208.1	
14 Bromomethane	94	2.292	2.292	0.000	90	28683	200.0	204.3	
15 Chloroethane	64	2.413	2.413	0.000	99	30213	200.0	201.2	
16 Dichlorofluoromethane	67	2.687	2.687	0.000	97	104352	200.0	193.9	
17 Trichlorofluoromethane	101	2.736	2.736	0.000	97	75680	200.0	191.0	
19 Ethyl ether	59	3.162	3.162	0.000	92	76390	200.0	207.0	
20 Acrolein	56	3.326	3.326	0.000	98	63042	875.0	939.8	
21 1,1-Dichloroethene	96	3.417	3.417	0.000	97	92625	200.0	207.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.496	3.496	0.000	92	89846	200.0	205.5	
23 Acetone	43	3.594	3.594	0.000	100	19970	200.0	187.9	
24 Iodomethane	142	3.624	3.624	0.000	96	126481	200.0	210.4	
25 Carbon disulfide	76	3.715	3.715	0.000	99	243457	200.0	198.6	
28 3-Chloro-1-propene	76	4.013	4.013	0.000	95	55131	200.0	217.3	
29 Methyl acetate	43	4.117	4.117	0.000	98	267111	1000.0	1033.1	
30 Methylene Chloride	84	4.214	4.214	0.000	95	102363	200.0	191.9	
31 2-Methyl-2-propanol	59	4.585	4.585	0.000	97	60767	2000.0	2034.7	
32 Acrylonitrile	53	4.634	4.634	0.000	99	288616	2000.0	2073.5	
33 trans-1,2-Dichloroethene	96	4.640	4.640	0.000	98	97479	200.0	207.5	
34 Methyl tert-butyl ether	73	4.701	4.701	0.000	96	205052	200.0	202.5	
35 Hexane	57	5.072	5.072	0.000	89	166631	200.0	198.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.248	5.248	0.000	96	168347	200.0	204.6	
37 Vinyl acetate	43	5.376	5.376	0.000	97	138910	200.0	207.6	
41 2,2-Dichloropropane	77	6.003	6.003	0.000	79	116657	200.0	199.4	
42 cis-1,2-Dichloroethene	96	6.015	6.015	0.000	83	106616	200.0	206.2	
43 2-Butanone (MEK)	43	6.076	6.076	0.000	100	29091	200.0	187.2	
47 Chlorobromomethane	128	6.301	6.301	0.000	96	40529	200.0	208.2	
48 Tetrahydrofuran	42	6.374	6.374	0.000	93	42418	400.0	415.8	
49 Chloroform	83	6.422	6.422	0.000	94	150288	200.0	202.9	
50 1,1,1-Trichloroethane	97	6.611	6.611	0.000	99	113470	200.0	205.4	
51 Cyclohexane	56	6.672	6.672	0.000	89	202721	200.0	202.9	
53 Carbon tetrachloride	117	6.800	6.800	0.000	72	84752	200.0	204.7	
52 1,1-Dichloropropene	75	6.806	6.806	0.000	96	123712	200.0	204.6	
54 Isobutyl alcohol	41	7.031	7.031	0.000	96	45416	5000.0	5030.8	
55 Benzene	78	7.031	7.031	0.000	97	369141	200.0	205.7	
56 1,2-Dichloroethane	62	7.061	7.061	0.000	96	96913	200.0	198.6	
59 n-Heptane	43	7.365	7.365	0.000	90	156116	200.0	198.9	
60 Trichloroethene	130	7.743	7.743	0.000	100	91393	200.0	209.1	
63 Methylcyclohexane	83	7.949	7.949	0.000	92	194134	200.0	204.4	
64 1,2-Dichloropropane	63	7.980	7.980	0.000	94	88293	200.0	203.7	
65 Dibromomethane	93	8.095	8.095	0.000	96	42132	200.0	206.4	
67 1,4-Dioxane	88	8.132	8.132	0.000	97	14467	4000.0	4168.0	
68 Dichlorobromomethane	83	8.272	8.272	0.000	99	86330	200.0	206.9	
71 cis-1,3-Dichloropropene	75	8.728	8.728	0.000	97	119934	200.0	209.6	
72 4-Methyl-2-pentanone (MIBK	43	8.898	8.898	0.000	95	61528	200.0	207.9	
73 Toluene	91	9.069	9.069	0.000	99	374778	200.0	205.7	
74 trans-1,3-Dichloropropene	75	9.288	9.288	0.000	92	98247	200.0	212.6	
75 Ethyl methacrylate	69	9.391	9.391	0.000	90	88572	200.0	207.6	
76 1,1,2-Trichloroethane	97	9.470	9.470	0.000	91	64541	200.0	207.0	
77 Tetrachloroethene	164	9.616	9.616	0.000	98	70227	200.0	204.4	
78 1,3-Dichloropropane	76	9.635	9.635	0.000	90	116730	200.0	206.2	
79 2-Hexanone	43	9.732	9.732	0.000	96	38135	200.0	197.3	
81 Chlorodibromomethane	129	9.866	9.866	0.000	91	52328	200.0	186.6	
82 Ethylene Dibromide	107	9.975	9.975	0.000	97	62204	200.0	207.4	
83 Chlorobenzene	112	10.468	10.468	0.000	94	244089	200.0	206.0	
85 1,1,1,2-Tetrachloroethane	131	10.547	10.547	0.000	95	70892	200.0	210.0	
86 Ethylbenzene	106	10.577	10.577	0.000	98	135942	200.0	205.7	
87 m-Xylene & p-Xylene	106	10.693	10.693	0.000	99	172568	200.0	207.6	
88 o-Xylene	106	11.088	11.088	0.000	97	170724	200.0	209.7	
89 Styrene	104	11.101	11.101	0.000	95	281211	200.0	210.4	
90 Bromoform	173	11.283	11.283	0.000	96	28493	200.0	184.7	
91 Isopropylbenzene	105	11.460	11.460	0.000	96	459353	200.0	209.9	
93 1,1,2,2-Tetrachloroethane	83	11.745	11.745	0.000	95	81535	200.0	208.4	
94 Bromobenzene	156	11.758	11.758	0.000	94	97010	200.0	207.3	
95 1,2,3-Trichloropropane	110	11.788	11.788	0.000	85	24031	200.0	199.4	
96 trans-1,4-Dichloro-2-buten	53	11.800	11.800	0.000	84	23494	200.0	216.0	
97 N-Propylbenzene	120	11.867	11.867	0.000	99	123916	200.0	204.4	
98 2-Chlorotoluene	126	11.952	11.952	0.000	96	105211	200.0	209.8	
99 1,3,5-Trimethylbenzene	105	12.044	12.044	0.000	94	386264	200.0	210.5	
100 4-Chlorotoluene	126	12.062	12.062	0.000	98	102234	200.0	203.7	
101 tert-Butylbenzene	119	12.372	12.372	0.000	92	339227	200.0	209.3	
103 1,2,4-Trimethylbenzene	105	12.415	12.415	0.000	97	396029	200.0	208.8	
104 sec-Butylbenzene	105	12.591	12.591	0.000	94	519553	200.0	209.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.701	12.701	0.000	97	201314	200.0	206.1	
106 4-Isopropyltoluene	119	12.731	12.731	0.000	96	415244	200.0	210.6	
107 1,4-Dichlorobenzene	146	12.786	12.786	0.000	94	195837	200.0	205.6	
110 n-Butylbenzene	91	13.145	13.145	0.000	98	413050	200.0	210.8	
111 1,2-Dichlorobenzene	146	13.163	13.163	0.000	96	183886	200.0	208.3	
112 1,2-Dibromo-3-Chloropropan	75	13.936	13.936	0.000	83	11262	200.0	190.1	
114 1,2,4-Trichlorobenzene	180	14.775	14.775	0.000	94	134701	200.0	206.4	
115 Hexachlorobutadiene	225	14.951	14.951	0.000	95	82951	200.0	206.5	
116 Naphthalene	128	15.024	15.024	0.000	97	262292	200.0	212.6	
117 1,2,3-Trichlorobenzene	180	15.274	15.274	0.000	94	112800	200.0	208.1	
S 130 1,2-Dichloroethene, Total	96				0		400.0	413.7	
S 129 Xylenes, Total	106				0		400.0	417.3	
S 131 1,3-Dichloropropene, Total	1				0		400.0	422.3	

Reagents:

voaWAcro1stRe_00008	Amount Added:	35.00	Units: uL	
voaWVA1stRest_00008	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added:	8.00	Units: uL	
VOA8260SURR_00059	Amount Added:	8.00	Units: uL	
VOA8260INT_00061	Amount Added:	10.00	Units: uL	Run Reagent

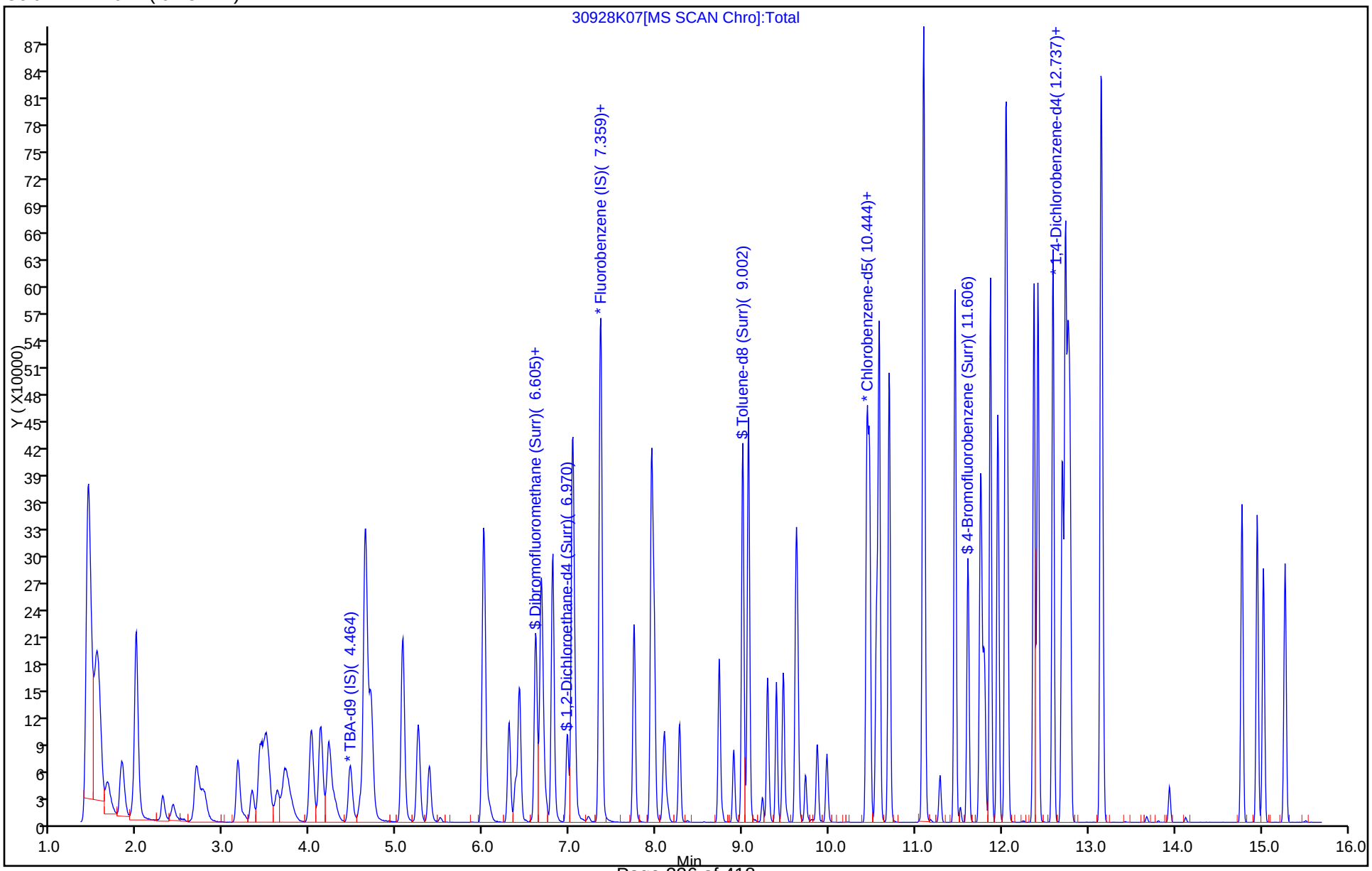
Report Date: 26-Jan-2017 10:28:37 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K07.D

Injection Date:	28-Sep-2016 13:10:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	ICIS VSTD40			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K08.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 28-Sep-2016 13:33:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-008
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:39 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 18:27:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.471	4.464	0.007	97	127981	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.348	7.347	0.001	99	423906	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.439	10.438	0.001	88	94028	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.763	12.761	0.002	97	152106	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.599	0.007	94	93537	250.0	256.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.971	6.970	0.001	95	104369	250.0	249.0	
$ 7 Toluene-d8 (Surr)	98	9.003	9.002	0.001	92	412279	250.0	253.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.607	11.606	0.001	87	166536	250.0	252.0	
10 Dichlorodifluoromethane	85	1.654	1.659	-0.005	100	142555	250.0	266.3	
11 Chloromethane	50	1.825	1.823	0.002	99	202121	250.0	266.8	
12 Vinyl chloride	62	1.971	1.982	-0.011	98	167499	250.0	268.9	
13 Butadiene	39	1.989	1.988	0.001	89	154201	250.0	269.3	
14 Bromomethane	94	2.293	2.292	0.001	90	37491	250.0	258.4	
15 Chloroethane	64	2.409	2.413	-0.004	99	39327	250.0	253.5	
16 Dichlorofluoromethane	67	2.676	2.687	-0.011	98	128027	250.0	230.2	
17 Trichlorofluoromethane	101	2.731	2.736	-0.005	95	94571	250.0	230.9	
19 Ethyl ether	59	3.169	3.162	0.007	92	100537	250.0	263.6	
20 Acrolein	56	3.333	3.326	0.007	99	70099	1000.0	1011.1	
21 1,1-Dichloroethene	96	3.412	3.417	-0.005	96	122617	250.0	265.5	
22 1,1,2-Trichloro-1,2,2-trif	101	3.485	3.496	-0.011	93	121494	250.0	268.8	
23 Acetone	43	3.595	3.594	0.001	99	26415	250.0	240.5	
24 Iodomethane	142	3.613	3.624	-0.011	97	163145	250.0	262.7	
25 Carbon disulfide	76	3.704	3.715	-0.011	99	331726	250.0	258.5	
28 3-Chloro-1-propene	76	4.009	4.013	-0.004	94	72859	250.0	277.9	
29 Methyl acetate	43	4.124	4.117	0.007	98	366916	1250.0	1373.2	
30 Methylene Chloride	84	4.215	4.214	0.001	96	132352	250.0	240.1	
31 2-Methyl-2-propanol	59	4.593	4.585	0.008	98	86310	2500.0	2688.7	
32 Acrylonitrile	53	4.635	4.634	0.001	99	388073	2500.0	2697.8	
33 trans-1,2-Dichloroethene	96	4.641	4.640	0.001	98	128449	250.0	264.6	
34 Methyl tert-butyl ether	73	4.702	4.701	0.001	96	282152	250.0	269.6	
35 Hexane	57	5.067	5.072	-0.005	90	223048	250.0	257.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.250	5.248	0.002	96	225290	250.0	265.0	
37 Vinyl acetate	43	5.377	5.376	0.001	97	185680	250.0	268.5	
41 2,2-Dichloropropane	77	6.004	6.003	0.001	80	150096	250.0	271.4	
42 cis-1,2-Dichloroethene	96	6.016	6.015	0.001	84	140744	250.0	263.4	
43 2-Butanone (MEK)	43	6.071	6.076	-0.005	100	40054	250.0	249.4	
47 Chlorobromomethane	128	6.296	6.301	-0.005	96	53352	250.0	265.2	
48 Tetrahydrofuran	42	6.375	6.374	0.001	92	56275	500.0	533.8	
49 Chloroform	83	6.418	6.422	-0.004	95	201837	250.0	263.7	
50 1,1,1-Trichloroethane	97	6.612	6.611	0.001	99	155486	250.0	272.4	
51 Cyclohexane	56	6.673	6.672	0.001	89	271013	250.0	262.4	
52 1,1-Dichloropropene	75	6.801	6.806	-0.005	97	163539	250.0	261.7	
53 Carbon tetrachloride	117	6.801	6.800	0.001	95	117922	250.0	275.6	
54 Isobutyl alcohol	41	7.032	7.031	0.001	44	63276	6250.0	6782.4	
55 Benzene	78	7.032	7.031	0.001	98	482005	250.0	259.9	
56 1,2-Dichloroethane	62	7.056	7.061	-0.005	96	133964	250.0	265.6	
59 n-Heptane	43	7.367	7.365	0.002	92	213850	250.0	263.6	
60 Trichloroethene	130	7.744	7.743	0.001	99	119637	250.0	264.9	
63 Methylcyclohexane	83	7.951	7.949	0.002	92	257324	250.0	262.2	
64 1,2-Dichloropropane	63	7.975	7.980	-0.005	94	117517	250.0	262.4	
65 Dibromomethane	93	8.097	8.095	0.002	97	55579	250.0	263.4	
67 1,4-Dioxane	88	8.133	8.132	0.001	96	19812	5000.0	5523.3	
68 Dichlorobromomethane	83	8.273	8.272	0.001	99	117682	250.0	272.9	
71 cis-1,3-Dichloropropene	75	8.729	8.728	0.001	96	165215	250.0	279.4	
72 4-Methyl-2-pentanone (MIBK	43	8.900	8.898	0.002	95	81071	250.0	264.5	
73 Toluene	91	9.070	9.069	0.001	99	491565	250.0	260.6	
74 trans-1,3-Dichloropropene	75	9.289	9.288	0.001	93	135996	250.0	284.2	
75 Ethyl methacrylate	69	9.392	9.391	0.001	90	120641	250.0	273.1	
76 1,1,2-Trichloroethane	97	9.472	9.470	0.002	90	84820	250.0	262.7	
77 Tetrachloroethene	164	9.618	9.616	0.002	99	93107	250.0	261.7	
78 1,3-Dichloropropane	76	9.636	9.635	0.001	90	153076	250.0	261.1	
79 2-Hexanone	43	9.727	9.732	-0.005	95	54256	250.0	271.1	
81 Chlorodibromomethane	129	9.861	9.866	-0.005	92	72645	250.0	244.1	
82 Ethylene Dibromide	107	9.976	9.975	0.001	98	82943	250.0	267.1	
83 Chlorobenzene	112	10.469	10.468	0.001	94	317352	250.0	258.6	
85 1,1,1,2-Tetrachloroethane	131	10.548	10.547	0.001	95	95765	250.0	274.0	
86 Ethylbenzene	106	10.579	10.577	0.002	98	179578	250.0	262.4	
87 m-Xylene & p-Xylene	106	10.694	10.693	0.001	100	221174	250.0	256.9	
88 o-Xylene	106	11.090	11.088	0.002	97	222572	250.0	264.0	
89 Styrene	104	11.102	11.101	0.001	93	368874	250.0	266.5	
90 Bromoform	173	11.284	11.283	0.001	97	41437	250.0	245.6	
91 Isopropylbenzene	105	11.461	11.460	0.001	96	598056	250.0	263.9	
93 1,1,2,2-Tetrachloroethane	83	11.747	11.745	0.002	94	109330	250.0	269.9	
94 Bromobenzene	156	11.759	11.758	0.001	95	125885	250.0	257.9	
95 1,2,3-Trichloropropane	110	11.789	11.788	0.001	84	33577	250.0	267.2	
96 trans-1,4-Dichloro-2-buten	53	11.801	11.800	0.001	85	31784	250.0	280.2	
97 N-Propylbenzene	120	11.868	11.867	0.001	99	162802	250.0	257.6	
98 2-Chlorotoluene	126	11.954	11.952	0.002	96	135190	250.0	258.5	
99 1,3,5-Trimethylbenzene	105	12.045	12.044	0.001	94	502296	250.0	262.6	
100 4-Chlorotoluene	126	12.063	12.062	0.001	99	134496	250.0	257.0	
101 tert-Butylbenzene	119	12.373	12.372	0.001	92	445165	250.0	263.4	
103 1,2,4-Trimethylbenzene	105	12.416	12.415	0.001	98	514932	250.0	260.4	
104 sec-Butylbenzene	105	12.592	12.591	0.001	94	676978	250.0	262.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.702	12.701	0.001	97	262845	250.0	258.1	
106 4-Isopropyltoluene	119	12.732	12.731	0.001	96	538443	250.0	261.9	
107 1,4-Dichlorobenzene	146	12.787	12.786	0.001	93	260315	250.0	262.1	
110 n-Butylbenzene	91	13.146	13.145	0.001	97	546287	250.0	267.4	
111 1,2-Dichlorobenzene	146	13.164	13.163	0.001	97	240428	250.0	261.2	
112 1,2-Dibromo-3-Chloropropan	75	13.937	13.936	0.001	83	15094	250.0	235.5	
114 1,2,4-Trichlorobenzene	180	14.776	14.775	0.001	94	179588	250.0	263.9	
115 Hexachlorobutadiene	225	14.953	14.951	0.002	95	112098	250.0	267.6	
116 Naphthalene	128	15.026	15.024	0.002	97	346553	250.0	269.4	
117 1,2,3-Trichlorobenzene	180	15.275	15.274	0.001	94	147820	250.0	261.5	
S 129 Xylenes, Total	106				0		500.0	520.9	
S 130 1,2-Dichloroethene, Total	96				0		500.0	528.0	
S 131 1,3-Dichloropropene, Total	1				0		500.0	563.6	

Reagents:

voaWVA1stRest_00008	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added:	10.00	Units: uL	
VOA8260SURR_00059	Amount Added:	10.00	Units: uL	
voaWAcro1stRe_00008	Amount Added:	40.00	Units: uL	
VOA8260INT_00061	Amount Added:	10.00	Units: uL	Run Reagent

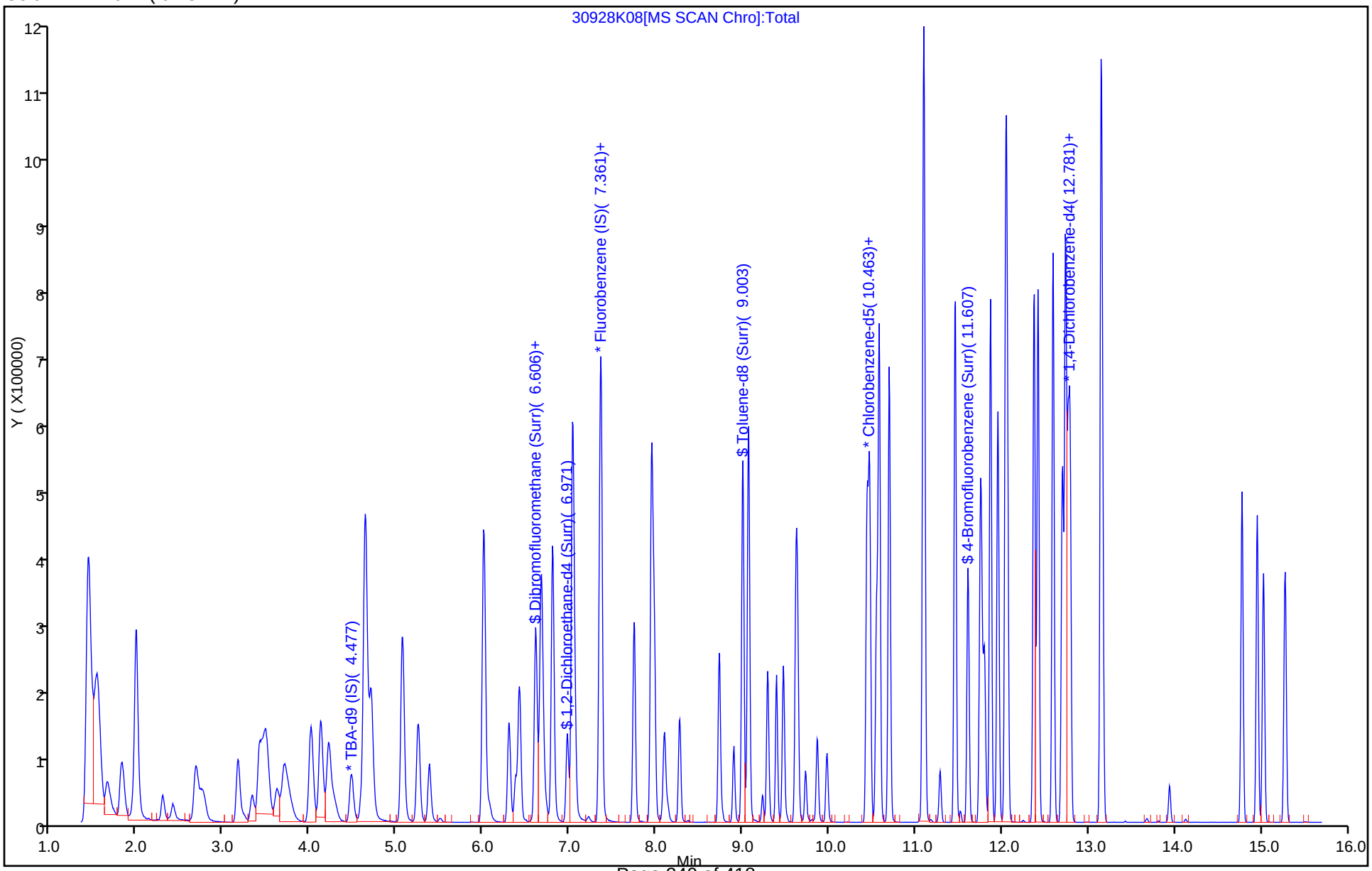
Report Date: 26-Jan-2017 10:28:39 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K08.D

Injection Date:	28-Sep-2016 13:33:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	IC VSTD50			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K09.D
Lims ID: IC VSTD125
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-Sep-2016 13:56:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-009
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:41 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 18:28:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.512	4.464	0.048	97	118739	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.347	7.347	0.000	99	413942	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.437	10.438	-0.001	86	93320	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.761	0.006	94	147133	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.599	6.599	0.000	94	228018	625.0	641.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.970	6.970	0.000	96	256136	625.0	625.9	
$ 7 Toluene-d8 (Surr)	98	9.002	9.002	0.000	92	978717	625.0	605.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.605	11.606	-0.001	87	401319	625.0	612.0	
10 Dichlorodifluoromethane	85	1.653	1.659	-0.006	100	332266	625.0	635.6	
11 Chloromethane	50	1.823	1.823	0.000	99	466333	625.0	630.3	
12 Vinyl chloride	62	1.981	1.982	-0.001	92	389919	625.0	641.1	
13 Butadiene	39	1.981	1.988	-0.007	88	343755	625.0	614.8	
14 Bromomethane	94	2.292	2.292	0.000	89	89939	625.0	634.9	
15 Chloroethane	64	2.407	2.413	-0.006	99	94382	625.0	623.0	
16 Dichlorofluoromethane	67	2.675	2.687	-0.012	98	212154	625.0	390.6	
17 Trichlorofluoromethane	101	2.711	2.736	-0.025	99	162846	625.0	407.2	
19 Ethyl ether	59	3.162	3.162	0.000	92	233578	625.0	627.3	
20 Acrolein	56	3.332	3.326	0.006	98	74434	1125.0	1099.5	
21 1,1-Dichloroethene	96	3.405	3.417	-0.012	98	291498	625.0	646.3	
22 1,1,2-Trichloro-1,2,2-trif	101	3.478	3.496	-0.018	93	275470	625.0	624.2	
23 Acetone	43	3.612	3.594	0.018	85	58409	625.0	544.6	
24 Iodomethane	142	3.612	3.624	-0.012	99	397275	625.0	655.0	
25 Carbon disulfide	76	3.697	3.715	-0.018	99	843942	625.0	656.6	
28 3-Chloro-1-propene	76	3.995	4.013	-0.018	96	171617	625.0	670.3	
29 Methyl acetate	43	4.123	4.117	0.006	98	810786	3125.0	3107.5	
30 Methylene Chloride	84	4.208	4.214	-0.006	94	306849	625.0	570.1	
31 2-Methyl-2-propanol	59	4.628	4.585	0.043	73	190192	6250.0	6386.0	
32 Acrylonitrile	53	4.640	4.634	0.006	99	859430	6250.0	6118.3	
33 trans-1,2-Dichloroethene	96	4.634	4.640	-0.006	97	296753	625.0	626.0	
34 Methyl tert-butyl ether	73	4.707	4.701	0.006	95	631821	625.0	618.2	
35 Hexane	57	5.060	5.072	-0.012	89	514346	625.0	607.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.242	5.248	-0.006	96	519828	625.0	626.1	
37 Vinyl acetate	43	5.376	5.376	0.000	97	416385	625.0	616.7	
41 2,2-Dichloropropane	77	6.003	6.003	0.000	87	292205	625.0	635.0	
42 cis-1,2-Dichloroethene	96	6.009	6.015	-0.006	83	332783	625.0	637.8	
43 2-Butanone (MEK)	43	6.076	6.076	0.000	100	91515	625.0	583.5	
47 Chlorobromomethane	128	6.295	6.301	-0.006	96	128830	625.0	655.8	
48 Tetrahydrofuran	42	6.374	6.374	0.000	91	132471	1250.0	1286.8	
49 Chloroform	83	6.416	6.422	-0.006	95	478867	625.0	640.7	
50 1,1,1-Trichloroethane	97	6.605	6.611	-0.006	98	377655	625.0	677.6	
51 Cyclohexane	56	6.672	6.672	0.000	89	625634	625.0	620.4	
53 Carbon tetrachloride	117	6.800	6.800	0.000	98	298659	625.0	714.8	
52 1,1-Dichloropropene	75	6.800	6.806	-0.006	98	385589	625.0	632.0	
55 Benzene	78	7.031	7.031	0.000	98	1123832	625.0	620.6	
54 Isobutyl alcohol	41	7.043	7.031	0.012	96	148998	15625	16355	
56 1,2-Dichloroethane	62	7.055	7.061	-0.006	97	313603	625.0	636.7	
59 n-Heptane	43	7.365	7.365	0.000	92	509163	625.0	642.8	
60 Trichloroethene	130	7.742	7.743	-0.001	99	290022	625.0	657.6	
63 Methylcyclohexane	83	7.943	7.949	-0.006	93	607448	625.0	633.8	
64 1,2-Dichloropropane	63	7.980	7.980	0.000	92	282926	625.0	647.0	
65 Dibromomethane	93	8.095	8.095	0.000	96	139416	625.0	676.7	
67 1,4-Dioxane	88	8.138	8.132	0.006	97	47573	12500	13582	
68 Dichlorobromomethane	83	8.272	8.272	0.000	99	312900	625.0	743.0	
71 cis-1,3-Dichloropropene	75	8.728	8.728	0.000	97	426650	625.0	739.0	
72 4-Methyl-2-pentanone (MIBK	43	8.898	8.898	0.000	95	200129	625.0	658.0	
73 Toluene	91	9.069	9.069	0.000	99	1144841	625.0	611.5	
74 trans-1,3-Dichloropropene	75	9.288	9.288	0.000	92	351451	625.0	740.0	
75 Ethyl methacrylate	69	9.391	9.391	0.000	90	293888	625.0	670.4	
76 1,1,2-Trichloroethane	97	9.470	9.470	0.000	91	207192	625.0	646.5	
77 Tetrachloroethene	164	9.616	9.616	0.000	98	224742	625.0	636.4	
78 1,3-Dichloropropane	76	9.634	9.635	-0.001	91	367447	625.0	631.6	
79 2-Hexanone	43	9.726	9.732	-0.006	95	135034	625.0	679.9	
81 Chlorodibromomethane	129	9.866	9.866	0.000	91	201165	625.0	648.8	
82 Ethylene Dibromide	107	9.975	9.975	0.000	98	206157	625.0	668.9	
83 Chlorobenzene	112	10.468	10.468	0.000	93	761888	625.0	625.7	
85 1,1,1,2-Tetrachloroethane	131	10.553	10.547	0.006	95	242114	625.0	698.0	
86 Ethylbenzene	106	10.577	10.577	0.000	98	424204	625.0	624.5	
87 m-Xylene & p-Xylene	106	10.693	10.693	0.000	99	534853	625.0	626.0	
88 o-Xylene	106	11.088	11.088	0.000	97	522777	625.0	624.8	
89 Styrene	104	11.101	11.101	0.000	95	850572	625.0	619.3	
90 Bromoform	173	11.283	11.283	0.000	97	121357	625.0	636.9	
91 Isopropylbenzene	105	11.459	11.460	-0.001	96	1370632	625.0	609.5	
93 1,1,2,2-Tetrachloroethane	83	11.745	11.745	0.000	94	260344	625.0	647.5	
94 Bromobenzene	156	11.758	11.758	0.000	95	299985	625.0	635.4	
95 1,2,3-Trichloropropane	110	11.788	11.788	0.000	84	77469	625.0	637.2	
96 trans-1,4-Dichloro-2-buten	53	11.800	11.800	0.000	90	76650	625.0	698.6	
97 N-Propylbenzene	120	11.867	11.867	0.000	98	387245	625.0	633.4	
98 2-Chlorotoluene	126	11.952	11.952	0.000	96	319563	625.0	631.7	
99 1,3,5-Trimethylbenzene	105	12.043	12.044	-0.001	96	1139050	625.0	615.6	
100 4-Chlorotoluene	126	12.062	12.062	0.000	99	317977	625.0	628.1	
101 tert-Butylbenzene	119	12.372	12.372	0.000	92	1033400	625.0	632.2	
103 1,2,4-Trimethylbenzene	105	12.421	12.415	0.006	95	1182105	625.0	618.0	
104 sec-Butylbenzene	105	12.591	12.591	0.000	94	1547965	625.0	619.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.700	12.701	-0.001	97	629151	625.0	638.7	
106 4-Isopropyltoluene	119	12.737	12.731	0.006	96	1231816	625.0	619.5	
107 1,4-Dichlorobenzene	146	12.792	12.786	0.006	94	616991	625.0	642.1	
110 n-Butylbenzene	91	13.145	13.145	0.000	98	1240017	625.0	627.4	
111 1,2-Dichlorobenzene	146	13.163	13.163	0.000	97	564358	625.0	633.8	
112 1,2-Dibromo-3-Chloropropan	75	13.935	13.936	-0.001	86	43612	625.0	641.7	
114 1,2,4-Trichlorobenzene	180	14.781	14.775	0.006	94	435079	625.0	661.0	
115 Hexachlorobutadiene	225	14.951	14.951	0.000	95	268455	625.0	662.5	
116 Naphthalene	128	15.024	15.024	0.000	97	828277	625.0	665.7	
117 1,2,3-Trichlorobenzene	180	15.274	15.274	0.000	94	365707	625.0	668.9	
S 130 1,2-Dichloroethene, Total	96				0		1250.0	1263.9	
S 129 Xylenes, Total	106				0		1250.0	1250.8	
S 131 1,3-Dichloropropene, Total	1				0		1250.0	1479.0	

Reagents:

voaWAcro1stRe_00008	Amount Added:	45.00	Units: uL	
voaWVA1stRest_00008	Amount Added:	25.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added:	25.00	Units: uL	
VOA8260SURR_00059	Amount Added:	25.00	Units: uL	
VOA8260INT_00061	Amount Added:	10.00	Units: uL	Run Reagent

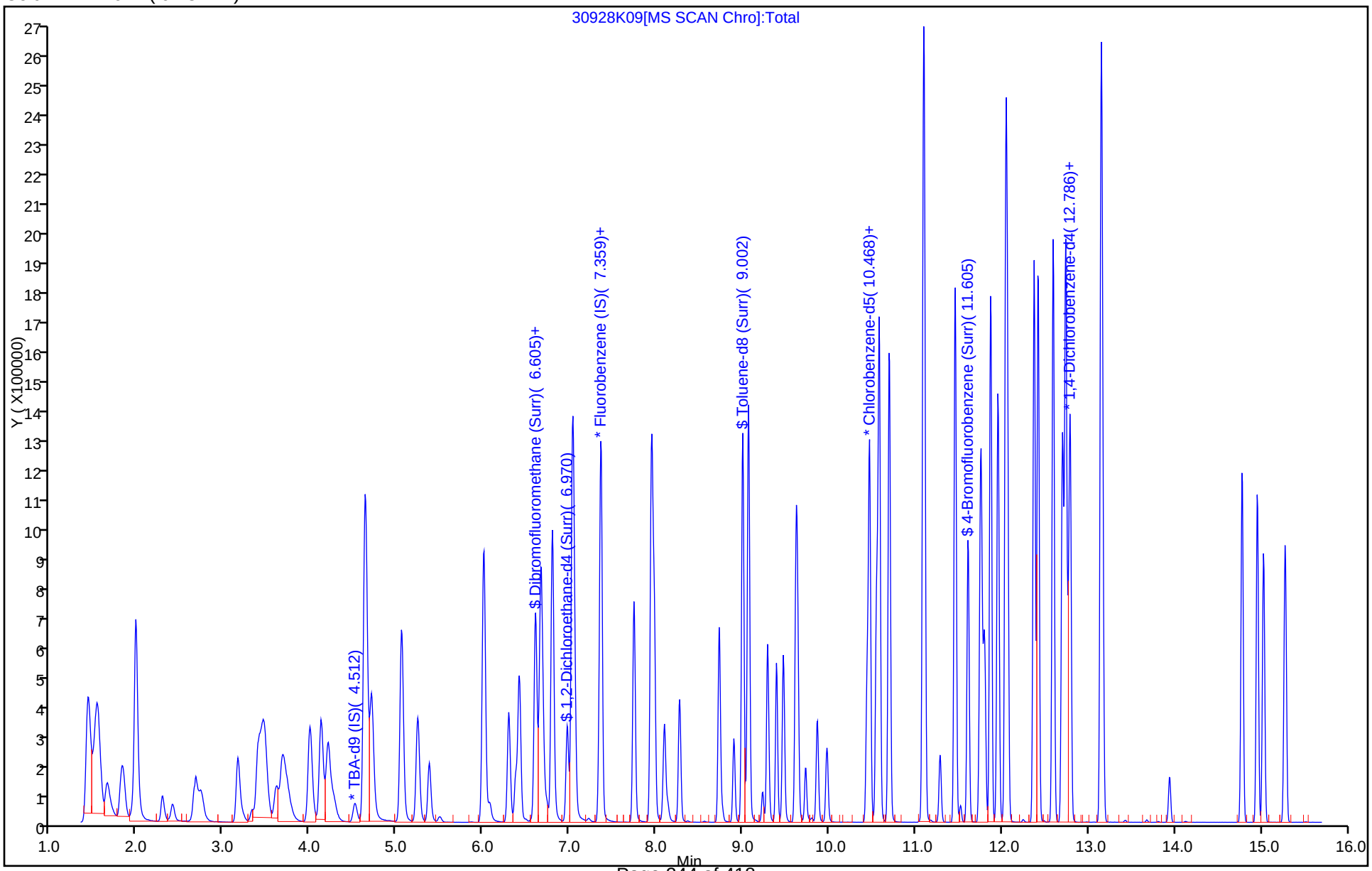
Report Date: 26-Jan-2017 10:28:42 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K09.D

Injection Date:	28-Sep-2016 13:56:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	IC VSTD125			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D
Lims ID: IC VSTD250
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 28-Sep-2016 14:19:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0013637-010
Operator ID: 10099 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub4

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jan-2017 10:28:43 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: gordonk Date: 28-Sep-2016 18:46:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.549	4.464	0.085	97	129334	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.348	7.347	0.001	99	429881	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.444	10.438	0.006	86	98200	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.762	12.761	0.001	95	150963	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.599	0.007	94	453748	1250.0	1229.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.971	6.970	0.001	96	506847	1250.0	1192.6	
$ 7 Toluene-d8 (Surr)	98	9.003	9.002	0.001	92	1859075	1250.0	1093.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.606	11.606	0.000	89	764809	1250.0	1108.3	
10 Dichlorodifluoromethane	85	1.654	1.659	-0.005	100	663252	1250.0	1221.7	
11 Chloromethane	50	1.836	1.823	0.013	99	917519	1250.0	1194.1	
12 Vinyl chloride	62	1.988	1.982	0.006	73	777037	1250.0	1230.2	
13 Butadiene	39	1.988	1.988	0.000	88	691063	1250.0	1190.2	
14 Bromomethane	94	2.293	2.292	0.000	89	184332	1250.0	1253.0	
15 Chloroethane	64	2.408	2.413	-0.005	99	187713	1250.0	1193.0	
16 Dichlorofluoromethane	67	2.664	2.687	-0.023	98	318452	1250.0	564.6	
17 Trichlorofluoromethane	101	2.712	2.736	-0.024	99	231586	1250.0	557.7	
19 Ethyl ether	59	3.169	3.162	0.007	92	462309	1250.0	1195.5	
20 Acrolein	56	3.333	3.326	0.007	98	77788	1250.0	1106.5	
21 1,1-Dichloroethene	96	3.412	3.417	-0.005	98	588948	1250.0	1257.4	
22 1,1,2-Trichloro-1,2,2-trif	101	3.461	3.496	-0.035	94	539659	1250.0	1177.6	
23 Acetone	43	3.619	3.594	0.025	99	121884	1250.0	1094.2	
24 Iodomethane	142	3.649	3.624	0.025	96	794299	1250.0	1261.0	
25 Carbon disulfide	76	3.698	3.715	-0.017	99	1764493	1250.0	1311.2	
28 3-Chloro-1-propene	76	3.996	4.013	-0.017	95	374889	1250.0	1409.9	
29 Methyl acetate	43	4.136	4.117	0.019	98	1656860	6250.0	6114.9	
30 Methylene Chloride	84	4.215	4.214	0.001	97	618832	1250.0	1107.2	
31 2-Methyl-2-propanol	59	4.659	4.585	0.074	91	412009	12500	12701	
32 Acrylonitrile	53	4.647	4.634	0.013	98	1697712	12500	11638	
33 trans-1,2-Dichloroethene	96	4.629	4.640	-0.011	98	588010	1250.0	1194.5	
34 Methyl tert-butyl ether	73	4.720	4.701	0.019	96	1321166	1250.0	1244.8	
35 Hexane	57	5.054	5.072	-0.018	90	1034526	1250.0	1176.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.243	5.248	-0.005	96	1048311	1250.0	1215.8	
37 Vinyl acetate	43	5.377	5.376	0.001	97	864758	1250.0	1233.2	
41 2,2-Dichloropropane	77	6.003	6.003	0.000	90	530858	1250.0	1181.6	
42 cis-1,2-Dichloroethene	96	6.010	6.015	-0.005	83	659039	1250.0	1216.3	
43 2-Butanone (MEK)	43	6.083	6.076	0.007	100	178131	1250.0	1093.6	
47 Chlorobromomethane	128	6.295	6.301	-0.006	96	263106	1250.0	1289.6	
48 Tetrahydrofuran	42	6.381	6.374	0.007	90	271157	2500.0	2536.2	
49 Chloroform	83	6.417	6.422	-0.005	95	940874	1250.0	1212.1	
50 1,1,1-Trichloroethane	97	6.606	6.611	-0.005	98	726257	1250.0	1254.7	
51 Cyclohexane	56	6.667	6.672	-0.005	90	1227556	1250.0	1172.2	
53 Carbon tetrachloride	117	6.800	6.800	0.000	98	603105	1250.0	1390.0	
52 1,1-Dichloropropene	75	6.800	6.806	-0.006	97	756170	1250.0	1193.4	
54 Isobutyl alcohol	41	7.050	7.031	0.019	95	296132	31250	31300	
55 Benzene	78	7.032	7.031	0.001	98	2144503	1250.0	1140.3	
56 1,2-Dichloroethane	62	7.062	7.061	0.001	96	587510	1250.0	1148.6	
59 n-Heptane	43	7.366	7.365	0.001	91	988930	1250.0	1202.2	
60 Trichloroethene	130	7.743	7.743	0.000	99	579172	1250.0	1264.6	
63 Methylcyclohexane	83	7.950	7.949	0.001	92	1167362	1250.0	1172.9	
64 1,2-Dichloropropane	63	7.981	7.980	0.001	95	564168	1250.0	1242.3	
65 Dibromomethane	93	8.096	8.095	0.001	95	272810	1250.0	1275.0	
67 1,4-Dioxane	88	8.133	8.132	0.001	97	97707	25000	26861	
68 Dichlorobromomethane	83	8.273	8.272	0.001	99	654512	1250.0	1496.5	
71 cis-1,3-Dichloropropene	75	8.729	8.728	0.001	97	865270	1250.0	1443.1	
72 4-Methyl-2-pentanone (MIBK	43	8.899	8.898	0.001	95	405877	1250.0	1268.1	
73 Toluene	91	9.070	9.069	0.001	97	2140861	1250.0	1086.7	
74 trans-1,3-Dichloropropene	75	9.288	9.288	0.000	92	712764	1250.0	1426.2	
75 Ethyl methacrylate	69	9.392	9.391	0.001	90	570595	1250.0	1236.9	
76 1,1,2-Trichloroethane	97	9.477	9.470	0.007	90	407852	1250.0	1209.4	
77 Tetrachloroethene	164	9.617	9.616	0.001	99	450114	1250.0	1211.3	
78 1,3-Dichloropropane	76	9.641	9.635	0.006	90	694789	1250.0	1134.8	
79 2-Hexanone	43	9.733	9.732	0.001	95	259178	1250.0	1240.0	
81 Chlorodibromomethane	129	9.866	9.866	0.000	91	415965	1250.0	1257.5	
82 Ethylene Dibromide	107	9.976	9.975	0.001	99	407229	1250.0	1255.7	
83 Chlorobenzene	112	10.469	10.468	0.001	93	1469381	1250.0	1146.7	
85 1,1,1,2-Tetrachloroethane	131	10.548	10.547	0.001	97	478563	1250.0	1311.0	
86 Ethylbenzene	106	10.584	10.577	0.007	98	806603	1250.0	1128.4	
87 m-Xylene & p-Xylene	106	10.700	10.693	0.007	98	1026028	1250.0	1141.3	
88 o-Xylene	106	11.089	11.088	0.001	93	986570	1250.0	1120.5	
89 Styrene	104	11.107	11.101	0.006	95	1553170	1250.0	1074.6	
90 Bromoform	173	11.284	11.283	0.001	98	274645	1250.0	1247.9	
91 Isopropylbenzene	105	11.460	11.460	0.000	96	2485952	1250.0	1050.5	
93 1,1,2,2-Tetrachloroethane	83	11.746	11.745	0.001	94	503358	1250.0	1189.7	
94 Bromobenzene	156	11.758	11.758	0.000	93	594994	1250.0	1228.3	
95 1,2,3-Trichloropropane	110	11.789	11.788	0.001	80	151593	1250.0	1215.3	
96 trans-1,4-Dichloro-2-buten	53	11.807	11.800	0.007	90	146337	1250.0	1299.9	
97 N-Propylbenzene	120	11.874	11.867	0.007	97	745292	1250.0	1188.1	
98 2-Chlorotoluene	126	11.953	11.952	0.001	97	629050	1250.0	1211.9	
99 1,3,5-Trimethylbenzene	105	12.044	12.044	0.000	96	2041575	1250.0	1075.3	
100 4-Chlorotoluene	126	12.063	12.062	0.001	98	609579	1250.0	1173.5	
101 tert-Butylbenzene	119	12.373	12.372	0.001	91	1903165	1250.0	1134.8	
103 1,2,4-Trimethylbenzene	105	12.421	12.415	0.006	95	2122433	1250.0	1081.5	
104 sec-Butylbenzene	105	12.592	12.591	0.001	95	2753940	1250.0	1074.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.701	12.701	0.000	97	1213495	1250.0	1200.7	
106 4-Isopropyltoluene	119	12.738	12.731	0.007	95	2195730	1250.0	1076.3	
107 1,4-Dichlorobenzene	146	12.793	12.786	0.007	93	1190434	1250.0	1207.5	
110 n-Butylbenzene	91	13.145	13.145	0.000	95	2162864	1250.0	1066.6	
111 1,2-Dichlorobenzene	146	13.164	13.163	0.001	97	1066534	1250.0	1167.4	
112 1,2-Dibromo-3-Chloropropan	75	13.936	13.936	0.000	89	89230	1250.0	1246.8	
114 1,2,4-Trichlorobenzene	180	14.776	14.775	0.001	94	856304	1250.0	1267.9	
115 Hexachlorobutadiene	225	14.952	14.951	0.001	94	518614	1250.0	1247.3	
116 Naphthalene	128	15.025	15.024	0.001	98	1586726	1250.0	1243.0	
117 1,2,3-Trichlorobenzene	180	15.275	15.274	0.001	94	726049	1250.0	1294.4	
S 129 Xylenes, Total	106				0		2500.0	2261.7	
S 130 1,2-Dichloroethene, Total	96				0		2500.0	2410.8	
S 131 1,3-Dichloropropene, Total	1				0		2500.0	2869.4	

Reagents:

voaWVA1stRest_00008	Amount Added:	50.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added:	50.00	Units: uL	
VOA8260SURR_00059	Amount Added:	50.00	Units: uL	
voaWAcro1stRe_00008	Amount Added:	50.00	Units: uL	
VOA8260INT_00061	Amount Added:	10.00	Units: uL	Run Reagent

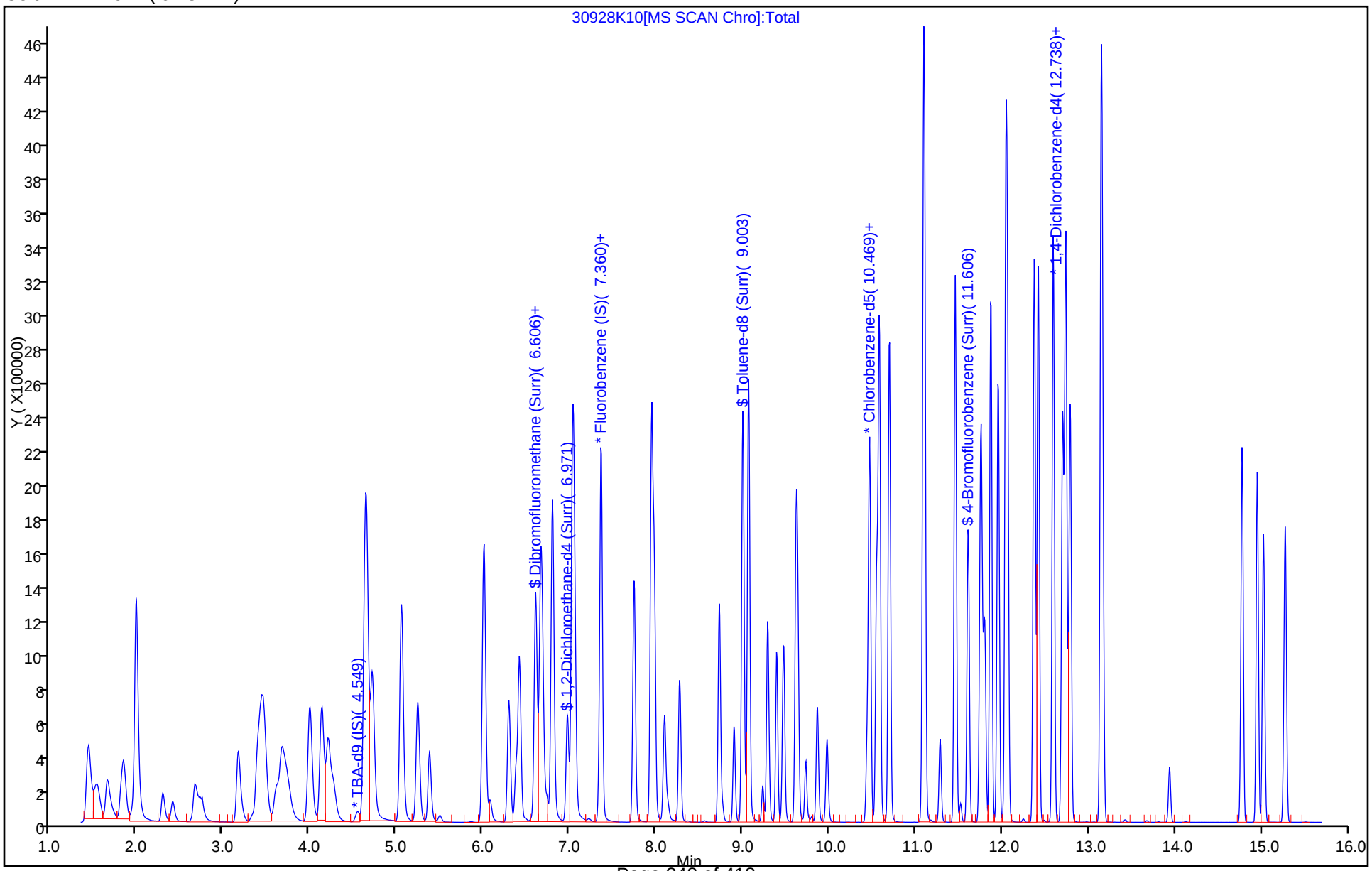
Report Date: 26-Jan-2017 10:28:43 Chrom Revision: 2.2 10-Jan-2017 11:26:10

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Injection Date:	28-Sep-2016 14:19:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	IC VSTD250			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_S_CHHP3	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.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206732/2 Calibration Date: 03/29/2017 08:35

Instrument ID: CHHP3 Calib Start Date: 09/28/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/28/2016 14:19

Lab File ID: 3032902A.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3157	0.2893	0.1000	36.7	40.0	-8.4	20.0
Chloromethane	Ave	0.4468	0.3148	0.1000	28.2	40.0	-29.6*	20.0
Vinyl chloride	Ave	0.3673	0.2702	0.1000	29.4	40.0	-26.5*	20.0
1,3-Butadiene	Ave	0.3377	0.2881	0.0100	34.1	40.0	-14.7	20.0
Bromomethane	Ave	0.0856	0.1080	0.0500	50.5	40.0	26.2*	20.0
Chloroethane	Ave	0.0915	0.1191	0.0500	52.1	40.0	30.2*	20.0
Dichlorofluoromethane	Ave	0.3280	0.3119	0.0100	38.0	40.0	-4.9	20.0
Trichlorofluoromethane	Ave	0.2415	0.2977	0.1000	49.3	40.0	23.3*	20.0
Ethyl ether	Ave	0.2249	0.2009	0.0100	35.7	40.0	-10.7	20.0
Acrolein	Ave	0.0409	0.1680	0.0100	164	40.0	310.8*	20.0
1,1-Dichloroethene	Ave	0.2724	0.2341	0.1000	34.4	40.0	-14.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2665	0.2378	0.1000	35.7	40.0	-10.8	20.0
Acetone	Ave	0.0648	0.0717	0.0500	44.3	40.0	10.7	20.0
Iodomethane	Ave	0.3663	0.3412	0.0100	37.3	40.0	-6.9	20.0
Carbon disulfide	Lin2		0.6044	0.1000	32.7	40.0	-18.1	20.0
Allyl chloride	Ave	0.1546	0.1348	0.0100	34.9	40.0	-12.8	20.0
Methyl acetate	Ave	0.1576	0.1450	0.1000	184	200	-8.0	20.0
Methylene Chloride	Ave	0.3251	0.2592	0.1000	31.9	40.0	-20.3*	20.0
tert-Butyl alcohol	Ave	1.254	1.206	0.0100	385	400	-3.8	20.0
Acrylonitrile	Ave	0.0848	0.0754	0.0100	356	400	-11.1	20.0
trans-1,2-Dichloroethene	Ave	0.2863	0.2458	0.1000	34.3	40.0	-14.1	20.0
Methyl tert-butyl ether	Ave	0.6173	0.5797	0.1000	37.6	40.0	-6.1	20.0
Hexane	Ave	0.5115	0.4822	0.0100	37.7	40.0	-5.7	20.0
1,1-Dichloroethane	Ave	0.5015	0.4553	0.2000	36.3	40.0	-9.2	20.0
Vinyl acetate	Ave	0.4078	0.5691	0.0100	55.8	40.0	39.6*	20.0
2,2-Dichloropropane	Lin2		0.3435	0.0100	37.9	40.0	-5.2	20.0
cis-1,2-Dichloroethene	Ave	0.3151	0.2685	0.1000	34.1	40.0	-14.8	20.0
2-Butanone (MEK)	Ave	0.0947	0.0895	0.0500	37.8	40.0	-5.6	20.0
Bromochloromethane	Ave	0.1186	0.1015	0.0100	34.2	40.0	-14.5	20.0
Tetrahydrofuran	Ave	0.0622	0.0549	0.0100	70.6	80.0	-11.7	20.0
Chloroform	Ave	0.4514	0.4472	0.2000	39.6	40.0	-0.9	20.0
1,1,1-Trichloroethane	Ave	0.3366	0.3758	0.1000	44.7	40.0	11.6	20.0
Cyclohexane	Ave	0.6090	0.5386	0.1000	35.4	40.0	-11.6	20.0
1,1-Dichloropropene	Ave	0.3685	0.3489	0.0100	37.9	40.0	-5.3	20.0
Carbon tetrachloride	Ave	0.2523	0.2734	0.1000	43.3	40.0	8.3	20.0
Isobutyl alcohol	Ave	0.0055	0.0054*	0.0100	985	1000	-1.5	20.0
Benzene	Ave	1.094	0.9498	0.5000	34.7	40.0	-13.2	20.0
1,2-Dichloroethane	Ave	0.2975	0.3288	0.1000	44.2	40.0	10.5	20.0
n-Heptane	Ave	0.4784	0.4750	0.0100	39.7	40.0	-0.7	20.0
Trichloroethene	Ave	0.2664	0.2408	0.2000	36.2	40.0	-9.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206732/2 Calibration Date: 03/29/2017 08:35

Instrument ID: CHHP3 Calib Start Date: 09/28/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/28/2016 14:19

Lab File ID: 3032902A.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5788	0.4914	0.1000	34.0	40.0	-15.1	20.0
1,2-Dichloropropane	Ave	0.2641	0.2364	0.1000	35.8	40.0	-10.5	20.0
Dibromomethane	Ave	0.1244	0.1118	0.0100	35.9	40.0	-10.2	20.0
1,4-Dioxane	Ave	0.0021	0.0018*	0.0100	670	800	-16.3	20.0
Bromodichloromethane	Ave	0.2544	0.2670	0.2000	42.0	40.0	4.9	20.0
cis-1,3-Dichloropropene	Ave	0.3487	0.3388	0.2000	38.9	40.0	-2.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.8148	0.7559	0.1000	37.1	40.0	-7.2	20.0
Toluene	Ave	5.015	4.562	0.4000	36.4	40.0	-9.0	20.0
trans-1,3-Dichloropropene	Ave	1.272	1.275	0.1000	40.1	40.0	0.2	20.0
Ethyl methacrylate	Ave	1.174	1.082	0.0100	36.9	40.0	-7.9	20.0
1,1,2-Trichloroethane	Ave	0.8585	0.7519	0.1000	35.0	40.0	-12.4	20.0
Tetrachloroethene	Ave	0.9460	0.9495	0.2000	40.1	40.0	0.4	20.0
1,3-Dichloropropane	Ave	1.559	1.370	0.0100	35.2	40.0	-12.1	20.0
2-Hexanone	Ave	0.5321	0.5921	0.1000	44.5	40.0	11.3	20.0
Dibromochloromethane	Lin1		0.7035	0.1000	36.5	40.0	-8.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.8256	0.7243	0.1000	35.1	40.0	-12.3	20.0
Chlorobenzene	Ave	3.262	2.908	0.5000	35.7	40.0	-10.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9293	0.9007	0.0100	38.8	40.0	-3.1	20.0
Ethylbenzene	Ave	1.820	1.639	0.1000	36.0	40.0	-9.9	20.0
m-Xylene & p-Xylene	Ave	2.289	2.043	0.1000	35.7	40.0	-10.7	20.0
o-Xylene	Ave	2.242	1.960	0.3000	35.0	40.0	-12.6	20.0
Styrene	Ave	3.680	3.298	0.3000	35.9	40.0	-10.4	20.0
Bromoform	Qua		0.3965	0.1000	37.3	40.0	-6.8	20.0
Isopropylbenzene	Ave	6.025	5.587	0.1000	37.1	40.0	-7.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.077	0.8866	0.3000	32.9	40.0	-17.7	20.0
Bromobenzene	Ave	0.8022	0.7590	0.0100	37.8	40.0	-5.4	20.0
1,2,3-Trichloropropane	Ave	0.2066	0.1782	0.0100	34.5	40.0	-13.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1864	0.1785	0.0100	38.3	40.0	-4.3	20.0
N-Propylbenzene	Ave	1.039	0.9117	0.0100	35.1	40.0	-12.2	20.0
2-Chlorotoluene	Ave	0.8596	0.7198	0.0100	33.5	40.0	-16.3	20.0
1,3,5-Trimethylbenzene	Ave	3.144	2.900	0.0100	36.9	40.0	-7.7	20.0
4-Chlorotoluene	Ave	0.8602	0.7250	0.0100	33.7	40.0	-15.7	20.0
tert-Butylbenzene	Ave	2.777	2.561	0.0100	36.9	40.0	-7.8	20.0
1,2,4-Trimethylbenzene	Ave	3.250	2.986	0.0100	36.8	40.0	-8.1	20.0
sec-Butylbenzene	Ave	4.244	3.733	0.0100	35.2	40.0	-12.0	20.0
1,3-Dichlorobenzene	Ave	1.674	1.556	0.6000	37.2	40.0	-7.0	20.0
4-Isopropyltoluene	Ave	3.378	3.068	0.0100	36.3	40.0	-9.2	20.0
1,4-Dichlorobenzene	Ave	1.633	1.490	0.5000	36.5	40.0	-8.7	20.0
n-Butylbenzene	Ave	3.358	2.991	0.0100	35.6	40.0	-10.9	20.0
1,2-Dichlorobenzene	Ave	1.513	1.355	0.4000	35.8	40.0	-10.5	20.0
1,2-Dibromo-3-Chloropropane	Qua		0.0836	0.0500	33.8	40.0	-15.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206732/2 Calibration Date: 03/29/2017 08:35

