TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

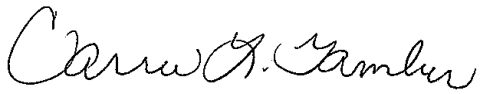
ANALYTICAL REPORT

Job Number: 180-70652-1

Job Description: Harley Davidson

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

Attention: Christopher O'Neil



Approved for release.
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10/4/2017 9:54 AM

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10/04/2017

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-70652-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 09/26/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.4 C.

The following Trip Blank sample was received with headspace in two out of two vials: HD-QC2-0/1-2 (180-70652-2).

VOLATILES

The following sample was analyzed with significant headspace in the sample containers: HD-QC2-0/1-2 (180-70652-2). Significant headspace is defined as a bubble greater than 6 mm in diameter.

The following sample was diluted to bring the concentration of target analytes within the calibration range: HD-SPBA-CW-21-0/1-0 (180-70652-1). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

Client Sample ID: HD-SPBA-CW-21-0/1-0 — Lab Sample ID: 180-70652-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0	0.30	ug/L	1		8260C	Total/NA
Chloroform	0.38	J	1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	300	E	1.0	0.20	ug/L	1		8260C	Total/NA
Toluene	0.40	J	1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	420	E	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene - DL	210		25	5.0	ug/L	25		8260C	Total/NA
Tetrachloroethene - DL	310		25	6.1	ug/L	25		8260C	Total/NA

Client Sample ID: HD-QC2-0/1-2 — Lab Sample ID: 180-70652-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-SPBA-CW-21-0/1-0
Date Collected: 09/22/17 09:40
Date Received: 09/26/17 09:00

Lab Sample ID: 180-70652-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			09/29/17 05:20	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/29/17 05:20	1
Bromomethane	1.0	U	1.0	0.59	ug/L			09/29/17 05:20	1
Chloroethane	1.0	U	1.0	0.58	ug/L			09/29/17 05:20	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			09/29/17 05:20	1
Acetone	5.0	U	5.0	3.1	ug/L			09/29/17 05:20	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			09/29/17 05:20	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			09/29/17 05:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			09/29/17 05:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/29/17 05:20	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			09/29/17 05:20	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.30	ug/L			09/29/17 05:20	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			09/29/17 05:20	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			09/29/17 05:20	1
Chloroform	**0.38**	**J**	1.0	0.27	ug/L			09/29/17 05:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			09/29/17 05:20	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			09/29/17 05:20	1
Benzene	1.0	U	1.0	0.18	ug/L			09/29/17 05:20	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			09/29/17 05:20	1
Trichloroethene	**300**	**E**	1.0	0.20	ug/L			09/29/17 05:20	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			09/29/17 05:20	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			09/29/17 05:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			09/29/17 05:20	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			09/29/17 05:20	1
Toluene	**0.40**	**J**	1.0	0.16	ug/L			09/29/17 05:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			09/29/17 05:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			09/29/17 05:20	1
Tetrachloroethene	**420**	**E**	1.0	0.24	ug/L			09/29/17 05:20	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			09/29/17 05:20	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			09/29/17 05:20	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			09/29/17 05:20	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			09/29/17 05:20	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			09/29/17 05:20	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/29/17 05:20	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			09/29/17 05:20	1
Styrene	1.0	U	1.0	0.22	ug/L			09/29/17 05:20	1
Bromoform	1.0	U	1.0	0.76	ug/L			09/29/17 05:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			09/29/17 05:20	1
Acrylonitrile	20	U	20	3.3	ug/L			09/29/17 05:20	1
1,4-Dioxane	200	U	200	16	ug/L			09/29/17 05:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*65 - 121*		*09/29/17 05:20*	*1*
Toluene-d8 (Surr)	*94*		*73 - 120*		*09/29/17 05:20*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*09/29/17 05:20*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*09/29/17 05:20*	*1*

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

Client Sample ID: HD-QC2-0/1-2
Date Collected: 09/22/17 00:00
Date Received: 09/26/17 09:00

Lab Sample ID: 180-70652-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			09/29/17 04:56	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/29/17 04:56	1
Bromomethane	1.0	U	1.0	0.59	ug/L			09/29/17 04:56	1
Chloroethane	1.0	U	1.0	0.58	ug/L			09/29/17 04:56	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			09/29/17 04:56	1
Acetone	5.0	U	5.0	3.1	ug/L			09/29/17 04:56	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			09/29/17 04:56	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			09/29/17 04:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			09/29/17 04:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/29/17 04:56	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			09/29/17 04:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/29/17 04:56	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			09/29/17 04:56	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			09/29/17 04:56	1
Chloroform	1.0	U	1.0	0.27	ug/L			09/29/17 04:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			09/29/17 04:56	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			09/29/17 04:56	1
Benzene	1.0	U	1.0	0.18	ug/L			09/29/17 04:56	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			09/29/17 04:56	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			09/29/17 04:56	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			09/29/17 04:56	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			09/29/17 04:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			09/29/17 04:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			09/29/17 04:56	1
Toluene	1.0	U	1.0	0.16	ug/L			09/29/17 04:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			09/29/17 04:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			09/29/17 04:56	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			09/29/17 04:56	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			09/29/17 04:56	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			09/29/17 04:56	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			09/29/17 04:56	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			09/29/17 04:56	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			09/29/17 04:56	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/29/17 04:56	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			09/29/17 04:56	1
Styrene	1.0	U	1.0	0.22	ug/L			09/29/17 04:56	1
Bromoform	1.0	U	1.0	0.76	ug/L			09/29/17 04:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			09/29/17 04:56	1
Acrylonitrile	20	U	20	3.3	ug/L			09/29/17 04:56	1
1,4-Dioxane	200	U	200	16	ug/L			09/29/17 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*65 - 121*		*09/29/17 04:56*	*1*
Toluene-d8 (Surr)	*99*		*73 - 120*		*09/29/17 04:56*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*09/29/17 04:56*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 120*		*09/29/17 04:56*	*1*

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

Client Sample ID: HD-SPBA-CW-21-0/1-0
Date Collected: 09/22/17 09:40
Date Received: 09/26/17 09:00

Lab Sample ID: 180-70652-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	9.5	ug/L			10/02/17 08:28	25
Vinyl chloride	25	U	25	4.2	ug/L			10/02/17 08:28	25
Bromomethane	25	U	25	15	ug/L			10/02/17 08:28	25
Chloroethane	25	U	25	14	ug/L			10/02/17 08:28	25
1,1-Dichloroethene	25	U	25	8.0	ug/L			10/02/17 08:28	25
Acetone	130	U	130	79	ug/L			10/02/17 08:28	25
Carbon disulfide	25	U	25	13	ug/L			10/02/17 08:28	25
Methylene Chloride	25	U	25	24	ug/L			10/02/17 08:28	25
trans-1,2-Dichloroethene	25	U	25	5.0	ug/L			10/02/17 08:28	25
Methyl tert-butyl ether	25	U	25	4.9	ug/L			10/02/17 08:28	25
1,1-Dichloroethane	25	U	25	8.5	ug/L			10/02/17 08:28	25
cis-1,2-Dichloroethene	25	U	25	7.6	ug/L			10/02/17 08:28	25
Bromochloromethane	25	U	25	9.0	ug/L			10/02/17 08:28	25
2-Butanone (MEK)	130	U	130	64	ug/L			10/02/17 08:28	25
Chloroform	25	U	25	6.7	ug/L			10/02/17 08:28	25
1,1,1-Trichloroethane	25	U	25	6.8	ug/L			10/02/17 08:28	25
Carbon tetrachloride	25	U	25	14	ug/L			10/02/17 08:28	25
Benzene	25	U	25	4.6	ug/L			10/02/17 08:28	25
1,2-Dichloroethane	25	U	25	6.0	ug/L			10/02/17 08:28	25
Trichloroethene	**210**		25	5.0	ug/L			10/02/17 08:28	25
1,2-Dichloropropane	25	U	25	8.6	ug/L			10/02/17 08:28	25
Bromodichloromethane	25	U	25	14	ug/L			10/02/17 08:28	25
cis-1,3-Dichloropropene	25	U	25	8.0	ug/L			10/02/17 08:28	25
4-Methyl-2-pentanone (MIBK)	130	U	130	55	ug/L			10/02/17 08:28	25
Toluene	25	U	25	3.9	ug/L			10/02/17 08:28	25
trans-1,3-Dichloropropene	25	U	25	5.6	ug/L			10/02/17 08:28	25
1,1,2-Trichloroethane	25	U	25	7.7	ug/L			10/02/17 08:28	25
Tetrachloroethene	**310**		25	6.1	ug/L			10/02/17 08:28	25
2-Hexanone	130	U	130	50	ug/L			10/02/17 08:28	25
Dibromochloromethane	25	U	25	11	ug/L			10/02/17 08:28	25
1,2-Dibromoethane (EDB)	25	U	25	13	ug/L			10/02/17 08:28	25
Chlorobenzene	25	U	25	3.7	ug/L			10/02/17 08:28	25
1,1,1,2-Tetrachloroethane	25	U	25	12	ug/L			10/02/17 08:28	25
Ethylbenzene	25	U	25	6.3	ug/L			10/02/17 08:28	25
Xylenes, Total	50	U	50	6.8	ug/L			10/02/17 08:28	25
Styrene	25	U	25	5.4	ug/L			10/02/17 08:28	25
Bromoform	25	U	25	19	ug/L			10/02/17 08:28	25
1,1,2,2-Tetrachloroethane	25	U	25	9.3	ug/L			10/02/17 08:28	25
Acrylonitrile	500	U	500	83	ug/L			10/02/17 08:28	25
1,4-Dioxane	5000	U	5000	390	ug/L			10/02/17 08:28	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*65 - 121*		*10/02/17 08:28*	*25*
Toluene-d8 (Surr)	*97*		*73 - 120*		*10/02/17 08:28*	*25*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*10/02/17 08:28*	*25*
Dibromofluoromethane (Surr)	*106*		*73 - 120*		*10/02/17 08:28*	*25*

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

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

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

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (65-121)	TOL (73-120)	BFB (80-120)	DBFM (73-120)
180-70652-1	HD-SPBA-CW-21-0/1-0	115	94	89	107
180-70652-1 - DL	HD-SPBA-CW-21-0/1-0	112	97	89	106
180-70652-2	HD-QC2-0/1-2	112	99	90	102
LCS 180-224374/3	Lab Control Sample	96	108	99	89
LCS 180-224557/3	Lab Control Sample	100	112	111	95
MB 180-224374/6	Method Blank	111	101	96	99
MB 180-224557/6	Method Blank	109	99	95	98

Surrogate Legend

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

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

Lab Sample ID: MB 180-224374/6
Matrix: Water
Analysis Batch: 224374

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			09/29/17 00:14	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			09/29/17 00:14	1
Bromomethane	1.0	U	1.0	0.59	ug/L			09/29/17 00:14	1
Chloroethane	1.0	U	1.0	0.58	ug/L			09/29/17 00:14	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			09/29/17 00:14	1
Acetone	5.0	U	5.0	3.1	ug/L			09/29/17 00:14	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			09/29/17 00:14	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			09/29/17 00:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			09/29/17 00:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			09/29/17 00:14	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			09/29/17 00:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/29/17 00:14	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			09/29/17 00:14	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			09/29/17 00:14	1
Chloroform	1.0	U	1.0	0.27	ug/L			09/29/17 00:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			09/29/17 00:14	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			09/29/17 00:14	1
Benzene	1.0	U	1.0	0.18	ug/L			09/29/17 00:14	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			09/29/17 00:14	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			09/29/17 00:14	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			09/29/17 00:14	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			09/29/17 00:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			09/29/17 00:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			09/29/17 00:14	1
Toluene	1.0	U	1.0	0.16	ug/L			09/29/17 00:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			09/29/17 00:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			09/29/17 00:14	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			09/29/17 00:14	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			09/29/17 00:14	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			09/29/17 00:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			09/29/17 00:14	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			09/29/17 00:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			09/29/17 00:14	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			09/29/17 00:14	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			09/29/17 00:14	1
Styrene	1.0	U	1.0	0.22	ug/L			09/29/17 00:14	1
Bromoform	1.0	U	1.0	0.76	ug/L			09/29/17 00:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			09/29/17 00:14	1
Acrylonitrile	20	U	20	3.3	ug/L			09/29/17 00:14	1
1,4-Dioxane	200	U	200	16	ug/L			09/29/17 00:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*65 - 121*		*09/29/17 00:14*	*1*
Toluene-d8 (Surr)	*101*		*73 - 120*		*09/29/17 00:14*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/29/17 00:14*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*09/29/17 00:14*	*1*

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

Lab Sample ID: LCS 180-224374/3
Matrix: Water
Analysis Batch: 224374

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	10.7		ug/L		107	49 - 135
Vinyl chloride	10.0	10.3		ug/L		103	52 - 136
Bromomethane	10.0	11.2		ug/L		112	37 - 150
Chloroethane	10.0	10.6		ug/L		106	44 - 139
1,1-Dichloroethene	10.0	10.7		ug/L		107	64 - 131
Acetone	20.0	21.3		ug/L		106	24 - 150
Carbon disulfide	10.0	11.2		ug/L		112	20 - 150
Methylene Chloride	10.0	9.02		ug/L		90	66 - 123
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 123
Methyl tert-butyl ether	10.0	8.83		ug/L		88	66 - 130
1,1-Dichloroethane	10.0	9.80		ug/L		98	66 - 122
cis-1,2-Dichloroethene	10.0	9.44		ug/L		94	73 - 120
Bromochloromethane	10.0	8.91		ug/L		89	73 - 122
2-Butanone (MEK)	20.0	18.7		ug/L		94	37 - 150
Chloroform	10.0	9.52		ug/L		95	72 - 123
1,1,1-Trichloroethane	10.0	10.5		ug/L		105	66 - 129
Carbon tetrachloride	10.0	10.3		ug/L		103	58 - 145
Benzene	10.0	9.04		ug/L		90	75 - 123
1,2-Dichloroethane	10.0	9.25		ug/L		92	63 - 130
Trichloroethene	10.0	8.91		ug/L		89	74 - 121
1,2-Dichloropropane	10.0	8.76		ug/L		88	67 - 119
Bromodichloromethane	10.0	8.90		ug/L		89	62 - 127
cis-1,3-Dichloropropene	10.0	8.31		ug/L		83	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	20.2		ug/L		101	41 - 135
Toluene	10.0	11.0		ug/L		110	76 - 129
trans-1,3-Dichloropropene	10.0	10.0		ug/L		100	61 - 136
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	74 - 126
Tetrachloroethene	10.0	11.0		ug/L		110	76 - 128
2-Hexanone	20.0	20.1		ug/L		100	37 - 150
Dibromochloromethane	10.0	10.3		ug/L		103	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.83		ug/L		98	76 - 128
Chlorobenzene	10.0	10.1		ug/L		101	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	70 - 130
Ethylbenzene	10.0	10.0		ug/L		100	77 - 124
Xylenes, Total	20.0	20.1		ug/L		101	76 - 124
Styrene	10.0	9.73		ug/L		97	80 - 125
Bromoform	10.0	9.84		ug/L		98	54 - 136
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	72 - 128
Acrylonitrile	100	97.2		ug/L		97	60 - 130
1,4-Dioxane	200	201		ug/L		101	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*65 - 121*
Toluene-d8 (Surr)	*108*		*73 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*73 - 120*

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

Lab Sample ID: MB 180-224557/6
Matrix: Water
Analysis Batch: 224557

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			10/02/17 01:25	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/02/17 01:25	1
Bromomethane	1.0	U	1.0	0.59	ug/L			10/02/17 01:25	1
Chloroethane	1.0	U	1.0	0.58	ug/L			10/02/17 01:25	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			10/02/17 01:25	1
Acetone	5.0	U	5.0	3.1	ug/L			10/02/17 01:25	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			10/02/17 01:25	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			10/02/17 01:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			10/02/17 01:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			10/02/17 01:25	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			10/02/17 01:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			10/02/17 01:25	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			10/02/17 01:25	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/02/17 01:25	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/02/17 01:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			10/02/17 01:25	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			10/02/17 01:25	1
Benzene	1.0	U	1.0	0.18	ug/L			10/02/17 01:25	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/02/17 01:25	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			10/02/17 01:25	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			10/02/17 01:25	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			10/02/17 01:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			10/02/17 01:25	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			10/02/17 01:25	1
Toluene	1.0	U	1.0	0.16	ug/L			10/02/17 01:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			10/02/17 01:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			10/02/17 01:25	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			10/02/17 01:25	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			10/02/17 01:25	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			10/02/17 01:25	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			10/02/17 01:25	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/02/17 01:25	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			10/02/17 01:25	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			10/02/17 01:25	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			10/02/17 01:25	1
Styrene	1.0	U	1.0	0.22	ug/L			10/02/17 01:25	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/02/17 01:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			10/02/17 01:25	1
Acrylonitrile	20	U	20	3.3	ug/L			10/02/17 01:25	1
1,4-Dioxane	200	U	200	16	ug/L			10/02/17 01:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*65 - 121*		*10/02/17 01:25*	*1*
Toluene-d8 (Surr)	*99*		*73 - 120*		*10/02/17 01:25*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/02/17 01:25*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/02/17 01:25*	*1*

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

Lab Sample ID: LCS 180-224557/3
Matrix: Water
Analysis Batch: 224557

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	11.7		ug/L		117	49 - 135
Vinyl chloride	10.0	10.7		ug/L		107	52 - 136
Bromomethane	10.0	11.5		ug/L		115	37 - 150
Chloroethane	10.0	11.5		ug/L		115	44 - 139
1,1-Dichloroethene	10.0	11.3		ug/L		113	64 - 131
Acetone	20.0	18.9		ug/L		94	24 - 150
Carbon disulfide	10.0	11.2		ug/L		112	20 - 150
Methylene Chloride	10.0	10.2		ug/L		102	66 - 123
trans-1,2-Dichloroethene	10.0	11.1		ug/L		111	70 - 123
Methyl tert-butyl ether	10.0	10.1		ug/L		101	66 - 130
1,1-Dichloroethane	10.0	10.4		ug/L		104	66 - 122
cis-1,2-Dichloroethene	10.0	9.91		ug/L		99	73 - 120
Bromochloromethane	10.0	9.79		ug/L		98	73 - 122
2-Butanone (MEK)	20.0	19.9		ug/L		99	37 - 150
Chloroform	10.0	10.3		ug/L		103	72 - 123
1,1,1-Trichloroethane	10.0	10.9		ug/L		109	66 - 129
Carbon tetrachloride	10.0	10.8		ug/L		108	58 - 145
Benzene	10.0	9.89		ug/L		99	75 - 123
1,2-Dichloroethane	10.0	10.5		ug/L		105	63 - 130
Trichloroethene	10.0	9.57		ug/L		96	74 - 121
1,2-Dichloropropane	10.0	10.3		ug/L		103	67 - 119
Bromodichloromethane	10.0	9.68		ug/L		97	62 - 127
cis-1,3-Dichloropropene	10.0	9.81		ug/L		98	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	22.0		ug/L		110	41 - 135
Toluene	10.0	11.6		ug/L		116	76 - 129
trans-1,3-Dichloropropene	10.0	11.0		ug/L		110	61 - 136
1,1,2-Trichloroethane	10.0	11.4		ug/L		114	74 - 126
Tetrachloroethene	10.0	11.1		ug/L		111	76 - 128
2-Hexanone	20.0	20.4		ug/L		102	37 - 150
Dibromochloromethane	10.0	11.7		ug/L		117	63 - 131
1,2-Dibromoethane (EDB)	10.0	10.5		ug/L		105	76 - 128
Chlorobenzene	10.0	10.9		ug/L		109	79 - 124
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	70 - 130
Ethylbenzene	10.0	10.5		ug/L		105	77 - 124
Xylenes, Total	20.0	21.0		ug/L		105	76 - 124
Styrene	10.0	10.5		ug/L		105	80 - 125
Bromoform	10.0	10.7		ug/L		107	54 - 136
1,1,2,2-Tetrachloroethane	10.0	10.9		ug/L		109	72 - 128
Acrylonitrile	100	113		ug/L		113	60 - 130
1,4-Dioxane	200	228		ug/L		114	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*65 - 121*
Toluene-d8 (Surr)	*112*		*73 - 120*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*73 - 120*

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

GC/MS VOA

Analysis Batch: 224374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-70652-1	HD-SPBA-CW-21-0/1-0	Total/NA	Water	8260C	
180-70652-2	HD-QC2-0/1-2	Total/NA	Water	8260C	
MB 180-224374/6	Method Blank	Total/NA	Water	8260C	
LCS 180-224374/3	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 224557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-70652-1 - DL	HD-SPBA-CW-21-0/1-0	Total/NA	Water	8260C	
MB 180-224557/6	Method Blank	Total/NA	Water	8260C	
LCS 180-224557/3	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

Client Sample ID: HD-SPBA-CW-21-0/1-0

Lab Sample ID: 180-70652-1

Date Collected: 09/22/17 09:40
Matrix: Water
Date Received: 09/26/17 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	224374	09/29/17 05:20	FBB	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	25	5 mL	5 mL	224557	10/02/17 08:28	FBB	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-QC2-0/1-2

Lab Sample ID: 180-70652-2

Date Collected: 09/22/17 00:00
Matrix: Water
Date Received: 09/26/17 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	224374	09/29/17 04:56	FBB	TAL PIT
	Instrument ID: CHHP5									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

FBB = Frank Bungard

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
TestAmerica Job ID: 180-70652-1
Project/Site: Harley Davidson

Laboratory: TestAmerica Pittsburgh

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

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

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70652-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-70652-1	HD-SPBA-CW-21-0/1-0	Water	09/22/17 09:40	09/26/17 09:00
180-70652-2	HD-QC2-0/1-2	Water	09/22/17 00:00	09/26/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 218218

Lab Sample ID: IC 180-218218/2 Client Sample ID:

Date Analyzed: 07/27/17 00:51 Lab File ID: 50727D02.D GC Column: DB-624 ID: 0.18(mm)

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

Lab Sample ID: IC 180-218218/3 Client Sample ID:

Date Analyzed: 07/27/17 01:15 Lab File ID: 50727D03.D GC Column: DB-624 ID: 0.18(mm)

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

Lab Sample ID: ICIS 180-218218/4 Client Sample ID:

Date Analyzed: 07/27/17 01:39 Lab File ID: 50727D04.D GC Column: DB-624 ID: 0.18(mm)

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 224374

Lab Sample ID: 180-70652-2 Client Sample ID: HD-QC2-0/1-2

Date Analyzed: 09/29/17 04:56 Lab File ID: 50928D17.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.45	Poor chromatography	bungardf	10/01/17 21:07

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260INT_00072	08/21/17	07/21/17	Methanol, Lot 2019055	10 mL	VOA8260INTRES_00123	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00123	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00074	10/20/17	09/20/17	Methanol, Lot 2469125	10 mL	VOA8260INTRES_00135	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_00135	01/31/22		Restek, Lot A0124343		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00071	08/21/17	07/21/17	Methanol, Lot 2019055	100 mL	VOA8260SURRES_00118	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00118	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00073	10/20/17	09/20/17	Methanol, Lot 2469125	100 mL	VOA8260SURRES_00122	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_00122	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_00266	10/02/17	09/25/17	Methanol, Lot 2469119	10 mL	VOA8260GAS2ND_00210	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00263	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00210	06/30/20		Restek, Lot A0128832		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00263	10/09/17	09/09/17	Methanol, Lot 2469125	10 mL	VOA8260MEGA2_00062	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00062	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00263	07/29/17	07/22/17	Methanol, Lot 2019055	10 mL	VOA8260GAS1ST_00203	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00260	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VOABFB25_00090							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00093	5 mL	BFB	25 ug/mL
.VOABFB50_00093	08/10/17	07/10/17	Methanol, Lot 2019056	50 mL	VOABFBRES_00058	1 mL	BFB	50 ug/mL
..VOABFBRES_00058	11/30/21		Restek, Lot A0122647		(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00093							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00095	5 mL	BFB	25 ug/mL
.VOABFB50_00095	10/09/17	09/09/17	Methanol, Lot 2469125	50 mL	VOABFBRES_00056	1 mL	BFB	50 ug/mL
..VOABFBRES_00056	11/30/21		Restek, Lot A0122647		(Purchased Reagent)		BFB	2500 ug/mL
voaW2clev1stR_00013	07/31/17	07/24/17	Methanol, Lot 2019056	10 mL	VOACEVERES_00127	200 uL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00127	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaWAcro1stRe_00016	08/17/17	07/17/17	Methanol, Lot 2019056	100 mL	VOAACRORES_00115	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00115	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1stR_00009	08/03/17	07/03/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00045	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(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_00045	01/31/18		Restek, Lot A0120234		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKetmix1st_00004	07/29/17	06/29/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00099	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00099	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKetmix1st_00006	10/25/17	09/25/17	Methanol, Lot 2469119	50 mL	VOA8260KET1ST_00102	100 uL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00102	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA1stRest_00017	07/31/17	07/24/16	Methanol, Lot 2019067	25 mL	VOA8260VARES_00083	125 uL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00083	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00203

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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. : 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)

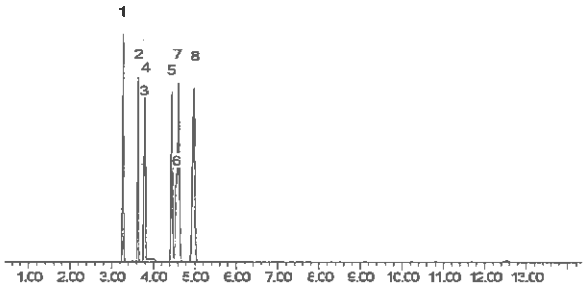
Carrier Gas:
helium-constant flow 2.0 mL/min.

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_00210

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

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

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

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

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

CERTIFIED VALUES

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

VOA8260INTRES_00123

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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_00135

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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.:** A0124343

Description : 8260 Internal Standard 2014

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

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

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

CERTIFIED VALUES

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

Reagent

VOA8260KET1ST_00099

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** 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 **CAS #** 67-64-1 **Purity** 99%	(Lot SHBH0922V)	12,517.5 µg/mL	+/- 72.7778 µg/mL +/- 755.2362 µg/mL +/- 757.0293 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99%	(Lot SHBF2461V)	12,521.8 µg/mL	+/- 72.8025 µg/mL +/- 755.4927 µg/mL +/- 757.2863 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99%	(Lot SHBG3630V)	12,519.8 µg/mL	+/- 72.7909 µg/mL +/- 755.3720 µg/mL +/- 757.1654 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99%	(Lot MKBW0198V)	12,508.5 µg/mL	+/- 72.7255 µg/mL +/- 754.6932 µg/mL +/- 756.4850 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00100

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

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00102

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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

VOA8260MEGA1_00065

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

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

Description : 8260 List 1 / Std #1 MegaMix (2017)

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

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

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

CERTIFIED VALUES

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

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

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBG6171V)	2.505.5	µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/- 14.5628 +/- 151.1227 +/- 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2.502.4	µg/mL	+/- 14.5490 +/- 150.9794 +/- 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 98%	(Lot SHBG0634V)	2.500.3	µg/mL	+/- 14.5372 +/- 150.8570 +/- 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/- 14.5527 +/- 151.0171 +/- 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/- 290.7552 +/- 3,017.4064 +/- 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2.501.9	µg/mL	+/- 14.5465 +/- 150.9531 +/- 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/- 14.5599 +/- 151.0925 +/- 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2.503.6	µg/mL	+/- 14.5563 +/- 151.0548 +/- 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2.503.5	µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2.500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

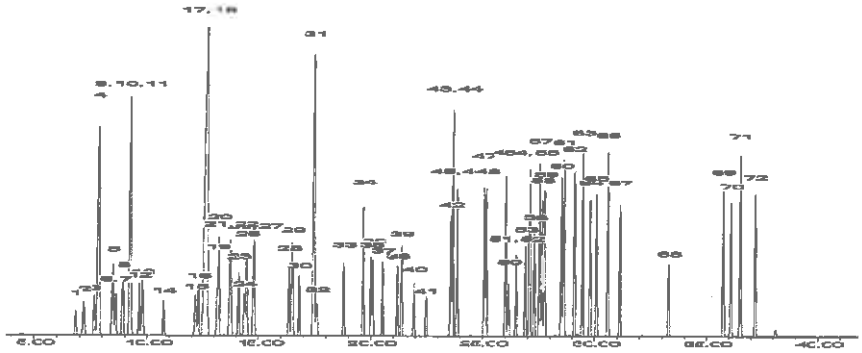
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician **Date Mixed:** 22-Dec-2016 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

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

Reagent

VOA8260MEGA2_00062

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

Description : 8260 List 1 / Std #1 MegaMix (2017)

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

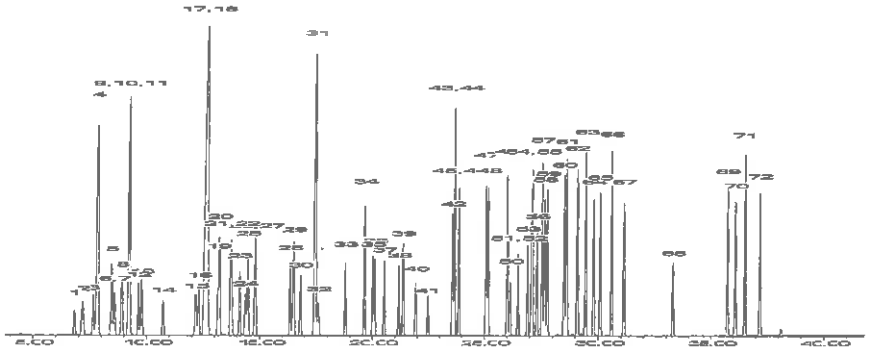
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

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

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

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

Reagent

VOA8260SURRES_00118

RESTEK CERTIFIED REFERENCE MATERIAL

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

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Testing Laboratory
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 Surrogate Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Dibromofluoromethane **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

VOA8260SURRES_00122

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 Surrogate Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Dibromofluoromethane **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_00083

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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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. : 569724 **Lot No.:** A0124520

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00115

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.:** A0125560

Description : 8260 List 1/Std #5 Acrolein High

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Reagent

VOABFBRES_00056

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

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

Description : 4-Bromofluorobenzene Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOABFBRES_00058

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

Description : 4-Bromofluorobenzene Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOACEVERES_00127

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.

2406027
28
29
30

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

Description : 8260 List 1 / Std #4 2-CEVE (2015)

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

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

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

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOARESEE1ST_00045

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.

2396751

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

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	3-Chlorobenzotrifluoride **CAS #** 98-15-7 **Purity** 99%	(Lot 21324DO)	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 **Purity** 99%	(Lot 08507BO)	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 **Purity** 99%	(Lot I0316DQ)	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 **Purity** 99%	(Lot 13528LX)	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 **Purity** 99%	(Lot MKBL3552V)	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 **Purity** 99%	(Lot 11105EJV)	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 **Purity** 99%	(Lot 04415DSV)	5,047.0 µg/mL	+/- 29.6186 µg/mL +/- 283.0089 µg/mL +/- 289.6296 µg/mL	Gravimetric Unstressed Stressed

Method 8260C Low Level

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

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-SPBA-CW-21-0/1-0	180-70652-1	107	115	94	89
HD-SPBA-CW-21-0/1-0 DL	180-70652-1 DL	106	112	97	89
HD-QC2-0/1-2	180-70652-2	102	112	99	90
	MB 180-224374/6	99	111	101	96
	MB 180-224557/6	98	109	99	95
	LCS 180-224374/3	89	96	108	99
	LCS 180-224557/3	95	100	112	111

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

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50928D03.D

Lab ID: LCS 180-224374/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.7	107	49-135	
Vinyl chloride	10.0	10.3	103	52-136	
Bromomethane	10.0	11.2	112	37-150	
Chloroethane	10.0	10.6	106	44-139	
1,1-Dichloroethene	10.0	10.7	107	64-131	
Acetone	20.0	21.3	106	24-150	
Carbon disulfide	10.0	11.2	112	20-150	
Methylene Chloride	10.0	9.02	90	66-123	
trans-1,2-Dichloroethene	10.0	10.1	101	70-123	
Methyl tert-butyl ether	10.0	8.83	88	66-130	
1,1-Dichloroethane	10.0	9.80	98	66-122	
cis-1,2-Dichloroethene	10.0	9.44	94	73-120	
Bromochloromethane	10.0	8.91	89	73-122	
2-Butanone (MEK)	20.0	18.7	94	37-150	
Chloroform	10.0	9.52	95	72-123	
1,1,1-Trichloroethane	10.0	10.5	105	66-129	
Carbon tetrachloride	10.0	10.3	103	58-145	
Benzene	10.0	9.04	90	75-123	
1,2-Dichloroethane	10.0	9.25	92	63-130	
Trichloroethene	10.0	8.91	89	74-121	
1,2-Dichloropropane	10.0	8.76	88	67-119	
Bromodichloromethane	10.0	8.90	89	62-127	
cis-1,3-Dichloropropene	10.0	8.31	83	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	20.2	101	41-135	
Toluene	10.0	11.0	110	76-129	
trans-1,3-Dichloropropene	10.0	10.0	100	61-136	
1,1,2-Trichloroethane	10.0	10.3	103	74-126	
Tetrachloroethene	10.0	11.0	110	76-128	
2-Hexanone	20.0	20.1	100	37-150	
Dibromochloromethane	10.0	10.3	103	63-131	
1,2-Dibromoethane (EDB)	10.0	9.83	98	76-128	
Chlorobenzene	10.0	10.1	101	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.8	108	70-130	
Ethylbenzene	10.0	10.0	100	77-124	
Xylenes, Total	20.0	20.1	101	76-124	
Styrene	10.0	9.73	97	80-125	
Bromoform	10.0	9.84	98	54-136	
1,1,2,2-Tetrachloroethane	10.0	10.1	101	72-128	
Acrylonitrile	100	97.2	97	60-130	
1,4-Dioxane	200	201	101	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51001D03.D

Lab ID: LCS 180-224557/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.7	117	49-135	
Vinyl chloride	10.0	10.7	107	52-136	
Bromomethane	10.0	11.5	115	37-150	
Chloroethane	10.0	11.5	115	44-139	
1,1-Dichloroethene	10.0	11.3	113	64-131	
Acetone	20.0	18.9	94	24-150	
Carbon disulfide	10.0	11.2	112	20-150	
Methylene Chloride	10.0	10.2	102	66-123	
trans-1,2-Dichloroethene	10.0	11.1	111	70-123	
Methyl tert-butyl ether	10.0	10.1	101	66-130	
1,1-Dichloroethane	10.0	10.4	104	66-122	
cis-1,2-Dichloroethene	10.0	9.91	99	73-120	
Bromochloromethane	10.0	9.79	98	73-122	
2-Butanone (MEK)	20.0	19.9	99	37-150	
Chloroform	10.0	10.3	103	72-123	
1,1,1-Trichloroethane	10.0	10.9	109	66-129	
Carbon tetrachloride	10.0	10.8	108	58-145	
Benzene	10.0	9.89	99	75-123	
1,2-Dichloroethane	10.0	10.5	105	63-130	
Trichloroethene	10.0	9.57	96	74-121	
1,2-Dichloropropane	10.0	10.3	103	67-119	
Bromodichloromethane	10.0	9.68	97	62-127	
cis-1,3-Dichloropropene	10.0	9.81	98	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	22.0	110	41-135	
Toluene	10.0	11.6	116	76-129	
trans-1,3-Dichloropropene	10.0	11.0	110	61-136	
1,1,2-Trichloroethane	10.0	11.4	114	74-126	
Tetrachloroethene	10.0	11.1	111	76-128	
2-Hexanone	20.0	20.4	102	37-150	
Dibromochloromethane	10.0	11.7	117	63-131	
1,2-Dibromoethane (EDB)	10.0	10.5	105	76-128	
Chlorobenzene	10.0	10.9	109	79-124	
1,1,1,2-Tetrachloroethane	10.0	11.2	112	70-130	
Ethylbenzene	10.0	10.5	105	77-124	
Xylenes, Total	20.0	21.0	105	76-124	
Styrene	10.0	10.5	105	80-125	
Bromoform	10.0	10.7	107	54-136	
1,1,2,2-Tetrachloroethane	10.0	10.9	109	72-128	
Acrylonitrile	100	113	113	60-130	
1,4-Dioxane	200	228	114	26-150	

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.: 180-70652-1

SDG No.:

Lab File ID: 50928D06.D Lab Sample ID: MB 180-224374/6

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

Instrument ID: CHHP5 Date Analyzed: 09/29/2017 00:14

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-224374/3	50928D03.D	09/28/2017 22:43
HD-QC2-0/1-2	180-70652-2	50928D17.D	09/29/2017 04:56
HD-SPBA-CW-21-0/1-0	180-70652-1	50928D18.D	09/29/2017 05:20

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab File ID: 51001D07.D Lab Sample ID: MB 180-224557/6

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

Instrument ID: CHHP5 Date Analyzed: 10/02/2017 01:25

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 180-224557/3	51001D03.D	10/01/2017 23:33
HD-SPBA-CW-21-0/1-0 DL	180-70652-1 DL	51001D24.D	10/02/2017 08:28

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab File ID: 50727D01.D BFB Injection Date: 07/27/2017

Instrument ID: CHHP5 BFB Injection Time: 00:22

Analysis Batch No.: 218218

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

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab File ID: 50928D01.D BFB Injection Date: 09/28/2017

Instrument ID: CHHP5 BFB Injection Time: 21:24

Analysis Batch No.: 224374

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	47.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.1	(0.1) 1
174	50.0 - 120.00 % of mass 95	70.9	
175	5.0 - 9.0 % of mass 174	5.7	(8.1) 1
176	95.0 - 101.0 % of mass 174	67.6	(95.3) 1
177	5.0 - 9.0 % of mass 176	4.0	(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
	CCVIS 180-224374/2	50928D02.D	09/28/2017	22:04
	LCS 180-224374/3	50928D03.D	09/28/2017	22:43
	MB 180-224374/6	50928D06.D	09/29/2017	00:14
HD-QC2-0/1-2	180-70652-2	50928D17.D	09/29/2017	04:56
HD-SPBA-CW-21-0/1-0	180-70652-1	50928D18.D	09/29/2017	05:20

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab File ID: 51001D01.D BFB Injection Date: 10/01/2017

Instrument ID: CHHP5 BFB Injection Time: 22:21

Analysis Batch No.: 224557

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.3	
75	30.0 - 60.0 % of mass 95	46.0	
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	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	70.8	
175	5.0 - 9.0 % of mass 174	5.5	(7.8) 1
176	95.0 - 101.0 % of mass 174	68.9	(97.3) 1
177	5.0 - 9.0 % of mass 176	5.0	(7.3) 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 180-224557/2	51001D02.D	10/01/2017	22:56
	LCS 180-224557/3	51001D03.D	10/01/2017	23:33
	MB 180-224557/6	51001D07.D	10/02/2017	01:25
HD-SPBA-CW-21-0/1-0 DL	180-70652-1 DL	51001D24.D	10/02/2017	08:28

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Sample No.: CCVIS 180-224374/2 Date Analyzed: 09/28/2017 22:04

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50928D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		218138	4.36	473950	7.33	93314	10.42
UPPER LIMIT		436276	4.86	947900	7.83	186628	10.92
LOWER LIMIT		109069	3.86	236975	6.83	46657	9.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224374/3		243485	4.36	512714	7.33	102218	10.43
MB 180-224374/6		271049	4.36	515626	7.34	112214	10.43
180-70652-2	HD-QC2-0/1-2	236498	4.35	469800	7.34	101394	10.43
180-70652-1	HD-SPBA-CW-21-0/1-0	229692	4.35	452791	7.34	109590	10.43

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.: 180-70652-1

SDG No.:

Sample No.: CCVIS 180-224374/2 Date Analyzed: 09/28/2017 22:04

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50928D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		134302	12.77				
UPPER LIMIT		268604	13.27				
LOWER LIMIT		67151	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224374/3		145942	12.77				
MB 180-224374/6		162698	12.77				
180-70652-2	HD-QC2-0/1-2	132206	12.77				
180-70652-1	HD-SPBA-CW-21-0/1-0	133767	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 VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Sample No.: CCVIS 180-224557/2 Date Analyzed: 10/01/2017 22:56

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51001D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		153787	4.36	361073	7.33	73037	10.43
UPPER LIMIT		307574	4.86	722146	7.83	146074	10.93
LOWER LIMIT		76894	3.86	180537	6.83	36519	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224557/3		176256	4.37	345693	7.34	73701	10.43
MB 180-224557/6		196193	4.36	391741	7.34	86654	10.43
180-70652-1 DL	HD-SPBA-CW-21-0/1-0 DL	186713	4.35	357330	7.34	79725	10.43

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.: 180-70652-1

SDG No.:

Sample No.: CCVIS 180-224557/2 Date Analyzed: 10/01/2017 22:56

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51001D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		101789	12.77				
UPPER LIMIT		203578	13.27				
LOWER LIMIT		50895	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224557/3		103640	12.77				
MB 180-224557/6		121808	12.77				
180-70652-1 DL	HD-SPBA-CW-21-0/1-0 DL	107581	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.: 180-70652-1

SDG No.:

Client Sample ID: HD-SPBA-CW-21-0/1-0 | Lab Sample ID: 180-70652-1

Matrix: Water | Lab File ID: 50928D18.D

Analysis Method: 8260C | Date Collected: 09/22/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 09/29/2017 05:20

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.: 224374 | 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	1.7		1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	0.38	J	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	*Trichloroethene*	*300*	*E*	*1.0*	*0.20*
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	0.40	J	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	*Tetrachloroethene*	*420*	*E*	*1.0*	*0.24*
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: HD-SPBA-CW-21-0/1-0 | Lab Sample ID: 180-70652-1

Matrix: Water | Lab File ID: 50928D18.D

Analysis Method: 8260C | Date Collected: 09/22/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 09/29/2017 05:20

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.: 224374 | 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)	115		65-121
2037-26-5	Toluene-d8 (Surr)	94		73-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D
Lims ID: 180-70652-C-1
Client ID: HD-SPBA-CW-21-0/1-0
Sample Type: Client
Inject. Date: 29-Sep-2017 05:20:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-018
Misc. Info.: 180-70652-C-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:21:59 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 01-Oct-2017 21:09:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.352	0.001	0	229692	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.333	0.007	99	452791	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	86	109590	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.772	0.000	95	133767	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.609	0.007	93	116450	53.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.980	0.007	0	152618	57.4	
$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	411471	47.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	84	139889	44.4	
12 Chloromethane	50		1.816				ND	
13 Vinyl chloride	62		1.955				ND	
15 Bromomethane	94		2.296				ND	
16 Chloroethane	64		2.454				ND	
22 1,1-Dichloroethene	96		3.415				ND	
24 Acetone	43	3.513	3.525	-0.012	78	7287	6.15	
26 Carbon disulfide	76		3.707				ND	
31 Methylene Chloride	84		4.225				ND	
33 Acrylonitrile	53		4.608				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.265				ND	
45 cis-1,2-Dichloroethene	96	6.014	6.001	0.013	77	24514	8.49	
46 2-Butanone (MEK)	43		6.013				ND	
49 Chlorobromomethane	128		6.293				ND	
52 Chloroform	83	6.433	6.433	0.000	89	8379	1.91	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.066				ND	
64 Trichloroethene	130	7.723	7.716	0.007	95	4132725	1491.6	E
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.270				ND	
74 cis-1,3-Dichloropropene	75		8.714				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872				ND	
76 Toluene	91	9.055	9.043	0.012	99	21878	2.00	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.560	9.554	0.006	89	4395750	2109.3	E
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.852				ND	
85 Ethylene Dibromide	107		9.967				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.545				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

