Remedial Action Progress Report/ Plan Cover Sheet

CHAPTER 245
STORAGE TANK ACT

- ☐ **Site Characterization Report – Section 245.310(b)**
- ☐ **Site Characterization Report – Site-Specific Standard**
- ☐ **Site Characterization Report – Statewide Health or Background Standard**
- ☐ **Site Characterization Report PLUS – Statewide Health Standard**
- ☐ **Remedial Action Plan – Statewide Health or Background Standard**
- ☐ **Remedial Action Plan – Site-Specific Standard**
- ☒ **Remedial Action Progress Report**
- ☐ **Remedial Action Completion Report – Statewide Health or Background Standard**
- ☐ **Remedial Action Completion Report – Site-Specific Standard**
- ☐ **Post-Remediation Care Plan Report**
- ☐ **Environmental Covenant**

(check all that apply to the enclosed submission)

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

July 18, 2014

Ms. Pamela S. Trowbridge, P.G.
Pennsylvania Department of Environmental Protection
Environmental Cleanup and Brownfields Program
Southcentral Region
909 Elmerton Avenue
Harrisburg, PA 17110

Subject: **Remedial Action Progress Report**
Third Quarterly Groundwater Monitoring Event
Former York Naval Ordnance Plant, York, Pennsylvania
Former Building 45/50 Unleaded Gasoline UST Release-Tank 009
PADEP Facility I.D. No. 67-00823
USTIF Claim No. 2010-0106(M)
Leidos Project 301425.TM.100044.4000.0100

Dear Ms. Trowbridge:

On behalf of Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson), Leidos Engineering, LLC (Leidos) is submitting this Remedial Action Progress Report (RAPR) to the Pennsylvania Department of Environmental Protection (PADEP) for the above-referenced site (**Figure 1**). This RAPR details the third round of quarterly groundwater monitoring performed in accordance with the recommendations presented in the September 9, 2013, Remedial Action Plan (RAP), approved by PADEP on November 22, 2013. The goal of the RAP was to comply with the Site-Specific Standards (SSSs) in soil and the Statewide Health Standards (SHSs) in groundwater to address unleaded gasoline constituents from the former Tank 009 release.

1.0 QUARTERLY GROUNDWATER MONITORING

1.1 Well Gauging

Gauging of monitoring wells MW-26, MW-77, MW-118 through MW-125, and MW-160 was performed by Leidos on June 19, 2014. No LNAPL was detected in any well gauged. Depth-to-groundwater measurements in the monitoring wells within the study area were subtracted from top-of-casing (TOC) elevations to calculate groundwater elevations (**Table 1**). A groundwater elevation contour map for wells gauged on June 19, 2014, is presented on **Figure 2**. The hydraulic gradient indicated by the wells is approximately 0.06 southwest from the area of the former dispenser for Tank 009. In general, the hydraulic gradient forms a trough that trends from MW-119 downgradient toward MW-160. The gradient and direction are consistent with previous measurements. Monitoring wells MW-26 and MW-77 were not used to complete the groundwater contour map because they are installed into bedrock and do not represent the groundwater flow system monitored by the Tank 009 wells.

1.2 Groundwater Sampling

On June 19, 2014, groundwater samples were collected by Leidos from monitoring wells MW-125 and MW-160. The wells were purged prior to sampling with a submersible pump at a relatively low purge rate (i.e., less than 0.25 gallons per minute [gpm]) to minimize the drawdown of the groundwater level in the wells. The pump was decontaminated before use at each well by washing with a Liqui-Nox®/potable water solution and a potable water rinse.

During purging, water quality field parameters (temperature, pH, conductivity, dissolved oxygen, and turbidity) were measured and recorded. Upon stabilization of the field parameters during purging, groundwater samples were collected directly from the dedicated pump discharge tubing into laboratory-provided 40 milliliter (ml) volatile organic analysis (VOA) vials containing preservative (i.e., hydrochloric acid). Additionally, a quality assurance/quality control (QA/QC) sample, consisting of a laboratory-provided trip blank, accompanied the groundwater samples.

Upon sample collection, labels were affixed to the sample containers, and they were placed into a cooler with ice and a chain-of-custody. The groundwater and QA/QC samples were submitted to TestAmerica for laboratory analysis of the PADEP Short List of Petroleum Products (unleaded gasoline) using United States Environmental Protection Agency (EPA) Method 8260C. The analytical results for the sample analyses are summarized in **Table 2** and on **Figure 3**. A copy of the laboratory analysis report is provided on the attached CD.

2.0 RESULTS

The following are the significant findings of the groundwater sample analytical results:

1. MW-125 had non-detectable concentrations for all analyzed parameters.

2. The concentration of benzene in MW-160 (270 micrograms per liter [µg/L]) exceeded the PADEP Nonresidential Used Aquifer MSC of 5 µg/L. All other analyzed compounds were either non-detect or were detected at concentrations below their respective MSCs.

3. The benzene concentration presented above was obtained from a dilution run as the concentration from the original run exceeded the instrument calibration range.

4. The detected benzene concentration in MW-160 is consistent with previous measurements and is well below the concentration of 15,000 µg/L used for fate-and-transport modeling in the December 2012 Supplemental Site Characterization Report (SCR). As a result, the predictions of the fate-and-transport modeling conducted during site characterization activities indicate the groundwater meets the SHS at the point of compliance (POC).

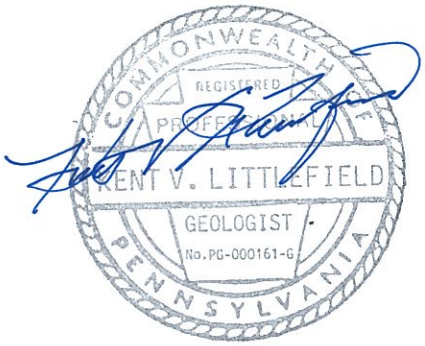
4.0 PLANNED FUTURE ACTIVITIES

The fourth round of quarterly groundwater monitoring is scheduled for September 2014. A RAPR will be submitted to PADEP following receipt of the analytical results.

Harley-Davidson and Leidos appreciate PADEP's continued support and assistance on this project. Please contact the undersigned at (717) 901-8843 if you have any questions.

Respectfully submitted,

Leidos Engineering, LLC

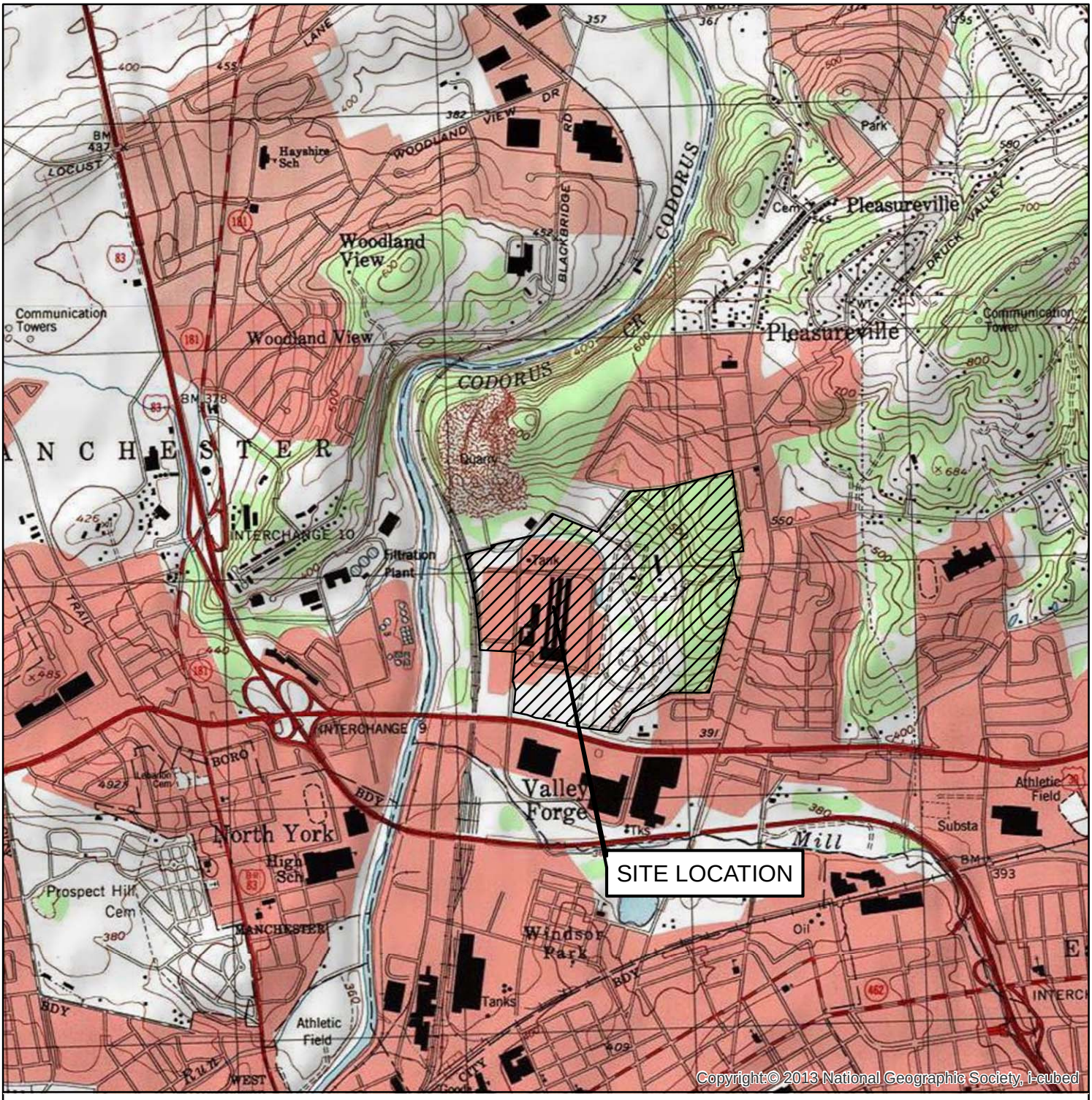


Kent V. Littlefield, P.G.
Senior Hydrogeologist

Rodney G. Myers
Senior Project Manager

KVL:pr
Attachments
cc: Sharon R. Fisher, Harley-Davidson
Ralph T. Golia, P.G., AMO Environmental Decisions
Gregory Bowman, PADEP, Storage Tank Section
Blanda Nace, YCIDA
Bethany Smith, ICF International – USTIF

FIGURES



2,000 1,000 0 2,000 Feet

N

Pennsylvania

QUADRANGLE LOCATION

FORMER YORK NAVAL ORDNANCE PLANT

1425 EDEN ROAD, YORK, PENNSYLVANIA

Site Location Map

drawn JEB	checked EMW	approved RGM	figure no. 1
date 1/30/2014	date 1/30/2014	date 1/30/2014	
job no. 2603200245/2000/100		file no. Site_Map_20131231	

initials	date	revision

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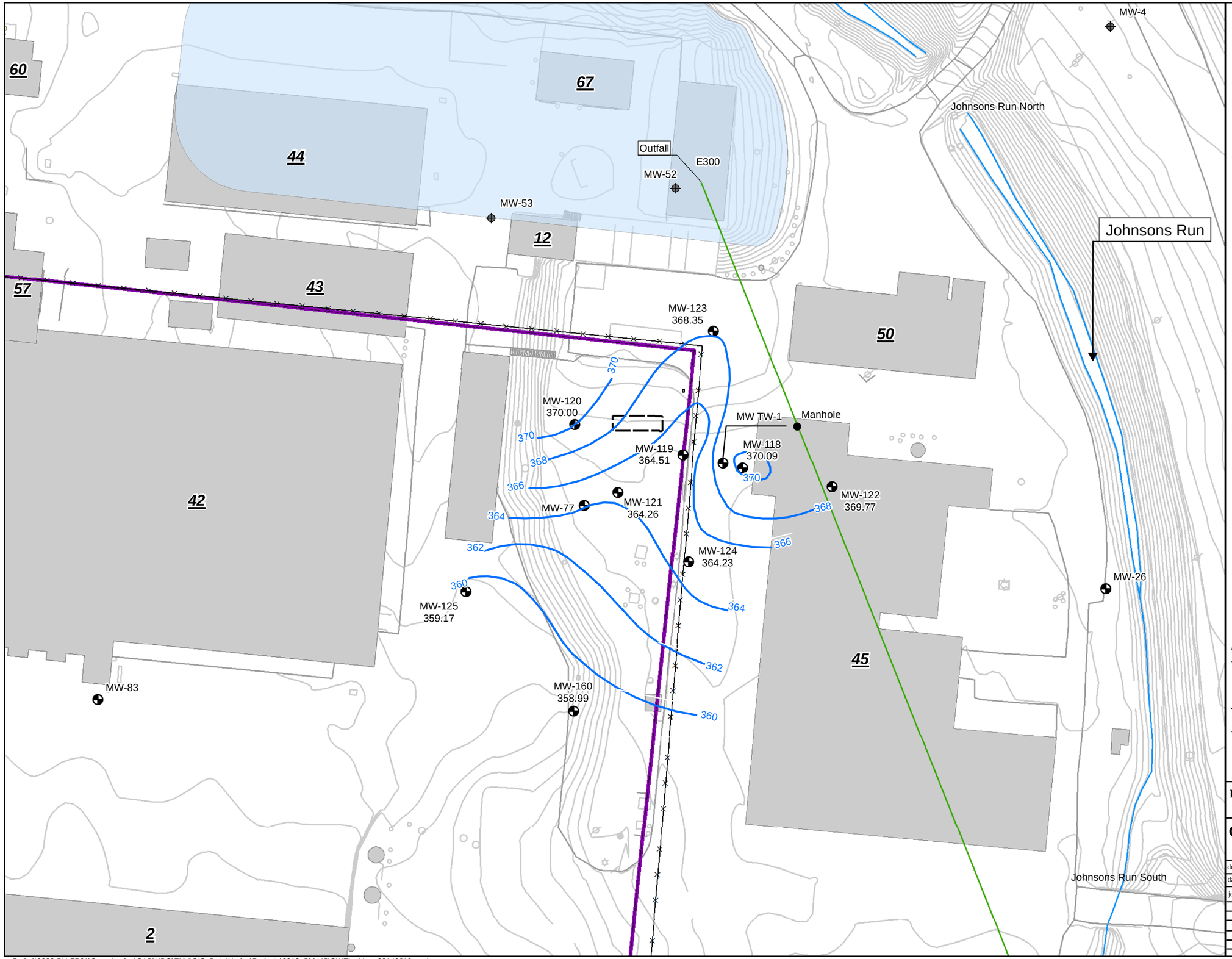
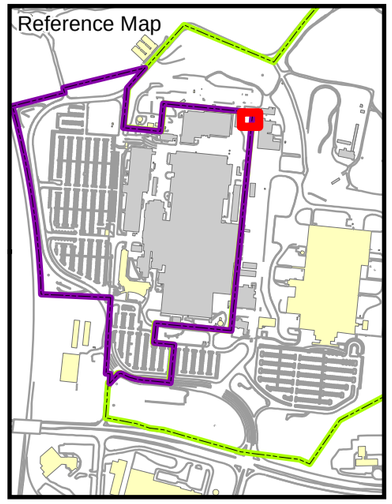


Legend

- Tank 009 (Removed July 2010)
- Existing Buildings
- Demolished Buildings
- Storm Water Detention Basin
- Roads and Curbs
- Fence Line
- Campus Boundary
- Approximate Stormwater Line
- Monitoring Well
- Abandoned Well
- 366 Groundwater Elevation
- Groundwater Elevation Contour



NOTES:

1. *Base data (Buildings, Building Boundaries, Roads and Curbs, underground utilities and Contour Lines, from NuTec Survey conducted in 2006).*
2. *Monitoring Wells and Underground Storage Tank Features from Leidos site measurements.*
3. *NM - Not Measured*

N

0 25 50 100 Feet

Harley-Davidson Motor Company Operations, Inc.
1425 Eden Rd York, Pa 17402

Groundwater Elevation Contour Map
June 19, 2014

drawn JEB	checked	approved	figure no. 2
date 4/17/2014	date	date	
job no. 301425.TM.100044.4000.0100		file no. GWElevMap_20140619	

initials	date	revision

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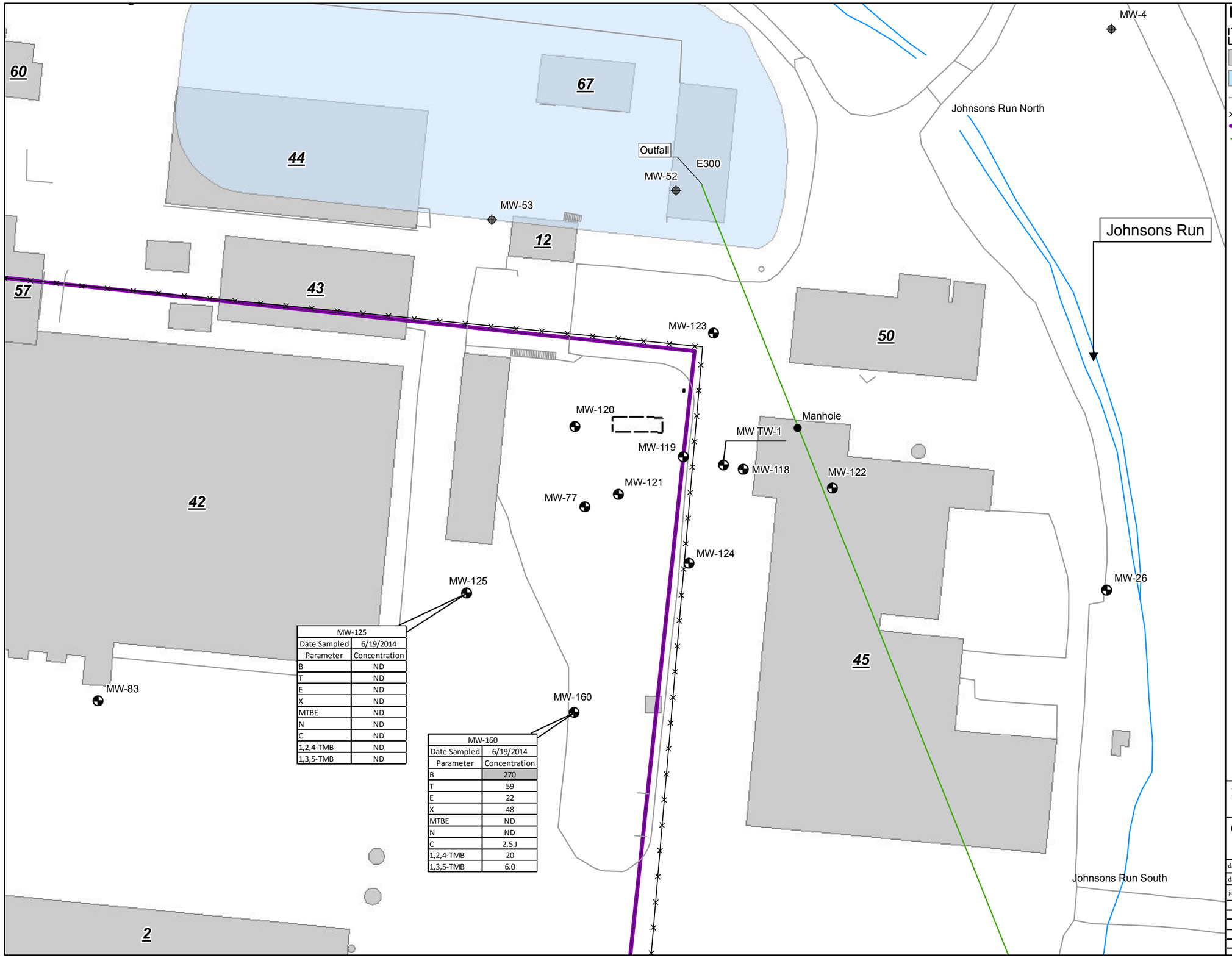

MW-125	
Date Sampled	6/19/2014
Parameter	Concentration
B	ND
T	ND
E	ND
X	ND
MTBE	ND
N	ND
C	ND
1,2,4-TMB	ND
1,3,5-TMB	ND

MW-160	
Date Sampled	6/19/2014
Parameter	Concentration
B	270
T	59
E	22
X	48
MTBE	ND
N	ND
C	2.5 J
1,2,4-TMB	20
1,3,5-TMB	6.0

Legend

- Tank 009 (Removed July 2010)
- Demolished Buildings
- Storm Water Detention Basin
- Roads and Curbs
- Fence Line
- Campus Boundary
- Approximate Stormwater Line
- Monitoring Well
- Abandoned Well

B: Benzene
T: Toluene
E: Ethylbenzene
X: Total Xylenes
MTBE: Methy Tertiary Butyl Ether
N: Naphthalene
C: Cumene
1,2,4-TMB: 1,2,4 - Trimethylbenzene
1,3,5-TMB: 1,3,5 - Trimethylbenzene

J: Laboratory reported concentration as an approximate value.
MSC: Medium Specific Concentration
ND: Not Detected
PADEP: Pennsylvania Department of Environmental Protection
All results reported in micrograms per liter (µg/L)

Bold/Shaded concentrations are greater than a PADEP Non-Residential MSC

SOURCE:
1. *Base data (Buildings, Building Boundaries, Roads and Curbs, underground utilities and Contour Lines, from NuTec Survey conducted in 2006).*
2. *Monitoring Wells and Underground Storage Tank features from Leidos site measurements.*

N

0 25 50 100 Feet

Harley-Davidson Motor Company Operations, Inc.
1425 Eden Rd York, Pa 17402

Groundwater Quality Analytical Data June 19, 2014

drawn TAY	checked	approved	figure no. 3
date 07/07/2014	date	date	
job no. 301425.TM.100044.4000.0100			file no. GWEChemMap_20140619

initials	date	revision

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TABLES

Table 1
Monitoring Well Gauging Data and Groundwater Elevations
Building 45 UST Release Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York, York County, Pennsylvania
PADEP Facility ID No. 67-00823
SAIC Project Number 301425.TM.100044.4000.0100

Location	Monitoring Well Installation Date	TOC Elevation (Feet)	Well Diameter (inches)	Total Drilled Depth (fbg)	Screened Interval (fbg)	Top of Well Screen Elevation (feet)	Date	SWL (fbtoc)	SWL Elevation (feet)
MW-118	8/15/2011	377.44	2	25	8 - 23	369.11	6/27/2012	7.50	369.94
							7/2/2012	7.59	369.85
							7/5/2012	7.49	369.95
							7/10/2012	7.59	369.85
							7/20/2012	7.03	370.41
							7/25/2012	7.62	369.82
							8/1/2012	7.45	369.99
							8/6/2012	7.55	369.89
							8/17/2012	7.25	370.19
							8/24/2012	7.22	370.22
							8/30/2012	7.51	369.93
							9/12/2012	7.50	369.94
							10/8/2012	7.38	370.06
							12/18/2013	NM	NM
							3/25/2014	7.28	370.16
							6/19/2014	7.35	370.09
MW-119	8/17/2011	377.03	2	27	5 - 25	372.20	6/27/2012	16.28	360.75
							7/2/2012	16.75	360.28
							7/5/2012	16.72	360.31
							7/10/2012	17.33	359.70
							7/20/2012	17.30	359.73
							7/25/2012	16.84	360.19
							8/1/2012	16.60	360.43
							8/6/2012	16.67	360.36
							8/17/2012	16.38	360.65
							8/24/2012	16.65	360.38
							8/30/2012	16.54	360.49
							9/12/2012	16.43	360.60
							10/8/2012	14.99	362.04
							12/18/2013	14.46	362.57
							3/25/2014	12.11	364.92
							6/19/2014	12.52	364.51
MW-120	8/17/2011	377.63	2	40	6 - 39	371.30	6/27/2012	9.43	368.20
							7/2/2012	10.50	367.13
							7/5/2012	11.14	366.49
							7/10/2012	12.22	365.41
							7/20/2012	13.20	364.43
							7/25/2012	13.29	364.34
							8/1/2012	13.60	364.03
							8/6/2012	15.73	361.90
							8/17/2012	14.13	363.50
							8/24/2012	14.39	363.24
							8/30/2012	14.41	363.22
							9/12/2012	14.44	363.19
							10/8/2012	10.32	367.31
							12/18/2013	7.72	369.91
							3/25/2014	6.58	371.05
							6/19/2014	7.63	370.00
MW-121	8/18/2011	376.31	2	36	7 - 35	369.08	6/27/2012	16.61	359.70
							7/2/2012	17.19	359.12
							7/5/2012	17.38	358.93
							7/10/2012	17.94	358.37
							7/20/2012	15.63	360.68
							7/25/2012	17.71	358.60
							8/1/2012	17.47	358.84
							8/6/2012	17.47	358.84
							8/17/2012	17.17	359.14
							8/24/2012	17.50	358.81
							8/30/2012	17.34	358.97
							9/12/2012	17.07	359.24
							10/8/2012	14.72	361.59
							12/18/2013	14.54	361.77
							3/25/2014	11.19	365.12
							6/19/2014	12.05	364.26
MW-122	6/20/2012	377.61	2	30	7 - 30	370.61	6/27/2012	8.98	368.63
							7/2/2012	8.93	368.68
							7/5/2012	8.90	368.71
							7/10/2012	8.93	368.68
							7/20/2012	8.75	368.86
							7/25/2012	8.78	368.83
							8/1/2012	8.52	369.09
							8/6/2012	8.43	369.18
							8/17/2012	8.34	369.27
							8/24/2012	8.40	369.21
							8/30/2012	8.36	369.25
							9/12/2012	8.30	369.31
							10/8/2012	7.65	369.96
							12/18/2013	8.45	369.16
							3/25/2014	7.98	369.63
							6/19/2014	7.84	369.77

Table 1
Monitoring Well Gauging Data and Groundwater Elevations
Building 45 UST Release Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York, York County, Pennsylvania
PADEP Facility ID No. 67-00823
SAIC Project Number 301425.TM.100044.4000.0100

Location	Monitoring Well Installation Date	TOC Elevation (Feet)	Well Diameter (inches)	Total Drilled Depth (fbg)	Screened Interval (fbg)	Top of Well Screen Elevation (feet)	Date	SWL (fbtoc)	SWL Elevation (feet)
MW-123	6/20/2012	379.64	2	30	7 - 30	372.64	6/27/2012	12.18	367.46
							7/2/2012	12.37	367.27
							7/5/2012	12.33	367.31
							7/10/2012	12.54	367.10
							7/20/2012	12.53	367.11
							7/25/2012	12.55	367.09
							8/1/2012	12.37	367.27
							8/6/2012	12.44	367.20
							8/17/2012	12.28	367.36
							8/24/2012	12.46	367.18
							8/30/2012	12.47	367.17
							9/12/2012	12.47	367.17
							10/8/2012	11.85	367.79
							12/18/2013	12.58	367.06
							3/25/2014	11.32	368.32
							6/19/2014	11.29	368.35
MW-124	6/21/2012	376.37	2	34	8 - 34	368.37	6/27/2012	14.87	361.50
							7/2/2012	15.50	360.87
							7/5/2012	15.56	360.81
							7/10/2012	16.21	360.16
							7/20/2012	16.31	360.06
							7/25/2012	15.79	360.58
							8/1/2012	15.66	360.71
							8/6/2012	15.68	360.69
							8/17/2012	14.94	361.43
							8/24/2012	15.29	361.08
							8/30/2012	15.14	361.23
							9/12/2012	14.94	361.43
							10/8/2012	13.54	362.83
							12/18/2013	15.39	360.98
							3/25/2014	11.93	364.44
							6/19/2014	12.14	364.23
MW-125	6/21/2012	366.56	2	24	4 - 24	362.56	6/27/2012	11.37	355.19
							7/2/2012	11.59	354.97
							7/5/2012	11.89	354.67
							7/10/2012	12.32	354.24
							7/20/2012	11.31	355.25
							7/25/2012	11.31	355.25
							8/1/2012	10.78	355.78
							8/6/2012	10.21	356.35
							8/17/2012	10.58	355.98
							8/24/2012	11.14	355.42
							8/30/2012	10.86	355.70
							9/12/2012	NM	NM
							10/8/2012	6.21	360.35
							12/18/2013	7.62	358.94
							3/25/2014	7.24	359.32
							6/19/2014	7.39	359.17
MW-160	9/4/2012	374.71	2	38	7.5 - 37.5	367.21	9/12/2012	19.04	355.67
							10/8/2012	17.65	357.06
							12/18/2013	16.51	358.20
							3/25/2014	15.56	359.15
							6/19/2014	15.72	358.99
MW-26	5/20/1987	379.44	2	62	11 - 61	368.44	6/27/2012	25.02	354.42
							7/2/2012	25.32	354.12
							7/5/2012	25.56	353.88
							7/10/2012	26.04	353.40
							7/20/2012	25.11	354.33
							7/25/2012	25.31	354.13
							8/1/2012	24.68	354.76
							8/6/2012	24.28	355.16
							8/17/2012	24.25	355.19
							8/24/2012	24.86	354.58
							8/30/2012	24.71	354.73
							9/12/2012	NM	NM
							10/8/2012	23.68	355.76
							12/18/2013	22.75	356.69
							3/25/2014	20.91	358.53
							6/19/2014	21.40	358.04
MW-77	6/10/1998	379.48	2	67	40 - 65	339.48	6/27/2012	24.29	355.19
							7/2/2012	24.72	354.76
							7/5/2012	24.93	354.55
							7/10/2012	25.42	354.06
							7/20/2012	24.96	354.52
							7/25/2012	24.83	354.65
							8/1/2012	24.35	355.13
							8/6/2012	24.13	355.35
							8/17/2012	24.15	355.33
							8/24/2012	24.53	354.95
							8/30/2012	24.40	355.08
							9/12/2012	24.20	355.28
							10/8/2012	23.04	356.44
							12/18/2013	22.22	357.26
							3/25/2014	20.51	358.97
							6/19/2014	20.81	358.67

Notes:

fbtoc - feet below top of well casing
N/A - not applicable
NM - not measured
SWL - static water level

Table 2
Groundwater Sample Analytical Results
Building 45 UST Release Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York, York County, Pennsylvania
PADEP Facility ID No. 67-00823
SAIC Project Number 301425.TM.100044.4000.0100

Sample Location	Sample ID	Date Sample Collected	Date Sample Analyzed	Analysis Method 8260B								
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl Tertiary Butyl Ether (MTBE)	Naphthalene	Isopropylbenzene (Cumene)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
MW-77	HD-MW-77-01-0	6/24/2011	7/7/2011	**1,500**	56	80	74 J	**520**	NA	NA	NA	NA
	HD-MW-77-01-0	8/1/2012	8/7/2012	**2,000**	110	140	130 J	**540**	41 J	24 J	33 J	13 J
MW-118	HD-MW-118-01-0	8/25/2011	9/9/2011	**120 H**	560 H	630 H	1,900 H	<50 H	42 J H	130 H	**460 H**	**130 H**
	HD-MW-118-01-0	9/30/2011	10/11/2011	**120**	520	**1,000**	2,800	<100	**130**	88 J	**790**	**250**
	HD-MW-118-01-0	8/1/2012	8/15/2012	**39 J**	110	**600**	1,400	<50	22 JB	78	**600**	**210**
MW-119	HD-MW-119-01-0	8/25/2011	9/9/2011	**6,100 H**	**6,300 H**	510 J H	1,900 H	<630 H	**280 J H**	<630 H	**170 J H**	<630 H
	HD-MW-119-01-0	9/30/2011	10/11/2011	**11,000**	**18,000**	**2,600**	10,000	<500	**240 J**	<500	**1,300**	**480 J**
	HD-MW-119-01-0	8/1/2012	NS/FP	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**
MW-120	HD-MW-120-01-0	8/25/2011	9/7/2011	2.2 J	0.94 J	<5.0	<15.0	14.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-120-01-0	9/30/2011	10/11/2011	<5.0	<5.0	<5.0	<15.0	1.1 J	<5.0	<5.0	<5.0	<5.0
	HD-MW-120-01-0	8/1/2012	8/6/2012	**7.0**	<5.0	<5.0	<15.0	6.8	<5.0	<5.0	<5.0	<5.0
MW-121	HD-MW-121-01-0	8/25/2011	9/8/2011	**390**	**3,700 E**	**990**	3,600	**45 J**	26 J	120	**430**	**120**
	HD-MW-121-01-0	9/30/2011	10/11/2011	**430**	**4,900**	**1,000**	3,700	**56 J**	<250	45 J	**330**	**140 J**
	HD-MW-121-01-0	8/1/2012	8/7/2012	**480 J**	**6,900**	**1,900**	7,600	**35**	<500	89	**980**	**230**
MW-122	HD-MW-122-01-0	7/2/2012	7/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-122-01-0	8/1/2012	8/15/2012	<5.0	<5.0	<5.0	<15.0	<5.0	1.1 JB	<5.0	<5.0	<5.0
MW-123	HD-MW-123-01-0	7/2/2012	7/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-123-01-0	8/1/2012	8/15/2012	<5.0	<5.0	<5.0	<15.0	<5.0	2.8 JB	<5.0	<5.0	<5.0
MW-124	HD-MW-124-01-0	7/2/2012	7/6/2012	**1,400**	**4,000**	660	3,800	**39**	**1,600**	57	**550**	**240**
	HD-MW-124-01-0	8/1/2012	8/15/2012	**2,300**	**8,400**	**960**	9,500	**44 J**	**540 B**	36 J	**1,200**	**490**
MW-125	HD-MW-125-01-0	7/2/2012	7/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	8/1/2012	8/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	12/18/2013	12/27/2013	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	3/25/2014	4/7/2014	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	6/19/2014	6/24/2014	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0
MW-160	HD-MW-160-01-0	9/12/2012	9/21/2012	**180**	17	12	20	<5.0	4.3 J	1.2 J	3.4 J	<5.0
	HD-MW-160-01-0	12/18/2013	12/27/2013	**120**	5.8	6.3	<10	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-160-01-0	3/25/2014	4/8/2014	**340**	61	23 J	51	<25	<25	4.1 J	17 J	<25
	HD-MW-160-01-0	6/19/2014	6/24/2014	**270**	59	22	48	<5.0	<5.0	2.5 J	20	6.0
PADEP Non-Residential Groundwater MSCs				5	1,000	700	10,000	20	100	3,500	62	53
PADEP Default Non-Residential Volatilization to Indoor Air Screening Values for Groundwater				5,900	NOC	45,000	NOC	640,000	NOC	NOC	12,000	10,000

Notes:
All results reported in micrograms per liter (µg/L)
E - Result exceeded calibration range
H - Sample was prepped or analyzed beyond the specified holding time
J - Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value
NS/FP - Not Sampled, Free Product observed.
MSCs - Medium Specific Concentrations
NOC - Not of concern, value above constituent water solubility
PADEP - Pennsylvania Department of Environmental Protection
QA/QC - Quality Assurance/Quality Control
Results that are bold/shaded are greater than PADEP nonresidential MSCs and/or indoor air screening values

APPENDIX A

Groundwater Sample Analytical Report (Provided on Accompanying CD)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

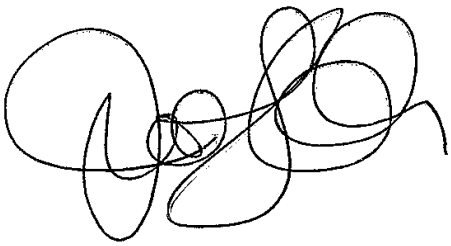
ANALYTICAL REPORT

Job Number: 180-34114-1

Job Description: Harley Davidson

For:
Leidos, Inc.
6310 Allentown Boulevard
Harrisburg, PA 17112

Attention: Mr. Rodney Myers



Approved for release.
Jill L Colussy
Project Manager I
6/27/2014 11:35 AM

Jill L Colussy, Project Manager I
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2444
jill.colussy@testamericainc.com
06/27/2014

Table of Contents

Table of Contents

CASE NARRATIVE

Client: Leidos, Inc.

Project: Harley Davidson

Report Number: 180-34114-1

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 06/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.1 C.

VOLATILES

Due to the concentration of target compounds detected, sample HD-MW-160-0/1-0 (180-34114-2)[2X] was analyzed at a dilution. The reporting limits have been adjusted accordingly.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Analysis Batch Number: 107478

Lab Sample ID: IC 180-107478/3 Client Sample ID:

Date Analyzed: 06/03/14 11:03 Lab File ID: 4060303.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.67	Poor chromatography	journetp	06/03/14 13:59
trans-1,4-Dichloro-2-butene	12.24	Poor chromatography	journetp	06/03/14 13:49

Lab Sample ID: IC 180-107478/4 Client Sample ID:

Date Analyzed: 06/03/14 11:43 Lab File ID: 4060304.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.67	Poor chromatography	journetp	06/03/14 13:54
trans-1,4-Dichloro-2-butene	12.22	Poor chromatography	journetp	06/03/14 13:50

Lab Sample ID: IC 180-107478/5 Client Sample ID:

Date Analyzed: 06/03/14 12:13 Lab File ID: 4060305.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.69	Poor chromatography	journetp	06/03/14 14:07
trans-1,4-Dichloro-2-butene	12.19	Poor chromatography	journetp	06/03/14 13:50

Lab Sample ID: ICIS 180-107478/6 Client Sample ID:

Date Analyzed: 06/03/14 12:43 Lab File ID: 4060306.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.67	Poor chromatography	journetp	06/03/14 14:00
trans-1,4-Dichloro-2-butene	12.18	Poor chromatography	journetp	06/03/14 13:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Analysis Batch Number: 107478

Lab Sample ID: IC 180-107478/7 Client Sample ID:

Date Analyzed: 06/03/14 13:14 Lab File ID: 4060307.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.67	Poor chromatography	journetp	06/03/14 13:57
trans-1,4-Dichloro-2-butene	12.18	Poor chromatography	journetp	06/03/14 13:52

Lab Sample ID: IC 180-107478/8 Client Sample ID:

Date Analyzed: 06/03/14 13:44 Lab File ID: 4060308.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,4-Dichloro-2-butene	12.21	Poor chromatography	journetp	06/03/14 13:34

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Analysis Batch Number: 109391

Lab Sample ID: CCVIS 180-109391/2 Client Sample ID:

Date Analyzed: 06/24/14 10:51 Lab File ID: 4062404.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,4-Dichloro-2-butene	12.15	Poor chromatography	zukowskim	06/24/14 10:18

Lab Sample ID: MB 180-109391/7 Client Sample ID:

Date Analyzed: 06/24/14 12:42 Lab File ID: 4062407.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dichlorobenzene-d4	13.17	Poor chromatography	zukowskim	06/24/14 12:07

Lab Sample ID: 180-34114-1 Client Sample ID:

Date Analyzed: 06/24/14 18:27 Lab File ID: 4062417.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene-d5	10.78	Poor chromatography	zukowskim	06/25/14 07:49

Lab Sample ID: 180-34114-2 Client Sample ID:

Date Analyzed: 06/24/14 18:57 Lab File ID: 4062418.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene-d5	10.77	Poor chromatography	zukowskim	06/25/14 07:52

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Analysis Batch Number: 109531

Lab Sample ID: 180-34114-3 Client Sample ID:

Date Analyzed: 06/25/14 12:16 Lab File ID: 4062507.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene-d5	10.78	Poor chromatography	zukowskim	06/25/14 12:11

SAMPLE SUMMARY

Client: Leidos, Inc. Job Number: 180-34114-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-34114-1	HD-MW-125-0/1-0	Water	06/19/2014 1208	06/20/2014 0850
180-34114-2	HD-MW-160-0/1-0	Water	06/19/2014 1105	06/20/2014 0850
180-34114-3	TRIP BLANK 1	Water	06/19/2014 1250	06/20/2014 0850

EXECUTIVE SUMMARY - Detections

Client: Leidos, Inc. Job Number: 180-34114-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-34114-2	**HD-MW-160-0/1-0**					
Benzene		270		10	ug/Kg	8260C
Ethylbenzene		22		5.0	ug/Kg	8260C
Isopropylbenzene		2.5	J	5.0	ug/Kg	8260C
Toluene		59		5.0	ug/Kg	8260C
1,2,4-Trimethylbenzene		20		5.0	ug/Kg	8260C
1,3,5-Trimethylbenzene		6.0		5.0	ug/Kg	8260C
Xylenes, Total		48		10	ug/Kg	8260C

METHOD SUMMARY

Client: Leidos, Inc. Job Number: 180-34114-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL PIT	SW846 8260C	
Purge and Trap	TAL PIT		SW846 5030C

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

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

METHOD / ANALYST SUMMARY

Client: Leidos, Inc. Job Number: 180-34114-1

Method	Analyst	Analyst ID
SW846 8260C	Zukowski, Mike	MAZ

Client: Leidos, Inc. Job Number: 180-34114-1

Client Sample ID: **HD-MW-125-0/1-0**

Lab Sample ID: 180-34114-1 Date Sampled: 06/19/2014 1208
Client Matrix: Water Date Received: 06/20/2014 0850

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-109391	Instrument ID:	CHHP4
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	4062417.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/24/2014 1827			Final Weight/Volume:	5 mL
Prep Date:	06/24/2014 1827				

Analyte	Result (ug/Kg)	Qualifier	MDL	RL
Benzene	5.0	U	0.99	5.0
Ethylbenzene	5.0	U	0.62	5.0
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
Naphthalene	5.0	U	0.47	5.0
Toluene	5.0	U	0.85	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Xylenes, Total	10	U	1.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	105		75 - 120
Dibromofluoromethane (Surr)	89		80 - 120
1,2-Dichloroethane-d4 (Surr)	89		62 - 123
Toluene-d8 (Surr)	102		80 - 120

Client: Leidos, Inc. Job Number: 180-34114-1

Client Sample ID: **HD-MW-160-0/1-0**

Lab Sample ID: 180-34114-2 Date Sampled: 06/19/2014 1105
Client Matrix: Water Date Received: 06/20/2014 0850

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-109391	Instrument ID:	CHHP4
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	4062418.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/24/2014 1857			Final Weight/Volume:	5 mL
Prep Date:	06/24/2014 1857				

Analyte	Result (ug/Kg)	Qualifier	MDL	RL
Benzene	260	E	0.99	5.0
Ethylbenzene	22		0.62	5.0
Isopropylbenzene	2.5	J	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
Naphthalene	5.0	U	0.47	5.0
Toluene	59		0.85	5.0
1,2,4-Trimethylbenzene	20		0.52	5.0
1,3,5-Trimethylbenzene	6.0		0.59	5.0
Xylenes, Total	48		1.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	115		75 - 120
Dibromofluoromethane (Surr)	98		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		62 - 123
Toluene-d8 (Surr)	92		80 - 120

Client: Leidos, Inc. Job Number: 180-34114-1

Client Sample ID: **HD-MW-160-0/1-0**

Lab Sample ID: 180-34114-2 Date Sampled: 06/19/2014 1105
Client Matrix: Water Date Received: 06/20/2014 0850

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-109531	Instrument ID:	CHHP4
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	4062515.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/25/2014 1658	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	06/25/2014 1658				

Analyte	Result (ug/Kg)	Qualifier	MDL	RL
Benzene	270		2.0	10
Ethylbenzene	19		1.2	10
Isopropylbenzene	2.4	J	1.1	10
Methyl tert-butyl ether	10	U	2.1	10
Naphthalene	10	U	0.94	10
Toluene	51		1.7	10
1,2,4-Trimethylbenzene	14		1.0	10
1,3,5-Trimethylbenzene	3.7	J	1.2	10
Xylenes, Total	46		3.4	20

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	104		75 - 120
Dibromofluoromethane (Surr)	85		80 - 120
1,2-Dichloroethane-d4 (Surr)	80		62 - 123
Toluene-d8 (Surr)	87		80 - 120

Client: Leidos, Inc. Job Number: 180-34114-1

Client Sample ID: **TRIP BLANK 1**

Lab Sample ID: 180-34114-3 Date Sampled: 06/19/2014 1250
Client Matrix: Water Date Received: 06/20/2014 0850

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-109531	Instrument ID:	CHHP4
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	4062507.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/25/2014 1216			Final Weight/Volume:	5 mL
Prep Date:	06/25/2014 1216				

Analyte	Result (ug/Kg)	Qualifier	MDL	RL
Benzene	5.0	U	0.99	5.0
Ethylbenzene	5.0	U	0.62	5.0
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
Naphthalene	5.0	U	0.47	5.0
Toluene	5.0	U	0.85	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Xylenes, Total	10	U	1.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	101		75 - 120
Dibromofluoromethane (Surr)	85		80 - 120
1,2-Dichloroethane-d4 (Surr)	86		62 - 123
Toluene-d8 (Surr)	87		80 - 120

Client: Leidos, Inc.

Job Number: 180-34114-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
180-34114-1	HD-MW-125-0/1-0	89	89	102	105
180-34114-2	HD-MW-160-0/1-0	98	103	92	115
180-34114-2 DL	HD-MW-160-0/1-0 DL	85	80	87	104
180-34114-3	TRIP BLANK 1	85	86	87	101
MB 180-109391/7		84	84	91	107
MB 180-109531/5		83	77	96	100
LCS 180-109391/20		85	84	84	88
LCS 180-109531/11		95	90	82	92
LCSD 180-109531/9		89	87	82	91

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	62-123
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Client: Leidos, Inc. Job Number: 180-34114-1

Method Blank - Batch: 180-109391

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 180-109391/7	Analysis Batch:	180-109391	Instrument ID:	CHHP4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	4062407.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/24/2014 1242	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/24/2014 1242				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Benzene	5.0	U	0.99	5.0
Ethylbenzene	5.0	U	0.62	5.0
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
Naphthalene	5.0	U	0.47	5.0
Toluene	5.0	U	0.85	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Xylenes, Total	10	U	1.7	10

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	75 - 120
Dibromofluoromethane (Surr)	84	80 - 120
1,2-Dichloroethane-d4 (Surr)	84	62 - 123
Toluene-d8 (Surr)	91	80 - 120

Lab Control Sample - Batch: 180-109391

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 180-109391/20	Analysis Batch:	180-109391	Instrument ID:	CHHP4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	4062412A.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/24/2014 1543	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/24/2014 1543				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	40.0	41.9	105	80 - 120	
Ethylbenzene	40.0	42.4	106	79 - 124	
Isopropylbenzene	40.0	39.7	99	73 - 130	
Methyl tert-butyl ether	40.0	42.4	106	53 - 122	
Naphthalene	40.0	52.9	132	10 - 144	
Toluene	40.0	41.9	105	80 - 124	
1,2,4-Trimethylbenzene	40.0	38.7	97	71 - 132	
1,3,5-Trimethylbenzene	40.0	37.6	94	75 - 135	
Xylenes, Total	80.0	78.4	98	81 - 121	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	88	75 - 120
Dibromofluoromethane (Surr)	85	80 - 120
1,2-Dichloroethane-d4 (Surr)	84	62 - 123
Toluene-d8 (Surr)	84	80 - 120

Client: Leidos, Inc. Job Number: 180-34114-1

Method Blank - Batch: 180-109531

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 180-109531/5	Analysis Batch:	180-109531	Instrument ID:	CHHP4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	4062505.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/25/2014 1115	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/25/2014 1115				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Benzene	5.0	U	0.99	5.0
Ethylbenzene	5.0	U	0.62	5.0
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
Naphthalene	5.0	U	0.47	5.0
Toluene	5.0	U	0.85	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Xylenes, Total	10	U	1.7	10

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	100	75 - 120
Dibromofluoromethane (Surr)	83	80 - 120
1,2-Dichloroethane-d4 (Surr)	77	62 - 123
Toluene-d8 (Surr)	96	80 - 120

Client: Leidos, Inc. Job Number: 180-34114-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-109531

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 180-109531/11	Analysis Batch:	180-109531	Instrument ID:	CHHP4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	4062511.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/25/2014 1416	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/25/2014 1416				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-109531/9	Analysis Batch:	180-109531	Instrument ID:	CHHP4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	4062509.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/25/2014 1316	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/25/2014 1316				5 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	100	96	80 - 120	4	20		
Ethylbenzene	93	95	79 - 124	2	25		
Isopropylbenzene	91	88	73 - 130	3	20		
Methyl tert-butyl ether	113	105	53 - 122	8	20		
Naphthalene	94	111	10 - 144	17	35		
Toluene	90	94	80 - 124	4	20		
1,2,4-Trimethylbenzene	90	86	71 - 132	4	35		
1,3,5-Trimethylbenzene	86	82	75 - 135	5	20		
Xylenes, Total	91	89	81 - 121	3	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	92	91	75 - 120
Dibromofluoromethane (Surr)	95	89	80 - 120
1,2-Dichloroethane-d4 (Surr)	90	87	62 - 123
Toluene-d8 (Surr)	82	82	80 - 120

Client: Leidos, Inc. Job Number: 180-34114-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-109531

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 180-109531/11	Units:	ug/Kg	LCSD Lab Sample ID:	LCSD 180-109531/9
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	06/25/2014 1416			Analysis Date:	06/25/2014 1316
Prep Date:	06/25/2014 1416			Prep Date:	06/25/2014 1316
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Benzene	40.0	40.0	39.9	38.2
Ethylbenzene	40.0	40.0	37.3	38.1
Isopropylbenzene	40.0	40.0	36.3	35.2
Methyl tert-butyl ether	40.0	40.0	45.3	42.0
Naphthalene	40.0	40.0	37.5	44.4
Toluene	40.0	40.0	36.1	37.5
1,2,4-Trimethylbenzene	40.0	40.0	36.1	34.5
1,3,5-Trimethylbenzene	40.0	40.0	34.4	32.7
Xylenes, Total	80.0	80.0	73.0	71.0

DATA REPORTING QUALIFIERS

Client: Leidos, Inc. Job Number: 180-34114-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	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.

Client: Leidos, Inc. Job Number: 180-34114-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:180-109391					
LCS 180-109391/20	Lab Control Sample	T	Water	8260C	
MB 180-109391/7	Method Blank	T	Water	8260C	
180-34114-1	HD-MW-125-0/1-0	T	Water	8260C	
180-34114-2	HD-MW-160-0/1-0	T	Water	8260C	
Analysis Batch:180-109531					
LCS 180-109531/11	Lab Control Sample	T	Water	8260C	
LCSD 180-109531/9	Lab Control Sample Duplicate	T	Water	8260C	
MB 180-109531/5	Method Blank	T	Water	8260C	
180-34114-2DL	HD-MW-160-0/1-0	T	Water	8260C	
180-34114-3	TRIP BLANK 1	T	Water	8260C	

Report Basis
T = Total

Client: Leidos, Inc. Job Number: 180-34114-1

Laboratory Chronicle

Lab ID: 180-34114-1 **Client ID:** HD-MW-125-0/1-0

Sample Date/Time: 06/19/2014 12:08 Received Date/Time: 06/20/2014 08:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-34114-A-1		180-109391		06/24/2014 18:27	1	TAL PIT	MAZ
A:8260C	180-34114-A-1		180-109391		06/24/2014 18:27	1	TAL PIT	MAZ

Lab ID: 180-34114-2 **Client ID:** HD-MW-160-0/1-0

Sample Date/Time: 06/19/2014 11:05 Received Date/Time: 06/20/2014 08:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-34114-A-2		180-109391		06/24/2014 18:57	1	TAL PIT	MAZ
A:8260C	180-34114-A-2		180-109391		06/24/2014 18:57	1	TAL PIT	MAZ
P:5030C	180-34114-C-2	DL	180-109531		06/25/2014 16:58	2	TAL PIT	MAZ
A:8260C	180-34114-C-2	DL	180-109531		06/25/2014 16:58	2	TAL PIT	MAZ

Lab ID: 180-34114-3 **Client ID:** TRIP BLANK 1

Sample Date/Time: 06/19/2014 12:50 Received Date/Time: 06/20/2014 08:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-34114-B-3		180-109531		06/25/2014 12:16	1	TAL PIT	MAZ
A:8260C	180-34114-B-3		180-109531		06/25/2014 12:16	1	TAL PIT	MAZ

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	MB 180-109391/7		180-109391		06/24/2014 12:42	1	TAL PIT	MAZ
A:8260C	MB 180-109391/7		180-109391		06/24/2014 12:42	1	TAL PIT	MAZ
P:5030C	MB 180-109531/5		180-109531		06/25/2014 11:15	1	TAL PIT	MAZ
A:8260C	MB 180-109531/5		180-109531		06/25/2014 11:15	1	TAL PIT	MAZ

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCS 180-109391/20		180-109391		06/24/2014 15:43	1	TAL PIT	MAZ
A:8260C	LCS 180-109391/20		180-109391		06/24/2014 15:43	1	TAL PIT	MAZ
P:5030C	LCS 180-109531/11		180-109531		06/25/2014 14:16	1	TAL PIT	MAZ
A:8260C	LCS 180-109531/11		180-109531		06/25/2014 14:16	1	TAL PIT	MAZ

Client: Leidos, Inc. Job Number: 180-34114-1

Laboratory Chronicle

Lab ID: **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCSD 180-109531/9		180-109531		06/25/2014 13:16	1	TAL PIT	MAZ
A:8260C	LCSD 180-109531/9		180-109531		06/25/2014 13:16	1	TAL PIT	MAZ

Lab References:
TAL PIT = TestAmerica Pittsburgh

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Voa Acro Pri_00001	06/08/14	05/08/14	Methanol, Lot 49909	50 mL	VOAACRORES_00043	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00043	06/30/14	Restek, Lot A0100019			(Purchased Reagent)		Acrolein	20000 ug/mL
VOA8260INT_00012	06/28/14	05/28/14	Methanol, Lot 49909	10 mL	VOA8260INTRES_00066	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_00066	02/01/18	Restek, Lot A093504			(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_00016	06/28/14	05/28/14	Methanol, Lot 49909	100 mL	VOA8260SURRES_00053	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_00053	02/01/18	Restek, Lot A093505			(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_00069	06/24/14	06/18/14	Methanol, Lot 62345	8 mL	VOA8260VOA2ND_00067	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							Benzene	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Naphthalene	25 ug/mL
							Toluene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260VOA2ND_00067	06/28/14	05/28/14	Methanol, Lot 49909	10 mL	VOA8260MEGA2_00013	1 mL	1,2,4-Trimethylbenzene	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							Benzene	200 ug/mL
							Ethylbenzene	200 ug/mL
							Isopropylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Naphthalene	200 ug/mL
							Toluene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00013	02/01/16	Restek, Lot A093733			(Purchased Reagent)		1,2,4-Trimethylbenzene	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							Benzene	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Naphthalene	2000 ug/mL
							Toluene	2000 ug/mL
							Xylenes, Total	4000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260VOA2ND_00070	06/25/14	06/18/14	Methanol, Lot 62345	8 mL	VOA8260VOA2ND_00067	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							Benzene	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Naphthalene	25 ug/mL
							Toluene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260VOA2ND_00067	06/28/14	05/28/14	Methanol, Lot 49909	10 mL	VOA8260MEGA2_00013	1 mL	1,2,4-Trimethylbenzene	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							Benzene	200 ug/mL
							Ethylbenzene	200 ug/mL
							Isopropylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Naphthalene	200 ug/mL
							Toluene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00013	02/01/16		Restek, Lot A093733		(Purchased Reagent)		1,2,4-Trimethylbenzene	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							Benzene	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Naphthalene	2000 ug/mL
							Toluene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00068	06/25/14	06/18/14	Methanol, Lot 62345	8 mL	VOA8260VOAPRI_00066	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							Benzene	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							Toluene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260VOAPRI_00066	06/28/14	05/28/14	Methanol, Lot 49909	10 mL	VOA8260MEGA1_00018	1 mL	1,2,4-Trimethylbenzene	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							Benzene	200 ug/mL
							Ethylbenzene	200 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Naphthalene	200 ug/mL
							o-Xylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00018	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,2,4-Trimethylbenzene	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							Benzene	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							Toluene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VoaPrimaryRes_00002	06/28/14	06/02/14	Methanol, Lot 49909	8 mL	VOA8260GAS1ST_00048	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00066	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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorobromomethane	25 ug/mL
							Chlorodibromomethane	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
							Dibromomethane	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Ethylene Dibromide	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00048	02/01/15		Restek, Lot A093341		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00066	06/28/14	05/28/14	Methanol, Lot 49909	10 mL	VOA8260KET1ST_00022	0.2 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00018	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobromomethane	200 ug/mL
							Chlorodibromomethane	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromomethane	200 ug/mL
							Dichlorobromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Ethylene Dibromide	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							o-Xylene	200 ug/mL
							sec-Butylbenzene	200 ug/mL
							Styrene	200 ug/mL
							tert-Butylbenzene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Tetrahydrofuran	400 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							trans-1,4-Dichloro-2-butene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260KET1ST_00022	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00018	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOAVinylAceta_00003	06/28/14	05/28/14	Methanol, Lot 49909	10 mL	VOA8260VARES_00034	0.0625 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00034	07/31/14	Restek, Lot A0100736			(Purchased Reagent)		Vinyl acetate	4000 ug/mL

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FOR LABORATORY USE ONLY-READ MSDS 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. : 567645 **Lot No.:** A093341

Description : 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 **Purity** 99%	2,000.0 µg/mL	+/- 13.8716 +/- 25.2661 +/- 28.2336	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 **Purity** 99%	1,999.8 µg/mL	+/- 13.9993 +/- 25.3348 +/- 28.2945	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 **Purity** 99%	2,000.1 µg/mL	+/- 13.9625 +/- 25.3168 +/- 28.2792	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 **Purity** 99%	2,000.0 µg/mL	+/- 13.3773 +/- 24.9981 +/- 27.9940	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 **Purity** 99%	2,000.1 µg/mL	+/- 14.2856 +/- 25.4963 +/- 28.4399	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 **Purity** 99%	2,000.0 µg/mL	+/- 13.2200 +/- 24.9143 +/- 27.9191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 **Purity** 99%	2,000.0 µg/mL	+/- 13.5174 +/- 25.0735 +/- 28.0614	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 **Purity** 99%	1,999.9 µg/mL	+/- 13.1170 +/- 24.8590 +/- 27.8696	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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Catalog No. : 567649 **Lot No.:** A093504

Description : 8260 Internal Standard

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

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

Expiration Date : February 2018 **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	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 25725-11-5		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
2	Fluorobenzene	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 462-06-6		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 17647-74-4		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3114-55-4		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3855-82-1		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed

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

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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. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

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FOR LABORATORY USE ONLY-READ MSDS 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. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **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 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1			+/-	885.0582	µg/mL	Unstressed
	Purity 99%			+/-	888.6665	µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-12-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

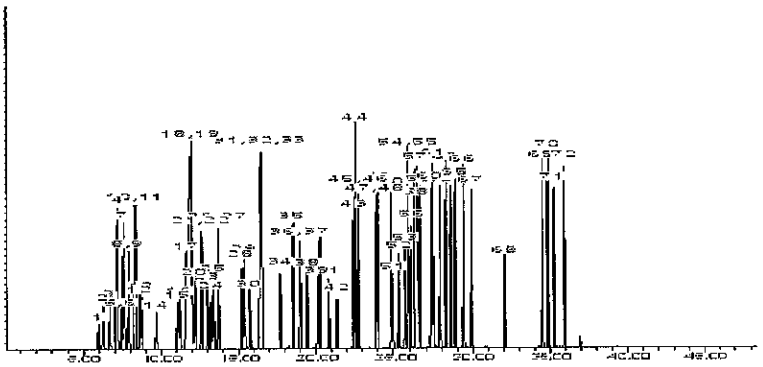
Carrier Gas:
helium-constant pressure 30 psi

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



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** B251644995

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

RESTEK

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS 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. : 567641.sec **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **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 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC **Purity** 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9.SEC **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1.SEC			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 110-54-3.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-34-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 594-20-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 156-60-5.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
17	Chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1.SEC			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9.SEC			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-82-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
23	1,1-Dichloropropene	2,010.5	µg/mL	+/-	11.6890	µg/mL	Gravimetric
	CAS # 563-58-6.SEC			+/-	44.4847	µg/mL	Unstressed
	Purity 98%			+/-	44.6661	µg/mL	Stressed
24	Carbon tetrachloride	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 56-23-5.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
25	n-Heptane (C7)	2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric
	CAS # 142-82-5.SEC			+/-	44.2553	µg/mL	Unstressed
	Purity 99%			+/-	44.4357	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 79-01-6.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed

29	Methylcyclohexane **CAS #** 108-87-2.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	40,000.0	µg/mL	+/- 232.5513 +/- 885.0582 +/- 888.6665	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 97%	2,000.1	µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 98%	2,000.0	µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,1,2-Trichloroethane **CAS #** 79-00-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	2,000.1	µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene **CAS #** 108-38-3.SEC **Purity** 99%	1,000.0	µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	1,000.0	µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	Bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 96-18-4.SEC			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 110-57-6.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-63-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)	2,000.1	µg/mL	+/-	11.6285	µg/mL	Gravimetric
	CAS # 99-87-6.SEC			+/-	44.2545	µg/mL	Unstressed
	Purity 96%			+/-	44.4349	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 96-12-8.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

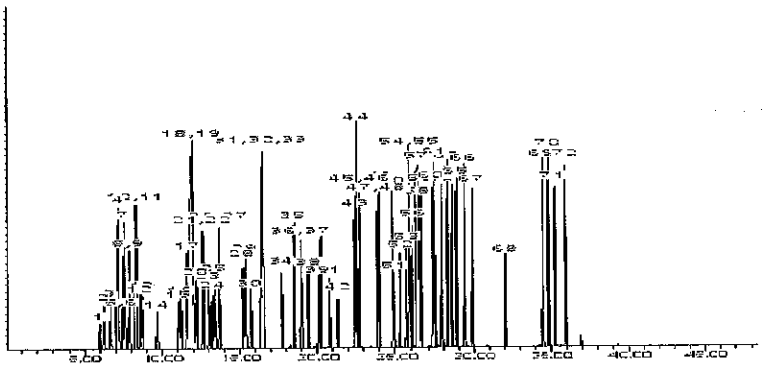
Carrier Gas:
helium-constant pressure 30 psi

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



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** 1127510105

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

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS 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.:** A093505

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 : February 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Dibromofluoromethane	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 1868-53-7		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 17060-07-0		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
3	Toluene-d8	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 2037-26-5		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 460-00-4		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed

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

RESTEK® CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567646 **Lot No.:** A0100736

Description : 8260 List 1 / Std #6 Vinyl Acetate

8260 List 1 / Std #6 Vinyl Acetate 4000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : July 31, 2014 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate	4,016.0 µg/mL	+/- 23.5681 µg/mL	Gravimetric
	CAS # 108-05-4 (Lot 131011JLM)		+/- 213.7467 µg/mL	Unstressed
	Purity 99%		+/- 213.9823 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.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Material No.: 9077-02
Batch No.: 0000049909
Manufactured Date: 2013/06/03
Retest Date: 2018/06/02