Instrument ID: CHHP3 Calib Start Date: 09/28/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/28/2016 14:19

Lab File ID: 3032902A.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	1.118	1.072	0.2000	38.3	40.0	-4.2	20.0
Hexachlorobutadiene	Ave	0.6886	0.6990	0.0100	40.6	40.0	1.5	20.0
Naphthalene	Ave	2.114	1.733	0.0100	32.8	40.0	-18.0	20.0
1,2,3-Trichlorobenzene	Ave	0.9289	0.8455	0.0100	36.4	40.0	-9.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2147	0.1982		36.9	40.0	-7.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2472	0.2640		42.7	40.0	6.8	20.0
Toluene-d8 (Surr)	Ave	4.329	3.900		36.0	40.0	-9.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.757	1.535		35.0	40.0	-12.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032902A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Mar-2017 08:35:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: 034635 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub45

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:04:35 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 09:42:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.436	4.436	0.000	97	87862	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.350	7.350	0.000	98	289816	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.440	10.440	0.000	91	65170	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.764	12.764	0.000	96	105728	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.602	6.602	0.000	93	45941	200.0	184.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.973	0.000	93	61203	200.0	213.6	
$ 7 Toluene-d8 (Surr)	98	9.005	9.005	0.000	93	203339	200.0	180.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.608	0.000	89	80029	200.0	174.8	
10 Dichlorodifluoromethane	85	1.644	1.644	0.000	99	67083	200.0	183.3	
11 Chloromethane	50	1.814	1.814	0.000	100	72987	200.0	140.9	
12 Vinyl chloride	62	1.960	1.960	0.000	98	62637	200.0	147.1	
13 Butadiene	39	1.991	1.991	0.000	91	66789	200.0	170.6	
14 Bromomethane	94	2.301	2.301	0.000	90	25042	200.0	252.5	
15 Chloroethane	64	2.429	2.429	0.000	99	27620	200.0	260.4	
16 Dichlorofluoromethane	67	2.702	2.702	0.000	97	72319	200.0	190.2	
17 Trichlorofluoromethane	101	2.745	2.745	0.000	94	69027	200.0	246.6	
19 Ethyl ether	59	3.159	3.159	0.000	96	46586	200.0	178.7	
20 Acrolein	56	3.323	3.323	0.000	98	38943	200.0	821.6	
21 1,1-Dichloroethene	96	3.432	3.432	0.000	93	54264	200.0	171.8	
22 1,1,2-Trichloro-1,2,2-trif	101	3.530	3.530	0.000	92	55139	200.0	178.5	
23 Acetone	43	3.584	3.584	0.000	100	16629	200.0	221.4	
24 Iodomethane	142	3.639	3.639	0.000	99	79098	200.0	186.3	
25 Carbon disulfide	76	3.767	3.767	0.000	97	140130	200.0	163.7	
28 3-Chloro-1-propene	76	4.016	4.016	0.000	91	31251	200.0	174.3	
29 Methyl acetate	43	4.114	4.114	0.000	99	168064	1000.0	920.0	
30 Methylene Chloride	84	4.223	4.223	0.000	97	60094	200.0	159.5	
31 2-Methyl-2-propanol	59	4.558	4.558	0.000	98	42391	2000.0	1923.5	
32 Acrylonitrile	53	4.631	4.631	0.000	97	174861	2000.0	1778.0	
33 trans-1,2-Dichloroethene	96	4.649	4.649	0.000	95	56998	200.0	171.7	
34 Methyl tert-butyl ether	73	4.698	4.698	0.000	96	134396	200.0	187.8	
35 Hexane	57	5.075	5.075	0.000	92	111806	200.0	188.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.251	5.251	0.000	96	105552	200.0	181.6	
37 Vinyl acetate	43	5.373	5.373	0.000	97	131957	200.0	279.1	
41 2,2-Dichloropropane	77	6.000	6.000	0.000	61	79649	200.0	189.5	
42 cis-1,2-Dichloroethene	96	6.012	6.012	0.000	85	62262	200.0	170.4	
43 2-Butanone (MEK)	43	6.066	6.066	0.000	98	20743	200.0	188.9	
47 Chlorobromomethane	128	6.298	6.298	0.000	92	23527	200.0	171.0	
48 Tetrahydrofuran	42	6.371	6.371	0.000	92	25449	400.0	353.1	
49 Chloroform	83	6.419	6.419	0.000	94	103686	200.0	198.1	
50 1,1,1-Trichloroethane	97	6.614	6.614	0.000	98	87133	200.0	223.3	
51 Cyclohexane	56	6.675	6.675	0.000	92	124877	200.0	176.9	
53 Carbon tetrachloride	117	6.803	6.803	0.000	97	63380	200.0	216.7	
52 1,1-Dichloropropene	75	6.803	6.803	0.000	94	80881	200.0	189.3	
54 Isobutyl alcohol	41	7.022	7.022	0.000	93	31415	5000.0	4925.2	
55 Benzene	78	7.034	7.034	0.000	98	220218	200.0	173.7	
56 1,2-Dichloroethane	62	7.058	7.058	0.000	97	76234	200.0	221.1	
59 n-Heptane	43	7.368	7.368	0.000	93	110137	200.0	198.6	
60 Trichloroethene	130	7.745	7.745	0.000	97	55826	200.0	180.8	
63 Methylcyclohexane	83	7.952	7.952	0.000	95	113929	200.0	169.8	
64 1,2-Dichloropropane	63	7.977	7.977	0.000	88	54806	200.0	179.0	
65 Dibromomethane	93	8.098	8.098	0.000	92	25918	200.0	179.7	
67 1,4-Dioxane	88	8.129	8.129	0.000	97	8210	4000.0	3347.8	
68 Dichlorobromomethane	83	8.275	8.275	0.000	98	61892	200.0	209.9	
70 2-Chloroethyl vinyl ether	63	8.591	8.591	0.000	93	70065	400.0	454.3	
71 cis-1,3-Dichloropropene	75	8.731	8.731	0.000	93	78539	200.0	194.3	
72 4-Methyl-2-pentanone (MIBK	43	8.895	8.895	0.000	96	39409	200.0	185.5	
73 Toluene	91	9.072	9.072	0.000	98	237830	200.0	181.9	
74 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	95	66471	200.0	200.4	
75 Ethyl methacrylate	69	9.394	9.394	0.000	92	56418	200.0	184.3	
76 1,1,2-Trichloroethane	97	9.473	9.473	0.000	93	39200	200.0	175.2	
77 Tetrachloroethene	164	9.619	9.619	0.000	98	49505	200.0	200.7	
78 1,3-Dichloropropane	76	9.637	9.637	0.000	95	71439	200.0	175.8	
79 2-Hexanone	43	9.729	9.729	0.000	98	30867	200.0	222.5	
81 Chlorodibromomethane	129	9.863	9.863	0.000	92	36680	200.0	182.7	
82 Ethylene Dibromide	107	9.978	9.978	0.000	100	37761	200.0	175.5	
83 Chlorobenzene	112	10.471	10.471	0.000	92	151597	200.0	178.3	
85 1,1,1,2-Tetrachloroethane	131	10.550	10.550	0.000	92	46960	200.0	193.8	
86 Ethylbenzene	106	10.580	10.580	0.000	99	85462	200.0	180.1	
87 m-Xylene & p-Xylene	106	10.696	10.696	0.000	99	106533	200.0	178.6	
88 o-Xylene	106	11.091	11.091	0.000	97	102168	200.0	174.8	
89 Styrene	104	11.104	11.104	0.000	91	171950	200.0	179.3	
90 Bromoform	173	11.286	11.286	0.000	96	20670	200.0	186.3	
91 Isopropylbenzene	105	11.456	11.456	0.000	96	291293	200.0	185.5	
93 1,1,2,2-Tetrachloroethane	83	11.742	11.742	0.000	95	46226	200.0	164.6	
94 Bromobenzene	156	11.761	11.761	0.000	95	64197	200.0	189.2	
95 1,2,3-Trichloropropane	110	11.791	11.791	0.000	86	15071	200.0	172.5	
96 trans-1,4-Dichloro-2-buten	53	11.803	11.803	0.000	75	15095	200.0	191.4	
97 N-Propylbenzene	120	11.870	11.870	0.000	99	77113	200.0	175.5	
98 2-Chlorotoluene	126	11.955	11.955	0.000	95	60884	200.0	167.5	
99 1,3,5-Trimethylbenzene	105	12.040	12.040	0.000	94	245328	200.0	184.5	
100 4-Chlorotoluene	126	12.065	12.065	0.000	99	61319	200.0	168.6	
101 tert-Butylbenzene	119	12.375	12.375	0.000	92	216629	200.0	184.4	
103 1,2,4-Trimethylbenzene	105	12.418	12.418	0.000	97	252569	200.0	183.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.594	12.594	0.000	95	315741	200.0	175.9	
105 1,3-Dichlorobenzene	146	12.703	12.703	0.000	97	131601	200.0	185.9	
106 4-Isopropyltoluene	119	12.734	12.734	0.000	97	259495	200.0	181.6	
107 1,4-Dichlorobenzene	146	12.789	12.789	0.000	94	126012	200.0	182.5	
110 n-Butylbenzene	91	13.148	13.148	0.000	98	252975	200.0	178.1	
111 1,2-Dichlorobenzene	146	13.160	13.160	0.000	96	114582	200.0	179.1	
112 1,2-Dibromo-3-Chloropropan	75	13.932	13.932	0.000	82	7074	200.0	168.9	
114 1,2,4-Trichlorobenzene	180	14.778	14.778	0.000	95	90661	200.0	191.7	
115 Hexachlorobutadiene	225	14.954	14.954	0.000	88	59121	200.0	203.0	
116 Naphthalene	128	15.027	15.027	0.000	98	146615	200.0	164.0	
117 1,2,3-Trichlorobenzene	180	15.277	15.277	0.000	94	71512	200.0	182.0	
S 129 Xylenes, Total	106				0		400.0	353.4	
S 130 1,2-Dichloroethene, Total	96				0		400.0	342.2	
S 131 1,3-Dichloropropene, Total	1				0		400.0	394.7	

Reagents:

VOA8260VOAPRI_00244	Amount Added:	8.00	Units: uL
VOA8260SURR_00066	Amount Added:	8.00	Units: uL
VOA8260INT_00067	Amount Added:	10.00	Units: uL
voaW2cle1stRe_00007	Amount Added:	8.00	Units: uL
voaWAcro1stRe_00011	Amount Added:	8.00	Units: uL
voaWVA1stRest_00012	Amount Added:	8.00	Units: uL

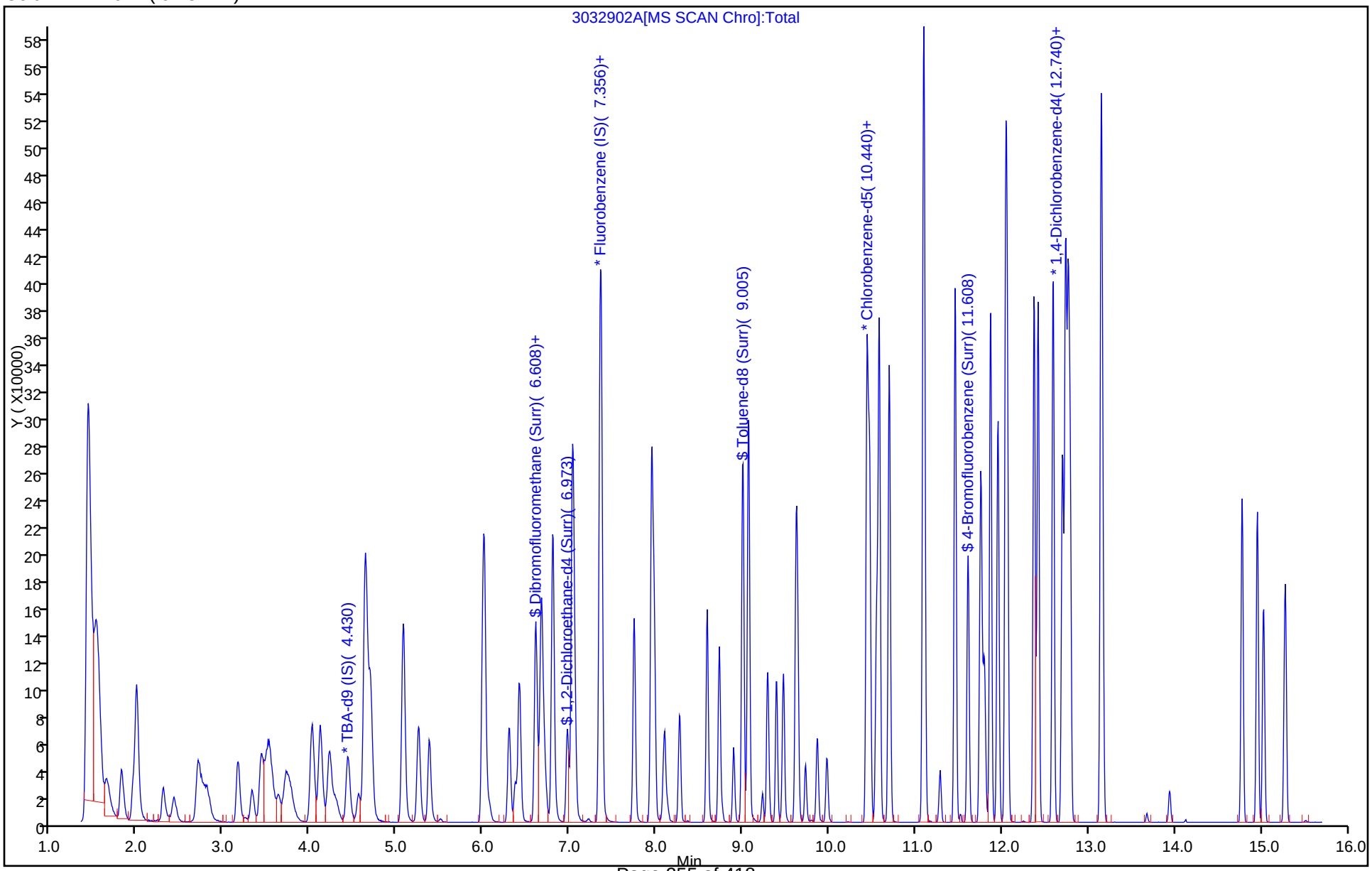
Report Date: 29-Mar-2017 14:04:36 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032902A.D

Injection Date:	29-Mar-2017 08:35:30	Instrument ID:	CHHP3	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_S_CHHP3	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.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206732/2 Calibration Date: 03/29/2017 08:35

Instrument ID: CHHP3 Calib Start Date: 06/29/2016 13:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/29/2016 15:22

Lab File ID: 3032902A.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1330	0.1511	0.0100	90.9	80.0	13.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032902A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Mar-2017 08:35:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Operator ID: 034635 Instrument ID: CHHP3
Sublist: chrom-MSVOA_S_CHHP3*sub45

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:04:35 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 09:42:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.436	4.436	0.000	97	87862	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.350	7.350	0.000	98	289816	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.440	10.440	0.000	91	65170	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.764	12.764	0.000	96	105728	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.602	6.602	0.000	93	45941	200.0	184.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.973	0.000	93	61203	200.0	213.6	
$ 7 Toluene-d8 (Surr)	98	9.005	9.005	0.000	93	203339	200.0	180.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.608	0.000	89	80029	200.0	174.8	
10 Dichlorodifluoromethane	85	1.644	1.644	0.000	99	67083	200.0	183.3	
11 Chloromethane	50	1.814	1.814	0.000	100	72987	200.0	140.9	
12 Vinyl chloride	62	1.960	1.960	0.000	98	62637	200.0	147.1	
13 Butadiene	39	1.991	1.991	0.000	91	66789	200.0	170.6	
14 Bromomethane	94	2.301	2.301	0.000	90	25042	200.0	252.5	
15 Chloroethane	64	2.429	2.429	0.000	99	27620	200.0	260.4	
16 Dichlorofluoromethane	67	2.702	2.702	0.000	97	72319	200.0	190.2	
17 Trichlorofluoromethane	101	2.745	2.745	0.000	94	69027	200.0	246.6	
19 Ethyl ether	59	3.159	3.159	0.000	96	46586	200.0	178.7	
20 Acrolein	56	3.323	3.323	0.000	98	38943	200.0	821.6	
21 1,1-Dichloroethene	96	3.432	3.432	0.000	93	54264	200.0	171.8	
22 1,1,2-Trichloro-1,2,2-trif	101	3.530	3.530	0.000	92	55139	200.0	178.5	
23 Acetone	43	3.584	3.584	0.000	100	16629	200.0	221.4	
24 Iodomethane	142	3.639	3.639	0.000	99	79098	200.0	186.3	
25 Carbon disulfide	76	3.767	3.767	0.000	97	140130	200.0	163.7	
28 3-Chloro-1-propene	76	4.016	4.016	0.000	91	31251	200.0	174.3	
29 Methyl acetate	43	4.114	4.114	0.000	99	168064	1000.0	920.0	
30 Methylene Chloride	84	4.223	4.223	0.000	97	60094	200.0	159.5	
31 2-Methyl-2-propanol	59	4.558	4.558	0.000	98	42391	2000.0	1923.5	
32 Acrylonitrile	53	4.631	4.631	0.000	97	174861	2000.0	1778.0	
33 trans-1,2-Dichloroethene	96	4.649	4.649	0.000	95	56998	200.0	171.7	
34 Methyl tert-butyl ether	73	4.698	4.698	0.000	96	134396	200.0	187.8	
35 Hexane	57	5.075	5.075	0.000	92	111806	200.0	188.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.251	5.251	0.000	96	105552	200.0	181.6	
37 Vinyl acetate	43	5.373	5.373	0.000	97	131957	200.0	279.1	
41 2,2-Dichloropropane	77	6.000	6.000	0.000	61	79649	200.0	189.5	
42 cis-1,2-Dichloroethene	96	6.012	6.012	0.000	85	62262	200.0	170.4	
43 2-Butanone (MEK)	43	6.066	6.066	0.000	98	20743	200.0	188.9	
47 Chlorobromomethane	128	6.298	6.298	0.000	92	23527	200.0	171.0	
48 Tetrahydrofuran	42	6.371	6.371	0.000	92	25449	400.0	353.1	
49 Chloroform	83	6.419	6.419	0.000	94	103686	200.0	198.1	
50 1,1,1-Trichloroethane	97	6.614	6.614	0.000	98	87133	200.0	223.3	
51 Cyclohexane	56	6.675	6.675	0.000	92	124877	200.0	176.9	
53 Carbon tetrachloride	117	6.803	6.803	0.000	97	63380	200.0	216.7	
52 1,1-Dichloropropene	75	6.803	6.803	0.000	94	80881	200.0	189.3	
54 Isobutyl alcohol	41	7.022	7.022	0.000	93	31415	5000.0	4925.2	
55 Benzene	78	7.034	7.034	0.000	98	220218	200.0	173.7	
56 1,2-Dichloroethane	62	7.058	7.058	0.000	97	76234	200.0	221.1	
59 n-Heptane	43	7.368	7.368	0.000	93	110137	200.0	198.6	
60 Trichloroethene	130	7.745	7.745	0.000	97	55826	200.0	180.8	
63 Methylcyclohexane	83	7.952	7.952	0.000	95	113929	200.0	169.8	
64 1,2-Dichloropropane	63	7.977	7.977	0.000	88	54806	200.0	179.0	
65 Dibromomethane	93	8.098	8.098	0.000	92	25918	200.0	179.7	
67 1,4-Dioxane	88	8.129	8.129	0.000	97	8210	4000.0	3347.8	
68 Dichlorobromomethane	83	8.275	8.275	0.000	98	61892	200.0	209.9	
70 2-Chloroethyl vinyl ether	63	8.591	8.591	0.000	93	70065	400.0	454.3	
71 cis-1,3-Dichloropropene	75	8.731	8.731	0.000	93	78539	200.0	194.3	
72 4-Methyl-2-pentanone (MIBK	43	8.895	8.895	0.000	96	39409	200.0	185.5	
73 Toluene	91	9.072	9.072	0.000	98	237830	200.0	181.9	
74 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	95	66471	200.0	200.4	
75 Ethyl methacrylate	69	9.394	9.394	0.000	92	56418	200.0	184.3	
76 1,1,2-Trichloroethane	97	9.473	9.473	0.000	93	39200	200.0	175.2	
77 Tetrachloroethene	164	9.619	9.619	0.000	98	49505	200.0	200.7	
78 1,3-Dichloropropane	76	9.637	9.637	0.000	95	71439	200.0	175.8	
79 2-Hexanone	43	9.729	9.729	0.000	98	30867	200.0	222.5	
81 Chlorodibromomethane	129	9.863	9.863	0.000	92	36680	200.0	182.7	
82 Ethylene Dibromide	107	9.978	9.978	0.000	100	37761	200.0	175.5	
83 Chlorobenzene	112	10.471	10.471	0.000	92	151597	200.0	178.3	
85 1,1,1,2-Tetrachloroethane	131	10.550	10.550	0.000	92	46960	200.0	193.8	
86 Ethylbenzene	106	10.580	10.580	0.000	99	85462	200.0	180.1	
87 m-Xylene & p-Xylene	106	10.696	10.696	0.000	99	106533	200.0	178.6	
88 o-Xylene	106	11.091	11.091	0.000	97	102168	200.0	174.8	
89 Styrene	104	11.104	11.104	0.000	91	171950	200.0	179.3	
90 Bromoform	173	11.286	11.286	0.000	96	20670	200.0	186.3	
91 Isopropylbenzene	105	11.456	11.456	0.000	96	291293	200.0	185.5	
93 1,1,2,2-Tetrachloroethane	83	11.742	11.742	0.000	95	46226	200.0	164.6	
94 Bromobenzene	156	11.761	11.761	0.000	95	64197	200.0	189.2	
95 1,2,3-Trichloropropane	110	11.791	11.791	0.000	86	15071	200.0	172.5	
96 trans-1,4-Dichloro-2-buten	53	11.803	11.803	0.000	75	15095	200.0	191.4	
97 N-Propylbenzene	120	11.870	11.870	0.000	99	77113	200.0	175.5	
98 2-Chlorotoluene	126	11.955	11.955	0.000	95	60884	200.0	167.5	
99 1,3,5-Trimethylbenzene	105	12.040	12.040	0.000	94	245328	200.0	184.5	
100 4-Chlorotoluene	126	12.065	12.065	0.000	99	61319	200.0	168.6	
101 tert-Butylbenzene	119	12.375	12.375	0.000	92	216629	200.0	184.4	
103 1,2,4-Trimethylbenzene	105	12.418	12.418	0.000	97	252569	200.0	183.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.594	12.594	0.000	95	315741	200.0	175.9	
105 1,3-Dichlorobenzene	146	12.703	12.703	0.000	97	131601	200.0	185.9	
106 4-Isopropyltoluene	119	12.734	12.734	0.000	97	259495	200.0	181.6	
107 1,4-Dichlorobenzene	146	12.789	12.789	0.000	94	126012	200.0	182.5	
110 n-Butylbenzene	91	13.148	13.148	0.000	98	252975	200.0	178.1	
111 1,2-Dichlorobenzene	146	13.160	13.160	0.000	96	114582	200.0	179.1	
112 1,2-Dibromo-3-Chloropropan	75	13.932	13.932	0.000	82	7074	200.0	168.9	
114 1,2,4-Trichlorobenzene	180	14.778	14.778	0.000	95	90661	200.0	191.7	
115 Hexachlorobutadiene	225	14.954	14.954	0.000	88	59121	200.0	203.0	
116 Naphthalene	128	15.027	15.027	0.000	98	146615	200.0	164.0	
117 1,2,3-Trichlorobenzene	180	15.277	15.277	0.000	94	71512	200.0	182.0	
S 129 Xylenes, Total	106				0		400.0	353.4	
S 130 1,2-Dichloroethene, Total	96				0		400.0	342.2	
S 131 1,3-Dichloropropene, Total	1				0		400.0	394.7	

Reagents:

VOA8260VOAPRI_00244	Amount Added:	8.00	Units: uL
VOA8260SURR_00066	Amount Added:	8.00	Units: uL
VOA8260INT_00067	Amount Added:	10.00	Units: uL
voaW2cle1stRe_00007	Amount Added:	8.00	Units: uL
voaWAcro1stRe_00011	Amount Added:	8.00	Units: uL
voaWVA1stRest_00012	Amount Added:	8.00	Units: uL

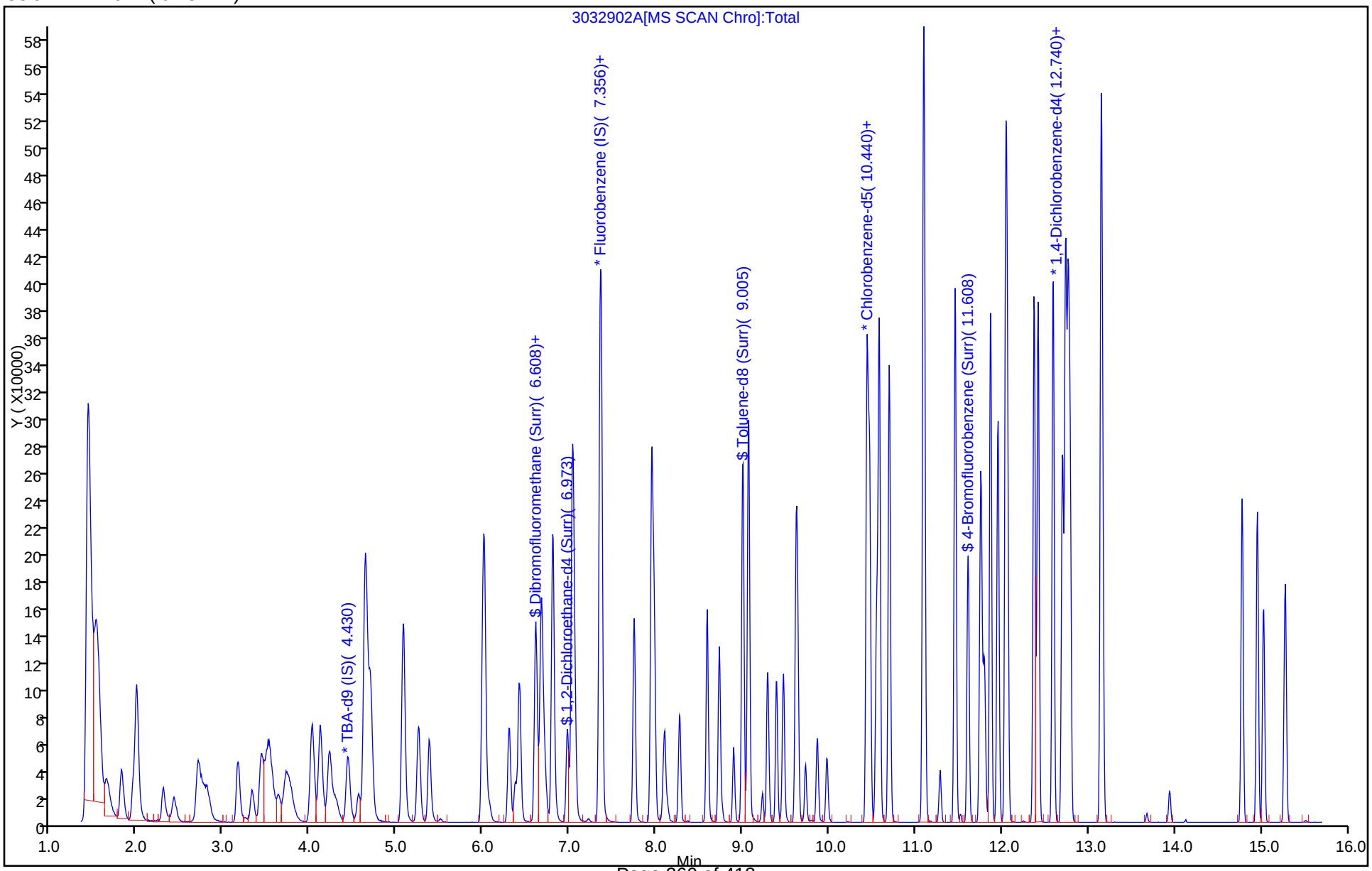
Report Date: 29-Mar-2017 14:04:36 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032902A.D

Injection Date:	29-Mar-2017 08:35:30	Instrument ID:	CHHP3	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_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 28-Sep-2016 10:45:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: 10099 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Sep-2016 18:47:35 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	8.401	8.401	0.000	0	341600	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

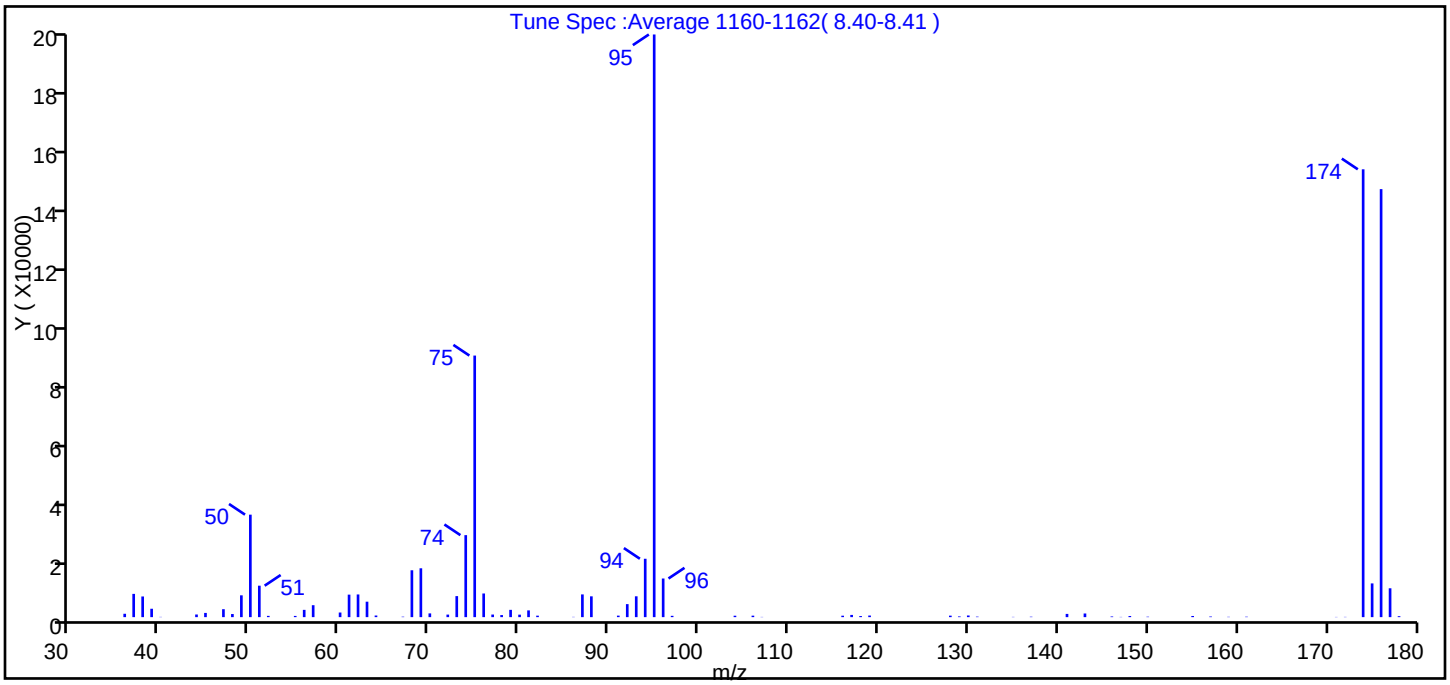
VOABFB50_00082 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K01.D				
Injection Date:	28-Sep-2016 10:45:30	Instrument ID:	CHHP3		
Lims ID:	BFB				
Client ID:					
Operator ID:	10099	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.6
75	30 to 60% of m/z 95	44.9
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	76.9
175	5 to 9% of m/z 174	5.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	73.5 (95.6)
177	5 to 9% of m/z 176	5.0 (6.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K01.D\MSVOA_S_CHHP3.rslt\spectr
Injection Date: 28-Sep-2016 10:45:30
Spectrum: Tune Spec :Average 1160-1162(8.40-8.41)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1100	63.00	5039	88.00	6787	135.00	83
37.00	7588	64.00	532	91.00	495	137.00	142
38.00	6741	67.00	148	92.00	4247	141.00	1056
39.00	2738	68.00	15288	93.00	6799	143.00	1191
40.00	79	69.00	15934	94.00	19040	146.00	218
44.00	863	70.00	1222	95.00	190016	147.00	73
45.00	1376	72.00	831	96.00	12600	148.00	362
47.00	2593	73.00	6860	97.00	430	150.00	142
48.00	1014	74.00	26744	104.00	465	155.00	378
49.00	7115	75.00	85304	106.00	481	157.00	203
50.00	33424	76.00	7716	107.00	72	159.00	104
51.00	10258	77.00	850	116.00	469	161.00	143
52.00	416	78.00	676	117.00	725	171.00	67
55.00	399	79.00	2379	118.00	351	172.00	81
56.00	2375	80.00	811	119.00	522	174.00	146048
57.00	3895	81.00	2203	128.00	484	175.00	11000
60.00	1509	82.00	482	129.00	236	176.00	139584
61.00	7339	86.00	85	130.00	539	177.00	9412
62.00	7400	87.00	7413	131.00	167	178.00	307

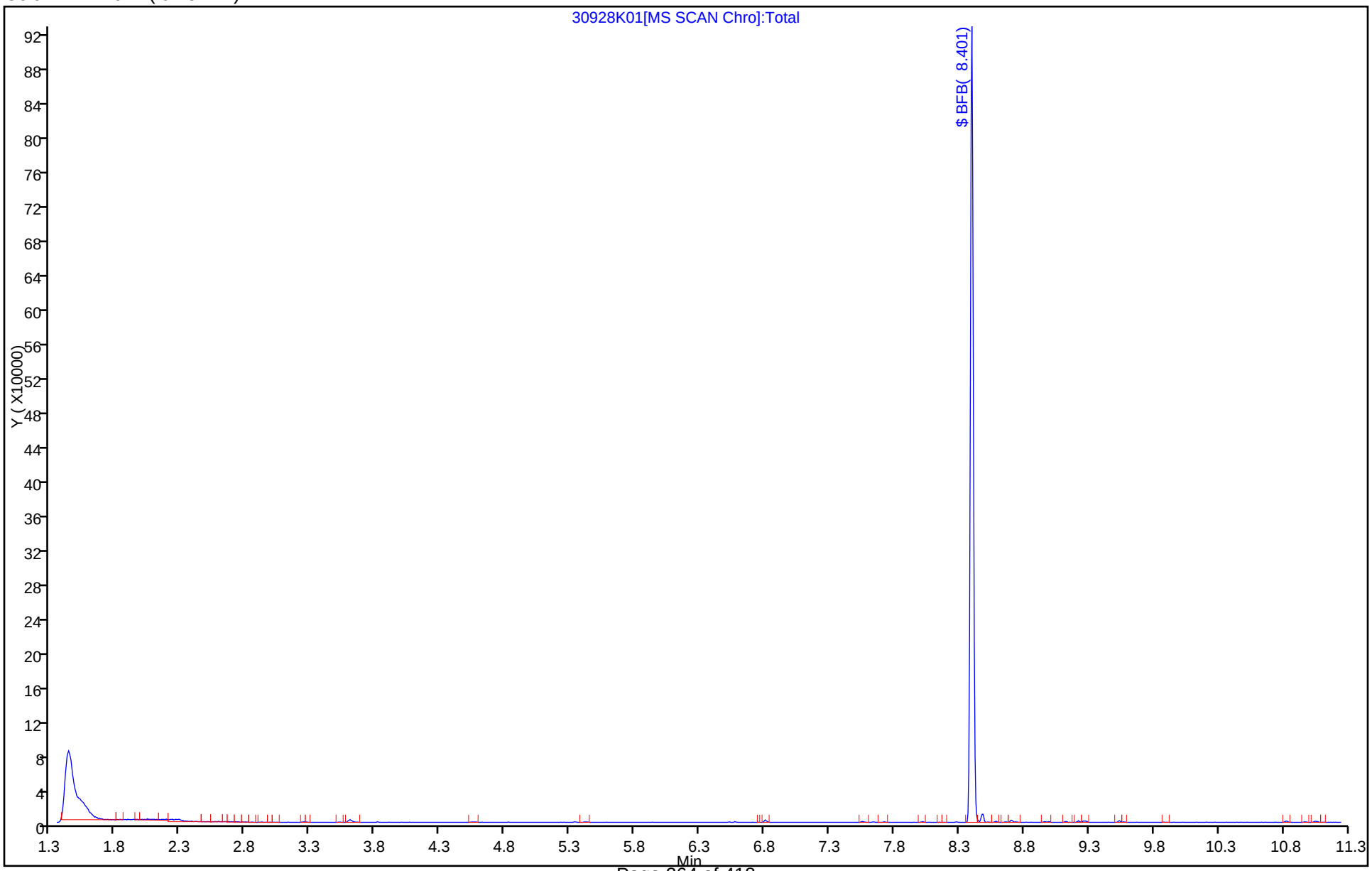
Report Date: 28-Sep-2016 18:47:36 Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K01.D

Injection Date:	28-Sep-2016 10:45:30	Instrument ID:	CHHP3	Operator ID:	10099
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032901.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	29-Mar-2017 07:22:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Operator ID:	034635	Instrument ID:	CHHP3		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	29-Mar-2017 14:04:37	Calib Date:	28-Sep-2016 14:19:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	8.401	8.401	0.000	0	131487	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

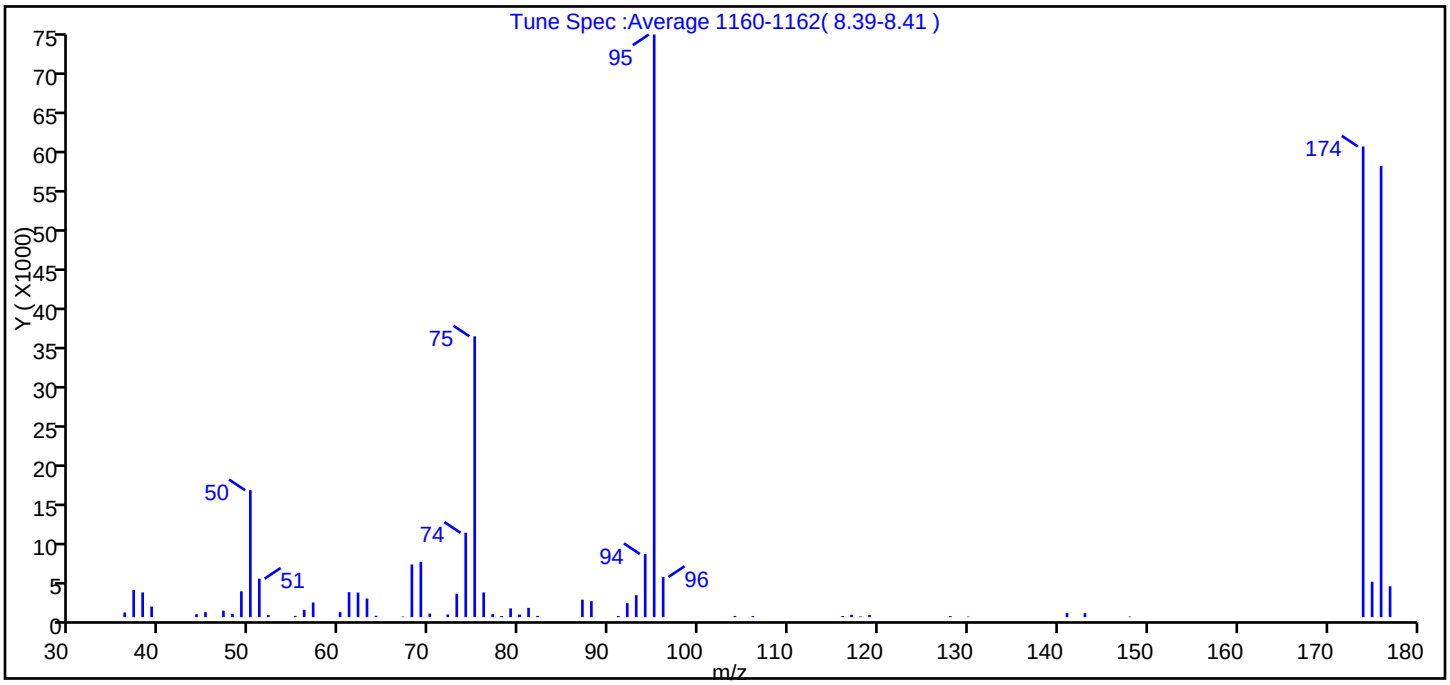
VOABFB50_00089 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032901.D
Injection Date: 29-Mar-2017 07:22:30 Instrument ID: CHHP3
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_S_CHHP3 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.8
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	80.8
175	5 to 9% of m/z 174	6.1 (7.5)
176	Greater than 95% but less than 101% of m/z 174	77.4 (95.8)
177	5 to 9% of m/z 176	5.3 (6.8)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032901.D\MSVOA_S_CHHP3.rslt\spectra
Injection Date: 29-Mar-2017 07:22:30
Spectrum: Tune Spec :Average 1160-1162(8.39-8.41)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 58

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	603	60.00	645	78.00	151	116.00	147
37.00	3471	61.00	3199	79.00	1126	117.00	307
38.00	3163	62.00	3146	80.00	336	118.00	85
39.00	1354	63.00	2379	81.00	1185	119.00	265
44.00	377	64.00	173	82.00	158	128.00	129
45.00	638	67.00	76	87.00	2235	130.00	69
47.00	836	68.00	6741	88.00	2041	141.00	549
48.00	406	69.00	7092	91.00	152	143.00	507
49.00	3310	70.00	453	92.00	1793	148.00	71
50.00	16248	72.00	343	93.00	2806	174.00	60232
51.00	4927	73.00	3000	94.00	8074	175.00	4534
52.00	268	74.00	10801	95.00	74568	176.00	57720
55.00	163	75.00	35936	96.00	5142	177.00	3951
56.00	947	76.00	3164	104.00	153		
57.00	1872	77.00	386	106.00	151		

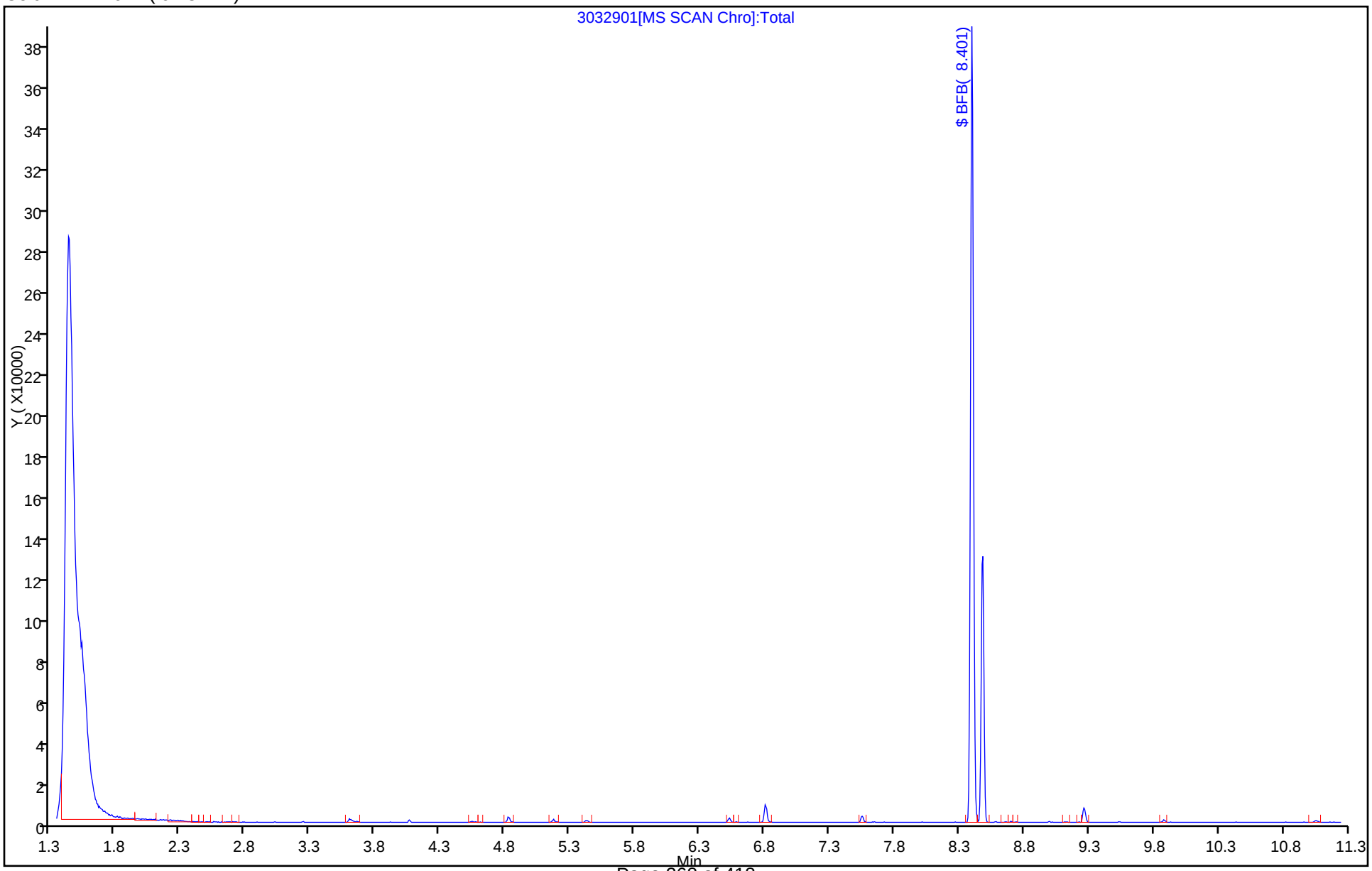
Report Date: 29-Mar-2017 14:04:37 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032901.D

Injection Date:	29-Mar-2017 07:22:30	Instrument ID:	CHHP3	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_S_CHHP3	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.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-206745/1-A

Matrix: Solid | Lab File ID: 3032908.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5.0000(g) | Date Analyzed: 03/29/2017 11:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.7
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.1
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	4.0
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	2.8
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.5
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.1
78-87-5	1,2-Dichloropropane	5.0	U	5.0	1.9
78-93-3	2-Butanone (MEK)	5.0	U	5.0	3.0
591-78-6	2-Hexanone	5.0	U	5.0	4.1
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.6
67-64-1	Acetone	20	U	20	10
71-43-2	Benzene	5.0	U	5.0	3.0
75-25-2	Bromoform	5.0	U	5.0	4.6
74-83-9	Bromomethane	5.0	U	5.0	1.7
75-15-0	Carbon disulfide	5.0	U	5.0	2.1
56-23-5	Carbon tetrachloride	5.0	U	5.0	1.4
108-90-7	Chlorobenzene	5.0	U	5.0	2.2
124-48-1	Dibromochloromethane	5.0	U	5.0	2.5
123-91-1	1,4-Dioxane	1000	U	1000	25
67-66-3	Chloroform	5.0	U	5.0	1.3
74-87-3	Chloromethane	5.0	U	5.0	2.6
75-00-3	Chloroethane	5.0	U	5.0	2.1
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	1.3
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	2.2
75-27-4	Bromodichloromethane	5.0	U	5.0	2.0
100-41-4	Ethylbenzene	5.0	U	5.0	2.0
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	2.1
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	2.5
75-09-2	Methylene Chloride	5.0	U	5.0	0.56
100-42-5	Styrene	5.0	U	5.0	2.3
127-18-4	Tetrachloroethene	5.0	U	5.0	1.2
108-88-3	Toluene	5.0	U	5.0	3.6
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	1.0
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	2.4
79-01-6	Trichloroethene	5.0	U	5.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-206745/1-A

Matrix: Solid Lab File ID: 3032908.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5.0000(g) Date Analyzed: 03/29/2017 11:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 206732 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-13-1	Acrylonitrile	50	U	50	25
75-01-4	Vinyl chloride	5.0	U	5.0	2.6
1330-20-7	Xylenes, Total	10	U	10	4.6
74-97-5	Bromochloromethane	5.0	U	5.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	98		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		52-124
460-00-4	4-Bromofluorobenzene (Surr)	94		63-120
2037-26-5	Toluene-d8 (Surr)	99		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032908.D
Lims ID: MB 180-206745/1-A
Client ID:
Sample Type: MB
Inject. Date: 29-Mar-2017 11:10:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB 180-206745/1-A
Misc. Info.: 180-0016077-008
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.409	4.436	-0.027	98	81937	5000.0	5000.0	
*	2 Fluorobenzene (IS)	96	7.360	7.350	0.010	98	364394	250.0	250.0	
*	3 Chlorobenzene-d5	119	10.438	10.440	-0.002	90	80147	250.0	250.0	
*	4 1,4-Dichlorobenzene-d4	152	12.768	12.764	0.004	98	126558	250.0	250.0	
$	5 Dibromofluoromethane (Surr	113	6.612	6.602	0.010	94	76901	250.0	245.7	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.977	6.973	0.004	93	97155	250.0	269.7	
$	7 Toluene-d8 (Surr)	98	9.002	9.005	-0.003	94	343295	250.0	247.4	
$	8 4-Bromofluorobenzene (Surr	95	11.606	11.608	-0.002	88	132132	250.0	234.6	
	10 Dichlorodifluoromethane	85		1.644					ND	
	11 Chloromethane	50		1.814					ND	
	12 Vinyl chloride	62		1.960					ND	
	13 Butadiene	39		1.991					ND	
	14 Bromomethane	94		2.301					ND	
	15 Chloroethane	64		2.429					ND	
	16 Dichlorofluoromethane	67		2.702					ND	
	17 Trichlorofluoromethane	101		2.745					ND	
	19 Ethyl ether	59		3.159					ND	
	18 Ethanol	45		3.163					ND	
	20 Acrolein	56		3.323					ND	
	21 1,1-Dichloroethene	96		3.432					ND	
	22 1,1,2-Trichloro-1,2,2-trif	101		3.530					ND	
	23 Acetone	43		3.584					ND	
	24 Iodomethane	142		3.639					ND	
	25 Carbon disulfide	76		3.767					ND	
	26 Isopropyl alcohol	45		3.886					ND	
	28 3-Chloro-1-propene	76		4.016					ND	
	27 Acetonitrile	40		4.021					ND	
	29 Methyl acetate	43		4.114					ND	
	30 Methylene Chloride	84		4.223					ND	
	31 2-Methyl-2-propanol	59		4.558					ND	
	32 Acrylonitrile	53		4.631					ND	
	33 trans-1,2-Dichloroethene	96		4.649					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 Methyl tert-butyl ether	73		4.698					ND	
35 Hexane	57	5.097	5.075	0.022	73	3901		5.23	
36 1,1-Dichloroethane	63		5.251					ND	
37 Vinyl acetate	43		5.373					ND	
38 2-Chloro-1,3-butadiene	53		5.388					ND	
39 Isopropyl ether	45		5.419					ND	
40 Tert-butyl ethyl ether	59		5.887					ND	
41 2,2-Dichloropropane	77		6.000					ND	
42 cis-1,2-Dichloroethene	96		6.012					ND	
43 2-Butanone (MEK)	43		6.066					ND	
45 Ethyl acetate	43	6.003	6.071	-0.068	1	298		1.00	
44 Propionitrile	54		6.130					ND	
47 Chlorobromomethane	128		6.298					ND	
46 Methacrylonitrile	41		6.313					ND	
48 Tetrahydrofuran	42		6.371					ND	
49 Chloroform	83		6.419					ND	
50 1,1,1-Trichloroethane	97		6.614					ND	
51 Cyclohexane	56		6.675					ND	
53 Carbon tetrachloride	117		6.803					ND	
52 1,1-Dichloropropene	75		6.803					ND	
54 Isobutyl alcohol	41		7.022					ND	
58 Isooctane	57		7.026					ND	
55 Benzene	78		7.034					ND	
56 1,2-Dichloroethane	62		7.058					ND	
57 Tert-amyl methyl ether	73	7.354	7.355	-0.001	37	4781		4.23	
59 n-Heptane	43		7.368					ND	
61 n-Butanol	56		7.724					ND	
60 Trichloroethene	130		7.745					ND	
62 Ethyl acrylate	55		7.951					ND	
66 Methyl methacrylate	69		7.951					ND	
63 Methylcyclohexane	83		7.952					ND	
64 1,2-Dichloropropane	63		7.977					ND	
65 Dibromomethane	93		8.098					ND	
67 1,4-Dioxane	88		8.129					ND	
68 Dichlorobromomethane	83		8.275					ND	
69 2-Nitropropane	41		8.590					ND	
70 2-Chloroethyl vinyl ether	63		8.591					ND	
71 cis-1,3-Dichloropropene	75		8.731					ND	
72 4-Methyl-2-pentanone (MIBK	43	9.009	8.895	0.114	39	1464		5.60	
73 Toluene	91		9.072					ND	
74 trans-1,3-Dichloropropene	75		9.291					ND	
75 Ethyl methacrylate	69		9.394					ND	
76 1,1,2-Trichloroethane	97		9.473					ND	
77 Tetrachloroethene	164		9.619					ND	
78 1,3-Dichloropropane	76		9.637					ND	
79 2-Hexanone	43	9.860	9.729	0.131	77	755		4.43	
80 n-Butyl acetate	43	9.860	9.861	-0.001	88	755		1.33	
81 Chlorodibromomethane	129		9.863					ND	
82 Ethylene Dibromide	107		9.978					ND	
83 Chlorobenzene	112		10.471					ND	
85 1,1,1,2-Tetrachloroethane	131		10.550					ND	
86 Ethylbenzene	106		10.580					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 m-Xylene & p-Xylene	106		10.696					ND	
84 4-Chlorobenzotrifluoride	180		10.745					ND	
88 o-Xylene	106		11.091					ND	
89 Styrene	104		11.104					ND	
90 Bromoform	173		11.286					ND	
91 Isopropylbenzene	105		11.456					ND	
92 Cyclohexanone	55		11.522					ND	
93 1,1,2,2-Tetrachloroethane	83		11.742					ND	
94 Bromobenzene	156		11.761					ND	
95 1,2,3-Trichloropropane	110		11.791					ND	
96 trans-1,4-Dichloro-2-buten	53		11.803					ND	
97 N-Propylbenzene	120		11.870					ND	
98 2-Chlorotoluene	126		11.955					ND	
99 1,3,5-Trimethylbenzene	105		12.040					ND	
100 4-Chlorotoluene	126		12.065					ND	
101 tert-Butylbenzene	119		12.375					ND	
102 Pentachloroethane	167		12.397					ND	
103 1,2,4-Trimethylbenzene	105		12.418					ND	
104 sec-Butylbenzene	105		12.594					ND	
105 1,3-Dichlorobenzene	146	12.786	12.703	0.083	1	393		0.4638	
106 4-Isopropyltoluene	119		12.734					ND	
108 1,2,3-Trimethylbenzene	105		12.738					ND	
107 1,4-Dichlorobenzene	146	12.786	12.789	-0.003	1	393		0.4755	
109 Benzyl chloride	91		12.926					ND	
110 n-Butylbenzene	91		13.148					ND	
111 1,2-Dichlorobenzene	146		13.160					ND	
112 1,2-Dibromo-3-Chloropropan	75		13.932					ND	
113 1,3,5-Trichlorobenzene	180		14.161					ND	
114 1,2,4-Trichlorobenzene	180		14.778					ND	
115 Hexachlorobutadiene	225		14.954					ND	
116 Naphthalene	128	15.031	15.027	0.004	88	215		0.2009	
117 1,2,3-Trichlorobenzene	180		15.277					ND	
118 2-Methylnaphthalene	142		16.363					ND	
125 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
127 2-Chlorobenzotrifluoride	180		0.000					ND	
123 3-Chlorobenzotrifluoride	180		0.000					ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
124 2,4,5-Trichlorotoluene	159		0.000					ND	
128 2,3,6-Trichlorotoluene	159		0.000					ND	
119 2,5-Dichlorobenzotrifluori	214		0.000					ND	
121 1,2-dichloro-4-(trifluorom	214		0.000					ND	
126 2,4-Dichloro-1-(triflourom	214		0.000					ND	
122 3-Chlorotoluene	126		0.000					ND	
S 129 Xylenes, Total	106		1.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Methyl n-amyl ketone TIC	43		0.000					ND	
T 134 Tetrahydrofuran TIC	42		0.000					ND	
T 132 Mesityl oxide TIC	83		7.968					ND	

Reagents:

VOA8260INT_00067	Amount Added:	10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added:	10.00	Units: uL	Run Reagent

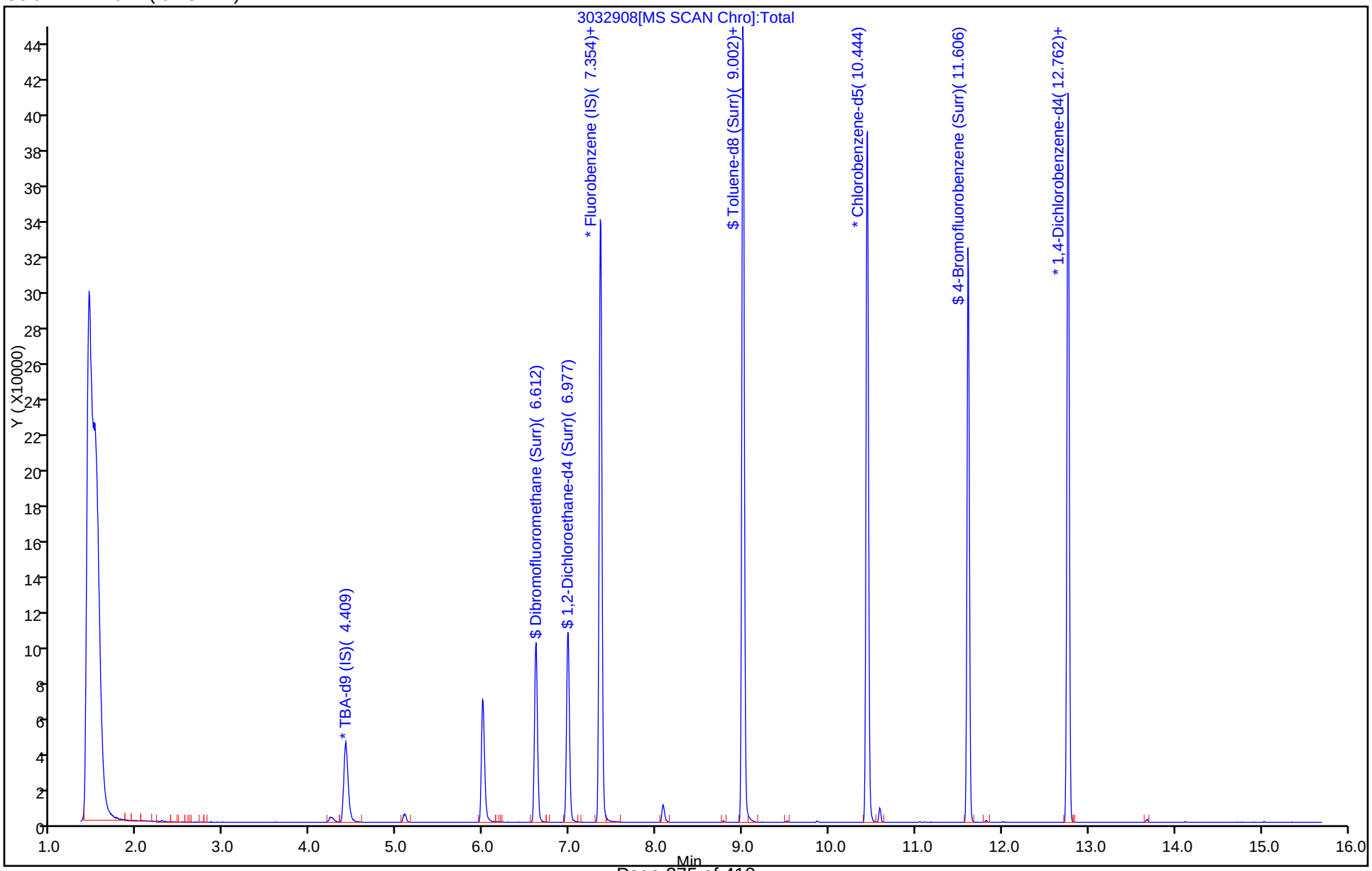
Report Date: 29-Mar-2017 14:04:29 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032908.D

Injection Date:	29-Mar-2017 11:10:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	MB 180-206745/1-A			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032908.D
Lims ID: MB 180-206745/1-A
Client ID:
Sample Type: MB
Inject. Date: 29-Mar-2017 11:10:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB 180-206745/1-A
Misc. Info.: 180-0016077-008
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	245.7	98.29
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	269.7	107.88
$ 7 Toluene-d8 (Surr)	250.0	247.4	98.95
$ 8 4-Bromofluorobenzene (Surr)	250.0	234.6	93.84