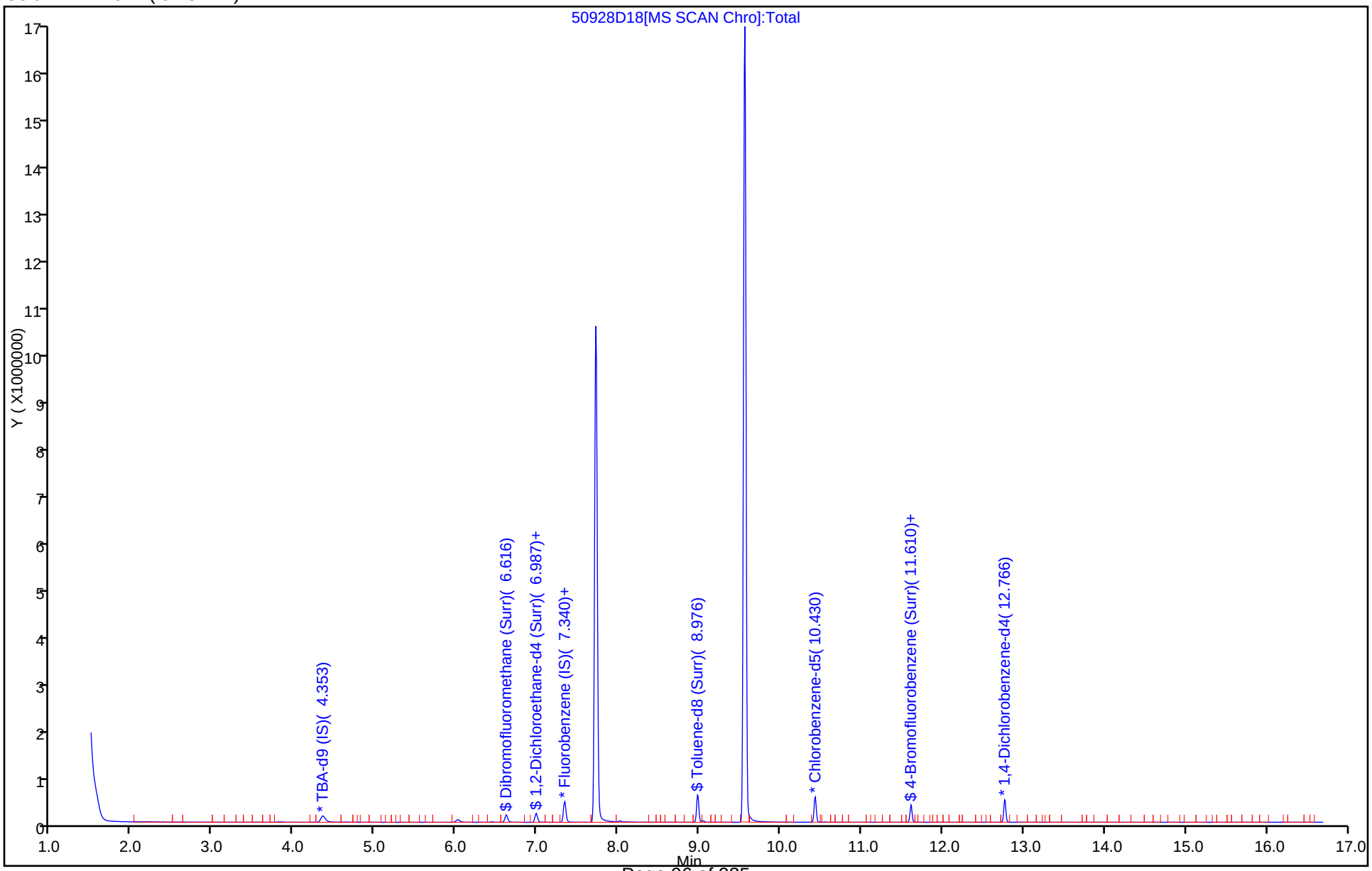
Report Date: 01-Oct-2017 21:25:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D

Injection Date:	29-Sep-2017 05:20:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-70652-C-1	Lab Sample ID:	180-70652-1	Worklist Smp#:	18
Client ID:	HD-SPBA-CW-21-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D
Lims ID: 180-70652-C-1
Client ID: HD-SPBA-CW-21-0/1-0
Sample Type: Client
Inject. Date: 29-Sep-2017 05:20:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-018
Misc. Info.: 180-70652-C-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:21:59 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 01-Oct-2017 21:09:06

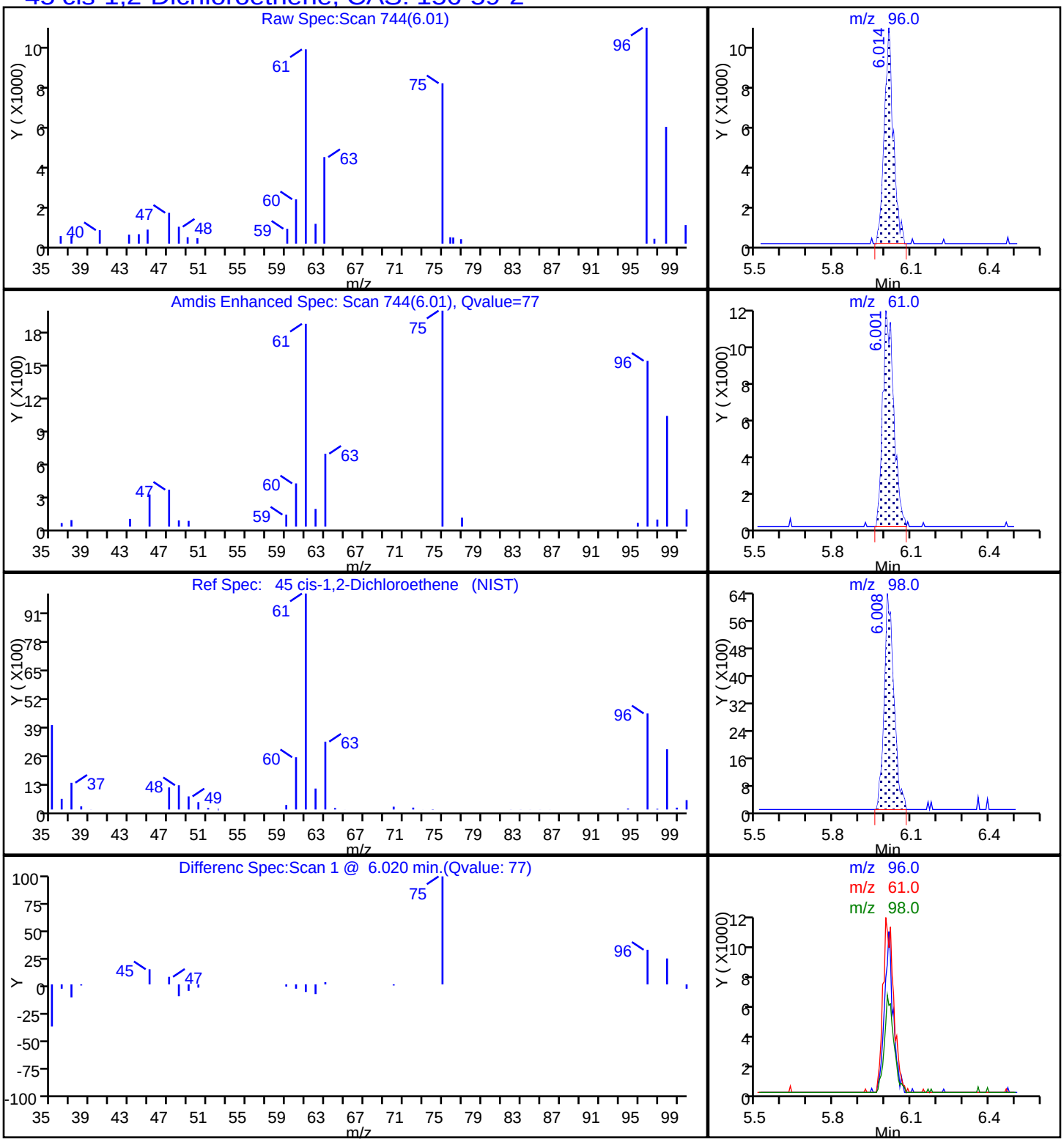
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.5	106.90
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	57.4	114.87
$ 7 Toluene-d8 (Surr)	50.0	47.2	94.35
$ 8 4-Bromofluorobenzene (Surr)	50.0	44.4	88.82

Report Date: 01-Oct-2017 21:25:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D				
Injection Date:	29-Sep-2017 05:20:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-C-1	Lab Sample ID:	180-70652-1		
Client ID:	HD-SPBA-CW-21-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

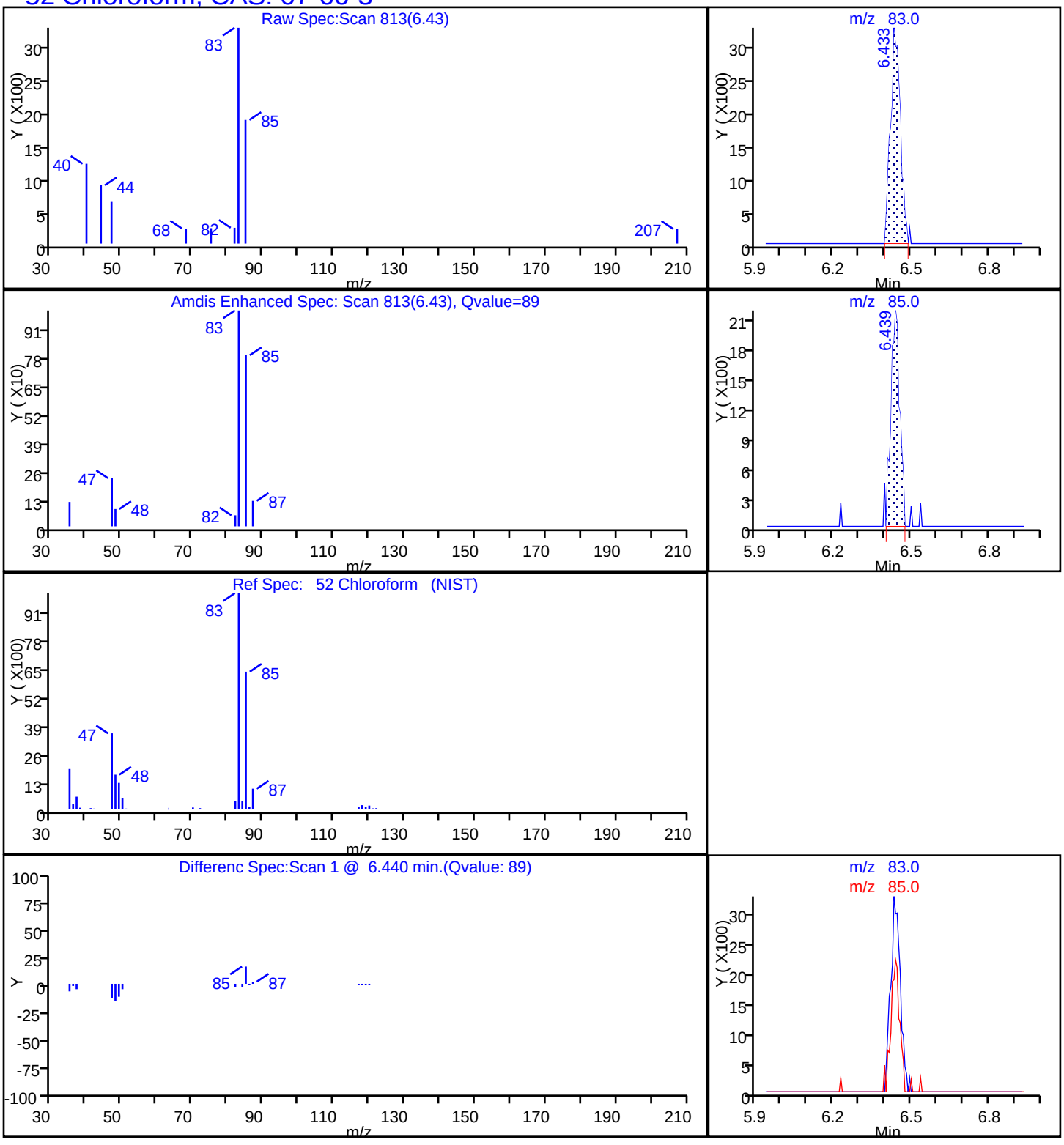


Report Date: 01-Oct-2017 21:25:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D				
Injection Date:	29-Sep-2017 05:20:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-C-1	Lab Sample ID:	180-70652-1		
Client ID:	HD-SPBA-CW-21-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3



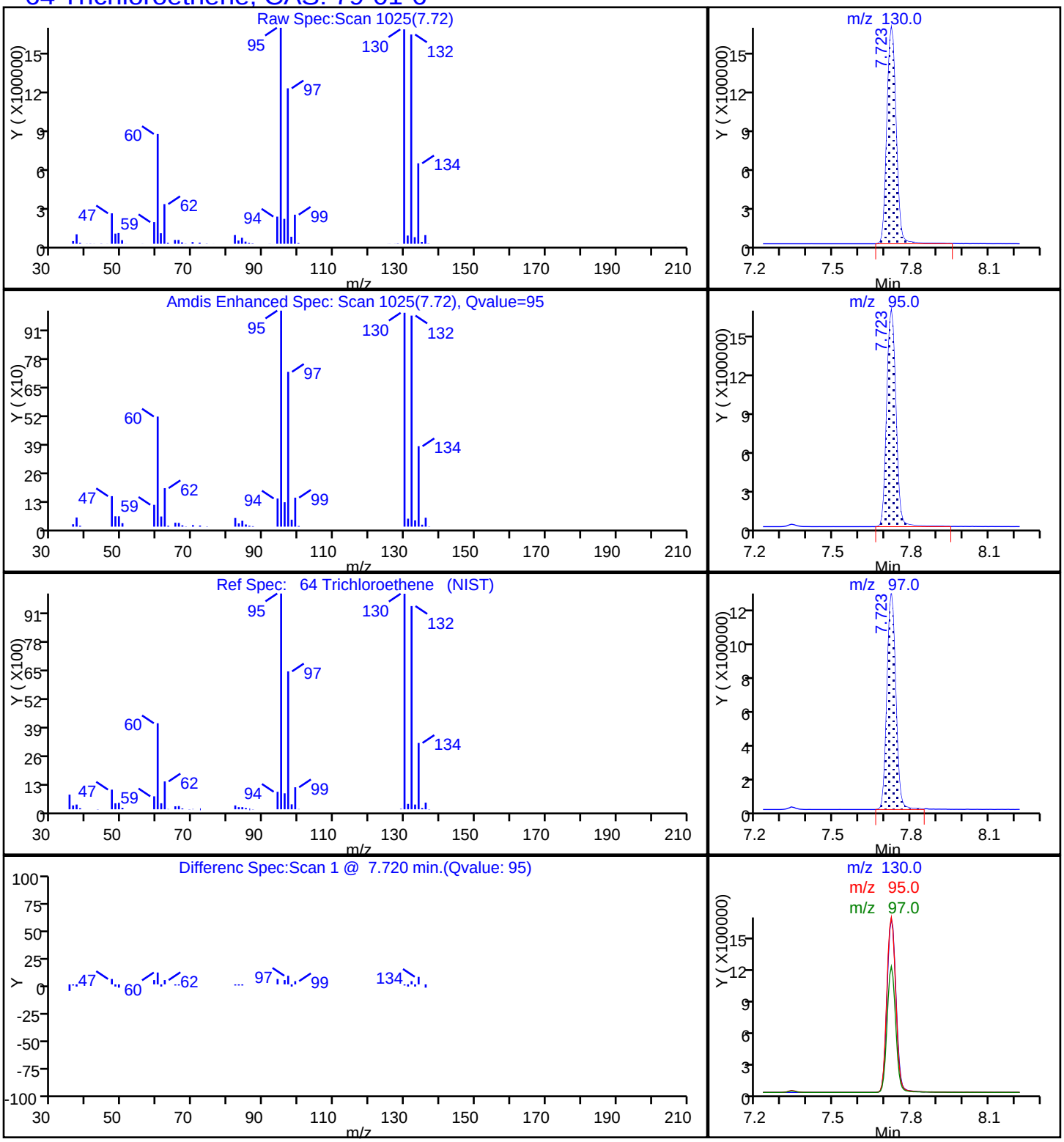
Report Date: 01-Oct-2017 21:25:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D

Injection Date:	29-Sep-2017 05:20:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-C-1	Lab Sample ID:	180-70652-1		
Client ID:	HD-SPBA-CW-21-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



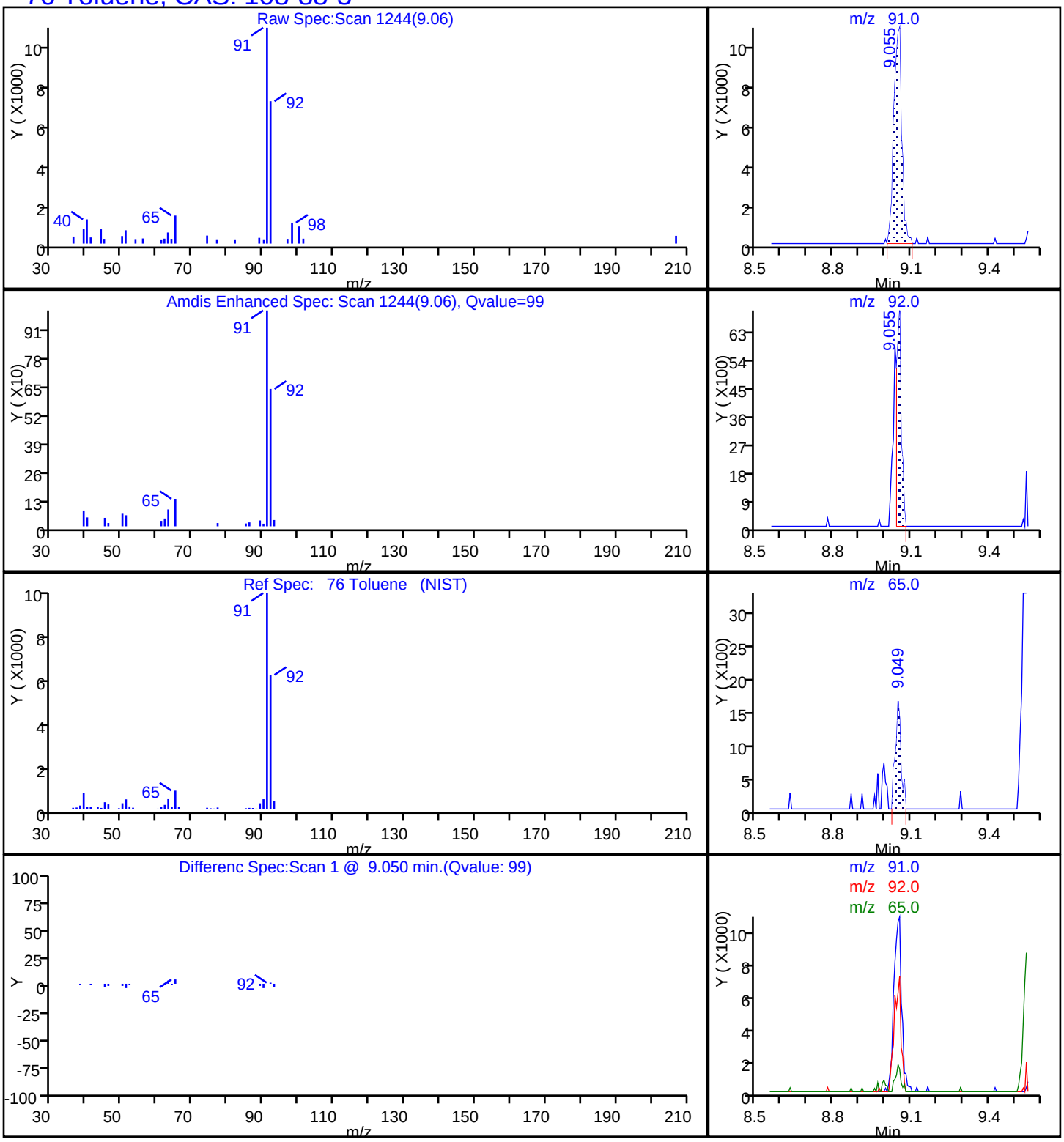
Report Date: 01-Oct-2017 21:25:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D

Injection Date:	29-Sep-2017 05:20:30	Instrument ID:	CHHP5
Lims ID:	180-70652-C-1	Lab Sample ID:	180-70652-1
Client ID:	HD-SPBA-CW-21-0/1-0		
Operator ID:	034635	ALS Bottle#:	18 Worklist Smp#: 18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

76 Toluene, CAS: 108-88-3



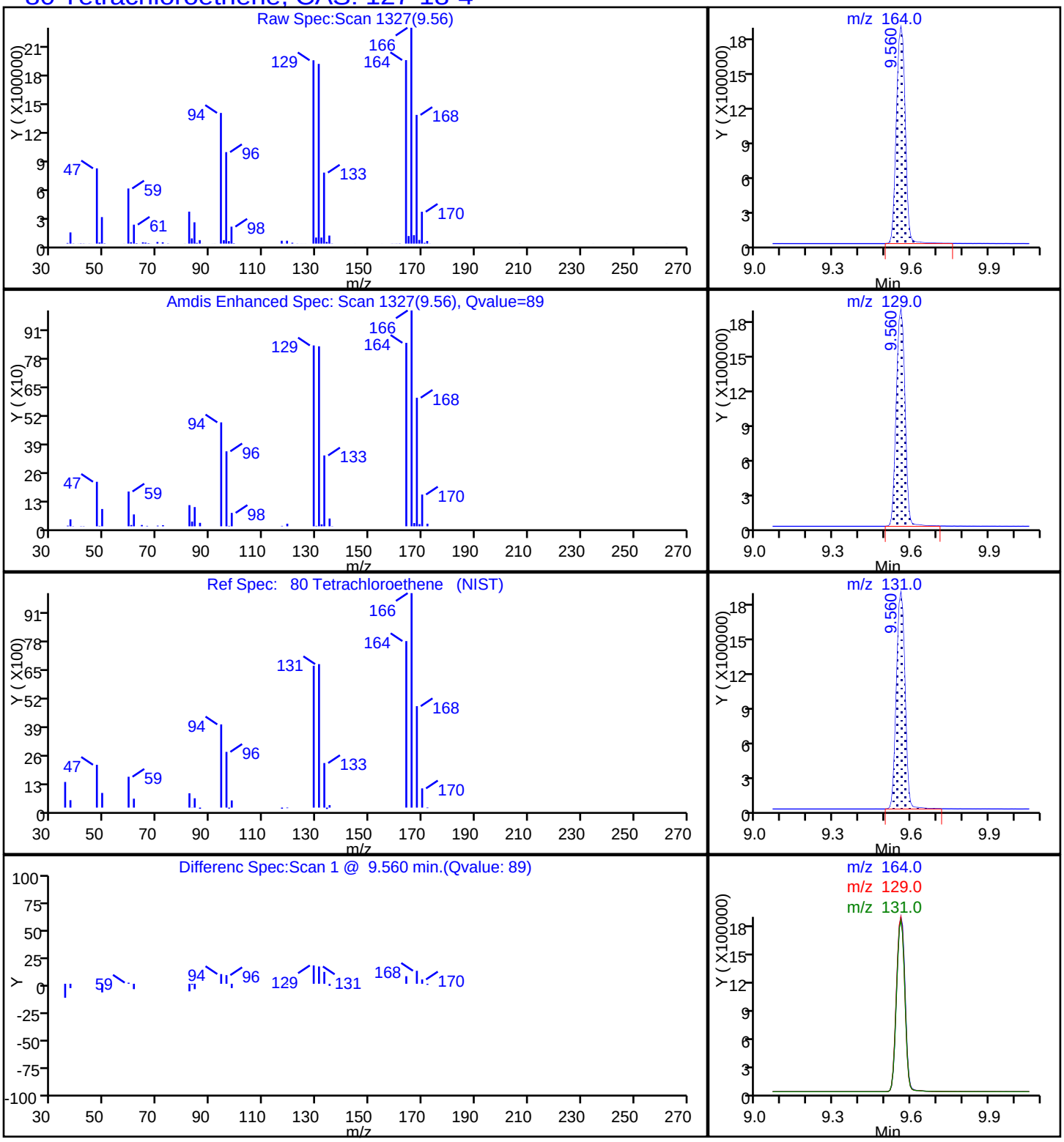
Report Date: 01-Oct-2017 21:25:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D18.D

Injection Date:	29-Sep-2017 05:20:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-C-1	Lab Sample ID:	180-70652-1		
Client ID:	HD-SPBA-CW-21-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: HD-SPBA-CW-21-0/1-0 DL | Lab Sample ID: 180-70652-1 DL

Matrix: Water | Lab File ID: 51001D24.D

Analysis Method: 8260C | Date Collected: 09/22/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/02/2017 08:28

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 224557 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	9.5
75-01-4	Vinyl chloride	25	U	25	4.2
74-83-9	Bromomethane	25	U	25	15
75-00-3	Chloroethane	25	U	25	14
75-35-4	1,1-Dichloroethene	25	U	25	8.0
67-64-1	Acetone	130	U	130	79
75-15-0	Carbon disulfide	25	U	25	13
75-09-2	Methylene Chloride	25	U	25	24
156-60-5	trans-1,2-Dichloroethene	25	U	25	5.0
1634-04-4	Methyl tert-butyl ether	25	U	25	4.9
75-34-3	1,1-Dichloroethane	25	U	25	8.5
156-59-2	cis-1,2-Dichloroethene	25	U	25	7.6
74-97-5	Bromochloromethane	25	U	25	9.0
78-93-3	2-Butanone (MEK)	130	U	130	64
67-66-3	Chloroform	25	U	25	6.7
71-55-6	1,1,1-Trichloroethane	25	U	25	6.8
56-23-5	Carbon tetrachloride	25	U	25	14
71-43-2	Benzene	25	U	25	4.6
107-06-2	1,2-Dichloroethane	25	U	25	6.0
79-01-6	Trichloroethene	210		25	5.0
78-87-5	1,2-Dichloropropane	25	U	25	8.6
75-27-4	Bromodichloromethane	25	U	25	14
10061-01-5	cis-1,3-Dichloropropene	25	U	25	8.0
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	55
108-88-3	Toluene	25	U	25	3.9
10061-02-6	trans-1,3-Dichloropropene	25	U	25	5.6
79-00-5	1,1,2-Trichloroethane	25	U	25	7.7
127-18-4	Tetrachloroethene	310		25	6.1
591-78-6	2-Hexanone	130	U	130	50
124-48-1	Dibromochloromethane	25	U	25	11
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	13
108-90-7	Chlorobenzene	25	U	25	3.7
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	12
100-41-4	Ethylbenzene	25	U	25	6.3
1330-20-7	Xylenes, Total	50	U	50	6.8
100-42-5	Styrene	25	U	25	5.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: HD-SPBA-CW-21-0/1-0 DL | Lab Sample ID: 180-70652-1 DL

Matrix: Water | Lab File ID: 51001D24.D

Analysis Method: 8260C | Date Collected: 09/22/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/02/2017 08:28

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 224557 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*25*	*U*	*25*	*19*
79-34-5	*1,1,2,2-Tetrachloroethane*	*25*	*U*	*25*	*9.3*
107-13-1	*Acrylonitrile*	*500*	*U*	*500*	*83*
123-91-1	*1,4-Dioxane*	*5000*	*U*	*5000*	*390*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		65-121
2037-26-5	Toluene-d8 (Surr)	97		73-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D24.D
Lims ID: 180-70652-A-1
Client ID: HD-SPBA-CW-21-0/1-0
Sample Type: Client
Inject. Date: 02-Oct-2017 08:28:30 ALS Bottle#: 24 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-0018667-023
Misc. Info.: 180-70693-G-8
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:47 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 02-Oct-2017 21:07:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.353	0.000	0	186713	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.340	0.000	99	357330	50.0	
* 3 Chlorobenzene-d5	119	10.425	10.431	-0.006	86	79725	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.767	0.000	96	107581	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.615	0.001	93	91403	53.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	117488	56.0	
$ 7 Toluene-d8 (Surr)	98	8.977	8.975	0.002	93	307171	48.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.617	11.609	0.008	86	102044	44.5	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.973				ND	
15 Bromomethane	94		2.290				ND	
16 Chloroethane	64		2.454				ND	
22 1,1-Dichloroethene	96		3.415				ND	
24 Acetone	43		3.518				ND	
26 Carbon disulfide	76		3.707				ND	
31 Methylene Chloride	84		4.212				ND	
33 Acrylonitrile	53		4.601				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.264				ND	
45 cis-1,2-Dichloroethene	96		6.013				ND	
46 2-Butanone (MEK)	43		6.019				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83		6.426				ND	
53 1,1,1-Trichloroethane	97		6.597				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.723	7.722	0.001	98	90757	41.5	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.081				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.555	9.553	0.002	98	94118	62.1	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.967				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.074				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

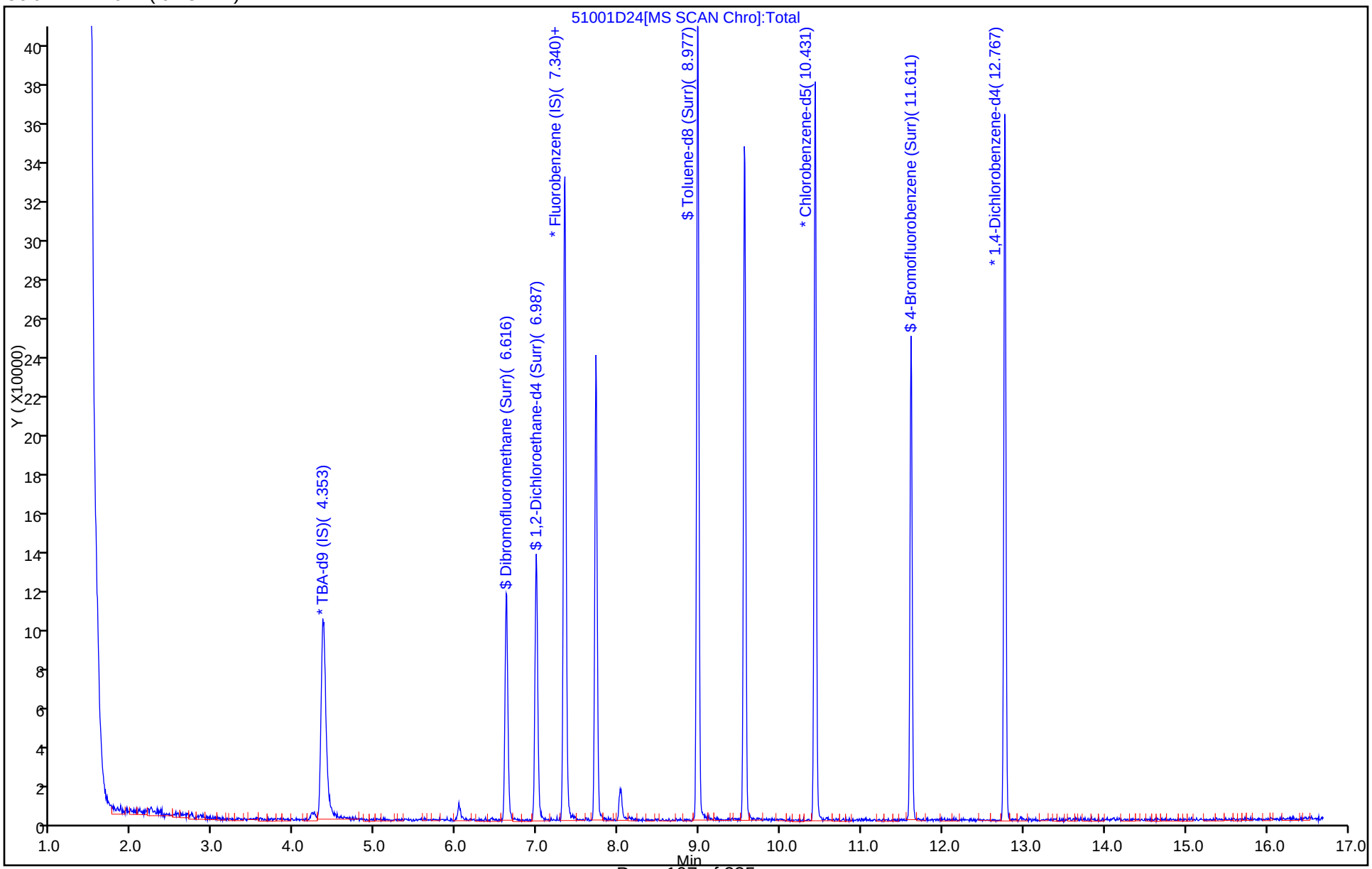
Report Date: 02-Oct-2017 21:12:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D24.D

Injection Date:	02-Oct-2017 08:28:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-70652-A-1	Lab Sample ID:	180-70652-1	Worklist Smp#:	23
Client ID:	HD-SPBA-CW-21-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D24.D
Lims ID: 180-70652-A-1
Client ID: HD-SPBA-CW-21-0/1-0
Sample Type: Client
Inject. Date: 02-Oct-2017 08:28:30 ALS Bottle#: 24 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-0018667-023
Misc. Info.: 180-70693-G-8
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:47 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 02-Oct-2017 21:07:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.2	106.33
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.0	112.06
$ 7 Toluene-d8 (Surr)	50.0	48.4	96.82
$ 8 4-Bromofluorobenzene (Surr)	50.0	44.5	89.06

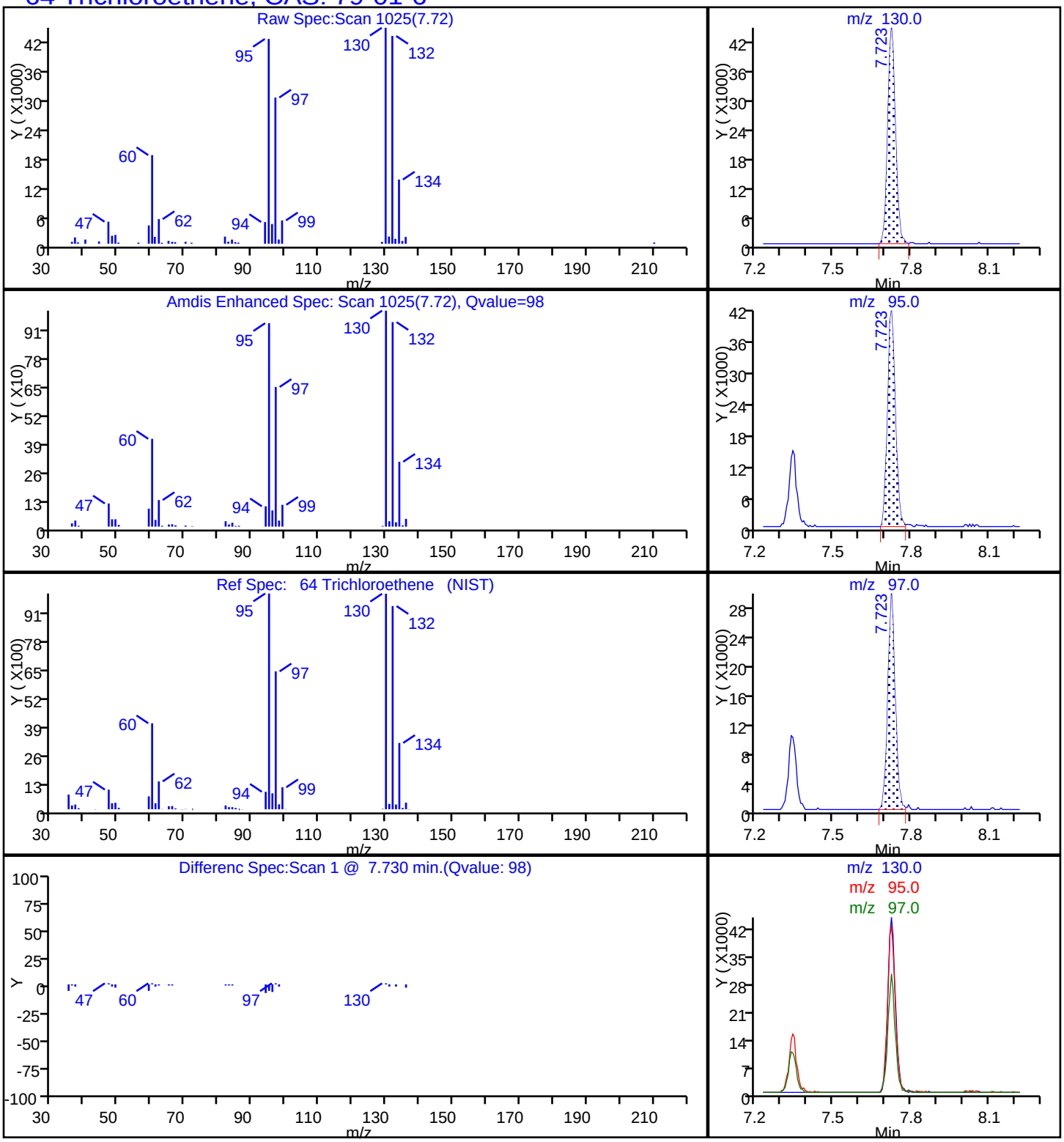
Report Date: 02-Oct-2017 21:12:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D24.D

Injection Date:	02-Oct-2017 08:28:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-A-1	Lab Sample ID:	180-70652-1		
Client ID:	HD-SPBA-CW-21-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



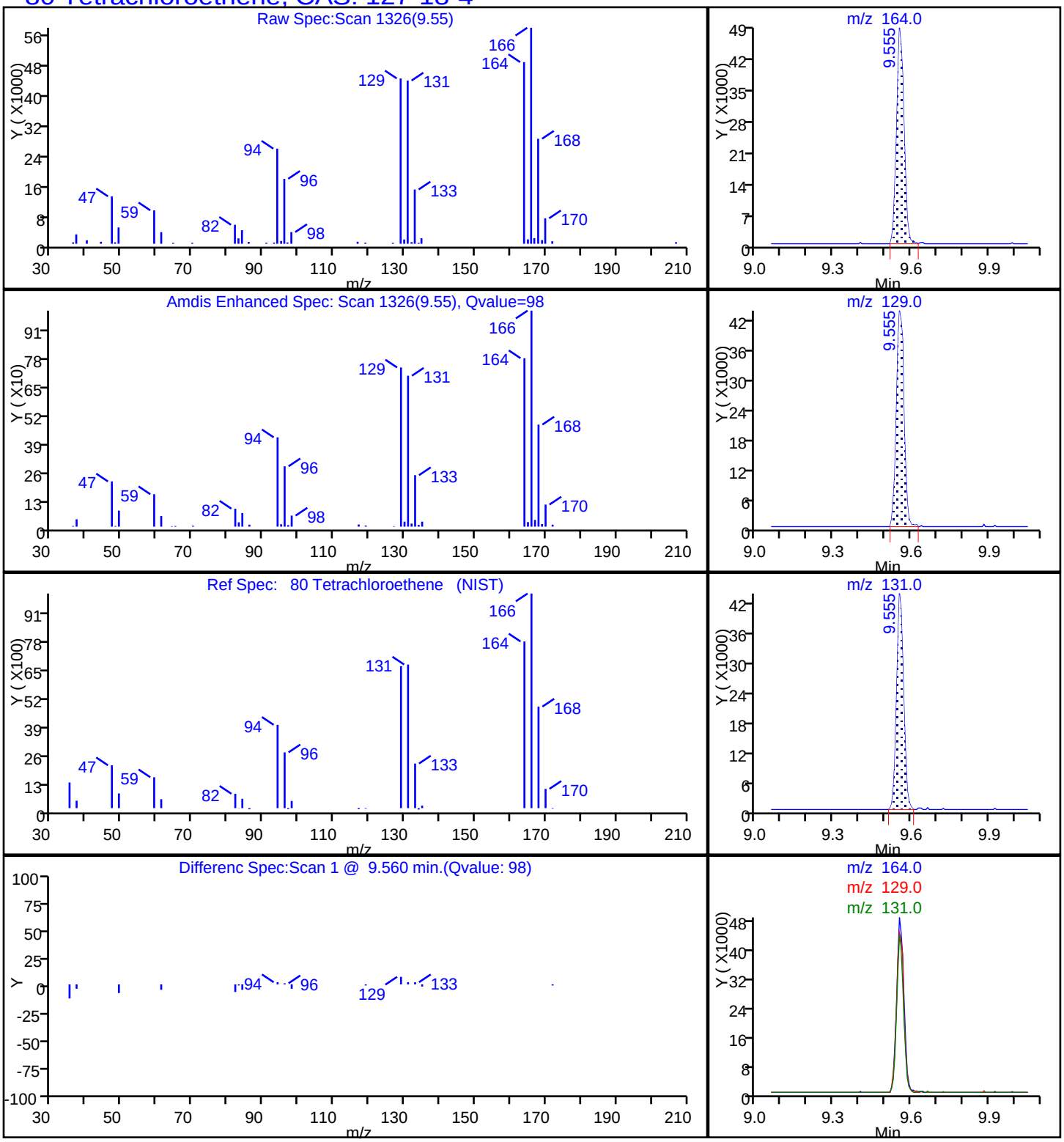
Report Date: 02-Oct-2017 21:12:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D24.D

Injection Date:	02-Oct-2017 08:28:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-A-1	Lab Sample ID:	180-70652-1		
Client ID:	HD-SPBA-CW-21-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: HD-QC2-0/1-2 | Lab Sample ID: 180-70652-2

Matrix: Water | Lab File ID: 50928D17.D

Analysis Method: 8260C | Date Collected: 09/22/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/29/2017 04:56

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224374 | 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.: 180-70652-1

SDG No.:

Client Sample ID: HD-QC2-0/1-2 | Lab Sample ID: 180-70652-2

Matrix: Water | Lab File ID: 50928D17.D

Analysis Method: 8260C | Date Collected: 09/22/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/29/2017 04:56

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224374 | 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)	112		65-121
2037-26-5	Toluene-d8 (Surr)	99		73-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D17.D
Lims ID: 180-70652-A-2
Client ID: HD-QC2-0/1-2
Sample Type: Client
Inject. Date: 29-Sep-2017 04:56:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-017
Misc. Info.: 180-70652-A-2
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:21:59 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 01-Oct-2017 21:07:50

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.354	4.352	0.002	0	236498	1000.0	
*	2 Fluorobenzene (IS)	96	7.341	7.333	0.008	99	469800	50.0	
*	3 Chlorobenzene-d5	119	10.425	10.430	-0.005	87	101394	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.767	12.772	-0.005	97	132206	50.0	
$	5 Dibromofluoromethane (Surr	113	6.617	6.609	0.008	93	115686	51.2	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.980	0.008	0	154823	56.2	
$	7 Toluene-d8 (Surr)	98	8.977	8.976	0.001	93	400025	49.6	
$	8 4-Bromofluorobenzene (Surr	95	11.611	11.610	0.001	84	131053	45.0	
	12 Chloromethane	50		1.816				ND	
	13 Vinyl chloride	62		1.955				ND	
	15 Bromomethane	94		2.296				ND	
	16 Chloroethane	64		2.454				ND	
	22 1,1-Dichloroethene	96		3.415				ND	
	24 Acetone	43	3.551	3.525	0.026	64	12936	10.5	
	26 Carbon disulfide	76		3.707				ND	
	31 Methylene Chloride	84	4.214	4.225	-0.011	84	10439	0.5555	
	33 Acrylonitrile	53		4.608				ND	
	34 trans-1,2-Dichloroethene	96		4.632				ND	
	35 Methyl tert-butyl ether	73		4.650				ND	
	37 1,1-Dichloroethane	63		5.265				ND	
	45 cis-1,2-Dichloroethene	96		6.001				ND	
	46 2-Butanone (MEK)	43		6.013				ND	
	49 Chlorobromomethane	128		6.293				ND	
	52 Chloroform	83	6.446	6.433	0.013	4	1467	0.3224	M
	53 1,1,1-Trichloroethane	97		6.591				ND	
	56 Carbon tetrachloride	117		6.761				ND	
	58 Benzene	78		6.993				ND	
	59 1,2-Dichloroethane	62		7.066				ND	
	64 Trichloroethene	130		7.716				ND	
	67 1,2-Dichloropropane	63		7.990				ND	
	70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.270				ND	
74 cis-1,3-Dichloropropene	75		8.714				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872				ND	
76 Toluene	91		9.043				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164		9.554				ND	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.852				ND	
85 Ethylene Dibromide	107		9.967				ND	
87 Chlorobenzene	112		10.454				ND	
89 1,1,1,2-Tetrachloroethane	131		10.545				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.685				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.269				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