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.2000
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2008, 14001:2004
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008, 17025:2005
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008, 17025:2005
Panoli, India 9001:2008

Richard M Siberski
Global Director of Quality Assurance

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor ™ Performance Materials Inc.
3477 Corporate Parkway. Suite #200. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0101387

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 : June 30, 2014 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,750.0 µg/mL	+/- 115.6406	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 140205JLM)		+/- 633.2471	µg/mL	Unstressed
	Purity 99%		+/- 736.0805	µg/mL	Stressed

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

Certification Summary

Client: Leidos, Inc.
Project/Site: Harley Davidson

TestAmerica Job ID: 180-34114-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAP	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAP	4	E871008
TestAmerica Pittsburgh	Illinois	NELAP	5	002602
TestAmerica Pittsburgh	Kansas	NELAP	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAP	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAP	1	203011
TestAmerica Pittsburgh	New Jersey	NELAP	2	PA005
TestAmerica Pittsburgh	New York	NELAP	2	11182
TestAmerica Pittsburgh	North Carolina (WW/SW)	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAP	3	02-00416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014
TestAmerica Pittsburgh	Texas	NELAP	6	T104704528
TestAmerica Pittsburgh	US Fish & Wildlife	Federal		LE94312A-1
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAP	8	STLP
TestAmerica Pittsburgh	Virginia	NELAP	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

8260C

Volatile Organic Compounds by GC/MS

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-125-0/1-0	180-34114-1	89	89	102	105
HD-MW-160-0/1-0	180-34114-2	98	103	92	115
HD-MW-160-0/1-0 DL	180-34114-2 DL	85	80	87	104
TRIP BLANK 1	180-34114-3	85	86	87	101
	MB 180-109391/7	84	84	91	107
	MB 180-109531/5	83	77	96	100
	LCS 180-109391/20	85	84	84	88
	LCS 180-109531/11	95	90	82	92
	LCSD 180-109531/9	89	87	82	91

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	62-123
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

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.: 180-34114-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4062412A.D

Lab ID: LCS 180-109391/20 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Benzene	40.0	41.9	105	80-120	
Ethylbenzene	40.0	42.4	106	79-124	
Isopropylbenzene	40.0	39.7	99	73-130	
Methyl tert-butyl ether	40.0	42.4	106	53-122	
Naphthalene	40.0	52.9	132	10-144	
Toluene	40.0	41.9	105	80-124	
1,2,4-Trimethylbenzene	40.0	38.7	97	71-132	
1,3,5-Trimethylbenzene	40.0	37.6	94	75-135	
Xylenes, Total	80.0	78.4	98	81-121	

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.: 180-34114-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4062511.D

Lab ID: LCS 180-109531/11 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Benzene	40.0	39.9	100	80-120	
Ethylbenzene	40.0	37.3	93	79-124	
Isopropylbenzene	40.0	36.3	91	73-130	
Methyl tert-butyl ether	40.0	45.3	113	53-122	
Naphthalene	40.0	37.5	94	10-144	
Toluene	40.0	36.1	90	80-124	
1,2,4-Trimethylbenzene	40.0	36.1	90	71-132	
1,3,5-Trimethylbenzene	40.0	34.4	86	75-135	
Xylenes, Total	80.0	73.0	91	81-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4062509.D

Lab ID: LCSD 180-109531/9 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	40.0	38.2	96	4	20	80-120	
Ethylbenzene	40.0	38.1	95	2	25	79-124	
Isopropylbenzene	40.0	35.2	88	3	20	73-130	
Methyl tert-butyl ether	40.0	42.0	105	8	20	53-122	
Naphthalene	40.0	44.4	111	17	35	10-144	
Toluene	40.0	37.5	94	4	20	80-124	
1,2,4-Trimethylbenzene	40.0	34.5	86	4	35	71-132	
1,3,5-Trimethylbenzene	40.0	32.7	82	5	20	75-135	
Xylenes, Total	80.0	71.0	89	3	20	81-121	

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.: 180-34114-1

SDG No.:

Lab File ID: 4062407.D Lab Sample ID: MB 180-109391/7

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

Instrument ID: CHHP4 Date Analyzed: 06/24/2014 12:42

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 180-109391/20	4062412A.D	06/24/2014 15:43
HD-MW-125-0/1-0	180-34114-1	4062417.D	06/24/2014 18:27
HD-MW-160-0/1-0	180-34114-2	4062418.D	06/24/2014 18:57

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab File ID: 4062505.D Lab Sample ID: MB 180-109531/5

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

Instrument ID: CHHP4 Date Analyzed: 06/25/2014 11:15

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
TRIP BLANK 1	180-34114-3	4062507.D	06/25/2014 12:16
	LCSD 180-109531/9	4062509.D	06/25/2014 13:16
	LCS 180-109531/11	4062511.D	06/25/2014 14:16
HD-MW-160-0/1-0 DL	180-34114-2 DL	4062515.D	06/25/2014 16:58

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab File ID: 4060301.D BFB Injection Date: 06/03/2014

Instrument ID: CHHP4 BFB Injection Time: 09:50

Analysis Batch No.: 107478

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.8	
75	30.0 - 60.0 % of mass 95	41.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.6)1
174	50.0 - 120.00 % of mass 95	92.0	
175	5.0 - 9.0 % of mass 174	7.1	(7.7)1
176	95.0 - 101.0 % of mass 174	90.6	(98.4)1
177	5.0 - 9.0 % of mass 176	6.0	(6.7)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-107478/3	4060303.D	06/03/2014	11:03
	IC 180-107478/4	4060304.D	06/03/2014	11:43
	IC 180-107478/5	4060305.D	06/03/2014	12:13
	ICIS 180-107478/6	4060306.D	06/03/2014	12:43
	IC 180-107478/7	4060307.D	06/03/2014	13:14
	IC 180-107478/8	4060308.D	06/03/2014	13:44
	IC 180-107478/9	4060309.D	06/03/2014	14:15

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab File ID: 4062403.D BFB Injection Date: 06/24/2014

Instrument ID: CHHP4 BFB Injection Time: 10:08

Analysis Batch No.: 109391

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.6	
75	30.0 - 60.0 % of mass 95	39.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	1.0	(1.0)1
174	50.0 - 120.00 % of mass 95	94.3	
175	5.0 - 9.0 % of mass 174	6.8	(7.2)1
176	95.0 - 101.0 % of mass 174	89.6	(95.1)1
177	5.0 - 9.0 % of mass 176	5.6	(6.2)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 180-109391/2	4062404.D	06/24/2014	10:51
	MB 180-109391/7	4062407.D	06/24/2014	12:42
	LCS 180-109391/20	4062412A.D	06/24/2014	15:43
HD-MW-125-0/1-0	180-34114-1	4062417.D	06/24/2014	18:27
HD-MW-160-0/1-0	180-34114-2	4062418.D	06/24/2014	18:57

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab File ID: 4062501.D BFB Injection Date: 06/25/2014

Instrument ID: CHHP4 BFB Injection Time: 08:46

Analysis Batch No.: 109531

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	40.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.8	(0.8)1
174	50.0 - 120.00 % of mass 95	94.4	
175	5.0 - 9.0 % of mass 174	6.8	(7.2)1
176	95.0 - 101.0 % of mass 174	89.8	(95.1)1
177	5.0 - 9.0 % of mass 176	6.2	(6.9)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 180-109531/2	4062502.D	06/25/2014	09:29
	MB 180-109531/5	4062505.D	06/25/2014	11:15
TRIP BLANK 1	180-34114-3	4062507.D	06/25/2014	12:16
	LCSD 180-109531/9	4062509.D	06/25/2014	13:16
	LCS 180-109531/11	4062511.D	06/25/2014	14:16
HD-MW-160-0/1-0 DL	180-34114-2 DL	4062515.D	06/25/2014	16:58

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Sample No.: CCVIS 180-109391/2 Date Analyzed: 06/24/2014 10:51

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 4062404.D Heated Purge: (Y/N) N

Calibration ID: 16013

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		219805	4.78	886330	7.68	217159	10.76
UPPER LIMIT							
LOWER LIMIT							
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-109391/7		215318	4.75	837170	7.68	169406	10.78
LCS 180-109391/20		245612	4.78	1021076	7.67	235560	10.76
180-34114-1	HD-MW-125-0/1-0	259541	4.75	926812	7.69	181461	10.78
180-34114-2	HD-MW-160-0/1-0	257925	4.75	838709	7.67	188698	10.77

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Sample No.: CCVIS 180-109391/2 Date Analyzed: 06/24/2014 10:51

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 4062404.D Heated Purge: (Y/N) N

Calibration ID: 16013

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		309181	13.09				
UPPER LIMIT							
LOWER LIMIT							
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-109391/7		191138	13.17				
LCS 180-109391/20		324752	13.09				
180-34114-1	HD-MW-125-0/1-0	154740	13.17				
180-34114-2	HD-MW-160-0/1-0	180535	13.12				

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Sample No.: CCVIS 180-109531/2 Date Analyzed: 06/25/2014 09:29

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 4062502.D Heated Purge: (Y/N) N

Calibration ID: 16013

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		233590	4.78	799517	7.68	203538	10.76
UPPER LIMIT							
LOWER LIMIT							
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-109531/5		216905	4.74	1050934	7.69	218280	10.78
180-34114-3	TRIP BLANK 1	247586	4.75	857520	7.69	187272	10.78
LCSD 180-109531/9		240220	4.78	1020469	7.67	243779	10.76
LCS 180-109531/11		248298	4.78	967521	7.68	238276	10.77
180-34114-2 DL	HD-MW-160-0/1-0 DL	265055	4.75	969210	7.68	213632	10.77

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.: 180-34114-1

SDG No.:

Sample No.: CCVIS 180-109531/2 Date Analyzed: 06/25/2014 09:29

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 4062502.D Heated Purge: (Y/N) N

Calibration ID: 16013

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		277848	13.10				
UPPER LIMIT							
LOWER LIMIT							
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-109531/5		201439	13.15				
180-34114-3	TRIP BLANK 1	178351	13.15				
LCSD 180-109531/9		347826	13.09				
LCS 180-109531/11		328320	13.09				
180-34114-2 DL	HD-MW-160-0/1-0 DL	222446	13.13				

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.: 180-34114-1

SDG No.:

Client Sample ID: HD-MW-125-0/1-0 Lab Sample ID: 180-34114-1

Matrix: Water Lab File ID: 4062417.D

Analysis Method: 8260C Date Collected: 06/19/2014 12:08

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2014 18:27

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109391 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
91-20-3	Naphthalene	5.0	U	5.0	0.47
108-88-3	Toluene	5.0	U	5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
1330-20-7	Xylenes, Total	10	U	10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		75-120
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		62-123
2037-26-5	Toluene-d8 (Surr)	102		80-120

Report Date: 25-Jun-2014 07:49:25 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062417.D
Lims ID: 180-34114-A-1 Lab Sample ID: 180-34114-1
Client ID: HD-MW-125-0/1-0
Sample Type: Client
Inject. Date: 24-Jun-2014 18:27:30 ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-34114-A-1
Misc. Info.: 180-0001869-017
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 07:49:25 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 07:49:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.754	4.775	-0.021	96	259541	5000.0	
* 2 Fluorobenzene (IS)	96	7.686	7.676	0.010	100	926812	250.0	
* 3 Chlorobenzene-d5	119	10.781	10.759	0.022	79	181461	250.0	M
* 4 1,4-Dichlorobenzene-d4	152	13.165	13.094	0.071	88	154740	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.944	6.934	0.010	59	253834	223.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.315	7.305	0.010	68	203798	221.7	
$ 7 Toluene-d8 (Surr)	98	9.322	9.318	0.004	92	1053871	255.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.967	11.939	0.028	96	345366	263.0	
34 Methyl tert-butyl ether	73		5.049				ND	
54 Benzene	78	7.388	7.366	0.022	36	7382	1.28	
73 Toluene	91		9.385				ND	
86 Ethylbenzene	106		10.893				ND	
87 m-Xylene & p-Xylene	106		11.008				ND	
88 o-Xylene	106		11.404				ND	
91 Isopropylbenzene	105		11.775				ND	
99 1,3,5-Trimethylbenzene	105		12.352				ND	
103 1,2,4-Trimethylbenzene	105		12.735				ND	
116 Naphthalene	128		15.423				ND	
S 130 Xylenes, Total	106		1.000				0	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated

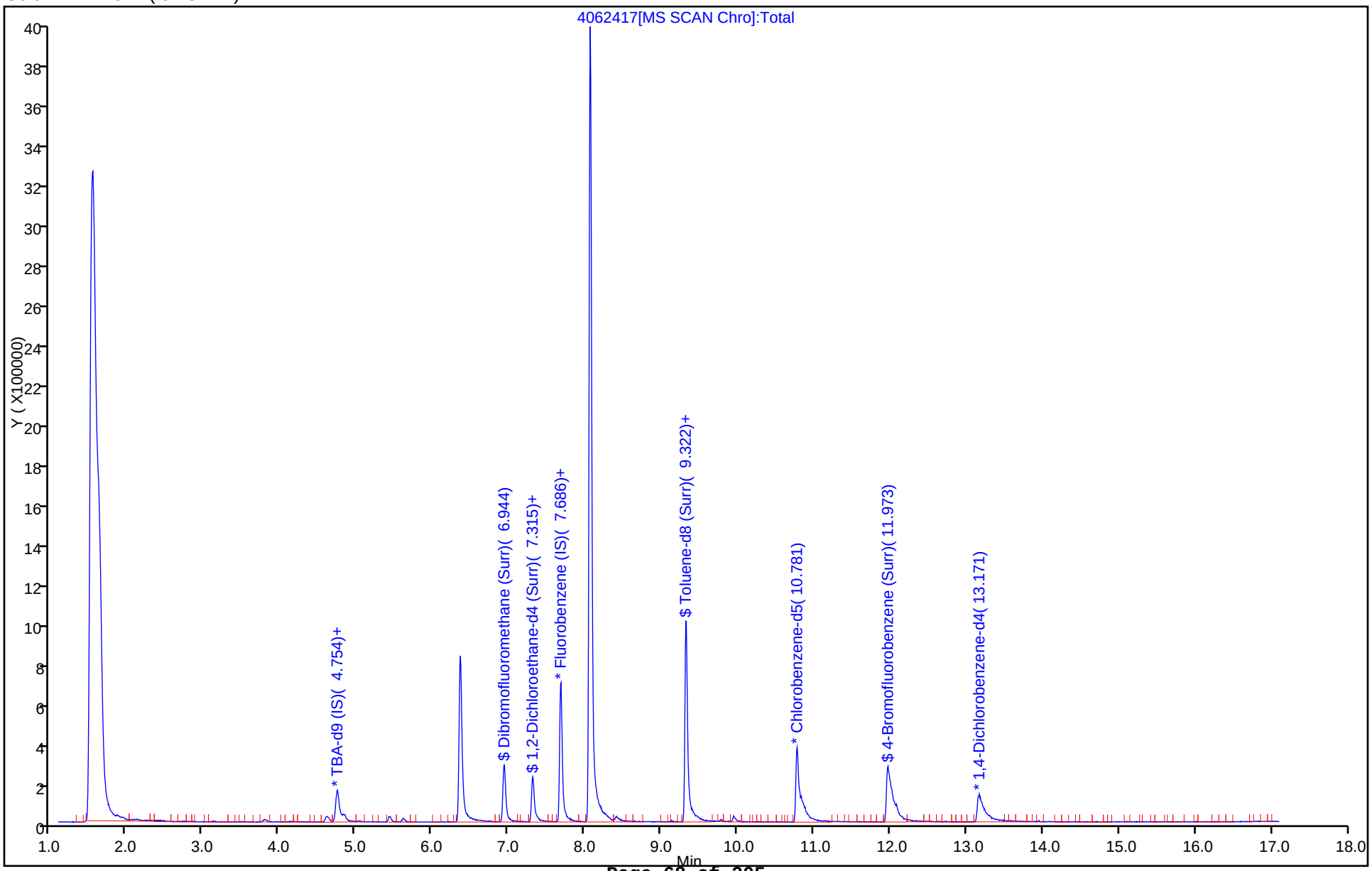
Report Date: 25-Jun-2014 07:49:25 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062417.D

Injection Date:	24-Jun-2014 18:27:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	180-34114-A-1	Lab Sample ID:	180-34114-1	Worklist Smp#:	17
Client ID:	HD-MW-125-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

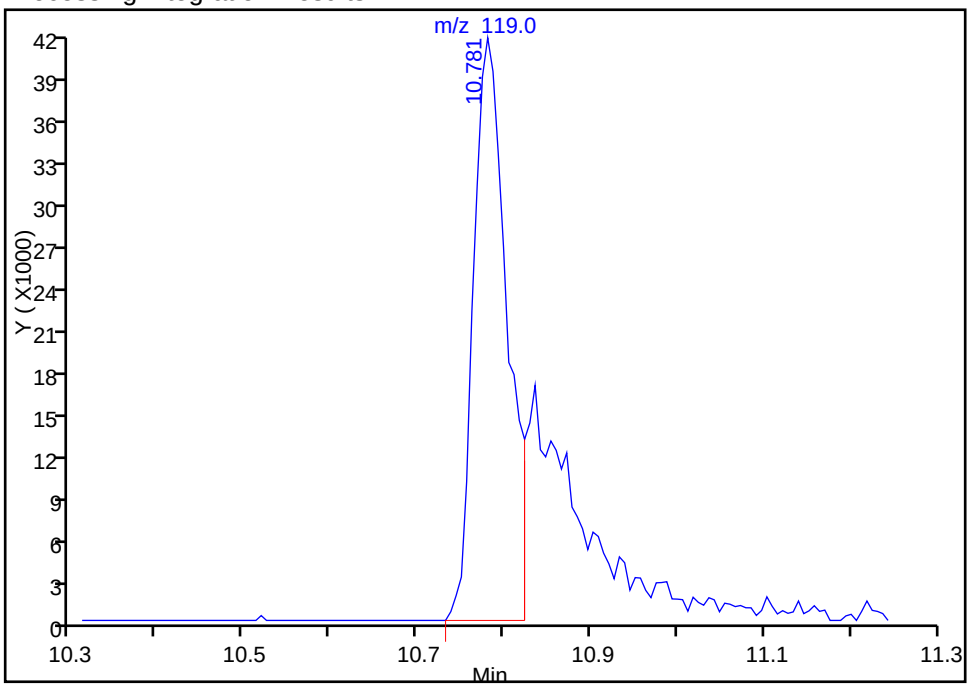
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062417.D				
Injection Date:	24-Jun-2014 18:27:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-A-1	Lab Sample ID:	180-34114-1		
Client ID:	HD-MW-125-0/1-0				
Operator ID:	430936	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 3 Chlorobenzene-d5, CAS: 3114-55-4

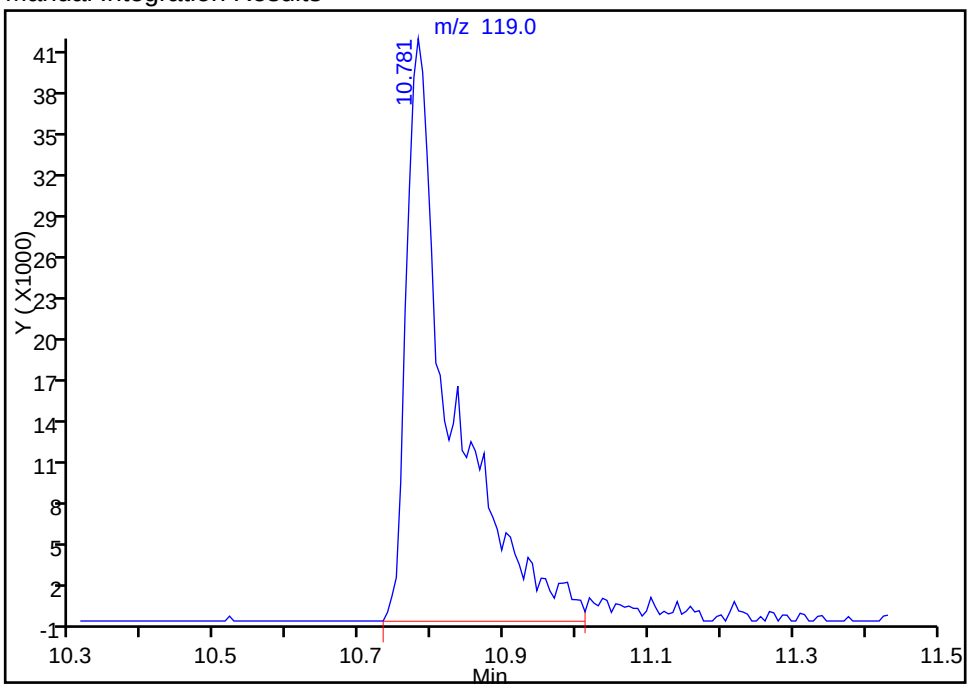
Processing Integration Results

RT: 10.78
Response: 113033
Amount: 250.0000



Manual Integration Results

RT: 10.78
Response: 181461
Amount: 250.0000



Reviewer: zukowskim, 25-Jun-2014 07:49:25
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-34114-1

SDG No.:

Client Sample ID: HD-MW-160-0/1-0 | Lab Sample ID: 180-34114-2

Matrix: Water | Lab File ID: 4062418.D

Analysis Method: 8260C | Date Collected: 06/19/2014 11:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/24/2014 18:57

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 109391 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	*Benzene*	*260*	*E*	*5.0*	*0.99*
100-41-4	Ethylbenzene	22		5.0	0.62
98-82-8	Isopropylbenzene	2.5	J	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
91-20-3	Naphthalene	5.0	U	5.0	0.47
108-88-3	Toluene	59		5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	20		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	6.0		5.0	0.59
1330-20-7	Xylenes, Total	48		10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	115		75-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		62-123
2037-26-5	Toluene-d8 (Surr)	92		80-120

Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D
Lims ID: 180-34114-A-2 Lab Sample ID: 180-34114-2
Client ID: HD-MW-160-0/1-0
Sample Type: Client
Inject. Date: 24-Jun-2014 18:57:30 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-34114-A-2
Misc. Info.: 180-0001869-018
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jun-2014 08:20:07 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: zukowskim Date: 26-Jun-2014 08:20:07

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.749	4.775	-0.026	90	257925	5000.0	
*	2 Fluorobenzene (IS)	96	7.674	7.676	-0.002	99	838709	250.0	
*	3 Chlorobenzene-d5	119	10.770	10.759	0.011	80	188698	250.0	M
*	4 1,4-Dichlorobenzene-d4	152	13.123	13.094	0.029	89	180535	250.0	
$	5 Dibromofluoromethane (Surr	113	6.938	6.934	0.004	59	250505	244.0	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.315	7.305	0.010	83	213268	256.3	
$	7 Toluene-d8 (Surr)	98	9.322	9.318	0.004	91	989045	231.0	
$	8 4-Bromofluorobenzene (Surr	95	11.949	11.939	0.010	96	391331	286.6	
	34 Methyl tert-butyl ether	73		5.049				ND	
	54 Benzene	78	7.370	7.366	0.004	98	6829412	1307.1	E
	73 Toluene	91	9.389	9.385	0.004	99	1637885	293.3	
	86 Ethylbenzene	106	10.903	10.893	0.010	97	234773	110.8	
	87 m-Xylene & p-Xylene	106	11.019	11.008	0.011	99	479275	174.7	
	88 o-Xylene	106	11.420	11.404	0.016	94	168656	65.1	
	91 Isopropylbenzene	105	11.791	11.775	0.016	84	85782	12.4	
	99 1,3,5-Trimethylbenzene	105	12.296	12.352	-0.056	80	158177	29.8	
	103 1,2,4-Trimethylbenzene	105	12.752	12.735	0.017	95	390715	100.8	
	116 Naphthalene	128		15.423				ND	
S	130 Xylenes, Total	106				0		239.8	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
E - Exceeded Maximum Amount

Review Flags
M - Manually Integrated

Reagents:

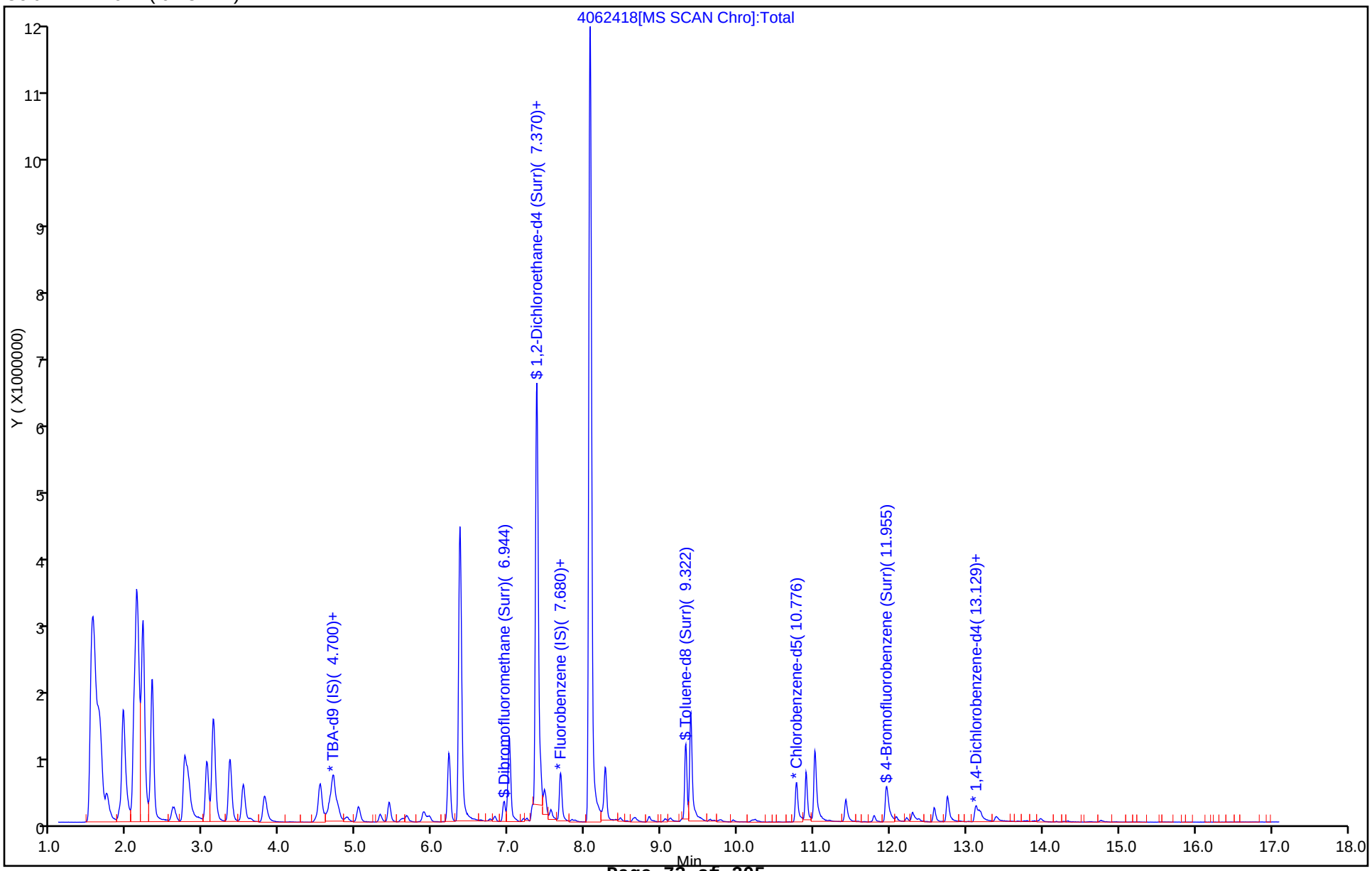
VOA8260INT_00012	Amount Added:	10.00	Units: uL	Run Reagent
VOA8260SURR_00016	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D				
Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2	Worklist Smp#:	18
Client ID:	HD-MW-160-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



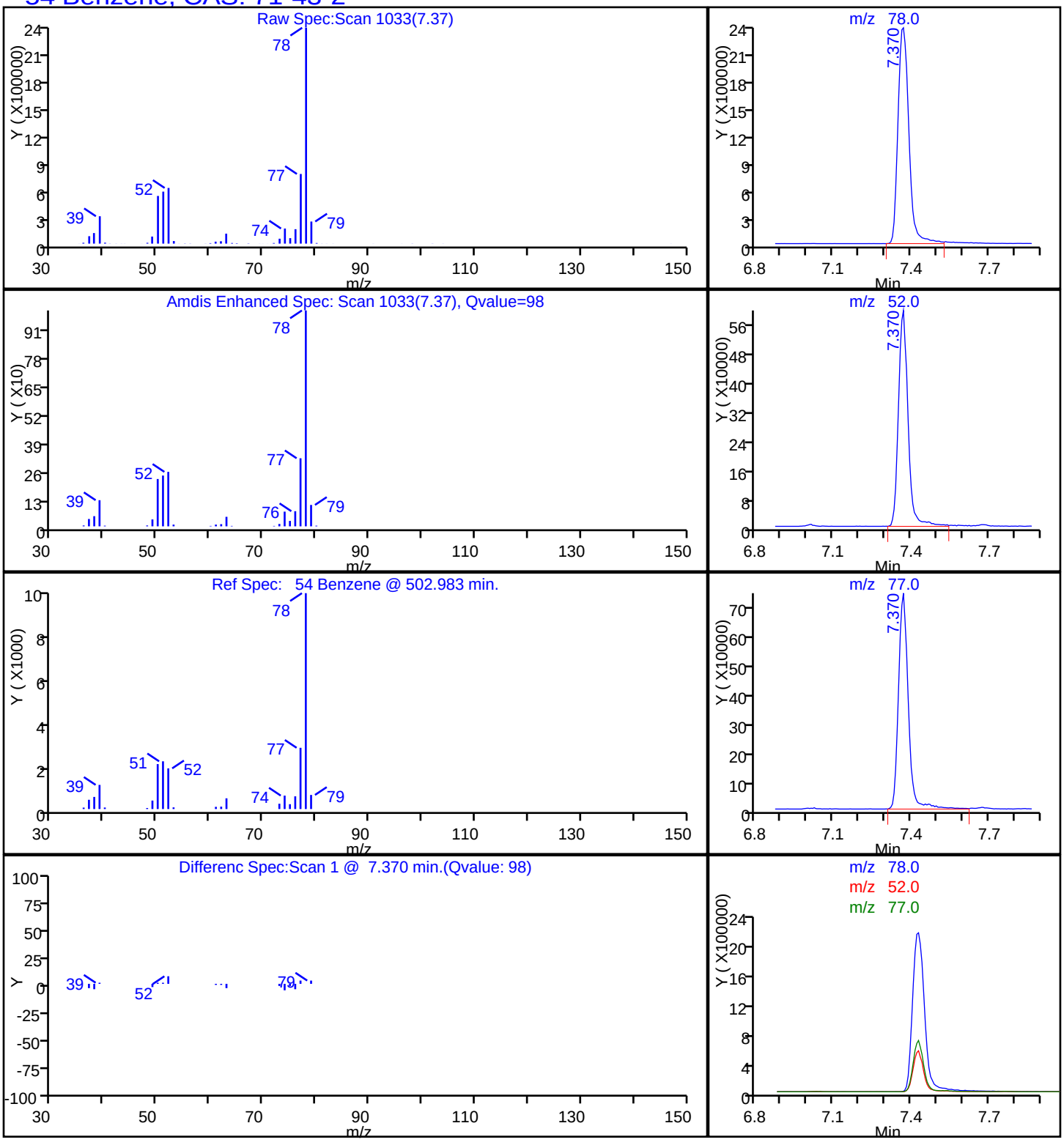
Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2
Client ID:	HD-MW-160-0/1-0		
Operator ID:	430936	ALS Bottle#:	16 Worklist Smp#: 18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

54 Benzene, CAS: 71-43-2



Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

Injection Date: 24-Jun-2014 18:57:30 Instrument ID: CHHP4

Lims ID: 180-34114-A-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

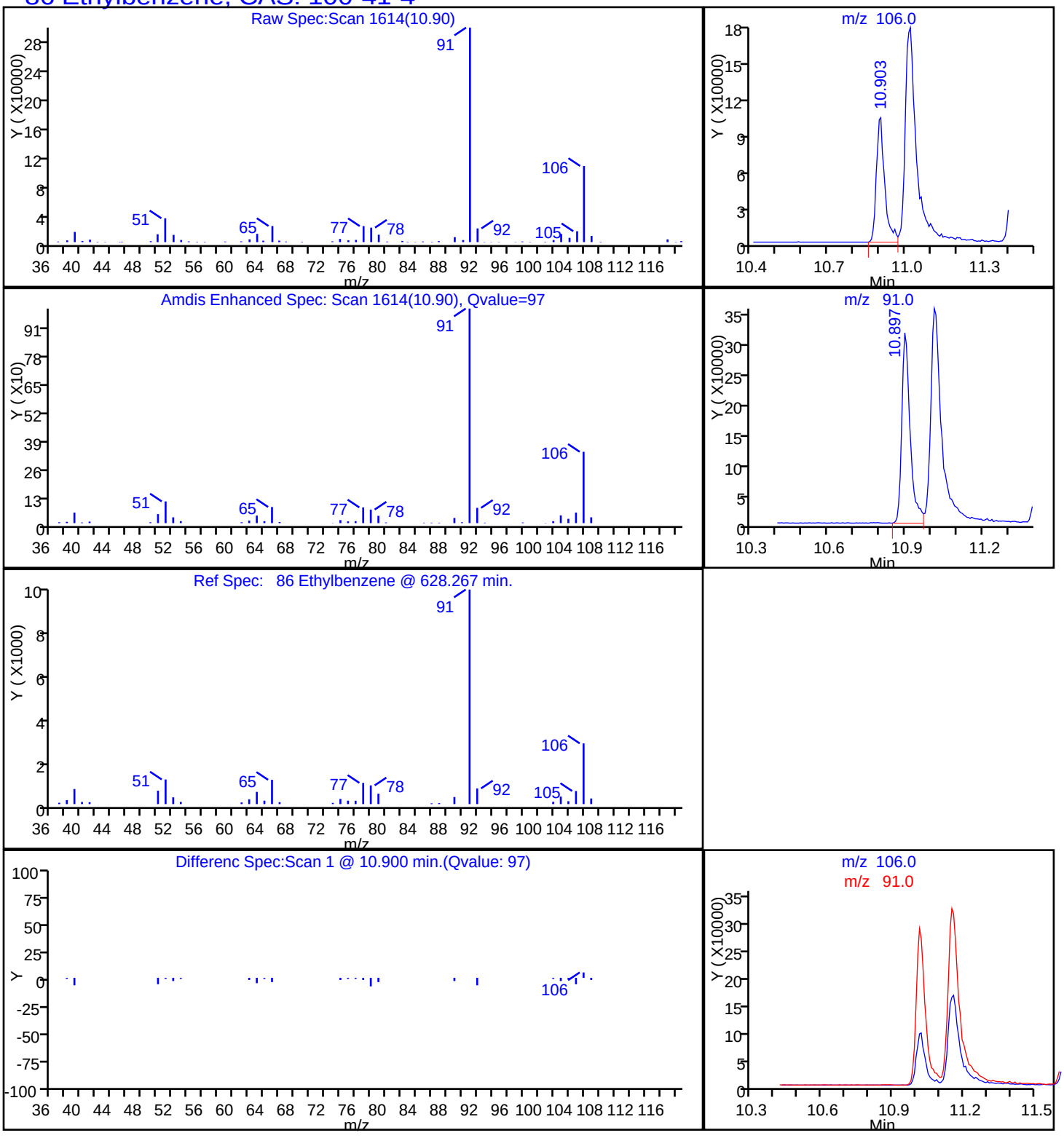
Operator ID: 430936 ALS Bottle#: 16 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

86 Ethylbenzene, CAS: 100-41-4



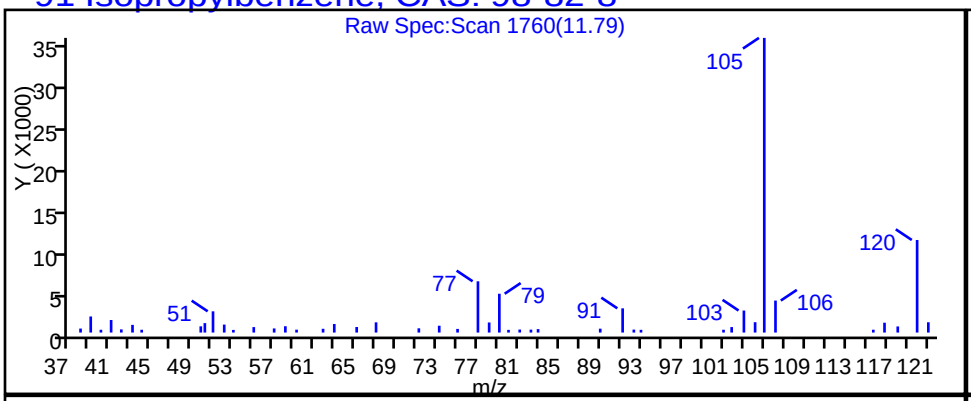
Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

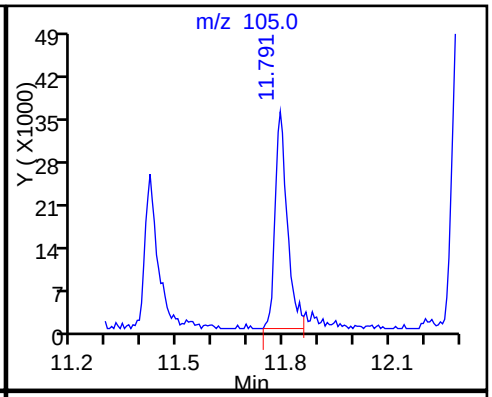
TestAmerica Pittsburgh

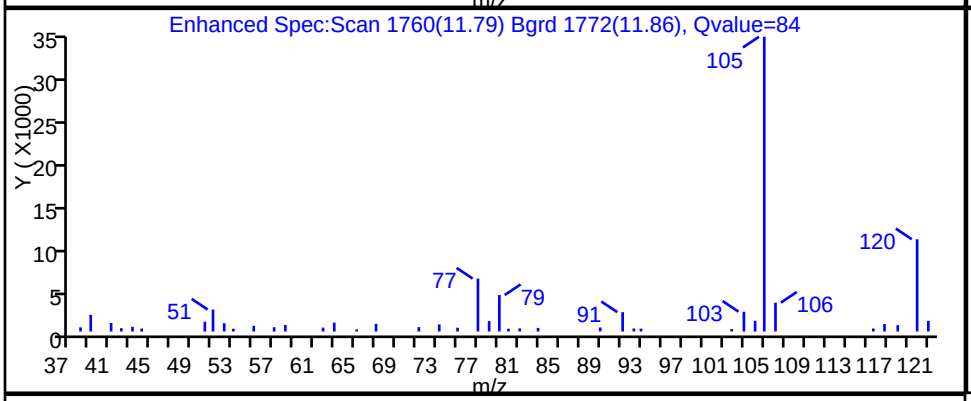
Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

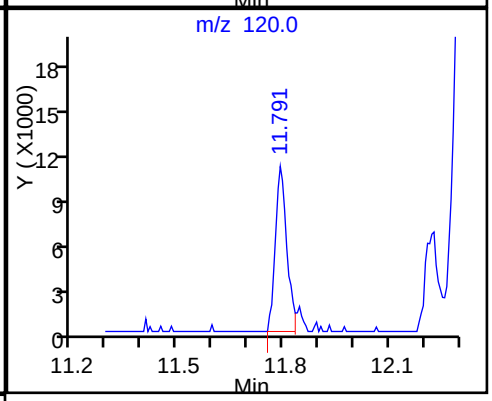
Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2		
Client ID:	HD-MW-160-0/1-0				
Operator ID:	430936	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

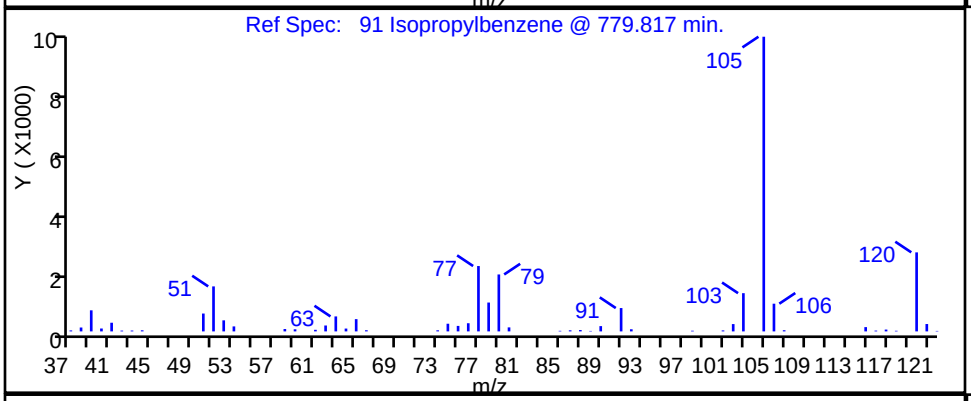
91 Isopropylbenzene, CAS: 98-82-8

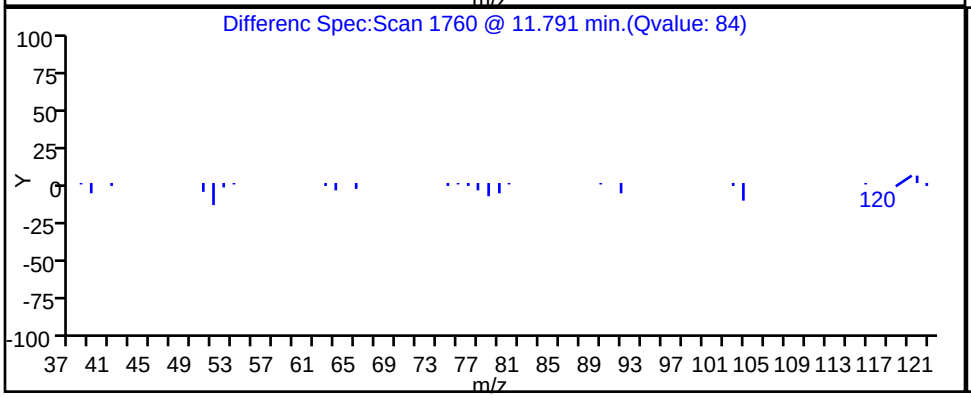


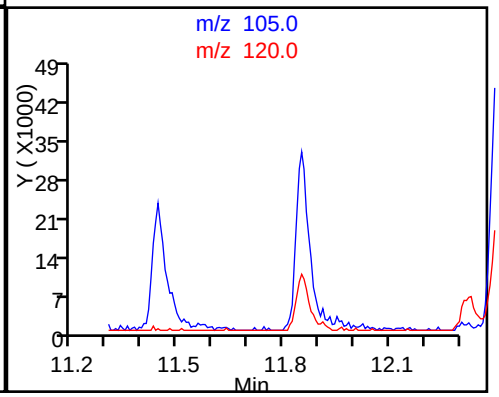










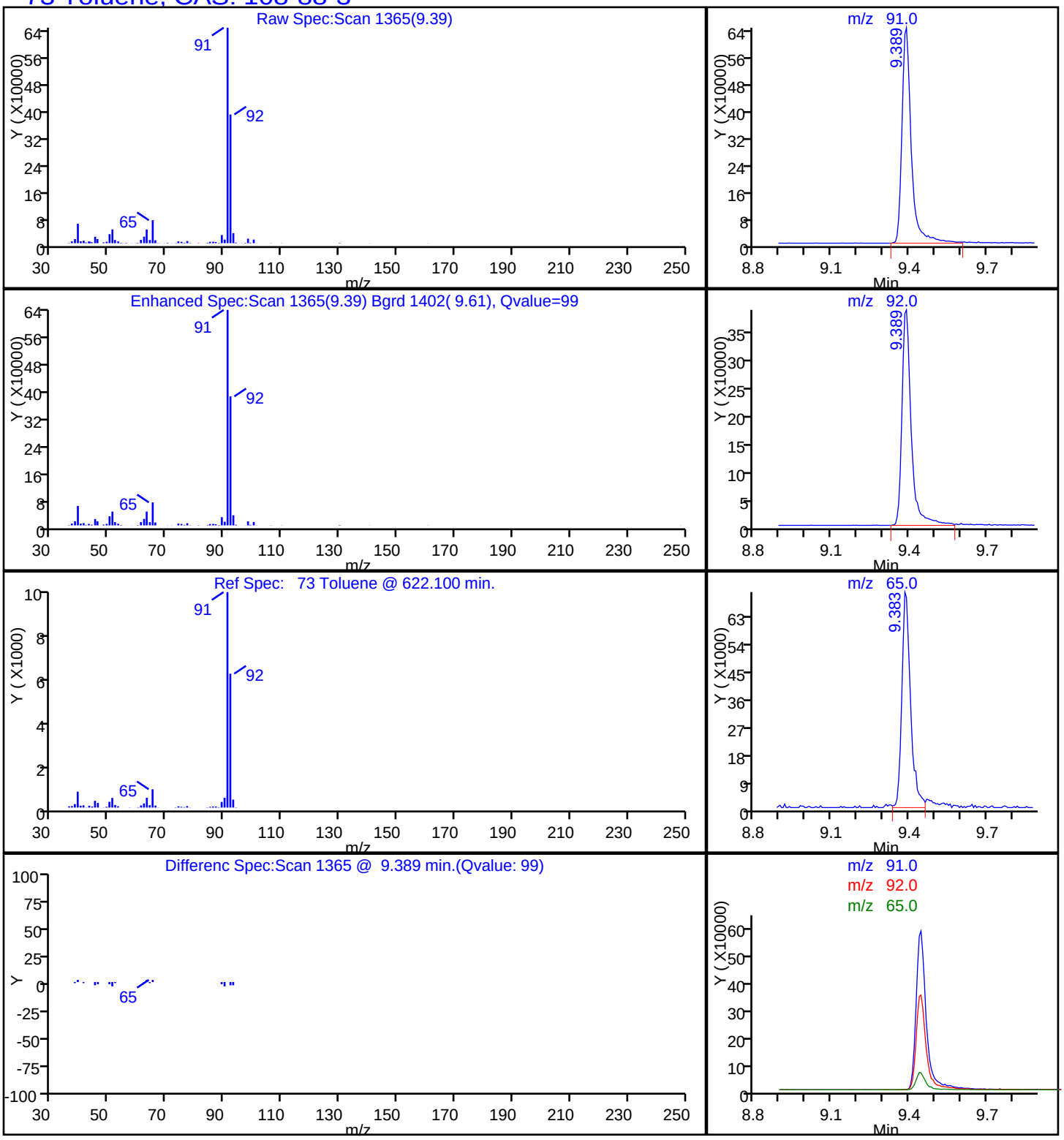


Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D		
Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2
Client ID:	HD-MW-160-0/1-0		
Operator ID:	430936	ALS Bottle#:	16 Worklist Smp#: 18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

73 Toluene, CAS: 108-88-3



Report Date: 26-Jun-2014 08:20:08 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

Injection Date: 24-Jun-2014 18:57:30 Instrument ID: CHHP4

Lims ID: 180-34114-A-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

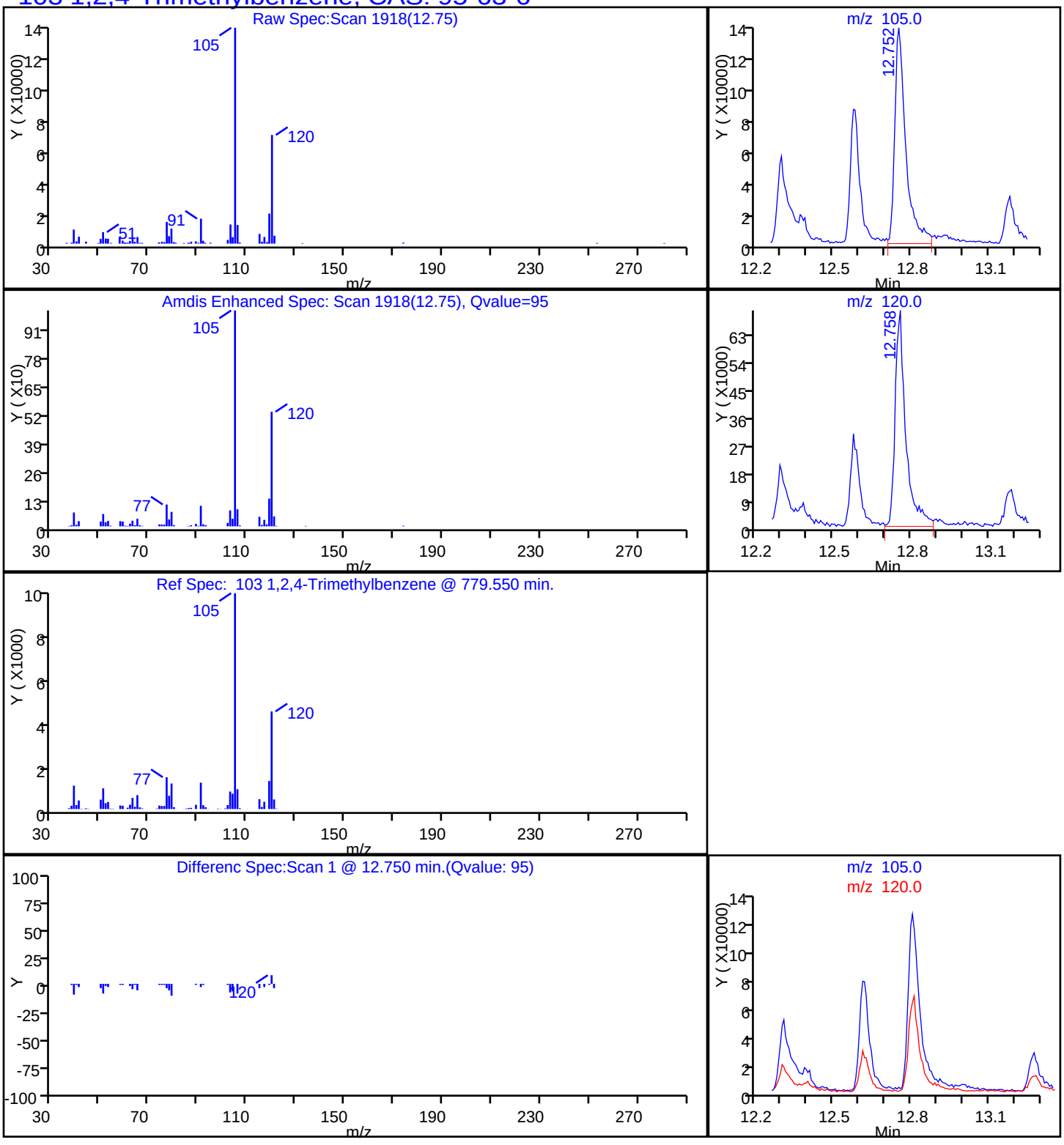
Operator ID: 430936 ALS Bottle#: 16 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

103 1,2,4-Trimethylbenzene, CAS: 95-63-6



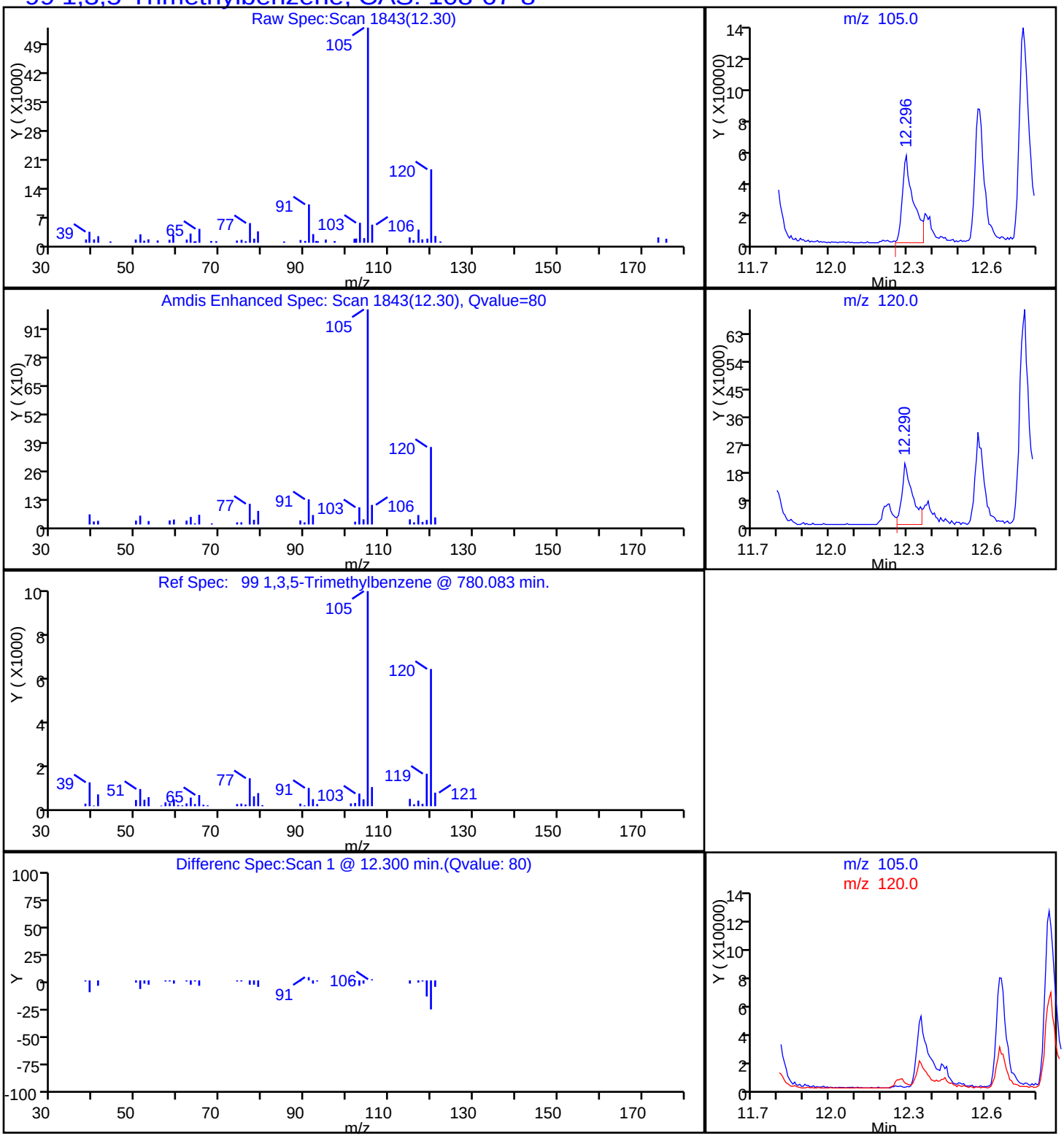
Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2
Client ID:	HD-MW-160-0/1-0		
Operator ID:	430936	ALS Bottle#:	16 Worklist Smp#: 18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

99 1,3,5-Trimethylbenzene, CAS: 108-67-8



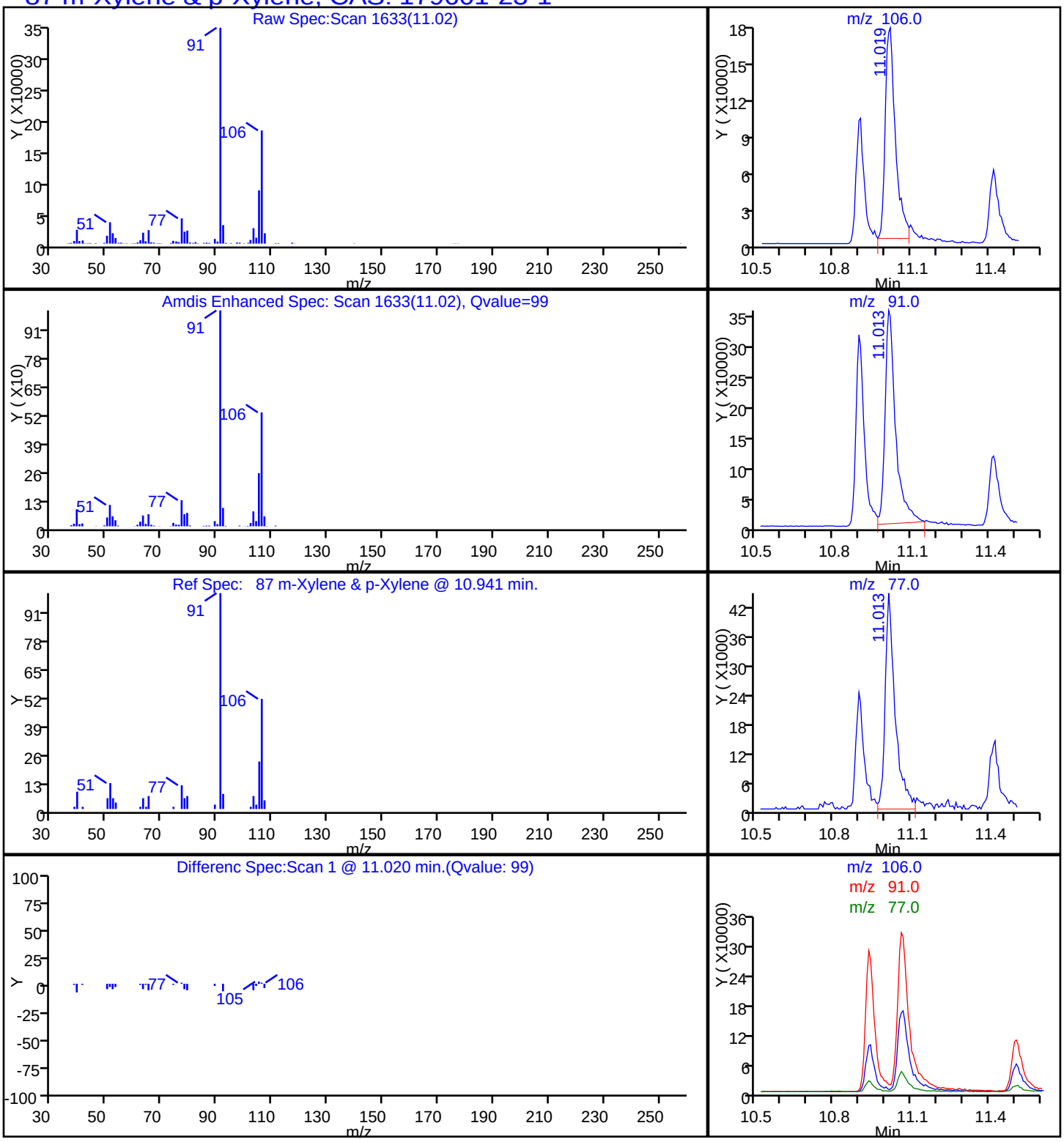
Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2		
Client ID:	HD-MW-160-0/1-0				
Operator ID:	430936	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

87 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 26-Jun-2014 08:20:07 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D

Injection Date: 24-Jun-2014 18:57:30 Instrument ID: CHHP4

Lims ID: 180-34114-A-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

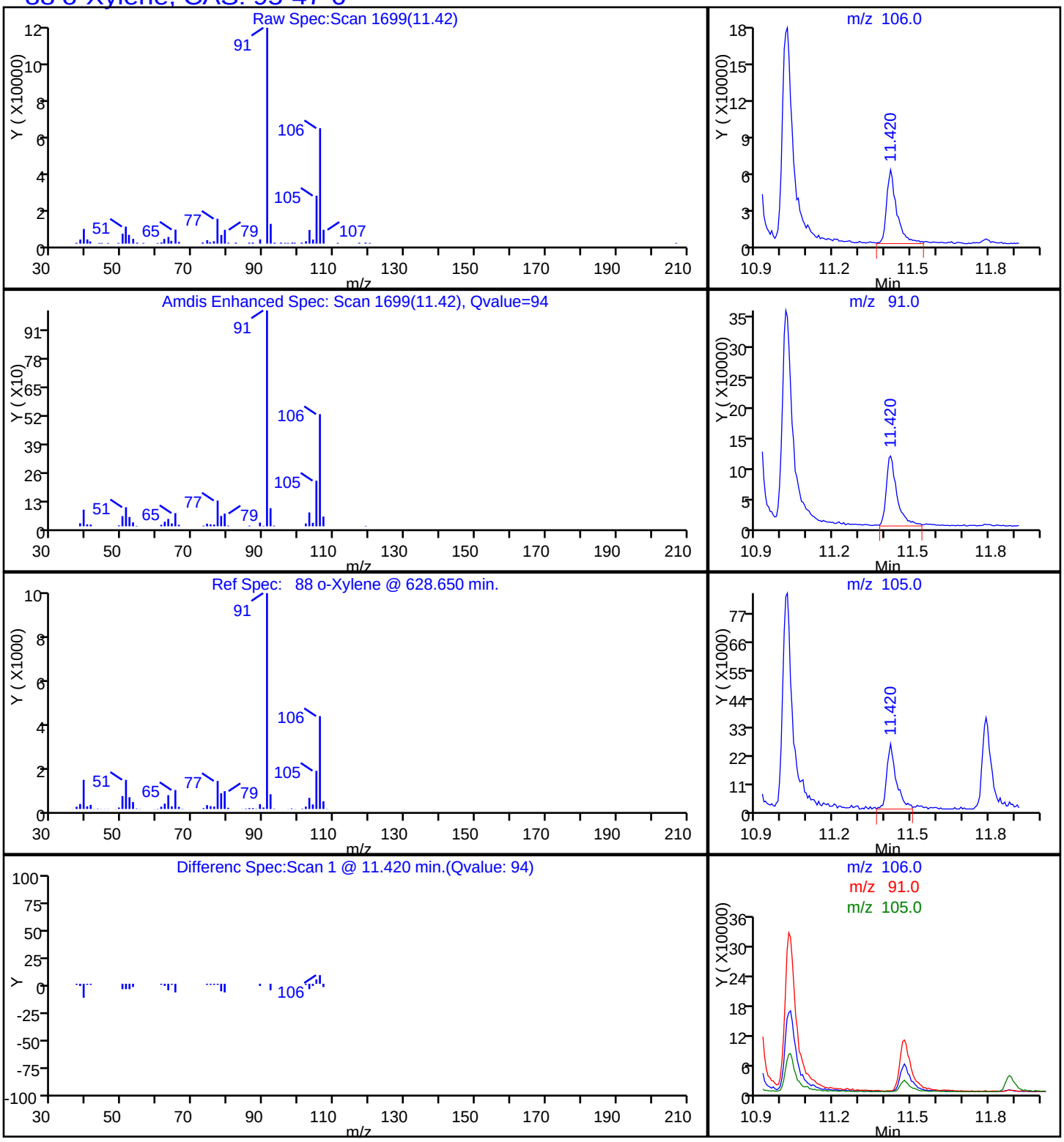
Operator ID: 430936 ALS Bottle#: 16 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