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-206745/2-A

Matrix: Solid | Lab File ID: 3032904.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5.0000(g) | Date Analyzed: 03/29/2017 09:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	43.1		5.0	2.7
71-55-6	1,1,1-Trichloroethane	49.6		5.0	1.1
79-34-5	1,1,2,2-Tetrachloroethane	39.2		5.0	4.0
79-00-5	1,1,2-Trichloroethane	39.4		5.0	2.8
75-34-3	1,1-Dichloroethane	32.5		5.0	1.1
75-35-4	1,1-Dichloroethene	27.1		5.0	1.5
107-06-2	1,2-Dichloroethane	49.4		5.0	1.1
78-87-5	1,2-Dichloropropane	40.5		5.0	1.9
78-93-3	2-Butanone (MEK)	45.6		5.0	3.0
591-78-6	2-Hexanone	52.4		5.0	4.1
108-10-1	4-Methyl-2-pentanone (MIBK)	43.3		5.0	3.6
67-64-1	Acetone	38.2		20	10
71-43-2	Benzene	39.7		5.0	3.0
75-25-2	Bromoform	40.3		5.0	4.6
74-83-9	Bromomethane	57.6		5.0	1.7
75-15-0	Carbon disulfide	27.2		5.0	2.1
56-23-5	Carbon tetrachloride	47.2		5.0	1.4
108-90-7	Chlorobenzene	38.5		5.0	2.2
124-48-1	Dibromochloromethane	37.4		5.0	2.5
123-91-1	1,4-Dioxane	844	J	1000	25
67-66-3	Chloroform	44.1		5.0	1.3
74-87-3	Chloromethane	32.6		5.0	2.6
75-00-3	Chloroethane	60.7		5.0	2.1
156-59-2	cis-1,2-Dichloroethene	38.2		5.0	1.3
10061-01-5	cis-1,3-Dichloropropene	42.2		5.0	2.2
75-27-4	Bromodichloromethane	47.0		5.0	2.0
100-41-4	Ethylbenzene	39.2		5.0	2.0
106-93-4	1,2-Dibromoethane (EDB)	39.9		5.0	2.1
1634-04-4	Methyl tert-butyl ether	35.7		5.0	2.5
75-09-2	Methylene Chloride	26.5		5.0	0.56
100-42-5	Styrene	39.5		5.0	2.3
127-18-4	Tetrachloroethene	44.1		5.0	1.2
108-88-3	Toluene	39.4		5.0	3.6
156-60-5	trans-1,2-Dichloroethene	28.5		5.0	1.0
10061-02-6	trans-1,3-Dichloropropene	43.2		5.0	2.4
79-01-6	Trichloroethene	40.2		5.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-206745/2-A

Matrix: Solid | Lab File ID: 3032904.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5.0000(g) | Date Analyzed: 03/29/2017 09:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-13-1	Acrylonitrile	320		50	25
75-01-4	Vinyl chloride	33.8		5.0	2.6
1330-20-7	Xylenes, Total	77.6		10	4.6
74-97-5	Bromochloromethane	40.3		5.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	99		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		52-124
460-00-4	4-Bromofluorobenzene (Surr)	94		63-120
2037-26-5	Toluene-d8 (Surr)	92		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032904.D
Lims ID: LCS 180-206745/2-A
Client ID:
Sample Type: LCS
Inject. Date: 29-Mar-2017 09:40:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 10:15:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.494	4.436	0.058	98	72751	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.347	7.350	-0.003	98	266148	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.443	10.440	0.003	90	61578	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.761	12.764	-0.003	94	101865	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.605	6.602	0.003	94	56429	250.0	246.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.976	6.973	0.003	92	77371	250.0	294.1	
$ 7 Toluene-d8 (Surr)	98	9.002	9.005	-0.003	93	246563	250.0	231.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.605	11.608	-0.003	88	101855	250.0	235.4	
10 Dichlorodifluoromethane	85	1.647	1.644	0.003	99	78236	200.0	232.8	
11 Chloromethane	50	1.817	1.814	0.003	100	77507	200.0	162.9	
12 Vinyl chloride	62	1.957	1.960	-0.003	97	66169	200.0	169.2	
13 Butadiene	39	1.993	1.991	0.003	88	69443	200.0	193.2	
14 Bromomethane	94	2.292	2.301	-0.009	91	26214	200.0	287.8	
15 Chloroethane	64	2.425	2.429	-0.004	99	29548	200.0	303.3	
16 Dichlorofluoromethane	67	2.681	2.702	-0.021	99	73099	200.0	209.3	
17 Trichlorofluoromethane	101	2.717	2.745	-0.028	96	57870	200.0	225.1	
19 Ethyl ether	59	3.161	3.159	0.002	94	36891	200.0	154.1	
20 Acrolein	56	3.338	3.323	0.015	99	25518	875.0	586.3	
21 1,1-Dichloroethene	96	3.411	3.432	-0.021	92	39308	200.0	135.6	
22 1,1,2-Trichloro-1,2,2-trif	101	3.502	3.530	-0.028	88	40657	200.0	143.3	
23 Acetone	43	3.612	3.584	0.028	78	13158	200.0	190.8	
24 Iodomethane	142	3.612	3.639	-0.027	99	60099	200.0	154.1	
25 Carbon disulfide	76	3.721	3.767	-0.046	98	105313	200.0	135.9	
28 3-Chloro-1-propene	76	4.001	4.016	-0.015	95	22945	200.0	139.4	
29 Methyl acetate	43	4.123	4.114	0.009	99	138233	1000.0	824.0	
30 Methylene Chloride	84	4.214	4.223	-0.009	98	45911	200.0	132.7	
31 2-Methyl-2-propanol	59	4.622	4.558	0.064	99	39335	2000.0	2155.6	
32 Acrylonitrile	53	4.640	4.631	0.009	97	144392	2000.0	1598.8	
33 trans-1,2-Dichloroethene	96	4.640	4.649	-0.009	64	43363	200.0	142.3	
34 Methyl tert-butyl ether	73	4.707	4.698	0.009	96	117410	200.0	178.7	
35 Hexane	57	5.066	5.075	-0.009	94	85959	200.0	157.9	
36 1,1-Dichloroethane	63	5.242	5.251	-0.009	97	86790	200.0	162.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 Vinyl acetate	43	5.376	5.373	0.003	97	90307	200.0	208.0	
41 2,2-Dichloropropane	77	6.002	6.000	0.002	61	82455	200.0	225.7	
42 cis-1,2-Dichloroethene	96	6.015	6.012	0.003	85	63994	200.0	190.8	
43 2-Butanone (MEK)	43	6.075	6.066	0.009	99	22979	200.0	227.9	
47 Chlorobromomethane	128	6.301	6.298	0.003	94	25450	200.0	201.5	
48 Tetrahydrofuran	42	6.374	6.371	0.003	89	27781	400.0	419.7	
49 Chloroform	83	6.422	6.419	0.003	94	105995	200.0	220.6	
50 1,1,1-Trichloroethane	97	6.611	6.614	-0.003	98	88913	200.0	248.1	
51 Cyclohexane	56	6.672	6.675	-0.003	91	127846	200.0	197.2	
53 Carbon tetrachloride	117	6.799	6.803	-0.004	96	63465	200.0	236.2	
52 1,1-Dichloropropene	75	6.805	6.803	0.002	96	84139	200.0	214.5	
54 Isobutyl alcohol	41	7.213	7.022	0.191	77	1955	5000.0	333.8	
55 Benzene	78	7.031	7.034	-0.003	98	231066	200.0	198.4	
56 1,2-Dichloroethane	62	7.055	7.058	-0.003	97	78288	200.0	247.2	
59 n-Heptane	43	7.365	7.368	-0.003	92	110235	200.0	216.5	
60 Trichloroethene	130	7.748	7.745	0.003	98	56952	200.0	200.8	
63 Methylcyclohexane	83	7.943	7.952	-0.009	95	119751	200.0	194.3	
64 1,2-Dichloropropane	63	7.980	7.977	0.003	91	56871	200.0	202.3	
65 Dibromomethane	93	8.095	8.098	-0.003	94	27363	200.0	206.6	
67 1,4-Dioxane	88	8.138	8.129	0.009	96	9499	4000.0	4217.9	
68 Dichlorobromomethane	83	8.272	8.275	-0.003	99	63679	200.0	235.2	
70 2-Chloroethyl vinyl ether	63	8.594	8.591	0.003	92	70449	400.0	497.4	
71 cis-1,3-Dichloropropene	75	8.728	8.731	-0.003	94	78361	200.0	211.1	
72 4-Methyl-2-pentanone (MIBK	43	8.898	8.895	0.003	98	43412	200.0	216.3	
73 Toluene	91	9.069	9.072	-0.003	98	243604	200.0	197.2	
74 trans-1,3-Dichloropropene	75	9.288	9.291	-0.003	96	67703	200.0	216.0	
75 Ethyl methacrylate	69	9.391	9.394	-0.003	92	61189	200.0	211.5	
76 1,1,2-Trichloroethane	97	9.470	9.473	-0.003	93	41703	200.0	197.2	
77 Tetrachloroethene	164	9.616	9.619	-0.003	98	51428	200.0	220.7	
78 1,3-Dichloropropane	76	9.634	9.637	-0.003	95	75367	200.0	196.3	
79 2-Hexanone	43	9.732	9.729	0.003	97	34332	200.0	262.0	
81 Chlorodibromomethane	129	9.865	9.863	0.002	92	35584	200.0	187.1	
82 Ethylene Dibromide	107	9.975	9.978	-0.003	98	40617	200.0	199.7	
83 Chlorobenzene	112	10.468	10.471	-0.003	91	154572	200.0	192.4	
85 1,1,1,2-Tetrachloroethane	131	10.553	10.550	0.003	92	49325	200.0	215.5	
86 Ethylbenzene	106	10.577	10.580	-0.003	99	87764	200.0	195.8	
87 m-Xylene & p-Xylene	106	10.699	10.696	0.003	99	109830	200.0	194.8	
88 o-Xylene	106	11.088	11.091	-0.003	98	106451	200.0	192.8	
89 Styrene	104	11.100	11.104	-0.004	91	179133	200.0	197.7	
90 Bromoform	173	11.289	11.286	0.003	98	21473	200.0	201.6	
91 Isopropylbenzene	105	11.459	11.456	0.003	96	300147	200.0	202.3	
93 1,1,2,2-Tetrachloroethane	83	11.745	11.742	0.003	94	52001	200.0	196.0	
94 Bromobenzene	156	11.757	11.761	-0.004	96	67013	200.0	205.0	
95 1,2,3-Trichloropropane	110	11.794	11.791	0.003	84	16916	200.0	201.0	
96 trans-1,4-Dichloro-2-buten	53	11.806	11.803	0.003	78	17469	200.0	230.0	
97 N-Propylbenzene	120	11.867	11.870	-0.003	99	78257	200.0	184.9	
98 2-Chlorotoluene	126	11.952	11.955	-0.003	95	62588	200.0	178.7	
99 1,3,5-Trimethylbenzene	105	12.043	12.040	0.003	93	247637	200.0	193.3	
100 4-Chlorotoluene	126	12.062	12.065	-0.003	99	62956	200.0	179.6	
101 tert-Butylbenzene	119	12.372	12.375	-0.003	91	212592	200.0	187.9	
103 1,2,4-Trimethylbenzene	105	12.414	12.418	-0.004	97	251503	200.0	189.9	
104 sec-Butylbenzene	105	12.591	12.594	-0.003	95	325964	200.0	188.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.700	12.703	-0.003	97	136886	200.0	200.7	
106 4-Isopropyltoluene	119	12.737	12.734	0.003	97	270492	200.0	196.5	
107 1,4-Dichlorobenzene	146	12.786	12.789	-0.003	93	131546	200.0	197.7	
110 n-Butylbenzene	91	13.144	13.148	-0.004	98	259315	200.0	189.5	
111 1,2-Dichlorobenzene	146	13.163	13.160	0.003	96	119821	200.0	194.4	
112 1,2-Dibromo-3-Chloropropan	75	13.941	13.932	0.009	84	7984	200.0	192.5	
114 1,2,4-Trichlorobenzene	180	14.781	14.778	0.003	94	97393	200.0	213.7	
115 Hexachlorobutadiene	225	14.957	14.954	0.003	95	61505	200.0	219.2	
116 Naphthalene	128	15.024	15.027	-0.003	98	173138	200.0	201.0	
117 1,2,3-Trichlorobenzene	180	15.280	15.277	0.003	94	81943	200.0	216.5	
S 129 Xylenes, Total	106				0		400.0	387.6	
S 130 1,2-Dichloroethene, Total	96				0		400.0	333.0	
S 131 1,3-Dichloropropene, Total	1				0		400.0	427.1	

Reagents:

VOA8260VOA2ND_00235	Amount Added:	8.00	Units: uL	
voaWva2ndRete_00001	Amount Added:	8.00	Units: uL	
voaWAcro2ndRe_00011	Amount Added:	35.00	Units: uL	
voaW2clev2ndR_00019	Amount Added:	8.00	Units: uL	
VOA8260INT_00067	Amount Added:	10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added:	10.00	Units: uL	Run Reagent

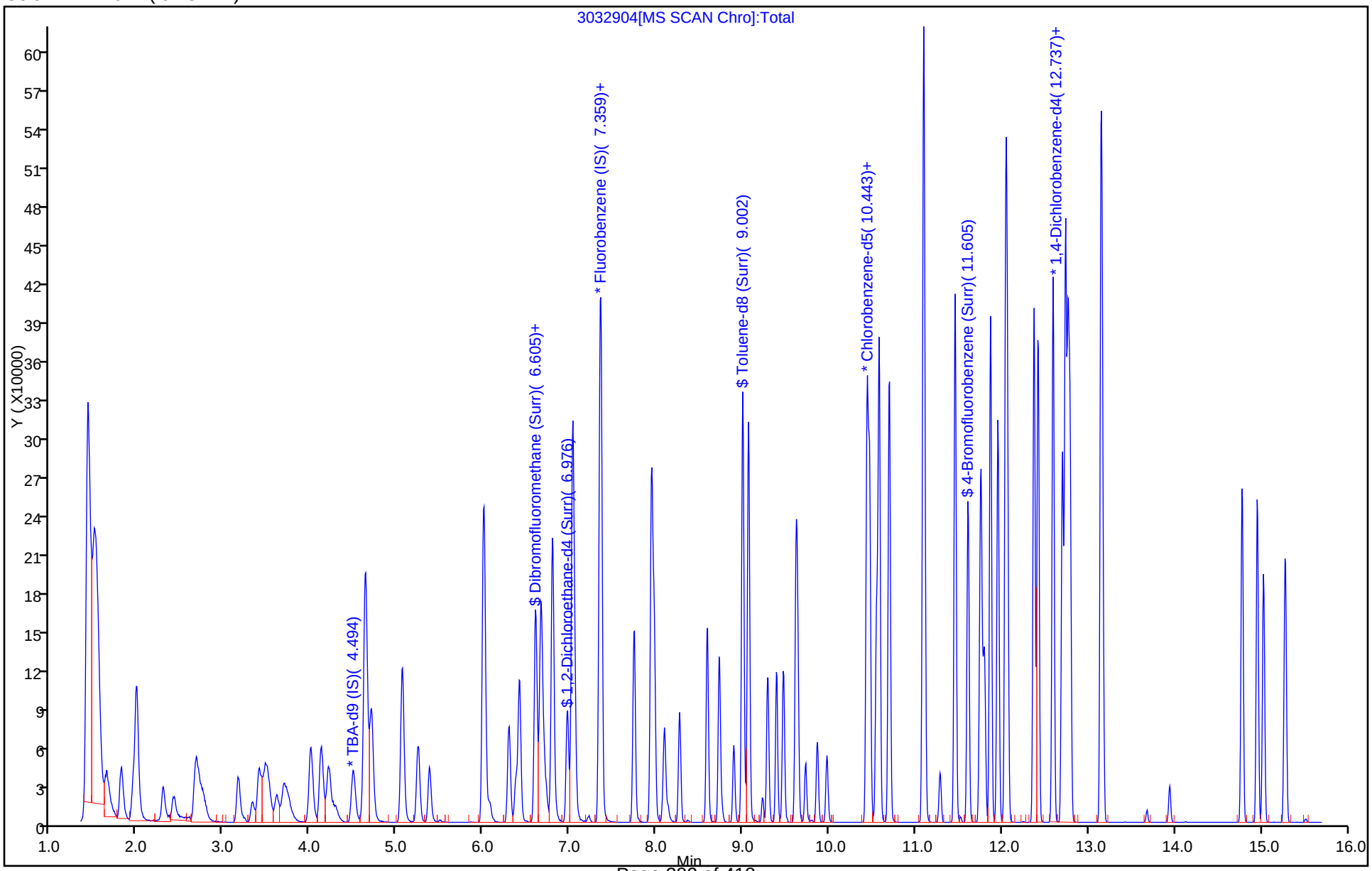
Report Date: 29-Mar-2017 14:04:34 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032904.D

Injection Date:	29-Mar-2017 09:40:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	LCS 180-206745/2-A			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032904.D
Lims ID: LCS 180-206745/2-A
Client ID:
Sample Type: LCS
Inject. Date: 29-Mar-2017 09:40:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 10:15:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	246.9	98.75
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	294.1	117.62
$ 7 Toluene-d8 (Surr)	250.0	231.2	92.50
$ 8 4-Bromofluorobenzene (Surr)	250.0	235.4	94.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-206745/3-A

Matrix: Solid | Lab File ID: 3032905.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5.0000(g) | Date Analyzed: 03/29/2017 10:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	42.6		5.0	2.7
71-55-6	1,1,1-Trichloroethane	46.1		5.0	1.1
79-34-5	1,1,2,2-Tetrachloroethane	39.2		5.0	4.0
79-00-5	1,1,2-Trichloroethane	39.7		5.0	2.8
75-34-3	1,1-Dichloroethane	39.8		5.0	1.1
75-35-4	1,1-Dichloroethene	36.6		5.0	1.5
107-06-2	1,2-Dichloroethane	49.2		5.0	1.1
78-87-5	1,2-Dichloropropane	39.0		5.0	1.9
78-93-3	2-Butanone (MEK)	45.2		5.0	3.0
591-78-6	2-Hexanone	48.0		5.0	4.1
108-10-1	4-Methyl-2-pentanone (MIBK)	44.3		5.0	3.6
67-64-1	Acetone	43.2		20	10
71-43-2	Benzene	38.6		5.0	3.0
75-25-2	Bromoform	41.4		5.0	4.6
74-83-9	Bromomethane	52.9		5.0	1.7
75-15-0	Carbon disulfide	34.7		5.0	2.1
56-23-5	Carbon tetrachloride	43.9		5.0	1.4
108-90-7	Chlorobenzene	38.8		5.0	2.2
124-48-1	Dibromochloromethane	39.0		5.0	2.5
123-91-1	1,4-Dioxane	849	J	1000	25
67-66-3	Chloroform	42.8		5.0	1.3
74-87-3	Chloromethane	31.2		5.0	2.6
75-00-3	Chloroethane	53.8		5.0	2.1
156-59-2	cis-1,2-Dichloroethene	38.4		5.0	1.3
10061-01-5	cis-1,3-Dichloropropene	43.0		5.0	2.2
75-27-4	Bromodichloromethane	45.6		5.0	2.0
100-41-4	Ethylbenzene	38.5		5.0	2.0
106-93-4	1,2-Dibromoethane (EDB)	40.6		5.0	2.1
1634-04-4	Methyl tert-butyl ether	43.8		5.0	2.5
75-09-2	Methylene Chloride	34.8		5.0	0.56
100-42-5	Styrene	39.1		5.0	2.3
127-18-4	Tetrachloroethene	43.6		5.0	1.2
108-88-3	Toluene	39.3		5.0	3.6
156-60-5	trans-1,2-Dichloroethene	37.3		5.0	1.0
10061-02-6	trans-1,3-Dichloropropene	43.2		5.0	2.4
79-01-6	Trichloroethene	39.9		5.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-206745/3-A

Matrix: Solid | Lab File ID: 3032905.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5.0000(g) | Date Analyzed: 03/29/2017 10:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206732 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
107-13-1	Acrylonitrile	427		50	25
75-01-4	Vinyl chloride	31.6		5.0	2.6
1330-20-7	Xylenes, Total	77.4		10	4.6
74-97-5	Bromochloromethane	39.0		5.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1868-53-7	Dibromofluoromethane (Surr)	98		68-121
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		52-124
460-00-4	4-Bromofluorobenzene (Surr)	93		63-120
2037-26-5	Toluene-d8 (Surr)	94		72-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032905.D
Lims ID: LCSD 180-206745/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 29-Mar-2017 10:03:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 11:01:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.490	4.436	0.054	98	96032	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.349	7.350	-0.001	98	275951	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.440	10.440	0.000	91	62320	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.763	12.764	-0.001	94	100756	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.601	6.602	-0.001	94	58041	250.0	244.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.972	6.973	-0.001	93	80978	250.0	296.8	
$ 7 Toluene-d8 (Surr)	98	9.004	9.005	-0.001	93	252971	250.0	234.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.608	0.000	89	102075	250.0	233.1	
10 Dichlorodifluoromethane	85	1.643	1.644	-0.001	99	75527	200.0	216.7	
11 Chloromethane	50	1.813	1.814	-0.001	99	76869	200.0	155.8	
12 Vinyl chloride	62	1.947	1.960	-0.013	98	63987	200.0	157.8	
13 Butadiene	39	1.990	1.991	0.000	94	68323	200.0	183.3	
14 Bromomethane	94	2.306	2.301	0.005	91	24955	200.0	264.3	
15 Chloroethane	64	2.428	2.429	-0.001	99	27176	200.0	269.1	
16 Dichlorofluoromethane	67	2.683	2.702	-0.019	98	67516	200.0	186.5	
17 Trichlorofluoromethane	101	2.714	2.745	-0.031	96	55708	200.0	209.0	
19 Ethyl ether	59	3.164	3.159	0.005	95	52194	200.0	210.3	
20 Acrolein	56	3.328	3.323	0.005	98	37843	875.0	838.5	
21 1,1-Dichloroethene	96	3.407	3.432	-0.025	96	54967	200.0	182.8	
22 1,1,2-Trichloro-1,2,2-trif	101	3.510	3.530	-0.020	90	55803	200.0	189.7	
23 Acetone	43	3.596	3.584	0.012	97	15449	200.0	216.1	
24 Iodomethane	142	3.614	3.639	-0.025	98	82009	200.0	202.8	M
25 Carbon disulfide	76	3.748	3.767	-0.019	97	142026	200.0	173.6	
28 3-Chloro-1-propene	76	4.015	4.016	-0.001	91	32270	200.0	189.1	
29 Methyl acetate	43	4.125	4.114	0.011	99	187209	1000.0	1076.3	
30 Methylene Chloride	84	4.210	4.223	-0.013	98	62399	200.0	173.9	
31 2-Methyl-2-propanol	59	4.612	4.558	0.054	98	49586	2000.0	2058.6	
32 Acrylonitrile	53	4.636	4.631	0.005	97	200089	2000.0	2136.8	
33 trans-1,2-Dichloroethene	96	4.636	4.649	-0.013	62	58917	200.0	186.4	
34 Methyl tert-butyl ether	73	4.703	4.698	0.005	96	149066	200.0	218.8	
35 Hexane	57	5.068	5.075	-0.007	93	114430	200.0	202.7	
36 1,1-Dichloroethane	63	5.244	5.251	-0.007	97	110052	200.0	198.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 Vinyl acetate	43	5.378	5.373	0.005	97	101809	200.0	226.2	
41 2,2-Dichloropropane	77	5.999	6.000	-0.001	61	82845	200.0	215.8	
42 cis-1,2-Dichloroethene	96	6.011	6.012	-0.001	84	66759	200.0	191.9	
43 2-Butanone (MEK)	43	6.072	6.066	0.006	99	23622	200.0	225.9	
47 Chlorobromomethane	128	6.297	6.298	-0.001	94	25555	200.0	195.1	
48 Tetrahydrofuran	42	6.382	6.371	0.011	90	29918	400.0	435.9	
49 Chloroform	83	6.418	6.419	-0.001	93	106726	200.0	214.2	
50 1,1,1-Trichloroethane	97	6.613	6.614	-0.001	98	85716	200.0	230.7	
51 Cyclohexane	56	6.668	6.675	-0.007	91	129575	200.0	192.7	
53 Carbon tetrachloride	117	6.802	6.803	-0.001	94	61135	200.0	219.5	
52 1,1-Dichloropropene	75	6.802	6.803	-0.001	94	85163	200.0	209.4	
54 Isobutyl alcohol	41	7.039	7.022	0.017	45	35419	5000.0	5832.0	
55 Benzene	78	7.033	7.034	-0.001	97	233107	200.0	193.1	
56 1,2-Dichloroethane	62	7.057	7.058	-0.001	98	80830	200.0	246.2	
59 n-Heptane	43	7.361	7.368	-0.007	93	113685	200.0	215.3	
60 Trichloroethene	130	7.745	7.745	0.000	98	58621	200.0	199.4	
63 Methylcyclohexane	83	7.945	7.952	-0.007	95	119682	200.0	187.3	
64 1,2-Dichloropropane	63	7.976	7.977	-0.001	92	56859	200.0	195.0	
65 Dibromomethane	93	8.097	8.098	-0.001	92	27853	200.0	202.8	
67 1,4-Dioxane	88	8.134	8.129	0.005	98	9911	4000.0	4244.5	
68 Dichlorobromomethane	83	8.268	8.275	-0.007	98	63997	200.0	227.9	
70 2-Chloroethyl vinyl ether	63	8.590	8.591	-0.001	92	65381	400.0	445.3	
71 cis-1,3-Dichloropropene	75	8.730	8.731	-0.001	94	82720	200.0	214.9	
72 4-Methyl-2-pentanone (MIBK	43	8.894	8.895	-0.001	96	45021	200.0	221.6	
73 Toluene	91	9.071	9.072	-0.001	98	245486	200.0	196.4	
74 trans-1,3-Dichloropropene	75	9.290	9.291	-0.001	95	68553	200.0	216.2	
75 Ethyl methacrylate	69	9.393	9.394	-0.001	91	63703	200.0	217.6	
76 1,1,2-Trichloroethane	97	9.472	9.473	-0.001	93	42513	200.0	198.6	
77 Tetrachloroethene	164	9.618	9.619	-0.001	99	51392	200.0	217.9	
78 1,3-Dichloropropane	76	9.637	9.637	0.000	94	77874	200.0	200.4	
79 2-Hexanone	43	9.728	9.729	-0.001	96	31813	200.0	239.8	
81 Chlorodibromomethane	129	9.868	9.863	0.005	90	37748	200.0	195.2	
82 Ethylene Dibromide	107	9.977	9.978	-0.001	99	41820	200.0	203.2	
83 Chlorobenzene	112	10.470	10.471	-0.001	91	157870	200.0	194.1	
85 1,1,1,2-Tetrachloroethane	131	10.549	10.550	-0.001	92	49395	200.0	213.2	
86 Ethylbenzene	106	10.579	10.580	-0.001	99	87385	200.0	192.6	
87 m-Xylene & p-Xylene	106	10.695	10.696	-0.001	99	110313	200.0	193.3	
88 o-Xylene	106	11.090	11.091	-0.001	96	108052	200.0	193.4	
89 Styrene	104	11.103	11.104	-0.001	92	179411	200.0	195.6	
90 Bromoform	173	11.285	11.286	-0.001	97	22415	200.0	206.8	
91 Isopropylbenzene	105	11.462	11.456	0.006	97	298594	200.0	198.8	
93 1,1,2,2-Tetrachloroethane	83	11.741	11.742	-0.001	95	52658	200.0	196.1	
94 Bromobenzene	156	11.760	11.761	-0.001	95	67698	200.0	209.4	
95 1,2,3-Trichloropropane	110	11.790	11.791	-0.001	83	17520	200.0	210.5	
96 trans-1,4-Dichloro-2-buten	53	11.802	11.803	-0.001	76	16894	200.0	224.8	
97 N-Propylbenzene	120	11.869	11.870	-0.001	99	76242	200.0	182.1	
98 2-Chlorotoluene	126	11.954	11.955	-0.001	95	63365	200.0	182.9	
99 1,3,5-Trimethylbenzene	105	12.046	12.040	0.006	94	252500	200.0	199.3	
100 4-Chlorotoluene	126	12.064	12.065	-0.001	98	63577	200.0	183.4	
101 tert-Butylbenzene	119	12.374	12.375	-0.001	92	217817	200.0	194.6	
103 1,2,4-Trimethylbenzene	105	12.417	12.418	-0.001	96	256668	200.0	196.0	
104 sec-Butylbenzene	105	12.593	12.594	-0.001	95	320925	200.0	187.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.697	12.703	-0.006	97	135181	200.0	200.4	
106 4-Isopropyltoluene	119	12.733	12.734	-0.001	96	261006	200.0	191.7	
107 1,4-Dichlorobenzene	146	12.788	12.789	-0.001	93	130433	200.0	198.2	
110 n-Butylbenzene	91	13.147	13.148	-0.001	98	256534	200.0	189.5	
111 1,2-Dichlorobenzene	146	13.165	13.160	0.005	96	122218	200.0	200.4	
112 1,2-Dibromo-3-Chloropropan	75	13.938	13.932	0.006	82	7961	200.0	193.8	
114 1,2,4-Trichlorobenzene	180	14.777	14.778	-0.001	94	98138	200.0	217.7	
115 Hexachlorobutadiene	225	14.953	14.954	-0.001	94	60451	200.0	217.8	
116 Naphthalene	128	15.026	15.027	-0.001	98	172742	200.0	202.7	
117 1,2,3-Trichlorobenzene	180	15.276	15.277	-0.001	94	81857	200.0	218.6	
S 129 Xylenes, Total	106				0		400.0	386.7	
S 130 1,2-Dichloroethene, Total	96				0		400.0	378.4	
S 131 1,3-Dichloropropene, Total	1				0		400.0	431.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00235	Amount Added:	8.00	Units: uL	
voaW2clev2ndR_00019	Amount Added:	8.00	Units: uL	
voaWAcro2ndRe_00011	Amount Added:	35.00	Units: uL	
voaWva2ndRete_00001	Amount Added:	8.00	Units: uL	
VOA8260INT_00067	Amount Added:	10.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added:	10.00	Units: uL	Run Reagent

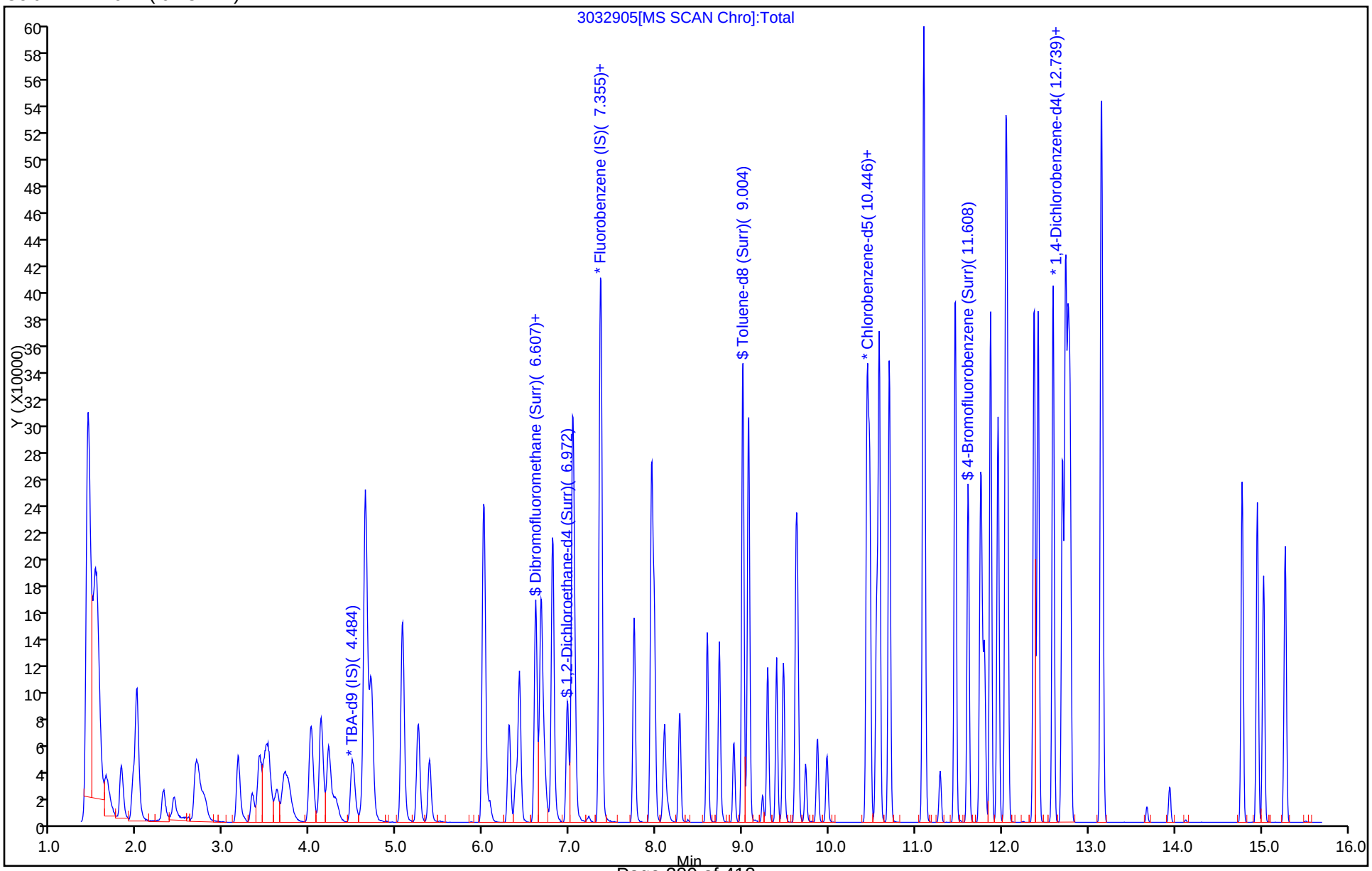
Report Date: 29-Mar-2017 14:04:33 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032905.D

Injection Date:	29-Mar-2017 10:03:30	Instrument ID:	CHHP3	Operator ID:	034635
Lims ID:	LCSD 180-206745/3-A			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\3032905.D
Lims ID: LCSD 180-206745/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 29-Mar-2017 10:03:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Operator ID: 034635 Instrument ID: CHHP3

Method: \\ChromNA\Pittsburgh\ChromData\CHHP3\20170329-16077.b\MSVOA_S_CHHP3.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Mar-2017 14:03:32 Calib Date: 28-Sep-2016 14:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP3\20160928-13637.b\30928K10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: journetp Date: 29-Mar-2017 11:01:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	250.0	244.9	97.96
$ 6 1,2-Dichloroethane-d4 (Surr)	250.0	296.8	118.73
$ 7 Toluene-d8 (Surr)	250.0	234.4	93.77
$ 8 4-Bromofluorobenzene (Surr)	250.0	233.1	93.23

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP3 Start Date: 09/28/2016 10:45

Analysis Batch Number: 189436 End Date: 09/28/2016 16:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-189436/1		09/28/2016 10:45	1	30928K01.D	DB-624 0.18(mm)
IC 180-189436/4		09/28/2016 12:01	1	30928K04.D	DB-624 0.18(mm)
IC 180-189436/5		09/28/2016 12:24	1	30928K05.D	DB-624 0.18(mm)
IC 180-189436/6		09/28/2016 12:47	1	30928K06.D	DB-624 0.18(mm)
ICIS 180-189436/7		09/28/2016 13:10	1	30928K07.D	DB-624 0.18(mm)
IC 180-189436/8		09/28/2016 13:33	1	30928K08.D	DB-624 0.18(mm)
IC 180-189436/9		09/28/2016 13:56	1	30928K09.D	DB-624 0.18(mm)
IC 180-189436/10		09/28/2016 14:19	1	30928K10.D	DB-624 0.18(mm)
ZZZZZ		09/28/2016 15:51	1		DB-624 0.18(mm)
ICV 180-189436/16		09/28/2016 16:37	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP3 Start Date: 03/29/2017 07:22

Analysis Batch Number: 206732 End Date: 03/29/2017 16:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-206732/1		03/29/2017 07:22	1	3032901.D	DB-624 0.18(mm)
CCVIS 180-206732/2		03/29/2017 08:35	1	3032902A.D	DB-624 0.18(mm)
LCS 180-206745/2-A		03/29/2017 09:40	1	3032904.D	DB-624 0.18(mm)
LCSD 180-206745/3-A		03/29/2017 10:03	1	3032905.D	DB-624 0.18(mm)
ZZZZZ		03/29/2017 10:25	1		DB-624 0.18(mm)
MB 180-206745/1-A		03/29/2017 11:10	1	3032908.D	DB-624 0.18(mm)
180-64650-1		03/29/2017 11:33	1	3032909.D	DB-624 0.18(mm)
180-64650-2		03/29/2017 11:55	1	3032910.D	DB-624 0.18(mm)
180-64650-3		03/29/2017 12:18	1	3032911.D	DB-624 0.18(mm)
180-64650-4		03/29/2017 12:40	1	3032912.D	DB-624 0.18(mm)
180-64650-5		03/29/2017 13:03	1	3032913.D	DB-624 0.18(mm)
180-64650-6		03/29/2017 13:25	1	3032914.D	DB-624 0.18(mm)
180-64650-7		03/29/2017 13:48	1	3032915.D	DB-624 0.18(mm)
180-64650-8		03/29/2017 14:10	1	3032916.D	DB-624 0.18(mm)
ZZZZZ		03/29/2017 14:42	1		DB-624 0.18(mm)
180-64650-9		03/29/2017 16:41	1	3032922.D	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Batch Number: 206745 Batch Start Date: 03/29/17 07:00 Batch Analyst: Journet, Patrick

Batch Method: 5035 Batch End Date: 03/29/17 07:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	AnalysisComment			
MB 180-206745/1		5035, 8260C		5.0000 g	5 mL				
LCS 180-206745/2		5035, 8260C		5.0000 g	5 mL				
LCSD 180-206745/3		5035, 8260C		5.0000 g	5 mL				
180-64650-B-1	HD-SPBA-SB-006-0/1-0	5035, 8260C	T	5.0861 g	5 mL	+030.180			
180-64650-B-2	HD-SPBA-SB-006-5/5.5-0	5035, 8260C	T	5.6074 g	5 mL	+030.251			
180-64650-B-3	HD-SPBA-SB-006-10/10.5-0	5035, 8260C	T	6.6558 g	5 mL	+029.972			
180-64650-B-4	HD-SPBA-SB-006-15/15.5-0	5035, 8260C	T	7.3014 g	5 mL	+029.813			
180-64650-B-5	HD-SPBA-SB-006-20/20.5-0	5035, 8260C	T	6.4913 g	5 mL	+030.491			
180-64650-B-6	HD-SPBA-SB-006-25/25.5-0	5035, 8260C	T	6.2162 g	5 mL	+030.327			
180-64650-B-7	HD-SPBA-SB-006-30/30.5-0	5035, 8260C	T	8.0990 g	5 mL	+029.900			
180-64650-B-8	HD-SPBA-SB-006-35/35.5-0	5035, 8260C	T	7.3052 g	5 mL	+030.097			
180-64650-C-9	HD-SPBA-SB-006-40/40.5-0	5035, 8260C	T	7.2465 g	5 mL	+029.673			

Batch Notes	
Batch Comment	14234771

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

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.: 180-64650-1

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-QC1-0/1-2	180-64650-10	105	96	93	99
	MB 180-206859/5	100	99	100	103
	LCS 180-206859/10	95	97	101	100

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	77-127
DCA = 1,2-Dichloroethane-d4 (Surr)	72-134
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	72-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60330010.D

Lab ID: LCS 180-206859/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.2	102	51-150	
Vinyl chloride	10.0	10.5	105	61-138	
Bromomethane	10.0	10.8	108	39-150	
Chloroethane	10.0	10.9	109	53-148	
1,1-Dichloroethene	10.0	9.73	97	71-122	
Acetone	20.0	22.0	110	10-150	
Carbon disulfide	10.0	9.43	94	57-137	
Methylene Chloride	10.0	9.78	98	71-129	
trans-1,2-Dichloroethene	10.0	10.1	101	80-121	
Methyl tert-butyl ether	10.0	9.93	99	68-124	
1,1-Dichloroethane	10.0	9.89	99	76-126	
cis-1,2-Dichloroethene	10.0	10.1	101	80-120	
Bromochloromethane	10.0	9.42	94	76-120	
2-Butanone (MEK)	20.0	23.2	116	41-150	
Chloroform	10.0	9.75	98	78-122	
1,1,1-Trichloroethane	10.0	10.2	102	57-128	
Carbon tetrachloride	10.0	10.3	103	59-145	
Benzene	10.0	10.2	102	80-121	
1,2-Dichloroethane	10.0	9.52	95	72-126	
Trichloroethene	10.0	9.52	95	79-120	
1,2-Dichloropropane	10.0	9.57	96	78-123	
Bromodichloromethane	10.0	9.14	91	72-124	
cis-1,3-Dichloropropene	10.0	9.06	91	67-127	
4-Methyl-2-pentanone (MIBK)	20.0	19.5	97	49-147	
Toluene	10.0	10.4	104	80-125	
trans-1,3-Dichloropropene	10.0	9.03	90	63-144	
1,1,2-Trichloroethane	10.0	10.2	102	77-127	
Tetrachloroethene	10.0	10.0	100	80-122	
2-Hexanone	20.0	23.4	117	40-150	
Dibromochloromethane	10.0	8.90	89	71-134	
1,2-Dibromoethane (EDB)	10.0	9.71	97	79-126	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.56	96	75-135	
Ethylbenzene	10.0	10.2	102	80-123	
Xylenes, Total	20.0	20.7	104	80-123	
Styrene	10.0	10.4	104	80-125	
Bromoform	10.0	8.58	86	62-138	
1,1,2,2-Tetrachloroethane	10.0	10.6	106	78-135	
Acrylonitrile	100	106	106	66-146	
1,4-Dioxane	200	270	135	10-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab File ID: 60330005.D Lab Sample ID: MB 180-206859/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHHP6 Date Analyzed: 03/30/2017 10:50

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-206859/10	60330010.D	03/30/2017 13:03
HD-QC1-0/1-2	180-64650-10	60330022.D	03/30/2017 17:55

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab File ID: 60327004.D BFB Injection Date: 03/27/2017

Instrument ID: CHHP6 BFB Injection Time: 11:25

Analysis Batch No.: 206518

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.5	
75	30.0 - 60.0 % of mass 95	50.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	74.6	
175	5.0 - 9.0 % of mass 174	3.9	(5.2) 1
176	95.0 - 101.0 % of mass 174	72.5	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.4	(6.0) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-206518/6	60327006.D	03/27/2017	12:56
	IC 180-206518/7	60327007.D	03/27/2017	13:20
	ICIS 180-206518/8	60327008.D	03/27/2017	13:45
	IC 180-206518/9	60327009.D	03/27/2017	14:09
	IC 180-206518/10	60327010.D	03/27/2017	14:33
	IC 180-206518/11	60327011.D	03/27/2017	14:57
	IC 180-206518/12	60327012.D	03/27/2017	15:21
	IC 180-206518/13	60327013.D	03/27/2017	15:45

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab File ID: 60330001.D BFB Injection Date: 03/30/2017

Instrument ID: CHHP6 BFB Injection Time: 08:53

Analysis Batch No.: 206859

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.3	
75	30.0 - 60.0 % of mass 95	51.1	
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	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	73.7	
175	5.0 - 9.0 % of mass 174	5.8	(7.9) 1
176	95.0 - 101.0 % of mass 174	71.5	(97.0) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.6) 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 180-206859/2	60330002.D	03/30/2017	09:32
	CCV 180-206859/3	60330003.D	03/30/2017	09:58
	MB 180-206859/5	60330005.D	03/30/2017	10:50
	LCS 180-206859/10	60330010.D	03/30/2017	13:03
HD-QC1-0/1-2	180-64650-10	60330022.D	03/30/2017	17:55

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Sample No.: CCVIS 180-206859/2 Date Analyzed: 03/30/2017 09:32

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60330002.D Heated Purge: (Y/N) N

Calibration ID: 34317

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		163995	4.06	371452	7.12	80590	10.23
UPPER LIMIT		327990	4.56	742904	7.62	161180	10.73
LOWER LIMIT		81998	3.56	185726	6.62	40295	9.73
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-206859/3		131445	4.04	354643	7.12	76608	10.24
MB 180-206859/5		95114	4.04	292263	7.12	73241	10.24
LCS 180-206859/10		139220	4.07	364822	7.12	80015	10.24
180-64650-10	HD-QC1-0/1-2	151297	4.06	290759	7.12	74268	10.24

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = 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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Sample No.: CCVIS 180-206859/2 Date Analyzed: 03/30/2017 09:32

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60330002.D Heated Purge: (Y/N) N

Calibration ID: 34317

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		134021	12.58				
UPPER LIMIT		268042	13.08				
LOWER LIMIT		67011	12.08				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-206859/3		122270	12.58				
MB 180-206859/5		122595	12.58				
LCS 180-206859/10		137208	12.58				
180-64650-10	HD-QC1-0/1-2	116317	12.58				

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 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 | Lab Sample ID: 180-64650-10

Matrix: Water | Lab File ID: 60330022.D

Analysis Method: 8260C | Date Collected: 03/27/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 17:55

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.: 206859 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U ^c	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U ^c	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 | Lab Sample ID: 180-64650-10

Matrix: Water | Lab File ID: 60330022.D

Analysis Method: 8260C | Date Collected: 03/27/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 17:55

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.: 206859 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U ^c	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		72-134
2037-26-5	Toluene-d8 (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		72-120
1868-53-7	Dibromofluoromethane (Surr)	105		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330022.D
Lims ID: 180-64650-A-10
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 30-Mar-2017 17:55:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-022
Misc. Info.: 180-64650-A-10
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2017 08:05:05 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 31-Mar-2017 08:05:04

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.056	4.043	0.013	88	151297	1000.0	
*	2 Fluorobenzene (IS)	96	7.122	7.121	0.001	98	290759	50.0	
*	3 Chlorobenzene-d5	119	10.237	10.236	0.001	91	74268	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.579	12.578	0.001	98	116317	50.0	
$	5 Dibromofluoromethane (Surr	113	6.392	6.389	0.003	93	68511	52.4	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.769	6.760	0.009	69	96950	47.8	
$	7 Toluene-d8 (Surr)	98	8.783	8.780	0.003	94	271406	46.6	
$	8 4-Bromofluorobenzene (Surr	95	11.423	11.420	0.003	84	121999	49.6	
	12 Chloromethane	50		1.662				ND	
	13 Vinyl chloride	62		1.784				ND	
	15 Bromomethane	94		2.106				ND	
	16 Chloroethane	64		2.246				ND	
	22 1,1-Dichloroethene	96		3.165				ND	
	24 Acetone	43	3.259	3.262	-0.003	97	7425	12.7	
	26 Carbon disulfide	76		3.438				ND	
	31 Methylene Chloride	84	3.928	3.925	0.003	93	5327	2.69	
	33 Acrylonitrile	53		4.321				ND	
	34 trans-1,2-Dichloroethene	96		4.357				ND	
	35 Methyl tert-butyl ether	73		4.369				ND	
	37 1,1-Dichloroethane	63		5.002				ND	
	43 cis-1,2-Dichloroethene	96		5.762				ND	
	44 2-Butanone (MEK)	43		5.775				ND	
	48 Chlorobromomethane	128		6.054				ND	
	50 Chloroform	83		6.206				ND	
	51 1,1,1-Trichloroethane	97		6.365				ND	
	53 Carbon tetrachloride	117		6.535				ND	
	56 Benzene	78		6.766				ND	
	57 1,2-Dichloroethane	62		6.845				ND	
	61 Trichloroethene	130		7.514				ND	
	64 1,2-Dichloropropane	63		7.782				ND	
	65 1,4-Dioxane	88		7.873				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.068				ND	
71 cis-1,3-Dichloropropene	75		8.518				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.676				ND	
73 Toluene	91		8.847				ND	
74 trans-1,3-Dichloropropene	75		9.102				ND	
76 1,1,2-Trichloroethane	97		9.291				ND	
77 Tetrachloroethene	164		9.364				ND	
79 2-Hexanone	43		9.510				ND	
81 Chlorodibromomethane	129		9.662				ND	
82 Ethylene Dibromide	107		9.771				ND	
84 Chlorobenzene	112		10.264				ND	
86 1,1,1,2-Tetrachloroethane	131		10.361				ND	
87 Ethylbenzene	106		10.368				ND	
88 m-Xylene & p-Xylene	106		10.495				ND	
89 o-Xylene	106		10.879				ND	
90 Styrene	104		10.897				ND	
91 Bromoform	173		11.079				ND	
96 1,1,2,2-Tetrachloroethane	83		11.566				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added:	2.00	Units: uL	Run Reagent

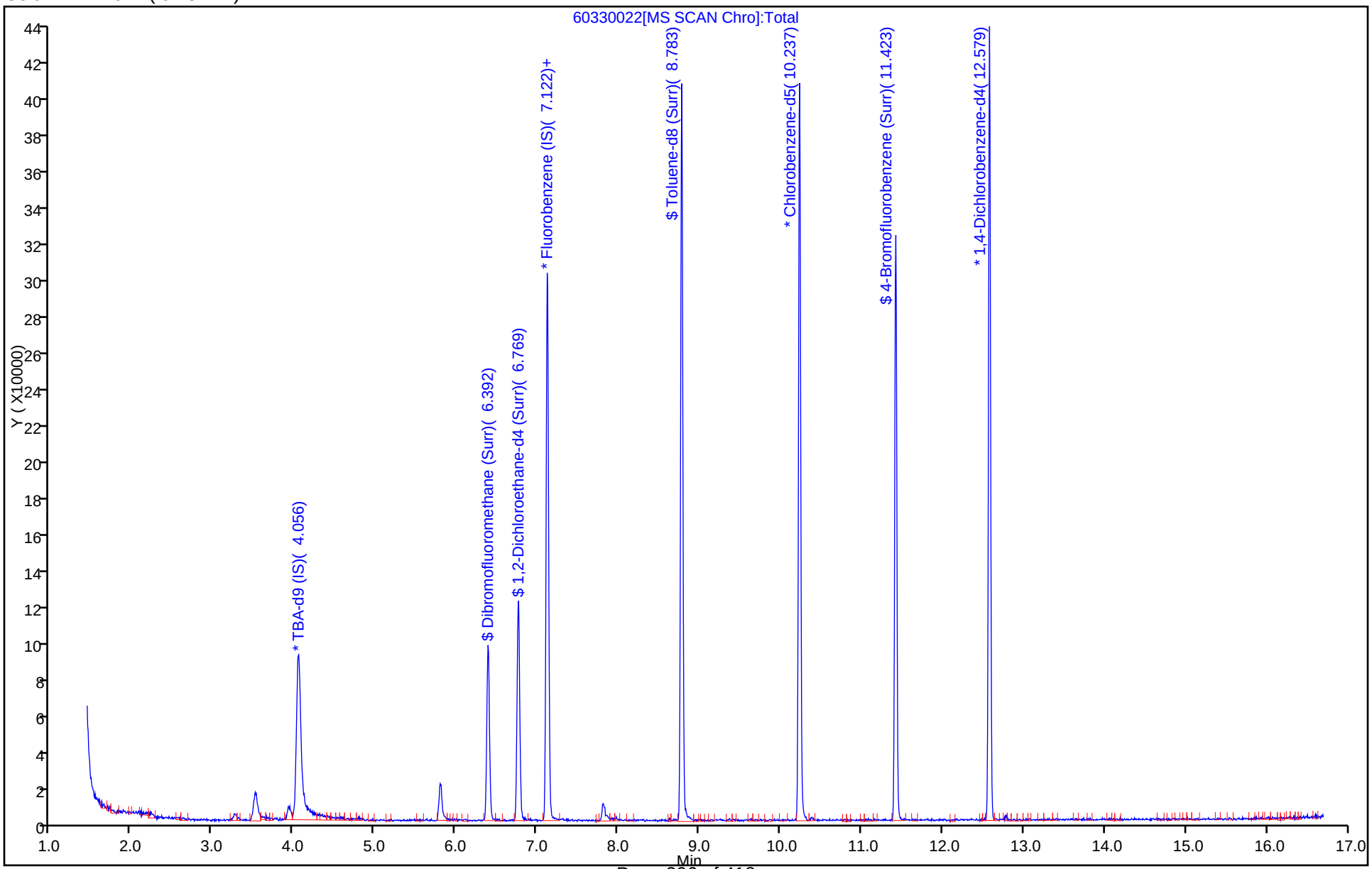
Report Date: 31-Mar-2017 08:05:05 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330022.D

Injection Date:	30-Mar-2017 17:55:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-64650-A-10	Lab Sample ID:	180-64650-10	Worklist Smp#:	22
Client ID:	HD-QC1-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330022.D
Lims ID: 180-64650-A-10
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 30-Mar-2017 17:55:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-022
Misc. Info.: 180-64650-A-10
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2017 08:05:05 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 31-Mar-2017 08:05:04

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	52.4	104.81
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.8	95.57
$ 7 Toluene-d8 (Surr)	50.0	46.6	93.27
$ 8 4-Bromofluorobenzene (Surr)	50.0	49.6	99.23