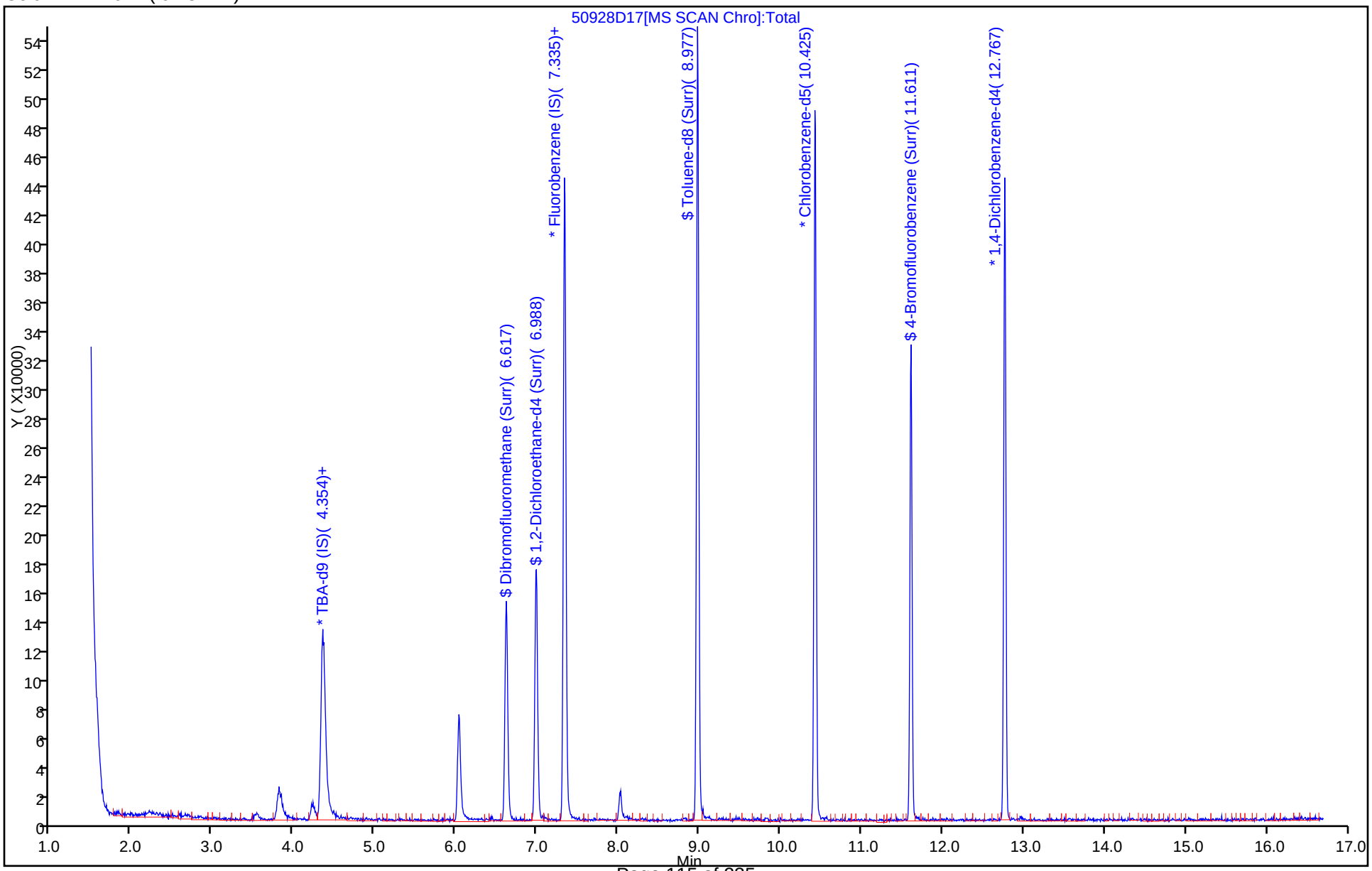
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 01-Oct-2017 21:24:58 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D17.D				
Injection Date:	29-Sep-2017 04:56:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-70652-A-2	Lab Sample ID:	180-70652-2	Worklist Smp#:	17
Client ID:	HD-QC2-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D17.D
Lims ID: 180-70652-A-2
Client ID: HD-QC2-0/1-2
Sample Type: Client
Inject. Date: 29-Sep-2017 04:56:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-017
Misc. Info.: 180-70652-A-2
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:21:59 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 01-Oct-2017 21:07:50

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	51.2	102.36
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.2	112.31
$ 7 Toluene-d8 (Surr)	50.0	49.6	99.14
$ 8 4-Bromofluorobenzene (Surr)	50.0	45.0	89.93

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

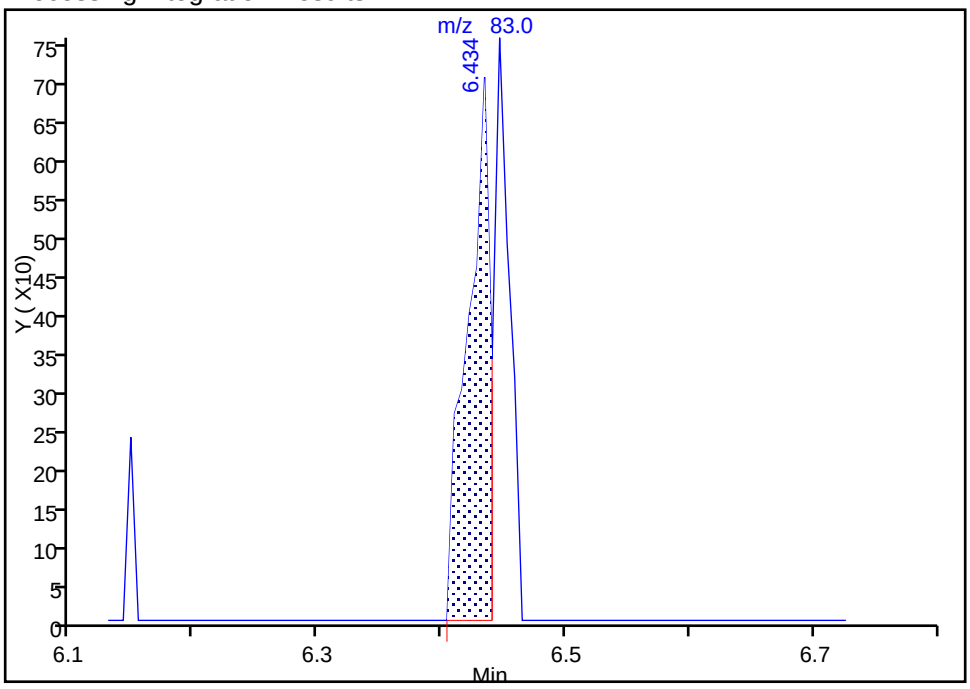
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D17.D				
Injection Date:	29-Sep-2017 04:56:30	Instrument ID:	CHHP5		
Lims ID:	180-70652-A-2	Lab Sample ID:	180-70652-2		
Client ID:	HD-QC2-0/1-2				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

Signal: 1

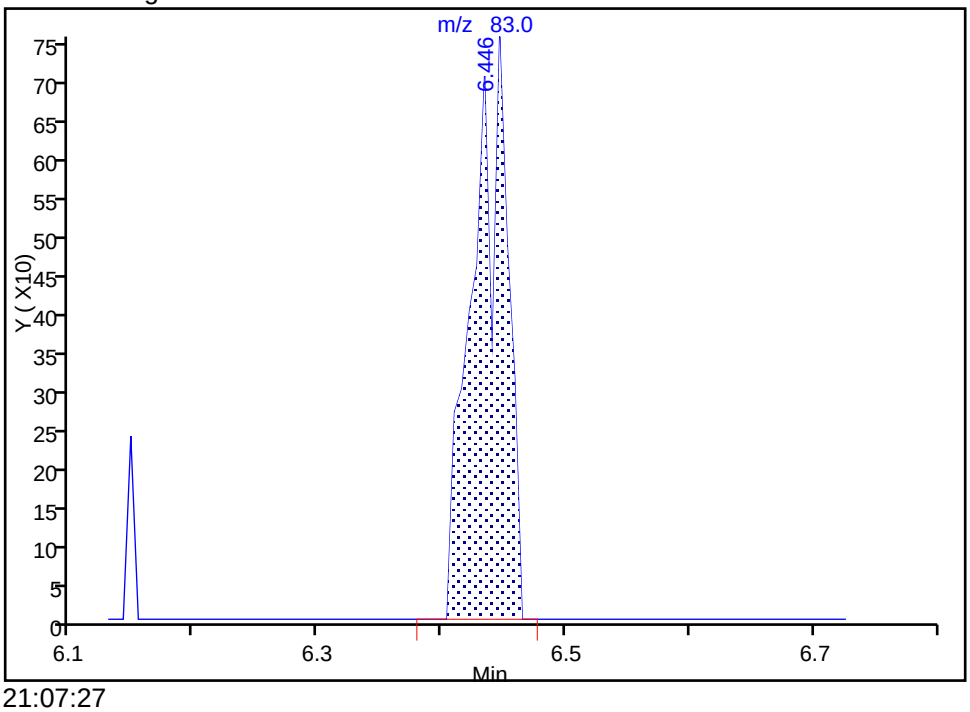
Processing Integration Results

RT: 6.43
Area: 900
Amount: 0.197787
Amount Units: ng



Manual Integration Results

RT: 6.45
Area: 1467
Amount: 0.322393
Amount Units: ng



Reviewer: bungardf, 01-Oct-2017 21:07:27

Audit Action: Manually Integrated Audit Reason: Poor chromatography

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3099 0.3034	0.3143 0.2538	0.2964 0.2820	0.2910	0.2753	Ave		0.2907			0.1000	6.9		20.0			
Chloromethane	0.3638 0.2790	0.2935 0.2586	0.2871 0.2672	0.2979	0.2905	Ave		0.2922			0.1000	10.9		20.0			
Vinyl chloride	0.3612 0.2960	0.3073 0.2570	0.3014 0.2855	0.2838	0.2802	Ave		0.2965			0.1000	10.2		20.0			
1,3-Butadiene	0.3317 0.2714	0.2771 0.2281	0.2660 0.2684	0.2619	0.2505	Ave		0.2694			0.0100	10.9		20.0			
Bromomethane	0.1274 0.1338	0.1569 0.1290	0.1507 0.1244	0.1438	0.1556	Ave		0.1402			0.0500	9.4		20.0			
Chloroethane	0.1972 0.1593	0.1757 0.1437	0.1605 0.1363	0.1653	0.1659	Ave		0.1630			0.0500	11.5		20.0			
Trichlorofluoromethane	0.4130 0.3605	0.3896 0.3164	0.3801 0.3348	0.3631	0.3573	Ave		0.3643			0.1000	8.4		20.0			
Ethyl ether	0.2690 0.2226	0.2473 0.2272	0.2344 0.2016	0.2419	0.2520	Ave		0.2370			0.0100	8.6		20.0			
Acrolein	0.0588 0.0564	0.0546 0.0639	0.0629 0.0550	0.0633	0.0629	Ave		0.0597			0.0100	6.7		20.0			
1,1-Dichloroethene	0.2633 0.2529	0.2525 0.2180	0.2438 0.2452	0.2449	0.2377	Ave		0.2448			0.1000	5.4		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3346 0.2678	0.2745 0.2382	0.2615 0.2547	0.2644	0.2534	Ave		0.2686			0.1000	10.7		20.0			
Acetone	0.1396 0.1048	0.1447 0.1163	0.1388 0.1038	0.1460	0.1519	Ave		0.1308			0.0500	14.8		20.0			
Iodomethane	0.4213 0.3803	0.3860 0.3716	0.3712 0.3619	0.3906	0.3928	Ave		0.3845			0.0100	4.8		20.0			
Carbon disulfide	0.5698 +++++	0.4896 0.5397	0.4946 0.6108	0.5168	0.5392	Ave		0.5372			0.1000	8.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Allyl chloride	0.1501 0.1710	0.1485 0.1632	0.1541 0.1645	0.1561	0.1579	Ave		0.1582			0.0100	4.8		20.0			
Methyl acetate	0.2888 0.2364	0.2463 0.2614	0.2631 0.2382	0.2688	0.2686	Ave		0.2589			0.1000	6.8		20.0			
Methylene Chloride	0.4748 0.2821	0.3152 0.2910	0.3044 0.2676	0.3112	0.3108	Lin2	0.9532	0.2841			0.1000				0.9980		0.9900
tert-Butyl alcohol	1.3346 1.2872	1.1570 1.0277	1.1638 1.2343	1.1314	1.1253	Ave		1.1826			0.0100	8.3		20.0			
Acrylonitrile	0.1353 0.1106	0.1251 0.1245	0.1313 0.1150	0.1320	0.1333	Ave		0.1259			0.0100	7.1		20.0			
trans-1,2-Dichloroethene	0.3167 0.2789	0.2730 0.2547	0.2727 0.2653	0.2850	0.2851	Ave		0.2789			0.1000	6.6		20.0			
Methyl tert-butyl ether	0.7081 0.7482	0.7314 0.7800	0.7230 0.7142	0.7872	0.7909	Ave		0.7479			0.1000	4.5		20.0			
Hexane	0.4597 0.3561	0.3588 0.3156	0.3449 0.3625	0.3424	0.3242	Ave		0.3580			0.0100	12.4		20.0			
1,1-Dichloroethane	0.5228 0.4797	0.4979 0.4638	0.4852 0.4528	0.4864	0.4910	Ave		0.4850			0.2000	4.4		20.0			
Vinyl acetate	0.5018 0.5003	0.4274 0.5345	0.4556 0.5012	0.5130	0.5116	Ave		0.4932			0.0100	7.0		20.0			
2,2-Dichloropropane	0.0696 0.0640	0.0591 0.0559	0.0577 0.0619	0.0627	0.0632	Ave		0.0617			0.0100	6.9		20.0			
cis-1,2-Dichloroethene	0.3297 0.3143	0.3194 0.3060	0.3200 0.2963	0.3326	0.3338	Ave		0.3190			0.1000	4.1		20.0			
2-Butanone (MEK)	0.1854 0.1607	0.1969 0.1772	0.1989 0.1584	0.2064	0.2051	Ave		0.1861			0.0500	10.2		20.0			
Bromochloromethane	0.1517 0.1366	0.1414 0.1398	0.1402 0.1299	0.1453	0.1494	Ave		0.1418			0.0100	4.9		20.0			
Tetrahydrofuran	0.1371 0.0928	0.0982 0.1088	0.1088 0.1003	0.1130	0.1079	Ave		0.1084			0.0100	12.4		20.0			
Chloroform	0.5466 0.4636	0.4996 0.4621	0.4713 0.4342	0.4992	0.4977	Ave		0.4843			0.2000	7.0		20.0			
1,1,1-Trichloroethane	0.3786 0.3800	0.3677 0.3465	0.3637 0.3610	0.3661	0.3690	Ave		0.3666			0.1000	2.9		20.0			
Cyclohexane	0.4979 0.4744	0.4616 0.4108	0.4435 0.4590	0.4424	0.4292	Ave		0.4524			0.1000	6.0		20.0			
Carbon tetrachloride	0.3181 0.3198	0.2990 0.2880	0.3018 0.3038	0.3054	0.3047	Ave		0.3051			0.1000	3.3		20.0			
1,1-Dichloropropene	0.4064 0.4059	0.4083 0.3679	0.3990 0.3876	0.4006	0.3928	Ave		0.3961			0.0100	3.4		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0097 0.0085	0.0091 0.0105	0.0102 0.0094	0.0111	0.0112	Ave		0.0099		*	0.0100	9.6		20.0			
Benzene	1.3787 1.1520	1.2628 1.1081	1.2398 1.0692	1.2590	1.2563	Ave		1.2157			0.5000	8.2		20.0			
1,2-Dichloroethane	0.3884 0.3320	0.3554 0.3421	0.3528 0.3189	0.3753	0.3703	Ave		0.3544			0.1000	6.5		20.0			
n-Heptane	0.3037 0.2967	0.3011 0.2552	0.2860 0.3036	0.2755	0.2684	Ave		0.2863			0.0100	6.4		20.0			
Trichloroethene	0.3229 0.3036	0.3087 0.2884	0.3052 0.2920	0.3101	0.3167	Ave		0.3059			0.2000	3.8		20.0			
Methylcyclohexane	0.4727 0.4875	0.4672 0.4232	0.4697 0.4715	0.4601	0.4491	Ave		0.4626			0.1000	4.2		20.0			
1,2-Dichloropropane	0.3012 0.2794	0.2779 0.2782	0.2782 0.2612	0.2913	0.2975	Ave		0.2831			0.1000	4.6		20.0			
1,4-Dioxane	0.0022 0.0027	0.0028 0.0030	0.0031 0.0031	0.0030	0.0032	Ave		0.0029		*	0.0100	11.4		20.0			
Dibromomethane	0.1595 0.1606	0.1708 0.1667	0.1638 0.1549	0.1734	0.1774	Ave		0.1659			0.0100	4.6		20.0			
Bromodichloromethane	0.3001 0.3336	0.3125 0.3351	0.3169 0.3110	0.3438	0.3519	Ave		0.3256			0.2000	5.6		20.0			
2-Chloroethyl vinyl ether	0.1669 0.2025	0.1917 0.2176	0.2032 0.2031	0.2200	0.2248	Ave		0.2037			0.0100	9.1		20.0			
cis-1,3-Dichloropropene	0.3596 0.4128	0.3596 0.4158	0.3786 0.3959	0.4116	0.4298	Ave		0.3955			0.2000	6.8		20.0			
4-Methyl-2-pentanone (MIBK)	1.3560 1.1652	1.2491 1.2232	1.3592 1.1532	1.3610	1.3926	Ave		1.2824			0.1000	7.5		20.0			
Toluene	6.1005 4.5990	5.6903 4.2081	5.2159 4.0277	5.0185	5.0243	Ave		4.9855			0.4000	14.1		20.0			
trans-1,3-Dichloropropene	1.2257 1.4397	1.2796 1.4086	1.2851 1.3247	1.3956	1.4937	Ave		1.3566			0.1000	6.8		20.0			
Ethyl methacrylate	1.3604 1.6673	1.5623 1.6591	1.6724 1.5738	1.7698	1.8222	Ave		1.6359			0.0100	8.7		20.0			
1,1,2-Trichloroethane	1.2522 0.9633	1.0992 0.9427	1.0403 0.8887	1.0530	1.0694	Ave		1.0386			0.1000	10.8		20.0			
Tetrachloroethene	1.1481 0.9182	1.0929 0.8058	0.9505 0.8459	0.9238	0.9211	Ave		0.9508			0.2000	12.2		20.0			
1,3-Dichloropropane	2.2370 1.7852	2.0694 1.7532	1.9307 1.6348	1.9958	1.9532	Ave		1.9199			0.0100	10.0		20.0			
2-Hexanone	0.9818 0.8998	0.9941 0.9190	1.0485 0.8780	1.0518	1.0958	Ave		0.9836			0.1000	8.1		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.7989 0.9016	0.8620 0.8947	0.8650 0.8322	0.9093	0.9598	Ave		0.8779			0.1000	5.7		20.0			
1,2-Dibromoethane (EDB)	1.1425 1.0146	1.0956 1.0059	1.0726 0.9575	1.1227	1.1100	Ave		1.0652			0.1000	6.1		20.0			
3-Chlorobenzotrifluoride	2.1508 1.6103	1.7646 1.4397	1.6777 1.5967	1.7670	1.7382	Ave		1.7181			0.0100	12.0		20.0			
Chlorobenzene	4.0368 3.0317	3.5186 2.8231	3.2468 2.6869	3.3119	3.3091	Ave		3.2456			0.5000	13.0		20.0			
4-Chlorobenzotrifluoride	1.8614 1.5230	1.6468 1.3432	1.5641 1.5178	1.6419	1.5859	Ave		1.5855			0.0100	9.3		20.0			
1,1,1,2-Tetrachloroethane	1.0682 1.0211	1.0658 0.9781	1.0366 0.9303	1.0666	1.0896	Ave		1.0321			0.0100	5.2		20.0			
Ethylbenzene	1.9199 1.7723	1.9530 1.6113	1.8804 1.6150	1.8616	1.8815	Ave		1.8119			0.1000	7.3		20.0			
m-Xylene & p-Xylene	2.1686 2.2054	2.4439 2.0173	2.3106 1.9980	2.2675	2.3006	Ave		2.2140			0.1000	6.8		20.0			
o-Xylene	2.1421 2.0826	2.2379 1.9206	2.1746 1.8793	2.2085	2.2321	Ave		2.1097			0.3000	6.6		20.0			
Styrene	3.6332 3.4371	3.9143 3.2595	3.7554 3.0478	3.7413	3.7778	Ave		3.5708			0.3000	8.3		20.0			
Bromoform	0.5105 0.5727	0.4852 0.5813	0.5106 0.5484	0.5622	0.5938	Ave		0.5456			0.1000	7.2		20.0			
2-Chlorobenzotrifluoride	1.7885 1.5489	1.7322 1.4506	1.6281 1.5406	1.7502	1.7146	Ave		1.6442			0.0100	7.4		20.0			
Isopropylbenzene	5.5110 4.9386	5.7732 4.4163	5.4683 4.3345	5.4199	5.3367	Ave		5.1498			0.1000	10.3		20.0			
Bromobenzene	0.9987 0.9743	0.9872 0.9390	0.9377 0.9146	0.9980	1.0140	Ave		0.9704			0.0100	3.7		20.0			
1,1,2,2-Tetrachloroethane	1.7609 1.4046	1.6228 1.4415	1.5952 1.3351	1.5862	1.5551	Ave		1.5377			0.3000	8.9		20.0			
trans-1,4-Dichloro-2-butene	0.2598 0.2949	0.2743 0.2979	0.2825 0.3083	0.3195	0.3037	Ave		0.2926			0.0100	6.6		20.0			
1,2,3-Trichloropropane	0.4104 0.3768	0.3859 0.3949	0.4160 0.3815	0.4181	0.4204	Ave		0.4005			0.0100	4.4		20.0			
N-Propylbenzene	1.0871 1.1604	1.1279 1.0214	1.1341 1.0987	1.1152	1.1268	Ave		1.1089			0.0100	3.8		20.0			
2-Chlorotoluene	0.9007 0.9835	0.9855 0.9238	0.9604 0.9321	0.9790	1.0033	Ave		0.9585			0.0100	3.7		20.0			
3-Chlorotoluene	1.0064 1.0049	1.0309 0.9798	1.0614 1.0388	1.1086	1.1105	Ave		1.0427			0.0100	4.6		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.0303 3.1789	3.4364 2.8871	3.3130 2.9071	3.3121	3.3198	Ave		3.1731			0.0100	6.6		20.0			
4-Chlorotoluene	1.0553 1.0614	1.0524 0.9741	1.0341 0.9970	1.0305	1.0761	Ave		1.0351			0.0100	3.3		20.0			
tert-Butylbenzene	2.5746 2.7227	2.8017 2.3880	2.7530 2.5138	2.7587	2.7116	Ave		2.6530			0.0100	5.5		20.0			
1,2,4-Trimethylbenzene	3.1254 3.2212	3.4166 2.9826	3.3711 2.9395	3.3815	3.3664	Ave		3.2255			0.0100	5.9		20.0			
3,4-Dichlorobenzotrifluoride	0.9400 0.7764	0.7679 0.7160	0.7941 0.8232	0.8410	0.8065	Ave		0.8081			0.0100	8.1		20.0			
sec-Butylbenzene	3.7533 3.7112	3.9865 3.2645	3.8932 3.4225	3.8001	3.7790	Ave		3.7013			0.0100	6.5		20.0			
1,3-Dichlorobenzene	1.8909 1.6927	1.7949 1.6042	1.7488 1.5884	1.7678	1.7840	Ave		1.7340			0.6000	5.8		20.0			
4-Isopropyltoluene	2.9547 3.1220	3.2883 2.7812	3.2665 2.8873	3.2019	3.1605	Ave		3.0828			0.0100	6.0		20.0			
1,4-Dichlorobenzene	1.9782 1.7336	1.8319 1.6481	1.8074 1.6177	1.8136	1.8124	Ave		1.7804			0.5000	6.4		20.0			
2,4-Dichlorobenzotrifluoride	0.7762 0.7410	0.7684 0.6560	0.7174 0.7931	0.7890	0.7781	Ave		0.7524			0.0100	6.2		20.0			
2,5-Dichlorobenzotrifluoride	0.8709 0.7991	0.7991 0.7661	0.8033 0.8193	0.8304	0.8133	Ave		0.8127			0.0100	3.7		20.0			
n-Butylbenzene	2.4429 2.5807	2.6260 2.2815	2.6042 2.4382	2.5661	2.5760	Ave		2.5144			0.0100	4.7		20.0			
1,2-Dichlorobenzene	1.8724 1.5966	1.7261 1.5319	1.6636 1.4748	1.6744	1.6818	Ave		1.6527			0.4000	7.4		20.0			
1,2-Dibromo-3-Chloropropane	0.1676 0.1857	0.1676 0.2001	0.1774 0.1873	0.1829	0.1992	Ave		0.1835			0.0500	6.8		20.0			
2,4- & 2,5- & 2,6- Dichlorotoluene	0.9836 1.0182	1.0277 0.9802	1.0819 1.0447	1.1339	1.1166	Ave		1.0483			0.0100	5.5		20.0			
2,3- & 3,4- Dichlorotoluene	0.9469 1.0658	1.0253 1.0486	1.0886 1.1261	1.1868	1.1843	Ave		1.0841			0.0100	7.5		20.0			
1,2,4-Trichlorobenzene	0.7563 0.7556	0.7184 0.7286	0.7717 0.7766	0.7671	0.7765	Ave		0.7563			0.2000	2.9		20.0			
Hexachlorobutadiene	0.2941 0.2697	0.2848 0.2377	0.2809 0.2898	0.2829	0.2739	Ave		0.2767			0.0100	6.4		20.0			
Naphthalene	2.0979 2.6004	2.2731 2.6494	2.6660 2.6327	2.8062	2.8819	Ave		2.5759			0.0100	10.2		20.0			
1,2,3-Trichlorobenzene	0.7106 0.6701	0.6788 0.6564	0.6707 0.7130	0.7070	0.7206	Ave		0.6909			0.0100	3.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2,4,5-Trichlorotoluene	0.3224 0.3475	0.2818 0.3346	0.3064 +++++	0.3498	0.3564	Ave		0.3284			0.0100	8.2		20.0			
2,3,6-Trichlorotoluene	0.2545 0.3128	0.2731 0.3131	0.3085 +++++	0.3418	0.3347	Ave		0.3055			0.0100	10.3		20.0			
Dibromofluoromethane (Surr)	0.2565 0.2365	0.2433 0.2326	0.2366 0.2242	0.2475	0.2474	Ave		0.2406				4.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3401 0.2693	0.3050 0.2801	0.2948 0.2619	0.3004	0.2957	Ave		0.2934				8.3		20.0			
Toluene-d8 (Surr)	5.1161 3.6702	4.5030 3.3148	4.0781 3.3147	3.9154	3.9228	Ave		3.9794				15.2		20.0			
4-Bromofluorobenzene (Surr)	1.6317 1.3781	1.5302 1.3139	1.4390 1.2793	1.4518	1.4735	Ave		1.4372				8.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	16788 647803	84559 569791	159957 857078	226899	286388	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	19706 595751	78965 580608	154943 811941	232300	302276	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	19568 632153	82670 577090	162634 867536	221295	291558	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	17968 579584	74553 512032	143576 815610	204212	260580	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	6901 285707	42224 289712	81346 377950	112119	161865	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	10685 340168	47273 322589	86601 414342	128899	172552	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	22371 769762	104824 710415	205127 1017488	283194	371684	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	14571 475422	66542 510033	126496 612640	188662	262150	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	63695 154738	73476 179414	101829 183852	115103	130923	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	14263 540044	67928 489503	131576 745282	190985	247279	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	18126 571742	73846 534815	141127 774058	206212	263603	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	37823 447756	77890 522287	149782 630881	227784	316026	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	22822 811997	103869 834240	200342 1099819	304618	408622	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	30868 +++++	131730 1211678	266935 1856339	403056	561008	5.00 +++++	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	8133 365237	39946 366340	83167 500032	121734	164305	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	31286 1009713	132543 1173609	283974 1447736	419273	558912	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Lin2	25720 602402	84822 653341	164284 813282	242665	323324	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd9	Ave	16447 524619	64738 519054	139891 568135	204334	283777	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	73302 2362587	336508 2794353	708552 3495451	1029651	1387354	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	17158 595572	73445 571864	147191 806194	222245	296608	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	38357 1597553	196780 1751345	390184 2170401	613933	822838	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	24902 760411	96542 708650	186124 1101558	266987	337300	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	28319 1024340	133976 1041269	261874 1376176	379320	510811	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	27185 1068205	115000 1200052	245879 1523056	400099	532250	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	3769 136605	15889 125406	31118 188250	48893	65750	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	17858 671208	85931 687049	172690 900432	259385	347303	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	50216 686266	105960 795793	214731 962704	321867	426755	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	8216 291754	38047 313977	75687 394763	113290	155416	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	14858 396477	52866 488432	117485 609910	176266	224432	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	29608 989929	134431 1037446	254354 1319564	389323	517765	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20508 811476	98927 777880	196286 1097196	285488	383868	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	26974 1012965	124196 922281	239333 1394833	345041	446560	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	17231 682784	80446 646700	162849 923177	238173	317033	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	22014 866715	109851 825970	215336 1178056	312373	408627	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	13122 452876	61305 587752	136973 715201	216532	290317	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	74686 2459963	339765 2487856	669098 3249284	981851	1307056	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	21038 708898	95627 767974	190422 969148	292683	385206	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16453 633483	81002 573064	154370 922592	214813	279216	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	17490 648262	83072 647404	164695 887332	241861	329499	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25605 1041060	125697 950167	253511 1432791	358781	467268	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16316 596512	74777 624637	150135 793667	227133	309491	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2333 115916	15162 135844	33209 187034	46920	65688	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	8641 342853	45949 374289	88395 470836	135198	184529	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	16257 712434	84070 752352	171049 945026	268080	366097	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18086 864836	103158 977190	219328 1234429	343066	467677	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	19479 881560	96744 933591	204344 1203144	320956	447138	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	79892 1265241	154465 1476808	361112 1863520	542662	738839	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	71883 2496911	351840 2540251	692901 3254284	1000479	1332783	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	14443 781619	79122 850338	170710 1070347	278226	396221	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	16030 905216	96602 1001550	222171 1271580	352819	483364	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	14755 523017	67966 569083	138196 718069	209928	283688	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	13528 498519	67579 486427	126273 683462	184171	244346	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	26359 969241	127957 1058308	256477 1320887	397870	518120	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	57842 977068	122936 1109580	278579 1418811	419354	581383	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	9414 489506	53302 540065	114911 672369	181267	254603	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	13462 550826	67745 607203	142489 773664	223815	294438	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	25343 874266	109109 869071	222871 1290067	352260	461082	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	47566 1645967	217561 1704167	431311 2170926	660247	877804	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	21933 826850	101825 810848	207774 1226371	327327	420704	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12587 554351	65901 590452	137710 751692	212641	289044	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	22622 962208	120759 972676	249792 1304914	371119	499116	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25553 1197380	151114 1217768	306948 1614353	452043	610286	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	25240 1130677	138375 1159372	288885 1518391	440285	592117	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	42810 1866053	242031 1967591	498873 2462559	745860	1002147	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	6015 310948	30000 350923	67829 443094	112077	157509	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	21074 840920	107103 875687	216286 1244752	348911	454842	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	64937 2681266	356966 2665903	726432 3502176	1080505	1415676	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	16032 659984	83376 711710	163748 889999	261052	348475	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	20749 762601	100341 870164	211912 1078742	316221	412534	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4170 199800	23168 225821	49334 299994	83561	104361	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	6588 255265	32588 299299	72643 371250	109372	144469	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	17451 786064	95261 774184	198029 1069171	291693	387234	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	14458 666236	83234 700158	167713 907016	256066	344800	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	16155 680717	87067 742625	185343 1010916	289960	381649	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	48645 2153457	290219 2188229	578518 2828999	866332	1140888	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	16940 719035	88877 738280	180584 970169	269544	369832	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	41329 1844417	236619 1809964	480729 2446270	721573	931884	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50171 2182090	288545 2260604	588662 2860516	884487	1156912	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	15090 525922	64854 542681	138659 801099	219982	277157	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	60251 2514051	336681 2474312	679839 3330508	993968	1298722	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	30355 1146674	151590 1215884	305374 1545747	462404	613101	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	47431 2114911	277710 2107989	570403 2809716	837492	1086140	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	31756 1174377	154714 1249173	315614 1574222	474362	622850	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	12460 501975	64892 497225	125268 771761	206368	267418	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	13980 541324	67486 580659	140272 797256	217211	279514	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	39215 1748217	221777 1729209	454742 2372703	671190	885288	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	30057 1081541	145778 1161072	290492 1435184	437966	577962	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2690 125814	14158 151695	30986 182290	47827	68470	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	47367 2069215	260387 2228710	566788 3049908	889724	1151252	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	30402 1443949	173187 1589536	380181 2191624	620870	814032	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	12140 511830	60672 552245	134753 755690	200638	266863	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	4721 182711	24054 180140	49048 282046	73984	94134	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	33677 1761559	191971 2008065	465533 2561966	733996	990398	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	11407 453926	57325 497473	117120 693791	184932	247660	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	5175 235417	23799 253594	53498 +++++	91488	122498	5.00 175	25.0 200	50.0 +++++	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	4086 211883	23065 237299	53869 +++++	89402	115009	5.00 175	25.0 200	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	13893 505019	65453 522323	127700 681339	193042	257355	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	18421 575099	82071 628942	159071 795993	234269	307676	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	60283 1992609	278432 2000995	541748 2678162	780569	1040595	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	19227 748217	94618 793129	191158 1033645	289432	390879	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 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	6.6 -12.7	8.1 -3.0	1.9	0.1	-5.3	4.3	50 30	30 30	30	30	30	30
Chloromethane	24.5 -11.5	0.4 -8.6	-1.7	1.9	-0.6	-4.5	50 30	30 30	30	30	30	30
Vinyl chloride	21.8 -13.3	3.6 -3.7	1.6	-4.3	-5.5	-0.2	50 30	30 30	30	30	30	30
1,3-Butadiene	23.1 -15.3	2.9 -0.4	-1.2	-2.8	-7.0	0.8	50 30	30 30	30	30	30	30
Bromomethane	-9.1 -8.0	11.9 -11.3	7.5	2.5	11.0	-4.6	50 30	30 30	30	30	30	30
Chloroethane	21.0 -11.8	7.8 -16.3	-1.5	1.4	1.8	-2.3	50 30	30 30	30	30	30	30
Trichlorofluoromethane	13.3 -13.2	6.9 -8.1	4.3	-0.3	-1.9	-1.1	50 30	30 30	30	30	30	30
Ethyl ether	13.5 -4.1	4.4 -14.9	-1.1	2.1	6.3	-6.1	50 30	30 30	30	30	30	30
Acrolein	-1.6 7.0	-8.5 -7.9	5.3	5.9	5.4	-5.6	50 30	30 30	30	30	30	30
1,1-Dichloroethene	7.6 -10.9	3.1 0.2	-0.4	0.0	-2.9	3.3	50 30	30 30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	24.6 -11.3	2.2 -5.2	-2.7	-1.6	-5.7	-0.3	50 30	30 30	30	30	30	30
Acetone	6.8 -11.0	10.7 -20.6	6.1	11.7	16.2	-19.8	50 30	30 30	30	30	30	30
Iodomethane	9.6 -3.4	0.4 -5.9	-3.4	1.6	2.2	-1.1	50 30	30 30	30	30	30	30
Carbon disulfide	6.1 0.5	-8.9 13.7	-7.9	-3.8	0.4	+++++	50 30	30 30	30	30	30	
Allyl chloride	-5.1 3.1	-6.1 4.0	-2.6	-1.3	-0.2	8.1	50 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 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	11.5 0.9	-4.9 -8.0	1.6	3.8	3.7	-8.7	50 30	30 30	30	30	30	30
Methylene Chloride	0.0 0.7	-2.5 -7.2	0.4	5.0	6.0	-2.6	50 30	30 30	30	30	30	30
tert-Butyl alcohol	12.8 -13.1	-2.2 4.4	-1.6	-4.3	-4.9	8.8	50 30	30 30	30	30	30	30
Acrylonitrile	7.5 -1.1	-0.7 -8.6	4.3	4.9	5.9	-12.1	50 30	30 30	30	30	30	30
trans-1,2-Dichloroethene	13.6 -8.7	-2.1 -4.9	-2.2	2.2	2.2	0.0	50 30	30 30	30	30	30	30
Methyl tert-butyl ether	-5.3 4.3	-2.2 -4.5	-3.3	5.3	5.8	0.0	50 30	30 30	30	30	30	30
Hexane	28.4 -11.8	0.2 1.2	-3.7	-4.4	-9.4	-0.5	50 30	30 30	30	30	30	30
1,1-Dichloroethane	7.8 -4.4	2.7 -6.6	0.1	0.3	1.2	-1.1	50 30	30 30	30	30	30	30
Vinyl acetate	1.8 8.4	-13.3 1.6	-7.6	4.0	3.7	1.4	50 30	30 30	30	30	30	30
2,2-Dichloropropane	12.7 -9.5	-4.4 0.3	-6.6	1.5	2.4	3.6	50 30	30 30	30	30	30	30
cis-1,2-Dichloroethene	3.3 -4.1	0.1 -7.1	0.3	4.3	4.6	-1.5	50 30	30 30	30	30	30	30
2-Butanone (MEK)	-0.4 -4.8	5.8 -14.9	6.9	10.9	10.2	-13.7	50 30	30 30	30	30	30	30
Bromochloromethane	7.0 -1.4	-0.3 -8.4	-1.1	2.5	5.4	-3.6	50 30	30 30	30	30	30	30
Tetrahydrofuran	26.5 0.4	-9.4 -7.4	0.4	4.3	-0.5	-14.3	50 30	30 30	30	30	30	30
Chloroform	12.9 -4.6	3.2 -10.3	-2.7	3.1	2.8	-4.3	50 30	30 30	30	30	30	30
1,1,1-Trichloroethane	3.3 -5.5	0.3 -1.5	-0.8	-0.1	0.7	3.7	50 30	30 30	30	30	30	30
Cyclohexane	10.1 -9.2	2.0 1.5	-2.0	-2.2	-5.1	4.9	50 30	30 30	30	30	30	30
Carbon tetrachloride	4.3 -5.6	-2.0 -0.4	-1.1	0.1	-0.1	4.8	50 30	30 30	30	30	30	30
1,1-Dichloropropene	2.6 -7.1	3.1 -2.1	0.7	1.1	-0.8	2.5	50 30	30 30	30	30	30	30
Isobutyl alcohol	-2.6 5.2	-8.4 -5.4	2.0	11.6	12.2	-14.7	50 30	30 30	30	30	30	30
Benzene	13.4 -8.9	3.9 -12.1	2.0	3.6	3.3	-5.2	50 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 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	9.6 -3.5	0.3 -10.0	-0.4	5.9	4.5	-6.3	50 30	30 30	30	30	30	30
n-Heptane	6.1 -10.8	5.2 6.0	-0.1	-3.8	-6.2	3.6	50 30	30 30	30	30	30	30
Trichloroethene	5.5 -5.8	0.9 -4.6	-0.3	1.4	3.5	-0.8	50 30	30 30	30	30	30	30
Methylcyclohexane	2.2 -8.5	1.0 1.9	1.5	-0.6	-2.9	5.4	50 30	30 30	30	30	30	30
1,2-Dichloropropane	6.4 -1.7	-1.8 -7.7	-1.7	2.9	5.1	-1.3	50 30	30 30	30	30	30	30
1,4-Dioxane	-25.2 5.1	-2.1 6.9	6.9	4.5	9.7	-5.7	50 30	30 30	30	30	30	30
Dibromomethane	-3.8 0.5	3.0 -6.6	-1.3	4.5	6.9	-3.2	50 30	30 30	30	30	30	30
Bromodichloromethane	-7.8 2.9	-4.0 -4.5	-2.7	5.6	8.1	2.5	50 30	30 30	30	30	30	30
2-Chloroethyl vinyl ether	-18.1 6.8	-5.9 -0.3	-0.3	8.0	10.3	-0.6	50 30	30 30	30	30	30	30
cis-1,3-Dichloropropene	-9.1 5.1	-9.1 0.1	-4.3	4.1	8.7	4.4	50 30	30 30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	5.7 -4.6	-2.6 -10.1	6.0	6.1	8.6	-9.1	50 30	30 30	30	30	30	30
Toluene	22.4 -15.6	14.1 -19.2	4.6	0.7	0.8	-7.8	50 30	30 30	30	30	30	30
trans-1,3-Dichloropropene	-9.6 3.8	-5.7 -2.3	-5.3	2.9	10.1	6.1	50 30	30 30	30	30	30	30
Ethyl methacrylate	-16.8 1.4	-4.5 -3.8	2.2	8.2	11.4	1.9	50 30	30 30	30	30	30	30
1,1,2-Trichloroethane	20.6 -9.2	5.8 -14.4	0.2	1.4	3.0	-7.2	50 30	30 30	30	30	30	30
Tetrachloroethene	20.7 -15.3	14.9 -11.0	0.0	-2.8	-3.1	-3.4	50 30	30 30	30	30	30	30
1,3-Dichloropropane	16.5 -8.7	7.8 -14.8	0.6	4.0	1.7	-7.0	50 30	30 30	30	30	30	30
2-Hexanone	-0.2 -6.6	1.1 -10.7	6.6	6.9	11.4	-8.5	50 30	30 30	30	30	30	30
Dibromochloromethane	-9.0 1.9	-1.8 -5.2	-1.5	3.6	9.3	2.7	50 30	30 30	30	30	30	30
1,2-Dibromoethane (EDB)	7.3 -5.6	2.9 -10.1	0.7	5.4	4.2	-4.8	50 30	30 30	30	30	30	30
3-Chlorobenzotrifluoride	25.2 -16.2	2.7 -7.1	-2.4	2.8	1.2	-6.3	50 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 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	24.4 -13.0	8.4 -17.2	0.0	2.0	2.0	-6.6	50 30	30 30	30	30	30	30
4-Chlorobenzotrifluoride	17.4 -15.3	3.9 -4.3	-1.4	3.6	0.0	-3.9	50 30	30 30	30	30	30	30
1,1,1,2-Tetrachloroethane	3.5 -5.2	3.3 -9.9	0.4	3.4	5.6	-1.1	50 30	30 30	30	30	30	30
Ethylbenzene	6.0 -11.1	7.8 -10.9	3.8	2.7	3.8	-2.2	50 30	30 30	30	30	30	30
m-Xylene & p-Xylene	-2.1 -8.9	10.4 -9.8	4.4	2.4	3.9	-0.4	50 30	30 30	30	30	30	30
o-Xylene	1.5 -9.0	6.1 -10.9	3.1	4.7	5.8	-1.3	50 30	30 30	30	30	30	30
Styrene	1.7 -8.7	9.6 -14.6	5.2	4.8	5.8	-3.7	50 30	30 30	30	30	30	30
Bromoform	-6.4 6.6	-11.1 0.5	-6.4	3.0	8.8	5.0	50 30	30 30	30	30	30	30
2-Chlorobenzotrifluoride	8.8 -11.8	5.3 -6.3	-1.0	6.4	4.3	-5.8	50 30	30 30	30	30	30	30
Isopropylbenzene	7.0 -14.2	12.1 -15.8	6.2	5.2	3.6	-4.1	50 30	30 30	30	30	30	30
Bromobenzene	2.9 -3.2	1.7 -5.8	-3.4	2.8	4.5	0.4	50 30	30 30	30	30	30	30
1,1,2,2-Tetrachloroethane	14.5 -6.3	5.5 -13.2	3.7	3.2	1.1	-8.7	50 30	30 30	30	30	30	30
trans-1,4-Dichloro-2-butene	-11.2 1.8	-6.3 5.4	-3.4	9.2	3.8	0.8	50 30	30 30	30	30	30	30
1,2,3-Trichloropropane	2.5 -1.4	-3.7 -4.7	3.9	4.4	5.0	-5.9	50 30	30 30	30	30	30	30
N-Propylbenzene	-2.0 -7.9	1.7 -0.9	2.3	0.6	1.6	4.6	50 30	30 30	30	30	30	30
2-Chlorotoluene	-6.0 -3.6	2.8 -2.8	0.2	2.1	4.7	2.6	50 30	30 30	30	30	30	30
3-Chlorotoluene	-3.5 -6.0	-1.1 -0.4	1.8	6.3	6.5	-3.6	50 30	30 30	30	30	30	30
1,3,5-Trimethylbenzene	-4.5 -9.0	8.3 -8.4	4.4	4.4	4.6	0.2	50 30	30 30	30	30	30	30
4-Chlorotoluene	1.9 -5.9	1.7 -3.7	-0.1	-0.4	4.0	2.5	50 30	30 30	30	30	30	30
tert-Butylbenzene	-3.0 -10.0	5.6 -5.2	3.8	4.0	2.2	2.6	50 30	30 30	30	30	30	30
1,2,4-Trimethylbenzene	-3.1 -7.5	5.9 -8.9	4.5	4.8	4.4	-0.1	50 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 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	16.3 -11.4	-5.0 1.9	-1.7	4.1	-0.2	-3.9	50 30	30 30	30	30	30	30
sec-Butylbenzene	1.4 -11.8	7.7 -7.5	5.2	2.7	2.1	0.3	50 30	30 30	30	30	30	30
1,3-Dichlorobenzene	9.1 -7.5	3.5 -8.4	0.9	2.0	2.9	-2.4	50 30	30 30	30	30	30	30
4-Isopropyltoluene	-4.2 -9.8	6.7 -6.3	6.0	3.9	2.5	1.3	50 30	30 30	30	30	30	30
1,4-Dichlorobenzene	11.1 -7.4	2.9 -9.1	1.5	1.9	1.8	-2.6	50 30	30 30	30	30	30	30
2,4-Dichlorobenzotrifluoride	3.2 -12.8	2.1 5.4	-4.7	4.9	3.4	-1.5	50 30	30 30	30	30	30	30
2,5-Dichlorobenzotrifluoride	7.2 -5.7	-1.7 0.8	-1.2	2.2	0.1	-1.7	50 30	30 30	30	30	30	30
n-Butylbenzene	-2.8 -9.3	4.4 -3.0	3.6	2.1	2.4	2.6	50 30	30 30	30	30	30	30
1,2-Dichlorobenzene	13.3 -7.3	4.4 -10.8	0.7	1.3	1.8	-3.4	50 30	30 30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-8.7 9.1	-8.6 2.1	-3.3	-0.3	8.6	1.2	50 30	30 30	30	30	30	30
2,4- & 2,5- & 2,6- Dichlorotoluene	-6.2 -6.5	-2.0 -0.3	3.2	8.2	6.5	-2.9	50 30	30 30	30	30	30	30
2,3- & 3,4- Dichlorotoluene	-12.6 -3.3	-5.4 3.9	0.4	9.5	9.3	-1.7	50 30	30 30	30	30	30	30
1,2,4-Trichlorobenzene	0.0 -3.7	-5.0 2.7	2.0	1.4	2.7	-0.1	50 30	30 30	30	30	30	30
Hexachlorobutadiene	6.3 -14.1	2.9 4.7	1.5	2.2	-1.0	-2.5	50 30	30 30	30	30	30	30
Naphthalene	-18.6 2.9	-11.8 2.2	3.5	8.9	11.9	1.0	50 30	30 30	30	30	30	30
1,2,3-Trichlorobenzene	2.9 -5.0	-1.8 3.2	-2.9	2.3	4.3	-3.0	50 30	30 30	30	30	30	30
2,4,5-Trichlorotoluene	-1.8 1.9	-14.2 +++++	-6.7	6.5	8.5	5.8	50 30	30	30	30	30	30
2,3,6-Trichlorotoluene	-16.7 2.5	-10.6 +++++	1.0	11.9	9.5	2.4	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	6.6 -3.3	1.1 -6.8	-1.6	2.9	2.8	-1.7	50 30	30 30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	15.9 -4.5	4.0 -10.7	0.5	2.4	0.8	-8.2	50 30	30 30	30	30	30	30
Toluene-d8 (Surr)	28.6 -16.7	13.2 -16.7	2.5	-1.6	-1.4	-7.8	50 30	30 30	30	30	30	30