88 o-Xylene, CAS: 95-47-6



Manual Integration/User Assign Peak Report

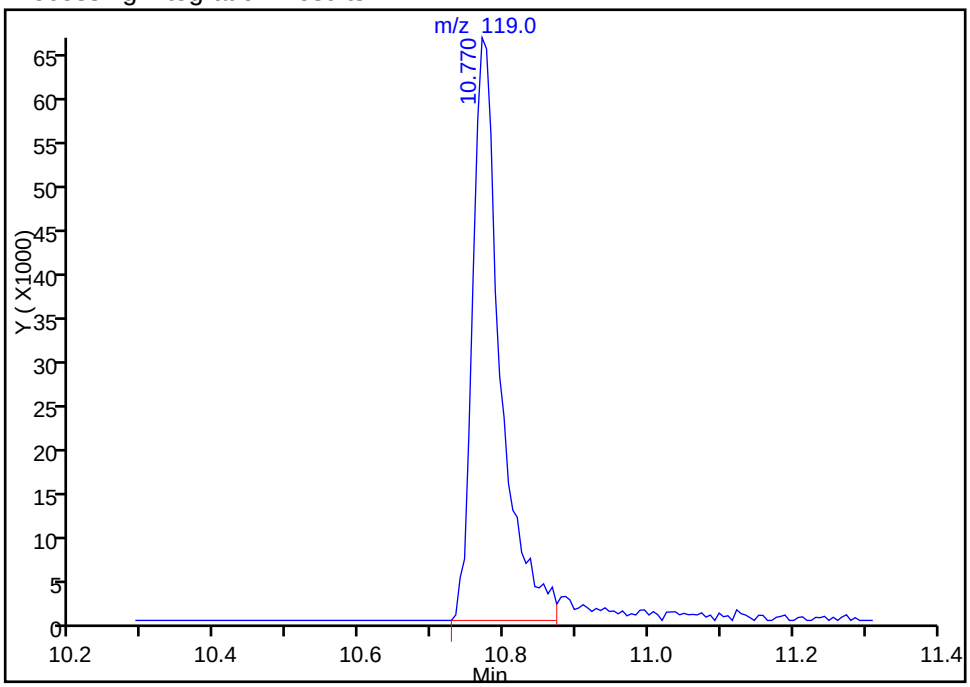
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062418.D				
Injection Date:	24-Jun-2014 18:57:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-A-2	Lab Sample ID:	180-34114-2		
Client ID:	HD-MW-160-0/1-0				
Operator ID:	430936	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 3 Chlorobenzene-d5, CAS: 3114-55-4

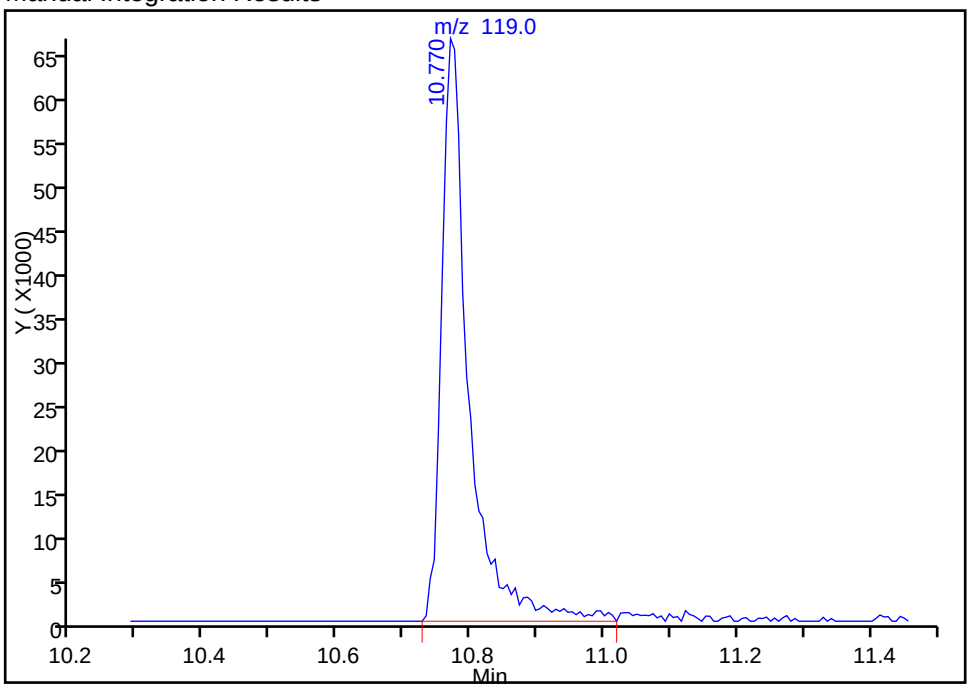
Processing Integration Results

RT: 10.77
Response: 178090
Amount: 250.0000



Manual Integration Results

RT: 10.77
Response: 188698
Amount: 250.0000



Reviewer: zukowskim, 25-Jun-2014 07:52:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Client Sample ID: HD-MW-160-0/1-0 DL Lab Sample ID: 180-34114-2 DL

Matrix: Water Lab File ID: 4062515.D

Analysis Method: 8260C Date Collected: 06/19/2014 11:05

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2014 16:58

Soil Aliquot Vol: Dilution Factor: 2

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109531 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	270		10	2.0
100-41-4	*Ethylbenzene*	*19*		*10*	*1.2*
98-82-8	*Isopropylbenzene*	*2.4*	*J*	*10*	*1.1*
1634-04-4	*Methyl tert-butyl ether*	*10*	*U*	*10*	*2.1*
91-20-3	*Naphthalene*	*10*	*U*	*10*	*0.94*
108-88-3	*Toluene*	*51*		*10*	*1.7*
95-63-6	*1,2,4-Trimethylbenzene*	*14*		*10*	*1.0*
108-67-8	*1,3,5-Trimethylbenzene*	*3.7*	*J*	*10*	*1.2*
1330-20-7	*Xylenes, Total*	*46*		*20*	*3.4*

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		75-120
1868-53-7	Dibromofluoromethane (Surr)	85		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		62-123
2037-26-5	Toluene-d8 (Surr)	87		80-120

Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D
Lims ID: 180-34114-C-2 Lab Sample ID: 180-34114-2
Client ID: HD-MW-160-0/1-0
Sample Type: Client
Inject. Date: 25-Jun-2014 16:58:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 180-34114-C-2, 2x (DL)
Misc. Info.: 180-0001891-015
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jun-2014 07:58:44 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: zukowskim Date: 26-Jun-2014 07:58:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.750	4.775	-0.025	90	265055	5000.0	
* 2 Fluorobenzene (IS)	96	7.681	7.676	0.005	99	969210	250.0	
* 3 Chlorobenzene-d5	119	10.771	10.759	0.012	80	213632	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.130	13.095	0.035	90	222446	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.940	6.928	0.012	59	251893	212.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.310	7.305	0.005	67	192457	200.2	
$ 7 Toluene-d8 (Surr)	98	9.323	9.318	0.005	92	1048543	216.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.957	11.939	0.018	95	402315	260.3	
34 Methyl tert-butyl ether	73		5.049				ND	
54 Benzene	78	7.365	7.360	0.005	98	4127950	683.7	
73 Toluene	91	9.390	9.385	0.005	98	802644	126.9	
86 Ethylbenzene	106	10.898	10.893	0.005	96	115664	48.2	
87 m-Xylene & p-Xylene	106	11.026	11.015	0.011	99	264970	90.8	
88 o-Xylene	106	11.428	11.404	0.024	88	75003	25.6	
91 Isopropylbenzene	105	11.799	11.775	0.024	71	46524	5.95	
99 1,3,5-Trimethylbenzene	105	12.309	12.353	-0.044	78	91032	9.33	
103 1,2,4-Trimethylbenzene	105	12.765	12.736	0.029	91	167533	35.1	
116 Naphthalene	128		15.436				ND	
S 130 Xylenes, Total	106				0		116.3	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Reagents:

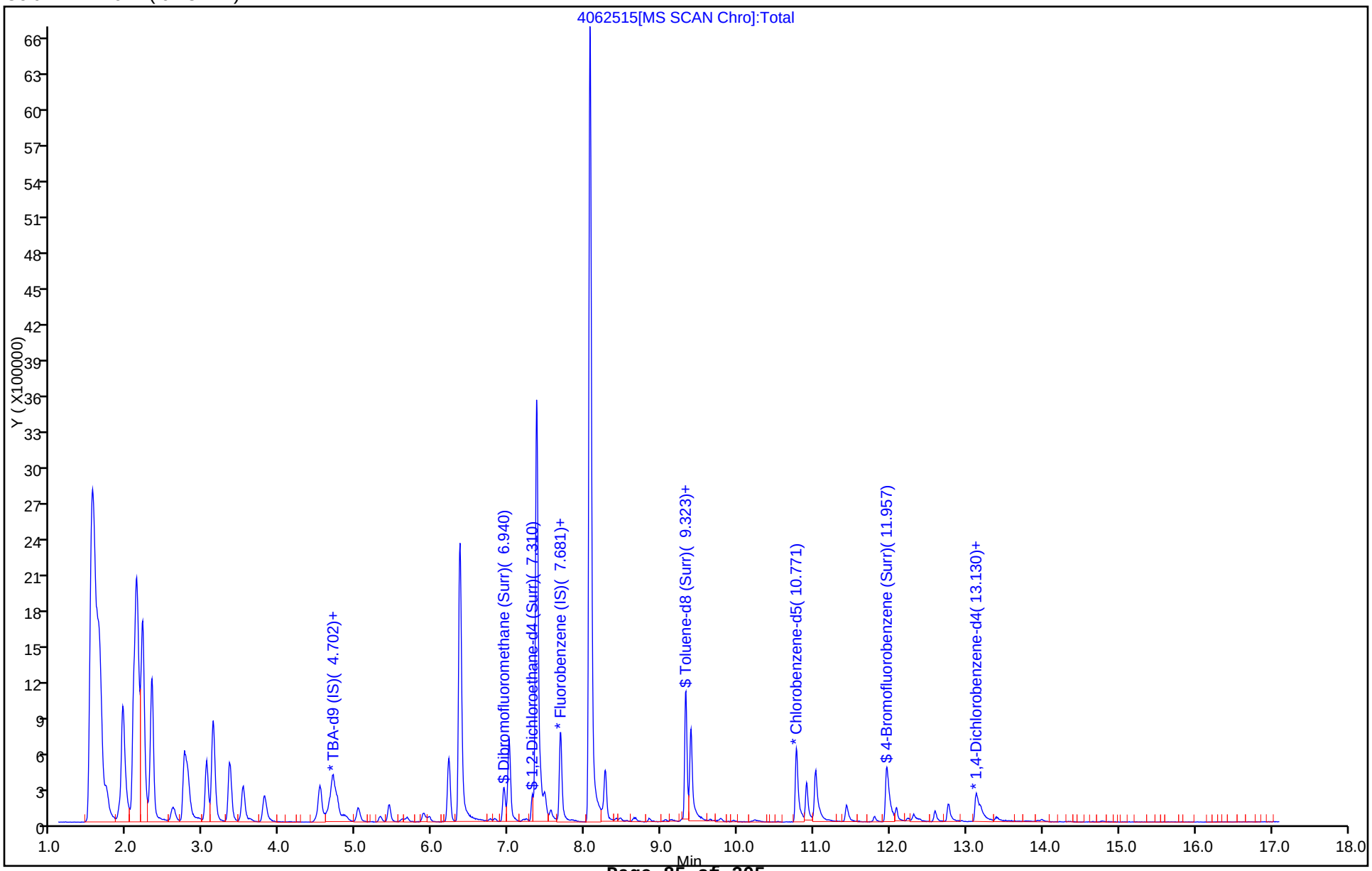
VOA8260INT_00012	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00016	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D				
Injection Date:	25-Jun-2014 16:58:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	180-34114-C-2	Lab Sample ID:	180-34114-2	Worklist Smp#:	15
Client ID:	HD-MW-160-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	15
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



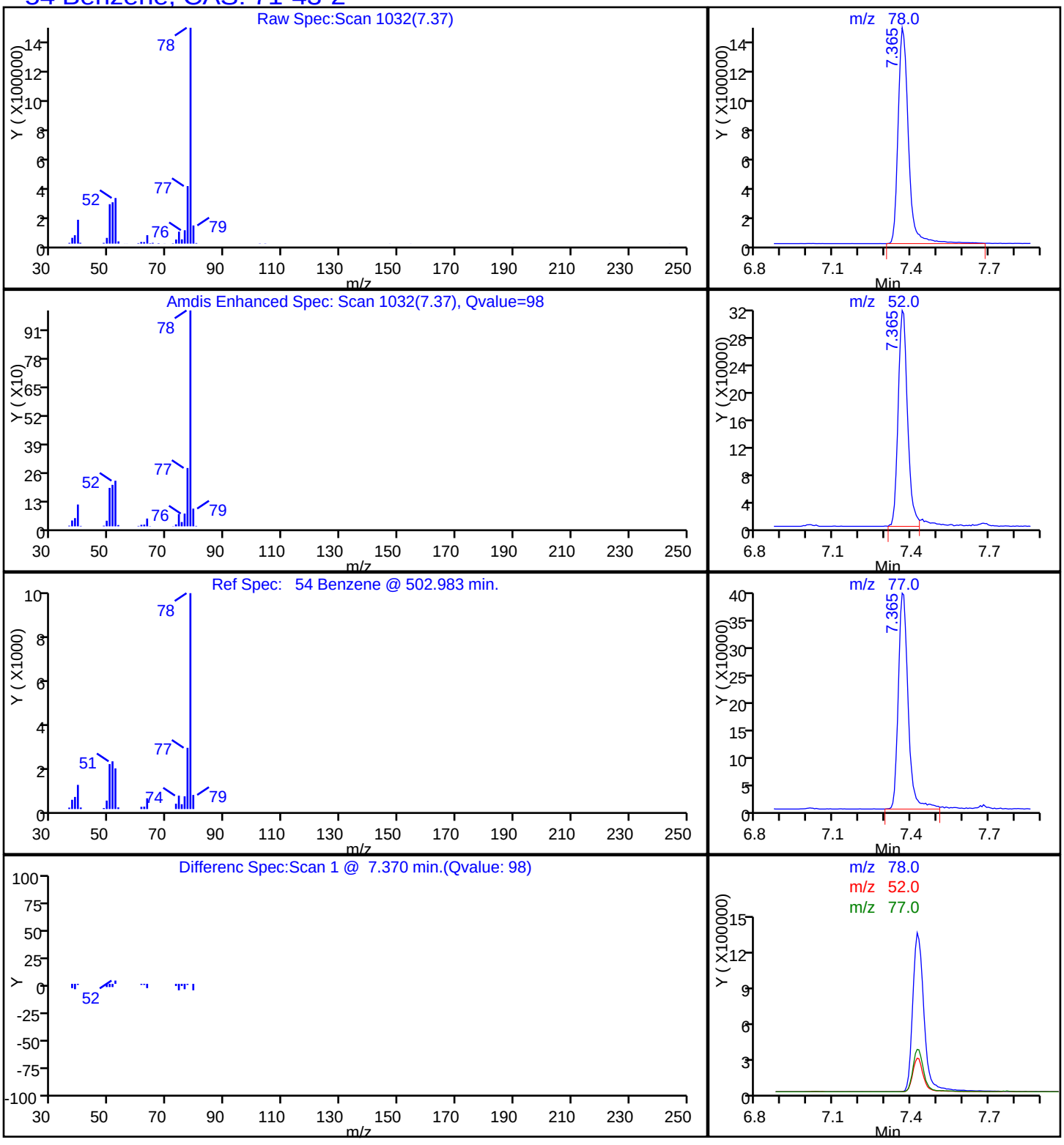
Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

Injection Date:	25-Jun-2014 16:58:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-C-2	Lab Sample ID:	180-34114-2		
Client ID:	HD-MW-160-0/1-0				
Operator ID:	430936	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

54 Benzene, CAS: 71-43-2



Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

Injection Date: 25-Jun-2014 16:58:30 Instrument ID: CHHP4

Lims ID: 180-34114-C-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

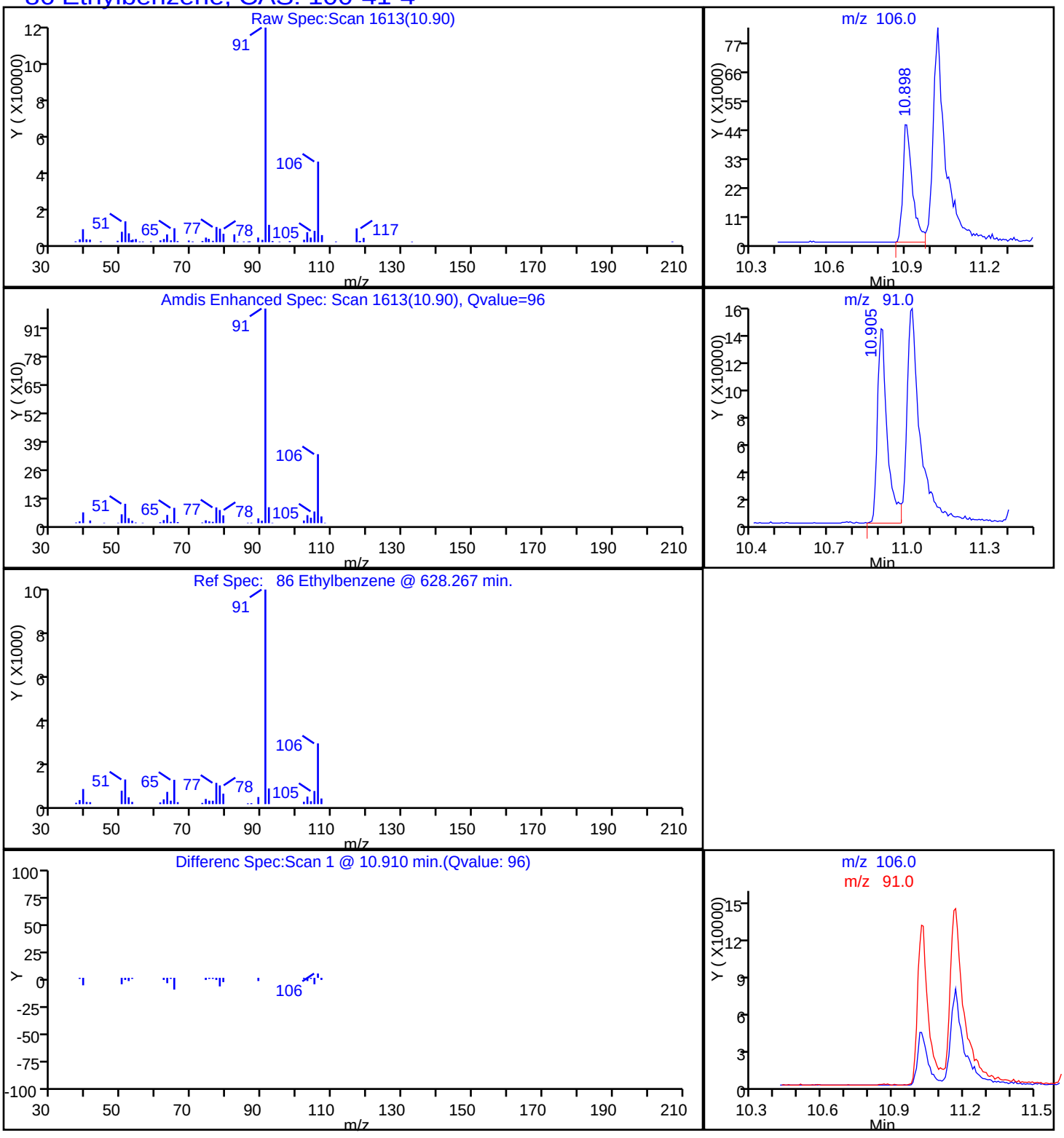
Operator ID: 430936 ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL Dil. Factor: 2.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

86 Ethylbenzene, CAS: 100-41-4



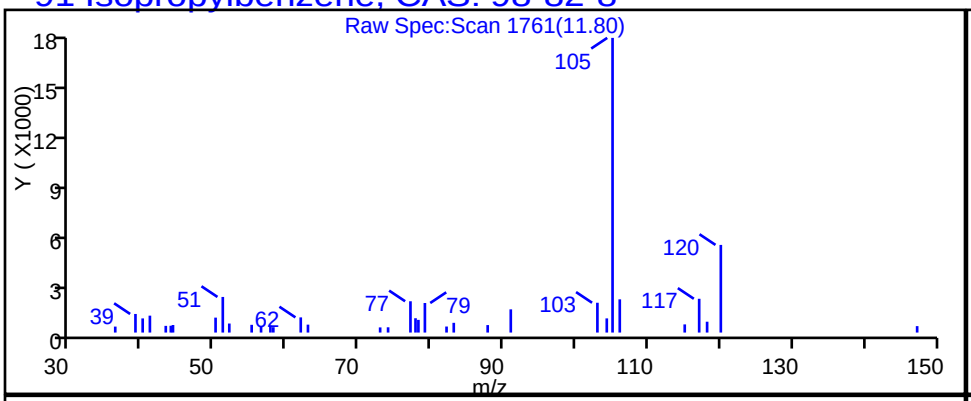
Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

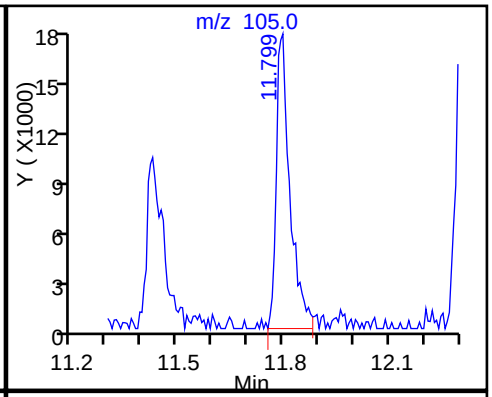
TestAmerica Pittsburgh

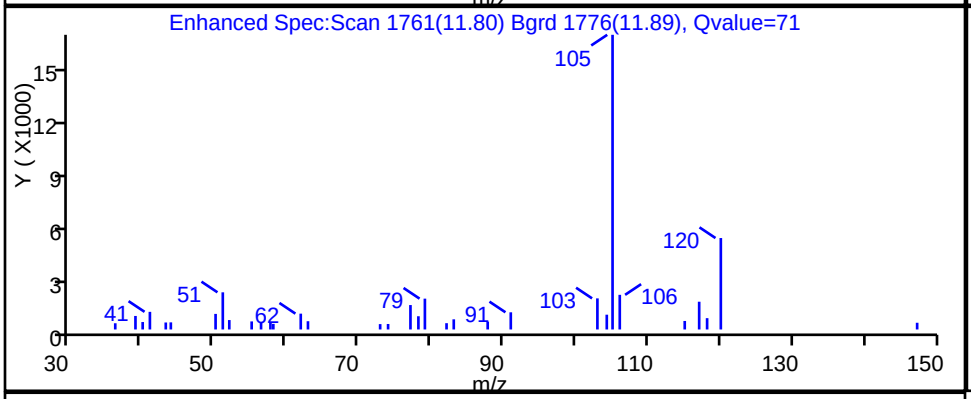
Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

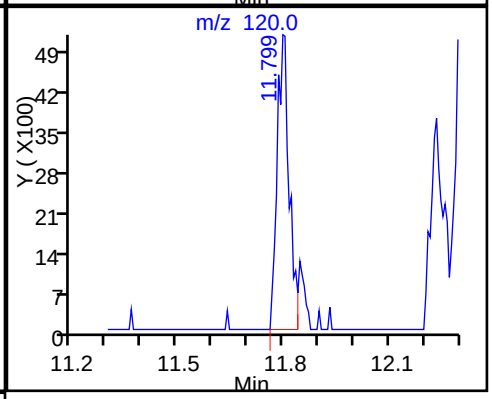
Injection Date:	25-Jun-2014 16:58:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-C-2	Lab Sample ID:	180-34114-2		
Client ID:	HD-MW-160-0/1-0				
Operator ID:	430936	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

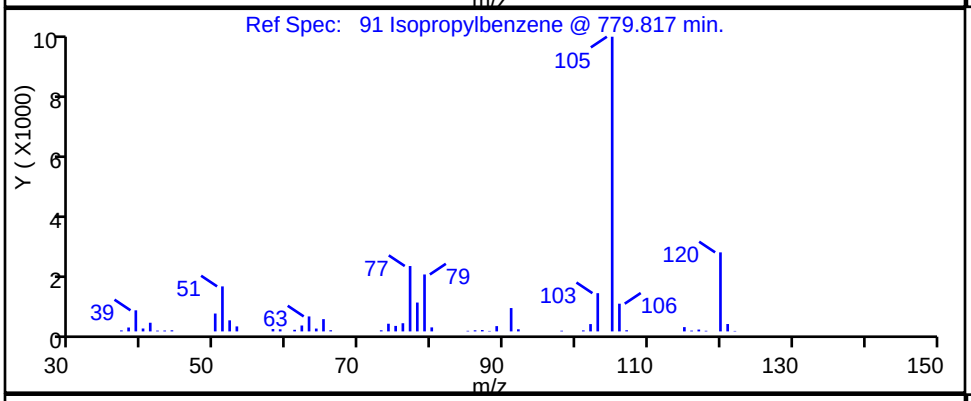
91 Isopropylbenzene, CAS: 98-82-8

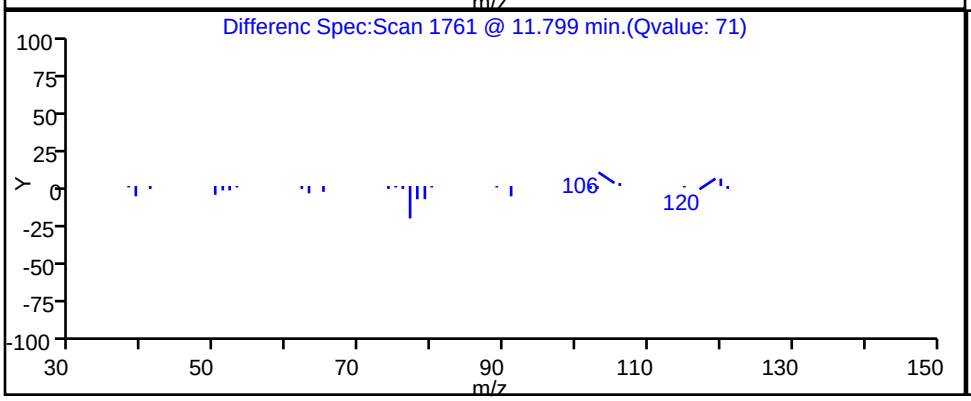


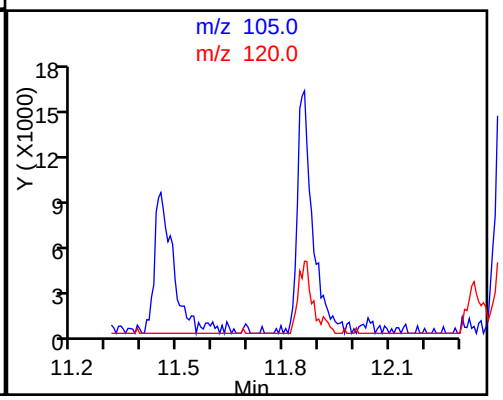












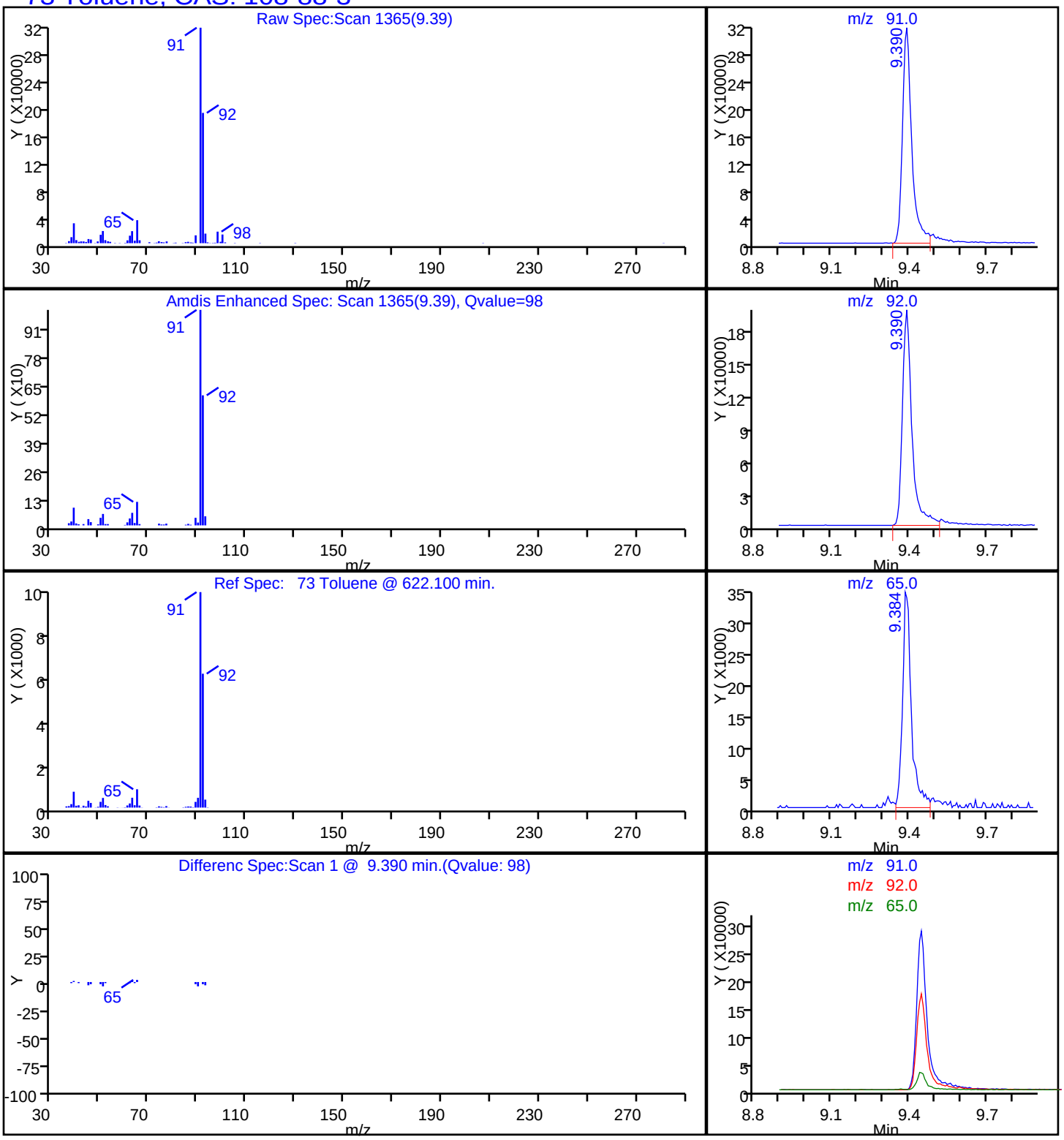
Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

Injection Date:	25-Jun-2014 16:58:30	Instrument ID:	CHHP4
Lims ID:	180-34114-C-2	Lab Sample ID:	180-34114-2
Client ID:	HD-MW-160-0/1-0		
Operator ID:	430936	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

73 Toluene, CAS: 108-88-3



Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

Injection Date: 25-Jun-2014 16:58:30 Instrument ID: CHHP4

Lims ID: 180-34114-C-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

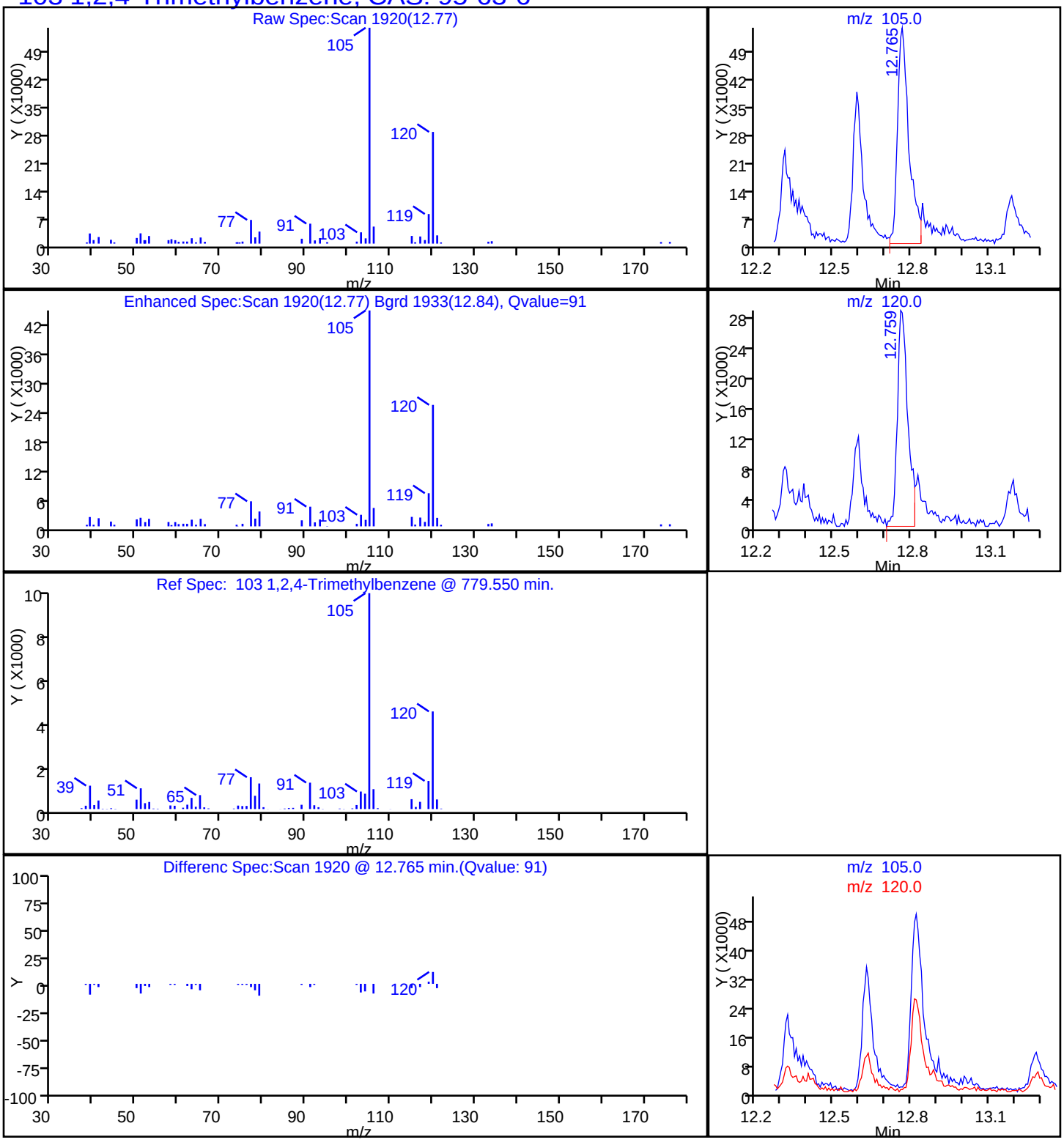
Operator ID: 430936 ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL Dil. Factor: 2.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

103 1,2,4-Trimethylbenzene, CAS: 95-63-6



Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

Injection Date: 25-Jun-2014 16:58:30 Instrument ID: CHHP4

Lims ID: 180-34114-C-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

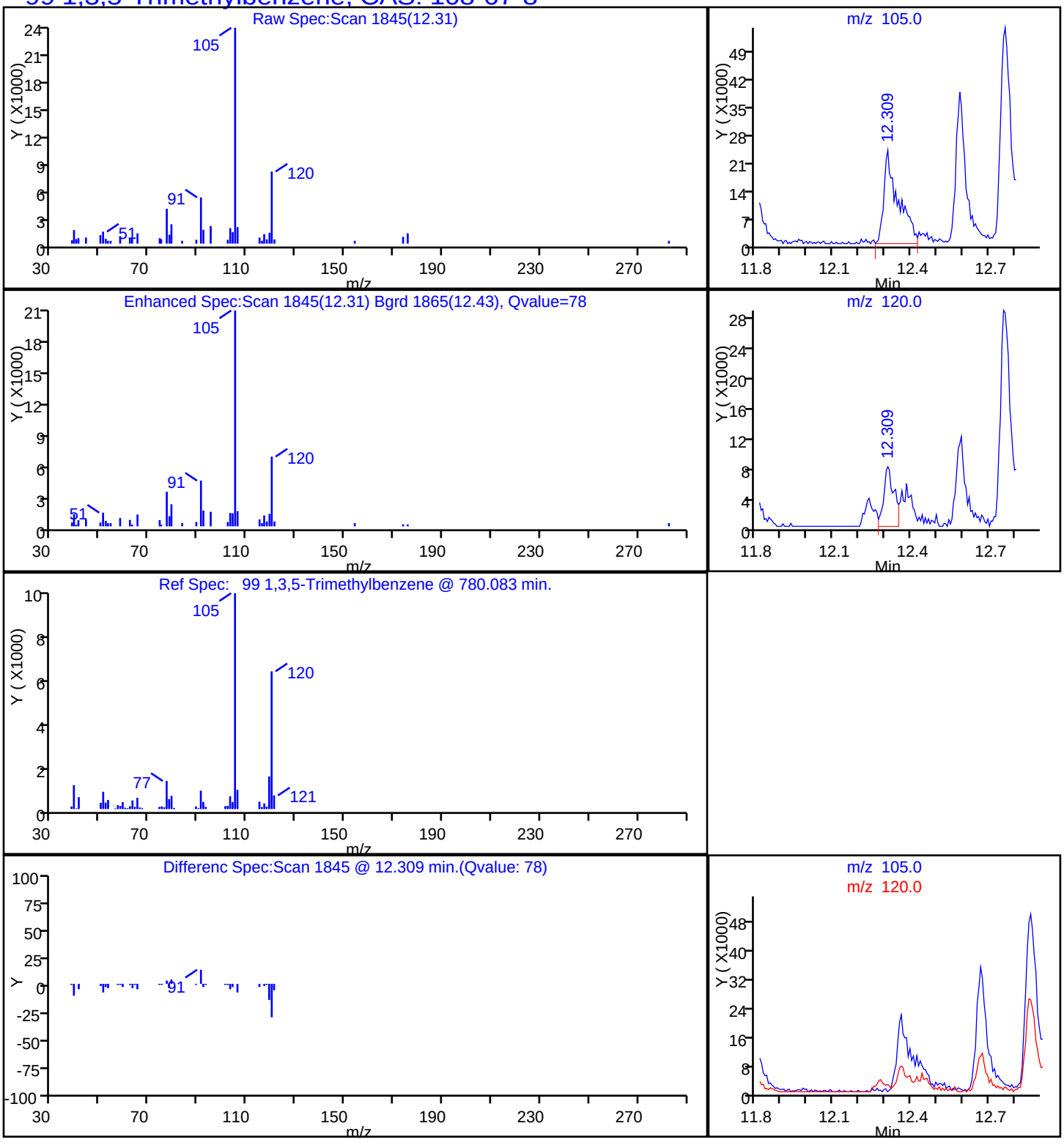
Operator ID: 430936 ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL Dil. Factor: 2.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

99 1,3,5-Trimethylbenzene, CAS: 108-67-8

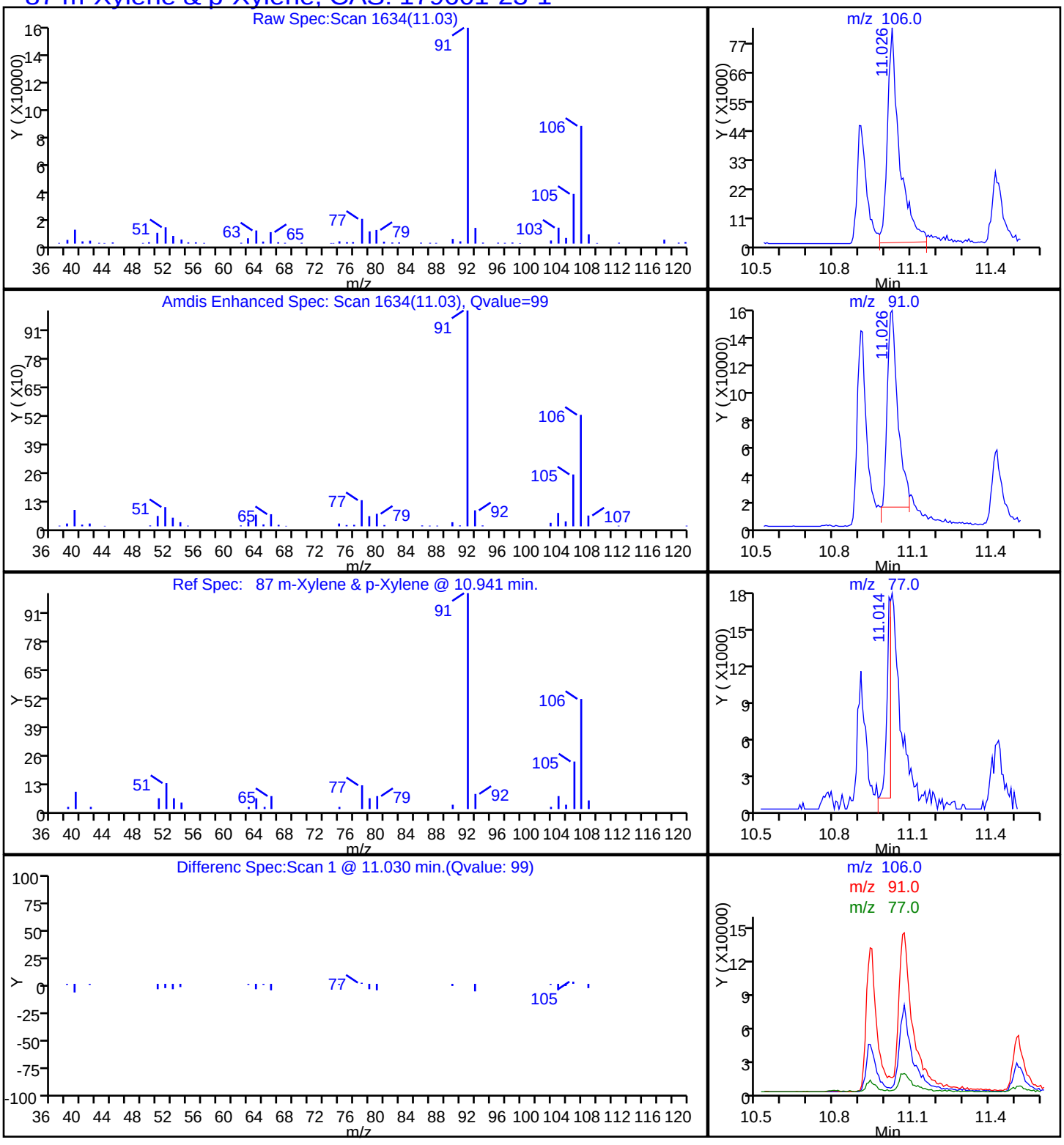


Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D				
Injection Date:	25-Jun-2014 16:58:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-C-2	Lab Sample ID:	180-34114-2		
Client ID:	HD-MW-160-0/1-0				
Operator ID:	430936	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

87 m-Xylene & p-Xylene, CAS: 179601-23-1



Report Date: 26-Jun-2014 07:58:45 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062515.D

Injection Date: 25-Jun-2014 16:58:30 Instrument ID: CHHP4

Lims ID: 180-34114-C-2 Lab Sample ID: 180-34114-2

Client ID: HD-MW-160-0/1-0

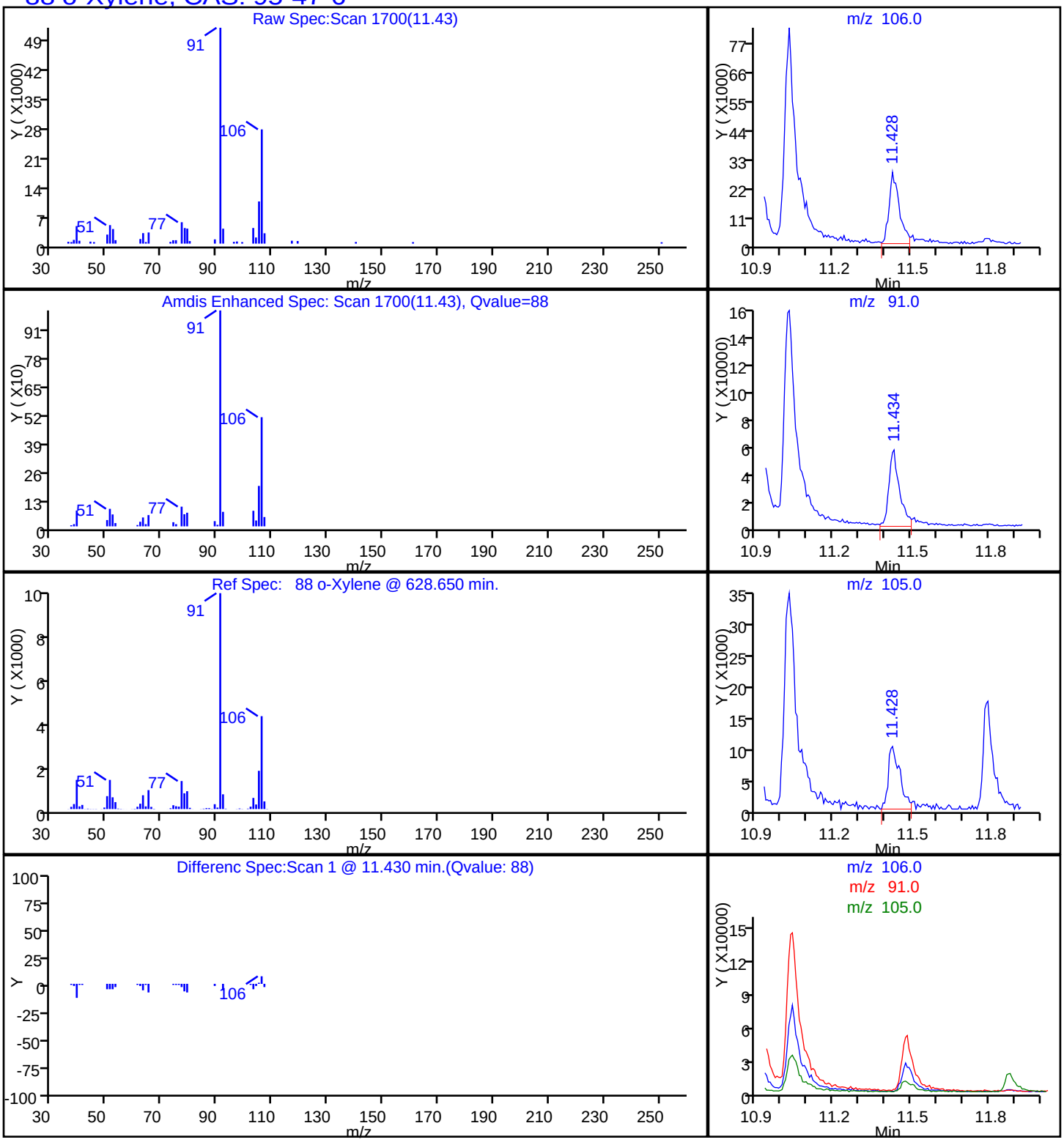
Operator ID: 430936 ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL Dil. Factor: 2.0000

Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

88 o-Xylene, CAS: 95-47-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Client Sample ID: TRIP BLANK 1 Lab Sample ID: 180-34114-3

Matrix: Water Lab File ID: 4062507.D

Analysis Method: 8260C Date Collected: 06/19/2014 12:50

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2014 12:16

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109531 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
91-20-3	Naphthalene	5.0	U	5.0	0.47
108-88-3	Toluene	5.0	U	5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
1330-20-7	Xylenes, Total	10	U	10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		75-120
1868-53-7	Dibromofluoromethane (Surr)	85		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		62-123
2037-26-5	Toluene-d8 (Surr)	87		80-120

Report Date: 25-Jun-2014 12:11:10 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062507.D
Lims ID: 180-34114-B-3 Lab Sample ID: 180-34114-3
Client ID: TRIP BLANK 1
Sample Type: Client
Inject. Date: 25-Jun-2014 12:16:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-34114-B-3
Misc. Info.: 180-0001891-007
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 12:11:10 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 12:11:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.749	4.775	-0.026	96	247586	5000.0	
* 2 Fluorobenzene (IS)	96	7.686	7.676	0.010	99	857520	250.0	
* 3 Chlorobenzene-d5	119	10.775	10.759	0.016	78	187272	250.0	M
* 4 1,4-Dichlorobenzene-d4	152	13.153	13.095	0.058	88	178351	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.944	6.928	0.016	60	222618	212.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.315	7.305	0.010	66	182351	214.4	
$ 7 Toluene-d8 (Surr)	98	9.322	9.318	0.004	92	929469	218.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.967	11.939	0.028	91	342390	252.7	
34 Methyl tert-butyl ether	73		5.049				ND	
54 Benzene	78		7.360				ND	
73 Toluene	91		9.385				ND	
86 Ethylbenzene	106		10.893				ND	
87 m-Xylene & p-Xylene	106		11.015				ND	
88 o-Xylene	106		11.404				ND	
91 Isopropylbenzene	105		11.775				ND	
99 1,3,5-Trimethylbenzene	105		12.353				ND	
103 1,2,4-Trimethylbenzene	105		12.736				ND	
116 Naphthalene	128		15.436				ND	
S 130 Xylenes, Total	106		1.000				0	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

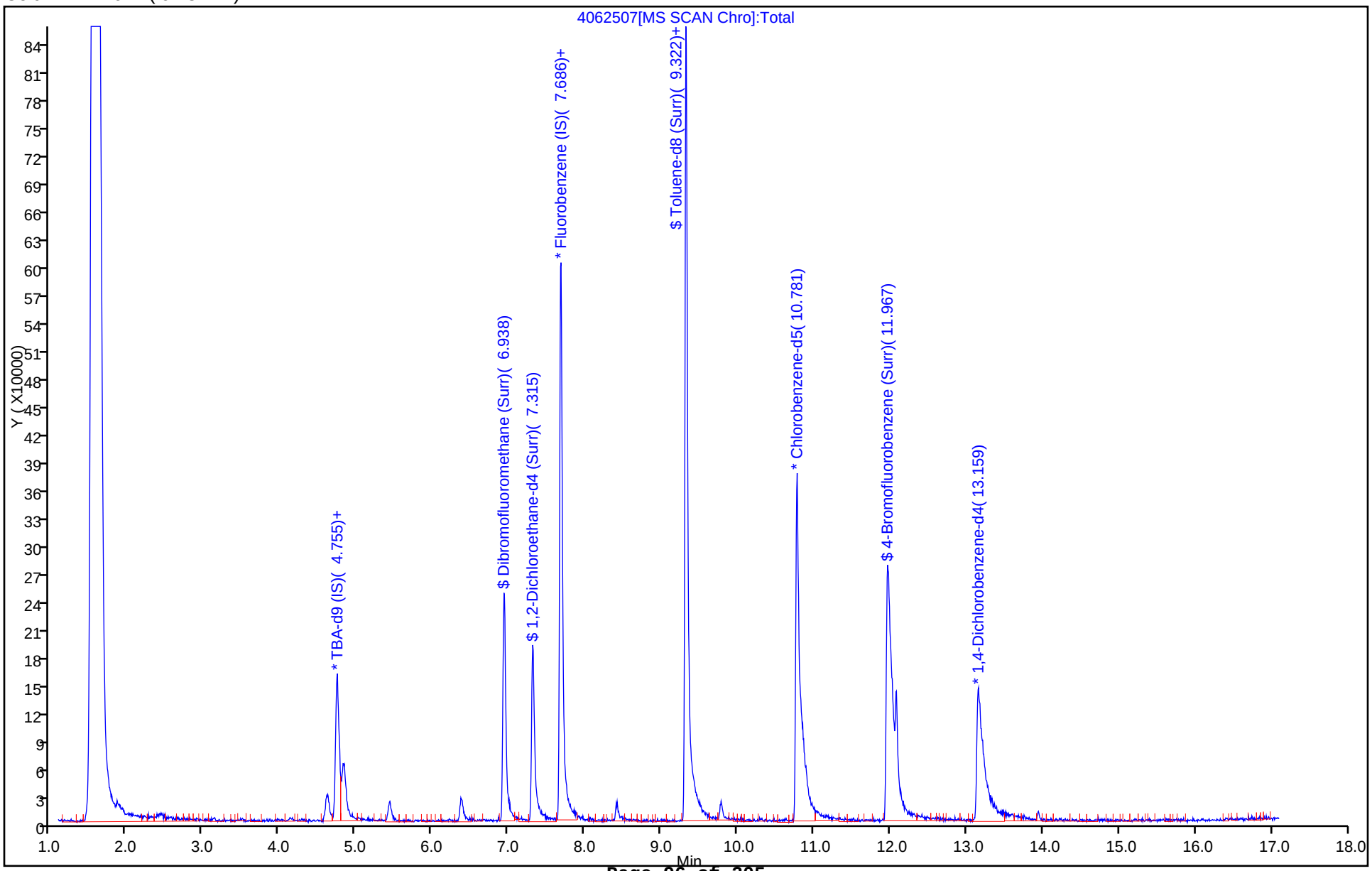
Review Flags
M - Manually Integrated

Report Date: 25-Jun-2014 12:11:10 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062507.D				
Injection Date:	25-Jun-2014 12:16:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	180-34114-B-3	Lab Sample ID:	180-34114-3	Worklist Smp#:	7
Client ID:	TRIP BLANK 1				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

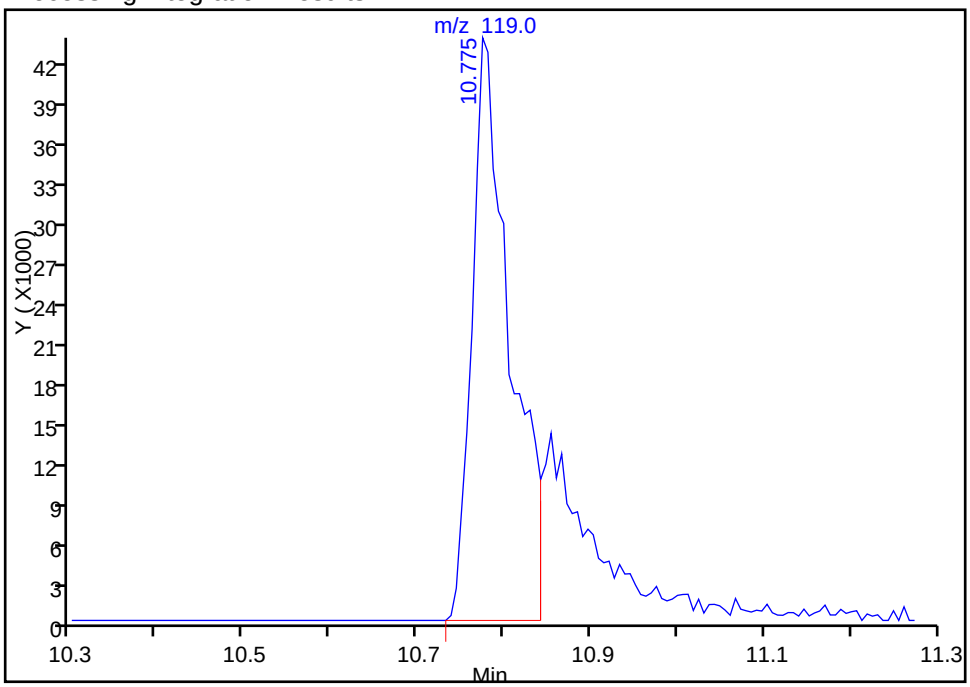
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062507.D				
Injection Date:	25-Jun-2014 12:16:30	Instrument ID:	CHHP4		
Lims ID:	180-34114-B-3	Lab Sample ID:	180-34114-3		
Client ID:	TRIP BLANK 1				
Operator ID:	430936	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 3 Chlorobenzene-d5, CAS: 3114-55-4