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-206518/6	60327006.D
Level 2	IC 180-206518/7	60327007.D
Level 3	ICIS 180-206518/8	60327008.D
Level 4	IC 180-206518/9	60327009.D
Level 5	IC 180-206518/10	60327010.D
Level 6	IC 180-206518/11	60327011.D
Level 7	IC 180-206518/12	60327012.D
Level 8	IC 180-206518/13	60327013.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3377 0.3140	0.3016 0.3099	0.3165 0.3219	0.3103	0.3184	Ave		0.3163			0.1000	3.4		20.0			
Chloromethane	0.4966 0.3816	0.3984 0.3917	0.4199 0.4033	0.4202	0.4114	Ave		0.4154			0.1000	8.5		20.0			
Vinyl chloride	0.3996 0.3406	0.3392 0.3283	0.3501 0.3420	0.3524	0.3475	Ave		0.3500			0.1000	6.1		20.0			
1,3-Butadiene	0.4440 0.3637	0.3594 0.3505	0.3802 0.3612	0.3767	0.3701	Ave		0.3757			0.0100	7.8		20.0			
Bromomethane	0.0915 0.0989	0.0918 0.0996	0.1103 0.1031	0.0959	0.1064	Ave		0.0997			0.0500	6.7		20.0			
Chloroethane	0.1756 0.1507	0.1491 0.1508	0.1704 0.1472	0.1642	0.1658	Ave		0.1592			0.0500	6.9		20.0			
Trichlorofluoromethane	0.2129 0.2195	0.1945 0.2272	0.2384 0.2423	0.2267	0.2275	Ave		0.2236			0.1000	6.7		20.0			
Ethyl ether	0.3445 0.3441	0.3269 0.3385	0.3333 0.3390	0.3388	0.3572	Ave		0.3403			0.0100	2.6		20.0			
Acrolein	0.0883 0.0975	0.0842 0.0947	0.0826 0.0963	0.0954	0.0943	Ave		0.0917			0.0100	6.3		20.0			
1,1-Dichloroethene	0.2845 0.2740	0.2500 0.2646	0.2579 0.2729	0.2747	0.2713	Ave		0.2687			0.1000	4.0		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2917 0.2596	0.2451 0.2476	0.2553 0.2599	0.2659	0.2622	Ave		0.2609			0.1000	5.5		20.0			
Acetone	0.1149 0.1101	0.0991 0.1005	0.0791 0.1009	0.1102	0.0892	Ave		0.1005			0.0500	11.8		20.0			
Iodomethane	0.3696 0.3635	0.3180 0.3686	0.3490 0.3794	0.3606	0.3760	Ave		0.3606			0.0100	5.4		20.0			
Carbon disulfide	0.5481 0.6593	0.5034 0.6650	0.5596 0.7005	0.6029	0.6281	Ave		0.6084			0.1000	11.1		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.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Allyl chloride	0.1142 0.1711	0.1224 0.1686	0.1438 0.1768	0.1535	0.1675	Ave		0.1523			0.0100	15.4		20.0			
Methyl acetate	0.3341 0.3329	0.3148 0.3348	0.3103 0.3311	0.3354	0.3376	Ave		0.3289			0.1000	3.1		20.0			
Methylene Chloride	0.4050 0.3289	0.3199 0.3308	0.3313 0.3364	0.3300	0.3444	Ave		0.3408			0.1000	7.9		20.0			
tert-Butyl alcohol	1.2618 1.3370	1.2990 1.2760	1.0826 1.1421	1.2992	1.2003	Ave		1.2372			0.0100	7.1		20.0			
Acrylonitrile	0.1698 0.1726	0.1586 0.1723	0.1518 0.1679	0.1764	0.1724	Ave		0.1677			0.0100	4.9		20.0			
trans-1,2-Dichloroethene	0.2927 0.2947	0.2670 0.2936	0.2863 0.3034	0.2944	0.3036	Ave		0.2920			0.1000	4.0		20.0			
Methyl tert-butyl ether	0.8663 0.9227	0.8032 0.9248	0.8373 0.9304	0.8860	0.9208	Ave		0.8865			0.1000	5.3		20.0			
Hexane	0.5351 0.4925	0.4632 0.4861	0.4895 0.4974	0.4916	0.4987	Ave		0.4943			0.0100	4.0		20.0			
1,1-Dichloroethane	0.5636 0.5682	0.5098 0.5587	0.5392 0.5707	0.5502	0.5827	Ave		0.5554			0.2000	4.1		20.0			
Vinyl acetate	0.6069 0.7624	0.5715 0.7985	0.6079 0.8082	0.7195	0.7146	Ave		0.6987			0.0100	13.2		20.0			
2,2-Dichloropropane	0.0496 0.0586	0.0475 0.0567	0.0529 0.0597	0.0545	0.0564	Ave		0.0545			0.0100	7.9		20.0			
cis-1,2-Dichloroethene	0.3187 0.3391	0.3146 0.3445	0.3348 0.3471	0.3361	0.3518	Ave		0.3358			0.1000	3.9		20.0			
2-Butanone (MEK)	0.1691 0.1620	0.1512 0.1585	0.1276 0.1644	0.1550	0.1509	Ave		0.1548			0.0500	8.2		20.0			
Bromochloromethane	0.1409 0.1475	0.1280 0.1470	0.1415 0.1486	0.1413	0.1522	Ave		0.1434			0.0100	5.2		20.0			
Tetrahydrofuran	0.1662 0.1425	0.1340 0.1422	0.1208 0.1423	0.1400	0.1364	Ave		0.1406			0.0100	9.0		20.0			
Chloroform	0.5210 0.5317	0.4783 0.5288	0.5073 0.5281	0.5173	0.5414	Ave		0.5193			0.2000	3.7		20.0			
1,1,1-Trichloroethane	0.3235 0.3561	0.2981 0.3552	0.3327 0.3654	0.3448	0.3514	Ave		0.3409			0.1000	6.4		20.0			
Cyclohexane	0.7067 0.6634	0.6202 0.6333	0.6565 0.6460	0.6626	0.6765	Ave		0.6581			0.1000	4.0		20.0			
Carbon tetrachloride	0.2397 0.2651	0.2186 0.2658	0.2410 0.2725	0.2537	0.2599	Ave		0.2520			0.1000	7.1		20.0			
1,1-Dichloropropene	0.3913 0.4068	0.3733 0.3985	0.3880 0.3992	0.4066	0.4048	Ave		0.3961			0.0100	2.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0083 0.0105	0.0096 0.0093	0.0081 0.0087	0.0111	0.0090	Ave		0.0093		*	0.0100	11.3		20.0			
Benzene	1.2847 1.1691	1.1591 1.1526	1.1476 1.1607	1.1801	1.2334	Ave		1.1859			0.5000	4.1		20.0			
1,2-Dichloroethane	0.4548 0.4740	0.4204 0.4771	0.4447 0.4842	0.4541	0.4825	Ave		0.4615			0.1000	4.8		20.0			
n-Heptane	0.4321 0.4034	0.3879 0.3843	0.3794 0.4006	0.4011	0.4008	Ave		0.3987			0.0100	4.1		20.0			
Trichloroethene	0.2971 0.2831	0.2476 0.2748	0.2642 0.2775	0.2720	0.2839	Ave		0.2750			0.2000	5.4		20.0			
Methylcyclohexane	0.5422 0.5194	0.4845 0.4933	0.5175 0.4924	0.5189	0.5249	Ave		0.5116			0.1000	3.8		20.0			
1,2-Dichloropropane	0.3292 0.3259	0.2888 0.3195	0.2972 0.3253	0.3066	0.3277	Ave		0.3150			0.1000	4.9		20.0			
1,4-Dioxane	0.0017 0.0021	0.0018 0.0022	0.0017 0.0022	0.0021	0.0020	Ave		0.0020		*	0.0100	10.2		20.0			
Dibromomethane	0.1576 0.1865	0.1548 0.1904	0.1644 0.1899	0.1742	0.1853	Ave		0.1754			0.0100	8.4		20.0			
Bromodichloromethane	0.2597 0.3473	0.2459 0.3521	0.2767 0.3573	0.2964	0.3285	Ave		0.3080			0.2000	14.3		20.0			
2-Chloroethyl vinyl ether	0.1577 0.2004	0.1578 0.2084	0.1630 0.2085	0.1766	0.1952	Ave		0.1835			0.0100	12.1		20.0			
cis-1,3-Dichloropropene	0.2590 0.4342	0.2929 0.4411	0.3271 0.4448	0.3625	0.4148	Ave		0.3721			0.2000	19.5		20.0			
4-Methyl-2-pentanone (MIBK)	1.4380 1.6080	1.5846 1.6837	1.5578 1.6730	1.7362	1.7083	Ave		1.6237			0.1000	6.0		20.0			
Toluene	5.6661 4.6464	5.3385 4.7294	5.1809 4.6411	5.2922	5.1615	Ave		5.0820			0.4000	7.3		20.0			
trans-1,3-Dichloropropene	1.0624 1.5144	1.1636 1.6201	1.2333 1.6697	1.4160	1.4927	Ave		1.3965			0.1000	15.8		20.0			
Ethyl methacrylate	1.3028 1.7381	1.5249 1.8538	1.5880 1.8457	1.7615	1.7943	Ave		1.6761			0.0100	11.4		20.0			
1,1,2-Trichloroethane	1.1310 1.0749	1.1101 1.0853	1.0849 1.1452	1.0987	1.1371	Ave		1.1084			0.1000	2.4		20.0			
Tetrachloroethene	1.0389 0.8967	0.9340 0.9001	0.9287 0.8774	0.9855	0.9544	Ave		0.9395			0.2000	5.6		20.0			
1,3-Dichloropropane	2.1312 1.9178	1.9677 2.0081	1.9455 2.0145	2.0028	2.0654	Ave		2.0066			0.0100	3.4		20.0			
2-Hexanone	0.9067 0.9530	0.9215 1.0094	0.8747 1.0112	0.9810	0.9755	Ave		0.9541			0.1000	5.2		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.6655 0.9153	0.7577 0.9868	0.7809 0.9967	0.8803	0.9303	Ave		0.8642			0.1000	13.7		20.0			
1,2-Dibromoethane (EDB)	1.0136 1.0423	1.0448 1.0936	1.0064 1.0690	1.0764	1.0964	Ave		1.0553			0.1000	3.2		20.0			
3-Chlorobenzotrifluoride	1.8140 1.5922	1.8116 1.6036	1.7183 1.4375	1.7987	1.5729	Ave		1.6686			0.0100	8.3		20.0			
Chlorobenzene	3.7820 2.9956	3.4284 3.0419	3.2360 2.9646	3.3599	3.3346	Ave		3.2679			0.5000	8.4		20.0			
4-Chlorobenzotrifluoride	1.5772 1.5025	1.6427 1.5130	1.6194 1.3670	1.6519	1.4910	Ave		1.5456			0.0100	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.8739 1.0292	0.9706 1.0551	0.9809 1.0300	1.0938	1.1034	Ave		1.0171			0.0100	7.3		20.0			
Ethylbenzene	1.9122 1.7207	1.9003 1.6992	1.8231 1.6521	1.8844	1.8638	Ave		1.8070			0.1000	5.6		20.0			
m-Xylene & p-Xylene	2.3198 2.1742	2.2919 2.1390	2.2944 2.0726	2.3886	2.3548	Ave		2.2544			0.1000	5.0		20.0			
o-Xylene	2.3722 2.1349	2.3490 2.0940	2.3095 1.9994	2.3813	2.3251	Ave		2.2457			0.3000	6.5		20.0			
Styrene	3.4801 3.5668	3.7203 3.5469	3.6931 3.3890	3.8855	3.8899	Ave		3.6464			0.3000	5.0		20.0			
Bromoform	0.4030 0.6236	0.4837 0.6482	0.5017 0.6482	0.5872	0.6099	Ave		0.5632			0.1000	16.0		20.0			
2-Chlorobenzotrifluoride	1.8180 1.6265	1.7829 1.5668	1.7496 1.3739	1.8097	1.6446	Ave		1.6715			0.0100	9.1		20.0			
Isopropylbenzene	5.8256 5.0266	5.9926 4.8053	5.6298 4.4095	5.9880	5.6496	Ave		5.4159			0.1000	11.0		20.0			
Bromobenzene	0.8756 0.8843	0.8108 0.9390	0.8437 0.9451	0.8486	0.9243	Ave		0.8839			0.0100	5.5		20.0			
1,1,2,2-Tetrachloroethane	1.6636 1.6214	1.6792 1.6315	1.6527 1.5626	1.7649	1.7736	Ave		1.6687			0.3000	4.3		20.0			
trans-1,4-Dichloro-2-butene	0.3387 0.4361	0.3358 0.4629	0.3829 0.4773	0.3891	0.4181	Ave		0.4051			0.0100	13.1		20.0			
1,2,3-Trichloropropane	0.3723 0.3766	0.3285 0.4024	0.3434 0.3951	0.3475	0.3841	Ave		0.3687			0.0100	7.1		20.0			
N-Propylbenzene	0.8993 0.9855	0.8849 0.9819	0.9352 0.9556	0.9692	1.0021	Ave		0.9517			0.0100	4.4		20.0			
2-Chlorotoluene	0.8346 0.8638	0.7891 0.8378	0.8196 0.8353	0.8268	0.8755	Ave		0.8353			0.0100	3.2		20.0			
3-Chlorotoluene	0.8334 0.9209	0.8443 0.9277	0.9036 0.8742	0.8999	0.8750	Ave		0.8849			0.0100	3.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	2.9181 2.9406	2.8563 2.8275	2.9135 2.7417	3.0709	3.0999	Ave		2.9211			0.0100	4.1		20.0			
4-Chlorotoluene	0.9671 0.9221	0.8403 0.9398	0.8700 0.9230	0.8911	0.9482	Ave		0.9127			0.0100	4.7		20.0			
tert-Butylbenzene	2.2912 2.3637	2.3116 2.2480	2.3097 2.1705	2.4784	2.4478	Ave		2.3276			0.0100	4.3		20.0			
1,2,4-Trimethylbenzene	2.9855 3.0171	3.0019 2.9031	3.0162 2.8756	3.1803	3.2003	Ave		3.0225			0.0100	3.8		20.0			
3,4-Dichlorobenzotrifluoride	0.7918 0.8068	0.7749 0.7905	0.8111 0.7326	0.8168	0.7780	Ave		0.7878			0.0100	3.4		20.0			
sec-Butylbenzene	3.3929 3.3252	3.3467 3.1613	3.4182 3.0630	3.6394	3.5104	Ave		3.3571			0.0100	5.4		20.0			
1,3-Dichlorobenzene	1.6585 1.6528	1.5704 1.6572	1.6407 1.6274	1.6515	1.7333	Ave		1.6490			0.6000	2.7		20.0			
4-Isopropyltoluene	2.7946 2.7425	2.7742 2.6128	2.8300 2.6005	2.9973	2.9093	Ave		2.7827			0.0100	4.9		20.0			
1,4-Dichlorobenzene	1.8588 1.7155	1.6976 1.7137	1.6628 1.6939	1.7066	1.7752	Ave		1.7280			0.5000	3.6		20.0			
2,4-Dichlorobenzotrifluoride	0.6924 0.7509	0.7514 0.7548	0.7655 0.7254	0.7945	0.7466	Ave		0.7477			0.0100	4.0		20.0			
2,5-Dichlorobenzotrifluoride	0.7928 0.8397	0.8406 0.8025	0.8608 0.7682	0.8502	0.8044	Ave		0.8199			0.0100	4.0		20.0			
n-Butylbenzene	2.4443 2.4692	2.5138 2.4257	2.5702 2.3669	2.6951	2.6786	Ave		2.5205			0.0100	4.7		20.0			
1,2-Dichlorobenzene	1.6873 1.5570	1.5722 1.5355	1.5654 1.5385	1.5766	1.6347	Ave		1.5834			0.4000	3.3		20.0			
1,2-Dibromo-3-Chloropropane	0.1262 0.1693	0.1120 0.1816	0.1405 0.1917	0.1549	0.1564	Ave		0.1541			0.0500	17.6		20.0			
2,4- & 2,5- & 2,6- Dichlorotoluene	0.9313 1.0008	1.0784 1.0639	1.1198 1.0703	1.0834	1.0794	Ave		1.0534			0.0100	5.6		20.0			
2,3- & 3,4- Dichlorotoluene	0.9044 1.0472	1.1085 1.1789	1.1524 1.2417	1.0940	1.1462	Ave		1.1092			0.0100	9.1		20.0			
1,2,4-Trichlorobenzene	0.7368 0.7868	0.8280 0.9221	0.8905 1.0187	0.7705	0.9238	Ave		0.8597			0.2000	11.1		20.0			
Hexachlorobutadiene	0.2467 0.2922	0.2976 0.3598	0.3442 0.3939	0.3121	0.3390	Ave		0.3232			0.0100	14.1		20.0			
Naphthalene	1.7139 2.3011	2.1889 2.6723	2.4976 2.9185	2.2242	2.6215	Ave		2.3923			0.0100	15.5		20.0			
1,2,3-Trichlorobenzene	0.5314 0.6650	0.6665 0.8742	0.7821 0.9936	0.6336	0.7969	Ave		0.7429			0.0100	19.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2,4,5-Trichlorotoluene	0.2239 0.3977	0.3366 0.6360	0.4582 0.7280	0.2836	0.4577	Ave		0.4402			0.0100	38.9	*	20.0			
2,3,6-Trichlorotoluene	0.2276 0.3596	0.3012 0.5861	0.4224 0.6638	0.2694	0.4184	Ave		0.4061			0.0100	37.6	*	20.0			
Dibromofluoromethane (Surr)	0.2195 0.2377	0.2203 0.2204	0.2311 0.2273	0.2172	0.2250	Ave		0.2248				3.1		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3623 0.3541	0.3472 0.3403	0.3506 0.3440	0.3420	0.3508	Ave		0.3489				2.1		20.0			
Toluene-d8 (Surr)	4.4495 3.6032	4.4332 3.3781	4.3242 3.4076	3.9565	3.7927	Ave		3.9181				11.3		20.0			
4-Bromofluorobenzene (Surr)	1.9215 1.5444	1.8581 1.4762	1.7297 1.4094	1.6710	1.6335	Ave		1.6555				10.8		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-206518/6	60327006.D
Level 2	IC 180-206518/7	60327007.D
Level 3	ICIS 180-206518/8	60327008.D
Level 4	IC 180-206518/9	60327009.D
Level 5	IC 180-206518/10	60327010.D
Level 6	IC 180-206518/11	60327011.D
Level 7	IC 180-206518/12	60327012.D
Level 8	IC 180-206518/13	60327013.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	12644 386249	57271 432588	112691 539286	168133	216483	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	18595 469398	75653 546750	149511 675483	227692	279721	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	14964 419021	64415 458366	124641 572838	190975	236286	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	16626 447322	68236 489360	135357 605076	204115	251666	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	3426 121628	17424 139014	39287 172658	51952	72319	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	6577 185415	28313 210533	60681 246616	88953	112754	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	7971 269948	36927 317157	84894 405930	122842	154725	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	12899 423272	62068 472610	118652 567803	183576	242903	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	66123 154150	79970 165269	88178 177439	120650	128285	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	10654 337006	47462 369316	91807 457102	148825	184505	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	10923 319280	46539 345714	90880 435427	144103	178311	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	21511 270747	37639 280673	56344 338049	119390	121339	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	13840 447128	60382 514550	124245 635466	195389	255641	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	20524 811028	95585 928263	199236 1173468	326677	427112	5.00 175	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	4276 210508	23248 235373	51212 296191	83179	113929	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.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

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	62558 2047269	298891 2336669	552464 2773319	908745	1147895	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	15167 404568	60744 461756	117958 563464	178789	234202	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd9	Ave	7774 313235	44805 281823	52099 300565	152648	136791	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	63578 2122598	301159 2405462	540596 2812632	955621	1172162	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	10961 362494	50706 409844	101938 508196	159544	206418	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	32441 1134990	152513 1290992	298117 1558561	480085	626157	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	20036 605821	87958 678558	174280 833250	266370	339107	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	21103 698877	96791 779914	191981 955957	298153	396245	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	22727 937809	108515 1114756	216434 1353786	389887	485922	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	1858 72047	9010 79219	18851 100047	29523	38326	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	11933 417106	59736 480870	119205 581418	182097	239234	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	31666 398537	57437 442469	90862 550640	167937	205167	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5276 181479	24300 205188	50373 248977	76573	103507	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	12446 350607	50880 396935	86006 476741	151749	185555	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	19510 654005	90824 738259	180628 884552	280324	368143	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	12115 438065	56604 495923	118447 612106	186824	238939	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	26463 816007	117761 884031	233741 1082089	359022	460014	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	8975 326097	41501 370990	85817 456456	137463	176699	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	14653 500444	70887 556252	138130 668623	220326	275270	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	7744 322987	45763 325474	71916 364924	150534	153846	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	48107 1438026	220094 1608994	408593 1944268	639443	838690	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.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

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	17032 583074	79825 666080	158313 811041	246081	328081	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16179 496246	73662 536421	135077 671070	217321	272528	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	11127 348273	47018 383676	94065 464754	147368	193061	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	20302 638935	92000 688662	184256 824811	281154	356941	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	12327 400856	54830 446014	105807 544821	166135	222838	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1275 51981	6816 60789	12422 72713	23260	27130	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	5901 229349	29388 265736	58537 318117	94415	125984	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	9723 427199	46692 491490	98502 598471	160628	223370	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	11808 492899	59938 581859	116067 698644	191438	265478	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	9697 534152	55613 615782	116468 745142	196404	282086	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	55579 980569	123739 1118765	238510 1326644	408528	530164	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	43799 1416679	208443 1571282	396623 1840176	622636	800917	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	8212 461730	45432 538256	94419 662019	166589	231620	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	10071 529941	59538 615910	121572 731800	207248	278418	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	8743 327724	43344 360571	83055 454076	129266	176445	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	8031 273412	36469 299049	71099 347882	115941	148096	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	16474 584732	76829 667158	148935 798739	235636	320485	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	35045 581157	71957 670748	133927 801839	230831	302749	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	5144 279074	29583 327866	59782 395169	103568	144364	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	7835 317796	40795 363320	77044 423834	126643	170125	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	14022 485446	70734 532779	131544 569964	211617	244070	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.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

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	29235 913331	133860 1010634	247731 1175460	395300	517443	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	12192 458109	64138 502672	123973 542023	194348	231360	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6755 313804	37896 350539	75092 408402	128689	171215	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	14781 524642	74199 564541	139570 655050	221704	289210	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	17932 662906	89487 710666	175647 821760	281024	365397	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	18337 650936	91715 695704	176804 792757	280158	360795	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	26901 1087501	145259 1178396	282722 1343713	457133	603602	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	3115 190139	18887 215368	38411 257019	69088	94643	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	14053 495903	69614 520551	133942 544746	212914	255199	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	45032 1532580	233980 1596484	430993 1748340	704493	876659	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	10944 385232	56394 433756	102526 494211	165506	218820	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	12860 494354	65563 542032	126525 619578	207638	275214	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4233 189993	23352 213826	46531 249595	75886	98981	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	4653 164081	22847 185904	41724 206603	67770	90931	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	11241 429337	61547 453574	113640 499696	189020	237232	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	10432 376303	54880 387001	99587 436769	161253	207261	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	10417 401201	58722 428545	109801 457114	175512	207158	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	36474 1281096	198662 1306134	354037 1433646	598931	733873	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	12088 401721	58443 434121	105715 482661	173793	224469	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	28638 1029760	160777 1038444	280664 1134992	483378	579488	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	37316 1314421	208788 1341036	366510 1503654	620269	757628	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.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

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	9897 351498	53892 365162	98554 383070	159307	184172	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	42408 1448655	232765 1460318	415360 1601677	709820	831061	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	20730 720064	109227 765528	199370 850980	322100	410334	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	34930 1194786	192953 1206946	343888 1359825	584588	688749	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	23234 747382	118072 791609	202051 885752	332849	420259	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	8654 327131	52261 348649	93013 379325	154948	176758	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	9909 365803	58466 370724	104602 401711	165814	190443	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	30552 1075731	174840 1120505	312316 1237687	525648	634140	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	21090 678324	109351 709299	190221 804515	307487	387001	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1577 73742	7791 83886	17075 100229	30218	37026	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	34921 1308067	225006 1474311	408225 1678947	633923	766638	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	22608 912480	154191 1089180	280063 1298549	426720	542712	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	9210 342785	57586 425960	108205 532686	150272	218710	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	3084 127318	20699 166219	41822 205949	60872	80256	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	21423 1002485	152242 1234441	303491 1526133	433800	620608	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	6642 289732	46355 403802	95032 519568	123568	188655	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	2799 173240	23413 293807	55676 380688	55312	108367	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	2845 156653	20947 270729	51331 347106	52549	99061	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	8221 292373	41832 307745	82273 380677	117678	153020	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	13565 435556	65925 475095	124809 576291	185325	238536	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	34395 1098608	173094 1122336	331040 1351077	465492	588517	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.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

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
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	14853 470891	72549 490440	132419 558819	196600	253479	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:
Ave = Average ISTD

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-206518/6	60327006.D
Level 2	IC 180-206518/7	60327007.D
Level 3	ICIS 180-206518/8	60327008.D
Level 4	IC 180-206518/9	60327009.D
Level 5	IC 180-206518/10	60327010.D
Level 6	IC 180-206518/11	60327011.D
Level 7	IC 180-206518/12	60327012.D
Level 8	IC 180-206518/13	60327013.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Dichlorodifluoromethane	6.8 -2.0	-4.6 1.8	0.1	-1.9	0.7	-0.7	30 30	30 30	30	30	30	30
Chloromethane	19.5 -5.7	-4.1 -2.9	1.1	1.2	-1.0	-8.1	40 40	40 40	40	40	40	40
Vinyl chloride	14.2 -6.2	-3.1 -2.3	0.0	0.7	-0.7	-2.7	30 30	30 30	30	30	30	30
1,3-Butadiene	18.2 -6.7	-4.4 -3.9	1.2	0.3	-1.5	-3.2	30 30	30 30	30	30	30	30
Bromomethane	-8.2 -0.1	-7.9 3.4	10.7	-3.8	6.7	-0.8	40 40	40 40	40	40	40	40
Chloroethane	10.3 -5.3	-6.4 -7.5	7.0	3.1	4.1	-5.3	40 40	40 40	40	40	40	40
Trichlorofluoromethane	-4.8 1.6	-13.0 8.4	6.6	1.4	1.8	-1.9	40 40	40 40	40	40	40	40
Ethyl ether	1.2 -0.5	-3.9 -0.4	-2.1	-0.4	5.0	1.1	30 30	30 30	30	30	30	30
Acrolein	-3.7 3.3	-8.1 5.1	-9.9	4.1	2.9	6.3	30 30	30 30	30	30	30	30
1,1-Dichloroethene	5.9 -1.5	-7.0 1.6	-4.0	2.2	1.0	2.0	30 30	30 30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	11.8 -5.1	-6.1 -0.4	-2.2	1.9	0.5	-0.5	30 30	30 30	30	30	30	30
Acetone	14.3 0.0	-1.4 0.4	-21.3	9.6	-11.2	9.5	40 40	40 40	40	40	40	40
Iodomethane	2.5 2.2	-11.8 5.2	-3.2	0.0	4.3	0.8	30 30	30 30	30	30	30	30
Carbon disulfide	-9.9 9.3	-17.3 15.2	-8.0	-0.9	3.2	8.4	30 30	30 30	30	30	30	30
Allyl chloride	-25.0 10.7	-19.6 16.1	-5.5	0.8	10.0	12.4	30 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Methyl acetate	1.6 1.8	-4.3 0.7	-5.6	2.0	2.7	1.2	30 30	30 30	30	30	30	30
Methylene Chloride	18.8 -3.0	-6.1 -1.3	-2.8	-3.2	1.1	-3.5	40 40	40 40	40	40	40	40
tert-Butyl alcohol	2.0 3.1	5.0 -7.7	-12.5	5.0	-3.0	8.1	30 30	30 30	30	30	30	30
Acrylonitrile	1.2 2.7	-5.4 0.1	-9.5	5.2	2.8	2.9	30 30	30 30	30	30	30	30
trans-1,2-Dichloroethene	0.3 0.6	-8.5 3.9	-1.9	0.8	4.0	0.9	30 30	30 30	30	30	30	30
Methyl tert-butyl ether	-2.3 4.3	-9.4 5.0	-5.5	-0.1	3.9	4.1	30 30	30 30	30	30	30	30
Hexane	8.3 -1.7	-6.3 0.6	-1.0	-0.5	0.9	-0.4	30 30	30 30	30	30	30	30
1,1-Dichloroethane	1.5 0.6	-8.2 2.8	-2.9	-0.9	4.9	2.3	30 30	30 30	30	30	30	30
Vinyl acetate	-13.1 14.3	-18.2 15.7	-13.0	3.0	2.3	9.1	30 30	30 30	30	30	30	30
2,2-Dichloropropane	-8.9 4.1	-12.9 9.6	-2.8	0.0	3.4	7.5	30 30	30 30	30	30	30	30
cis-1,2-Dichloroethene	-5.1 2.6	-6.3 3.4	-0.3	0.1	4.8	1.0	30 30	30 30	30	30	30	30
2-Butanone (MEK)	9.2 2.4	-2.3 6.2	-17.6	0.1	-2.6	4.6	40 40	40 40	40	40	40	40
Bromochloromethane	-1.7 2.5	-10.7 3.7	-1.3	-1.4	6.2	2.9	30 30	30 30	30	30	30	30
Tetrahydrofuran	18.2 1.2	-4.7 1.2	-14.1	-0.4	-2.9	1.4	30 30	30 30	30	30	30	30
Chloroform	0.3 1.8	-7.9 1.7	-2.3	-0.4	4.3	2.4	30 30	30 30	30	30	30	30
1,1,1-Trichloroethane	-5.1 4.2	-12.6 7.2	-2.4	1.1	3.1	4.5	30 30	30 30	30	30	30	30
Cyclohexane	7.4 -3.8	-5.8 -1.8	-0.2	0.7	2.8	0.8	30 30	30 30	30	30	30	30
Carbon tetrachloride	-4.9 5.4	-13.3 8.1	-4.4	0.7	3.1	5.2	30 30	30 30	30	30	30	30
1,1-Dichloropropene	-1.2 0.6	-5.7 0.8	-2.0	2.7	2.2	2.7	30 30	30 30	30	30	30	30
Isobutyl alcohol	-11.4 -0.1	3.2 -6.7	-13.5	19.0	-3.1	12.5	40 40	40 40	40	40	40	40
Benzene	8.3 -2.8	-2.3 -2.1	-3.2	-0.5	4.0	-1.4	30 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
1,2-Dichloroethane	-1.4 3.4	-8.9 4.9	-3.6	-1.6	4.6	2.7	30 30	30 30	30	30	30	30
n-Heptane	8.4 -3.6	-2.7 0.5	-4.8	0.6	0.5	1.2	30 30	30 30	30	30	30	30
Trichloroethene	8.0 -0.1	-10.0 0.9	-3.9	-1.1	3.2	2.9	30 30	30 30	30	30	30	30
Methylcyclohexane	6.0 -3.6	-5.3 -3.8	1.2	1.4	2.6	1.5	30 30	30 30	30	30	30	30
1,2-Dichloropropane	4.5 1.4	-8.3 3.3	-5.7	-2.7	4.0	3.5	30 30	30 30	30	30	30	30
1,4-Dioxane	-14.0 9.9	-9.4 9.6	-11.9	8.4	0.7	6.7	30 30	30 30	30	30	30	30
Dibromomethane	-10.1 8.5	-11.7 8.3	-6.2	-0.6	5.6	6.3	30 30	30 30	30	30	30	30
Bromodichloromethane	-15.7 14.3	-20.2 16.0	-10.2	-3.7	6.7	12.8	30 30	30 30	30	30	30	30
2-Chloroethyl vinyl ether	-14.1 13.6	-14.0 13.7	-11.1	-3.7	6.4	9.2	30 30	30 30	30	30	30	30
cis-1,3-Dichloropropene	-30.4 * 18.6	-21.3 19.6	-12.1	-2.6	11.5	16.7	30 30	30 30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-11.4 3.7	-2.4 3.0	-4.1	6.9	5.2	-1.0	40 40	40 40	40	40	40	40
Toluene	11.5 -6.9	5.0 -8.7	1.9	4.1	1.6	-8.6	30 30	30 30	30	30	30	30
trans-1,3-Dichloropropene	-23.9 16.0	-16.7 19.6	-11.7	1.4	6.9	8.4	30 30	30 30	30	30	30	30
Ethyl methacrylate	-22.3 10.6	-9.0 10.1	-5.3	5.1	7.0	3.7	30 30	30 30	30	30	30	30
1,1,2-Trichloroethane	2.0 -2.1	0.2 3.3	-2.1	-0.9	2.6	-3.0	30 30	30 30	30	30	30	30
Tetrachloroethene	10.6 -4.2	-0.6 -6.6	-1.1	4.9	1.6	-4.5	30 30	30 30	30	30	30	30
1,3-Dichloropropane	6.2 0.1	-1.9 0.4	-3.0	-0.2	2.9	-4.4	30 30	30 30	30	30	30	30
2-Hexanone	-5.0 5.8	-3.4 6.0	-8.3	2.8	2.2	-0.1	40 40	40 40	40	40	40	40
Dibromochloromethane	-23.0 14.2	-12.3 15.3	-9.6	1.9	7.7	5.9	30 30	30 30	30	30	30	30
1,2-Dibromoethane (EDB)	-4.0 3.6	-1.0 1.3	-4.6	2.0	3.9	-1.2	30 30	30 30	30	30	30	30
3-Chlorobenzotrifluoride	8.7 -3.9	8.6 -13.8	3.0	7.8	-5.7	-4.6	30 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Chlorobenzene	15.7 -6.9	4.9 -9.3	-1.0	2.8	2.0	-8.3	30 30	30 30	30	30	30	30
4-Chlorobenzotrifluoride	2.0 -2.1	6.3 -11.6	4.8	6.9	-3.5	-2.8	30 30	30 30	30	30	30	30
1,1,1,2-Tetrachloroethane	-14.1 3.7	-4.6 1.3	-3.6	7.5	8.5	1.2	30 30	30 30	30	30	30	30
Ethylbenzene	5.8 -6.0	5.2 -8.6	0.9	4.3	3.1	-4.8	30 30	30 30	30	30	30	30
m-Xylene & p-Xylene	2.9 -5.1	1.7 -8.1	1.8	6.0	4.5	-3.6	30 30	30 30	30	30	30	30
o-Xylene	5.6 -6.8	4.6 -11.0	2.8	6.0	3.5	-4.9	30 30	30 30	30	30	30	30
Styrene	-4.6 -2.7	2.0 -7.1	1.3	6.6	6.7	-2.2	30 30	30 30	30	30	30	30
Bromoform	-28.5 15.1	-14.1 15.1	-10.9	4.3	8.3	10.7	30 30	30 30	30	30	30	30
2-Chlorobenzotrifluoride	8.8 -6.3	6.7 -17.8	4.7	8.3	-1.6	-2.7	30 30	30 30	30	30	30	30
Isopropylbenzene	7.6 -11.3	10.6 -18.6	4.0	10.6	4.3	-7.2	30 30	30 30	30	30	30	30
Bromobenzene	-0.9 6.2	-8.3 6.9	-4.5	-4.0	4.6	0.0	30 30	30 30	30	30	30	30
1,1,2,2-Tetrachloroethane	-0.3 -2.2	0.6 -6.4	-1.0	5.8	6.3	-2.8	30 30	30 30	30	30	30	30
trans-1,4-Dichloro-2-butene	-16.4 14.3	-17.1 17.8	-5.5	-4.0	3.2	7.7	30 30	30 30	30	30	30	30
1,2,3-Trichloropropane	1.0 9.1	-10.9 7.2	-6.9	-5.8	4.2	2.1	30 30	30 30	30	30	30	30
N-Propylbenzene	-5.5 3.2	-7.0 0.4	-1.7	1.8	5.3	3.5	30 30	30 30	30	30	30	30
2-Chlorotoluene	-0.1 0.3	-5.5 0.0	-1.9	-1.0	4.8	3.4	30 30	30 30	30	30	30	30
3-Chlorotoluene	-5.8 4.8	-4.6 -1.2	2.1	1.7	-1.1	4.1	30 30	30 30	30	30	30	30
1,3,5-Trimethylbenzene	-0.1 -3.2	-2.2 -6.1	-0.3	5.1	6.1	0.7	30 30	30 30	30	30	30	30
4-Chlorotoluene	6.0 3.0	-7.9 1.1	-4.7	-2.4	3.9	1.0	30 30	30 30	30	30	30	30
tert-Butylbenzene	-1.6 -3.4	-0.7 -6.7	-0.8	6.5	5.2	1.5	30 30	30 30	30	30	30	30
1,2,4-Trimethylbenzene	-1.2 -4.0	-0.7 -4.9	-0.2	5.2	5.9	-0.2	30 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
3,4-Dichlorobenzotrifluoride	0.5 0.3	-1.6 -7.0	3.0	3.7	-1.2	2.4	30 30	30 30	30	30	30	30
sec-Butylbenzene	1.1 -5.8	-0.3 -8.8	1.8	8.4	4.6	-1.0	30 30	30 30	30	30	30	30
1,3-Dichlorobenzene	0.6 0.5	-4.8 -1.3	-0.5	0.2	5.1	0.2	30 30	30 30	30	30	30	30
4-Isopropyltoluene	0.4 -6.1	-0.3 -6.5	1.7	7.7	4.6	-1.4	30 30	30 30	30	30	30	30
1,4-Dichlorobenzene	7.6 -0.8	-1.8 -2.0	-3.8	-1.2	2.7	-0.7	30 30	30 30	30	30	30	30
2,4-Dichlorobenzotrifluoride	-7.4 0.9	0.5 -3.0	2.4	6.3	-0.1	0.4	30 30	30 30	30	30	30	30
2,5-Dichlorobenzotrifluoride	-3.3 -2.1	2.5 -6.3	5.0	3.7	-1.9	2.4	30 30	30 30	30	30	30	30
n-Butylbenzene	-3.0 -3.8	-0.3 -6.1	2.0	6.9	6.3	-2.0	30 30	30 30	30	30	30	30
1,2-Dichlorobenzene	6.6 -3.0	-0.7 -2.8	-1.1	-0.4	3.2	-1.7	30 30	30 30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-18.1 17.9	-27.3 24.4	-8.8	0.6	1.5	9.9	30 30	30 30	30	30	30	30
2,4- & 2,5- & 2,6- Dichlorotoluene	-11.6 1.0	2.4 1.6	6.3	2.8	2.5	-5.0	30 30	30 30	30	30	30	30
2,3- & 3,4- Dichlorotoluene	-18.5 6.3	-0.1 11.9	3.9	-1.4	3.3	-5.6	30 30	30 30	30	30	30	30
1,2,4-Trichlorobenzene	-14.3 7.3	-3.7 18.5	3.6	-10.4	7.5	-8.5	40 40	40 40	40	40	40	40
Hexachlorobutadiene	-23.7 11.3	-7.9 21.9	6.5	-3.4	4.9	-9.6	30 30	30 30	30	30	30	30
Naphthalene	-28.4 11.7	-8.5 22.0	4.4	-7.0	9.6	-3.8	40 40	40 40	40	40	40	40
1,2,3-Trichlorobenzene	-28.5 17.7	-10.3 33.7	5.3	-14.7	7.3	-10.5	40 40	40 40	40	40	40	40
2,4,5-Trichlorotoluene	-49.1 * 44.5 *	-23.5 65.4 *	4.1	-35.6 *	4.0	-9.7	30 30	30 30	30	30	30	30
2,3,6-Trichlorotoluene	-43.9 * 44.3 *	-25.8 63.5 *	4.0	-33.6 *	3.0	-11.4	30 30	30 30	30	30	30	30
Dibromofluoromethane (Surr)	-2.3 -1.9	-2.0 1.1	2.8	-3.4	0.1	5.7	30 30	30 30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	3.8 -2.5	-0.5 -1.4	0.5	-2.0	0.5	1.5	30 30	30 30	30	30	30	30
Toluene-d8 (Surr)	13.6 -13.8	13.1 -13.0	10.4	1.0	-3.2	-8.0	30 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1 Analy Batch No.: 206518

SDG No.:

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

Calibration Start Date: 03/27/2017 12:56 Calibration End Date: 03/27/2017 15:45 Calibration ID: 34285

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
4-Bromofluorobenzene (Surr)	16.1 -10.8	12.2 -14.9	4.5	0.9	-1.3	-6.7	30 30	30 30	30	30	30	30

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Mar-2017 12:56:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-006
Misc. Info.: IC VSTD1
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:07:38 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 15:37:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.048	4.059	-0.011	89	123223	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.120	7.119	0.001	98	374464	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.235	10.233	0.002	91	77300	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.577	12.576	0.001	97	124992	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.390	6.389	0.001	93	8221	5.00	4.88	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.755	6.766	-0.011	57	13565	5.00	5.19	
$ 7 Toluene-d8 (Surr)	98	8.775	8.779	-0.004	95	34395	5.00	5.68	
$ 8 4-Bromofluorobenzene (Surr	95	11.415	11.420	-0.005	86	14853	5.00	5.80	
11 Dichlorodifluoromethane	85	1.517	1.516	0.001	98	12644	5.00	5.34	
12 Chloromethane	50	1.663	1.662	0.001	98	18595	5.00	5.98	
13 Vinyl chloride	62	1.785	1.790	-0.005	97	14964	5.00	5.71	
14 Butadiene	39	1.828	1.826	0.002	95	16626	5.00	5.91	
15 Bromomethane	94	2.132	2.130	0.002	52	3426	5.00	4.59	
16 Chloroethane	64	2.253	2.258	-0.005	63	6577	5.00	5.51	M
17 Dichlorofluoromethane	67	2.527	2.513	0.014	95	11340	5.00	4.97	
18 Trichlorofluoromethane	101	2.527	2.532	-0.005	68	7971	5.00	4.76	
20 Ethyl ether	59	2.892	2.891	0.001	94	12899	5.00	5.06	
21 Acrolein	56	3.062	3.067	-0.005	98	66123	100.0	96.3	
22 1,1-Dichloroethene	96	3.172	3.177	-0.005	91	10654	5.00	5.29	
23 1,1,2-Trichloro-1,2,2-trif	101	3.233	3.225	0.008	90	10923	5.00	5.59	
24 Acetone	43	3.257	3.268	-0.011	99	21511	25.0	28.6	
25 Iodomethane	142	3.354	3.365	-0.011	96	13840	5.00	5.13	
26 Carbon disulfide	76	3.446	3.444	0.002	100	20524	5.00	4.50	
29 3-Chloro-1-propene	76	3.713	3.712	0.001	91	4276	5.00	3.75	
30 Methyl acetate	43	3.732	3.736	-0.004	99	62558	25.0	25.4	
31 Methylene Chloride	84	3.920	3.931	-0.011	96	15167	5.00	5.94	
32 2-Methyl-2-propanol	59	4.188	4.199	-0.011	82	7774	50.0	51.0	
33 Acrylonitrile	53	4.322	4.326	-0.004	96	63578	50.0	50.6	M
34 trans-1,2-Dichloroethene	96	4.358	4.369	-0.011	95	10961	5.00	5.01	
35 Methyl tert-butyl ether	73	4.376	4.375	0.001	97	32441	5.00	4.89	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.784	4.795	-0.011	95	20036	5.00	5.41	
37 1,1-Dichloroethane	63	5.003	5.008	-0.005	70	21103	5.00	5.07	
38 Vinyl acetate	43	5.064	5.062	0.002	97	22727	5.00	4.34	
42 2,2-Dichloropropane	97	5.757	5.768	-0.011	68	1858	5.00	4.55	M
43 cis-1,2-Dichloroethene	96	5.757	5.774	-0.017	87	11933	5.00	4.74	
44 2-Butanone (MEK)	43	5.782	5.786	-0.004	99	31666	25.0	27.3	
48 Chlorobromomethane	128	6.062	6.054	0.008	94	5276	5.00	4.91	
49 Tetrahydrofuran	42	6.068	6.072	-0.004	91	12446	10.0	11.8	
50 Chloroform	83	6.208	6.206	0.002	96	19510	5.00	5.02	
51 1,1,1-Trichloroethane	97	6.372	6.364	0.008	94	12115	5.00	4.75	
52 Cyclohexane	56	6.427	6.437	-0.010	95	26463	5.00	5.37	
53 Carbon tetrachloride	117	6.536	6.541	-0.005	95	8975	5.00	4.76	
54 1,1-Dichloropropene	75	6.554	6.553	0.001	93	14653	5.00	4.94	
55 Isobutyl alcohol	41	6.755	6.766	-0.011	53	7744	125.0	110.7	M
56 Benzene	78	6.767	6.772	-0.005	95	48107	5.00	5.42	
57 1,2-Dichloroethane	62	6.852	6.851	0.001	97	17032	5.00	4.93	
59 n-Heptane	43	7.138	7.143	-0.005	96	16179	5.00	5.42	
61 Trichloroethene	130	7.516	7.514	0.002	93	11127	5.00	5.40	
63 Methylcyclohexane	83	7.747	7.745	0.002	91	20302	5.00	5.30	
64 1,2-Dichloropropane	63	7.783	7.788	-0.005	81	12327	5.00	5.23	
67 Dibromomethane	93	7.868	7.867	0.001	93	5901	5.00	4.49	
65 1,4-Dioxane	88	7.862	7.867	-0.005	37	1275	100.0	86.0	
68 Dichlorobromomethane	83	8.069	8.074	-0.005	97	9723	5.00	4.22	
70 2-Chloroethyl vinyl ether	63	8.373	8.378	-0.005	92	11808	10.0	8.59	
71 cis-1,3-Dichloropropene	75	8.519	8.524	-0.005	89	9697	5.00	3.48	
72 4-Methyl-2-pentanone (MIBK	43	8.677	8.676	0.001	97	55579	25.0	22.1	
73 Toluene	91	8.848	8.852	-0.004	98	43799	5.00	5.57	
74 trans-1,3-Dichloropropene	75	9.097	9.102	-0.005	96	8212	5.00	3.80	
75 Ethyl methacrylate	69	9.170	9.163	0.007	93	10071	5.00	3.89	
76 1,1,2-Trichloroethane	97	9.292	9.297	-0.005	92	8743	5.00	5.10	
77 Tetrachloroethene	164	9.359	9.363	-0.004	93	8031	5.00	5.53	
78 1,3-Dichloropropane	76	9.444	9.455	-0.011	97	16474	5.00	5.31	
79 2-Hexanone	43	9.511	9.516	-0.005	98	35045	25.0	23.8	
81 Chlorodibromomethane	129	9.663	9.662	0.001	84	5144	5.00	3.85	
82 Ethylene Dibromide	107	9.773	9.771	0.001	92	7835	5.00	4.80	
83 3-Chlorobenzotrifluoride	180	10.241	10.246	-0.005	55	14022	5.00	5.44	
84 Chlorobenzene	112	10.259	10.264	-0.005	94	29235	5.00	5.79	
85 4-Chlorobenzotrifluoride	180	10.332	10.331	0.001	94	12192	5.00	5.10	
86 1,1,1,2-Tetrachloroethane	131	10.363	10.361	0.002	42	6755	5.00	4.30	
87 Ethylbenzene	106	10.363	10.367	-0.004	99	14781	5.00	5.29	
88 m-Xylene & p-Xylene	106	10.496	10.501	-0.005	99	17932	5.00	5.15	
89 o-Xylene	106	10.880	10.878	0.002	97	18337	5.00	5.28	
90 Styrene	104	10.904	10.896	0.008	96	26901	5.00	4.77	
91 Bromoform	173	11.074	11.079	-0.005	93	3115	5.00	3.58	
92 2-Chlorobenzotrifluoride	180	11.147	11.152	-0.005	95	14053	5.00	5.44	
93 Isopropylbenzene	105	11.245	11.249	-0.004	96	45032	5.00	5.38	
95 Bromobenzene	156	11.555	11.554	0.001	97	10944	5.00	4.95	
96 1,1,2,2-Tetrachloroethane	83	11.561	11.566	-0.005	79	12860	5.00	4.98	
97 trans-1,4-Dichloro-2-buten	53	11.604	11.596	0.008	61	4233	5.00	4.18	
98 1,2,3-Trichloropropane	110	11.616	11.614	0.002	89	4653	5.00	5.05	
99 N-Propylbenzene	120	11.671	11.663	0.008	99	11241	5.00	4.72	
100 2-Chlorotoluene	126	11.750	11.748	0.002	94	10432	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.810	11.815	-0.005	98	10417	5.00	4.71	
102 1,3,5-Trimethylbenzene	105	11.847	11.846	0.001	93	36474	5.00	4.99	
103 4-Chlorotoluene	126	11.871	11.876	-0.005	97	12088	5.00	5.30	
104 tert-Butylbenzene	119	12.157	12.162	-0.005	91	28638	5.00	4.92	
106 1,2,4-Trimethylbenzene	105	12.224	12.223	0.001	98	37316	5.00	4.94	
107 1,2-dichloro-4-(trifluorom	214	12.267	12.265	0.002	95	9897	5.00	5.03	
108 sec-Butylbenzene	105	12.382	12.387	-0.005	95	42408	5.00	5.05	
109 1,3-Dichlorobenzene	146	12.498	12.503	-0.005	94	20730	5.00	5.03	
110 4-Isopropyltoluene	119	12.540	12.539	0.001	96	34930	5.00	5.02	
111 1,4-Dichlorobenzene	146	12.601	12.600	0.001	93	23234	5.00	5.38	
113 2,4-Dichloro-1-(triflourom	214	12.638	12.636	0.002	88	8654	5.00	4.63	
114 2,5-Dichlorobenzotrifluori	214	12.680	12.673	0.007	95	9909	5.00	4.83	
116 n-Butylbenzene	91	12.948	12.947	0.001	98	30552	5.00	4.85	
117 1,2-Dichlorobenzene	146	12.954	12.959	-0.005	76	21090	5.00	5.33	
118 1,2-Dibromo-3-Chloropropan	75	13.751	13.750	0.001	67	1577	5.00	4.09	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.891	13.890	0.001	98	34921	15.0	13.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.299	14.303	-0.004	98	22608	10.0	8.15	
122 1,2,4-Trichlorobenzene	180	14.566	14.571	-0.005	91	9210	5.00	4.29	
123 Hexachlorobutadiene	225	14.718	14.717	0.001	91	3084	5.00	3.82	
124 Naphthalene	128	14.834	14.832	0.002	96	21423	5.00	3.58	
125 1,2,3-Trichlorobenzene	180	15.059	15.058	0.001	90	6642	5.00	3.58	
126 2,4,5-Trichlorotoluene	159	15.850	15.842	0.008	0	2799	5.00	2.54	
127 2,3,6-Trichlorotoluene	159	15.953	15.952	0.001	87	2845	5.00	2.80	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	9.76	
S 131 Xylenes, Total	106				0		10.0	10.4	
S 132 1,3-Dichloropropene, Total	1				0		10.0	7.28	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00011	Amount Added:	4.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	0.20	Units: uL	
voaW2cle1stRe_00007	Amount Added:	0.20	Units: uL	
VOA8260SURR_00066	Amount Added:	0.20	Units: uL	
voaWEEmix1stR_00005	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	0.20	Units: uL	
voaWKetmix1st_00002	Amount Added:	0.80	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

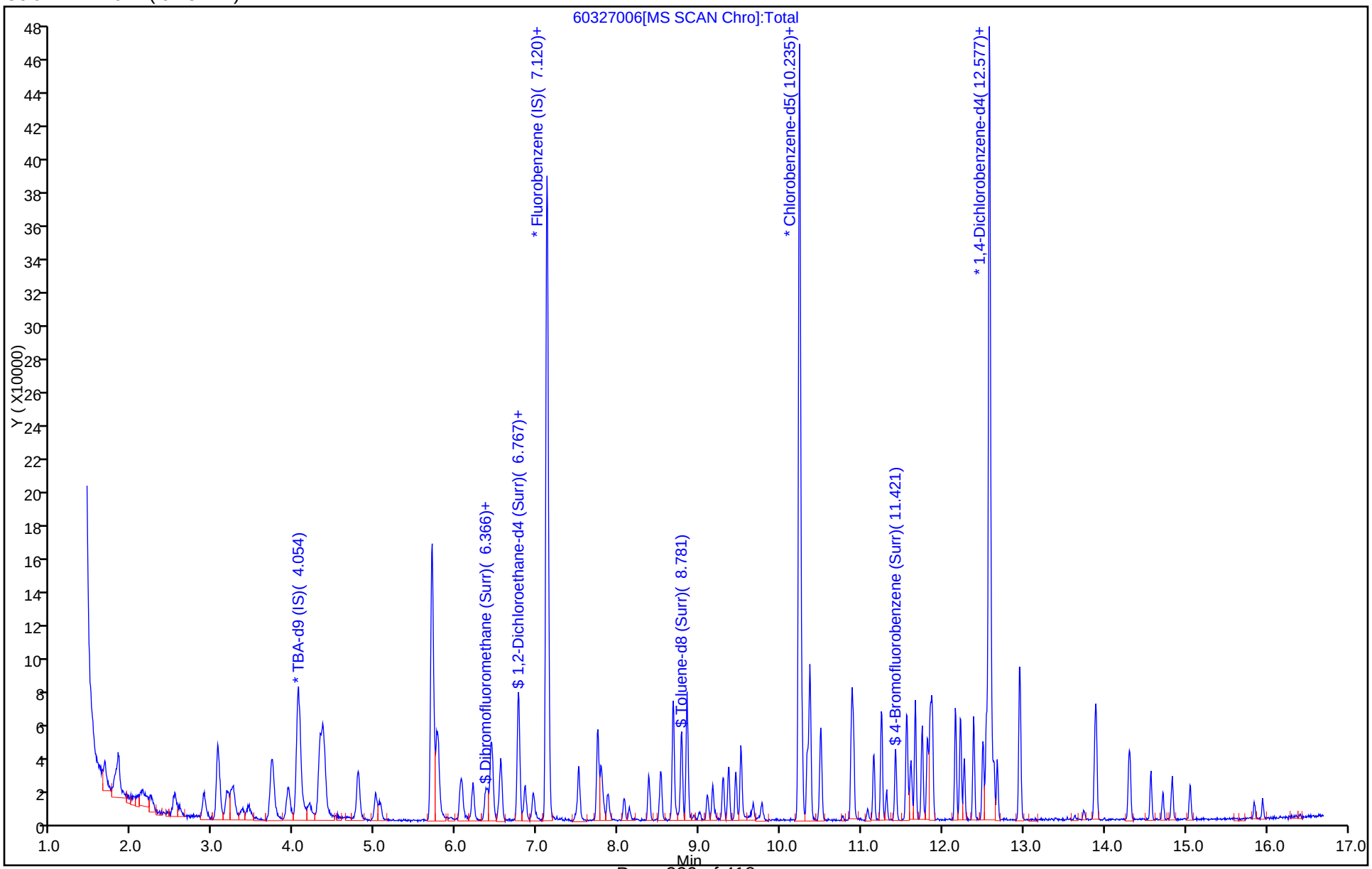
Report Date: 28-Mar-2017 09:07:39 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D

Injection Date:	27-Mar-2017 12:56:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

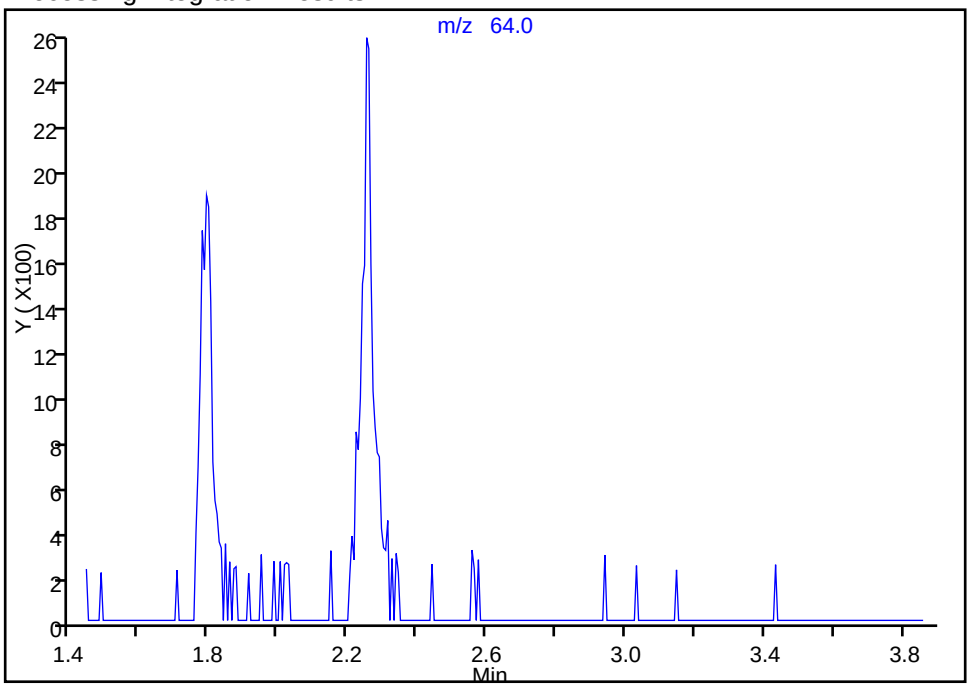
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D				
Injection Date:	27-Mar-2017 12:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

16 Chloroethane, CAS: 75-00-3

Signal: 1

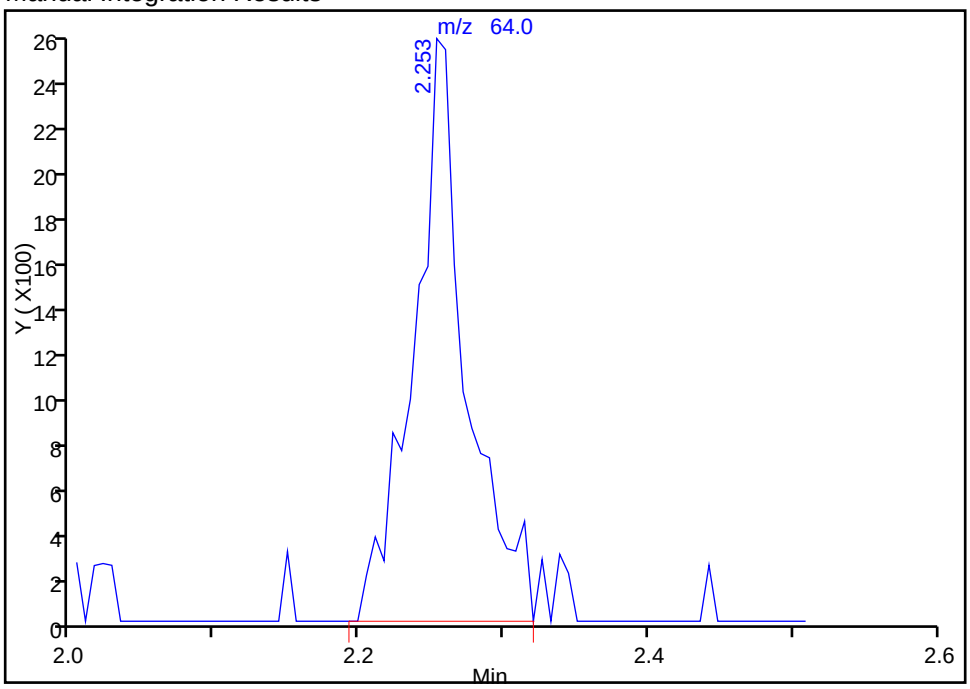
Not Detected
Expected RT: 2.26

Processing Integration Results



Manual Integration Results

RT: 2.25
Area: 6577
Amount: 5.514762
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:37
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

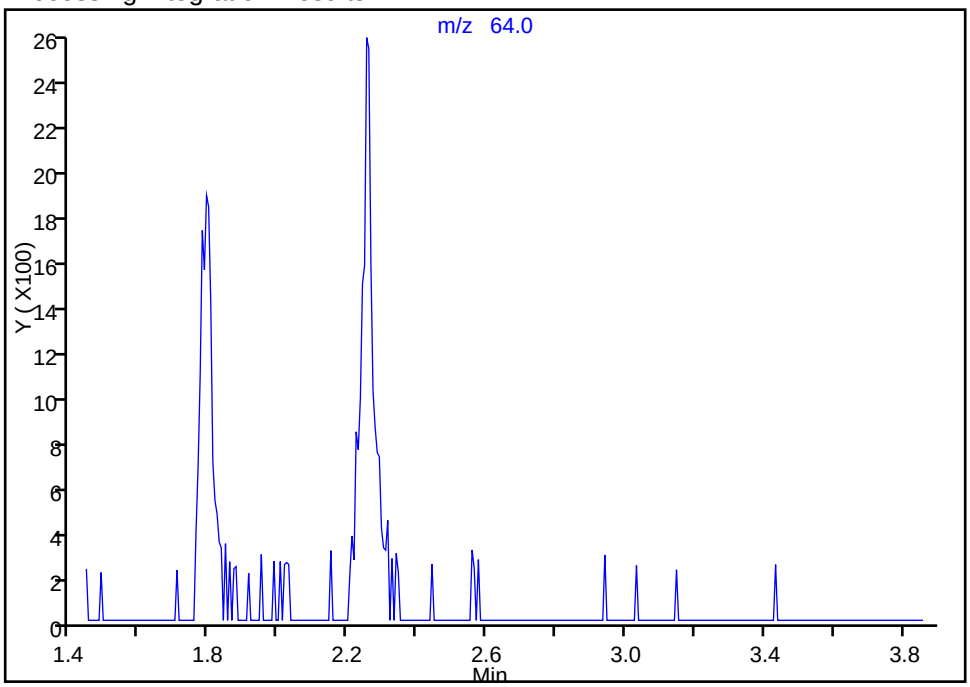
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D				
Injection Date:	27-Mar-2017 12:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

16 Chloroethane, CAS: 75-00-3

Signal: 1

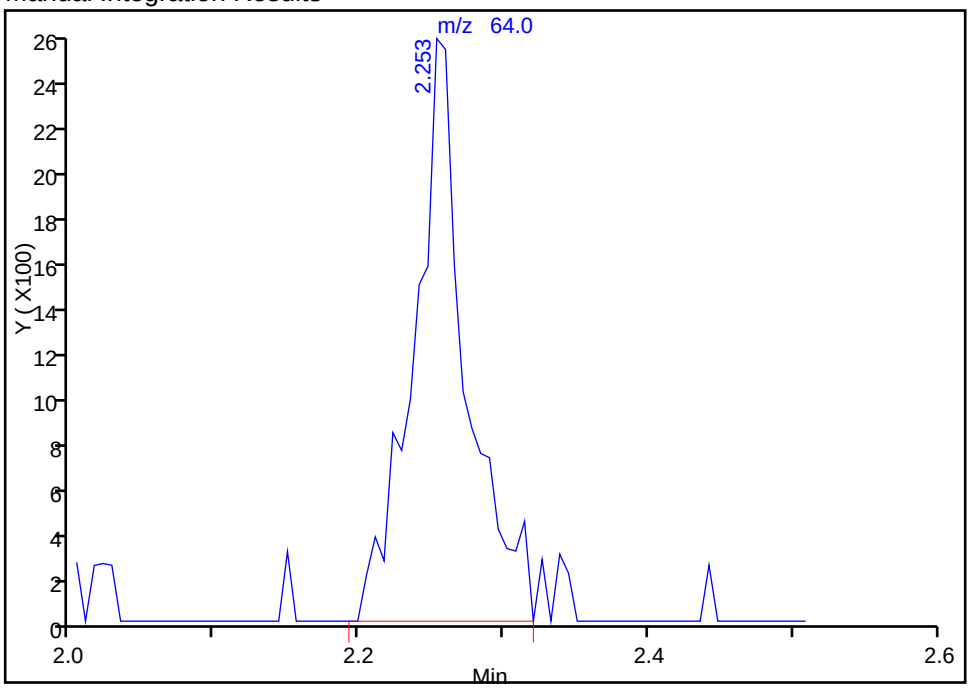
Not Detected
Expected RT: 2.26

Processing Integration Results



Manual Integration Results

RT: 2.25
Area: 6577
Amount: 5.514762
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

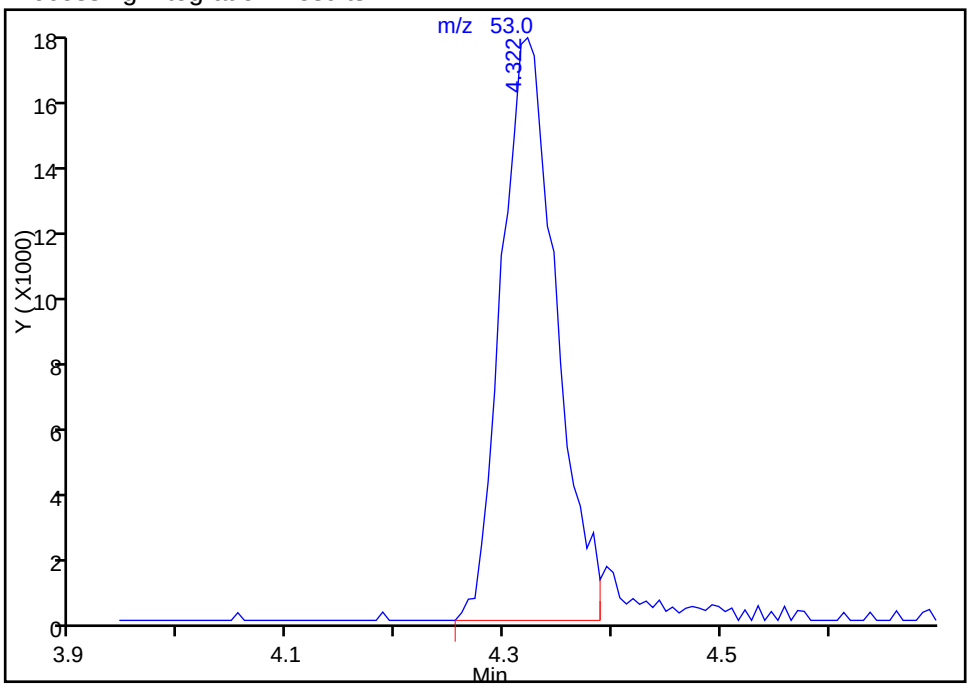
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D				
Injection Date:	27-Mar-2017 12:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

Signal: 1

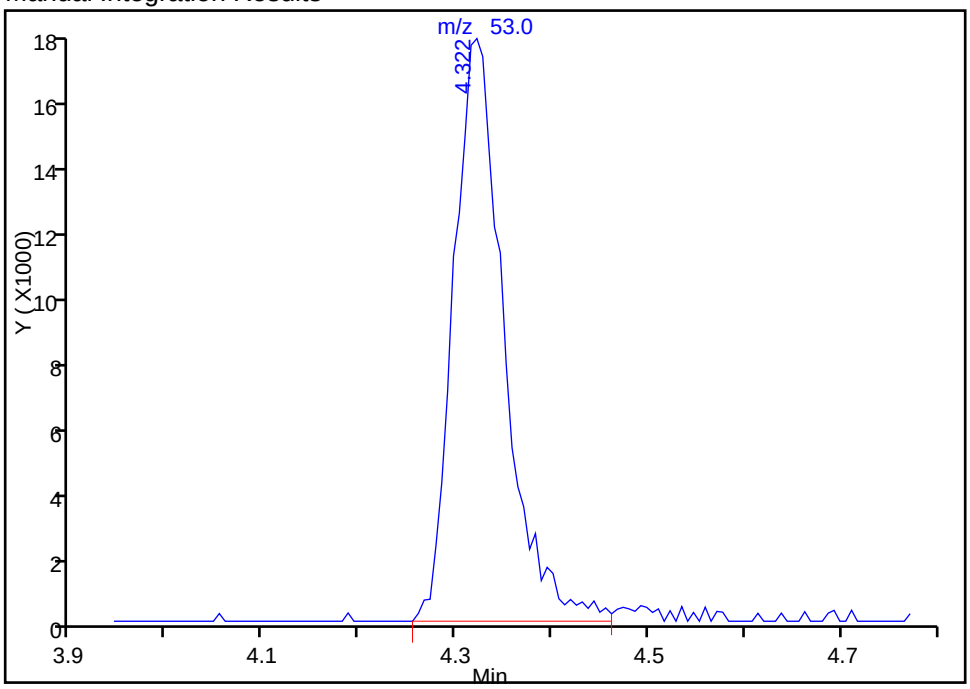
Processing Integration Results

RT: 4.32
Area: 60774
Amount: 48.980489
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 63578
Amount: 50.615466
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

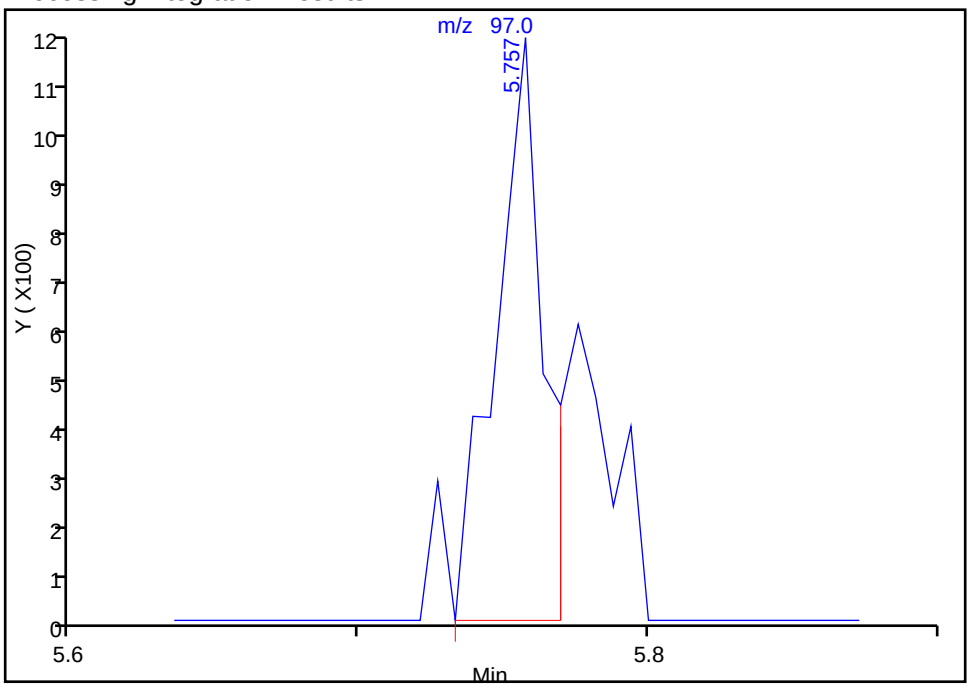
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D				
Injection Date:	27-Mar-2017 12:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

