TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

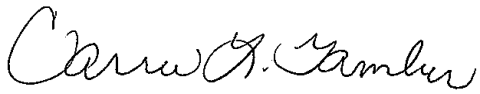
ANALYTICAL REPORT

Job Number: 180-70873-1

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.
Carrie L Gamber
Senior Project Manager
10/10/2017 7:22 AM

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10/10/2017

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Qualifiers

GC/MS VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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: 180-70873-1

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

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

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

RECEIPT

The samples were received on 10/3/2017 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

The following Trip Blank sample was received with headspace in 2 of 2 vials. The client was emailed and the analysis proceeded with this narration.

VOLATILES

The following sample was diluted to bring the concentration of target analytes within the calibration range: HD-SPBA-CW-22-0/1-0 (180-70873-1). Elevated reporting limits (RLs) are provided.

The continuing calibration verification (CCV) analyzed in batch 180-224792 was outside the method criteria for the following analytes: 1,4-Dioxane, Bromoform, Chloromethane, cis-1,3-Dichloropropene and Dibromochloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-224919 was outside the method criteria for the following analytes: 1,4-Dioxane, Chloroethane, Chloromethane and Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70873-1

Client Sample ID: HD-SPBA-CW-22-0/1-0 — Lab Sample ID: 180-70873-1

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
Trichloroethene	220	E	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	320	E	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene - DL	190		13	2.5	ug/L	12.5		8260C	Total/NA
Tetrachloroethene - DL	290		13	3.1	ug/L	12.5		8260C	Total/NA

Client Sample ID: HD-QC4-0/1-2 — Lab Sample ID: 180-70873-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-SPBA-CW-22-0/1-0
Date Collected: 09/29/17 09:40
Date Received: 10/03/17 09:00

Lab Sample ID: 180-70873-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.38	ug/L			10/04/17 05:23	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/04/17 05:23	1
Bromomethane	1.0	U	1.0	0.59	ug/L			10/04/17 05:23	1
Chloroethane	1.0	U	1.0	0.58	ug/L			10/04/17 05:23	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			10/04/17 05:23	1
Acetone	5.0	U	5.0	3.1	ug/L			10/04/17 05:23	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			10/04/17 05:23	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			10/04/17 05:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			10/04/17 05:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			10/04/17 05:23	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			10/04/17 05:23	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.30	ug/L			10/04/17 05:23	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			10/04/17 05:23	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/04/17 05:23	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/04/17 05:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			10/04/17 05:23	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			10/04/17 05:23	1
Benzene	1.0	U	1.0	0.18	ug/L			10/04/17 05:23	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/04/17 05:23	1
Trichloroethene	**220**	**E**	1.0	0.20	ug/L			10/04/17 05:23	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			10/04/17 05:23	1
Bromodichloromethane	1.0	U ^c	1.0	0.57	ug/L			10/04/17 05:23	1
cis-1,3-Dichloropropene	1.0	U ^c	1.0	0.32	ug/L			10/04/17 05:23	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			10/04/17 05:23	1
Toluene	1.0	U	1.0	0.16	ug/L			10/04/17 05:23	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			10/04/17 05:23	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			10/04/17 05:23	1
Tetrachloroethene	**320**	**E**	1.0	0.24	ug/L			10/04/17 05:23	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			10/04/17 05:23	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			10/04/17 05:23	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			10/04/17 05:23	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/04/17 05:23	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			10/04/17 05:23	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			10/04/17 05:23	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			10/04/17 05:23	1
Styrene	1.0	U	1.0	0.22	ug/L			10/04/17 05:23	1
Bromoform	1.0	U ^c	1.0	0.76	ug/L			10/04/17 05:23	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			10/04/17 05:23	1
Acrylonitrile	20	U	20	3.3	ug/L			10/04/17 05:23	1
1,4-Dioxane	200	U	200	16	ug/L			10/04/17 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*65 - 121*		*10/04/17 05:23*	*1*
Toluene-d8 (Surr)	*97*		*73 - 120*		*10/04/17 05:23*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/04/17 05:23*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 120*		*10/04/17 05:23*	*1*

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

Client Sample ID: HD-QC4-0/1-2
Date Collected: 09/29/17 12:00
Date Received: 10/03/17 09:00

Lab Sample ID: 180-70873-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.38	ug/L			10/04/17 04:59	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/04/17 04:59	1
Bromomethane	1.0	U	1.0	0.59	ug/L			10/04/17 04:59	1
Chloroethane	1.0	U	1.0	0.58	ug/L			10/04/17 04:59	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			10/04/17 04:59	1
Acetone	5.0	U	5.0	3.1	ug/L			10/04/17 04:59	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			10/04/17 04:59	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			10/04/17 04:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			10/04/17 04:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			10/04/17 04:59	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			10/04/17 04:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			10/04/17 04:59	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			10/04/17 04:59	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/04/17 04:59	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/04/17 04:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			10/04/17 04:59	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			10/04/17 04:59	1
Benzene	1.0	U	1.0	0.18	ug/L			10/04/17 04:59	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/04/17 04:59	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			10/04/17 04:59	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			10/04/17 04:59	1
Bromodichloromethane	1.0	U ^c	1.0	0.57	ug/L			10/04/17 04:59	1
cis-1,3-Dichloropropene	1.0	U ^c	1.0	0.32	ug/L			10/04/17 04:59	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			10/04/17 04:59	1
Toluene	1.0	U	1.0	0.16	ug/L			10/04/17 04:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			10/04/17 04:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			10/04/17 04:59	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			10/04/17 04:59	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			10/04/17 04:59	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			10/04/17 04:59	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			10/04/17 04:59	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/04/17 04:59	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			10/04/17 04:59	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			10/04/17 04:59	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			10/04/17 04:59	1
Styrene	1.0	U	1.0	0.22	ug/L			10/04/17 04:59	1
Bromoform	1.0	U ^c	1.0	0.76	ug/L			10/04/17 04:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			10/04/17 04:59	1
Acrylonitrile	20	U	20	3.3	ug/L			10/04/17 04:59	1
1,4-Dioxane	200	U	200	16	ug/L			10/04/17 04:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*65 - 121*		*10/04/17 04:59*	*1*
Toluene-d8 (Surr)	*101*		*73 - 120*		*10/04/17 04:59*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*10/04/17 04:59*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 120*		*10/04/17 04:59*	*1*

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

Client Sample ID: HD-SPBA-CW-22-0/1-0
Date Collected: 09/29/17 09:40
Date Received: 10/03/17 09:00

Lab Sample ID: 180-70873-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	13	U ^c	13	4.8	ug/L			10/05/17 06:31	12.5
Vinyl chloride	13	U ^c	13	2.1	ug/L			10/05/17 06:31	12.5
Bromomethane	13	U	13	7.3	ug/L			10/05/17 06:31	12.5
Chloroethane	13	U ^c	13	7.2	ug/L			10/05/17 06:31	12.5
1,1-Dichloroethene	13	U	13	4.0	ug/L			10/05/17 06:31	12.5
Acetone	63	U	63	39	ug/L			10/05/17 06:31	12.5
Carbon disulfide	13	U	13	6.6	ug/L			10/05/17 06:31	12.5
Methylene Chloride	13	U	13	12	ug/L			10/05/17 06:31	12.5
trans-1,2-Dichloroethene	13	U	13	2.5	ug/L			10/05/17 06:31	12.5
Methyl tert-butyl ether	13	U	13	2.4	ug/L			10/05/17 06:31	12.5
1,1-Dichloroethane	13	U	13	4.2	ug/L			10/05/17 06:31	12.5
cis-1,2-Dichloroethene	13	U	13	3.8	ug/L			10/05/17 06:31	12.5
Bromochloromethane	13	U	13	4.5	ug/L			10/05/17 06:31	12.5
2-Butanone (MEK)	63	U	63	32	ug/L			10/05/17 06:31	12.5
Chloroform	13	U	13	3.3	ug/L			10/05/17 06:31	12.5
1,1,1-Trichloroethane	13	U	13	3.4	ug/L			10/05/17 06:31	12.5
Carbon tetrachloride	13	U	13	7.0	ug/L			10/05/17 06:31	12.5
Benzene	13	U	13	2.3	ug/L			10/05/17 06:31	12.5
1,2-Dichloroethane	13	U	13	3.0	ug/L			10/05/17 06:31	12.5
Trichloroethene	**190**		13	2.5	ug/L			10/05/17 06:31	12.5
1,2-Dichloropropane	13	U	13	4.3	ug/L			10/05/17 06:31	12.5
Bromodichloromethane	13	U	13	7.1	ug/L			10/05/17 06:31	12.5
cis-1,3-Dichloropropene	13	U	13	4.0	ug/L			10/05/17 06:31	12.5
4-Methyl-2-pentanone (MIBK)	63	U	63	27	ug/L			10/05/17 06:31	12.5
Toluene	13	U	13	2.0	ug/L			10/05/17 06:31	12.5
trans-1,3-Dichloropropene	13	U	13	2.8	ug/L			10/05/17 06:31	12.5
1,1,2-Trichloroethane	13	U	13	3.8	ug/L			10/05/17 06:31	12.5
Tetrachloroethene	**290**		13	3.1	ug/L			10/05/17 06:31	12.5
2-Hexanone	63	U	63	25	ug/L			10/05/17 06:31	12.5
Dibromochloromethane	13	U	13	5.5	ug/L			10/05/17 06:31	12.5
1,2-Dibromoethane (EDB)	13	U	13	6.4	ug/L			10/05/17 06:31	12.5
Chlorobenzene	13	U	13	1.8	ug/L			10/05/17 06:31	12.5
1,1,1,2-Tetrachloroethane	13	U	13	6.2	ug/L			10/05/17 06:31	12.5
Ethylbenzene	13	U	13	3.2	ug/L			10/05/17 06:31	12.5
Xylenes, Total	25	U	25	3.4	ug/L			10/05/17 06:31	12.5
Styrene	13	U	13	2.7	ug/L			10/05/17 06:31	12.5
Bromoform	13	U	13	9.5	ug/L			10/05/17 06:31	12.5
1,1,2,2-Tetrachloroethane	13	U	13	4.6	ug/L			10/05/17 06:31	12.5
Acrylonitrile	250	U	250	42	ug/L			10/05/17 06:31	12.5
1,4-Dioxane	2500	U	2500	200	ug/L			10/05/17 06:31	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*65 - 121*		*10/05/17 06:31*	*12.5*
Toluene-d8 (Surr)	*99*		*73 - 120*		*10/05/17 06:31*	*12.5*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/05/17 06:31*	*12.5*
Dibromofluoromethane (Surr)	*109*		*73 - 120*		*10/05/17 06:31*	*12.5*

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70873-1

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: 180-70873-1

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)
180-70873-1	HD-SPBA-CW-22-0/1-0	113	97	94	101
180-70873-1 - DL	HD-SPBA-CW-22-0/1-0	117	99	94	109
180-70873-2	HD-QC4-0/1-2	113	101	92	101
LCS 180-224792/4	Lab Control Sample	106	113	107	98
LCS 180-224919/4	Lab Control Sample	102	110	102	90
MB 180-224792/6	Method Blank	107	98	93	94
MB 180-224919/7	Method Blank	111	101	95	96

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 180-224792/6
Matrix: Water
Analysis Batch: 224792

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			10/04/17 02:21	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/04/17 02:21	1
Bromomethane	1.0	U	1.0	0.59	ug/L			10/04/17 02:21	1
Chloroethane	1.0	U	1.0	0.58	ug/L			10/04/17 02:21	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			10/04/17 02:21	1
Acetone	5.0	U	5.0	3.1	ug/L			10/04/17 02:21	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			10/04/17 02:21	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			10/04/17 02:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			10/04/17 02:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			10/04/17 02:21	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			10/04/17 02:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			10/04/17 02:21	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			10/04/17 02:21	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/04/17 02:21	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/04/17 02:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			10/04/17 02:21	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			10/04/17 02:21	1
Benzene	1.0	U	1.0	0.18	ug/L			10/04/17 02:21	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/04/17 02:21	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			10/04/17 02:21	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			10/04/17 02:21	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			10/04/17 02:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			10/04/17 02:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			10/04/17 02:21	1
Toluene	1.0	U	1.0	0.16	ug/L			10/04/17 02:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			10/04/17 02:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			10/04/17 02:21	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			10/04/17 02:21	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			10/04/17 02:21	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			10/04/17 02:21	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			10/04/17 02:21	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/04/17 02:21	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			10/04/17 02:21	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			10/04/17 02:21	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			10/04/17 02:21	1
Styrene	1.0	U	1.0	0.22	ug/L			10/04/17 02:21	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/04/17 02:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			10/04/17 02:21	1
Acrylonitrile	20	U	20	3.3	ug/L			10/04/17 02:21	1
1,4-Dioxane	200	U	200	16	ug/L			10/04/17 02:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*65 - 121*		*10/04/17 02:21*	*1*
Toluene-d8 (Surr)	*98*		*73 - 120*		*10/04/17 02:21*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*10/04/17 02:21*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/04/17 02:21*	*1*

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

Lab Sample ID: LCS 180-224792/4
Matrix: Water
Analysis Batch: 224792

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	11.6		ug/L		116	49 - 135
Vinyl chloride	10.0	11.8		ug/L		118	52 - 136
Bromomethane	10.0	10.1		ug/L		101	37 - 150
Chloroethane	10.0	13.5		ug/L		135	44 - 139
1,1-Dichloroethene	10.0	10.3		ug/L		103	64 - 131
Acetone	20.0	22.4		ug/L		112	24 - 150
Carbon disulfide	10.0	9.37		ug/L		94	20 - 150
Methylene Chloride	10.0	9.77		ug/L		98	66 - 123
trans-1,2-Dichloroethene	10.0	10.0		ug/L		100	70 - 123
Methyl tert-butyl ether	10.0	9.62		ug/L		96	66 - 130
1,1-Dichloroethane	10.0	9.85		ug/L		98	66 - 122
cis-1,2-Dichloroethene	10.0	9.81		ug/L		98	73 - 120
Bromochloromethane	10.0	9.53		ug/L		95	73 - 122
2-Butanone (MEK)	20.0	21.0		ug/L		105	37 - 150
Chloroform	10.0	9.83		ug/L		98	72 - 123
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	66 - 129
Carbon tetrachloride	10.0	9.98		ug/L		100	58 - 145
Benzene	10.0	9.68		ug/L		97	75 - 123
1,2-Dichloroethane	10.0	10.6		ug/L		106	63 - 130
Trichloroethene	10.0	9.28		ug/L		93	74 - 121
1,2-Dichloropropane	10.0	9.20		ug/L		92	67 - 119
Bromodichloromethane	10.0	9.11		ug/L		91	62 - 127
cis-1,3-Dichloropropene	10.0	8.97		ug/L		90	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	21.2		ug/L		106	41 - 135
Toluene	10.0	10.9		ug/L		109	76 - 129
trans-1,3-Dichloropropene	10.0	9.70		ug/L		97	61 - 136
1,1,2-Trichloroethane	10.0	10.8		ug/L		108	74 - 126
Tetrachloroethene	10.0	10.5		ug/L		105	76 - 128
2-Hexanone	20.0	21.2		ug/L		106	37 - 150
Dibromochloromethane	10.0	9.60		ug/L		96	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.86		ug/L		99	76 - 128
Chlorobenzene	10.0	10.3		ug/L		103	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.6		ug/L		106	70 - 130
Ethylbenzene	10.0	9.83		ug/L		98	77 - 124
Xylenes, Total	20.0	20.2		ug/L		101	76 - 124
Styrene	10.0	10.0		ug/L		100	80 - 125
Bromoform	10.0	8.98		ug/L		90	54 - 136
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	72 - 128
Acrylonitrile	100	108		ug/L		108	60 - 130
1,4-Dioxane	200	271		ug/L		135	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*65 - 121*
Toluene-d8 (Surr)	*113*		*73 - 120*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*73 - 120*

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

Lab Sample ID: MB 180-224919/7
Matrix: Water
Analysis Batch: 224919

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			10/05/17 02:41	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			10/05/17 02:41	1
Bromomethane	1.0	U	1.0	0.59	ug/L			10/05/17 02:41	1
Chloroethane	1.0	U	1.0	0.58	ug/L			10/05/17 02:41	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			10/05/17 02:41	1
Acetone	5.0	U	5.0	3.1	ug/L			10/05/17 02:41	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			10/05/17 02:41	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			10/05/17 02:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			10/05/17 02:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			10/05/17 02:41	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			10/05/17 02:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			10/05/17 02:41	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			10/05/17 02:41	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/05/17 02:41	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/05/17 02:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			10/05/17 02:41	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			10/05/17 02:41	1
Benzene	1.0	U	1.0	0.18	ug/L			10/05/17 02:41	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/05/17 02:41	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			10/05/17 02:41	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			10/05/17 02:41	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			10/05/17 02:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			10/05/17 02:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			10/05/17 02:41	1
Toluene	1.0	U	1.0	0.16	ug/L			10/05/17 02:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			10/05/17 02:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			10/05/17 02:41	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			10/05/17 02:41	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			10/05/17 02:41	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			10/05/17 02:41	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			10/05/17 02:41	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/05/17 02:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			10/05/17 02:41	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			10/05/17 02:41	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			10/05/17 02:41	1
Styrene	1.0	U	1.0	0.22	ug/L			10/05/17 02:41	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/05/17 02:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			10/05/17 02:41	1
Acrylonitrile	20	U	20	3.3	ug/L			10/05/17 02:41	1
1,4-Dioxane	200	U	200	16	ug/L			10/05/17 02:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*65 - 121*		*10/05/17 02:41*	*1*
Toluene-d8 (Surr)	*101*		*73 - 120*		*10/05/17 02:41*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/05/17 02:41*	*1*
Dibromofluoromethane (Surr)	*96*		*73 - 120*		*10/05/17 02:41*	*1*

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

Lab Sample ID: LCS 180-224919/4
Matrix: Water
Analysis Batch: 224919

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	12.0		ug/L		120	49 - 135
Vinyl chloride	10.0	12.6		ug/L		126	52 - 136
Bromomethane	10.0	12.4		ug/L		124	37 - 150
Chloroethane	10.0	12.5		ug/L		125	44 - 139
1,1-Dichloroethene	10.0	9.95		ug/L		100	64 - 131
Acetone	20.0	21.7		ug/L		109	24 - 150
Carbon disulfide	10.0	9.04		ug/L		90	20 - 150
Methylene Chloride	10.0	8.90		ug/L		89	66 - 123
trans-1,2-Dichloroethene	10.0	9.52		ug/L		95	70 - 123
Methyl tert-butyl ether	10.0	9.23		ug/L		92	66 - 130
1,1-Dichloroethane	10.0	9.51		ug/L		95	66 - 122
cis-1,2-Dichloroethene	10.0	8.65		ug/L		86	73 - 120
Bromochloromethane	10.0	8.75		ug/L		88	73 - 122
2-Butanone (MEK)	20.0	18.3		ug/L		91	37 - 150
Chloroform	10.0	9.05		ug/L		91	72 - 123
1,1,1-Trichloroethane	10.0	9.46		ug/L		95	66 - 129
Carbon tetrachloride	10.0	9.46		ug/L		95	58 - 145
Benzene	10.0	8.85		ug/L		88	75 - 123
1,2-Dichloroethane	10.0	9.68		ug/L		97	63 - 130
Trichloroethene	10.0	8.20		ug/L		82	74 - 121
1,2-Dichloropropane	10.0	8.44		ug/L		84	67 - 119
Bromodichloromethane	10.0	8.21		ug/L		82	62 - 127
cis-1,3-Dichloropropene	10.0	8.18		ug/L		82	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	20.4		ug/L		102	41 - 135
Toluene	10.0	10.4		ug/L		104	76 - 129
trans-1,3-Dichloropropene	10.0	9.78		ug/L		98	61 - 136
1,1,2-Trichloroethane	10.0	10.6		ug/L		106	74 - 126
Tetrachloroethene	10.0	9.77		ug/L		98	76 - 128
2-Hexanone	20.0	19.4		ug/L		97	37 - 150
Dibromochloromethane	10.0	9.57		ug/L		96	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.26		ug/L		93	76 - 128
Chlorobenzene	10.0	9.72		ug/L		97	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.84		ug/L		98	70 - 130
Ethylbenzene	10.0	9.31		ug/L		93	77 - 124
Xylenes, Total	20.0	18.9		ug/L		95	76 - 124
Styrene	10.0	9.11		ug/L		91	80 - 125
Bromoform	10.0	8.75		ug/L		88	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.67		ug/L		97	72 - 128
Acrylonitrile	100	102		ug/L		102	60 - 130
1,4-Dioxane	200	189	J	ug/L		94	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*65 - 121*
Toluene-d8 (Surr)	*110*		*73 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*90*		*73 - 120*

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70873-1

GC/MS VOA

Analysis Batch: 224792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-70873-1	HD-SPBA-CW-22-0/1-0	Total/NA	Water	8260C	
180-70873-2	HD-QC4-0/1-2	Total/NA	Water	8260C	
MB 180-224792/6	Method Blank	Total/NA	Water	8260C	
LCS 180-224792/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 224919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-70873-1 - DL	HD-SPBA-CW-22-0/1-0	Total/NA	Water	8260C	
MB 180-224919/7	Method Blank	Total/NA	Water	8260C	
LCS 180-224919/4	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70873-1

Client Sample ID: HD-SPBA-CW-22-0/1-0

Lab Sample ID: 180-70873-1

Date Collected: 09/29/17 09:40

Matrix: Water

Date Received: 10/03/17 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	224792	10/04/17 05:23	FBB	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	12.5	5 mL	5 mL	224919	10/05/17 06:31	FBB	TAL PIT
	Instrument ID: CHHP5									

Client Sample ID: HD-QC4-0/1-2

Lab Sample ID: 180-70873-2

Date Collected: 09/29/17 12:00

Matrix: Water

Date Received: 10/03/17 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	224792	10/04/17 04:59	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
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70873-1

Laboratory: TestAmerica Pittsburgh

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

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

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-70873-1

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: 180-70873-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-70873-1	HD-SPBA-CW-22-0/1-0	Water	09/29/17 09:40	10/03/17 09:00
180-70873-2	HD-QC4-0/1-2	Water	09/29/17 12:00	10/03/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

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.: 180-70873-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 224792

Lab Sample ID: CCVIS 180-224792/2 Client Sample ID:

Date Analyzed: 10/04/17 00:22 Lab File ID: 51003D02.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	6.01	Poor chromatography	bungardf	10/04/17 00:54

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

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_00267	10/09/17	10/02/17	Methanol, Lot 2469119	10 mL	VOA8260GAS2ND_00211	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.: 180-70873-1

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_00211	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.: 180-70873-1

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.: 180-70873-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

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.: 180-70873-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

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.: 180-70873-1

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.: 180-70873-1

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.: 180-70873-1

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)

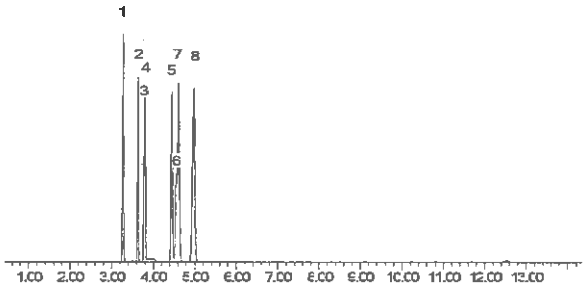
Carrier Gas:
helium-constant flow 2.0 mL/min.

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_00211

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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 µg/mL Gravimetric +/- 106.0450 µg/mL Unstressed +/- 106.5155 µg/mL Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 **Purity** 99%	(Lot M276P24)	1,250.2 µg/mL	+/- 7.2688 µg/mL Gravimetric +/- 26.5135 µg/mL Unstressed +/- 26.6311 µg/mL Stressed
3	Fluorobenzene **CAS #** 462-06-6 **Purity** 99%	(Lot BCBK8171V)	250.2 µg/mL	+/- 1.4580 µg/mL Gravimetric +/- 5.3070 µg/mL Unstressed +/- 5.3305 µg/mL Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 **Purity** 98%	(Lot I-19073)	5,000.6 µg/mL	+/- 29.0727 µg/mL Gravimetric +/- 106.0502 µg/mL Unstressed +/- 106.5208 µg/mL Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	250.4 µg/mL	+/- 1.4592 µg/mL Gravimetric +/- 5.3113 µg/mL Unstressed +/- 5.3348 µg/mL Stressed
6	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	250.0 µg/mL	+/- 1.4569 µg/mL Gravimetric +/- 5.3028 µg/mL Unstressed +/- 5.3263 µg/mL Stressed

Reagent

VOA8260INTRES_00135

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

Description : 8260 Internal Standard 2014

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol		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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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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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

56	Bromobenzene		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)

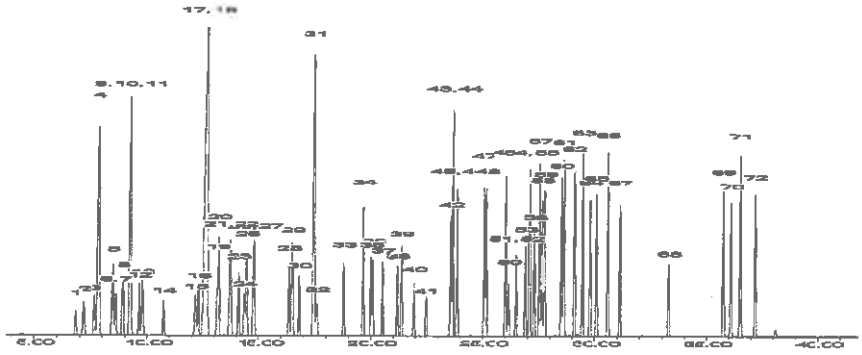
Carrier Gas:
helium-constant pressure 30 psi

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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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

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

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

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

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

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

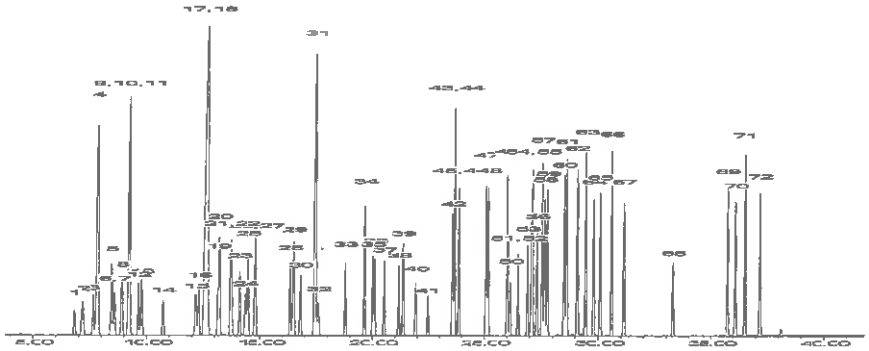
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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

www.restek.com

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Certificate #3222.01

Certificate of Analysis

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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. : 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

RESTEK CERTIFIED REFERENCE MATERIAL

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

Catalog No. : 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

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Bellefonte, PA 16823-8812
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Certificate #3222.01

ILAC-MRA

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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. : 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

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.: 180-70873-1

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-22-0/1-0	180-70873-1	101	113	97	94
HD-SPBA-CW-22-0/1-0 DL	180-70873-1 DL	109	117	99	94
HD-QC4-0/1-2	180-70873-2	101	113	101	92
	MB 180-224792/6	94	107	98	93
	MB 180-224919/7	96	111	101	95
	LCS 180-224792/4	98	106	113	107
	LCS 180-224919/4	90	102	110	102

	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.: 180-70873-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51003D04.D

Lab ID: LCS 180-224792/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.6	116	49-135	
Vinyl chloride	10.0	11.8	118	52-136	
Bromomethane	10.0	10.1	101	37-150	
Chloroethane	10.0	13.5	135	44-139	
1,1-Dichloroethene	10.0	10.3	103	64-131	
Acetone	20.0	22.4	112	24-150	
Carbon disulfide	10.0	9.37	94	20-150	
Methylene Chloride	10.0	9.77	98	66-123	
trans-1,2-Dichloroethene	10.0	10.0	100	70-123	
Methyl tert-butyl ether	10.0	9.62	96	66-130	
1,1-Dichloroethane	10.0	9.85	98	66-122	
cis-1,2-Dichloroethene	10.0	9.81	98	73-120	
Bromochloromethane	10.0	9.53	95	73-122	
2-Butanone (MEK)	20.0	21.0	105	37-150	
Chloroform	10.0	9.83	98	72-123	
1,1,1-Trichloroethane	10.0	10.4	104	66-129	
Carbon tetrachloride	10.0	9.98	100	58-145	
Benzene	10.0	9.68	97	75-123	
1,2-Dichloroethane	10.0	10.6	106	63-130	
Trichloroethene	10.0	9.28	93	74-121	
1,2-Dichloropropane	10.0	9.20	92	67-119	
Bromodichloromethane	10.0	9.11	91	62-127	
cis-1,3-Dichloropropene	10.0	8.97	90	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	21.2	106	41-135	
Toluene	10.0	10.9	109	76-129	
trans-1,3-Dichloropropene	10.0	9.70	97	61-136	
1,1,2-Trichloroethane	10.0	10.8	108	74-126	
Tetrachloroethene	10.0	10.5	105	76-128	
2-Hexanone	20.0	21.2	106	37-150	
Dibromochloromethane	10.0	9.60	96	63-131	
1,2-Dibromoethane (EDB)	10.0	9.86	99	76-128	
Chlorobenzene	10.0	10.3	103	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.6	106	70-130	
Ethylbenzene	10.0	9.83	98	77-124	
Xylenes, Total	20.0	20.2	101	76-124	
Styrene	10.0	10.0	100	80-125	
Bromoform	10.0	8.98	90	54-136	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	72-128	
Acrylonitrile	100	108	108	60-130	
1,4-Dioxane	200	271	135	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.: 180-70873-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51004D04.D

Lab ID: LCS 180-224919/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.0	120	49-135	
Vinyl chloride	10.0	12.6	126	52-136	
Bromomethane	10.0	12.4	124	37-150	
Chloroethane	10.0	12.5	125	44-139	
1,1-Dichloroethene	10.0	9.95	100	64-131	
Acetone	20.0	21.7	109	24-150	
Carbon disulfide	10.0	9.04	90	20-150	
Methylene Chloride	10.0	8.90	89	66-123	
trans-1,2-Dichloroethene	10.0	9.52	95	70-123	
Methyl tert-butyl ether	10.0	9.23	92	66-130	
1,1-Dichloroethane	10.0	9.51	95	66-122	
cis-1,2-Dichloroethene	10.0	8.65	86	73-120	
Bromochloromethane	10.0	8.75	88	73-122	
2-Butanone (MEK)	20.0	18.3	91	37-150	
Chloroform	10.0	9.05	91	72-123	
1,1,1-Trichloroethane	10.0	9.46	95	66-129	
Carbon tetrachloride	10.0	9.46	95	58-145	
Benzene	10.0	8.85	88	75-123	
1,2-Dichloroethane	10.0	9.68	97	63-130	
Trichloroethene	10.0	8.20	82	74-121	
1,2-Dichloropropane	10.0	8.44	84	67-119	
Bromodichloromethane	10.0	8.21	82	62-127	
cis-1,3-Dichloropropene	10.0	8.18	82	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	20.4	102	41-135	
Toluene	10.0	10.4	104	76-129	
trans-1,3-Dichloropropene	10.0	9.78	98	61-136	
1,1,2-Trichloroethane	10.0	10.6	106	74-126	
Tetrachloroethene	10.0	9.77	98	76-128	
2-Hexanone	20.0	19.4	97	37-150	
Dibromochloromethane	10.0	9.57	96	63-131	
1,2-Dibromoethane (EDB)	10.0	9.26	93	76-128	
Chlorobenzene	10.0	9.72	97	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.84	98	70-130	
Ethylbenzene	10.0	9.31	93	77-124	
Xylenes, Total	20.0	18.9	95	76-124	
Styrene	10.0	9.11	91	80-125	
Bromoform	10.0	8.75	88	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.67	97	72-128	
Acrylonitrile	100	102	102	60-130	
1,4-Dioxane	200	189 J	94	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.: 180-70873-1

SDG No.:

Lab File ID: 51003D06.D Lab Sample ID: MB 180-224792/6

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

Instrument ID: CHHP5 Date Analyzed: 10/04/2017 02:21

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 180-224792/4	51003D04.D	10/04/2017 01:24
HD-QC4-0/1-2	180-70873-2	51003D12.D	10/04/2017 04:59
HD-SPBA-CW-22-0/1-0	180-70873-1	51003D13.D	10/04/2017 05:23

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab File ID: 51004D07.D Lab Sample ID: MB 180-224919/7

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

Instrument ID: CHHP5 Date Analyzed: 10/05/2017 02:41

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 180-224919/4	51004D04.D	10/05/2017 01:09
HD-SPBA-CW-22-0/1-0 DL	180-70873-1 DL	51004D16.D	10/05/2017 06:31

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

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.: 180-70873-1

SDG No.:

Lab File ID: 51003D01.D BFB Injection Date: 10/03/2017

Instrument ID: CHHP5 BFB Injection Time: 23:49

Analysis Batch No.: 224792

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.2
75	30.0 - 60.0 % of mass 95	45.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	5.5
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	63.6
175	5.0 - 9.0 % of mass 174	5.0 (7.9) 1
176	95.0 - 101.0 % of mass 174	63.8 (100.3) 1
177	5.0 - 9.0 % of mass 176	3.3 (5.2) 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 180-224792/2	51003D02.D	10/04/2017	00:22
	LCS 180-224792/4	51003D04.D	10/04/2017	01:24
	MB 180-224792/6	51003D06.D	10/04/2017	02:21
HD-QC4-0/1-2	180-70873-2	51003D12.D	10/04/2017	04:59
HD-SPBA-CW-22-0/1-0	180-70873-1	51003D13.D	10/04/2017	05:23

