TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-39432-1

Job Description: Sparrows Point Trust Offshore Investigat

For:
EA Engineering, Science, and Technology
225 Schilling Circle
Hunt Valley, MD 21031

Attention: Sanita Corum

Approved for release.
Carrie L Gamber
Senior Project Manager
12/22/2014 10:42 AM

Carrie L Gamber, Senior Project Manager
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2428
carrie.gamber@testamericainc.com
12/22/2014

Table of Contents

Table of Contents

Table of Contents

Table of Contents

CASE NARRATIVE

Client: EA Engineering, Science, and Technology

Project: Sparrows Point Trust Offshore Investigation

Report Number: 180-39432-1

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 12/03/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.2º C, 3.2º C and 5.4º C.

Three voa vials were received for the Trip Blank; however they were not listed on the chain-of-custody. This sample was logged in for volatile analysis.

VOLATILES

Samples with a ph greater than 10 usually results with low and sometimes no recovery for surrogate Dibromofluoromethane. This sample measured a ph of 11: ST-018-120114 (180-39432-3). Surrogate Dibromofluoromethane recovered low outside criteria for this sample. All data was reported with this narration.

SEMIVOLATILES

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

PCB

Surrogate DCB Decachlorobiphenyl (Surr) failed the recovery criteria several samples. Surrogate Tetrachloro-m-xylene recovered within criteria. All data was reported.

METALS

Antimony, Copper, Lead and Thallium were detected in method blank MB 180-127321/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

GENERAL CHEMISTRY

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122015

Lab Sample ID: IC 180-122015/3 Client Sample ID:

Date Analyzed: 10/20/14 12:49 Lab File ID: 7102003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	4.26	Poor chromatography	journetp	10/20/14 16:54
TBA-d9 (IS)	4.58	Poor chromatography	journetp	10/20/14 16:54
Chloroprene	5.50	Poor chromatography	journetp	10/20/14 16:54
Isopropyl ether	5.53	Poor chromatography	journetp	10/20/14 16:54
Tert-butyl ethyl ether	5.97	Poor chromatography	journetp	10/20/14 16:54
Propionitrile	6.23	Poor chromatography	journetp	10/20/14 16:54
Ethyl acetate	6.30	Poor chromatography	journetp	10/20/14 16:54
Tert-amyl methyl ether	7.26	Poor chromatography	journetp	10/20/14 16:54
n-Butanol	7.82	Poor chromatography	journetp	10/20/14 16:54
Methyl methacrylate	8.18	Poor chromatography	journetp	10/20/14 16:54
2-Nitropropane	8.57	Poor chromatography	journetp	10/20/14 16:54
n-Butyl acetate	9.90	Poor chromatography	journetp	10/20/14 16:54
Benzyl chloride	12.96	Poor chromatography	journetp	10/20/14 16:54
1,3,5-Trichlorobenzene	14.20	Poor chromatography	journetp	10/20/14 16:54

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122015

Lab Sample ID: IC 180-122015/4 Client Sample ID:

Date Analyzed: 10/20/14 13:15 Lab File ID: 7102004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	4.12	Poor chromatography	journetp	10/20/14 14:00
Acetonitrile	4.20	Poor chromatography	journetp	10/20/14 14:00
TBA-d9 (IS)	4.59	Poor chromatography	journetp	10/20/14 14:00
Chloroprene	5.49	Poor chromatography	journetp	10/20/14 14:00
Tert-butyl ethyl ether	5.97	Poor chromatography	journetp	10/20/14 14:00
Ethyl acetate	6.25	Poor chromatography	journetp	10/20/14 14:00
Propionitrile	6.25	Poor chromatography	journetp	10/20/14 14:00
Methacrylonitrile	6.39	Poor chromatography	journetp	10/20/14 14:00
n-Butanol	7.79	Poor chromatography	journetp	10/20/14 14:00
2-Nitropropane	8.56	Poor chromatography	journetp	10/20/14 14:00
1,3,5-Trichlorobenzene	14.19	Poor chromatography	journetp	10/20/14 14:01