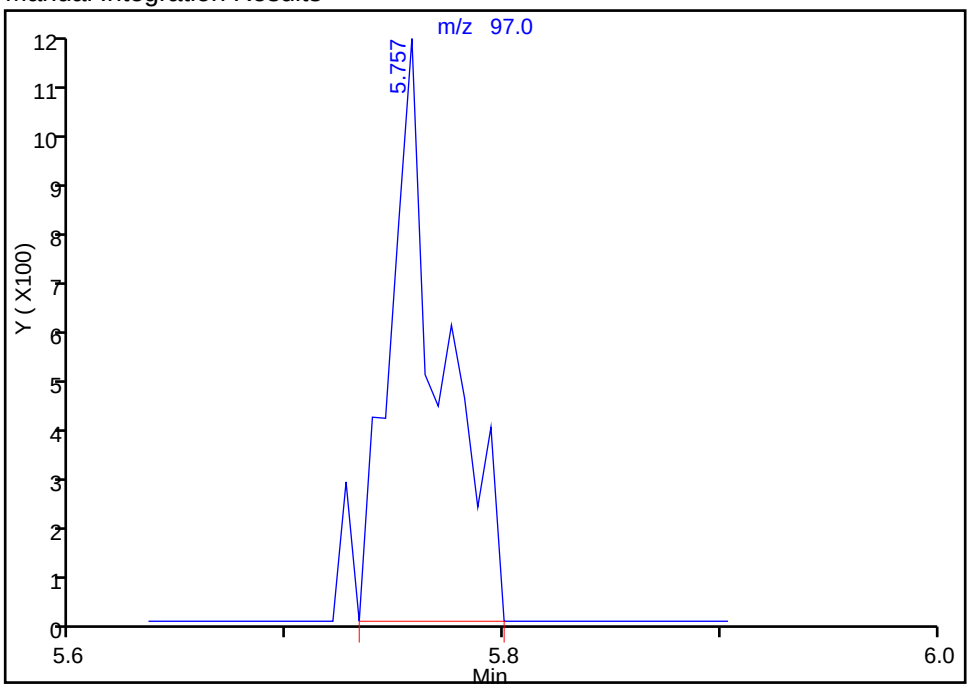
Processing Integration Results

RT: 5.76
Area: 1284
Amount: 5.069214
Amount Units: ng



Manual Integration Results

RT: 5.76
Area: 1858
Amount: 4.552998
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

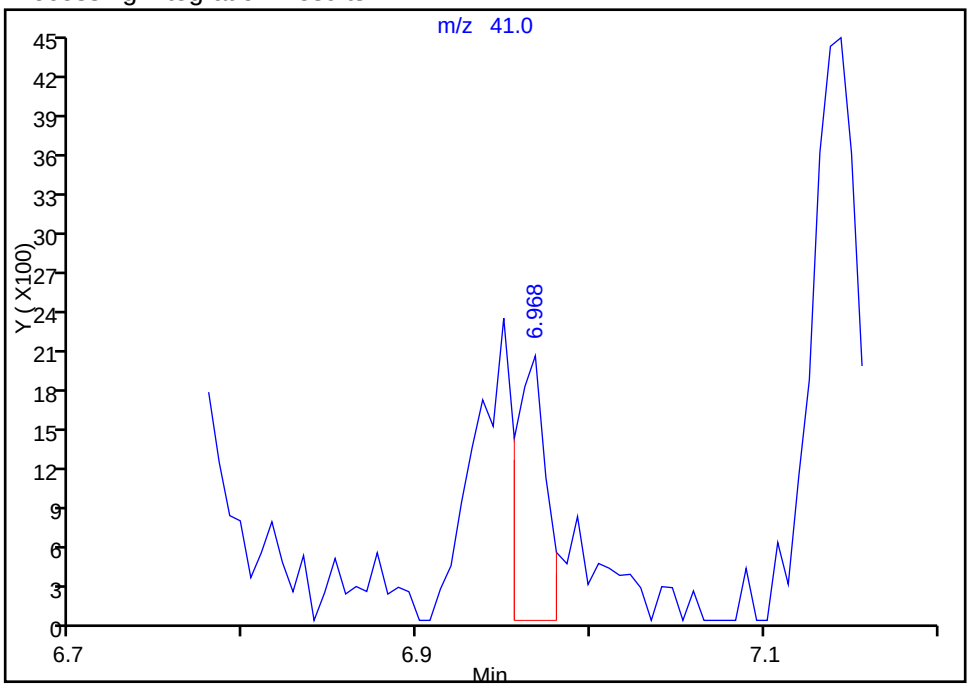
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D				
Injection Date:	27-Mar-2017 12:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

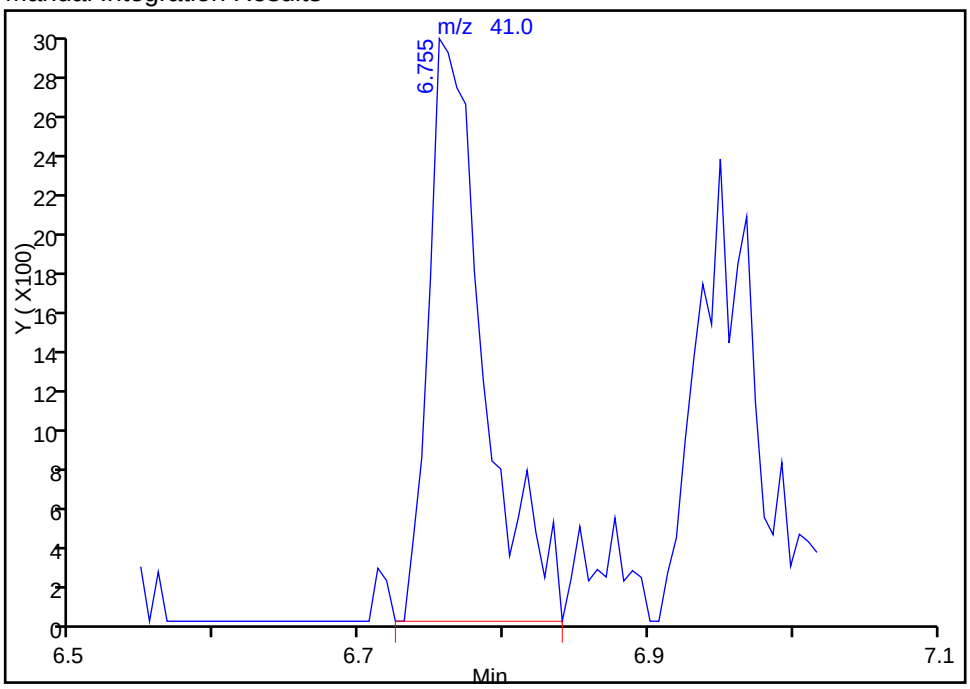
Processing Integration Results

RT: 6.97
Area: 2485
Amount: 116.7593
Amount Units: ng



Manual Integration Results

RT: 6.76
Area: 7744
Amount: 110.7403
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:37
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

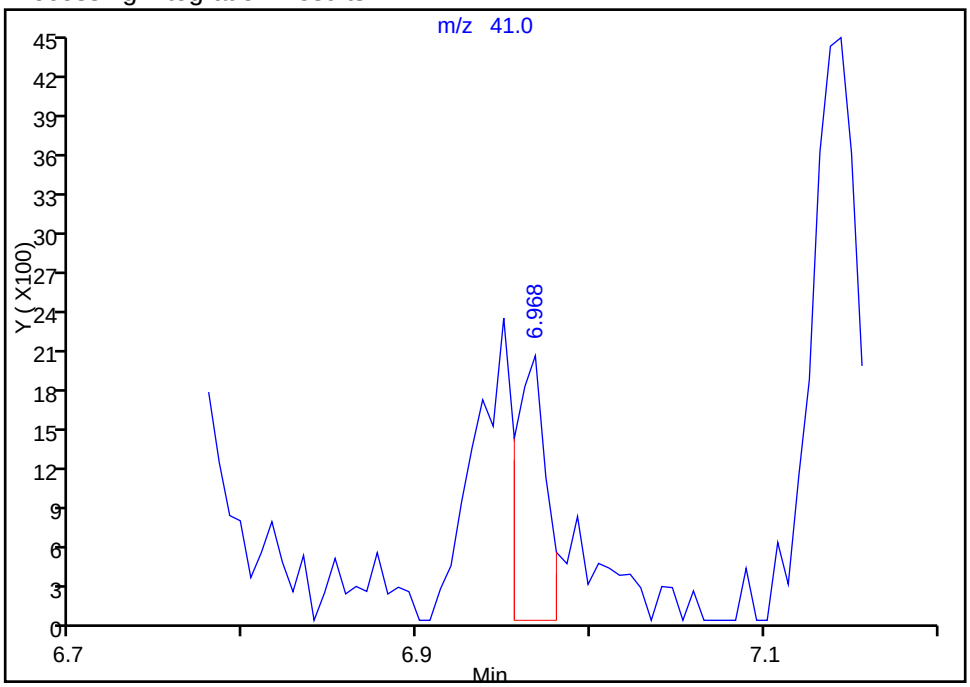
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327006.D
Injection Date: 27-Mar-2017 12:56:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

55 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

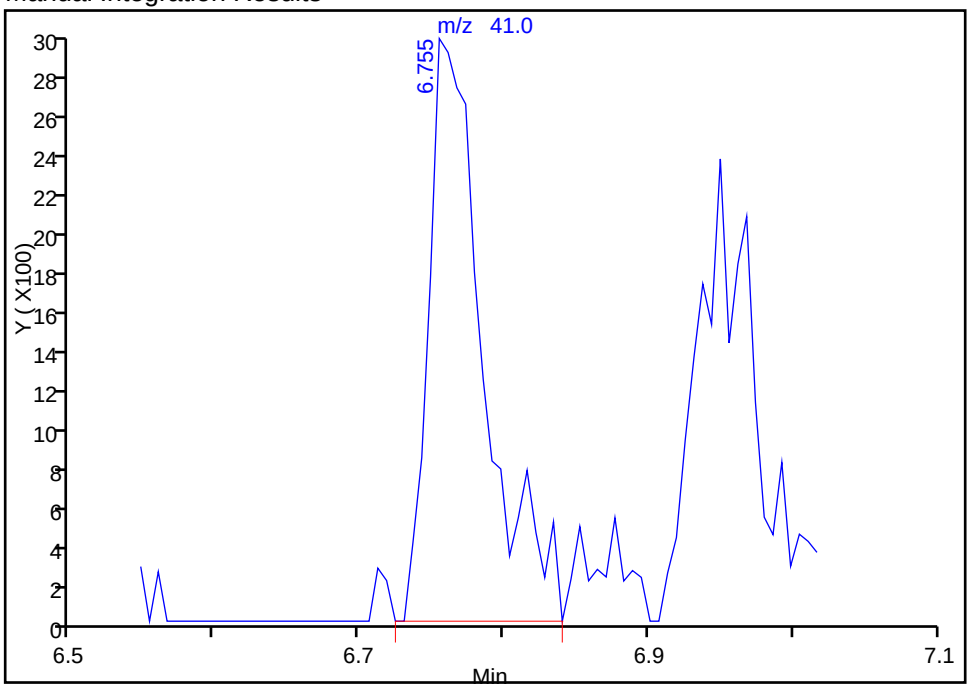
Processing Integration Results

RT: 6.97
Area: 2485
Amount: 116.7593
Amount Units: ng



Manual Integration Results

RT: 6.76
Area: 7744
Amount: 110.7403
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:37
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327007.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Mar-2017 13:20:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-007
Misc. Info.: IC VSTD5
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:07:44 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 15:41:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.065	4.059	0.006	88	137969	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.119	7.119	0.000	98	379751	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.234	10.233	0.001	91	78090	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.582	12.576	0.006	96	139103	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.389	6.389	0.000	93	41832	25.0	24.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.766	6.766	0.000	85	65925	25.0	24.9	
$ 7 Toluene-d8 (Surr)	98	8.780	8.779	0.001	94	173094	25.0	28.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.420	11.420	0.000	85	72549	25.0	28.1	
11 Dichlorodifluoromethane	85	1.510	1.516	-0.006	99	57271	25.0	23.8	
12 Chloromethane	50	1.675	1.662	0.013	99	75653	25.0	24.0	
13 Vinyl chloride	62	1.790	1.790	0.000	96	64415	25.0	24.2	
14 Butadiene	39	1.833	1.826	0.007	88	68236	25.0	23.9	
15 Bromomethane	94	2.119	2.130	-0.011	93	17424	25.0	23.0	
16 Chloroethane	64	2.265	2.258	0.007	98	28313	25.0	23.4	
17 Dichlorofluoromethane	67	2.526	2.513	0.013	95	56151	25.0	24.3	
18 Trichlorofluoromethane	101	2.538	2.532	0.006	94	36927	25.0	21.7	
20 Ethyl ether	59	2.891	2.891	0.000	97	62068	25.0	24.0	
21 Acrolein	56	3.062	3.067	-0.005	99	79970	125.0	114.9	
22 1,1-Dichloroethene	96	3.177	3.177	0.000	96	47462	25.0	23.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.232	3.225	0.007	95	46539	25.0	23.5	
24 Acetone	43	3.268	3.268	0.000	98	37639	50.0	49.3	
25 Iodomethane	142	3.348	3.365	-0.017	97	60382	25.0	22.0	
26 Carbon disulfide	76	3.439	3.444	-0.005	100	95585	25.0	20.7	
29 3-Chloro-1-propene	76	3.713	3.712	0.001	88	23248	25.0	20.1	
30 Methyl acetate	43	3.737	3.736	0.001	99	298891	125.0	119.7	
31 Methylene Chloride	84	3.925	3.931	-0.006	98	60744	25.0	23.5	
32 2-Methyl-2-propanol	59	4.193	4.199	-0.006	91	44805	250.0	262.5	
33 Acrylonitrile	53	4.327	4.326	0.001	99	301159	250.0	236.4	
34 trans-1,2-Dichloroethene	96	4.357	4.369	-0.012	96	50706	25.0	22.9	
35 Methyl tert-butyl ether	73	4.370	4.375	-0.005	97	152513	25.0	22.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.789	4.795	-0.006	93	87958	25.0	23.4	
37 1,1-Dichloroethane	63	5.008	5.008	0.000	96	96791	25.0	22.9	
38 Vinyl acetate	43	5.063	5.062	0.001	97	108515	25.0	20.4	
42 2,2-Dichloropropane	97	5.769	5.768	0.001	51	9010	25.0	21.8	
43 cis-1,2-Dichloroethene	96	5.769	5.774	-0.005	84	59736	25.0	23.4	
44 2-Butanone (MEK)	43	5.781	5.786	-0.005	73	57437	50.0	48.8	
48 Chlorobromomethane	128	6.061	6.054	0.007	92	24300	25.0	22.3	
49 Tetrahydrofuran	42	6.067	6.072	-0.005	91	50880	50.0	47.7	
50 Chloroform	83	6.207	6.206	0.001	96	90824	25.0	23.0	
51 1,1,1-Trichloroethane	97	6.365	6.364	0.001	97	56604	25.0	21.9	
52 Cyclohexane	56	6.438	6.437	0.001	97	117761	25.0	23.6	
53 Carbon tetrachloride	117	6.535	6.541	-0.006	94	41501	25.0	21.7	
54 1,1-Dichloropropene	75	6.554	6.553	0.001	94	70887	25.0	23.6	
55 Isobutyl alcohol	41	6.766	6.766	0.000	91	45763	625.0	645.3	M
56 Benzene	78	6.773	6.772	0.001	96	220094	25.0	24.4	
57 1,2-Dichloroethane	62	6.852	6.851	0.001	97	79825	25.0	22.8	
59 n-Heptane	43	7.144	7.143	0.001	97	73662	25.0	24.3	
61 Trichloroethene	130	7.509	7.514	-0.005	95	47018	25.0	22.5	
63 Methylcyclohexane	83	7.746	7.745	0.001	92	92000	25.0	23.7	
64 1,2-Dichloropropane	63	7.788	7.788	0.000	92	54830	25.0	22.9	
65 1,4-Dioxane	88	7.868	7.867	0.001	39	6816	500.0	453.1	M
67 Dibromomethane	93	7.874	7.867	0.007	97	29388	25.0	22.1	
68 Dichlorobromomethane	83	8.074	8.074	0.000	97	46692	25.0	20.0	
70 2-Chloroethyl vinyl ether	63	8.379	8.378	0.001	91	59938	50.0	43.0	
71 cis-1,3-Dichloropropene	75	8.525	8.524	0.001	90	55613	25.0	19.7	
72 4-Methyl-2-pentanone (MIBK	43	8.677	8.676	0.001	98	123739	50.0	48.8	
73 Toluene	91	8.847	8.852	-0.005	98	208443	25.0	26.3	
74 trans-1,3-Dichloropropene	75	9.102	9.102	0.000	98	45432	25.0	20.8	
75 Ethyl methacrylate	69	9.163	9.163	0.000	93	59538	25.0	22.7	
76 1,1,2-Trichloroethane	97	9.297	9.297	0.000	94	43344	25.0	25.0	
77 Tetrachloroethene	164	9.358	9.363	-0.005	94	36469	25.0	24.9	
78 1,3-Dichloropropane	76	9.449	9.455	-0.006	97	76829	25.0	24.5	
79 2-Hexanone	43	9.510	9.516	-0.006	97	71957	50.0	48.3	
81 Chlorodibromomethane	129	9.662	9.662	0.000	91	29583	25.0	21.9	
82 Ethylene Dibromide	107	9.772	9.771	0.001	98	40795	25.0	24.8	
83 3-Chlorobenzotrifluoride	180	10.246	10.246	0.000	94	70734	25.0	27.1	
84 Chlorobenzene	112	10.264	10.264	0.000	92	133860	25.0	26.2	
85 4-Chlorobenzotrifluoride	180	10.331	10.331	0.000	96	64138	25.0	26.6	
86 1,1,1,2-Tetrachloroethane	131	10.362	10.361	0.001	88	37896	25.0	23.9	
87 Ethylbenzene	106	10.368	10.367	0.001	99	74199	25.0	26.3	
88 m-Xylene & p-Xylene	106	10.496	10.501	-0.005	98	89487	25.0	25.4	
89 o-Xylene	106	10.879	10.878	0.001	98	91715	25.0	26.1	
90 Styrene	104	10.903	10.896	0.007	94	145259	25.0	25.5	
91 Bromoform	173	11.080	11.079	0.001	96	18887	25.0	21.5	
92 2-Chlorobenzotrifluoride	180	11.153	11.152	0.001	94	69614	25.0	26.7	
93 Isopropylbenzene	105	11.250	11.249	0.001	97	233980	25.0	27.7	
95 Bromobenzene	156	11.560	11.554	0.006	97	56394	25.0	22.9	
96 1,1,2,2-Tetrachloroethane	83	11.560	11.566	-0.006	94	65563	25.0	25.2	
97 trans-1,4-Dichloro-2-buten	53	11.597	11.596	0.001	66	23352	25.0	20.7	
98 1,2,3-Trichloropropane	110	11.615	11.614	0.001	89	22847	25.0	22.3	
99 N-Propylbenzene	120	11.664	11.663	0.001	99	61547	25.0	23.2	
100 2-Chlorotoluene	126	11.749	11.748	0.001	95	54880	25.0	23.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.816	11.815	0.001	97	58722	25.0	23.9	
102 1,3,5-Trimethylbenzene	105	11.846	11.846	0.000	94	198662	25.0	24.4	
103 4-Chlorotoluene	126	11.877	11.876	0.001	98	58443	25.0	23.0	
104 tert-Butylbenzene	119	12.156	12.162	-0.006	94	160777	25.0	24.8	
106 1,2,4-Trimethylbenzene	105	12.223	12.223	0.000	98	208788	25.0	24.8	
107 1,2-dichloro-4-(trifluorom	214	12.266	12.265	0.001	97	53892	25.0	24.6	
108 sec-Butylbenzene	105	12.388	12.387	0.001	95	232765	25.0	24.9	
109 1,3-Dichlorobenzene	146	12.497	12.503	-0.006	97	109227	25.0	23.8	
110 4-Isopropyltoluene	119	12.540	12.539	0.001	97	192953	25.0	24.9	
111 1,4-Dichlorobenzene	146	12.607	12.600	0.007	95	118072	25.0	24.6	
113 2,4-Dichloro-1-(triflourom	214	12.631	12.636	-0.005	97	52261	25.0	25.1	
114 2,5-Dichlorobenzotrifluori	214	12.680	12.673	0.007	97	58466	25.0	25.6	
116 n-Butylbenzene	91	12.947	12.947	0.000	99	174840	25.0	24.9	
117 1,2-Dichlorobenzene	146	12.953	12.959	-0.006	95	109351	25.0	24.8	
118 1,2-Dibromo-3-Chloropropan	75	13.744	13.750	-0.006	72	7791	25.0	18.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.890	13.890	0.000	99	225006	75.0	76.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.310	14.303	0.007	98	154191	50.0	50.0	
122 1,2,4-Trichlorobenzene	180	14.572	14.571	0.001	94	57586	25.0	24.1	
123 Hexachlorobutadiene	225	14.718	14.717	0.001	97	20699	25.0	23.0	
124 Naphthalene	128	14.833	14.832	0.001	97	152242	25.0	22.9	
125 1,2,3-Trichlorobenzene	180	15.052	15.058	-0.006	95	46355	25.0	22.4	
126 2,4,5-Trichlorotoluene	159	15.849	15.842	0.007	0	23413	25.0	19.1	
127 2,3,6-Trichlorotoluene	159	15.946	15.952	-0.006	94	20947	25.0	18.5	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		50.0	51.6	
S 130 1,2-Dichloroethene, Total	96				0		50.0	46.3	
S 132 1,3-Dichloropropene, Total	1				0		50.0	40.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWKetmix1st_00002	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	1.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	1.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	1.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	1.00	Units: uL	
VOA8260SURR_00066	Amount Added:	1.00	Units: uL	
voaWAcro1stRe_00011	Amount Added:	5.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

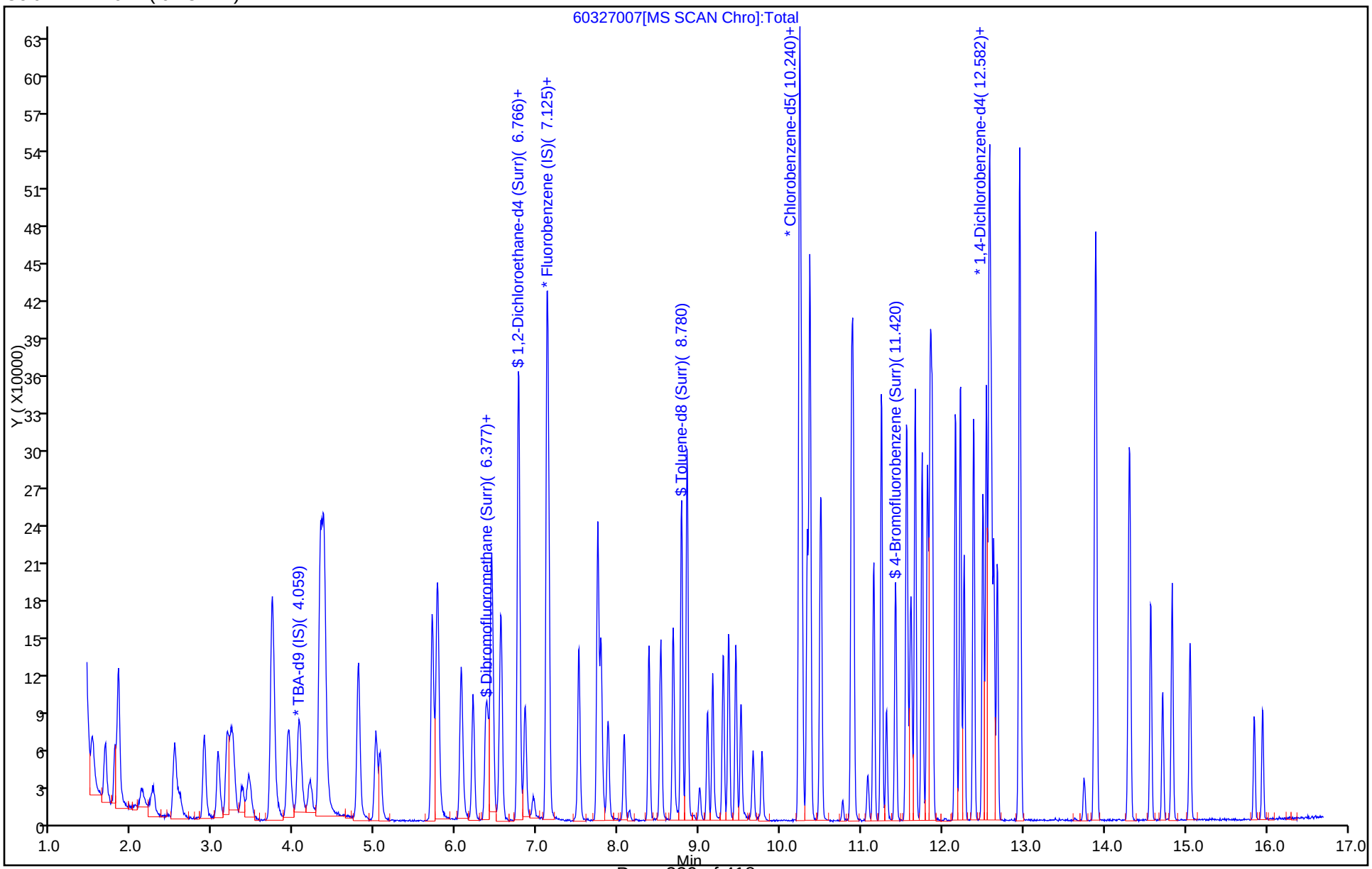
Report Date: 28-Mar-2017 09:07:46 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327007.D

Injection Date:	27-Mar-2017 13:20:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

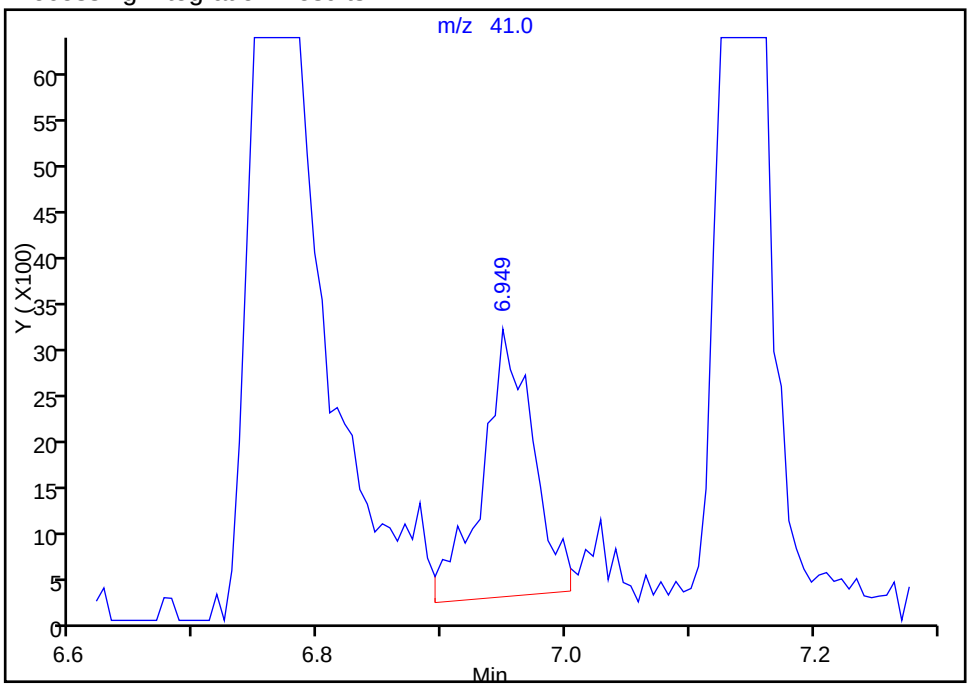
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327007.D				
Injection Date:	27-Mar-2017 13:20:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

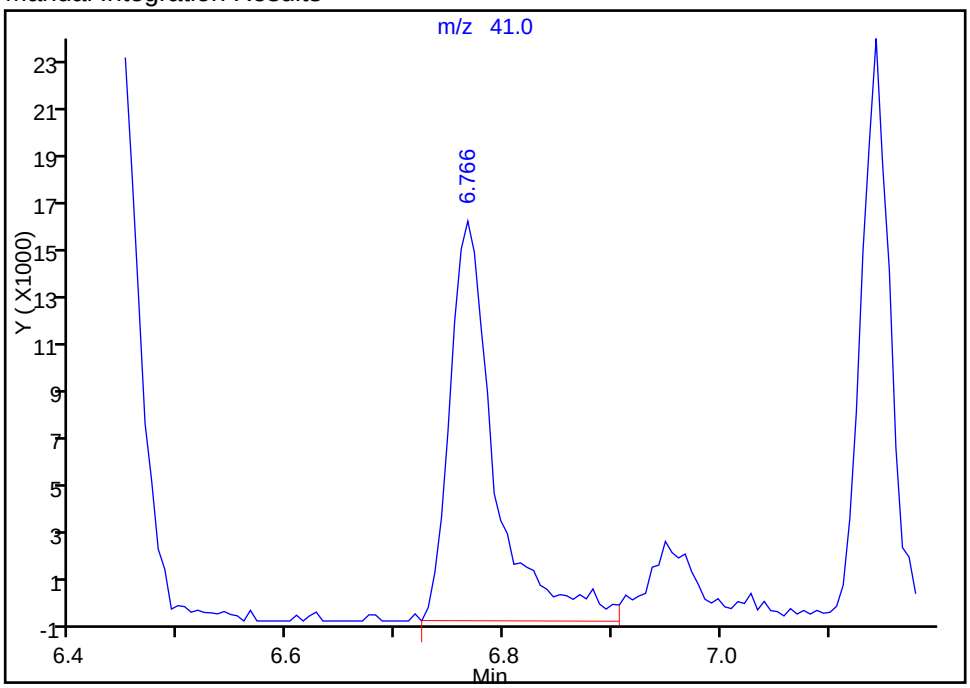
Processing Integration Results

RT: 6.95
Area: 8287
Amount: 288.8000
Amount Units: ng



Manual Integration Results

RT: 6.77
Area: 45763
Amount: 645.3062
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:43

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

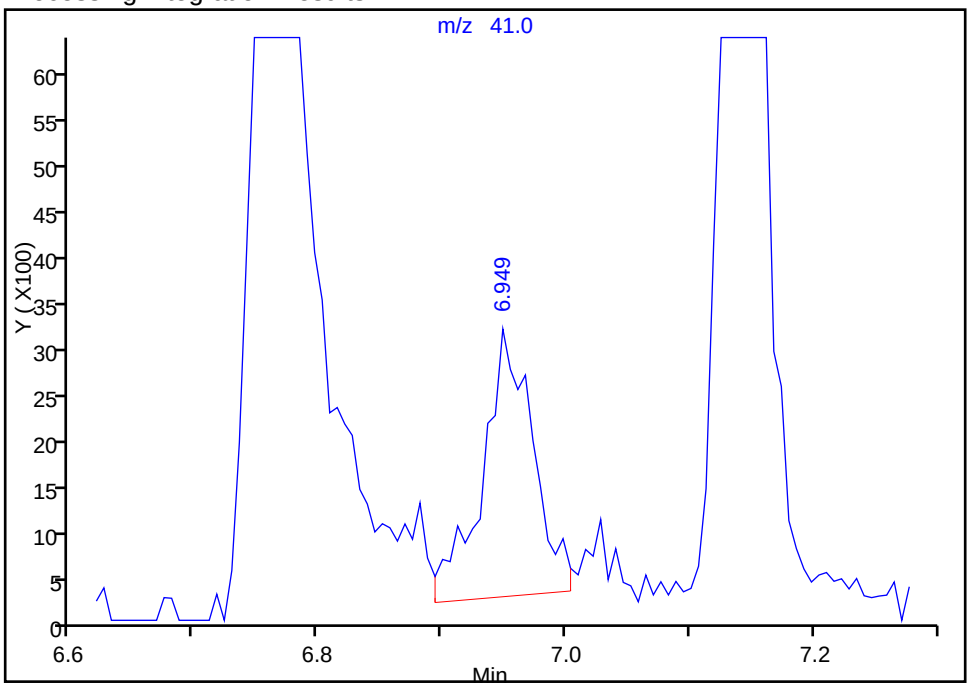
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327007.D
Injection Date: 27-Mar-2017 13:20:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

55 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

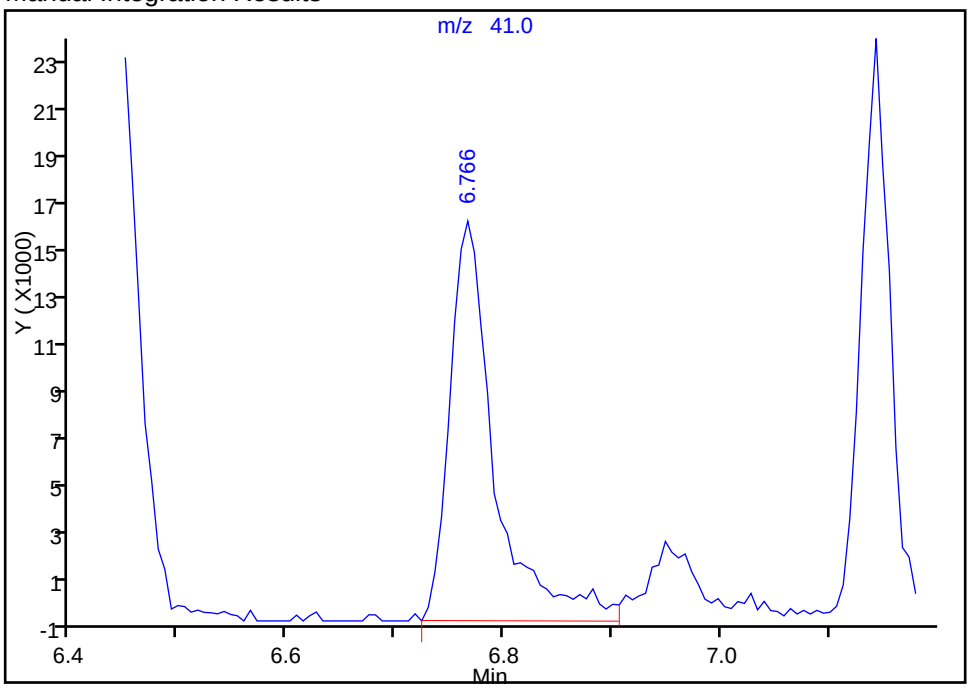
Processing Integration Results

RT: 6.95
Area: 8287
Amount: 288.8000
Amount Units: ng



Manual Integration Results

RT: 6.77
Area: 45763
Amount: 645.3062
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

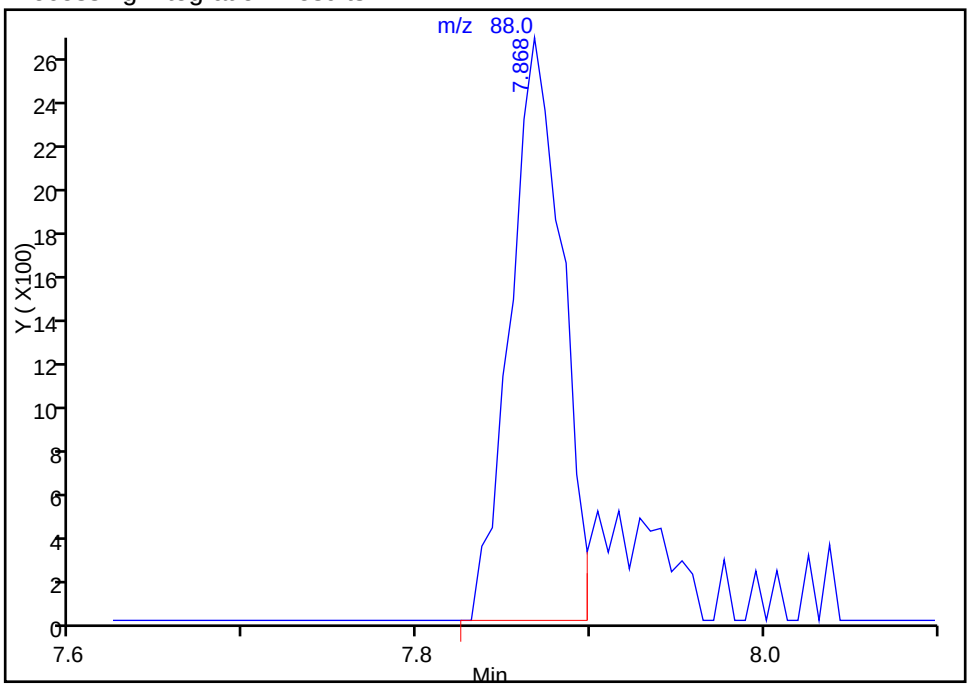
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327007.D				
Injection Date:	27-Mar-2017 13:20:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

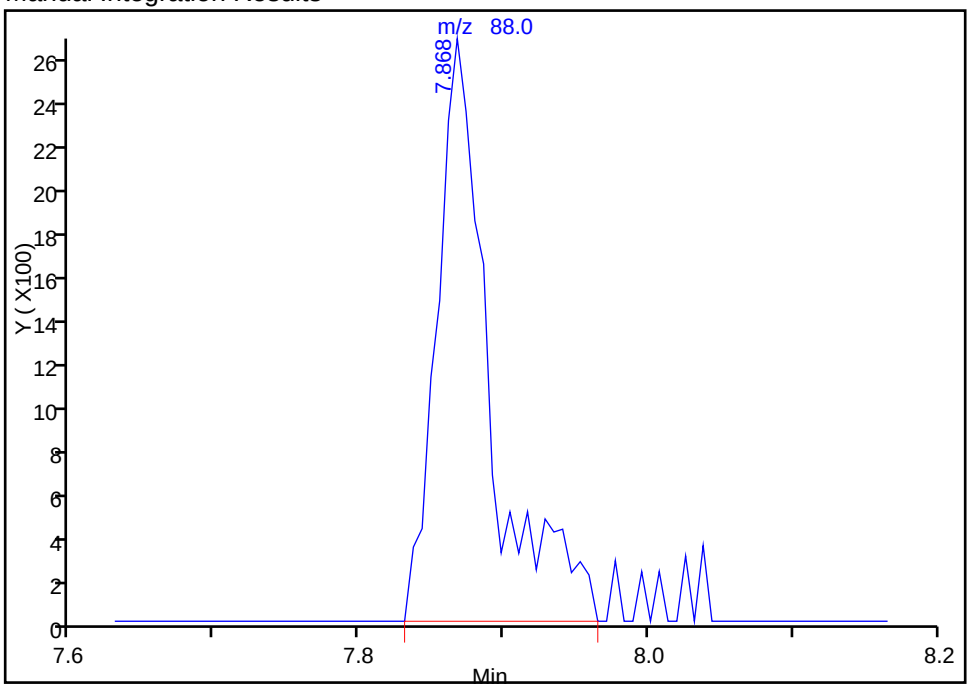
Processing Integration Results

RT: 7.87
Area: 5517
Amount: 403.2305
Amount Units: ng



Manual Integration Results

RT: 7.87
Area: 6816
Amount: 453.1425
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327008.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 27-Mar-2017 13:45:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-008
Misc. Info.: ICIS VSTD10
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:07:49 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 15:29:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.059	4.059	0.000	89	96247	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.119	7.119	0.000	98	356028	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.233	10.233	0.000	91	76555	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.576	12.576	0.000	94	121514	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.389	6.389	0.000	93	82273	50.0	51.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.766	6.766	0.000	83	124809	50.0	50.2	
$ 7 Toluene-d8 (Surr)	98	8.779	8.779	0.000	94	331040	50.0	55.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.420	11.420	0.000	85	132419	50.0	52.2	
11 Dichlorodifluoromethane	85	1.516	1.516	0.000	99	112691	50.0	50.0	
12 Chloromethane	50	1.662	1.662	0.000	99	149511	50.0	50.5	
13 Vinyl chloride	62	1.790	1.790	0.000	97	124641	50.0	50.0	
14 Butadiene	39	1.826	1.826	0.000	92	135357	50.0	50.6	
15 Bromomethane	94	2.130	2.130	0.000	93	39287	50.0	55.4	
16 Chloroethane	64	2.258	2.258	0.000	99	60681	50.0	53.5	
17 Dichlorofluoromethane	67	2.513	2.513	0.000	95	117985	50.0	54.4	
18 Trichlorofluoromethane	101	2.532	2.532	0.000	69	84894	50.0	53.3	
20 Ethyl ether	59	2.891	2.891	0.000	96	118652	50.0	49.0	
21 Acrolein	56	3.067	3.067	0.000	98	88178	150.0	135.1	
22 1,1-Dichloroethene	96	3.177	3.177	0.000	94	91807	50.0	48.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.225	3.225	0.000	93	90880	50.0	48.9	
24 Acetone	43	3.268	3.268	0.000	99	56344	100.0	78.7	
25 Iodomethane	142	3.365	3.365	0.000	99	124245	50.0	48.4	
26 Carbon disulfide	76	3.444	3.444	0.000	100	199236	50.0	46.0	
29 3-Chloro-1-propene	76	3.712	3.712	0.000	91	51212	50.0	47.2	
30 Methyl acetate	43	3.736	3.736	0.000	99	552464	250.0	235.9	
31 Methylene Chloride	84	3.931	3.931	0.000	98	117958	50.0	48.6	
32 2-Methyl-2-propanol	59	4.199	4.199	0.000	91	52099	500.0	437.5	
33 Acrylonitrile	53	4.326	4.326	0.000	99	540596	500.0	452.7	
34 trans-1,2-Dichloroethene	96	4.369	4.369	0.000	95	101938	50.0	49.0	
35 Methyl tert-butyl ether	73	4.375	4.375	0.000	98	298117	50.0	47.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.795	4.795	0.000	94	174280	50.0	49.5	
37 1,1-Dichloroethane	63	5.008	5.008	0.000	97	191981	50.0	48.5	
38 Vinyl acetate	43	5.062	5.062	0.000	97	216434	50.0	43.5	
42 2,2-Dichloropropane	97	5.768	5.768	0.000	52	18851	50.0	48.6	
43 cis-1,2-Dichloroethene	96	5.774	5.774	0.000	87	119205	50.0	49.8	
44 2-Butanone (MEK)	43	5.786	5.786	0.000	74	90862	100.0	82.4	
48 Chlorobromomethane	128	6.054	6.054	0.000	91	50373	50.0	49.3	
49 Tetrahydrofuran	42	6.072	6.072	0.000	92	86006	100.0	85.9	
50 Chloroform	83	6.206	6.206	0.000	95	180628	50.0	48.9	
51 1,1,1-Trichloroethane	97	6.364	6.364	0.000	96	118447	50.0	48.8	
52 Cyclohexane	56	6.437	6.437	0.000	96	233741	50.0	49.9	
53 Carbon tetrachloride	117	6.541	6.541	0.000	95	85817	50.0	47.8	
54 1,1-Dichloropropene	75	6.553	6.553	0.000	94	138130	50.0	49.0	
55 Isobutyl alcohol	41	6.766	6.766	0.000	60	71916	1250.0	1081.7	
56 Benzene	78	6.772	6.772	0.000	98	408593	50.0	48.4	
57 1,2-Dichloroethane	62	6.851	6.851	0.000	96	158313	50.0	48.2	
59 n-Heptane	43	7.143	7.143	0.000	94	135077	50.0	47.6	
61 Trichloroethene	130	7.514	7.514	0.000	95	94065	50.0	48.0	
63 Methylcyclohexane	83	7.745	7.745	0.000	95	184256	50.0	50.6	
64 1,2-Dichloropropane	63	7.788	7.788	0.000	93	105807	50.0	47.2	
67 Dibromomethane	93	7.867	7.867	0.000	94	58537	50.0	46.9	
65 1,4-Dioxane	88	7.867	7.867	0.000	36	12422	1000.0	880.9	M
68 Dichlorobromomethane	83	8.074	8.074	0.000	97	98502	50.0	44.9	
70 2-Chloroethyl vinyl ether	63	8.378	8.378	0.000	91	116067	100.0	88.9	
71 cis-1,3-Dichloropropene	75	8.524	8.524	0.000	91	116468	50.0	44.0	
72 4-Methyl-2-pentanone (MIBK	43	8.676	8.676	0.000	98	238510	100.0	95.9	
73 Toluene	91	8.852	8.852	0.000	98	396623	50.0	51.0	
74 trans-1,3-Dichloropropene	75	9.102	9.102	0.000	98	94419	50.0	44.2	
75 Ethyl methacrylate	69	9.163	9.163	0.000	92	121572	50.0	47.4	
76 1,1,2-Trichloroethane	97	9.297	9.297	0.000	93	83055	50.0	48.9	
77 Tetrachloroethene	164	9.363	9.363	0.000	98	71099	50.0	49.4	
78 1,3-Dichloropropane	76	9.455	9.455	0.000	97	148935	50.0	48.5	
79 2-Hexanone	43	9.516	9.516	0.000	98	133927	100.0	91.7	
81 Chlorodibromomethane	129	9.662	9.662	0.000	91	59782	50.0	45.2	
82 Ethylene Dibromide	107	9.771	9.771	0.000	99	77044	50.0	47.7	
83 3-Chlorobenzotrifluoride	180	10.246	10.246	0.000	93	131544	50.0	51.5	
84 Chlorobenzene	112	10.264	10.264	0.000	92	247731	50.0	49.5	
85 4-Chlorobenzotrifluoride	180	10.331	10.331	0.000	95	123973	50.0	52.4	
86 1,1,1,2-Tetrachloroethane	131	10.361	10.361	0.000	89	75092	50.0	48.2	
87 Ethylbenzene	106	10.367	10.367	0.000	99	139570	50.0	50.4	
88 m-Xylene & p-Xylene	106	10.501	10.501	0.000	99	175647	50.0	50.9	
89 o-Xylene	106	10.878	10.878	0.000	97	176804	50.0	51.4	
90 Styrene	104	10.896	10.896	0.000	94	282722	50.0	50.6	
91 Bromoform	173	11.079	11.079	0.000	95	38411	50.0	44.5	
92 2-Chlorobenzotrifluoride	180	11.152	11.152	0.000	96	133942	50.0	52.3	
93 Isopropylbenzene	105	11.249	11.249	0.000	97	430993	50.0	52.0	
95 Bromobenzene	156	11.554	11.554	0.000	98	102526	50.0	47.7	
96 1,1,2,2-Tetrachloroethane	83	11.566	11.566	0.000	95	126525	50.0	49.5	
97 trans-1,4-Dichloro-2-buten	53	11.596	11.596	0.000	69	46531	50.0	47.3	
98 1,2,3-Trichloropropane	110	11.614	11.614	0.000	89	41724	50.0	46.6	
99 N-Propylbenzene	120	11.663	11.663	0.000	99	113640	50.0	49.1	
100 2-Chlorotoluene	126	11.748	11.748	0.000	95	99587	50.0	49.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.815	11.815	0.000	97	109801	50.0	51.1	
102 1,3,5-Trimethylbenzene	105	11.846	11.846	0.000	93	354037	50.0	49.9	
103 4-Chlorotoluene	126	11.876	11.876	0.000	99	105715	50.0	47.7	
104 tert-Butylbenzene	119	12.162	12.162	0.000	93	280664	50.0	49.6	
106 1,2,4-Trimethylbenzene	105	12.223	12.223	0.000	98	366510	50.0	49.9	
107 1,2-dichloro-4-(trifluorom	214	12.265	12.265	0.000	98	98554	50.0	51.5	
108 sec-Butylbenzene	105	12.387	12.387	0.000	95	415360	50.0	50.9	
109 1,3-Dichlorobenzene	146	12.503	12.503	0.000	97	199370	50.0	49.7	
110 4-Isopropyltoluene	119	12.539	12.539	0.000	97	343888	50.0	50.9	
111 1,4-Dichlorobenzene	146	12.600	12.600	0.000	93	202051	50.0	48.1	
113 2,4-Dichloro-1-(triflourom	214	12.636	12.636	0.000	95	93013	50.0	51.2	
114 2,5-Dichlorobenzotrifluori	214	12.673	12.673	0.000	98	104602	50.0	52.5	
116 n-Butylbenzene	91	12.947	12.947	0.000	99	312316	50.0	51.0	
117 1,2-Dichlorobenzene	146	12.959	12.959	0.000	96	190221	50.0	49.4	
118 1,2-Dibromo-3-Chloropropan	75	13.750	13.750	0.000	74	17075	50.0	45.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.890	13.890	0.000	99	408225	150.0	159.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.303	14.303	0.000	98	280063	100.0	103.9	
122 1,2,4-Trichlorobenzene	180	14.571	14.571	0.000	94	108205	50.0	51.8	
123 Hexachlorobutadiene	225	14.717	14.717	0.000	95	41822	50.0	53.2	
124 Naphthalene	128	14.832	14.832	0.000	97	303491	50.0	52.2	
125 1,2,3-Trichlorobenzene	180	15.058	15.058	0.000	95	95032	50.0	52.6	
126 2,4,5-Trichlorotoluene	159	15.842	15.842	0.000	0	55676	50.0	52.0	
127 2,3,6-Trichlorotoluene	159	15.952	15.952	0.000	92	51331	50.0	52.0	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	98.9	
S 131 Xylenes, Total	106				0		100.0	102.3	
S 132 1,3-Dichloropropene, Total	1				0		100.0	88.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00011	Amount Added:	6.00	Units: uL	
VOA8260SURR_00066	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	2.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	2.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	2.00	Units: uL	
voaWKetmix1st_00002	Amount Added:	2.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	2.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

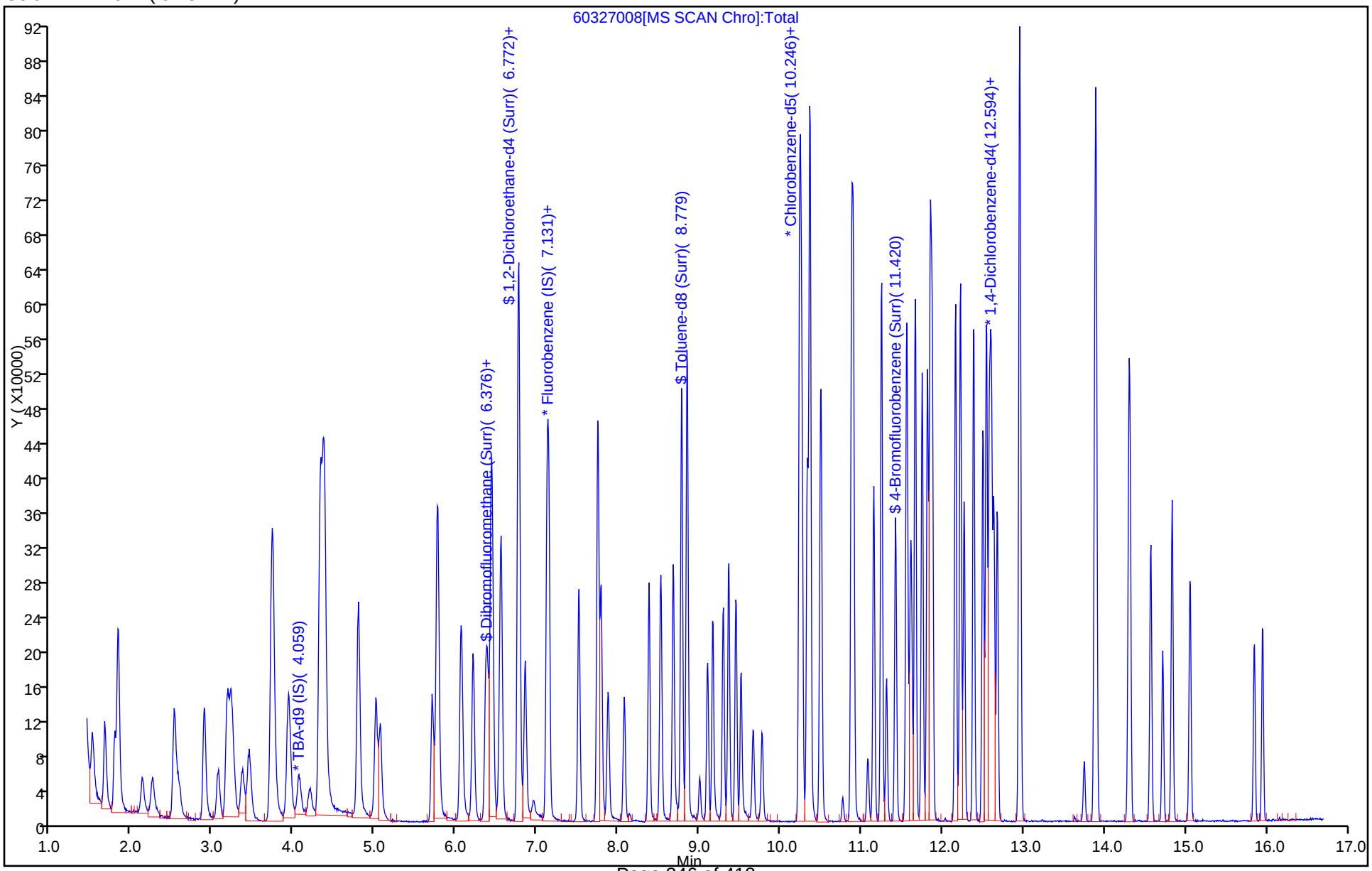
Report Date: 28-Mar-2017 09:07:50 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327008.D

Injection Date:	27-Mar-2017 13:45:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

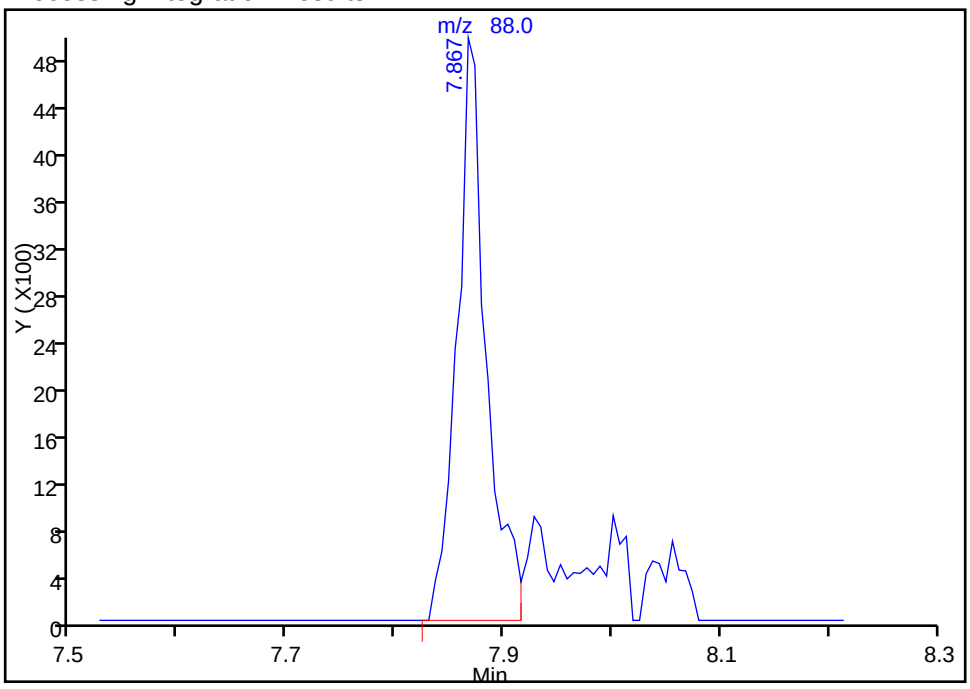
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327008.D				
Injection Date:	27-Mar-2017 13:45:30	Instrument ID:	CHHP6		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

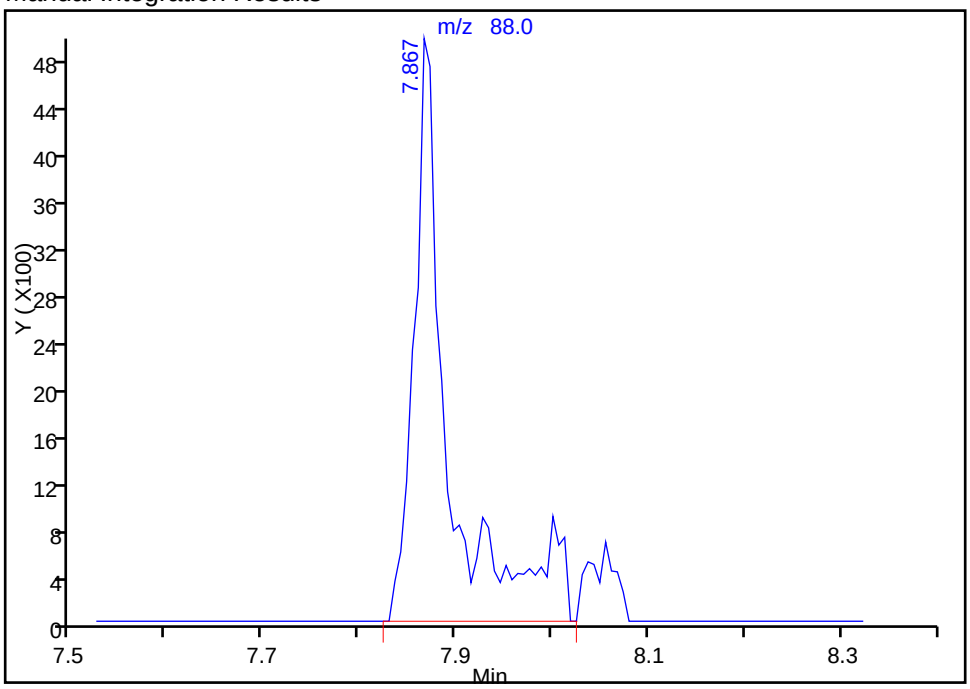
Processing Integration Results

RT: 7.87
Area: 9295
Amount: 749.5189
Amount Units: ng



Manual Integration Results

RT: 7.87
Area: 12422
Amount: 880.8694
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:07:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327009.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Mar-2017 14:09:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-009
Misc. Info.: IC VSTD15
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:07:54 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 15:45:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.060	4.060	0.000	90	156656	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.120	7.120	0.000	98	361242	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.235	10.235	0.000	91	78434	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.577	12.577	0.000	96	130024	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.390	6.390	0.000	94	117678	75.0	72.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.761	6.761	0.000	90	185325	75.0	73.5	
$ 7 Toluene-d8 (Surr)	98	8.781	8.781	0.000	94	465492	75.0	75.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.421	11.421	0.000	85	196600	75.0	75.7	
11 Dichlorodifluoromethane	85	1.505	1.505	0.000	98	168133	75.0	73.6	
12 Chloromethane	50	1.663	1.663	0.000	99	227692	75.0	75.9	
13 Vinyl chloride	62	1.785	1.785	0.000	98	190975	75.0	75.5	
14 Butadiene	39	1.833	1.833	0.000	91	204115	75.0	75.2	
15 Bromomethane	94	2.113	2.113	0.000	91	51952	75.0	72.1	
16 Chloroethane	64	2.253	2.253	0.000	99	88953	75.0	77.3	
17 Dichlorofluoromethane	67	2.515	2.515	0.000	96	167177	75.0	75.9	
18 Trichlorofluoromethane	101	2.527	2.527	0.000	69	122842	75.0	76.0	
20 Ethyl ether	59	2.886	2.886	0.000	96	183576	75.0	74.7	
21 Acrolein	56	3.056	3.056	0.000	99	120650	175.0	182.2	
22 1,1-Dichloroethene	96	3.172	3.172	0.000	94	148825	75.0	76.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.226	3.226	0.000	94	144103	75.0	76.4	
24 Acetone	43	3.257	3.257	0.000	99	119390	150.0	164.4	
25 Iodomethane	142	3.360	3.360	0.000	100	195389	75.0	75.0	
26 Carbon disulfide	76	3.445	3.445	0.000	100	326677	75.0	74.3	
29 3-Chloro-1-propene	76	3.719	3.719	0.000	90	83179	75.0	75.6	
30 Methyl acetate	43	3.731	3.731	0.000	99	908745	375.0	382.4	
31 Methylene Chloride	84	3.926	3.926	0.000	98	178789	75.0	72.6	
32 2-Methyl-2-propanol	59	4.200	4.200	0.000	92	152648	750.0	787.6	
33 Acrylonitrile	53	4.321	4.321	0.000	98	955621	750.0	788.6	
34 trans-1,2-Dichloroethene	96	4.358	4.358	0.000	95	159544	75.0	75.6	
35 Methyl tert-butyl ether	73	4.370	4.370	0.000	97	480085	75.0	75.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.790	4.790	0.000	93	266370	75.0	74.6	
37 1,1-Dichloroethane	63	5.003	5.003	0.000	96	298153	75.0	74.3	
38 Vinyl acetate	43	5.057	5.057	0.000	97	389887	75.0	77.2	
42 2,2-Dichloropropane	97	5.763	5.763	0.000	75	29523	75.0	75.0	
43 cis-1,2-Dichloroethene	96	5.769	5.769	0.000	86	182097	75.0	75.1	
44 2-Butanone (MEK)	43	5.775	5.775	0.000	99	167937	150.0	150.1	
48 Chlorobromomethane	128	6.055	6.055	0.000	90	76573	75.0	73.9	
49 Tetrahydrofuran	42	6.067	6.067	0.000	92	151749	150.0	149.4	
50 Chloroform	83	6.207	6.207	0.000	97	280324	75.0	74.7	
51 1,1,1-Trichloroethane	97	6.365	6.365	0.000	97	186824	75.0	75.9	
52 Cyclohexane	56	6.432	6.432	0.000	95	359022	75.0	75.5	
53 Carbon tetrachloride	117	6.536	6.536	0.000	95	137463	75.0	75.5	
54 1,1-Dichloropropene	75	6.554	6.554	0.000	93	220326	75.0	77.0	
55 Isobutyl alcohol	41	6.767	6.767	0.000	93	150534	1875.0	2231.4	
56 Benzene	78	6.773	6.773	0.000	98	639443	75.0	74.6	
57 1,2-Dichloroethane	62	6.852	6.852	0.000	97	246081	75.0	73.8	
59 n-Heptane	43	7.144	7.144	0.000	96	217321	75.0	75.4	
61 Trichloroethene	130	7.509	7.509	0.000	97	147368	75.0	74.2	
63 Methylcyclohexane	83	7.746	7.746	0.000	94	281154	75.0	76.1	
64 1,2-Dichloropropane	63	7.783	7.783	0.000	94	166135	75.0	73.0	
65 1,4-Dioxane	88	7.868	7.868	0.000	41	23260	1500.0	1625.6	
67 Dibromomethane	93	7.874	7.874	0.000	96	94415	75.0	74.5	
68 Dichlorobromomethane	83	8.075	8.075	0.000	98	160628	75.0	72.2	
70 2-Chloroethyl vinyl ether	63	8.379	8.379	0.000	92	191438	150.0	144.4	
71 cis-1,3-Dichloropropene	75	8.519	8.519	0.000	91	196404	75.0	73.1	
72 4-Methyl-2-pentanone (MIBK	43	8.677	8.677	0.000	97	408528	150.0	160.4	
73 Toluene	91	8.847	8.847	0.000	98	622636	75.0	78.1	
74 trans-1,3-Dichloropropene	75	9.103	9.103	0.000	98	166589	75.0	76.0	
75 Ethyl methacrylate	69	9.164	9.164	0.000	92	207248	75.0	78.8	
76 1,1,2-Trichloroethane	97	9.298	9.298	0.000	94	129266	75.0	74.3	
77 Tetrachloroethene	164	9.365	9.365	0.000	97	115941	75.0	78.7	
78 1,3-Dichloropropane	76	9.450	9.450	0.000	97	235636	75.0	74.9	
79 2-Hexanone	43	9.511	9.511	0.000	96	230831	150.0	154.2	
81 Chlorodibromomethane	129	9.663	9.663	0.000	91	103568	75.0	76.4	
82 Ethylene Dibromide	107	9.772	9.772	0.000	99	126643	75.0	76.5	
83 3-Chlorobenzotrifluoride	180	10.247	10.247	0.000	92	211617	75.0	80.8	
84 Chlorobenzene	112	10.265	10.265	0.000	90	395300	75.0	77.1	
85 4-Chlorobenzotrifluoride	180	10.332	10.332	0.000	96	194348	75.0	80.2	
86 1,1,1,2-Tetrachloroethane	131	10.356	10.356	0.000	91	128689	75.0	80.7	
87 Ethylbenzene	106	10.368	10.368	0.000	99	221704	75.0	78.2	
88 m-Xylene & p-Xylene	106	10.496	10.496	0.000	100	281024	75.0	79.5	
89 o-Xylene	106	10.879	10.879	0.000	98	280158	75.0	79.5	
90 Styrene	104	10.898	10.898	0.000	94	457133	75.0	79.9	
91 Bromoform	173	11.074	11.074	0.000	95	69088	75.0	78.2	
92 2-Chlorobenzotrifluoride	180	11.153	11.153	0.000	95	212914	75.0	81.2	
93 Isopropylbenzene	105	11.244	11.244	0.000	97	704493	75.0	82.9	
95 Bromobenzene	156	11.555	11.555	0.000	98	165506	75.0	72.0	
96 1,1,2,2-Tetrachloroethane	83	11.561	11.561	0.000	94	207638	75.0	79.3	
97 trans-1,4-Dichloro-2-buten	53	11.597	11.597	0.000	75	75886	75.0	72.0	
98 1,2,3-Trichloropropane	110	11.615	11.615	0.000	89	67770	75.0	70.7	
99 N-Propylbenzene	120	11.664	11.664	0.000	99	189020	75.0	76.4	
100 2-Chlorotoluene	126	11.749	11.749	0.000	95	161253	75.0	74.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.816	11.816	0.000	97	175512	75.0	76.3	
102 1,3,5-Trimethylbenzene	105	11.847	11.847	0.000	93	598931	75.0	78.8	
103 4-Chlorotoluene	126	11.871	11.871	0.000	99	173793	75.0	73.2	
104 tert-Butylbenzene	119	12.157	12.157	0.000	94	483378	75.0	79.9	
106 1,2,4-Trimethylbenzene	105	12.218	12.218	0.000	99	620269	75.0	78.9	
107 1,2-dichloro-4-(trifluorom	214	12.266	12.266	0.000	98	159307	75.0	77.8	
108 sec-Butylbenzene	105	12.382	12.382	0.000	95	709820	75.0	81.3	
109 1,3-Dichlorobenzene	146	12.498	12.498	0.000	97	322100	75.0	75.1	
110 4-Isopropyltoluene	119	12.540	12.540	0.000	96	584588	75.0	80.8	
111 1,4-Dichlorobenzene	146	12.601	12.601	0.000	93	332849	75.0	74.1	
113 2,4-Dichloro-1-(triflourom	214	12.631	12.631	0.000	96	154948	75.0	79.7	
114 2,5-Dichlorobenzotrifluori	214	12.674	12.674	0.000	98	165814	75.0	77.8	
116 n-Butylbenzene	91	12.948	12.948	0.000	98	525648	75.0	80.2	
117 1,2-Dichlorobenzene	146	12.960	12.960	0.000	95	307487	75.0	74.7	
118 1,2-Dibromo-3-Chloropropan	75	13.751	13.751	0.000	75	30218	75.0	75.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.891	13.891	0.000	99	633923	225.0	231.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.304	14.304	0.000	99	426720	150.0	147.9	
122 1,2,4-Trichlorobenzene	180	14.572	14.572	0.000	94	150272	75.0	67.2	
123 Hexachlorobutadiene	225	14.718	14.718	0.000	95	60872	75.0	72.4	
124 Naphthalene	128	14.834	14.834	0.000	98	433800	75.0	69.7	
125 1,2,3-Trichlorobenzene	180	15.053	15.053	0.000	95	123568	75.0	64.0	
126 2,4,5-Trichlorotoluene	159	15.850	15.850	0.000	0	55312	75.0	48.3	
127 2,3,6-Trichlorotoluene	159	15.947	15.947	0.000	95	52549	75.0	49.8	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		150.0	159.0	
S 130 1,2-Dichloroethene, Total	96				0		150.0	150.7	
S 132 1,3-Dichloropropene, Total	1				0		150.0	149.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00066	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	3.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	3.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	3.00	Units: uL	
voaWKetmix1st_00002	Amount Added:	3.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	3.00	Units: uL	
voaWAcro1stRe_00011	Amount Added:	7.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