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1 Analy Batch No.: 218218

SDG No.:

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

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 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)	13.5 -8.6	6.5 -11.0	0.1	1.0	2.5	-4.1	50 30	30 30	30	30	30	30

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 27-Jul-2017 00:51:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-002
Misc. Info.: IC VSTD1
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:45 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 03:08:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.323	-0.006	0	246479	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	99	541701	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	117831	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	96	160528	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	90	13893	5.00	5.33	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.951	6.945	0.006	0	18421	5.00	5.79	
$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	60283	5.00	6.43	
$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	87	19227	5.00	5.68	
11 Dichlorodifluoromethane	85	1.665	1.646	0.018	68	16788	5.00	5.33	
12 Chloromethane	50	1.804	1.804	0.000	97	19706	5.00	6.22	
13 Vinyl chloride	62	1.932	1.944	-0.012	95	19568	5.00	6.09	
14 Butadiene	39	1.963	1.969	-0.005	95	17968	5.00	6.16	
15 Bromomethane	94	2.273	2.254	0.019	90	6901	5.00	4.54	
16 Chloroethane	64	2.419	2.419	0.000	89	10685	5.00	6.05	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	26531	5.00	5.94	
18 Trichlorofluoromethane	101	2.760	2.741	0.019	45	22371	5.00	5.67	M
20 Ethyl ether	59	3.076	3.076	0.000	88	14571	5.00	5.67	
21 Acrolein	56	3.252	3.252	0.000	99	63695	100.0	98.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	77	14263	5.00	5.38	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	74	18126	5.00	6.23	
24 Acetone	43	3.483	3.477	0.006	99	37823	25.0	26.7	
25 Iodomethane	142	3.569	3.562	0.007	95	22822	5.00	5.48	
26 Carbon disulfide	76	3.654	3.648	0.006	98	30868	5.00	5.30	
28 3-Chloro-1-propene	76	3.940	3.946	-0.006	90	8133	5.00	4.75	
30 Methyl acetate	43	3.970	3.976	-0.006	95	31286	10.0	11.2	
31 Methylene Chloride	84	4.177	4.165	0.012	84	25720	5.00	5.00	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	92	16447	50.0	56.4	
33 Acrylonitrile	53	4.554	4.554	0.000	98	73302	50.0	53.7	
34 trans-1,2-Dichloroethene	96	4.591	4.584	0.007	74	17158	5.00	5.68	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	84	38357	5.00	4.73	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	89	24902	5.00	6.42	
37 1,1-Dichloroethane	63	5.211	5.217	-0.006	96	28319	5.00	5.39	
38 Vinyl acetate	43	5.272	5.272	0.000	97	27185	5.00	5.09	
44 2,2-Dichloropropane	97	5.947	5.959	-0.012	46	3769	5.00	5.63	
45 cis-1,2-Dichloroethene	96	5.953	5.965	-0.012	79	17858	5.00	5.17	
46 2-Butanone (MEK)	43	5.984	5.978	0.006	98	50216	25.0	24.9	
49 Chlorobromomethane	128	6.245	6.245	0.000	93	8216	5.00	5.35	
51 Tetrahydrofuran	42	6.264	6.263	0.001	93	14858	10.0	12.7	
52 Chloroform	83	6.391	6.391	0.000	91	29608	5.00	5.64	
53 1,1,1-Trichloroethane	97	6.556	6.549	0.007	97	20508	5.00	5.16	
54 Cyclohexane	56	6.616	6.622	-0.006	87	26974	5.00	5.50	
56 Carbon tetrachloride	117	6.726	6.726	0.000	88	17231	5.00	5.21	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	96	22014	5.00	5.13	
57 Isobutyl alcohol	41	6.951	6.945	0.006	43	13122	125.0	121.7	
58 Benzene	78	6.951	6.951	0.000	96	74686	5.00	5.67	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	21038	5.00	5.48	
62 n-Heptane	43	7.316	7.316	0.000	56	16453	5.00	5.30	
64 Trichloroethene	130	7.681	7.687	-0.006	95	17490	5.00	5.28	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	25605	5.00	5.11	
67 1,2-Dichloropropane	63	7.955	7.961	-0.006	93	16316	5.00	5.32	
68 Dibromomethane	93	8.046	8.046	0.000	90	8641	5.00	4.81	
70 1,4-Dioxane	88	8.040	8.052	-0.012	5	2333	100.0	74.8	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	16257	5.00	4.61	
73 2-Chloroethyl vinyl ether	63	8.551	8.545	0.006	92	18086	10.0	8.19	
74 cis-1,3-Dichloropropene	75	8.691	8.685	0.006	95	19479	5.00	4.55	
75 4-Methyl-2-pentanone (MIBK	43	8.843	8.843	0.000	96	79892	25.0	26.4	
76 Toluene	91	9.019	9.019	0.000	98	71883	5.00	6.12	
77 trans-1,3-Dichloropropene	75	9.263	9.269	-0.006	92	14443	5.00	4.52	
78 Ethyl methacrylate	69	9.330	9.330	0.000	90	16030	5.00	4.16	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	89	14755	5.00	6.03	
80 Tetrachloroethene	164	9.530	9.530	0.000	95	13528	5.00	6.04	
81 1,3-Dichloropropane	76	9.616	9.615	0.001	90	26359	5.00	5.83	
82 2-Hexanone	43	9.683	9.682	0.000	98	57842	25.0	25.0	
84 Chlorodibromomethane	129	9.835	9.834	0.001	92	9414	5.00	4.55	
85 Ethylene Dibromide	107	9.944	9.944	0.000	98	13462	5.00	5.36	
86 3-Chlorobenzotrifluoride	180	10.413	10.412	0.001	90	25343	5.00	6.26	
87 Chlorobenzene	112	10.437	10.437	0.000	94	47566	5.00	6.22	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	21933	5.00	5.87	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	88	12587	5.00	5.18	
90 Ethylbenzene	106	10.534	10.534	0.000	98	22622	5.00	5.30	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	25553	5.00	4.90	
92 o-Xylene	106	11.051	11.051	0.000	95	25240	5.00	5.08	
93 Styrene	104	11.076	11.069	0.007	93	42810	5.00	5.09	
94 Bromoform	173	11.252	11.252	0.000	92	6015	5.00	4.68	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	96	21074	5.00	5.44	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	64937	5.00	5.35	
100 Bromobenzene	156	11.739	11.739	0.000	93	16032	5.00	5.15	
99 1,1,2,2-Tetrachloroethane	83	11.739	11.745	-0.006	77	20749	5.00	5.73	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.775	0.012	75	4170	5.00	4.44	
101 1,2,3-Trichloropropane	110	11.800	11.793	0.007	85	6588	5.00	5.12	
103 N-Propylbenzene	120	11.842	11.842	0.000	99	17451	5.00	4.90	
104 2-Chlorotoluene	126	11.927	11.927	0.000	96	14458	5.00	4.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	16155	5.00	4.83	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	95	48645	5.00	4.78	
107 4-Chlorotoluene	126	12.061	12.055	0.006	96	16940	5.00	5.10	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	41329	5.00	4.85	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	50171	5.00	4.84	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.456	0.001	95	15090	5.00	5.82	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	60251	5.00	5.07	
113 1,3-Dichlorobenzene	146	12.694	12.688	0.006	96	30355	5.00	5.45	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	47431	5.00	4.79	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	31756	5.00	5.56	
116 2,4-Dichloro-1-(triflourom	214	12.840	12.828	0.012	94	12460	5.00	5.16	
118 2,5-Dichlorobenzotrifluori	214	12.882	12.870	0.012	0	13980	5.00	5.36	
120 n-Butylbenzene	91	13.156	13.150	0.006	96	39215	5.00	4.86	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	85	30057	5.00	5.66	
122 1,2-Dibromo-3-Chloropropan	75	13.977	13.971	0.006	81	2690	5.00	4.57	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.130	14.117	0.013	0	47367	15.0	14.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.561	14.555	0.006	0	30402	10.0	8.74	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	92	12140	5.00	5.00	
127 Hexachlorobutadiene	225	15.012	14.993	0.019	91	4721	5.00	5.31	
128 Naphthalene	128	15.127	15.103	0.024	96	33677	5.00	4.07	
129 1,2,3-Trichlorobenzene	180	15.371	15.346	0.025	95	11407	5.00	5.14	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	5175	5.00	4.91	
130 2,3,6-Trichlorotoluene	159	16.338	16.307	0.031	88	4086	5.00	4.17	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.97	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.8	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.06	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	0.20	Units: uL
VOA8260VOAPRI_00263	Amount Added:	0.20	Units: uL
voaWAcro1stRe_00016	Amount Added:	4.00	Units: uL
voaWVA1stRest_00017	Amount Added:	0.20	Units: uL
voaWEEmix1stR_00009	Amount Added:	0.20	Units: uL
voaW2clev1stR_00013	Amount Added:	0.20	Units: uL
voaWKetmix1st_00004	Amount Added:	0.80	Units: uL

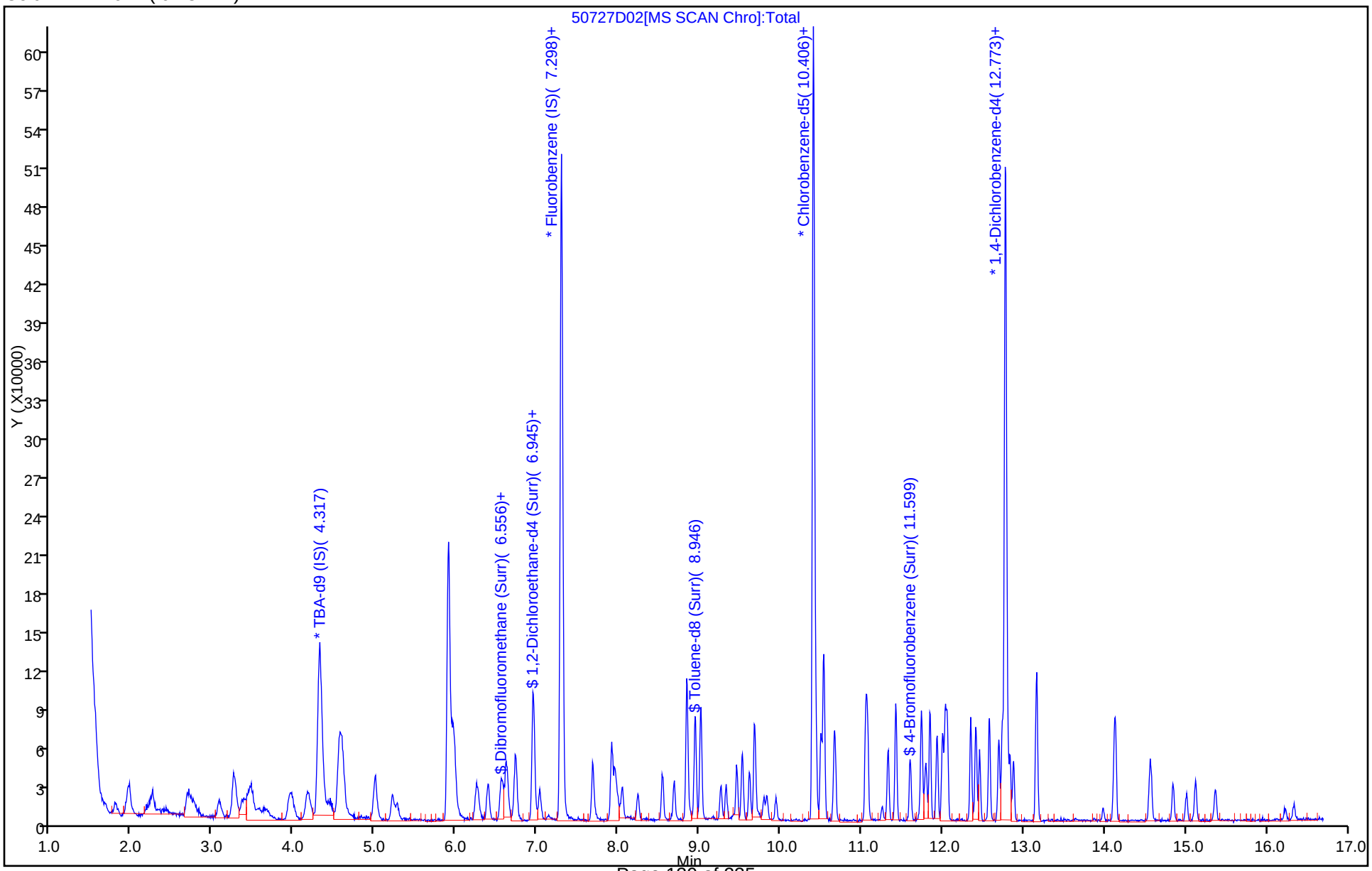
Report Date: 28-Jul-2017 01:04:45 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D

Injection Date:	27-Jul-2017 00:51:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD1			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

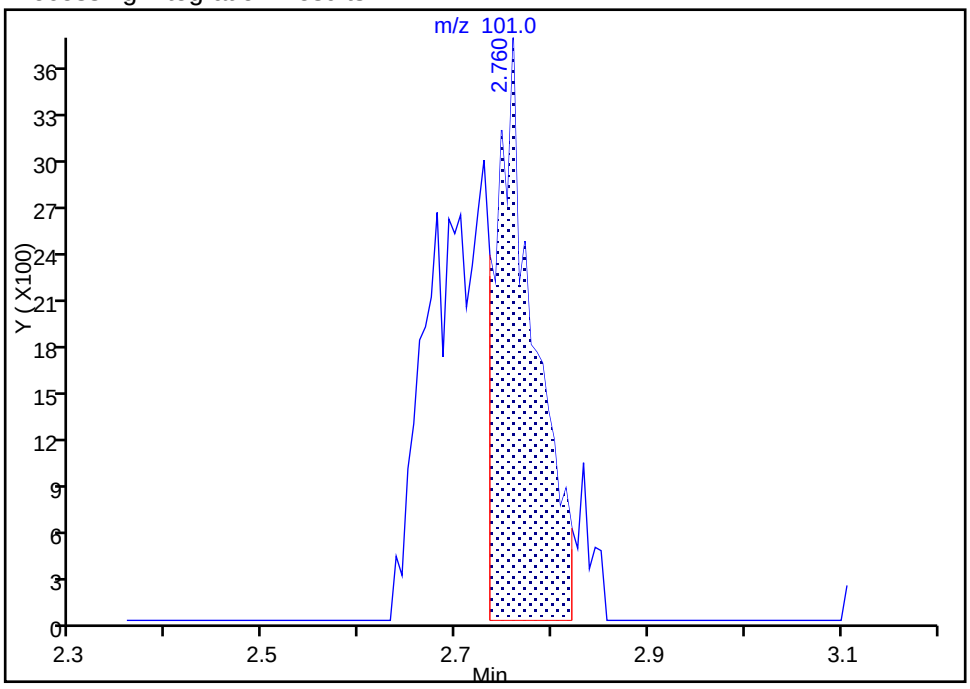
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
Injection Date: 27-Jul-2017 00:51:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C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

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

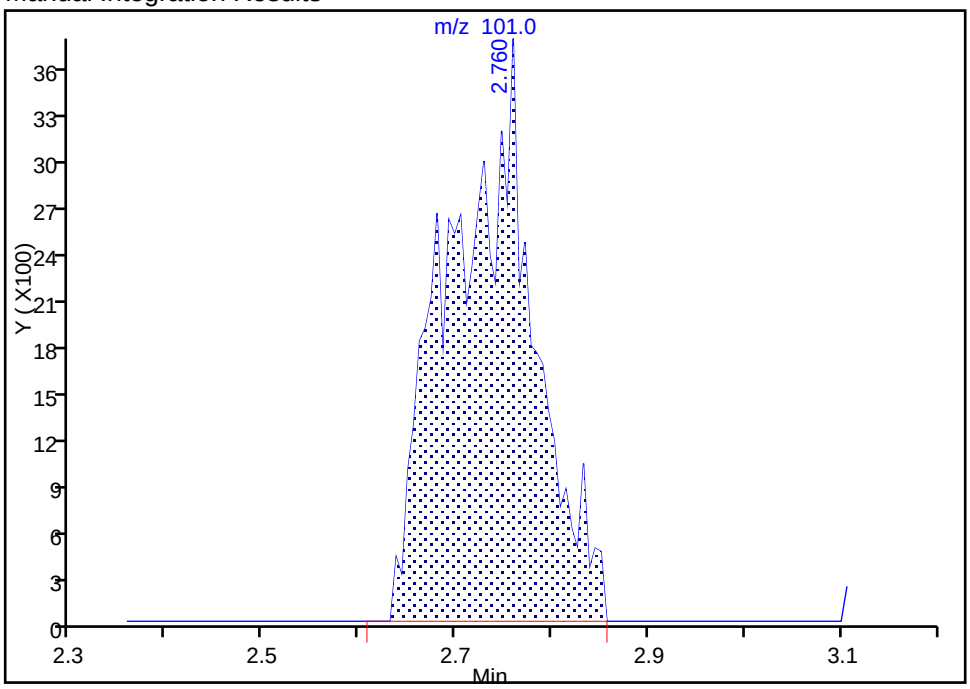
Processing Integration Results

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



Manual Integration Results

RT: 2.76
Area: 22371
Amount: 5.667373
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:06:53
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 27-Jul-2017 01:15:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-003
Misc. Info.: IC VSTD5
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:47 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 03:14:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.319	4.323	-0.004	0	223811	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	98	538128	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	85	123664	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.773	0.002	94	168910	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.576	6.574	0.002	94	65453	25.0	25.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.947	6.945	0.002	0	82071	25.0	26.0	
$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	278432	25.0	28.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.600	11.599	0.001	87	94618	25.0	26.6	
11 Dichlorodifluoromethane	85	1.648	1.646	0.002	100	84559	25.0	27.0	
12 Chloromethane	50	1.794	1.804	-0.010	99	78965	25.0	25.1	
13 Vinyl chloride	62	1.946	1.944	0.002	98	82670	25.0	25.9	
14 Butadiene	39	1.964	1.969	-0.004	92	74553	25.0	25.7	
15 Bromomethane	94	2.262	2.254	0.008	91	42224	25.0	28.0	
16 Chloroethane	64	2.421	2.419	0.001	98	47273	25.0	26.9	
17 Dichlorofluoromethane	67	2.700	2.699	0.001	97	119855	25.0	27.0	
18 Trichlorofluoromethane	101	2.749	2.741	0.008	94	104824	25.0	26.7	M
20 Ethyl ether	59	3.084	3.076	0.008	87	66542	25.0	26.1	
21 Acrolein	56	3.266	3.252	0.014	98	73476	125.0	114.3	
22 1,1-Dichloroethene	96	3.376	3.368	0.008	96	67928	25.0	25.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.436	3.441	-0.005	93	73846	25.0	25.5	
24 Acetone	43	3.479	3.477	0.002	96	77890	50.0	55.3	
25 Iodomethane	142	3.570	3.562	0.008	98	103869	25.0	25.1	
26 Carbon disulfide	76	3.649	3.648	0.001	99	131730	25.0	22.8	
28 3-Chloro-1-propene	76	3.954	3.946	0.008	92	39946	25.0	23.5	
30 Methyl acetate	43	3.978	3.976	0.002	97	132543	50.0	47.6	
31 Methylene Chloride	84	4.166	4.165	0.001	88	84822	25.0	24.4	
32 2-Methyl-2-propanol	59	4.446	4.451	-0.005	92	64738	250.0	244.6	
33 Acrylonitrile	53	4.562	4.554	0.008	100	336508	250.0	248.3	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	98	73445	25.0	24.5	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	96	196780	25.0	24.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.006	4.998	0.008	92	96542	25.0	25.1	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	133976	25.0	25.7	
38 Vinyl acetate	43	5.268	5.272	-0.004	97	115000	25.0	21.7	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	57	15889	25.0	23.9	
45 cis-1,2-Dichloroethene	96	5.961	5.965	-0.004	81	85931	25.0	25.0	
46 2-Butanone (MEK)	43	5.985	5.978	0.007	93	105960	50.0	52.9	
49 Chlorobromomethane	128	6.253	6.245	0.008	94	38047	25.0	24.9	
51 Tetrahydrofuran	42	6.271	6.263	0.008	86	52866	50.0	45.3	
52 Chloroform	83	6.393	6.391	0.002	93	134431	25.0	25.8	
53 1,1,1-Trichloroethane	97	6.557	6.549	0.008	98	98927	25.0	25.1	
54 Cyclohexane	56	6.618	6.622	-0.004	89	124196	25.0	25.5	
56 Carbon tetrachloride	117	6.722	6.726	-0.004	95	80446	25.0	24.5	
55 1,1-Dichloropropene	75	6.746	6.738	0.008	98	109851	25.0	25.8	
57 Isobutyl alcohol	41	6.947	6.945	0.002	82	61305	625.0	572.5	
58 Benzene	78	6.953	6.951	0.002	97	339765	25.0	26.0	
59 1,2-Dichloroethane	62	7.032	7.030	0.002	97	95627	25.0	25.1	
62 n-Heptane	43	7.318	7.316	0.002	90	81002	25.0	26.3	
64 Trichloroethene	130	7.689	7.687	0.002	98	83072	25.0	25.2	
66 Methylcyclohexane	83	7.920	7.918	0.002	86	125697	25.0	25.2	
67 1,2-Dichloropropane	63	7.963	7.961	0.002	94	74777	25.0	24.5	
68 Dibromomethane	93	8.048	8.046	0.002	95	45949	25.0	25.7	
70 1,4-Dioxane	88	8.048	8.052	-0.004	38	15162	500.0	489.4	M
71 Dichlorobromomethane	83	8.242	8.241	0.001	98	84070	25.0	24.0	
73 2-Chloroethyl vinyl ether	63	8.547	8.545	0.002	95	103158	50.0	47.0	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	96744	25.0	22.7	
75 4-Methyl-2-pentanone (MIBK	43	8.845	8.843	0.002	95	154465	50.0	48.7	
76 Toluene	91	9.015	9.019	-0.004	98	351840	25.0	28.5	
77 trans-1,3-Dichloropropene	75	9.270	9.269	0.001	92	79122	25.0	23.6	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	96602	25.0	23.9	
79 1,1,2-Trichloroethane	97	9.465	9.457	0.008	90	67966	25.0	26.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	67579	25.0	28.7	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	127957	25.0	26.9	
82 2-Hexanone	43	9.678	9.682	-0.004	95	122936	50.0	50.5	
84 Chlorodibromomethane	129	9.836	9.834	0.002	89	53302	25.0	24.5	
85 Ethylene Dibromide	107	9.946	9.944	0.002	100	67745	25.0	25.7	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	95	109109	25.0	25.7	
87 Chlorobenzene	112	10.432	10.437	-0.005	95	217561	25.0	27.1	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	95	101825	25.0	26.0	
89 1,1,1,2-Tetrachloroethane	131	10.530	10.528	0.002	92	65901	25.0	25.8	
90 Ethylbenzene	106	10.536	10.534	0.002	98	120759	25.0	26.9	
91 m-Xylene & p-Xylene	106	10.670	10.668	0.002	0	151114	25.0	27.6	
92 o-Xylene	106	11.053	11.051	0.002	96	138375	25.0	26.5	
93 Styrene	104	11.071	11.069	0.002	95	242031	25.0	27.4	
94 Bromoform	173	11.254	11.252	0.002	97	30000	25.0	22.2	
96 2-Chlorobenzotrifluoride	180	11.327	11.325	0.002	97	107103	25.0	26.3	
97 Isopropylbenzene	105	11.424	11.422	0.002	96	356966	25.0	28.0	
100 Bromobenzene	156	11.734	11.739	-0.005	95	83376	25.0	25.4	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	94	100341	25.0	26.4	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	77	23168	25.0	23.4	
101 1,2,3-Trichloropropane	110	11.789	11.793	-0.004	86	32588	25.0	24.1	
103 N-Propylbenzene	120	11.838	11.842	-0.004	99	95261	25.0	25.4	
104 2-Chlorotoluene	126	11.929	11.927	0.002	96	83234	25.0	25.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	87067	25.0	24.7	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	95	290219	25.0	27.1	
107 4-Chlorotoluene	126	12.057	12.055	0.002	96	88877	25.0	25.4	
108 tert-Butylbenzene	119	12.349	12.347	0.002	93	236619	25.0	26.4	
110 1,2,4-Trimethylbenzene	105	12.410	12.408	0.002	97	288545	25.0	26.5	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	96	64854	25.0	23.8	
112 sec-Butylbenzene	105	12.574	12.572	0.002	94	336681	25.0	26.9	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	151590	25.0	25.9	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	97	277710	25.0	26.7	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	154714	25.0	25.7	
116 2,4-Dichloro-1-(triflourom	214	12.829	12.828	0.001	96	64892	25.0	25.5	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	67486	25.0	24.6	
120 n-Butylbenzene	91	13.152	13.150	0.002	98	221777	25.0	26.1	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	98	145778	25.0	26.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	83	14158	25.0	22.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	260387	75.0	73.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.557	14.555	0.002	0	173187	50.0	47.3	
126 1,2,4-Trichlorobenzene	180	14.837	14.829	0.008	94	60672	25.0	23.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	24054	25.0	25.7	
128 Naphthalene	128	15.111	15.103	0.008	97	191971	25.0	22.1	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	95	57325	25.0	24.6	
131 2,4,5-Trichlorotoluene	159	16.200	16.198	0.002	0	23799	25.0	21.5	
130 2,3,6-Trichlorotoluene	159	16.309	16.307	0.002	95	23065	25.0	22.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		50.0	49.5	
S 133 Xylenes, Total	106				0		50.0	54.1	
S 135 1,3-Dichloropropene, Total	1				0		50.0	46.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00263	Amount Added:	1.00	Units: uL
voaW2clev1stR_00013	Amount Added:	1.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	5.00	Units: uL
voaWVA1stRest_00017	Amount Added:	1.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	1.00	Units: uL
VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	1.00	Units: uL
voaWKetmix1st_00004	Amount Added:	1.00	Units: uL

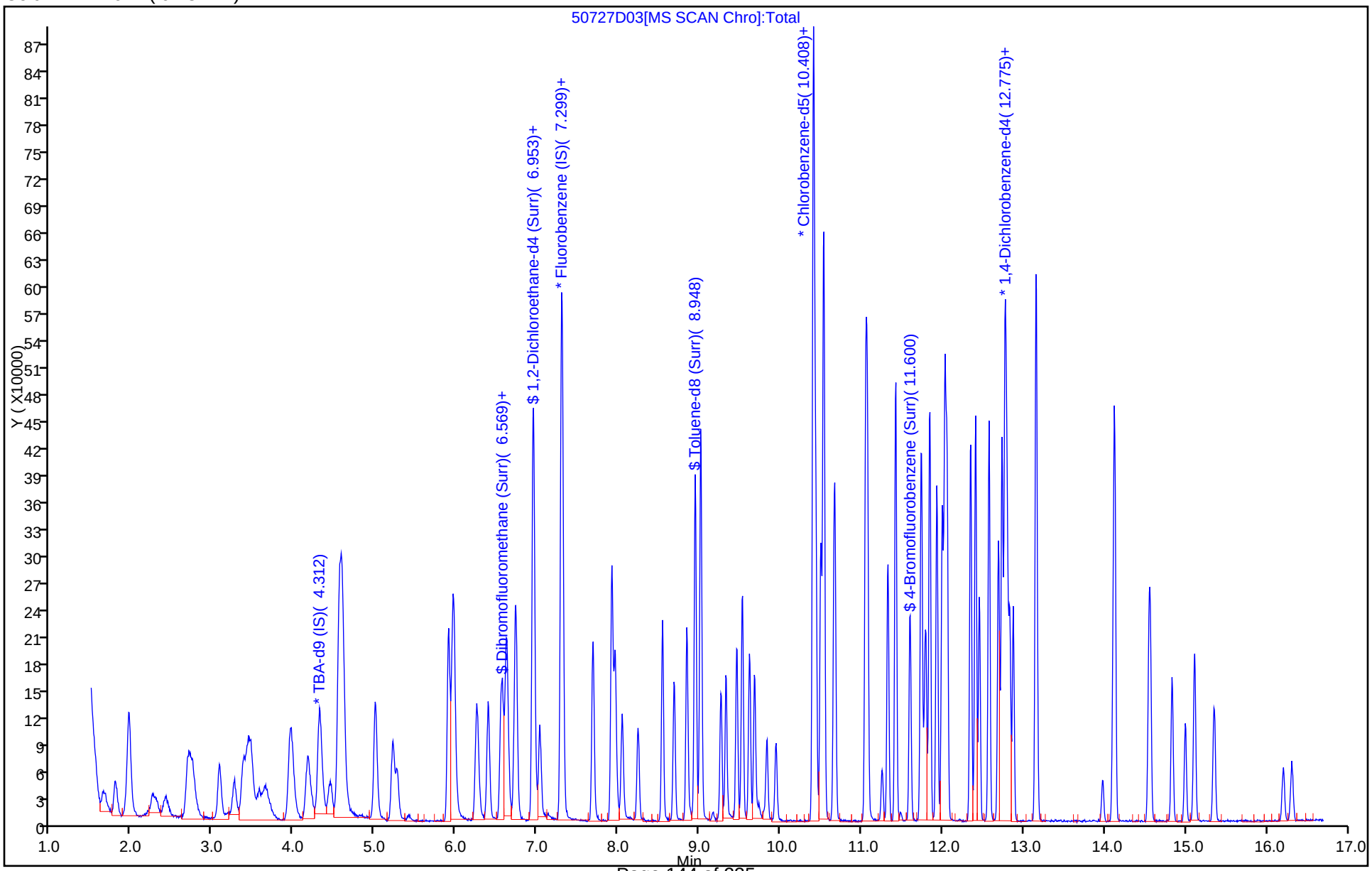
Report Date: 28-Jul-2017 01:04:48 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D

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

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

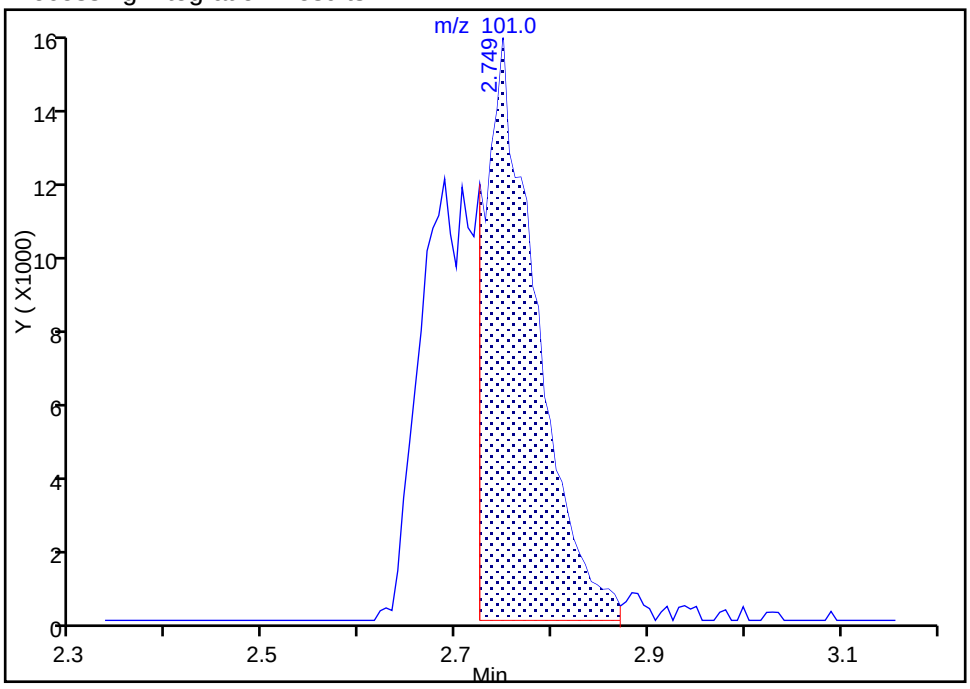
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D				
Injection Date:	27-Jul-2017 01:15:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit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

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

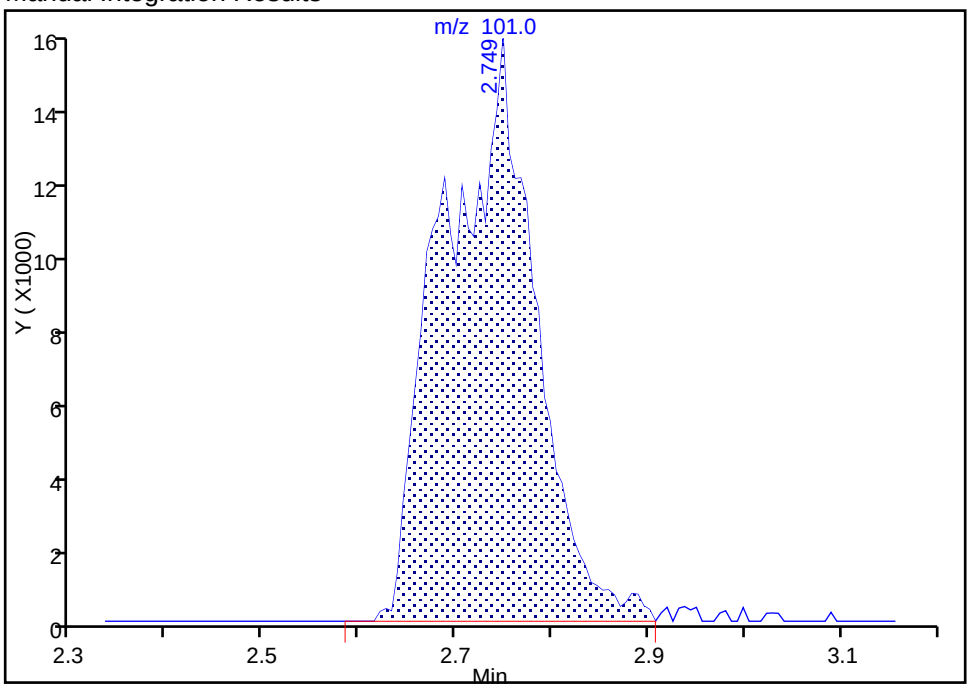
Processing Integration Results

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



Manual Integration Results

RT: 2.75
Area: 104824
Amount: 26.731985
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:13:52

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

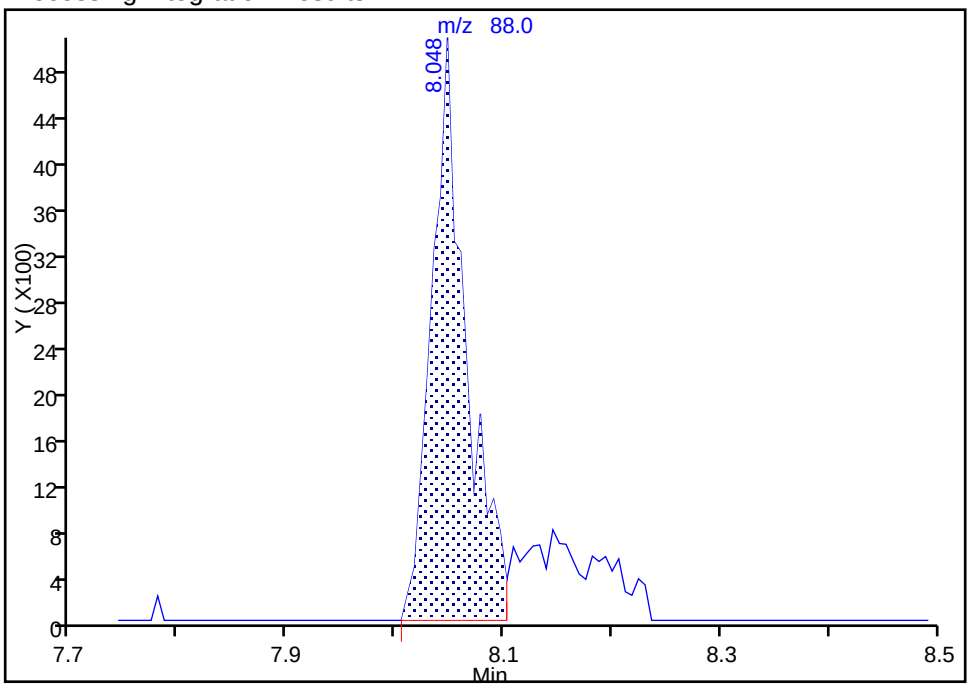
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C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