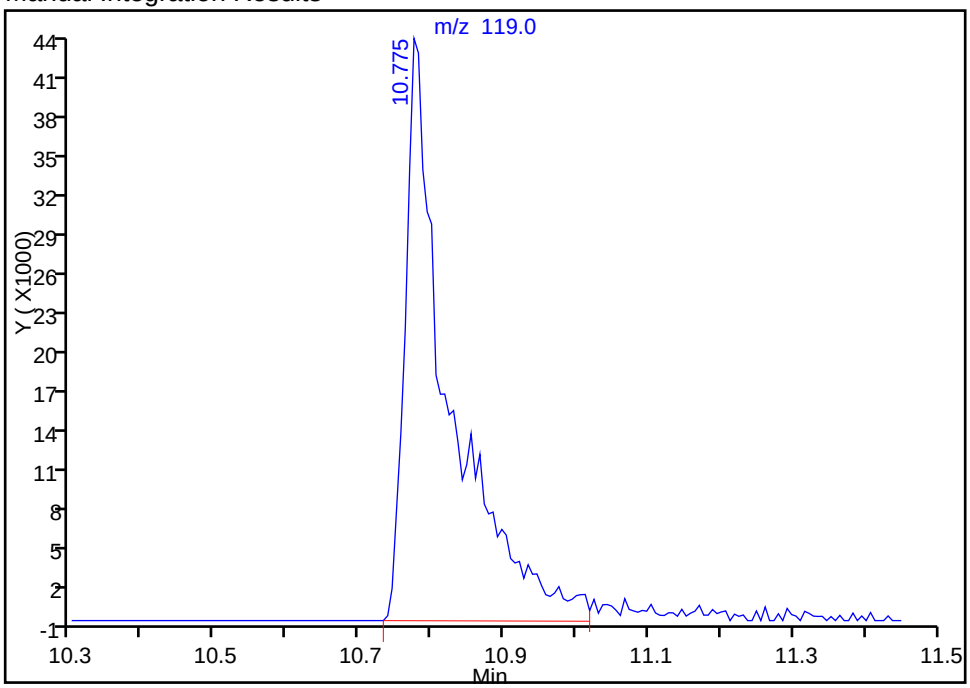
Processing Integration Results

RT: 10.78
Response: 134557
Amount: 250.0000



Manual Integration Results

RT: 10.78
Response: 187272
Amount: 250.0000



Reviewer: zukowskim, 25-Jun-2014 12:11:10
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-107478/3	4060303.D
Level 2	IC 180-107478/4	4060304.D
Level 3	IC 180-107478/5	4060305.D
Level 4	ICIS 180-107478/6	4060306.D
Level 5	IC 180-107478/7	4060307.D
Level 6	IC 180-107478/8	4060308.D
Level 7	IC 180-107478/9	4060309.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5586 0.6281	0.6569 0.5260	0.6118	0.6114	0.5501	Ave		0.5918			0.1000	8.0		20.0			
Chloromethane	0.7754 0.7891	0.8862 0.6464	0.7876	0.7988	0.7148	Ave		0.7712			0.1000	9.7		20.0			
Vinyl chloride	0.6382 0.6600	0.7019 0.5435	0.6424	0.6308	0.5726	Ave		0.6271			0.1000	8.5		20.0			
1,3-Butadiene	0.6077 0.6572	0.7315 0.5339	0.6099	0.6557	0.5819	Ave		0.6254			0.0100	10.0		20.0			
Bromomethane	0.1916 0.1843	0.1957 0.1586	0.1927	0.1858	0.1679	Ave		0.1824			0.0500	7.6		20.0			
Chloroethane	0.2844 0.2294	0.2678 0.1504	0.2682	0.2353	0.2420	Ave		0.2397			0.0500	18.0		20.0			
Dichlorofluoromethane	0.6675 0.7120	0.7566 0.5382	0.7256	0.6772	0.6531	Ave		0.6757			0.0100	10.0		20.0			
Trichlorofluoromethane	0.6172 0.6630	0.6921 0.5373	0.6326	0.6329	0.5966	Ave		0.6245			0.1000	7.9		20.0			
Ethyl ether	0.3105 0.3347	0.2923 0.2932	0.3067	0.3214	0.2911	Ave		0.3071			0.0100	5.4		20.0			
Acrolein	0.0196 0.0130	0.0186 0.0159	0.0174	0.0160	0.0139	Ave		0.0163			0.0100	15.0		20.0			
1,1-Dichloroethene	0.4414 0.5421	0.5300 0.4428	0.4924	0.5090	0.4682	Ave		0.4894			0.1000	8.2		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4671 0.5513	0.5916 0.4665	0.5185	0.5351	0.4806	Ave		0.5158			0.1000	9.2		20.0			
Acetone	0.1321 0.1757	0.1481 0.1670	0.1445	0.1350	0.1748	Ave		0.1539			0.0500	12.0		20.0			
Iodomethane	0.6455 0.7980	0.7651 0.6797	0.7432	0.7684	0.7009	Ave		0.7287			0.0100	7.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9027 1.5364	1.1305 1.2789	1.1506	1.3176	1.2259	Ave		1.2204			0.1000	16.0		20.0			
Allyl chloride	0.1150 0.3165	0.1597 0.2649	0.2558	0.2757	0.2527	Qua	-12.54	0.3691	0		0.0100				0.9970		0.9900
Methyl acetate	0.1519 0.1786	0.1522 0.1560	0.1706	0.1759	0.1603	Ave		0.1637			0.1000	6.9		20.0			
Methylene Chloride	1.2207 0.4942	0.9011 0.3979	0.6411	0.5243	0.4649	Qua	13.006	0.5150	0		0.1000				0.9960		0.9900
tert-Butyl alcohol	2.0370 1.6775	1.9516 2.1130	1.9286	1.9343	1.8347	Ave		1.9253			0.0100	7.3		20.0			
Acrylonitrile	0.0477 0.0862	0.0518 0.0773	0.0763	0.0766	0.0715	Lin2	-9.155	0.0800			0.0100				0.9920		0.9900
trans-1,2-Dichloroethene	0.4746 0.5271	0.5241 0.4620	0.4909	0.5262	0.4865	Ave		0.4988			0.1000	5.4		20.0			
Methyl tert-butyl ether	0.7028 0.7992	0.7076 0.6704	0.7788	0.7651	0.7072	Ave		0.7330			0.1000	6.5		20.0			
Hexane	1.0750 0.8289	1.0295 0.7358	0.8511	0.8484	0.7980	Ave		0.8809			0.0100	14.0		20.0			
1,1-Dichloroethane	0.7227 0.8192	0.7830 0.6971	0.7647	0.7772	0.7331	Ave		0.7567			0.2000	5.5		20.0			
Vinyl acetate	0.0564 0.2197	0.1040 +++++	0.1712	0.1681	0.2031	Qua	-4.309	0.1970	0		0.0100				0.9980		0.9900
2,2-Dichloropropane	0.3434 0.4826	0.4293 0.4186	0.4167	0.4770	0.4184	Ave		0.4266			0.0100	11.0		20.0			
cis-1,2-Dichloroethene	0.4679 0.5209	0.4369 0.4475	0.4786	0.4951	0.4730	Ave		0.4743			0.1000	5.9		20.0			
2-Butanone (MEK)	0.1539 0.1828	0.1951 0.1948	0.1553	0.1629	0.1844	Qua	-0.464	0.1719	0		0.0500				1.0000		0.9900
Chlorobromomethane	0.1619 0.1969	0.1573 0.1768	0.1676	0.1834	0.1746	Ave		0.1741			0.0100	7.7		20.0			
Tetrahydrofuran	0.0737 0.0678	0.0572 0.0641	0.0645	0.0658	0.0598	Ave		0.0647			0.0100	8.3		20.0			
Chloroform	0.6002 0.6531	0.6429 0.5808	0.6168	0.6331	0.5920	Ave		0.6170			0.2000	4.4		20.0			
1,1,1-Trichloroethane	0.4973 0.6431	0.5578 0.5465	0.5797	0.5927	0.5764	Ave		0.5705			0.1000	7.8		20.0			
Cyclohexane	1.0205 1.1436	1.2222 0.9215	1.1515	1.1393	1.0504	Ave		1.0927			0.1000	9.2		20.0			
Carbon tetrachloride	0.4426 0.5654	0.4748 0.4901	0.4938	0.5204	0.4831	Ave		0.4957			0.1000	7.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	0.3776 0.5410	0.5139 0.4807	0.4737	0.5088	0.4949	Ave		0.4844			0.0100	11.0		20.0			
Benzene	1.5275 1.5923	1.6560 1.3267	1.5945	1.6610	1.5441	Ave		1.5575			0.5000	7.3		20.0			
1,2-Dichloroethane	0.3150 0.3410	0.3009 0.3141	0.3286	0.3311	0.3128	Ave		0.3205			0.1000	4.3		20.0			
Isobutyl alcohol	0.0133 0.0170	0.0168 0.0152	0.0173	0.0169	0.0159	Ave		0.0161			0.0100	8.9		20.0			
n-Heptane	0.6518 0.7869	0.8014 0.7006	0.7665	0.7889	0.7888	Ave		0.7550			0.0100	7.5		20.0			
Trichloroethene	0.4547 0.4685	0.4175 0.4352	0.4402	0.4423	0.4260	Ave		0.4406			0.2000	3.9		20.0			
Methylcyclohexane	0.8793 1.0244	1.0109 0.8159	0.9959	0.9858	0.9288	Ave		0.9487			0.1000	8.2		20.0			
1,2-Dichloropropane	0.3485 0.3606	0.3497 0.3362	0.3671	0.3616	0.3369	Ave		0.3515			0.1000	3.5		20.0			
Dibromomethane	0.1270 0.1523	0.1282 0.1442	0.1494	0.1442	0.1387	Ave		0.1406			0.0100	7.0		20.0			
1,4-Dioxane	0.0021 0.0019	0.0023 0.0021	0.0023	0.0021	0.0015	Ave		0.0020		*	0.0100	14.0		20.0			
Dichlorobromomethane	0.2490 0.3780	0.3023 0.3634	0.3095	0.3438	0.3389	Ave		0.3264			0.2000	13.0		20.0			
cis-1,3-Dichloropropene	0.3014 0.4538	0.3547 0.4415	0.3686	0.4181	0.3825	Ave		0.3887			0.2000	14.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.9360 1.4738	1.4197 1.4303	1.3830	1.6087	1.5163	Ave		1.3954			0.1000	15.0		20.0			
Toluene	7.9788 6.7181	8.4502 5.4985	7.7324	7.7853	7.6322	Ave		7.3994			0.4000	13.0		20.0			
trans-1,3-Dichloropropene	0.8766 1.2574	0.7801 1.2907	1.0525	1.2601	1.1693	Ave		1.0981			0.1000	18.0		20.0			
Ethyl methacrylate	0.1631 1.0726	0.2121 1.0722	0.8491	1.0919	1.0423	Lin1	-28.89	1.1139			0.0100				0.9960		0.9900
1,1,2-Trichloroethane	0.9726 0.9773	1.1653 0.9110	1.0612	1.1082	1.0212	Ave		1.0310			0.1000	8.5		20.0			
Tetrachloroethene	1.7878 1.6147	2.0820 1.4641	1.7221	1.8068	1.7144	Ave		1.7417			0.2000	11.0		20.0			
1,3-Dichloropropane	1.2219 1.5526	1.6883 1.4420	1.7200	1.7216	1.6394	Ave		1.5694			0.0100	12.0		20.0			
2-Hexanone	0.1408 1.0705	0.1575 1.0610	0.6819	1.0783	0.9877	Lin1	-31.74	1.0997			0.1000				0.9940		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.7914 1.0234	0.8277 0.9957	0.8601	0.9461	0.9756	Ave		0.9171			0.1000	9.8		20.0			
1,2-Dibromoethane	0.1690 0.8835	0.4496 0.8537	0.8887	0.9168	0.8105	Lin2	-19.55	0.9320			0.1000				0.9900		0.9900
Chlorobenzene	4.8035 4.7292	5.5253 4.0456	5.1674	5.2433	5.1080	Ave		4.9460			0.5000	9.7		20.0			
1,1,1,2-Tetrachloroethane	1.1959 1.5214	1.4008 1.3937	1.5347	1.5651	1.5688	Ave		1.4544			0.0100	9.3		20.0			
Ethylbenzene	2.5808 2.6946	3.1480 2.3519	2.8367	3.0783	2.9555	Ave		2.8065			0.1000	10.0		20.0			
m-Xylene & p-Xylene	0.5913 3.4348	3.2095 2.9027	3.7266	3.7782	3.5624	Qua	-56.05	4.1192	-0.001		0.1000				1.0000		0.9900
o-Xylene	3.2454 3.2760	3.9020 2.7377	3.5665	3.7490	3.5580	Ave		3.4335			0.3000	11.0		20.0			
Styrene	3.8033 5.0833	5.1673 4.2856	5.2029	5.6133	5.3118	Ave		4.9239			0.3000	13.0		20.0			
Bromoform	0.2075 0.6196	0.4201 0.6567	0.5033	0.5343	0.5123	Lin2	-10.11	0.6081			0.1000				0.9940		0.9900
Isopropylbenzene	9.1038 8.3910	10.864 6.2709	9.7448	10.166	9.4968	Ave		9.1482			0.1000	16.0		20.0			
1,1,2,2-Tetrachloroethane	1.1062 1.1716	1.1731 1.0419	1.1853	1.2190	1.1207	Ave		1.1454			0.3000	5.2		20.0			
Bromobenzene	1.6804 1.2928	1.3828 1.1367	1.4944	1.3681	1.3124	Ave		1.3811			0.0100	12.0		20.0			
1,2,3-Trichloropropane	0.2698 0.2242	0.2850 0.1945	0.2552	0.2233	0.2175	Ave		0.2385			0.0100	14.0		20.0			
trans-1,4-Dichloro-2-butene	0.0200 0.0247	0.0678 0.1487	0.1036	0.1357	0.1332	Ave		0.0905			0.0100	59.0	*	20.0			
N-Propylbenzene	2.1493 1.8396	2.3566 1.5234	2.1683	2.0781	1.9727	Ave		2.0126			0.0100	13.0		20.0			
2-Chlorotoluene	1.9530 1.4665	1.9851 1.2344	1.7373	1.6815	1.5002	Ave		1.6511			0.0100	16.0		20.0			
1,3,5-Trimethylbenzene	7.2043 4.7037	7.0416 3.4727	6.0184	5.6681	5.3434	Qua	48.658	5.7682	-0.002		0.0100				1.0000		0.9900
4-Chlorotoluene	1.2567 1.4558	1.8350 1.2644	1.6192	1.5419	1.4316	Ave		1.4864			0.0100	14.0		20.0			
tert-Butylbenzene	6.9241 4.5122	7.3065 3.3258	6.6800	5.3648	5.0338	Qua	81.309	5.4274	-0.002		0.0100				0.9980		0.9900
1,2,4-Trimethylbenzene	6.0054 4.6999	6.6893 3.5154	5.9118	5.5482	5.2169	Ave		5.3696			0.0100	19.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	10.041 6.2750	10.750 4.3839	8.3828	7.8114	7.2534	Qua	94.549	7.8529	-0.003		0.0100				1.0000		0.9900
1,3-Dichlorobenzene	1.6811 2.4810	2.5306 2.0969	2.5659	2.5102	2.4523	Ave		2.3311			0.6000	14.0		20.0			
4-Isopropyltoluene	7.6164 5.4041	8.3263 3.9251	7.0461	6.5817	6.2631	Qua	55.560	6.7286	-0.002		0.0100				1.0000		0.9900
1,4-Dichlorobenzene	3.7586 2.6835	3.5090 2.2595	3.2268	2.9629	2.8791	Ave		3.0399			0.5000	17.0		20.0			
n-Butylbenzene	5.7391 4.9621	6.4626 3.8509	5.6975	5.5432	5.4679	Ave		5.3890			0.0100	15.0		20.0			
1,2-Dichlorobenzene	3.1322 2.3010	2.9475 1.9252	2.6571	2.5041	2.3493	Ave		2.5452			0.4000	16.0		20.0			
1,2-Dibromo-3-Chloropropane	0.0153 0.0902	0.0101 0.1032	0.0671	0.0793	0.0681	Qua	-2.564	0.0817	0		0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.6162 0.9536	0.6827 1.0099	0.8550	0.8751	0.9754	Ave		0.8526			0.2000	18.0		20.0			
Hexachlorobutadiene	1.6873 1.1253	1.5166 1.0107	1.3800	1.3003	1.2741	Ave		1.3277			0.0100	17.0		20.0			
Naphthalene	0.4876 1.0480	0.3310 1.1259	0.6854	1.0406	1.0148	Lin1	-26.37	1.1181			0.0100				0.9930		0.9900
1,2,3-Trichlorobenzene	0.0470 0.7089	0.2848 0.7208	0.6846	0.7237	0.7078	Qua	-14.57	0.7570	0		0.0100				1.0000		0.9900
Dibromofluoromethane (Surr)	0.3045 0.3305	0.2691 0.3016	0.3057	0.3311	0.3001	Ave		0.3061				6.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2595 0.2570	0.2101 0.2546	0.2663	0.2519	0.2365	Ave		0.2480				7.7		20.0			
Toluene-d8 (Surr)	6.1736 5.2673	6.1566 4.4177	5.7873	6.2079	5.7016	Ave		5.6732				11.0		20.0			
4-Bromofluorobenzene (Surr)	1.0462 2.0432	1.6899 1.8724	1.9232	2.0984	1.9897	Ave		1.8090				20.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-107478/3	4060303.D
Level 2	IC 180-107478/4	4060304.D
Level 3	IC 180-107478/5	4060305.D
Level 4	ICIS 180-107478/6	4060306.D
Level 5	IC 180-107478/7	4060307.D
Level 6	IC 180-107478/8	4060308.D
Level 7	IC 180-107478/9	4060309.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	31458 853875	70750 1869499	162959	278707	336725	25.0 625	50.0 1250	125	200	250
Chloromethane	FB	Ave	43672 1072684	95443 2297643	209803	364180	437561	25.0 625	50.0 1250	125	200	250
Vinyl chloride	FB	Ave	35944 897253	75600 1931879	171111	287586	350551	25.0 625	50.0 1250	125	200	250
1,3-Butadiene	FB	Ave	34226 893383	78788 1897569	162470	298926	356216	25.0 625	50.0 1250	125	200	250
Bromomethane	FB	Ave	10791 250512	21072 563541	51325	84704	102793	25.0 625	50.0 1250	125	200	250
Chloroethane	FB	Ave	16018 311875	28838 534610	71447	107278	148170	25.0 625	50.0 1250	125	200	250
Dichlorofluoromethane	FB	Ave	37592 967869	81486 1912847	193275	308719	399776	25.0 625	50.0 1250	125	200	250
Trichlorofluoromethane	FB	Ave	34761 901262	74545 1909728	168507	288511	365195	25.0 625	50.0 1250	125	200	250
Ethyl ether	FB	Ave	17485 454943	31477 1042135	81689	146534	178217	25.0 625	50.0 1250	125	200	250
Acrolein	FB	Ave	22060 31770	24998 56583	27751	31949	34150	500 1125	625 1250	750	875	1000
1,1-Dichloroethene	FB	Ave	24860 736894	57081 1574016	131150	232051	286608	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	26307 749434	63713 1657918	138123	243923	294178	25.0 625	50.0 1250	125	200	250
Acetone	FB	Ave	7440 238833	15955 593520	38491	61564	106993	25.0 625	50.0 1250	125	200	250
Iodomethane	FB	Ave	36357 1084865	82402 2415711	197972	350283	429090	25.0 625	50.0 1250	125	200	250
Carbon disulfide	FB	Ave	50839 2088584	121759 4545741	306500	600660	750467	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Qua	6478 430194	17201 941697	68139	125698	154664	25.0 625	50.0 1250	125	200	250
Methyl acetate	FB	Ave	42773 1214263	81949 2772831	227261	400963	490611	125 3125	250 6250	625	1000	1250
Methylene Chloride	FB	Qua	68749 671813	97048 1414232	170766	239031	284616	25.0 625	50.0 1250	125	200	250
tert-Butyl alcohol	TBA	Ave	11369 238785	18400 665744	50693	82030	95008	250 6250	500 12500	1250	2000	2500
Acrylonitrile	FB	Lin2	26863 1171700	55798 2747419	203263	349335	437729	250 6250	500 12500	1250	2000	2500
trans-1,2-Dichloroethene	FB	Ave	26731 716611	56452 1642026	130770	239870	297804	25.0 625	50.0 1250	125	200	250
Methyl tert-butyl ether	FB	Ave	39579 1086458	76208 2382696	207457	348786	432901	25.0 625	50.0 1250	125	200	250
Hexane	FB	Ave	60544 1126763	110877 2615355	226702	386773	488483	25.0 625	50.0 1250	125	200	250
1,1-Dichloroethane	FB	Ave	40704 1113593	84332 2477766	203698	354327	448775	25.0 625	50.0 1250	125	200	250
Vinyl acetate	FB	Qua	3177 298647	11206 +++++	45608	76630	124329	25.0 625	50.0 +++++	125	200	250
2,2-Dichloropropane	FB	Ave	19343 656076	46236 1487976	110986	217463	256138	25.0 625	50.0 1250	125	200	250
cis-1,2-Dichloroethene	FB	Ave	26353 708059	47054 1590727	127492	225724	289551	25.0 625	50.0 1250	125	200	250
2-Butanone (MEK)	FB	Qua	8668 248530	21015 692327	41366	74278	112866	25.0 625	50.0 1250	125	200	250
Chlorobromomethane	FB	Ave	9120 267649	16941 628354	44632	83601	106906	25.0 625	50.0 1250	125	200	250
Tetrahydrofuran	FB	Ave	8296 184463	12329 455672	34366	59985	73186	50.0 1250	100 2500	250	400	500
Chloroform	FB	Ave	33804 887828	69246 2064409	164310	288601	362407	25.0 625	50.0 1250	125	200	250
1,1,1-Trichloroethane	FB	Ave	28006 874238	60074 1942330	154416	270199	352859	25.0 625	50.0 1250	125	200	250
Cyclohexane	FB	Ave	57475 1554565	131629 3275225	306727	519372	643016	25.0 625	50.0 1250	125	200	250
Carbon tetrachloride	FB	Ave	24926 768561	51136 1741871	131539	237244	295756	25.0 625	50.0 1250	125	200	250
1,1-Dichloropropene	FB	Ave	21269 735441	55343 1708387	126193	231940	302977	25.0 625	50.0 1250	125	200	250
Benzene	FB	Ave	86031 2164590	178355 4715365	424745	757215	945261	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	17743 463582	32404 1116464	87531	150946	191487	25.0 625	50.0 1250	125	200	250
Isobutyl alcohol	FB	Ave	18671 577610	45358 1354257	115432	192302	244069	625 15625	1250 31250	3125	5000	6250
n-Heptane	FB	Ave	36710 1069765	86313 2490271	204187	359628	482883	25.0 625	50.0 1250	125	200	250
Trichloroethene	FB	Ave	25606 636865	44967 1546774	117260	201647	260770	25.0 625	50.0 1250	125	200	250
Methylcyclohexane	FB	Ave	49523 1392517	108876 2900144	265285	449404	568566	25.0 625	50.0 1250	125	200	250
1,2-Dichloropropane	FB	Ave	19627 490182	37664 1195123	97788	164854	206211	25.0 625	50.0 1250	125	200	250
Dibromomethane	FB	Ave	7150 207079	13808 512387	39794	65723	84905	25.0 625	50.0 1250	125	200	250
1,4-Dioxane	FB	Ave	2414 52785	4990 146373	12006	19340	17839	500 12500	1000 25000	2500	4000	5000
Dichlorobromomethane	FB	Ave	14023 513809	32559 1291669	82433	156750	207432	25.0 625	50.0 1250	125	200	250
cis-1,3-Dichloropropene	FB	Ave	16975 616870	38205 1569225	98185	190621	234138	25.0 625	50.0 1250	125	200	250
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	11262 512527	33629 1275431	87030	167458	210627	25.0 625	50.0 1250	125	200	250
Toluene	CBZ	Ave	96006 2336210	200167 4903061	486576	810387	1060177	25.0 625	50.0 1250	125	200	250
trans-1,3-Dichloropropene	CBZ	Ave	10548 437269	18479 1150943	66230	131169	162430	25.0 625	50.0 1250	125	200	250
Ethyl methacrylate	CBZ	Lin1	1963 373010	5023 956083	53432	113663	144791	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloroethane	CBZ	Ave	11703 339867	27603 812342	66780	115350	141849	25.0 625	50.0 1250	125	200	250
Tetrachloroethene	CBZ	Ave	21512 561525	49319 1305528	108367	188069	238148	25.0 625	50.0 1250	125	200	250
1,3-Dichloropropane	CBZ	Ave	14703 539903	39991 1285839	108236	179206	227726	25.0 625	50.0 1250	125	200	250
2-Hexanone	CBZ	Lin1	1694 372272	3732 946066	42913	112247	137204	25.0 625	50.0 1250	125	200	250
Chlorodibromomethane	CBZ	Ave	9522 355890	19606 887866	54126	98478	135525	25.0 625	50.0 1250	125	200	250
1,2-Dibromoethane	CBZ	Lin2	2033 307228	10649 761274	55921	95431	112585	25.0 625	50.0 1250	125	200	250
Chlorobenzene	CBZ	Ave	57798 1644564	130883 3607456	325166	545788	709554	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	14390 529066	33183 1242745	96577	162919	217927	25.0 625	50.0 1250	125	200	250
Ethylbenzene	CBZ	Ave	31054 937035	74570 2097205	178507	320422	410541	25.0 625	50.0 1250	125	200	250
m-Xylene & p-Xylene	CBZ	Qua	7115 1194443	76026 2588369	234501	393283	494843	25.0 625	50.0 1250	125	200	250
o-Xylene	CBZ	Ave	39051 1139225	92430 2441197	224430	390237	494237	25.0 625	50.0 1250	125	200	250
Styrene	CBZ	Ave	45763 1767720	122402 3821505	327406	584296	737851	25.0 625	50.0 1250	125	200	250
Bromoform	CBZ	Lin2	2497 215453	9952 585557	31669	55620	71163	25.0 625	50.0 1250	125	200	250
Isopropylbenzene	CBZ	Ave	109542 2917967	257339 5591752	613208	1058219	1319197	25.0 625	50.0 1250	125	200	250
1,1,2,2-Tetrachloroethane	CBZ	Ave	13311 407437	27788 929031	74589	126892	155669	25.0 625	50.0 1250	125	200	250
Bromobenzene	DCB	Ave	21835 681279	39563 1597112	122392	206485	273117	25.0 625	50.0 1250	125	200	250
1,2,3-Trichloropropane	DCB	Ave	3506 118147	8154 273255	20899	33708	45252	25.0 625	50.0 1250	125	200	250
trans-1,4-Dichloro-2-butene	DCB	Ave	260 13039	1939 208937	8481	20483	27710	25.0 625	50.0 1250	125	200	250
N-Propylbenzene	DCB	Ave	27927 969443	67423 2140511	177588	313639	410531	25.0 625	50.0 1250	125	200	250
2-Chlorotoluene	DCB	Ave	25377 772863	56794 1734463	142287	253783	312186	25.0 625	50.0 1250	125	200	250
1,3,5-Trimethylbenzene	DCB	Qua	93610 2478853	201464 4879395	492919	855464	1111969	25.0 625	50.0 1250	125	200	250
4-Chlorotoluene	DCB	Ave	16329 767206	52500 1776601	132611	232706	297928	25.0 625	50.0 1250	125	200	250
tert-Butylbenzene	DCB	Qua	89969 2377898	209042 4673004	547098	809679	1047543	25.0 625	50.0 1250	125	200	250
1,2,4-Trimethylbenzene	DCB	Ave	78032 2476853	191384 4939352	484183	837367	1085643	25.0 625	50.0 1250	125	200	250
sec-Butylbenzene	DCB	Qua	130474 3306921	307556 6159727	686560	1178932	1509453	25.0 625	50.0 1250	125	200	250
1,3-Dichlorobenzene	DCB	Ave	21844 1307456	72401 2946226	210148	378858	510341	25.0 625	50.0 1250	125	200	250
4-Isopropyltoluene	DCB	Qua	98964 2847929	238221 5514991	577084	993349	1303380	25.0 625	50.0 1250	125	200	250
1,4-Dichlorobenzene	DCB	Ave	48838 1414211	100396 3174777	264282	447171	599144	25.0 625	50.0 1250	125	200	250

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1 Analy Batch No.: 107478

SDG No.:

Instrument ID: CHHP4 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/03/2014 11:03 Calibration End Date: 06/03/2014 14:15 Calibration ID: 16013

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	74571 2615011	184898 5410806	466632	836600	1137877	25.0 625	50.0 1250	125	200	250
1,2-Dichlorobenzene	DCB	Ave	40699 1212604	84330 2704973	217623	377929	488892	25.0 625	50.0 1250	125	200	250
1,2-Dibromo-3-Chloropropane	DCB	Qua	199 47555	290 144957	5498	11961	14165	25.0 625	50.0 1250	125	200	250
1,2,4-Trichlorobenzene	DCB	Ave	8007 502567	19532 1418965	70024	132078	202975	25.0 625	50.0 1250	125	200	250
Hexachlorobutadiene	DCB	Ave	21924 593016	43390 1420121	113022	196247	265141	25.0 625	50.0 1250	125	200	250
Naphthalene	DCB	Lin1	6336 552309	9471 1582030	56133	157046	211173	25.0 625	50.0 1250	125	200	250
1,2,3-Trichlorobenzene	DCB	Qua	611 373589	8149 1012752	56072	109220	147300	25.0 625	50.0 1250	125	200	250
Dibromofluoromethane (Surr)	FB	Ave	17152 449327	28981 1071890	81429	150923	183705	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane-d4 (Surr)	FB	Ave	14615 349327	22633 905001	70946	114838	144768	25.0 625	50.0 1250	125	200	250
Toluene-d8 (Surr)	CBZ	Ave	74285 1831708	145836 3939297	364180	646195	792003	25.0 625	50.0 1250	125	200	250
4-Bromofluorobenzene (Surr)	CBZ	Ave	12589 710520	40029 1669671	121021	218423	276387	25.0 625	50.0 1250	125	200	250

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060303.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Jun-2014 11:03:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0001537-003
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:27 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 13:27:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.761	4.767	-0.006	93	111625	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.680	7.680	0.000	99	563201	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.776	10.763	0.013	77	120326	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.135	13.098	0.037	84	129936	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.944	6.932	0.012	24	17152	25.0	24.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.315	7.309	0.006	49	14615	25.0	26.2	
$ 7 Toluene-d8 (Surr)	98	9.340	9.316	0.024	77	74285	25.0	27.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.992	11.943	0.049	71	12589	25.0	14.5	
10 Dichlorodifluoromethane	85	1.757	1.757	0.000	72	31458	25.0	23.6	
11 Chloromethane	50	1.958	1.963	-0.005	83	43672	25.0	25.1	
12 Vinyl chloride	62	2.110	2.115	-0.005	67	35944	25.0	25.4	
13 Butadiene	39	2.146	2.152	-0.006	86	34226	25.0	24.3	
14 Bromomethane	94	2.499	2.492	0.007	74	10791	25.0	26.3	
15 Chloroethane	64	2.614	2.614	0.000	67	16018	25.0	29.7	
16 Dichlorofluoromethane	67	2.943	2.949	-0.006	55	37592	25.0	24.7	
17 Trichlorofluoromethane	101	2.967	2.967	0.000	66	34761	25.0	24.7	
19 Ethyl ether	59	3.466	3.472	-0.006	72	17485	25.0	25.3	
20 Acrolein	56	3.673	3.672	0.001	74	22060	500.0	599.3	M
21 1,1-Dichloroethene	96	3.782	3.782	0.000	79	24860	25.0	22.5	
22 1,1,2-Trichloro-1,2,2-trif	101	3.837	3.849	-0.012	50	26307	25.0	22.6	
23 Acetone	43	3.946	3.958	-0.012	17	7440	25.0	21.5	
24 Iodomethane	142	4.013	4.007	0.006	92	36357	25.0	22.1	
25 Carbon disulfide	76	4.110	4.104	0.006	95	50839	25.0	18.5	
28 3-Chloro-1-propene	76	4.408	4.408	0.000	72	6478	25.0	42.1	
29 Methyl acetate	43	4.518	4.487	0.031	92	42773	125.0	116.0	
30 Methylene Chloride	84	4.609	4.603	0.006	96	68749	25.0	34.2	
31 2-Methyl-2-propanol	59	4.877	4.901	-0.024	75	11369	250.0	264.5	
32 Acrylonitrile	53	5.035	5.004	0.031	93	26863	250.0	263.4	
33 trans-1,2-Dichloroethene	96	5.023	5.016	0.007	87	26731	25.0	23.8	
34 Methyl tert-butyl ether	73	5.053	5.047	0.006	88	39579	25.0	24.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.418	5.418	0.000	91	60544	25.0	30.5	
36 1,1-Dichloroethane	63	5.619	5.600	0.019	70	40704	25.0	23.9	
38 Vinyl acetate	43	5.801	5.740	0.061	58	3177	25.0	31.7	
41 2,2-Dichloropropane	77	6.355	6.348	0.006	69	19343	25.0	20.1	
42 cis-1,2-Dichloroethene	96	6.367	6.360	0.007	74	26353	25.0	24.7	
43 2-Butanone (MEK)	43	6.452	6.421	0.031	89	8668	25.0	25.0	
46 Chlorobromomethane	128	6.646	6.646	0.000	73	9120	25.0	23.3	
48 Tetrahydrofuran	42	6.738	6.713	0.025	43	8296	50.0	56.9	
49 Chloroform	83	6.750	6.749	0.001	77	33804	25.0	24.3	
50 1,1,1-Trichloroethane	97	6.944	6.944	0.000	83	28006	25.0	21.8	
51 Cyclohexane	56	7.005	7.005	0.000	88	57475	25.0	23.3	
53 Carbon tetrachloride	117	7.139	7.133	0.006	82	24926	25.0	22.3	
52 1,1-Dichloropropene	75	7.151	7.139	0.012	85	21269	25.0	19.5	
54 Benzene	78	7.370	7.364	0.006	89	86031	25.0	24.5	
55 1,2-Dichloroethane	62	7.394	7.394	0.000	56	17743	25.0	24.6	
58 n-Heptane	43	7.680	7.674	0.006	40	36710	25.0	21.6	
59 Isobutyl alcohol	41	7.674	7.674	0.000	28	18671	625.0	515.7	
61 Trichloroethene	130	8.088	8.069	0.019	74	25606	25.0	25.8	
63 Methylcyclohexane	83	8.258	8.264	-0.006	80	49523	25.0	23.2	
64 1,2-Dichloropropane	63	8.301	8.300	0.001	75	19627	25.0	24.8	
65 Dibromomethane	93	8.440	8.428	0.012	62	7150	25.0	22.6	
67 1,4-Dioxane	88	8.501	8.458	0.043	27	2414	500.0	524.8	
68 Dichlorobromomethane	83	8.592	8.592	0.000	59	14023	25.0	19.1	
71 cis-1,3-Dichloropropene	75	9.073	9.054	0.019	43	16975	25.0	19.4	
72 4-Methyl-2-pentanone (MIBK	43	9.249	9.212	0.037	1	11262	25.0	16.8	
73 Toluene	91	9.401	9.383	0.018	95	96006	25.0	27.0	
74 trans-1,3-Dichloropropene	75	9.657	9.614	0.043	38	10548	25.0	20.0	
75 Ethyl methacrylate	69	9.809	9.705	0.104	1	1963	25.0	29.6	
76 1,1,2-Trichloroethane	97	9.803	9.790	0.013	58	11703	25.0	23.6	
77 Tetrachloroethene	164	9.949	9.930	0.019	76	21512	25.0	25.7	
78 1,3-Dichloropropane	76	9.979	9.954	0.025	43	14703	25.0	19.5	
79 2-Hexanone	43	10.234	10.082	0.152	1	1694	25.0	32.1	
81 Chlorodibromomethane	129	10.198	10.191	0.007	30	9522	25.0	21.6	
82 Ethylene Dibromide	107	10.386	10.313	0.073	1	2033	25.0	25.5	
84 Chlorobenzene	112	10.800	10.793	0.007	82	57798	25.0	24.3	
85 1,1,1,2-Tetrachloroethane	131	10.879	10.866	0.013	55	14390	25.0	20.6	
86 Ethylbenzene	106	10.928	10.897	0.031	87	31054	25.0	23.0	
87 m-Xylene & p-Xylene	106	11.116	11.018	0.098	51	7115	25.0	17.3	
88 o-Xylene	106	11.438	11.408	0.030	61	39051	25.0	23.6	
89 Styrene	104	11.499	11.426	0.073	76	45763	25.0	19.3	
90 Bromoform	173	11.651	11.627	0.024	1	2497	25.0	25.2	
91 Isopropylbenzene	105	11.803	11.773	0.030	83	109542	25.0	24.9	
93 1,1,2,2-Tetrachloroethane	83	12.101	12.064	0.037	26	13311	25.0	24.1	
94 Bromobenzene	156	12.138	12.101	0.037	62	21835	25.0	30.4	
95 1,2,3-Trichloropropane	110	12.144	12.125	0.019	15	3506	25.0	28.3	
96 trans-1,4-Dichloro-2-buten	53	12.241	12.180	0.061	1	260	25.0	5.53	M
97 N-Propylbenzene	120	12.229	12.186	0.043	90	27927	25.0	26.7	
98 2-Chlorotoluene	126	12.308	12.277	0.031	83	25377	25.0	29.6	
99 1,3,5-Trimethylbenzene	105	12.381	12.356	0.025	84	93610	25.0	23.0	
100 4-Chlorotoluene	126	12.454	12.393	0.061	57	16329	25.0	21.1	
101 tert-Butylbenzene	119	12.703	12.685	0.018	81	89969	25.0	17.0	
103 1,2,4-Trimethylbenzene	105	12.764	12.733	0.031	81	78032	25.0	28.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.928	12.904	0.024	80	130474	25.0	20.1	
105 1,3-Dichlorobenzene	146	13.080	13.037	0.043	4	21844	25.0	18.0	
106 4-Isopropyltoluene	119	13.087	13.050	0.037	74	98964	25.0	20.2	
107 1,4-Dichlorobenzene	146	13.153	13.123	0.030	43	48838	25.0	30.9	
110 n-Butylbenzene	91	13.567	13.469	0.098	70	74571	25.0	26.6	
111 1,2-Dichlorobenzene	146	13.573	13.506	0.067	50	40699	25.0	30.8	
112 1,2-Dibromo-3-Chloropropan	157	14.370	14.321	0.049	1	199	25.0	35.8	
113 1,2,4-Trichlorobenzene	180	15.233	15.154	0.079	4	8007	25.0	18.1	
115 Hexachlorobutadiene	225	15.312	15.288	0.024	53	21924	25.0	31.8	
116 Naphthalene	128	15.568	15.446	0.122	1	6336	25.0	34.5	
117 1,2,3-Trichlorobenzene	180	15.708	15.689	0.019	1	611	25.0	20.8	
S 130 Xylenes, Total	106				0		50.0	40.9	
S 129 1,2-Dichloroethene, Total	96				0		50.0	48.5	
S 131 1,3-Dichloropropene, Total	1				0		50.0	39.3	

QC Flag Legend

Review Flags
M - Manually Integrated

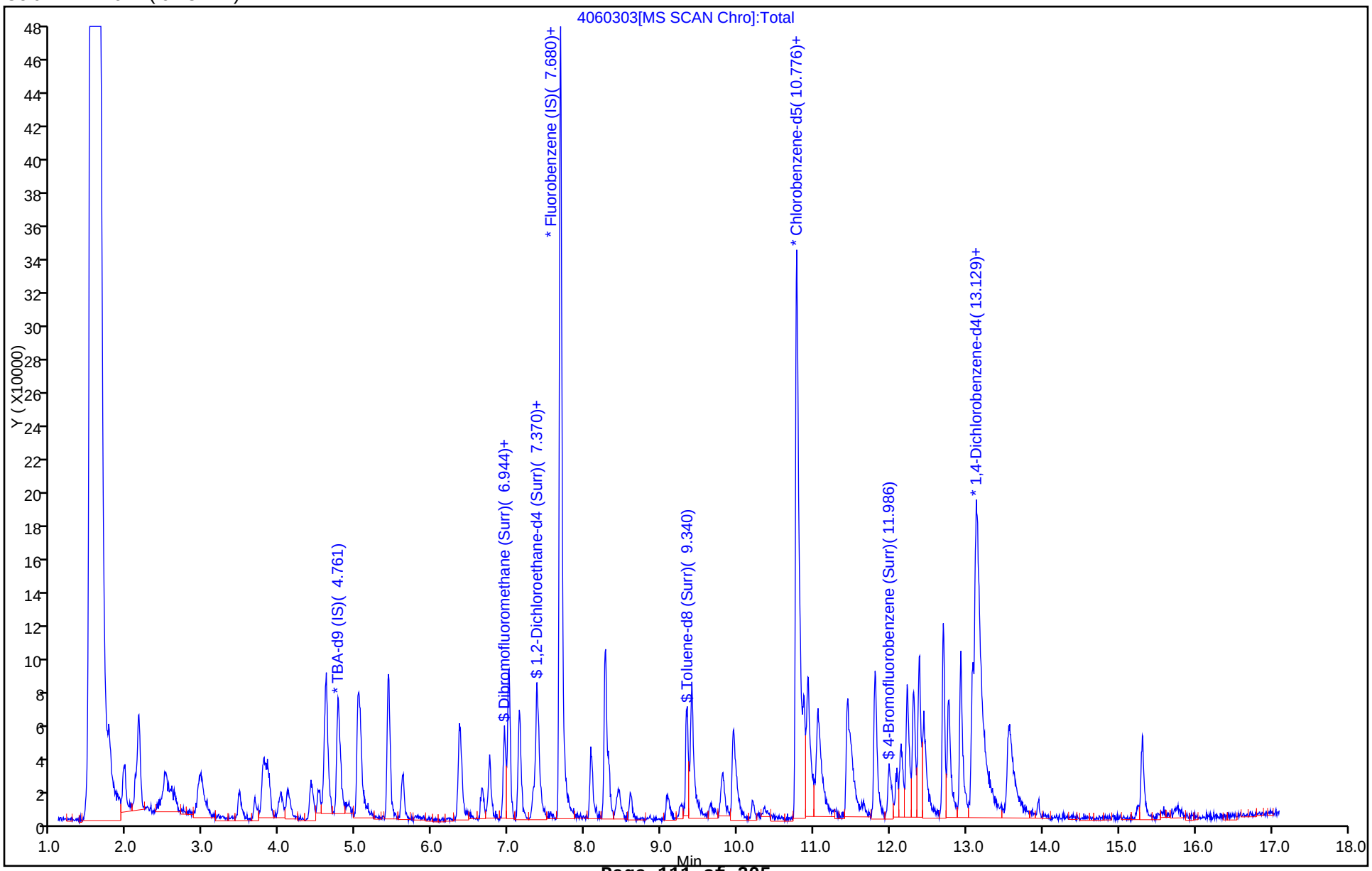
Report Date: 03-Jun-2014 14:07:28 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060303.D

Injection Date:	03-Jun-2014 11:03:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

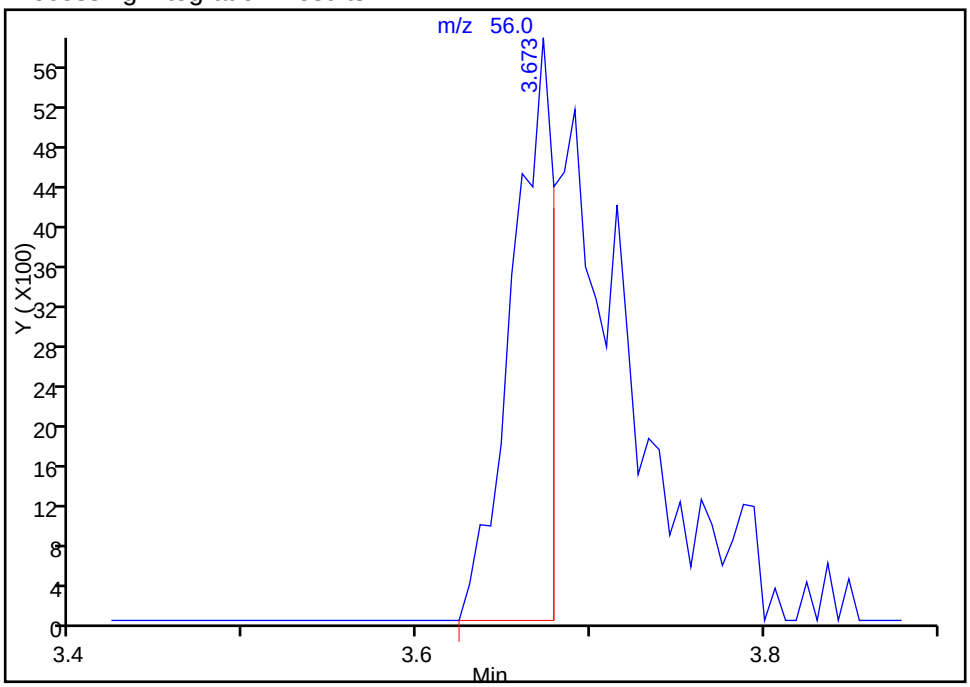
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060303.D
Injection Date: 03-Jun-2014 11:03:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

20 Acrolein, CAS: 107-02-8

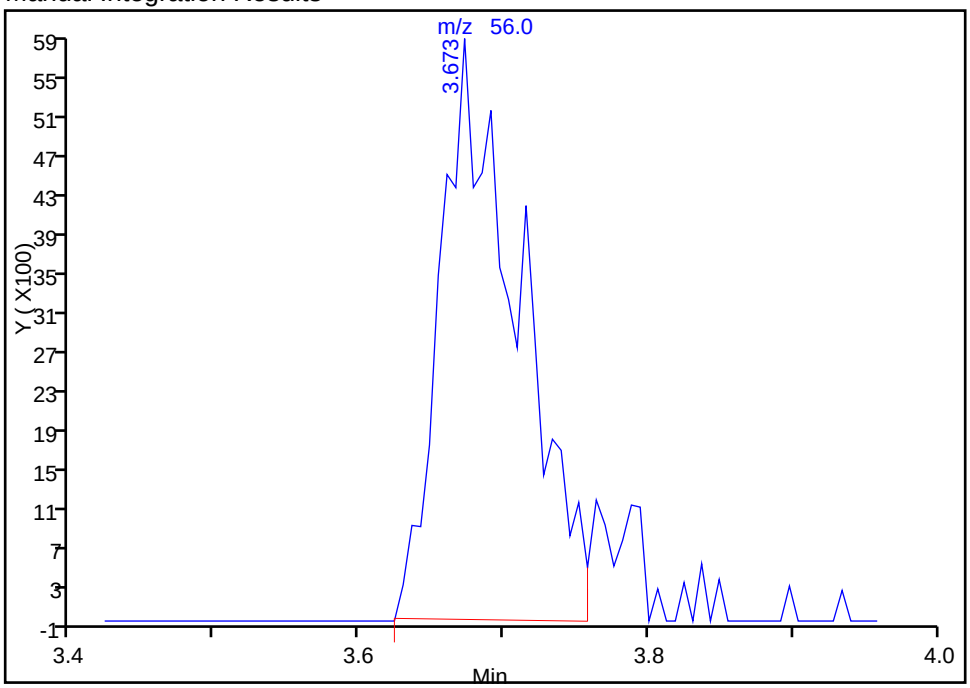
Processing Integration Results

RT: 3.67
Response: 9757
Amount: 284.7544



Manual Integration Results

RT: 3.67
Response: 22060
Amount: 599.2580



Reviewer: journetp, 03-Jun-2014 13:59:16
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

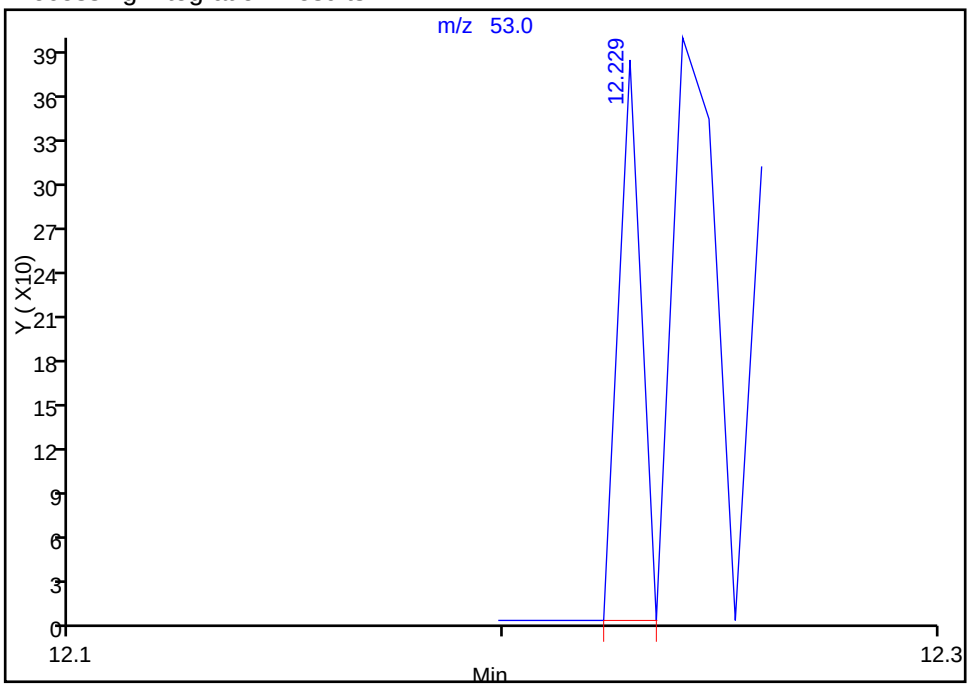
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060303.D
Injection Date: 03-Jun-2014 11:03:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

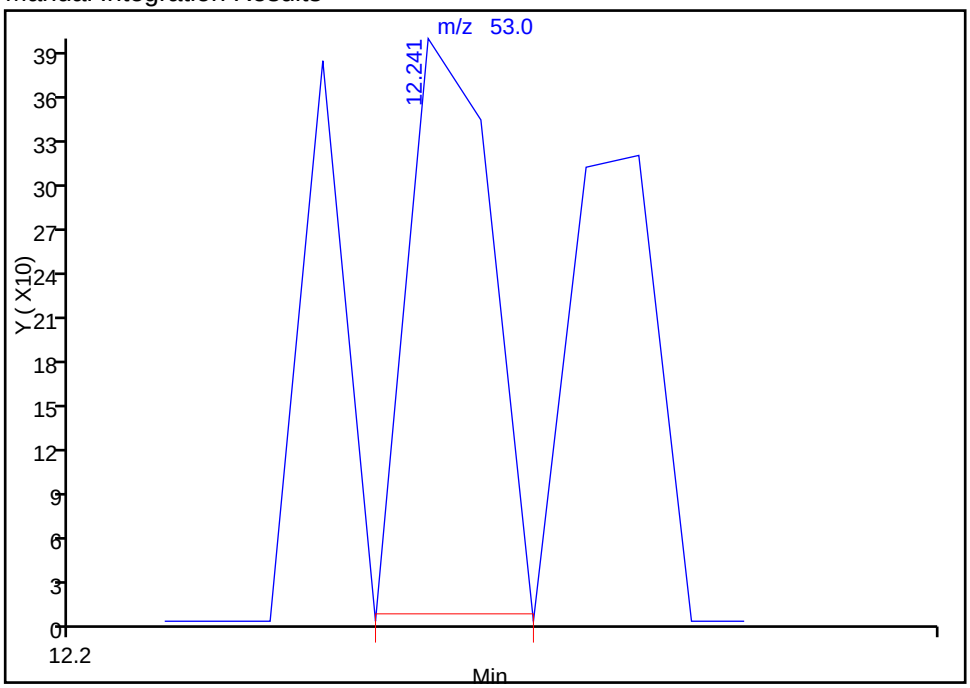
Processing Integration Results

RT: 12.23
Response: 138
Amount: 3.653890



Manual Integration Results

RT: 12.24
Response: 260
Amount: 5.526277



Reviewer: journetp, 03-Jun-2014 13:49:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060304.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Jun-2014 11:43:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0001537-004
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:30 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 13:25:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.773	4.767	0.006	95	94282	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.680	7.680	0.000	98	538510	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.776	10.763	0.013	75	118439	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.117	13.098	0.019	92	143053	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.938	6.932	0.006	21	28981	50.0	44.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.321	7.309	0.012	77	22633	50.0	42.4	
$ 7 Toluene-d8 (Surr)	98	9.328	9.316	0.012	83	145836	50.0	54.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.968	11.943	0.025	82	40029	50.0	46.7	
10 Dichlorodifluoromethane	85	1.757	1.757	0.000	94	70750	50.0	55.5	
11 Chloromethane	50	1.958	1.963	-0.005	95	95443	50.0	57.5	
12 Vinyl chloride	62	2.110	2.115	-0.005	96	75600	50.0	56.0	
13 Butadiene	39	2.146	2.152	-0.006	90	78788	50.0	58.5	
14 Bromomethane	94	2.499	2.492	0.007	73	21072	50.0	53.6	
15 Chloroethane	64	2.614	2.614	0.000	59	28838	50.0	55.9	
16 Dichlorofluoromethane	67	2.949	2.949	0.000	75	81486	50.0	56.0	
17 Trichlorofluoromethane	101	2.985	2.967	0.018	88	74545	50.0	55.4	
19 Ethyl ether	59	3.472	3.472	0.000	88	31477	50.0	47.6	
20 Acrolein	56	3.673	3.672	0.001	69	24998	625.0	710.2	M
21 1,1-Dichloroethene	96	3.782	3.782	0.000	80	57081	50.0	54.1	
22 1,1,2-Trichloro-1,2,2-trif	101	3.831	3.849	-0.018	73	63713	50.0	57.3	
23 Acetone	43	3.971	3.958	0.013	70	15955	50.0	48.1	
24 Iodomethane	142	4.007	4.007	0.000	92	82402	50.0	52.5	
25 Carbon disulfide	76	4.110	4.104	0.006	97	121759	50.0	46.3	
28 3-Chloro-1-propene	76	4.414	4.408	0.006	87	17201	50.0	56.2	
29 Methyl acetate	43	4.500	4.487	0.013	96	81949	250.0	232.5	
30 Methylene Chloride	84	4.597	4.603	-0.006	93	97048	50.0	63.0	
31 2-Methyl-2-propanol	59	4.895	4.901	-0.006	75	18400	500.0	506.8	
32 Acrylonitrile	53	5.029	5.004	0.025	89	55798	500.0	438.1	
33 trans-1,2-Dichloroethene	96	5.010	5.016	-0.006	98	56452	50.0	52.5	
34 Methyl tert-butyl ether	73	5.047	5.047	0.000	91	76208	50.0	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.418	5.418	0.000	94	110877	50.0	58.4	
36 1,1-Dichloroethane	63	5.606	5.600	0.006	81	84332	50.0	51.7	
38 Vinyl acetate	43	5.777	5.740	0.037	38	11206	50.0	49.6	
41 2,2-Dichloropropane	77	6.348	6.348	0.000	76	46236	50.0	50.3	
42 cis-1,2-Dichloroethene	96	6.361	6.360	0.000	64	47054	50.0	46.1	
43 2-Butanone (MEK)	43	6.452	6.421	0.031	52	21015	50.0	59.1	
46 Chlorobromomethane	128	6.646	6.646	0.000	77	16941	50.0	45.2	
48 Tetrahydrofuran	42	6.719	6.713	0.006	91	12329	100.0	88.5	
49 Chloroform	83	6.750	6.749	0.001	91	69246	50.0	52.1	
50 1,1,1-Trichloroethane	97	6.950	6.944	0.006	89	60074	50.0	48.9	
51 Cyclohexane	56	6.999	7.005	-0.006	92	131629	50.0	55.9	
53 Carbon tetrachloride	117	7.127	7.133	-0.006	80	51136	50.0	47.9	
52 1,1-Dichloropropene	75	7.145	7.139	0.006	88	55343	50.0	53.0	
54 Benzene	78	7.370	7.364	0.006	95	178355	50.0	53.2	
55 1,2-Dichloroethane	62	7.400	7.394	0.006	76	32404	50.0	46.9	
58 n-Heptane	43	7.674	7.674	0.000	47	86313	50.0	53.1	
59 Isobutyl alcohol	41	7.674	7.674	0.000	34	45358	1250.0	1310.3	
61 Trichloroethene	130	8.082	8.069	0.013	81	44967	50.0	47.4	
63 Methylcyclohexane	83	8.264	8.264	0.000	84	108876	50.0	53.3	
64 1,2-Dichloropropane	63	8.300	8.300	0.000	82	37664	50.0	49.7	
65 Dibromomethane	93	8.440	8.428	0.012	71	13808	50.0	45.6	
67 1,4-Dioxane	88	8.465	8.458	0.007	18	4990	1000.0	1134.6	
68 Dichlorobromomethane	83	8.598	8.592	0.006	78	32559	50.0	46.3	
71 cis-1,3-Dichloropropene	75	9.067	9.054	0.013	69	38205	50.0	45.6	
72 4-Methyl-2-pentanone (MIBK	43	9.237	9.212	0.025	82	33629	50.0	50.9	
73 Toluene	91	9.395	9.383	0.012	98	200167	50.0	57.1	
74 trans-1,3-Dichloropropene	75	9.638	9.614	0.024	67	18479	50.0	35.5	
75 Ethyl methacrylate	69	9.790	9.705	0.085	7	5023	50.0	35.5	
76 1,1,2-Trichloroethane	97	9.790	9.790	0.000	74	27603	50.0	56.5	
77 Tetrachloroethene	164	9.942	9.930	0.012	94	49319	50.0	59.8	
78 1,3-Dichloropropane	76	9.973	9.954	0.019	81	39991	50.0	53.8	
79 2-Hexanone	43	10.240	10.082	0.158	1	3732	50.0	36.0	
81 Chlorodibromomethane	129	10.198	10.191	0.007	65	19606	50.0	45.1	
82 Ethylene Dibromide	107	10.332	10.313	0.019	57	10649	50.0	45.1	
84 Chlorobenzene	112	10.806	10.793	0.013	92	130883	50.0	55.9	
85 1,1,1,2-Tetrachloroethane	131	10.873	10.866	0.007	75	33183	50.0	48.2	
86 Ethylbenzene	106	10.915	10.897	0.018	97	74570	50.0	56.1	
87 m-Xylene & p-Xylene	106	11.037	11.018	0.019	97	76026	50.0	53.2	
88 o-Xylene	106	11.420	11.408	0.012	92	92430	50.0	56.8	
89 Styrene	104	11.469	11.426	0.043	90	122402	50.0	52.5	
90 Bromoform	173	11.639	11.627	0.012	59	9952	50.0	51.2	
91 Isopropylbenzene	105	11.785	11.773	0.012	92	257339	50.0	59.4	
93 1,1,2,2-Tetrachloroethane	83	12.083	12.064	0.019	53	27788	50.0	51.2	
94 Bromobenzene	156	12.120	12.101	0.019	92	39563	50.0	50.1	
95 1,2,3-Trichloropropane	110	12.144	12.125	0.019	14	8154	50.0	59.7	
96 trans-1,4-Dichloro-2-buten	53	12.223	12.180	0.043	1	1939	50.0	37.4	M
97 N-Propylbenzene	120	12.205	12.186	0.019	93	67423	50.0	58.5	
98 2-Chlorotoluene	126	12.296	12.277	0.019	95	56794	50.0	60.1	
99 1,3,5-Trimethylbenzene	105	12.369	12.356	0.013	95	201464	50.0	53.5	
100 4-Chlorotoluene	126	12.411	12.393	0.018	92	52500	50.0	61.7	
101 tert-Butylbenzene	119	12.691	12.685	0.006	88	209042	50.0	53.2	
103 1,2,4-Trimethylbenzene	105	12.752	12.733	0.019	93	191384	50.0	62.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.922	12.904	0.018	89	307556	50.0	57.6	
105 1,3-Dichlorobenzene	146	13.056	13.037	0.019	43	72401	50.0	54.3	
106 4-Isopropyltoluene	119	13.062	13.050	0.012	92	238221	50.0	54.6	
107 1,4-Dichlorobenzene	146	13.141	13.123	0.018	69	100396	50.0	57.7	
110 n-Butylbenzene	91	13.524	13.469	0.055	89	184898	50.0	60.0	
111 1,2-Dichlorobenzene	146	13.549	13.506	0.043	83	84330	50.0	57.9	
112 1,2-Dibromo-3-Chloropropan	157	14.351	14.321	0.030	1	290	50.0	37.3	
113 1,2,4-Trichlorobenzene	180	15.215	15.154	0.061	24	19532	50.0	40.0	
115 Hexachlorobutadiene	225	15.294	15.288	0.006	83	43390	50.0	57.1	
116 Naphthalene	128	15.525	15.446	0.079	1	9471	50.0	38.4	
117 1,2,3-Trichlorobenzene	180	15.726	15.689	0.037	1	8149	50.0	38.1	
S 130 Xylenes, Total	106				0		100.0	110.0	
S 129 1,2-Dichloroethene, Total	96				0		100.0	98.6	
S 131 1,3-Dichloropropene, Total	1				0		100.0	81.2	

QC Flag Legend

Review Flags
M - Manually Integrated

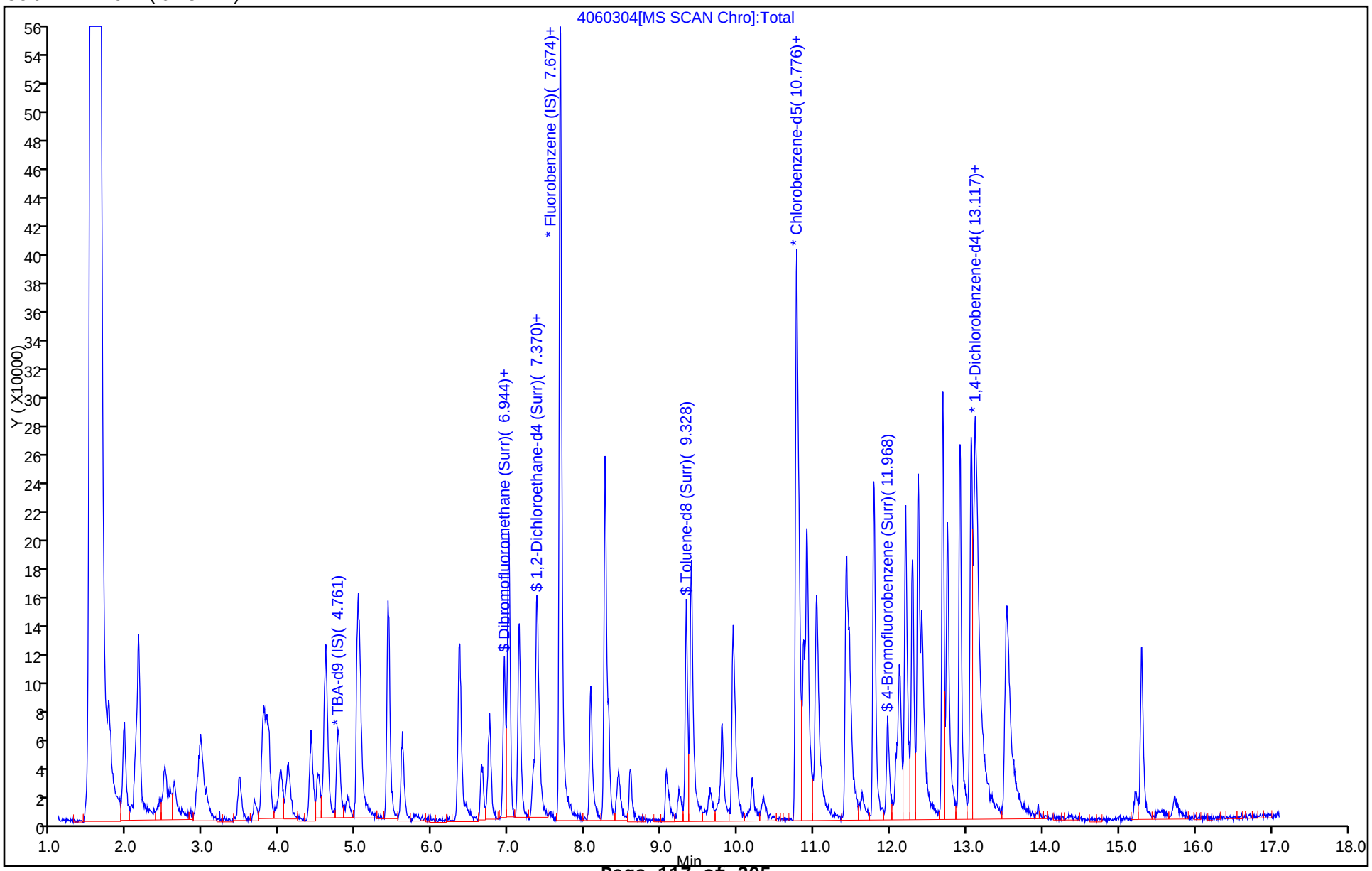
Report Date: 03-Jun-2014 14:07:31 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060304.D

Injection Date:	03-Jun-2014 11:43:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

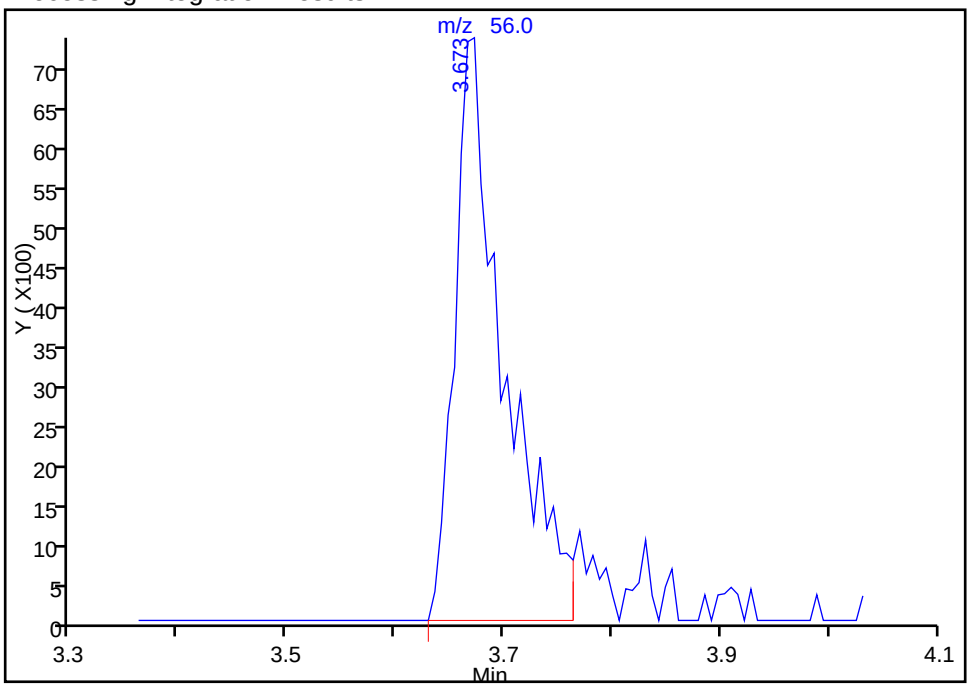
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060304.D
Injection Date: 03-Jun-2014 11:43:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

20 Acrolein, CAS: 107-02-8

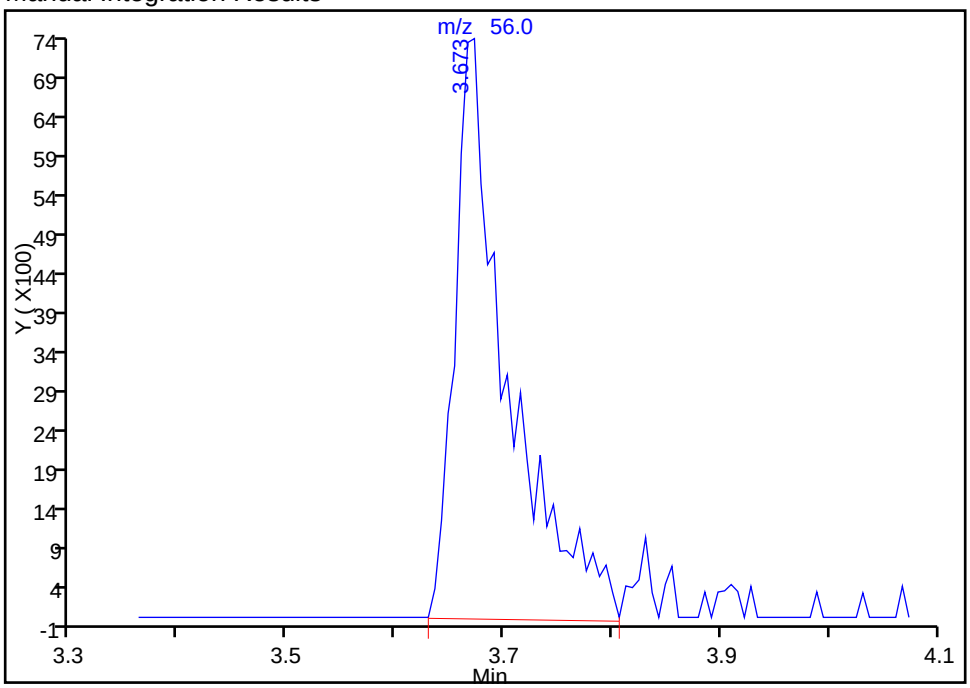
Processing Integration Results

RT: 3.67
Response: 23198
Amount: 717.0719



Manual Integration Results

RT: 3.67
Response: 24998
Amount: 710.2042



Reviewer: journetp, 03-Jun-2014 13:54:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