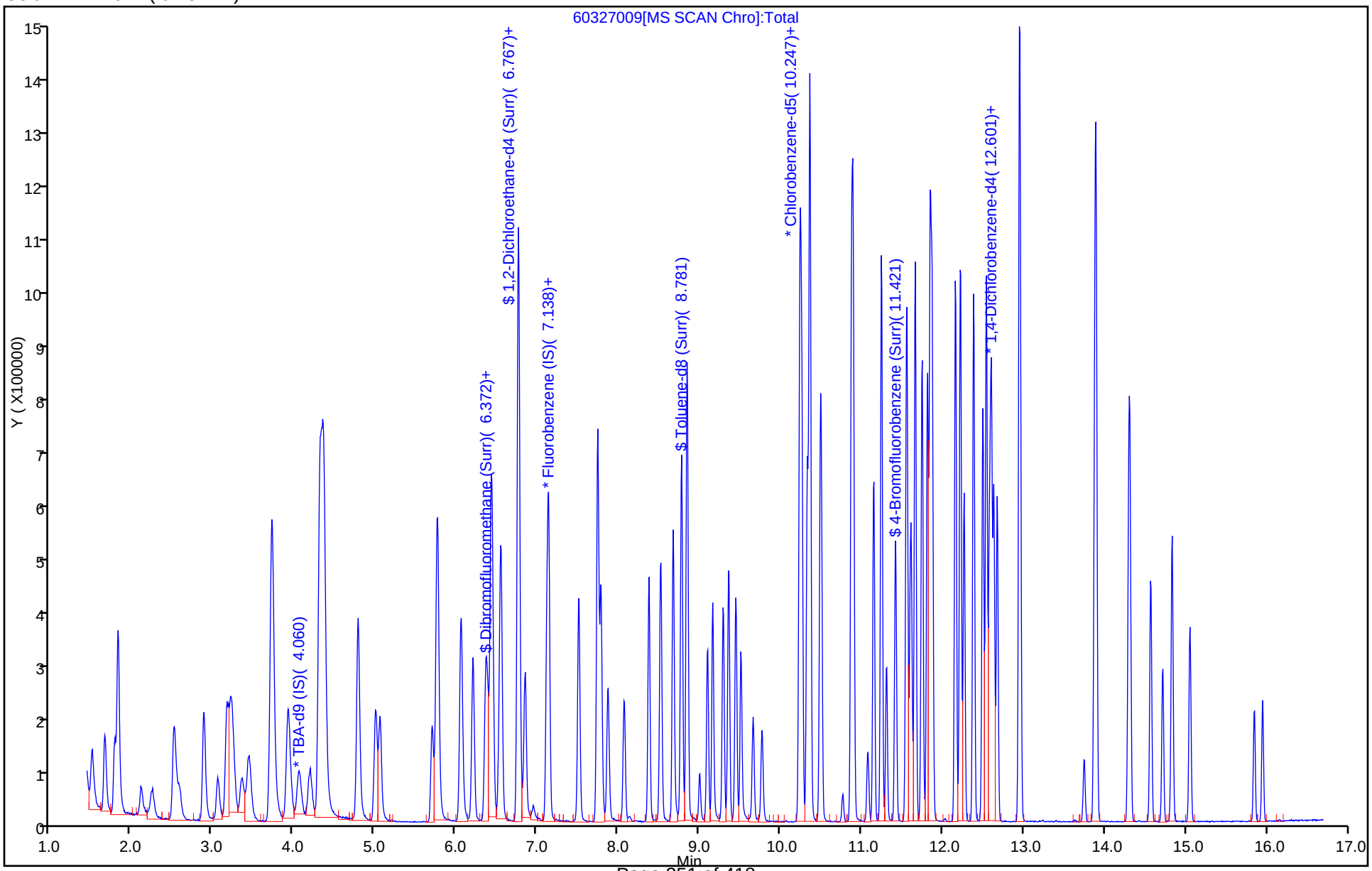
Report Date: 28-Mar-2017 09:07:57 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327009.D

Injection Date:	27-Mar-2017 14:09:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327010.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Mar-2017 14:33:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-010
Misc. Info.: IC VSTD20
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:08:01 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 15:47:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.048	4.060	-0.012	89	113966	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.120	7.120	0.000	98	339992	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.235	10.235	0.000	92	77586	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.577	12.577	0.000	97	118370	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.390	6.390	0.000	93	153020	100.0	100.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.762	6.761	0.001	86	238536	100.0	100.5	
$ 7 Toluene-d8 (Surr)	98	8.781	8.781	0.000	94	588517	100.0	96.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.421	11.421	0.000	86	253479	100.0	98.7	
11 Dichlorodifluoromethane	85	1.512	1.505	0.007	99	216483	100.0	100.7	
12 Chloromethane	50	1.664	1.663	0.001	98	279721	100.0	99.0	
13 Vinyl chloride	62	1.785	1.785	0.000	99	236286	100.0	99.3	
14 Butadiene	39	1.834	1.833	0.001	90	251666	100.0	98.5	
15 Bromomethane	94	2.138	2.113	0.025	91	72319	100.0	106.7	
16 Chloroethane	64	2.260	2.253	0.007	99	112754	100.0	104.1	
17 Dichlorofluoromethane	67	2.521	2.515	0.006	97	212083	100.0	102.3	
18 Trichlorofluoromethane	101	2.540	2.527	0.013	96	154725	100.0	101.8	
20 Ethyl ether	59	2.892	2.886	0.006	95	242903	100.0	105.0	
21 Acrolein	56	3.063	3.056	0.007	99	128285	200.0	205.8	
22 1,1-Dichloroethene	96	3.172	3.172	0.000	94	184505	100.0	101.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.227	3.226	0.001	94	178311	100.0	100.5	
24 Acetone	43	3.257	3.257	0.000	100	121339	200.0	177.6	
25 Iodomethane	142	3.355	3.360	-0.005	98	255641	100.0	104.3	
26 Carbon disulfide	76	3.446	3.445	0.001	100	427112	100.0	103.2	
29 3-Chloro-1-propene	76	3.720	3.719	0.001	90	113929	100.0	110.0	
30 Methyl acetate	43	3.732	3.731	0.001	99	1147895	500.0	513.3	
31 Methylene Chloride	84	3.933	3.926	0.007	99	234202	100.0	101.1	
32 2-Methyl-2-propanol	59	4.188	4.200	-0.012	95	136791	1000.0	970.1	
33 Acrylonitrile	53	4.322	4.321	0.001	98	1172162	1000.0	1027.8	
34 trans-1,2-Dichloroethene	96	4.359	4.358	0.001	96	206418	100.0	104.0	
35 Methyl tert-butyl ether	73	4.377	4.370	0.007	98	626157	100.0	103.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.791	4.790	0.000	94	339107	100.0	100.9	
37 1,1-Dichloroethane	63	5.010	5.003	0.007	97	396245	100.0	104.9	
38 Vinyl acetate	43	5.058	5.057	0.001	97	485922	100.0	102.3	
42 2,2-Dichloropropane	97	5.770	5.763	0.007	79	38326	100.0	103.4	
43 cis-1,2-Dichloroethene	96	5.770	5.769	0.001	87	239234	100.0	104.8	
44 2-Butanone (MEK)	43	5.776	5.775	0.001	100	205167	200.0	194.9	
48 Chlorobromomethane	128	6.062	6.055	0.007	92	103507	100.0	106.2	
49 Tetrahydrofuran	42	6.068	6.067	0.001	92	185555	200.0	194.2	
50 Chloroform	83	6.208	6.207	0.001	95	368143	100.0	104.3	
51 1,1,1-Trichloroethane	97	6.360	6.365	-0.005	97	238939	100.0	103.1	
52 Cyclohexane	56	6.433	6.432	0.001	96	460014	100.0	102.8	
53 Carbon tetrachloride	117	6.543	6.536	0.007	95	176699	100.0	103.1	
54 1,1-Dichloropropene	75	6.555	6.554	0.001	93	275270	100.0	102.2	
55 Isobutyl alcohol	41	6.762	6.767	-0.005	82	153846	2500.0	2423.1	
56 Benzene	78	6.768	6.773	-0.005	98	838690	100.0	104.0	
57 1,2-Dichloroethane	62	6.853	6.852	0.001	96	328081	100.0	104.6	
59 n-Heptane	43	7.145	7.144	0.001	95	272528	100.0	100.5	
61 Trichloroethene	130	7.510	7.509	0.001	96	193061	100.0	103.2	
63 Methylcyclohexane	83	7.747	7.746	0.001	96	356941	100.0	102.6	
64 1,2-Dichloropropane	63	7.784	7.783	0.001	93	222838	100.0	104.0	
67 Dibromomethane	93	7.875	7.874	0.001	96	125984	100.0	105.6	
65 1,4-Dioxane	88	7.875	7.868	0.007	36	27130	2000.0	2014.6	M
68 Dichlorobromomethane	83	8.069	8.075	-0.006	98	223370	100.0	106.7	
70 2-Chloroethyl vinyl ether	63	8.380	8.379	0.001	92	265478	200.0	212.8	
71 cis-1,3-Dichloropropene	75	8.520	8.519	0.001	92	282086	100.0	111.5	
72 4-Methyl-2-pentanone (MIBK	43	8.678	8.677	0.001	97	530164	200.0	210.4	
73 Toluene	91	8.848	8.847	0.001	98	800917	100.0	101.6	
74 trans-1,3-Dichloropropene	75	9.098	9.103	-0.005	98	231620	100.0	106.9	
75 Ethyl methacrylate	69	9.165	9.164	0.000	92	278418	100.0	107.0	
76 1,1,2-Trichloroethane	97	9.292	9.298	-0.006	94	176445	100.0	102.6	
77 Tetrachloroethene	164	9.365	9.365	0.000	97	148096	100.0	101.6	
78 1,3-Dichloropropane	76	9.450	9.450	0.000	97	320485	100.0	102.9	
79 2-Hexanone	43	9.511	9.511	0.000	97	302749	200.0	204.5	
81 Chlorodibromomethane	129	9.663	9.663	0.000	91	144364	100.0	107.7	
82 Ethylene Dibromide	107	9.773	9.772	0.001	98	170125	100.0	103.9	
83 3-Chlorobenzotrifluoride	180	10.247	10.247	0.000	92	244070	100.0	94.3	
84 Chlorobenzene	112	10.266	10.265	0.001	90	517443	100.0	102.0	
85 4-Chlorobenzotrifluoride	180	10.333	10.332	0.001	96	231360	100.0	96.5	
86 1,1,1,2-Tetrachloroethane	131	10.357	10.356	0.001	90	171215	100.0	108.5	
87 Ethylbenzene	106	10.369	10.368	0.001	99	289210	100.0	103.1	
88 m-Xylene & p-Xylene	106	10.497	10.496	0.001	99	365397	100.0	104.5	
89 o-Xylene	106	10.880	10.879	0.001	97	360795	100.0	103.5	
90 Styrene	104	10.898	10.898	0.000	94	603602	100.0	106.7	
91 Bromoform	173	11.081	11.074	0.007	96	94643	100.0	108.3	
92 2-Chlorobenzotrifluoride	180	11.154	11.153	0.001	94	255199	100.0	98.4	
93 Isopropylbenzene	105	11.245	11.244	0.001	98	876659	100.0	104.3	
95 Bromobenzene	156	11.555	11.555	0.000	98	218820	100.0	104.6	
96 1,1,2,2-Tetrachloroethane	83	11.561	11.561	0.000	94	275214	100.0	106.3	
97 trans-1,4-Dichloro-2-buten	53	11.598	11.597	0.001	82	98981	100.0	103.2	
98 1,2,3-Trichloropropane	110	11.616	11.615	0.001	88	90931	100.0	104.2	
99 N-Propylbenzene	120	11.665	11.664	0.001	99	237232	100.0	105.3	
100 2-Chlorotoluene	126	11.750	11.749	0.001	95	207261	100.0	104.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.817	11.816	0.001	97	207158	100.0	98.9	
102 1,3,5-Trimethylbenzene	105	11.847	11.847	0.000	93	733873	100.0	106.1	
103 4-Chlorotoluene	126	11.872	11.871	0.001	99	224469	100.0	103.9	
104 tert-Butylbenzene	119	12.164	12.157	0.007	93	579488	100.0	105.2	
106 1,2,4-Trimethylbenzene	105	12.218	12.218	0.000	99	757628	100.0	105.9	
107 1,2-dichloro-4-(trifluorom	214	12.267	12.266	0.001	97	184172	100.0	98.8	
108 sec-Butylbenzene	105	12.383	12.382	0.001	95	831061	100.0	104.6	
109 1,3-Dichlorobenzene	146	12.498	12.498	0.000	96	410334	100.0	105.1	
110 4-Isopropyltoluene	119	12.541	12.540	0.001	96	688749	100.0	104.6	
111 1,4-Dichlorobenzene	146	12.602	12.601	0.001	92	420259	100.0	102.7	
113 2,4-Dichloro-1-(triflourom	214	12.638	12.631	0.007	96	176758	100.0	99.9	
114 2,5-Dichlorobenzotrifluori	214	12.675	12.674	0.001	98	190443	100.0	98.1	
116 n-Butylbenzene	91	12.948	12.948	0.000	98	634140	100.0	106.3	
117 1,2-Dichlorobenzene	146	12.961	12.960	0.001	95	387001	100.0	103.2	
118 1,2-Dibromo-3-Chloropropan	75	13.745	13.751	-0.006	76	37026	100.0	101.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.891	13.891	0.000	99	766638	300.0	307.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.305	14.304	0.001	98	542712	200.0	206.7	
122 1,2,4-Trichlorobenzene	180	14.573	14.572	0.001	92	218710	100.0	107.5	
123 Hexachlorobutadiene	225	14.719	14.718	0.001	96	80256	100.0	104.9	
124 Naphthalene	128	14.834	14.834	0.000	98	620608	100.0	109.6	
125 1,2,3-Trichlorobenzene	180	15.053	15.053	0.000	95	188655	100.0	107.3	
126 2,4,5-Trichlorotoluene	159	15.844	15.850	-0.006	0	108367	100.0	104.0	
127 2,3,6-Trichlorotoluene	159	15.948	15.947	0.001	94	99061	100.0	103.0	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	208.7	
S 131 Xylenes, Total	106				0		200.0	208.0	
S 132 1,3-Dichloropropene, Total	1				0		200.0	218.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00011	Amount Added:	8.00	Units: uL	
VOA8260SURR_00066	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	4.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	4.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	4.00	Units: uL	
voaWKetmix1st_00002	Amount Added:	4.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	4.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

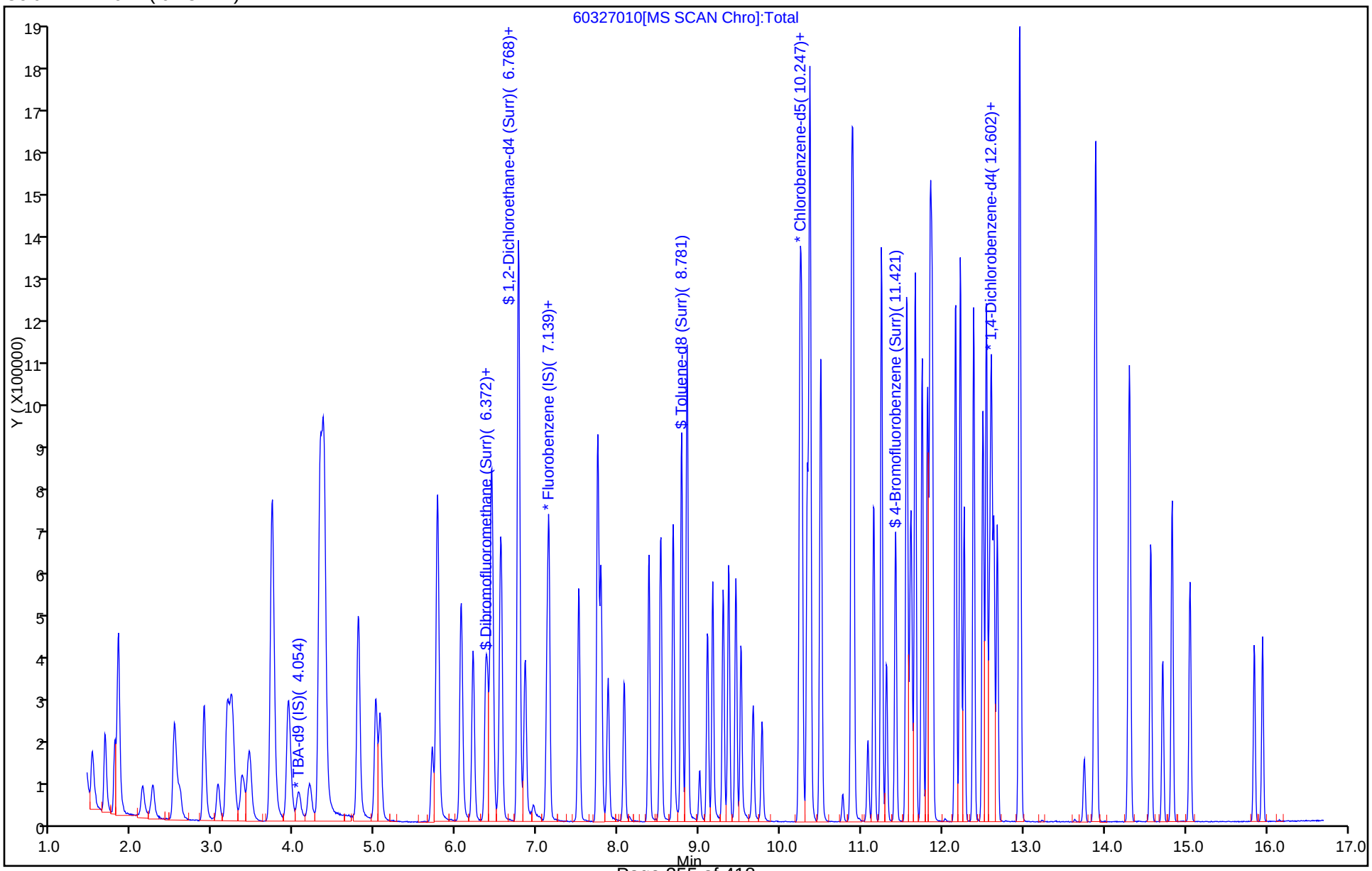
Report Date: 28-Mar-2017 09:08:02 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327010.D

Injection Date:	27-Mar-2017 14:33:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

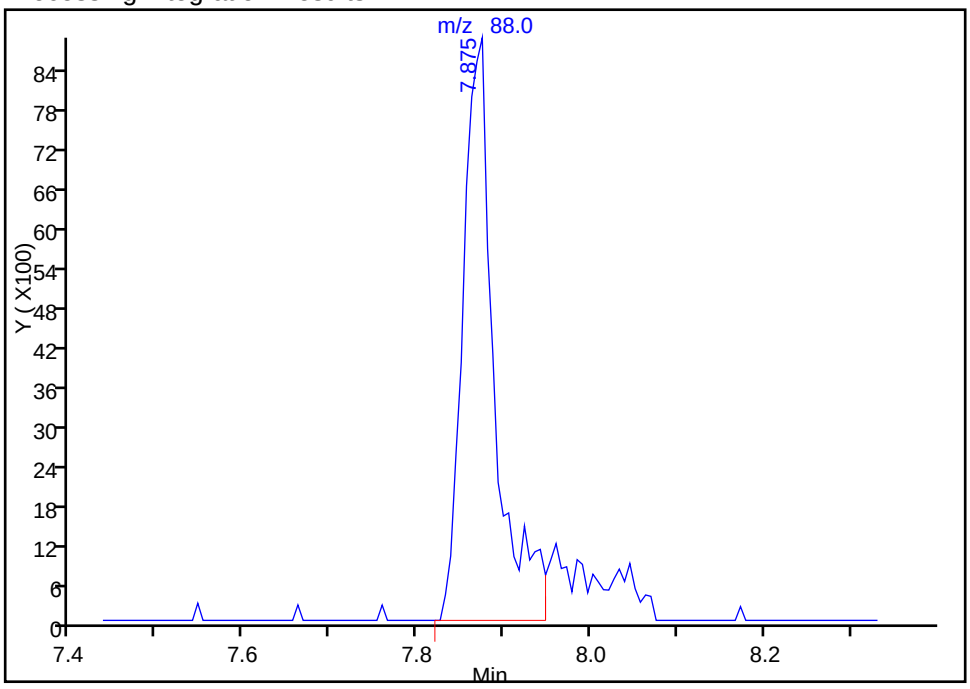
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327010.D				
Injection Date:	27-Mar-2017 14:33:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	001562	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

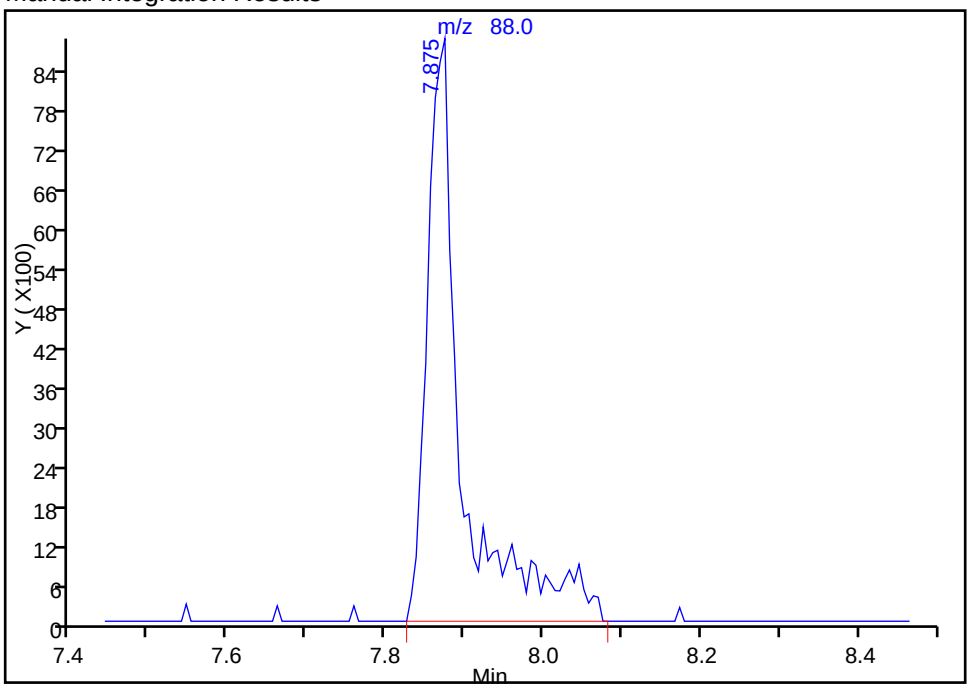
Processing Integration Results

RT: 7.87
Area: 22435
Amount: 1732.8475
Amount Units: ng



Manual Integration Results

RT: 7.87
Area: 27130
Amount: 2014.5834
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:08:00

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327011.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Mar-2017 14:57:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-011
Misc. Info.: IC VSTD35
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:08:06 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 28-Mar-2017 07:37:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.065	4.060	0.005	93	133877	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.119	7.120	-0.001	98	351447	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.234	10.235	-0.001	93	87113	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.576	12.577	-0.001	92	124474	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.389	6.390	-0.001	94	292373	175.0	185.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.766	6.761	0.005	84	435556	175.0	177.6	
$ 7 Toluene-d8 (Surr)	98	8.780	8.781	-0.001	94	1098608	175.0	160.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.420	11.421	-0.001	85	470891	175.0	163.3	
11 Dichlorodifluoromethane	85	1.510	1.505	0.005	99	386249	175.0	173.7	
12 Chloromethane	50	1.668	1.663	0.005	99	469398	175.0	160.8	
13 Vinyl chloride	62	1.790	1.785	0.005	98	419021	175.0	170.3	
14 Butadiene	39	1.832	1.833	-0.001	89	447322	175.0	169.4	
15 Bromomethane	94	2.131	2.113	0.018	92	121628	175.0	173.6	
16 Chloroethane	64	2.258	2.253	0.005	99	185415	175.0	165.7	
17 Dichlorofluoromethane	67	2.526	2.515	0.011	97	350090	175.0	163.4	
18 Trichlorofluoromethane	101	2.532	2.527	0.005	98	269948	175.0	171.7	
20 Ethyl ether	59	2.891	2.886	0.005	96	423272	175.0	177.0	
21 Acrolein	56	3.067	3.056	0.011	99	154150	225.0	239.3	
22 1,1-Dichloroethene	96	3.183	3.172	0.011	95	337006	175.0	178.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.232	3.226	0.006	95	319280	175.0	174.1	
24 Acetone	43	3.262	3.257	0.005	100	270747	350.0	383.3	
25 Iodomethane	142	3.366	3.360	0.006	99	447128	175.0	176.4	
26 Carbon disulfide	76	3.445	3.445	0.000	100	811028	175.0	189.7	
29 3-Chloro-1-propene	76	3.718	3.719	-0.001	90	210508	175.0	196.7	
30 Methyl acetate	43	3.737	3.731	0.006	98	2047269	875.0	885.6	
31 Methylene Chloride	84	3.937	3.926	0.011	99	404568	175.0	168.9	
32 2-Methyl-2-propanol	59	4.199	4.200	-0.001	93	313235	1750.0	1891.1	
33 Acrylonitrile	53	4.321	4.321	0.000	98	2122598	1750.0	1800.5	
34 trans-1,2-Dichloroethene	96	4.363	4.358	0.005	94	362494	175.0	176.6	
35 Methyl tert-butyl ether	73	4.375	4.370	0.005	98	1134990	175.0	182.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.795	4.790	0.005	94	605821	175.0	174.4	
37 1,1-Dichloroethane	63	5.008	5.003	0.005	96	698877	175.0	179.0	
38 Vinyl acetate	43	5.063	5.057	0.006	98	937809	175.0	191.0	
42 2,2-Dichloropropane	97	5.762	5.763	-0.001	80	72047	175.0	188.1	
43 cis-1,2-Dichloroethene	96	5.768	5.769	-0.001	84	417106	175.0	176.7	
44 2-Butanone (MEK)	43	5.781	5.775	0.006	99	398537	350.0	366.2	
48 Chlorobromomethane	128	6.054	6.055	-0.001	91	181479	175.0	180.1	
49 Tetrahydrofuran	42	6.067	6.067	0.000	91	350607	350.0	354.9	
50 Chloroform	83	6.206	6.207	-0.001	96	654005	175.0	179.2	
51 1,1,1-Trichloroethane	97	6.365	6.365	0.000	97	438065	175.0	182.8	
52 Cyclohexane	56	6.438	6.432	0.006	96	816007	175.0	176.4	
53 Carbon tetrachloride	117	6.535	6.536	-0.001	95	326097	175.0	184.1	
54 1,1-Dichloropropene	75	6.553	6.554	-0.001	92	500444	175.0	179.8	
55 Isobutyl alcohol	41	6.766	6.767	-0.001	86	322987	4375.0	4921.3	
56 Benzene	78	6.772	6.773	-0.001	98	1438026	175.0	172.5	
57 1,2-Dichloroethane	62	6.851	6.852	-0.001	96	583074	175.0	179.8	
59 n-Heptane	43	7.143	7.144	-0.001	95	496246	175.0	177.1	
61 Trichloroethene	130	7.514	7.509	0.005	96	348273	175.0	180.2	
63 Methylcyclohexane	83	7.746	7.746	0.000	94	638935	175.0	177.7	
64 1,2-Dichloropropane	63	7.788	7.783	0.005	94	400856	175.0	181.0	
65 1,4-Dioxane	88	7.867	7.868	-0.001	96	51981	3500.0	3734.1	
67 Dibromomethane	93	7.873	7.874	-0.001	97	229349	175.0	186.1	
68 Dichlorobromomethane	83	8.074	8.075	-0.001	98	427199	175.0	197.3	
70 2-Chloroethyl vinyl ether	63	8.378	8.379	-0.001	93	492899	350.0	382.2	
71 cis-1,3-Dichloropropene	75	8.518	8.519	-0.001	92	534152	175.0	204.3	
72 4-Methyl-2-pentanone (MIBK	43	8.676	8.677	-0.001	97	980569	350.0	346.6	
73 Toluene	91	8.847	8.847	0.000	98	1416679	175.0	160.0	
74 trans-1,3-Dichloropropene	75	9.102	9.103	-0.001	98	461730	175.0	189.8	
75 Ethyl methacrylate	69	9.163	9.164	-0.001	92	529941	175.0	181.5	
76 1,1,2-Trichloroethane	97	9.297	9.298	-0.001	94	327724	175.0	169.7	
77 Tetrachloroethene	164	9.364	9.365	-0.001	97	273412	175.0	167.0	
78 1,3-Dichloropropane	76	9.449	9.450	-0.001	97	584732	175.0	167.3	
79 2-Hexanone	43	9.510	9.511	-0.001	96	581157	350.0	349.6	
81 Chlorodibromomethane	129	9.662	9.663	-0.001	91	279074	175.0	185.4	
82 Ethylene Dibromide	107	9.771	9.772	-0.001	99	317796	175.0	172.8	
83 3-Chlorobenzotrifluoride	180	10.246	10.247	-0.001	94	485446	175.0	167.0	
84 Chlorobenzene	112	10.264	10.265	-0.001	90	913331	175.0	160.4	
85 4-Chlorobenzotrifluoride	180	10.331	10.332	-0.001	96	458109	175.0	170.1	
86 1,1,1,2-Tetrachloroethane	131	10.362	10.356	0.006	91	313804	175.0	177.1	
87 Ethylbenzene	106	10.368	10.368	0.000	98	524642	175.0	166.6	
88 m-Xylene & p-Xylene	106	10.495	10.496	-0.001	98	662906	175.0	168.8	
89 o-Xylene	106	10.879	10.879	0.000	95	650936	175.0	166.4	
90 Styrene	104	10.897	10.898	-0.001	94	1087501	175.0	171.2	
91 Bromoform	173	11.079	11.074	0.005	96	190139	175.0	193.8	
92 2-Chlorobenzotrifluoride	180	11.152	11.153	-0.001	94	495903	175.0	170.3	
93 Isopropylbenzene	105	11.250	11.244	0.006	98	1532580	175.0	162.4	
95 Bromobenzene	156	11.554	11.555	-0.001	98	385232	175.0	175.1	
96 1,1,2,2-Tetrachloroethane	83	11.560	11.561	-0.001	95	494354	175.0	170.0	
97 trans-1,4-Dichloro-2-buten	53	11.596	11.597	-0.001	79	189993	175.0	188.4	
98 1,2,3-Trichloropropane	110	11.615	11.615	0.000	89	164081	175.0	178.7	
99 N-Propylbenzene	120	11.663	11.664	-0.001	98	429337	175.0	181.2	
100 2-Chlorotoluene	126	11.749	11.749	0.000	95	376303	175.0	181.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.815	11.816	-0.001	96	401201	175.0	182.1	
102 1,3,5-Trimethylbenzene	105	11.846	11.847	-0.001	94	1281096	175.0	176.2	
103 4-Chlorotoluene	126	11.876	11.871	0.005	99	401721	175.0	176.8	
104 tert-Butylbenzene	119	12.162	12.157	0.005	93	1029760	175.0	177.7	
106 1,2,4-Trimethylbenzene	105	12.223	12.218	0.005	99	1314421	175.0	174.7	
107 1,2-dichloro-4-(trifluorom	214	12.266	12.266	0.000	97	351498	175.0	179.2	
108 sec-Butylbenzene	105	12.387	12.382	0.005	96	1448655	175.0	173.3	
109 1,3-Dichlorobenzene	146	12.497	12.498	-0.001	96	720064	175.0	175.4	
110 4-Isopropyltoluene	119	12.539	12.540	-0.001	95	1194786	175.0	172.5	
111 1,4-Dichlorobenzene	146	12.600	12.601	-0.001	92	747382	175.0	173.7	
113 2,4-Dichloro-1-(triflourom	214	12.637	12.631	0.006	96	327131	175.0	175.8	
114 2,5-Dichlorobenzotrifluori	214	12.679	12.674	0.005	98	365803	175.0	179.2	
116 n-Butylbenzene	91	12.947	12.948	-0.001	97	1075731	175.0	171.4	
117 1,2-Dichlorobenzene	146	12.959	12.960	-0.001	95	678324	175.0	172.1	
118 1,2-Dibromo-3-Chloropropan	75	13.750	13.751	-0.001	89	73742	175.0	192.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.890	13.891	-0.001	98	1308067	525.0	498.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.304	14.304	0.000	98	912480	350.0	330.5	
122 1,2,4-Trichlorobenzene	180	14.571	14.572	-0.001	94	342785	175.0	160.2	
123 Hexachlorobutadiene	225	14.717	14.718	-0.001	96	127318	175.0	158.2	
124 Naphthalene	128	14.833	14.834	-0.001	98	1002485	175.0	168.3	
125 1,2,3-Trichlorobenzene	180	15.052	15.053	-0.001	94	289732	175.0	156.7	
126 2,4,5-Trichlorotoluene	159	15.849	15.850	-0.001	0	173240	175.0	158.1	
127 2,3,6-Trichlorotoluene	159	15.946	15.947	-0.001	93	156653	175.0	155.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		350.0	335.1	
S 130 1,2-Dichloroethene, Total	96				0		350.0	353.3	
S 132 1,3-Dichloropropene, Total	1				0		350.0	394.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00066	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	7.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	7.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	7.00	Units: uL	
voaWKetmix1st_00002	Amount Added:	7.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	7.00	Units: uL	
voaWAcro1stRe_00011	Amount Added:	9.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

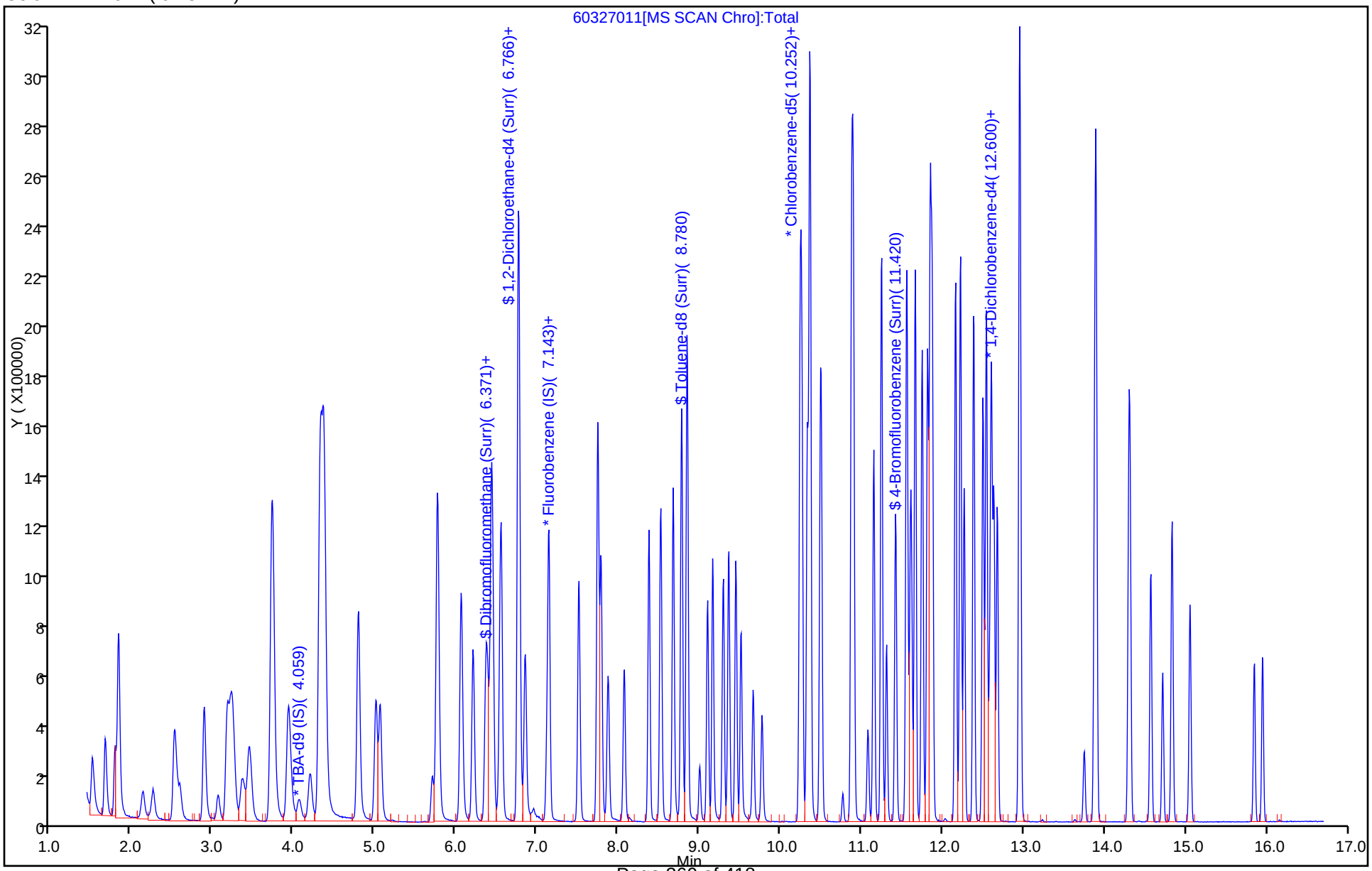
Report Date: 28-Mar-2017 09:08:07 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327011.D

Injection Date:	27-Mar-2017 14:57:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327012.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Mar-2017 15:21:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-012
Misc. Info.: IC VSTD40
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:08:12 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 16:05:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.061	4.060	0.001	92	110431	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.121	7.120	0.001	98	348997	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.236	10.235	0.001	90	83059	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.578	12.577	0.001	90	115484	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.391	6.390	0.001	94	307745	200.0	196.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.762	6.761	0.001	88	475095	200.0	195.1	
$ 7 Toluene-d8 (Surr)	98	8.782	8.781	0.001	94	1122336	200.0	172.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.422	11.421	0.001	85	490440	200.0	178.3	
11 Dichlorodifluoromethane	85	1.506	1.505	0.001	99	432588	200.0	195.9	
12 Chloromethane	50	1.664	1.663	0.001	99	546750	200.0	188.6	
13 Vinyl chloride	62	1.786	1.785	0.001	98	458366	200.0	187.6	
14 Butadiene	39	1.828	1.833	-0.005	90	489360	200.0	186.6	
15 Bromomethane	94	2.126	2.113	0.013	93	139014	200.0	199.8	
16 Chloroethane	64	2.248	2.253	-0.005	98	210533	200.0	189.4	
17 Dichlorofluoromethane	67	2.516	2.515	0.001	98	415950	200.0	195.5	
18 Trichlorofluoromethane	101	2.534	2.527	0.007	98	317157	200.0	203.2	
20 Ethyl ether	59	2.887	2.886	0.001	97	472610	200.0	199.0	
21 Acrolein	56	3.057	3.056	0.001	99	165269	250.0	258.3	
22 1,1-Dichloroethene	96	3.173	3.172	0.001	95	369316	200.0	196.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.221	3.226	-0.005	95	345714	200.0	189.8	
24 Acetone	43	3.264	3.257	0.007	100	280673	400.0	400.1	
25 Iodomethane	142	3.361	3.360	0.001	99	514550	200.0	204.4	
26 Carbon disulfide	76	3.447	3.445	0.001	100	928263	200.0	218.6	
29 3-Chloro-1-propene	76	3.720	3.719	0.001	89	235373	200.0	221.5	
30 Methyl acetate	43	3.732	3.731	0.001	98	2336669	1000.0	1017.9	
31 Methylene Chloride	84	3.933	3.926	0.007	99	461756	200.0	194.1	
32 2-Methyl-2-propanol	59	4.195	4.200	-0.005	93	281823	2000.0	2062.7	
33 Acrylonitrile	53	4.323	4.321	0.002	97	2405462	2000.0	2054.8	
34 trans-1,2-Dichloroethene	96	4.359	4.358	0.001	95	409844	200.0	201.1	
35 Methyl tert-butyl ether	73	4.377	4.370	0.007	98	1290992	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	4.791	4.790	0.001	93	678558	200.0	196.7	
37 1,1-Dichloroethane	63	5.010	5.003	0.007	96	779914	200.0	201.2	
38 Vinyl acetate	43	5.065	5.057	0.008	97	1114756	200.0	228.6	
42 2,2-Dichloropropane	97	5.764	5.763	0.001	80	79219	200.0	208.3	
43 cis-1,2-Dichloroethene	96	5.770	5.769	0.001	85	480870	200.0	205.1	
44 2-Butanone (MEK)	43	5.783	5.775	0.008	100	442469	400.0	409.4	
48 Chlorobromomethane	128	6.062	6.055	0.007	92	205188	200.0	205.0	
49 Tetrahydrofuran	42	6.068	6.067	0.001	92	396935	400.0	404.6	
50 Chloroform	83	6.208	6.207	0.001	95	738259	200.0	203.7	
51 1,1,1-Trichloroethane	97	6.367	6.365	0.002	95	495923	200.0	208.4	
52 Cyclohexane	56	6.433	6.432	0.001	96	884031	200.0	192.4	
53 Carbon tetrachloride	117	6.537	6.536	0.001	95	370990	200.0	210.9	
54 1,1-Dichloropropene	75	6.555	6.554	0.001	93	556252	200.0	201.2	
55 Isobutyl alcohol	41	6.768	6.767	0.001	87	325474	5000.0	4994.0	
56 Benzene	78	6.774	6.773	0.001	98	1608994	200.0	194.4	
57 1,2-Dichloroethane	62	6.853	6.852	0.001	96	666080	200.0	206.8	
59 n-Heptane	43	7.145	7.144	0.001	95	536421	200.0	192.8	
61 Trichloroethene	130	7.516	7.509	0.007	96	383676	200.0	199.9	
63 Methylcyclohexane	83	7.748	7.746	0.002	94	688662	200.0	192.8	
64 1,2-Dichloropropane	63	7.784	7.783	0.001	95	446014	200.0	202.8	
65 1,4-Dioxane	88	7.863	7.868	-0.005	41	60789	4000.0	4397.5	
67 Dibromomethane	93	7.875	7.874	0.001	97	265736	200.0	217.1	
68 Dichlorobromomethane	83	8.070	8.075	-0.005	98	491490	200.0	228.6	
70 2-Chloroethyl vinyl ether	63	8.380	8.379	0.001	93	581859	400.0	454.4	
71 cis-1,3-Dichloropropene	75	8.520	8.519	0.001	92	615782	200.0	237.1	
72 4-Methyl-2-pentanone (MIBK	43	8.678	8.677	0.001	97	1118765	400.0	414.8	
73 Toluene	91	8.849	8.847	0.002	97	1571282	200.0	186.1	
74 trans-1,3-Dichloropropene	75	9.098	9.103	-0.005	98	538256	200.0	232.0	
75 Ethyl methacrylate	69	9.165	9.164	0.001	93	615910	200.0	221.2	
76 1,1,2-Trichloroethane	97	9.293	9.298	-0.005	94	360571	200.0	195.8	
77 Tetrachloroethene	164	9.360	9.365	-0.005	96	299049	200.0	191.6	
78 1,3-Dichloropropane	76	9.451	9.450	0.001	97	667158	200.0	200.1	
79 2-Hexanone	43	9.512	9.511	0.001	96	670748	400.0	423.2	
81 Chlorodibromomethane	129	9.664	9.663	0.001	91	327866	200.0	228.4	
82 Ethylene Dibromide	107	9.773	9.772	0.001	99	363320	200.0	207.3	
83 3-Chlorobenzotrifluoride	180	10.248	10.247	0.001	92	532779	200.0	192.2	
84 Chlorobenzene	112	10.266	10.265	0.001	91	1010634	200.0	186.2	
85 4-Chlorobenzotrifluoride	180	10.333	10.332	0.001	96	502672	200.0	195.8	
86 1,1,1,2-Tetrachloroethane	131	10.357	10.356	0.001	91	350539	200.0	207.5	
87 Ethylbenzene	106	10.363	10.368	-0.005	98	564541	200.0	188.1	
88 m-Xylene & p-Xylene	106	10.497	10.496	0.001	98	710666	200.0	189.8	
89 o-Xylene	106	10.881	10.879	0.001	97	695704	200.0	186.5	
90 Styrene	104	10.899	10.898	0.001	94	1178396	200.0	194.5	
91 Bromoform	173	11.081	11.074	0.007	96	215368	200.0	230.2	
92 2-Chlorobenzotrifluoride	180	11.154	11.153	0.001	95	520551	200.0	187.5	
93 Isopropylbenzene	105	11.246	11.244	0.002	98	1596484	200.0	177.5	
95 Bromobenzene	156	11.556	11.555	0.001	98	433756	200.0	212.5	
96 1,1,2,2-Tetrachloroethane	83	11.562	11.561	0.001	95	542032	200.0	195.5	
97 trans-1,4-Dichloro-2-buten	53	11.598	11.597	0.001	81	213826	200.0	228.5	
98 1,2,3-Trichloropropane	110	11.617	11.615	0.002	87	185904	200.0	218.3	
99 N-Propylbenzene	120	11.665	11.664	0.001	98	453574	200.0	206.3	
100 2-Chlorotoluene	126	11.750	11.749	0.001	95	387001	200.0	200.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.817	11.816	0.001	96	428545	200.0	209.7	
102 1,3,5-Trimethylbenzene	105	11.848	11.847	0.001	94	1306134	200.0	193.6	
103 4-Chlorotoluene	126	11.872	11.871	0.001	99	434121	200.0	205.9	
104 tert-Butylbenzene	119	12.158	12.157	0.001	93	1038444	200.0	193.2	
106 1,2,4-Trimethylbenzene	105	12.219	12.218	0.001	98	1341036	200.0	192.1	
107 1,2-dichloro-4-(trifluorom	214	12.268	12.266	0.002	97	365162	200.0	200.7	
108 sec-Butylbenzene	105	12.383	12.382	0.001	96	1460318	200.0	188.3	
109 1,3-Dichlorobenzene	146	12.499	12.498	0.001	96	765528	200.0	201.0	
110 4-Isopropyltoluene	119	12.541	12.540	0.001	95	1206946	200.0	187.8	
111 1,4-Dichlorobenzene	146	12.602	12.601	0.001	91	791609	200.0	198.3	
113 2,4-Dichloro-1-(triflourom	214	12.633	12.631	0.002	96	348649	200.0	201.9	
114 2,5-Dichlorobenzotrifluori	214	12.675	12.674	0.001	98	370724	200.0	195.8	
116 n-Butylbenzene	91	12.949	12.948	0.001	97	1120505	200.0	192.5	
117 1,2-Dichlorobenzene	146	12.961	12.960	0.001	93	709299	200.0	193.9	
118 1,2-Dibromo-3-Chloropropan	75	13.752	13.751	0.001	92	83886	200.0	235.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.892	13.891	0.001	98	1474311	600.0	606.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.305	14.304	0.001	98	1089180	400.0	425.2	
122 1,2,4-Trichlorobenzene	180	14.567	14.572	-0.005	94	425960	200.0	214.5	
123 Hexachlorobutadiene	225	14.719	14.718	0.001	97	166219	200.0	222.7	
124 Naphthalene	128	14.835	14.834	0.001	98	1234441	200.0	223.4	
125 1,2,3-Trichlorobenzene	180	15.054	15.053	0.001	94	403802	200.0	235.3	
126 2,4,5-Trichlorotoluene	159	15.845	15.850	-0.005	0	293807	200.0	289.0	
127 2,3,6-Trichlorotoluene	159	15.948	15.947	0.001	92	270729	200.0	288.7	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	406.3	
S 131 Xylenes, Total	106				0		400.0	376.3	
S 132 1,3-Dichloropropene, Total	1				0		400.0	469.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWAcro1stRe_00011	Amount Added:	10.00	Units: uL	
VOA8260SURR_00066	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	8.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	8.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	8.00	Units: uL	
voaWKetmix1st_00002	Amount Added:	8.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	8.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

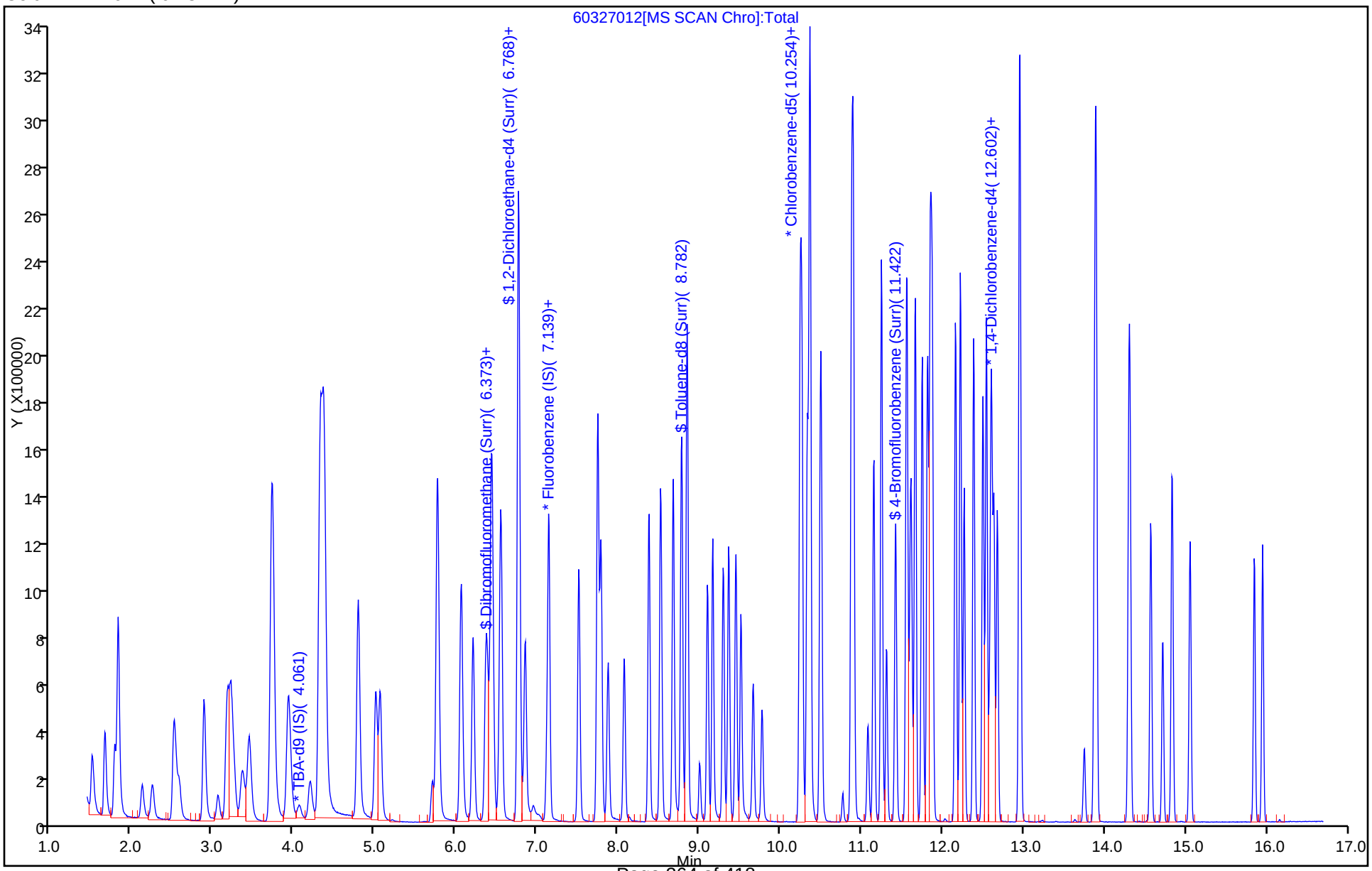
Report Date: 28-Mar-2017 09:08:12 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327012.D