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

Signal: 1

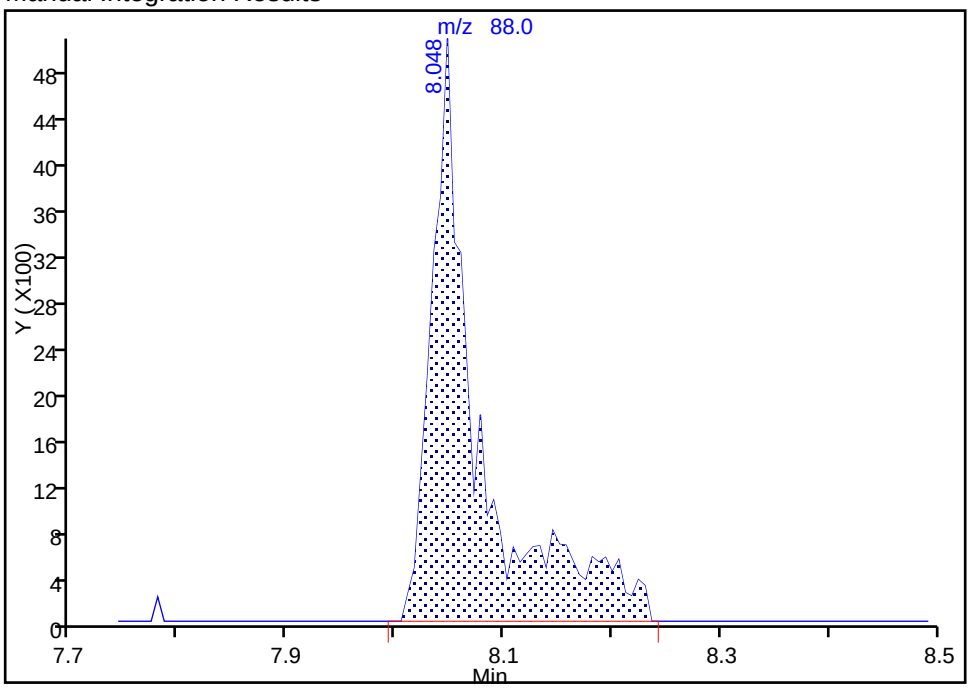
Processing Integration Results

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



Manual Integration Results

RT: 8.05
Area: 15162
Amount: 489.3788
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:14:22
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 27-Jul-2017 01:39:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-004
Misc. Info.: ICIS VSTD10
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:50 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 03:16:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.328	0.000	0	240414	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.297	0.000	99	539679	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.405	0.000	86	132843	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.772	0.000	94	174621	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.573	6.573	0.000	94	127700	50.0	49.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.944	0.000	0	159071	50.0	50.2	
$ 7 Toluene-d8 (Surr)	98	8.951	8.951	0.000	92	541748	50.0	51.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.598	0.000	87	191158	50.0	50.1	
11 Dichlorodifluoromethane	85	1.663	1.663	0.000	99	159957	50.0	51.0	
12 Chloromethane	50	1.797	1.797	0.000	99	154943	50.0	49.1	
13 Vinyl chloride	62	1.955	1.955	0.000	98	162634	50.0	50.8	
14 Butadiene	39	1.968	1.968	0.000	94	143576	50.0	49.4	
15 Bromomethane	94	2.272	2.272	0.000	89	81346	50.0	53.8	
16 Chloroethane	64	2.424	2.424	0.000	98	86601	50.0	49.2	
17 Dichlorofluoromethane	67	2.710	2.710	0.000	96	224450	50.0	50.4	
18 Trichlorofluoromethane	101	2.746	2.746	0.000	97	205127	50.0	52.2	M
20 Ethyl ether	59	3.087	3.087	0.000	89	126496	50.0	49.4	
21 Acrolein	56	3.269	3.269	0.000	99	101829	150.0	158.0	
22 1,1-Dichloroethene	96	3.373	3.373	0.000	83	131576	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.440	0.000	91	141127	50.0	48.7	
24 Acetone	43	3.482	3.482	0.000	100	149782	100.0	106.1	
25 Iodomethane	142	3.580	3.580	0.000	99	200342	50.0	48.3	
26 Carbon disulfide	76	3.659	3.659	0.000	98	266935	50.0	46.0	
28 3-Chloro-1-propene	76	3.951	3.951	0.000	92	83167	50.0	48.7	
30 Methyl acetate	43	3.975	3.975	0.000	97	283974	100.0	101.6	
31 Methylene Chloride	84	4.170	4.170	0.000	90	164284	50.0	50.2	
32 2-Methyl-2-propanol	59	4.450	4.450	0.000	93	139891	500.0	492.0	
33 Acrylonitrile	53	4.559	4.559	0.000	99	708552	500.0	521.4	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	147191	50.0	48.9	
35 Methyl tert-butyl ether	73	4.608	4.608	0.000	96	390184	50.0	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	5.003	0.000	93	186124	50.0	48.2	
37 1,1-Dichloroethane	63	5.222	5.222	0.000	96	261874	50.0	50.0	
38 Vinyl acetate	43	5.271	5.271	0.000	97	245879	50.0	46.2	
44 2,2-Dichloropropane	97	5.958	5.958	0.000	72	31118	50.0	46.7	
45 cis-1,2-Dichloroethene	96	5.971	5.971	0.000	79	172690	50.0	50.2	
46 2-Butanone (MEK)	43	5.977	5.977	0.000	98	214731	100.0	106.9	
49 Chlorobromomethane	128	6.250	6.250	0.000	95	75687	50.0	49.5	
51 Tetrahydrofuran	42	6.269	6.269	0.000	89	117485	100.0	100.4	
52 Chloroform	83	6.396	6.396	0.000	92	254354	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.555	6.555	0.000	98	196286	50.0	49.6	
54 Cyclohexane	56	6.621	6.621	0.000	89	239333	50.0	49.0	
56 Carbon tetrachloride	117	6.719	6.719	0.000	97	162849	50.0	49.5	
55 1,1-Dichloropropene	75	6.743	6.743	0.000	97	215336	50.0	50.4	
57 Isobutyl alcohol	41	6.950	6.950	0.000	84	136973	1250.0	1275.5	
58 Benzene	78	6.950	6.950	0.000	97	669098	50.0	51.0	
59 1,2-Dichloroethane	62	7.035	7.035	0.000	97	190422	50.0	49.8	
62 n-Heptane	43	7.315	7.315	0.000	86	154370	50.0	50.0	
64 Trichloroethene	130	7.692	7.692	0.000	98	164695	50.0	49.9	
66 Methylcyclohexane	83	7.917	7.917	0.000	86	253511	50.0	50.8	
67 1,2-Dichloropropane	63	7.960	7.960	0.000	94	150135	50.0	49.1	
68 Dibromomethane	93	8.045	8.045	0.000	95	88395	50.0	49.4	
70 1,4-Dioxane	88	8.051	8.051	0.000	40	33209	1000.0	1068.8	M
71 Dichlorobromomethane	83	8.246	8.246	0.000	99	171049	50.0	48.7	
73 2-Chloroethyl vinyl ether	63	8.544	8.544	0.000	92	219328	100.0	99.7	
74 cis-1,3-Dichloropropene	75	8.690	8.690	0.000	95	204344	50.0	47.9	
75 4-Methyl-2-pentanone (MIBK	43	8.848	8.848	0.000	96	361112	100.0	106.0	
76 Toluene	91	9.018	9.018	0.000	99	692901	50.0	52.3	
77 trans-1,3-Dichloropropene	75	9.268	9.268	0.000	93	170710	50.0	47.4	
78 Ethyl methacrylate	69	9.329	9.329	0.000	88	222171	50.0	51.1	
79 1,1,2-Trichloroethane	97	9.456	9.456	0.000	90	138196	50.0	50.1	
80 Tetrachloroethene	164	9.535	9.535	0.000	97	126273	50.0	50.0	
81 1,3-Dichloropropane	76	9.621	9.621	0.000	89	256477	50.0	50.3	
82 2-Hexanone	43	9.681	9.681	0.000	94	278579	100.0	106.6	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	114911	50.0	49.3	
85 Ethylene Dibromide	107	9.943	9.943	0.000	98	142489	50.0	50.3	
86 3-Chlorobenzotrifluoride	180	10.411	10.411	0.000	93	222871	50.0	48.8	
87 Chlorobenzene	112	10.436	10.436	0.000	95	431311	50.0	50.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.497	0.000	96	207774	50.0	49.3	
89 1,1,1,2-Tetrachloroethane	131	10.533	10.533	0.000	94	137710	50.0	50.2	
90 Ethylbenzene	106	10.533	10.533	0.000	98	249792	50.0	51.9	
91 m-Xylene & p-Xylene	106	10.667	10.667	0.000	0	306948	50.0	52.2	
92 o-Xylene	106	11.050	11.050	0.000	96	288885	50.0	51.5	
93 Styrene	104	11.068	11.068	0.000	95	498873	50.0	52.6	
94 Bromoform	173	11.257	11.257	0.000	96	67829	50.0	46.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.324	0.000	97	216286	50.0	49.5	
97 Isopropylbenzene	105	11.421	11.421	0.000	95	726432	50.0	53.1	
100 Bromobenzene	156	11.738	11.738	0.000	94	163748	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.738	0.000	95	211912	50.0	51.9	
102 trans-1,4-Dichloro-2-buten	53	11.780	11.780	0.000	83	49334	50.0	48.3	
101 1,2,3-Trichloropropane	110	11.792	11.792	0.000	85	72643	50.0	51.9	
103 N-Propylbenzene	120	11.841	11.841	0.000	98	198029	50.0	51.1	
104 2-Chlorotoluene	126	11.926	11.926	0.000	97	167713	50.0	50.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.999	0.000	96	185343	50.0	50.9	
106 1,3,5-Trimethylbenzene	105	12.030	12.030	0.000	94	578518	50.0	52.2	
107 4-Chlorotoluene	126	12.054	12.054	0.000	96	180584	50.0	50.0	
108 tert-Butylbenzene	119	12.346	12.346	0.000	93	480729	50.0	51.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	588662	50.0	52.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	138659	50.0	49.1	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	679839	50.0	52.6	
113 1,3-Dichlorobenzene	146	12.687	12.687	0.000	97	305374	50.0	50.4	
114 4-Isopropyltoluene	119	12.735	12.735	0.000	97	570403	50.0	53.0	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	95	315614	50.0	50.8	
116 2,4-Dichloro-1-(triflourom	214	12.827	12.827	0.000	95	125268	50.0	47.7	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.875	0.000	0	140272	50.0	49.4	
120 n-Butylbenzene	91	13.149	13.149	0.000	98	454742	50.0	51.8	
121 1,2-Dichlorobenzene	146	13.161	13.161	0.000	98	290492	50.0	50.3	
122 1,2-Dibromo-3-Chloropropan	75	13.976	13.976	0.000	85	30986	50.0	48.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.122	14.122	0.000	0	566788	150.0	154.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.554	14.554	0.000	0	380181	100.0	100.4	
126 1,2,4-Trichlorobenzene	180	14.834	14.834	0.000	93	134753	50.0	51.0	
127 Hexachlorobutadiene	225	14.992	14.992	0.000	97	49048	50.0	50.8	
128 Naphthalene	128	15.108	15.108	0.000	97	465533	50.0	51.7	
129 1,2,3-Trichlorobenzene	180	15.351	15.351	0.000	95	117120	50.0	48.5	
131 2,4,5-Trichlorotoluene	159	16.203	16.203	0.000	0	53498	50.0	46.6	
130 2,3,6-Trichlorotoluene	159	16.312	16.312	0.000	97	53869	50.0	50.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	2.00	Units: uL
voaW2clev1stR_00013	Amount Added:	2.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	6.00	Units: uL
voaWVA1stRest_00017	Amount Added:	2.00	Units: uL
voaWEEmix1stR_00009	Amount Added:	2.00	Units: uL
voaWKetmix1st_00004	Amount Added:	2.00	Units: uL

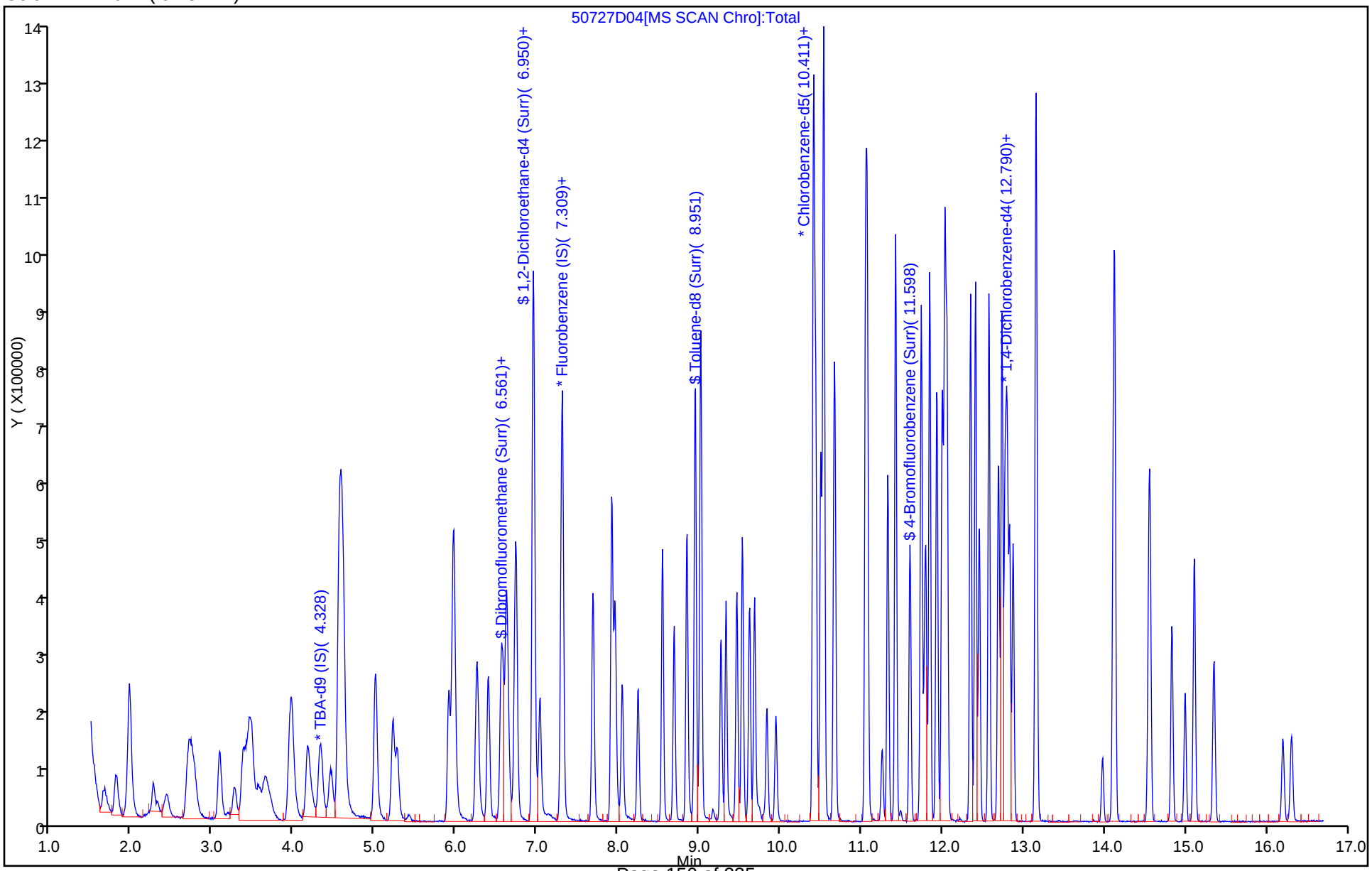
Report Date: 28-Jul-2017 01:04:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D

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

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

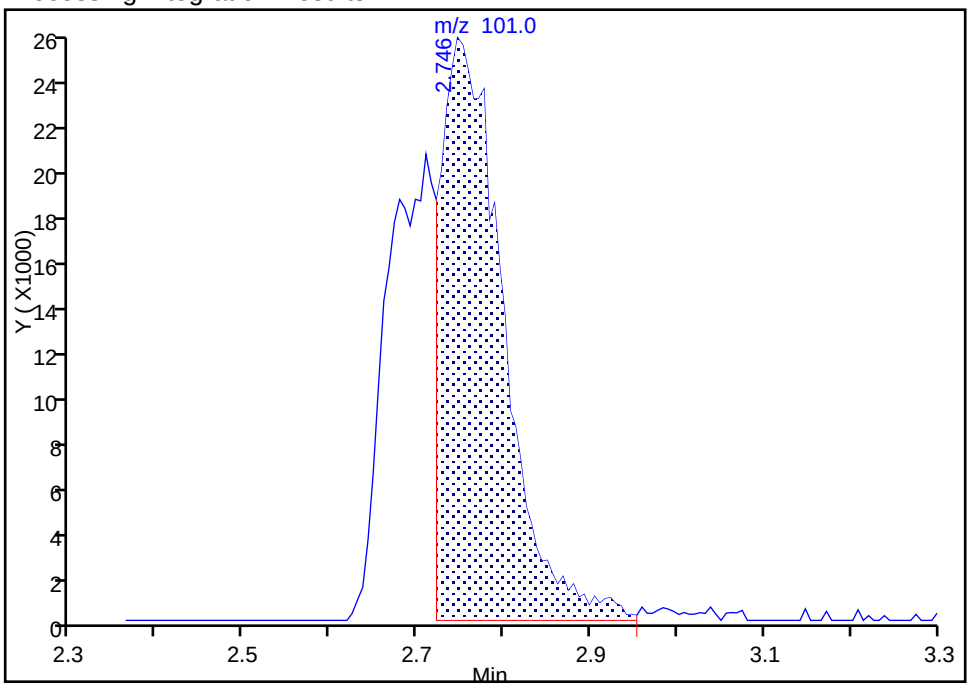
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D				
Injection Date:	27-Jul-2017 01:39:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

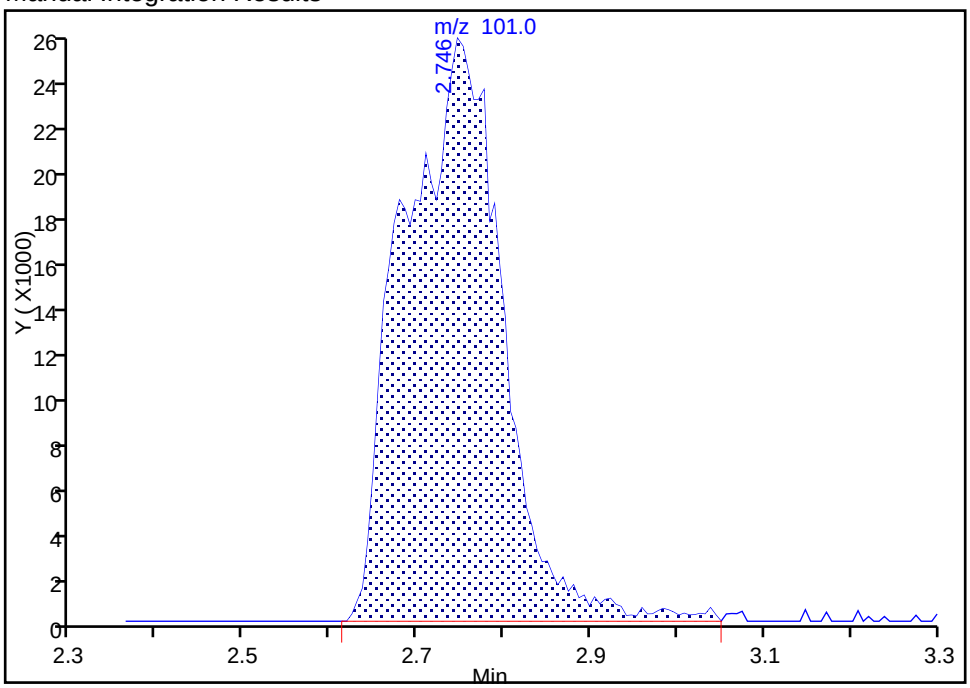
Processing Integration Results

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



Manual Integration Results

RT: 2.75
Area: 205127
Amount: 52.160696
Amount Units: ng



Reviewer: bungardf, 27-Jul-2017 03:15:11

Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

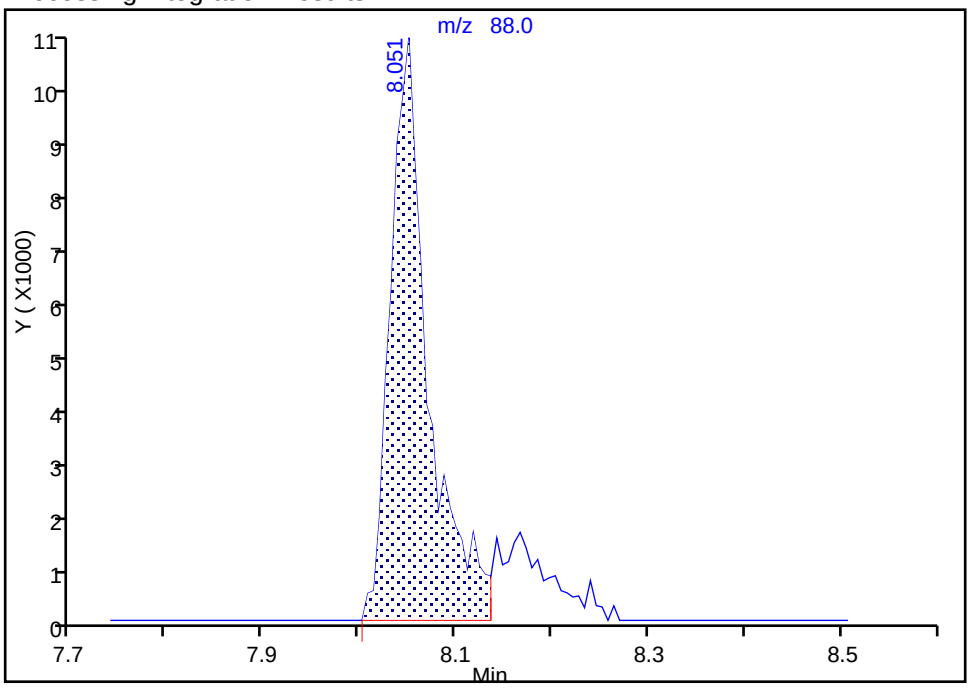
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D				
Injection Date:	27-Jul-2017 01:39:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

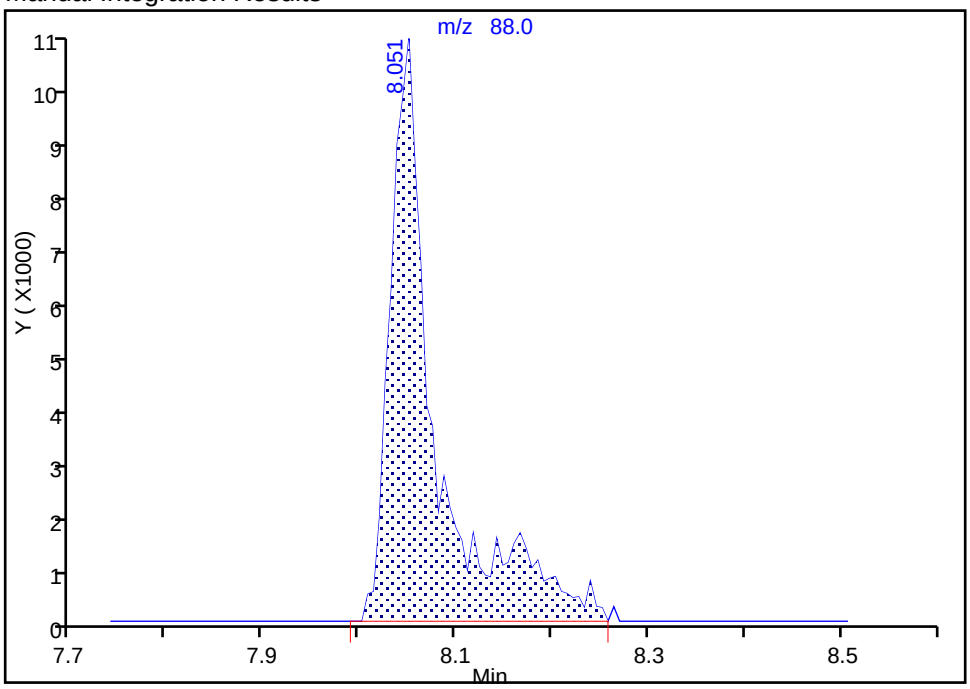
Processing Integration Results

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



Manual Integration Results

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



Reviewer: bungardf, 27-Jul-2017 03:15:41

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Jul-2017 02:02:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-005
Misc. Info.: IC VSTD15
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:55 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 03:16:54

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

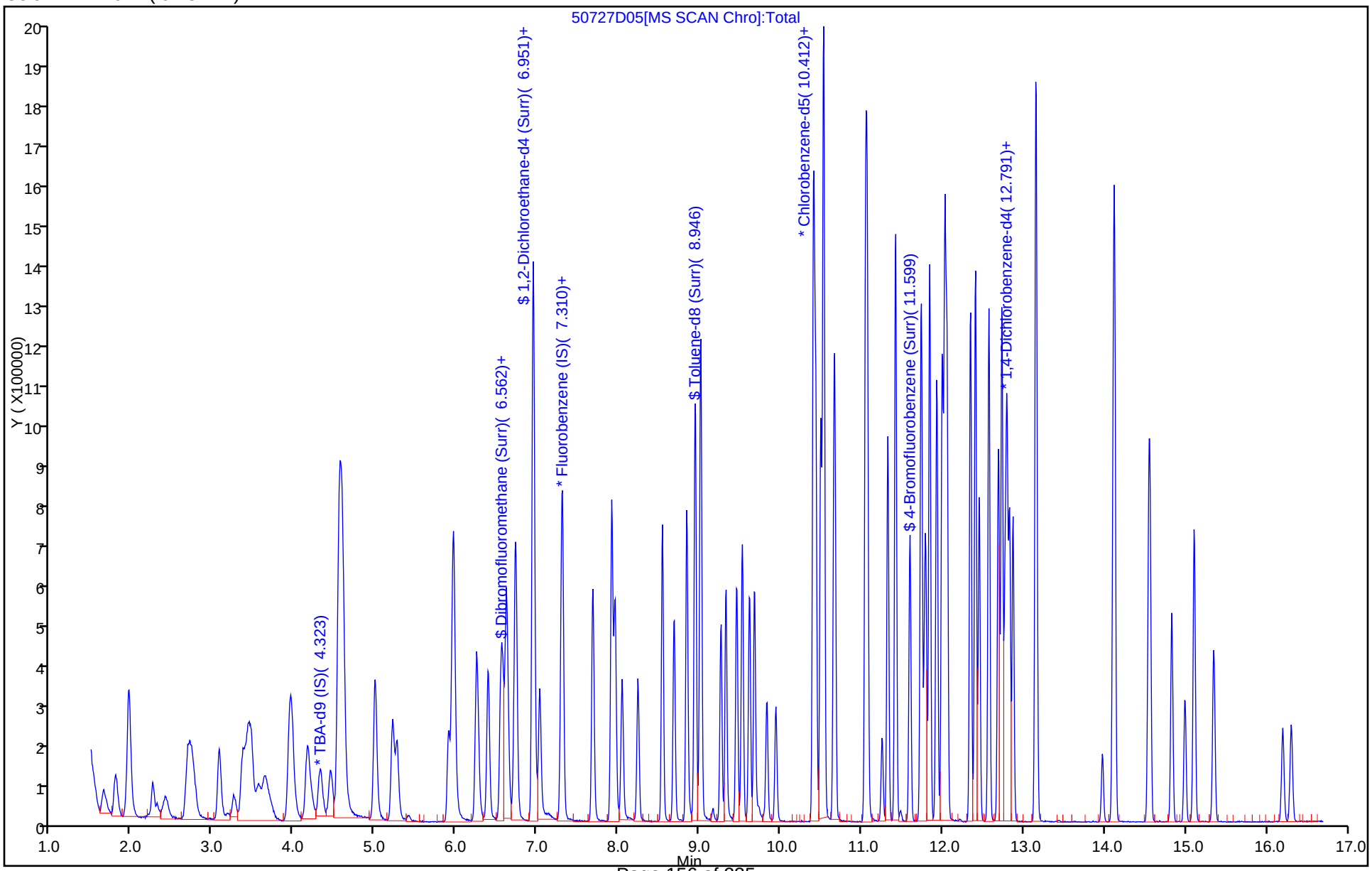
Report Date: 28-Jul-2017 01:04:56 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	27-Jul-2017 02:02:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD15			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Jul-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-006
Misc. Info.: IC VSTD20
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:04:58 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 03:06:29

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

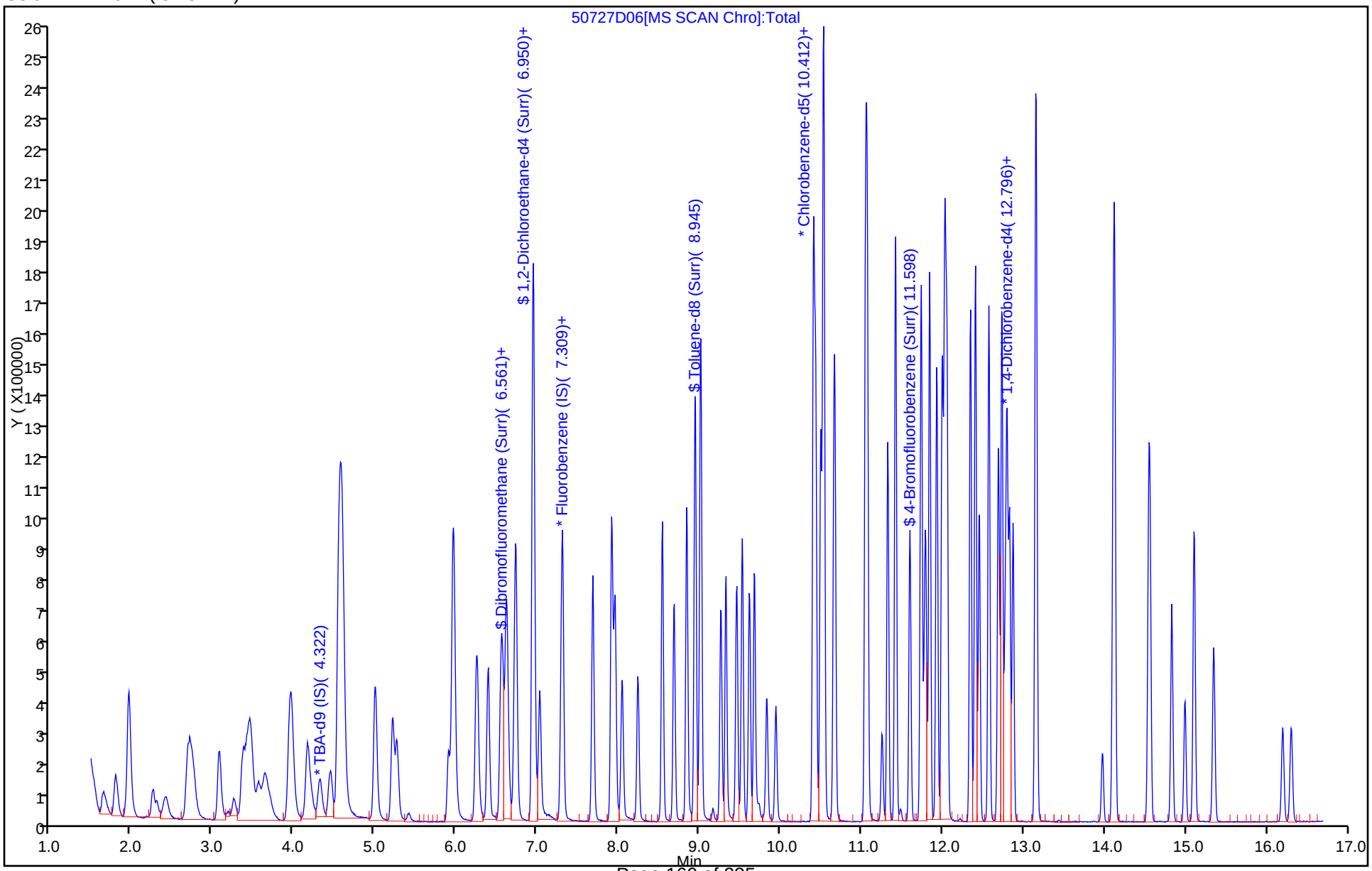
Report Date: 28-Jul-2017 01:04:59 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	27-Jul-2017 02:26:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD20			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Jul-2017 03:13:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-008
Misc. Info.: IC VSTD40
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:02 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 03:34:06

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

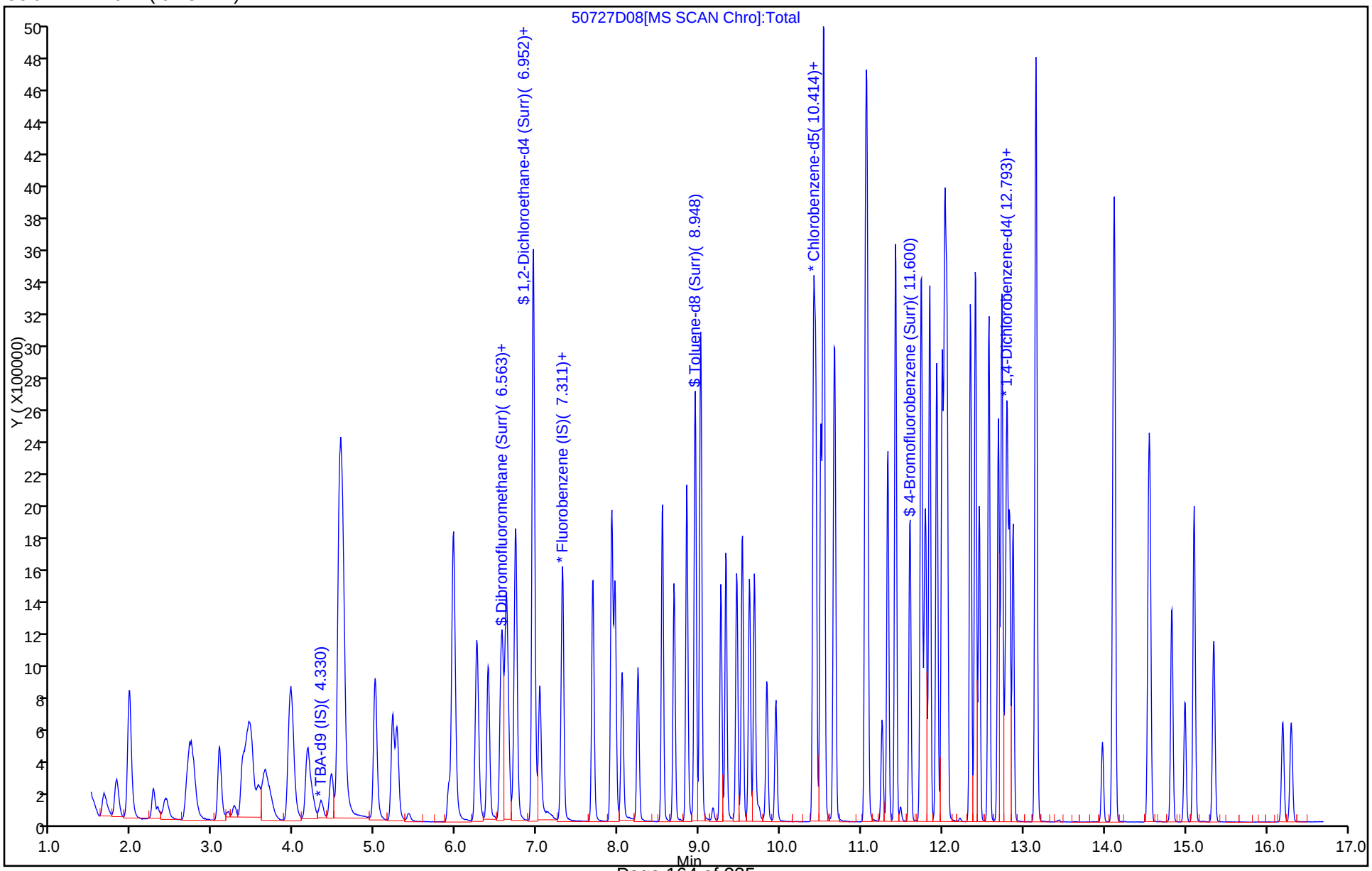
Report Date: 28-Jul-2017 01:05:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	27-Jul-2017 03:13:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD40			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Jul-2017 04:00:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-010
Misc. Info.: IC VSTD35
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:06 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 04:42:28

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

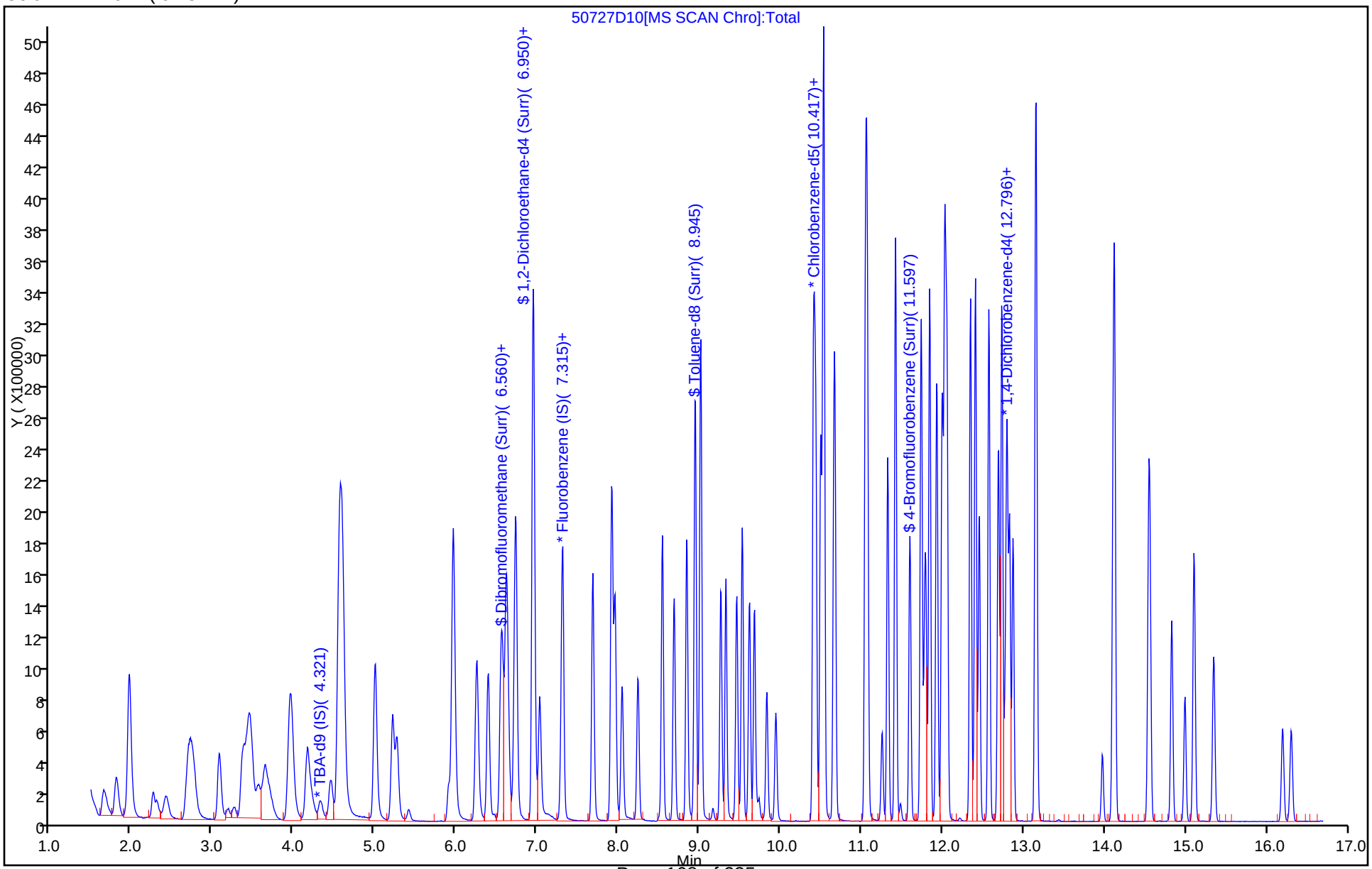
Report Date: 28-Jul-2017 01:05:07 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	27-Jul-2017 04:00:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD35			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Jul-2017 04:24:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017756-011
Misc. Info.: IC VSTD50
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

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

First Level Reviewer: bungardf Date: 27-Jul-2017 05:09:00

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

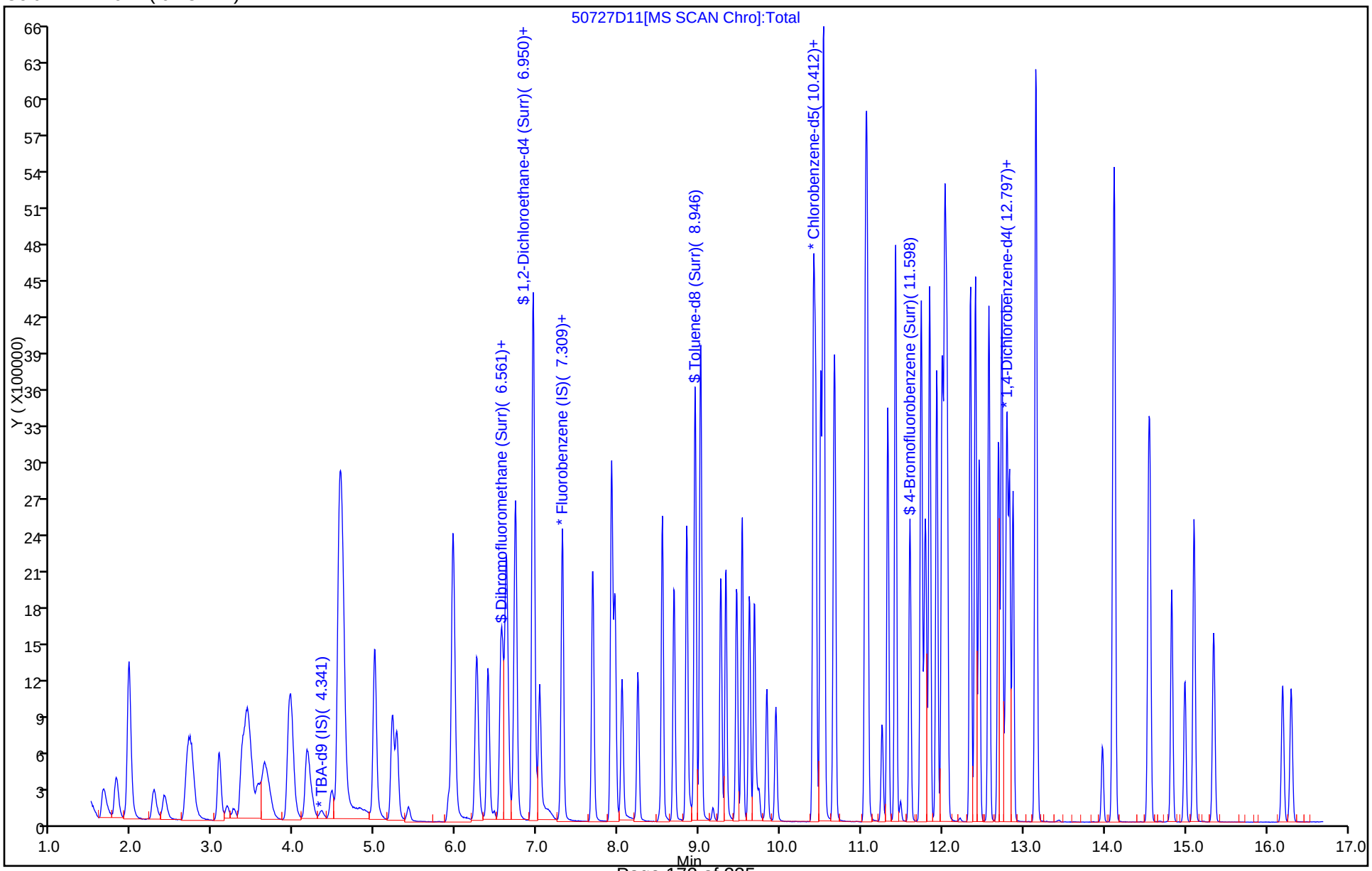
Report Date: 28-Jul-2017 01:05:09 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	27-Jul-2017 04:24:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	IC VSTD50			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab Sample ID: CCVIS 180-224374/2 Calibration Date: 09/28/2017 22:04