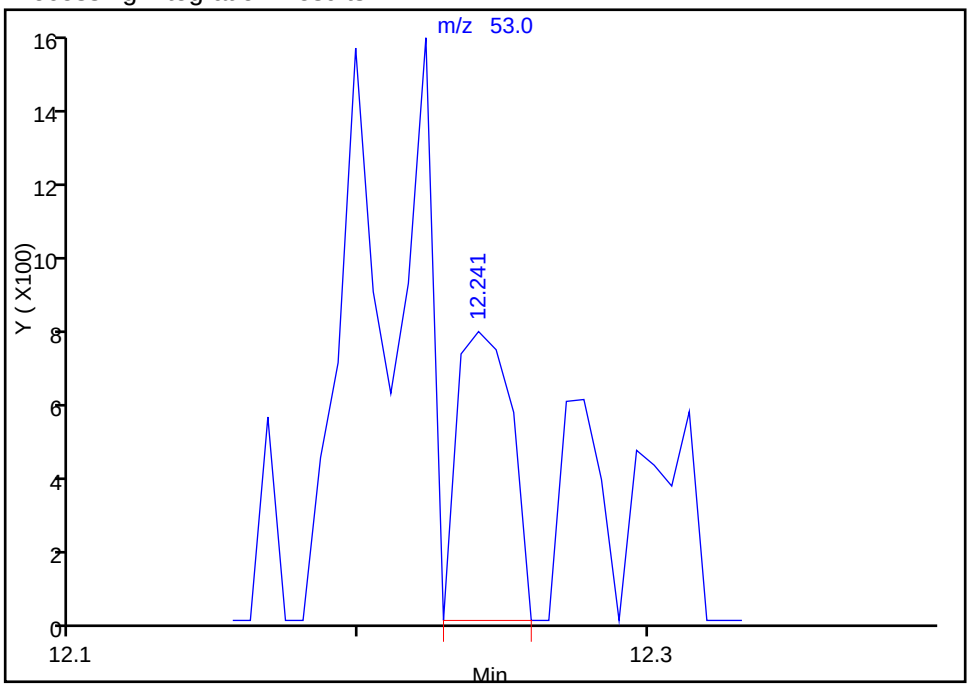
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060304.D
Injection Date: 03-Jun-2014 11:43:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

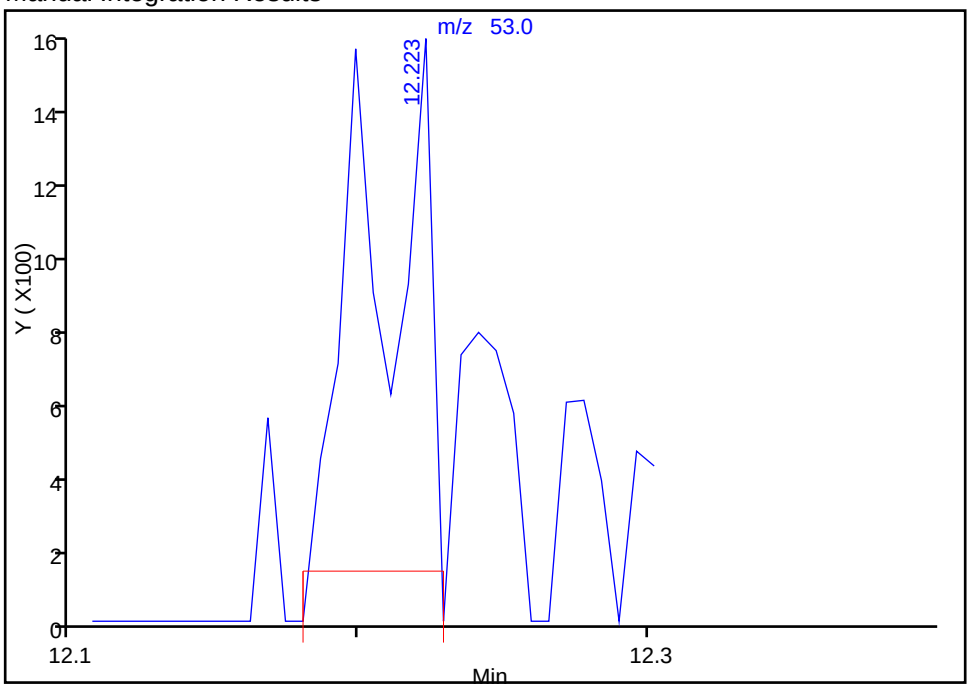
Processing Integration Results

RT: 12.24
Response: 994
Amount: 23.303158



Manual Integration Results

RT: 12.22
Response: 1939
Amount: 37.434292



Reviewer: journetp, 03-Jun-2014 13:50:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 03-Jun-2014 14:07:33 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060305.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Jun-2014 12:13:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0001537-005
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:32 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 13:27:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.773	4.767	0.006	96	105137	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.679	7.680	-0.001	95	532750	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.775	10.763	0.012	80	125854	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.104	13.098	0.006	92	163803	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.938	6.932	0.006	31	81429	125.0	124.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.315	7.309	0.006	92	70946	125.0	134.2	
$ 7 Toluene-d8 (Surr)	98	9.321	9.316	0.005	91	364180	125.0	127.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.943	11.943	-0.001	93	121021	125.0	132.9	
10 Dichlorodifluoromethane	85	1.768	1.757	0.011	86	162959	125.0	129.2	
11 Chloromethane	50	1.963	1.963	0.000	99	209803	125.0	127.7	
12 Vinyl chloride	62	2.121	2.115	0.006	98	171111	125.0	128.0	
13 Butadiene	39	2.158	2.152	0.006	90	162470	125.0	121.9	
14 Bromomethane	94	2.498	2.492	0.006	88	51325	125.0	132.1	
15 Chloroethane	64	2.626	2.614	0.012	96	71447	125.0	139.9	
16 Dichlorofluoromethane	67	2.936	2.949	-0.013	77	193275	125.0	134.2	
17 Trichlorofluoromethane	101	2.979	2.967	0.012	84	168507	125.0	126.6	
19 Ethyl ether	59	3.471	3.472	-0.001	92	81689	125.0	124.8	
20 Acrolein	56	3.690	3.672	0.018	78	27751	750.0	796.9	M
21 1,1-Dichloroethene	96	3.787	3.782	0.005	92	131150	125.0	125.8	
22 1,1,2-Trichloro-1,2,2-trif	101	3.848	3.849	-0.001	76	138123	125.0	125.7	
23 Acetone	43	3.958	3.958	0.000	89	38491	125.0	117.4	
24 Iodomethane	142	4.012	4.007	0.005	94	197972	125.0	127.5	
25 Carbon disulfide	76	4.110	4.104	0.006	98	306500	125.0	117.9	
28 3-Chloro-1-propene	76	4.408	4.408	0.000	90	68139	125.0	123.7	
29 Methyl acetate	43	4.499	4.487	0.012	98	227261	625.0	651.7	
30 Methylene Chloride	84	4.602	4.603	-0.001	95	170766	125.0	133.8	
31 2-Methyl-2-propanol	59	4.888	4.901	-0.013	84	50693	1250.0	1252.2	
32 Acrylonitrile	53	5.010	5.004	0.006	99	203263	1250.0	1306.4	
33 trans-1,2-Dichloroethene	96	5.010	5.016	-0.006	99	130770	125.0	123.0	
34 Methyl tert-butyl ether	73	5.046	5.047	-0.001	88	207457	125.0	132.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.423	5.418	0.005	94	226702	125.0	120.8	
36 1,1-Dichloroethane	63	5.612	5.600	0.012	82	203698	125.0	126.3	
38 Vinyl acetate	43	5.752	5.740	0.012	92	45608	125.0	125.5	
41 2,2-Dichloropropane	77	6.348	6.348	0.000	78	110986	125.0	122.1	
42 cis-1,2-Dichloroethene	96	6.366	6.360	0.006	68	127492	125.0	126.1	
43 2-Butanone (MEK)	43	6.433	6.421	0.012	90	41366	125.0	114.2	
46 Chlorobromomethane	128	6.640	6.646	-0.006	88	44632	125.0	120.3	
48 Tetrahydrofuran	42	6.713	6.713	0.000	90	34366	250.0	249.2	
49 Chloroform	83	6.749	6.749	0.000	81	164310	125.0	125.0	
50 1,1,1-Trichloroethane	97	6.950	6.944	0.006	90	154416	125.0	127.0	
51 Cyclohexane	56	7.004	7.005	-0.001	91	306727	125.0	131.7	
53 Carbon tetrachloride	117	7.132	7.133	-0.001	90	131539	125.0	124.5	
52 1,1-Dichloropropene	75	7.138	7.139	-0.001	88	126193	125.0	122.3	
54 Benzene	78	7.369	7.364	0.005	97	424745	125.0	128.0	
55 1,2-Dichloroethane	62	7.394	7.394	0.000	79	87531	125.0	128.2	
58 n-Heptane	43	7.673	7.674	-0.001	65	204187	125.0	126.9	
59 Isobutyl alcohol	41	7.673	7.674	-0.001	54	115432	3125.0	3370.5	
61 Trichloroethene	130	8.069	8.069	0.000	89	117260	125.0	124.9	
63 Methylcyclohexane	83	8.263	8.264	-0.001	89	265285	125.0	131.2	
64 1,2-Dichloropropane	63	8.300	8.300	0.000	92	97788	125.0	130.5	
65 Dibromomethane	93	8.434	8.428	0.006	85	39794	125.0	132.9	
67 1,4-Dioxane	88	8.452	8.458	-0.006	59	12006	2500.0	2759.4	
68 Dichlorobromomethane	83	8.592	8.592	0.000	97	82433	125.0	118.5	
71 cis-1,3-Dichloropropene	75	9.060	9.054	0.006	84	98185	125.0	118.5	
72 4-Methyl-2-pentanone (MIBK	43	9.212	9.212	0.000	88	87030	125.0	123.9	
73 Toluene	91	9.388	9.383	0.005	98	486576	125.0	130.6	
74 trans-1,3-Dichloropropene	75	9.619	9.614	0.005	83	66230	125.0	119.8	
75 Ethyl methacrylate	69	9.723	9.705	0.018	81	53432	125.0	121.2	
76 1,1,2-Trichloroethane	97	9.790	9.790	0.000	80	66780	125.0	128.7	
77 Tetrachloroethene	164	9.942	9.930	0.012	90	108367	125.0	123.6	
78 1,3-Dichloropropane	76	9.960	9.954	0.006	91	108236	125.0	137.0	
79 2-Hexanone	43	10.112	10.082	0.030	90	42913	125.0	106.4	
81 Chlorodibromomethane	129	10.185	10.191	-0.006	86	54126	125.0	117.2	
82 Ethylene Dibromide	107	10.319	10.313	0.006	90	55921	125.0	140.2	
84 Chlorobenzene	112	10.793	10.793	0.000	95	325166	125.0	130.6	
85 1,1,1,2-Tetrachloroethane	131	10.866	10.866	0.000	89	96577	125.0	131.9	
86 Ethylbenzene	106	10.903	10.897	0.006	97	178507	125.0	126.3	
87 m-Xylene & p-Xylene	106	11.024	11.018	0.006	99	234501	125.0	130.6	
88 o-Xylene	106	11.420	11.408	0.012	96	224430	125.0	129.8	
89 Styrene	104	11.444	11.426	0.018	95	327406	125.0	132.1	
90 Bromoform	173	11.626	11.627	-0.001	90	31669	125.0	120.1	
91 Isopropylbenzene	105	11.778	11.773	0.005	95	613208	125.0	133.2	
93 1,1,2,2-Tetrachloroethane	83	12.070	12.064	0.006	71	74589	125.0	129.4	
94 Bromobenzene	156	12.107	12.101	0.006	82	122392	125.0	135.3	
95 1,2,3-Trichloropropane	110	12.125	12.125	0.000	62	20899	125.0	133.7	
96 trans-1,4-Dichloro-2-buten	53	12.186	12.180	0.006	1	8481	125.0	143.0	M
97 N-Propylbenzene	120	12.192	12.186	0.006	95	177588	125.0	134.7	
98 2-Chlorotoluene	126	12.277	12.277	0.000	97	142287	125.0	131.5	
99 1,3,5-Trimethylbenzene	105	12.362	12.356	0.006	96	492919	125.0	127.2	
100 4-Chlorotoluene	126	12.399	12.393	0.006	96	132611	125.0	136.2	
101 tert-Butylbenzene	119	12.691	12.685	0.005	87	547098	125.0	145.6	
103 1,2,4-Trimethylbenzene	105	12.739	12.733	0.006	96	484183	125.0	137.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.909	12.904	0.005	91	686560	125.0	127.2	
105 1,3-Dichlorobenzene	146	13.043	13.037	0.006	92	210148	125.0	137.6	
106 4-Isopropyltoluene	119	13.055	13.050	0.005	95	577084	125.0	128.2	
107 1,4-Dichlorobenzene	146	13.134	13.123	0.011	92	264282	125.0	132.7	
110 n-Butylbenzene	91	13.487	13.469	0.018	93	466632	125.0	132.2	
111 1,2-Dichlorobenzene	146	13.518	13.506	0.012	96	217623	125.0	130.5	
112 1,2-Dibromo-3-Chloropropan	157	14.357	14.321	0.036	18	5498	125.0	130.1	
113 1,2,4-Trichlorobenzene	180	15.178	15.154	0.024	71	70024	125.0	125.4	
115 Hexachlorobutadiene	225	15.293	15.288	0.005	86	113022	125.0	129.9	
116 Naphthalene	128	15.482	15.446	0.036	11	56133	125.0	100.2	
117 1,2,3-Trichlorobenzene	180	15.689	15.689	0.000	71	56072	125.0	132.8	
S 130 Xylenes, Total	106				0		250.0	260.4	
S 129 1,2-Dichloroethene, Total	96				0		250.0	249.2	
S 131 1,3-Dichloropropene, Total	1				0		250.0	238.4	

QC Flag Legend

Review Flags
M - Manually Integrated

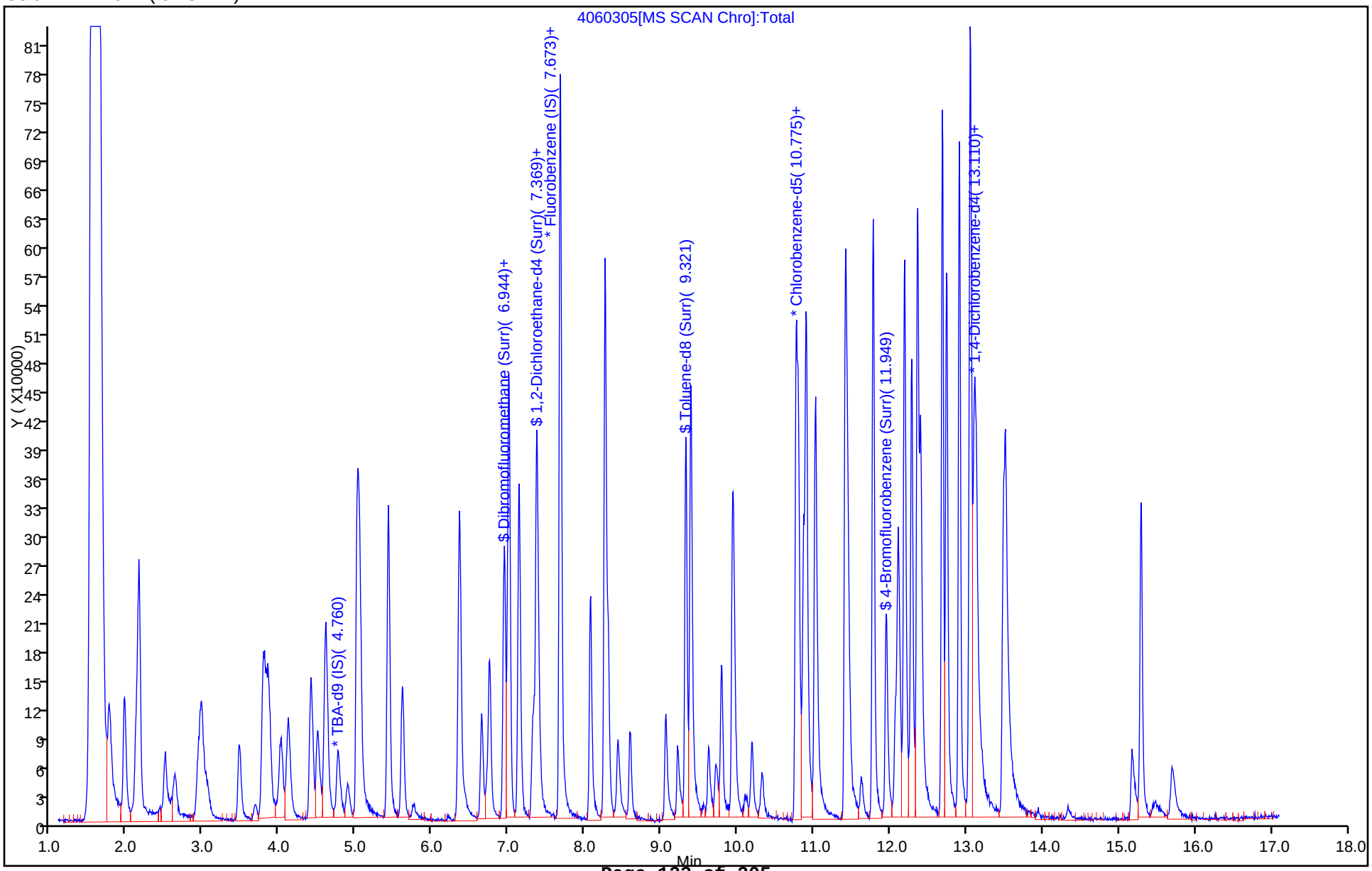
Report Date: 03-Jun-2014 14:07:33 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060305.D

Injection Date:	03-Jun-2014 12:13:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

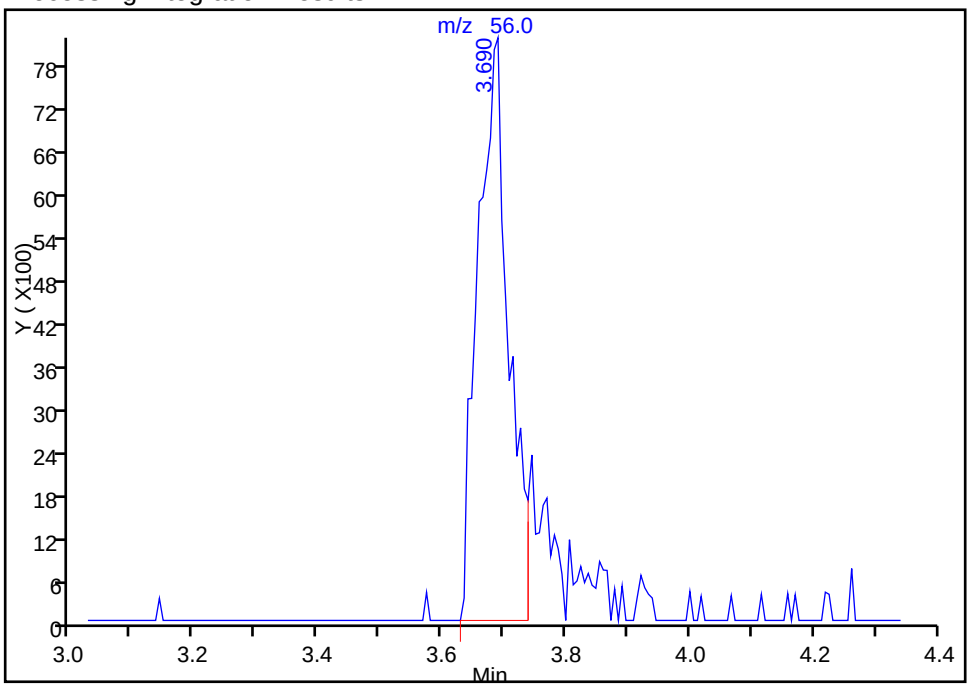
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060305.D				
Injection Date:	03-Jun-2014 12:13:30	Instrument ID:	CHHP4		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

20 Acrolein, CAS: 107-02-8

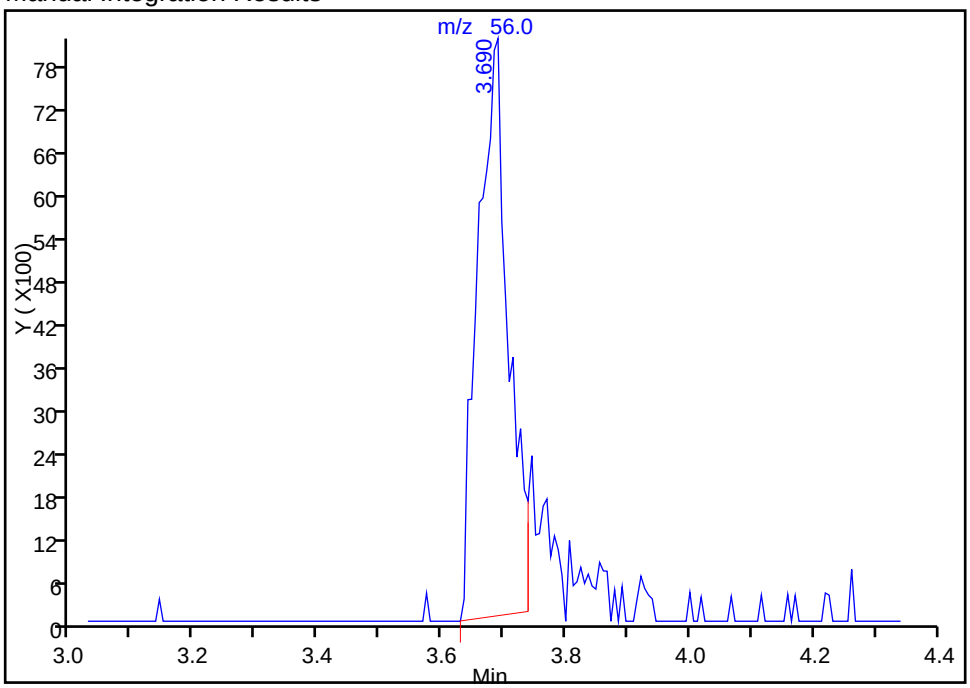
Processing Integration Results

RT: 3.69
Response: 28240
Amount: 902.7796



Manual Integration Results

RT: 3.69
Response: 27751
Amount: 796.9424



Reviewer: journetp, 03-Jun-2014 14:07:08
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

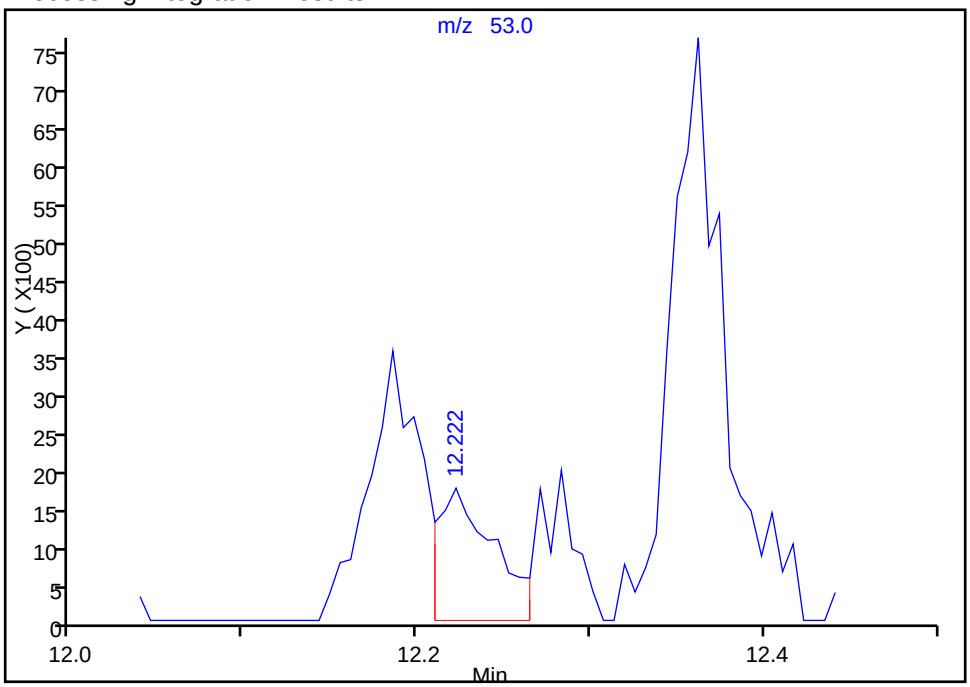
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060305.D
Injection Date: 03-Jun-2014 12:13:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

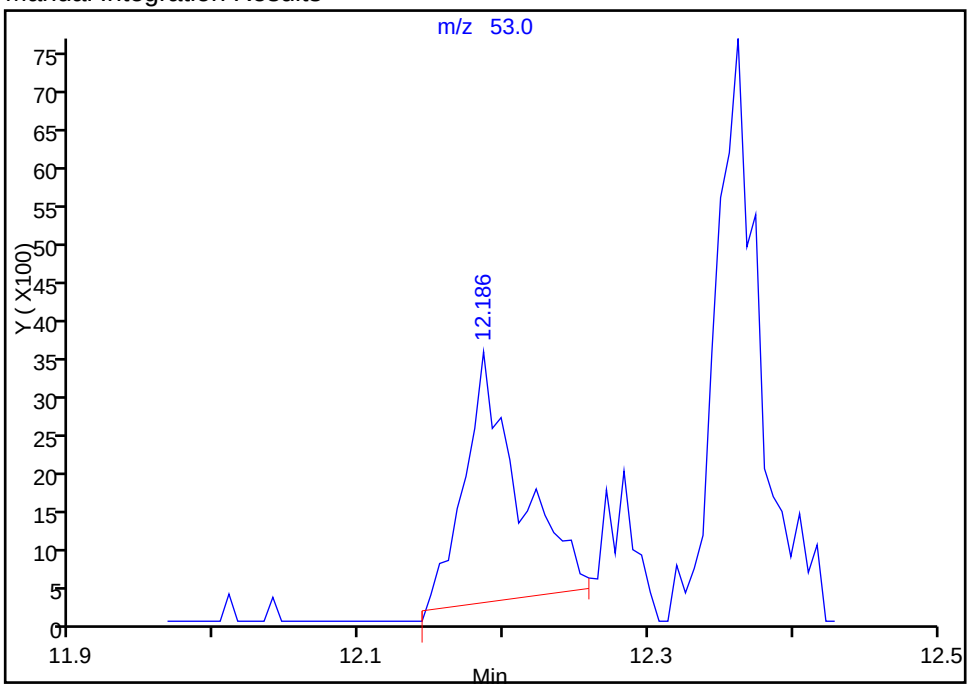
Processing Integration Results

RT: 12.22
Response: 3958
Amount: 106.1036



Manual Integration Results

RT: 12.19
Response: 8481
Amount: 142.9927



Reviewer: journetp, 03-Jun-2014 13:50:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060306.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 03-Jun-2014 12:43:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 180-0001537-006
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:35 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 13:27:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.767	4.767	0.000	97	106021	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.680	7.680	0.000	93	569856	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.763	10.763	0.000	77	130115	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.098	13.098	0.000	92	188656	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.932	6.932	0.000	76	150923	200.0	216.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.309	7.309	0.000	90	114838	200.0	203.2	
$ 7 Toluene-d8 (Surr)	98	9.316	9.316	0.000	91	646195	200.0	218.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.943	11.943	0.000	94	218423	200.0	232.0	
10 Dichlorodifluoromethane	85	1.757	1.757	0.000	87	278707	200.0	206.6	
11 Chloromethane	50	1.963	1.963	0.000	89	364180	200.0	207.2	
12 Vinyl chloride	62	2.115	2.115	0.000	83	287586	200.0	201.2	
13 Butadiene	39	2.152	2.152	0.000	90	298926	200.0	209.7	
14 Bromomethane	94	2.492	2.492	0.000	88	84704	200.0	203.8	
15 Chloroethane	64	2.614	2.614	0.000	93	107278	200.0	196.4	
16 Dichlorofluoromethane	67	2.949	2.949	0.000	95	308719	200.0	200.4	
17 Trichlorofluoromethane	101	2.967	2.967	0.000	84	288511	200.0	202.7	
19 Ethyl ether	59	3.472	3.472	0.000	90	146534	200.0	209.3	
20 Acrolein	56	3.672	3.672	0.000	69	31949	875.0	857.8	M
21 1,1-Dichloroethene	96	3.782	3.782	0.000	84	232051	200.0	208.0	
22 1,1,2-Trichloro-1,2,2-trif	101	3.849	3.849	0.000	87	243923	200.0	207.5	
23 Acetone	43	3.958	3.958	0.000	84	61564	200.0	175.5	
24 Iodomethane	142	4.007	4.007	0.000	96	350283	200.0	210.9	
25 Carbon disulfide	76	4.104	4.104	0.000	99	600660	200.0	215.9	
28 3-Chloro-1-propene	76	4.408	4.408	0.000	93	125698	200.0	190.7	
29 Methyl acetate	43	4.487	4.487	0.000	98	400963	1000.0	1074.9	
30 Methylene Chloride	84	4.603	4.603	0.000	90	239031	200.0	185.0	
31 2-Methyl-2-propanol	59	4.901	4.901	0.000	88	82030	2000.0	2009.4	
32 Acrylonitrile	53	5.004	5.004	0.000	99	349335	2000.0	2029.7	
33 trans-1,2-Dichloroethene	96	5.016	5.016	0.000	95	239870	200.0	211.0	
34 Methyl tert-butyl ether	73	5.047	5.047	0.000	91	348786	200.0	208.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.418	5.418	0.000	91	386773	200.0	192.6	
36 1,1-Dichloroethane	63	5.600	5.600	0.000	96	354327	200.0	205.4	
38 Vinyl acetate	43	5.740	5.740	0.000	94	76630	200.0	181.7	
41 2,2-Dichloropropane	77	6.348	6.348	0.000	80	217463	200.0	223.6	
42 cis-1,2-Dichloroethene	96	6.360	6.360	0.000	70	225724	200.0	208.8	
43 2-Butanone (MEK)	43	6.421	6.421	0.000	96	74278	200.0	188.4	
46 Chlorobromomethane	128	6.646	6.646	0.000	92	83601	200.0	210.7	
48 Tetrahydrofuran	42	6.713	6.713	0.000	93	59985	400.0	406.7	
49 Chloroform	83	6.749	6.749	0.000	80	288601	200.0	205.2	
50 1,1,1-Trichloroethane	97	6.944	6.944	0.000	90	270199	200.0	207.8	
51 Cyclohexane	56	7.005	7.005	0.000	91	519372	200.0	208.5	
53 Carbon tetrachloride	117	7.133	7.133	0.000	85	237244	200.0	210.0	
52 1,1-Dichloropropene	75	7.139	7.139	0.000	92	231940	200.0	210.1	
54 Benzene	78	7.364	7.364	0.000	96	757215	200.0	213.3	
55 1,2-Dichloroethane	62	7.394	7.394	0.000	87	150946	200.0	206.6	
58 n-Heptane	43	7.674	7.674	0.000	93	359628	200.0	209.0	
59 Isobutyl alcohol	41	7.674	7.674	0.000	80	192302	5000.0	5249.4	
61 Trichloroethene	130	8.069	8.069	0.000	93	201647	200.0	200.8	
63 Methylcyclohexane	83	8.264	8.264	0.000	90	449404	200.0	207.8	
64 1,2-Dichloropropane	63	8.300	8.300	0.000	92	164854	200.0	205.7	
65 Dibromomethane	93	8.428	8.428	0.000	84	65723	200.0	205.1	
67 1,4-Dioxane	88	8.458	8.458	0.000	75	19340	4000.0	4155.6	
68 Dichlorobromomethane	83	8.592	8.592	0.000	93	156750	200.0	210.7	
71 cis-1,3-Dichloropropene	75	9.054	9.054	0.000	85	190621	200.0	215.2	
72 4-Methyl-2-pentanone (MIBK	43	9.212	9.212	0.000	95	167458	200.0	230.6	
73 Toluene	91	9.383	9.383	0.000	98	810387	200.0	210.4	
74 trans-1,3-Dichloropropene	75	9.614	9.614	0.000	87	131169	200.0	229.5	
75 Ethyl methacrylate	69	9.705	9.705	0.000	92	113663	200.0	222.0	
76 1,1,2-Trichloroethane	97	9.790	9.790	0.000	88	115350	200.0	215.0	
77 Tetrachloroethene	164	9.930	9.930	0.000	91	188069	200.0	207.5	
78 1,3-Dichloropropane	76	9.954	9.954	0.000	92	179206	200.0	219.4	
79 2-Hexanone	43	10.082	10.082	0.000	93	112247	200.0	225.0	
81 Chlorodibromomethane	129	10.191	10.191	0.000	88	98478	200.0	206.3	
82 Ethylene Dibromide	107	10.313	10.313	0.000	92	95431	200.0	217.7	
84 Chlorobenzene	112	10.793	10.793	0.000	95	545788	200.0	212.0	
85 1,1,1,2-Tetrachloroethane	131	10.866	10.866	0.000	90	162919	200.0	215.2	
86 Ethylbenzene	106	10.897	10.897	0.000	97	320422	200.0	219.4	
87 m-Xylene & p-Xylene	106	11.018	11.018	0.000	99	393283	200.0	206.8	
88 o-Xylene	106	11.408	11.408	0.000	96	390237	200.0	218.4	
89 Styrene	104	11.426	11.426	0.000	93	584296	200.0	228.0	
90 Bromoform	173	11.627	11.627	0.000	95	55620	200.0	192.4	
91 Isopropylbenzene	105	11.773	11.773	0.000	94	1058219	200.0	222.3	
93 1,1,2,2-Tetrachloroethane	83	12.064	12.064	0.000	80	126892	200.0	212.9	
94 Bromobenzene	156	12.101	12.101	0.000	75	206485	200.0	198.1	
95 1,2,3-Trichloropropane	110	12.125	12.125	0.000	70	33708	200.0	187.3	
96 trans-1,4-Dichloro-2-buten	53	12.180	12.180	0.000	29	20483	200.0	299.9	M
97 N-Propylbenzene	120	12.186	12.186	0.000	96	313639	200.0	206.5	
98 2-Chlorotoluene	126	12.277	12.277	0.000	98	253783	200.0	203.7	
99 1,3,5-Trimethylbenzene	105	12.356	12.356	0.000	95	855464	200.0	201.2	
100 4-Chlorotoluene	126	12.393	12.393	0.000	96	232706	200.0	207.5	
101 tert-Butylbenzene	119	12.685	12.685	0.000	88	809679	200.0	194.8	
103 1,2,4-Trimethylbenzene	105	12.733	12.733	0.000	95	837367	200.0	206.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.904	12.904	0.000	93	1178932	200.0	201.6	
105 1,3-Dichlorobenzene	146	13.037	13.037	0.000	97	378858	200.0	215.4	
106 4-Isopropyltoluene	119	13.050	13.050	0.000	96	993349	200.0	201.1	
107 1,4-Dichlorobenzene	146	13.123	13.123	0.000	94	447171	200.0	194.9	
110 n-Butylbenzene	91	13.469	13.469	0.000	94	836600	200.0	205.7	
111 1,2-Dichlorobenzene	146	13.506	13.506	0.000	97	377929	200.0	196.8	
112 1,2-Dibromo-3-Chloropropan	157	14.321	14.321	0.000	41	11961	200.0	214.7	
113 1,2,4-Trichlorobenzene	180	15.154	15.154	0.000	89	132078	200.0	205.3	
115 Hexachlorobutadiene	225	15.288	15.288	0.000	90	196247	200.0	195.9	
116 Naphthalene	128	15.446	15.446	0.000	80	157046	200.0	209.7	
117 1,2,3-Trichlorobenzene	180	15.689	15.689	0.000	86	109220	200.0	211.7	
S 130 Xylenes, Total	106				0		400.0	425.2	
S 129 1,2-Dichloroethene, Total	96				0		400.0	419.8	
S 131 1,3-Dichloropropene, Total	1				0		400.0	444.7	

QC Flag Legend

Review Flags
M - Manually Integrated

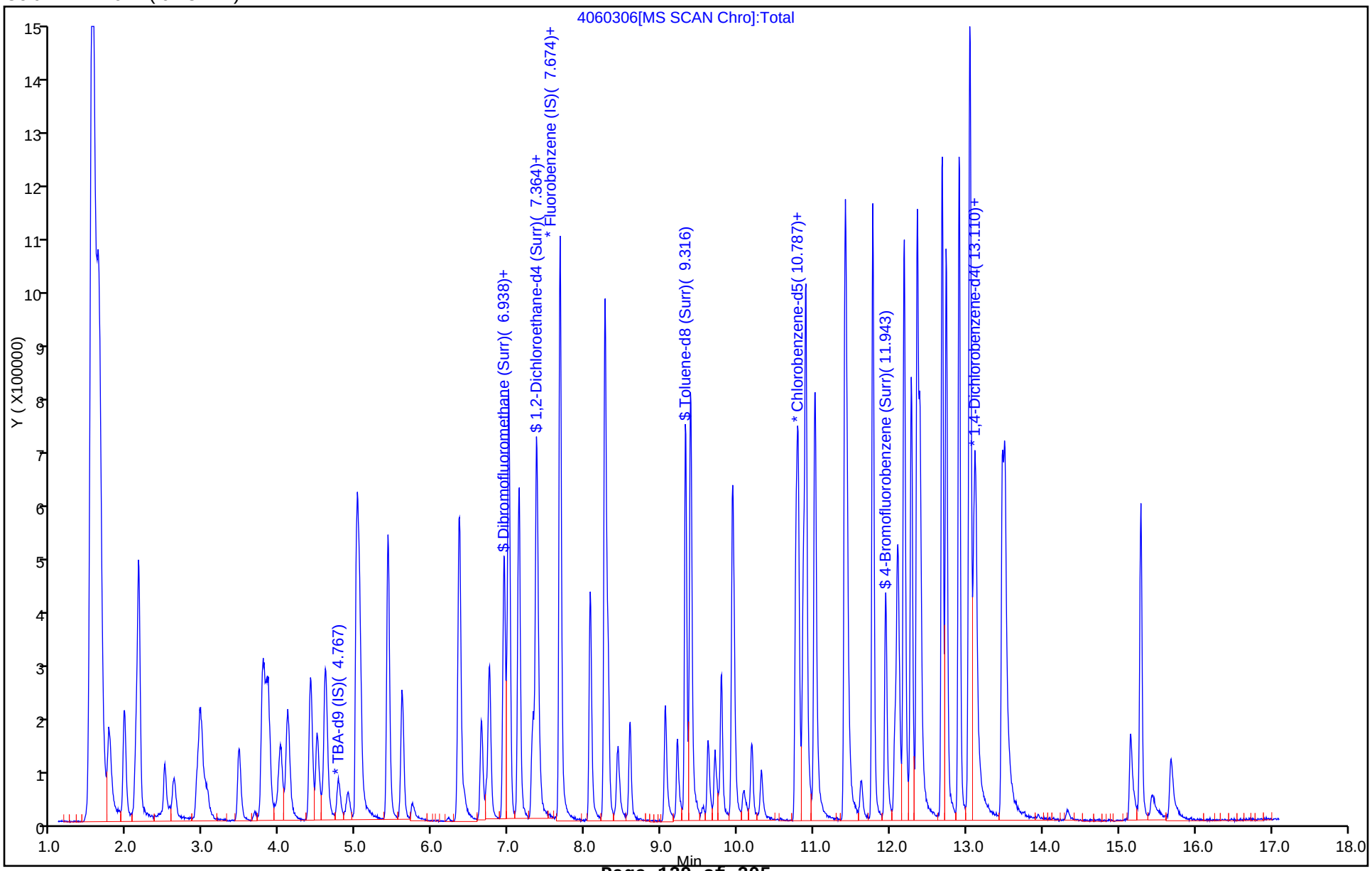
Report Date: 03-Jun-2014 14:07:36 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060306.D

Injection Date:	03-Jun-2014 12:43:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	ICIS			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

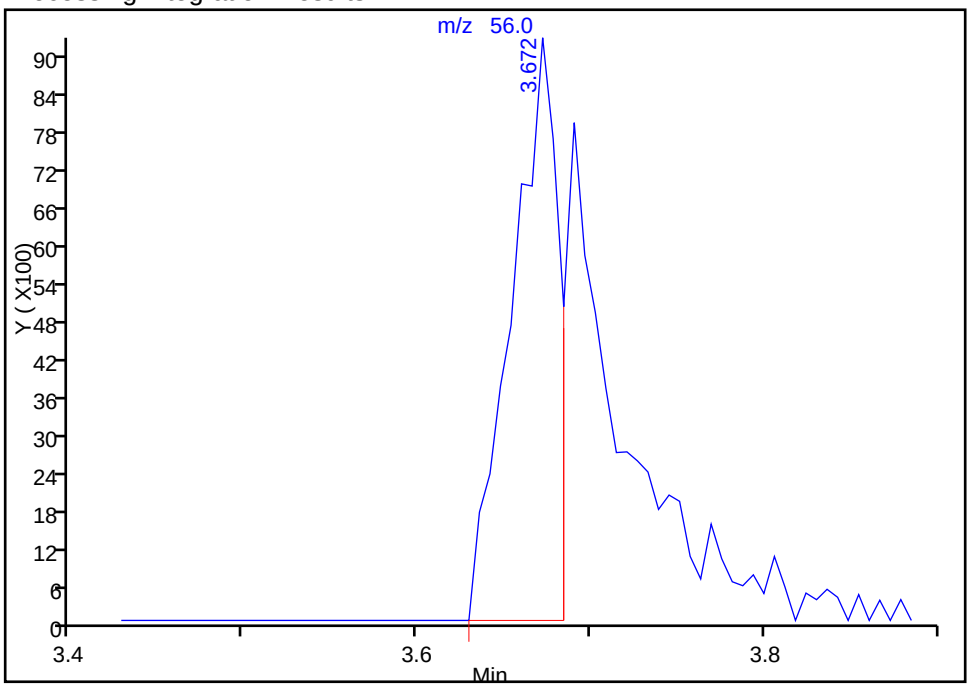
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060306.D				
Injection Date:	03-Jun-2014 12:43:30	Instrument ID:	CHHP4		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

20 Acrolein, CAS: 107-02-8

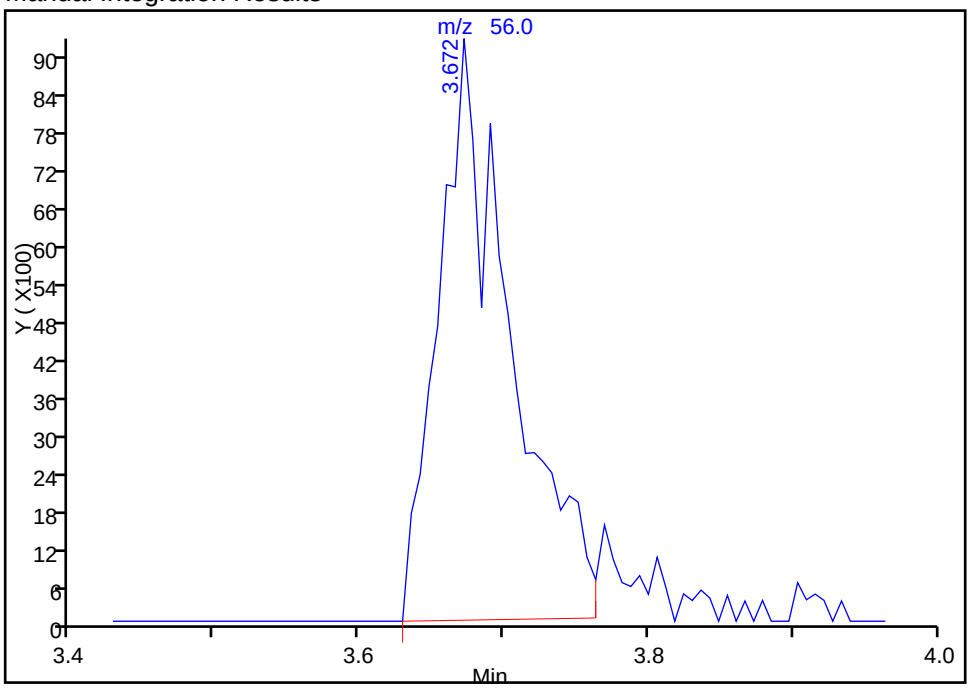
Processing Integration Results

RT: 3.67
Response: 17606
Amount: 576.3315



Manual Integration Results

RT: 3.67
Response: 31949
Amount: 857.7562



Reviewer: journetp, 03-Jun-2014 14:00:41
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

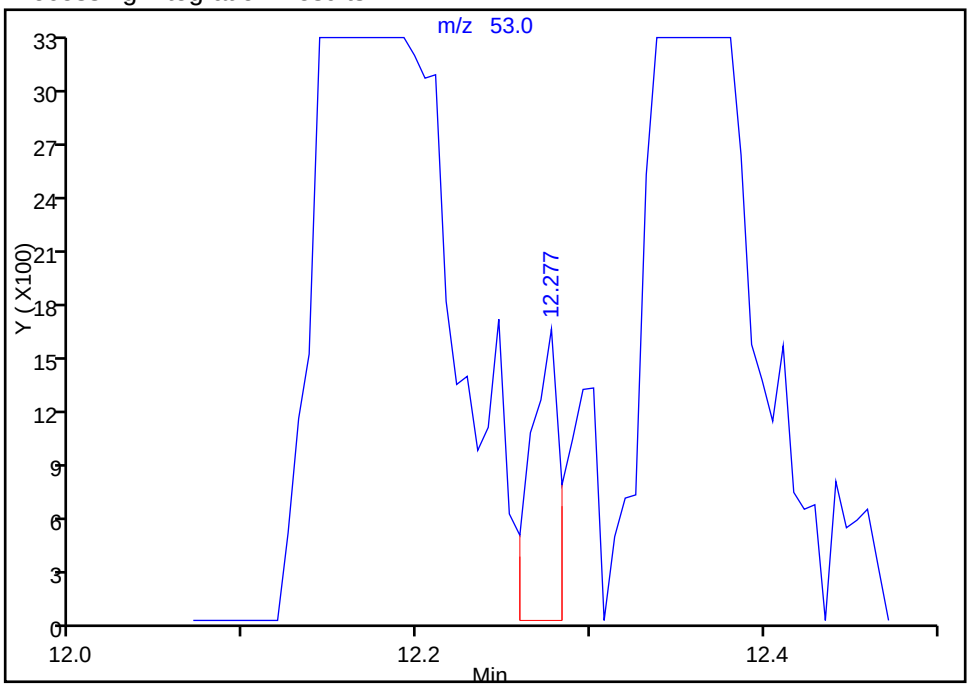
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060306.D
Injection Date: 03-Jun-2014 12:43:30 Instrument ID: CHHP4
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

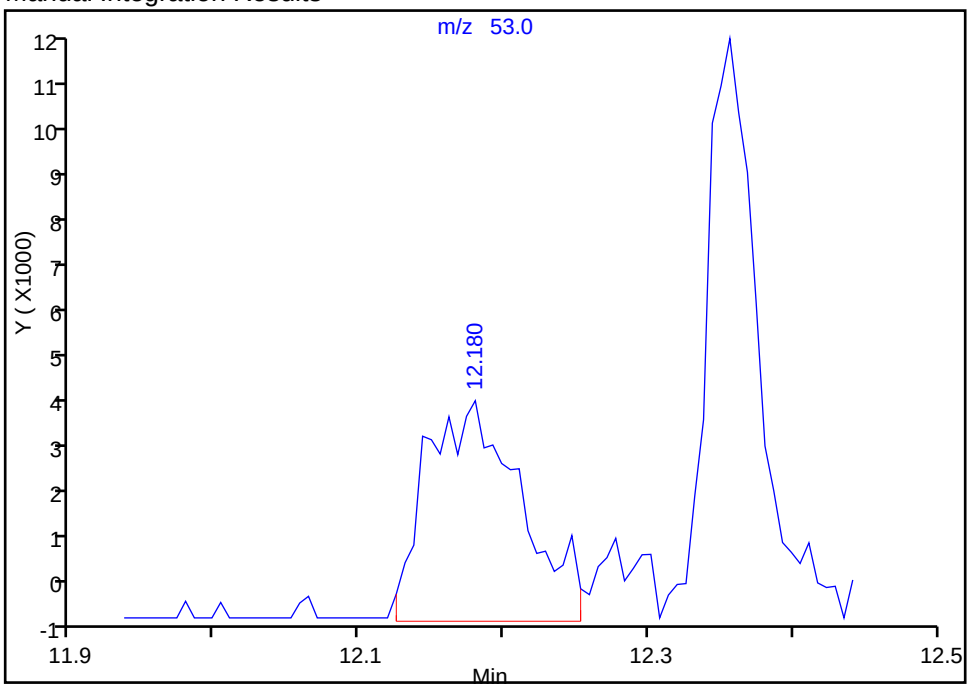
Processing Integration Results

RT: 12.28
Response: 1870
Amount: 93.175600



Manual Integration Results

RT: 12.18
Response: 20483
Amount: 299.8553



Reviewer: journetp, 03-Jun-2014 13:51:15
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060307.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Jun-2014 13:14:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0001537-007
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:37 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 13:27:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.773	4.767	0.006	97	103566	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.673	7.680	-0.007	91	612159	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.763	10.763	0.000	79	138909	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.098	13.098	0.000	91	208103	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.931	6.932	-0.001	80	183705	250.0	245.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.308	7.309	-0.001	91	144768	250.0	238.4	
$ 7 Toluene-d8 (Surr)	98	9.315	9.316	-0.001	91	792003	250.0	251.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.936	11.943	-0.007	94	276387	250.0	275.0	
10 Dichlorodifluoromethane	85	1.768	1.757	0.011	87	336725	250.0	232.4	
11 Chloromethane	50	1.969	1.963	0.006	99	437561	250.0	231.7	
12 Vinyl chloride	62	2.121	2.115	0.006	97	350551	250.0	228.3	
13 Butadiene	39	2.158	2.152	0.006	91	356216	250.0	232.6	
14 Bromomethane	94	2.498	2.492	0.006	87	102793	250.0	230.2	
15 Chloroethane	64	2.620	2.614	0.006	93	148170	250.0	252.5	
16 Dichlorofluoromethane	67	2.942	2.949	-0.007	81	399776	250.0	241.6	
17 Trichlorofluoromethane	101	2.979	2.967	0.012	85	365195	250.0	238.8	
19 Ethyl ether	59	3.465	3.472	-0.007	91	178217	250.0	237.0	
20 Acrolein	56	3.672	3.672	0.000	85	34150	1000.0	853.5	M
21 1,1-Dichloroethene	96	3.787	3.782	0.005	86	286608	250.0	239.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.848	3.849	-0.001	77	294178	250.0	232.9	
23 Acetone	43	3.958	3.958	0.000	93	106993	250.0	283.9	
24 Iodomethane	142	4.012	4.007	0.005	96	429090	250.0	240.5	
25 Carbon disulfide	76	4.110	4.104	0.006	99	750467	250.0	251.1	
28 3-Chloro-1-propene	76	4.402	4.408	-0.006	93	154664	250.0	214.4	
29 Methyl acetate	43	4.493	4.487	0.006	99	490611	1250.0	1224.3	
30 Methylene Chloride	84	4.608	4.603	0.005	93	284616	250.0	208.9	
31 2-Methyl-2-propanol	59	4.894	4.901	-0.007	91	95008	2500.0	2382.5	
32 Acrylonitrile	53	5.004	5.004	0.000	99	437729	2500.0	2348.5	
33 trans-1,2-Dichloroethene	96	5.016	5.016	0.000	96	297804	250.0	243.8	
34 Methyl tert-butyl ether	73	5.052	5.047	0.005	90	432901	250.0	241.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.417	5.418	-0.001	93	488483	250.0	226.5	
36 1,1-Dichloroethane	63	5.606	5.600	0.006	85	448775	250.0	242.2	
38 Vinyl acetate	43	5.739	5.740	-0.001	95	124329	250.0	259.1	
41 2,2-Dichloropropane	77	6.348	6.348	0.000	78	256138	250.0	245.2	
42 cis-1,2-Dichloroethene	96	6.360	6.360	0.000	69	289551	250.0	249.3	
43 2-Butanone (MEK)	43	6.408	6.421	-0.013	94	112866	250.0	263.3	
46 Chlorobromomethane	128	6.646	6.646	0.000	93	106906	250.0	250.8	
48 Tetrahydrofuran	42	6.719	6.713	0.006	94	73186	500.0	461.9	
49 Chloroform	83	6.743	6.749	-0.006	81	362407	250.0	239.9	
50 1,1,1-Trichloroethane	97	6.944	6.944	0.000	91	352859	250.0	252.6	
51 Cyclohexane	56	6.998	7.005	-0.007	91	643016	250.0	240.3	
53 Carbon tetrachloride	117	7.132	7.133	-0.001	84	295756	250.0	243.6	
52 1,1-Dichloropropene	75	7.138	7.139	-0.001	91	302977	250.0	255.5	
54 Benzene	78	7.369	7.364	0.005	97	945261	250.0	247.9	
55 1,2-Dichloroethane	62	7.394	7.394	0.000	85	191487	250.0	244.0	
58 n-Heptane	43	7.673	7.674	-0.001	94	482883	250.0	261.2	
59 Isobutyl alcohol	41	7.673	7.674	-0.001	75	244069	6250.0	6202.2	
61 Trichloroethene	130	8.069	8.069	0.000	90	260770	250.0	241.7	
63 Methylcyclohexane	83	8.263	8.264	-0.001	91	568566	250.0	244.7	
64 1,2-Dichloropropane	63	8.306	8.300	0.006	93	206211	250.0	239.6	
65 Dibromomethane	93	8.427	8.428	-0.001	88	84905	250.0	246.7	
67 1,4-Dioxane	88	8.470	8.458	0.012	89	17839	5000.0	3568.2	
68 Dichlorobromomethane	83	8.592	8.592	0.000	92	207432	250.0	259.5	
71 cis-1,3-Dichloropropene	75	9.048	9.054	-0.006	84	234138	250.0	246.0	
72 4-Methyl-2-pentanone (MIBK	43	9.212	9.212	0.000	94	210627	250.0	271.7	
73 Toluene	91	9.388	9.383	0.005	99	1060177	250.0	257.9	
74 trans-1,3-Dichloropropene	75	9.613	9.614	-0.001	87	162430	250.0	266.2	
75 Ethyl methacrylate	69	9.711	9.705	0.006	90	144791	250.0	259.9	
76 1,1,2-Trichloroethane	97	9.784	9.790	-0.006	80	141849	250.0	247.6	
77 Tetrachloroethene	164	9.936	9.930	0.006	91	238148	250.0	246.1	
78 1,3-Dichloropropane	76	9.954	9.954	0.000	90	227726	250.0	261.1	
79 2-Hexanone	43	10.069	10.082	-0.013	93	137204	250.0	253.4	
81 Chlorodibromomethane	129	10.185	10.191	-0.006	91	135525	250.0	265.9	
82 Ethylene Dibromide	107	10.313	10.313	0.000	96	112585	250.0	238.4	
84 Chlorobenzene	112	10.793	10.793	0.000	96	709554	250.0	258.2	
85 1,1,1,2-Tetrachloroethane	131	10.866	10.866	0.000	91	217927	250.0	269.7	
86 Ethylbenzene	106	10.896	10.897	-0.001	97	410541	250.0	263.3	
87 m-Xylene & p-Xylene	106	11.012	11.018	-0.006	98	494843	250.0	243.3	
88 o-Xylene	106	11.407	11.408	-0.001	95	494237	250.0	259.1	
89 Styrene	104	11.432	11.426	0.006	94	737851	250.0	269.7	
90 Bromoform	173	11.620	11.627	-0.007	97	71163	250.0	227.2	
91 Isopropylbenzene	105	11.772	11.773	-0.001	95	1319197	250.0	259.5	
93 1,1,2,2-Tetrachloroethane	83	12.064	12.064	0.000	75	155669	250.0	244.6	
94 Bromobenzene	156	12.094	12.101	-0.007	86	273117	250.0	237.6	
95 1,2,3-Trichloropropane	110	12.119	12.125	-0.006	60	45252	250.0	227.9	
96 trans-1,4-Dichloro-2-buten	53	12.180	12.180	0.000	36	27710	250.0	367.7	M
97 N-Propylbenzene	120	12.186	12.186	0.000	97	410531	250.0	245.1	
98 2-Chlorotoluene	126	12.277	12.277	0.000	97	312186	250.0	227.1	
99 1,3,5-Trimethylbenzene	105	12.356	12.356	0.000	94	1111969	250.0	242.1	
100 4-Chlorotoluene	126	12.392	12.393	-0.001	96	297928	250.0	240.8	
101 tert-Butylbenzene	119	12.684	12.685	-0.001	89	1047543	250.0	234.4	
103 1,2,4-Trimethylbenzene	105	12.733	12.733	0.000	96	1085643	250.0	242.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.903	12.904	-0.001	92	1509453	250.0	239.6	
105 1,3-Dichlorobenzene	146	13.031	13.037	-0.006	97	510341	250.0	263.0	
106 4-Isopropyltoluene	119	13.049	13.050	-0.001	96	1303380	250.0	244.7	
107 1,4-Dichlorobenzene	146	13.122	13.123	-0.001	94	599144	250.0	236.8	
110 n-Butylbenzene	91	13.469	13.469	0.000	95	1137877	250.0	253.7	
111 1,2-Dichlorobenzene	146	13.499	13.506	-0.007	99	488892	250.0	230.8	
112 1,2-Dibromo-3-Chloropropan	157	14.320	14.321	-0.001	60	14165	250.0	227.7	
113 1,2,4-Trichlorobenzene	180	15.141	15.154	-0.013	91	202975	250.0	286.0	
115 Hexachlorobutadiene	225	15.287	15.288	-0.001	90	265141	250.0	239.9	
116 Naphthalene	128	15.433	15.446	-0.013	86	211173	250.0	250.5	
117 1,2,3-Trichlorobenzene	180	15.682	15.689	-0.007	90	147300	250.0	254.8	
S 130 Xylenes, Total	106				0		500.0	502.4	
S 129 1,2-Dichloroethene, Total	96				0		500.0	493.2	
S 131 1,3-Dichloropropene, Total	1				0		500.0	512.2	

QC Flag Legend

Review Flags
M - Manually Integrated

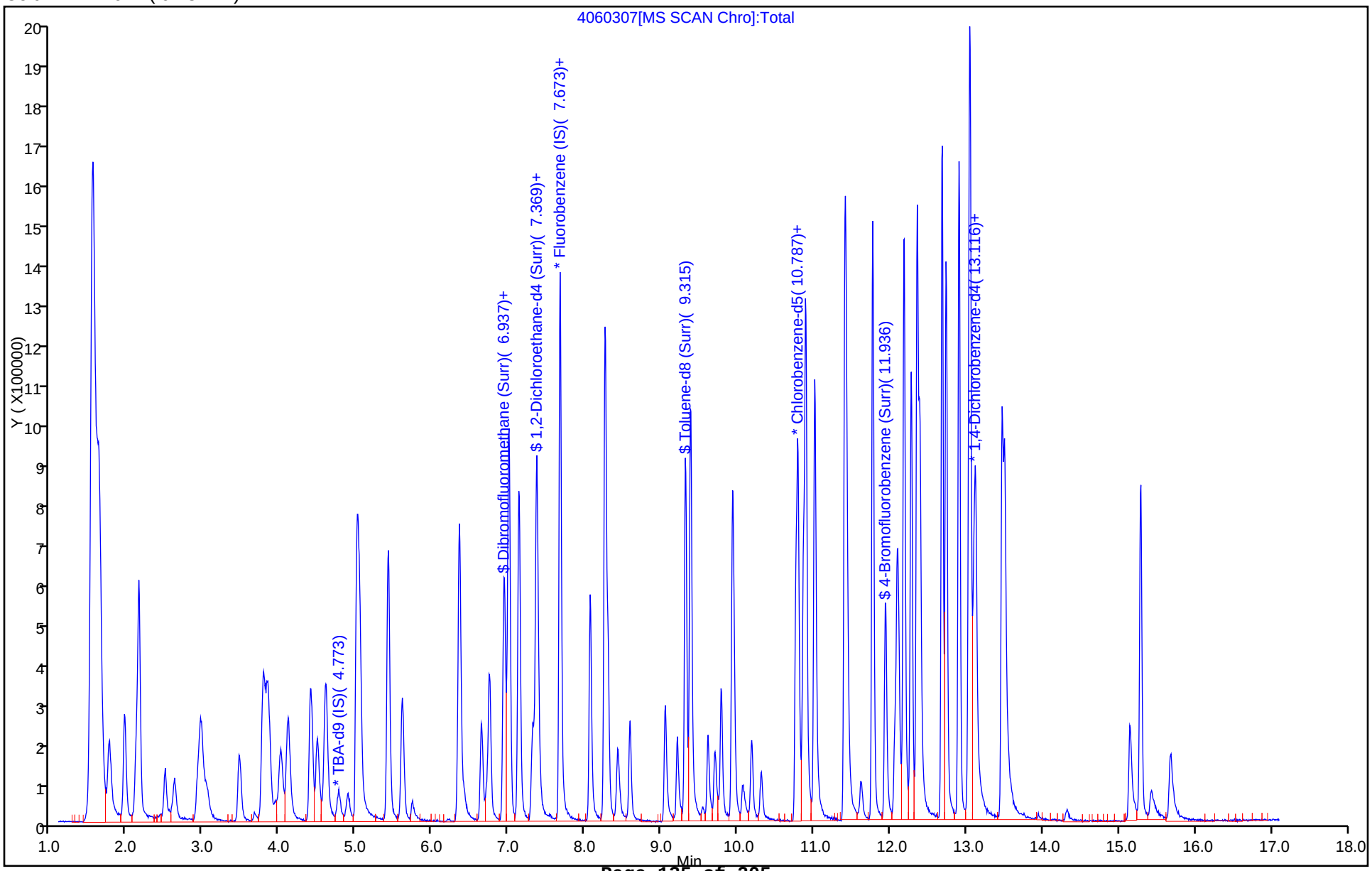
Report Date: 03-Jun-2014 14:07:38 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060307.D