Lab Sample ID: IC 180-122015/5 Client Sample ID:

Date Analyzed: 10/20/14 13:42 Lab File ID: 7102005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	4.12	Poor chromatography	journetp	10/20/14 14:23
Isopropyl ether	5.52	Poor chromatography	journetp	10/20/14 14:23
Propionitrile	6.23	Poor chromatography	journetp	10/20/14 14:23
n-Butanol	7.79	Poor chromatography	journetp	10/20/14 14:23
Dioxane-d8 (IS)	8.12	Poor chromatography	journetp	10/22/14 13:30
Cyclohexanone	11.57	Poor chromatography	journetp	10/20/14 14:23
2-Methylnaphthalene	16.58	Poor chromatography	journetp	10/20/14 14:23

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122015

Lab Sample ID: IC 180-122015/6 Client Sample ID:

Date Analyzed: 10/20/14 14:12 Lab File ID: 7102006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	4.12	Poor chromatography	journetp	10/20/14 15:15
Acetonitrile	4.23	Poor chromatography	journetp	10/20/14 15:15
TBA-d9 (IS)	4.59	Poor chromatography	journetp	10/20/14 15:15
n-Butanol	7.79	Poor chromatography	journetp	10/20/14 15:15
2-Methylnaphthalene	16.50	Poor chromatography	journetp	10/20/14 15:15

Lab Sample ID: IC 180-122015/7 Client Sample ID:

Date Analyzed: 10/20/14 14:42 Lab File ID: 7102007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	4.19	Poor chromatography	journetp	10/20/14 15:17
TBA-d9 (IS)	4.58	Poor chromatography	journetp	10/20/14 15:17

Lab Sample ID: IC 180-122015/8 Client Sample ID:

Date Analyzed: 10/20/14 15:08 Lab File ID: 7102008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.59	Poor chromatography	journetp	10/20/14 15:44
1,3,5-Trichlorobenzene	14.18	Poor chromatography	journetp	10/20/14 17:16

Lab Sample ID: IC 180-122015/9 Client Sample ID:

Date Analyzed: 10/20/14 15:38 Lab File ID: 7102009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.70	Poor chromatography	journetp	10/20/14 16:47

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: IC 180-122150/4 Client Sample ID:

Date Analyzed: 10/21/14 10:13 Lab File ID: 7102104.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.97	Poor chromatography	journetp	10/21/14 12:26
Chloromethane	2.02	Poor chromatography	journetp	10/21/14 12:26
Vinyl chloride	2.14	Poor chromatography	journetp	10/21/14 12:26
1,3-Butadiene	2.16	Poor chromatography	journetp	10/21/14 12:26
Bromomethane	2.50	Poor chromatography	journetp	10/21/14 12:26
Chloroethane	2.63	Poor chromatography	journetp	10/21/14 12:26
Ethyl ether	3.30	Poor chromatography	journetp	10/21/14 12:26
Acrolein	3.58	Poor chromatography	journetp	10/21/14 13:15
1,1,2-Trichloro-1,2,2-trifluoroethane	3.66	Poor chromatography	journetp	10/21/14 12:26
Iodomethane	3.74	Poor chromatography	journetp	10/21/14 12:26
Acetone	3.76	Poor chromatography	journetp	10/21/14 12:26
Carbon disulfide	3.85	Poor chromatography	journetp	10/21/14 12:26
Allyl chloride	4.10	Poor chromatography	journetp	10/21/14 12:26
Methyl acetate	4.26	Poor chromatography	journetp	10/21/14 12:26
Methylene Chloride	4.35	Poor chromatography	journetp	10/21/14 12:26
trans-1,2-Dichloroethene	4.78	Poor chromatography	journetp	10/21/14 12:26
Acrylonitrile	4.80	Poor chromatography	journetp	10/21/14 12:26
TBA-d9 (IS)	4.80	Poor chromatography	journetp	10/21/14 12:26
Methyl tert-butyl ether	4.85	Poor chromatography	journetp	10/21/14 12:26
tert-Butyl alcohol	4.93	Poor chromatography	journetp	10/21/14 12:26
Hexane	5.14	Poor chromatography	journetp	10/21/14 12:26
Chlorobromomethane	6.40	Poor chromatography	journetp	10/22/14 08:43
Dibromofluoromethane (Surr)	6.66	Poor chromatography	journetp	10/21/14 12:26
1,2-Dichloroethane-d4 (Surr)	7.04	Poor chromatography	journetp	10/21/14 12:26
1,2,3-Trichlorobenzene	15.31	Poor chromatography	journetp	10/22/14 09:03