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 50928D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.3189	0.1000	11.0	10.0	9.7	20.0
Chloromethane	Ave	0.2922	0.3458	0.1000	11.8	10.0	18.3	20.0
Vinyl chloride	Ave	0.2965	0.3195	0.1000	10.8	10.0	7.8	20.0
1,3-Butadiene	Ave	0.2694	0.2986	0.0100	11.1	10.0	10.9	20.0
Bromomethane	Ave	0.1402	0.1452	0.0500	10.4	10.0	3.6	20.0
Chloroethane	Ave	0.1630	0.1694	0.0500	10.4	10.0	3.9	20.0
Trichlorofluoromethane	Ave	0.3643	0.4015	0.1000	11.0	10.0	10.2	20.0
Ethyl ether	Ave	0.2370	0.2519	0.0100	10.6	10.0	6.3	20.0
Acrolein	Ave	0.0597	0.0486	0.0100	24.4	30.0	-18.6	20.0
1,1-Dichloroethene	Ave	0.2448	0.2713	0.1000	11.1	10.0	10.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.3000	0.1000	11.2	10.0	11.7	20.0
Acetone	Ave	0.1308	0.1275	0.0500	19.5	20.0	-2.5	20.0
Iodomethane	Ave	0.3845	0.3804	0.0100	9.89	10.0	-1.1	20.0
Carbon disulfide	Ave	0.5372	0.5832	0.1000	10.9	10.0	8.6	20.0
Allyl chloride	Ave	0.1582	0.1563	0.0100	9.88	10.0	-1.2	20.0
Methyl acetate	Ave	0.2589	0.2646	0.1000	20.4	20.0	2.2	20.0
Methylene Chloride	Lin2		0.2940	0.1000	9.68	10.0	-3.2	20.0
tert-Butyl alcohol	Ave	1.183	1.173	0.0100	99.2	100	-0.8	20.0
Acrylonitrile	Ave	0.1259	0.1318	0.0100	105	100	4.7	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.3161	0.1000	11.3	10.0	13.3	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7237	0.1000	9.68	10.0	-3.2	20.0
Hexane	Ave	0.3580	0.3654	0.0100	10.2	10.0	2.1	20.0
1,1-Dichloroethane	Ave	0.4850	0.4921	0.2000	10.1	10.0	1.5	20.0
Vinyl acetate	Ave	0.4932	0.5039	0.0100	10.2	10.0	2.2	20.0
2,2-Dichloropropane	Ave	0.0617	0.0666	0.0100	10.8	10.0	7.9	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3197	0.1000	10.0	10.0	0.2	20.0
2-Butanone (MEK)	Ave	0.1861	0.1664	0.0500	17.9	20.0	-10.6	20.0
Bromochloromethane	Ave	0.1418	0.1339	0.0100	9.44	10.0	-5.6	20.0
Tetrahydrofuran	Ave	0.1084	0.0966	0.0100	17.8	20.0	-10.9	20.0
Chloroform	Ave	0.4843	0.4918	0.2000	10.2	10.0	1.6	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.4023	0.1000	11.0	10.0	9.8	20.0
Cyclohexane	Ave	0.4524	0.4748	0.1000	10.5	10.0	5.0	20.0
Carbon tetrachloride	Ave	0.3051	0.3260	0.1000	10.7	10.0	6.9	20.0
1,1-Dichloropropene	Ave	0.3961	0.3997	0.0100	10.1	10.0	0.9	20.0
Isobutyl alcohol	Ave	0.0099	0.0100	0.0100	250	250	0.2	20.0
Benzene	Ave	1.216	1.197	0.5000	9.84	10.0	-1.6	20.0
1,2-Dichloroethane	Ave	0.3544	0.3609	0.1000	10.2	10.0	1.8	20.0
n-Heptane	Ave	0.2863	0.3165	0.0100	11.1	10.0	10.6	20.0
Trichloroethene	Ave	0.3059	0.2886	0.2000	9.43	10.0	-5.7	20.0
Methylcyclohexane	Ave	0.4626	0.4283	0.1000	9.26	10.0	-7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab Sample ID: CCVIS 180-224374/2 Calibration Date: 09/28/2017 22:04

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 50928D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2662	0.1000	9.40	10.0	-6.0	20.0
1,4-Dioxane	Ave	0.0029	0.0024*	0.0100	167	200	-16.3	20.0
Dibromomethane	Ave	0.1659	0.1506	0.0100	9.08	10.0	-9.2	20.0
Bromodichloromethane	Ave	0.3256	0.3044	0.2000	9.35	10.0	-6.5	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1386	0.0100	13.6	20.0	-32.0*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3546	0.2000	8.97	10.0	-10.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.379	0.1000	21.5	20.0	7.6	20.0
Toluene	Ave	4.986	5.902	0.4000	11.8	10.0	18.4	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.459	0.1000	10.8	10.0	7.5	20.0
Ethyl methacrylate	Ave	1.636	1.516	0.0100	9.27	10.0	-7.3	20.0
1,1,2-Trichloroethane	Ave	1.039	1.154	0.1000	11.1	10.0	11.1	20.0
Tetrachloroethene	Ave	0.9508	1.103	0.2000	11.6	10.0	16.0	20.0
1,3-Dichloropropane	Ave	1.920	1.961	0.0100	10.2	10.0	2.2	20.0
2-Hexanone	Ave	0.9836	0.9364	0.1000	19.0	20.0	-4.8	20.0
Dibromochloromethane	Ave	0.8779	0.9579	0.1000	10.9	10.0	9.1	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.078	0.1000	10.1	10.0	1.2	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.929	0.0100	11.2	10.0	12.3	20.0
Chlorobenzene	Ave	3.246	3.523	0.5000	10.9	10.0	8.6	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.836	0.0100	11.6	10.0	15.8	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.180	0.0100	11.4	10.0	14.4	20.0
Ethylbenzene	Ave	1.812	1.979	0.1000	10.9	10.0	9.2	20.0
m-Xylene & p-Xylene	Ave	2.214	2.460	0.1000	11.1	10.0	11.1	20.0
o-Xylene	Ave	2.110	2.267	0.3000	10.7	10.0	7.4	20.0
Styrene	Ave	3.571	3.801	0.3000	10.6	10.0	6.4	20.0
Bromoform	Ave	0.5456	0.5485	0.1000	10.1	10.0	0.5	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.881	0.0100	11.4	10.0	14.4	20.0
Isopropylbenzene	Ave	5.150	5.893	0.1000	11.4	10.0	14.4	20.0
Bromobenzene	Ave	0.9704	0.9135	0.0100	9.41	10.0	-5.9	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.651	0.3000	10.7	10.0	7.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3009	0.0100	10.3	10.0	2.8	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.4147	0.0100	10.4	10.0	3.5	20.0
N-Propylbenzene	Ave	1.109	1.131	0.0100	10.2	10.0	2.0	20.0
2-Chlorotoluene	Ave	0.9585	0.9670	0.0100	10.1	10.0	0.9	20.0
3-Chlorotoluene	Ave	1.043	1.071	0.0100	10.3	10.0	2.7	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.410	0.0100	10.7	10.0	7.5	20.0
4-Chlorotoluene	Ave	1.035	1.029	0.0100	9.94	10.0	-0.6	20.0
tert-Butylbenzene	Ave	2.653	2.610	0.0100	9.84	10.0	-1.6	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.285	0.0100	10.2	10.0	1.9	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.8138	0.0100	10.1	10.0	0.7	20.0
sec-Butylbenzene	Ave	3.701	3.813	0.0100	10.3	10.0	3.0	20.0
1,3-Dichlorobenzene	Ave	1.734	1.660	0.6000	9.57	10.0	-4.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab Sample ID: CCVIS 180-224374/2 Calibration Date: 09/28/2017 22:04

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 50928D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	3.142	0.0100	10.2	10.0	1.9	20.0
1,4-Dichlorobenzene	Ave	1.780	1.732	0.5000	9.73	10.0	-2.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7274	0.0100	9.67	10.0	-3.3	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.8116	0.0100	9.99	10.0	-0.1	20.0
n-Butylbenzene	Ave	2.514	2.602	0.0100	10.3	10.0	3.5	20.0
1,2-Dichlorobenzene	Ave	1.653	1.591	0.4000	9.63	10.0	-3.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1758	0.0500	9.58	10.0	-4.2	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	0.9910	0.0100	28.4	30.0	-5.5	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	0.9464	0.0100	17.5	20.0	-12.7	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5727	0.2000	7.57	10.0	-24.3*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2667	0.0100	9.64	10.0	-3.6	20.0
Naphthalene	Ave	2.576	1.810	0.0100	7.03	10.0	-29.7*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4998	0.0100	7.23	10.0	-27.7*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.1995	0.0100	6.08	10.0	-39.2*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.1879	0.0100	6.15	10.0	-38.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2293		9.53	10.0	-4.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3075		10.5	10.0	4.8	20.0
Toluene-d8 (Surr)	Ave	3.979	4.664		11.7	10.0	17.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.564		10.9	10.0	8.8	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D02.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 28-Sep-2017 22:04:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub29

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:20:22 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 28-Sep-2017 23:27:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.364	0.000	0	218138	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.333	0.000	98	473950	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.424	10.424	0.000	85	93314	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.766	0.000	96	134302	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.609	6.609	0.000	93	108678	50.0	47.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.980	6.980	0.000	0	145749	50.0	52.4	
$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	435226	50.0	58.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	85	145915	50.0	54.4	
11 Dichlorodifluoromethane	85	1.676	1.676	0.000	99	151157	50.0	54.8	
12 Chloromethane	50	1.816	1.816	0.000	99	163884	50.0	59.2	
13 Vinyl chloride	62	1.955	1.955	0.000	98	151443	50.0	53.9	
14 Butadiene	39	1.986	1.986	0.000	94	141542	50.0	55.4	
15 Bromomethane	94	2.296	2.296	0.000	92	68830	50.0	51.8	
16 Chloroethane	64	2.454	2.454	0.000	99	80265	50.0	52.0	
17 Dichlorofluoromethane	67	2.734	2.734	0.000	97	226180	50.0	57.9	
18 Trichlorofluoromethane	101	2.777	2.777	0.000	98	190302	50.0	55.1	
20 Ethyl ether	59	3.117	3.117	0.000	93	119396	50.0	53.1	
21 Acrolein	56	3.312	3.312	0.000	96	69080	150.0	122.0	
22 1,1-Dichloroethene	96	3.415	3.415	0.000	97	128594	50.0	55.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.495	3.495	0.000	93	142166	50.0	55.8	
24 Acetone	43	3.525	3.525	0.000	99	120831	100.0	97.5	
25 Iodomethane	142	3.610	3.610	0.000	97	180279	50.0	49.5	
26 Carbon disulfide	76	3.707	3.707	0.000	99	276425	50.0	54.3	
28 3-Chloro-1-propene	76	3.993	3.993	0.000	92	74087	50.0	49.4	
30 Methyl acetate	43	4.036	4.036	0.000	98	250788	100.0	102.2	
31 Methylene Chloride	84	4.225	4.225	0.000	91	139322	50.0	48.4	
32 2-Methyl-2-propanol	59	4.492	4.492	0.000	93	127900	500.0	495.8	
33 Acrylonitrile	53	4.608	4.608	0.000	100	624476	500.0	523.3	
34 trans-1,2-Dichloroethene	96	4.632	4.632	0.000	99	149814	50.0	56.7	
35 Methyl tert-butyl ether	73	4.650	4.650	0.000	96	342976	50.0	48.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.046	5.046	0.000	93	173181	50.0	51.0	
37 1,1-Dichloroethane	63	5.265	5.265	0.000	96	233235	50.0	50.7	
38 Vinyl acetate	43	5.314	5.314	0.000	97	238809	50.0	51.1	
44 2,2-Dichloropropane	97	6.001	6.001	0.000	61	31586	50.0	54.0	
45 cis-1,2-Dichloroethene	96	6.001	6.001	0.000	81	151505	50.0	50.1	
46 2-Butanone (MEK)	43	6.013	6.013	0.000	99	157679	100.0	89.4	
49 Chlorobromomethane	128	6.293	6.293	0.000	97	63440	50.0	47.2	
51 Tetrahydrofuran	42	6.305	6.305	0.000	87	91561	100.0	89.1	
52 Chloroform	83	6.433	6.433	0.000	93	233100	50.0	50.8	
53 1,1,1-Trichloroethane	97	6.591	6.591	0.000	97	190680	50.0	54.9	
54 Cyclohexane	56	6.664	6.664	0.000	92	225025	50.0	52.5	
56 Carbon tetrachloride	117	6.761	6.761	0.000	97	154491	50.0	53.4	
55 1,1-Dichloropropene	75	6.780	6.780	0.000	97	189423	50.0	50.5	
57 Isobutyl alcohol	41	6.980	6.980	0.000	89	118082	1250.0	1252.1	
58 Benzene	78	6.993	6.993	0.000	97	567268	50.0	49.2	
59 1,2-Dichloroethane	62	7.066	7.066	0.000	97	171066	50.0	50.9	
62 n-Heptane	43	7.351	7.351	0.000	89	150018	50.0	55.3	
64 Trichloroethene	130	7.716	7.716	0.000	99	136765	50.0	47.2	
66 Methylcyclohexane	83	7.954	7.954	0.000	89	202970	50.0	46.3	
67 1,2-Dichloropropane	63	7.990	7.990	0.000	92	126150	50.0	47.0	
70 1,4-Dioxane	88	8.075	8.075	0.000	45	22839	1000.0	837.0	
68 Dibromomethane	93	8.075	8.075	0.000	97	71382	50.0	45.4	
71 Dichlorobromomethane	83	8.270	8.270	0.000	99	144288	50.0	46.7	
73 2-Chloroethyl vinyl ether	63	8.574	8.574	0.000	93	131363	100.0	68.0	
74 cis-1,3-Dichloropropene	75	8.714	8.714	0.000	95	168043	50.0	44.8	
75 4-Methyl-2-pentanone (MIBK	43	8.872	8.872	0.000	98	257435	100.0	107.6	
76 Toluene	91	9.043	9.043	0.000	99	550757	50.0	59.2	
77 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	94	136143	50.0	53.8	
78 Ethyl methacrylate	69	9.353	9.353	0.000	89	141494	50.0	46.3	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	90	107640	50.0	55.5	
80 Tetrachloroethene	164	9.554	9.554	0.000	97	102942	50.0	58.0	
81 1,3-Dichloropropane	76	9.645	9.645	0.000	91	183030	50.0	51.1	
82 2-Hexanone	43	9.706	9.706	0.000	98	174758	100.0	95.2	
84 Chlorodibromomethane	129	9.852	9.852	0.000	89	89389	50.0	54.6	
85 Ethylene Dibromide	107	9.967	9.967	0.000	99	100562	50.0	50.6	
86 3-Chlorobenzotrifluoride	180	10.430	10.430	0.000	88	179990	50.0	56.1	
87 Chlorobenzene	112	10.454	10.454	0.000	94	328755	50.0	54.3	
88 4-Chlorobenzotrifluoride	180	10.515	10.515	0.000	96	171325	50.0	57.9	
89 1,1,1,2-Tetrachloroethane	131	10.545	10.545	0.000	93	110147	50.0	57.2	
90 Ethylbenzene	106	10.557	10.557	0.000	98	184684	50.0	54.6	
91 m-Xylene & p-Xylene	106	10.685	10.685	0.000	0	229516	50.0	55.5	
92 o-Xylene	106	11.068	11.068	0.000	97	211522	50.0	53.7	
93 Styrene	104	11.087	11.087	0.000	94	354659	50.0	53.2	
94 Bromoform	173	11.269	11.269	0.000	94	51183	50.0	50.3	
96 2-Chlorobenzotrifluoride	180	11.336	11.336	0.000	95	175549	50.0	57.2	
97 Isopropylbenzene	105	11.433	11.433	0.000	96	549905	50.0	57.2	
100 Bromobenzene	156	11.744	11.744	0.000	96	122678	50.0	47.1	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.750	0.000	84	154043	50.0	53.7	
102 trans-1,4-Dichloro-2-buten	53	11.780	11.780	0.000	82	40405	50.0	51.4	
101 1,2,3-Trichloropropane	110	11.805	11.805	0.000	84	55697	50.0	51.8	
103 N-Propylbenzene	120	11.853	11.853	0.000	99	151845	50.0	51.0	
104 2-Chlorotoluene	126	11.938	11.938	0.000	97	129867	50.0	50.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.005	12.005	0.000	97	143862	50.0	51.4	
106 1,3,5-Trimethylbenzene	105	12.036	12.036	0.000	94	457958	50.0	53.7	
107 4-Chlorotoluene	126	12.060	12.060	0.000	96	138248	50.0	49.7	
108 tert-Butylbenzene	119	12.346	12.346	0.000	94	350503	50.0	49.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	441232	50.0	50.9	
111 1,2-dichloro-4-(trifluorom	214	12.449	12.449	0.000	94	109296	50.0	50.4	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	512087	50.0	51.5	
113 1,3-Dichlorobenzene	146	12.687	12.687	0.000	96	222914	50.0	47.9	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	96	422017	50.0	51.0	
115 1,4-Dichlorobenzene	146	12.790	12.790	0.000	95	232663	50.0	48.7	
116 2,4-Dichloro-1-(triflourom	214	12.821	12.821	0.000	95	97686	50.0	48.3	
118 2,5-Dichlorobenzotrifluori	214	12.863	12.863	0.000	0	109003	50.0	49.9	
120 n-Butylbenzene	91	13.137	13.137	0.000	98	349491	50.0	51.7	
121 1,2-Dichlorobenzene	146	13.149	13.149	0.000	96	213676	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.940	13.940	0.000	78	23614	50.0	47.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.080	14.080	0.000	0	399290	150.0	141.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.500	14.500	0.000	0	254200	100.0	87.3	
126 1,2,4-Trichlorobenzene	180	14.761	14.761	0.000	93	76910	50.0	37.9	
127 Hexachlorobutadiene	225	14.907	14.907	0.000	96	35817	50.0	48.2	
128 Naphthalene	128	15.029	15.029	0.000	97	243133	50.0	35.1	
129 1,2,3-Trichlorobenzene	180	15.254	15.254	0.000	96	67120	50.0	36.2	
131 2,4,5-Trichlorotoluene	159	16.026	16.026	0.000	0	26797	50.0	30.4	
130 2,3,6-Trichlorotoluene	159	16.124	16.124	0.000	95	25234	50.0	30.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	106.8	
S 133 Xylenes, Total	106				0		100.0	109.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	98.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00017	Amount Added:	6.00	Units: uL	
VOA8260VOA2ND_00266	Amount Added:	2.00	Units: uL	
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00022	Amount Added:	2.00	Units: uL	
voaWVA1stRest_00020	Amount Added:	2.00	Units: uL	
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

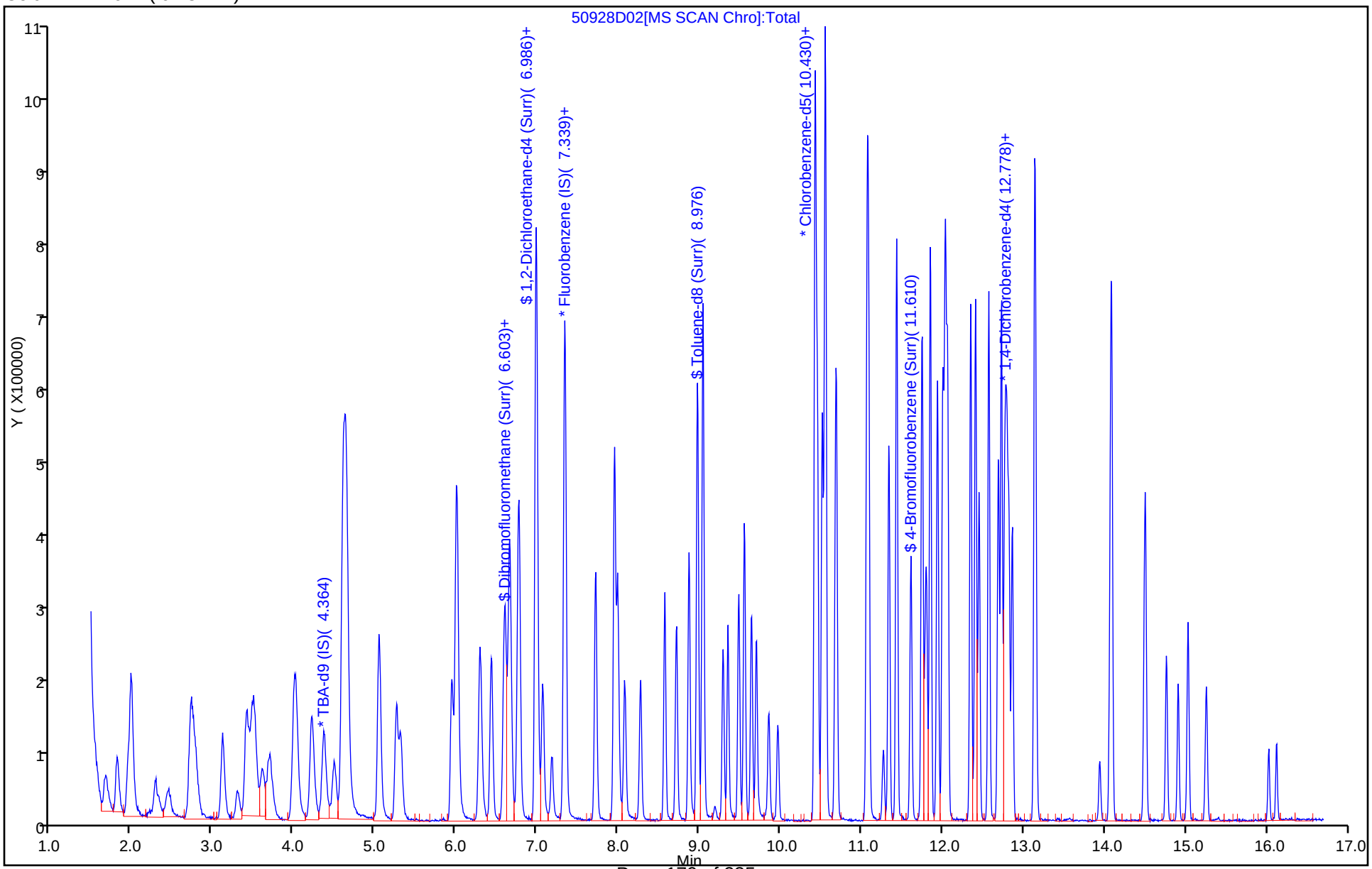
Report Date: 01-Oct-2017 21:20:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D02.D

Injection Date:	28-Sep-2017 22:04:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab Sample ID: CCVIS 180-224557/2 Calibration Date: 10/01/2017 22:56

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51001D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.2892	0.1000	9.95	10.0	-0.5	20.0
Chloromethane	Ave	0.2922	0.3118	0.1000	10.7	10.0	6.7	20.0
Vinyl chloride	Ave	0.2965	0.3148	0.1000	10.6	10.0	6.2	20.0
1,3-Butadiene	Ave	0.2694	0.2874	0.0100	10.7	10.0	6.7	20.0
Bromomethane	Ave	0.1402	0.1349	0.0500	9.62	10.0	-3.8	20.0
Chloroethane	Ave	0.1630	0.1667	0.0500	10.2	10.0	2.3	20.0
Trichlorofluoromethane	Ave	0.3643	0.4193	0.1000	11.5	10.0	15.1	20.0
Ethyl ether	Ave	0.2370	0.2462	0.0100	10.4	10.0	3.9	20.0
Acrolein	Ave	0.0597	0.0470	0.0100	23.6	30.0	-21.4*	20.0
1,1-Dichloroethene	Ave	0.2448	0.2650	0.1000	10.8	10.0	8.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2911	0.1000	10.8	10.0	8.4	20.0
Acetone	Ave	0.1308	0.1160	0.0500	17.7	20.0	-11.3	20.0
Iodomethane	Ave	0.3845	0.3712	0.0100	9.66	10.0	-3.4	20.0
Carbon disulfide	Ave	0.5372	0.5997	0.1000	11.2	10.0	11.6	20.0
Allyl chloride	Ave	0.1582	0.1535	0.0100	9.71	10.0	-2.9	20.0
Methyl acetate	Ave	0.2589	0.2666	0.1000	20.6	20.0	3.0	20.0
Methylene Chloride	Lin2		0.2849	0.1000	9.36	10.0	-6.4	20.0
tert-Butyl alcohol	Ave	1.183	1.294	0.0100	109	100	9.4	20.0
Acrylonitrile	Ave	0.1259	0.1315	0.0100	104	100	4.4	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2974	0.1000	10.7	10.0	6.6	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6926	0.1000	9.26	10.0	-7.4	20.0
Hexane	Ave	0.3580	0.3557	0.0100	9.93	10.0	-0.7	20.0
1,1-Dichloroethane	Ave	0.4850	0.4814	0.2000	9.93	10.0	-0.7	20.0
Vinyl acetate	Ave	0.4932	0.4525	0.0100	9.17	10.0	-8.3	20.0
2,2-Dichloropropane	Ave	0.0617	0.0669	0.0100	10.8	10.0	8.4	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3010	0.1000	9.44	10.0	-5.6	20.0
2-Butanone (MEK)	Ave	0.1861	0.1613	0.0500	17.3	20.0	-13.3	20.0
Bromochloromethane	Ave	0.1418	0.1259	0.0100	8.88	10.0	-11.2	20.0
Tetrahydrofuran	Ave	0.1084	0.0961	0.0100	17.7	20.0	-11.4	20.0
Chloroform	Ave	0.4843	0.4717	0.2000	9.74	10.0	-2.6	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3977	0.1000	10.8	10.0	8.5	20.0
Cyclohexane	Ave	0.4524	0.4447	0.1000	9.83	10.0	-1.7	20.0
Carbon tetrachloride	Ave	0.3051	0.3263	0.1000	10.7	10.0	7.0	20.0
1,1-Dichloropropene	Ave	0.3961	0.3742	0.0100	9.45	10.0	-5.5	20.0
Isobutyl alcohol	Ave	0.0099	0.0101	0.0100	254	250	1.6	20.0
Benzene	Ave	1.216	1.152	0.5000	9.48	10.0	-5.2	20.0
1,2-Dichloroethane	Ave	0.3544	0.3484	0.1000	9.83	10.0	-1.7	20.0
n-Heptane	Ave	0.2863	0.2921	0.0100	10.2	10.0	2.0	20.0
Trichloroethene	Ave	0.3059	0.2839	0.2000	9.28	10.0	-7.2	20.0
Methylcyclohexane	Ave	0.4626	0.4024	0.1000	8.70	10.0	-13.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab Sample ID: CCVIS 180-224557/2 Calibration Date: 10/01/2017 22:56

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51001D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2488	0.1000	8.79	10.0	-12.1	20.0
1,4-Dioxane	Ave	0.0029	0.0029*	0.0100	199	200	-0.4	20.0
Dibromomethane	Ave	0.1659	0.1488	0.0100	8.97	10.0	-10.3	20.0
Bromodichloromethane	Ave	0.3256	0.3125	0.2000	9.60	10.0	-4.0	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1290	0.0100	12.7	20.0	-36.7*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3439	0.2000	8.70	10.0	-13.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.291	0.1000	20.1	20.0	0.7	20.0
Toluene	Ave	4.986	5.526	0.4000	11.1	10.0	10.8	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.370	0.1000	10.1	10.0	1.0	20.0
Ethyl methacrylate	Ave	1.636	1.433	0.0100	8.76	10.0	-12.4	20.0
1,1,2-Trichloroethane	Ave	1.039	1.125	0.1000	10.8	10.0	8.3	20.0
Tetrachloroethene	Ave	0.9508	1.054	0.2000	11.1	10.0	10.9	20.0
1,3-Dichloropropane	Ave	1.920	1.850	0.0100	9.63	10.0	-3.7	20.0
2-Hexanone	Ave	0.9836	0.9517	0.1000	19.4	20.0	-3.2	20.0
Dibromochloromethane	Ave	0.8779	0.9686	0.1000	11.0	10.0	10.3	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.062	0.1000	9.97	10.0	-0.3	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.988	0.0100	11.6	10.0	15.7	20.0
Chlorobenzene	Ave	3.246	3.317	0.5000	10.2	10.0	2.2	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.937	0.0100	12.2	10.0	22.1*	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.154	0.0100	11.2	10.0	11.8	20.0
Ethylbenzene	Ave	1.812	1.819	0.1000	10.0	10.0	0.4	20.0
m-Xylene & p-Xylene	Ave	2.214	2.250	0.1000	10.2	10.0	1.6	20.0
o-Xylene	Ave	2.110	2.076	0.3000	9.84	10.0	-1.6	20.0
Styrene	Ave	3.571	3.601	0.3000	10.1	10.0	0.8	20.0
Bromoform	Ave	0.5456	0.5824	0.1000	10.7	10.0	6.7	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.924	0.0100	11.7	10.0	17.0	20.0
Isopropylbenzene	Ave	5.150	5.477	0.1000	10.6	10.0	6.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.566	0.3000	10.2	10.0	1.8	20.0
Bromobenzene	Ave	0.9704	0.8617	0.0100	8.88	10.0	-11.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3438	0.0100	11.7	10.0	17.5	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3971	0.0100	9.91	10.0	-0.9	20.0
N-Propylbenzene	Ave	1.109	1.086	0.0100	9.79	10.0	-2.1	20.0
2-Chlorotoluene	Ave	0.9585	0.9270	0.0100	9.67	10.0	-3.3	20.0
3-Chlorotoluene	Ave	1.043	1.059	0.0100	10.2	10.0	1.6	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.257	0.0100	10.3	10.0	2.6	20.0
4-Chlorotoluene	Ave	1.035	1.018	0.0100	9.84	10.0	-1.6	20.0
tert-Butylbenzene	Ave	2.653	2.490	0.0100	9.39	10.0	-6.1	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.249	0.0100	10.1	10.0	0.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.9088	0.0100	11.2	10.0	12.5	20.0
sec-Butylbenzene	Ave	3.701	3.652	0.0100	9.87	10.0	-1.3	20.0
1,3-Dichlorobenzene	Ave	1.734	1.613	0.6000	9.30	10.0	-7.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Lab Sample ID: CCVIS 180-224557/2 Calibration Date: 10/01/2017 22:56

Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/27/2017 04:24

Lab File ID: 51001D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	3.046	0.0100	9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.780	1.714	0.5000	9.63	10.0	-3.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7386	0.0100	9.82	10.0	-1.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.9272	0.0100	11.4	10.0	14.1	20.0
n-Butylbenzene	Ave	2.514	2.454	0.0100	9.76	10.0	-2.4	20.0
1,2-Dichlorobenzene	Ave	1.653	1.564	0.4000	9.47	10.0	-5.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1839	0.0500	10.0	10.0	0.2	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.031	0.0100	29.5	30.0	-1.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	0.9772	0.0100	18.0	20.0	-9.9	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5928	0.2000	7.84	10.0	-21.6*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2491	0.0100	9.00	10.0	-10.0	20.0
Naphthalene	Ave	2.576	1.693	0.0100	6.57	10.0	-34.3*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.5042	0.0100	7.30	10.0	-27.0*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2039	0.0100	6.21	10.0	-37.9*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.2109	0.0100	6.90	10.0	-31.0*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2144		8.91	10.0	-10.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2772		9.45	10.0	-5.5	20.0
Toluene-d8 (Surr)	Ave	3.979	4.216		10.6	10.0	6.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.497		10.4	10.0	4.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D02.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 01-Oct-2017 22:56:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018667-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub29

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:33 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 01-Oct-2017 23:30:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.364	0.000	0	153787	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.333	0.000	97	361073	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.429	0.000	85	73037	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	94	101789	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	92	77421	50.0	44.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	100103	50.0	47.2	
$ 7 Toluene-d8 (Surr)	98	8.975	8.975	0.000	93	307957	50.0	53.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.609	0.000	86	109329	50.0	52.1	
11 Dichlorodifluoromethane	85	1.669	1.669	0.000	98	104419	50.0	49.7	
12 Chloromethane	50	1.827	1.827	0.000	100	112591	50.0	53.4	
13 Vinyl chloride	62	1.973	1.973	0.000	97	113681	50.0	53.1	
14 Butadiene	39	1.991	1.991	0.000	93	103766	50.0	53.3	
15 Bromomethane	94	2.290	2.290	0.000	91	48708	50.0	48.1	
16 Chloroethane	64	2.454	2.454	0.000	99	60174	50.0	51.1	
17 Dichlorofluoromethane	67	2.734	2.734	0.000	97	169278	50.0	56.9	
18 Trichlorofluoromethane	101	2.782	2.782	0.000	96	151395	50.0	57.5	
20 Ethyl ether	59	3.117	3.117	0.000	94	88888	50.0	51.9	
21 Acrolein	56	3.299	3.299	0.000	98	50857	150.0	117.9	
22 1,1-Dichloroethene	96	3.415	3.415	0.000	97	95693	50.0	54.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.488	3.488	0.000	93	105108	50.0	54.2	
24 Acetone	43	3.518	3.518	0.000	96	83773	100.0	88.7	
25 Iodomethane	142	3.610	3.610	0.000	98	134034	50.0	48.3	
26 Carbon disulfide	76	3.707	3.707	0.000	99	216528	50.0	55.8	
28 3-Chloro-1-propene	76	4.005	4.005	0.000	92	55433	50.0	48.5	
30 Methyl acetate	43	4.023	4.023	0.000	98	192547	100.0	103.0	
31 Methylene Chloride	84	4.212	4.212	0.000	88	102883	50.0	46.8	
32 2-Methyl-2-propanol	59	4.486	4.486	0.000	93	99523	500.0	547.2	
33 Acrylonitrile	53	4.601	4.601	0.000	100	474687	500.0	522.1	
34 trans-1,2-Dichloroethene	96	4.632	4.632	0.000	99	107383	50.0	53.3	
35 Methyl tert-butyl ether	73	4.650	4.650	0.000	97	250060	50.0	46.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.051	5.051	0.000	94	128431	50.0	49.7	
37 1,1-Dichloroethane	63	5.264	5.264	0.000	96	173825	50.0	49.6	
38 Vinyl acetate	43	5.313	5.313	0.000	97	163378	50.0	45.9	
44 2,2-Dichloropropane	97	6.000	6.000	0.000	60	24159	50.0	54.2	
45 cis-1,2-Dichloroethene	96	6.013	6.013	0.000	81	108689	50.0	47.2	
46 2-Butanone (MEK)	43	6.019	6.019	0.000	89	116485	100.0	86.7	
49 Chlorobromomethane	128	6.286	6.286	0.000	96	45456	50.0	44.4	
51 Tetrahydrofuran	42	6.305	6.305	0.000	87	69381	100.0	88.6	
52 Chloroform	83	6.426	6.426	0.000	93	170333	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.597	6.597	0.000	98	143602	50.0	54.2	
54 Cyclohexane	56	6.664	6.664	0.000	90	160557	50.0	49.2	
56 Carbon tetrachloride	117	6.761	6.761	0.000	96	117809	50.0	53.5	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	96	135107	50.0	47.2	
57 Isobutyl alcohol	41	6.980	6.980	0.000	89	91250	1250.0	1270.1	
58 Benzene	78	6.992	6.992	0.000	97	416039	50.0	47.4	
59 1,2-Dichloroethane	62	7.071	7.071	0.000	97	125792	50.0	49.2	
62 n-Heptane	43	7.345	7.345	0.000	84	105457	50.0	51.0	
64 Trichloroethene	130	7.722	7.722	0.000	96	102504	50.0	46.4	
66 Methylcyclohexane	83	7.953	7.953	0.000	90	145285	50.0	43.5	
67 1,2-Dichloropropane	63	7.990	7.990	0.000	94	89844	50.0	43.9	
70 1,4-Dioxane	88	8.081	8.081	0.000	46	20701	1000.0	995.8	
68 Dibromomethane	93	8.081	8.081	0.000	95	53740	50.0	44.9	
71 Dichlorobromomethane	83	8.276	8.276	0.000	99	112826	50.0	48.0	
73 2-Chloroethyl vinyl ether	63	8.574	8.574	0.000	93	93162	100.0	63.3	
74 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	95	124183	50.0	43.5	
75 4-Methyl-2-pentanone (MIBK	43	8.872	8.872	0.000	97	188570	100.0	100.7	
76 Toluene	91	9.048	9.048	0.000	99	403629	50.0	55.4	
77 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	94	100040	50.0	50.5	
78 Ethyl methacrylate	69	9.352	9.352	0.000	88	104669	50.0	43.8	
79 1,1,2-Trichloroethane	97	9.486	9.486	0.000	91	82160	50.0	54.2	
80 Tetrachloroethene	164	9.553	9.553	0.000	97	76996	50.0	55.4	
81 1,3-Dichloropropane	76	9.644	9.644	0.000	92	135095	50.0	48.2	
82 2-Hexanone	43	9.705	9.705	0.000	98	139015	100.0	96.8	
84 Chlorodibromomethane	129	9.857	9.857	0.000	90	70740	50.0	55.2	
85 Ethylene Dibromide	107	9.967	9.967	0.000	98	77570	50.0	49.9	
86 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	91	145161	50.0	57.8	
87 Chlorobenzene	112	10.460	10.460	0.000	94	242272	50.0	51.1	
88 4-Chlorobenzotrifluoride	180	10.514	10.514	0.000	95	141446	50.0	61.1	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.551	0.000	93	84264	50.0	55.9	
90 Ethylbenzene	106	10.557	10.557	0.000	98	132869	50.0	50.2	
91 m-Xylene & p-Xylene	106	10.685	10.685	0.000	0	164322	50.0	50.8	
92 o-Xylene	106	11.074	11.074	0.000	96	151660	50.0	49.2	
93 Styrene	104	11.092	11.092	0.000	95	262987	50.0	50.4	
94 Bromoform	173	11.269	11.269	0.000	95	42536	50.0	53.4	
96 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	96	140523	50.0	58.5	
97 Isopropylbenzene	105	11.433	11.433	0.000	96	400028	50.0	53.2	
100 Bromobenzene	156	11.749	11.749	0.000	95	87708	50.0	44.4	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.749	0.000	91	114383	50.0	50.9	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.786	0.000	81	34996	50.0	58.7	
101 1,2,3-Trichloropropane	110	11.810	11.810	0.000	84	40417	50.0	49.6	
103 N-Propylbenzene	120	11.853	11.853	0.000	99	110564	50.0	49.0	
104 2-Chlorotoluene	126	11.938	11.938	0.000	96	94362	50.0	48.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.005	12.005	0.000	97	107814	50.0	50.8	
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	93	331504	50.0	51.3	
107 4-Chlorotoluene	126	12.066	12.066	0.000	98	103632	50.0	49.2	
108 tert-Butylbenzene	119	12.352	12.352	0.000	93	253493	50.0	46.9	
110 1,2,4-Trimethylbenzene	105	12.412	12.412	0.000	97	330674	50.0	50.4	
111 1,2-dichloro-4-(trifluorom	214	12.449	12.449	0.000	96	92503	50.0	56.2	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	371742	50.0	49.3	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	97	164147	50.0	46.5	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	97	310012	50.0	49.4	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	96	174513	50.0	48.1	
116 2,4-Dichloro-1-(triflourom	214	12.820	12.820	0.000	92	75177	50.0	49.1	
118 2,5-Dichlorobenzotrifluori	214	12.863	12.863	0.000	0	94379	50.0	57.0	
120 n-Butylbenzene	91	13.136	13.136	0.000	98	249743	50.0	48.8	
121 1,2-Dichlorobenzene	146	13.155	13.155	0.000	97	159245	50.0	47.3	
122 1,2-Dibromo-3-Chloropropan	75	13.939	13.939	0.000	77	18717	50.0	50.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.085	0.000	0	314704	150.0	147.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.499	14.499	0.000	0	198945	100.0	90.1	
126 1,2,4-Trichlorobenzene	180	14.767	14.767	0.000	91	60345	50.0	39.2	
127 Hexachlorobutadiene	225	14.907	14.907	0.000	96	25360	50.0	45.0	
128 Naphthalene	128	15.028	15.028	0.000	97	172304	50.0	32.9	
129 1,2,3-Trichlorobenzene	180	15.253	15.253	0.000	96	51321	50.0	36.5	
131 2,4,5-Trichlorotoluene	159	16.026	16.026	0.000	0	20757	50.0	31.0	
130 2,3,6-Trichlorotoluene	159	16.123	16.123	0.000	92	21467	50.0	34.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	100.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00020	Amount Added:	6.00	Units: uL	
VOA8260VOA2ND_00266	Amount Added:	2.00	Units: uL	
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00022	Amount Added:	2.00	Units: uL	
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL	
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

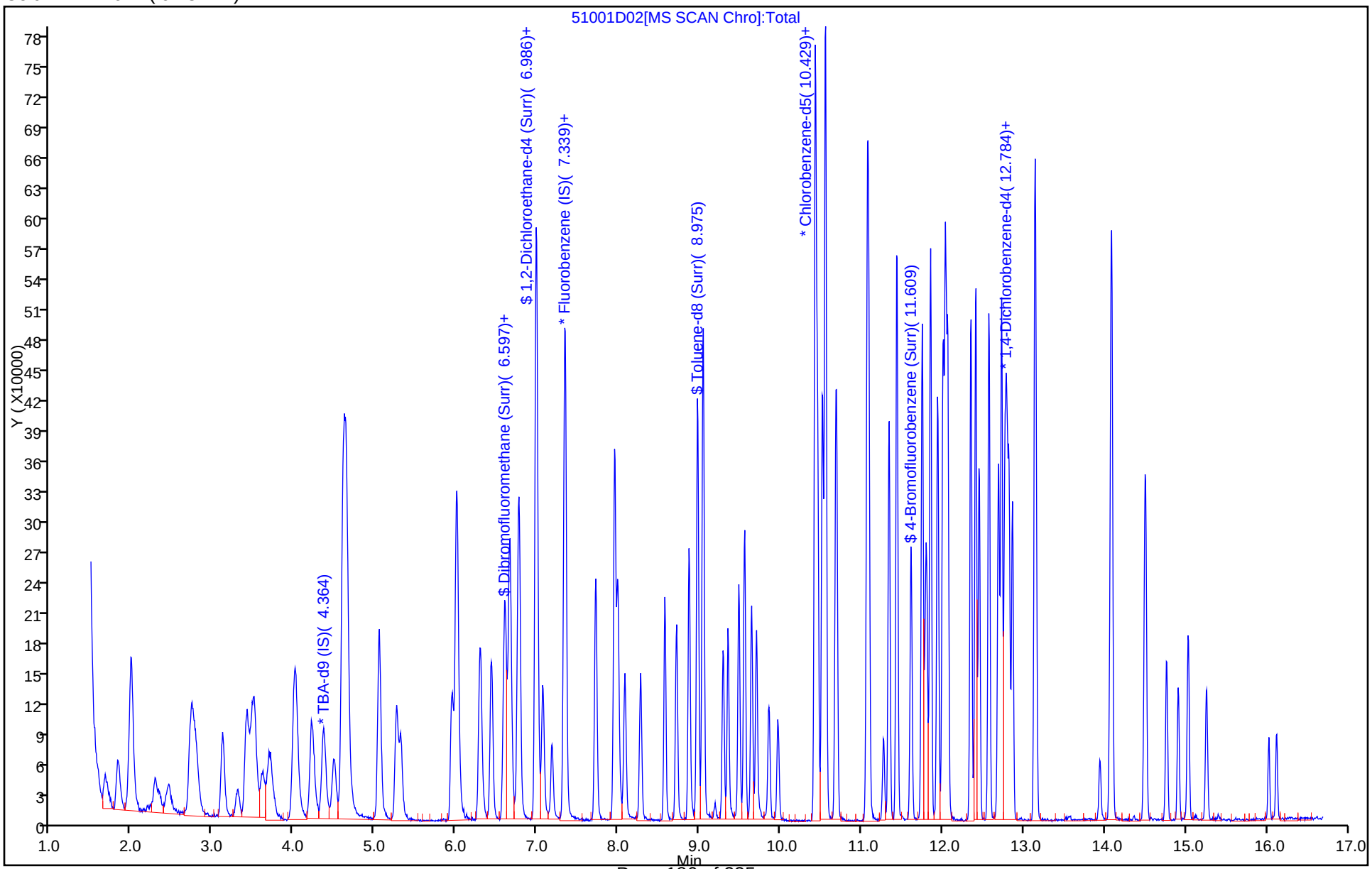
Report Date: 02-Oct-2017 21:11:34 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D02.D

Injection Date:	01-Oct-2017 22:56:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Jul-2017 00:22:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0017756-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	28-Jul-2017 01:04:43	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				
First Level Reviewer: bungardf		Date:	27-Jul-2017 05:09:11		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.334	8.334	0.000	0	79656	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