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab File ID: 51004D01.D BFB Injection Date: 10/04/2017

Instrument ID: CHHP5 BFB Injection Time: 22:24

Analysis Batch No.: 224919

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	44.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.4	(0.6) 1
174	50.0 - 120.00 % of mass 95	68.2	
175	5.0 - 9.0 % of mass 174	5.4	(7.9) 1
176	95.0 - 101.0 % of mass 174	67.8	(99.4) 1
177	5.0 - 9.0 % of mass 176	4.1	(6.1) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-224919/2	51004D02.D	10/04/2017	23:29
	LCS 180-224919/4	51004D04.D	10/05/2017	01:09
	MB 180-224919/7	51004D07.D	10/05/2017	02:41
HD-SPBA-CW-22-0/1-0 DL	180-70873-1 DL	51004D16.D	10/05/2017	06:31

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Sample No.: CCVIS 180-224792/2 Date Analyzed: 10/04/2017 00:22

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

Lab File ID (Standard): 51003D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		166571	4.38	398262	7.33	81838	10.43
UPPER LIMIT		333142	4.88	796524	7.83	163676	10.93
LOWER LIMIT		83286	3.88	199131	6.83	40919	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224792/4		183806	4.36	350927	7.34	75706	10.43
MB 180-224792/6		193789	4.35	384752	7.34	86410	10.43
180-70873-2	HD-QC4-0/1-2	177857	4.36	356184	7.34	75850	10.43
180-70873-1	HD-SPBA-CW-22-0/1-0	187446	4.35	362965	7.34	85357	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.: 180-70873-1

SDG No.:

Sample No.: CCVIS 180-224792/2 Date Analyzed: 10/04/2017 00:22

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

Lab File ID (Standard): 51003D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		115198	12.77				
UPPER LIMIT		230396	13.27				
LOWER LIMIT		57599	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224792/4		111504	12.77				
MB 180-224792/6		122049	12.77				
180-70873-2	HD-QC4-0/1-2	109308	12.77				
180-70873-1	HD-SPBA-CW-22-0/1-0	114932	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.: 180-70873-1

SDG No.:

Sample No.: CCVIS 180-224919/2 Date Analyzed: 10/04/2017 23:29

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

Lab File ID (Standard): 51004D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		150069	4.37	334551	7.34	71810	10.43
UPPER LIMIT		300138	4.87	669102	7.84	143620	10.93
LOWER LIMIT		75035	3.87	167276	6.84	35905	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224919/4		181022	4.37	356874	7.34	73297	10.43
MB 180-224919/7		189568	4.36	369267	7.34	81221	10.43
180-70873-1 DL	HD-SPBA-CW-22-0/1-0 DL	149753	4.36	323921	7.34	71240	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.: 180-70873-1

SDG No.:

Sample No.: CCVIS 180-224919/2 Date Analyzed: 10/04/2017 23:29

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

Lab File ID (Standard): 51004D02.D Heated Purge: (Y/N) N

Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		99164	12.77				
UPPER LIMIT		198328	13.27				
LOWER LIMIT		49582	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-224919/4		101073	12.77				
MB 180-224919/7		115186	12.77				
180-70873-1 DL	HD-SPBA-CW-22-0/1-0 DL	100827	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.: 180-70873-1

SDG No.:

Client Sample ID: HD-SPBA-CW-22-0/1-0 | Lab Sample ID: 180-70873-1

Matrix: Water | Lab File ID: 51003D13.D

Analysis Method: 8260C | Date Collected: 09/29/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/04/2017 05:23

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.: 224792 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	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	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*	*220*	*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 ^c	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U ^c	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*	*320*	*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.: 180-70873-1

SDG No.:

Client Sample ID: HD-SPBA-CW-22-0/1-0 | Lab Sample ID: 180-70873-1

Matrix: Water | Lab File ID: 51003D13.D

Analysis Method: 8260C | Date Collected: 09/29/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/04/2017 05:23

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.: 224792 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U ^c	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)	113		65-121
2037-26-5	Toluene-d8 (Surr)	97		73-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D13.D
Lims ID: 180-70873-A-1
Client ID: HD-SPBA-CW-22-0/1-0
Sample Type: Client
Inject. Date: 04-Oct-2017 05:23:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-013
Misc. Info.: 180-70873-A-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 20:55:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.347	0.006	0	187446	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.334	0.006	99	362965	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.431	-0.001	86	85357	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	97	114932	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.616	0.000	92	88499	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.981	0.006	0	120691	56.7	
$ 7 Toluene-d8 (Surr)	98	8.982	8.977	0.005	93	330827	48.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.611	-0.001	84	115743	47.2	
12 Chloromethane	50		1.823				ND	
13 Vinyl chloride	62		1.963				ND	
15 Bromomethane	94		2.291				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.423				ND	
24 Acetone	43	3.537	3.526	0.011	72	6332	6.67	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.232				ND	
33 Acrylonitrile	53		4.609				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73	4.651	4.657	-0.006	18	1691	0.3115	
37 1,1-Dichloroethane	63		5.272				ND	
45 cis-1,2-Dichloroethene	96	6.007	6.008	-0.001	79	19530	8.43	
46 2-Butanone (MEK)	43		6.026				ND	
49 Chlorobromomethane	128		6.294				ND	
52 Chloroform	83	6.427	6.440	-0.013	37	4434	1.26	
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.067				ND	
64 Trichloroethene	130	7.723	7.724	-0.001	97	2397052	1079.3	E
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.044				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.488				ND	
80 Tetrachloroethene	164	9.560	9.561	-0.001	91	2568655	1582.5	E
82 2-Hexanone	43		9.707				ND	
84 Chlorodibromomethane	129		9.853				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.455				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.692				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.094				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.751				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

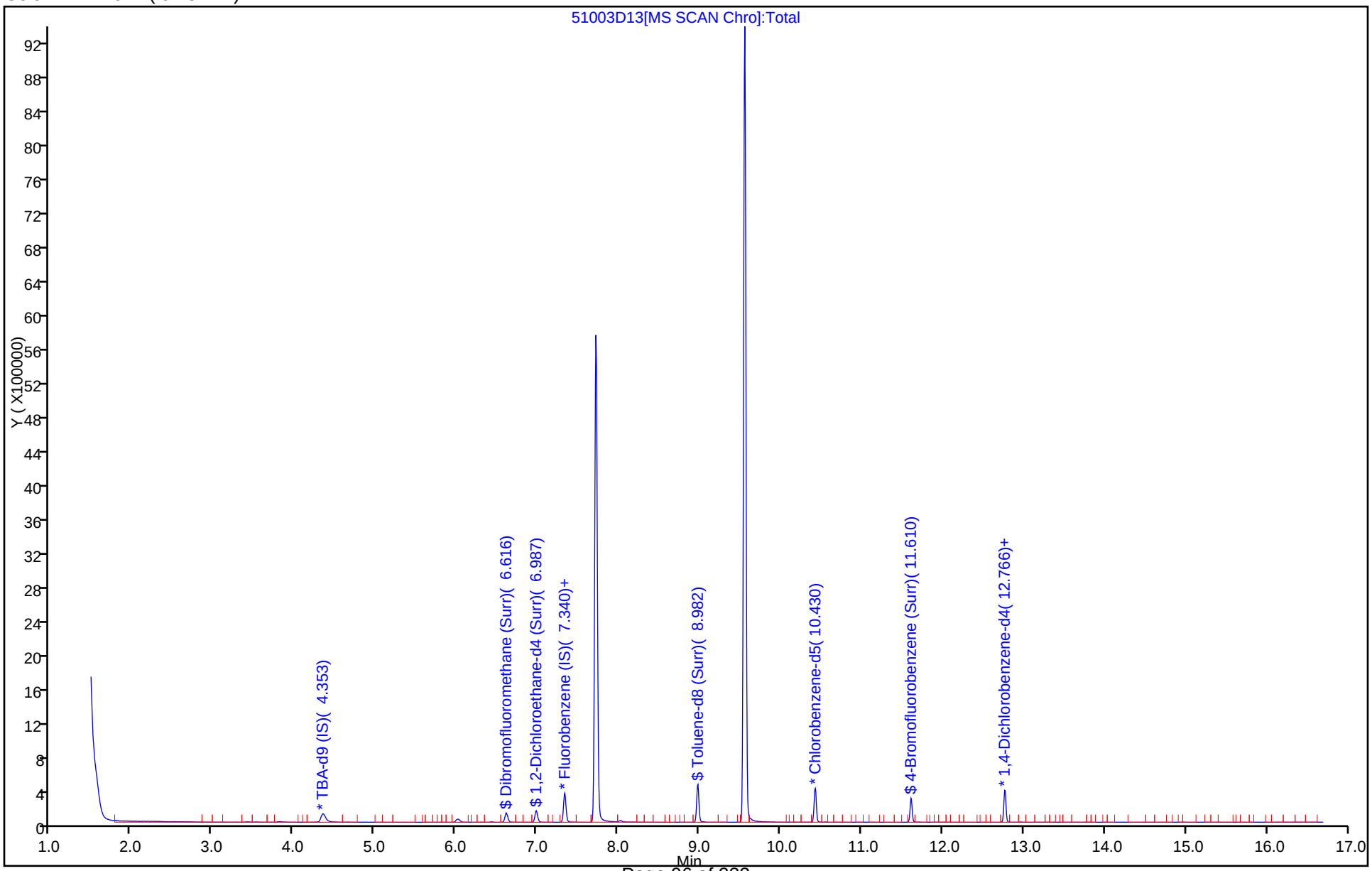
Report Date: 04-Oct-2017 21:10:51 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D13.D

Injection Date:	04-Oct-2017 05:23:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-70873-A-1	Lab Sample ID:	180-70873-1	Worklist Smp#:	13
Client ID:	HD-SPBA-CW-22-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D13.D
Lims ID: 180-70873-A-1
Client ID: HD-SPBA-CW-22-0/1-0
Sample Type: Client
Inject. Date: 04-Oct-2017 05:23:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-013
Misc. Info.: 180-70873-A-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 20:55:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	50.7	101.35
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.7	113.32
$ 7 Toluene-d8 (Surr)	50.0	48.7	97.40
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.2	94.35

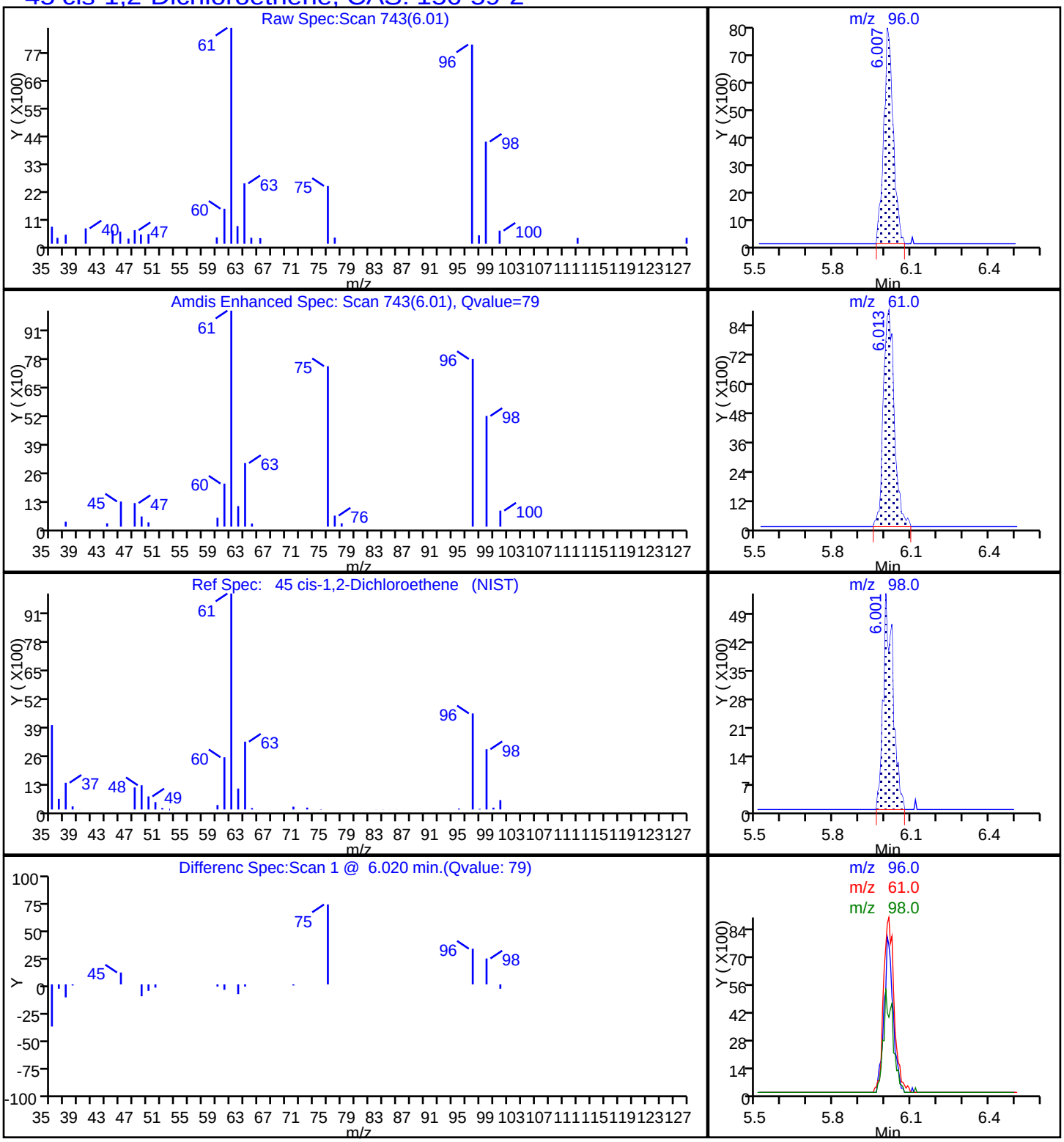
Report Date: 04-Oct-2017 21:10:51 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D13.D

Injection Date:	04-Oct-2017 05:23:30	Instrument ID:	CHHP5		
Lims ID:	180-70873-A-1	Lab Sample ID:	180-70873-1		
Client ID:	HD-SPBA-CW-22-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
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



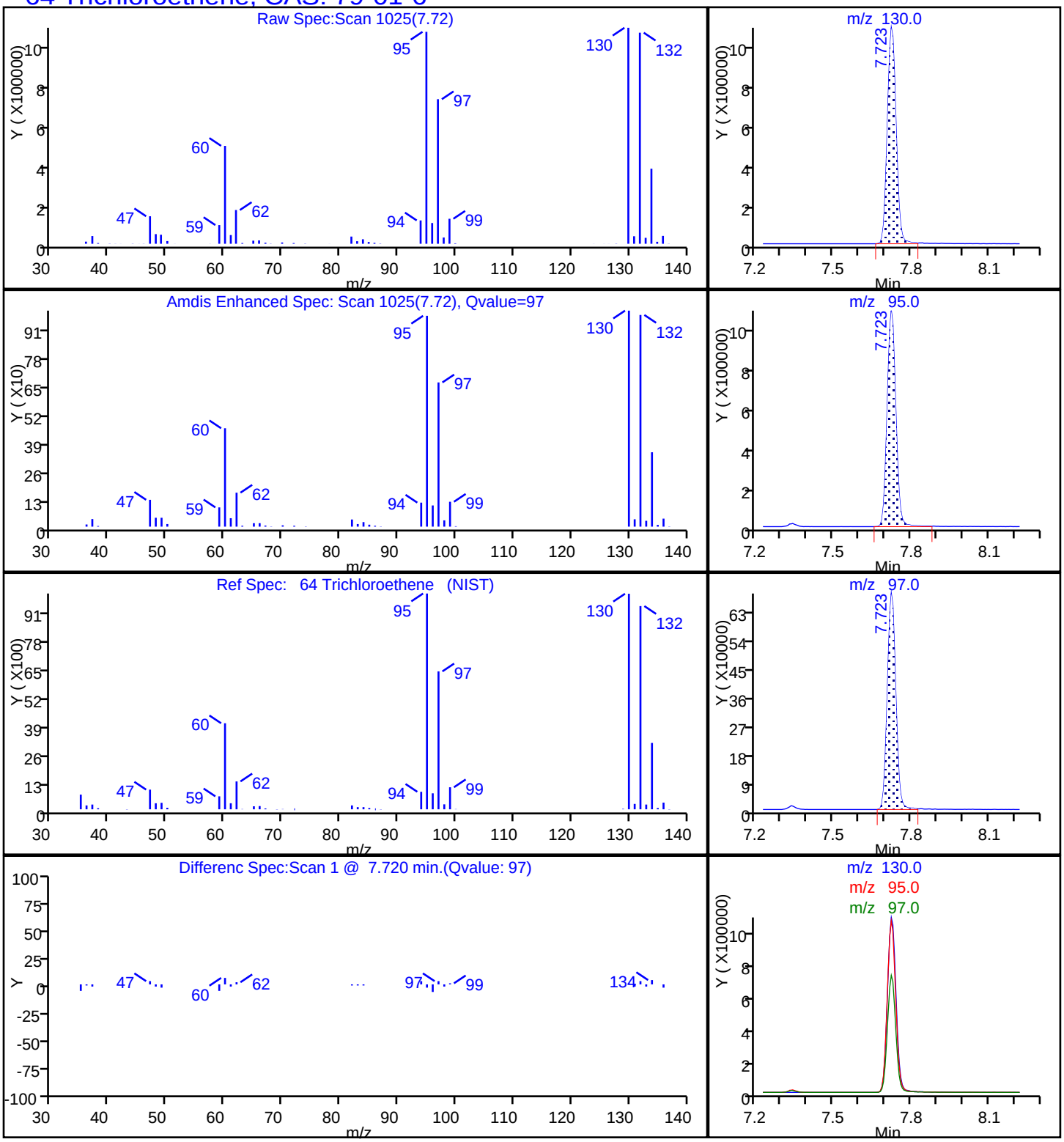
Report Date: 04-Oct-2017 21:10:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D13.D

Injection Date:	04-Oct-2017 05:23:30	Instrument ID:	CHHP5		
Lims ID:	180-70873-A-1	Lab Sample ID:	180-70873-1		
Client ID:	HD-SPBA-CW-22-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
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



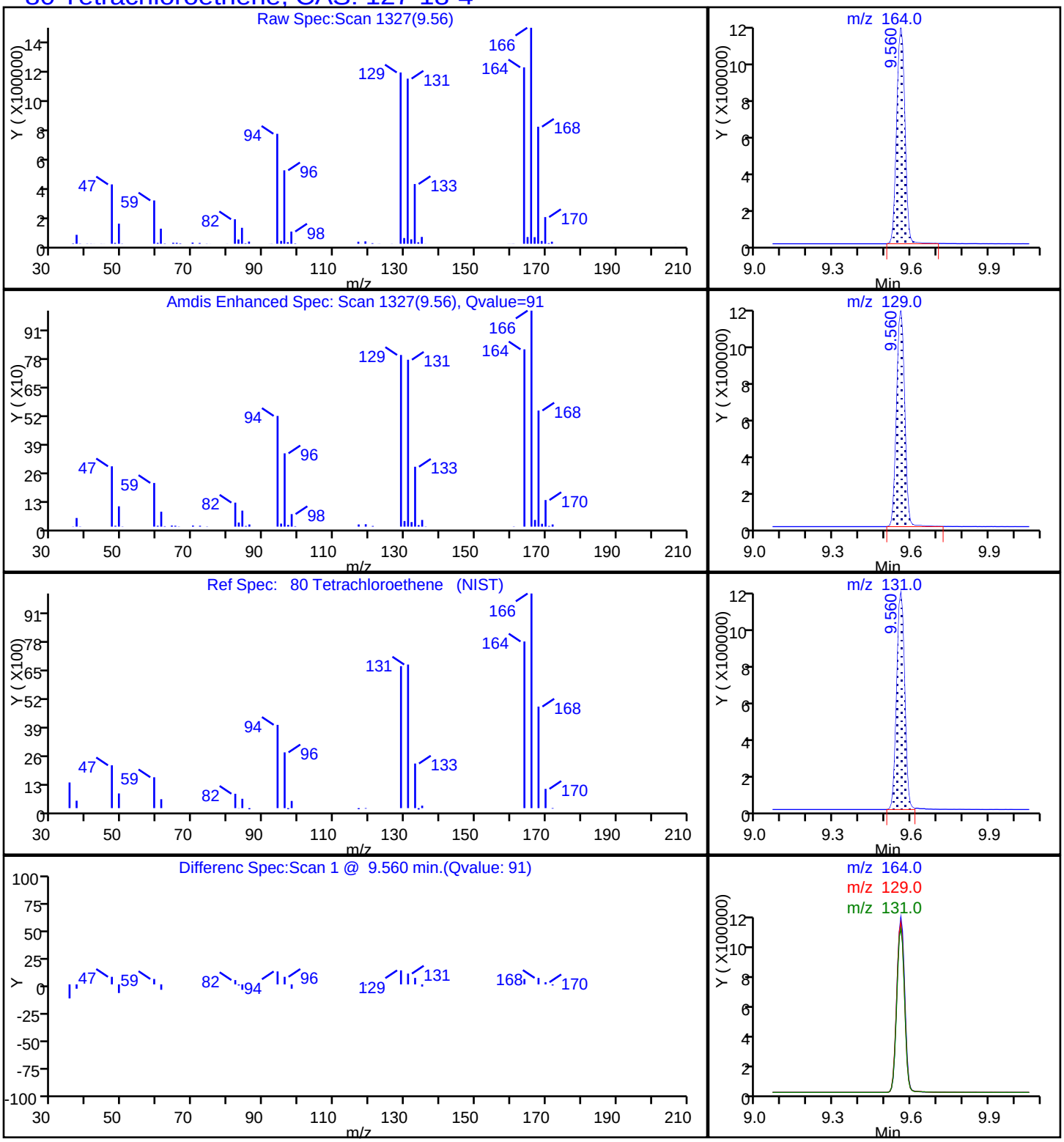
Report Date: 04-Oct-2017 21:10:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D13.D

Injection Date:	04-Oct-2017 05:23:30	Instrument ID:	CHHP5		
Lims ID:	180-70873-A-1	Lab Sample ID:	180-70873-1		
Client ID:	HD-SPBA-CW-22-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
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.: 180-70873-1

SDG No.:

Client Sample ID: HD-SPBA-CW-22-0/1-0 DL | Lab Sample ID: 180-70873-1 DL

Matrix: Water | Lab File ID: 51004D16.D

Analysis Method: 8260C | Date Collected: 09/29/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/05/2017 06:31

Soil Aliquot Vol: | Dilution Factor: 12.5

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

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

Analysis Batch No.: 224919 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13	U ^c	13	4.8
75-01-4	Vinyl chloride	13	U ^c	13	2.1
74-83-9	Bromomethane	13	U	13	7.3
75-00-3	Chloroethane	13	U ^c	13	7.2
75-35-4	1,1-Dichloroethene	13	U	13	4.0
67-64-1	Acetone	63	U	63	39
75-15-0	Carbon disulfide	13	U	13	6.6
75-09-2	Methylene Chloride	13	U	13	12
156-60-5	trans-1,2-Dichloroethene	13	U	13	2.5
1634-04-4	Methyl tert-butyl ether	13	U	13	2.4
75-34-3	1,1-Dichloroethane	13	U	13	4.2
156-59-2	cis-1,2-Dichloroethene	13	U	13	3.8
74-97-5	Bromochloromethane	13	U	13	4.5
78-93-3	2-Butanone (MEK)	63	U	63	32
67-66-3	Chloroform	13	U	13	3.3
71-55-6	1,1,1-Trichloroethane	13	U	13	3.4
56-23-5	Carbon tetrachloride	13	U	13	7.0
71-43-2	Benzene	13	U	13	2.3
107-06-2	1,2-Dichloroethane	13	U	13	3.0
79-01-6	Trichloroethene	190		13	2.5
78-87-5	1,2-Dichloropropane	13	U	13	4.3
75-27-4	Bromodichloromethane	13	U	13	7.1
10061-01-5	cis-1,3-Dichloropropene	13	U	13	4.0
108-10-1	4-Methyl-2-pentanone (MIBK)	63	U	63	27
108-88-3	Toluene	13	U	13	2.0
10061-02-6	trans-1,3-Dichloropropene	13	U	13	2.8
79-00-5	1,1,2-Trichloroethane	13	U	13	3.8
127-18-4	Tetrachloroethene	290		13	3.1
591-78-6	2-Hexanone	63	U	63	25
124-48-1	Dibromochloromethane	13	U	13	5.5
106-93-4	1,2-Dibromoethane (EDB)	13	U	13	6.4
108-90-7	Chlorobenzene	13	U	13	1.8
630-20-6	1,1,1,2-Tetrachloroethane	13	U	13	6.2
100-41-4	Ethylbenzene	13	U	13	3.2
1330-20-7	Xylenes, Total	25	U	25	3.4
100-42-5	Styrene	13	U	13	2.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70873-1

SDG No.:

Client Sample ID: HD-SPBA-CW-22-0/1-0 DL | Lab Sample ID: 180-70873-1 DL

Matrix: Water | Lab File ID: 51004D16.D

Analysis Method: 8260C | Date Collected: 09/29/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/05/2017 06:31

Soil Aliquot Vol: | Dilution Factor: 12.5

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

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

Analysis Batch No.: 224919 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*13*	*U*	*13*	*9.5*
79-34-5	*1,1,2,2-Tetrachloroethane*	*13*	*U*	*13*	*4.6*
107-13-1	*Acrylonitrile*	*250*	*U*	*250*	*42*
123-91-1	*1,4-Dioxane*	*2500*	*U*	*2500*	*200*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		65-121
2037-26-5	Toluene-d8 (Surr)	99		73-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	109		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D16.D
Lims ID: 180-70873-C-1
Client ID: HD-SPBA-CW-22-0/1-0
Sample Type: Client
Inject. Date: 05-Oct-2017 06:31:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-0018725-016
Misc. Info.: 180-70873-C-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:27 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: XAWRK026

First Level Reviewer: bungardf Date: 08-Oct-2017 20:36:16

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.361	4.352	0.009	0	149753	1000.0	
*	2 Fluorobenzene (IS)	96	7.342	7.339	0.003	98	323921	50.0	
*	3 Chlorobenzene-d5	119	10.426	10.429	-0.003	86	71240	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	96	100827	50.0	
$	5 Dibromofluoromethane (Surr	113	6.618	6.613	0.005	92	85145	54.6	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.990	-0.007	0	110735	58.3	
$	7 Toluene-d8 (Surr)	98	8.979	8.979	-0.001	93	280607	49.5	
$	8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	84	95981	46.9	
	12 Chloromethane	50		1.825				ND	
	13 Vinyl chloride	62		1.959				ND	
	15 Bromomethane	94		2.300				ND	
	16 Chloroethane	64		2.470				ND	
	22 1,1-Dichloroethene	96		3.413				ND	
	24 Acetone	43		3.529				ND	
	26 Carbon disulfide	76		3.699				ND	
	31 Methylene Chloride	84		4.222				ND	
	33 Acrylonitrile	53		4.605				ND	
	34 trans-1,2-Dichloroethene	96		4.642				ND	
	35 Methyl tert-butyl ether	73		4.660				ND	
	37 1,1-Dichloroethane	63		5.268				ND	
	45 cis-1,2-Dichloroethene	96		6.011				ND	
	46 2-Butanone (MEK)	43		6.023				ND	
	49 Chlorobromomethane	128		6.290				ND	
	52 Chloroform	83	6.436	6.436	0.000	1	667	0.2126	
	53 1,1,1-Trichloroethane	97		6.595				ND	
	56 Carbon tetrachloride	117		6.759				ND	
	58 Benzene	78		6.996				ND	
	59 1,2-Dichloroethane	62		7.069				ND	
	64 Trichloroethene	130	7.725	7.720	0.005	99	147589	74.5	
	67 1,2-Dichloropropane	63		7.994				ND	
	70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.280				ND	
74 cis-1,3-Dichloropropene	75		8.718				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.876				ND	
76 Toluene	91		9.046				ND	
77 trans-1,3-Dichloropropene	75		9.296				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164	9.563	9.563	-0.001	94	158129	116.7	
82 2-Hexanone	43		9.703				ND	
84 Chlorodibromomethane	129		9.855				ND	
85 Ethylene Dibromide	107		9.971				ND	
87 Chlorobenzene	112		10.458				ND	
89 1,1,1,2-Tetrachloroethane	131		10.549				ND	
90 Ethylbenzene	106		10.555				ND	
91 m-Xylene & p-Xylene	106		10.689				ND	
92 o-Xylene	106		11.072				ND	
93 Styrene	104		11.090				ND	
94 Bromoform	173		11.273				ND	
99 1,1,2,2-Tetrachloroethane	83		11.747				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

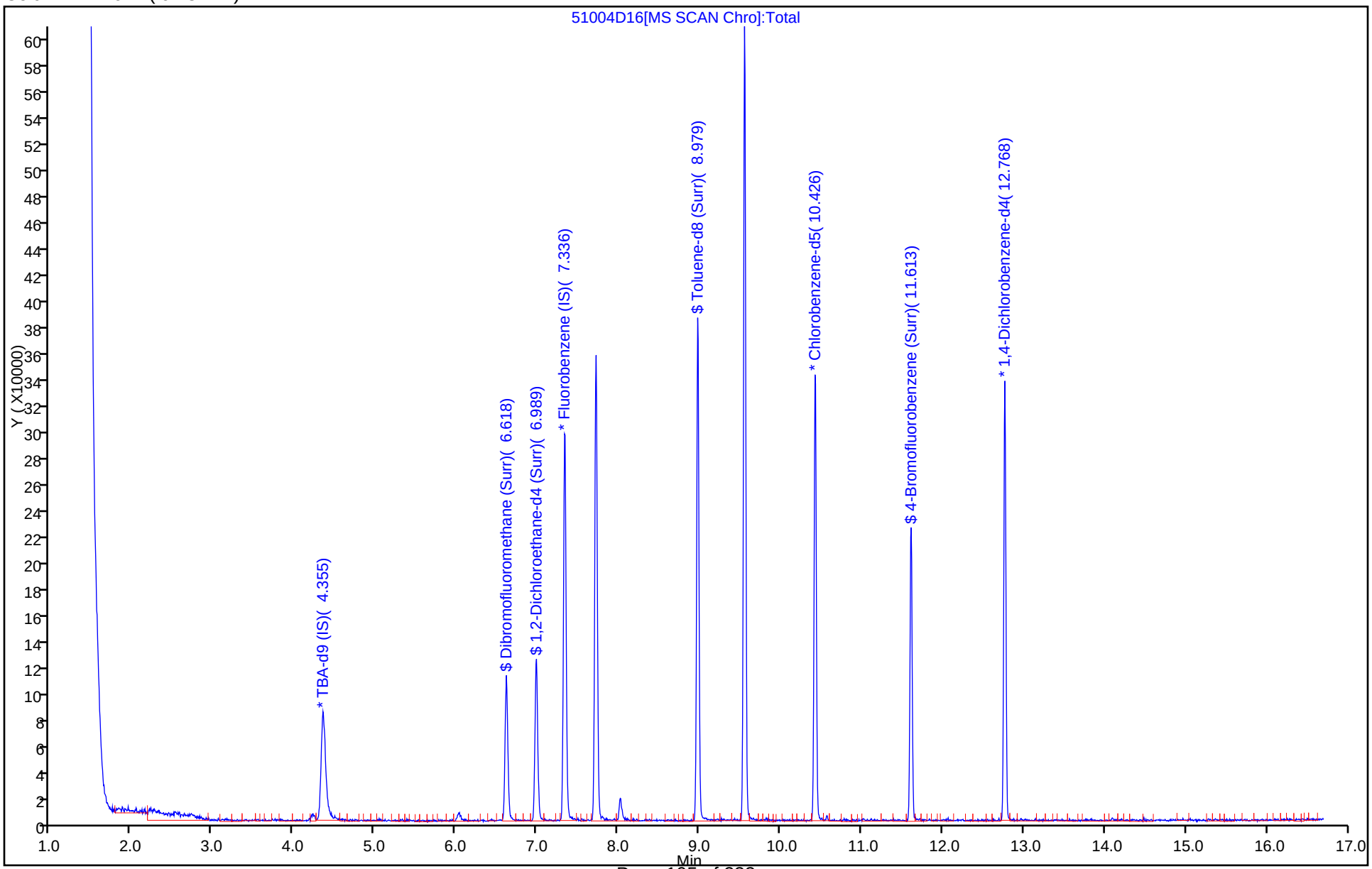
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 08-Oct-2017 20:41:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D16.D				
Injection Date:	05-Oct-2017 06:31:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-70873-C-1	Lab Sample ID:	180-70873-1	Worklist Smp#:	16
Client ID:	HD-SPBA-CW-22-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D16.D
Lims ID: 180-70873-C-1
Client ID: HD-SPBA-CW-22-0/1-0
Sample Type: Client
Inject. Date: 05-Oct-2017 06:31:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-0018725-016
Misc. Info.: 180-70873-C-1
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:27 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: XAWRK026

First Level Reviewer: bungardf Date: 08-Oct-2017 20:36:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	54.6	109.26
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.3	116.51
$ 7 Toluene-d8 (Surr)	50.0	49.5	98.98
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.9	93.74

Report Date: 08-Oct-2017 20:41:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D16.D