Injection Date:	03-Jun-2014 13:14:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

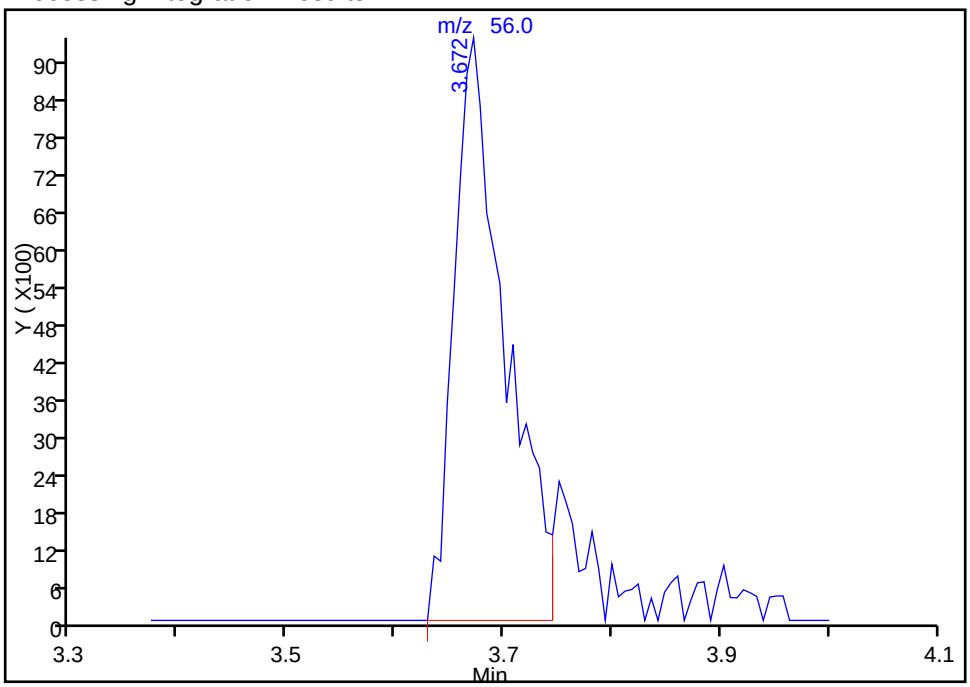
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060307.D
Injection Date: 03-Jun-2014 13:14:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

20 Acrolein, CAS: 107-02-8

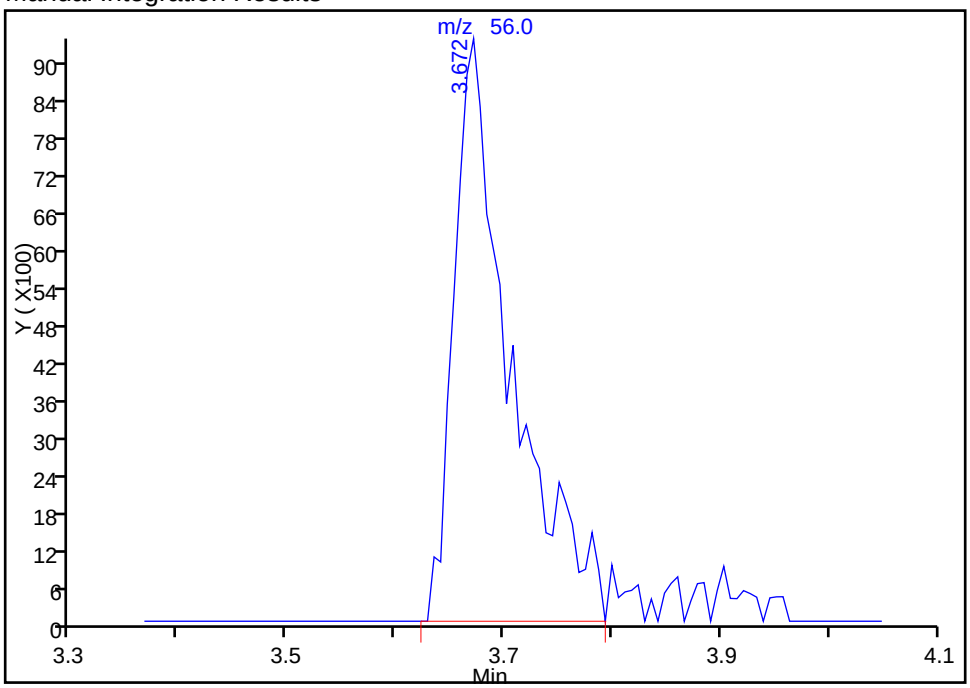
Processing Integration Results

RT: 3.67
Response: 30656
Amount: 733.0451



Manual Integration Results

RT: 3.67
Response: 34150
Amount: 853.4896



Reviewer: journetp, 03-Jun-2014 13:57:37
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

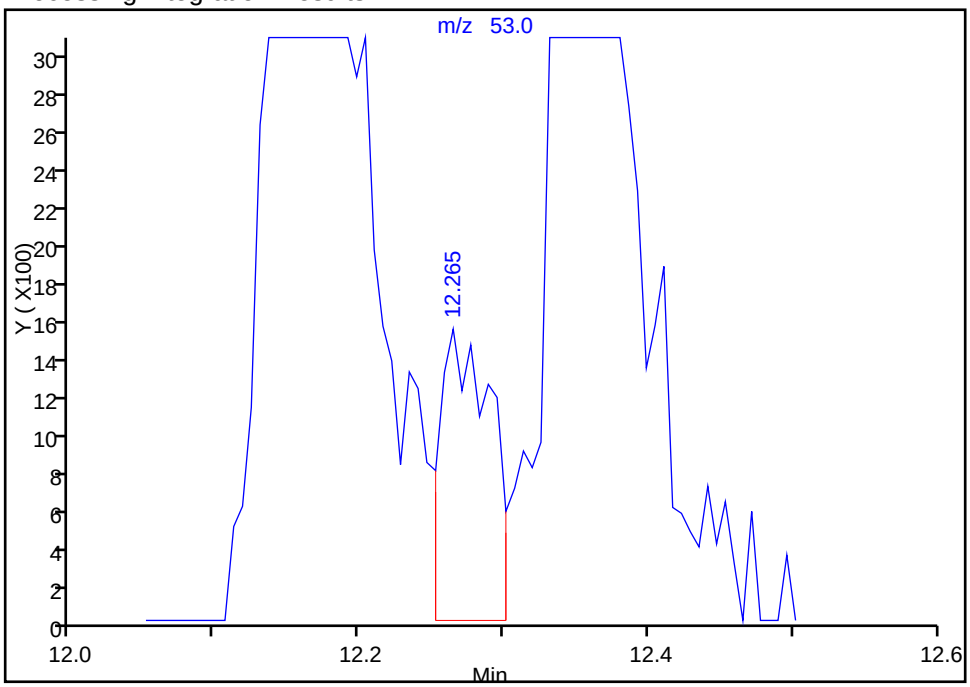
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060307.D
Injection Date: 03-Jun-2014 13:14:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

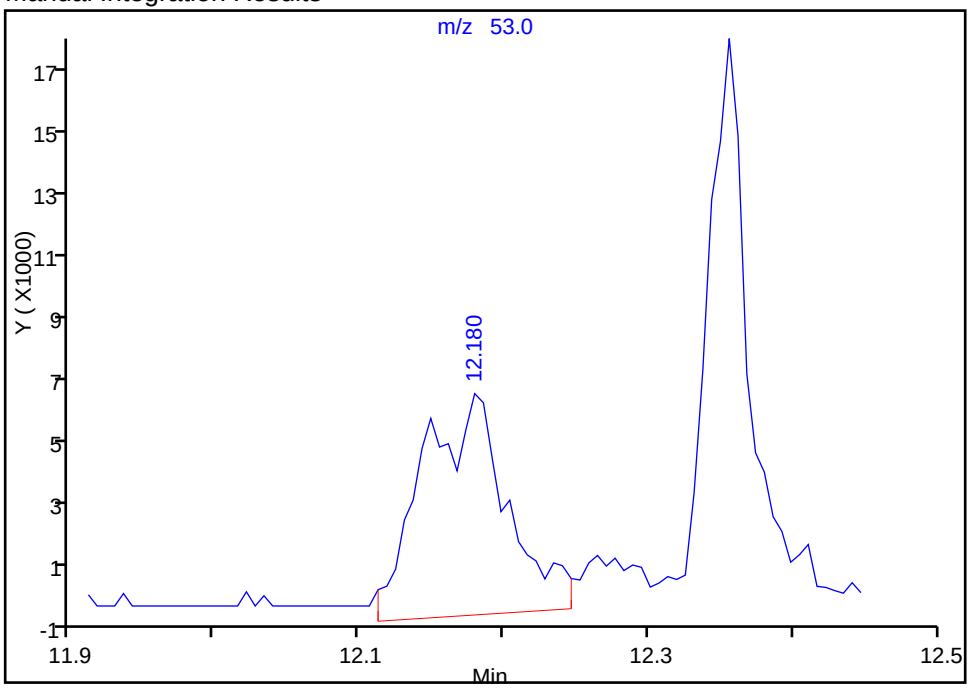
Processing Integration Results

RT: 12.26
Response: 3766
Amount: 146.5829



Manual Integration Results

RT: 12.18
Response: 27710
Amount: 367.7452



Reviewer: journetp, 03-Jun-2014 13:52:22
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060308.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Jun-2014 13:44:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0001537-008
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:39 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 13:28:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.775	4.767	0.008	97	113876	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.676	7.680	-0.004	62	543766	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.759	10.763	-0.004	55	139100	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.094	13.098	-0.004	87	210799	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.934	6.932	0.002	85	449327	625.0	674.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.305	7.309	-0.004	91	349327	625.0	647.6	
$ 7 Toluene-d8 (Surr)	98	9.318	9.316	0.002	92	1831708	625.0	580.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.933	11.943	-0.010	96	710520	625.0	705.9	
10 Dichlorodifluoromethane	85	1.765	1.757	0.008	87	853875	625.0	663.3	
11 Chloromethane	50	1.972	1.963	0.009	89	1072684	625.0	639.5	
12 Vinyl chloride	62	2.130	2.115	0.015	83	897253	625.0	657.8	
13 Butadiene	39	2.154	2.152	0.002	89	893383	625.0	656.8	
14 Bromomethane	94	2.495	2.492	0.003	90	250512	625.0	631.6	
15 Chloroethane	64	2.628	2.614	0.014	97	311875	625.0	598.3	
16 Dichlorofluoromethane	67	2.951	2.949	0.002	80	967869	625.0	658.5	
17 Trichlorofluoromethane	101	2.969	2.967	0.002	86	901262	625.0	663.5	
19 Ethyl ether	59	3.468	3.472	-0.004	92	454943	625.0	681.1	
20 Acrolein	56	3.680	3.672	0.008	73	31770	1125.0	893.9	
21 1,1-Dichloroethene	96	3.778	3.782	-0.004	96	736894	625.0	692.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.845	3.849	-0.004	81	749434	625.0	668.0	
23 Acetone	43	3.942	3.958	-0.016	98	238833	625.0	713.5	
24 Iodomethane	142	4.009	4.007	0.002	95	1084865	625.0	684.5	
25 Carbon disulfide	76	4.100	4.104	-0.004	99	2088584	625.0	786.8	
28 3-Chloro-1-propene	76	4.404	4.408	-0.004	92	430194	625.0	656.6	
29 Methyl acetate	43	4.483	4.487	-0.004	98	1214263	3125.0	3411.3	
30 Methylene Chloride	84	4.599	4.603	-0.004	92	671813	625.0	659.3	
31 2-Methyl-2-propanol	59	4.897	4.901	-0.004	92	238785	6250.0	5445.7	
32 Acrylonitrile	53	5.000	5.004	-0.004	98	1171700	6250.0	6846.6	
33 trans-1,2-Dichloroethene	96	5.012	5.016	-0.004	95	716611	625.0	660.5	
34 Methyl tert-butyl ether	73	5.049	5.047	0.002	91	1086458	625.0	681.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.420	5.418	0.002	92	1126763	625.0	588.0	
36 1,1-Dichloroethane	63	5.602	5.600	0.002	85	1113593	625.0	676.6	
38 Vinyl acetate	43	5.724	5.740	-0.016	97	298647	625.0	628.0	
41 2,2-Dichloropropane	77	6.344	6.348	-0.004	84	656076	625.0	707.1	
42 cis-1,2-Dichloroethene	96	6.356	6.360	-0.004	68	708059	625.0	686.4	
43 2-Butanone (MEK)	43	6.411	6.421	-0.010	99	248530	625.0	625.1	
46 Chlorobromomethane	128	6.642	6.646	-0.004	94	267649	625.0	706.9	
48 Tetrahydrofuran	42	6.709	6.713	-0.004	94	184463	1250.0	1310.8	
49 Chloroform	83	6.745	6.749	-0.004	82	887828	625.0	661.6	
50 1,1,1-Trichloroethane	97	6.940	6.944	-0.004	96	874238	625.0	704.5	
51 Cyclohexane	56	7.007	7.005	0.002	91	1554565	625.0	654.1	
53 Carbon tetrachloride	117	7.129	7.133	-0.004	86	768561	625.0	712.8	
52 1,1-Dichloropropene	75	7.135	7.139	-0.004	90	735441	625.0	698.1	
54 Benzene	78	7.366	7.364	0.002	98	2164590	625.0	639.0	
55 1,2-Dichloroethane	62	7.384	7.394	-0.010	84	463582	625.0	665.0	
58 n-Heptane	43	7.670	7.674	-0.004	92	1069765	625.0	651.4	
59 Isobutyl alcohol	41	7.670	7.674	-0.004	85	577610	15625	16524	
61 Trichloroethene	130	8.071	8.069	0.002	91	636865	625.0	664.5	
63 Methylcyclohexane	83	8.266	8.264	0.002	92	1392517	625.0	674.8	
64 1,2-Dichloropropane	63	8.296	8.300	-0.004	93	490182	625.0	641.1	
65 Dibromomethane	93	8.424	8.428	-0.004	89	207079	625.0	677.3	
67 1,4-Dioxane	88	8.454	8.458	-0.004	96	52785	12500	11886	
68 Dichlorobromomethane	83	8.588	8.592	-0.004	98	513809	625.0	723.7	
71 cis-1,3-Dichloropropene	75	9.050	9.054	-0.004	91	616870	625.0	729.7	
72 4-Methyl-2-pentanone (MIBK	43	9.202	9.212	-0.010	95	512527	625.0	660.1	
73 Toluene	91	9.385	9.383	0.002	99	2336210	625.0	567.5	
74 trans-1,3-Dichloropropene	75	9.604	9.614	-0.010	90	437269	625.0	715.7	
75 Ethyl methacrylate	69	9.695	9.705	-0.010	91	373010	625.0	627.8	
76 1,1,2-Trichloroethane	97	9.786	9.790	-0.004	82	339867	625.0	592.5	
77 Tetrachloroethene	164	9.932	9.930	0.002	91	561525	625.0	579.4	
78 1,3-Dichloropropane	76	9.956	9.954	0.002	91	539903	625.0	618.3	
79 2-Hexanone	43	10.048	10.082	-0.034	97	372272	625.0	637.3	
81 Chlorodibromomethane	129	10.181	10.191	-0.010	89	355890	625.0	697.4	
82 Ethylene Dibromide	107	10.303	10.313	-0.010	96	307228	625.0	613.4	
84 Chlorobenzene	112	10.790	10.793	-0.003	96	1644564	625.0	597.6	
85 1,1,1,2-Tetrachloroethane	131	10.863	10.866	-0.003	92	529066	625.0	653.8	
86 Ethylbenzene	106	10.893	10.897	-0.004	97	937035	625.0	600.1	
87 m-Xylene & p-Xylene	106	11.008	11.018	-0.010	98	1194443	625.0	623.2	
88 o-Xylene	106	11.404	11.408	-0.004	93	1139225	625.0	596.3	
89 Styrene	104	11.422	11.426	-0.004	93	1767720	625.0	645.2	
90 Bromoform	173	11.617	11.627	-0.010	99	215453	625.0	653.4	
91 Isopropylbenzene	105	11.769	11.773	-0.004	95	2917967	625.0	573.3	
93 1,1,2,2-Tetrachloroethane	83	12.061	12.064	-0.003	77	407437	625.0	639.3	
94 Bromobenzene	156	12.091	12.101	-0.010	88	681279	625.0	585.0	
95 1,2,3-Trichloropropane	110	12.109	12.125	-0.016	75	118147	625.0	587.5	
96 trans-1,4-Dichloro-2-buten	53	12.213	12.180	0.033	24	13039	625.0	170.8	M
97 N-Propylbenzene	120	12.182	12.186	-0.004	96	969443	625.0	571.3	
98 2-Chlorotoluene	126	12.279	12.277	0.002	98	772863	625.0	555.1	
99 1,3,5-Trimethylbenzene	105	12.352	12.356	-0.004	95	2478853	625.0	629.4	
100 4-Chlorotoluene	126	12.383	12.393	-0.010	96	767206	625.0	612.1	
101 tert-Butylbenzene	119	12.681	12.685	-0.004	90	2377898	625.0	632.0	
103 1,2,4-Trimethylbenzene	105	12.730	12.733	-0.003	96	2476853	625.0	547.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.900	12.904	-0.004	93	3306921	625.0	631.0	
105 1,3-Dichlorobenzene	146	13.027	13.037	-0.010	96	1307456	625.0	665.2	
106 4-Isopropyltoluene	119	13.046	13.050	-0.004	95	2847929	625.0	626.6	
107 1,4-Dichlorobenzene	146	13.113	13.123	-0.010	95	1414211	625.0	551.7	
110 n-Butylbenzene	91	13.459	13.469	-0.010	93	2615011	625.0	575.5	
111 1,2-Dichlorobenzene	146	13.496	13.506	-0.010	98	1212604	625.0	565.0	
112 1,2-Dibromo-3-Chloropropan	157	14.292	14.321	-0.029	73	47555	625.0	630.0	
113 1,2,4-Trichlorobenzene	180	15.126	15.154	-0.028	92	502567	625.0	699.1	
115 Hexachlorobutadiene	225	15.284	15.288	-0.004	90	593016	625.0	529.7	
116 Naphthalene	128	15.405	15.446	-0.041	95	552309	625.0	609.4	
117 1,2,3-Trichlorobenzene	180	15.661	15.689	-0.028	94	373589	625.0	614.8	
S 130 Xylenes, Total	106				0		1250.0	1219.6	
S 129 1,2-Dichloroethene, Total	96				0		1250.0	1346.9	
S 131 1,3-Dichloropropene, Total	1				0		1250.0	1445.4	

QC Flag Legend

Review Flags
M - Manually Integrated

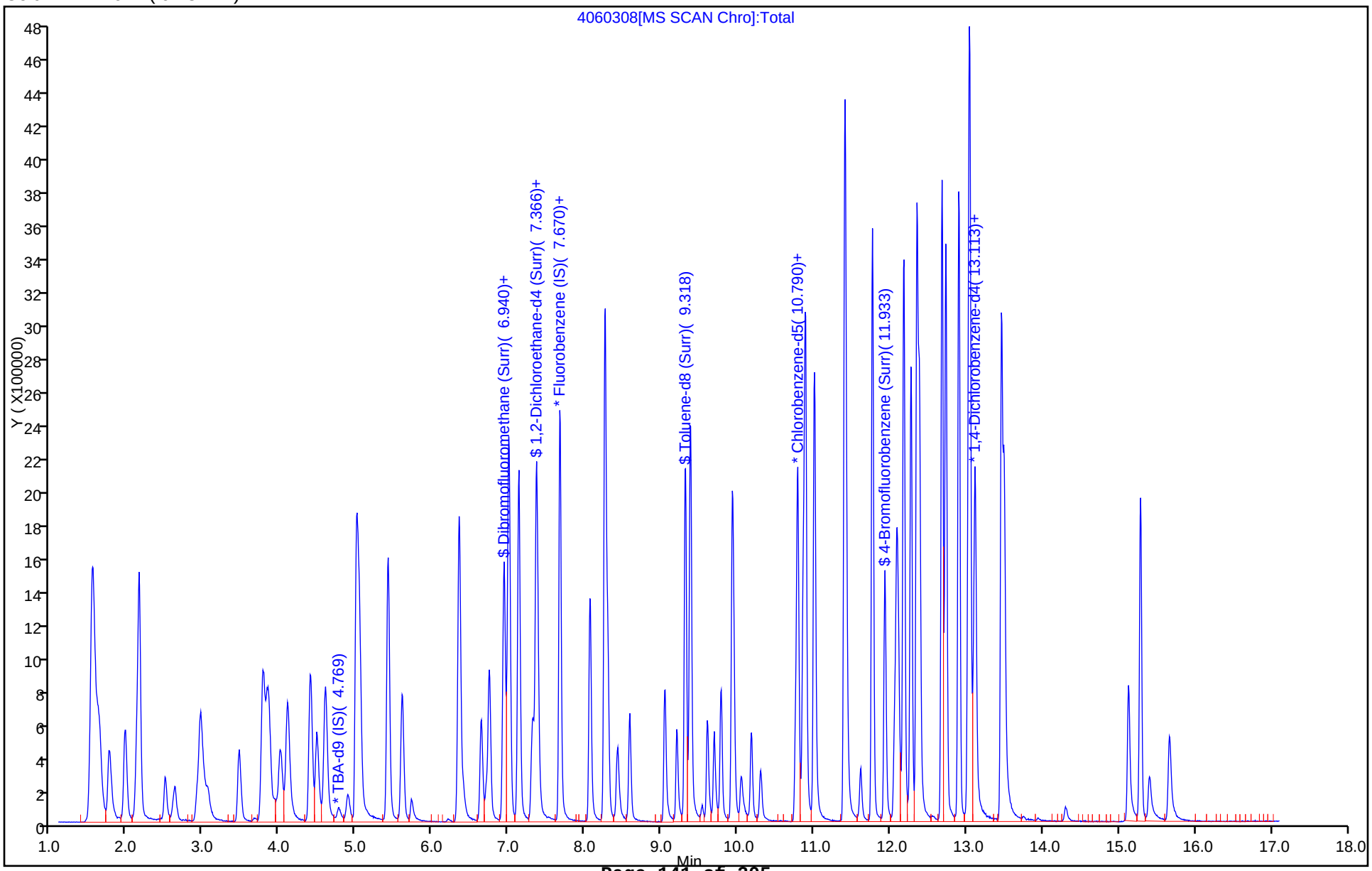
Report Date: 03-Jun-2014 14:07:40 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060308.D

Injection Date:	03-Jun-2014 13:44:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

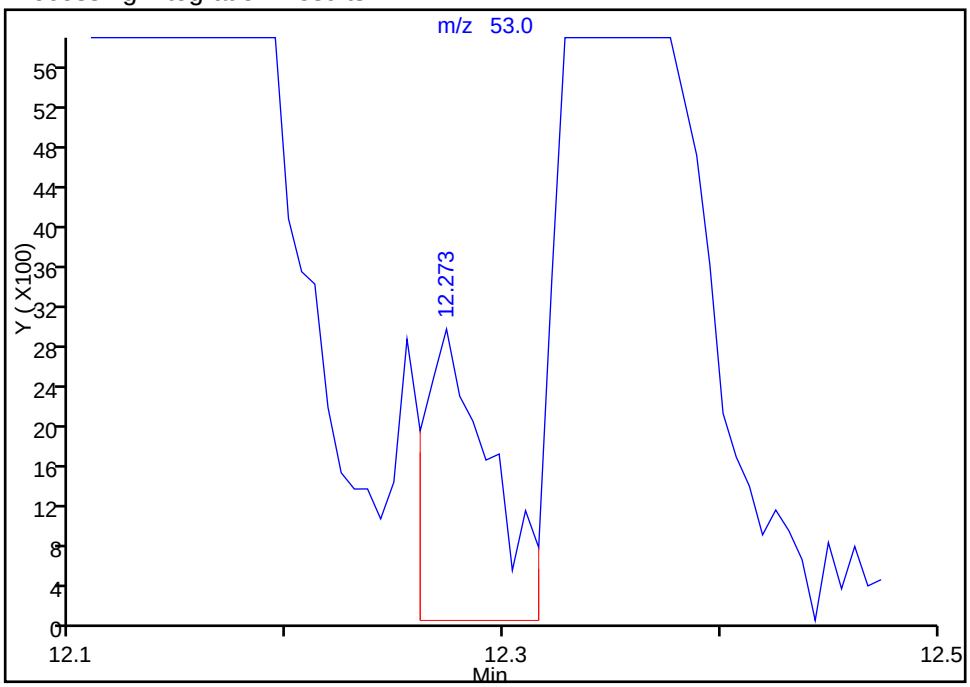
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060308.D
Injection Date: 03-Jun-2014 13:44:30 Instrument ID: CHHP4
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

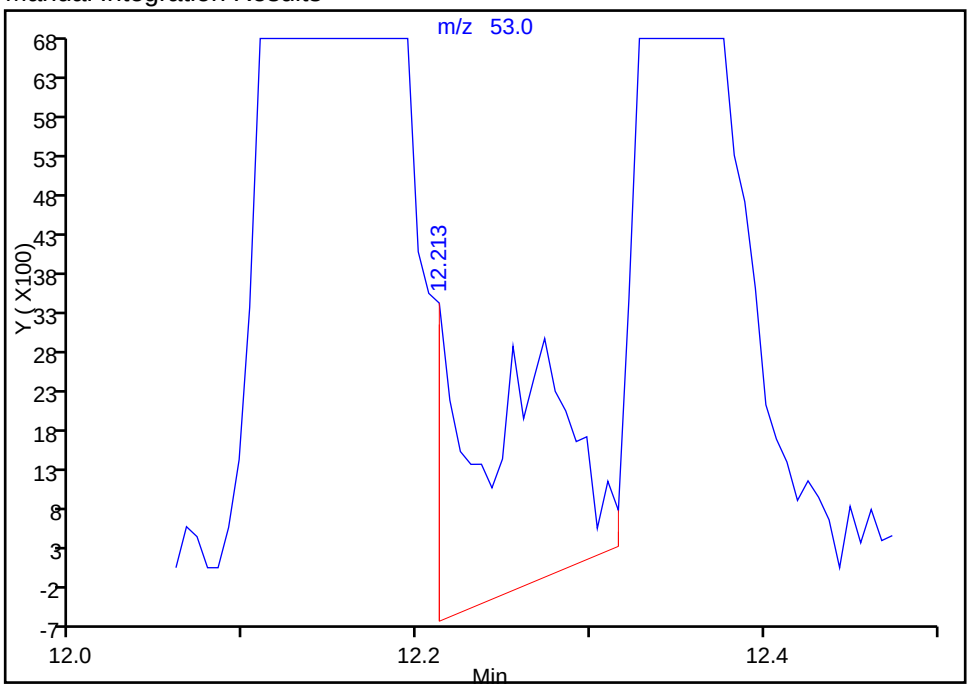
Processing Integration Results

RT: 12.27
Response: 6257
Amount: 230.5732



Manual Integration Results

RT: 12.21
Response: 13039
Amount: 170.8302



Reviewer: journetp, 03-Jun-2014 13:34:50
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 03-Jun-2014 14:15:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0001537-009
Operator ID: 034635 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:07:41 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.806	4.767	0.039	92	126028	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.670	7.680	-0.010	48	710864	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.760	10.763	-0.003	82	178341	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.089	13.098	-0.009	84	281013	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.928	6.932	-0.004	88	1071890	1250.0	1231.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.305	7.309	-0.004	92	905001	1250.0	1283.4	
$ 7 Toluene-d8 (Surr)	98	9.312	9.316	-0.004	92	3939297	1250.0	973.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.927	11.943	-0.016	96	1669671	1250.0	1293.8	
10 Dichlorodifluoromethane	85	1.759	1.757	0.002	88	1869499	1250.0	1110.9	
11 Chloromethane	50	1.972	1.963	0.009	88	2297643	1250.0	1047.8	
12 Vinyl chloride	62	2.124	2.115	0.009	84	1931879	1250.0	1083.5	
13 Butadiene	39	2.155	2.152	0.003	89	1897569	1250.0	1067.1	
14 Bromomethane	94	2.495	2.492	0.003	90	563541	1250.0	1086.8	
15 Chloroethane	64	2.617	2.614	0.003	93	534610	1250.0	784.5	
16 Dichlorofluoromethane	67	2.927	2.949	-0.022	81	1912847	1250.0	995.6	
17 Trichlorofluoromethane	101	2.945	2.967	-0.022	86	1909728	1250.0	1075.4	
19 Ethyl ether	59	3.468	3.472	-0.004	93	1042135	1250.0	1193.4	
20 Acrolein	56	3.675	3.672	0.003	68	56583	1250.0	1217.8	
21 1,1-Dichloroethene	96	3.760	3.782	-0.022	87	1574016	1250.0	1131.1	
22 1,1,2-Trichloro-1,2,2-trif	101	3.827	3.849	-0.022	79	1657918	1250.0	1130.4	
23 Acetone	43	3.949	3.958	-0.009	98	593520	1250.0	1356.4	
24 Iodomethane	142	3.997	4.007	-0.010	96	2415711	1250.0	1165.9	
25 Carbon disulfide	76	4.088	4.104	-0.016	99	4545741	1250.0	1310.0	
28 3-Chloro-1-propene	76	4.393	4.408	-0.016	92	941697	1250.0	1241.3	
29 Methyl acetate	43	4.490	4.487	0.003	98	2772831	6250.0	5958.7	
30 Methylene Chloride	84	4.593	4.603	-0.010	91	1414232	1250.0	1240.9	
31 2-Methyl-2-propanol	59	4.928	4.901	0.027	94	665744	12500	13719	
32 Acrylonitrile	53	5.001	5.004	-0.003	100	2747419	12500	12190	
33 trans-1,2-Dichloroethene	96	5.001	5.016	-0.015	94	1642026	1250.0	1157.8	
34 Methyl tert-butyl ether	73	5.049	5.047	0.002	91	2382696	1250.0	1143.2	
35 Hexane	57	5.408	5.418	-0.010	93	2615355	1250.0	1044.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.603	5.600	0.003	84	2477766	1250.0	1151.5	
38 Vinyl acetate	43	5.718	5.740	-0.022	97	856708	1250.0	1201.9	
41 2,2-Dichloropropane	77	6.345	6.348	-0.003	85	1487976	1250.0	1226.7	
42 cis-1,2-Dichloroethene	96	6.351	6.360	-0.009	67	1590727	1250.0	1179.5	
43 2-Butanone (MEK)	43	6.405	6.421	-0.016	98	692327	1250.0	1249.9	
46 Chlorobromomethane	128	6.637	6.646	-0.009	95	628354	1250.0	1269.5	
48 Tetrahydrofuran	42	6.703	6.713	-0.010	92	455672	2500.0	2476.8	
49 Chloroform	83	6.746	6.749	-0.003	82	2064409	1250.0	1176.7	
50 1,1,1-Trichloroethane	97	6.941	6.944	-0.003	93	1942330	1250.0	1197.4	
51 Cyclohexane	56	7.001	7.005	-0.004	91	3275225	1250.0	1054.1	
53 Carbon tetrachloride	117	7.129	7.133	-0.004	86	1741871	1250.0	1235.7	
52 1,1-Dichloropropene	75	7.129	7.139	-0.010	88	1708387	1250.0	1240.4	
54 Benzene	78	7.360	7.364	-0.004	99	4715365	1250.0	1064.8	
55 1,2-Dichloroethane	62	7.385	7.394	-0.010	87	1116464	1250.0	1225.1	
58 n-Heptane	43	7.670	7.674	-0.004	92	2490271	1250.0	1160.0	
59 Isobutyl alcohol	41	7.670	7.674	-0.004	86	1354257	31250	29635	
61 Trichloroethene	130	8.060	8.069	-0.009	92	1546774	1250.0	1234.6	
63 Methylcyclohexane	83	8.260	8.264	-0.004	92	2900144	1250.0	1075.1	
64 1,2-Dichloropropane	63	8.297	8.300	-0.003	94	1195123	1250.0	1195.7	
65 Dibromomethane	93	8.424	8.428	-0.004	87	512387	1250.0	1282.0	
67 1,4-Dioxane	88	8.455	8.458	-0.003	96	146373	25000	25213	
68 Dichlorobromomethane	83	8.583	8.592	-0.009	93	1291669	1250.0	1391.7	
71 cis-1,3-Dichloropropene	75	9.039	9.054	-0.015	90	1569225	1250.0	1419.9	
72 4-Methyl-2-pentanone (MIBK	43	9.203	9.212	-0.009	96	1275431	1250.0	1281.3	
73 Toluene	91	9.379	9.383	-0.004	96	4903061	1250.0	928.9	
74 trans-1,3-Dichloropropene	75	9.598	9.614	-0.016	89	1150943	1250.0	1469.2	
75 Ethyl methacrylate	69	9.689	9.705	-0.016	92	956083	1250.0	1229.1	
76 1,1,2-Trichloroethane	97	9.781	9.790	-0.009	83	812342	1250.0	1104.5	
77 Tetrachloroethene	164	9.933	9.930	0.003	92	1305528	1250.0	1050.8	
78 1,3-Dichloropropane	76	9.951	9.954	-0.003	92	1285839	1250.0	1148.5	
79 2-Hexanone	43	10.036	10.082	-0.046	95	946066	1250.0	1234.9	
81 Chlorodibromomethane	129	10.182	10.191	-0.009	90	887866	1250.0	1357.1	
82 Ethylene Dibromide	107	10.297	10.313	-0.016	98	761274	1250.0	1166.0	
84 Chlorobenzene	112	10.784	10.793	-0.009	93	3607456	1250.0	1022.4	
85 1,1,1,2-Tetrachloroethane	131	10.863	10.866	-0.003	91	1242745	1250.0	1197.8	
86 Ethylbenzene	106	10.887	10.897	-0.010	96	2097205	1250.0	1047.5	
87 m-Xylene & p-Xylene	106	11.003	11.018	-0.015	95	2588369	1250.0	1250.8	
88 o-Xylene	106	11.404	11.408	-0.004	92	2441197	1250.0	996.7	
89 Styrene	104	11.416	11.426	-0.010	93	3821505	1250.0	1088.0	
90 Bromoform	173	11.611	11.627	-0.016	99	585557	1250.0	1366.5	
91 Isopropylbenzene	105	11.769	11.773	-0.004	96	5591752	1250.0	856.8	
93 1,1,2,2-Tetrachloroethane	83	12.055	12.064	-0.009	95	929031	1250.0	1137.0	
94 Bromobenzene	156	12.085	12.101	-0.016	88	1597112	1250.0	1028.8	
95 1,2,3-Trichloropropane	110	12.110	12.125	-0.015	75	273255	1250.0	1019.3	
96 trans-1,4-Dichloro-2-buten	53	12.122	12.180	-0.058	50	208937	1250.0	2053.4	
97 N-Propylbenzene	120	12.177	12.186	-0.009	93	2140511	1250.0	946.2	
98 2-Chlorotoluene	126	12.274	12.277	-0.003	96	1734463	1250.0	934.5	
99 1,3,5-Trimethylbenzene	105	12.353	12.356	-0.003	95	4879395	1250.0	1247.7	
100 4-Chlorotoluene	126	12.383	12.393	-0.010	95	1776601	1250.0	1063.4	
101 tert-Butylbenzene	119	12.681	12.685	-0.004	82	4673004	1250.0	1247.0	
103 1,2,4-Trimethylbenzene	105	12.730	12.733	-0.003	95	4939352	1250.0	818.4	
104 sec-Butylbenzene	105	12.900	12.904	-0.004	94	6159727	1250.0	1244.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	13.022	13.037	-0.015	96	2946226	1250.0	1124.4	
106 4-Isopropyltoluene	119	13.046	13.050	-0.004	91	5514991	1250.0	1249.2	
107 1,4-Dichlorobenzene	146	13.113	13.123	-0.010	93	3174777	1250.0	929.1	
110 n-Butylbenzene	91	13.454	13.469	-0.015	92	5410806	1250.0	893.2	
111 1,2-Dichlorobenzene	146	13.490	13.506	-0.016	96	2704973	1250.0	945.5	
112 1,2-Dibromo-3-Chloropropan	157	14.287	14.321	-0.034	89	144957	1250.0	1249.3	
113 1,2,4-Trichlorobenzene	180	15.114	15.154	-0.040	91	1418965	1250.0	1480.7	
115 Hexachlorobutadiene	225	15.284	15.288	-0.004	91	1420121	1250.0	951.5	
116 Naphthalene	128	15.388	15.446	-0.058	97	1582030	1250.0	1282.3	
117 1,2,3-Trichlorobenzene	180	15.649	15.689	-0.040	94	1012752	1250.0	1252.1	
S 130 Xylenes, Total	106				0		2500.0	2247.5	
S 129 1,2-Dichloroethene, Total	96				0		2500.0	2337.3	
S 131 1,3-Dichloropropene, Total	1				0		2500.0	2889.2	

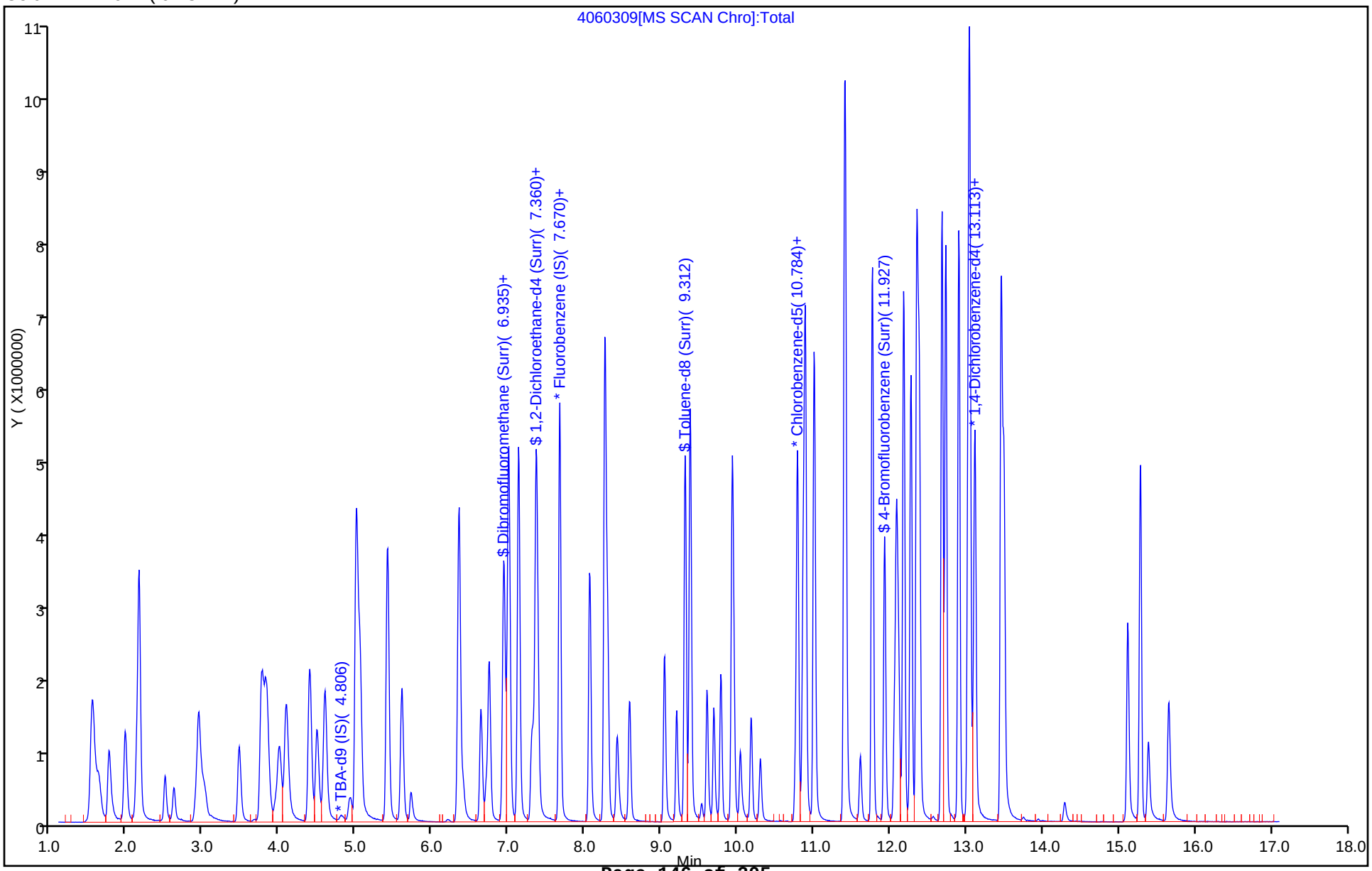
Report Date: 03-Jun-2014 14:07:42 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Injection Date:	03-Jun-2014 14:15:30	Instrument ID:	CHHP4	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_CHHP4	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.: 180-34114-1

SDG No.:

Lab Sample ID: CCVIS 180-109391/2 Calibration Date: 06/24/2014 10:51

Instrument ID: CHHP4 Calib Start Date: 06/03/2014 11:03

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/03/2014 14:15

Lab File ID: 4062404.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	0.5918	0.4874		32.9	40.0	-17.6	
Chloromethane	Ave	0.7712	0.6820		35.4	40.0	-11.6	
Vinyl chloride	Ave	0.6271	0.5396		34.4	40.0	-14.0	
1,3-Butadiene	Ave	0.6254	0.5053		32.3	40.0	-19.2	
Bromomethane	Ave	0.1824	0.1579		34.6	40.0	-13.4	
Chloroethane	Ave	0.2397	0.1587		26.5	40.0	-33.8	
Dichlorofluoromethane	Ave	0.6757	0.5952		35.2	40.0	-11.9	
Trichlorofluoromethane	Ave	0.6245	0.5577		35.7	40.0	-10.7	
Ethyl ether	Ave	0.3071	0.3386		44.1	40.0	10.3	
Acrolein	Ave	0.0163	0.0114		122	175	-30.6	
1,1-Dichloroethene	Ave	0.4894	0.5028		41.1	40.0	2.7	
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.5158	0.5105		39.6	40.0	-1.0	
Acetone	Ave	0.1539	0.1900		49.4	40.0	23.4	
Iodomethane	Ave	0.7287	0.7624		41.9	40.0	4.6	
Carbon disulfide	Ave	1.220	1.464		48.0	40.0	20.0	
Allyl chloride	Qua		0.2869		39.5	40.0	-1.4	
Methyl acetate	Ave	0.1637	0.2038		249	200	24.5	
Methylene Chloride	Qua		0.5388		38.2	40.0	-4.5	
tert-Butyl alcohol	Ave	1.925	1.809		376	400	-6.0	
Acrylonitrile	Lin2		0.1056		551	400	37.6	
trans-1,2-Dichloroethene	Ave	0.4988	0.5424		43.5	40.0	8.7	
Methyl tert-butyl ether	Ave	0.7330	0.8360		45.6	40.0	14.1	
Hexane	Ave	0.8809	0.7786		35.4	40.0	-11.6	
1,1-Dichloroethane	Ave	0.7567	0.7967		42.1	40.0	5.3	
Vinyl acetate	Qua		0.2562		52.2	40.0	30.6	
2,2-Dichloropropane	Ave	0.4266	0.4388		41.1	40.0	2.9	
cis-1,2-Dichloroethene	Ave	0.4743	0.5169		43.6	40.0	9.0	
2-Butanone (MEK)	Qua		0.1806		41.6	40.0	4.1	
Chlorobromomethane	Ave	0.1741	0.1918		44.1	40.0	10.2	
Tetrahydrofuran	Ave	0.0647	0.0784		96.9	80.0	21.2	
Chloroform	Ave	0.6170	0.6418		41.6	40.0	4.0	
1,1,1-Trichloroethane	Ave	0.5705	0.5978		41.9	40.0	4.8	
Cyclohexane	Ave	1.093	1.081		39.6	40.0	-1.1	
Carbon tetrachloride	Ave	0.4957	0.5030		40.6	40.0	1.5	
1,1-Dichloropropene	Ave	0.4844	0.5122		42.3	40.0	5.7	
Benzene	Ave	1.557	1.671		42.9	40.0	7.3	
1,2-Dichloroethane	Ave	0.3205	0.3474		43.4	40.0	8.4	
Isobutyl alcohol	Ave	0.0161	0.0162		1010	1000	0.9	
n-Heptane	Ave	0.7550	0.7494		39.7	40.0	-0.7	
Trichloroethene	Ave	0.4406	0.4344		39.4	40.0	-1.4	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab Sample ID: CCVIS 180-109391/2 Calibration Date: 06/24/2014 10:51

Instrument ID: CHHP4 Calib Start Date: 06/03/2014 11:03

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/03/2014 14:15

Lab File ID: 4062404.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
Methylcyclohexane	Ave	0.9487	0.9496		40.0	40.0	0.0	
1,2-Dichloropropane	Ave	0.3515	0.3708		42.2	40.0	5.5	
Dibromomethane	Ave	0.1406	0.1708		48.6	40.0	21.5	
1,4-Dioxane	Ave	0.0020	0.0025		977	800	22.1	
Dichlorobromomethane	Ave	0.3264	0.3815		46.7	40.0	16.9	
cis-1,3-Dichloropropene	Ave	0.3887	0.4248		43.7	40.0	9.3	
4-Methyl-2-pentanone (MIBK)	Ave	1.395	0.9055		26.0	40.0	-35.1	
Toluene	Ave	7.399	7.213		39.0	40.0	-2.5	
trans-1,3-Dichloropropene	Ave	1.098	1.316		47.9	40.0	19.9	
Ethyl methacrylate	Lin1		1.168		47.1	40.0	17.8	
1,1,2-Trichloroethane	Ave	1.031	1.097		42.6	40.0	6.4	
Tetrachloroethene	Ave	1.742	1.627		37.4	40.0	-6.6	
1,3-Dichloropropane	Ave	1.569	1.755		44.7	40.0	11.8	
2-Hexanone	Lin1		0.7165		31.8	40.0	-20.4	
Chlorodibromomethane	Ave	0.9171	1.072		46.8	40.0	16.9	
1,2-Dibromoethane	Lin2		0.9867		46.5	40.0	16.4	
Chlorobenzene	Ave	4.946	4.831		39.1	40.0	-2.3	
1,1,1,2-Tetrachloroethane	Ave	1.454	1.505		41.4	40.0	3.5	
Ethylbenzene	Ave	2.807	2.842		40.5	40.0	1.3	
m-Xylene & p-Xylene	Qua		3.431		37.7	40.0	-5.9	
o-Xylene	Ave	3.434	3.362		39.2	40.0	-2.1	
Styrene	Ave	4.924	5.144		41.8	40.0	4.5	
Bromoform	Lin2		0.6457		45.8	40.0	14.5	
Isopropylbenzene	Ave	9.148	8.737		38.2	40.0	-4.5	
1,1,2,2-Tetrachloroethane	Ave	1.145	1.287		45.0	40.0	12.4	
Bromobenzene	Ave	1.381	1.373		39.8	40.0	-0.6	
1,2,3-Trichloropropane	Ave	0.2385	0.2620		43.9	40.0	9.9	
trans-1,4-Dichloro-2-butene	Ave	0.0905	0.1459		64.5	40.0	61.2	
N-Propylbenzene	Ave	2.013	1.860		37.0	40.0	-7.6	
2-Chlorotoluene	Ave	1.651	1.510		36.6	40.0	-8.5	
1,3,5-Trimethylbenzene	Qua		5.131		36.0	40.0	-10.0	
4-Chlorotoluene	Ave	1.486	1.487		40.0	40.0	0.0	
tert-Butylbenzene	Qua		4.747		33.8	40.0	-15.5	
1,2,4-Trimethylbenzene	Ave	5.370	4.906		36.5	40.0	-8.6	
sec-Butylbenzene	Qua		6.861		34.7	40.0	-13.2	
1,3-Dichlorobenzene	Ave	2.331	2.501		42.9	40.0	7.3	
4-Isopropyltoluene	Qua		5.742		34.5	40.0	-13.8	
1,4-Dichlorobenzene	Ave	3.040	2.749		36.2	40.0	-9.6	
n-Butylbenzene	Ave	5.389	4.978		37.0	40.0	-7.6	
1,2-Dichlorobenzene	Ave	2.545	2.378		37.4	40.0	-6.5	
1,2-Dibromo-3-Chloropropane	Qua		0.0714		39.4	40.0	-1.4	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab Sample ID: CCVIS 180-109391/2 Calibration Date: 06/24/2014 10:51

Instrument ID: CHHP4 Calib Start Date: 06/03/2014 11:03

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/03/2014 14:15

Lab File ID: 4062404.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
1,2,4-Trichlorobenzene	Ave	0.8526	0.8147		38.2	40.0	-4.4	
Hexachlorobutadiene	Ave	1.328	1.007		30.3	40.0	-24.2	
Naphthalene	Lin1		0.6423		27.7	40.0	-30.8	
1,2,3-Trichlorobenzene	Qua		0.6317		37.4	40.0	-6.5	
Dibromofluoromethane (Surr)	Ave	0.3061	0.2804		36.6	40.0	-8.4	
1,2-Dichloroethane-d4 (Surr)	Ave	0.2480	0.2339		37.7	40.0	-5.7	
Toluene-d8 (Surr)	Ave	5.673	4.666		32.9	40.0	-17.8	
4-Bromofluorobenzene (Surr)	Ave	1.809	1.741		38.5	40.0	-3.8	

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062404.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 24-Jun-2014 10:51:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0001869-002
Operator ID: 430936 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 24-Jun-2014 12:08:10 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: zukowskim Date: 24-Jun-2014 10:18:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.775	4.775	0.000	93	219805	5000.0	5000.0	s
* 2 Fluorobenzene (IS)	96	7.676	7.676	0.000	93	886330	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.759	10.759	0.000	78	217159	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.094	13.094	0.000	92	309181	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.934	6.934	0.000	82	198853	200.0	183.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.305	7.305	0.000	97	165823	200.0	188.6	
$ 7 Toluene-d8 (Surr)	98	9.318	9.318	0.000	91	810524	200.0	164.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.939	11.939	0.000	96	302459	200.0	192.5	
10 Dichlorodifluoromethane	85	1.765	1.765	0.000	87	345588	200.0	164.7	
11 Chloromethane	50	1.972	1.972	0.000	89	483553	200.0	176.9	
12 Vinyl chloride	62	2.117	2.117	0.000	98	382602	200.0	172.1	
13 Butadiene	39	2.154	2.154	0.000	90	358267	200.0	161.6	
14 Bromomethane	94	2.501	2.501	0.000	87	111971	200.0	173.2	
15 Chloroethane	64	2.610	2.610	0.000	92	112558	200.0	132.5	
16 Dichlorofluoromethane	67	2.938	2.938	0.000	94	422012	200.0	176.2	
17 Trichlorofluoromethane	101	2.963	2.963	0.000	85	395447	200.0	178.6	
19 Ethyl ether	59	3.468	3.468	0.000	93	240096	200.0	220.5	
20 Acrolein	56	3.668	3.668	0.000	63	35195	875.0	607.5	
21 1,1-Dichloroethene	96	3.772	3.772	0.000	86	356482	200.0	205.5	
22 1,1,2-Trichloro-1,2,2-trif	101	3.839	3.839	0.000	90	361987	200.0	198.0	
23 Acetone	43	3.948	3.948	0.000	98	134689	200.0	246.9	
24 Iodomethane	142	4.009	4.009	0.000	95	540620	200.0	209.3	
25 Carbon disulfide	76	4.094	4.094	0.000	99	1038214	200.0	240.0	
28 3-Chloro-1-propene	76	4.398	4.398	0.000	93	203413	200.0	197.3	
29 Methyl acetate	43	4.483	4.483	0.000	98	722466	1000.0	1245.2	
30 Methylene Chloride	84	4.599	4.599	0.000	90	382035	200.0	191.1	
31 2-Methyl-2-propanol	59	4.897	4.897	0.000	90	159040	2000.0	1879.1	
32 Acrylonitrile	53	5.006	5.006	0.000	99	748533	2000.0	2753.0	
33 trans-1,2-Dichloroethene	96	5.006	5.006	0.000	82	384575	200.0	217.5	
34 Methyl tert-butyl ether	73	5.049	5.049	0.000	91	592772	200.0	228.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.414	5.414	0.000	92	552042	200.0	176.8	
36 1,1-Dichloroethane	63	5.602	5.602	0.000	85	564914	200.0	210.6	
38 Vinyl acetate	43	5.730	5.730	0.000	96	181646	200.0	261.2	
41 2,2-Dichloropropane	77	6.344	6.344	0.000	77	311139	200.0	205.7	
42 cis-1,2-Dichloroethene	96	6.356	6.356	0.000	69	366544	200.0	218.0	
43 2-Butanone (MEK)	43	6.411	6.411	0.000	96	128061	200.0	208.1	
46 Chlorobromomethane	128	6.636	6.636	0.000	95	136030	200.0	220.4	
48 Tetrahydrofuran	42	6.709	6.709	0.000	93	111193	400.0	484.7	
49 Chloroform	83	6.745	6.745	0.000	82	455070	200.0	208.0	
50 1,1,1-Trichloroethane	97	6.940	6.940	0.000	97	423857	200.0	209.6	
51 Cyclohexane	56	7.001	7.001	0.000	89	766518	200.0	197.9	
53 Carbon tetrachloride	117	7.129	7.129	0.000	83	356642	200.0	202.9	
52 1,1-Dichloropropene	75	7.135	7.135	0.000	92	363154	200.0	211.5	
54 Benzene	78	7.366	7.366	0.000	96	1185111	200.0	214.6	
55 1,2-Dichloroethane	62	7.384	7.384	0.000	85	246345	200.0	216.8	
58 n-Heptane	43	7.670	7.670	0.000	90	531400	200.0	198.5	
59 Isobutyl alcohol	41	7.670	7.670	0.000	70	287551	5000.0	5046.8	
61 Trichloroethene	130	8.065	8.065	0.000	91	308012	200.0	197.2	
63 Methylcyclohexane	83	8.260	8.260	0.000	90	673318	200.0	200.2	
64 1,2-Dichloropropane	63	8.296	8.296	0.000	93	262919	200.0	211.0	
65 Dibromomethane	93	8.424	8.424	0.000	91	121107	200.0	243.0	
67 1,4-Dioxane	88	8.454	8.454	0.000	73	35356	4000.0	4884.4	
68 Dichlorobromomethane	83	8.588	8.588	0.000	93	270478	200.0	233.7	
71 cis-1,3-Dichloropropene	75	9.050	9.050	0.000	90	301181	200.0	218.6	
72 4-Methyl-2-pentanone (MIBK	43	9.208	9.208	0.000	96	157309	200.0	129.8	
73 Toluene	91	9.385	9.385	0.000	99	1253063	200.0	195.0	
74 trans-1,3-Dichloropropene	75	9.604	9.604	0.000	93	228657	200.0	239.7	
75 Ethyl methacrylate	69	9.695	9.695	0.000	89	202865	200.0	235.6	
76 1,1,2-Trichloroethane	97	9.786	9.786	0.000	83	190594	200.0	212.8	
77 Tetrachloroethene	164	9.932	9.932	0.000	91	282609	200.0	186.8	
78 1,3-Dichloropropane	76	9.956	9.956	0.000	92	304854	200.0	223.6	
79 2-Hexanone	43	10.060	10.060	0.000	96	124477	200.0	159.2	
81 Chlorodibromomethane	129	10.181	10.181	0.000	89	186307	200.0	233.9	
82 Ethylene Dibromide	107	10.303	10.303	0.000	97	171414	200.0	232.7	
84 Chlorobenzene	112	10.789	10.789	0.000	95	839288	200.0	195.4	
85 1,1,1,2-Tetrachloroethane	131	10.862	10.862	0.000	91	261503	200.0	207.0	
86 Ethylbenzene	106	10.893	10.893	0.000	97	493807	200.0	202.6	
87 m-Xylene & p-Xylene	106	11.008	11.008	0.000	99	596067	200.0	188.3	
88 o-Xylene	106	11.404	11.404	0.000	95	584154	200.0	195.9	
89 Styrene	104	11.422	11.422	0.000	92	893690	200.0	208.9	
90 Bromoform	173	11.617	11.617	0.000	97	112182	200.0	229.0	
91 Isopropylbenzene	105	11.775	11.775	0.000	95	1517838	200.0	191.0	
93 1,1,2,2-Tetrachloroethane	83	12.060	12.060	0.000	87	223631	200.0	224.8	
94 Bromobenzene	156	12.097	12.097	0.000	87	339590	200.0	198.8	
95 1,2,3-Trichloropropane	110	12.115	12.115	0.000	59	64812	200.0	219.7	
96 trans-1,4-Dichloro-2-buten	53	12.146	12.146	0.000	22	36089	200.0	322.4	M
97 N-Propylbenzene	120	12.182	12.182	0.000	96	459989	200.0	184.8	
98 2-Chlorotoluene	126	12.273	12.273	0.000	98	373533	200.0	182.9	
99 1,3,5-Trimethylbenzene	105	12.352	12.352	0.000	95	1269121	200.0	179.9	
100 4-Chlorotoluene	126	12.389	12.389	0.000	96	367762	200.0	200.1	
101 tert-Butylbenzene	119	12.681	12.681	0.000	91	1174195	200.0	169.1	
103 1,2,4-Trimethylbenzene	105	12.735	12.735	0.000	96	1213470	200.0	182.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.906	12.906	0.000	91	1697060	200.0	173.6	
105 1,3-Dichlorobenzene	146	13.027	13.027	0.000	95	618621	200.0	214.6	
106 4-Isopropyltoluene	119	13.046	13.046	0.000	96	1420163	200.0	172.5	
107 1,4-Dichlorobenzene	146	13.119	13.119	0.000	93	679944	200.0	180.9	
110 n-Butylbenzene	91	13.465	13.465	0.000	93	1231310	200.0	184.8	
111 1,2-Dichlorobenzene	146	13.496	13.496	0.000	99	588307	200.0	186.9	
112 1,2-Dibromo-3-Chloropropan	157	14.317	14.317	0.000	59	17656	200.0	197.1	
113 1,2,4-Trichlorobenzene	180	15.144	15.144	0.000	92	201505	200.0	191.1	
115 Hexachlorobutadiene	225	15.284	15.284	0.000	91	248961	200.0	151.6	
116 Naphthalene	128	15.423	15.423	0.000	85	158859	200.0	138.5	
117 1,2,3-Trichlorobenzene	180	15.673	15.673	0.000	89	156237	200.0	187.1	
S 129 1,2-Dichloroethene, Total	96				0		400.0	435.5	
S 130 Xylenes, Total	106				0		400.0	384.1	
S 131 1,3-Dichloropropene, Total	1				0		400.0	458.3	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Review Flags
M - Manually Integrated

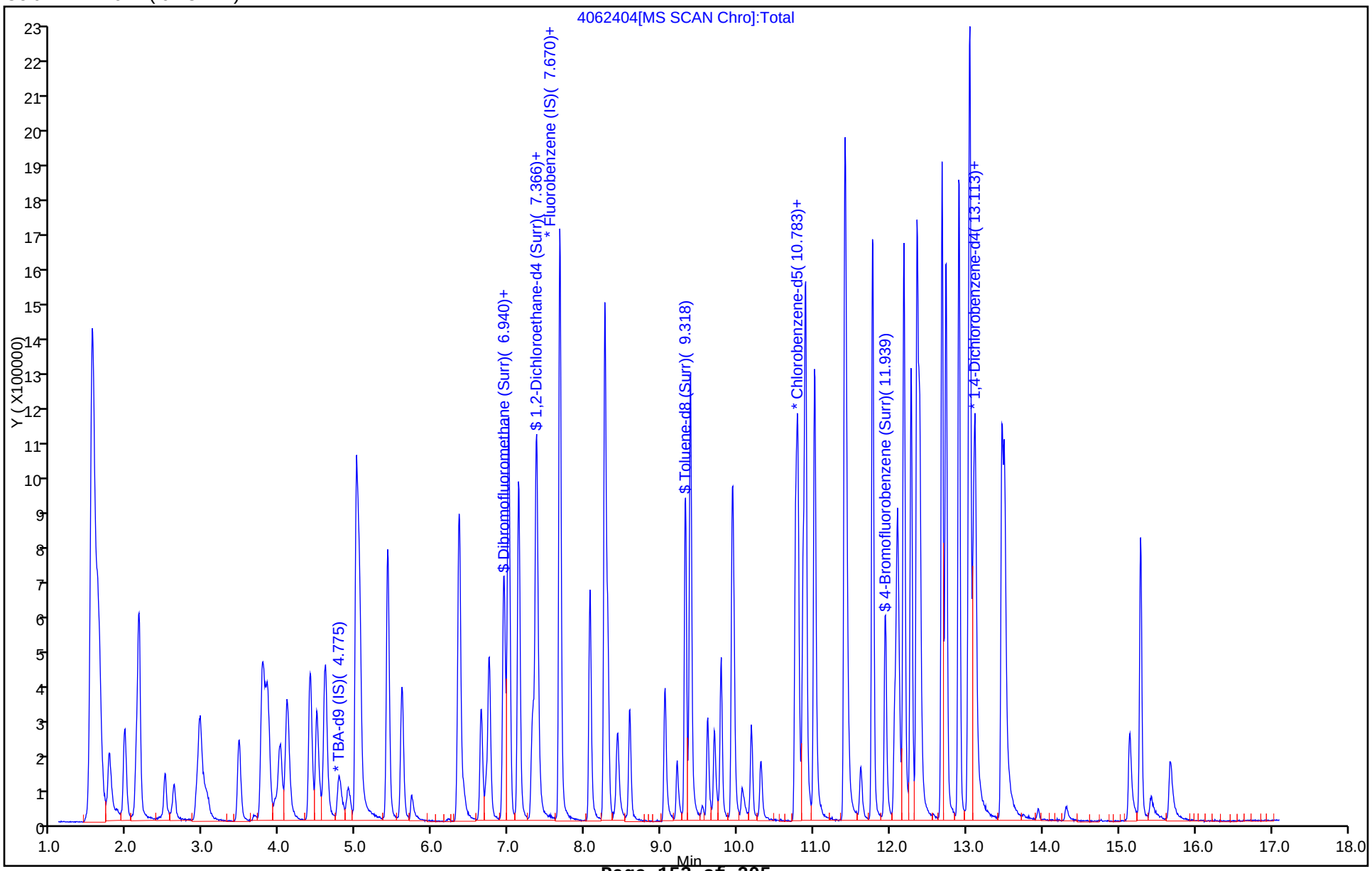
Report Date: 24-Jun-2014 12:08:11 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062404.D