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: IC 180-122150/5 Client Sample ID:

Date Analyzed: 10/21/14 10:40 Lab File ID: 7102105.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Poor chromatography	journetp	10/21/14 12:03
Chloromethane	2.04	Poor chromatography	journetp	10/21/14 12:03
Vinyl chloride	2.20	Poor chromatography	journetp	10/21/14 12:03
Bromomethane	2.49	Poor chromatography	journetp	10/21/14 12:03
Ethyl ether	3.33	Poor chromatography	journetp	10/21/14 12:03
Acrolein	3.50	Poor chromatography	journetp	10/21/14 13:16
1,1-Dichloroethene	3.56	Poor chromatography	journetp	10/21/14 12:03
1,1,2-Trichloro-1,2,2-trifluoroethane	3.65	Poor chromatography	journetp	10/21/14 12:03
Iodomethane	3.75	Poor chromatography	journetp	10/21/14 12:03
Acetone	3.77	Poor chromatography	journetp	10/21/14 13:20
Carbon disulfide	3.83	Poor chromatography	journetp	10/21/14 12:03
Allyl chloride	4.12	Poor chromatography	journetp	10/21/14 12:03
Methyl acetate	4.30	Poor chromatography	journetp	10/21/14 12:03
Methylene Chloride	4.34	Poor chromatography	journetp	10/21/14 12:03
TBA-d9 (IS)	4.74	Poor chromatography	journetp	10/21/14 12:03
Dibromofluoromethane (Surr)	6.67	Poor chromatography	journetp	10/21/14 12:03
1,2,3-Trichlorobenzene	15.30	Poor chromatography	journetp	10/22/14 08:59

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: IC 180-122150/7 Client Sample ID:

Date Analyzed: 10/21/14 11:36 Lab File ID: 7102107.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.13	Poor chromatography	journetp	10/21/14 12:44
Acrolein	3.52	Poor chromatography	journetp	10/21/14 12:44
1,1,2-Trichloro-1,2,2-trifluoroethane	3.74	Poor chromatography	journetp	10/21/14 12:44
Acetone	3.75	Poor chromatography	journetp	10/21/14 12:44
Iodomethane	3.79	Poor chromatography	journetp	10/21/14 12:44
Carbon disulfide	3.86	Poor chromatography	journetp	10/21/14 12:44
Allyl chloride	4.08	Poor chromatography	journetp	10/21/14 12:44
Methyl acetate	4.28	Poor chromatography	journetp	10/21/14 12:44
TBA-d9 (IS)	4.67	Poor chromatography	journetp	10/21/14 12:44
1,4-Dioxane	8.19	Poor chromatography	journetp	10/21/14 12:44

Lab Sample ID: IC 180-122150/8 Client Sample ID:

Date Analyzed: 10/21/14 12:35 Lab File ID: 7102108.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.51	Poor chromatography	journetp	10/21/14 13:07
Iodomethane	3.77	Poor chromatography	journetp	10/21/14 13:07
Carbon disulfide	3.84	Poor chromatography	journetp	10/21/14 13:07
Allyl chloride	4.15	Poor chromatography	journetp	10/21/14 13:07
TBA-d9 (IS)	4.76	Poor chromatography	journetp	10/21/14 13:07