Injection Date: 05-Oct-2017 06:31:30 Instrument ID: CHHP5

Lims ID: 180-70873-C-1 Lab Sample ID: 180-70873-1

Client ID: HD-SPBA-CW-22-0/1-0

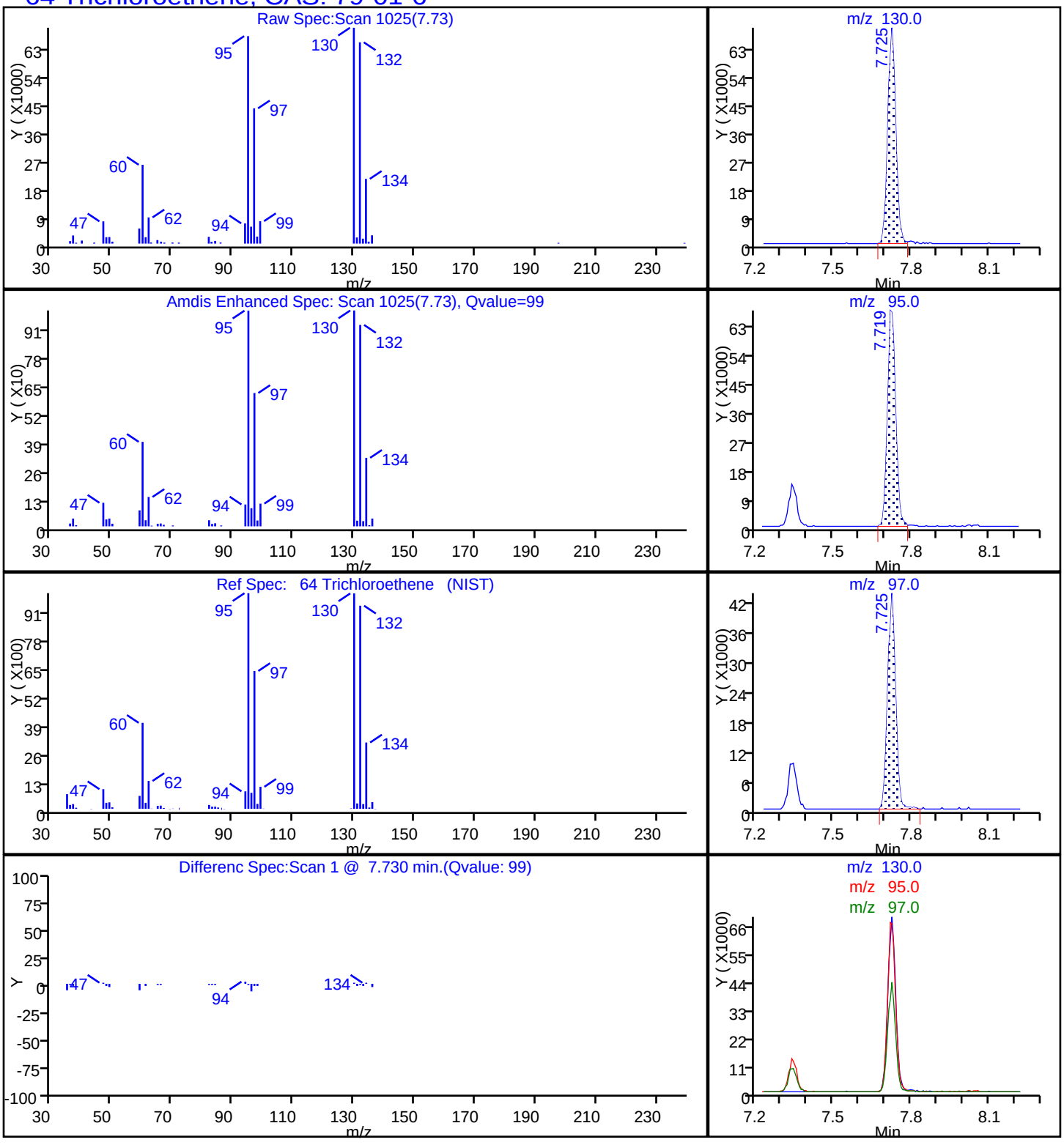
Operator ID: 034635 ALS Bottle#: 16 Worklist Smp#: 16

Purge Vol: 5.000 mL Dil. Factor: 12.5000

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: 08-Oct-2017 20:41:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D16.D

Injection Date: 05-Oct-2017 06:31:30 Instrument ID: CHHP5

Lims ID: 180-70873-C-1 Lab Sample ID: 180-70873-1

Client ID: HD-SPBA-CW-22-0/1-0

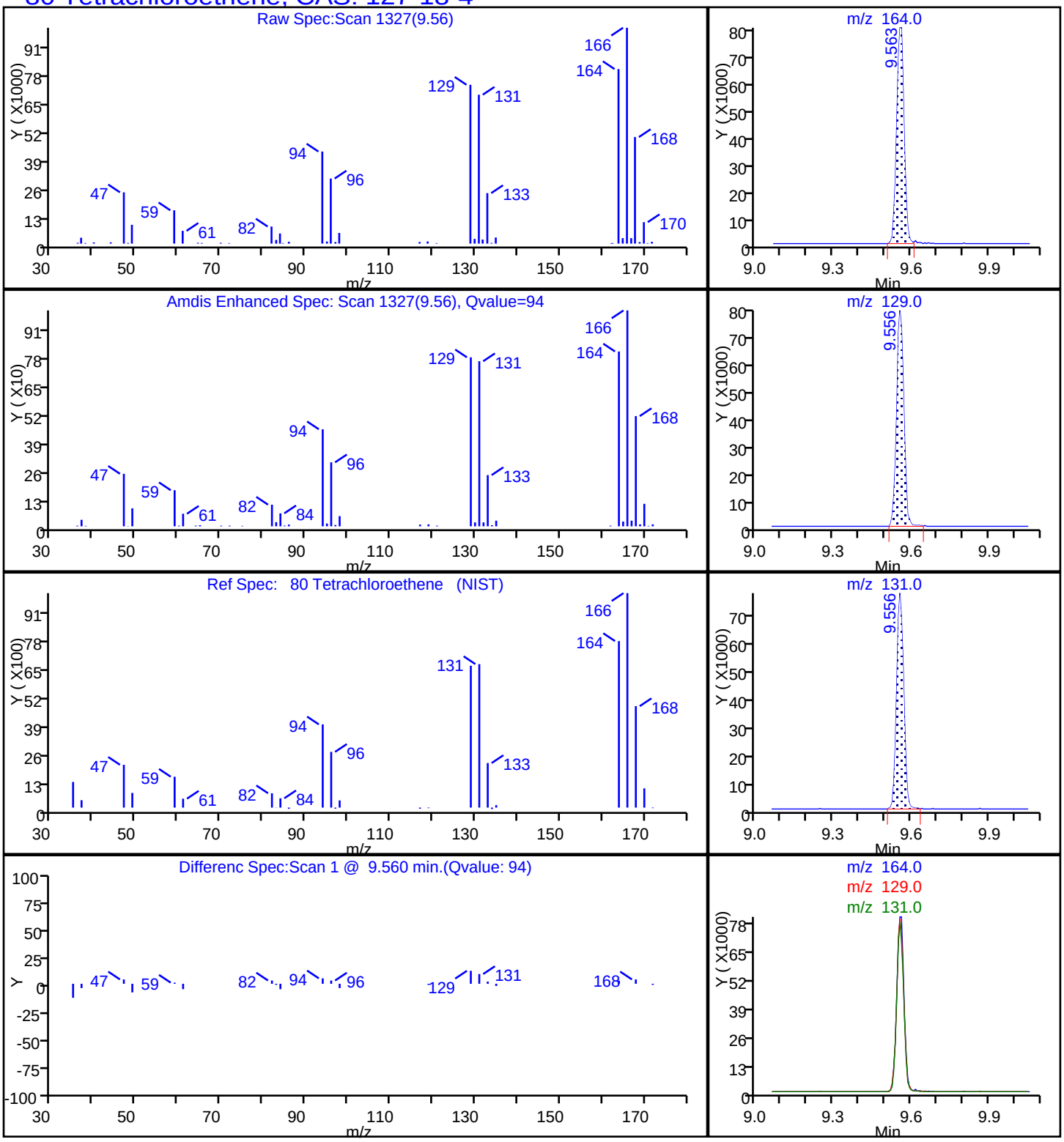
Operator ID: 034635 ALS Bottle#: 16 Worklist Smp#: 16

Purge Vol: 5.000 mL Dil. Factor: 12.5000

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.: 180-70873-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 | Lab Sample ID: 180-70873-2

Matrix: Water | Lab File ID: 51003D12.D

Analysis Method: 8260C | Date Collected: 09/29/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/04/2017 04:59

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224792 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	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 ^c	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U ^c	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.: 180-70873-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 | Lab Sample ID: 180-70873-2

Matrix: Water | Lab File ID: 51003D12.D

Analysis Method: 8260C | Date Collected: 09/29/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/04/2017 04:59

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224792 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U ^c	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)	113		65-121
2037-26-5	Toluene-d8 (Surr)	101		73-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D12.D
Lims ID: 180-70873-A-2
Client ID: HD-QC4-0/1-2
Sample Type: Client
Inject. Date: 04-Oct-2017 04:59:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-012
Misc. Info.: 180-70873-A-2
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 20:54:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.347	0.011	0	177857	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.334	0.005	99	356184	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.431	-0.001	86	75850	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	96	109308	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.622	6.616	0.006	94	86590	50.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.993	6.981	0.012	0	118160	56.5	
$ 7 Toluene-d8 (Surr)	98	8.982	8.977	0.005	93	304177	50.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.611	-0.001	86	100564	46.1	
12 Chloromethane	50		1.823				ND	
13 Vinyl chloride	62		1.963				ND	
15 Bromomethane	94		2.291				ND	
16 Chloroethane	64		2.461				ND	
22 1,1-Dichloroethene	96		3.423				ND	
24 Acetone	43	3.543	3.526	0.017	93	11198	12.0	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.232				ND	
33 Acrylonitrile	53		4.609				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73		4.657				ND	
37 1,1-Dichloroethane	63		5.272				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43		6.026				ND	
49 Chlorobromomethane	128		6.294				ND	
52 Chloroform	83		6.440				ND	
53 1,1,1-Trichloroethane	97		6.592				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.994				ND	
59 1,2-Dichloroethane	62		7.067				ND	
64 Trichloroethene	130		7.724				ND	
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.082				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873				ND	
76 Toluene	91		9.044				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.488				ND	
80 Tetrachloroethene	164		9.561				ND	
82 2-Hexanone	43		9.707				ND	
84 Chlorodibromomethane	129		9.853				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.455				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.692				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.094				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.751				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

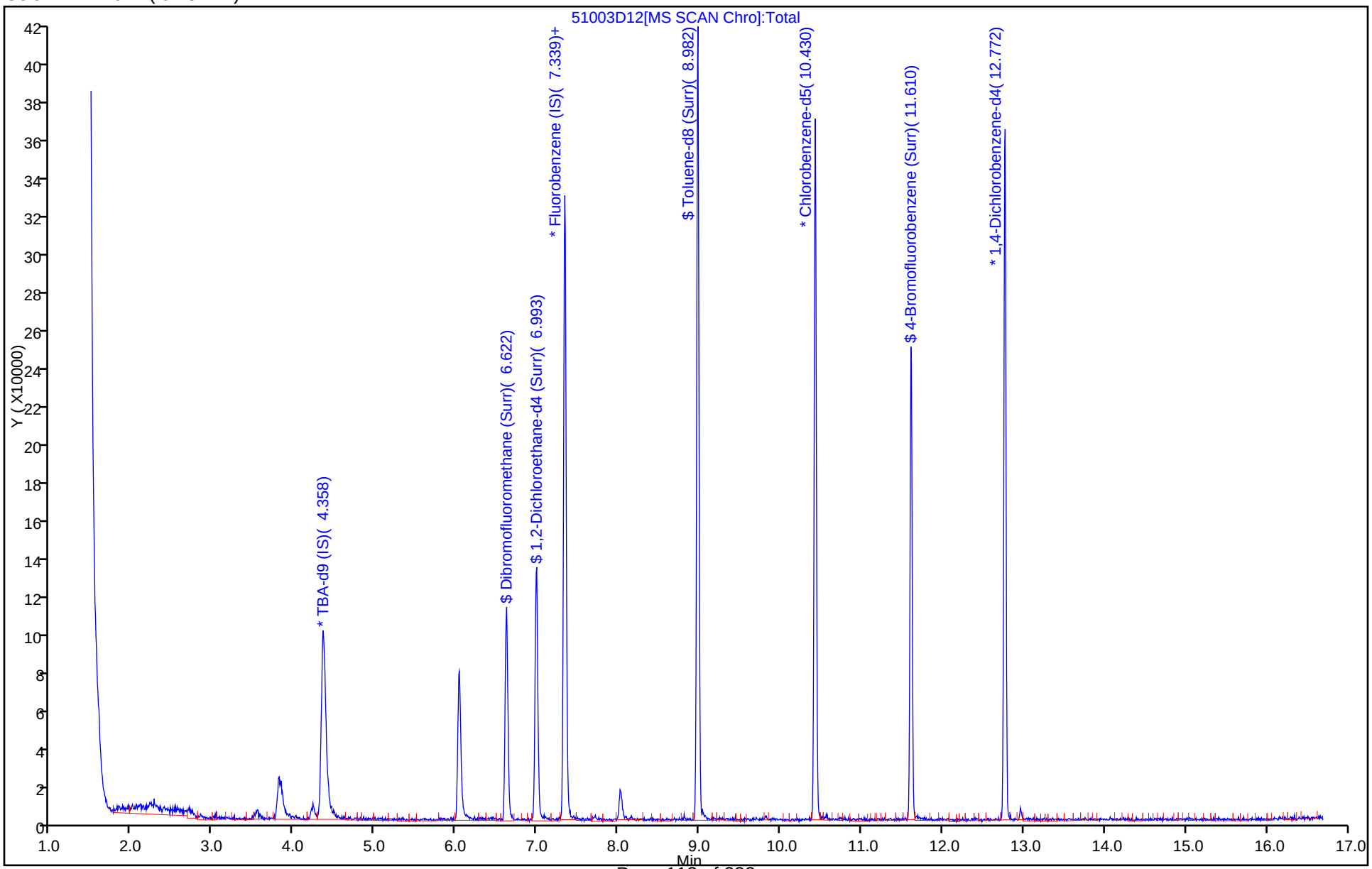
Report Date: 04-Oct-2017 21:10:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D12.D

Injection Date:	04-Oct-2017 04:59:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	180-70873-A-2	Lab Sample ID:	180-70873-2	Worklist Smp#:	12
Client ID:	HD-QC4-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D12.D
Lims ID: 180-70873-A-2
Client ID: HD-QC4-0/1-2
Sample Type: Client
Inject. Date: 04-Oct-2017 04:59:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-012
Misc. Info.: 180-70873-A-2
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 20:54:30

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	50.5	101.05
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.5	113.06
$ 7 Toluene-d8 (Surr)	50.0	50.4	100.78
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.1	92.25

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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-trifluoroetha ne	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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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.: 180-70873-1 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

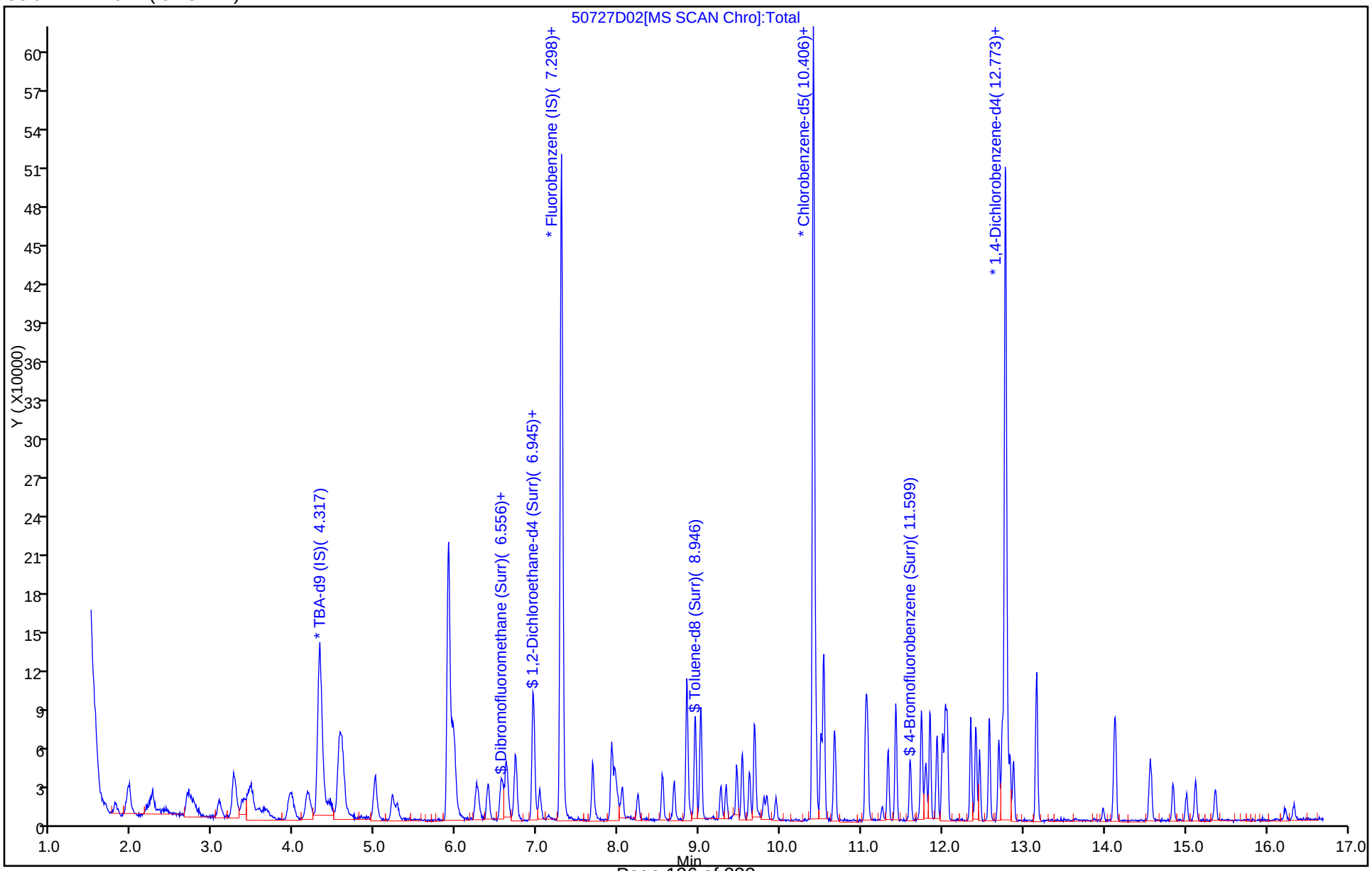
Report Date: 28-Jul-2017 01:04:45 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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

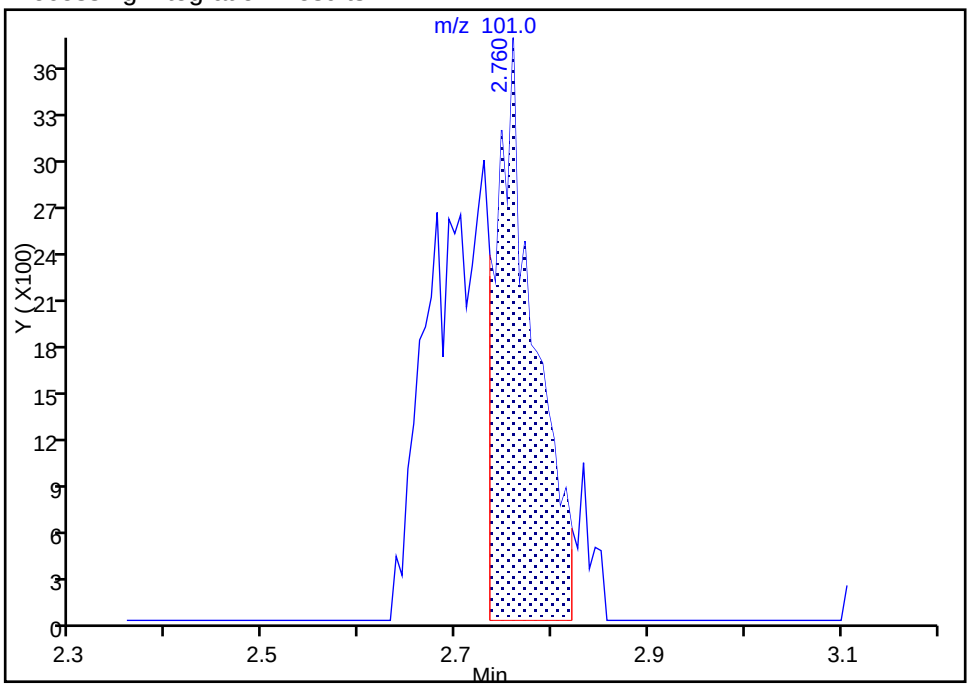
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
Injection Date: 27-Jul-2017 00:51:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C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

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

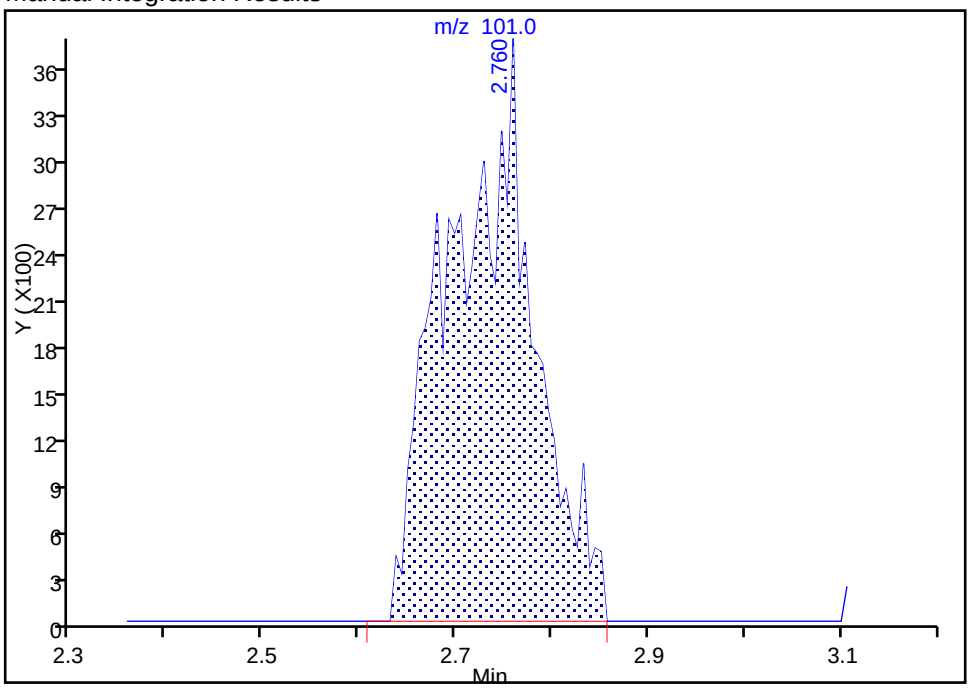
Processing Integration Results

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

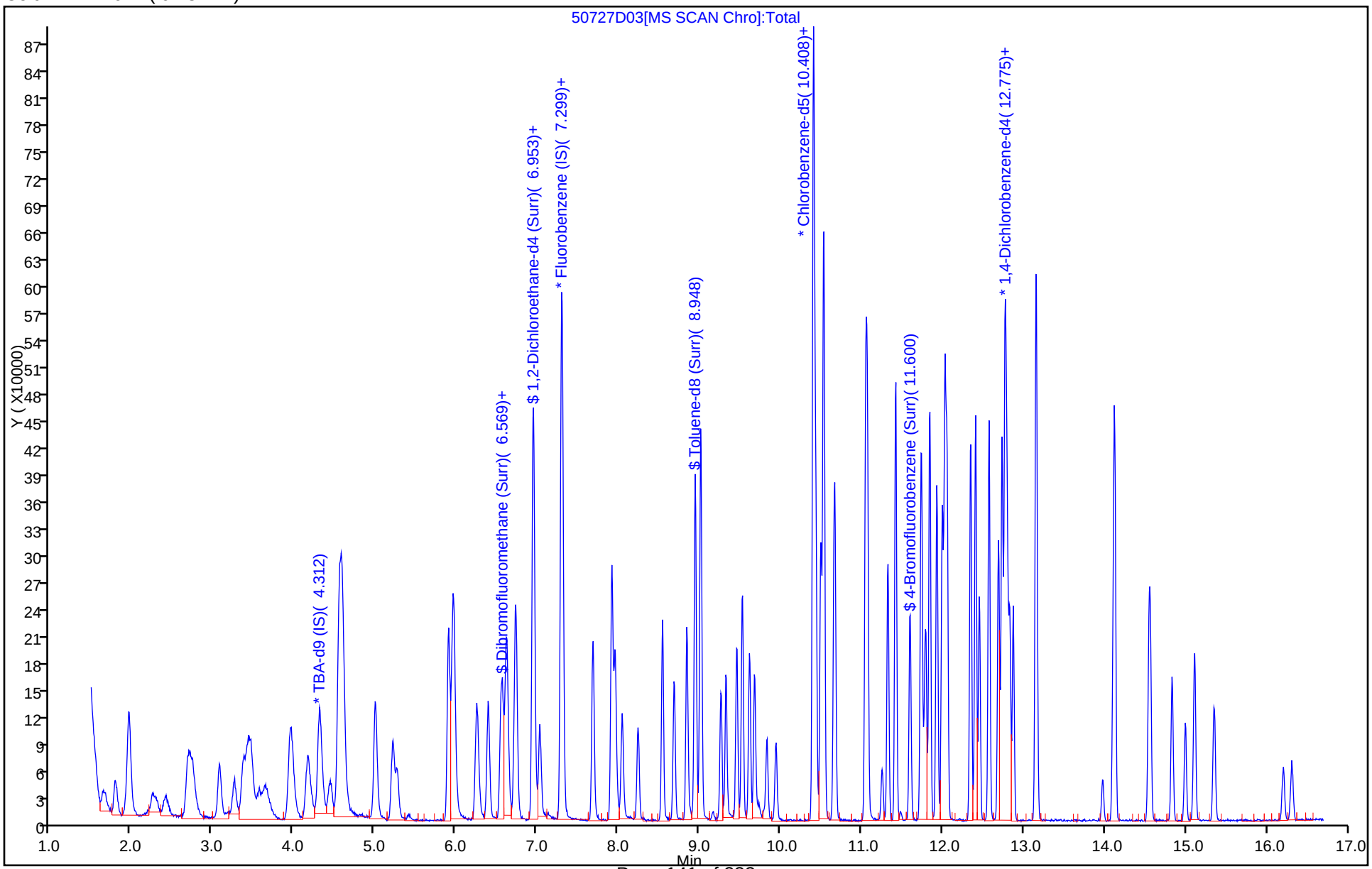
Report Date: 28-Jul-2017 01:04:48 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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

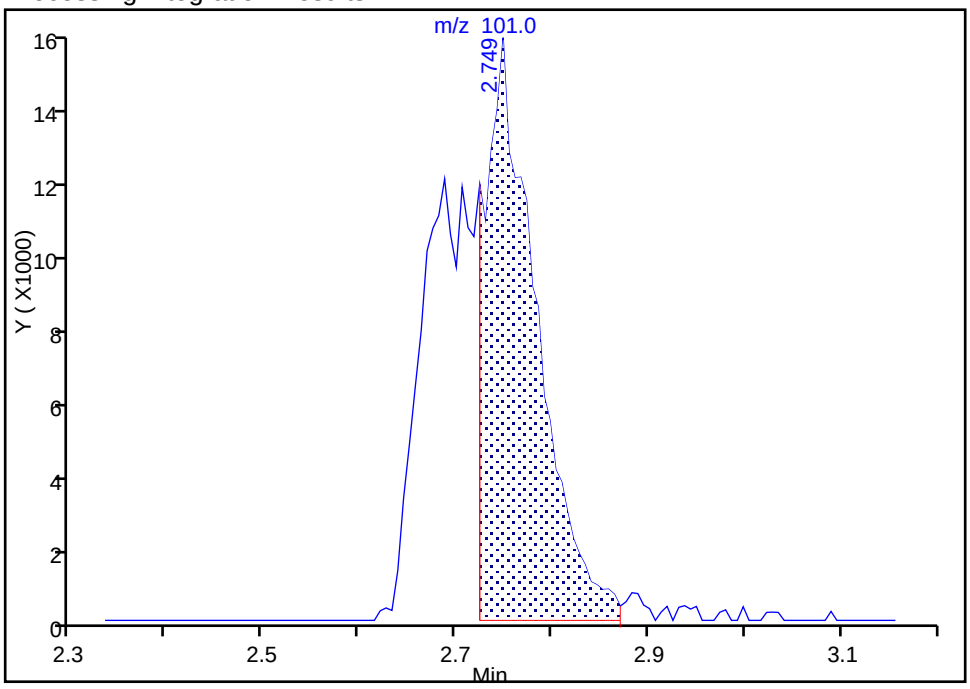
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D				
Injection Date:	27-Jul-2017 01:15:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit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

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

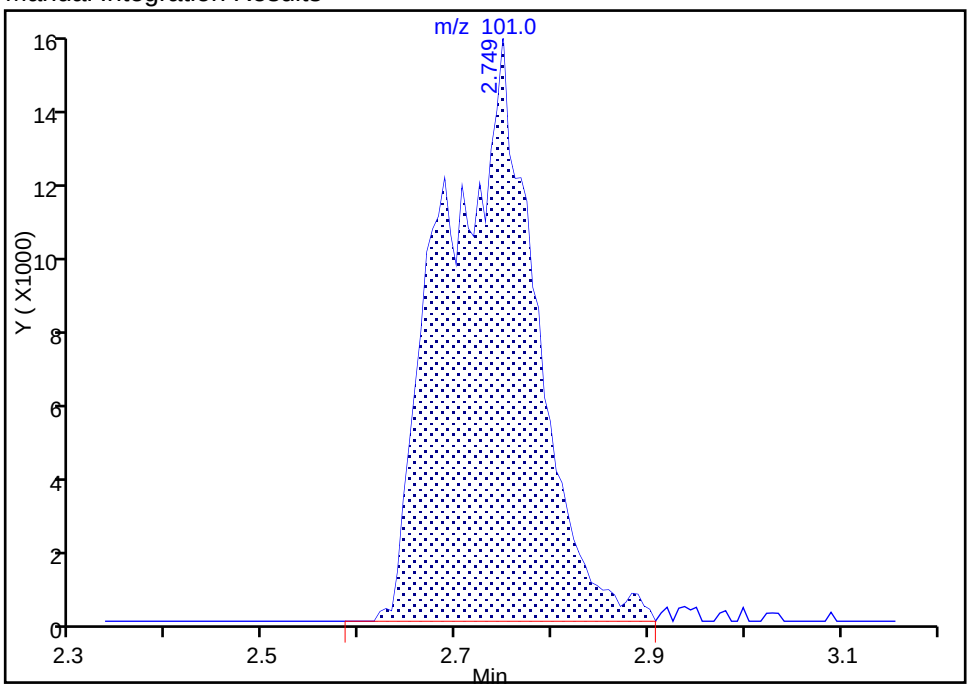
Processing Integration Results

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

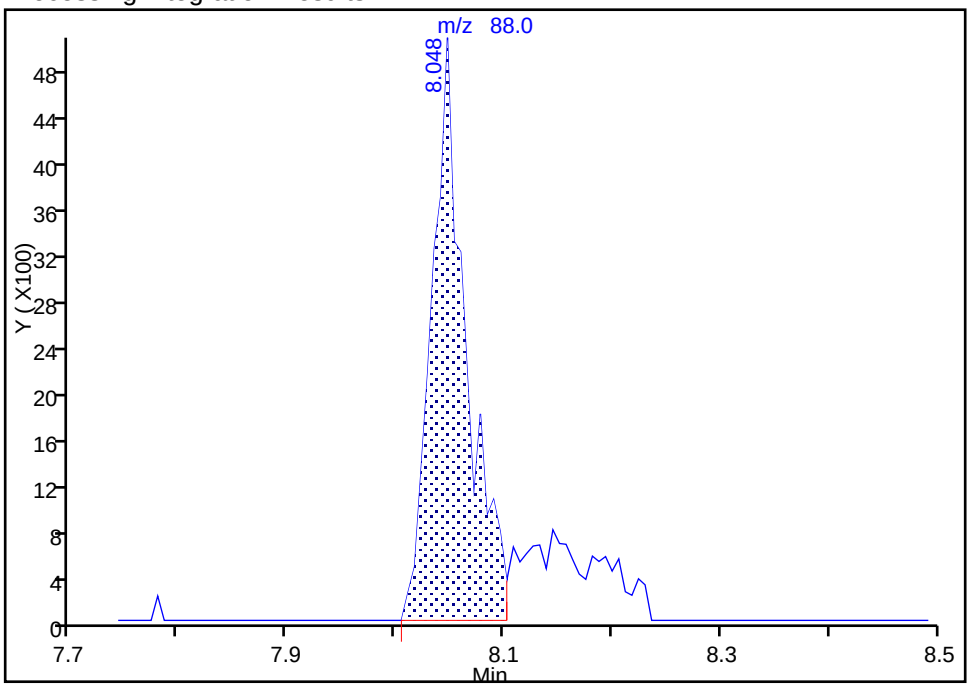
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C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