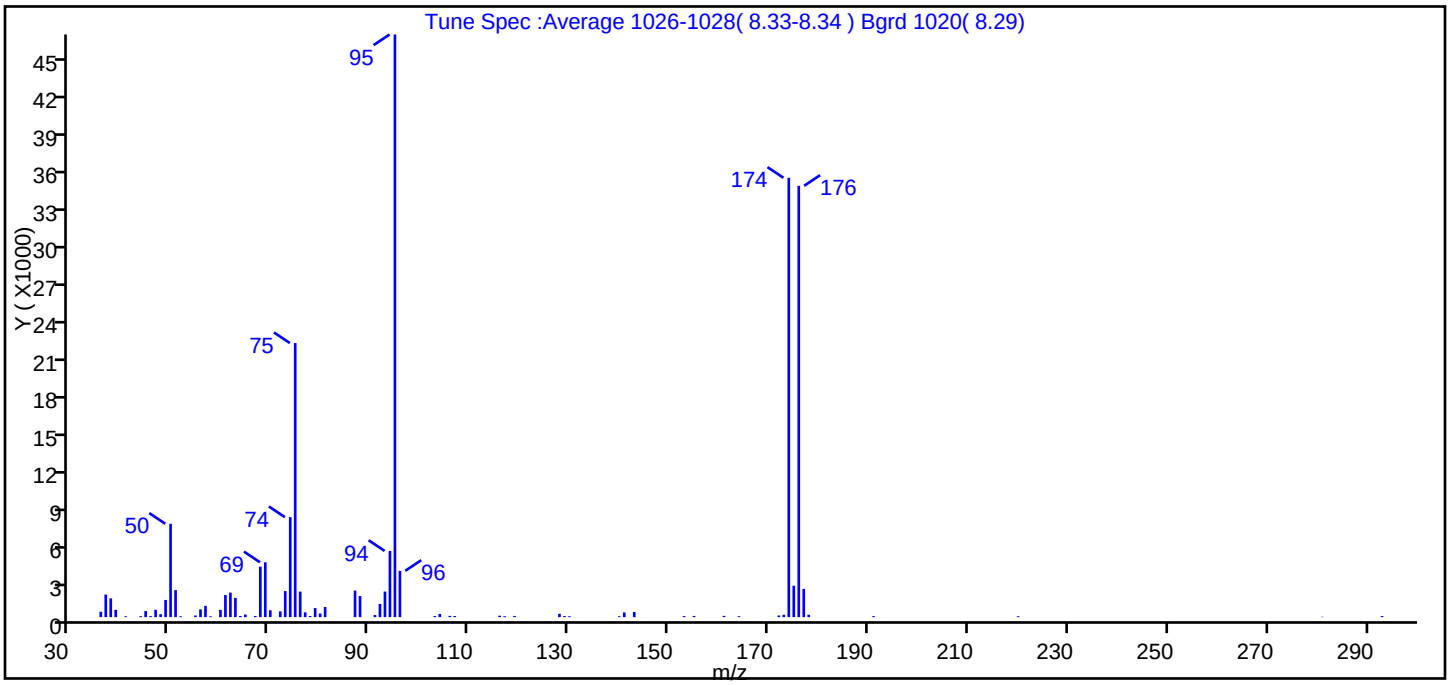
VOABFB25_00090 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D
Injection Date: 27-Jul-2017 00:22:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.0
75	30 to 60% of m/z 95	47.0
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	75.4
175	5 to 9% of m/z 174	5.4 (7.2)
176	Greater than 95% but less than 101% of m/z 174	74.0 (98.2)
177	5 to 9% of m/z 176	4.8 (6.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 27-Jul-2017 00:22:30
Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1020(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	433	61.00	1769	87.00	2123	141.00	374
37.00	1806	62.00	1963	88.00	1682	143.00	408
38.00	1500	63.00	1542	91.00	169	153.00	84
39.00	582	64.00	92	92.00	1061	155.00	97
41.00	70	65.00	209	93.00	2045	161.00	102
44.00	76	67.00	88	94.00	5297	164.00	73
45.00	487	68.00	4038	95.00	46600	172.00	132
46.00	79	69.00	4388	96.00	3703	173.00	191
47.00	590	70.00	551	103.00	90	174.00	35136
48.00	235	72.00	459	104.00	258	175.00	2515
49.00	1375	73.00	2085	106.00	102	176.00	34496
50.00	7469	74.00	7996	107.00	90	177.00	2259
51.00	2160	75.00	21920	116.00	116	178.00	192
52.00	70	76.00	2042	117.00	73	191.00	80
55.00	130	77.00	386	119.00	97	220.00	71
56.00	624	78.00	89	128.00	269	281.00	30
57.00	904	79.00	726	129.00	86	293.00	87
58.00	67	80.00	290	130.00	72		
60.00	579	81.00	809	140.00	72		

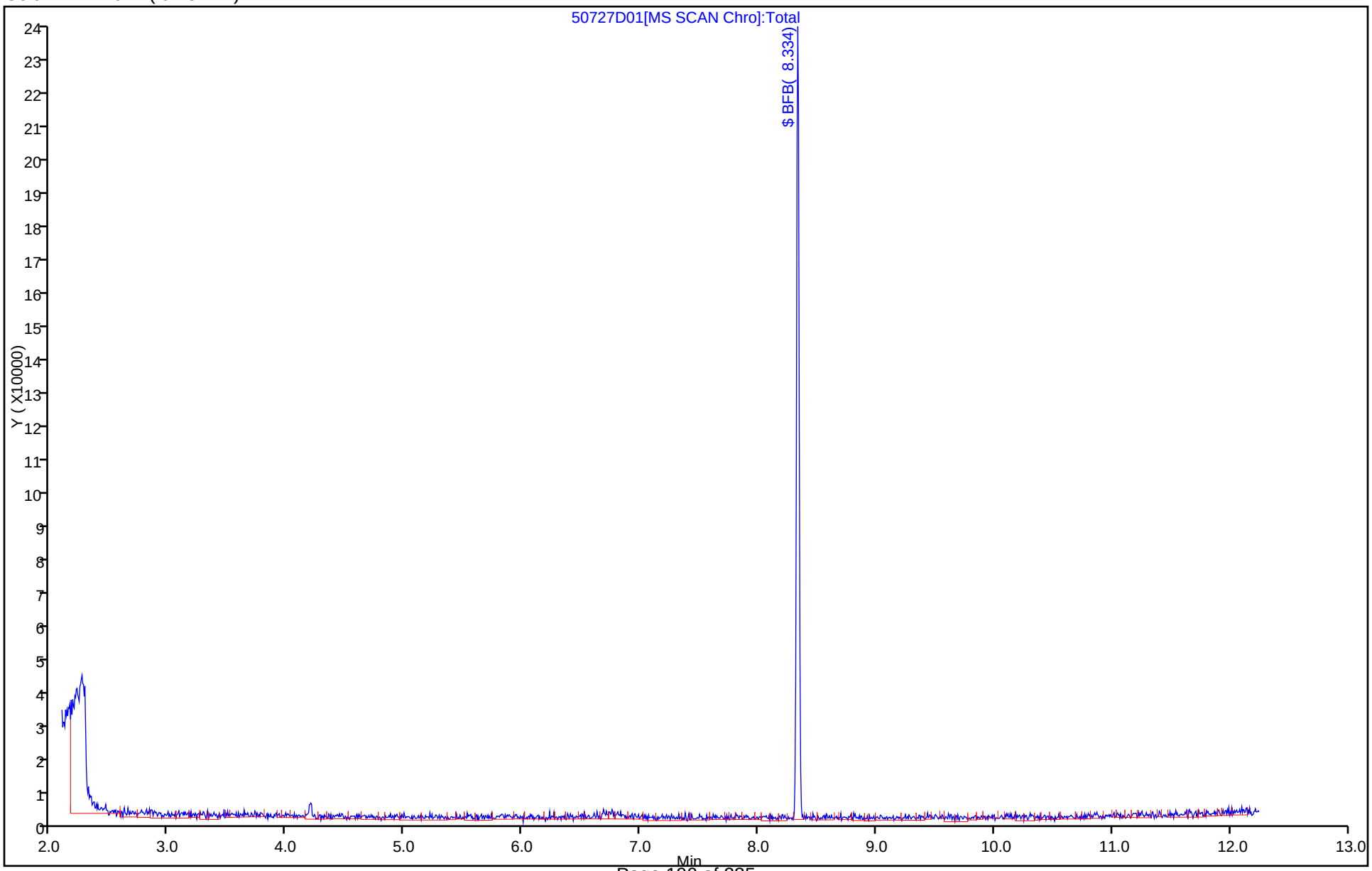
Report Date: 28-Jul-2017 01:04:43 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D

Injection Date:	27-Jul-2017 00:22:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 28-Sep-2017 21:24:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-001
Misc. Info.: BFB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:19:55 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 29-Sep-2017 01:51:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.332	8.332	0.000	0	119638	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

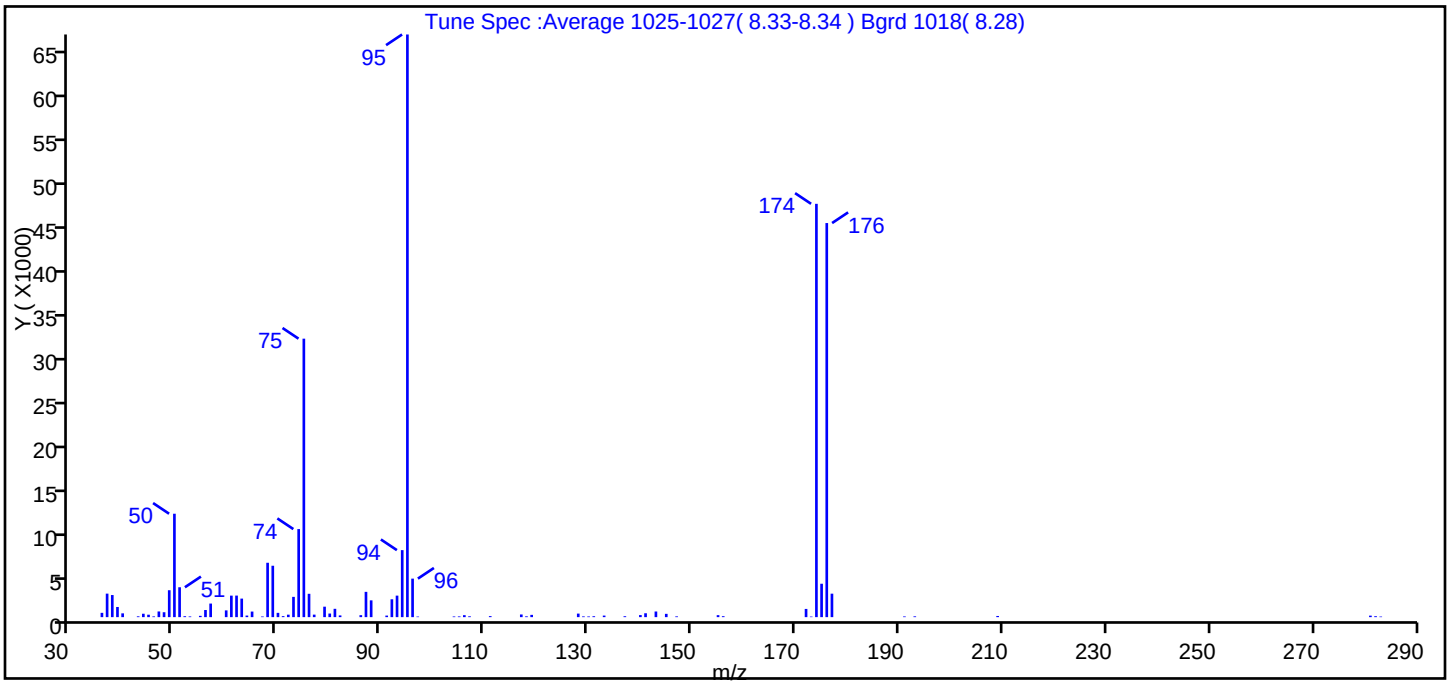
VOABFB25_00093 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D01.D
Injection Date: 28-Sep-2017 21:24:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.7
75	30 to 60% of m/z 95	47.8
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.1 (0.1)
174	50 to 120% of m/z 95	70.9
175	5 to 9% of m/z 174	5.7 (8.1)
176	Greater than 95% but less than 101% of m/z 174	67.6 (95.3)
177	5 to 9% of m/z 176	4.0 (6.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 28-Sep-2017 21:24:30
Spectrum: Tune Spec :Average 1025-1027(8.33-8.34) Bgrd 1018(8.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	494	62.00	2475	88.00	1928	137.00	104
37.00	2699	63.00	2129	91.00	179	140.00	236
38.00	2537	64.00	181	92.00	2051	141.00	447
39.00	1166	65.00	641	93.00	2470	143.00	648
40.00	436	67.00	75	94.00	7693	145.00	379
43.00	93	68.00	6242	95.00	66888	147.00	89
44.00	392	69.00	5900	96.00	4421	155.00	228
45.00	280	70.00	492	97.00	67	156.00	107
46.00	84	71.00	114	104.00	77	172.00	943
47.00	652	72.00	285	105.00	82	173.00	66
48.00	564	73.00	2328	106.00	226	174.00	47448
49.00	3090	74.00	10109	107.00	95	175.00	3834
50.00	11872	75.00	31968	111.00	117	176.00	45240
51.00	3431	76.00	2680	117.00	306	177.00	2695
52.00	106	77.00	289	118.00	92	191.00	80
53.00	80	79.00	1201	119.00	262	193.00	91
55.00	149	80.00	413	128.00	407	209.00	134
56.00	818	81.00	956	129.00	85	281.00	172
57.00	1559	82.00	197	130.00	78	282.00	107
60.00	776	86.00	227	131.00	104	283.00	67
61.00	2470	87.00	2903	133.00	179		

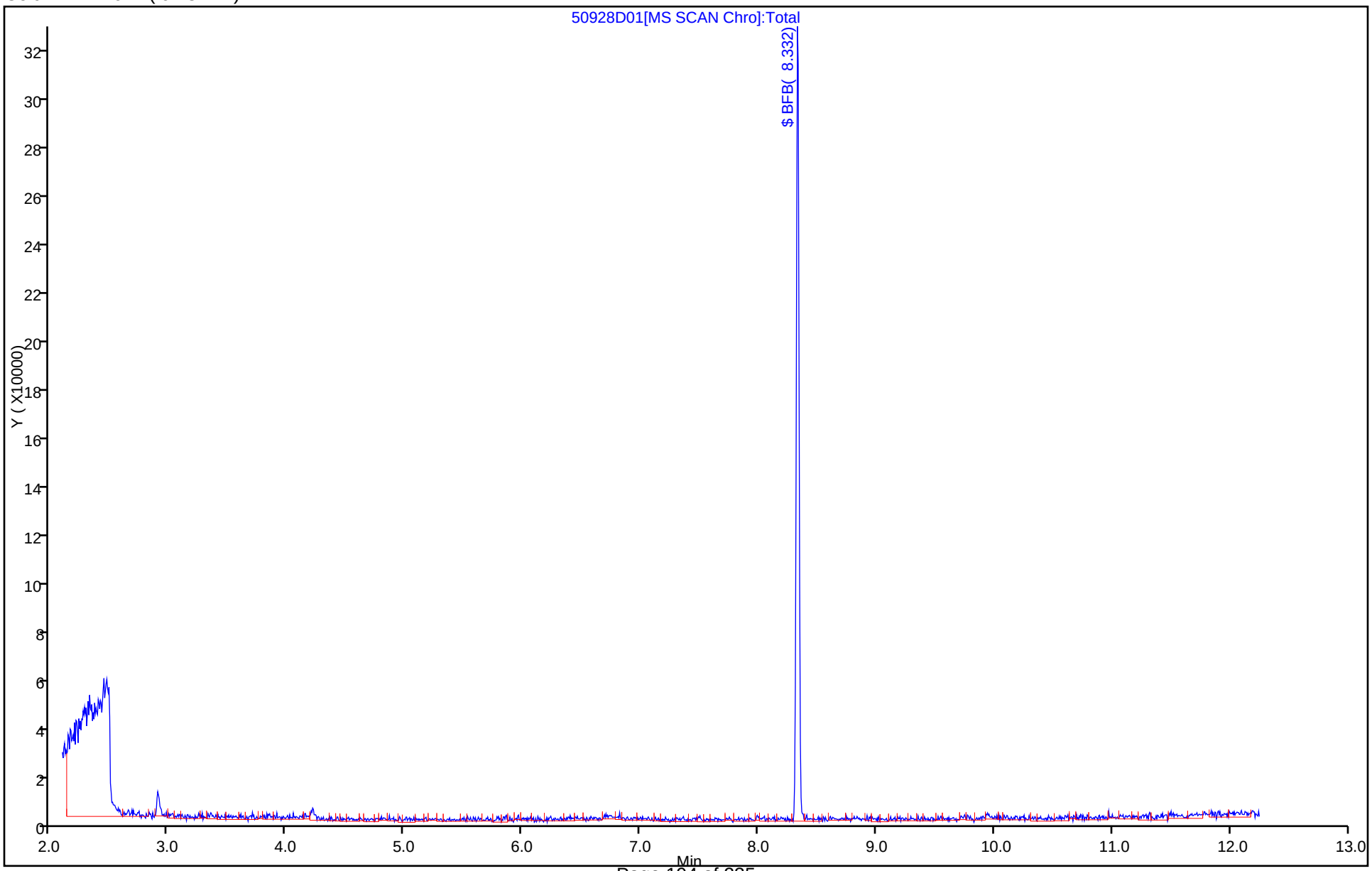
Report Date: 01-Oct-2017 21:19:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D01.D

Injection Date:	28-Sep-2017 21:24:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	01-Oct-2017 22:21:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0018667-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	02-Oct-2017 21:11:31	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK020				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.343	8.343	0.000	0	110924	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

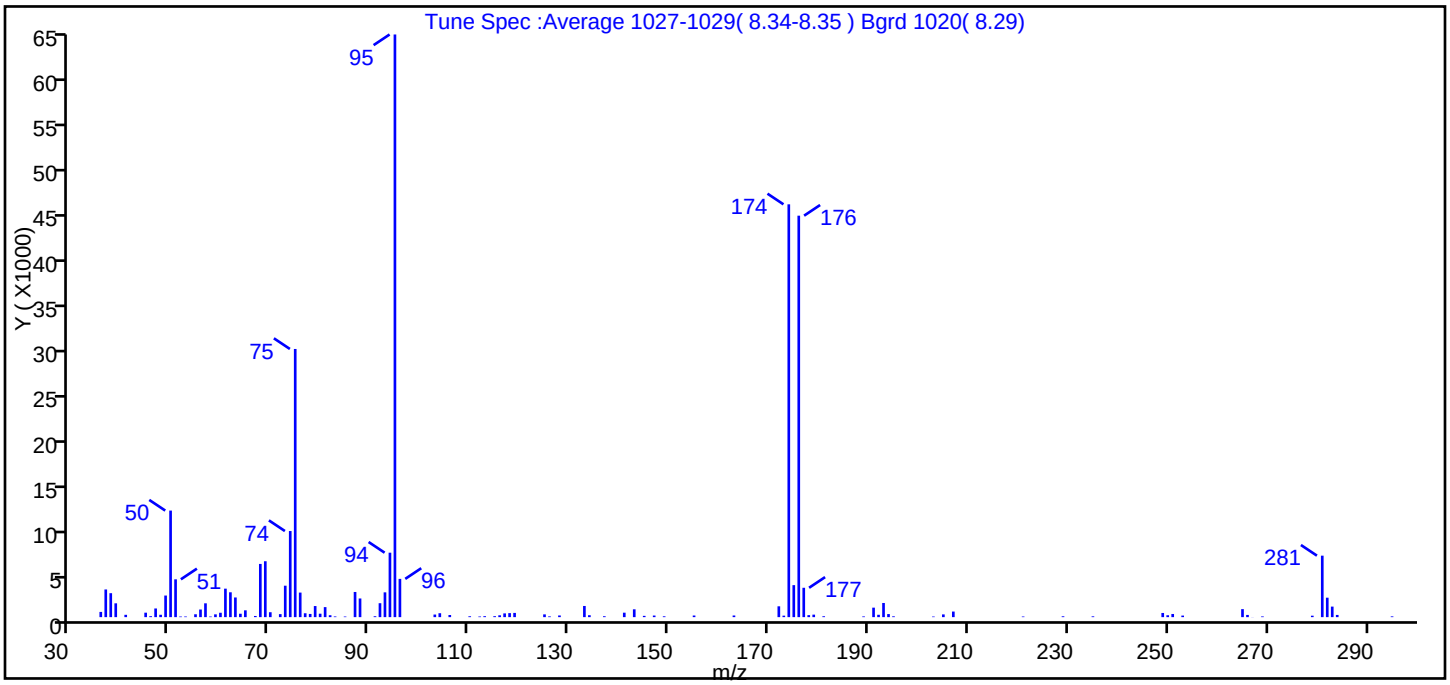
VOABFB25_00093 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D01.D
Injection Date: 01-Oct-2017 22:21:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.3
75	30 to 60% of m/z 95	46.0
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	70.8
175	5 to 9% of m/z 174	5.5 (7.8)
176	Greater than 95% but less than 101% of m/z 174	68.9 (97.3)
177	5 to 9% of m/z 176	5.0 (7.3)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 01-Oct-2017 22:21:30
Spectrum: Tune Spec :Average 1027-1029(8.34-8.35) Bgrd 1020(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

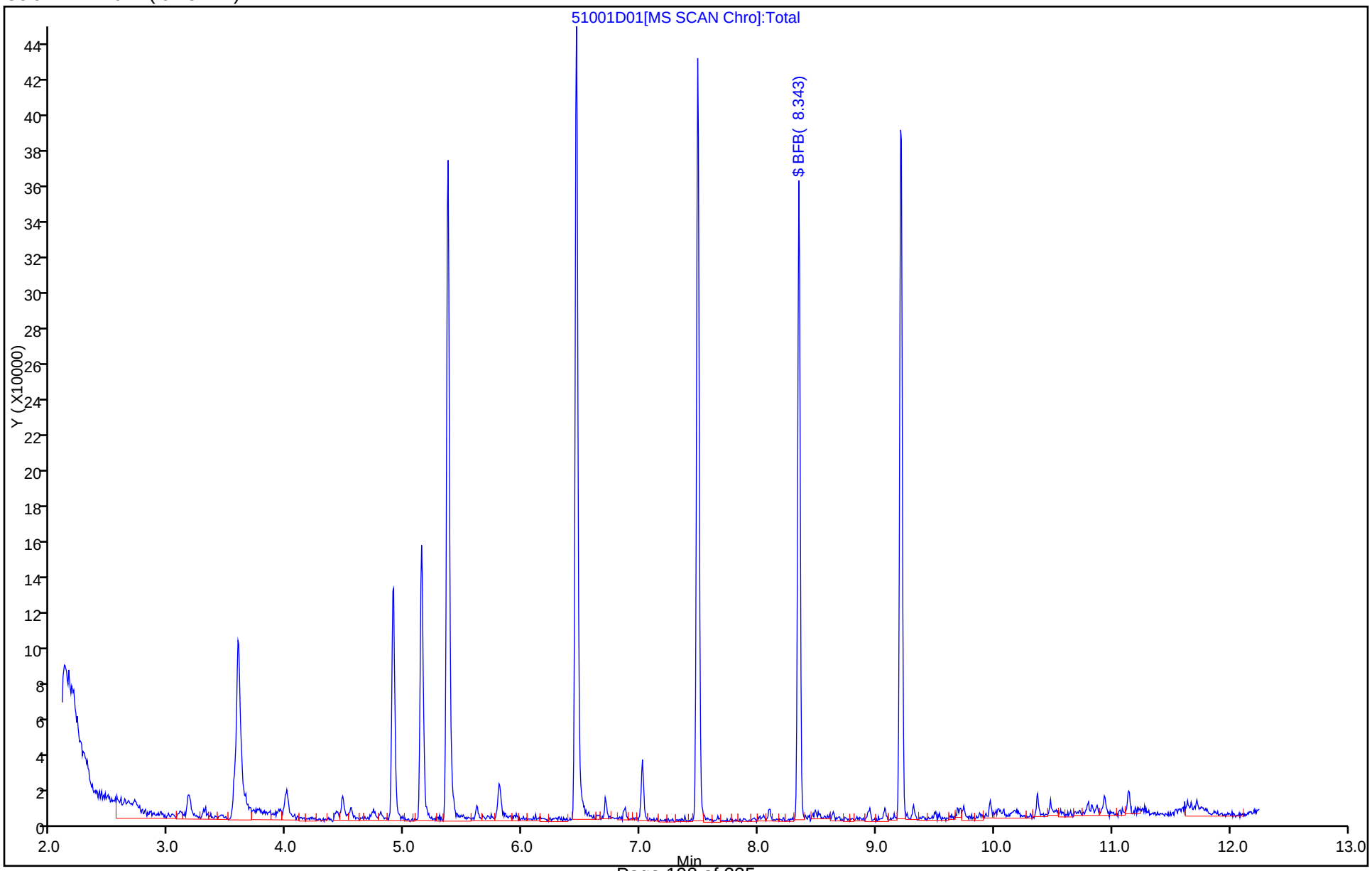
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	582	70.00	548	115.00	107	191.00	1057
37.00	3083	72.00	336	116.00	205	192.00	263
38.00	2669	73.00	3502	117.00	417	193.00	1577
39.00	1540	74.00	9591	118.00	449	194.00	342
41.00	260	75.00	29872	119.00	471	195.00	91
45.00	497	76.00	2736	125.00	308	203.00	67
46.00	107	77.00	432	126.00	83	205.00	305
47.00	966	78.00	357	128.00	187	207.00	623
48.00	264	79.00	1236	133.00	1244	221.00	70
49.00	2406	80.00	384	134.00	215	229.00	94
50.00	11870	81.00	1117	137.00	100	235.00	88
51.00	4213	82.00	213	141.00	497	249.00	465
52.00	68	83.00	76	143.00	873	250.00	211
53.00	71	85.00	68	145.00	143	251.00	352
55.00	320	87.00	2804	147.00	178	253.00	174
56.00	850	88.00	2079	149.00	92	265.00	893
57.00	1540	91.00	100	155.00	182	266.00	246
58.00	67	92.00	1552	163.00	184	267.00	11
59.00	312	93.00	2763	172.00	1207	269.00	79
60.00	489	94.00	7180	173.00	165	279.00	161
61.00	3173	95.00	64904	174.00	45984	281.00	6848
62.00	2770	96.00	4263	175.00	3565	282.00	2166
63.00	2192	103.00	290	176.00	44720	283.00	1174
64.00	379	104.00	437	177.00	3271	284.00	246
65.00	758	106.00	239	178.00	223	295.00	84
67.00	130	110.00	97	179.00	279		
68.00	5927	112.00	72	181.00	98		
69.00	6227	113.00	106	189.00	79		

Report Date: 02-Oct-2017 21:11:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D01.D				
Injection Date:	01-Oct-2017 22:21:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-224374/6

Matrix: Water | Lab File ID: 50928D06.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/29/2017 00:14

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224374 | 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.: 180-70652-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-224374/6

Matrix: Water Lab File ID: 50928D06.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 09/29/2017 00:14

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 224374 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)	111		65-121
2037-26-5	Toluene-d8 (Surr)	101		73-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Sep-2017 00:14:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:21:59 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 29-Sep-2017 01:46:24

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.356	4.352	0.004	0	271049	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.336	7.333	0.003	99	515626	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.427	10.430	-0.003	86	112214	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.769	12.772	-0.003	97	162698	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.619	6.609	0.010	93	122618	50.0	49.4	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.980	0.004	0	168132	50.0	55.6	
$	7 Toluene-d8 (Surr)	98	8.979	8.976	0.003	93	453206	50.0	50.7	
$	8 4-Bromofluorobenzene (Surr	95	11.607	11.610	-0.003	84	154801	50.0	48.0	
	11 Dichlorodifluoromethane	85		1.676					ND	
	12 Chloromethane	50		1.816					ND	
	13 Vinyl chloride	62		1.955					ND	
	14 Butadiene	39		1.986					ND	
	15 Bromomethane	94		2.296					ND	
	16 Chloroethane	64		2.454					ND	
	17 Dichlorofluoromethane	67		2.734					ND	
	18 Trichlorofluoromethane	101		2.777					ND	
	19 Ethanol	45		2.821					ND	
	20 Ethyl ether	59		3.117					ND	
	21 Acrolein	56		3.312					ND	
	22 1,1-Dichloroethene	96		3.415					ND	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.495					ND	
	24 Acetone	43		3.525					ND	
	25 Iodomethane	142		3.610					ND	
	26 Carbon disulfide	76		3.707					ND	
	27 Isopropyl alcohol	45		3.805					ND	
	29 Acetonitrile	41		3.963					ND	
	28 3-Chloro-1-propene	76		3.993					ND	
	30 Methyl acetate	43		4.036					ND	
	31 Methylene Chloride	84		4.225					ND	
	32 2-Methyl-2-propanol	59		4.492					ND	
	33 Acrylonitrile	53		4.608					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.632					ND	
35 Methyl tert-butyl ether	73		4.650					ND	
36 Hexane	57		5.046					ND	
37 1,1-Dichloroethane	63		5.265					ND	
38 Vinyl acetate	43		5.314					ND	
41 Isopropyl ether	45		5.362					ND	
39 2-Chloro-1,3-butadiene	53		5.362					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.831					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.001					ND	
45 cis-1,2-Dichloroethene	96		6.001					ND	
46 2-Butanone (MEK)	43		6.013					ND	
47 Propionitrile	54		6.092					ND	
48 Ethyl acetate	43		6.092					ND	
50 Methacrylonitrile	41		6.269					ND	
49 Chlorobromomethane	128		6.293					ND	
51 Tetrahydrofuran	42		6.305					ND	
52 Chloroform	83		6.433					ND	
53 1,1,1-Trichloroethane	97		6.591					ND	
54 Cyclohexane	56		6.664					ND	
56 Carbon tetrachloride	117		6.761					ND	
55 1,1-Dichloropropene	75		6.780					ND	
57 Isobutyl alcohol	41		6.980					ND	
58 Benzene	78		6.993					ND	
59 1,2-Dichloroethane	62		7.066					ND	
151 Isooctane	57		7.145					ND	
61 Tert-amyl methyl ether	73		7.169					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.351					ND	
63 n-Butanol	56		7.686					ND	
64 Trichloroethene	130		7.716					ND	
65 Ethyl acrylate	55		7.844					ND	
66 Methylcyclohexane	83		7.954					ND	
67 1,2-Dichloropropane	63		7.990					ND	
69 Methyl methacrylate	69		8.075					ND	
70 1,4-Dioxane	88		8.075					ND	
68 Dibromomethane	93		8.075					ND	
71 Dichlorobromomethane	83		8.270					ND	
73 2-Chloroethyl vinyl ether	63		8.574					ND	
74 cis-1,3-Dichloropropene	75		8.714					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872					ND	
76 Toluene	91		9.043					ND	
77 trans-1,3-Dichloropropene	75		9.292					ND	
78 Ethyl methacrylate	69		9.353					ND	
79 1,1,2-Trichloroethane	97		9.487					ND	
80 Tetrachloroethene	164		9.554					ND	
81 1,3-Dichloropropane	76		9.645					ND	
82 2-Hexanone	43		9.706					ND	
83 n-Butyl acetate	43		9.821					ND	
84 Chlorodibromomethane	129		9.852					ND	
85 Ethylene Dibromide	107		9.967					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.430					ND	
87 Chlorobenzene	112		10.454					ND	
88 4-Chlorobenzotrifluoride	180		10.515					ND	
89 1,1,1,2-Tetrachloroethane	131		10.545					ND	
90 Ethylbenzene	106		10.557					ND	
91 m-Xylene & p-Xylene	106		10.685					ND	
92 o-Xylene	106		11.068					ND	
93 Styrene	104		11.087					ND	
95 Cyclohexanol	57		11.189					ND	
94 Bromoform	173		11.269					ND	
96 2-Chlorobenzotrifluoride	180		11.336					ND	
97 Isopropylbenzene	105		11.433					ND	
98 Cyclohexanone	55		11.525					ND	
100 Bromobenzene	156		11.744					ND	
99 1,1,2,2-Tetrachloroethane	83		11.750					ND	
102 trans-1,4-Dichloro-2-buten	53		11.780					ND	
101 1,2,3-Trichloropropane	110		11.805					ND	
103 N-Propylbenzene	120		11.853					ND	
104 2-Chlorotoluene	126		11.938					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.036					ND	
107 4-Chlorotoluene	126		12.060					ND	
108 tert-Butylbenzene	119		12.346					ND	
110 1,2,4-Trimethylbenzene	105		12.407					ND	
111 1,2-dichloro-4-(trifluorom	214		12.449					ND	
112 sec-Butylbenzene	105		12.571					ND	
113 1,3-Dichlorobenzene	146		12.687					ND	
114 4-Isopropyltoluene	119		12.729					ND	
115 1,4-Dichlorobenzene	146		12.790					ND	
117 1,2,3-Trimethylbenzene	105		12.820					ND	
116 2,4-Dichloro-1-(triflourom	214		12.821					ND	
118 2,5-Dichlorobenzotrifluori	214		12.863					ND	
119 Benzyl chloride	91		12.912					ND	
120 n-Butylbenzene	91		13.137					ND	
121 1,2-Dichlorobenzene	146		13.149					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.940					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.080					ND	
124 1,3,5-Trichlorobenzene	180		14.128					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.500					ND	
126 1,2,4-Trichlorobenzene	180		14.761					ND	
127 Hexachlorobutadiene	225		14.907					ND	
128 Naphthalene	128		15.029					ND	
129 1,2,3-Trichlorobenzene	180		15.254					ND	
131 2,4,5-Trichlorotoluene	159		16.026					ND	
130 2,3,6-Trichlorotoluene	159		16.124					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

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

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

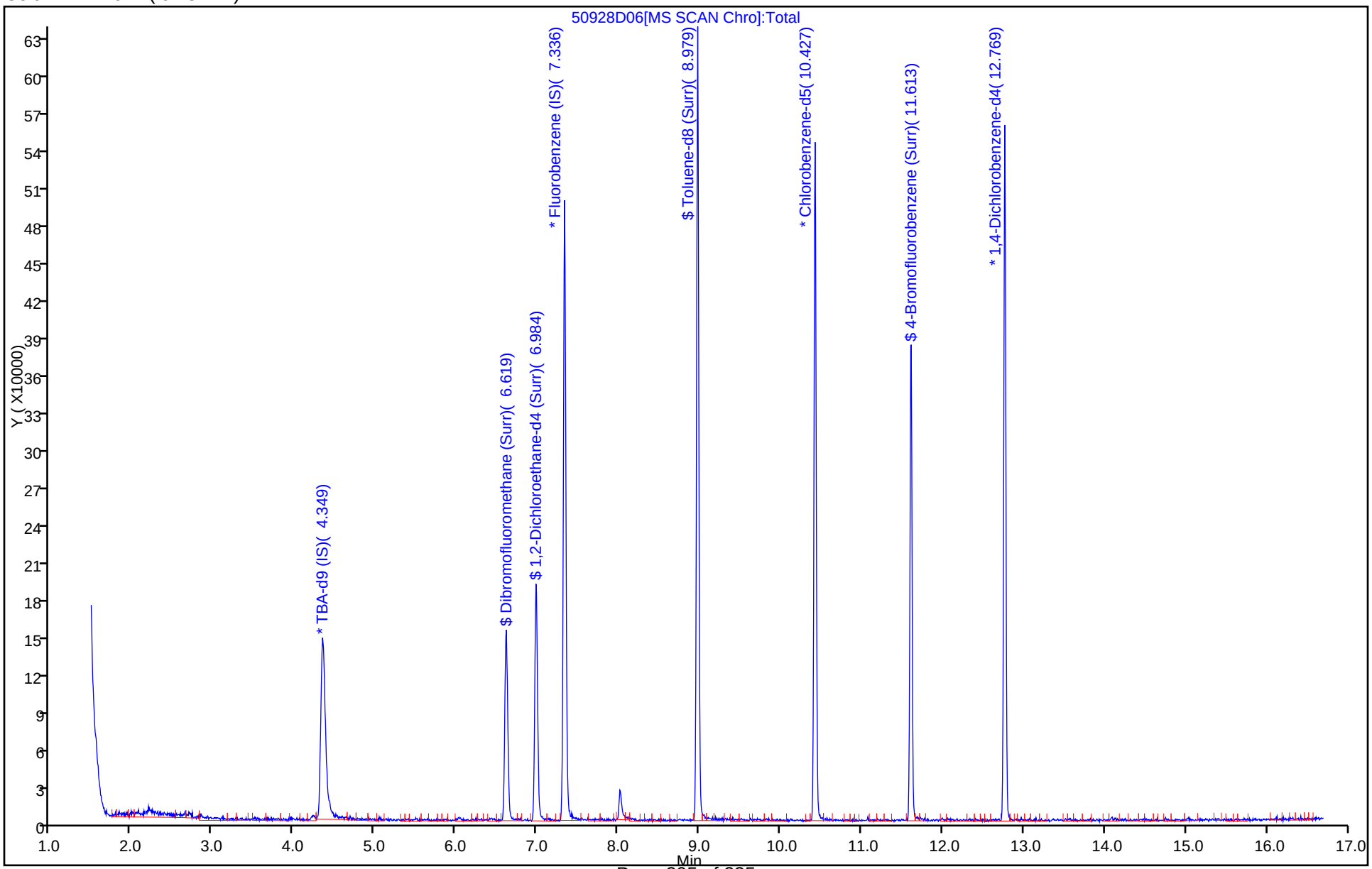
Report Date: 01-Oct-2017 21:23:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D06.D

Injection Date:	29-Sep-2017 00:14:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Sep-2017 00:14:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:21:59 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 29-Sep-2017 01:46:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.4	98.85
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.6	111.13
$ 7 Toluene-d8 (Surr)	50.0	50.7	101.49
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.0	95.99

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-224557/6

Matrix: Water | Lab File ID: 51001D07.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/02/2017 01:25

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224557 | 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.: 180-70652-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-224557/6

Matrix: Water Lab File ID: 51001D07.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/02/2017 01:25

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 224557 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)	109		65-121
2037-26-5	Toluene-d8 (Surr)	99		73-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D07.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 02-Oct-2017 01:25:30 ALS Bottle#: 7 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018667-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:47 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 02-Oct-2017 01:58:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.353	0.002	0	196193	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.342	7.340	0.002	99	391741	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.431	0.002	86	86654	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.767	0.002	97	121808	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.624	6.615	0.009	93	92042	50.0	48.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.986	-0.003	0	125455	50.0	54.6	
$ 7 Toluene-d8 (Surr)	98	8.979	8.975	0.004	93	341253	50.0	49.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.609	0.004	85	118805	50.0	47.7	
11 Dichlorodifluoromethane	85		1.669					ND	
12 Chloromethane	50		1.827					ND	
13 Vinyl chloride	62		1.973					ND	
14 Butadiene	39		1.991					ND	
15 Bromomethane	94		2.290					ND	
16 Chloroethane	64		2.454					ND	
17 Dichlorofluoromethane	67		2.734					ND	
18 Trichlorofluoromethane	101		2.782					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.117					ND	
21 Acrolein	56		3.299					ND	
22 1,1-Dichloroethene	96		3.415					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.488					ND	
24 Acetone	43		3.518					ND	
25 Iodomethane	142		3.610					ND	
26 Carbon disulfide	76		3.707					ND	
27 Isopropyl alcohol	45		3.812					ND	
29 Acetonitrile	41		3.970					ND	
28 3-Chloro-1-propene	76		4.005					ND	
30 Methyl acetate	43		4.023					ND	
31 Methylene Chloride	84		4.212					ND	
32 2-Methyl-2-propanol	59		4.486					ND	
33 Acrylonitrile	53		4.601					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.632					ND	
35 Methyl tert-butyl ether	73		4.650					ND	
36 Hexane	57		5.051					ND	
37 1,1-Dichloroethane	63		5.264					ND	
38 Vinyl acetate	43		5.313					ND	
41 Isopropyl ether	45		5.363					ND	
39 2-Chloro-1,3-butadiene	53		5.363					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.831					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.000					ND	
45 cis-1,2-Dichloroethene	96		6.013					ND	
46 2-Butanone (MEK)	43		6.019					ND	
48 Ethyl acetate	43		6.093					ND	
47 Propionitrile	54		6.099					ND	
50 Methacrylonitrile	41		6.276					ND	
49 Chlorobromomethane	128		6.286					ND	
51 Tetrahydrofuran	42		6.305					ND	
52 Chloroform	83		6.426					ND	
53 1,1,1-Trichloroethane	97		6.597					ND	
54 Cyclohexane	56		6.664					ND	
56 Carbon tetrachloride	117		6.761					ND	
55 1,1-Dichloropropene	75		6.779					ND	
57 Isobutyl alcohol	41		6.980					ND	
58 Benzene	78		6.992					ND	
59 1,2-Dichloroethane	62		7.071					ND	
151 Isooctane	57		7.145					ND	
61 Tert-amyl methyl ether	73		7.170					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.345					ND	
63 n-Butanol	56		7.687					ND	
64 Trichloroethene	130		7.722					ND	
65 Ethyl acrylate	55		7.845					ND	
66 Methylcyclohexane	83		7.953					ND	
67 1,2-Dichloropropane	63		7.990					ND	
69 Methyl methacrylate	69		8.076					ND	
70 1,4-Dioxane	88		8.081					ND	
68 Dibromomethane	93		8.081					ND	
71 Dichlorobromomethane	83		8.276					ND	
73 2-Chloroethyl vinyl ether	63		8.574					ND	
74 cis-1,3-Dichloropropene	75		8.720					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872					ND	
76 Toluene	91		9.048					ND	
77 trans-1,3-Dichloropropene	75		9.292					ND	
78 Ethyl methacrylate	69		9.352					ND	
79 1,1,2-Trichloroethane	97		9.486					ND	
80 Tetrachloroethene	164		9.553					ND	
81 1,3-Dichloropropane	76		9.644					ND	
82 2-Hexanone	43		9.705					ND	
83 n-Butyl acetate	43		9.828					ND	
84 Chlorodibromomethane	129		9.857					ND	
85 Ethylene Dibromide	107		9.967					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.429					ND	
87 Chlorobenzene	112		10.460					ND	
88 4-Chlorobenzotrifluoride	180		10.514					ND	
89 1,1,1,2-Tetrachloroethane	131		10.551					ND	
90 Ethylbenzene	106		10.557					ND	
91 m-Xylene & p-Xylene	106		10.685					ND	
92 o-Xylene	106		11.074					ND	
93 Styrene	104		11.092					ND	
95 Cyclohexanol	57		11.189					ND	
94 Bromoform	173		11.269					ND	
96 2-Chlorobenzotrifluoride	180		11.342					ND	
97 Isopropylbenzene	105		11.433					ND	
98 Cyclohexanone	55		11.532					ND	
100 Bromobenzene	156		11.749					ND	
99 1,1,2,2-Tetrachloroethane	83		11.749					ND	
102 trans-1,4-Dichloro-2-buten	53		11.786					ND	
101 1,2,3-Trichloropropane	110		11.810					ND	
103 N-Propylbenzene	120		11.853					ND	
104 2-Chlorotoluene	126		11.938					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.035					ND	
107 4-Chlorotoluene	126		12.066					ND	
108 tert-Butylbenzene	119		12.352					ND	
110 1,2,4-Trimethylbenzene	105		12.412					ND	
111 1,2-dichloro-4-(trifluorom	214		12.449					ND	
112 sec-Butylbenzene	105		12.571					ND	
113 1,3-Dichlorobenzene	146		12.692					ND	
114 4-Isopropyltoluene	119		12.729					ND	
115 1,4-Dichlorobenzene	146		12.796					ND	
116 2,4-Dichloro-1-(triflourom	214		12.820					ND	
117 1,2,3-Trimethylbenzene	105	12.823	12.821	0.002	1	1580		0.1932	
118 2,5-Dichlorobenzotrifluori	214		12.863					ND	
119 Benzyl chloride	91		12.907					ND	
120 n-Butylbenzene	91		13.136					ND	
121 1,2-Dichlorobenzene	146		13.155					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.939					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180	14.131	14.129	0.002	88	2664		1.06	
125 2,3- & 3,4- Dichlorotoluen	125		14.499					ND	
126 1,2,4-Trichlorobenzene	180		14.767					ND	
127 Hexachlorobutadiene	225		14.907					ND	
128 Naphthalene	128		15.028					ND	
129 1,2,3-Trichlorobenzene	180		15.253					ND	
131 2,4,5-Trichlorotoluene	159		16.026					ND	
130 2,3,6-Trichlorotoluene	159		16.123					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