Injection Date:	27-Mar-2017 15:21:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Mar-2017 15:45:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-013
Misc. Info.: IC VSTD50
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:08:15 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 28-Mar-2017 07:40:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.073	4.060	0.013	91	105271	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.121	7.120	0.001	98	335015	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.236	10.235	0.001	89	79299	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.578	12.577	0.001	97	104582	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.391	6.390	0.001	94	380677	250.0	252.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.762	6.761	0.001	82	576291	250.0	246.5	
$ 7 Toluene-d8 (Surr)	98	8.782	8.781	0.001	94	1351077	250.0	217.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.422	11.421	0.001	85	558819	250.0	212.8	
11 Dichlorodifluoromethane	85	1.512	1.505	0.007	99	539286	250.0	254.5	
12 Chloromethane	50	1.664	1.663	0.001	99	675483	250.0	242.7	
13 Vinyl chloride	62	1.786	1.785	0.001	98	572838	250.0	244.3	
14 Butadiene	39	1.828	1.833	-0.005	89	605076	250.0	240.4	
15 Bromomethane	94	2.120	2.113	0.007	92	172658	250.0	258.5	
16 Chloroethane	64	2.248	2.253	-0.005	99	246616	250.0	231.1	
17 Dichlorofluoromethane	67	2.516	2.515	0.001	97	512402	250.0	250.9	
18 Trichlorofluoromethane	101	2.540	2.527	0.013	96	405930	250.0	270.9	
20 Ethyl ether	59	2.887	2.886	0.001	96	567803	250.0	249.0	
21 Acrolein	56	3.057	3.056	0.001	99	177439	275.0	288.9	
22 1,1-Dichloroethene	96	3.173	3.172	0.001	95	457102	250.0	253.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.221	3.226	-0.005	94	435427	250.0	249.1	
24 Acetone	43	3.264	3.257	0.007	100	338049	500.0	502.0	
25 Iodomethane	142	3.361	3.360	0.001	99	635466	250.0	263.0	
26 Carbon disulfide	76	3.440	3.445	-0.005	100	1173468	250.0	287.9	
29 3-Chloro-1-propene	76	3.714	3.719	-0.005	90	296191	250.0	290.3	
30 Methyl acetate	43	3.739	3.731	0.007	98	2773319	1250.0	1258.5	
31 Methylene Chloride	84	3.933	3.926	0.007	99	563464	250.0	246.7	
32 2-Methyl-2-propanol	59	4.201	4.200	0.001	93	300565	2500.0	2307.7	
33 Acrylonitrile	53	4.323	4.321	0.002	97	2812632	2500.0	2502.9	
34 trans-1,2-Dichloroethene	96	4.359	4.358	0.001	96	508196	250.0	259.8	
35 Methyl tert-butyl ether	73	4.377	4.370	0.007	98	1558561	250.0	262.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.791	4.790	0.001	94	833250	250.0	251.6	
37 1,1-Dichloroethane	63	5.004	5.003	0.001	96	955957	250.0	256.9	
38 Vinyl acetate	43	5.059	5.057	0.002	98	1353786	250.0	289.2	
42 2,2-Dichloropropane	97	5.764	5.763	0.001	85	100047	250.0	274.0	
43 cis-1,2-Dichloroethene	96	5.770	5.769	0.001	85	581418	250.0	258.4	
44 2-Butanone (MEK)	43	5.783	5.775	0.008	100	550640	500.0	530.8	
48 Chlorobromomethane	128	6.056	6.055	0.001	91	248977	250.0	259.2	
49 Tetrahydrofuran	42	6.068	6.067	0.001	95	476741	500.0	506.2	
50 Chloroform	83	6.208	6.207	0.001	96	884552	250.0	254.2	
51 1,1,1-Trichloroethane	97	6.367	6.365	0.002	97	612106	250.0	268.0	
52 Cyclohexane	56	6.433	6.432	0.001	96	1082089	250.0	245.4	
53 Carbon tetrachloride	117	6.537	6.536	0.001	95	456456	250.0	270.3	
54 1,1-Dichloropropene	75	6.555	6.554	0.001	93	668623	250.0	252.0	
55 Isobutyl alcohol	41	6.768	6.767	0.001	86	364924	6250.0	5833.0	
56 Benzene	78	6.774	6.773	0.001	99	1944268	250.0	244.7	
57 1,2-Dichloroethane	62	6.853	6.852	0.001	97	811041	250.0	262.3	
59 n-Heptane	43	7.139	7.144	-0.005	95	671070	250.0	251.2	
61 Trichloroethene	130	7.510	7.509	0.001	96	464754	250.0	252.2	
63 Methylcyclohexane	83	7.748	7.746	0.002	95	824811	250.0	240.6	
64 1,2-Dichloropropane	63	7.784	7.783	0.001	93	544821	250.0	258.1	
65 1,4-Dioxane	88	7.869	7.868	0.001	36	72713	5000.0	5479.6	M
67 Dibromomethane	93	7.875	7.874	0.001	97	318117	250.0	270.7	
68 Dichlorobromomethane	83	8.070	8.075	-0.005	98	598471	250.0	290.0	
70 2-Chloroethyl vinyl ether	63	8.380	8.379	0.001	93	698644	500.0	568.4	
71 cis-1,3-Dichloropropene	75	8.520	8.519	0.001	91	745142	250.0	298.9	
72 4-Methyl-2-pentanone (MIBK	43	8.678	8.677	0.001	96	1326644	500.0	515.2	
73 Toluene	91	8.849	8.847	0.002	96	1840176	250.0	228.3	
74 trans-1,3-Dichloropropene	75	9.098	9.103	-0.005	98	662019	250.0	298.9	
75 Ethyl methacrylate	69	9.165	9.164	0.001	92	731800	250.0	275.3	
76 1,1,2-Trichloroethane	97	9.293	9.298	-0.005	93	454076	250.0	258.3	
77 Tetrachloroethene	164	9.360	9.365	-0.005	97	347882	250.0	233.5	
78 1,3-Dichloropropane	76	9.451	9.450	0.001	97	798739	250.0	251.0	
79 2-Hexanone	43	9.512	9.511	0.001	96	801839	500.0	529.9	
81 Chlorodibromomethane	129	9.664	9.663	0.001	91	395169	250.0	288.3	
82 Ethylene Dibromide	107	9.773	9.772	0.001	99	423834	250.0	253.2	
83 3-Chlorobenzotrifluoride	180	10.242	10.247	-0.005	91	569964	250.0	215.4	
84 Chlorobenzene	112	10.266	10.265	0.001	95	1175460	250.0	226.8	
85 4-Chlorobenzotrifluoride	180	10.333	10.332	0.001	96	542023	250.0	221.1	
86 1,1,1,2-Tetrachloroethane	131	10.357	10.356	0.001	91	408402	250.0	253.2	
87 Ethylbenzene	106	10.369	10.368	0.001	98	655050	250.0	228.6	
88 m-Xylene & p-Xylene	106	10.497	10.496	0.001	98	821760	250.0	229.8	
89 o-Xylene	106	10.880	10.879	0.001	97	792757	250.0	222.6	
90 Styrene	104	10.899	10.898	0.001	94	1343713	250.0	232.3	
91 Bromoform	173	11.081	11.074	0.007	95	257019	250.0	287.7	
92 2-Chlorobenzotrifluoride	180	11.154	11.153	0.001	95	544746	250.0	205.5	
93 Isopropylbenzene	105	11.246	11.244	0.002	98	1748340	250.0	203.5	
95 Bromobenzene	156	11.556	11.555	0.001	98	494211	250.0	267.3	
96 1,1,2,2-Tetrachloroethane	83	11.562	11.561	0.001	95	619578	250.0	234.1	
97 trans-1,4-Dichloro-2-buten	53	11.598	11.597	0.001	85	249595	250.0	294.6	
98 1,2,3-Trichloropropane	110	11.617	11.615	0.002	89	206603	250.0	267.9	
99 N-Propylbenzene	120	11.665	11.664	0.001	97	499696	250.0	251.0	
100 2-Chlorotoluene	126	11.750	11.749	0.001	95	436769	250.0	250.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.817	11.816	0.001	96	457114	250.0	247.0	
102 1,3,5-Trimethylbenzene	105	11.848	11.847	0.001	93	1433646	250.0	234.6	
103 4-Chlorotoluene	126	11.872	11.871	0.001	99	482661	250.0	252.8	
104 tert-Butylbenzene	119	12.158	12.157	0.001	93	1134992	250.0	233.1	
106 1,2,4-Trimethylbenzene	105	12.219	12.218	0.001	99	1503654	250.0	237.8	
107 1,2-dichloro-4-(trifluorom	214	12.268	12.266	0.002	96	383070	250.0	232.5	
108 sec-Butylbenzene	105	12.383	12.382	0.001	96	1601677	250.0	228.1	
109 1,3-Dichlorobenzene	146	12.499	12.498	0.001	96	850980	250.0	246.7	
110 4-Isopropyltoluene	119	12.541	12.540	0.001	95	1359825	250.0	233.6	
111 1,4-Dichlorobenzene	146	12.602	12.601	0.001	91	885752	250.0	245.1	
113 2,4-Dichloro-1-(triflourom	214	12.633	12.631	0.002	95	379325	250.0	242.6	
114 2,5-Dichlorobenzotrifluori	214	12.675	12.674	0.001	98	401711	250.0	234.2	
116 n-Butylbenzene	91	12.949	12.948	0.001	97	1237687	250.0	234.8	
117 1,2-Dichlorobenzene	146	12.961	12.960	0.001	96	804515	250.0	242.9	
118 1,2-Dibromo-3-Chloropropan	75	13.752	13.751	0.001	78	100229	250.0	311.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.892	13.891	0.001	97	1678947	750.0	762.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.305	14.304	0.001	97	1298549	500.0	559.7	
122 1,2,4-Trichlorobenzene	180	14.567	14.572	-0.005	94	532686	250.0	296.3	
123 Hexachlorobutadiene	225	14.713	14.718	-0.005	97	205949	250.0	304.7	
124 Naphthalene	128	14.835	14.834	0.001	98	1526133	250.0	305.0	
125 1,2,3-Trichlorobenzene	180	15.054	15.053	0.001	95	519568	250.0	334.4	
126 2,4,5-Trichlorotoluene	159	15.845	15.850	-0.005	0	380688	250.0	413.4	
127 2,3,6-Trichlorotoluene	159	15.948	15.947	0.001	93	347106	250.0	408.7	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		500.0	452.4	
S 130 1,2-Dichloroethene, Total	96				0		500.0	518.2	
S 132 1,3-Dichloropropene, Total	1				0		500.0	597.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00066	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00243	Amount Added:	10.00	Units: uL	
voaWVA1stRest_00012	Amount Added:	10.00	Units: uL	
voaW2cle1stRe_00007	Amount Added:	10.00	Units: uL	
voaWKetmix1st_00002	Amount Added:	10.00	Units: uL	
voaWEEmix1stR_00005	Amount Added:	10.00	Units: uL	
voaWAcro1stRe_00011	Amount Added:	11.00	Units: uL	
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent

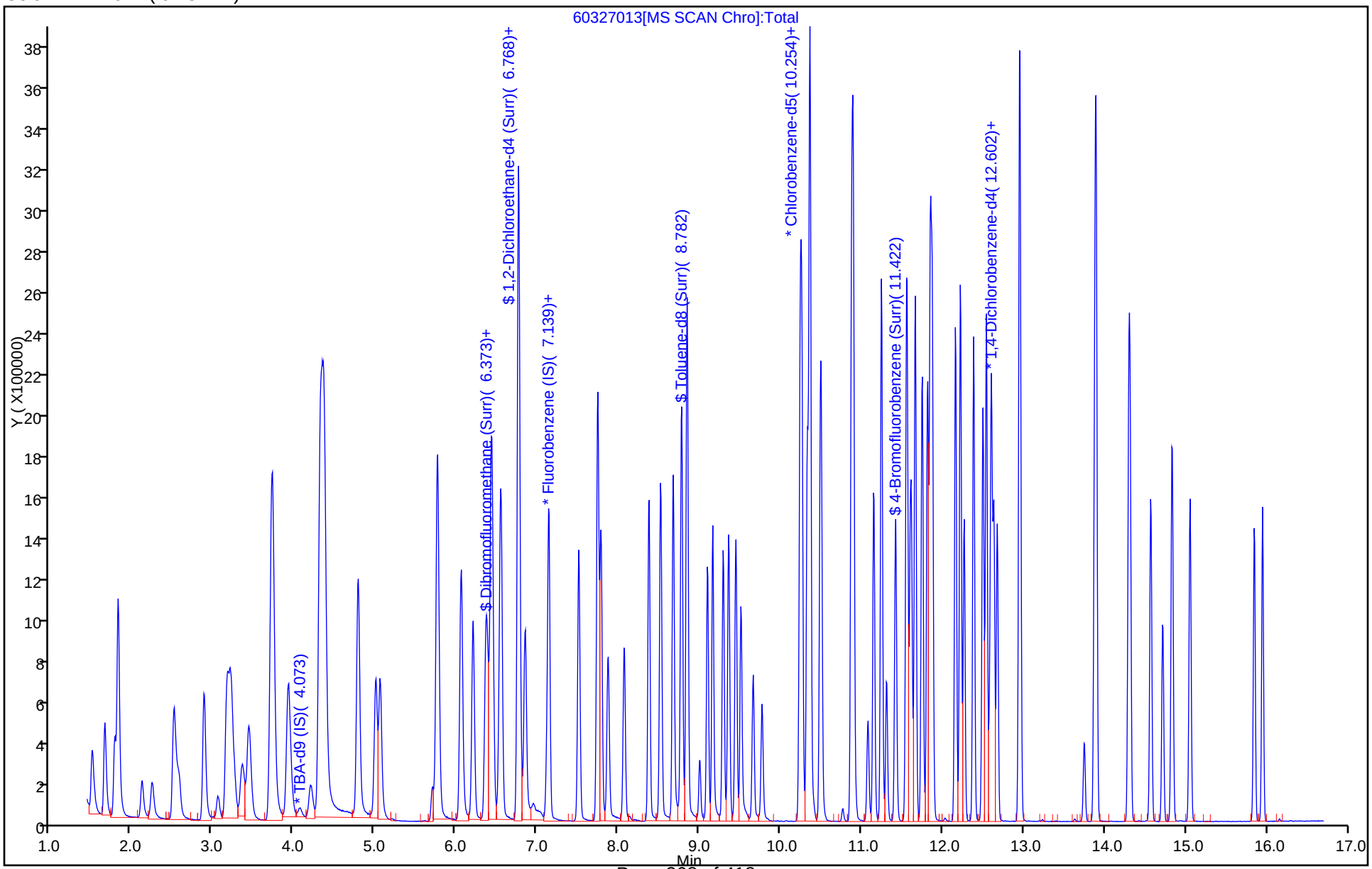
Report Date: 28-Mar-2017 09:08:16 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Injection Date:	27-Mar-2017 15:45:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

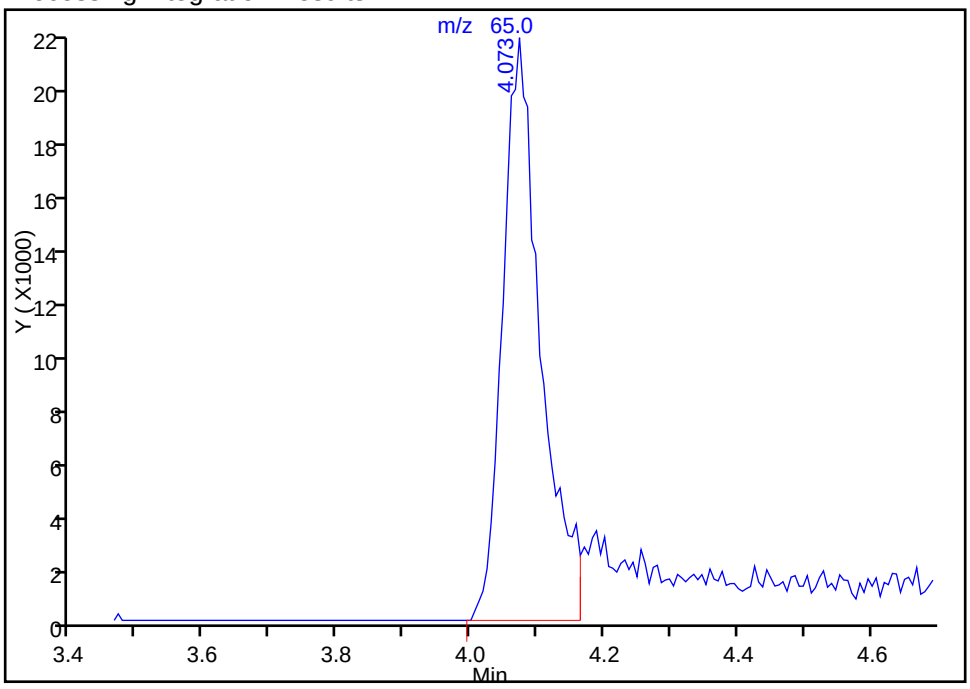
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D				
Injection Date:	27-Mar-2017 15:45:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD50				
Client ID:					
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

Signal: 1

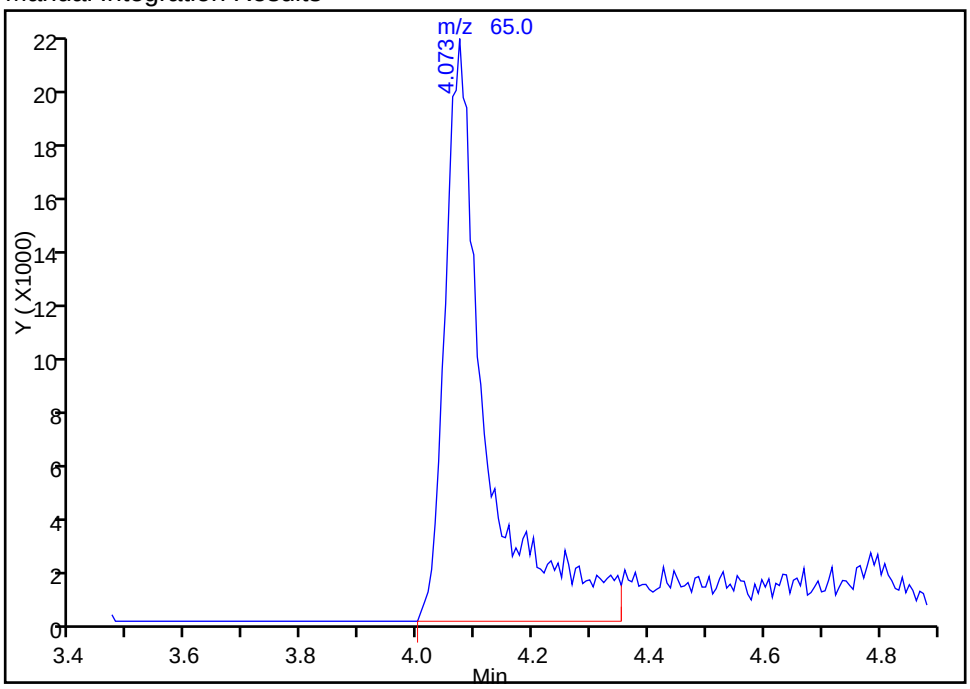
Processing Integration Results

RT: 4.07
Area: 83459
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.07
Area: 105271
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:08:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

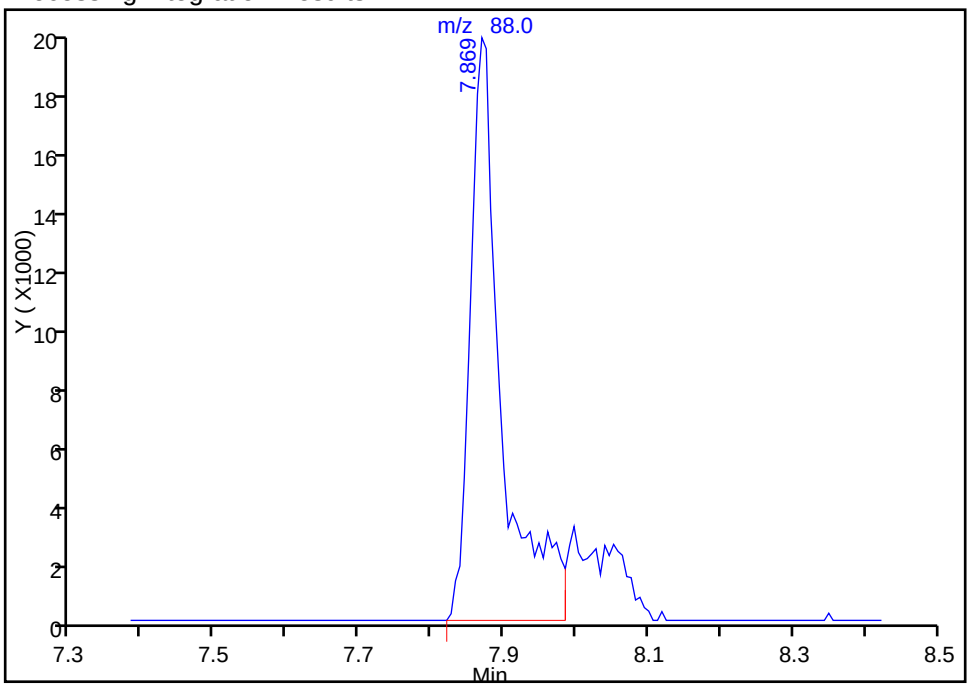
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D				
Injection Date:	27-Mar-2017 15:45:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD50				
Client ID:					
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

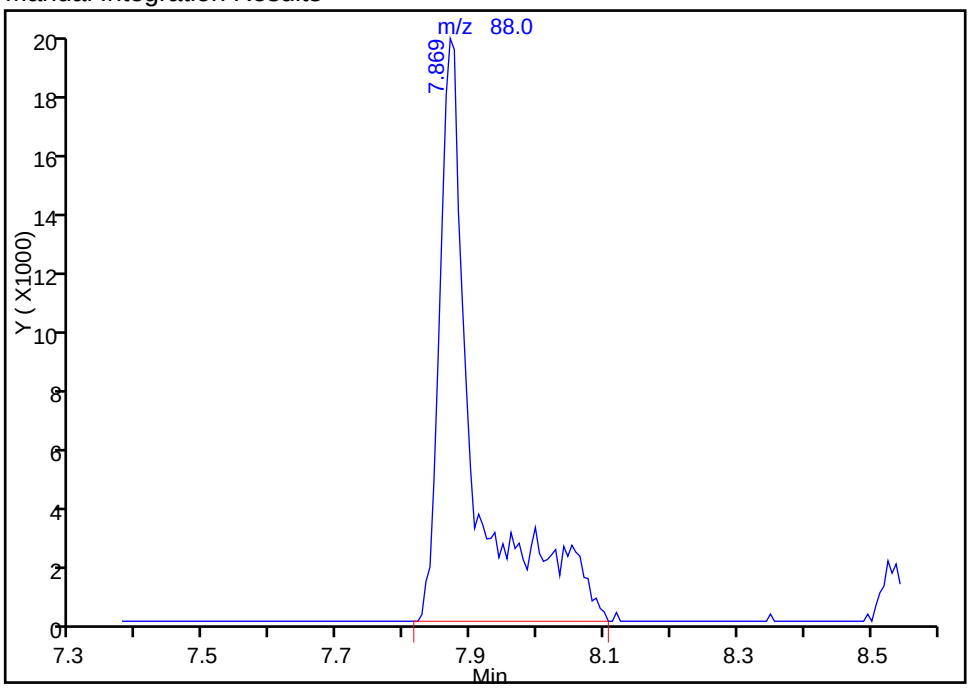
Processing Integration Results

RT: 7.87
Area: 59736
Amount: 4614.5132
Amount Units: ng



Manual Integration Results

RT: 7.87
Area: 72713
Amount: 5479.6393
Amount Units: ng



Reviewer: fergusond, 28-Mar-2017 09:08:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206859/2 Calibration Date: 03/30/2017 09:32

Instrument ID: CHHP6 Calib Start Date: 03/27/2017 12:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/27/2017 15:45

Lab File ID: 60330002.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	0.3163	0.3444	0.1000	10.9	10.0	8.9	20.0
Chloromethane	Ave	0.4154	0.4260	0.1000	10.3	10.0	2.5	20.0
Vinyl chloride	Ave	0.3500	0.3751	0.1000	10.7	10.0	7.2	20.0
Bromomethane	Ave	0.0997	0.1056	0.0500	10.6	10.0	6.0	20.0
Chloroethane	Ave	0.1592	0.1837	0.0500	11.5	10.0	15.4	20.0
Trichlorofluoromethane	Ave	0.2236	0.2618	0.1000	11.7	10.0	17.1	20.0
Ethyl ether	Ave	0.3403	0.3268	0.0100	9.60	10.0	-4.0	20.0
Acrolein	Ave	0.0917	0.0854	0.0100	28.0	30.0	-6.8	20.0
1,1-Dichloroethene	Ave	0.2687	0.2646	0.1000	9.85	10.0	-1.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2609	0.2592	0.1000	9.93	10.0	-0.7	20.0
Acetone	Ave	0.1005	0.1328	0.0500	26.4	20.0	32.1*	20.0
Iodomethane	Ave	0.3606	0.3609	0.0100	10.0	10.0	0.0	20.0
Carbon disulfide	Ave	0.6084	0.6201	0.1000	10.2	10.0	1.9	20.0
Allyl chloride	Ave	0.1523	0.1506	0.0100	9.89	10.0	-1.1	20.0
Methyl acetate	Ave	0.3289	0.3317	0.1000	50.4	50.0	0.9	20.0
Methylene Chloride	Ave	0.3408	0.3309	0.1000	9.71	10.0	-2.9	20.0
tert-Butyl alcohol	Ave	1.237	1.287	0.0100	104	100	4.0	20.0
Acrylonitrile	Ave	0.1677	0.1764	0.0100	105	100	5.2	20.0
trans-1,2-Dichloroethene	Ave	0.2920	0.2975	0.1000	10.2	10.0	1.9	20.0
Methyl tert-butyl ether	Ave	0.8865	0.8416	0.1000	9.49	10.0	-5.1	20.0
Hexane	Ave	0.4943	0.5116	0.0100	10.4	10.0	3.5	20.0
1,1-Dichloroethane	Ave	0.5554	0.5598	0.2000	10.1	10.0	0.8	20.0
Vinyl acetate	Ave	0.6987	0.6766	0.0100	9.68	10.0	-3.2	20.0
2,2-Dichloropropane	Ave	0.0545	0.0527	0.0100	9.67	10.0	-3.3	20.0
cis-1,2-Dichloroethene	Ave	0.3358	0.3277	0.1000	9.76	10.0	-2.4	20.0
2-Butanone (MEK)	Ave	0.1548	0.2112	0.0500	27.3	20.0	36.4*	20.0
Bromochloromethane	Ave	0.1434	0.1373	0.0100	9.57	10.0	-4.3	20.0
Tetrahydrofuran	Ave	0.1406	0.1392	0.0100	19.8	20.0	-1.0	20.0
Chloroform	Ave	0.5193	0.5001	0.2000	9.63	10.0	-3.7	20.0
1,1,1-Trichloroethane	Ave	0.3409	0.3678	0.1000	10.8	10.0	7.9	20.0
Cyclohexane	Ave	0.6581	0.6965	0.1000	10.6	10.0	5.8	20.0
Carbon tetrachloride	Ave	0.2520	0.2747	0.1000	10.9	10.0	9.0	20.0
1,1-Dichloropropene	Ave	0.3961	0.4139	0.0100	10.5	10.0	4.5	20.0
Benzene	Ave	1.186	1.203	0.5000	10.1	10.0	1.4	20.0
Isobutyl alcohol	Ave	0.0093	0.0107	0.0100	286	250	14.6	20.0
1,2-Dichloroethane	Ave	0.4615	0.4412	0.1000	9.56	10.0	-4.4	20.0
n-Heptane	Ave	0.3987	0.4255	0.0100	10.7	10.0	6.7	20.0
Trichloroethene	Ave	0.2750	0.2760	0.2000	10.0	10.0	0.4	20.0
Methylcyclohexane	Ave	0.5116	0.5236	0.1000	10.2	10.0	2.3	20.0
1,2-Dichloropropane	Ave	0.3150	0.3022	0.1000	9.59	10.0	-4.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206859/2 Calibration Date: 03/30/2017 09:32

Instrument ID: CHHP6 Calib Start Date: 03/27/2017 12:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/27/2017 15:45

Lab File ID: 60330002.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
1,4-Dioxane	Ave	0.0020	0.0027*	0.0100	274	200	36.8*	20.0
Dibromomethane	Ave	0.1754	0.1662	0.0100	9.47	10.0	-5.3	20.0
Bromodichloromethane	Ave	0.3080	0.2945	0.2000	9.56	10.0	-4.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1835	0.1857	0.0100	20.2	20.0	1.2	20.0
cis-1,3-Dichloropropene	Ave	0.3721	0.3376	0.2000	9.07	10.0	-9.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.624	1.829	0.1000	22.5	20.0	12.6	20.0
Toluene	Ave	5.082	5.436	0.4000	10.7	10.0	7.0	20.0
trans-1,3-Dichloropropene	Ave	1.397	1.298	0.1000	9.30	10.0	-7.0	20.0
Ethyl methacrylate	Ave	1.676	1.645	0.0100	9.82	10.0	-1.8	20.0
1,1,2-Trichloroethane	Ave	1.108	1.121	0.1000	10.1	10.0	1.1	20.0
Tetrachloroethene	Ave	0.9395	1.017	0.2000	10.8	10.0	8.3	20.0
1,3-Dichloropropane	Ave	2.007	1.987	0.0100	9.90	10.0	-1.0	20.0
2-Hexanone	Ave	0.9541	1.461	0.1000	30.6	20.0	53.1*	20.0
Dibromochloromethane	Ave	0.8642	0.8450	0.1000	9.78	10.0	-2.2	20.0
1,2-Dibromoethane (EDB)	Ave	1.055	1.068	0.1000	10.1	10.0	1.2	20.0
3-Chlorobenzotrifluoride	Ave	1.669	1.811	0.0100	10.9	10.0	8.5	20.0
Chlorobenzene	Ave	3.268	3.399	0.5000	10.4	10.0	4.0	20.0
4-Chlorobenzotrifluoride	Ave	1.546	1.675	0.0100	10.8	10.0	8.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.017	1.041	0.0100	10.2	10.0	2.4	20.0
Ethylbenzene	Ave	1.807	1.932	0.1000	10.7	10.0	6.9	20.0
m-Xylene & p-Xylene	Ave	2.254	2.408	0.1000	10.7	10.0	6.8	20.0
o-Xylene	Ave	2.246	2.374	0.3000	10.6	10.0	5.7	20.0
Styrene	Ave	3.646	3.918	0.3000	10.7	10.0	7.4	20.0
Bromoform	Ave	0.5632	0.5207	0.1000	9.25	10.0	-7.5	20.0
2-Chlorobenzotrifluoride	Ave	1.672	1.774	0.0100	10.6	10.0	6.1	20.0
Isopropylbenzene	Ave	5.416	6.025	0.1000	11.1	10.0	11.2	20.0
Bromobenzene	Ave	0.8839	0.8531	0.0100	9.65	10.0	-3.5	20.0
1,1,2,2-Tetrachloroethane	Ave	1.669	1.752	0.3000	10.5	10.0	5.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4051	0.3041	0.0100	7.51	10.0	-24.9*	20.0
1,2,3-Trichloropropane	Ave	0.3687	0.3342	0.0100	9.06	10.0	-9.4	20.0
N-Propylbenzene	Ave	0.9517	0.9831	0.0100	10.3	10.0	3.3	20.0
2-Chlorotoluene	Ave	0.8353	0.8255	0.0100	9.88	10.0	-1.2	20.0
3-Chlorotoluene	Ave	0.8849	0.9021	0.0100	10.2	10.0	1.9	20.0
1,3,5-Trimethylbenzene	Ave	2.921	3.098	0.0100	10.6	10.0	6.0	20.0
4-Chlorotoluene	Ave	0.9127	0.8966	0.0100	9.82	10.0	-1.8	20.0
tert-Butylbenzene	Ave	2.328	2.456	0.0100	10.6	10.0	5.5	20.0
1,2,4-Trimethylbenzene	Ave	3.022	3.135	0.0100	10.4	10.0	3.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7878	0.8383	0.0100	10.6	10.0	6.4	20.0
sec-Butylbenzene	Ave	3.357	3.629	0.0100	10.8	10.0	8.1	20.0
1,3-Dichlorobenzene	Ave	1.649	1.675	0.6000	10.2	10.0	1.6	20.0
4-Isopropyltoluene	Ave	2.783	2.953	0.0100	10.6	10.0	6.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Lab Sample ID: CCVIS 180-206859/2 Calibration Date: 03/30/2017 09:32

Instrument ID: CHHP6 Calib Start Date: 03/27/2017 12:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/27/2017 15:45

Lab File ID: 60330002.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
1,4-Dichlorobenzene	Ave	1.728	1.705	0.5000	9.87	10.0	-1.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7477	0.7949	0.0100	10.6	10.0	6.3	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8199	0.8745	0.0100	10.7	10.0	6.7	20.0
n-Butylbenzene	Ave	2.520	2.716	0.0100	10.8	10.0	7.7	20.0
1,2-Dichlorobenzene	Ave	1.583	1.598	0.4000	10.1	10.0	0.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1541	0.1504	0.0500	9.76	10.0	-2.4	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.053	1.136	0.0100	32.3	30.0	7.8	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.109	1.183	0.0100	21.3	20.0	6.6	20.0
1,2,4-Trichlorobenzene	Ave	0.8597	0.8713	0.2000	10.1	10.0	1.4	20.0
Hexachlorobutadiene	Ave	0.3232	0.3375	0.0100	10.4	10.0	4.4	20.0
Naphthalene	Ave	2.392	2.418	0.0100	10.1	10.0	1.1	20.0
1,2,3-Trichlorobenzene	Ave	0.7429	0.7578	0.0100	10.2	10.0	2.0	20.0
2,4,5-Trichlorotoluene	Ave	0.4402	0.3584	0.0100	8.14	10.0	-18.6	20.0
2,3,6-Trichlorotoluene	Ave	0.4061	0.3466	0.0100	8.54	10.0	-14.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2248	0.2075		9.23	10.0	-7.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3489	0.3243		9.29	10.0	-7.1	20.0
Toluene-d8 (Surr)	Ave	3.918	4.029		10.3	10.0	2.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.655	1.612		9.73	10.0	-2.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 30-Mar-2017 09:32:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-002
Misc. Info.: CCVIS
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub65

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 10:39:51 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: fergusond Date: 30-Mar-2017 10:07:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.059	4.059	0.000	89	163995	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.119	7.119	0.000	97	371452	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.234	10.234	0.000	92	80590	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.576	12.576	0.000	97	134021	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.389	6.389	0.000	94	77081	50.0	46.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.760	6.760	0.000	75	120452	50.0	46.5	
$ 7 Toluene-d8 (Surr)	98	8.780	8.780	0.000	94	324696	50.0	51.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.420	11.420	0.000	86	129877	50.0	48.7	
11 Dichlorodifluoromethane	85	1.510	1.510	0.000	99	127909	50.0	54.4	
12 Chloromethane	50	1.662	1.662	0.000	99	158227	50.0	51.3	
13 Vinyl chloride	62	1.784	1.784	0.000	97	139339	50.0	53.6	
14 Butadiene	39	1.826	1.826	0.000	91	158901	50.0	56.9	
15 Bromomethane	94	2.106	2.106	0.000	93	39236	50.0	53.0	M
16 Chloroethane	64	2.246	2.246	0.000	99	68237	50.0	57.7	
17 Dichlorofluoromethane	67	2.514	2.514	0.000	98	132737	50.0	58.6	
18 Trichlorofluoromethane	101	2.532	2.532	0.000	96	97240	50.0	58.5	
20 Ethyl ether	59	2.885	2.885	0.000	97	121392	50.0	48.0	
21 Acrolein	56	3.049	3.049	0.000	100	95176	150.0	139.8	
22 1,1-Dichloroethene	96	3.165	3.165	0.000	94	98291	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.219	3.219	0.000	93	96261	50.0	49.7	
24 Acetone	43	3.262	3.262	0.000	98	98617	100.0	132.1	
25 Iodomethane	142	3.353	3.353	0.000	100	134041	50.0	50.0	
26 Carbon disulfide	76	3.438	3.438	0.000	100	230344	50.0	51.0	
29 3-Chloro-1-propene	76	3.706	3.706	0.000	89	55944	50.0	49.5	
30 Methyl acetate	43	3.731	3.731	0.000	99	616024	250.0	252.1	
31 Methylene Chloride	84	3.925	3.925	0.000	98	122900	50.0	48.5	
32 2-Methyl-2-propanol	59	4.193	4.193	0.000	92	105494	500.0	519.9	
33 Acrylonitrile	53	4.321	4.321	0.000	98	655166	500.0	525.8	
34 trans-1,2-Dichloroethene	96	4.357	4.357	0.000	94	110506	50.0	50.9	
35 Methyl tert-butyl ether	73	4.369	4.369	0.000	97	312613	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.789	4.789	0.000	94	190041	50.0	51.8	
37 1,1-Dichloroethane	63	5.002	5.002	0.000	97	207947	50.0	50.4	
38 Vinyl acetate	43	5.057	5.057	0.000	97	251338	50.0	48.4	
42 2,2-Dichloropropane	97	5.756	5.756	0.000	57	19562	50.0	48.3	
43 cis-1,2-Dichloroethene	96	5.762	5.762	0.000	84	121712	50.0	48.8	
44 2-Butanone (MEK)	43	5.775	5.775	0.000	99	156933	100.0	136.4	
48 Chlorobromomethane	128	6.054	6.054	0.000	90	50992	50.0	47.9	
49 Tetrahydrofuran	42	6.067	6.067	0.000	92	103397	100.0	99.0	
50 Chloroform	83	6.206	6.206	0.000	95	185751	50.0	48.2	
51 1,1,1-Trichloroethane	97	6.365	6.365	0.000	97	136623	50.0	53.9	
52 Cyclohexane	56	6.432	6.432	0.000	97	258723	50.0	52.9	
53 Carbon tetrachloride	117	6.535	6.535	0.000	94	102049	50.0	54.5	
54 1,1-Dichloropropene	75	6.553	6.553	0.000	93	153759	50.0	52.3	
56 Benzene	78	6.766	6.766	0.000	96	446709	50.0	50.7	
55 Isobutyl alcohol	41	6.766	6.766	0.000	91	99356	1250.0	1432.3	
57 1,2-Dichloroethane	62	6.845	6.845	0.000	96	163882	50.0	47.8	
59 n-Heptane	43	7.137	7.137	0.000	95	158046	50.0	53.4	
61 Trichloroethene	130	7.514	7.514	0.000	96	102531	50.0	50.2	
63 Methylcyclohexane	83	7.746	7.746	0.000	95	194476	50.0	51.2	
64 1,2-Dichloropropane	63	7.782	7.782	0.000	93	112236	50.0	48.0	
67 Dibromomethane	93	7.873	7.873	0.000	95	61721	50.0	47.4	
65 1,4-Dioxane	88	7.873	7.873	0.000	42	20121	1000.0	1367.6	M
68 Dichlorobromomethane	83	8.068	8.068	0.000	97	109399	50.0	47.8	
70 2-Chloroethyl vinyl ether	63	8.378	8.378	0.000	92	137917	100.0	101.2	
71 cis-1,3-Dichloropropene	75	8.518	8.518	0.000	90	125394	50.0	45.4	
72 4-Methyl-2-pentanone (MIBK	43	8.676	8.676	0.000	98	294730	100.0	112.6	
73 Toluene	91	8.847	8.847	0.000	98	438122	50.0	53.5	
74 trans-1,3-Dichloropropene	75	9.102	9.102	0.000	98	104625	50.0	46.5	
75 Ethyl methacrylate	69	9.163	9.163	0.000	92	132585	50.0	49.1	
76 1,1,2-Trichloroethane	97	9.291	9.291	0.000	94	90307	50.0	50.5	
77 Tetrachloroethene	164	9.364	9.364	0.000	97	81982	50.0	54.1	
78 1,3-Dichloropropane	76	9.449	9.449	0.000	97	160167	50.0	49.5	
79 2-Hexanone	43	9.510	9.510	0.000	97	235469	100.0	153.1	
81 Chlorodibromomethane	129	9.662	9.662	0.000	90	68097	50.0	48.9	
82 Ethylene Dibromide	107	9.771	9.771	0.000	97	86045	50.0	50.6	
83 3-Chlorobenzotrifluoride	180	10.246	10.246	0.000	93	145964	50.0	54.3	
84 Chlorobenzene	112	10.264	10.264	0.000	91	273955	50.0	52.0	
85 4-Chlorobenzotrifluoride	180	10.331	10.331	0.000	96	134997	50.0	54.2	
86 1,1,1,2-Tetrachloroethane	131	10.361	10.361	0.000	90	83917	50.0	51.2	
87 Ethylbenzene	106	10.368	10.368	0.000	99	155696	50.0	53.5	
88 m-Xylene & p-Xylene	106	10.495	10.495	0.000	99	194056	50.0	53.4	
89 o-Xylene	106	10.879	10.879	0.000	98	191329	50.0	52.9	
90 Styrene	104	10.897	10.897	0.000	95	315738	50.0	53.7	
91 Bromoform	173	11.079	11.079	0.000	94	41963	50.0	46.2	
92 2-Chlorobenzotrifluoride	180	11.152	11.152	0.000	95	142958	50.0	53.1	
93 Isopropylbenzene	105	11.244	11.244	0.000	97	485523	50.0	55.6	
95 Bromobenzene	156	11.554	11.554	0.000	99	114327	50.0	48.3	
96 1,1,2,2-Tetrachloroethane	83	11.566	11.566	0.000	95	141232	50.0	52.5	
97 trans-1,4-Dichloro-2-buten	53	11.596	11.596	0.000	75	40755	50.0	37.5	
98 1,2,3-Trichloropropane	110	11.615	11.615	0.000	90	44794	50.0	45.3	
99 N-Propylbenzene	120	11.663	11.663	0.000	99	131755	50.0	51.6	
100 2-Chlorotoluene	126	11.749	11.749	0.000	95	110634	50.0	49.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.815	11.815	0.000	97	120895	50.0	51.0	
102 1,3,5-Trimethylbenzene	105	11.846	11.846	0.000	94	415150	50.0	53.0	
103 4-Chlorotoluene	126	11.876	11.876	0.000	99	120160	50.0	49.1	
104 tert-Butylbenzene	119	12.162	12.162	0.000	93	329122	50.0	52.8	
106 1,2,4-Trimethylbenzene	105	12.223	12.223	0.000	98	420128	50.0	51.9	
107 1,2-dichloro-4-(trifluorom	214	12.266	12.266	0.000	98	112343	50.0	53.2	
108 sec-Butylbenzene	105	12.387	12.387	0.000	95	486345	50.0	54.0	
109 1,3-Dichlorobenzene	146	12.497	12.497	0.000	97	224541	50.0	50.8	
110 4-Isopropyltoluene	119	12.539	12.539	0.000	96	395729	50.0	53.1	
111 1,4-Dichlorobenzene	146	12.600	12.600	0.000	93	228532	50.0	49.3	
113 2,4-Dichloro-1-(triflourom	214	12.637	12.637	0.000	96	106538	50.0	53.2	
114 2,5-Dichlorobenzotrifluori	214	12.679	12.679	0.000	99	117206	50.0	53.3	
116 n-Butylbenzene	91	12.947	12.947	0.000	98	363963	50.0	53.9	
117 1,2-Dichlorobenzene	146	12.959	12.959	0.000	95	214216	50.0	50.5	
118 1,2-Dibromo-3-Chloropropan	75	13.750	13.750	0.000	75	20159	50.0	48.8	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.890	13.890	0.000	99	456551	150.0	161.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.304	14.304	0.000	99	317048	100.0	106.6	
122 1,2,4-Trichlorobenzene	180	14.571	14.571	0.000	94	116774	50.0	50.7	
123 Hexachlorobutadiene	225	14.717	14.717	0.000	97	45231	50.0	52.2	
124 Naphthalene	128	14.833	14.833	0.000	98	324108	50.0	50.5	
125 1,2,3-Trichlorobenzene	180	15.058	15.058	0.000	96	101560	50.0	51.0	
126 2,4,5-Trichlorotoluene	159	15.849	15.849	0.000	0	48030	50.0	40.7	
127 2,3,6-Trichlorotoluene	159	15.952	15.952	0.000	94	46450	50.0	42.7	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	99.7	
S 131 Xylenes, Total	106				0		100.0	106.3	
S 132 1,3-Dichloropropene, Total	1				0		100.0	91.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00011	Amount Added:	6.00	Units: uL		
VOA8260VOAPRI_00244	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00012	Amount Added:	2.00	Units: uL		
voaW2clev2ndR_00019	Amount Added:	2.00	Units: uL		
voaWKetmix1st_00002	Amount Added:	2.00	Units: uL		
voaWEEmix1stR_00005	Amount Added:	2.00	Units: uL		
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00066	Amount Added:	2.00	Units: uL	Run Reagent	

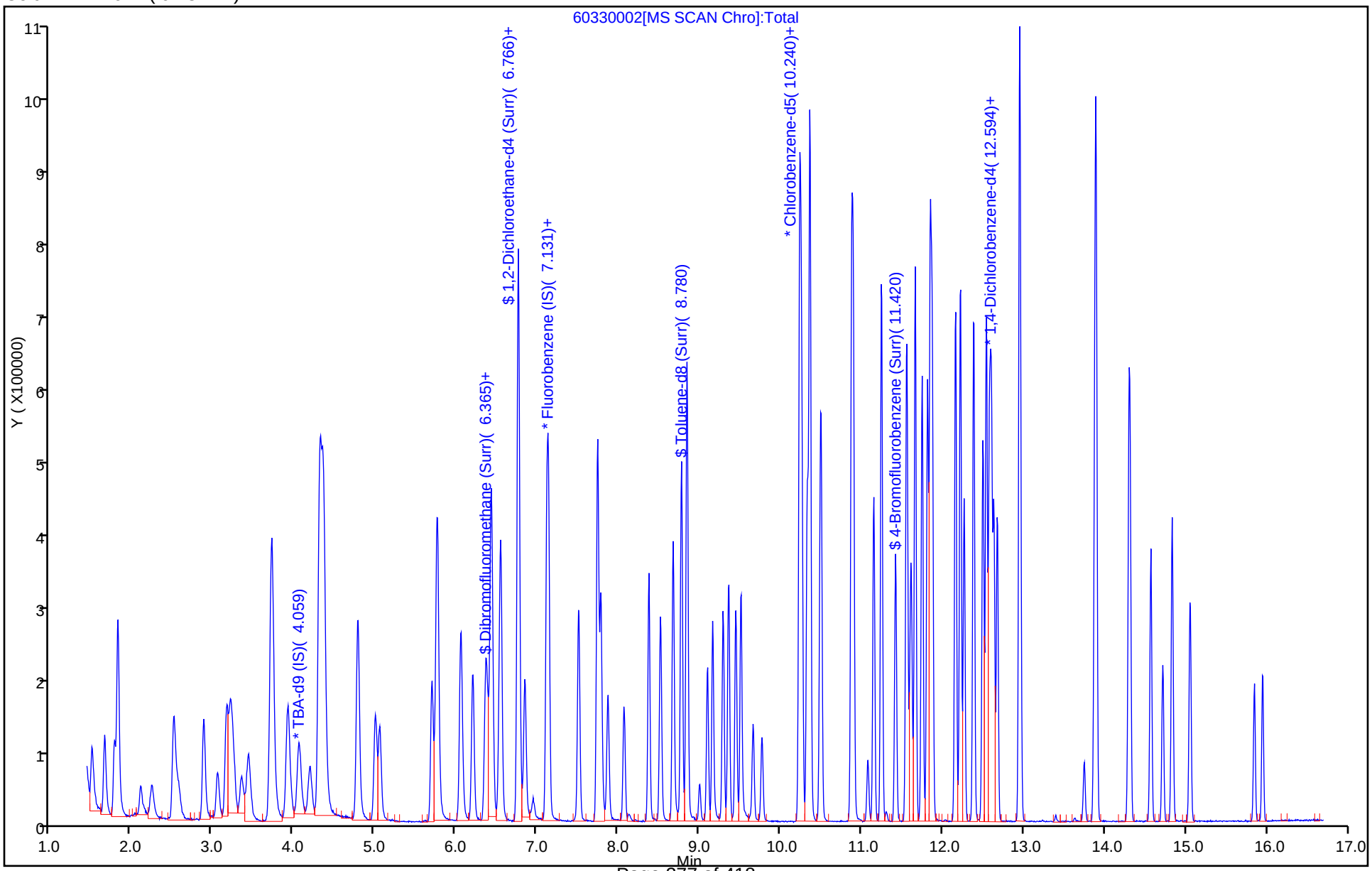
Report Date: 30-Mar-2017 10:39:53 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330002.D

Injection Date:	30-Mar-2017 09:32:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

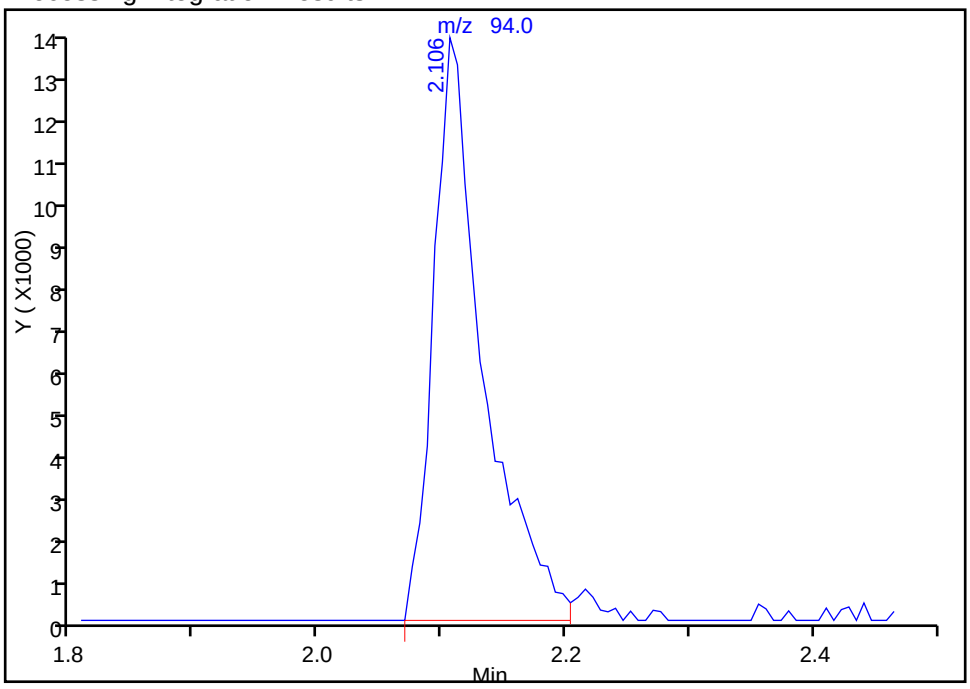
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330002.D				
Injection Date:	30-Mar-2017 09:32:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

Signal: 1

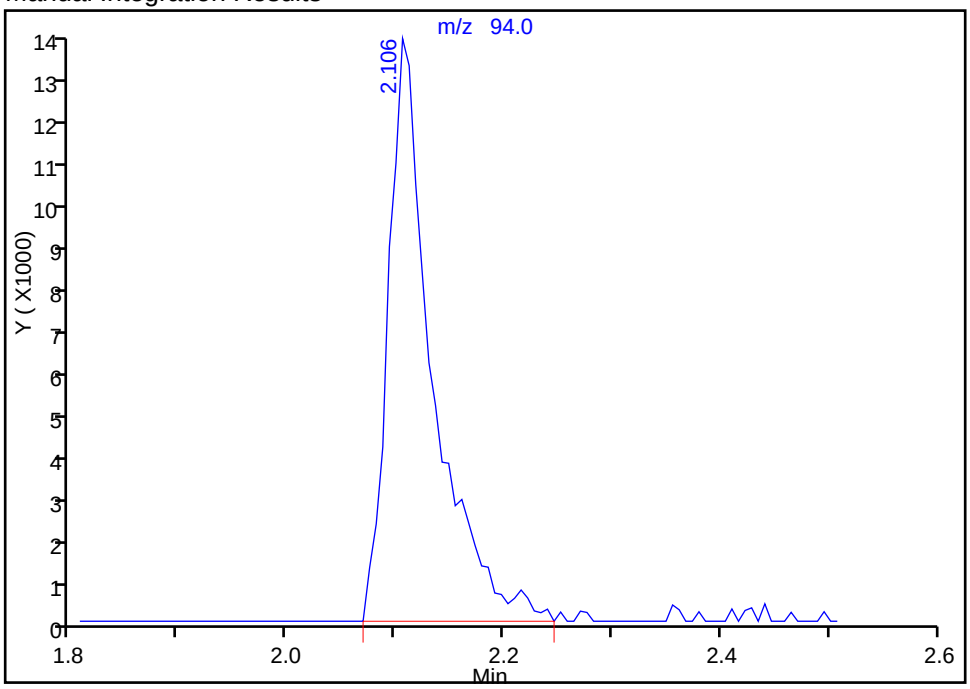
Processing Integration Results

RT: 2.11
Area: 38306
Amount: 51.732583
Amount Units: ng



Manual Integration Results

RT: 2.11
Area: 39236
Amount: 52.988556
Amount Units: ng



Reviewer: fergusond, 30-Mar-2017 10:39:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

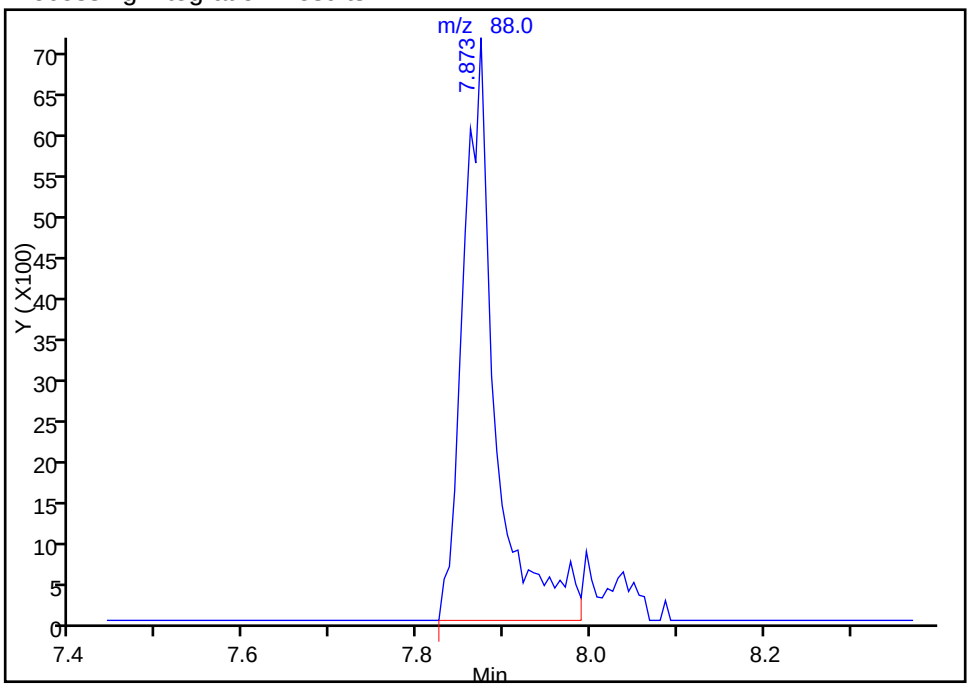
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330002.D				
Injection Date:	30-Mar-2017 09:32:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

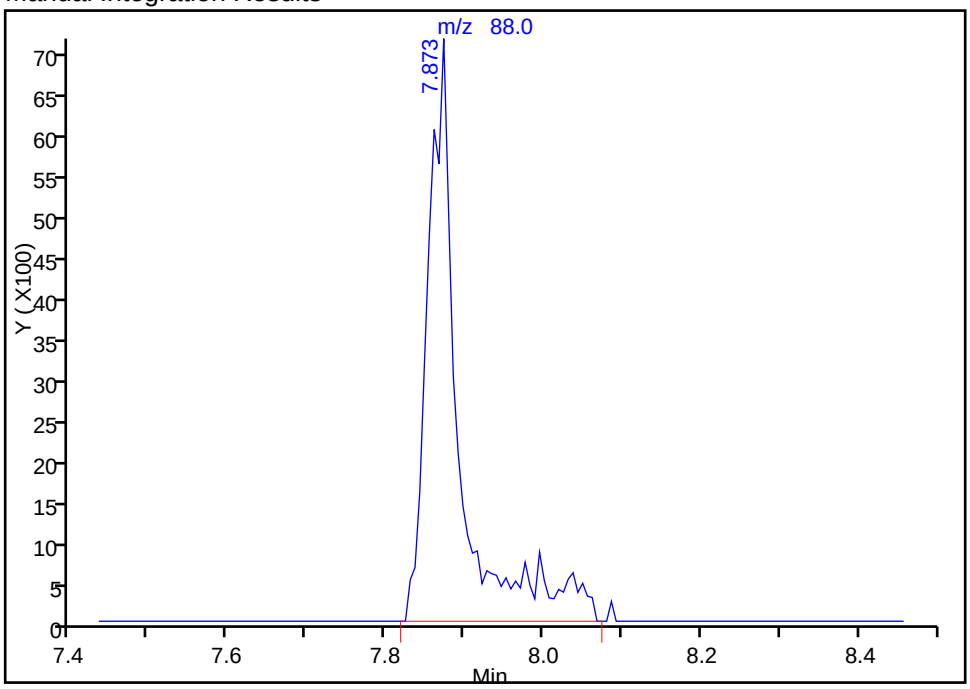
Processing Integration Results

RT: 7.87
Area: 18221
Amount: 1238.4363
Amount Units: ng



Manual Integration Results

RT: 7.87
Area: 20121
Amount: 1367.5746
Amount Units: ng



Reviewer: fergusond, 30-Mar-2017 10:39:51

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327004.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 27-Mar-2017 11:25:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 180-0016041-004
Misc. Info.: BFB
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Mar-2017 09:07:33 Calib Date: 27-Mar-2017 15:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: fergusond Date: 27-Mar-2017 12:01:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.241	8.241	0.000	0	84041	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

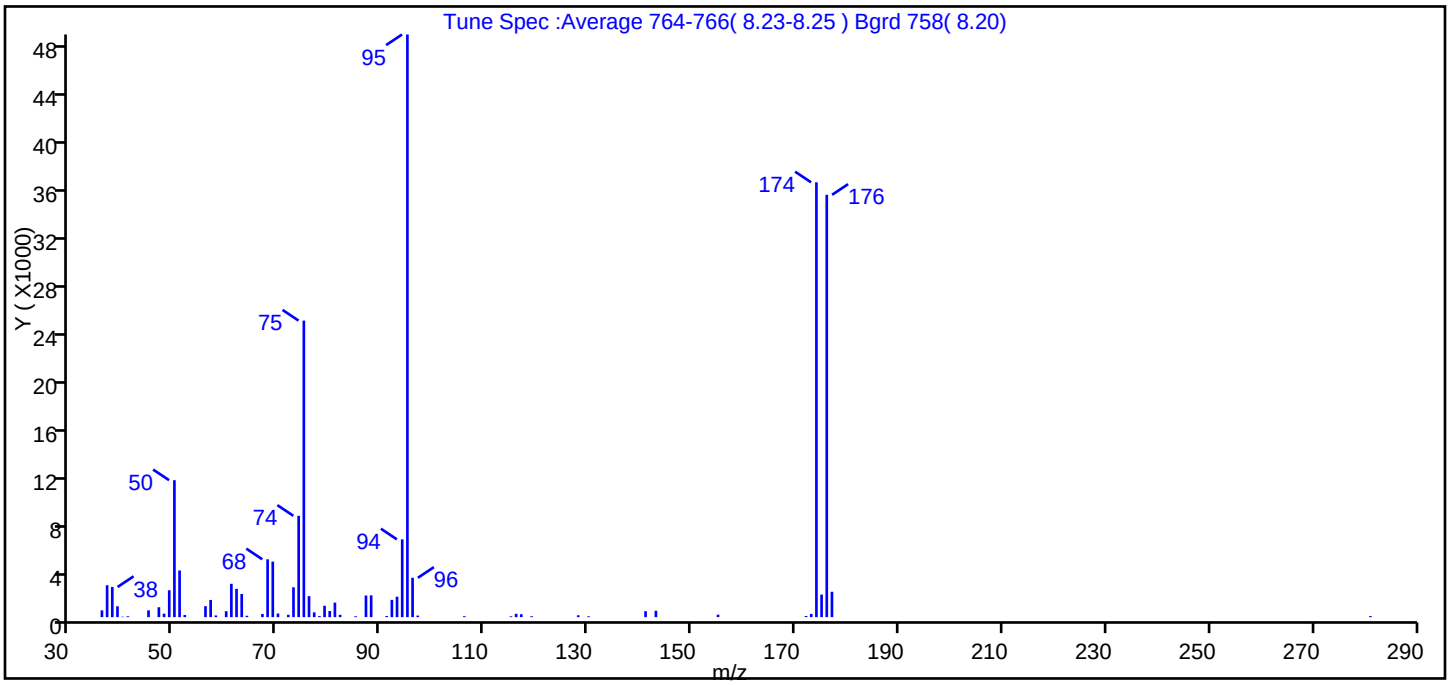
VOABFB25_00086 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327004.D
Injection Date: 27-Mar-2017 11:25:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.5
75	30 to 60% of m/z 95	50.9
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	74.6
175	5 to 9% of m/z 174	3.9 (5.2)
176	Greater than 95% but less than 101% of m/z 174	72.5 (97.1)
177	5 to 9% of m/z 176	4.4 (6.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327004.D\MSVOA_LL_CHHP6.rslt\spect
Injection Date: 27-Mar-2017 11:25:30
Spectrum: Tune Spec :Average 764-766(8.23-8.25) Bgrd 758(8.20)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	562	60.00	494	79.00	938	116.00	276
37.00	2635	61.00	2757	80.00	505	117.00	242
38.00	2494	62.00	2339	81.00	1203	119.00	73
39.00	897	63.00	1913	82.00	192	128.00	156
40.00	34	64.00	116	85.00	72	130.00	69
41.00	71	67.00	265	87.00	1787	141.00	493
45.00	564	68.00	4784	88.00	1802	143.00	526
47.00	821	69.00	4593	91.00	92	155.00	203
48.00	286	70.00	298	92.00	1426	172.00	95
49.00	2223	72.00	195	93.00	1691	173.00	268
50.00	11323	73.00	2471	94.00	6431	174.00	35952
51.00	3860	74.00	8379	95.00	48176	175.00	1865
52.00	176	75.00	24520	96.00	3253	176.00	34920
56.00	906	76.00	1737	97.00	128	177.00	2099
57.00	1422	77.00	395	106.00	77	281.00	87
58.00	140	78.00	87	115.00	68		

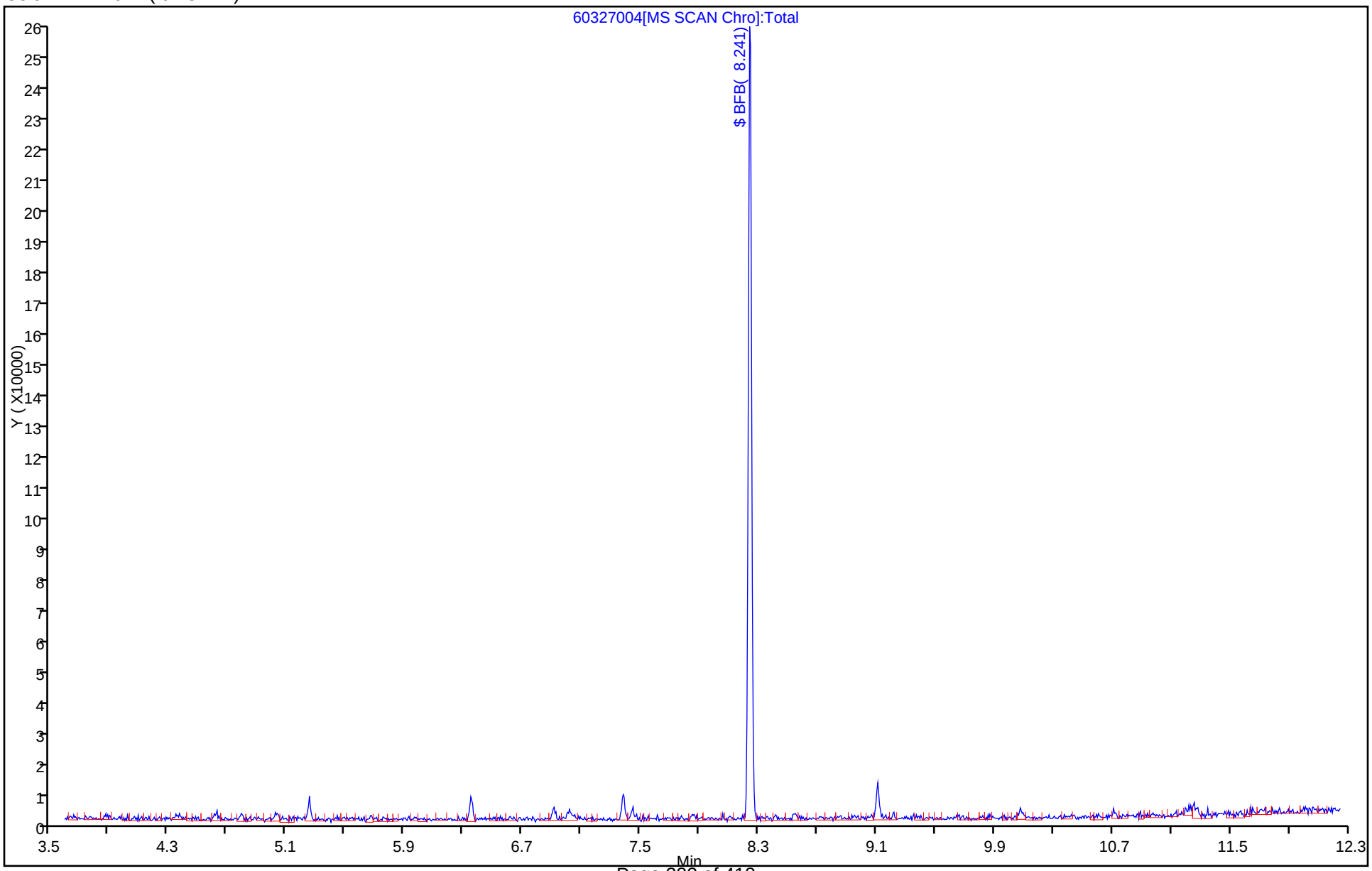
Report Date: 28-Mar-2017 09:07:36 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170327-16041.b\60327004.D