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

Signal: 1

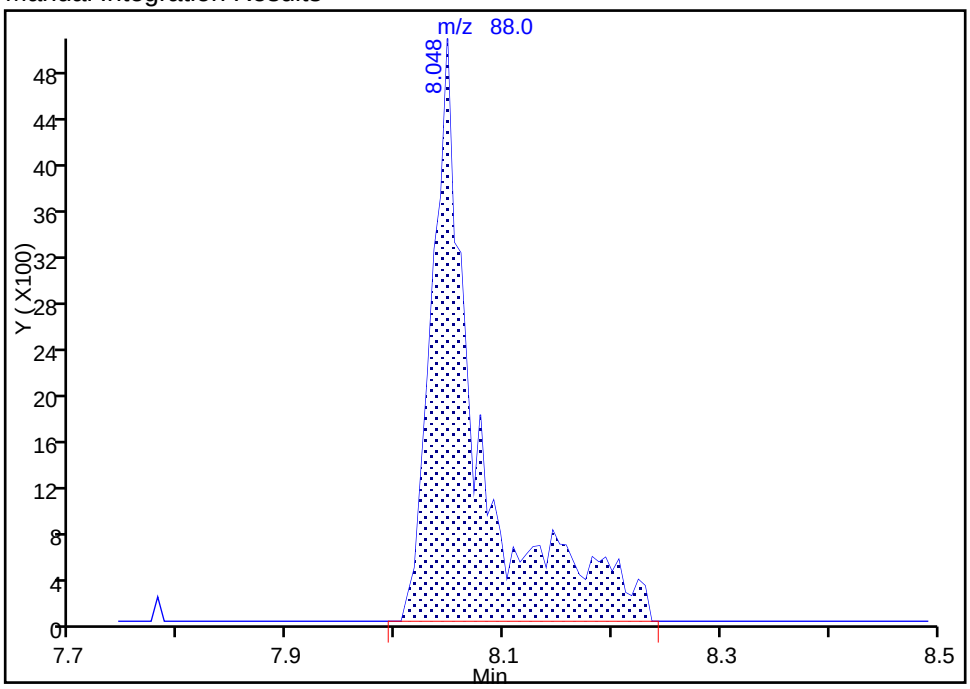
Processing Integration Results

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

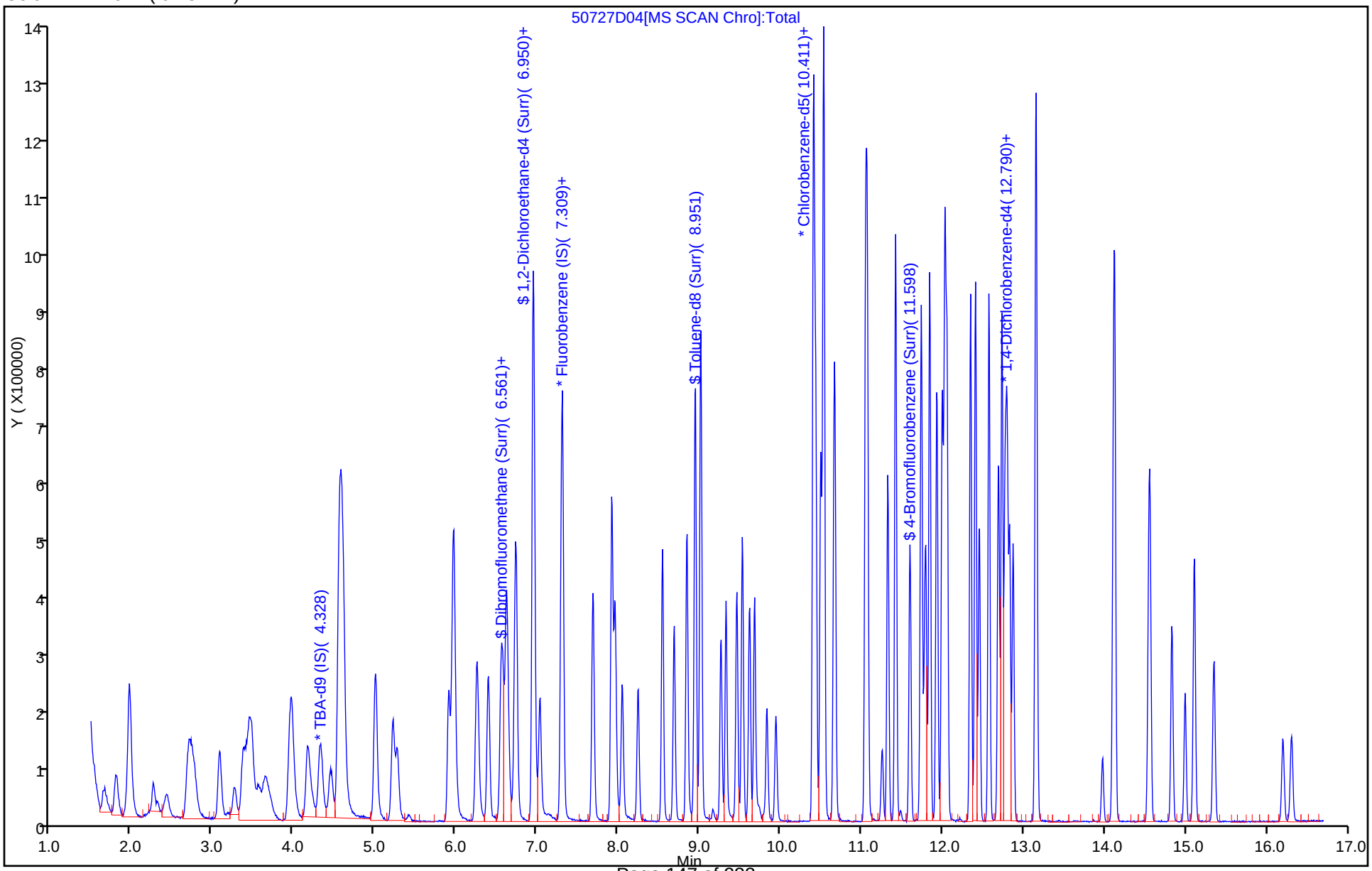
Report Date: 28-Jul-2017 01:04:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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

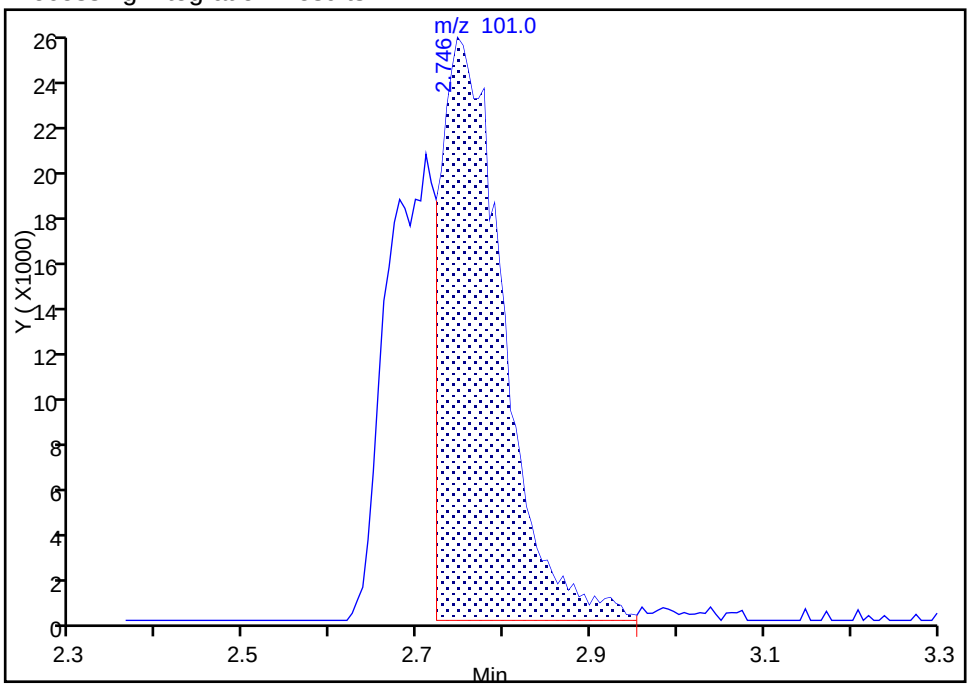
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D				
Injection Date:	27-Jul-2017 01:39:30	Instrument ID:	CHHP5		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit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

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

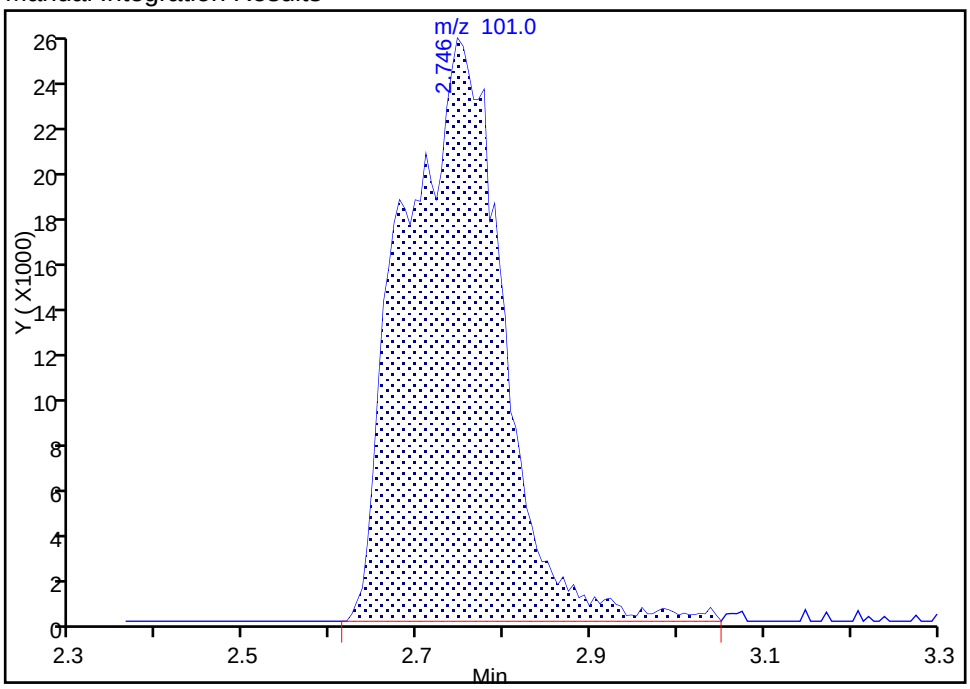
Processing Integration Results

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

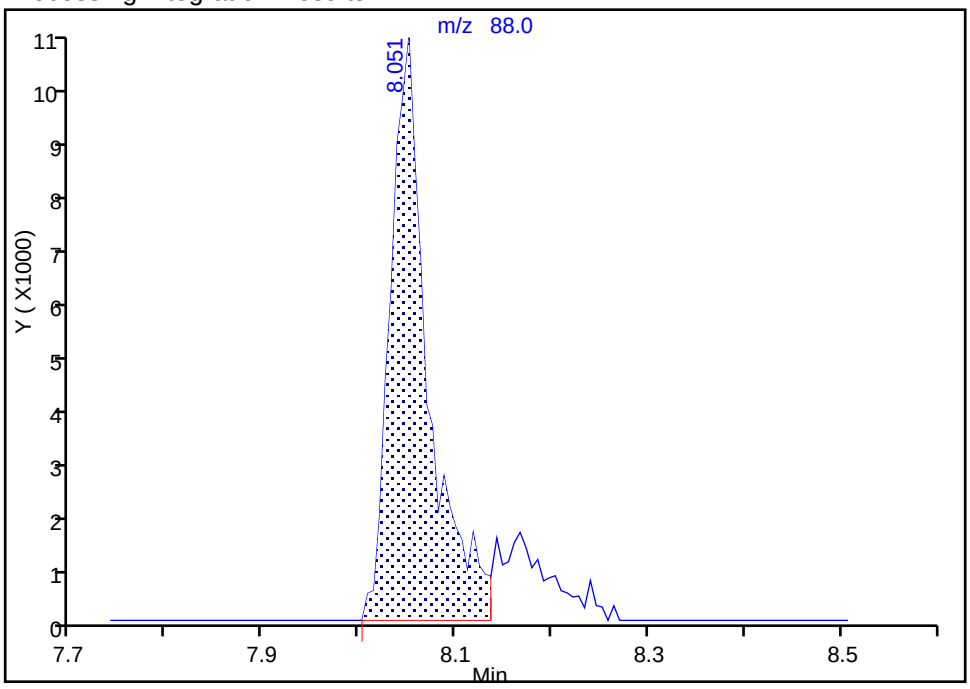
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D
Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C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

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

Signal: 1

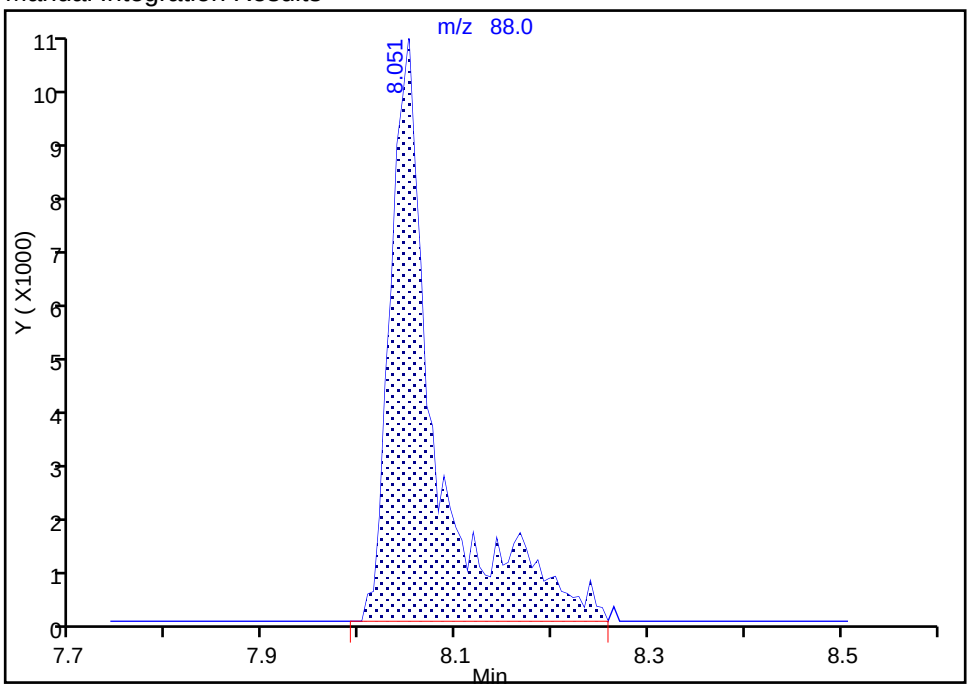
Processing Integration Results

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

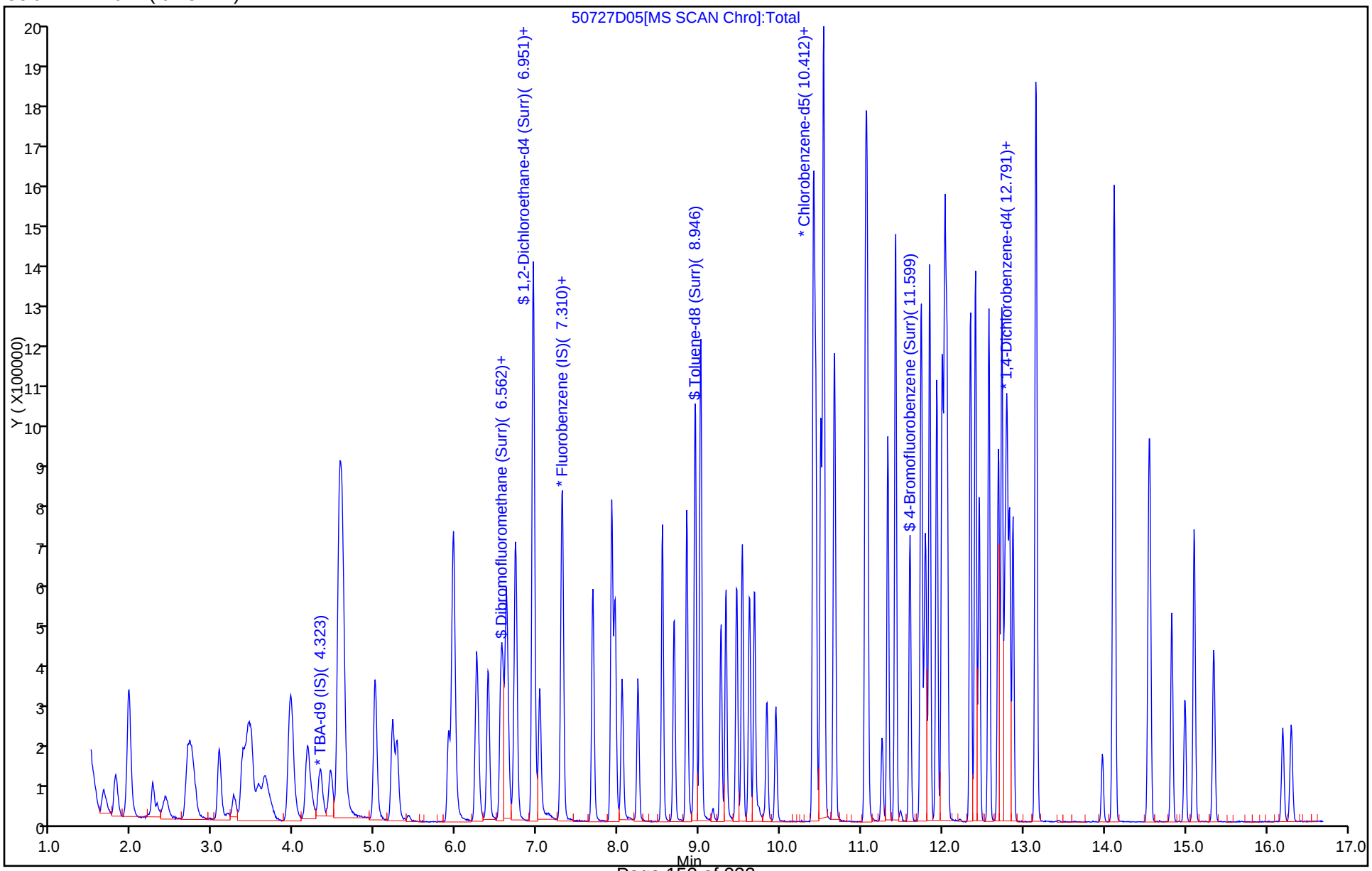
Report Date: 28-Jul-2017 01:04:56 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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:

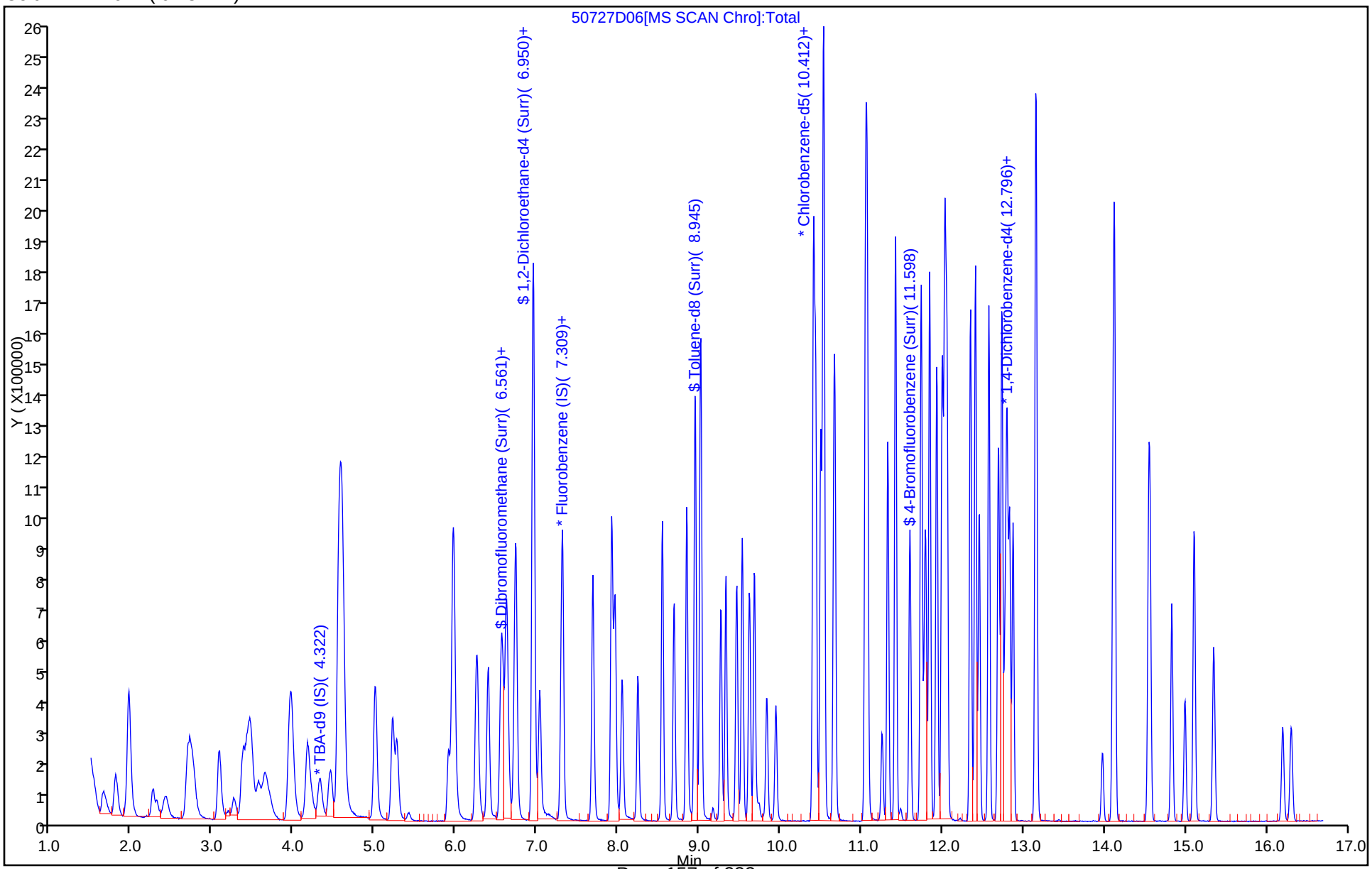
VOA8260INT_00072	Amount Added:	2.00	Units: uL
VOA8260SURR_00071	Amount Added:	4.00	Units: uL
VOA8260VOAPRI_00263	Amount Added:	4.00	Units: uL
voaW2clev1stR_00013	Amount Added:	4.00	Units: uL
voaWAcro1stRe_00016	Amount Added:	8.00	Units: uL
voaWVA1stRest_00017	Amount Added:	4.00	Units: uL
voaWEEmix1stR_00009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

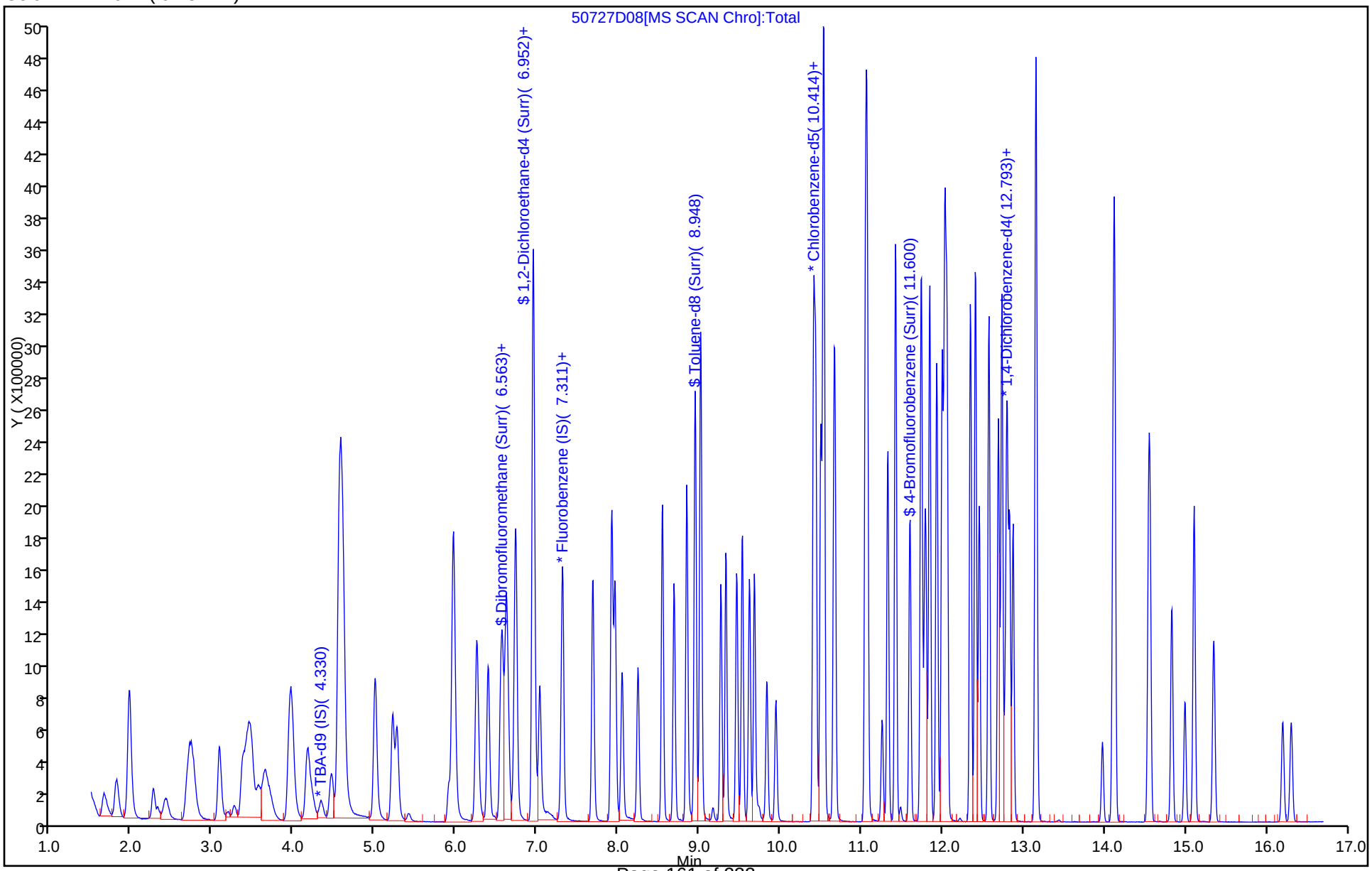
Report Date: 28-Jul-2017 01:05:03 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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

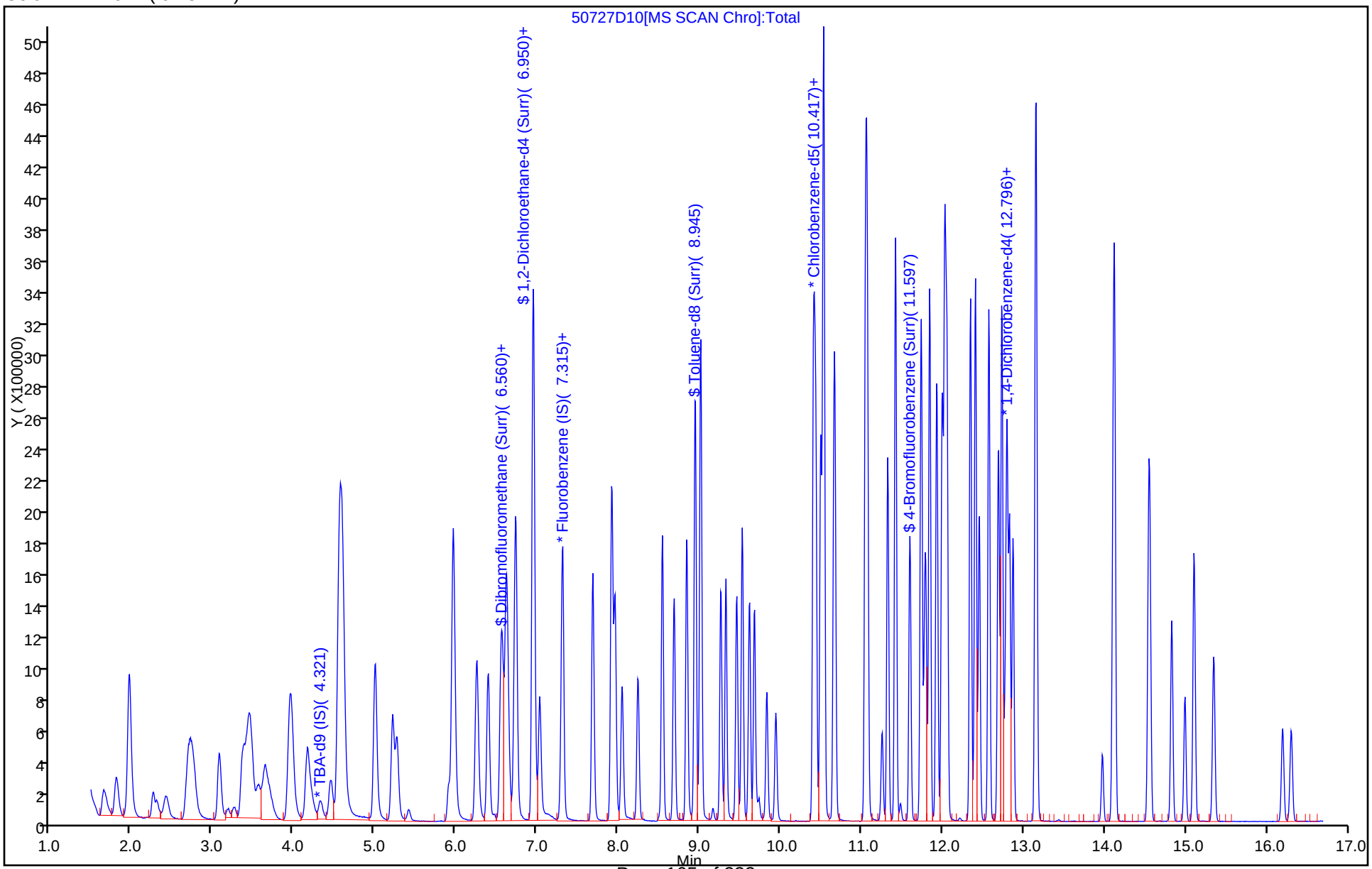
Report Date: 28-Jul-2017 01:05:07 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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

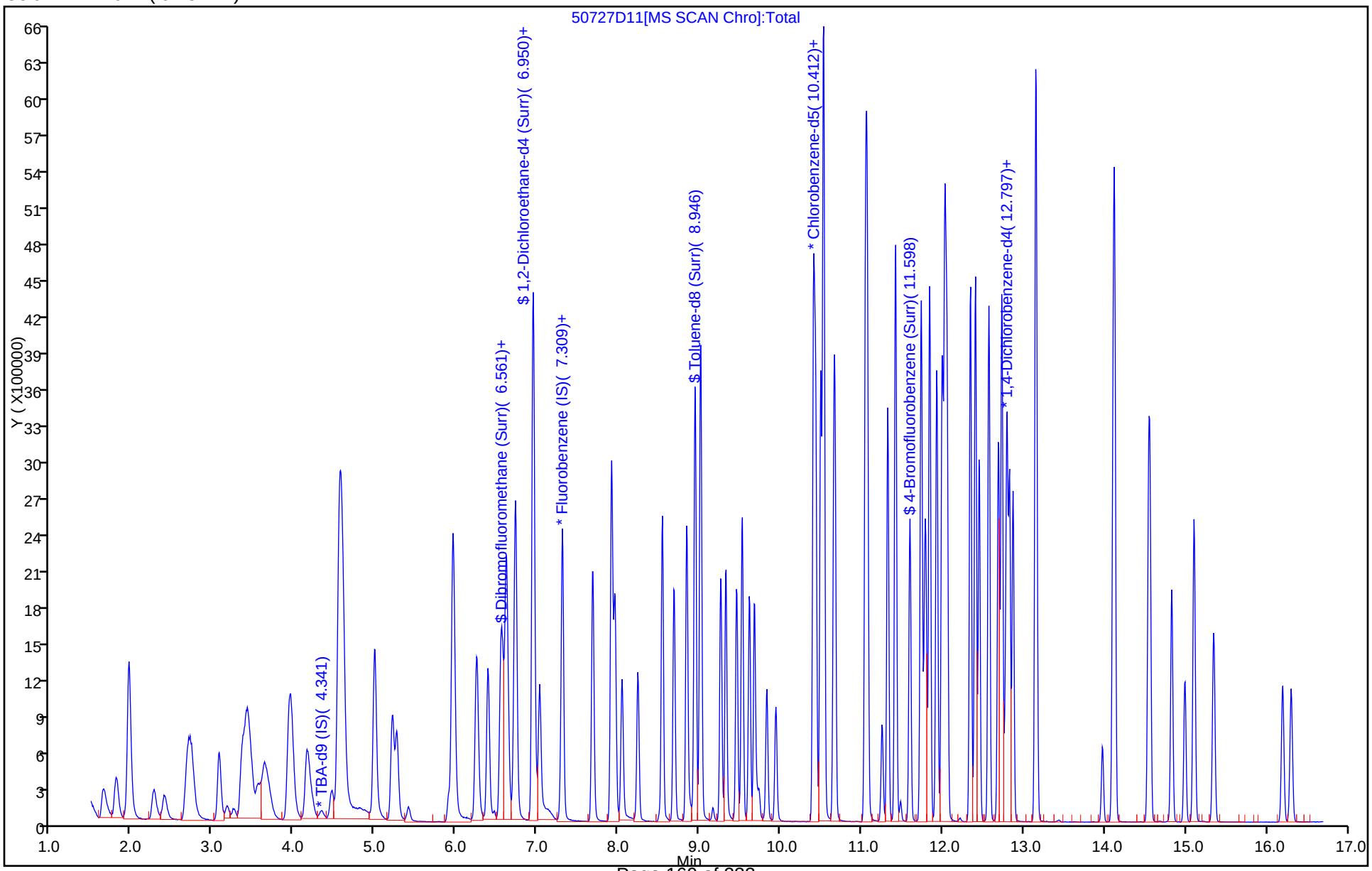
Report Date: 28-Jul-2017 01:05:09 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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.: 180-70873-1