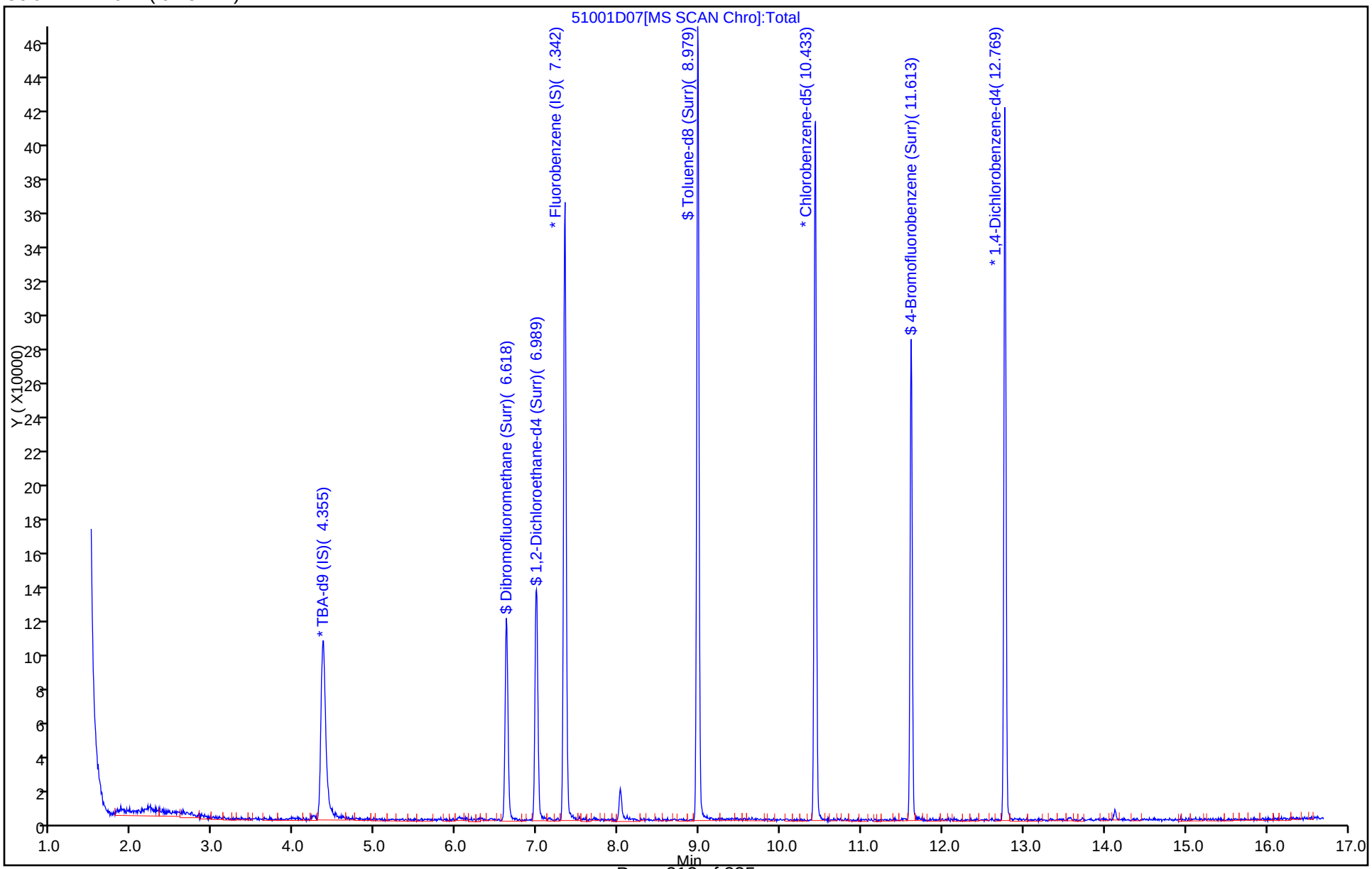
Report Date: 02-Oct-2017 21:11:49 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D07.D

Injection Date:	02-Oct-2017 01:25:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D07.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 02-Oct-2017 01:25:30 ALS Bottle#: 7 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018667-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:47 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 02-Oct-2017 01:58:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	48.8	97.66
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.6	109.14
$ 7 Toluene-d8 (Surr)	50.0	49.5	98.96
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.7	95.40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-224374/3

Matrix: Water | Lab File ID: 50928D03.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/28/2017 22:43

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.: 224374 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.7		1.0	0.38
75-01-4	Vinyl chloride	10.3		1.0	0.17
74-83-9	Bromomethane	11.2		1.0	0.59
75-00-3	Chloroethane	10.6		1.0	0.58
75-35-4	1,1-Dichloroethene	10.7		1.0	0.32
67-64-1	Acetone	21.3		5.0	3.1
75-15-0	Carbon disulfide	11.2		1.0	0.53
75-09-2	Methylene Chloride	9.02		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	10.1		1.0	0.20
1634-04-4	Methyl tert-butyl ether	8.83		1.0	0.20
75-34-3	1,1-Dichloroethane	9.80		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.44		1.0	0.30
74-97-5	Bromochloromethane	8.91		1.0	0.36
78-93-3	2-Butanone (MEK)	18.7		5.0	2.6
67-66-3	Chloroform	9.52		1.0	0.27
71-55-6	1,1,1-Trichloroethane	10.5		1.0	0.27
56-23-5	Carbon tetrachloride	10.3		1.0	0.56
71-43-2	Benzene	9.04		1.0	0.18
107-06-2	1,2-Dichloroethane	9.25		1.0	0.24
79-01-6	Trichloroethene	8.91		1.0	0.20
78-87-5	1,2-Dichloropropane	8.76		1.0	0.35
75-27-4	Bromodichloromethane	8.90		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	8.31		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	20.2		5.0	2.2
108-88-3	Toluene	11.0		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.22
79-00-5	1,1,2-Trichloroethane	10.3		1.0	0.31
127-18-4	Tetrachloroethene	11.0		1.0	0.24
591-78-6	2-Hexanone	20.1		5.0	2.0
124-48-1	Dibromochloromethane	10.3		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.83		1.0	0.51
108-90-7	Chlorobenzene	10.1		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	10.8		1.0	0.49
100-41-4	Ethylbenzene	10.0		1.0	0.25
1330-20-7	Xylenes, Total	20.1		2.0	0.27
100-42-5	Styrene	9.73		1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-224374/3

Matrix: Water | Lab File ID: 50928D03.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/28/2017 22:43

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.: 224374 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.84		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	10.1		1.0	0.37
107-13-1	Acrylonitrile	97.2		20	3.3
123-91-1	1,4-Dioxane	201		200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		65-121
2037-26-5	Toluene-d8 (Surr)	108		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	89		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 28-Sep-2017 22:43:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-003
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:20:22 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 28-Sep-2017 23:27:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.359	4.364	-0.005	0	243485	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.333	0.001	97	512714	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.424	0.006	86	102218	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.766	0.006	96	145942	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.609	0.007	92	109692	50.0	44.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.980	0.001	0	144239	50.0	47.9	
$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	438525	50.0	53.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	85	145446	50.0	49.5	
11 Dichlorodifluoromethane	85	1.676	1.676	0.000	99	147576	50.0	49.5	
12 Chloromethane	50	1.822	1.816	0.006	99	160815	50.0	53.7	
13 Vinyl chloride	62	1.950	1.955	-0.005	98	156946	50.0	51.6	
14 Butadiene	39	1.992	1.986	0.006	94	152189	50.0	55.1	
15 Bromomethane	94	2.296	2.296	0.000	91	80165	50.0	55.8	
16 Chloroethane	64	2.455	2.454	0.001	99	88813	50.0	53.1	
17 Dichlorofluoromethane	67	2.734	2.734	0.000	97	240447	50.0	56.9	
18 Trichlorofluoromethane	101	2.759	2.777	-0.018	90	209176	50.0	56.0	
20 Ethyl ether	59	3.118	3.117	0.001	93	118636	50.0	48.8	
21 Acrolein	56	3.306	3.312	-0.006	99	64750	150.0	105.7	
22 1,1-Dichloroethene	96	3.416	3.415	0.001	97	134259	50.0	53.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.495	3.495	0.000	93	141794	50.0	51.5	
24 Acetone	43	3.525	3.525	0.000	100	142701	100.0	106.4	
25 Iodomethane	142	3.623	3.610	0.013	98	188613	50.0	47.8	
26 Carbon disulfide	76	3.702	3.707	-0.005	99	308622	50.0	56.0	
28 3-Chloro-1-propene	76	4.012	3.993	0.019	90	76608	50.0	47.2	
30 Methyl acetate	43	4.018	4.036	-0.018	98	246966	100.0	93.0	
31 Methylene Chloride	84	4.225	4.225	0.000	92	141159	50.0	45.1	
32 2-Methyl-2-propanol	59	4.499	4.492	0.007	93	144872	500.0	503.1	
33 Acrylonitrile	53	4.608	4.608	0.000	98	627217	500.0	485.8	
34 trans-1,2-Dichloroethene	96	4.639	4.632	0.007	96	144829	50.0	50.6	
35 Methyl tert-butyl ether	73	4.657	4.650	0.007	96	338634	50.0	44.2	
36 Hexane	57	5.052	5.046	0.006	94	176770	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.265	5.265	0.000	96	243699	50.0	49.0	
38 Vinyl acetate	43	5.314	5.314	0.000	97	237696	50.0	47.0	
44 2,2-Dichloropropane	97	6.001	6.001	0.000	89	33331	50.0	52.6	
45 cis-1,2-Dichloroethene	96	6.013	6.001	0.012	81	154480	50.0	47.2	
46 2-Butanone (MEK)	43	6.020	6.013	0.007	91	178864	100.0	93.7	
49 Chlorobromomethane	128	6.293	6.293	0.000	98	64743	50.0	44.5	
51 Tetrahydrofuran	42	6.299	6.305	-0.006	90	93429	100.0	84.1	
52 Chloroform	83	6.433	6.433	0.000	93	236353	50.0	47.6	
53 1,1,1-Trichloroethane	97	6.591	6.591	0.000	98	197680	50.0	52.6	
54 Cyclohexane	56	6.664	6.664	0.000	90	231953	50.0	50.0	
56 Carbon tetrachloride	117	6.768	6.761	0.007	97	161538	50.0	51.6	
55 1,1-Dichloropropene	75	6.774	6.780	-0.006	96	193282	50.0	47.6	
57 Isobutyl alcohol	41	6.981	6.980	0.001	94	127387	1250.0	1248.6	
58 Benzene	78	6.993	6.993	0.000	98	563782	50.0	45.2	
59 1,2-Dichloroethane	62	7.066	7.066	0.000	98	168014	50.0	46.2	
62 n-Heptane	43	7.352	7.351	0.001	89	152153	50.0	51.8	
64 Trichloroethene	130	7.723	7.716	0.007	98	139771	50.0	44.6	
66 Methylcyclohexane	83	7.954	7.954	0.000	91	208627	50.0	44.0	
67 1,2-Dichloropropane	63	7.991	7.990	0.001	93	127217	50.0	43.8	
70 1,4-Dioxane	88	8.082	8.075	0.007	48	29725	1000.0	1007.0	
68 Dibromomethane	93	8.076	8.075	0.001	96	71285	50.0	41.9	
71 Dichlorobromomethane	83	8.276	8.270	0.006	98	148627	50.0	44.5	
73 2-Chloroethyl vinyl ether	63	8.575	8.574	0.001	95	127074	100.0	60.8	
74 cis-1,3-Dichloropropene	75	8.714	8.714	0.000	95	168572	50.0	41.6	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.872	0.001	97	264364	100.0	100.8	
76 Toluene	91	9.043	9.043	0.000	99	560145	50.0	55.0	
77 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	94	139022	50.0	50.1	
78 Ethyl methacrylate	69	9.353	9.353	0.000	89	145961	50.0	43.6	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	91	109788	50.0	51.7	
80 Tetrachloroethene	164	9.554	9.554	0.000	96	107015	50.0	55.1	
81 1,3-Dichloropropane	76	9.645	9.645	0.000	91	179795	50.0	45.8	
82 2-Hexanone	43	9.706	9.706	0.000	98	201718	100.0	100.3	
84 Chlorodibromomethane	129	9.858	9.852	0.006	92	92319	50.0	51.4	
85 Ethylene Dibromide	107	9.968	9.967	0.001	96	106984	50.0	49.1	
86 3-Chlorobenzotrifluoride	180	10.430	10.430	0.000	88	188129	50.0	53.6	
87 Chlorobenzene	112	10.460	10.454	0.006	94	333986	50.0	50.3	
88 4-Chlorobenzotrifluoride	180	10.515	10.515	0.000	96	175720	50.0	54.2	
89 1,1,1,2-Tetrachloroethane	131	10.546	10.545	0.001	91	113441	50.0	53.8	
90 Ethylbenzene	106	10.558	10.557	0.001	98	185243	50.0	50.0	
91 m-Xylene & p-Xylene	106	10.686	10.685	0.001	0	229527	50.0	50.7	
92 o-Xylene	106	11.069	11.068	0.001	96	216125	50.0	50.1	
93 Styrene	104	11.087	11.087	0.000	94	354997	50.0	48.6	
94 Bromoform	173	11.270	11.269	0.001	94	54877	50.0	49.2	
96 2-Chlorobenzotrifluoride	180	11.336	11.336	0.000	95	179568	50.0	53.4	
97 Isopropylbenzene	105	11.434	11.433	0.001	96	577310	50.0	54.8	
100 Bromobenzene	156	11.750	11.744	0.006	94	124515	50.0	44.0	
99 1,1,2,2-Tetrachloroethane	83	11.744	11.750	-0.006	82	158244	50.0	50.3	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.780	0.007	66	43655	50.0	51.1	
101 1,2,3-Trichloropropane	110	11.805	11.805	0.000	85	54688	50.0	46.8	
103 N-Propylbenzene	120	11.847	11.853	-0.006	99	155808	50.0	48.1	
104 2-Chlorotoluene	126	11.939	11.938	0.001	96	134651	50.0	48.1	
105 3-Chlorotoluene	126	12.006	12.005	0.001	98	149937	50.0	49.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.036	12.036	0.000	94	472188	50.0	51.0	
107 4-Chlorotoluene	126	12.060	12.060	0.000	97	138015	50.0	45.7	
108 tert-Butylbenzene	119	12.346	12.346	0.000	93	366153	50.0	47.3	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	459182	50.0	48.8	
111 1,2-dichloro-4-(trifluorom	214	12.450	12.449	0.001	95	114656	50.0	48.6	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	547374	50.0	50.7	
113 1,3-Dichlorobenzene	146	12.687	12.687	0.000	97	230797	50.0	45.6	
114 4-Isopropyltoluene	119	12.723	12.729	-0.006	97	449907	50.0	50.0	
115 1,4-Dichlorobenzene	146	12.796	12.790	0.006	95	237617	50.0	45.7	
116 2,4-Dichloro-1-(triflourom	214	12.815	12.821	-0.005	93	115714	50.0	52.7	
118 2,5-Dichlorobenzotrifluori	214	12.863	12.863	0.000	0	108300	50.0	45.7	
120 n-Butylbenzene	91	13.137	13.137	0.000	97	360705	50.0	49.1	
121 1,2-Dichlorobenzene	146	13.149	13.149	0.000	95	219369	50.0	45.5	
122 1,2-Dibromo-3-Chloropropan	75	13.934	13.940	-0.006	81	23833	50.0	44.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.080	14.080	0.000	0	448842	150.0	146.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.500	14.500	0.000	0	294813	100.0	93.2	
126 1,2,4-Trichlorobenzene	180	14.761	14.761	0.000	92	87713	50.0	39.7	
127 Hexachlorobutadiene	225	14.907	14.907	0.000	96	41147	50.0	50.9	
128 Naphthalene	128	15.029	15.029	0.000	97	283878	50.0	37.8	
129 1,2,3-Trichlorobenzene	180	15.254	15.254	0.000	94	77057	50.0	38.2	
131 2,4,5-Trichlorotoluene	159	16.027	16.026	0.001	0	31010	50.0	32.4	
130 2,3,6-Trichlorotoluene	159	16.118	16.124	-0.006	96	31976	50.0	35.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	97.9	
S 133 Xylenes, Total	106				0		100.0	100.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	91.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00017	Amount Added:	6.00	Units: uL		
VOA8260VOA2ND_00266	Amount Added:	2.00	Units: uL		
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL		
voaW2clev1stR_00022	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00020	Amount Added:	2.00	Units: uL		
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent	

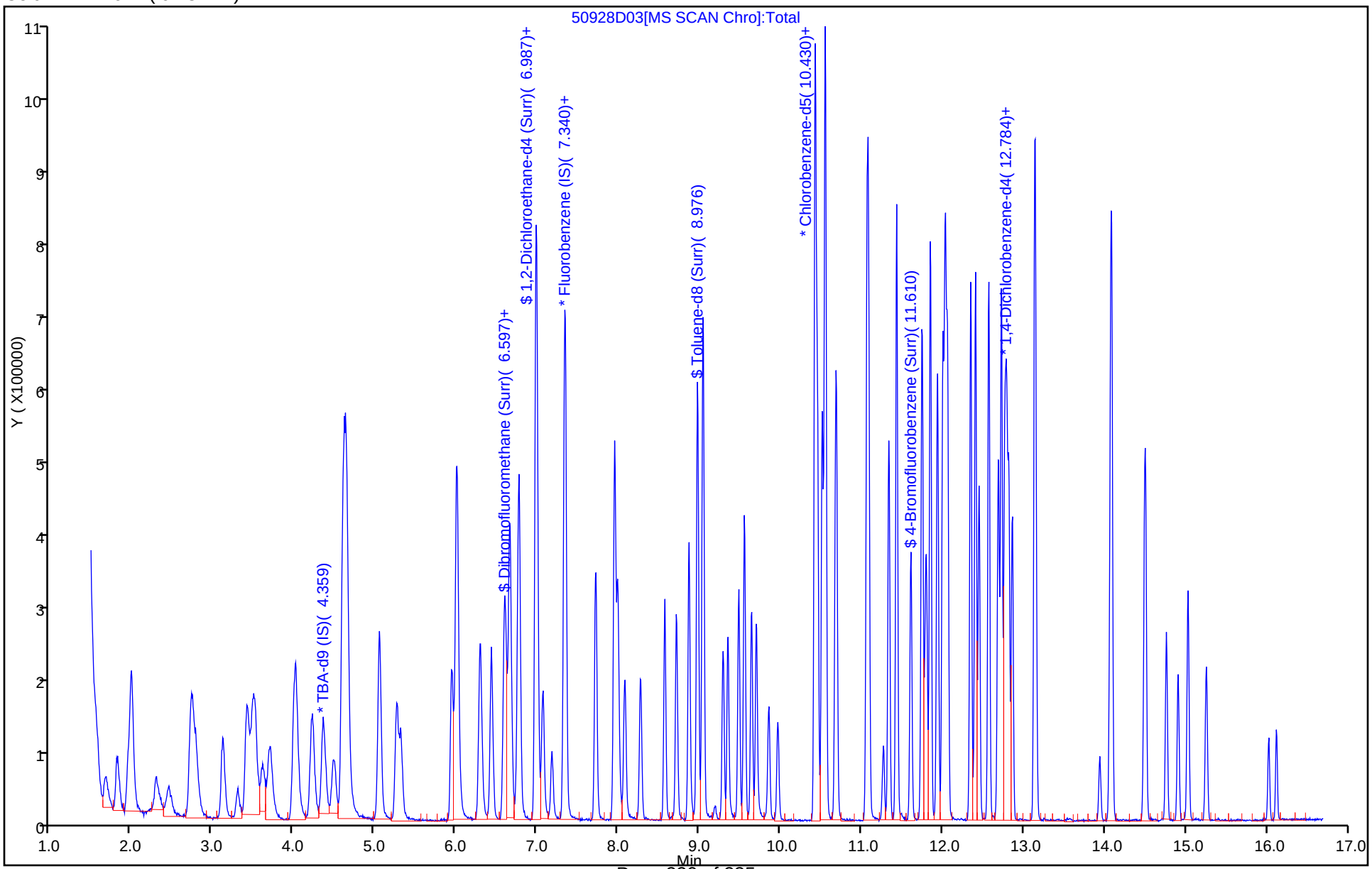
Report Date: 01-Oct-2017 21:21:48 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D03.D

Injection Date:	28-Sep-2017 22:43:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	LCS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\50928D03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 28-Sep-2017 22:43:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018642-003
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170928-18642.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Oct-2017 21:20:22 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bungardf Date: 28-Sep-2017 23:27:41

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	44.5	88.93
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.9	95.88
$ 7 Toluene-d8 (Surr)	50.0	53.9	107.81
$ 8 4-Bromofluorobenzene (Surr)	50.0	49.5	99.00

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-224557/3

Matrix: Water | Lab File ID: 51001D03.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/01/2017 23:33

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224557 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.7		1.0	0.38
75-01-4	Vinyl chloride	10.7		1.0	0.17
74-83-9	Bromomethane	11.5		1.0	0.59
75-00-3	Chloroethane	11.5		1.0	0.58
75-35-4	1,1-Dichloroethene	11.3		1.0	0.32
67-64-1	Acetone	18.9		5.0	3.1
75-15-0	Carbon disulfide	11.2		1.0	0.53
75-09-2	Methylene Chloride	10.2		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	11.1		1.0	0.20
1634-04-4	Methyl tert-butyl ether	10.1		1.0	0.20
75-34-3	1,1-Dichloroethane	10.4		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.91		1.0	0.30
74-97-5	Bromochloromethane	9.79		1.0	0.36
78-93-3	2-Butanone (MEK)	19.9		5.0	2.6
67-66-3	Chloroform	10.3		1.0	0.27
71-55-6	1,1,1-Trichloroethane	10.9		1.0	0.27
56-23-5	Carbon tetrachloride	10.8		1.0	0.56
71-43-2	Benzene	9.89		1.0	0.18
107-06-2	1,2-Dichloroethane	10.5		1.0	0.24
79-01-6	Trichloroethene	9.57		1.0	0.20
78-87-5	1,2-Dichloropropane	10.3		1.0	0.35
75-27-4	Bromodichloromethane	9.68		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	9.81		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	22.0		5.0	2.2
108-88-3	Toluene	11.6		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	11.0		1.0	0.22
79-00-5	1,1,2-Trichloroethane	11.4		1.0	0.31
127-18-4	Tetrachloroethene	11.1		1.0	0.24
591-78-6	2-Hexanone	20.4		5.0	2.0
124-48-1	Dibromochloromethane	11.7		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	10.5		1.0	0.51
108-90-7	Chlorobenzene	10.9		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	11.2		1.0	0.49
100-41-4	Ethylbenzene	10.5		1.0	0.25
1330-20-7	Xylenes, Total	21.0		2.0	0.27
100-42-5	Styrene	10.5		1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70652-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-224557/3

Matrix: Water | Lab File ID: 51001D03.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/01/2017 23:33

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224557 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.7		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	10.9		1.0	0.37
107-13-1	Acrylonitrile	113		20	3.3
123-91-1	1,4-Dioxane	228		200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		65-121
2037-26-5	Toluene-d8 (Surr)	112		73-120
460-00-4	4-Bromofluorobenzene (Surr)	111		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Oct-2017 23:33:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018667-003
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:33 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 02-Oct-2017 00:04:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.368	4.364	0.004	0	176256	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.333	0.004	97	345693	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.429	-0.002	86	73701	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	93	103640	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.619	6.615	0.004	93	79355	50.0	47.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.986	-0.002	0	101513	50.0	50.0	
$ 7 Toluene-d8 (Surr)	98	8.979	8.975	0.004	93	328663	50.0	56.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.609	0.004	85	117531	50.0	55.5	
11 Dichlorodifluoromethane	85	1.685	1.669	0.016	98	94559	50.0	47.0	
12 Chloromethane	50	1.825	1.827	-0.002	99	117787	50.0	58.3	
13 Vinyl chloride	62	1.965	1.973	-0.008	98	109318	50.0	53.3	
14 Butadiene	39	1.995	1.991	0.004	93	107406	50.0	57.7	
15 Bromomethane	94	2.306	2.290	0.016	91	55598	50.0	57.4	
16 Chloroethane	64	2.458	2.454	0.004	97	64563	50.0	57.3	
17 Dichlorofluoromethane	67	2.738	2.734	0.004	96	180038	50.0	63.2	
18 Trichlorofluoromethane	101	2.780	2.782	-0.002	91	149578	50.0	59.4	
20 Ethyl ether	59	3.121	3.117	0.004	91	93692	50.0	57.2	
21 Acrolein	56	3.309	3.299	0.010	99	82836	150.0	200.6	
22 1,1-Dichloroethene	96	3.431	3.415	0.016	96	95508	50.0	56.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.504	3.488	0.016	89	96792	50.0	52.1	
24 Acetone	43	3.522	3.518	0.004	100	85415	100.0	94.5	
25 Iodomethane	142	3.626	3.610	0.016	97	135280	50.0	50.9	
26 Carbon disulfide	76	3.711	3.707	0.004	99	207359	50.0	55.8	
28 3-Chloro-1-propene	76	4.009	4.005	0.004	91	58329	50.0	53.3	
30 Methyl acetate	43	4.027	4.023	0.004	98	189248	100.0	105.7	
31 Methylene Chloride	84	4.228	4.212	0.016	92	106628	50.0	50.9	
32 2-Methyl-2-propanol	59	4.490	4.486	0.004	93	109455	500.0	525.1	
33 Acrylonitrile	53	4.611	4.601	0.010	100	492888	500.0	566.3	
34 trans-1,2-Dichloroethene	96	4.642	4.632	0.010	95	106866	50.0	55.4	
35 Methyl tert-butyl ether	73	4.660	4.650	0.010	97	261248	50.0	50.5	
36 Hexane	57	5.055	5.051	0.004	93	130300	50.0	52.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.268	5.264	0.004	97	174023	50.0	51.9	
38 Vinyl acetate	43	5.317	5.313	0.004	97	196842	50.0	57.7	
44 2,2-Dichloropropane	97	6.011	6.000	0.011	60	23433	50.0	54.9	
45 cis-1,2-Dichloroethene	96	6.011	6.013	-0.002	80	109306	50.0	49.6	
46 2-Butanone (MEK)	43	6.023	6.019	0.004	98	127797	100.0	99.3	
49 Chlorobromomethane	128	6.290	6.286	0.004	97	48003	50.0	49.0	
51 Tetrahydrofuran	42	6.303	6.305	-0.002	88	70695	100.0	94.3	
52 Chloroform	83	6.436	6.426	0.010	94	172919	50.0	51.6	
53 1,1,1-Trichloroethane	97	6.595	6.597	-0.002	97	138521	50.0	54.7	
54 Cyclohexane	56	6.661	6.664	-0.003	91	162336	50.0	51.9	
56 Carbon tetrachloride	117	6.765	6.761	0.004	97	114197	50.0	54.1	
55 1,1-Dichloropropene	75	6.777	6.779	-0.002	95	140039	50.0	51.1	
57 Isobutyl alcohol	41	6.984	6.980	0.004	92	99424	1250.0	1445.4	
58 Benzene	78	6.996	6.992	0.004	97	415670	50.0	49.5	
59 1,2-Dichloroethane	62	7.069	7.071	-0.002	97	128147	50.0	52.3	
62 n-Heptane	43	7.355	7.345	0.010	90	108254	50.0	54.7	
64 Trichloroethene	130	7.726	7.722	0.004	99	101199	50.0	47.8	
66 Methylcyclohexane	83	7.957	7.953	0.004	89	151080	50.0	47.2	
67 1,2-Dichloropropane	63	7.994	7.990	0.004	93	100845	50.0	51.5	
70 1,4-Dioxane	88	8.085	8.081	0.004	48	22672	1000.0	1139.1	
68 Dibromomethane	93	8.079	8.081	-0.002	95	55646	50.0	48.5	
71 Dichlorobromomethane	83	8.274	8.276	-0.002	99	109014	50.0	48.4	
73 2-Chloroethyl vinyl ether	63	8.578	8.574	0.004	93	110168	100.0	78.2	
74 cis-1,3-Dichloropropene	75	8.718	8.720	-0.002	95	134064	50.0	49.0	
75 4-Methyl-2-pentanone (MIBK	43	8.876	8.872	0.004	97	207896	100.0	110.0	
76 Toluene	91	9.046	9.048	-0.002	99	425359	50.0	57.9	
77 trans-1,3-Dichloropropene	75	9.296	9.292	0.004	93	109678	50.0	54.8	
78 Ethyl methacrylate	69	9.356	9.352	0.004	89	115483	50.0	47.9	
79 1,1,2-Trichloroethane	97	9.490	9.486	0.004	90	86927	50.0	56.8	
80 Tetrachloroethene	164	9.557	9.553	0.004	97	77773	50.0	55.5	
81 1,3-Dichloropropane	76	9.642	9.644	-0.002	91	148352	50.0	52.4	
82 2-Hexanone	43	9.703	9.705	-0.002	98	147644	100.0	101.8	
84 Chlorodibromomethane	129	9.855	9.857	-0.002	91	75587	50.0	58.4	
85 Ethylene Dibromide	107	9.971	9.967	0.004	98	82468	50.0	52.5	
86 3-Chlorobenzotrifluoride	180	10.433	10.429	0.004	89	144386	50.0	57.0	
87 Chlorobenzene	112	10.458	10.460	-0.002	95	261595	50.0	54.7	
88 4-Chlorobenzotrifluoride	180	10.518	10.514	0.004	96	134861	50.0	57.7	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.551	0.004	92	85019	50.0	55.9	
90 Ethylbenzene	106	10.561	10.557	0.004	98	140067	50.0	52.4	
91 m-Xylene & p-Xylene	106	10.689	10.685	0.004	0	176582	50.0	54.1	
92 o-Xylene	106	11.072	11.074	-0.002	96	157877	50.0	50.8	
93 Styrene	104	11.090	11.092	-0.002	95	275675	50.0	52.4	
94 Bromoform	173	11.273	11.269	0.004	95	43172	50.0	53.7	
96 2-Chlorobenzotrifluoride	180	11.340	11.342	-0.002	96	138954	50.0	57.3	
97 Isopropylbenzene	105	11.437	11.433	0.004	96	416212	50.0	54.8	
100 Bromobenzene	156	11.747	11.749	-0.002	96	90565	50.0	45.0	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.749	0.004	84	123297	50.0	54.4	
102 trans-1,4-Dichloro-2-buten	53	11.784	11.786	-0.002	84	37058	50.0	61.1	
101 1,2,3-Trichloropropane	110	11.802	11.810	-0.008	84	42547	50.0	51.3	
103 N-Propylbenzene	120	11.851	11.853	-0.002	99	114737	50.0	49.9	
104 2-Chlorotoluene	126	11.942	11.938	0.004	96	99021	50.0	49.8	
105 3-Chlorotoluene	126	12.003	12.005	-0.002	97	114325	50.0	52.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.033	12.035	-0.002	93	348637	50.0	53.0	
107 4-Chlorotoluene	126	12.064	12.066	-0.002	97	111722	50.0	52.1	
108 tert-Butylbenzene	119	12.349	12.352	-0.003	93	265046	50.0	48.2	
110 1,2,4-Trimethylbenzene	105	12.410	12.412	-0.002	97	347038	50.0	51.9	
111 1,2-dichloro-4-(trifluorom	214	12.459	12.449	0.010	95	88575	50.0	52.9	
112 sec-Butylbenzene	105	12.575	12.571	0.004	94	393281	50.0	51.3	
113 1,3-Dichlorobenzene	146	12.690	12.692	-0.002	97	175380	50.0	48.8	
114 4-Isopropyltoluene	119	12.727	12.729	-0.002	97	326230	50.0	51.1	
115 1,4-Dichlorobenzene	146	12.794	12.796	-0.002	94	181847	50.0	49.3	
116 2,4-Dichloro-1-(triflourom	214	12.824	12.820	0.004	93	81934	50.0	52.5	
118 2,5-Dichlorobenzotrifluori	214	12.861	12.863	-0.003	0	83871	50.0	49.8	
120 n-Butylbenzene	91	13.140	13.136	0.004	98	261094	50.0	50.1	
121 1,2-Dichlorobenzene	146	13.146	13.155	-0.009	96	163868	50.0	47.8	
122 1,2-Dibromo-3-Chloropropan	75	13.937	13.939	-0.002	79	18951	50.0	49.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.083	14.085	-0.002	0	325714	150.0	149.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.503	14.499	0.004	0	212488	100.0	94.6	
126 1,2,4-Trichlorobenzene	180	14.765	14.767	-0.002	92	62355	50.0	39.8	
127 Hexachlorobutadiene	225	14.905	14.907	-0.002	94	28056	50.0	48.9	
128 Naphthalene	128	15.032	15.028	0.004	97	204320	50.0	38.3	
129 1,2,3-Trichlorobenzene	180	15.257	15.253	0.004	96	56288	50.0	39.3	
131 2,4,5-Trichlorotoluene	159	16.030	16.026	0.004	0	22000	50.0	32.3	
130 2,3,6-Trichlorotoluene	159	16.121	16.123	-0.002	95	22934	50.0	36.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	104.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	103.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00020	Amount Added:	6.00	Units: uL	
VOA8260VOA2ND_00266	Amount Added:	2.00	Units: uL	
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL	
voaW2clev1stR_00022	Amount Added:	2.00	Units: uL	
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL	
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

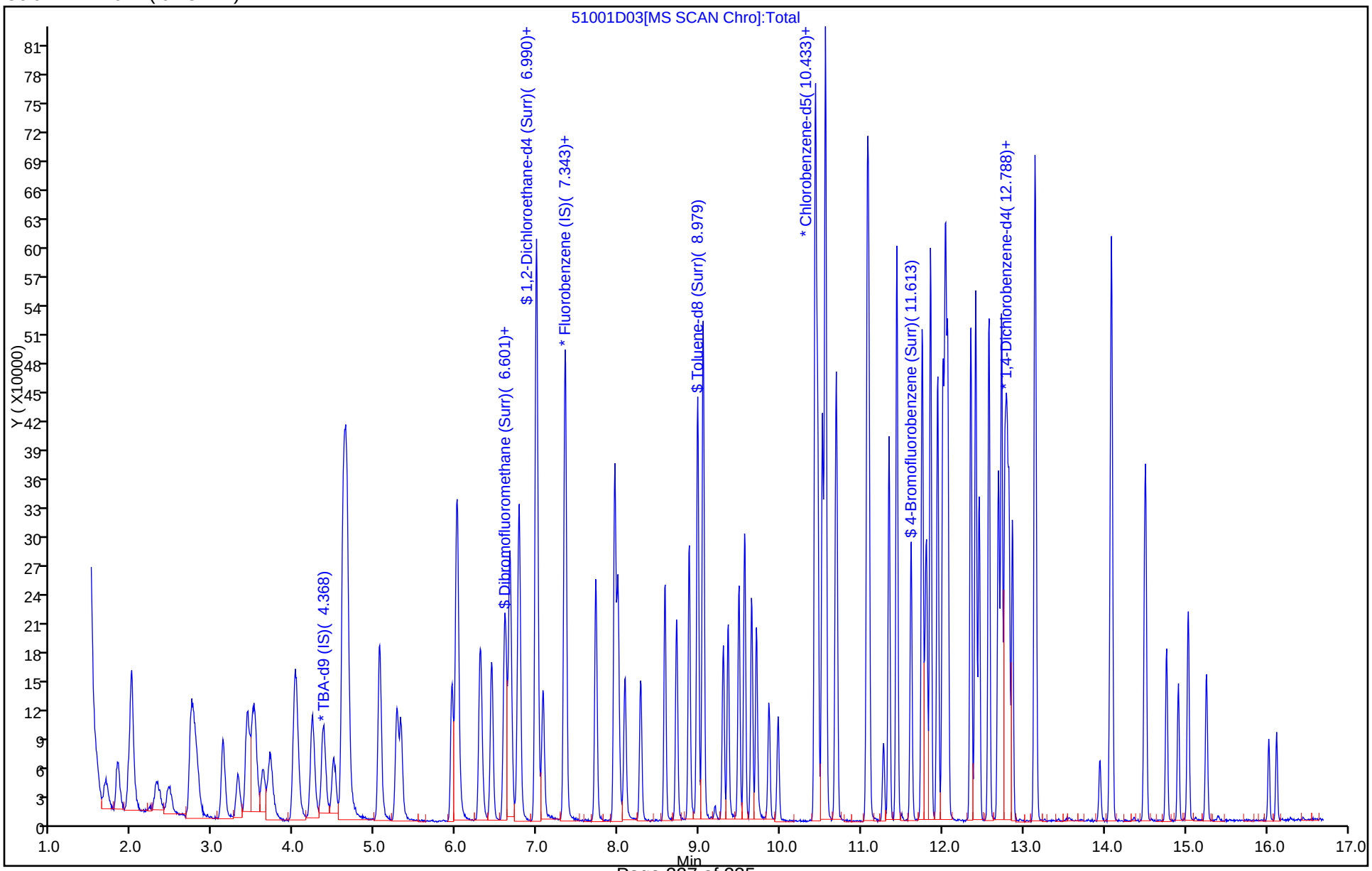
Report Date: 02-Oct-2017 21:11:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D03.D

Injection Date:	01-Oct-2017 23:33:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	LCS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\51001D03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Oct-2017 23:33:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018667-003
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171001-18667.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Oct-2017 21:11:33 Calib Date: 27-Jul-2017 04:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: bungardf Date: 02-Oct-2017 00:04:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	47.7	95.42
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.0	100.08
$ 7 Toluene-d8 (Surr)	50.0	56.0	112.06
$ 8 4-Bromofluorobenzene (Surr)	50.0	55.5	110.96

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Instrument ID: CHHP5 Start Date: 07/27/2017 00:22

Analysis Batch Number: 218218 End Date: 07/27/2017 05:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-218218/1		07/27/2017 00:22	1	50727D01.D	DB-624 0.18(mm)
IC 180-218218/2		07/27/2017 00:51	1	50727D02.D	DB-624 0.18(mm)
IC 180-218218/3		07/27/2017 01:15	1	50727D03.D	DB-624 0.18(mm)
ICIS 180-218218/4		07/27/2017 01:39	1	50727D04.D	DB-624 0.18(mm)
ZZZZZ		07/27/2017 01:39	1		DB-624 0.18(mm)
IC 180-218218/5		07/27/2017 02:02	1	50727D05.D	DB-624 0.18(mm)
IC 180-218218/6		07/27/2017 02:26	1	50727D06.D	DB-624 0.18(mm)
IC 180-218218/8		07/27/2017 03:13	1	50727D08.D	DB-624 0.18(mm)
IC 180-218218/10		07/27/2017 04:00	1	50727D10.D	DB-624 0.18(mm)
IC 180-218218/11		07/27/2017 04:24	1	50727D11.D	DB-624 0.18(mm)
ICV 180-218218/12		07/27/2017 05:03	1		DB-624 0.18(mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18(mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Instrument ID: CHHP5 Start Date: 09/28/2017 21:24

Analysis Batch Number: 224374 End Date: 09/29/2017 08:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-224374/1		09/28/2017 21:24	1	50928D01.D	DB-624 0.18(mm)
CCVIS 180-224374/2		09/28/2017 22:04	1	50928D02.D	DB-624 0.18(mm)
ZZZZZ		09/28/2017 22:04	1		DB-624 0.18(mm)
LCS 180-224374/3		09/28/2017 22:43	1	50928D03.D	DB-624 0.18(mm)
CCV 180-224374/4		09/28/2017 23:23	1		DB-624 0.18(mm)
ZZZZZ		09/28/2017 23:49	1		DB-624 0.18(mm)
ZZZZZ		09/28/2017 23:49	1		DB-624 0.18(mm)
MB 180-224374/6		09/29/2017 00:14	1	50928D06.D	DB-624 0.18(mm)
ZZZZZ		09/29/2017 00:49	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 01:18	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 02:07	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 02:31	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 02:55	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 03:19	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 03:43	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 04:08	1		DB-624 0.18(mm)
180-70652-2		09/29/2017 04:56	1	50928D17.D	DB-624 0.18(mm)
180-70652-1		09/29/2017 05:20	1	50928D18.D	DB-624 0.18(mm)
ZZZZZ		09/29/2017 06:08	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 06:32	1		DB-624 0.18(mm)
ZZZZZ		09/29/2017 07:20	5		DB-624 0.18(mm)
ZZZZZ		09/29/2017 07:44	10		DB-624 0.18(mm)
ZZZZZ		09/29/2017 08:08	10		DB-624 0.18(mm)
ZZZZZ		09/29/2017 08:32	10		DB-624 0.18(mm)
ZZZZZ		09/29/2017 08:56	10		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-70652-1

SDG No.:

Instrument ID: CHHP5 Start Date: 10/01/2017 22:21

Analysis Batch Number: 224557 End Date: 10/02/2017 10:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-224557/1		10/01/2017 22:21	1	51001D01.D	DB-624 0.18(mm)
CCVIS 180-224557/2		10/01/2017 22:56	1	51001D02.D	DB-624 0.18(mm)
ZZZZZ		10/01/2017 22:56	1		DB-624 0.18(mm)
LCS 180-224557/3		10/01/2017 23:33	1	51001D03.D	DB-624 0.18(mm)
ZZZZZ		10/02/2017 00:36	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 00:36	1		DB-624 0.18(mm)
CCV 180-224557/32		10/02/2017 01:00	1		DB-624 0.18(mm)
MB 180-224557/6		10/02/2017 01:25	1	51001D07.D	DB-624 0.18(mm)
ZZZZZ		10/02/2017 01:58	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 02:24	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 02:53	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 03:40	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 04:04	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 04:28	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 04:51	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 05:39	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 06:27	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 06:51	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 07:15	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 07:39	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 08:04	1		DB-624 0.18(mm)
180-70652-1 DL		10/02/2017 08:28	25	51001D24.D	DB-624 0.18(mm)
ZZZZZ		10/02/2017 09:15	5		DB-624 0.18(mm)
ZZZZZ		10/02/2017 09:39	1		DB-624 0.18(mm)
ZZZZZ		10/02/2017 10:04	1		DB-624 0.18(mm)

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 Record

180-70652 Chain of Custody

STL 20170925O1

Client Information	Sampler: Kaitlin Fleming	Lab PM: Gamber, Carrie L	Page 1 of 1
Client Contact: ~~Allan Miller~~ Chris O'Neil	Phone: 717-756-1246	E-Mail: carrie.gamber@testamericainc.com	
Company: Groundwater Sciences Corporation			Job #: 10012.36
Address: 2601 Market Place Street, Suite 310	Due Date Requested:		
City: Harrisburg	TAT Requested (days): Normal		
State, Zip: PA, 17110-9307	PO #: Purchase Order not required		
Phone:	WO #:		
Email: amiller@groundwatersciences.com	Project #: 18010144		
Project Name: Harley Davidson	SSOW#:		
Site: SPBA			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

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 LL	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
HD-SPBA-GW-21-0/1-0	9/22/17	0940	G	W	N	N	3		(72 hour sample)
HD-QC2-0/1-2				W	N	N	2		Trip Blank

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: 9-26-17 2nd

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		9/25/17 1700	GSC	Dillie Watson	9-26-17	TAL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:00	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:

180-70652 Waybill

D:MD/A (412) 963-7058
RICA PITTSBURGH LAB

ERS 5 BEFORE BILL
PHA DR
URGH, PA 152382907
STATES US

SHIP DATE: 25SEP17
ACTWGT: 11.10 LB
CAD: /OFFC1802
DIMS: 11x11x9 IN

BILL SENDER

Part # 156297-4

MPLE RECOVERY
ST AMERCIA PITTSBURGH
1 ALPHA DR

TTSBURGH PA 15238
3-7058 REF:
DEPT:

FedEx
Express

E

J17211709130 1uv

TUE - 26 SEP 10:30A
PRIORITY OVERNIGHT

116 7637 1516

AGCA

15238
PA-US **PIT**

ted temp 2.2 °C
eter ID 11
13 Initials TS

2.4

ffective 7/26/13

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-70652-1

Login Number: 70652
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").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	