Injection Date:	27-Mar-2017 11:25:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 30-Mar-2017 08:53:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-001
Misc. Info.: BFB
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 10:39:49 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: fergusond Date: 30-Mar-2017 09:08:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.241	8.241	0.000	0	103830	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

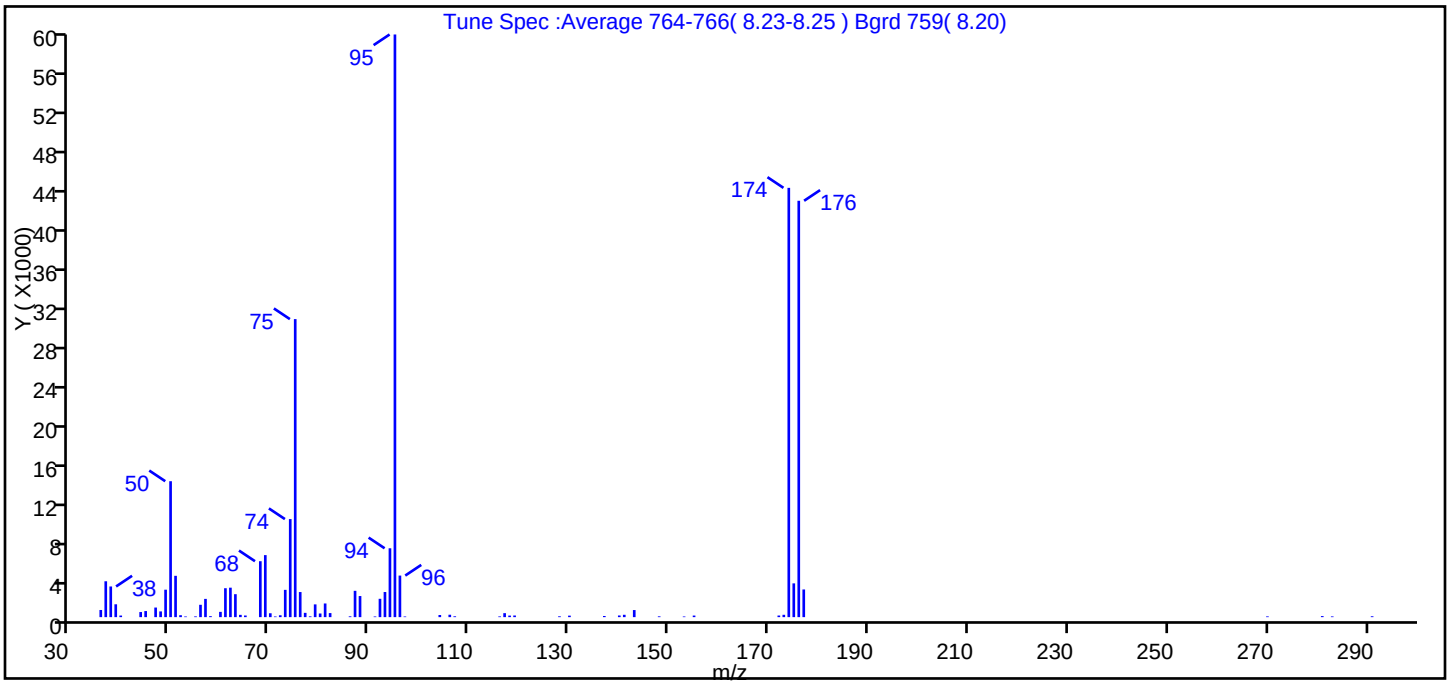
VOABFB25_00086 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330001.D
Injection Date: 30-Mar-2017 08:53:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.3
75	30 to 60% of m/z 95	51.1
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	73.7
175	5 to 9% of m/z 174	5.8 (7.9)
176	Greater than 95% but less than 101% of m/z 174	71.5 (97.0)
177	5 to 9% of m/z 176	4.8 (6.6)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330001.D\MSVOA_LL_CHHP6.rslt\spect
Injection Date: 30-Mar-2017 08:53:30
Spectrum: Tune Spec :Average 764-766(8.23-8.25) Bgrd 759(8.20)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 75

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	736	61.00	2972	82.00	417	130.00	155
37.00	3686	62.00	3028	86.00	83	137.00	117
38.00	3152	63.00	2359	87.00	2705	140.00	170
39.00	1321	64.00	235	88.00	2168	141.00	242
40.00	164	65.00	169	91.00	68	143.00	728
44.00	524	68.00	5747	92.00	1885	148.00	82
45.00	625	69.00	6373	93.00	2583	153.00	67
47.00	986	70.00	399	94.00	7076	155.00	163
48.00	589	71.00	67	95.00	59872	172.00	166
49.00	2820	72.00	192	96.00	4272	173.00	241
50.00	13967	73.00	2804	97.00	67	174.00	44112
51.00	4246	74.00	10076	104.00	219	175.00	3471
52.00	199	75.00	30624	106.00	247	176.00	42784
53.00	68	76.00	2579	107.00	86	177.00	2844
55.00	77	77.00	441	116.00	75	270.00	77
56.00	1269	78.00	79	117.00	410	281.00	108
57.00	1876	79.00	1311	118.00	160	283.00	74
58.00	100	80.00	375	119.00	169	291.00	89
60.00	542	81.00	1404	128.00	86		

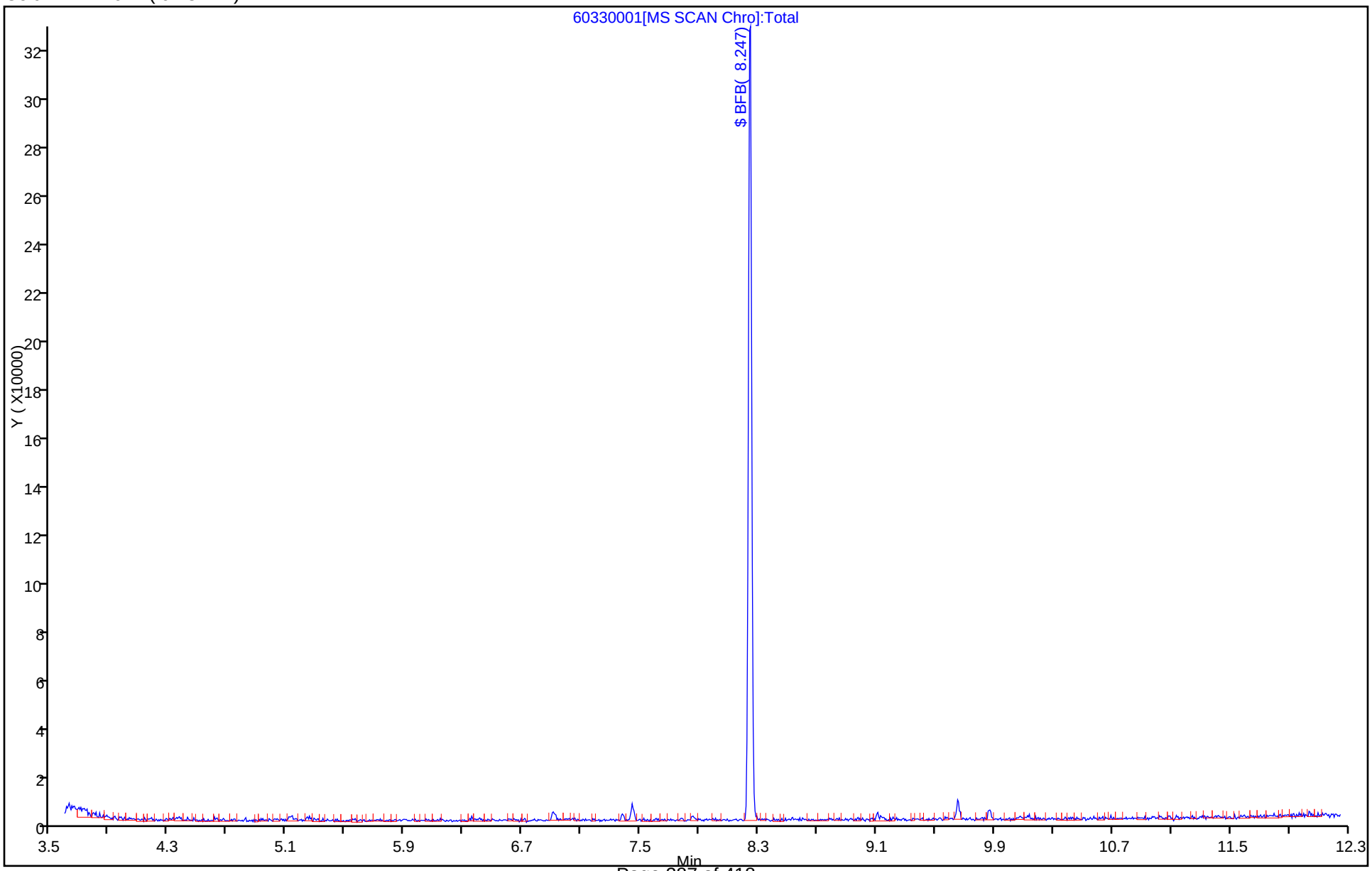
Report Date: 30-Mar-2017 10:39:50 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330001.D

Injection Date:	30-Mar-2017 08:53:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-206859/5

Matrix: Water | Lab File ID: 60330005.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 10:50

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.: 206859 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-206859/5

Matrix: Water Lab File ID: 60330005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/30/2017 10:50

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.: 206859 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		72-134
2037-26-5	Toluene-d8 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	103		72-120
1868-53-7	Dibromofluoromethane (Surr)	100		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 30-Mar-2017 10:50:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-005
Misc. Info.: MB
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 11:31:37 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: fergusond Date: 30-Mar-2017 11:31:37

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.044	4.043	0.001	87	95114	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.122	7.121	0.001	98	292263	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.237	10.236	0.001	92	73241	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.579	12.578	0.001	98	122595	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.392	6.389	0.003	93	65899	50.0	50.1	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.763	6.760	0.003	69	101300	50.0	49.7	
$	7 Toluene-d8 (Surr)	98	8.783	8.780	0.003	95	288303	50.0	50.2	
$	8 4-Bromofluorobenzene (Surr	95	11.423	11.420	0.003	85	125234	50.0	51.6	
	11 Dichlorodifluoromethane	85		1.510					ND	
	12 Chloromethane	50		1.662					ND	
	13 Vinyl chloride	62		1.784					ND	
	14 Butadiene	39		1.826					ND	
	15 Bromomethane	94		2.106					ND	
	16 Chloroethane	64		2.246					ND	
	17 Dichlorofluoromethane	67		2.514					ND	
	18 Trichlorofluoromethane	101		2.532					ND	
	19 Ethanol	45		2.772					ND	
	20 Ethyl ether	59		2.885					ND	
	21 Acrolein	56		3.049					ND	
	22 1,1-Dichloroethene	96		3.165					ND	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.219					ND	
	24 Acetone	43		3.262					ND	
	25 Iodomethane	142		3.353					ND	
	26 Carbon disulfide	76		3.438					ND	
	27 Isopropyl alcohol	45		3.514					ND	
	28 Acetonitrile	41		3.672					ND	
	29 3-Chloro-1-propene	76		3.706					ND	
	30 Methyl acetate	43		3.731					ND	
	31 Methylene Chloride	84	3.934	3.925	0.009	1	1069		0.5366	M
	32 2-Methyl-2-propanol	59		4.193					ND	
	33 Acrylonitrile	53		4.321					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		4.357					ND	
35 Methyl tert-butyl ether	73		4.369					ND	
36 Hexane	57		4.789					ND	
37 1,1-Dichloroethane	63		5.002					ND	
38 Vinyl acetate	43		5.057					ND	
39 2-Chloro-1,3-butadiene	53		5.102					ND	
40 Isopropyl ether	45		5.108					ND	
41 Tert-butyl ethyl ether	59		5.588					ND	
42 2,2-Dichloropropane	97		5.756					ND	
43 cis-1,2-Dichloroethene	96		5.762					ND	
44 2-Butanone (MEK)	43		5.775					ND	
46 Ethyl acetate	43		5.856					ND	
45 Propionitrile	54		5.856					ND	
47 Methacrylonitrile	41		6.039					ND	
48 Chlorobromomethane	128		6.054					ND	
49 Tetrahydrofuran	42		6.067					ND	
50 Chloroform	83		6.206					ND	
51 1,1,1-Trichloroethane	97		6.365					ND	
52 Cyclohexane	56		6.432					ND	
53 Carbon tetrachloride	117		6.535					ND	
54 1,1-Dichloropropene	75		6.553					ND	
55 Isobutyl alcohol	41		6.766					ND	
56 Benzene	78		6.766					ND	
148 Isooctane	57		6.927					ND	
58 Tert-amyl methyl ether	73		6.957					ND	
59 n-Heptane	43		7.137					ND	
60 n-Butanol	56		7.480					ND	
61 Trichloroethene	130		7.514					ND	
62 Ethyl acrylate	55		7.638					ND	
63 Methylcyclohexane	83		7.746					ND	
64 1,2-Dichloropropane	63		7.782					ND	
67 Dibromomethane	93		7.873					ND	
65 1,4-Dioxane	88		7.873					ND	
66 Methyl methacrylate	69		7.876					ND	
68 Dichlorobromomethane	83		8.068					ND	
69 2-Nitropropane	41		8.302					ND	
70 2-Chloroethyl vinyl ether	63		8.378					ND	
71 cis-1,3-Dichloropropene	75		8.518					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.676					ND	
73 Toluene	91		8.847					ND	
74 trans-1,3-Dichloropropene	75		9.102					ND	
75 Ethyl methacrylate	69		9.163					ND	
76 1,1,2-Trichloroethane	97		9.291					ND	
77 Tetrachloroethene	164		9.364					ND	
78 1,3-Dichloropropane	76		9.449					ND	
80 n-Butyl acetate	43		9.640					ND	
81 Chlorodibromomethane	129		9.662					ND	
82 Ethylene Dibromide	107		9.771					ND	
83 3-Chlorobenzotrifluoride	180		10.246					ND	
84 Chlorobenzene	112		10.264					ND	
85 4-Chlorobenzotrifluoride	180		10.331					ND	
86 1,1,1,2-Tetrachloroethane	131		10.361					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Ethylbenzene	106		10.368					ND	
88 m-Xylene & p-Xylene	106		10.495					ND	
89 o-Xylene	106		10.879					ND	
90 Styrene	104		10.897					ND	
129 Cyclohexanol	57		11.074					ND	
91 Bromoform	173		11.079					ND	
92 2-Chlorobenzotrifluoride	180		11.152					ND	
93 Isopropylbenzene	105		11.244					ND	
94 Cyclohexanone	55		11.337					ND	
95 Bromobenzene	156		11.554					ND	
96 1,1,2,2-Tetrachloroethane	83		11.566					ND	
97 trans-1,4-Dichloro-2-buten	53		11.596					ND	
98 1,2,3-Trichloropropane	110		11.615					ND	
99 N-Propylbenzene	120		11.663					ND	
100 2-Chlorotoluene	126		11.749					ND	
101 3-Chlorotoluene	126		11.815					ND	
102 1,3,5-Trimethylbenzene	105		11.846					ND	
103 4-Chlorotoluene	126		11.876					ND	
104 tert-Butylbenzene	119		12.162					ND	
106 1,2,4-Trimethylbenzene	105		12.223					ND	
107 1,2-dichloro-4-(trifluorom	214		12.266					ND	
105 Pentachloroethane	167		12.351					ND	
108 sec-Butylbenzene	105		12.387					ND	
109 1,3-Dichlorobenzene	146		12.497					ND	
110 4-Isopropyltoluene	119		12.539					ND	
111 1,4-Dichlorobenzene	146		12.600					ND	
112 1,2,3-Trimethylbenzene	105		12.633					ND	
113 2,4-Dichloro-1-(triflourom	214		12.637					ND	
114 2,5-Dichlorobenzotrifluori	214		12.679					ND	
115 Benzyl chloride	91		12.718					ND	
117 1,2-Dichlorobenzene	146		12.959					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.750					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		13.890					ND	
120 1,3,5-Trichlorobenzene	180		13.935					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.304					ND	
122 1,2,4-Trichlorobenzene	180		14.571					ND	
123 Hexachlorobutadiene	225		14.717					ND	
124 Naphthalene	128		14.833					ND	
125 1,2,3-Trichlorobenzene	180		15.058					ND	
126 2,4,5-Trichlorotoluene	159		15.849					ND	
127 2,3,6-Trichlorotoluene	159		15.952					ND	
128 2-Methylnaphthalene	142		15.983					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	

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

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00066	Amount Added:	2.00	Units: uL	Run Reagent

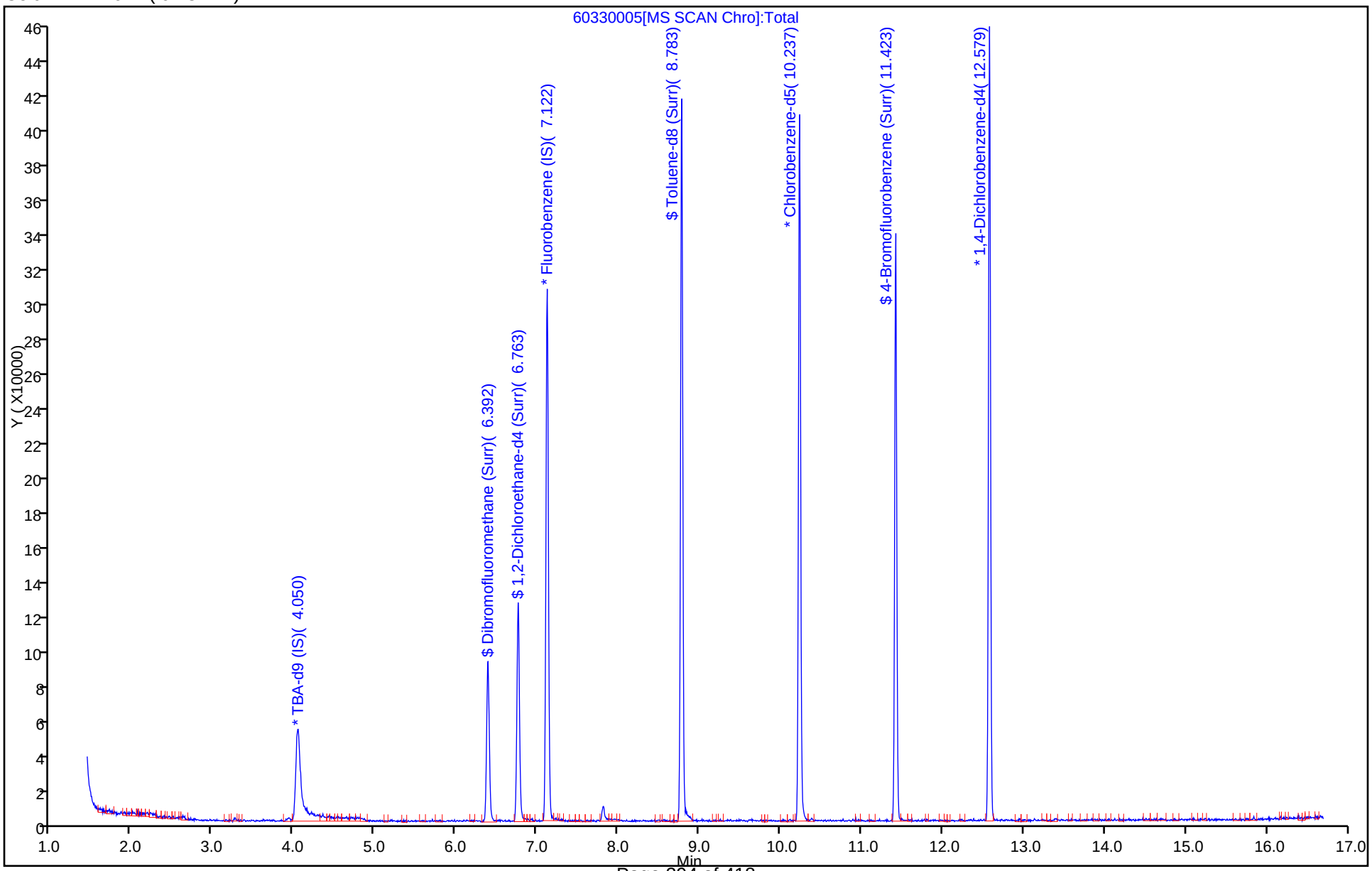
Report Date: 30-Mar-2017 11:31:39 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330005.D

Injection Date:	30-Mar-2017 10:50:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 30-Mar-2017 10:50:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-005
Misc. Info.: MB
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 11:31:37 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: fergusond Date: 30-Mar-2017 11:31:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	50.1	100.29
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.7	99.34
$ 7 Toluene-d8 (Surr)	50.0	50.2	100.47
$ 8 4-Bromofluorobenzene (Surr)	50.0	51.6	103.29

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

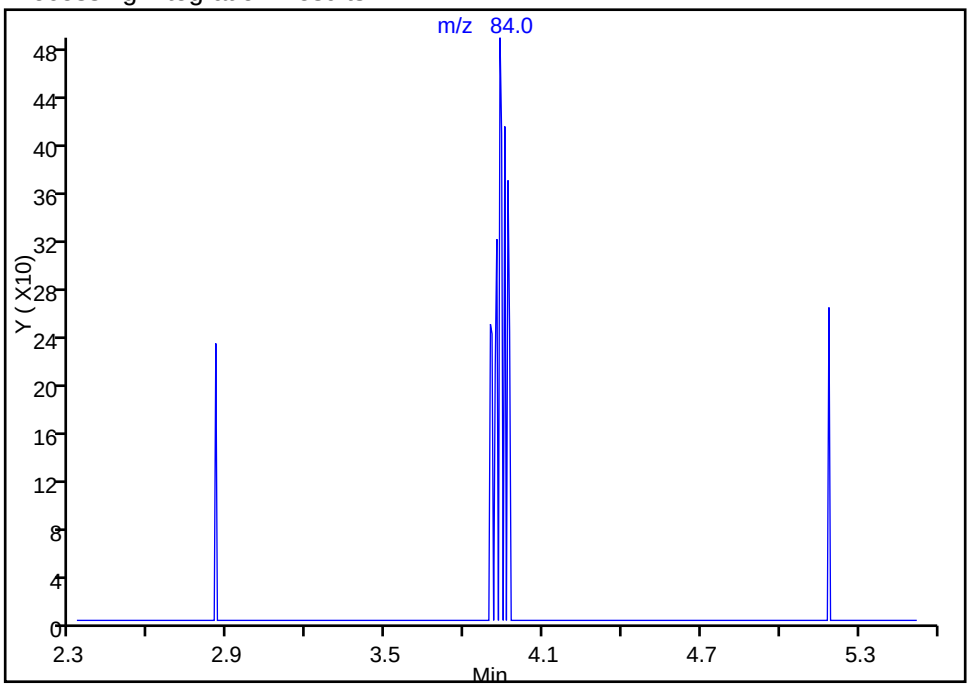
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330005.D				
Injection Date:	30-Mar-2017 10:50:30	Instrument ID:	CHHP6		
Lims ID:	MB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

Signal: 1

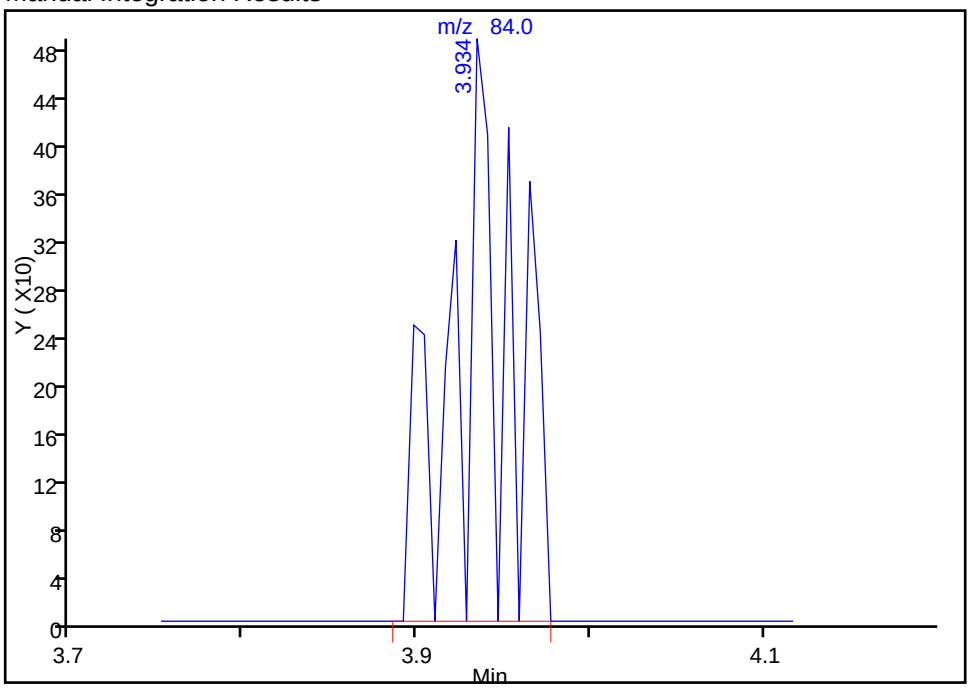
Not Detected
Expected RT: 3.93

Processing Integration Results



Manual Integration Results

RT: 3.93
Area: 1069
Amount: 0.536571
Amount Units: ng



Reviewer: fergusond, 30-Mar-2017 11:29:53
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

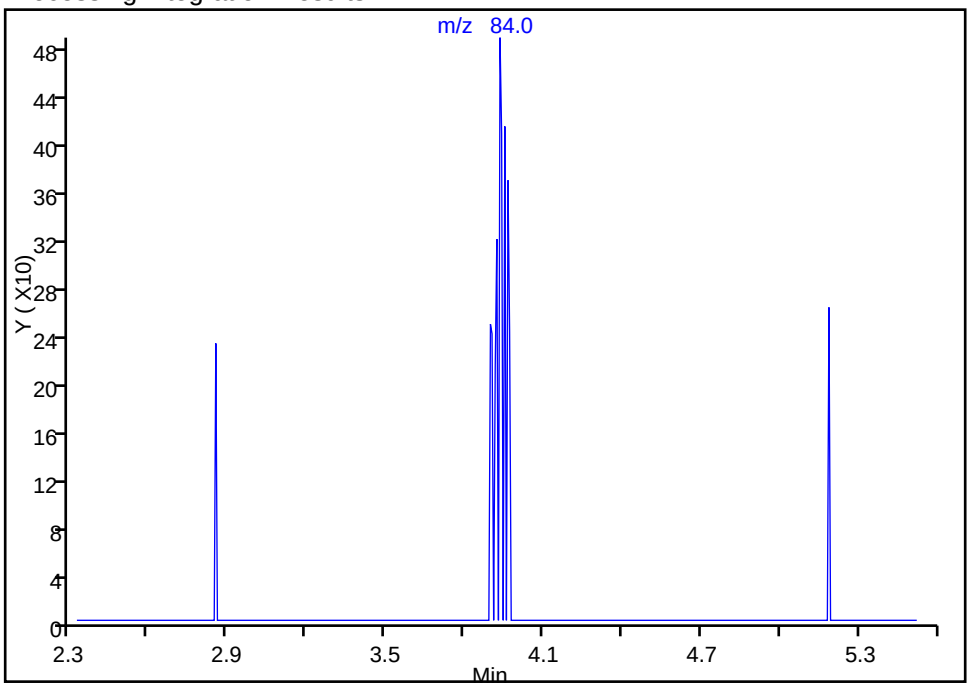
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330005.D				
Injection Date:	30-Mar-2017 10:50:30	Instrument ID:	CHHP6		
Lims ID:	MB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

Signal: 1

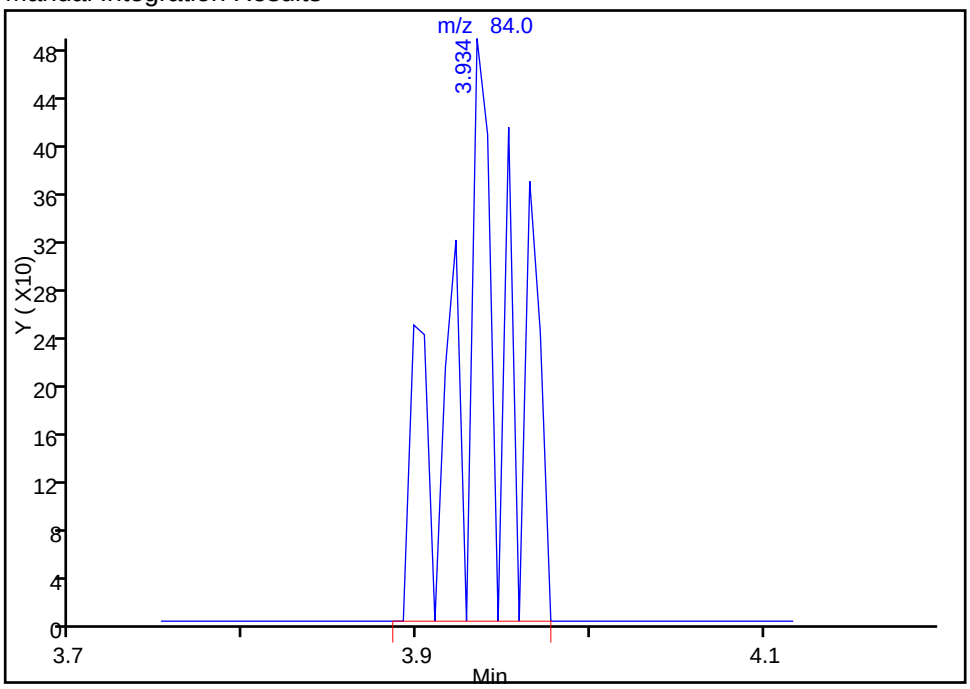
Not Detected
Expected RT: 3.93

Processing Integration Results



Manual Integration Results

RT: 3.93
Area: 1069
Amount: 0.536571
Amount Units: ng



Reviewer: fergusond, 30-Mar-2017 11:30:07
Audit Action: Manually Integrated Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-206859/10

Matrix: Water | Lab File ID: 60330010.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 13:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206859 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.2		1.0	0.38
75-01-4	Vinyl chloride	10.5		1.0	0.17
74-83-9	Bromomethane	10.8		1.0	0.59
75-00-3	Chloroethane	10.9		1.0	0.58
75-35-4	1,1-Dichloroethene	9.73		1.0	0.32
67-64-1	Acetone	22.0		5.0	3.1
75-15-0	Carbon disulfide	9.43		1.0	0.53
75-09-2	Methylene Chloride	9.78		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	10.1		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.93		1.0	0.20
75-34-3	1,1-Dichloroethane	9.89		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.30
74-97-5	Bromochloromethane	9.42		1.0	0.36
78-93-3	2-Butanone (MEK)	23.2		5.0	2.6
67-66-3	Chloroform	9.75		1.0	0.27
71-55-6	1,1,1-Trichloroethane	10.2		1.0	0.27
56-23-5	Carbon tetrachloride	10.3		1.0	0.56
71-43-2	Benzene	10.2		1.0	0.18
107-06-2	1,2-Dichloroethane	9.52		1.0	0.24
79-01-6	Trichloroethene	9.52		1.0	0.20
78-87-5	1,2-Dichloropropane	9.57		1.0	0.35
75-27-4	Bromodichloromethane	9.14		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	9.06		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	19.5		5.0	2.2
108-88-3	Toluene	10.4		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.03		1.0	0.22
79-00-5	1,1,2-Trichloroethane	10.2		1.0	0.31
127-18-4	Tetrachloroethene	10.0		1.0	0.24
591-78-6	2-Hexanone	23.4		5.0	2.0
124-48-1	Dibromochloromethane	8.90		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.71		1.0	0.51
108-90-7	Chlorobenzene	10.2		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.56		1.0	0.49
100-41-4	Ethylbenzene	10.2		1.0	0.25
1330-20-7	Xylenes, Total	20.7		2.0	0.27
100-42-5	Styrene	10.4		1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-64650-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-206859/10

Matrix: Water | Lab File ID: 60330010.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 13:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 206859 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.58		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	10.6		1.0	0.37
107-13-1	Acrylonitrile	106		20	3.3
123-91-1	1,4-Dioxane	270		200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		72-134
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		72-120
1868-53-7	Dibromofluoromethane (Surr)	95		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330010.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 30-Mar-2017 13:03:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-010
Misc. Info.: LCS
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 13:41:29 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: fergusond Date: 30-Mar-2017 13:41:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.065	4.043	0.022	88	139220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.119	7.121	-0.002	98	364822	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.239	10.236	0.003	91	80015	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.581	12.578	0.003	94	137208	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.389	6.389	0.000	94	77671	50.0	47.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.766	6.760	0.006	85	124054	50.0	48.7	
$ 7 Toluene-d8 (Surr)	98	8.779	8.780	-0.001	94	316941	50.0	50.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.420	11.420	0.000	84	132992	50.0	50.2	
11 Dichlorodifluoromethane	85	1.510	1.510	0.000	99	125045	50.0	54.2	
12 Chloromethane	50	1.668	1.662	0.006	99	154048	50.0	50.8	
13 Vinyl chloride	62	1.789	1.784	0.005	97	133794	50.0	52.4	
14 Butadiene	39	1.832	1.826	0.006	91	152797	50.0	55.7	
15 Bromomethane	94	2.130	2.106	0.024	92	39315	50.0	54.1	
16 Chloroethane	64	2.258	2.246	0.012	98	63457	50.0	54.6	
17 Dichlorofluoromethane	67	2.519	2.514	0.005	97	121060	50.0	54.4	
18 Trichlorofluoromethane	101	2.538	2.532	0.006	98	89209	50.0	54.7	
20 Ethyl ether	59	2.884	2.885	-0.001	97	122388	50.0	49.3	
21 Acrolein	56	3.061	3.049	0.012	98	86983	150.0	130.1	
22 1,1-Dichloroethene	96	3.170	3.165	0.005	95	95359	50.0	48.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.231	3.219	0.012	93	95005	50.0	49.9	
24 Acetone	43	3.268	3.262	0.006	99	80571	100.0	109.9	
25 Iodomethane	142	3.353	3.353	0.000	98	131816	50.0	50.1	
26 Carbon disulfide	76	3.438	3.438	0.000	100	209245	50.0	47.1	
29 3-Chloro-1-propene	76	3.712	3.706	0.006	88	51304	50.0	46.2	
30 Methyl acetate	43	3.730	3.731	0.000	99	627873	250.0	261.6	
31 Methylene Chloride	84	3.931	3.925	0.006	98	121643	50.0	48.9	
32 2-Methyl-2-propanol	59	4.198	4.193	0.005	91	86820	500.0	504.0	
33 Acrylonitrile	53	4.320	4.321	-0.001	100	646798	500.0	528.5	
34 trans-1,2-Dichloroethene	96	4.363	4.357	0.006	93	107336	50.0	50.4	
35 Methyl tert-butyl ether	73	4.375	4.369	0.006	97	321158	50.0	49.7	
36 Hexane	57	4.789	4.789	0.000	95	185995	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.008	5.002	0.006	96	200366	50.0	49.4	
38 Vinyl acetate	43	5.062	5.057	0.005	97	223817	50.0	43.9	
42 2,2-Dichloropropane	97	5.768	5.756	0.012	57	19320	50.0	48.6	
43 cis-1,2-Dichloroethene	96	5.768	5.762	0.006	84	123199	50.0	50.3	
44 2-Butanone (MEK)	43	5.780	5.775	0.005	99	131182	100.0	116.1	
48 Chlorobromomethane	128	6.054	6.054	0.000	90	49254	50.0	47.1	
49 Tetrahydrofuran	42	6.066	6.067	-0.001	91	101324	100.0	98.8	
50 Chloroform	83	6.206	6.206	0.000	95	184768	50.0	48.8	
51 1,1,1-Trichloroethane	97	6.364	6.365	-0.001	97	126473	50.0	50.8	
52 Cyclohexane	56	6.431	6.432	-0.001	94	253021	50.0	52.7	
53 Carbon tetrachloride	117	6.535	6.535	0.000	93	94835	50.0	51.6	
54 1,1-Dichloropropene	75	6.559	6.553	0.006	93	146868	50.0	50.8	
56 Benzene	78	6.772	6.766	0.006	98	443155	50.0	51.2	
55 Isobutyl alcohol	41	6.766	6.766	0.000	91	90777	1250.0	1332.4	
57 1,2-Dichloroethane	62	6.851	6.845	0.006	97	160344	50.0	47.6	
59 n-Heptane	43	7.143	7.137	0.006	95	150840	50.0	51.9	
61 Trichloroethene	130	7.514	7.514	0.000	95	95571	50.0	47.6	
63 Methylcyclohexane	83	7.745	7.746	-0.001	96	190284	50.0	51.0	
64 1,2-Dichloropropane	63	7.788	7.782	0.006	94	110026	50.0	47.9	
67 Dibromomethane	93	7.873	7.873	0.000	95	61355	50.0	47.9	
65 1,4-Dioxane	88	7.867	7.873	-0.006	41	19538	1000.0	1352.1	M
68 Dichlorobromomethane	83	8.074	8.068	0.006	98	102653	50.0	45.7	
70 2-Chloroethyl vinyl ether	63	8.378	8.378	0.000	91	128564	100.0	96.0	
71 cis-1,3-Dichloropropene	75	8.518	8.518	0.000	91	122976	50.0	45.3	
72 4-Methyl-2-pentanone (MIBK	43	8.676	8.676	0.000	98	252983	100.0	97.4	
73 Toluene	91	8.846	8.847	-0.001	97	424461	50.0	52.2	
74 trans-1,3-Dichloropropene	75	9.102	9.102	0.000	99	100933	50.0	45.2	
75 Ethyl methacrylate	69	9.163	9.163	0.000	92	129933	50.0	48.4	
76 1,1,2-Trichloroethane	97	9.296	9.291	0.005	93	90611	50.0	51.1	
77 Tetrachloroethene	164	9.363	9.364	-0.001	96	75434	50.0	50.2	
78 1,3-Dichloropropane	76	9.449	9.449	-0.001	97	161934	50.0	50.4	
79 2-Hexanone	43	9.515	9.510	0.005	98	178595	100.0	117.0	
81 Chlorodibromomethane	129	9.668	9.662	0.006	91	61547	50.0	44.5	
82 Ethylene Dibromide	107	9.771	9.771	0.000	100	81963	50.0	48.5	
83 3-Chlorobenzotrifluoride	180	10.245	10.246	-0.001	94	136998	50.0	51.3	
84 Chlorobenzene	112	10.264	10.264	0.000	93	267235	50.0	51.1	
85 4-Chlorobenzotrifluoride	180	10.331	10.331	0.000	95	123251	50.0	49.8	
86 1,1,1,2-Tetrachloroethane	131	10.361	10.361	0.000	89	77808	50.0	47.8	
87 Ethylbenzene	106	10.367	10.368	-0.001	99	147322	50.0	50.9	
88 m-Xylene & p-Xylene	106	10.501	10.495	0.006	100	183116	50.0	50.8	
89 o-Xylene	106	10.878	10.879	-0.001	98	187851	50.0	52.3	
90 Styrene	104	10.902	10.897	0.005	95	302141	50.0	51.8	
91 Bromoform	173	11.085	11.079	0.006	95	38647	50.0	42.9	
92 2-Chlorobenzotrifluoride	180	11.152	11.152	0.000	96	134943	50.0	50.4	
93 Isopropylbenzene	105	11.249	11.244	0.005	97	465963	50.0	53.8	
95 Bromobenzene	156	11.559	11.554	0.005	98	110439	50.0	45.5	
96 1,1,2,2-Tetrachloroethane	83	11.566	11.566	0.000	93	141462	50.0	53.0	
97 trans-1,4-Dichloro-2-buten	53	11.602	11.596	0.006	72	38416	50.0	34.6	
98 1,2,3-Trichloropropane	110	11.614	11.615	-0.001	89	44808	50.0	44.3	
99 N-Propylbenzene	120	11.663	11.663	0.000	99	123104	50.0	47.1	
100 2-Chlorotoluene	126	11.748	11.749	0.000	95	108461	50.0	47.3	
101 3-Chlorotoluene	126	11.815	11.815	0.000	97	113698	50.0	46.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	11.851	11.846	0.005	93	401649	50.0	50.1	
103 4-Chlorotoluene	126	11.870	11.876	-0.006	99	116199	50.0	46.4	
104 tert-Butylbenzene	119	12.162	12.162	0.000	94	309945	50.0	48.5	
106 1,2,4-Trimethylbenzene	105	12.223	12.223	0.000	98	408404	50.0	49.2	
107 1,2-dichloro-4-(trifluorom	214	12.265	12.266	-0.001	98	107087	50.0	49.5	
108 sec-Butylbenzene	105	12.387	12.387	0.000	95	471365	50.0	51.2	
109 1,3-Dichlorobenzene	146	12.502	12.497	0.005	95	214815	50.0	47.5	
110 4-Isopropyltoluene	119	12.545	12.539	0.006	97	387611	50.0	50.8	
111 1,4-Dichlorobenzene	146	12.606	12.600	0.006	94	227054	50.0	47.9	
113 2,4-Dichloro-1-(triflourom	214	12.636	12.637	-0.001	97	97997	50.0	47.8	
114 2,5-Dichlorobenzotrifluori	214	12.679	12.679	0.000	99	115524	50.0	51.3	
116 n-Butylbenzene	91	12.947	12.947	-0.001	98	355616	50.0	51.4	
117 1,2-Dichlorobenzene	146	12.959	12.959	0.000	94	216019	50.0	49.7	
118 1,2-Dibromo-3-Chloropropan	75	13.750	13.750	0.000	89	19041	50.0	45.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.889	13.890	-0.001	99	468851	150.0	162.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.309	14.304	0.005	99	332072	100.0	109.1	
122 1,2,4-Trichlorobenzene	180	14.571	14.571	0.000	93	129818	50.0	55.0	
123 Hexachlorobutadiene	225	14.717	14.717	0.000	97	47916	50.0	54.0	
124 Naphthalene	128	14.832	14.833	-0.001	97	374027	50.0	57.0	
125 1,2,3-Trichlorobenzene	180	15.057	15.058	-0.001	95	115260	50.0	56.5	
126 2,4,5-Trichlorotoluene	159	15.848	15.849	-0.001	0	60897	50.0	50.4	
127 2,3,6-Trichlorotoluene	159	15.952	15.952	0.000	95	60007	50.0	53.9	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	100.7	
S 131 Xylenes, Total	106				0		100.0	103.0	
S 132 1,3-Dichloropropene, Total	1				0		100.0	90.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWKet2ndRes_00017	Amount Added:	2.00	Units: uL		
voaWva2ndRete_00001	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00235	Amount Added:	2.00	Units: uL		
voaWee2ndRest_00011	Amount Added:	2.00	Units: uL		
voaW2clev2ndR_00019	Amount Added:	2.00	Units: uL		
voaWAcro2ndRe_00011	Amount Added:	6.00	Units: uL		
VOA8260INT_00067	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00066	Amount Added:	2.00	Units: uL	Run Reagent	

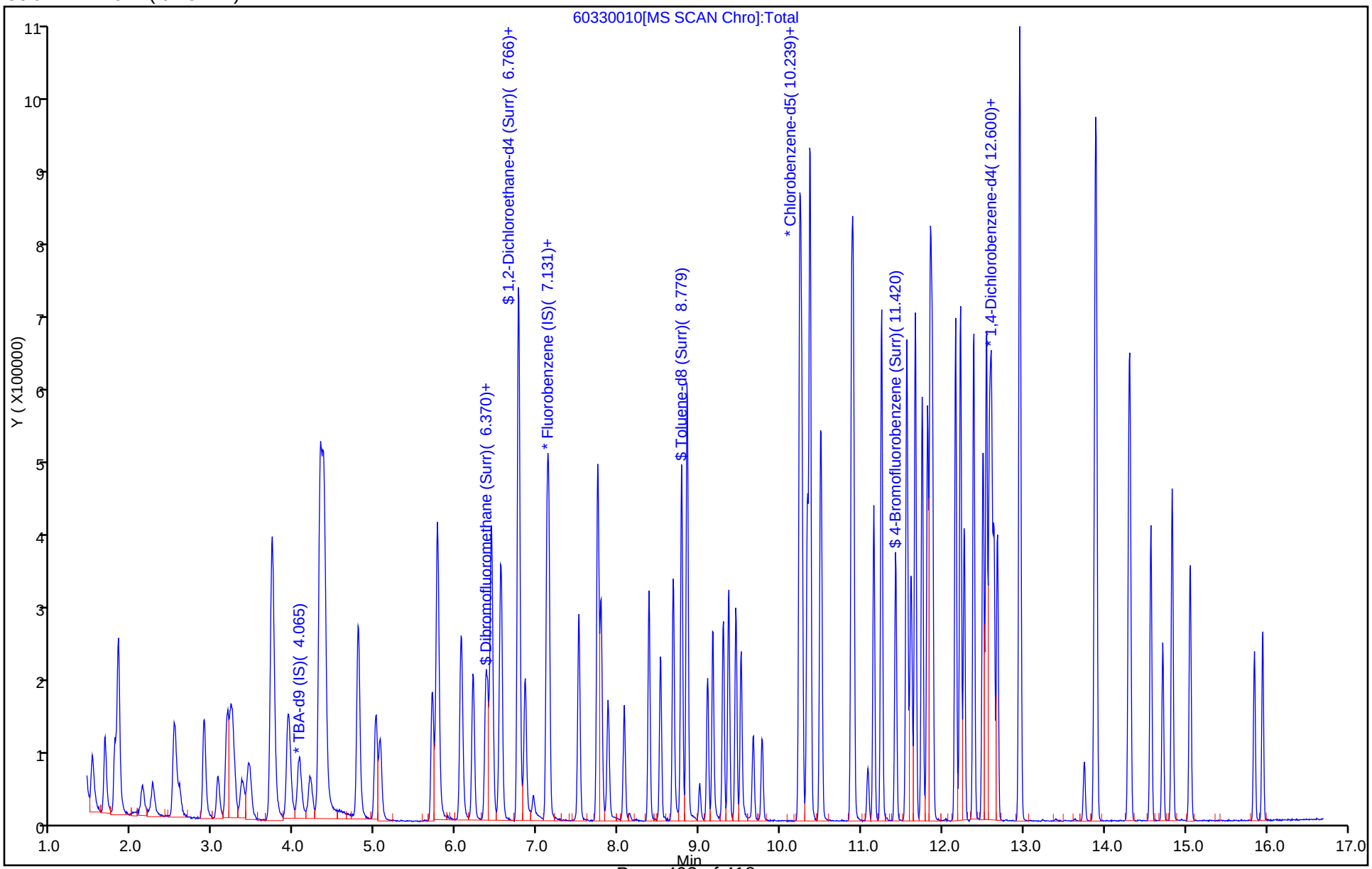
Report Date: 30-Mar-2017 13:41:30 Chrom Revision: 2.2 13-Mar-2017 15:50:30

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330010.D

Injection Date:	30-Mar-2017 13:03:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330010.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 30-Mar-2017 13:03:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0016096-010
Misc. Info.: LCS
Operator ID: 001562 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 30-Mar-2017 13:41:29 Calib Date: 29-Mar-2017 15:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170329-16081.b\60329012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: fergusond Date: 30-Mar-2017 13:41:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	47.3	94.70
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.7	97.46
$ 7 Toluene-d8 (Surr)	50.0	50.5	101.09
$ 8 4-Bromofluorobenzene (Surr)	50.0	50.2	100.40

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

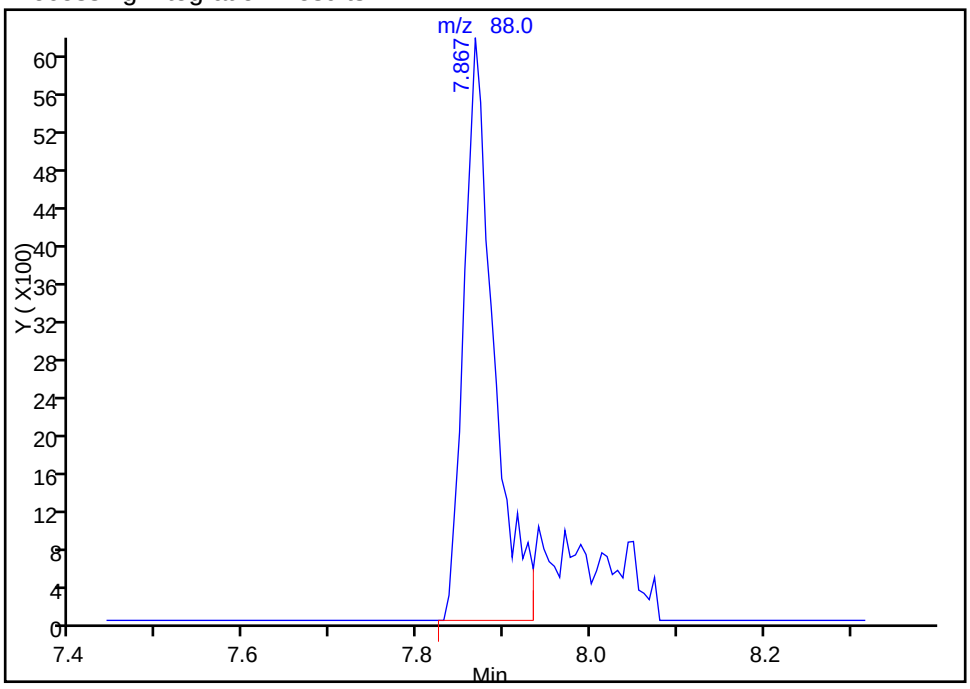
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170330-16096.b\60330010.D
Injection Date: 30-Mar-2017 13:03:30 Instrument ID: CHHP6
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

Signal: 1

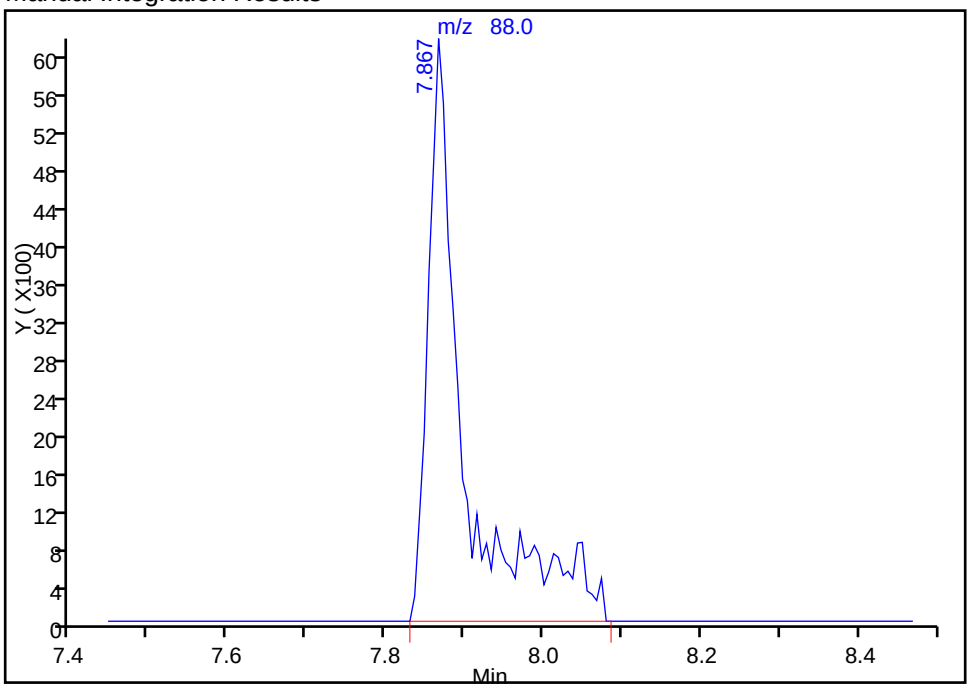
Processing Integration Results

RT: 7.87
Area: 14499
Amount: 1003.3702
Amount Units: ng



Manual Integration Results

RT: 7.87
Area: 19538
Amount: 1352.0827
Amount Units: ng



Reviewer: fergusond, 30-Mar-2017 13:23:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP6 Start Date: 03/27/2017 11:25

Analysis Batch Number: 206518 End Date: 03/27/2017 18:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-206518/4		03/27/2017 11:25	1	60327004.D	DB-624 0.18(mm)
IC 180-206518/6		03/27/2017 12:56	1	60327006.D	DB-624 0.18(mm)
IC 180-206518/7		03/27/2017 13:20	1	60327007.D	DB-624 0.18(mm)
ICIS 180-206518/8		03/27/2017 13:45	1	60327008.D	DB-624 0.18(mm)
IC 180-206518/9		03/27/2017 14:09	1	60327009.D	DB-624 0.18(mm)
IC 180-206518/10		03/27/2017 14:33	1	60327010.D	DB-624 0.18(mm)
IC 180-206518/11		03/27/2017 14:57	1	60327011.D	DB-624 0.18(mm)
IC 180-206518/12		03/27/2017 15:21	1	60327012.D	DB-624 0.18(mm)
IC 180-206518/13		03/27/2017 15:45	1	60327013.D	DB-624 0.18(mm)
ZZZZZ		03/27/2017 17:50	1		DB-624 0.18(mm)
ICV 180-206518/19		03/27/2017 18:14	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: CHHP6 Start Date: 03/30/2017 08:53

Analysis Batch Number: 206859 End Date: 03/30/2017 19:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-206859/1		03/30/2017 08:53	1	60330001.D	DB-624 0.18(mm)
CCVIS 180-206859/2		03/30/2017 09:32	1	60330002.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 09:32	1		DB-624 0.18(mm)
CCV 180-206859/3		03/30/2017 09:58	1	60330003.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 10:22	1		DB-624 0.18(mm)
MB 180-206859/5		03/30/2017 10:50	1	60330005.D	DB-624 0.18(mm)
LCS 180-206859/10		03/30/2017 13:03	1	60330010.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 14:41	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 15:05	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 15:29	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 15:54	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 16:18	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 17:06	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 17:31	3		DB-624 0.18(mm)
180-64650-10		03/30/2017 17:55	1	60330022.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:19	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:43	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 19:07	1		DB-624 0.18(mm)

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-64650-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-SPBA-SB-006-0/1-0	180-64650-1
HD-SPBA-SB-006-5/5.5-0	180-64650-2
HD-SPBA-SB-006-10/10.5-0	180-64650-3
HD-SPBA-SB-006-15/15.5-0	180-64650-4
HD-SPBA-SB-006-20/20.5-0	180-64650-5
HD-SPBA-SB-006-25/25.5-0	180-64650-6
HD-SPBA-SB-006-30/30.5-0	180-64650-7
HD-SPBA-SB-006-35/35.5-0	180-64650-8
HD-SPBA-SB-006-40/40.5-0	180-64650-9

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-64650-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G RL Date: 01/31/2010 13:27

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-64650-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 2540G XRL Date: 01/31/2010 13:31

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2540G

Start Date: 03/28/2017 13:15 End Date: 03/28/2017 13:37

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist																								
180-64650-1	1	T	13:15	X	X																								
180-64650-1 DU	1	T	13:15	X	X																								
180-64650-2	1	T	13:15	X	X																								
180-64650-3	1	T	13:15	X	X																								
180-64650-4	1	T	13:15	X	X																								
180-64650-5	1	T	13:15	X	X																								
180-64650-6	1	T	13:15	X	X																								
180-64650-7	1	T	13:15	X	X																								
180-64650-8	1	T	13:15	X	X																								
180-64650-9	1	T	13:15	X	X																								
ZZZZZZ			13:37																										
ZZZZZZ			13:37																										

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Batch Number: 206679 Batch Start Date: 03/28/17 13:14 Batch Analyst: Cookson, Joshua H

Batch Method: 2540G Batch End Date: 03/29/17 09:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
180-64650-A-1	HD-SPBA-SB-006-0/1-0	2540G	T	cFFSZ 0.1158	2.58 g	7.02 g	6.32 g		
180-64650-A-1 DU	HD-SPBA-SB-006-0/1-0	2540G	T	cFFT0 0.1146	2.59 g	6.97 g	6.29 g		
180-64650-A-2	HD-SPBA-SB-006-5/5.5-0	2540G	T	cFFT1 0.1155	2.59 g	7.13 g	6.49 g		
180-64650-A-3	HD-SPBA-SB-006-10/10.5-0	2540G	T	cFFT3 0.1168	2.60 g	6.92 g	6.15 g		
180-64650-A-4	HD-SPBA-SB-006-15/15.5-0	2540G	T	cFFST 0.1145	2.59 g	7.00 g	6.30 g		
180-64650-A-5	HD-SPBA-SB-006-20/20.5-0	2540G	T	cFFSU 0.1159	2.59 g	7.27 g	6.26 g		
180-64650-A-6	HD-SPBA-SB-006-25/25.5-0	2540G	T	cFFSV 0.1159	2.59 g	7.80 g	7.23 g		
180-64650-A-7	HD-SPBA-SB-006-30/30.5-0	2540G	T	cFFSW 0.1153	2.61 g	7.02 g	6.41 g		
180-64650-A-8	HD-SPBA-SB-006-35/35.5-0	2540G	T	cFFSX 0.1149	2.62 g	7.27 g	6.68 g		
180-64650-A-9	HD-SPBA-SB-006-40/40.5-0	2540G	T	cFFSY 0.1153	2.61 g	8.45 g	7.25 g		

Batch Notes	
Balance ID	1126472457 No Unit
Date and Time Samples in Desiccator	3/29/17 0825
Date and Time Samples out of Desiccator	3/29/17 0945
Date samples were placed in the oven	3/28/2017
Oven Temp In	105 Degrees C
Time samples were place in the oven	1341
Date samples were removed from oven	3/29/17
Oven Temp Out	105 Degrees C
Time Samples were removed from oven	0825
Oven ID	5005
Thermometer ID	WET 34
Uncorrected In Temperature	105 Celsius
Uncorrected Out Temperature	105 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-64650-1

SDG No.:

Batch Number: 206679 Batch Start Date: 03/28/17 13:14 Batch Analyst: Cookson, Joshua H

Batch Method: 2540G Batch End Date: 03/29/17 09:55

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody

180-64650 Chain of Custody

nerica VIRONMENTAL TESTING

Client Information	Sampler: KBF	Lab PM: Gamber, Carrie L	.1
Client Contact: Kaitlin Fleming / christopher oneil	Phone: 631-766-2476	E-Mail: carrie.gamber@testamericainc.com	Page 1 of 12
Company: Groundwater Sciences Corporation		Analysis Requested	Job #:
Address: 2601 Market Place Street, Suite 310	Due Date Requested:		Preservation Codes:
City: Harrisburg	TAT Requested (days): Normal		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: PA, 17110-9307			
Phone: 901-8194(Tel)	PO #: Purchase Order not required 10012.31		Other:
Email: kfleming@groundwatersciences.com	WO #:		
Project Name: Harley Davidson	Project #: 18010144		
Site: SPBA	SSOW#: ~~T200 10012.31~~ KBF		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (8260 CAM List)	VOCs (8260 CAM List)	Moisture	VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
HD-SPBA-SB-006-0/1-0	3/27/17	1135	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-5/5.5-0	3/27/17	1335	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-10/10.5-0	3/27/17	1350	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-15/15.5-0	3/27/17	1400	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-20/20.5-0	3/27/17	1425	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-25/25.5-0	3/27/17	1450	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-30/30.5-0	3/27/17	1515	G	S	N	N	2	1	1		4	
HD-SPBA-SB-006-35/35.5-0	3/27/17	1558	G	S	N	N	2	1	1			
HD-SPBA-SB-006-40/40.5-0	3/27/17	1630	G	S	N	N	2	1	1			
HD-QC1-0/1-2	3/27/17	1200	G	W	N	N				2	2	TripBlank

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	KBF	3/27/17 1645		Dakkie Watson	3-28-17 9:00	TAP
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Re : S180-36449
Dep :
Date: 23Mar17
Wgt: 10.00 LBS
DV:
S s: PRIORITY OVERNIGHT Master 7255 9074 3842
TRCK: 7255 9074 3934

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
0.00 TOTAL: 0.00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Part # 159489-434 RIT EXP 12/17

652-6832
ES CORPORATION
ORIGIN ID:AGC STREET, SUITE 310
CAITLIN FL 1711093C
GROUNDWAY US
2601 M

SHIP DATE: 23MAR17
ACTWGT: 10.00 LB MAN
CAD: 741733/CAFE3011

ING MAN
STAMERICA
301 ALPHA DR
RETURNS
PITTSBURGH PA 15238
(412) 963-7058
REF: S180-36449

180-64650 Waybill

FedEx Express

FedEx
TRK# 0221 7255 9074 3934

TUE - 28 MAR 10:30A
PRIORITY OVERNIGHT

EV AGCA

15238
PA-US PIT

Uncorrected temp 1.0 °C
Thermometer ID 12
CF 0 Initials TS

PT-WI-SR-001 effective 7/26/13

#5140702 03/27 546J3/1ADB/53C1

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-64650-1

Login Number: 64650
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	