SDG No.:

Lab Sample ID: CCVIS 180-224792/2 Calibration Date: 10/04/2017 00:22

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

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

Lab File ID: 51003D02.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	0.3094	0.1000	10.6	10.0	6.4	20.0
Chloromethane	Ave	0.2922	0.3610	0.1000	12.4	10.0	23.5*	20.0
Vinyl chloride	Ave	0.2965	0.3404	0.1000	11.5	10.0	14.8	20.0
1,3-Butadiene	Ave	0.2694	0.3290	0.0100	12.2	10.0	22.1*	20.0
Bromomethane	Ave	0.1402	0.1396	0.0500	9.96	10.0	-0.4	20.0
Chloroethane	Ave	0.1630	0.1689	0.0500	10.4	10.0	3.6	20.0
Trichlorofluoromethane	Ave	0.3643	0.3595	0.1000	9.87	10.0	-1.3	20.0
Ethyl ether	Ave	0.2370	0.2377	0.0100	10.0	10.0	0.3	20.0
Acrolein	Ave	0.0597	0.0604	0.0100	30.3	30.0	1.1	20.0
1,1-Dichloroethene	Ave	0.2448	0.2670	0.1000	10.9	10.0	9.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2909	0.1000	10.8	10.0	8.3	20.0
Acetone	Ave	0.1308	0.1351	0.0500	20.7	20.0	3.3	20.0
Iodomethane	Ave	0.3845	0.3797	0.0100	9.88	10.0	-1.2	20.0
Carbon disulfide	Ave	0.5372	0.4405	0.1000	8.20	10.0	-18.0	20.0
Allyl chloride	Ave	0.1582	0.1436	0.0100	9.08	10.0	-9.2	20.0
Methyl acetate	Ave	0.2589	0.2478	0.1000	19.1	20.0	-4.3	20.0
Methylene Chloride	Lin2		0.2845	0.1000	9.34	10.0	-6.6	20.0
tert-Butyl alcohol	Ave	1.183	1.134	0.0100	95.9	100	-4.1	20.0
Acrylonitrile	Ave	0.1259	0.1224	0.0100	97.2	100	-2.8	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2795	0.1000	10.0	10.0	0.2	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6362	0.1000	8.51	10.0	-14.9	20.0
Hexane	Ave	0.3580	0.3661	0.0100	10.2	10.0	2.3	20.0
1,1-Dichloroethane	Ave	0.4850	0.4550	0.2000	9.38	10.0	-6.2	20.0
Vinyl acetate	Ave	0.4932	0.4318	0.0100	8.76	10.0	-12.4	20.0
2,2-Dichloropropane	Ave	0.0617	0.0570	0.0100	9.23	10.0	-7.7	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2941	0.1000	9.22	10.0	-7.8	20.0
2-Butanone (MEK)	Ave	0.1861	0.1739	0.0500	18.7	20.0	-6.6	20.0
Bromochloromethane	Ave	0.1418	0.1253	0.0100	8.83	10.0	-11.7	20.0
Tetrahydrofuran	Ave	0.1084	0.0881	0.0100	16.3	20.0	-18.7	20.0
Chloroform	Ave	0.4843	0.4505	0.2000	9.30	10.0	-7.0	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3561	0.1000	9.72	10.0	-2.8	20.0
Cyclohexane	Ave	0.4524	0.4360	0.1000	9.64	10.0	-3.6	20.0
Carbon tetrachloride	Ave	0.3051	0.2986	0.1000	9.79	10.0	-2.1	20.0
1,1-Dichloropropene	Ave	0.3961	0.3696	0.0100	9.33	10.0	-6.7	20.0
Isobutyl alcohol	Ave	0.0099	0.0092*	0.0100	231	250	-7.5	20.0
Benzene	Ave	1.216	1.124	0.5000	9.24	10.0	-7.6	20.0
1,2-Dichloroethane	Ave	0.3544	0.3311	0.1000	9.34	10.0	-6.6	20.0
n-Heptane	Ave	0.2863	0.2918	0.0100	10.2	10.0	1.9	20.0
Trichloroethene	Ave	0.3059	0.2755	0.2000	9.00	10.0	-10.0	20.0
Methylcyclohexane	Ave	0.4626	0.4029	0.1000	8.71	10.0	-12.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab Sample ID: CCVIS 180-224792/2 Calibration Date: 10/04/2017 00:22

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

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

Lab File ID: 51003D02.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	0.2370	0.1000	8.37	10.0	-16.3	20.0
1,4-Dioxane	Ave	0.0029	0.0027*	0.0100	184	200	-8.1	20.0
Dibromomethane	Ave	0.1659	0.1353	0.0100	8.15	10.0	-18.5	20.0
Bromodichloromethane	Ave	0.3256	0.2505	0.2000	7.69	10.0	-23.1*	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1249	0.0100	12.3	20.0	-38.7*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3042	0.2000	7.69	10.0	-23.1*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.219	0.1000	19.0	20.0	-5.0	20.0
Toluene	Ave	4.986	5.324	0.4000	10.7	10.0	6.8	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.226	0.1000	9.04	10.0	-9.6	20.0
Ethyl methacrylate	Ave	1.636	1.280	0.0100	7.82	10.0	-21.8*	20.0
1,1,2-Trichloroethane	Ave	1.039	1.051	0.1000	10.1	10.0	1.2	20.0
Tetrachloroethene	Ave	0.9508	1.036	0.2000	10.9	10.0	8.9	20.0
1,3-Dichloropropane	Ave	1.920	1.737	0.0100	9.05	10.0	-9.5	20.0
2-Hexanone	Ave	0.9836	0.8982	0.1000	18.3	20.0	-8.7	20.0
Dibromochloromethane	Ave	0.8779	0.7440	0.1000	8.47	10.0	-15.3	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9904	0.1000	9.30	10.0	-7.0	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.982	0.0100	11.5	10.0	15.4	20.0
Chlorobenzene	Ave	3.246	3.120	0.5000	9.61	10.0	-3.9	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.861	0.0100	11.7	10.0	17.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	0.997	0.0100	9.66	10.0	-3.4	20.0
Ethylbenzene	Ave	1.812	1.771	0.1000	9.77	10.0	-2.3	20.0
m-Xylene & p-Xylene	Ave	2.214	2.198	0.1000	9.93	10.0	-0.7	20.0
o-Xylene	Ave	2.110	2.025	0.3000	9.60	10.0	-4.0	20.0
Styrene	Ave	3.571	3.364	0.3000	9.42	10.0	-5.8	20.0
Bromoform	Ave	0.5456	0.4263	0.1000	7.81	10.0	-21.9*	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.910	0.0100	11.6	10.0	16.2	20.0
Isopropylbenzene	Ave	5.150	5.302	0.1000	10.3	10.0	3.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.423	0.3000	9.26	10.0	-7.4	20.0
Bromobenzene	Ave	0.9704	0.8525	0.0100	8.78	10.0	-12.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2888	0.0100	9.87	10.0	-1.3	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3616	0.0100	9.03	10.0	-9.7	20.0
N-Propylbenzene	Ave	1.109	1.053	0.0100	9.49	10.0	-5.1	20.0
2-Chlorotoluene	Ave	0.9585	0.9022	0.0100	9.41	10.0	-5.9	20.0
3-Chlorotoluene	Ave	1.043	1.087	0.0100	10.4	10.0	4.3	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.086	0.0100	9.73	10.0	-2.7	20.0
4-Chlorotoluene	Ave	1.035	0.9831	0.0100	9.50	10.0	-5.0	20.0
tert-Butylbenzene	Ave	2.653	2.393	0.0100	9.02	10.0	-9.8	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.957	0.0100	9.17	10.0	-8.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.8405	0.0100	10.4	10.0	4.0	20.0
sec-Butylbenzene	Ave	3.701	3.501	0.0100	9.46	10.0	-5.4	20.0
1,3-Dichlorobenzene	Ave	1.734	1.586	0.6000	9.14	10.0	-8.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab Sample ID: CCVIS 180-224792/2 Calibration Date: 10/04/2017 00:22

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

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

Lab File ID: 51003D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	2.898	0.0100	9.40	10.0	-6.0	20.0
1,4-Dichlorobenzene	Ave	1.780	1.602	0.5000	9.00	10.0	-10.0	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7666	0.0100	10.2	10.0	1.9	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.8669	0.0100	10.7	10.0	6.7	20.0
n-Butylbenzene	Ave	2.514	2.277	0.0100	9.06	10.0	-9.4	20.0
1,2-Dichlorobenzene	Ave	1.653	1.446	0.4000	8.75	10.0	-12.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1233	0.0500	6.72	10.0	-32.8*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.008	0.0100	28.8	30.0	-3.8	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	0.9482	0.0100	17.5	20.0	-12.5	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5369	0.2000	7.10	10.0	-29.0*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2375	0.0100	8.58	10.0	-14.2	20.0
Naphthalene	Ave	2.576	1.618	0.0100	6.28	10.0	-37.2*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4791	0.0100	6.94	10.0	-30.6*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2032	0.0100	6.19	10.0	-38.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.1917	0.0100	6.28	10.0	-37.2*	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	0.2766		9.43	10.0	-5.7	20.0
Toluene-d8 (Surr)	Ave	3.979	4.338		10.9	10.0	9.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.433		9.97	10.0	-0.3	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D02.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Oct-2017 00:22:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub29

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:17 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 00:55:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.378	4.378	0.000	0	166571	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.334	0.000	97	398262	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.431	0.000	85	81838	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.767	0.000	95	115198	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.616	0.000	93	85382	50.0	44.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.981	0.000	0	110172	50.0	47.1	
$ 7 Toluene-d8 (Surr)	98	8.977	8.977	0.000	93	355030	50.0	54.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.611	0.000	87	117308	50.0	49.9	
11 Dichlorodifluoromethane	85	1.689	1.689	0.000	99	123214	50.0	53.2	
12 Chloromethane	50	1.823	1.823	0.000	99	143761	50.0	61.8	
13 Vinyl chloride	62	1.963	1.963	0.000	98	135565	50.0	57.4	
14 Butadiene	39	1.993	1.993	0.000	92	131019	50.0	61.1	
15 Bromomethane	94	2.291	2.291	0.000	92	55590	50.0	49.8	
16 Chloroethane	64	2.461	2.461	0.000	100	67252	50.0	51.8	
17 Dichlorofluoromethane	67	2.735	2.735	0.000	97	171703	50.0	52.3	
18 Trichlorofluoromethane	101	2.790	2.790	0.000	95	143154	50.0	49.3	
20 Ethyl ether	59	3.124	3.124	0.000	93	94654	50.0	50.1	
21 Acrolein	56	3.301	3.301	0.000	98	72146	150.0	151.7	
22 1,1-Dichloroethene	96	3.423	3.423	0.000	97	106325	50.0	54.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.508	3.508	0.000	91	115846	50.0	54.1	
24 Acetone	43	3.526	3.526	0.000	98	107626	100.0	103.3	
25 Iodomethane	142	3.617	3.617	0.000	94	151214	50.0	49.4	
26 Carbon disulfide	76	3.708	3.708	0.000	99	175428	50.0	41.0	
28 3-Chloro-1-propene	76	3.994	3.994	0.000	92	57196	50.0	45.4	
30 Methyl acetate	43	4.031	4.031	0.000	98	197400	100.0	95.7	
31 Methylene Chloride	84	4.232	4.232	0.000	93	113303	50.0	46.7	
32 2-Methyl-2-propanol	59	4.493	4.493	0.000	91	94463	500.0	479.5	
33 Acrylonitrile	53	4.609	4.609	0.000	100	487528	500.0	486.2	
34 trans-1,2-Dichloroethene	96	4.633	4.633	0.000	98	111324	50.0	50.1	
35 Methyl tert-butyl ether	73	4.657	4.657	0.000	97	253392	50.0	42.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.053	5.053	0.000	95	145820	50.0	51.1	
37 1,1-Dichloroethane	63	5.272	5.272	0.000	96	181217	50.0	46.9	
38 Vinyl acetate	43	5.315	5.315	0.000	98	171984	50.0	43.8	
45 cis-1,2-Dichloroethene	96	6.008	6.008	0.000	81	117125	50.0	46.1	
44 2,2-Dichloropropane	97	6.008	6.008	0.000	65	22698	50.0	46.2	M
46 2-Butanone (MEK)	43	6.026	6.026	0.000	92	138518	100.0	93.4	
49 Chlorobromomethane	128	6.294	6.294	0.000	96	49889	50.0	44.2	
51 Tetrahydrofuran	42	6.306	6.306	0.000	88	70164	100.0	81.3	
52 Chloroform	83	6.440	6.440	0.000	93	179415	50.0	46.5	
53 1,1,1-Trichloroethane	97	6.592	6.592	0.000	98	141832	50.0	48.6	
54 Cyclohexane	56	6.659	6.659	0.000	89	173654	50.0	48.2	
56 Carbon tetrachloride	117	6.762	6.762	0.000	96	118933	50.0	48.9	
55 1,1-Dichloropropene	75	6.781	6.781	0.000	95	147215	50.0	46.7	
57 Isobutyl alcohol	41	6.981	6.981	0.000	90	91604	1250.0	1155.9	
58 Benzene	78	6.994	6.994	0.000	97	447540	50.0	46.2	
59 1,2-Dichloroethane	62	7.067	7.067	0.000	97	131845	50.0	46.7	
62 n-Heptane	43	7.352	7.352	0.000	89	116211	50.0	51.0	
64 Trichloroethene	130	7.724	7.724	0.000	98	109711	50.0	45.0	
66 Methylcyclohexane	83	7.961	7.961	0.000	88	160467	50.0	43.5	
67 1,2-Dichloropropane	63	7.997	7.997	0.000	93	94395	50.0	41.9	
68 Dibromomethane	93	8.082	8.082	0.000	96	53869	50.0	40.8	
70 1,4-Dioxane	88	8.082	8.082	0.000	44	21077	1000.0	919.2	
71 Dichlorobromomethane	83	8.277	8.277	0.000	99	99744	50.0	38.5	
73 2-Chloroethyl vinyl ether	63	8.575	8.575	0.000	93	99449	100.0	61.3	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	95	121133	50.0	38.5	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.873	0.000	97	199462	100.0	95.0	
76 Toluene	91	9.044	9.044	0.000	99	435712	50.0	53.4	
77 trans-1,3-Dichloropropene	75	9.293	9.293	0.000	93	100373	50.0	45.2	
78 Ethyl methacrylate	69	9.354	9.354	0.000	90	104724	50.0	39.1	
79 1,1,2-Trichloroethane	97	9.488	9.488	0.000	91	86022	50.0	50.6	
80 Tetrachloroethene	164	9.561	9.561	0.000	97	84768	50.0	54.5	
81 1,3-Dichloropropane	76	9.646	9.646	0.000	92	142133	50.0	45.2	
82 2-Hexanone	43	9.707	9.707	0.000	96	147017	100.0	91.3	
84 Chlorodibromomethane	129	9.853	9.853	0.000	92	60886	50.0	42.4	
85 Ethylene Dibromide	107	9.974	9.974	0.000	97	81053	50.0	46.5	
86 3-Chlorobenzotrifluoride	180	10.431	10.431	0.000	89	162192	50.0	57.7	
87 Chlorobenzene	112	10.455	10.455	0.000	94	255369	50.0	48.1	
88 4-Chlorobenzotrifluoride	180	10.522	10.522	0.000	96	152320	50.0	58.7	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.552	0.000	92	81615	50.0	48.3	
90 Ethylbenzene	106	10.558	10.558	0.000	98	144895	50.0	48.9	
91 m-Xylene & p-Xylene	106	10.692	10.692	0.000	0	179890	50.0	49.6	
92 o-Xylene	106	11.069	11.069	0.000	96	165716	50.0	48.0	
93 Styrene	104	11.094	11.094	0.000	95	275305	50.0	47.1	
94 Bromoform	173	11.270	11.270	0.000	95	34884	50.0	39.1	
96 2-Chlorobenzotrifluoride	180	11.343	11.343	0.000	97	156336	50.0	58.1	
97 Isopropylbenzene	105	11.441	11.441	0.000	96	433891	50.0	51.5	
100 Bromobenzene	156	11.751	11.751	0.000	96	98207	50.0	43.9	
99 1,1,2,2-Tetrachloroethane	83	11.751	11.751	0.000	81	116469	50.0	46.3	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.787	0.000	81	33264	50.0	49.3	
101 1,2,3-Trichloropropane	110	11.799	11.799	0.000	85	41652	50.0	45.1	
103 N-Propylbenzene	120	11.854	11.854	0.000	98	121289	50.0	47.5	
104 2-Chlorotoluene	126	11.939	11.939	0.000	97	103932	50.0	47.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.006	12.006	0.000	97	125273	50.0	52.1	
106 1,3,5-Trimethylbenzene	105	12.037	12.037	0.000	94	355533	50.0	48.6	
107 4-Chlorotoluene	126	12.061	12.061	0.000	96	113255	50.0	47.5	
108 tert-Butylbenzene	119	12.353	12.353	0.000	94	275632	50.0	45.1	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	340653	50.0	45.8	
111 1,2-dichloro-4-(trifluorom	214	12.450	12.450	0.000	97	96828	50.0	52.0	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	403274	50.0	47.3	
113 1,3-Dichlorobenzene	146	12.694	12.694	0.000	98	182667	50.0	45.7	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	97	333864	50.0	47.0	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	96	184494	50.0	45.0	
116 2,4-Dichloro-1-(triflourom	214	12.822	12.822	0.000	95	88307	50.0	50.9	
118 2,5-Dichlorobenzotrifluori	214	12.864	12.864	0.000	0	99861	50.0	53.3	
120 n-Butylbenzene	91	13.138	13.138	0.000	98	262344	50.0	45.3	
121 1,2-Dichlorobenzene	146	13.150	13.150	0.000	97	166519	50.0	43.7	
122 1,2-Dibromo-3-Chloropropan	75	13.947	13.947	0.000	77	14209	50.0	33.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.081	14.081	0.000	0	348400	150.0	144.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.501	14.501	0.000	0	218459	100.0	87.5	
126 1,2,4-Trichlorobenzene	180	14.768	14.768	0.000	94	61849	50.0	35.5	
127 Hexachlorobutadiene	225	14.908	14.908	0.000	96	27358	50.0	42.9	
128 Naphthalene	128	15.030	15.030	0.000	97	186435	50.0	31.4	
129 1,2,3-Trichlorobenzene	180	15.255	15.255	0.000	96	55196	50.0	34.7	
131 2,4,5-Trichlorotoluene	159	16.027	16.027	0.000	0	23409	50.0	30.9	
130 2,3,6-Trichlorotoluene	159	16.125	16.125	0.000	94	22084	50.0	31.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	97.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	83.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL		
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00267	Amount Added:	2.00	Units: uL		
VOA2CEVE2ND_00008	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00021	Amount Added:	6.00	Units: uL		
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent	

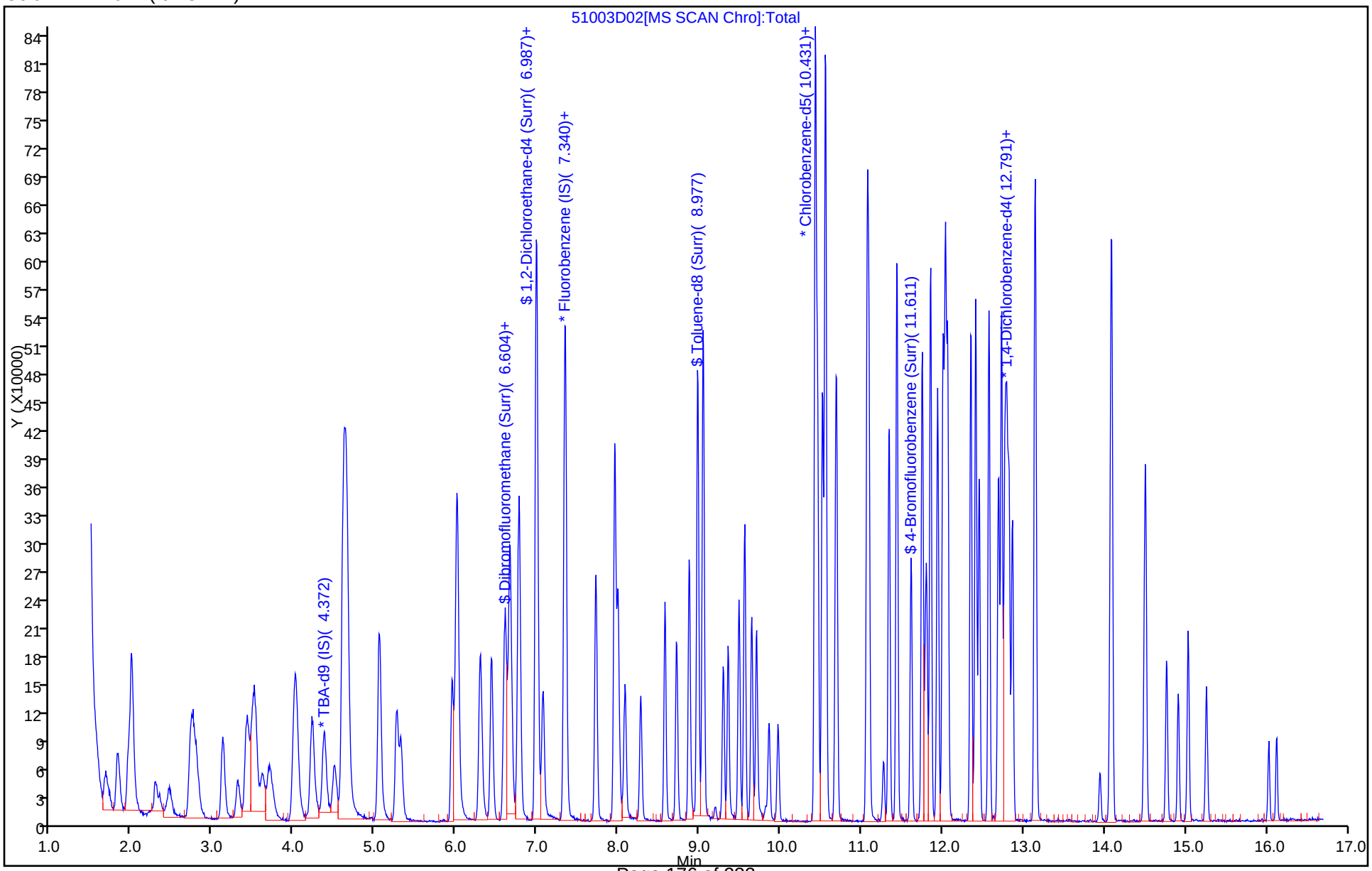
Report Date: 04-Oct-2017 21:10:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D02.D

Injection Date:	04-Oct-2017 00:22:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

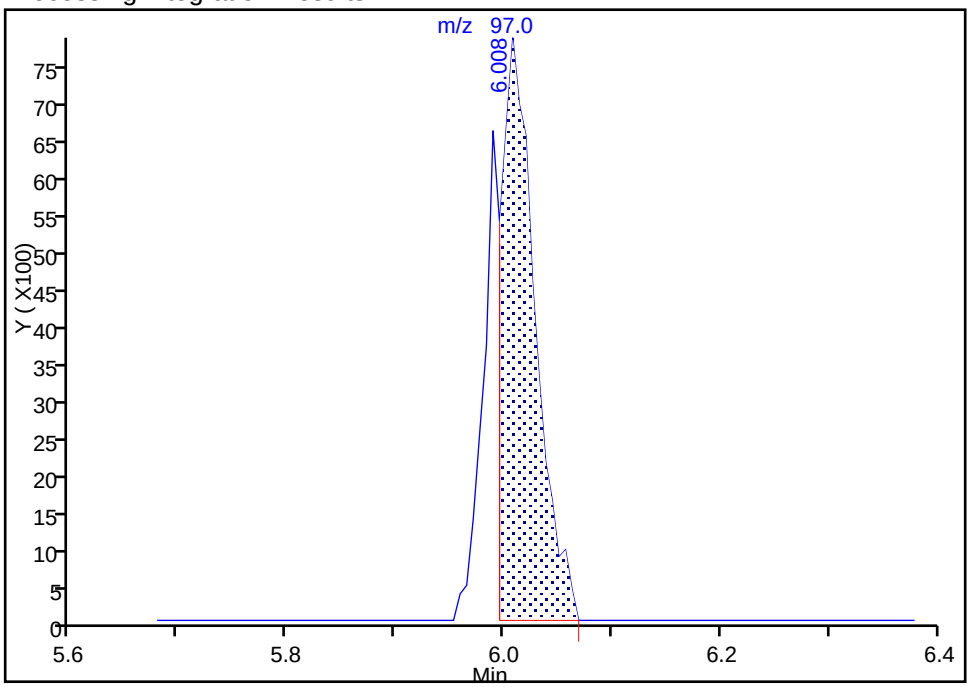
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D02.D
Injection Date: 04-Oct-2017 00:22:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

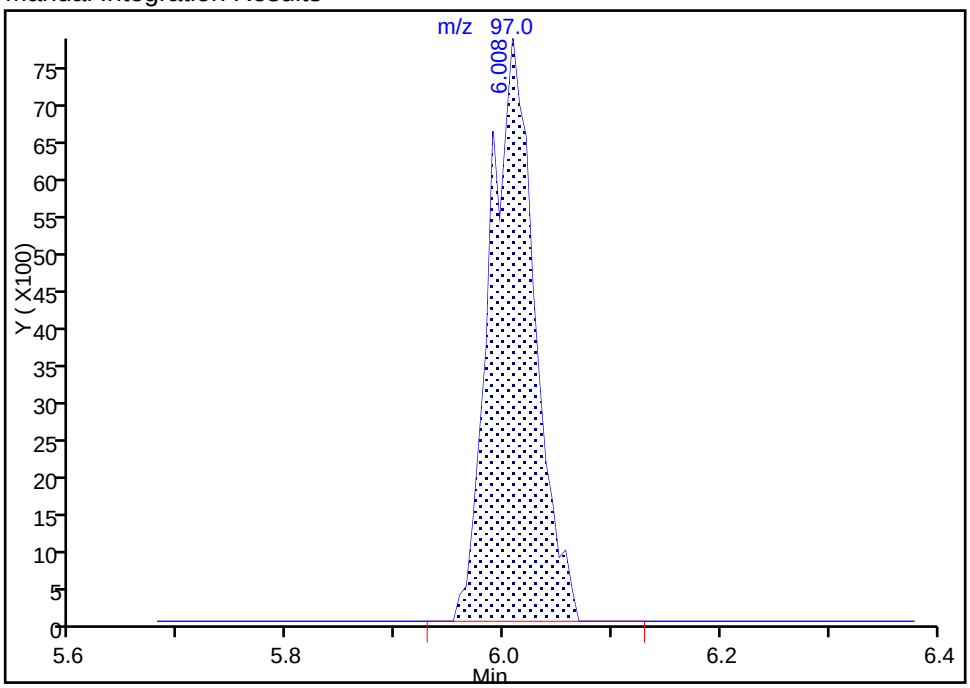
Processing Integration Results

RT: 6.01
Area: 17197
Amount: 34.966668
Amount Units: ng



Manual Integration Results

RT: 6.01
Area: 22698
Amount: 46.151853
Amount Units: ng



Reviewer: bungardf, 04-Oct-2017 00:54:24
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab Sample ID: CCVIS 180-224919/2 Calibration Date: 10/04/2017 23:29

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: 51004D02.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	0.3067	0.1000	10.5	10.0	5.5	20.0
Chloromethane	Ave	0.2922	0.4296	0.1000	14.7	10.0	47.0*	20.0
Vinyl chloride	Ave	0.2965	0.4118	0.1000	13.9	10.0	38.9*	20.0
1,3-Butadiene	Ave	0.2694	0.4008	0.0100	14.9	10.0	48.8*	20.0
Bromomethane	Ave	0.1402	0.1596	0.0500	11.4	10.0	13.8	20.0
Chloroethane	Ave	0.1630	0.2001	0.0500	12.3	10.0	22.8*	20.0
Trichlorofluoromethane	Ave	0.3643	0.4135	0.1000	11.3	10.0	13.5	20.0
Ethyl ether	Ave	0.2370	0.2491	0.0100	10.5	10.0	5.1	20.0
Acrolein	Ave	0.0597	0.0650	0.0100	32.6	30.0	8.8	20.0
1,1-Dichloroethene	Ave	0.2448	0.2691	0.1000	11.0	10.0	9.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2942	0.1000	11.0	10.0	9.5	20.0
Acetone	Ave	0.1308	0.1330	0.0500	20.3	20.0	1.7	20.0
Iodomethane	Ave	0.3845	0.3881	0.0100	10.1	10.0	0.9	20.0
Carbon disulfide	Ave	0.5372	0.4843	0.1000	9.01	10.0	-9.9	20.0
Allyl chloride	Ave	0.1582	0.1517	0.0100	9.59	10.0	-4.1	20.0
Methyl acetate	Ave	0.2589	0.2776	0.1000	21.4	20.0	7.2	20.0
Methylene Chloride	Lin2		0.3195	0.1000	10.6	10.0	5.8	20.0
tert-Butyl alcohol	Ave	1.183	1.183	0.0100	100	100	0.0	20.0
Acrylonitrile	Ave	0.1259	0.1319	0.0100	105	100	4.7	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2920	0.1000	10.5	10.0	4.7	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7085	0.1000	9.47	10.0	-5.3	20.0
Hexane	Ave	0.3580	0.3784	0.0100	10.6	10.0	5.7	20.0
1,1-Dichloroethane	Ave	0.4850	0.4837	0.2000	9.97	10.0	-0.3	20.0
Vinyl acetate	Ave	0.4932	0.4764	0.0100	9.66	10.0	-3.4	20.0
2,2-Dichloropropane	Ave	0.0617	0.0627	0.0100	10.2	10.0	1.6	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3099	0.1000	9.71	10.0	-2.9	20.0
2-Butanone (MEK)	Ave	0.1861	0.1711	0.0500	18.4	20.0	-8.1	20.0
Bromochloromethane	Ave	0.1418	0.1366	0.0100	9.64	10.0	-3.6	20.0
Tetrahydrofuran	Ave	0.1084	0.0983	0.0100	18.1	20.0	-9.3	20.0
Chloroform	Ave	0.4843	0.4886	0.2000	10.1	10.0	0.9	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3863	0.1000	10.5	10.0	5.4	20.0
Cyclohexane	Ave	0.4524	0.4651	0.1000	10.3	10.0	2.8	20.0
Carbon tetrachloride	Ave	0.3051	0.3037	0.1000	9.96	10.0	-0.4	20.0
1,1-Dichloropropene	Ave	0.3961	0.3779	0.0100	9.54	10.0	-4.6	20.0
Isobutyl alcohol	Ave	0.0099	0.0100	0.0100	252	250	0.8	20.0
Benzene	Ave	1.216	1.187	0.5000	9.77	10.0	-2.3	20.0
1,2-Dichloroethane	Ave	0.3544	0.3719	0.1000	10.5	10.0	4.9	20.0
n-Heptane	Ave	0.2863	0.3036	0.0100	10.6	10.0	6.0	20.0
Trichloroethene	Ave	0.3059	0.2814	0.2000	9.20	10.0	-8.0	20.0
Methylcyclohexane	Ave	0.4626	0.4125	0.1000	8.92	10.0	-10.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab Sample ID: CCVIS 180-224919/2 Calibration Date: 10/04/2017 23:29

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: 51004D02.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	0.2643	0.1000	9.34	10.0	-6.6	20.0
Dibromomethane	Ave	0.1659	0.1561	0.0100	9.41	10.0	-5.9	20.0
1,4-Dioxane	Ave	0.0029	0.0031*	0.0100	213	200	6.7	20.0
Bromodichloromethane	Ave	0.3256	0.2918	0.2000	8.96	10.0	-10.4	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1498	0.0100	14.7	20.0	-26.5*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3380	0.2000	8.55	10.0	-14.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.257	0.1000	19.6	20.0	-2.0	20.0
Toluene	Ave	4.986	5.491	0.4000	11.0	10.0	10.1	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.310	0.1000	9.66	10.0	-3.4	20.0
Ethyl methacrylate	Ave	1.636	1.445	0.0100	8.83	10.0	-11.7	20.0
1,1,2-Trichloroethane	Ave	1.039	1.051	0.1000	10.1	10.0	1.2	20.0
Tetrachloroethene	Ave	0.9508	1.011	0.2000	10.6	10.0	6.3	20.0
1,3-Dichloropropane	Ave	1.920	1.807	0.0100	9.41	10.0	-5.9	20.0
2-Hexanone	Ave	0.9836	0.8952	0.1000	18.2	20.0	-9.0	20.0
Dibromochloromethane	Ave	0.8779	0.7979	0.1000	9.09	10.0	-9.1	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.997	0.1000	9.36	10.0	-6.4	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.970	0.0100	11.5	10.0	14.6	20.0
Chlorobenzene	Ave	3.246	3.340	0.5000	10.3	10.0	2.9	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.856	0.0100	11.7	10.0	17.0	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.047	0.0100	10.1	10.0	1.4	20.0
Ethylbenzene	Ave	1.812	1.802	0.1000	9.94	10.0	-0.6	20.0
m-Xylene & p-Xylene	Ave	2.214	2.210	0.1000	9.98	10.0	-0.2	20.0
o-Xylene	Ave	2.110	2.031	0.3000	9.63	10.0	-3.7	20.0
Styrene	Ave	3.571	3.547	0.3000	9.93	10.0	-0.7	20.0
Bromoform	Ave	0.5456	0.4449	0.1000	8.15	10.0	-18.5	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.946	0.0100	11.8	10.0	18.4	20.0
Isopropylbenzene	Ave	5.150	5.335	0.1000	10.4	10.0	3.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.586	0.3000	10.3	10.0	3.1	20.0
Bromobenzene	Ave	0.9704	0.8387	0.0100	8.64	10.0	-13.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3275	0.0100	11.2	10.0	11.9	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3754	0.0100	9.37	10.0	-6.3	20.0
N-Propylbenzene	Ave	1.109	1.167	0.0100	10.5	10.0	5.2	20.0
2-Chlorotoluene	Ave	0.9585	0.9648	0.0100	10.1	10.0	0.7	20.0
3-Chlorotoluene	Ave	1.043	1.149	0.0100	11.0	10.0	10.2	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.325	0.0100	10.5	10.0	4.8	20.0
4-Chlorotoluene	Ave	1.035	1.075	0.0100	10.4	10.0	3.8	20.0
tert-Butylbenzene	Ave	2.653	2.541	0.0100	9.58	10.0	-4.2	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.235	0.0100	10.0	10.0	0.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.8717	0.0100	10.8	10.0	7.9	20.0
sec-Butylbenzene	Ave	3.701	3.708	0.0100	10.0	10.0	0.2	20.0
1,3-Dichlorobenzene	Ave	1.734	1.626	0.6000	9.38	10.0	-6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Lab Sample ID: CCVIS 180-224919/2 Calibration Date: 10/04/2017 23:29