Injection Date:	24-Jun-2014 10:51:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



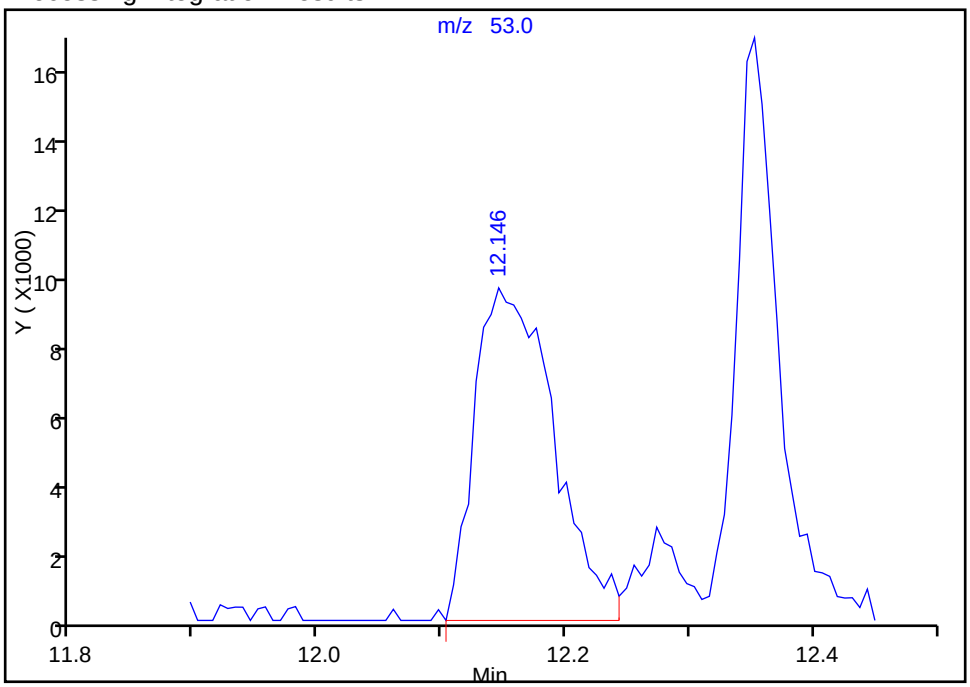
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062404.D
Injection Date: 24-Jun-2014 10:51:30 Instrument ID: CHHP4
Lims ID: CCVIS
Client ID:
Operator ID: 430936 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

96 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

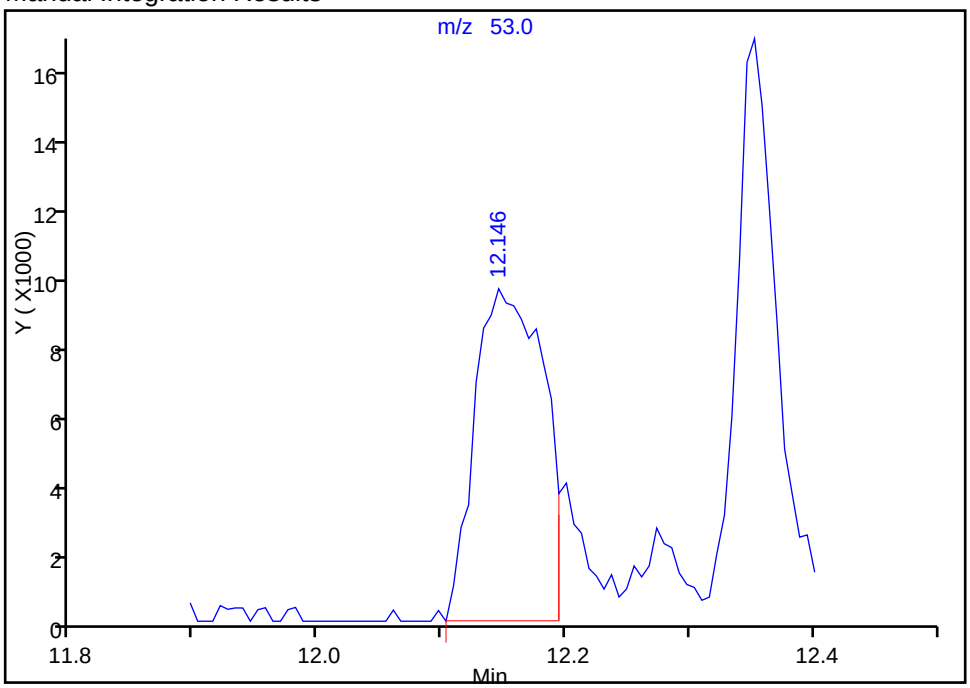
Processing Integration Results

RT: 12.15
Response: 41530
Amount: 261.4217



Manual Integration Results

RT: 12.15
Response: 36089
Amount: 322.3672



Reviewer: zukowskim, 24-Jun-2014 10:18:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab Sample ID: CCVIS 180-109531/2 Calibration Date: 06/25/2014 09:29

Instrument ID: CHHP4 Calib Start Date: 06/03/2014 11:03

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/03/2014 14:15

Lab File ID: 4062502.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	0.5918	0.4865		32.9	40.0	-17.8	
Chloromethane	Ave	0.7712	0.6825		35.4	40.0	-11.5	
Vinyl chloride	Ave	0.6271	0.5380		34.3	40.0	-14.2	
1,3-Butadiene	Ave	0.6254	0.5037		32.2	40.0	-19.5	
Bromomethane	Ave	0.1824	0.1508		33.1	40.0	-17.3	
Chloroethane	Ave	0.2397	0.1660		27.7	40.0	-30.7	
Dichlorofluoromethane	Ave	0.6757	0.6140		36.3	40.0	-9.1	
Trichlorofluoromethane	Ave	0.6245	0.5689		36.4	40.0	-8.9	
Ethyl ether	Ave	0.3071	0.3279		42.7	40.0	6.8	
Acrolein	Ave	0.0163	0.0108		115	175	-34.0	
1,1-Dichloroethene	Ave	0.4894	0.4949		40.5	40.0	1.1	
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.5158	0.5103		39.6	40.0	-1.1	
Acetone	Ave	0.1539	0.2214		57.5	40.0	43.9	
Iodomethane	Ave	0.7287	0.7183		39.4	40.0	-1.4	
Carbon disulfide	Ave	1.220	1.335		43.8	40.0	9.4	
Allyl chloride	Qua		0.2782		38.4	40.0	-3.9	
Methyl acetate	Ave	0.1637	0.2196		268	200	34.2	
Methylene Chloride	Qua		0.5237		37.0	40.0	-7.6	
tert-Butyl alcohol	Ave	1.925	1.633		339	400	-15.2	
Acrylonitrile	Lin2		0.1097		571	400	42.8	
trans-1,2-Dichloroethene	Ave	0.4988	0.4915		39.4	40.0	-1.5	
Methyl tert-butyl ether	Ave	0.7330	0.8456		46.1	40.0	15.4	
Hexane	Ave	0.8809	0.7603		34.5	40.0	-13.7	
1,1-Dichloroethane	Ave	0.7567	0.7346		38.8	40.0	-2.9	
Vinyl acetate	Qua		0.2611		53.1	40.0	32.8	
2,2-Dichloropropane	Ave	0.4266	0.4041		37.9	40.0	-5.3	
cis-1,2-Dichloroethene	Ave	0.4743	0.4744		40.0	40.0	0.0	
2-Butanone (MEK)	Qua		0.2063		47.3	40.0	18.3	
Chlorobromomethane	Ave	0.1741	0.1907		43.8	40.0	9.5	
Tetrahydrofuran	Ave	0.0647	0.0864		107	80.0	33.5	
Chloroform	Ave	0.6170	0.6109		39.6	40.0	-1.0	
1,1,1-Trichloroethane	Ave	0.5705	0.5521		38.7	40.0	-3.2	
Cyclohexane	Ave	1.093	1.049		38.4	40.0	-4.0	
Carbon tetrachloride	Ave	0.4957	0.4686		37.8	40.0	-5.5	
1,1-Dichloropropene	Ave	0.4844	0.4657		38.5	40.0	-3.8	
Benzene	Ave	1.557	1.513		38.9	40.0	-2.8	
1,2-Dichloroethane	Ave	0.3205	0.3441		42.9	40.0	7.4	
Isobutyl alcohol	Ave	0.0161	0.0153		949	1000	-5.1	
n-Heptane	Ave	0.7550	0.6902		36.6	40.0	-8.6	
Trichloroethene	Ave	0.4406	0.4174		37.9	40.0	-5.3	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab Sample ID: CCVIS 180-109531/2 Calibration Date: 06/25/2014 09:29

Instrument ID: CHHP4 Calib Start Date: 06/03/2014 11:03

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/03/2014 14:15

Lab File ID: 4062502.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
Methylcyclohexane	Ave	0.9487	0.9129		38.5	40.0	-3.8	
1,2-Dichloropropane	Ave	0.3515	0.3510		39.9	40.0	-0.1	
Dibromomethane	Ave	0.1406	0.1624		46.2	40.0	15.5	
1,4-Dioxane	Ave	0.0020	0.0027		1040	800	30.1	
Dichlorobromomethane	Ave	0.3264	0.3428		42.0	40.0	5.0	
cis-1,3-Dichloropropene	Ave	0.3887	0.4070		41.9	40.0	4.7	
4-Methyl-2-pentanone (MIBK)	Ave	1.395	1.129		32.3	40.0	-19.1	
Toluene	Ave	7.399	6.505		35.2	40.0	-12.1	
trans-1,3-Dichloropropene	Ave	1.098	1.190		43.4	40.0	8.4	
Ethyl methacrylate	Lin1		1.110		45.1	40.0	12.6	
1,1,2-Trichloroethane	Ave	1.031	1.055		40.9	40.0	2.4	
Tetrachloroethene	Ave	1.742	1.515		34.8	40.0	-13.0	
1,3-Dichloropropane	Ave	1.569	1.725		44.0	40.0	9.9	
2-Hexanone	Lin1		0.7735		33.9	40.0	-15.2	
Chlorodibromomethane	Ave	0.9171	1.000		43.6	40.0	9.1	
1,2-Dibromoethane	Lin2		0.9262		43.9	40.0	9.9	
Chlorobenzene	Ave	4.946	4.448		36.0	40.0	-10.1	
1,1,1,2-Tetrachloroethane	Ave	1.454	1.338		36.8	40.0	-8.0	
Ethylbenzene	Ave	2.807	2.563		36.5	40.0	-8.7	
m-Xylene & p-Xylene	Qua		3.147		34.6	40.0	-13.4	
o-Xylene	Ave	3.434	3.129		36.4	40.0	-8.9	
Styrene	Ave	4.924	4.752		38.6	40.0	-3.5	
Bromoform	Lin2		0.6173		43.9	40.0	9.8	
Isopropylbenzene	Ave	9.148	8.106		35.4	40.0	-11.4	
1,1,2,2-Tetrachloroethane	Ave	1.145	1.321		46.1	40.0	15.3	
Bromobenzene	Ave	1.381	1.246		36.1	40.0	-9.8	
1,2,3-Trichloropropane	Ave	0.2385	0.2712		45.5	40.0	13.7	
trans-1,4-Dichloro-2-butene	Ave	0.0905	0.1535		67.8	40.0	69.5	
N-Propylbenzene	Ave	2.013	1.810		36.0	40.0	-10.1	
2-Chlorotoluene	Ave	1.651	1.418		34.3	40.0	-14.1	
1,3,5-Trimethylbenzene	Qua		4.814		33.5	40.0	-16.2	
4-Chlorotoluene	Ave	1.486	1.471		39.6	40.0	-1.0	
tert-Butylbenzene	Qua		4.602		32.6	40.0	-18.5	
1,2,4-Trimethylbenzene	Ave	5.370	4.631		34.5	40.0	-13.8	
sec-Butylbenzene	Qua		6.654		33.5	40.0	-16.2	
1,3-Dichlorobenzene	Ave	2.331	2.282		39.2	40.0	-2.1	
4-Isopropyltoluene	Qua		5.307		31.6	40.0	-21.0	
1,4-Dichlorobenzene	Ave	3.040	2.498		32.9	40.0	-17.8	
n-Butylbenzene	Ave	5.389	4.591		34.1	40.0	-14.8	
1,2-Dichlorobenzene	Ave	2.545	2.237		35.2	40.0	-12.1	
1,2-Dibromo-3-Chloropropane	Qua		0.0874		46.5	40.0	16.4	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Lab Sample ID: CCVIS 180-109531/2 Calibration Date: 06/25/2014 09:29

Instrument ID: CHHP4 Calib Start Date: 06/03/2014 11:03

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/03/2014 14:15

Lab File ID: 4062502.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
1,2,4-Trichlorobenzene	Ave	0.8526	0.6751		31.7	40.0	-20.8	
Hexachlorobutadiene	Ave	1.328	0.9189		27.7	40.0	-30.8	
Naphthalene	Lin1		0.6679		28.6	40.0	-28.5	
1,2,3-Trichlorobenzene	Qua		0.5047		30.6	40.0	-23.4	
Dibromofluoromethane (Surr)	Ave	0.3061	0.2780		36.3	40.0	-9.2	
1,2-Dichloroethane-d4 (Surr)	Ave	0.2480	0.2236		36.1	40.0	-9.8	
Toluene-d8 (Surr)	Ave	5.673	4.479		31.6	40.0	-21.1	
4-Bromofluorobenzene (Surr)	Ave	1.809	1.572		34.8	40.0	-13.1	

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062502.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 25-Jun-2014 09:29:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0001891-002
Operator ID: 430936 Instrument ID: CHHP4
Sublist: chrom-MSVOA_CHHP4*sub5

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 10:41:42 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 09:11:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.775	4.775	0.000	93	233590	5000.0	5000.0	s
* 2 Fluorobenzene (IS)	96	7.676	7.676	0.000	94	799517	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.759	10.759	0.000	81	203538	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.095	13.095	0.000	92	277848	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.928	6.928	0.000	38	177818	200.0	181.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.305	7.305	0.000	89	143026	200.0	180.3	
$ 7 Toluene-d8 (Surr)	98	9.318	9.318	0.000	92	729291	200.0	157.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.939	11.939	0.000	94	255940	200.0	173.8	
10 Dichlorodifluoromethane	85	1.765	1.765	0.000	87	311142	200.0	164.4	
11 Chloromethane	50	1.966	1.966	0.000	89	436564	200.0	177.0	
12 Vinyl chloride	62	2.118	2.118	0.000	82	344091	200.0	171.6	
13 Butadiene	39	2.160	2.160	0.000	90	322164	200.0	161.1	
14 Bromomethane	94	2.501	2.501	0.000	89	96466	200.0	165.4	
15 Chloroethane	64	2.610	2.610	0.000	95	106185	200.0	138.5	
16 Dichlorofluoromethane	67	2.951	2.951	0.000	81	392706	200.0	181.7	
17 Trichlorofluoromethane	101	2.969	2.969	0.000	86	363872	200.0	182.2	
19 Ethyl ether	59	3.462	3.462	0.000	92	209752	200.0	213.6	
20 Acrolein	56	3.669	3.669	0.000	81	30172	875.0	577.4	
21 1,1-Dichloroethene	96	3.772	3.772	0.000	86	316569	200.0	202.3	
22 1,1,2-Trichloro-1,2,2-trif	101	3.833	3.833	0.000	87	326390	200.0	197.9	
23 Acetone	43	3.930	3.930	0.000	97	141614	200.0	287.7	
24 Iodomethane	142	4.003	4.003	0.000	95	459439	200.0	197.1	
25 Carbon disulfide	76	4.100	4.100	0.000	99	853795	200.0	218.8	
28 3-Chloro-1-propene	76	4.398	4.398	0.000	92	177913	200.0	192.1	
29 Methyl acetate	43	4.490	4.490	0.000	97	702229	1000.0	1341.7	
30 Methylene Chloride	84	4.593	4.593	0.000	89	334932	200.0	184.8	
31 2-Methyl-2-propanol	59	4.891	4.891	0.000	88	152608	2000.0	1696.7	
32 Acrylonitrile	53	5.000	5.000	0.000	100	701655	2000.0	2856.3	
33 trans-1,2-Dichloroethene	96	5.013	5.013	0.000	83	314341	200.0	197.1	
34 Methyl tert-butyl ether	73	5.049	5.049	0.000	90	540831	200.0	230.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.420	5.420	0.000	92	486297	200.0	172.6	
36 1,1-Dichloroethane	63	5.602	5.602	0.000	84	469827	200.0	194.1	
38 Vinyl acetate	43	5.736	5.736	0.000	96	167008	200.0	265.6	
41 2,2-Dichloropropane	77	6.344	6.344	0.000	81	258467	200.0	189.5	
42 cis-1,2-Dichloroethene	96	6.357	6.357	0.000	69	303453	200.0	200.1	
43 2-Butanone (MEK)	43	6.411	6.411	0.000	93	131936	200.0	236.6	
46 Chlorobromomethane	128	6.636	6.636	0.000	93	121963	200.0	219.1	
48 Tetrahydrofuran	42	6.703	6.703	0.000	89	110497	400.0	534.0	
49 Chloroform	83	6.746	6.746	0.000	82	390745	200.0	198.0	
50 1,1,1-Trichloroethane	97	6.940	6.940	0.000	92	353148	200.0	193.6	
51 Cyclohexane	56	7.001	7.001	0.000	91	671155	200.0	192.1	
53 Carbon tetrachloride	117	7.129	7.129	0.000	83	299698	200.0	189.0	
52 1,1-Dichloropropene	75	7.135	7.135	0.000	91	297886	200.0	192.3	
54 Benzene	78	7.360	7.360	0.000	97	967918	200.0	194.3	
55 1,2-Dichloroethane	62	7.390	7.390	0.000	90	220088	200.0	214.7	
58 n-Heptane	43	7.670	7.670	0.000	92	441471	200.0	182.8	
59 Isobutyl alcohol	41	7.670	7.670	0.000	63	243915	5000.0	4745.8	
61 Trichloroethene	130	8.065	8.065	0.000	91	266992	200.0	189.5	
63 Methylcyclohexane	83	8.260	8.260	0.000	91	583908	200.0	192.5	
64 1,2-Dichloropropane	63	8.296	8.296	0.000	92	224520	200.0	199.7	
65 Dibromomethane	93	8.430	8.430	0.000	88	103858	200.0	231.0	
67 1,4-Dioxane	88	8.455	8.455	0.000	92	33990	4000.0	5205.6	
68 Dichlorobromomethane	83	8.588	8.588	0.000	93	219250	200.0	210.0	
71 cis-1,3-Dichloropropene	75	9.051	9.051	0.000	91	260291	200.0	209.4	
72 4-Methyl-2-pentanone (MIBK	43	9.215	9.215	0.000	96	183754	200.0	161.7	
73 Toluene	91	9.385	9.385	0.000	99	1059164	200.0	175.8	
74 trans-1,3-Dichloropropene	75	9.610	9.610	0.000	93	193842	200.0	216.8	
75 Ethyl methacrylate	69	9.701	9.701	0.000	91	180778	200.0	225.3	
76 1,1,2-Trichloroethane	97	9.786	9.786	0.000	82	171844	200.0	204.7	
77 Tetrachloroethene	164	9.932	9.932	0.000	91	246674	200.0	174.0	
78 1,3-Dichloropropane	76	9.951	9.951	0.000	91	280865	200.0	219.8	
79 2-Hexanone	43	10.066	10.066	0.000	94	125946	200.0	169.5	
81 Chlorodibromomethane	129	10.188	10.188	0.000	89	162868	200.0	218.1	
82 Ethylene Dibromide	107	10.309	10.309	0.000	93	150818	200.0	219.7	
84 Chlorobenzene	112	10.796	10.796	0.000	97	724265	200.0	179.9	
85 1,1,1,2-Tetrachloroethane	131	10.863	10.863	0.000	90	217853	200.0	184.0	
86 Ethylbenzene	106	10.893	10.893	0.000	97	417382	200.0	182.7	
87 m-Xylene & p-Xylene	106	11.015	11.015	0.000	99	512376	200.0	173.2	
88 o-Xylene	106	11.404	11.404	0.000	96	509426	200.0	182.2	
89 Styrene	104	11.422	11.422	0.000	93	773695	200.0	193.0	
90 Bromoform	173	11.623	11.623	0.000	98	100508	200.0	219.6	
91 Isopropylbenzene	105	11.775	11.775	0.000	94	1319936	200.0	177.2	
93 1,1,2,2-Tetrachloroethane	83	12.061	12.061	0.000	82	215072	200.0	230.6	
94 Bromobenzene	156	12.091	12.091	0.000	85	276888	200.0	180.4	
95 1,2,3-Trichloropropane	110	12.116	12.116	0.000	57	60272	200.0	227.4	
96 trans-1,4-Dichloro-2-buten	53	12.158	12.158	0.000	36	34109	200.0	339.0	
97 N-Propylbenzene	120	12.182	12.182	0.000	98	402341	200.0	179.9	
98 2-Chlorotoluene	126	12.274	12.274	0.000	98	315086	200.0	171.7	
99 1,3,5-Trimethylbenzene	105	12.353	12.353	0.000	97	1069975	200.0	167.5	
100 4-Chlorotoluene	126	12.389	12.389	0.000	97	326959	200.0	197.9	
101 tert-Butylbenzene	119	12.681	12.681	0.000	89	1022952	200.0	163.1	
103 1,2,4-Trimethylbenzene	105	12.736	12.736	0.000	96	1029330	200.0	172.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.906	12.906	0.000	92	1479113	200.0	167.6	
105 1,3-Dichlorobenzene	146	13.034	13.034	0.000	95	507220	200.0	195.8	
106 4-Isopropyltoluene	119	13.046	13.046	0.000	96	1179713	200.0	157.9	
107 1,4-Dichlorobenzene	146	13.119	13.119	0.000	92	555244	200.0	164.3	
110 n-Butylbenzene	91	13.466	13.466	0.000	96	1020564	200.0	170.4	
111 1,2-Dichlorobenzene	146	13.502	13.502	0.000	97	497259	200.0	175.8	
112 1,2-Dibromo-3-Chloropropan	157	14.317	14.317	0.000	62	19424	200.0	232.7	
113 1,2,4-Trichlorobenzene	180	15.150	15.150	0.000	88	150058	200.0	158.4	
115 Hexachlorobutadiene	225	15.284	15.284	0.000	91	204254	200.0	138.4	
116 Naphthalene	128	15.436	15.436	0.000	81	148456	200.0	143.0	
117 1,2,3-Trichlorobenzene	180	15.679	15.679	0.000	89	112173	200.0	153.2	
S 129 1,2-Dichloroethene, Total	96				0		400.0	397.1	
S 130 Xylenes, Total	106				0		400.0	355.5	
S 131 1,3-Dichloropropene, Total	1				0		400.0	426.2	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

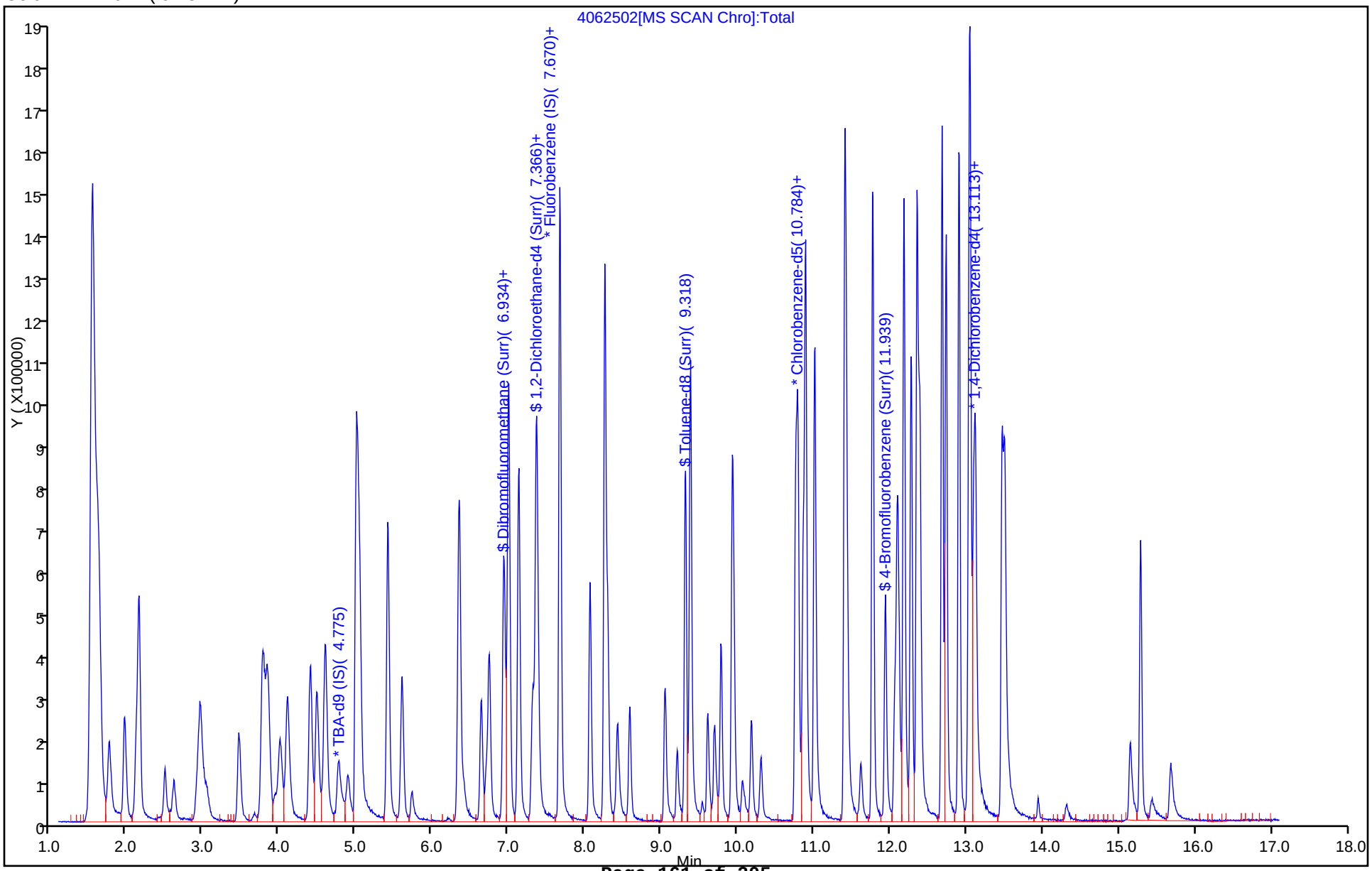
Report Date: 25-Jun-2014 10:41:43 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062502.D

Injection Date:	25-Jun-2014 09:29:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060301.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 03-Jun-2014 09:50:30 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0001537-001
Operator ID: 034635 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2014 14:33:53 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK040

First Level Reviewer: journetp Date: 03-Jun-2014 09:14:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	8.691	8.691	0.000	0	635662	NR	NR	

QC Flag Legend

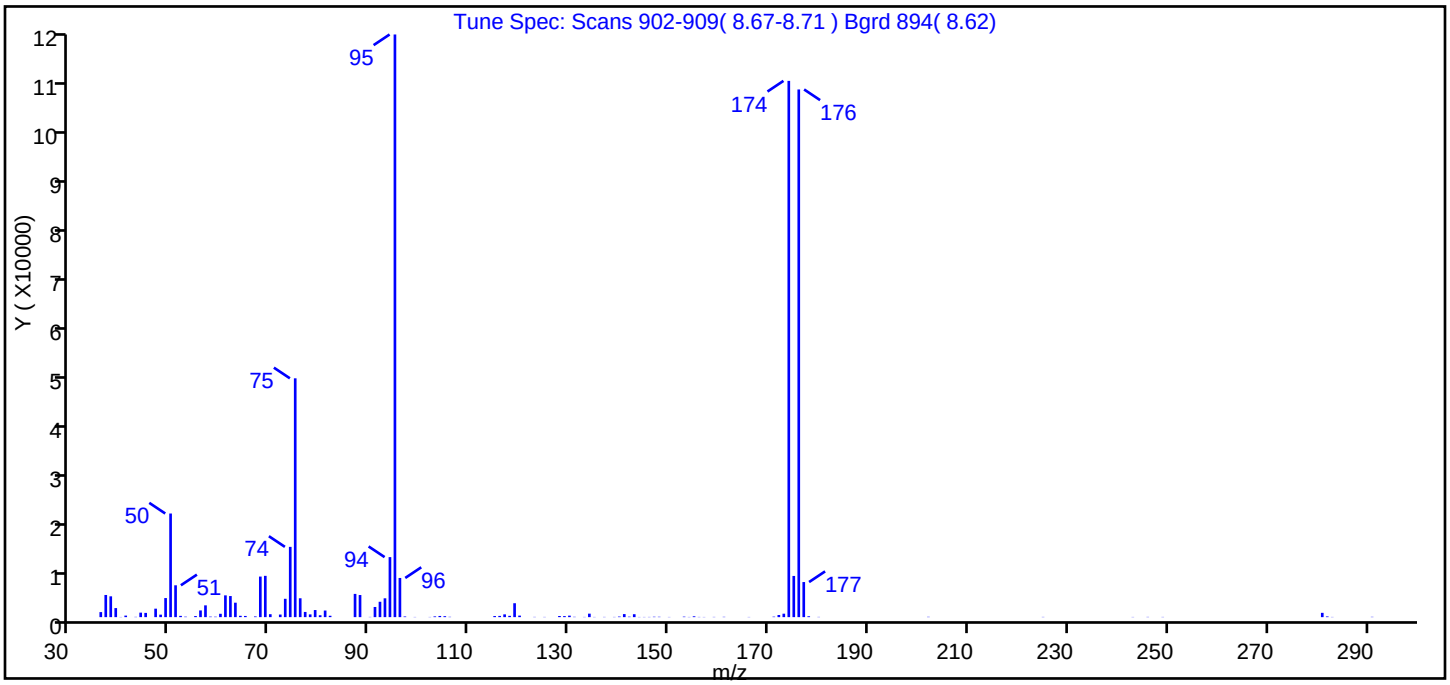
Processing Flags
NR - Missing Quant Standard

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060301.D
Injection Date: 03-Jun-2014 09:50:30 Instrument ID: CHHP4
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.80
75	30.00 - 60.00% of mass 95	41.00
96	5.00 - 9.00% of mass 95	6.70
173	Less than 2.00% of mass 174	0.60 (0.60)
174	50.00 - 120.00% of mass 95	92.00
175	5.00 - 9.00% of mass 174	7.10 (7.70)
176	95.00 - 101.00% of mass 174	90.60 (98.40)
177	5.00 - 9.00% of mass 176	6.00 (6.70)

Data File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060301.D\MSVOA_CHHP4.rslt\spectra.d
Injection Date: 03-Jun-2014 09:50:30
Spectrum: Tune Spec: Scans 902-909(8.67-8.71) Bgrd 894(8.62)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1020	68.00	8206	105.00	195	150.00	39
37.00	4483	69.00	8352	106.00	66	153.00	101
38.00	4211	70.00	594	115.00	221	154.00	40
39.00	1832	72.00	525	116.00	248	155.00	169
40.00	35	73.00	3711	117.00	564	156.00	44
41.00	312	74.00	14214	118.00	263	157.00	38
43.00	55	75.00	48304	119.00	2815	159.00	47
44.00	910	76.00	3817	120.00	310	161.00	64
45.00	859	77.00	1053	123.00	49	166.00	39
47.00	1714	78.00	556	125.00	44	171.00	99
48.00	503	79.00	1436	128.00	232	172.00	435
49.00	3859	80.00	380	129.00	211	173.00	699
50.00	20960	81.00	1337	130.00	305	174.00	108464
51.00	6442	82.00	281	131.00	66	175.00	8333
52.00	257	87.00	4701	133.00	43	176.00	106728
53.00	92	88.00	4472	134.00	706	177.00	7098
55.00	221	90.00	46	135.00	40	178.00	176
56.00	1356	91.00	2057	137.00	46	180.00	48
57.00	2383	92.00	3109	139.00	44	202.00	65
58.00	105	93.00	3810	140.00	117	225.00	47
59.00	87	94.00	12142	141.00	619	243.00	40
60.00	678	95.00	117848	142.00	90	246.00	50
61.00	4406	96.00	7926	143.00	593	249.00	44
62.00	4267	97.00	134	144.00	38	281.00	870
63.00	2922	99.00	39	145.00	40	282.00	141
64.00	271	102.00	40	146.00	44	283.00	41
65.00	242	103.00	151	147.00	82	291.00	63
67.00	141	104.00	238	148.00	74		

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062403.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 24-Jun-2014 10:08:30 ALS Bottle#: 1 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0001869-004
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 24-Jun-2014 12:08:12 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: zukowskim Date: 24-Jun-2014 09:25:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	8.700	8.700	0.000	0	325000	NR	NR	

QC Flag Legend

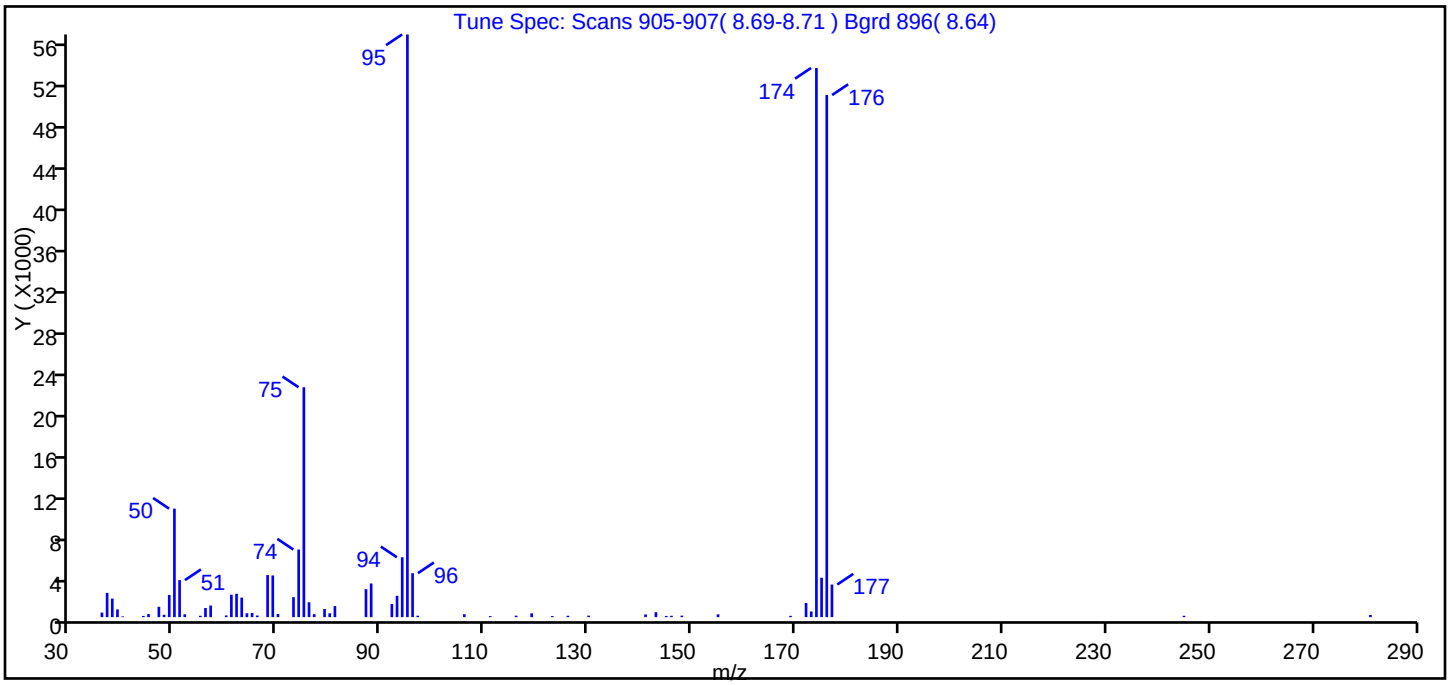
Processing Flags
NR - Missing Quant Standard

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062403.D
Injection Date: 24-Jun-2014 10:08:30 Instrument ID: CHHP4
Lims ID: BFB
Client ID:
Operator ID: 430936 ALS Bottle#: 1 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.60
75	30.00 - 60.00% of mass 95	39.50
96	5.00 - 9.00% of mass 95	7.50
173	Less than 2.00% of mass 174	1.00 (1.00)
174	50.00 - 120.00% of mass 95	94.30
175	5.00 - 9.00% of mass 174	6.80 (7.20)
176	95.00 - 101.00% of mass 174	89.60 (95.10)
177	5.00 - 9.00% of mass 176	5.60 (6.20)

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062403.D\MSVOA_CHHP4.rslt\spectra.d
Injection Date: 24-Jun-2014 10:08:30
Spectrum: Tune Spec: Scans 905-907(8.69-8.71) Bgrd 896(8.64)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	440	60.00	167	80.00	374	130.00	147
37.00	2348	61.00	2169	81.00	1070	141.00	261
38.00	1796	62.00	2260	87.00	2707	143.00	479
39.00	747	63.00	1889	88.00	3257	145.00	118
40.00	70	64.00	376	92.00	1276	146.00	134
44.00	118	65.00	402	93.00	2062	148.00	148
45.00	300	66.00	160	94.00	5790	155.00	270
47.00	1000	68.00	4070	95.00	56360	169.00	129
48.00	225	69.00	4032	96.00	4253	172.00	1368
49.00	2145	70.00	305	97.00	139	173.00	552
50.00	10493	73.00	1934	106.00	280	174.00	53120
51.00	3581	74.00	6539	111.00	100	175.00	3813
52.00	277	75.00	22240	116.00	144	176.00	50504
55.00	134	76.00	1439	119.00	369	177.00	3155
56.00	885	77.00	288	123.00	103	245.00	131
57.00	1123	79.00	791	126.00	133	281.00	207

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062501.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 25-Jun-2014 08:46:30 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0001891-001
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 10:41:43 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 08:03:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	8.712	8.712	0.000	0	296473	NR	NR	

QC Flag Legend

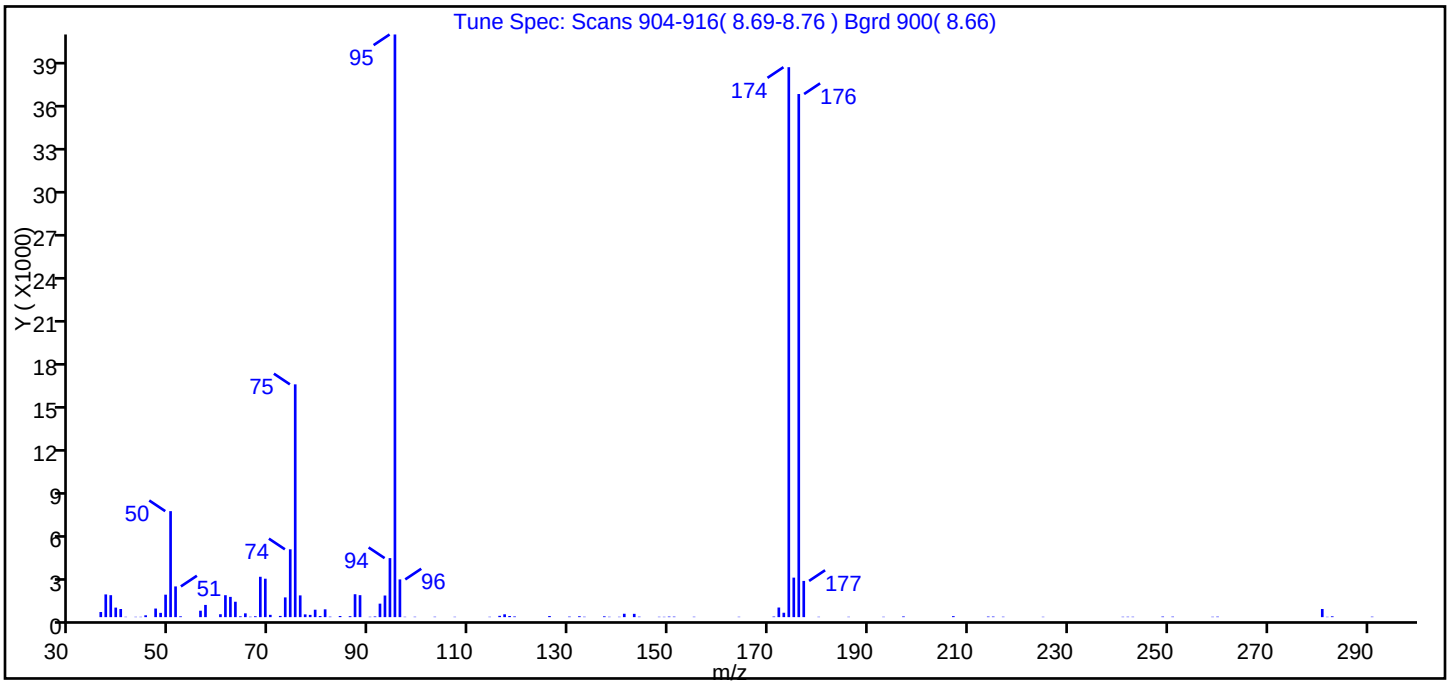
Processing Flags
NR - Missing Quant Standard

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062501.D
Injection Date: 25-Jun-2014 08:46:30 Instrument ID: CHHP4
Lims ID: BFB
Client ID:
Operator ID: 430936 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.20
75	30.00 - 60.00% of mass 95	40.00
96	5.00 - 9.00% of mass 95	6.50
173	Less than 2.00% of mass 174	0.80 (0.80)
174	50.00 - 120.00% of mass 95	94.40
175	5.00 - 9.00% of mass 174	6.80 (7.20)
176	95.00 - 101.00% of mass 174	89.80 (95.10)
177	5.00 - 9.00% of mass 176	6.20 (6.90)

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062501.D\MSVOA_CHHP4.rslt\spectra.d
Injection Date: 25-Jun-2014 08:46:30
Spectrum: Tune Spec: Scans 904-916(8.69-8.76) Bgrd 900(8.66)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	355	69.00	2660	103.00	28	174.00	38056
37.00	1573	70.00	159	107.00	24	175.00	2734
38.00	1520	72.00	84	114.00	25	176.00	36200
39.00	660	73.00	1366	116.00	90	177.00	2507
40.00	563	74.00	4694	117.00	197	180.00	24
41.00	24	75.00	16109	118.00	79	186.00	24
43.00	23	76.00	1505	119.00	48	193.00	25
44.00	22	77.00	192	126.00	75	197.00	48
45.00	127	78.00	156	130.00	38	207.00	68
47.00	595	79.00	515	132.00	62	214.00	40
48.00	296	80.00	77	133.00	28	215.00	40
49.00	1555	81.00	541	137.00	56	217.00	29
50.00	7335	82.00	33	138.00	26	225.00	24
51.00	2126	84.00	78	140.00	25	241.00	26
52.00	56	86.00	65	141.00	235	242.00	28
56.00	445	87.00	1586	143.00	229	243.00	27
57.00	846	88.00	1521	144.00	32	249.00	40
60.00	202	90.00	26	148.00	25	251.00	34
61.00	1518	91.00	48	149.00	23	259.00	26
62.00	1402	92.00	934	150.00	39	260.00	34
63.00	1066	93.00	1497	151.00	35	281.00	564
64.00	56	94.00	4084	155.00	27	282.00	23
65.00	263	95.00	40320	164.00	25	283.00	58
66.00	29	96.00	2611	171.00	41	291.00	32
67.00	62	97.00	25	172.00	666		
68.00	2793	99.00	27	173.00	304		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-109391/7

Matrix: Water Lab File ID: 4062407.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2014 12:42

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109391 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
91-20-3	Naphthalene	5.0	U	5.0	0.47
108-88-3	Toluene	5.0	U	5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
1330-20-7	Xylenes, Total	10	U	10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	107		75-120
1868-53-7	Dibromofluoromethane (Surr)	84		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		62-123
2037-26-5	Toluene-d8 (Surr)	91		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062407.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 24-Jun-2014 12:42:30 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0001869-007
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 24-Jun-2014 12:07:03 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: zukowskim Date: 24-Jun-2014 12:07:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.750	4.748	0.002	95	215318	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.682	7.679	0.003	100	837170	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.777	10.768	0.009	78	169406	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.167	13.109	0.058	87	191138	250.0	250.0	M
$ 5 Dibromofluoromethane (Surr	113	6.940	6.934	0.006	60	216355	250.0	211.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.317	7.305	0.012	72	175260	250.0	211.0	
$ 7 Toluene-d8 (Surr)	98	9.324	9.318	0.006	92	876413	250.0	228.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.969	11.939	0.030	93	329124	250.0	268.5	
10 Dichlorodifluoromethane	85		1.765					ND	
11 Chloromethane	50		1.972					ND	
12 Vinyl chloride	62		2.117					ND	
13 Butadiene	39		2.154					ND	
14 Bromomethane	94		2.501					ND	
15 Chloroethane	64		2.610					ND	
16 Dichlorofluoromethane	67		2.938					ND	
17 Trichlorofluoromethane	101		2.963					ND	
19 Ethyl ether	59		3.468					ND	
18 Ethanol	45		3.471					ND	
20 Acrolein	56		3.668					ND	
21 1,1-Dichloroethene	96		3.772					ND	
22 1,1,2-Trichloro-1,2,2-trif	101		3.839					ND	
23 Acetone	43		3.948					ND	
24 Iodomethane	142		4.009					ND	
25 Carbon disulfide	76		4.094					ND	
26 Isopropyl alcohol	45		4.255					ND	
28 3-Chloro-1-propene	76		4.398					ND	
27 Acetonitrile	40		4.413					ND	
29 Methyl acetate	43		4.483					ND	
30 Methylene Chloride	84		4.599					ND	
31 2-Methyl-2-propanol	59		4.897					ND	
32 Acrylonitrile	53		5.006					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 trans-1,2-Dichloroethene	96		5.006					ND	
34 Methyl tert-butyl ether	73		5.049					ND	
35 Hexane	57		5.414					ND	
36 1,1-Dichloroethane	63		5.602					ND	
38 Vinyl acetate	43		5.730					ND	
37 2-Chloro-1,3-butadiene	53		5.739					ND	
39 Isopropyl ether	45		5.751					ND	
40 Tert-butyl ethyl ether	59		6.207					ND	
41 2,2-Dichloropropane	77		6.344					ND	
42 cis-1,2-Dichloroethene	96		6.356					ND	
43 2-Butanone (MEK)	43		6.411					ND	
44 Propionitrile	54		6.475					ND	
45 Ethyl acetate	43		6.499					ND	
46 Chlorobromomethane	128		6.636					ND	
47 Methacrylonitrile	41		6.651					ND	
48 Tetrahydrofuran	42		6.709					ND	
49 Chloroform	83		6.745					ND	
50 1,1,1-Trichloroethane	97		6.940					ND	
51 Cyclohexane	56		7.001					ND	
53 Carbon tetrachloride	117		7.129					ND	
52 1,1-Dichloropropene	75		7.135					ND	
54 Benzene	78		7.366					ND	
55 1,2-Dichloroethane	62		7.384					ND	
57 Isooctane	57		7.466					ND	
56 Tert-amyl methyl ether	73		7.502					ND	
58 n-Heptane	43		7.670					ND	
59 Isobutyl alcohol	41		7.670					ND	
60 n-Butanol	56		8.044					ND	
61 Trichloroethene	130		8.065					ND	
62 Ethyl acrylate	55		8.208					ND	
63 Methylcyclohexane	83		8.260					ND	
64 1,2-Dichloropropane	63		8.296					ND	
65 Dibromomethane	93		8.424					ND	
66 Methyl methacrylate	69		8.439					ND	
67 1,4-Dioxane	88		8.454					ND	
68 Dichlorobromomethane	83		8.588					ND	
69 2-Nitropropane	41		8.834					ND	
70 2-Chloroethyl vinyl ether	63		8.913					ND	
71 cis-1,3-Dichloropropene	75		9.050					ND	
72 4-Methyl-2-pentanone (MIBK	43		9.208					ND	
73 Toluene	91		9.385					ND	
74 trans-1,3-Dichloropropene	75		9.604					ND	
75 Ethyl methacrylate	69		9.695					ND	
76 1,1,2-Trichloroethane	97		9.786					ND	
77 Tetrachloroethene	164		9.932					ND	
78 1,3-Dichloropropane	76		9.956					ND	
79 2-Hexanone	43		10.060					ND	
81 Chlorodibromomethane	129		10.181					ND	
80 n-Butyl acetate	43		10.184					ND	
82 Ethylene Dibromide	107		10.303					ND	
83 4-Chlorobenzotrifluoride	180		10.744					ND	
84 Chlorobenzene	112		10.789					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 1,1,1,2-Tetrachloroethane	131		10.862					ND	
86 Ethylbenzene	106		10.893					ND	
87 m-Xylene & p-Xylene	106		11.008					ND	
88 o-Xylene	106		11.404					ND	
89 Styrene	104		11.422					ND	
90 Bromoform	173		11.617					ND	
91 Isopropylbenzene	105		11.775					ND	
92 Cyclohexanone	55		11.917					ND	
93 1,1,2,2-Tetrachloroethane	83		12.060					ND	
94 Bromobenzene	156		12.097					ND	
95 1,2,3-Trichloropropane	110		12.115					ND	
96 trans-1,4-Dichloro-2-buten	53		12.146					ND	
97 N-Propylbenzene	120		12.182					ND	
98 2-Chlorotoluene	126		12.273					ND	
99 1,3,5-Trimethylbenzene	105		12.352					ND	
100 4-Chlorotoluene	126		12.389					ND	
101 tert-Butylbenzene	119		12.681					ND	
102 Pentachloroethane	167		12.714					ND	
103 1,2,4-Trimethylbenzene	105		12.735					ND	
104 sec-Butylbenzene	105		12.906					ND	
105 1,3-Dichlorobenzene	146		13.027					ND	
106 4-Isopropyltoluene	119		13.046					ND	
107 1,4-Dichlorobenzene	146		13.119					ND	
108 1,2,3-Trimethylbenzene	105		13.164					ND	
109 Benzyl chloride	91		13.298					ND	
110 n-Butylbenzene	91		13.465					ND	
111 1,2-Dichlorobenzene	146		13.496					ND	
112 1,2-Dibromo-3-Chloropropan	157		14.317					ND	
113 1,2,4-Trichlorobenzene	180		15.144					ND	
115 Hexachlorobutadiene	225		15.284					ND	
114 1,3,5-Trichlorobenzene	180		15.305					ND	
116 Naphthalene	128		15.423					ND	
117 1,2,3-Trichlorobenzene	180		15.673					ND	
118 2-Methylnaphthalene	142		16.718					ND	
123 2,5-Dichlorobenzotrifluori	214		0.000					ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
121 2,4,5-Trichlorotoluene	159		0.000					ND	
122 3-Chlorotoluene	126		0.000					ND	
127 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
124 3-Chlorobenzotrifluoride	180		0.000					ND	
125 2-Chlorobenzotrifluoride	180		0.000					ND	
126 2,4-Dichloro-1-(triflourom	214		0.000					ND	
119 1,2-dichloro-4-(trifluorom	214		0.000					ND	
128 2,3,6-Trichlorotoluene	159		0.000					ND	
S 129 1,2-Dichloroethene, Total	96		1.000					0	
S 130 Xylenes, Total	106		1.000					0	
S 131 1,3-Dichloropropene, Total	1		0.000					0	
T 132 Tetrahydrofuran TIC	42		0.000					0	
T 133 Methyl n-amyl ketone TIC	43		0.000					0	
T 134 Mesityl oxide TIC	83		0.000					0	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated

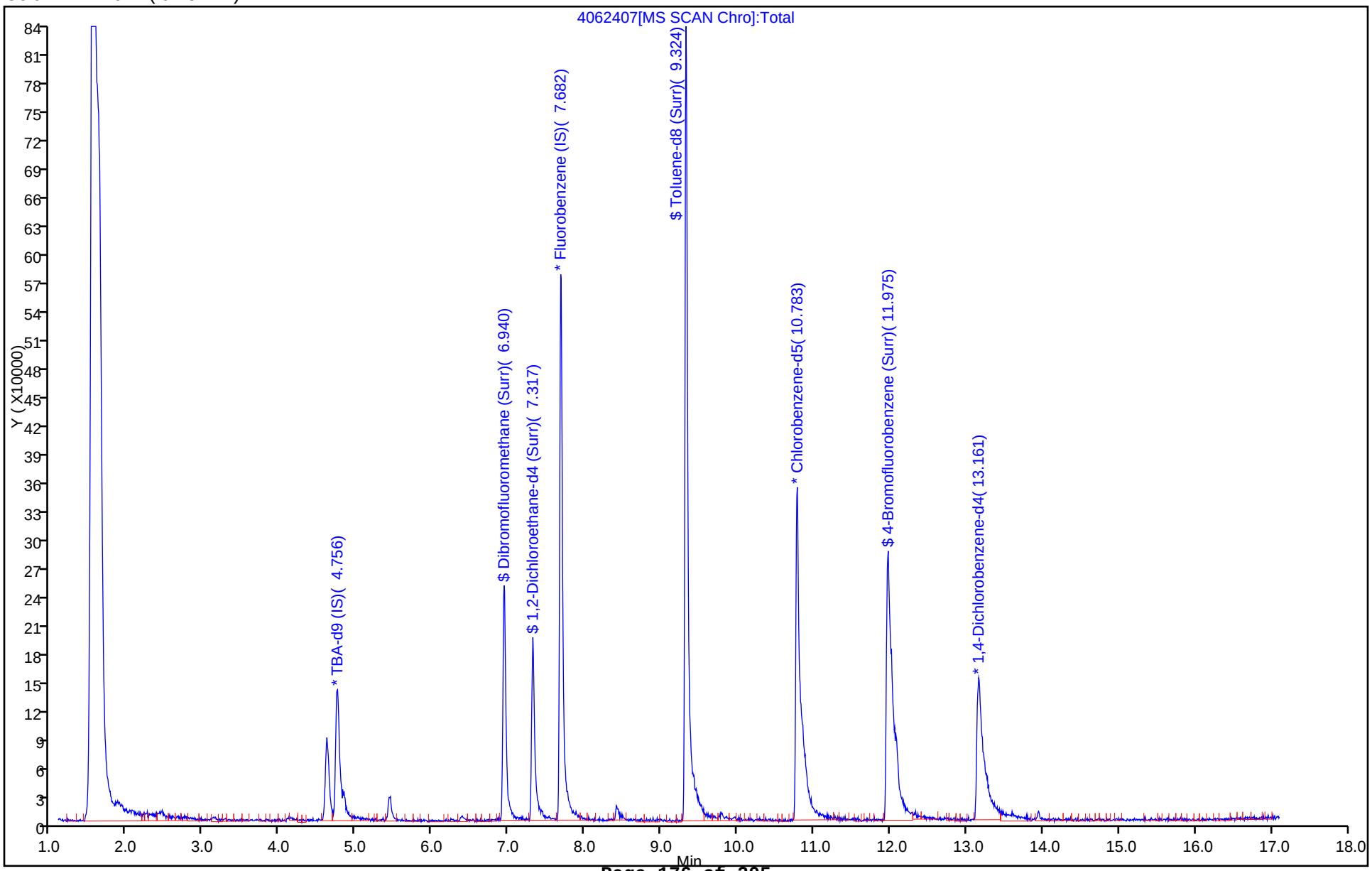
Report Date: 24-Jun-2014 12:08:07 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062407.D

Injection Date:	24-Jun-2014 12:42:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

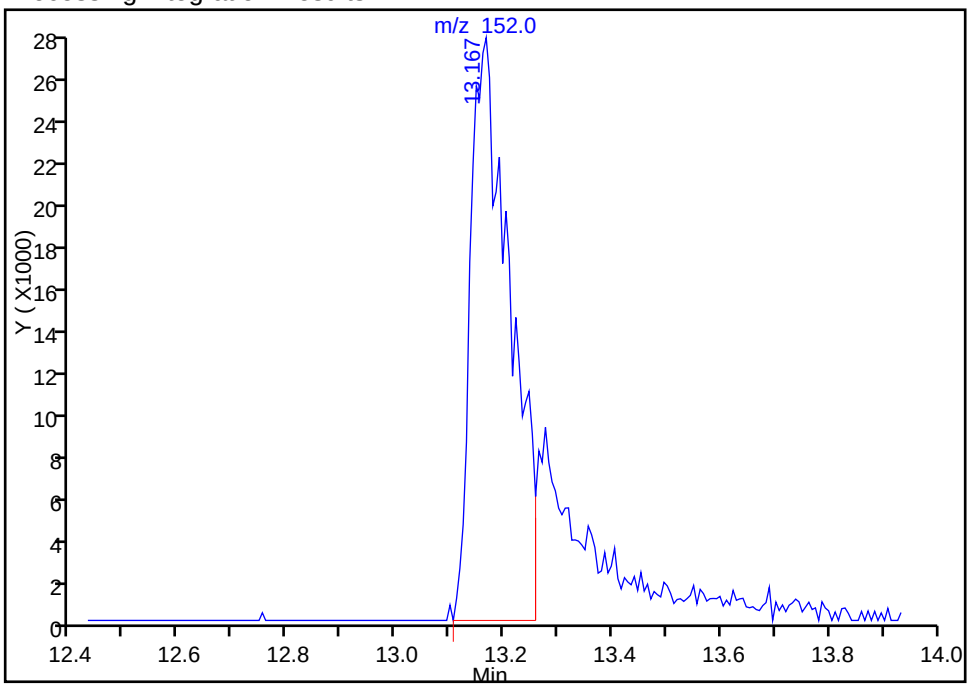
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062407.D
Injection Date: 24-Jun-2014 12:42:30 Instrument ID: CHHP4
Lims ID: MB
Client ID:
Operator ID: 430936 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP4 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 4 1,4-Dichlorobenzene-d4, CAS: 3855-82-1

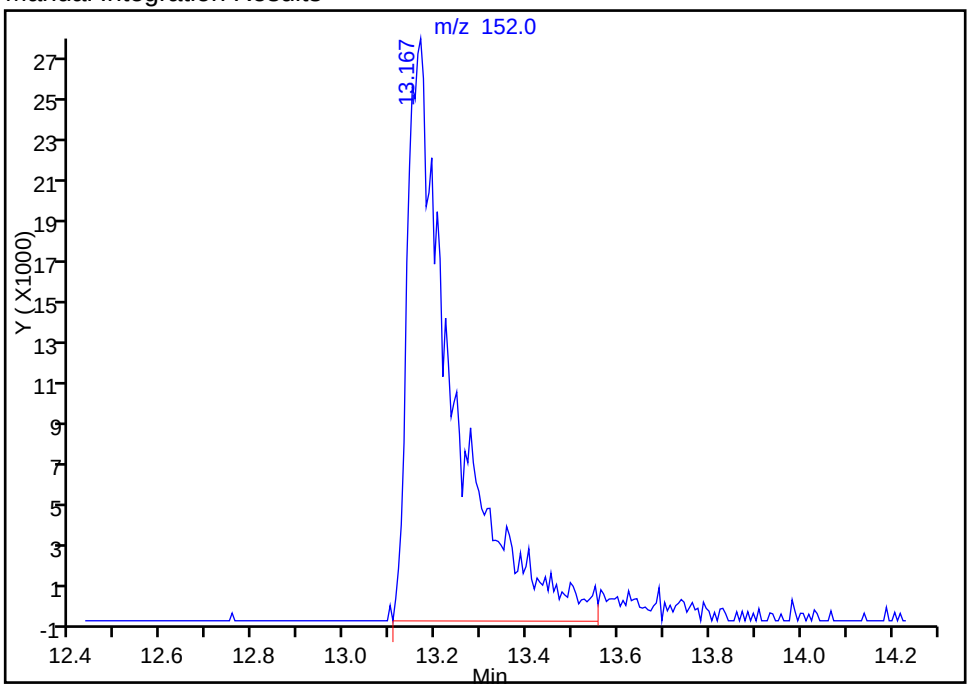
Processing Integration Results

RT: 13.17
Response: 137764
Amount: 250.0000



Manual Integration Results

RT: 13.17
Response: 191138
Amount: 250.0000



Reviewer: zukowskim, 24-Jun-2014 12:07:03
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-109531/5

Matrix: Water Lab File ID: 4062505.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2014 11:15

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.: 109531 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
91-20-3	Naphthalene	5.0	U	5.0	0.47
108-88-3	Toluene	5.0	U	5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
1330-20-7	Xylenes, Total	10	U	10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		75-120
1868-53-7	Dibromofluoromethane (Surr)	83		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77		62-123
2037-26-5	Toluene-d8 (Surr)	96		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062505.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 25-Jun-2014 11:15:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCV, List2
Misc. Info.: 180-0001891-005
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 10:41:30 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 10:41:30