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: IC 180-122150/9 Client Sample ID:

Date Analyzed: 10/21/14 13:50 Lab File ID: 7102109.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.43	Poor chromatography	journetp	10/21/14 14:58
1,1,2-Trichloro-1,2,2-trifluoroethane	3.62	Poor chromatography	journetp	10/21/14 14:58
Carbon disulfide	3.85	Poor chromatography	journetp	10/21/14 14:58
Allyl chloride	4.08	Poor chromatography	journetp	10/21/14 14:58
TBA-d9 (IS)	4.89	Poor chromatography	journetp	10/21/14 14:58

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: IC 180-122150/13 Client Sample ID:

Date Analyzed: 10/21/14 17:35 Lab File ID: 7102113.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.87	Poor chromatography	journetp	10/21/14 18:31
Chloromethane	1.98	Poor chromatography	journetp	10/21/14 18:31
1,3-Butadiene	2.15	Poor chromatography	journetp	10/21/14 18:31
Vinyl chloride	2.16	Poor chromatography	journetp	10/21/14 18:31
Bromomethane	2.46	Poor chromatography	journetp	10/21/14 18:31
Chloroethane	2.59	Poor chromatography	journetp	10/21/14 18:31
Trichlorofluoromethane	2.87	Poor chromatography	journetp	10/21/14 18:31
Ethyl ether	3.24	Poor chromatography	journetp	10/21/14 18:31
Acrolein	3.47	Poor chromatography	journetp	10/22/14 08:27
1,1-Dichloroethene	3.50	Poor chromatography	journetp	10/21/14 18:31
1,1,2-Trichloro-1,2,2-trifluoroethane	3.68	Poor chromatography	journetp	10/21/14 18:31
Carbon disulfide	3.80	Poor chromatography	journetp	10/21/14 18:31
Iodomethane	3.80	Poor chromatography	journetp	10/21/14 18:31
Allyl chloride	4.14	Poor chromatography	journetp	10/21/14 18:31
Methyl acetate	4.31	Poor chromatography	journetp	10/21/14 18:31
Methylene Chloride	4.36	Poor chromatography	journetp	10/21/14 18:31
Acrylonitrile	4.82	Poor chromatography	journetp	10/21/14 18:31
Methyl tert-butyl ether	4.84	Poor chromatography	journetp	10/21/14 18:31
TBA-d9 (IS)	4.87	Poor chromatography	journetp	10/21/14 18:31
tert-Butyl alcohol	4.87	Poor chromatography	journetp	10/21/14 18:31
1,1-Dichloroethane	5.34	Poor chromatography	journetp	10/21/14 18:31
Vinyl acetate	5.52	Poor chromatography	journetp	10/21/14 18:31
2,2-Dichloropropane	6.10	Poor chromatography	journetp	10/21/14 18:31
cis-1,2-Dichloroethene	6.11	Poor chromatography	journetp	10/21/14 18:31
Tetrahydrofuran	6.49	Poor chromatography	journetp	10/21/14 18:31
1,1,1-Trichloroethane	6.66	Poor chromatography	journetp	10/21/14 18:31
Dibromofluoromethane (Surr)	6.69	Poor chromatography	journetp	10/21/14 18:31
Cyclohexane	6.72	Poor chromatography	journetp	10/21/14 18:31
1,2-Dichloroethane-d4 (Surr)	7.04	Poor chromatography	journetp	10/21/14 18:31

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: IC 180-122150/13 Client Sample ID:

Date Analyzed: 10/21/14 17:35 Lab File ID: 7102113.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	7.09	Poor chromatography	journetp	10/21/14 18:31
1,2-Dichloroethane	7.12	Poor chromatography	journetp	10/21/14 18:31
Isobutyl alcohol	7.17	Poor chromatography	journetp	10/21/14 18:31
Trichloroethene	7.80	Poor chromatography	journetp	10/21/14 18:31
1,2-Dichloropropane	8.02	Poor chromatography	journetp	10/21/14 18:31
Dibromomethane	8.16	Poor chromatography	journetp	10/21/14 18:31
1,4-Dioxane	8.20	Poor chromatography	journetp	10/21/14 18:31
4-Methyl-2-pentanone (MIBK)	8.96	Poor chromatography	journetp	10/21/14 18:31
Ethyl methacrylate	9.43	Poor chromatography	journetp	10/21/14 18:31
1,1,2,2-Tetrachloroethane	11.78	Poor chromatography	journetp	10/21/14 18:31
Bromobenzene	11.80	Poor chromatography	journetp	10/21/14 18:31
Naphthalene	15.09	Poor chromatography	journetp	10/21/14 18:31
1,2,3-Trichlorobenzene	15.33	Poor chromatography	journetp	10/22/14 08:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 122150

Lab Sample ID: ICIS 180-122150/15 Client Sample ID:

Date Analyzed: 10/21/14 18:28 Lab File ID: 7102115.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.86	Poor chromatography	journetp	10/22/14 08:22
Bromomethane	2.49	Poor chromatography	journetp	10/22/14 08:22
Ethyl ether	3.30	Poor chromatography	journetp	10/22/14 08:22
Acrolein	3.47	Poor chromatography	journetp	10/22/14 08:22
Iodomethane	3.71	Poor chromatography	journetp	10/22/14 08:22
Acetone	3.79	Poor chromatography	journetp	10/22/14 08:22
Carbon disulfide	3.81	Poor chromatography	journetp	10/22/14 08:22
Allyl chloride	4.11	Poor chromatography	journetp	10/22/14 08:22
Methyl acetate	4.29	Poor chromatography	journetp	10/22/14 08:22
TBA-d9 (IS)	4.76	Poor chromatography	journetp	10/22/14 08:22
Acrylonitrile	4.77	Poor chromatography	journetp	10/22/14 08:22
Dibromofluoromethane (Surr)	6.67	Poor chromatography	journetp	10/22/14 08:22

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 127589

Lab Sample ID: CCVIS 180-127589/3 Client Sample ID:

Date Analyzed: 12/08/14 12:33 Lab File ID: 7120803.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.89	Poor chromatography	journetp	12/08/14 13:24
Chloromethane	2.00	Poor chromatography	journetp	12/08/14 13:24
Vinyl chloride	2.17	Poor chromatography	journetp	12/08/14 13:08
1,3-Butadiene	2.19	Poor chromatography	journetp	12/08/14 13:24
Bromomethane	2.49	Poor chromatography	journetp	12/08/14 13:08
Trichlorofluoromethane	2.85	Poor chromatography	journetp	12/08/14 13:24
Ethyl ether	3.30	Poor chromatography	journetp	12/08/14 13:24
1,1,2-Trichloro-1,2,2-trifluoroethane	3.68	Poor chromatography	journetp	12/08/14 13:24
Iodomethane	3.76	Poor chromatography	journetp	12/08/14 13:24
Carbon disulfide	3.87	Poor chromatography	journetp	12/08/14 13:08
Allyl chloride	4.14	Poor chromatography	journetp	12/08/14 13:24
Methylene Chloride	4.36	Poor chromatography	journetp	12/08/14 13:08
TBA-d9 (IS)	4.66	Poor chromatography	journetp	12/08/14 13:24
Acrylonitrile	4.78	Poor chromatography	journetp	12/08/14 13:08
cis-1,2-Dichloroethene	6.10	Poor chromatography	journetp	12/08/14 13:08
1,1-Dichloropropene	6.86	Poor chromatography	journetp	12/08/14 13:24
Trichloroethene	7.79	Poor chromatography	journetp	12/08/14 13:08
Naphthalene	15.06	Poor chromatography	journetp	12/08/14 13:24
1,2,3-Trichlorobenzene	15.31	Poor chromatography	journetp	12/08/14 13:24