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: 51004D02.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	3.092	0.0100	10.0	10.0	0.3	20.0
1,4-Dichlorobenzene	Ave	1.780	1.725	0.5000	9.69	10.0	-3.1	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7774	0.0100	10.3	10.0	3.3	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.8442	0.0100	10.4	10.0	3.9	20.0
n-Butylbenzene	Ave	2.514	2.516	0.0100	10.0	10.0	0.0	20.0
1,2-Dichlorobenzene	Ave	1.653	1.523	0.4000	9.22	10.0	-7.8	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1456	0.0500	7.93	10.0	-20.7*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.112	0.0100	31.8	30.0	6.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.080	0.0100	19.9	20.0	-0.4	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5647	0.2000	7.47	10.0	-25.3*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2431	0.0100	8.79	10.0	-12.1	20.0
Naphthalene	Ave	2.576	1.802	0.0100	6.99	10.0	-30.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4797	0.0100	6.94	10.0	-30.6*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2219	0.0100	6.76	10.0	-32.4*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.2254	0.0100	7.38	10.0	-26.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2409		10.0	10.0	0.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3259		11.1	10.0	11.1	20.0
Toluene-d8 (Surr)	Ave	3.979	4.657		11.7	10.0	17.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.541		10.7	10.0	7.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D02.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Oct-2017 23:29:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018725-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub29

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:20 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: XAWRK026

First Level Reviewer: bungardf Date: 05-Oct-2017 00:03:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.374	4.374	0.000	0	150069	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.337	0.000	98	334551	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.427	0.000	86	71810	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.769	0.000	93	99164	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.613	6.613	0.000	94	80595	50.0	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.990	6.990	0.000	0	109030	50.0	55.5	
$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	93	334418	50.0	58.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	84	110668	50.0	53.6	
11 Dichlorodifluoromethane	85	1.679	1.679	0.000	99	102599	50.0	52.7	
12 Chloromethane	50	1.825	1.825	0.000	100	143708	50.0	73.5	
13 Vinyl chloride	62	1.959	1.959	0.000	98	137781	50.0	69.4	
14 Butadiene	39	2.008	2.008	0.000	97	134074	50.0	74.4	
15 Bromomethane	94	2.300	2.300	0.000	89	53381	50.0	56.9	
16 Chloroethane	64	2.470	2.470	0.000	99	66933	50.0	61.4	
17 Dichlorofluoromethane	67	2.744	2.744	0.000	97	179484	50.0	65.1	
18 Trichlorofluoromethane	101	2.768	2.768	0.000	95	138344	50.0	56.7	
20 Ethyl ether	59	3.121	3.121	0.000	91	83345	50.0	52.6	
21 Acrolein	56	3.316	3.316	0.000	98	65202	150.0	163.2	
22 1,1-Dichloroethene	96	3.413	3.413	0.000	98	90030	50.0	55.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.504	3.504	0.000	93	98418	50.0	54.8	
24 Acetone	43	3.529	3.529	0.000	100	88991	100.0	101.7	
25 Iodomethane	142	3.608	3.608	0.000	97	129830	50.0	50.5	
26 Carbon disulfide	76	3.699	3.699	0.000	99	162025	50.0	45.1	
28 3-Chloro-1-propene	76	3.997	3.997	0.000	92	50757	50.0	48.0	
30 Methyl acetate	43	4.033	4.033	0.000	98	185740	100.0	107.2	
31 Methylene Chloride	84	4.222	4.222	0.000	92	106903	50.0	52.9	
32 2-Methyl-2-propanol	59	4.508	4.508	0.000	90	88749	500.0	500.1	
33 Acrylonitrile	53	4.605	4.605	0.000	100	441194	500.0	523.7	
34 trans-1,2-Dichloroethene	96	4.642	4.642	0.000	98	97694	50.0	52.3	
35 Methyl tert-butyl ether	73	4.660	4.660	0.000	96	237025	50.0	47.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.049	5.049	0.000	94	126582	50.0	52.8	
37 1,1-Dichloroethane	63	5.268	5.268	0.000	96	161837	50.0	49.9	
38 Vinyl acetate	43	5.323	5.323	0.000	97	159377	50.0	48.3	
44 2,2-Dichloropropane	97	6.004	6.004	0.000	63	20981	50.0	50.8	
45 cis-1,2-Dichloroethene	96	6.011	6.011	0.000	81	103672	50.0	48.6	
46 2-Butanone (MEK)	43	6.023	6.023	0.000	100	114490	100.0	91.9	
49 Chlorobromomethane	128	6.290	6.290	0.000	97	45713	50.0	48.2	
51 Tetrahydrofuran	42	6.309	6.309	0.000	89	65801	100.0	90.7	
52 Chloroform	83	6.436	6.436	0.000	93	163468	50.0	50.4	
53 1,1,1-Trichloroethane	97	6.595	6.595	0.000	99	129241	50.0	52.7	
54 Cyclohexane	56	6.662	6.662	0.000	91	155594	50.0	51.4	
56 Carbon tetrachloride	117	6.759	6.759	0.000	97	101603	50.0	49.8	
55 1,1-Dichloropropene	75	6.783	6.783	0.000	94	126417	50.0	47.7	
57 Isobutyl alcohol	41	6.990	6.990	0.000	92	83904	1250.0	1260.4	
58 Benzene	78	6.996	6.996	0.000	97	397249	50.0	48.8	
59 1,2-Dichloroethane	62	7.069	7.069	0.000	97	124403	50.0	52.5	
62 n-Heptane	43	7.349	7.349	0.000	88	101557	50.0	53.0	
64 Trichloroethene	130	7.720	7.720	0.000	98	94152	50.0	46.0	
66 Methylcyclohexane	83	7.957	7.957	0.000	89	137989	50.0	44.6	
67 1,2-Dichloropropane	63	7.994	7.994	0.000	93	88419	50.0	46.7	
68 Dibromomethane	93	8.079	8.079	0.000	96	52223	50.0	47.1	
70 1,4-Dioxane	88	8.085	8.085	0.000	46	20555	1000.0	1067.2	
71 Dichlorobromomethane	83	8.280	8.280	0.000	100	97634	50.0	44.8	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	94	100237	100.0	73.5	
74 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	94	113092	50.0	42.7	
75 4-Methyl-2-pentanone (MIBK	43	8.876	8.876	0.000	98	180464	100.0	98.0	
76 Toluene	91	9.046	9.046	0.000	98	394306	50.0	55.1	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	95	94065	50.0	48.3	
78 Ethyl methacrylate	69	9.356	9.356	0.000	90	103782	50.0	44.2	
79 1,1,2-Trichloroethane	97	9.490	9.490	0.000	92	75469	50.0	50.6	
80 Tetrachloroethene	164	9.563	9.563	0.000	96	72606	50.0	53.2	
81 1,3-Dichloropropane	76	9.648	9.648	0.000	91	129768	50.0	47.1	
82 2-Hexanone	43	9.703	9.703	0.000	97	128566	100.0	91.0	
84 Chlorodibromomethane	129	9.855	9.855	0.000	91	57298	50.0	45.4	
85 Ethylene Dibromide	107	9.971	9.971	0.000	98	71583	50.0	46.8	
86 3-Chlorobenzotrifluoride	180	10.433	10.433	0.000	90	141442	50.0	57.3	
87 Chlorobenzene	112	10.458	10.458	0.000	94	239861	50.0	51.5	
88 4-Chlorobenzotrifluoride	180	10.518	10.518	0.000	96	133245	50.0	58.5	
89 1,1,1,2-Tetrachloroethane	131	10.549	10.549	0.000	92	75181	50.0	50.7	
90 Ethylbenzene	106	10.555	10.555	0.000	99	129375	50.0	49.7	
91 m-Xylene & p-Xylene	106	10.689	10.689	0.000	0	158697	50.0	49.9	
92 o-Xylene	106	11.072	11.072	0.000	96	145876	50.0	48.1	
93 Styrene	104	11.090	11.090	0.000	94	254674	50.0	49.7	
94 Bromoform	173	11.273	11.273	0.000	95	31945	50.0	40.8	
96 2-Chlorobenzotrifluoride	180	11.340	11.340	0.000	95	139744	50.0	59.2	
97 Isopropylbenzene	105	11.437	11.437	0.000	96	383113	50.0	51.8	
99 1,1,2,2-Tetrachloroethane	83	11.747	11.747	0.000	84	113865	50.0	51.6	
100 Bromobenzene	156	11.753	11.753	0.000	95	83171	50.0	43.2	
102 trans-1,4-Dichloro-2-buten	53	11.784	11.784	0.000	62	32474	50.0	56.0	
101 1,2,3-Trichloropropane	110	11.808	11.808	0.000	86	37227	50.0	46.9	
103 N-Propylbenzene	120	11.851	11.851	0.000	98	115727	50.0	52.6	
104 2-Chlorotoluene	126	11.942	11.942	0.000	96	95672	50.0	50.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.003	12.003	0.000	97	113988	50.0	55.1	
106 1,3,5-Trimethylbenzene	105	12.033	12.033	0.000	96	329687	50.0	52.4	
107 4-Chlorotoluene	126	12.064	12.064	0.000	96	106560	50.0	51.9	
108 tert-Butylbenzene	119	12.350	12.350	0.000	93	251952	50.0	47.9	
110 1,2,4-Trimethylbenzene	105	12.410	12.410	0.000	97	320762	50.0	50.1	
111 1,2-dichloro-4-(trifluorom	214	12.453	12.453	0.000	96	86440	50.0	53.9	
112 sec-Butylbenzene	105	12.575	12.575	0.000	94	367696	50.0	50.1	
113 1,3-Dichlorobenzene	146	12.690	12.690	0.000	97	161271	50.0	46.9	
114 4-Isopropyltoluene	119	12.727	12.727	0.000	97	306631	50.0	50.2	
115 1,4-Dichlorobenzene	146	12.794	12.794	0.000	95	171076	50.0	48.5	
116 2,4-Dichloro-1-(triflourom	214	12.818	12.818	0.000	95	77085	50.0	51.7	
118 2,5-Dichlorobenzotrifluori	214	12.867	12.867	0.000	0	83713	50.0	51.9	
120 n-Butylbenzene	91	13.140	13.140	0.000	98	249535	50.0	50.0	
121 1,2-Dichlorobenzene	146	13.153	13.153	0.000	95	151030	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.937	13.937	0.000	79	14436	50.0	39.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.083	14.083	0.000	0	330885	150.0	159.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.503	14.503	0.000	0	214195	100.0	99.6	
126 1,2,4-Trichlorobenzene	180	14.765	14.765	0.000	92	55998	50.0	37.3	
127 Hexachlorobutadiene	225	14.905	14.905	0.000	95	24110	50.0	43.9	
128 Naphthalene	128	15.026	15.026	0.000	97	178669	50.0	35.0	
129 1,2,3-Trichlorobenzene	180	15.257	15.257	0.000	93	47565	50.0	34.7	
131 2,4,5-Trichlorotoluene	159	16.024	16.024	0.000	0	22008	50.0	33.8	
130 2,3,6-Trichlorotoluene	159	16.121	16.121	0.000	95	22350	50.0	36.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	98.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	91.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL	
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL	
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00267	Amount Added:	2.00	Units: uL	
VOA2CEVE2ND_00008	Amount Added:	2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added:	6.00	Units: uL	
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

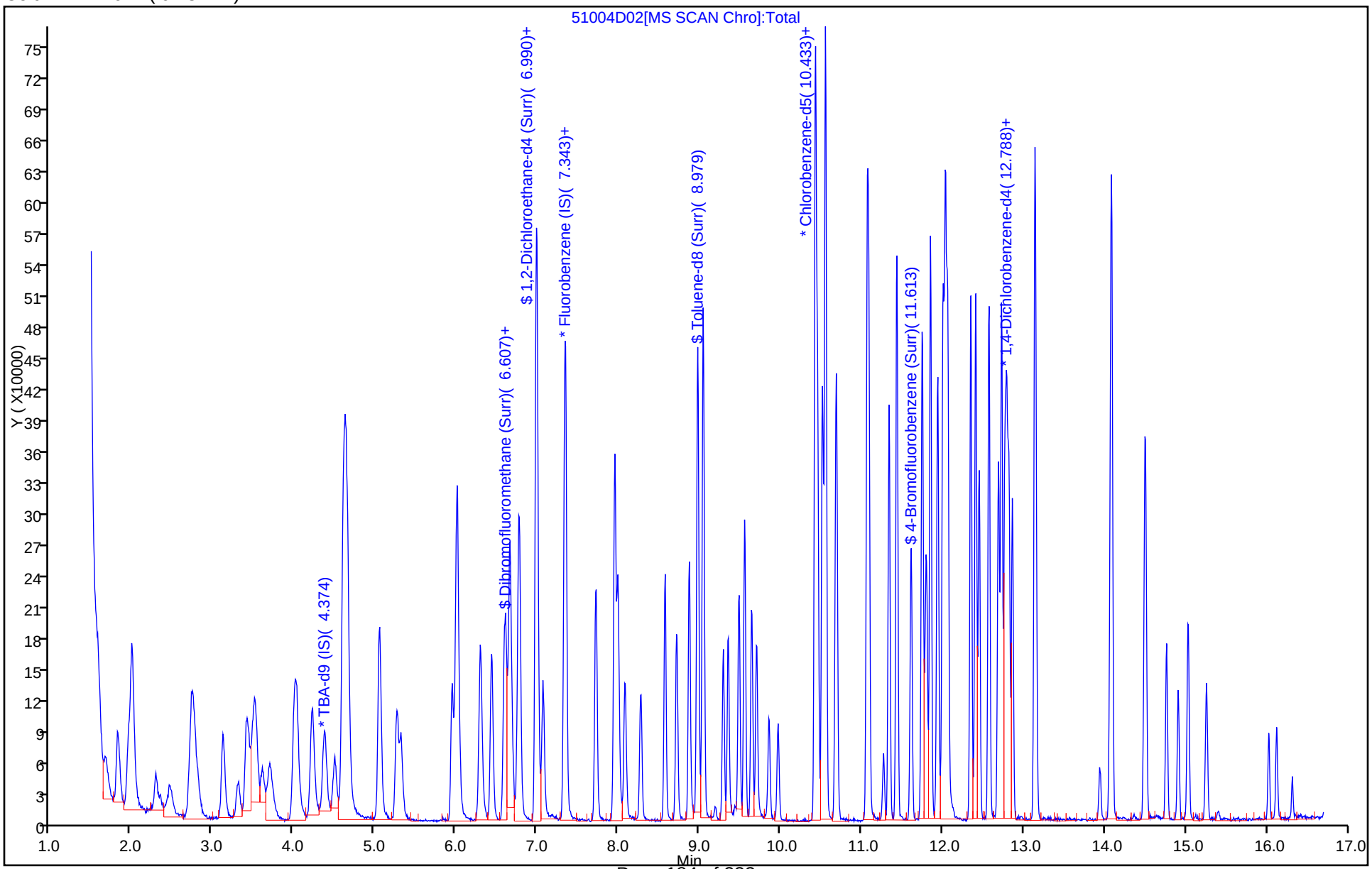
Report Date: 08-Oct-2017 20:41:21 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D02.D

Injection Date:	04-Oct-2017 23:29:30	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:

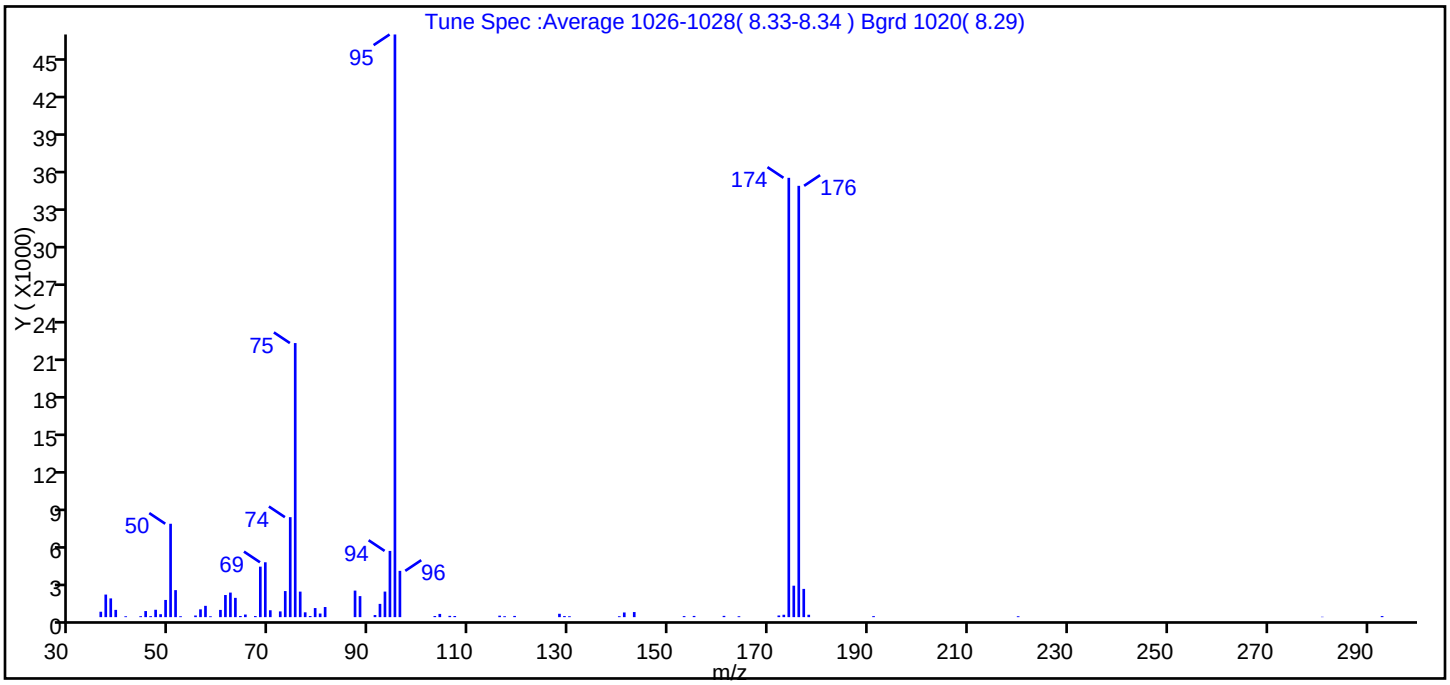
VOABFB25_00090 Amount Added: 1.00 Units: uL

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		

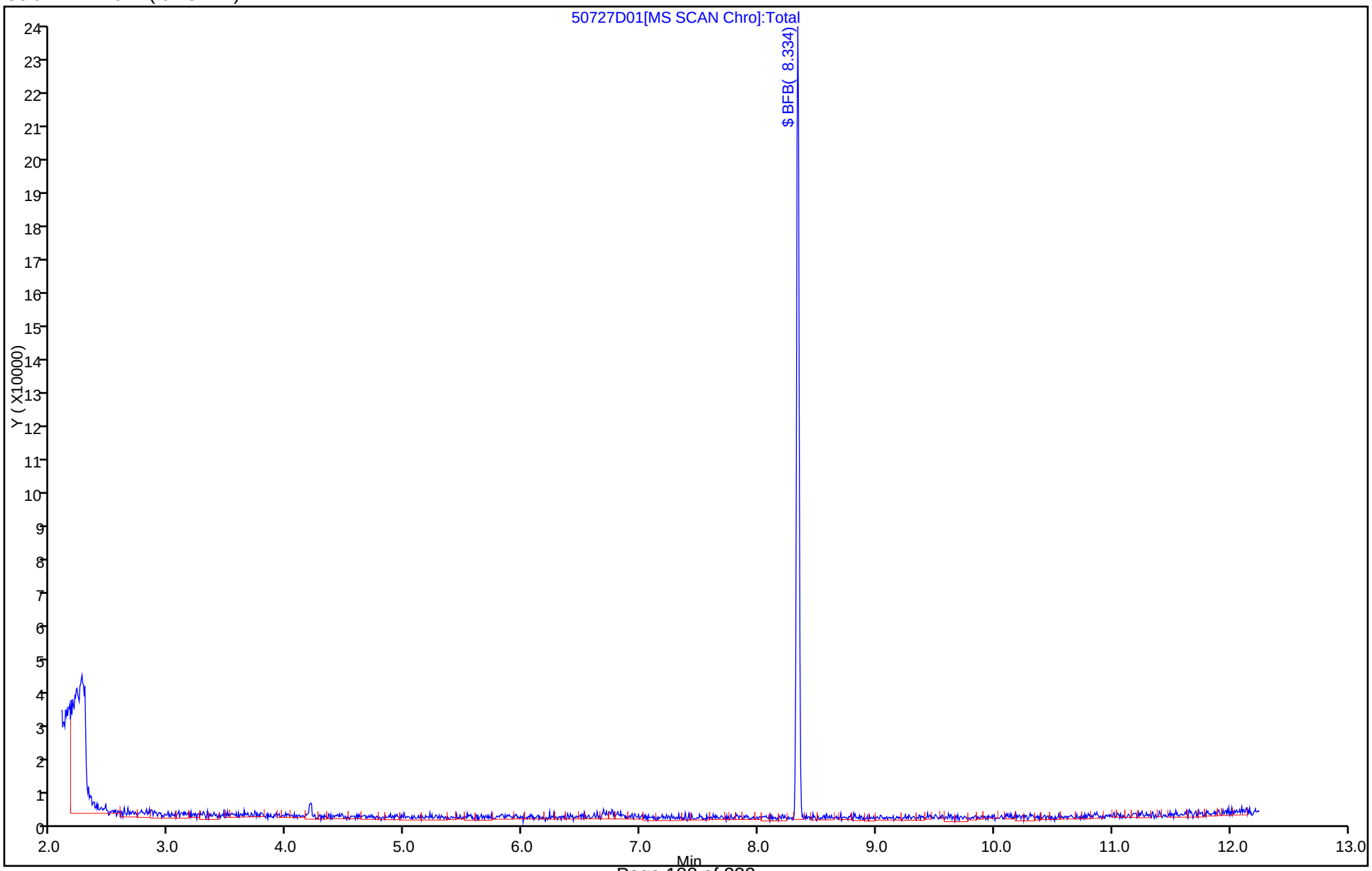
Report Date: 28-Jul-2017 01:04:43 Chrom Revision: 2.2 20-Jun-2017 07:42:38

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\20171003-18710.b\51003D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-Oct-2017 23:49:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0018710-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP5		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	04-Oct-2017 21:10:15	Calib Date:	27-Jul-2017 04:24:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK005				

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	49616	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

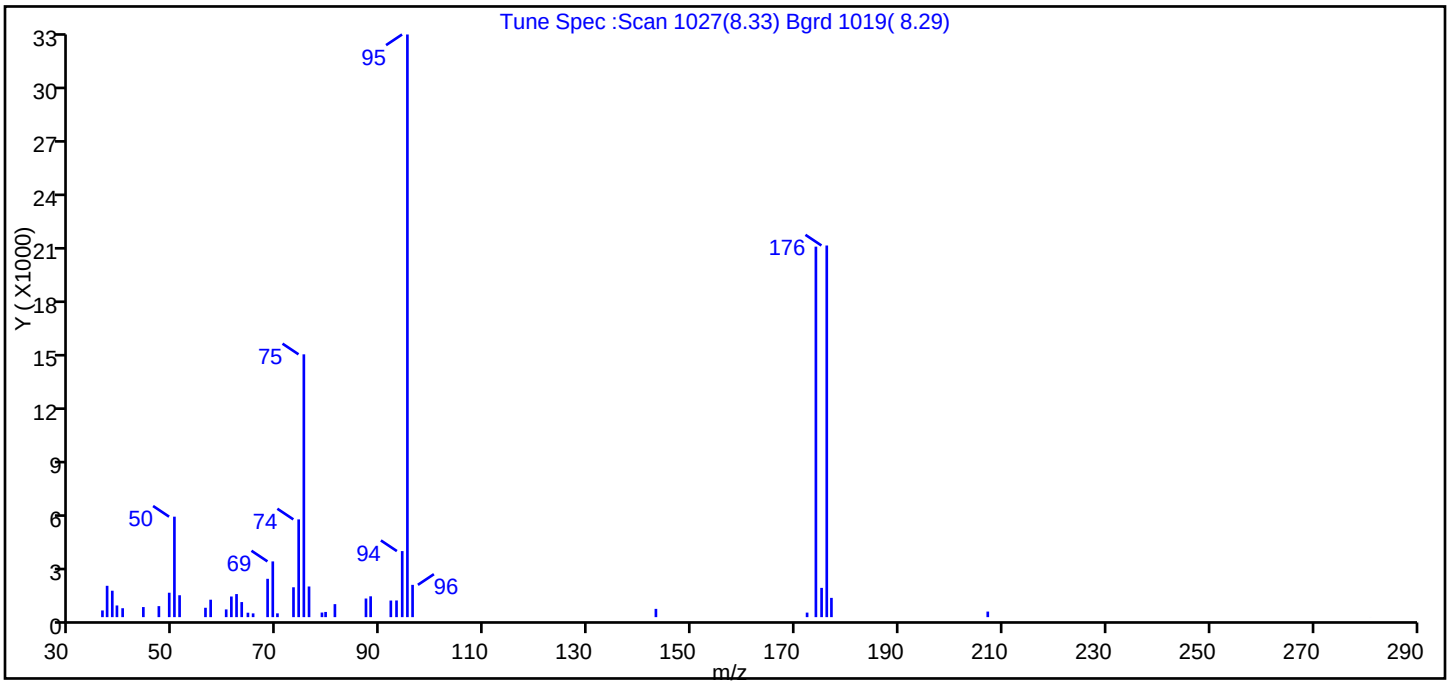
VOABFB25_00093 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D01.D
Injection Date: 03-Oct-2017 23:49:30 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	17.2
75	30 to 60% of m/z 95	45.1
96	5 to 9% of m/z 95	5.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	63.6
175	5 to 9% of m/z 174	5.0 (7.9)
176	Greater than 95% but less than 101% of m/z 174	63.8 (100.3)
177	5 to 9% of m/z 176	3.3 (5.2)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 03-Oct-2017 23:49:30
Spectrum: Tune Spec :Scan 1027(8.33) Bgrd 1019(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 43

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	372	57.00	969	74.00	5433	95.00	32384
37.00	1742	60.00	430	75.00	14607	96.00	1795
38.00	1469	61.00	1147	76.00	1704	143.00	460
38.90	649	62.00	1282	78.50	256	172.20	252
40.00	496	63.00	838	79.20	289	173.90	20592
44.00	560	64.20	246	81.00	723	175.00	1627
47.00	612	65.20	209	87.00	1035	176.00	20656
49.00	1357	68.00	2131	87.90	1158	176.90	1071
50.00	5584	69.00	3098	91.80	923	207.10	310
51.00	1217	69.90	211	92.90	927	281.00	1
56.00	521	73.00	1660	94.00	3671		

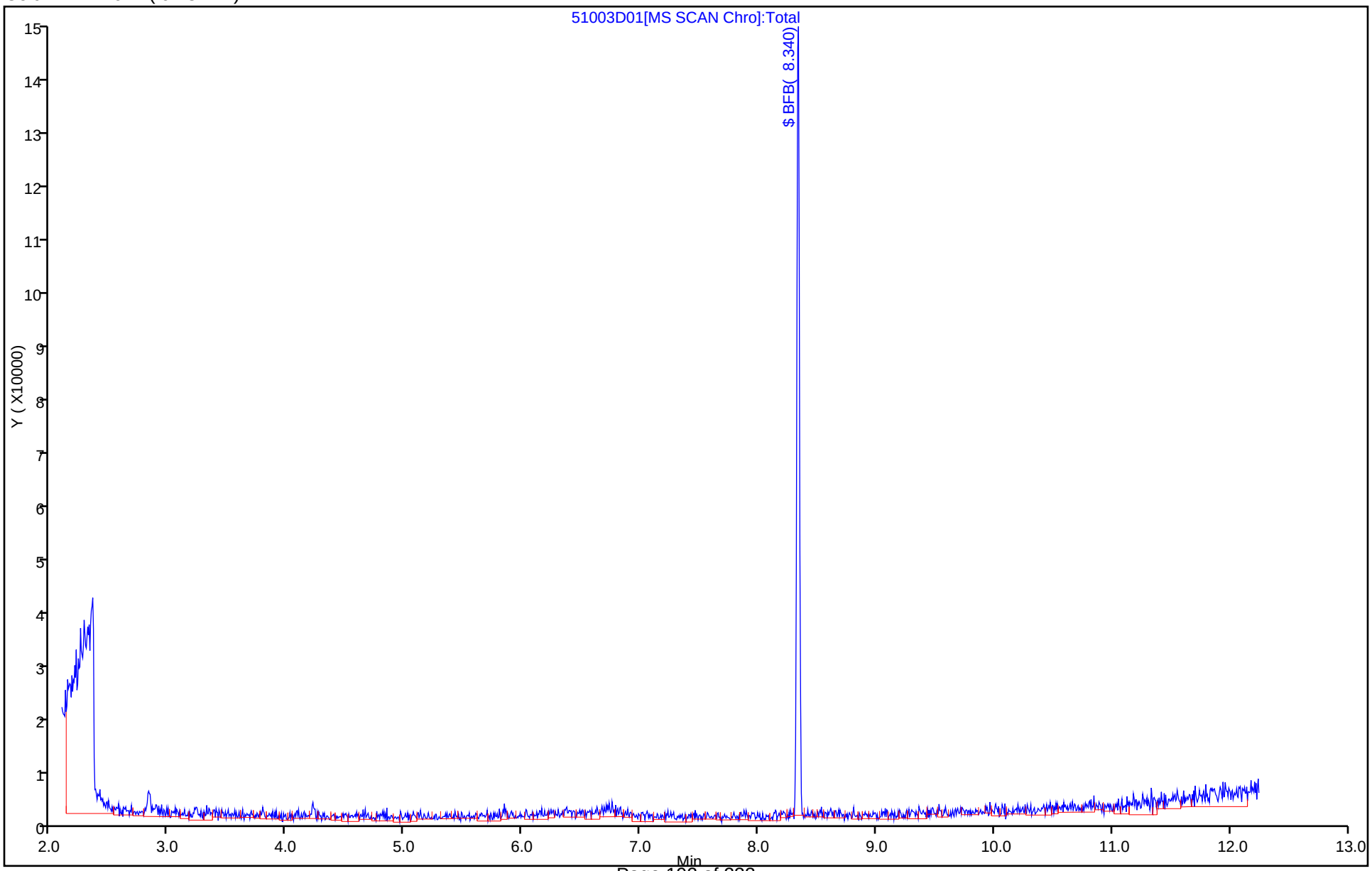
Report Date: 04-Oct-2017 21:10:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D01.D

Injection Date:	03-Oct-2017 23:49:30	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\20171004-18725.b\51004D01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 04-Oct-2017 22:24:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 180-0018725-001
Misc. Info.: BFB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:18 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: XAWRK026

First Level Reviewer: bungardf Date: 05-Oct-2017 04:03:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.336	8.336	0.000	0	73323	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