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.742	4.737	0.005	92	216905	5000.0	5000.0	
*	2 Fluorobenzene (IS)	96	7.685	7.681	0.004	99	1050934	250.0	250.0	
*	3 Chlorobenzene-d5	119	10.781	10.770	0.011	79	218280	250.0	250.0	
*	4 1,4-Dichlorobenzene-d4	152	13.152	13.117	0.035	89	201439	250.0	250.0	
$	5 Dibromofluoromethane (Surr	113	6.943	6.928	0.015	58	267581	250.0	208.0	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.314	7.305	0.009	75	200355	250.0	192.2	
$	7 Toluene-d8 (Surr)	98	9.321	9.318	0.003	92	1187062	250.0	239.6	
$	8 4-Bromofluorobenzene (Surr	95	11.966	11.939	0.027	93	392983	250.0	248.8	
	10 Dichlorodifluoromethane	85		1.765					ND	
	11 Chloromethane	50		1.966					ND	
	12 Vinyl chloride	62		2.118					ND	
	13 Butadiene	39		2.160					ND	
	14 Bromomethane	94		2.501					ND	
	15 Chloroethane	64		2.610					ND	
	16 Dichlorofluoromethane	67		2.951					ND	
	17 Trichlorofluoromethane	101		2.969					ND	
	19 Ethyl ether	59		3.462					ND	
	18 Ethanol	45		3.521					ND	
	20 Acrolein	56		3.669					ND	
	21 1,1-Dichloroethene	96		3.772					ND	
	22 1,1,2-Trichloro-1,2,2-trif	101		3.833					ND	
	23 Acetone	43		3.930					ND	
	24 Iodomethane	142		4.003					ND	
	25 Carbon disulfide	76		4.100					ND	
	26 Isopropyl alcohol	45		4.245					ND	
	28 3-Chloro-1-propene	76		4.398					ND	
	27 Acetonitrile	40		4.415					ND	
	29 Methyl acetate	43		4.490					ND	
	30 Methylene Chloride	84		4.593					ND	
	31 2-Methyl-2-propanol	59		4.891					ND	
	32 Acrylonitrile	53		5.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 trans-1,2-Dichloroethene	96		5.013					ND	
34 Methyl tert-butyl ether	73		5.049					ND	
35 Hexane	57	5.435	5.420	0.015	82	21620		5.84	
36 1,1-Dichloroethane	63		5.602					ND	
38 Vinyl acetate	43		5.736					ND	
37 2-Chloro-1,3-butadiene	53		5.741					ND	
39 Isopropyl ether	45		5.747					ND	
40 Tert-butyl ethyl ether	59		6.209					ND	
41 2,2-Dichloropropane	77		6.344					ND	
42 cis-1,2-Dichloroethene	96		6.357					ND	
43 2-Butanone (MEK)	43		6.411					ND	
44 Propionitrile	54		6.477					ND	
45 Ethyl acetate	43		6.501					ND	
46 Chlorobromomethane	128		6.636					ND	
47 Methacrylonitrile	41		6.647					ND	
48 Tetrahydrofuran	42		6.703					ND	
49 Chloroform	83		6.746					ND	
50 1,1,1-Trichloroethane	97		6.940					ND	
51 Cyclohexane	56		7.001					ND	
53 Carbon tetrachloride	117		7.129					ND	
52 1,1-Dichloropropene	75		7.135					ND	
54 Benzene	78		7.360					ND	
55 1,2-Dichloroethane	62		7.390					ND	
57 Isooctane	57		7.468					ND	
56 Tert-amyl methyl ether	73		7.504					ND	
58 n-Heptane	43		7.670					ND	
59 Isobutyl alcohol	41		7.670					ND	
60 n-Butanol	56		8.052					ND	
61 Trichloroethene	130		8.065					ND	
62 Ethyl acrylate	55		8.216					ND	
63 Methylcyclohexane	83		8.260					ND	
64 1,2-Dichloropropane	63		8.296					ND	
65 Dibromomethane	93		8.430					ND	
66 Methyl methacrylate	69		8.441					ND	
67 1,4-Dioxane	88		8.455					ND	
68 Dichlorobromomethane	83		8.588					ND	
69 2-Nitropropane	41		8.830					ND	
70 2-Chloroethyl vinyl ether	63		8.927					ND	
71 cis-1,3-Dichloropropene	75		9.051					ND	
72 4-Methyl-2-pentanone (MIBK	43		9.215					ND	
73 Toluene	91		9.385					ND	
74 trans-1,3-Dichloropropene	75		9.610					ND	
75 Ethyl methacrylate	69		9.701					ND	
76 1,1,2-Trichloroethane	97		9.786					ND	
77 Tetrachloroethene	164		9.932					ND	
78 1,3-Dichloropropane	76		9.951					ND	
79 2-Hexanone	43		10.066					ND	
80 n-Butyl acetate	43		10.186					ND	
81 Chlorodibromomethane	129		10.188					ND	
82 Ethylene Dibromide	107		10.309					ND	
83 4-Chlorobenzotrifluoride	180		10.744					ND	
84 Chlorobenzene	112		10.796					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 1,1,1,2-Tetrachloroethane	131		10.863					ND	
86 Ethylbenzene	106		10.893					ND	
87 m-Xylene & p-Xylene	106		11.015					ND	
88 o-Xylene	106		11.404					ND	
89 Styrene	104		11.422					ND	
90 Bromoform	173		11.623					ND	
91 Isopropylbenzene	105		11.775					ND	
92 Cyclohexanone	55		11.925					ND	
93 1,1,2,2-Tetrachloroethane	83		12.061					ND	
94 Bromobenzene	156		12.091					ND	
95 1,2,3-Trichloropropane	110		12.116					ND	
96 trans-1,4-Dichloro-2-buten	53		12.158					ND	
97 N-Propylbenzene	120		12.182					ND	
98 2-Chlorotoluene	126		12.274					ND	
99 1,3,5-Trimethylbenzene	105		12.353					ND	
100 4-Chlorotoluene	126		12.389					ND	
101 tert-Butylbenzene	119		12.681					ND	
102 Pentachloroethane	167		12.716					ND	
103 1,2,4-Trimethylbenzene	105		12.736					ND	
104 sec-Butylbenzene	105		12.906					ND	
105 1,3-Dichlorobenzene	146		13.034					ND	
106 4-Isopropyltoluene	119		13.046					ND	
107 1,4-Dichlorobenzene	146		13.119					ND	
108 1,2,3-Trimethylbenzene	105		13.160					ND	
109 Benzyl chloride	91		13.300					ND	
110 n-Butylbenzene	91		13.466					ND	
111 1,2-Dichlorobenzene	146		13.502					ND	
112 1,2-Dibromo-3-Chloropropan	157		14.317					ND	
113 1,2,4-Trichlorobenzene	180		15.150					ND	
115 Hexachlorobutadiene	225		15.284					ND	
114 1,3,5-Trichlorobenzene	180		15.319					ND	
116 Naphthalene	128		15.436					ND	
117 1,2,3-Trichlorobenzene	180		15.679					ND	
118 2-Methylnaphthalene	142		16.718					ND	
123 2,5-Dichlorobenzotrifluori	214		0.000					ND	
128 2,3,6-Trichlorotoluene	159		0.000					ND	
124 3-Chlorobenzotrifluoride	180		0.000					ND	
121 2,4,5-Trichlorotoluene	159		0.000					ND	
127 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
126 2,4-Dichloro-1-(triflourom	214		0.000					ND	
122 3-Chlorotoluene	126		0.000					ND	
119 1,2-dichloro-4-(trifluorom	214		0.000					ND	
125 2-Chlorobenzotrifluoride	180		0.000					ND	
S 129 1,2-Dichloroethene, Total	96		1.000					0	
S 130 Xylenes, Total	106		1.000					0	
S 131 1,3-Dichloropropene, Total	1		0.000					0	
T 132 Tetrahydrofuran TIC	42		0.000					0	
T 133 Methyl n-amyl ketone TIC	43		0.000					0	
T 134 Mesityl oxide TIC	83		0.000					0	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

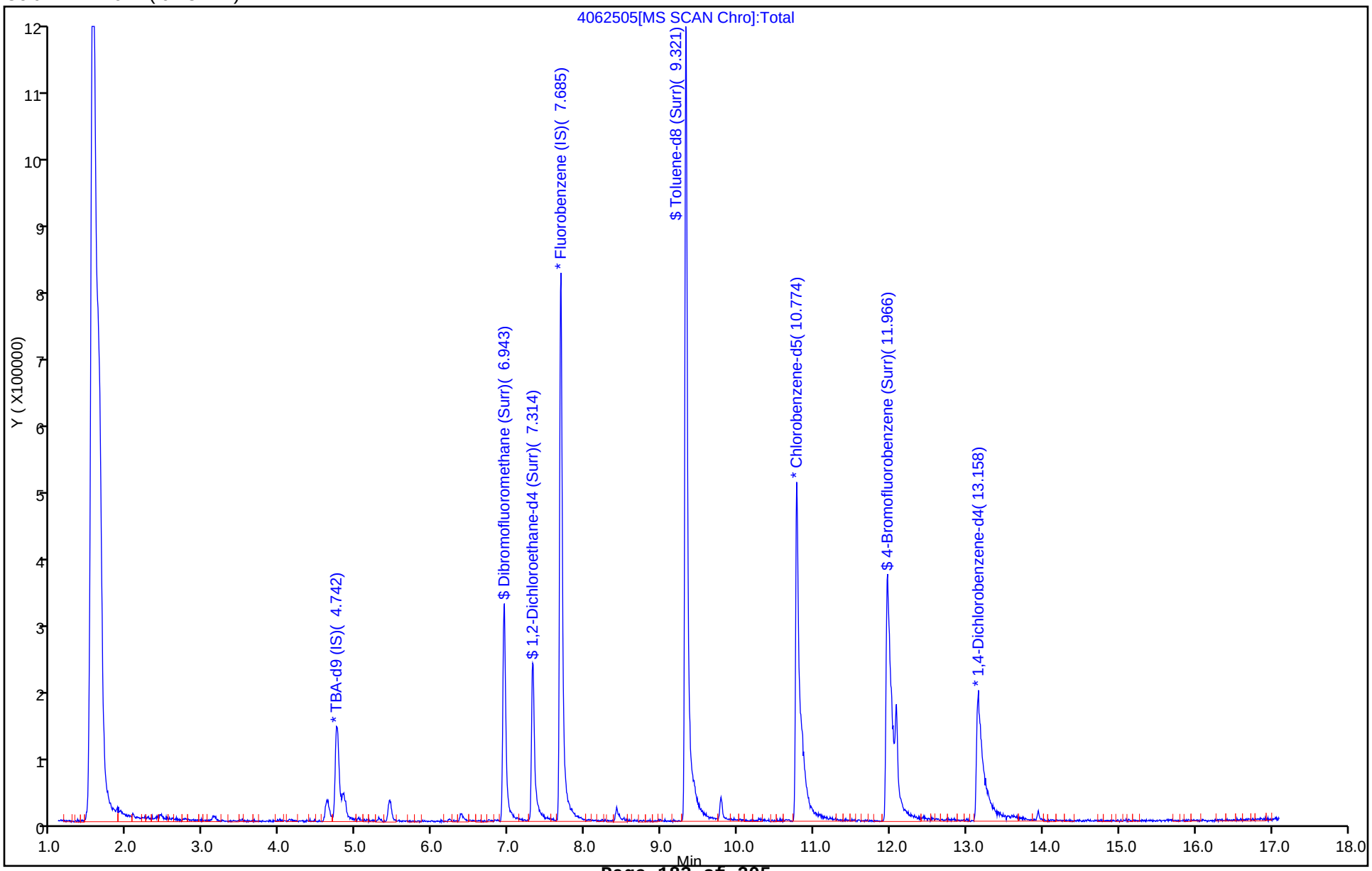
Report Date: 25-Jun-2014 10:41:40 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062505.D

Injection Date:	25-Jun-2014 11:15:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_CHHP4	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.: 180-34114-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-109391/20

Matrix: Water Lab File ID: 4062412A.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2014 15:43

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109391 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	41.9		5.0	0.99
100-41-4	Ethylbenzene	42.4		5.0	0.62
98-82-8	Isopropylbenzene	39.7		5.0	0.53
1634-04-4	Methyl tert-butyl ether	42.4		5.0	1.0
91-20-3	Naphthalene	52.9		5.0	0.47
108-88-3	Toluene	41.9		5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	38.7		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	37.6		5.0	0.59
1330-20-7	Xylenes, Total	78.4		10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		75-120
1868-53-7	Dibromofluoromethane (Surr)	85		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		62-123
2037-26-5	Toluene-d8 (Surr)	84		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062412A.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 24-Jun-2014 15:43:30 ALS Bottle#: 10 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0001869-020
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 09:11:27 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 09:11:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.779	4.775	0.004	94	245612	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.674	7.676	-0.002	92	1021076	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.763	10.759	0.004	81	235560	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.093	13.094	-0.001	93	324752	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.926	6.934	-0.008	81	264479	250.0	211.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.303	7.305	-0.002	72	212861	250.0	210.2	
$ 7 Toluene-d8 (Surr)	98	9.316	9.318	-0.002	92	1118280	250.0	209.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.937	11.939	-0.002	96	373424	250.0	219.1	
10 Dichlorodifluoromethane	85	1.775	1.765	0.010	87	399365	200.0	165.2	
11 Chloromethane	50	1.970	1.972	-0.002	99	540268	200.0	171.5	
12 Vinyl chloride	62	2.122	2.117	0.005	83	435451	200.0	170.0	
13 Butadiene	39	2.158	2.154	0.004	90	406611	200.0	159.2	
14 Bromomethane	94	2.493	2.501	-0.008	89	124001	200.0	166.5	
15 Chloroethane	64	2.614	2.610	0.004	91	122505	200.0	125.2	
16 Dichlorofluoromethane	67	2.943	2.938	0.005	96	459536	200.0	166.5	
17 Trichlorofluoromethane	101	2.955	2.963	-0.008	86	445535	200.0	174.7	
19 Ethyl ether	59	3.472	3.468	0.004	92	261249	200.0	208.3	
20 Acrolein	56	3.667	3.668	-0.001	74	27874	875.0	417.7	
21 1,1-Dichloroethene	96	3.776	3.772	0.004	88	409690	200.0	205.0	
22 1,1,2-Trichloro-1,2,2-trif	101	3.837	3.839	-0.001	81	396728	200.0	188.3	
23 Acetone	43	3.946	3.948	-0.002	98	136503	200.0	217.2	
24 Iodomethane	142	4.001	4.009	-0.008	95	584328	200.0	196.3	
25 Carbon disulfide	76	4.104	4.094	0.010	99	1136593	200.0	228.0	
28 3-Chloro-1-propene	76	4.408	4.398	0.010	93	225321	200.0	190.8	
29 Methyl acetate	43	4.488	4.483	0.005	99	760866	1000.0	1138.3	
30 Methylene Chloride	84	4.597	4.599	-0.002	92	393186	200.0	167.1	
31 2-Methyl-2-propanol	59	4.901	4.897	0.004	91	153400	2000.0	1622.0	
32 Acrylonitrile	53	5.004	5.006	-0.002	100	780095	2000.0	2501.4	
33 trans-1,2-Dichloroethene	96	5.017	5.006	0.011	93	413040	200.0	202.8	
34 Methyl tert-butyl ether	73	5.047	5.049	-0.002	91	634564	200.0	212.0	
35 Hexane	57	5.418	5.414	0.004	92	674722	200.0	187.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.606	5.602	0.004	85	635426	200.0	205.6	
38 Vinyl acetate	43	5.728	5.730	-0.002	95	204595	200.0	256.1	
41 2,2-Dichloropropane	77	6.348	6.344	0.004	76	364564	200.0	209.2	
42 cis-1,2-Dichloroethene	96	6.354	6.356	-0.002	68	410820	200.0	212.1	
43 2-Butanone (MEK)	43	6.415	6.411	0.004	88	124482	200.0	176.6	
46 Chlorobromomethane	128	6.646	6.636	0.010	96	154470	200.0	217.3	
48 Tetrahydrofuran	42	6.713	6.709	0.004	95	127158	400.0	481.2	
49 Chloroform	83	6.750	6.745	0.005	82	510754	200.0	202.7	
50 1,1,1-Trichloroethane	97	6.938	6.940	-0.002	92	482644	200.0	207.1	
51 Cyclohexane	56	6.999	7.001	-0.002	90	874437	200.0	195.9	
53 Carbon tetrachloride	117	7.133	7.129	0.005	84	411570	200.0	203.3	
52 1,1-Dichloropropene	75	7.139	7.135	0.004	93	436273	200.0	220.5	
54 Benzene	78	7.364	7.366	-0.002	97	1333152	200.0	209.6	
55 1,2-Dichloroethane	62	7.388	7.384	0.004	89	272447	200.0	208.1	
58 n-Heptane	43	7.668	7.670	-0.002	91	654907	200.0	212.4	
59 Isobutyl alcohol	41	7.674	7.670	0.004	70	354240	5000.0	5396.8	
61 Trichloroethene	130	8.063	8.065	-0.002	91	376673	200.0	209.3	
63 Methylcyclohexane	83	8.264	8.260	0.004	90	785470	200.0	202.7	
64 1,2-Dichloropropane	63	8.300	8.296	0.004	95	302043	200.0	210.4	
65 Dibromomethane	93	8.422	8.424	-0.002	88	129634	200.0	225.8	
67 1,4-Dioxane	88	8.453	8.454	-0.001	86	43802	4000.0	5252.7	
68 Dichlorobromomethane	83	8.586	8.588	-0.002	98	294856	200.0	221.2	
71 cis-1,3-Dichloropropene	75	9.048	9.050	-0.002	90	361402	200.0	227.7	
72 4-Methyl-2-pentanone (MIBK	43	9.213	9.208	0.005	97	163907	200.0	124.7	
73 Toluene	91	9.383	9.385	-0.002	99	1460655	200.0	209.5	
74 trans-1,3-Dichloropropene	75	9.608	9.604	0.004	92	252599	200.0	244.1	
75 Ethyl methacrylate	69	9.699	9.695	0.004	90	235527	200.0	250.3	
76 1,1,2-Trichloroethane	97	9.784	9.786	-0.002	80	210868	200.0	217.1	
77 Tetrachloroethene	164	9.930	9.932	-0.002	90	333999	200.0	203.5	
78 1,3-Dichloropropane	76	9.949	9.956	-0.007	92	335586	200.0	226.9	
79 2-Hexanone	43	10.064	10.060	0.004	95	144322	200.0	168.1	
81 Chlorodibromomethane	129	10.186	10.181	0.005	86	203881	200.0	235.9	
82 Ethylene Dibromide	107	10.307	10.303	0.004	94	183654	200.0	230.1	
84 Chlorobenzene	112	10.788	10.789	-0.001	96	938831	200.0	201.5	
85 1,1,1,2-Tetrachloroethane	131	10.861	10.862	-0.001	92	299961	200.0	218.9	
86 Ethylbenzene	106	10.891	10.893	-0.002	97	560051	200.0	211.8	
87 m-Xylene & p-Xylene	106	11.013	11.008	0.005	99	660321	200.0	192.1	
88 o-Xylene	106	11.408	11.404	0.004	93	646726	200.0	199.9	
89 Styrene	104	11.426	11.422	0.004	95	1008600	200.0	217.4	
90 Bromoform	173	11.615	11.617	-0.002	98	112750	200.0	213.4	
91 Isopropylbenzene	105	11.773	11.775	-0.002	94	1709068	200.0	198.3	
93 1,1,2,2-Tetrachloroethane	83	12.059	12.060	-0.001	86	234143	200.0	216.9	
94 Bromobenzene	156	12.095	12.097	-0.002	87	374331	200.0	208.7	
95 1,2,3-Trichloropropane	110	12.113	12.115	-0.002	65	67114	200.0	216.6	
96 trans-1,4-Dichloro-2-buten	53	12.144	12.146	-0.002	63	42666	200.0	362.8	
97 N-Propylbenzene	120	12.180	12.182	-0.002	97	536040	200.0	205.0	
98 2-Chlorotoluene	126	12.278	12.273	0.005	98	406003	200.0	189.3	
99 1,3,5-Trimethylbenzene	105	12.357	12.352	0.005	97	1386433	200.0	188.0	
100 4-Chlorotoluene	126	12.387	12.389	-0.002	96	412252	200.0	213.5	
101 tert-Butylbenzene	119	12.685	12.681	0.004	89	1299417	200.0	179.6	
103 1,2,4-Trimethylbenzene	105	12.734	12.735	-0.001	94	1349899	200.0	193.5	
104 sec-Butylbenzene	105	12.904	12.906	-0.002	92	1889755	200.0	185.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	13.032	13.027	0.005	95	669994	200.0	221.3	
106 4-Isopropyltoluene	119	13.044	13.046	-0.002	96	1590126	200.0	185.3	
107 1,4-Dichlorobenzene	146	13.117	13.119	-0.002	94	750338	200.0	190.0	
110 n-Butylbenzene	91	13.464	13.465	-0.001	95	1396617	200.0	199.5	
111 1,2-Dichlorobenzene	146	13.500	13.496	0.004	98	635659	200.0	192.3	
112 1,2-Dibromo-3-Chloropropan	157	14.315	14.317	-0.002	68	19993	200.0	209.6	
113 1,2,4-Trichlorobenzene	180	15.136	15.144	-0.008	92	272115	200.0	245.7	
115 Hexachlorobutadiene	225	15.282	15.284	-0.002	90	306106	200.0	177.5	
116 Naphthalene	128	15.410	15.423	-0.013	93	349752	200.0	264.4	
117 1,2,3-Trichlorobenzene	180	15.671	15.673	-0.002	92	199580	200.0	223.6	
S 129 1,2-Dichloroethene, Total	96				0		400.0	414.8	
S 130 Xylenes, Total	106				0		400.0	392.0	
S 131 1,3-Dichloropropene, Total	1				0		400.0	471.8	

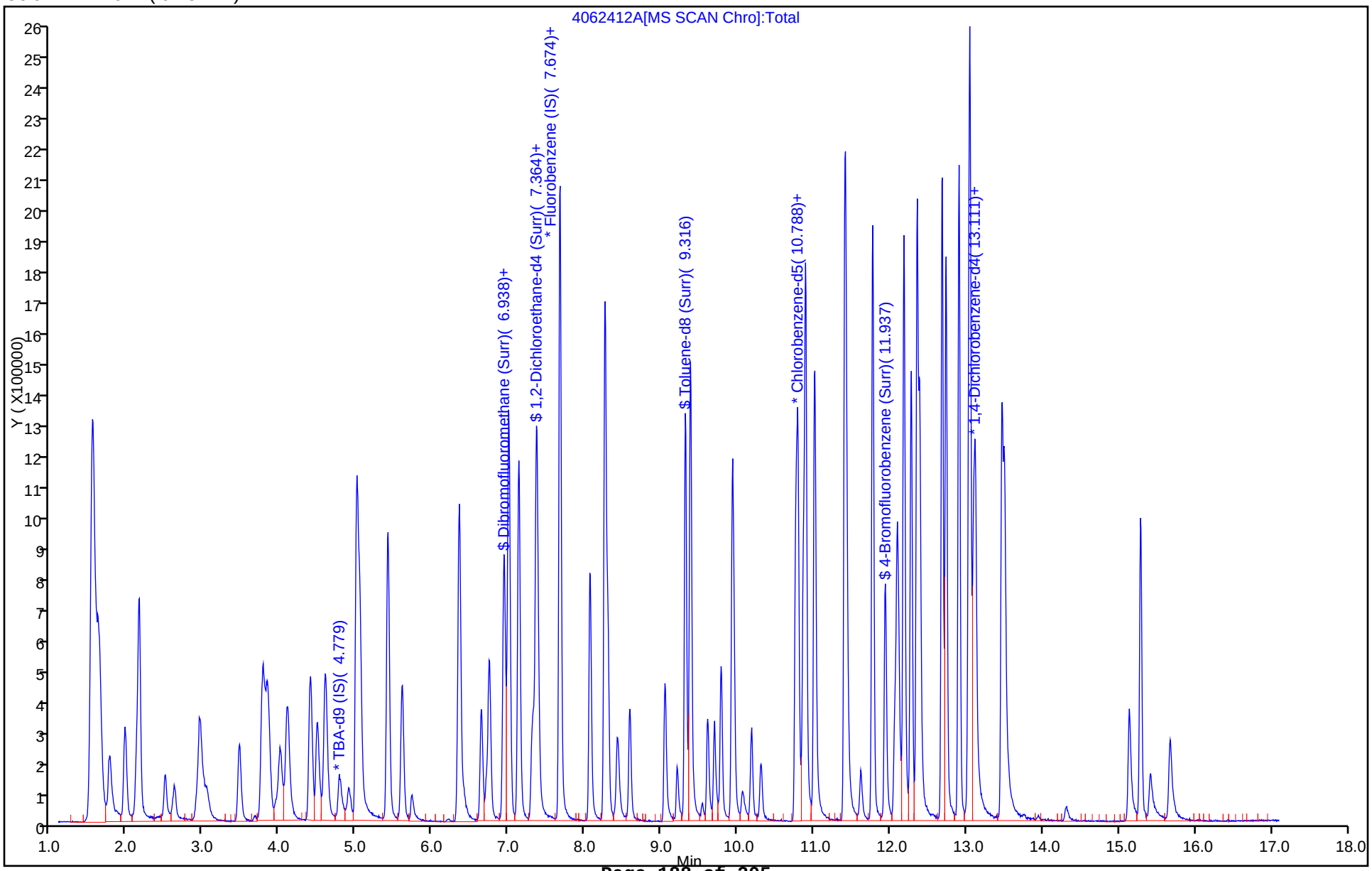
Report Date: 25-Jun-2014 09:11:28 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140624-1869.b\4062412A.D

Injection Date:	24-Jun-2014 15:43:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	LCS			Worklist Smp#:	20
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_CHHP4	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.: 180-34114-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-109531/11

Matrix: Water Lab File ID: 4062511.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2014 14:16

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109531 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	39.9		5.0	0.99
100-41-4	Ethylbenzene	37.3		5.0	0.62
98-82-8	Isopropylbenzene	36.3		5.0	0.53
1634-04-4	Methyl tert-butyl ether	45.3		5.0	1.0
91-20-3	Naphthalene	37.5		5.0	0.47
108-88-3	Toluene	36.1		5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	36.1		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	34.4		5.0	0.59
1330-20-7	Xylenes, Total	73.0		10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		75-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		62-123
2037-26-5	Toluene-d8 (Surr)	82		80-120

Report Date: 25-Jun-2014 13:45:48 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062511.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 25-Jun-2014 14:16:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0001891-011
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jun-2014 13:35:55 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK051

First Level Reviewer: zukowskim Date: 25-Jun-2014 13:44:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.781	4.775	0.006	97	248298	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.675	7.676	-0.001	94	967521	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.765	10.759	0.006	81	238276	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.094	13.095	-0.001	93	328320	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.927	6.928	-0.001	81	280566	250.0	236.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.304	7.305	-0.001	90	217113	250.0	226.2	
$ 7 Toluene-d8 (Surr)	98	9.317	9.318	-0.001	92	1103117	250.0	204.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.938	11.939	-0.001	96	397961	250.0	230.8	
10 Dichlorodifluoromethane	85	1.764	1.765	-0.001	87	369727	200.0	161.4	
11 Chloromethane	50	1.965	1.966	-0.001	89	519040	200.0	173.9	
12 Vinyl chloride	62	2.123	2.118	0.005	83	404937	200.0	166.9	
13 Butadiene	39	2.153	2.160	-0.007	94	391850	200.0	161.9	
14 Bromomethane	94	2.494	2.501	-0.007	88	114614	200.0	162.4	
15 Chloroethane	64	2.610	2.610	0.000	94	120903	200.0	130.4	
16 Dichlorofluoromethane	67	2.938	2.951	-0.013	97	467974	200.0	179.0	
17 Trichlorofluoromethane	101	2.956	2.969	-0.013	91	424192	200.0	175.5	
19 Ethyl ether	59	3.461	3.462	-0.001	92	250802	200.0	211.0	
20 Acrolein	56	3.674	3.669	0.005	81	31011	875.0	490.4	
21 1,1-Dichloroethene	96	3.771	3.772	-0.001	85	366293	200.0	193.4	
22 1,1,2-Trichloro-1,2,2-trif	101	3.844	3.833	0.011	81	388068	200.0	194.4	
23 Acetone	43	3.954	3.930	0.024	92	118701	200.0	199.3	
24 Iodomethane	142	4.002	4.003	-0.001	94	561245	200.0	199.0	
25 Carbon disulfide	76	4.099	4.100	-0.001	99	1032769	200.0	218.7	
28 3-Chloro-1-propene	76	4.397	4.398	-0.001	93	210903	200.0	188.8	
29 Methyl acetate	43	4.483	4.490	-0.007	99	738639	1000.0	1166.2	
30 Methylene Chloride	84	4.598	4.593	0.005	92	373522	200.0	167.6	
31 2-Methyl-2-propanol	59	4.902	4.891	0.011	87	168584	2000.0	1763.3	
32 Acrylonitrile	53	5.000	5.000	0.000	99	782542	2000.0	2641.4	
33 trans-1,2-Dichloroethene	96	5.012	5.013	-0.001	93	391573	200.0	202.9	
34 Methyl tert-butyl ether	73	5.048	5.049	-0.001	91	642663	200.0	226.5	
35 Hexane	57	5.413	5.420	-0.007	92	592211	200.0	173.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.608	5.602	0.006	85	579620	200.0	197.9	
38 Vinyl acetate	43	5.729	5.736	-0.007	97	177587	200.0	237.2	
41 2,2-Dichloropropane	77	6.343	6.344	-0.001	79	330032	200.0	199.9	
42 cis-1,2-Dichloroethene	96	6.356	6.357	-0.001	68	381952	200.0	208.1	
43 2-Butanone (MEK)	43	6.416	6.411	0.005	96	121924	200.0	182.4	
46 Chlorobromomethane	128	6.641	6.636	0.005	92	139909	200.0	207.7	
48 Tetrahydrofuran	42	6.708	6.703	0.005	91	115913	400.0	462.9	
49 Chloroform	83	6.745	6.746	-0.001	82	462635	200.0	193.7	
50 1,1,1-Trichloroethane	97	6.939	6.940	-0.001	90	422506	200.0	191.4	
51 Cyclohexane	56	7.000	7.001	-0.001	90	813211	200.0	192.3	
53 Carbon tetrachloride	117	7.128	7.129	-0.001	83	367868	200.0	191.7	
52 1,1-Dichloropropene	75	7.134	7.135	-0.001	90	364317	200.0	194.3	
54 Benzene	78	7.365	7.360	0.005	97	1202858	200.0	199.6	
55 1,2-Dichloroethane	62	7.389	7.390	-0.001	84	244837	200.0	197.4	
59 Isobutyl alcohol	41	7.669	7.670	-0.001	77	276953	5000.0	4452.9	
58 n-Heptane	43	7.669	7.670	-0.001	92	536411	200.0	183.6	
61 Trichloroethene	130	8.064	8.065	-0.001	92	318289	200.0	186.7	
63 Methylcyclohexane	83	8.259	8.260	-0.001	91	702077	200.0	191.2	
64 1,2-Dichloropropane	63	8.302	8.296	0.006	94	268980	200.0	197.7	
65 Dibromomethane	93	8.429	8.430	-0.001	83	122008	200.0	224.3	
67 1,4-Dioxane	88	8.454	8.455	-0.001	81	38130	4000.0	4825.6	
68 Dichlorobromomethane	83	8.587	8.588	-0.001	93	264203	200.0	209.2	
71 cis-1,3-Dichloropropene	75	9.044	9.051	-0.007	89	321744	200.0	213.9	
72 4-Methyl-2-pentanone (MIBK	43	9.208	9.215	-0.007	94	178200	200.0	134.0	
73 Toluene	91	9.384	9.385	-0.001	99	1274240	200.0	180.7	
74 trans-1,3-Dichloropropene	75	9.609	9.610	-0.001	89	221760	200.0	211.9	
75 Ethyl methacrylate	69	9.694	9.701	-0.007	90	203816	200.0	217.9	
76 1,1,2-Trichloroethane	97	9.786	9.786	0.000	81	200131	200.0	203.7	
77 Tetrachloroethene	164	9.931	9.932	-0.001	90	288675	200.0	173.9	
78 1,3-Dichloropropane	76	9.956	9.951	0.005	90	309380	200.0	206.8	
79 2-Hexanone	43	10.071	10.066	0.005	96	104562	200.0	128.6	
81 Chlorodibromomethane	129	10.187	10.188	-0.001	92	184048	200.0	210.5	
82 Ethylene Dibromide	107	10.302	10.309	-0.007	96	169528	200.0	211.8	
84 Chlorobenzene	112	10.789	10.796	-0.007	94	852359	200.0	180.8	
85 1,1,1,2-Tetrachloroethane	131	10.862	10.863	-0.001	91	276682	200.0	199.6	
86 Ethylbenzene	106	10.892	10.893	-0.001	97	498923	200.0	186.5	
87 m-Xylene & p-Xylene	106	11.014	11.015	-0.001	99	623400	200.0	179.8	
88 o-Xylene	106	11.403	11.404	-0.001	95	604737	200.0	184.8	
89 Styrene	104	11.427	11.422	0.005	96	921600	200.0	196.4	
90 Bromoform	173	11.616	11.623	-0.007	98	111800	200.0	209.5	
91 Isopropylbenzene	105	11.774	11.775	-0.001	94	1583762	200.0	181.6	
93 1,1,2,2-Tetrachloroethane	83	12.060	12.061	-0.001	76	233139	200.0	213.6	
94 Bromobenzene	156	12.096	12.091	0.005	87	339690	200.0	187.3	
95 1,2,3-Trichloropropane	110	12.109	12.116	-0.007	63	68859	200.0	219.8	
96 trans-1,4-Dichloro-2-buten	53	12.151	12.158	-0.007	15	25582	200.0	215.2	
97 N-Propylbenzene	120	12.182	12.182	0.000	96	481667	200.0	182.2	
98 2-Chlorotoluene	126	12.273	12.274	-0.001	97	377446	200.0	174.1	
99 1,3,5-Trimethylbenzene	105	12.352	12.353	-0.001	96	1294655	200.0	172.0	
100 4-Chlorotoluene	126	12.388	12.389	-0.001	97	370087	200.0	189.6	
101 tert-Butylbenzene	119	12.680	12.681	-0.001	89	1210327	200.0	163.3	
103 1,2,4-Trimethylbenzene	105	12.735	12.736	-0.001	95	1272042	200.0	180.4	
104 sec-Butylbenzene	105	12.905	12.906	-0.001	93	1743788	200.0	167.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	13.033	13.034	-0.001	97	620017	200.0	202.5	
106 4-Isopropyltoluene	119	13.045	13.046	-0.001	96	1438240	200.0	163.6	
107 1,4-Dichlorobenzene	146	13.124	13.119	0.005	96	688134	200.0	172.4	
110 n-Butylbenzene	91	13.465	13.466	-0.001	96	1283496	200.0	181.4	
111 1,2-Dichlorobenzene	146	13.501	13.502	-0.001	99	613437	200.0	183.5	
112 1,2-Dibromo-3-Chloropropan	157	14.310	14.317	-0.007	65	26169	200.0	259.7	
113 1,2,4-Trichlorobenzene	180	15.137	15.150	-0.013	91	208783	200.0	186.5	
115 Hexachlorobutadiene	225	15.283	15.284	-0.001	90	259422	200.0	148.8	
116 Naphthalene	128	15.417	15.436	-0.019	93	240447	200.0	187.3	
117 1,2,3-Trichlorobenzene	180	15.678	15.679	-0.001	90	150148	200.0	171.1	
S 130 Xylenes, Total	106				0		400.0	364.5	
S 129 1,2-Dichloroethene, Total	96				0		400.0	410.9	
S 131 1,3-Dichloropropene, Total	1				0		400.0	425.8	

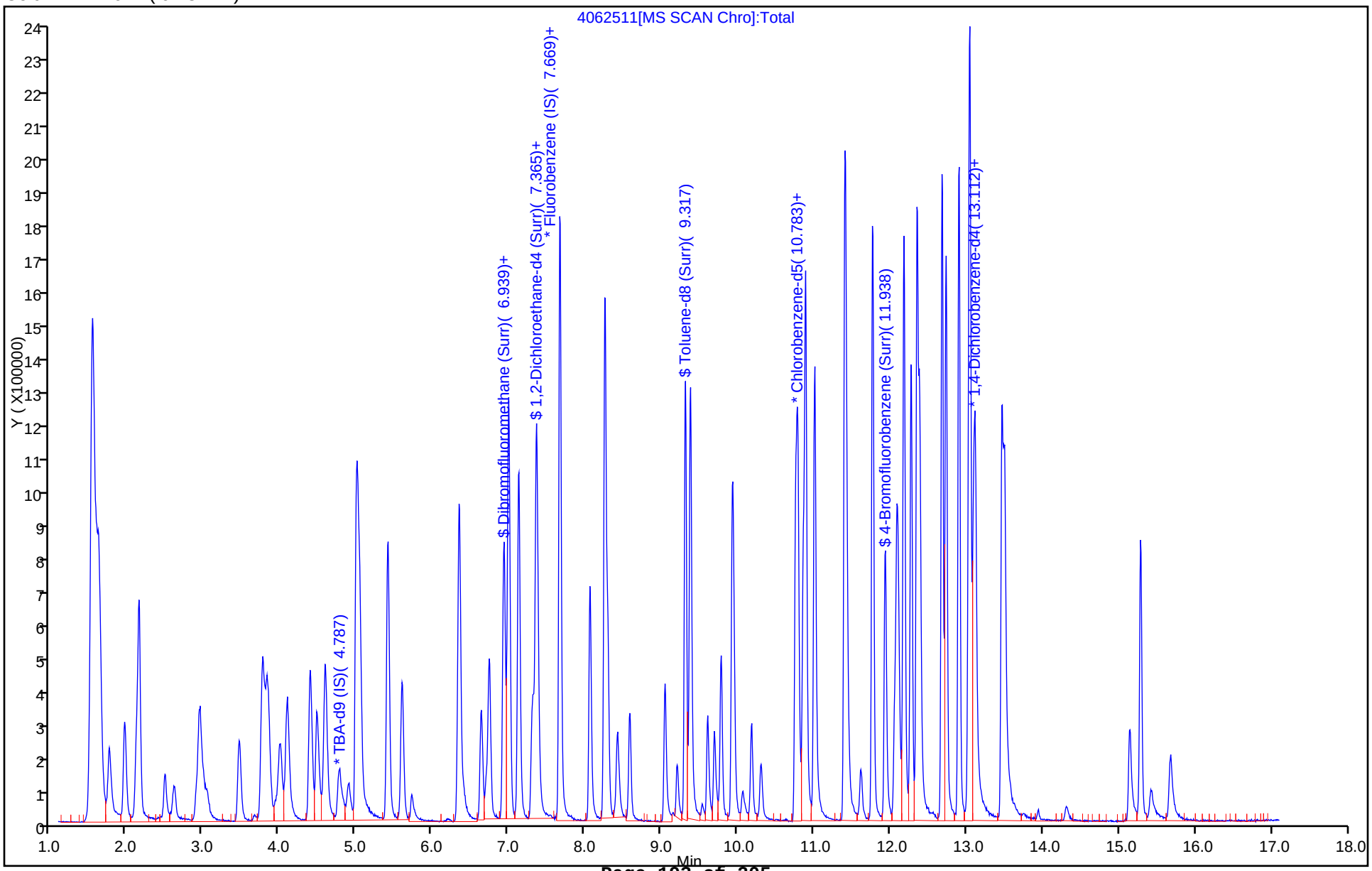
Report Date: 25-Jun-2014 13:45:49 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062511.D

Injection Date:	25-Jun-2014 14:16:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_CHHP4	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.: 180-34114-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-109531/9

Matrix: Water Lab File ID: 4062509.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2014 13:16

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109531 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	38.2		5.0	0.99
100-41-4	Ethylbenzene	38.1		5.0	0.62
98-82-8	Isopropylbenzene	35.2		5.0	0.53
1634-04-4	Methyl tert-butyl ether	42.0		5.0	1.0
91-20-3	Naphthalene	44.4		5.0	0.47
108-88-3	Toluene	37.5		5.0	0.85
95-63-6	1,2,4-Trimethylbenzene	34.5		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	32.7		5.0	0.59
1330-20-7	Xylenes, Total	71.0		10	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		75-120
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		62-123
2037-26-5	Toluene-d8 (Surr)	82		80-120

Report Date: 26-Jun-2014 08:37:52 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062509.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 25-Jun-2014 13:16:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 180-0001891-009
Operator ID: 430936 Instrument ID: CHHP4

Method: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\MSVOA_CHHP4.m
Limit Group: VOA 8260C ICAL
Last Update: 26-Jun-2014 08:37:52 Calib Date: 03-Jun-2014 14:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP4\20140603-1537.b\4060309.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: zukowskim Date: 26-Jun-2014 08:37:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.779	4.775	0.004	97	240220	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.673	7.676	-0.003	93	1020469	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.763	10.759	0.004	82	243779	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.092	13.095	-0.003	94	347826	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.931	6.928	0.003	80	277601	250.0	222.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.308	7.305	0.003	92	219003	250.0	216.3	
$ 7 Toluene-d8 (Surr)	98	9.315	9.318	-0.003	92	1135872	250.0	205.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.936	11.939	-0.003	97	401255	250.0	227.5	
10 Dichlorodifluoromethane	85	1.768	1.765	0.003	96	355357	200.0	147.1	
11 Chloromethane	50	1.975	1.966	0.009	89	505444	200.0	160.6	
12 Vinyl chloride	62	2.127	2.118	0.009	99	403435	200.0	157.6	
13 Butadiene	39	2.157	2.160	-0.003	89	373543	200.0	146.3	
14 Bromomethane	94	2.498	2.501	-0.003	86	112659	200.0	151.4	
15 Chloroethane	64	2.620	2.610	0.010	92	117213	200.0	119.8	
16 Dichlorofluoromethane	67	2.942	2.951	-0.009	81	433097	200.0	157.0	
17 Trichlorofluoromethane	101	2.966	2.969	-0.003	84	401757	200.0	157.6	
19 Ethyl ether	59	3.465	3.462	0.003	92	256934	200.0	205.0	
20 Acrolein	56	3.678	3.669	0.009	74	19994	875.0	299.8	
21 1,1-Dichloroethene	96	3.781	3.772	0.009	91	361296	200.0	180.9	
22 1,1,2-Trichloro-1,2,2-trif	101	3.836	3.833	0.003	80	370334	200.0	175.9	
23 Acetone	43	3.958	3.930	0.028	90	130234	200.0	207.3	
24 Iodomethane	142	4.006	4.003	0.003	95	535815	200.0	180.1	
25 Carbon disulfide	76	4.097	4.100	-0.003	99	993735	200.0	199.5	
28 3-Chloro-1-propene	76	4.395	4.398	-0.003	93	209397	200.0	179.5	
29 Methyl acetate	43	4.493	4.490	0.003	98	734427	1000.0	1099.4	
30 Methylene Chloride	84	4.602	4.593	0.009	91	422582	200.0	182.2	
31 2-Methyl-2-propanol	59	4.912	4.891	0.021	91	161165	2000.0	1742.4	
32 Acrylonitrile	53	5.004	5.000	0.004	98	782467	2000.0	2510.0	
33 trans-1,2-Dichloroethene	96	5.016	5.013	0.003	93	389778	200.0	191.4	
34 Methyl tert-butyl ether	73	5.052	5.049	0.003	91	628653	200.0	210.1	
35 Hexane	57	5.417	5.420	-0.003	92	625570	200.0	174.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.606	5.602	0.004	85	580084	200.0	187.8	
38 Vinyl acetate	43	5.727	5.736	-0.009	96	234471	200.0	288.8	
41 2,2-Dichloropropane	77	6.348	6.344	0.004	78	328761	200.0	188.8	
42 cis-1,2-Dichloroethene	96	6.360	6.357	0.003	68	379017	200.0	195.8	
43 2-Butanone (MEK)	43	6.421	6.411	0.009	92	127808	200.0	181.3	
46 Chlorobromomethane	128	6.639	6.636	0.003	94	146326	200.0	205.9	
48 Tetrahydrofuran	42	6.712	6.703	0.009	94	124774	400.0	472.4	
49 Chloroform	83	6.749	6.746	0.003	82	474882	200.0	188.6	
50 1,1,1-Trichloroethane	97	6.943	6.940	0.003	92	428427	200.0	184.0	
51 Cyclohexane	56	7.004	7.001	0.003	90	791848	200.0	177.5	
53 Carbon tetrachloride	117	7.132	7.129	0.003	95	362069	200.0	178.9	
52 1,1-Dichloropropene	75	7.138	7.135	0.003	90	379206	200.0	191.8	
54 Benzene	78	7.363	7.360	0.003	98	1215036	200.0	191.1	
55 1,2-Dichloroethane	62	7.387	7.390	-0.003	90	276588	200.0	211.4	
58 n-Heptane	43	7.667	7.670	-0.003	81	577758	200.0	187.5	
59 Isobutyl alcohol	41	7.673	7.670	0.003	65	318407	5000.0	4853.8	
61 Trichloroethene	130	8.069	8.065	0.004	91	338631	200.0	188.3	
63 Methylcyclohexane	83	8.263	8.260	0.003	90	698057	200.0	180.3	
64 1,2-Dichloropropane	63	8.300	8.296	0.004	94	283391	200.0	197.5	
65 Dibromomethane	93	8.427	8.430	-0.003	86	127101	200.0	221.5	
67 1,4-Dioxane	88	8.458	8.455	0.003	87	44351	4000.0	5321.7	
68 Dichlorobromomethane	83	8.592	8.588	0.004	98	282821	200.0	212.3	
71 cis-1,3-Dichloropropene	75	9.048	9.051	-0.003	90	339632	200.0	214.1	
72 4-Methyl-2-pentanone (MIBK	43	9.206	9.215	-0.009	95	186012	200.0	136.7	
73 Toluene	91	9.382	9.385	-0.003	99	1353020	200.0	187.5	
74 trans-1,3-Dichloropropene	75	9.607	9.610	-0.003	93	234869	200.0	219.3	
75 Ethyl methacrylate	69	9.698	9.701	-0.003	91	234131	200.0	241.5	
76 1,1,2-Trichloroethane	97	9.790	9.786	0.004	81	213175	200.0	212.0	
77 Tetrachloroethene	164	9.929	9.932	-0.003	90	309341	200.0	182.1	
78 1,3-Dichloropropane	76	9.954	9.951	0.003	90	328455	200.0	214.6	
79 2-Hexanone	43	10.069	10.066	0.003	94	131721	200.0	151.7	
81 Chlorodibromomethane	129	10.185	10.188	-0.003	88	192625	200.0	215.4	
82 Ethylene Dibromide	107	10.306	10.309	-0.003	94	176419	200.0	215.1	
84 Chlorobenzene	112	10.793	10.796	-0.003	98	885270	200.0	183.6	
85 1,1,1,2-Tetrachloroethane	131	10.860	10.863	-0.003	90	282678	200.0	199.3	
86 Ethylbenzene	106	10.890	10.893	-0.003	97	521268	200.0	190.5	
87 m-Xylene & p-Xylene	106	11.012	11.015	-0.003	99	607936	200.0	171.7	
88 o-Xylene	106	11.407	11.404	0.003	93	614516	200.0	183.5	
89 Styrene	104	11.425	11.422	0.003	94	940814	200.0	195.9	
90 Bromoform	173	11.614	11.623	-0.009	97	107403	200.0	197.8	
91 Isopropylbenzene	105	11.772	11.775	-0.003	95	1569701	200.0	176.0	
93 1,1,2,2-Tetrachloroethane	83	12.064	12.061	0.003	83	240051	200.0	214.9	
94 Bromobenzene	156	12.094	12.091	0.003	87	355863	200.0	185.2	
95 1,2,3-Trichloropropane	110	12.119	12.116	0.003	66	70281	200.0	211.8	
96 trans-1,4-Dichloro-2-buten	53	12.161	12.158	0.003	27	27820	200.0	220.9	
97 N-Propylbenzene	120	12.186	12.182	0.004	96	504402	200.0	180.1	
98 2-Chlorotoluene	126	12.277	12.274	0.003	99	390714	200.0	170.1	
99 1,3,5-Trimethylbenzene	105	12.356	12.353	0.003	95	1312007	200.0	163.7	
100 4-Chlorotoluene	126	12.392	12.389	0.003	80	390289	200.0	188.7	
101 tert-Butylbenzene	119	12.678	12.681	-0.003	90	1239376	200.0	157.0	
103 1,2,4-Trimethylbenzene	105	12.733	12.736	-0.003	71	1289499	200.0	172.6	
104 sec-Butylbenzene	105	12.903	12.906	-0.003	93	1759926	200.0	158.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	13.031	13.034	-0.003	95	637260	200.0	196.5	
106 4-Isopropyltoluene	119	13.049	13.046	0.003	96	1485836	200.0	159.0	
107 1,4-Dichlorobenzene	146	13.122	13.119	0.003	95	728661	200.0	172.3	
110 n-Butylbenzene	91	13.469	13.466	0.003	94	1322806	200.0	176.4	
111 1,2-Dichlorobenzene	146	13.499	13.502	-0.003	99	626280	200.0	176.9	
112 1,2-Dibromo-3-Chloropropan	157	14.314	14.317	-0.003	66	29226	200.0	271.4	
113 1,2,4-Trichlorobenzene	180	15.141	15.150	-0.009	91	245560	200.0	207.0	
115 Hexachlorobutadiene	225	15.281	15.284	-0.003	92	272173	200.0	147.3	
116 Naphthalene	128	15.415	15.436	-0.021	93	308874	200.0	222.1	
117 1,2,3-Trichlorobenzene	180	15.676	15.679	-0.003	91	189838	200.0	200.6	
S 129 1,2-Dichloroethene, Total	96				0		400.0	387.2	
S 130 Xylenes, Total	106				0		400.0	355.2	
S 131 1,3-Dichloropropene, Total	1				0		400.0	433.4	

Reagents:

VOAVinylAceta_00004	Amount Added: 8.00	Units: uL	
Voa Acro 2nd_00003	Amount Added: 35.00	Units: uL	
VOA8260VOA2ND_00070	Amount Added: 8.00	Units: uL	
VOA8260INT_00012	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00016	Amount Added: 10.00	Units: uL	Run Reagent

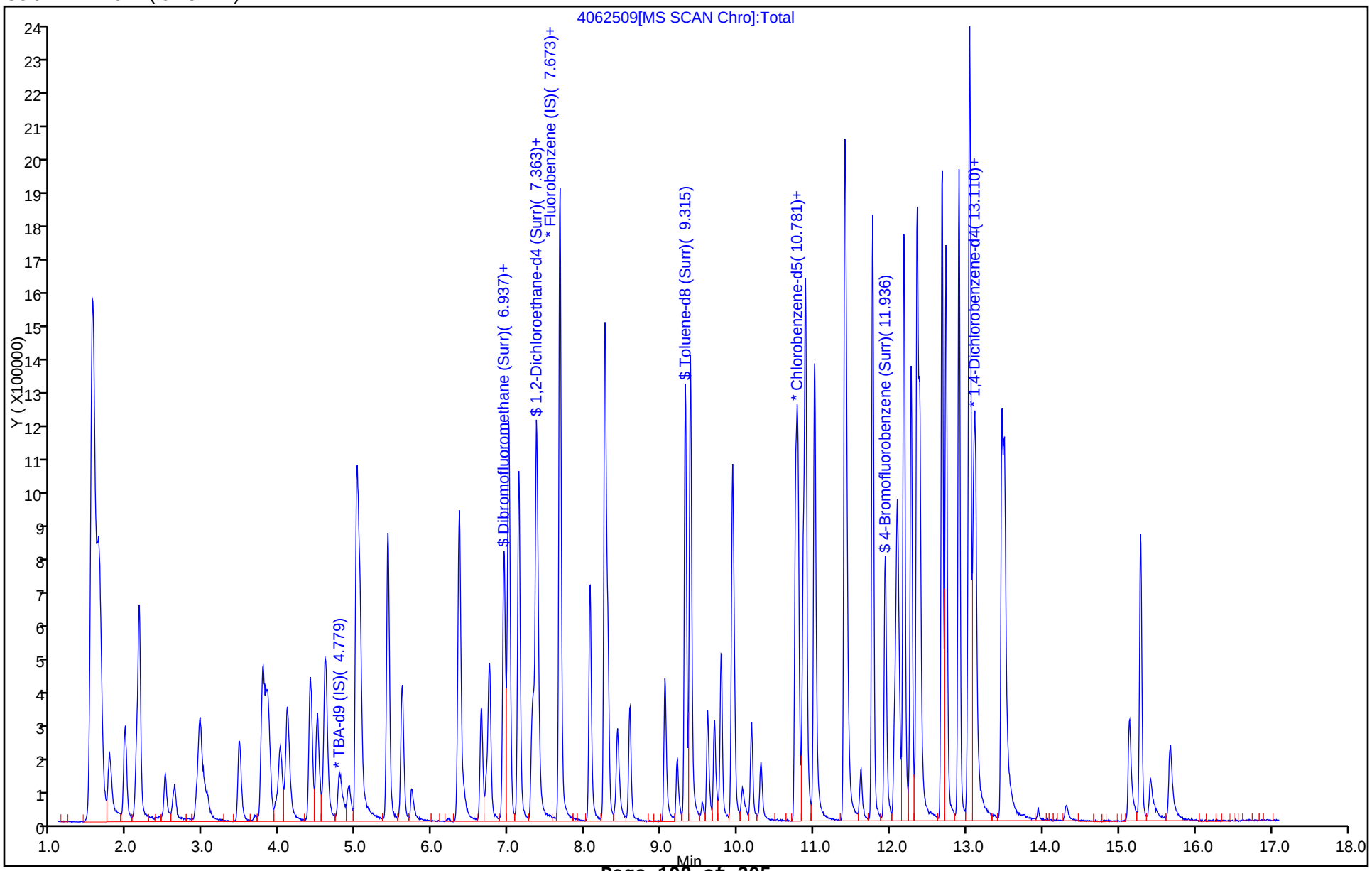
Report Date: 26-Jun-2014 08:37:52 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP4\20140625-1891.b\4062509.D

Injection Date:	25-Jun-2014 13:16:30	Instrument ID:	CHHP4	Operator ID:	430936
Lims ID:	LCSD			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_CHHP4	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Start Date: 06/03/2014 09:50

Analysis Batch Number: 107478 End Date: 06/03/2014 16:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-107478/1		06/03/2014 09:50	1	4060301.D	DB-624 0.18(mm)
IC 180-107478/3		06/03/2014 11:03	1	4060303.D	DB-624 0.18(mm)
IC 180-107478/4		06/03/2014 11:43	1	4060304.D	DB-624 0.18(mm)
IC 180-107478/5		06/03/2014 12:13	1	4060305.D	DB-624 0.18(mm)
ICIS 180-107478/6		06/03/2014 12:43	1	4060306.D	DB-624 0.18(mm)
IC 180-107478/7		06/03/2014 13:14	1	4060307.D	DB-624 0.18(mm)
IC 180-107478/8		06/03/2014 13:44	1	4060308.D	DB-624 0.18(mm)
IC 180-107478/9		06/03/2014 14:15	1	4060309.D	DB-624 0.18(mm)
ICV 180-107478/13		06/03/2014 16:53	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Start Date: 06/24/2014 10:08

Analysis Batch Number: 109391 End Date: 06/24/2014 18:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-109391/4		06/24/2014 10:08	1	4062403.D	DB-624 0.18(mm)
CCVIS 180-109391/2		06/24/2014 10:51	1	4062404.D	DB-624 0.18(mm)
MB 180-109391/7		06/24/2014 12:42	1	4062407.D	DB-624 0.18(mm)
LCS 180-109391/20		06/24/2014 15:43	1	4062412A.D	DB-624 0.18(mm)
ZZZZZ		06/24/2014 16:56	1		DB-624 0.18(mm)
180-34114-1	HD-MW-125-0/1-0	06/24/2014 18:27	1	4062417.D	DB-624 0.18(mm)
180-34114-2	HD-MW-160-0/1-0	06/24/2014 18:57	1	4062418.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-34114-1

SDG No.:

Instrument ID: CHHP4 Start Date: 06/25/2014 08:46

Analysis Batch Number: 109531 End Date: 06/25/2014 16:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-109531/1		06/25/2014 08:46	1	4062501.D	DB-624 0.18(mm)
CCVIS 180-109531/2		06/25/2014 09:29	1	4062502.D	DB-624 0.18(mm)
MB 180-109531/5		06/25/2014 11:15	1	4062505.D	DB-624 0.18(mm)
180-34114-3	TRIP BLANK 1	06/25/2014 12:16	1	4062507.D	DB-624 0.18(mm)
LCSD 180-109531/9		06/25/2014 13:16	1	4062509.D	DB-624 0.18(mm)
LCS 180-109531/11		06/25/2014 14:16	1	4062511.D	DB-624 0.18(mm)
180-34114-2 DL	HD-MW-160-0/1-0 DL	06/25/2014 16:58	2	4062515.D	DB-624 0.18(mm)

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive

Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

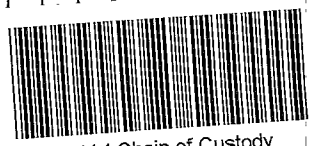
Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Kent Littlefield	Site Contact: Rodney Myers	Date Submitted: 6/19/2014	COC No: TAP061920141
Leidos	Tel/Fax: 717-901-8100	Lab Contact: Carrie Gamber	Carrier:	1 of 1 COCs
6310 Allentown Blvd.	Analysis Turnaround Time			Job No.
Harrisburg, PA 17112	Calendar (C) or Work Days (W)			
(717) 901 - 8100 Phone	TAT if different from Below: Standard			Container No. 1
(717) 901-8102 FAX	☐ 2 weeks			SDG No.
Project Name: HD Bldg 45 UST Characterization	☐ 1 week			
Site: York PA	☐ 2 days			
PO Number: 450MR00673	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	PADEP UST Shortlist Unleaded (8260C)														
HD-MW-125-0/1-0	6/19/2014	12:08	Groundwater	Water	3	X														Sample Specific Notes:
HD-MW-160-0/1-0	6/19/2014	11:05	Groundwater	Water	3	X														
Trip Blank 1	6/19/2014	12:50	Trip Blank	Water	2	X														
Temp Blank 1	6/19/2014	12:55	Temp Blank	Water	1															
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Unpreserved 7=Na2S2O3						2	6	4	6	6	5	5	6	4	4	4	4	4	4	4	4
Field Filter						N	N	Y	N	Y	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N

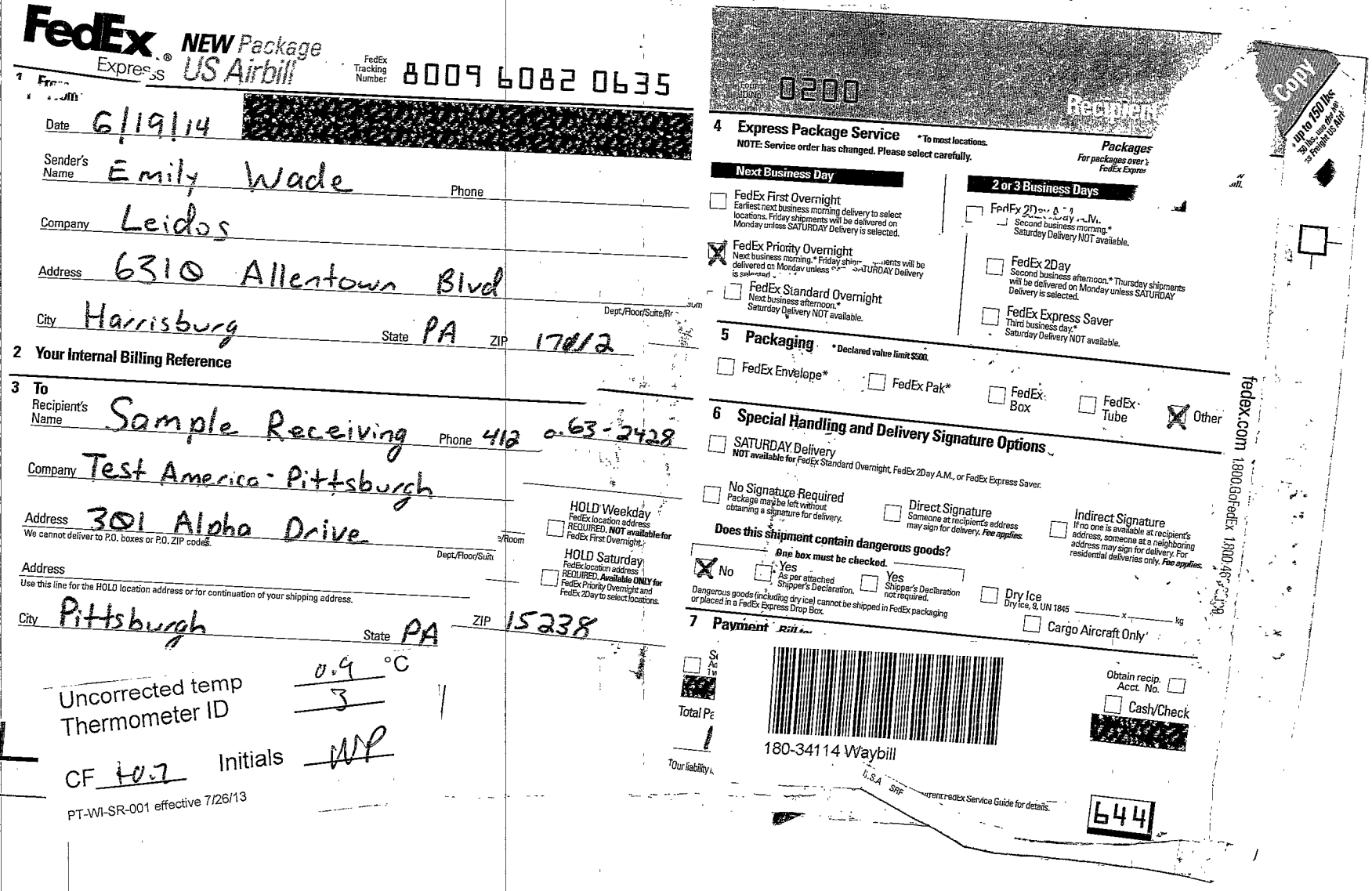


Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables, Project Specific Analyte Lists Bill to Leidios, e-mail lab results to kent.v.littlefield@leidos.com**

Relinquished by: Emily Wade	Company: Leidos	Date/Time: 06/19/2014/14:00	Received by: Fed-Ex	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: TAD	Date/Time: 6/20/14 0850
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:



FedEx Express® NEW Package US Airbill

FedEx Tracking Number 8009 6082 0635

1 From

Date 6/19/14

Sender's Name Emily Wade Phone

Company Leidos

Address 6310 Allentown Blvd Dept./Floor/Suite/Room

City Harrisburg State PA ZIP 17112

2 Your Internal Billing Reference

3 To

Recipient's Name Sample Receiving Phone 412 backslash 63-2428

Company Test America - Pittsburgh

Address 301 Alpha Drive Dept./Floor/Suite/Room

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

Address

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

City Pittsburgh State PA ZIP 15238

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.

Uncorrected temp 0.4 °C

Thermometer ID 3

CF +0.7 Initials MP

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

0200 Recipient

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages For packages over 150 lbs., see FedEx Freight or FedEx Express

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.
- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. [X]
- 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 Other [X]

6 Special Handling and Delivery Signature Options

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

No Signature Required — Package may be left without obtaining a signature for delivery.

Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked.

No [X] Yes — As per attached Shipper's Declaration. Yes — Shipper's Declaration not required.

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Cargo Aircraft Only

7 Payment

Total Pa

180-34114 Waybill

Obtain recip. Acct. No.

Cash/Check

644

fedex.com 1.800.GoFedEx 1.800.463.3339

Copy

up to 150 lbs. see FedEx Freight or FedEx Express

U.S.A. SRF

Page 204 of 205

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 180-34114-1

Login Number: 34114

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Skowronek, Elyse N

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.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	