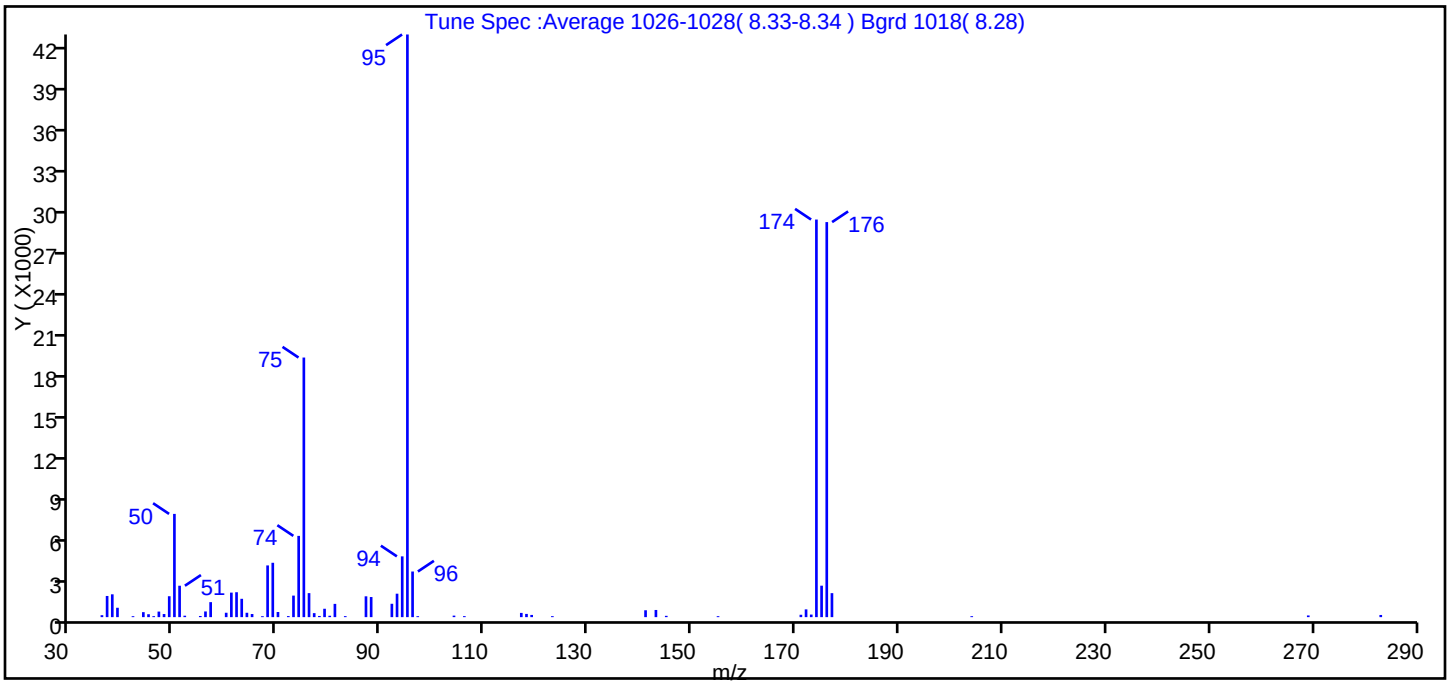
VOABFB25_00093 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D01.D				
Injection Date:	04-Oct-2017 22:24:30	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	44.6
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.4 (0.6)
174	50 to 120% of m/z 95	68.2
175	5 to 9% of m/z 174	5.4 (7.9)
176	Greater than 95% but less than 101% of m/z 174	67.8 (99.4)
177	5 to 9% of m/z 176	4.1 (6.1)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D01.D\MSVOA_LL_CHHP5.rslt\spec
Injection Date: 04-Oct-2017 22:24:30
Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1018(8.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 66

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	141	60.00	317	79.00	606	123.00	71
37.00	1529	61.00	1772	80.00	100	141.00	497
38.00	1649	62.00	1800	81.00	958	143.00	518
39.00	677	63.00	1325	83.00	73	145.00	95
42.00	68	64.00	316	87.00	1505	155.00	69
44.00	361	65.00	226	88.00	1453	171.00	172
45.00	211	67.00	67	92.00	965	172.00	562
46.00	71	68.00	3736	93.00	1694	173.00	186
47.00	402	69.00	3927	94.00	4390	174.00	28720
48.00	225	70.00	371	95.00	42088	175.00	2272
49.00	1511	72.00	76	96.00	3296	176.00	28536
50.00	7458	73.00	1556	97.00	68	177.00	1733
51.00	2269	74.00	5870	104.00	110	204.00	68
52.00	104	75.00	18752	106.00	72	269.00	122
55.00	83	76.00	1735	117.00	306	283.00	157
56.00	411	77.00	290	118.00	233		
57.00	1084	78.00	85	119.00	160		

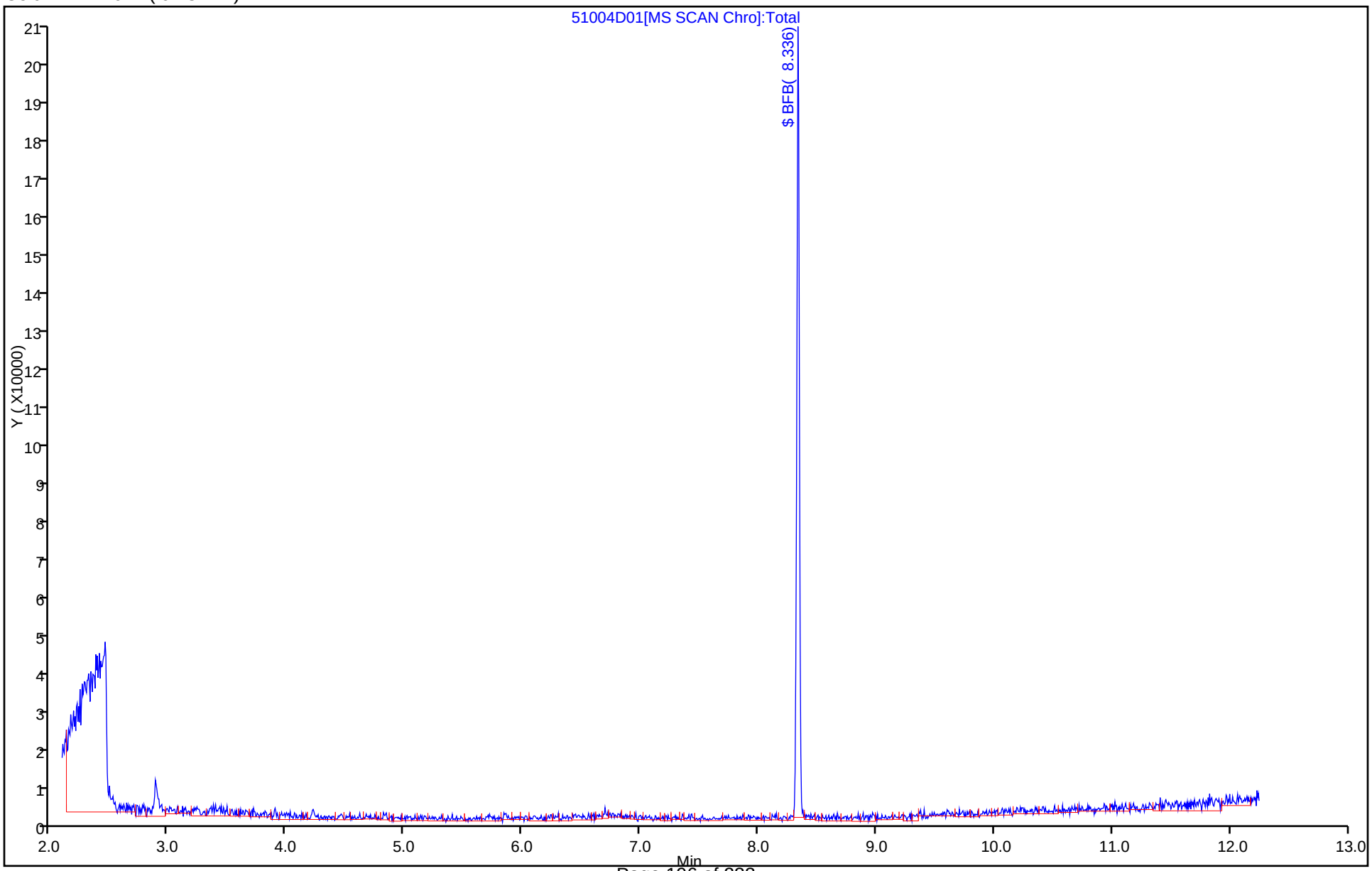
Report Date: 08-Oct-2017 20:41:19 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D01.D

Injection Date:	04-Oct-2017 22:24:30	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)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70873-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-224792/6

Matrix: Water | Lab File ID: 51003D06.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/04/2017 02:21

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 224792 | 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.: 180-70873-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-224792/6

Matrix: Water Lab File ID: 51003D06.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/04/2017 02:21

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 224792 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)	107		65-121
2037-26-5	Toluene-d8 (Surr)	98		73-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 04-Oct-2017 02:21:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 02:42:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.350	4.347	0.003	0	193789	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.334	0.003	99	384752	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.431	-0.004	86	86410	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.773	-0.003	97	122049	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.619	6.616	0.003	91	86724	50.0	46.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.981	0.003	0	120939	50.0	53.6	
$ 7 Toluene-d8 (Surr)	98	8.980	8.977	0.003	93	336841	50.0	49.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.608	11.611	-0.003	86	114967	50.0	46.3	
11 Dichlorodifluoromethane	85		1.689					ND	
12 Chloromethane	50		1.823					ND	
13 Vinyl chloride	62		1.963					ND	
14 Butadiene	39		1.993					ND	
15 Bromomethane	94		2.291					ND	
16 Chloroethane	64		2.461					ND	
17 Dichlorofluoromethane	67		2.735					ND	
18 Trichlorofluoromethane	101		2.790					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.124					ND	
21 Acrolein	56		3.301					ND	
22 1,1-Dichloroethene	96		3.423					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.508					ND	
24 Acetone	43		3.526					ND	
25 Iodomethane	142		3.617					ND	
26 Carbon disulfide	76		3.708					ND	
27 Isopropyl alcohol	45		3.812					ND	
29 Acetonitrile	41		3.964					ND	
28 3-Chloro-1-propene	76		3.994					ND	
30 Methyl acetate	43		4.031					ND	
31 Methylene Chloride	84		4.232					ND	
32 2-Methyl-2-propanol	59		4.493					ND	
33 Acrylonitrile	53		4.609					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		4.633					ND	
35 Methyl tert-butyl ether	73		4.657					ND	
36 Hexane	57		5.053					ND	
37 1,1-Dichloroethane	63		5.272					ND	
38 Vinyl acetate	43		5.315					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		5.832					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.008					ND	
44 2,2-Dichloropropane	97		6.008					ND	
46 2-Butanone (MEK)	43		6.026					ND	
47 Propionitrile	54		6.093					ND	
48 Ethyl acetate	43		6.099					ND	
50 Methacrylonitrile	41		6.276					ND	
49 Chlorobromomethane	128		6.294					ND	
51 Tetrahydrofuran	42		6.306					ND	
52 Chloroform	83		6.440					ND	
53 1,1,1-Trichloroethane	97		6.592					ND	
54 Cyclohexane	56		6.659					ND	
56 Carbon tetrachloride	117		6.762					ND	
55 1,1-Dichloropropene	75		6.781					ND	
57 Isobutyl alcohol	41		6.981					ND	
58 Benzene	78		6.994					ND	
59 1,2-Dichloroethane	62		7.067					ND	
151 Isooctane	57		7.146					ND	
61 Tert-amyl methyl ether	73		7.170					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.352					ND	
63 n-Butanol	56		7.687					ND	
64 Trichloroethene	130		7.724					ND	
65 Ethyl acrylate	55		7.845					ND	
66 Methylcyclohexane	83		7.961					ND	
67 1,2-Dichloropropane	63		7.997					ND	
69 Methyl methacrylate	69		8.076					ND	
68 Dibromomethane	93		8.082					ND	
70 1,4-Dioxane	88		8.082					ND	
71 Dichlorobromomethane	83		8.277					ND	
73 2-Chloroethyl vinyl ether	63		8.575					ND	
74 cis-1,3-Dichloropropene	75		8.721					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873					ND	
76 Toluene	91		9.044					ND	
77 trans-1,3-Dichloropropene	75		9.293					ND	
78 Ethyl methacrylate	69		9.354					ND	
79 1,1,2-Trichloroethane	97		9.488					ND	
80 Tetrachloroethene	164		9.561					ND	
81 1,3-Dichloropropane	76		9.646					ND	
82 2-Hexanone	43		9.707					ND	
83 n-Butyl acetate	43		9.822					ND	
84 Chlorodibromomethane	129		9.853					ND	
85 Ethylene Dibromide	107		9.974					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.431					ND	
87 Chlorobenzene	112		10.455					ND	
88 4-Chlorobenzotrifluoride	180		10.522					ND	
89 1,1,1,2-Tetrachloroethane	131		10.552					ND	
90 Ethylbenzene	106		10.558					ND	
91 m-Xylene & p-Xylene	106		10.692					ND	
92 o-Xylene	106		11.069					ND	
93 Styrene	104		11.094					ND	
94 Bromoform	173		11.270					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.343					ND	
97 Isopropylbenzene	105		11.441					ND	
98 Cyclohexanone	55		11.526					ND	
100 Bromobenzene	156		11.751					ND	
99 1,1,2,2-Tetrachloroethane	83		11.751					ND	
102 trans-1,4-Dichloro-2-buten	53		11.787					ND	
101 1,2,3-Trichloropropane	110		11.799					ND	
103 N-Propylbenzene	120		11.854					ND	
104 2-Chlorotoluene	126		11.939					ND	
105 3-Chlorotoluene	126		12.006					ND	
106 1,3,5-Trimethylbenzene	105		12.037					ND	
107 4-Chlorotoluene	126		12.061					ND	
108 tert-Butylbenzene	119		12.353					ND	
110 1,2,4-Trimethylbenzene	105		12.408					ND	
111 1,2-dichloro-4-(trifluorom	214		12.450					ND	
112 sec-Butylbenzene	105		12.572					ND	
113 1,3-Dichlorobenzene	146		12.694					ND	
114 4-Isopropyltoluene	119		12.730					ND	
115 1,4-Dichlorobenzene	146		12.797					ND	
116 2,4-Dichloro-1-(triflourom	214		12.822					ND	
117 1,2,3-Trimethylbenzene	105		12.822					ND	
118 2,5-Dichlorobenzotrifluori	214		12.864					ND	
119 Benzyl chloride	91		12.907					ND	
120 n-Butylbenzene	91		13.138					ND	
121 1,2-Dichlorobenzene	146		13.150					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.947					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.081					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.501					ND	
126 1,2,4-Trichlorobenzene	180		14.768					ND	
127 Hexachlorobutadiene	225		14.908					ND	
128 Naphthalene	128		15.030					ND	
129 1,2,3-Trichlorobenzene	180		15.255					ND	
131 2,4,5-Trichlorotoluene	159		16.027					ND	
130 2,3,6-Trichlorotoluene	159		16.125					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

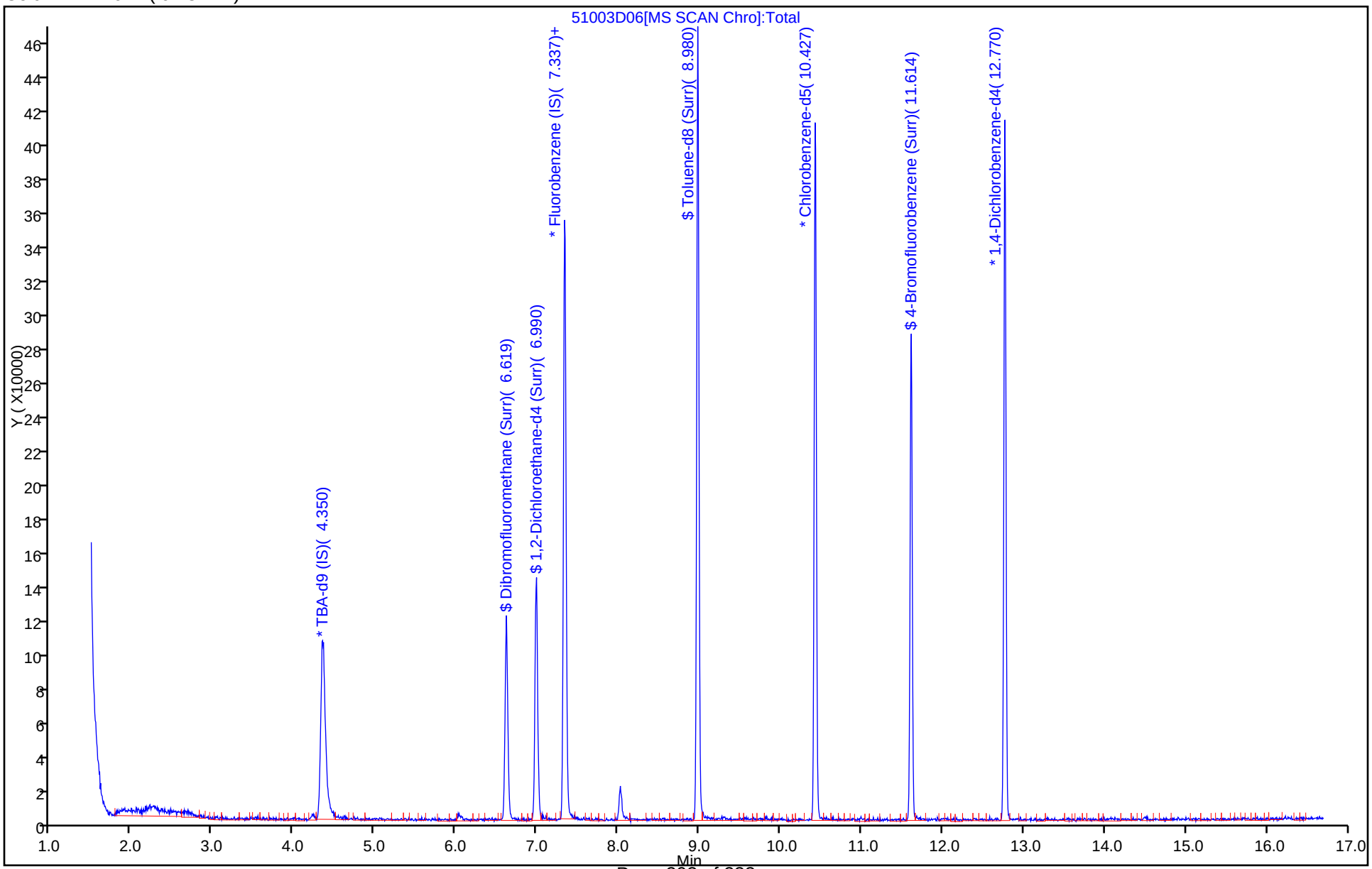
Report Date: 04-Oct-2017 21:10:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D06.D

Injection Date:	04-Oct-2017 02:21:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 04-Oct-2017 02:21:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 02:42:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.8	93.69
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.6	107.13
$ 7 Toluene-d8 (Surr)	50.0	49.0	97.96
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.3	92.57

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70873-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-224919/7

Matrix: Water | Lab File ID: 51004D07.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/05/2017 02:41

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.: 224919 | 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.: 180-70873-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-224919/7

Matrix: Water Lab File ID: 51004D07.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/05/2017 02:41

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.: 224919 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)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D07.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 05-Oct-2017 02:41:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018725-007
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:27 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: XAWRK026

First Level Reviewer: bungardf Date: 05-Oct-2017 03:04:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.359	4.352	0.007	0	189568	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.339	0.001	99	369267	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.429	0.001	85	81221	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.771	-0.005	96	115186	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.613	0.003	93	85389	50.0	48.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.990	-0.003	0	120443	50.0	55.6	
$ 7 Toluene-d8 (Surr)	98	8.983	8.979	0.004	93	325966	50.0	50.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.613	-0.002	85	111301	50.0	47.7	
11 Dichlorodifluoromethane	85		1.679					ND	
12 Chloromethane	50		1.825					ND	
13 Vinyl chloride	62		1.959					ND	
14 Butadiene	39		2.008					ND	
15 Bromomethane	94		2.300					ND	
16 Chloroethane	64		2.470					ND	
17 Dichlorofluoromethane	67		2.744					ND	
18 Trichlorofluoromethane	101		2.768					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.121					ND	
21 Acrolein	56		3.316					ND	
22 1,1-Dichloroethene	96		3.413					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.504					ND	
24 Acetone	43		3.529					ND	
25 Iodomethane	142		3.608					ND	
26 Carbon disulfide	76		3.699					ND	
27 Isopropyl alcohol	45		3.811					ND	
29 Acetonitrile	41		3.969					ND	
28 3-Chloro-1-propene	76		3.997					ND	
30 Methyl acetate	43		4.033					ND	
31 Methylene Chloride	84		4.222					ND	
32 2-Methyl-2-propanol	59		4.508					ND	
33 Acrylonitrile	53		4.605					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		4.642					ND	
35 Methyl tert-butyl ether	73		4.660					ND	
36 Hexane	57		5.049					ND	
37 1,1-Dichloroethane	63		5.268					ND	
38 Vinyl acetate	43		5.323					ND	
39 2-Chloro-1,3-butadiene	53		5.356					ND	
41 Isopropyl ether	45		5.368					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.836					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.004					ND	
45 cis-1,2-Dichloroethene	96		6.011					ND	
46 2-Butanone (MEK)	43		6.023					ND	
48 Ethyl acetate	43		6.092					ND	
47 Propionitrile	54		6.098					ND	
50 Methacrylonitrile	41		6.274					ND	
49 Chlorobromomethane	128		6.290					ND	
51 Tetrahydrofuran	42		6.309					ND	
52 Chloroform	83		6.436					ND	
53 1,1,1-Trichloroethane	97		6.595					ND	
54 Cyclohexane	56		6.662					ND	
56 Carbon tetrachloride	117		6.759					ND	
55 1,1-Dichloropropene	75		6.783					ND	
57 Isobutyl alcohol	41		6.990					ND	
58 Benzene	78		6.996					ND	
59 1,2-Dichloroethane	62		7.069					ND	
151 Isooctane	57		7.144					ND	
61 Tert-amyl methyl ether	73		7.175					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.349					ND	
63 n-Butanol	56		7.686					ND	
64 Trichloroethene	130		7.720					ND	
65 Ethyl acrylate	55		7.844					ND	
66 Methylcyclohexane	83		7.957					ND	
67 1,2-Dichloropropane	63		7.994					ND	
68 Dibromomethane	93		8.079					ND	
69 Methyl methacrylate	69		8.081					ND	
70 1,4-Dioxane	88		8.085					ND	
71 Dichlorobromomethane	83		8.280					ND	
73 2-Chloroethyl vinyl ether	63		8.578					ND	
74 cis-1,3-Dichloropropene	75		8.718					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.876					ND	
76 Toluene	91		9.046					ND	
77 trans-1,3-Dichloropropene	75		9.296					ND	
78 Ethyl methacrylate	69		9.356					ND	
79 1,1,2-Trichloroethane	97		9.490					ND	
80 Tetrachloroethene	164		9.563					ND	
81 1,3-Dichloropropane	76		9.648					ND	
82 2-Hexanone	43		9.703					ND	
83 n-Butyl acetate	43		9.827					ND	
84 Chlorodibromomethane	129		9.855					ND	
85 Ethylene Dibromide	107		9.971					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.433					ND	
87 Chlorobenzene	112		10.458					ND	
88 4-Chlorobenzotrifluoride	180		10.518					ND	
89 1,1,1,2-Tetrachloroethane	131		10.549					ND	
90 Ethylbenzene	106		10.555					ND	
91 m-Xylene & p-Xylene	106		10.689					ND	
92 o-Xylene	106		11.072					ND	
93 Styrene	104		11.090					ND	
94 Bromoform	173		11.273					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.340					ND	
97 Isopropylbenzene	105		11.437					ND	
98 Cyclohexanone	55		11.530					ND	
99 1,1,2,2-Tetrachloroethane	83		11.747					ND	
100 Bromobenzene	156		11.753					ND	
102 trans-1,4-Dichloro-2-buten	53		11.784					ND	
101 1,2,3-Trichloropropane	110		11.808					ND	
103 N-Propylbenzene	120		11.851					ND	
104 2-Chlorotoluene	126		11.942					ND	
105 3-Chlorotoluene	126		12.003					ND	
106 1,3,5-Trimethylbenzene	105		12.033					ND	
107 4-Chlorotoluene	126		12.064					ND	
108 tert-Butylbenzene	119		12.350					ND	
110 1,2,4-Trimethylbenzene	105		12.410					ND	
111 1,2-dichloro-4-(trifluorom	214		12.453					ND	
112 sec-Butylbenzene	105		12.575					ND	
113 1,3-Dichlorobenzene	146		12.690					ND	
114 4-Isopropyltoluene	119		12.727					ND	
115 1,4-Dichlorobenzene	146		12.794					ND	
116 2,4-Dichloro-1-(triflourom	214		12.818					ND	
117 1,2,3-Trimethylbenzene	105		12.820					ND	
118 2,5-Dichlorobenzotrifluori	214		12.867					ND	
119 Benzyl chloride	91		12.911					ND	
120 n-Butylbenzene	91		13.140					ND	
121 1,2-Dichlorobenzene	146		13.153					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.937					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.083					ND	
124 1,3,5-Trichlorobenzene	180	14.129	14.128	0.001	1	280		0.1174	
125 2,3- & 3,4- Dichlorotoluen	125		14.503					ND	
126 1,2,4-Trichlorobenzene	180		14.765					ND	
127 Hexachlorobutadiene	225		14.905					ND	
128 Naphthalene	128		15.026					ND	
129 1,2,3-Trichlorobenzene	180		15.257					ND	
131 2,4,5-Trichlorotoluene	159		16.024					ND	
130 2,3,6-Trichlorotoluene	159		16.121					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

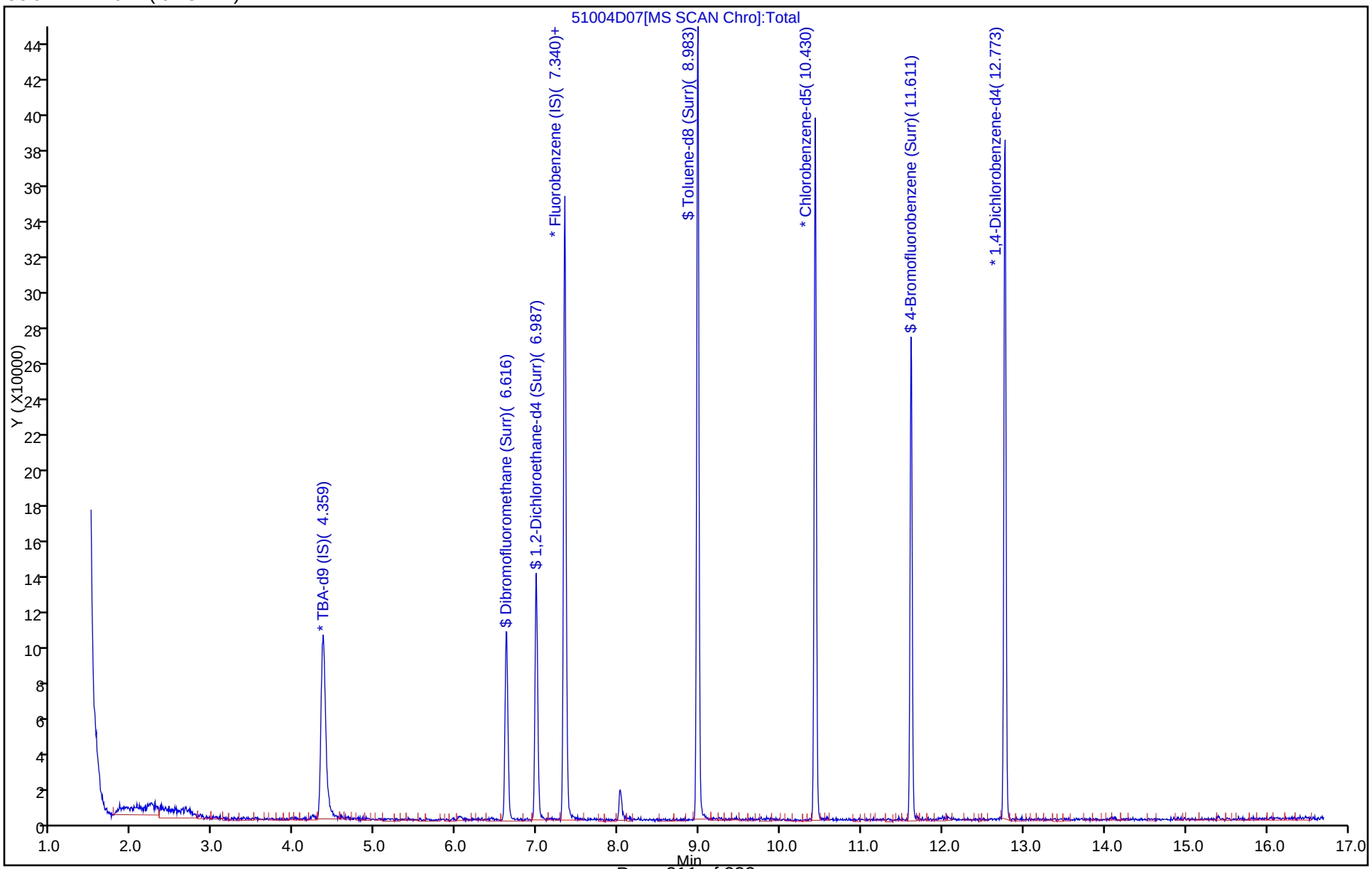
Report Date: 08-Oct-2017 20:41:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D07.D

Injection Date:	05-Oct-2017 02:41:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D07.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 05-Oct-2017 02:41:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018725-007
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:27 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: XAWRK026

First Level Reviewer: bungardf Date: 05-Oct-2017 03:04:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	48.1	96.12
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.6	111.16
$ 7 Toluene-d8 (Surr)	50.0	50.4	100.85
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.7	95.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70873-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-224792/4

Matrix: Water | Lab File ID: 51003D04.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/04/2017 01:24

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.: 224792 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.6		1.0	0.38
75-01-4	Vinyl chloride	11.8		1.0	0.17
74-83-9	Bromomethane	10.1		1.0	0.59
75-00-3	Chloroethane	13.5		1.0	0.58
75-35-4	1,1-Dichloroethene	10.3		1.0	0.32
67-64-1	Acetone	22.4		5.0	3.1
75-15-0	Carbon disulfide	9.37		1.0	0.53
75-09-2	Methylene Chloride	9.77		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	10.0		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.62		1.0	0.20
75-34-3	1,1-Dichloroethane	9.85		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.81		1.0	0.30
74-97-5	Bromochloromethane	9.53		1.0	0.36
78-93-3	2-Butanone (MEK)	21.0		5.0	2.6
67-66-3	Chloroform	9.83		1.0	0.27
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.27
56-23-5	Carbon tetrachloride	9.98		1.0	0.56
71-43-2	Benzene	9.68		1.0	0.18
107-06-2	1,2-Dichloroethane	10.6		1.0	0.24
79-01-6	Trichloroethene	9.28		1.0	0.20
78-87-5	1,2-Dichloropropane	9.20		1.0	0.35
75-27-4	Bromodichloromethane	9.11		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	8.97		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	21.2		5.0	2.2
108-88-3	Toluene	10.9		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.70		1.0	0.22
79-00-5	1,1,2-Trichloroethane	10.8		1.0	0.31
127-18-4	Tetrachloroethene	10.5		1.0	0.24
591-78-6	2-Hexanone	21.2		5.0	2.0
124-48-1	Dibromochloromethane	9.60		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.86		1.0	0.51
108-90-7	Chlorobenzene	10.3		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	10.6		1.0	0.49
100-41-4	Ethylbenzene	9.83		1.0	0.25
1330-20-7	Xylenes, Total	20.2		2.0	0.27
100-42-5	Styrene	10.0		1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-224792/4

Matrix: Water Lab File ID: 51003D04.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/04/2017 01:24

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.: 224792 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.98		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.37
107-13-1	Acrylonitrile	108		20	3.3
123-91-1	1,4-Dioxane	271		200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		65-121
2037-26-5	Toluene-d8 (Surr)	113		73-120
460-00-4	4-Bromofluorobenzene (Surr)	107		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 04-Oct-2017 01:24:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 02:09:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.347	0.008	0	183806	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.342	7.334	0.008	97	350927	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.426	10.431	-0.005	85	75706	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.773	-0.005	95	111504	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.618	6.616	0.002	93	82762	50.0	49.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.981	0.002	0	109269	50.0	53.1	
$ 7 Toluene-d8 (Surr)	98	8.978	8.977	0.001	93	341582	50.0	56.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.611	0.001	86	116849	50.0	53.7	
11 Dichlorodifluoromethane	85	1.678	1.689	-0.011	99	103253	50.0	50.6	
12 Chloromethane	50	1.824	1.823	0.001	98	118538	50.0	57.8	
13 Vinyl chloride	62	1.952	1.963	-0.011	97	122919	50.0	59.1	
14 Butadiene	39	1.994	1.993	0.001	98	121229	50.0	64.1	
15 Bromomethane	94	2.305	2.291	0.014	87	49551	50.0	50.4	
16 Chloroethane	64	2.451	2.461	-0.010	98	76988	50.0	67.3	
17 Dichlorofluoromethane	67	2.743	2.735	0.008	97	174905	50.0	60.4	
18 Trichlorofluoromethane	101	2.743	2.790	-0.047	94	147056	50.0	57.5	
20 Ethyl ether	59	3.120	3.124	-0.004	92	90317	50.0	54.3	
21 Acrolein	56	3.308	3.301	0.007	99	72376	150.0	172.7	
22 1,1-Dichloroethene	96	3.430	3.423	0.007	97	88643	50.0	51.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.503	3.508	-0.005	90	102362	50.0	54.3	
24 Acetone	43	3.521	3.526	-0.005	99	102980	100.0	112.2	
25 Iodomethane	142	3.619	3.617	0.002	97	136016	50.0	50.4	
26 Carbon disulfide	76	3.710	3.708	0.002	99	176720	50.0	46.9	
28 3-Chloro-1-propene	76	4.008	3.994	0.014	95	52288	50.0	47.1	
30 Methyl acetate	43	4.032	4.031	0.001	96	190761	100.0	105.0	
31 Methylene Chloride	84	4.221	4.232	-0.011	93	104105	50.0	48.8	
32 2-Methyl-2-propanol	59	4.483	4.493	-0.010	94	108171	500.0	497.6	
33 Acrylonitrile	53	4.610	4.609	0.001	99	478450	500.0	541.5	
34 trans-1,2-Dichloroethene	96	4.641	4.633	0.008	99	98310	50.0	50.2	
35 Methyl tert-butyl ether	73	4.659	4.657	0.002	97	252538	50.0	48.1	
36 Hexane	57	5.054	5.053	0.001	94	129294	50.0	51.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.267	5.272	-0.005	97	167599	50.0	49.2	
38 Vinyl acetate	43	5.322	5.315	0.008	97	181173	50.0	52.3	
45 cis-1,2-Dichloroethene	96	6.016	6.008	0.008	80	109826	50.0	49.1	
44 2,2-Dichloropropane	97	5.997	6.008	-0.011	62	23638	50.0	54.5	
46 2-Butanone (MEK)	43	6.022	6.026	-0.004	99	136976	100.0	104.9	
49 Chlorobromomethane	128	6.295	6.294	0.001	97	47438	50.0	47.7	
51 Tetrahydrofuran	42	6.308	6.306	0.002	93	71574	100.0	94.1	
52 Chloroform	83	6.435	6.440	-0.005	94	166997	50.0	49.1	
53 1,1,1-Trichloroethane	97	6.594	6.592	0.002	98	133821	50.0	52.0	
54 Cyclohexane	56	6.667	6.659	0.008	91	163595	50.0	51.5	
56 Carbon tetrachloride	117	6.764	6.762	0.002	97	106851	50.0	49.9	
55 1,1-Dichloropropene	75	6.776	6.781	-0.005	97	135425	50.0	48.7	
57 Isobutyl alcohol	41	6.977	6.981	-0.004	88	101254	1250.0	1450.1	
58 Benzene	78	6.995	6.994	0.001	97	413043	50.0	48.4	
59 1,2-Dichloroethane	62	7.074	7.067	0.007	98	131706	50.0	53.0	
62 n-Heptane	43	7.354	7.352	0.002	89	103197	50.0	51.4	
64 Trichloroethene	130	7.725	7.724	0.001	98	99645	50.0	46.4	
66 Methylcyclohexane	83	7.962	7.961	0.001	88	150041	50.0	46.2	
67 1,2-Dichloropropane	63	7.993	7.997	-0.004	93	91445	50.0	46.0	
68 Dibromomethane	93	8.078	8.082	-0.004	96	53748	50.0	46.2	
70 1,4-Dioxane	88	8.078	8.082	-0.004	51	27346	1000.0	1353.5	
71 Dichlorobromomethane	83	8.273	8.277	-0.004	99	104118	50.0	45.6	
73 2-Chloroethyl vinyl ether	63	8.577	8.575	0.002	93	104178	100.0	72.9	
74 cis-1,3-Dichloropropene	75	8.723	8.721	0.002	94	124521	50.0	44.9	
75 4-Methyl-2-pentanone (MIBK	43	8.875	8.873	0.002	96	205423	100.0	105.8	
76 Toluene	91	9.051	9.044	0.007	99	411022	50.0	54.4	
77 trans-1,3-Dichloropropene	75	9.295	9.293	0.002	95	99666	50.0	48.5	
78 Ethyl methacrylate	69	9.355	9.354	0.001	89	111013	50.0	44.8	
79 1,1,2-Trichloroethane	97	9.489	9.488	0.001	89	84987	50.0	54.0	
80 Tetrachloroethene	164	9.562	9.561	0.001	96	75842	50.0	52.7	
81 1,3-Dichloropropane	76	9.647	9.646	0.001	90	146002	50.0	50.2	
82 2-Hexanone	43	9.708	9.707	0.001	99	157606	100.0	105.8	
84 Chlorodibromomethane	129	9.860	9.853	0.007	91	63786	50.0	48.0	
85 Ethylene Dibromide	107	9.970	9.974	-0.004	99	79479	50.0	49.3	
86 3-Chlorobenzotrifluoride	180	10.432	10.431	0.001	89	157842	50.0	60.7	
87 Chlorobenzene	112	10.457	10.455	0.002	95	252385	50.0	51.4	
88 4-Chlorobenzotrifluoride	180	10.517	10.522	-0.005	95	150026	50.0	62.5	
89 1,1,1,2-Tetrachloroethane	131	10.548	10.552	-0.004	91	83133	50.0	53.2	
90 Ethylbenzene	106	10.560	10.558	0.002	99	134813	50.0	49.1	
91 m-Xylene & p-Xylene	106	10.688	10.692	-0.004	0	172133	50.0	51.3	
92 o-Xylene	106	11.071	11.069	0.002	96	158520	50.0	49.6	
93 Styrene	104	11.089	11.094	-0.005	95	271030	50.0	50.1	
94 Bromoform	173	11.272	11.270	0.002	94	37077	50.0	44.9	
96 2-Chlorobenzotrifluoride	180	11.345	11.343	0.002	96	152607	50.0	61.3	
97 Isopropylbenzene	105	11.436	11.441	-0.005	96	410317	50.0	52.6	
100 Bromobenzene	156	11.752	11.751	0.001	95	95235	50.0	44.0	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.751	0.001	86	121341	50.0	52.1	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.787	0.002	72	33910	50.0	52.0	
101 1,2,3-Trichloropropane	110	11.807	11.799	0.008	87	42509	50.0	47.6	
103 N-Propylbenzene	120	11.856	11.854	0.002	99	116124	50.0	47.0	
104 2-Chlorotoluene	126	11.941	11.939	0.002	96	99698	50.0	46.6	
105 3-Chlorotoluene	126	12.008	12.006	0.002	97	126202	50.0	54.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.038	12.037	0.001	95	346189	50.0	48.9	
107 4-Chlorotoluene	126	12.063	12.061	0.002	98	109975	50.0	47.6	
108 tert-Butylbenzene	119	12.349	12.353	-0.004	94	267680	50.0	45.2	
110 1,2,4-Trimethylbenzene	105	12.409	12.408	0.001	97	336477	50.0	46.8	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.450	0.002	97	95957	50.0	53.2	
112 sec-Butylbenzene	105	12.574	12.572	0.002	94	392992	50.0	47.6	
113 1,3-Dichlorobenzene	146	12.689	12.694	-0.005	97	181959	50.0	47.1	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	97	326742	50.0	47.5	
115 1,4-Dichlorobenzene	146	12.793	12.797	-0.004	95	186990	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.823	12.822	0.001	95	86163	50.0	51.4	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.864	0.002	0	97154	50.0	53.6	
120 n-Butylbenzene	91	13.139	13.138	0.001	98	255354	50.0	45.5	
121 1,2-Dichlorobenzene	146	13.152	13.150	0.002	96	174412	50.0	47.3	
122 1,2-Dibromo-3-Chloropropan	75	13.942	13.947	-0.005	77	17569	50.0	42.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.081	0.001	0	361209	150.0	154.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.501	0.001	0	234784	100.0	97.1	
126 1,2,4-Trichlorobenzene	180	14.764	14.768	-0.004	94	68840	50.0	40.8	
127 Hexachlorobutadiene	225	14.910	14.908	0.002	97	27914	50.0	45.2	
128 Naphthalene	128	15.031	15.030	0.001	97	212015	50.0	36.9	
129 1,2,3-Trichlorobenzene	180	15.256	15.255	0.001	96	60881	50.0	39.5	
131 2,4,5-Trichlorotoluene	159	16.023	16.027	-0.004	0	24923	50.0	34.0	
130 2,3,6-Trichlorotoluene	159	16.120	16.125	-0.005	98	23556	50.0	34.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	101.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	93.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL		
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00267	Amount Added:	2.00	Units: uL		
VOA2CEVE2ND_00008	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00021	Amount Added:	6.00	Units: uL		
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent	

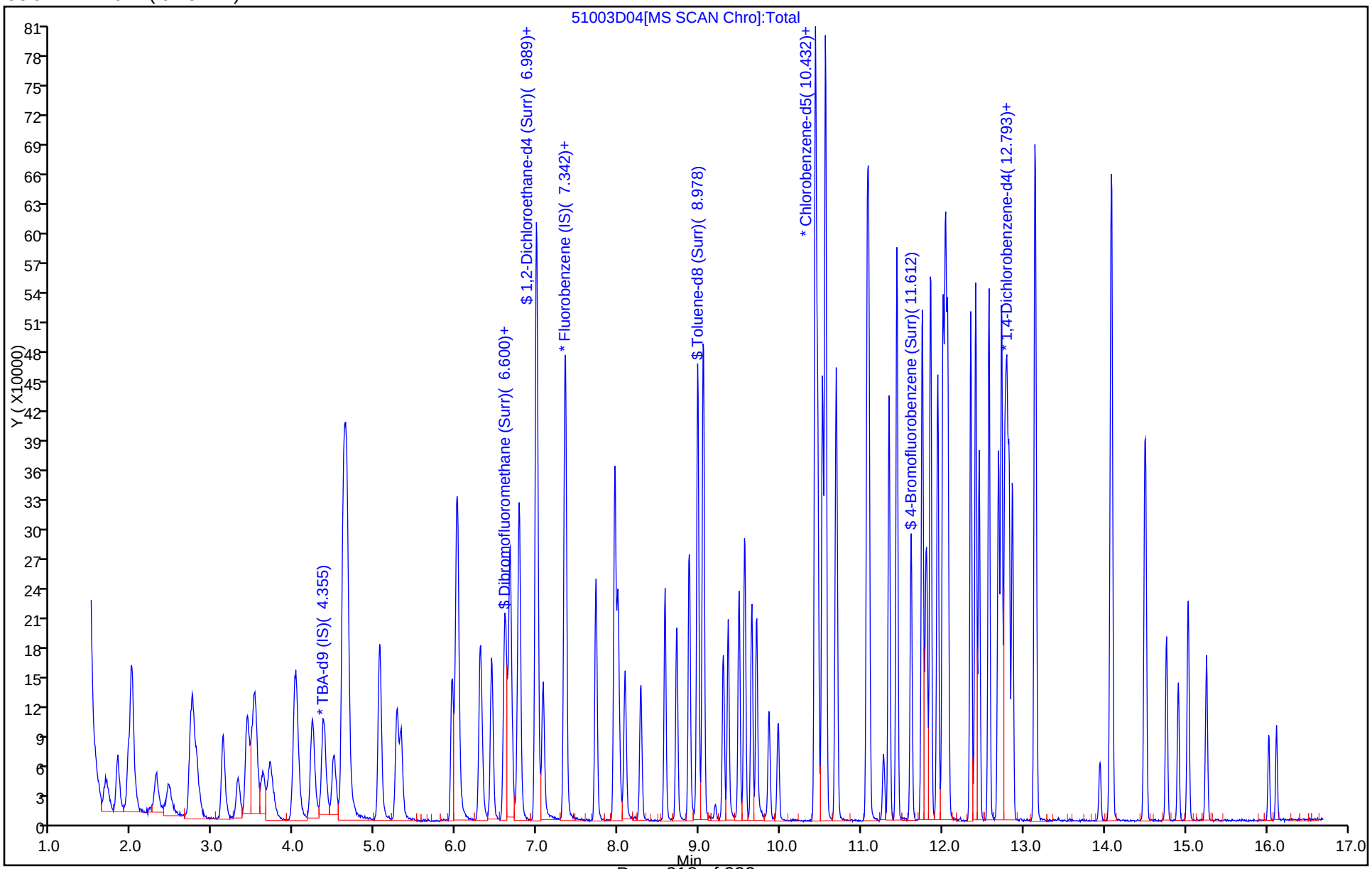
Report Date: 04-Oct-2017 21:10:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D04.D

Injection Date:	04-Oct-2017 01:24:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\51003D04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 04-Oct-2017 01:24:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018710-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171003-18710.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Oct-2017 21:10:21 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: XAWRK005

First Level Reviewer: bungardf Date: 04-Oct-2017 02:09:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	49.0	98.03
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.1	106.12
$ 7 Toluene-d8 (Surr)	50.0	56.7	113.38
$ 8 4-Bromofluorobenzene (Surr)	50.0	53.7	107.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-70873-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-224919/4

Matrix: Water | Lab File ID: 51004D04.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/05/2017 01:09

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.: 224919 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.0		1.0	0.38
75-01-4	Vinyl chloride	12.6		1.0	0.17
74-83-9	Bromomethane	12.4		1.0	0.59
75-00-3	Chloroethane	12.5		1.0	0.58
75-35-4	1,1-Dichloroethene	9.95		1.0	0.32
67-64-1	Acetone	21.7		5.0	3.1
75-15-0	Carbon disulfide	9.04		1.0	0.53
75-09-2	Methylene Chloride	8.90		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	9.52		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.23		1.0	0.20
75-34-3	1,1-Dichloroethane	9.51		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	8.65		1.0	0.30
74-97-5	Bromochloromethane	8.75		1.0	0.36
78-93-3	2-Butanone (MEK)	18.3		5.0	2.6
67-66-3	Chloroform	9.05		1.0	0.27
71-55-6	1,1,1-Trichloroethane	9.46		1.0	0.27
56-23-5	Carbon tetrachloride	9.46		1.0	0.56
71-43-2	Benzene	8.85		1.0	0.18
107-06-2	1,2-Dichloroethane	9.68		1.0	0.24
79-01-6	Trichloroethene	8.20		1.0	0.20
78-87-5	1,2-Dichloropropane	8.44		1.0	0.35
75-27-4	Bromodichloromethane	8.21		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	8.18		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	20.4		5.0	2.2
108-88-3	Toluene	10.4		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.78		1.0	0.22
79-00-5	1,1,2-Trichloroethane	10.6		1.0	0.31
127-18-4	Tetrachloroethene	9.77		1.0	0.24
591-78-6	2-Hexanone	19.4		5.0	2.0
124-48-1	Dibromochloromethane	9.57		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.26		1.0	0.51
108-90-7	Chlorobenzene	9.72		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.84		1.0	0.49
100-41-4	Ethylbenzene	9.31		1.0	0.25
1330-20-7	Xylenes, Total	18.9		2.0	0.27
100-42-5	Styrene	9.11		1.0	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-224919/4

Matrix: Water Lab File ID: 51004D04.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/05/2017 01:09

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.: 224919 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.75		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	9.67		1.0	0.37
107-13-1	Acrylonitrile	102		20	3.3
123-91-1	1,4-Dioxane	189	J	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		65-121
2037-26-5	Toluene-d8 (Surr)	110		73-120
460-00-4	4-Bromofluorobenzene (Surr)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	90		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 05-Oct-2017 01:09:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018725-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:20 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: XAWRK026

First Level Reviewer: bungardf Date: 05-Oct-2017 01:33:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.374	-0.009	0	181022	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.337	0.003	97	356874	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.427	0.003	86	73297	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.769	-0.003	93	101073	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.616	6.613	0.003	92	76986	50.0	44.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.990	-0.003	0	107095	50.0	51.1	
$ 7 Toluene-d8 (Surr)	98	8.982	8.979	0.003	93	321517	50.0	55.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.613	-0.003	85	107404	50.0	51.0	
11 Dichlorodifluoromethane	85	1.676	1.679	-0.003	99	96918	50.0	46.7	
12 Chloromethane	50	1.822	1.825	-0.003	99	124731	50.0	59.8	
13 Vinyl chloride	62	1.962	1.959	0.003	97	133058	50.0	62.9	
14 Butadiene	39	1.998	2.008	-0.010	96	129922	50.0	67.6	
15 Bromomethane	94	2.309	2.300	0.009	90	62099	50.0	62.1	
16 Chloroethane	64	2.455	2.470	-0.015	99	72511	50.0	62.3	
17 Dichlorofluoromethane	67	2.747	2.744	0.003	97	176398	50.0	59.9	
18 Trichlorofluoromethane	101	2.765	2.768	-0.003	92	133128	50.0	51.2	
20 Ethyl ether	59	3.124	3.121	0.003	92	82872	50.0	49.0	
21 Acrolein	56	3.319	3.316	0.003	97	67213	150.0	157.7	
22 1,1-Dichloroethene	96	3.416	3.413	0.003	96	86923	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.501	3.504	-0.003	95	88802	50.0	46.3	
24 Acetone	43	3.532	3.529	0.003	99	101281	100.0	108.5	
25 Iodomethane	142	3.623	3.608	0.015	96	124276	50.0	45.3	
26 Carbon disulfide	76	3.714	3.699	0.015	99	173289	50.0	45.2	
28 3-Chloro-1-propene	76	4.012	3.997	0.015	97	50237	50.0	44.5	
30 Methyl acetate	43	4.030	4.033	-0.003	98	190730	100.0	103.2	
31 Methylene Chloride	84	4.219	4.222	-0.003	92	97064	50.0	44.5	
32 2-Methyl-2-propanol	59	4.493	4.508	-0.015	96	99506	500.0	464.8	
33 Acrylonitrile	53	4.608	4.605	0.003	99	456048	500.0	507.5	
34 trans-1,2-Dichloroethene	96	4.639	4.642	-0.003	79	94726	50.0	47.6	
35 Methyl tert-butyl ether	73	4.651	4.660	-0.009	97	246267	50.0	46.1	
36 Hexane	57	5.065	5.049	0.016	95	112742	50.0	44.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.271	5.268	0.003	96	164517	50.0	47.5	
38 Vinyl acetate	43	5.320	5.323	-0.003	97	170116	50.0	48.3	
44 2,2-Dichloropropane	97	6.014	6.004	0.010	63	20953	50.0	47.5	
45 cis-1,2-Dichloroethene	96	6.014	6.011	0.003	82	98469	50.0	43.2	
46 2-Butanone (MEK)	43	6.026	6.023	0.003	100	121500	100.0	91.5	
49 Chlorobromomethane	128	6.299	6.290	0.009	98	44281	50.0	43.8	
51 Tetrahydrofuran	42	6.312	6.309	0.003	92	65444	100.0	84.6	
52 Chloroform	83	6.439	6.436	0.003	93	156442	50.0	45.3	
53 1,1,1-Trichloroethane	97	6.591	6.595	-0.004	97	123765	50.0	47.3	
54 Cyclohexane	56	6.664	6.662	0.002	92	147819	50.0	45.8	
56 Carbon tetrachloride	117	6.768	6.759	0.009	94	103011	50.0	47.3	
55 1,1-Dichloropropene	75	6.780	6.783	-0.003	96	123461	50.0	43.7	
57 Isobutyl alcohol	41	6.981	6.990	-0.009	63	90778	1250.0	1278.4	
58 Benzene	78	6.999	6.996	0.003	97	383948	50.0	44.2	
59 1,2-Dichloroethane	62	7.066	7.069	-0.003	98	122378	50.0	48.4	
62 n-Heptane	43	7.352	7.349	0.003	87	93326	50.0	45.7	
64 Trichloroethene	130	7.723	7.720	0.003	98	89505	50.0	41.0	
66 Methylcyclohexane	83	7.954	7.957	-0.003	91	132103	50.0	40.0	
67 1,2-Dichloropropane	63	7.997	7.994	0.003	95	85303	50.0	42.2	
68 Dibromomethane	93	8.088	8.079	0.009	96	49915	50.0	42.2	
70 1,4-Dioxane	88	8.088	8.085	0.003	46	19395	1000.0	944.0	
71 Dichlorobromomethane	83	8.277	8.280	-0.003	99	95397	50.0	41.0	
73 2-Chloroethyl vinyl ether	63	8.575	8.578	-0.003	94	90727	100.0	62.4	
74 cis-1,3-Dichloropropene	75	8.721	8.718	0.003	94	115387	50.0	40.9	
75 4-Methyl-2-pentanone (MIBK	43	8.873	8.876	-0.003	98	191631	100.0	101.9	
76 Toluene	91	9.049	9.046	0.003	98	378741	50.0	51.8	
77 trans-1,3-Dichloropropene	75	9.293	9.296	-0.003	93	97217	50.0	48.9	
78 Ethyl methacrylate	69	9.353	9.356	-0.003	90	98259	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.487	9.490	-0.003	89	81055	50.0	53.2	
80 Tetrachloroethene	164	9.554	9.563	-0.009	96	68116	50.0	48.9	
81 1,3-Dichloropropane	76	9.645	9.648	-0.003	92	131293	50.0	46.6	
82 2-Hexanone	43	9.706	9.703	0.003	99	139888	100.0	97.0	
84 Chlorodibromomethane	129	9.858	9.855	0.003	88	61567	50.0	47.8	
85 Ethylene Dibromide	107	9.968	9.971	-0.003	98	72271	50.0	46.3	
86 3-Chlorobenzotrifluoride	180	10.430	10.433	-0.003	91	128526	50.0	51.0	
87 Chlorobenzene	112	10.461	10.458	0.003	94	231138	50.0	48.6	
88 4-Chlorobenzotrifluoride	180	10.515	10.518	-0.003	95	120347	50.0	51.8	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.549	0.003	92	74457	50.0	49.2	
90 Ethylbenzene	106	10.558	10.555	0.003	98	123640	50.0	46.5	
91 m-Xylene & p-Xylene	106	10.692	10.689	0.003	0	152835	50.0	47.1	
92 o-Xylene	106	11.075	11.072	0.003	96	146737	50.0	47.4	
93 Styrene	104	11.087	11.090	-0.003	94	238407	50.0	45.5	
94 Bromoform	173	11.270	11.273	-0.003	94	35008	50.0	43.8	
96 2-Chlorobenzotrifluoride	180	11.343	11.340	0.003	96	124136	50.0	51.5	
97 Isopropylbenzene	105	11.434	11.437	-0.003	96	374831	50.0	49.7	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.747	0.003	85	109038	50.0	48.4	
100 Bromobenzene	156	11.750	11.753	-0.003	95	84119	50.0	42.9	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.784	0.003	71	31722	50.0	53.6	
101 1,2,3-Trichloropropane	110	11.805	11.808	-0.003	85	37075	50.0	45.8	
103 N-Propylbenzene	120	11.854	11.851	0.003	99	101012	50.0	45.1	
104 2-Chlorotoluene	126	11.945	11.942	0.003	96	87718	50.0	45.3	
105 3-Chlorotoluene	126	12.006	12.003	0.003	97	105384	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.036	12.033	0.003	94	305642	50.0	47.7	
107 4-Chlorotoluene	126	12.067	12.064	0.003	96	97339	50.0	46.5	
108 tert-Butylbenzene	119	12.353	12.350	0.003	93	231203	50.0	43.1	
110 1,2,4-Trimethylbenzene	105	12.407	12.410	-0.003	97	290686	50.0	44.6	
111 1,2-dichloro-4-(trifluorom	214	12.450	12.453	-0.003	96	73226	50.0	44.8	
112 sec-Butylbenzene	105	12.572	12.575	-0.003	94	342058	50.0	45.7	
113 1,3-Dichlorobenzene	146	12.693	12.690	0.003	97	156593	50.0	44.7	
114 4-Isopropyltoluene	119	12.730	12.727	0.003	96	286076	50.0	45.9	
115 1,4-Dichlorobenzene	146	12.797	12.794	0.003	95	163897	50.0	45.5	
116 2,4-Dichloro-1-(triflourom	214	12.821	12.818	0.003	93	71502	50.0	47.0	
118 2,5-Dichlorobenzotrifluori	214	12.864	12.867	-0.003	0	72679	50.0	44.2	
120 n-Butylbenzene	91	13.137	13.140	-0.003	98	229550	50.0	45.2	
121 1,2-Dichlorobenzene	146	13.149	13.153	-0.004	95	148873	50.0	44.6	
122 1,2-Dibromo-3-Chloropropan	75	13.940	13.937	0.003	77	16109	50.0	43.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.080	14.083	-0.003	0	300006	150.0	141.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.500	14.503	-0.003	0	201265	100.0	91.8	
126 1,2,4-Trichlorobenzene	180	14.768	14.765	0.003	93	59098	50.0	38.7	
127 Hexachlorobutadiene	225	14.914	14.905	0.009	95	24081	50.0	43.0	
128 Naphthalene	128	15.029	15.026	0.003	97	195929	50.0	37.6	
129 1,2,3-Trichlorobenzene	180	15.260	15.257	0.003	96	48438	50.0	34.7	
131 2,4,5-Trichlorotoluene	159	16.027	16.024	0.003	0	23903	50.0	36.0	
130 2,3,6-Trichlorotoluene	159	16.118	16.121	-0.003	97	23680	50.0	38.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	94.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00011	Amount Added:	2.00	Units: uL		
voaWKetmix1st_00006	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00267	Amount Added:	2.00	Units: uL		
VOA2CEVE2ND_00008	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00021	Amount Added:	6.00	Units: uL		
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent	

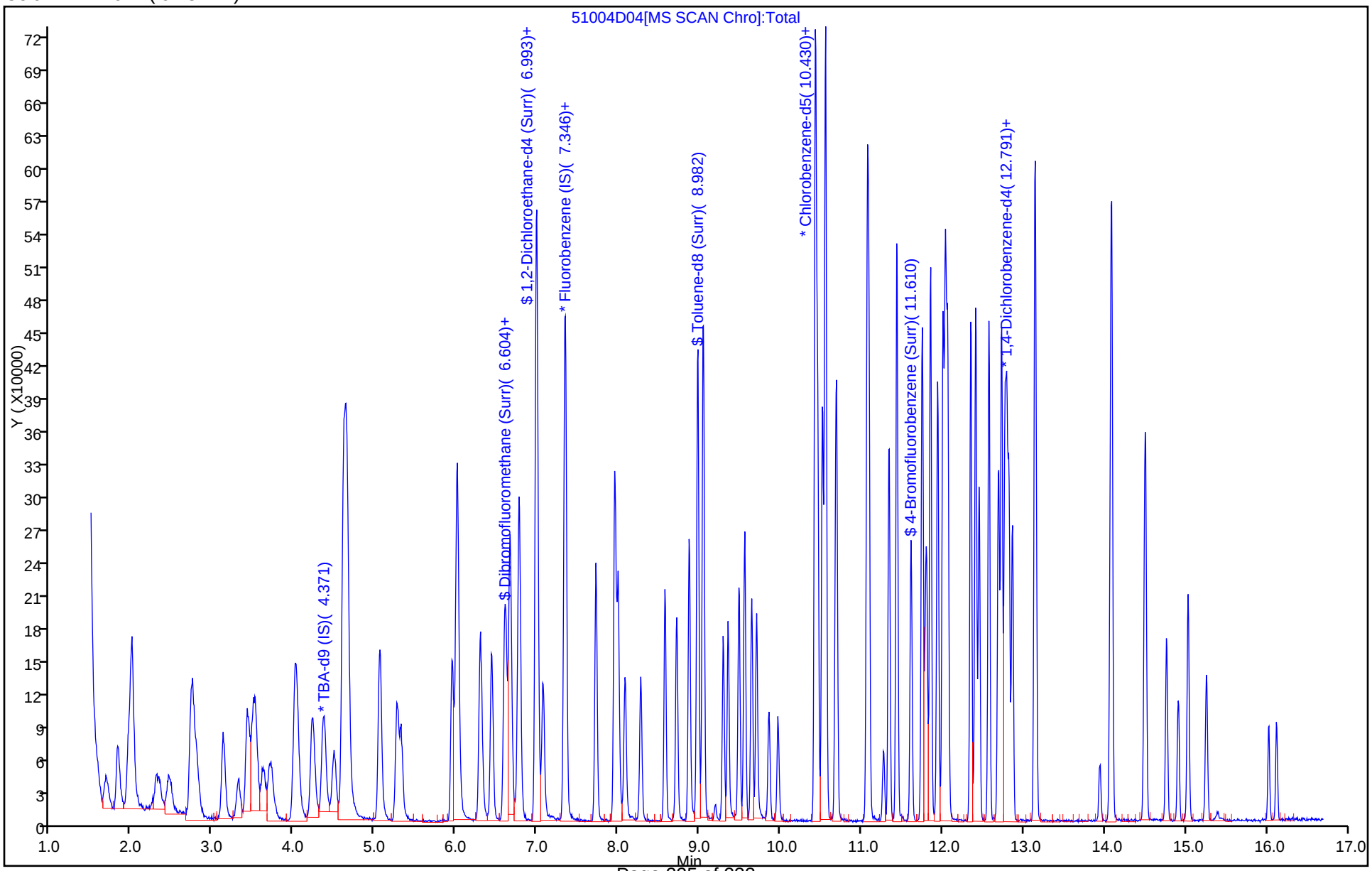
Report Date: 08-Oct-2017 20:41:26 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D04.D

Injection Date:	05-Oct-2017 01:09:30	Instrument ID:	CHHP5	Operator ID:	034635
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\51004D04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 05-Oct-2017 01:09:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018725-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP5

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171004-18725.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 08-Oct-2017 20:41:20 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: XAWRK026

First Level Reviewer: bungardf Date: 05-Oct-2017 01:33:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	44.8	89.67
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.1	102.27
$ 7 Toluene-d8 (Surr)	50.0	55.1	110.23
$ 8 4-Bromofluorobenzene (Surr)	50.0	51.0	101.96

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

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.: 180-70873-1

SDG No.:

Instrument ID: CHHP5 Start Date: 10/03/2017 23:49

Analysis Batch Number: 224792 End Date: 10/04/2017 11:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-224792/1		10/03/2017 23:49	1	51003D01.D	DB-624 0.18(mm)
CCVIS 180-224792/2		10/04/2017 00:22	1	51003D02.D	DB-624 0.18(mm)
ZZZZZ		10/04/2017 00:22	1		DB-624 0.18(mm)
CCV 180-224792/3		10/04/2017 01:00	1		DB-624 0.18(mm)
LCS 180-224792/4		10/04/2017 01:24	1	51003D04.D	DB-624 0.18(mm)
ZZZZZ		10/04/2017 01:57	1		DB-624 0.18(mm)
MB 180-224792/6		10/04/2017 02:21	1	51003D06.D	DB-624 0.18(mm)
ZZZZZ		10/04/2017 02:54	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 03:23	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 03:47	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 04:35	1		DB-624 0.18(mm)
180-70873-2		10/04/2017 04:59	1	51003D12.D	DB-624 0.18(mm)
180-70873-1		10/04/2017 05:23	1	51003D13.D	DB-624 0.18(mm)
ZZZZZ		10/04/2017 06:58	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 07:46	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 08:11	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 08:34	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 08:59	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 09:47	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 10:11	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 10:35	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 10:59	1		DB-624 0.18(mm)
ZZZZZ		10/04/2017 11:24	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-70873-1

SDG No.:

Instrument ID: CHHP5 Start Date: 10/04/2017 22:24

Analysis Batch Number: 224919 End Date: 10/05/2017 06:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-224919/1		10/04/2017 22:24	1	51004D01.D	DB-624 0.18(mm)
CCVIS 180-224919/2		10/04/2017 23:29	1	51004D02.D	DB-624 0.18(mm)
ZZZZZ		10/04/2017 23:29	1		DB-624 0.18(mm)
LCS 180-224919/4		10/05/2017 01:09	1	51004D04.D	DB-624 0.18(mm)
CCV 180-224919/5		10/05/2017 01:43	1		DB-624 0.18(mm)
ZZZZZ		10/05/2017 02:17	1		DB-624 0.18(mm)
MB 180-224919/7		10/05/2017 02:41	1	51004D07.D	DB-624 0.18(mm)
ZZZZZ		10/05/2017 03:15	1		DB-624 0.18(mm)
ZZZZZ		10/05/2017 03:41	1		DB-624 0.18(mm)
ZZZZZ		10/05/2017 04:55	1		DB-624 0.18(mm)
ZZZZZ		10/05/2017 05:19	1		DB-624 0.18(mm)
ZZZZZ		10/05/2017 05:43	1		DB-624 0.18(mm)
ZZZZZ		10/05/2017 06:07	1		DB-624 0.18(mm)
180-70873-1 DL		10/05/2017 06:31	12.5	51004D16.D	DB-624 0.18(mm)

Shipping and Receiving Documents

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Chris O'Neil / Carrie Gamber	Samplers Name (Printed) Kaitlin Fleming	Site/Project Identification Hurley - Davidson
Company Grand waterscience Corp	P. O. # 10d236	State (Location of site): NJ: ☐ NY: ☐ Other: PA
Address 2601 market place ste310	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City Harrisburg State PA 17110	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone 7176526637 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

LAB USE ONLY
Project No:
Job No:

Sample Identification	Date	Time	Matrix	No. of Cont.	VOCs 624.1 8260	Sample Numbers
HD-SPBA-Cw-22-0/1-0	9/29/17	0940	W	3	3	(72hour sample)
HD-QC4-0/12	9/29/17	1200	W	2	2	Trip Blank

180-70873 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water: W

Special Instructions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	GSC	10/1/17 1200	1)	TAP 10/3/17 900
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

FedEx Express Package US Airbill

FedEx Tracking Number 8116 7637 1538

Form ID No. 0200

Recipient's Copy

1 From

Date 10/04/17

Sender's Name Kathryn Fleming Phone 717 652-6832

Company Genetwin Sciences Corp

Address 2601 market place ste 310

Dept./Floor/Suite/Room

City Harrisburg State PA ZIP 17110

2 Your Internal Billing Reference

3 To

Recipient's Name Sample Receiving Phone 412 963-7058

Company Test America Pittsburgh

Address 301 Alpha Drive

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

Hold Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

AA

238

Uncorrected temp 2.4 °C

Thermometer ID 13

CF 0 Initials TS

PT-WI-SR-001 effective 7/26/13

4 Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

FedEx Envelope* | FedEx Pak* | FedEx Box | FedEx Tube | [X] Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

- [X] No Signature Required — Package may be left without obtaining a signature for delivery.
- Direct Signature — Someone at recipient's address may sign for delivery.
- Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

- [X] No
- Yes — As per attached Shipper's Declaration.
- Yes — Shipper's Declaration not required.
- Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

Sender Acct. No. in Section 1 will be billed | [X] Recipient | Third Party | Credit Card | Check

Total Packages | Total Weight ____ lbs. | Credit Card Auth

Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for d...

U.S.A. RRDA 06/09

180-70873 Waybill

RT 97 FZ B02

1 10:30 A 1538 40.03

fedex.com 1.800.GoFedEx 1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-70873-1

Login Number: 70873
List Number: 1
Creator: Say, Thomas C

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	