Lab Sample ID: CCV 180-127589/5 Client Sample ID:

Date Analyzed: 12/08/14 14:36 Lab File ID: 7120805.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.54	Poor chromatography	journetp	12/09/14 08:52

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 127589

Lab Sample ID: MB 180-127589/6 Client Sample ID:

Date Analyzed: 12/08/14 15:06 Lab File ID: 7120806.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibromofluoromethane (Surr)	6.70	Poor chromatography	journetp	12/08/14 15:46

Lab Sample ID: LCS 180-127589/11 Client Sample ID:

Date Analyzed: 12/08/14 17:17 Lab File ID: 7120811.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.97	Poor chromatography	journetp	12/08/14 17:51
Vinyl chloride	2.16	Poor chromatography	journetp	12/08/14 17:51
Methylene Chloride	4.38	Poor chromatography	journetp	12/08/14 17:51
TBA-d9 (IS)	4.58	Poor chromatography	journetp	12/08/14 17:51
Acrylonitrile	4.78	Poor chromatography	journetp	12/08/14 17:51
1,2-Dichloroethane-d4 (Surr)	7.03	Poor chromatography	journetp	12/08/14 17:51
Benzene	7.09	Poor chromatography	journetp	12/08/14 17:51

Lab Sample ID: 180-39432-5 Client Sample ID:

Date Analyzed: 12/08/14 19:03 Lab File ID: 7120815.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.55	Poor chromatography	journetp	12/09/14 08:27

Lab Sample ID: 180-39432-1 Client Sample ID:

Date Analyzed: 12/08/14 19:29 Lab File ID: 7120816.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.58	Poor chromatography	journetp	12/09/14 08:29

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 127589

Lab Sample ID: 180-39432-2 Client Sample ID:

Date Analyzed: 12/08/14 19:56 Lab File ID: 7120817.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.59	Poor chromatography	journetp	12/09/14 08:30

Lab Sample ID: 180-39432-3 Client Sample ID:

Date Analyzed: 12/08/14 20:22 Lab File ID: 7120818.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.56	Poor chromatography	journetp	12/09/14 08:30
Dibromofluoromethane (Surr)	6.69	Poor chromatography	journetp	12/09/14 08:30

Lab Sample ID: 180-39432-4 Client Sample ID:

Date Analyzed: 12/08/14 20:49 Lab File ID: 7120819.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.56	Poor chromatography	journetp	12/09/14 08:32

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Analysis Batch Number: 125450

Lab Sample ID: IC 180-125450/3 Client Sample ID:

Date Analyzed: 11/18/14 04:22 Lab File ID: V1118003.D GC Column: Rxi-5SilMS ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	1.85	Poor chromatography	piccolinov	11/18/14 07:26
N-Nitrosodimethylamine	2.52	Poor chromatography	piccolinov	11/18/14 07:26
Pyridine	2.62	Poor chromatography	piccolinov	11/18/14 07:26
2,4-Dinitrophenol	9.16	Poor chromatography	piccolinov	11/18/14 07:26
Di-n-octyl phthalate	15.29	Poor chromatography	piccolinov	11/18/14 07:26
7,12-Dimethylbenz(a)anthracene	16.15	Poor chromatography	piccolinov	11/18/14 07:26
Benzo[b]fluoranthene	16.17	Poor chromatography	piccolinov	11/18/14 07:26
Benzo[e]pyrene	16.76	Poor chromatography	piccolinov	11/18/14 07:26
Benzo[a]pyrene	16.86	Poor chromatography	piccolinov	11/18/14 07:26
Dibenz(a,h)anthracene	19.24	Poor chromatography	piccolinov	11/18/14 07:26
Benzo[g,h,i]perylene	19.81	Poor chromatography	piccolinov	11/18/14 07:26

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Analysis Batch Number: 125450

Lab Sample ID: IC 180-125450/4 Client Sample ID:

Date Analyzed: 11/18/14 04:50 Lab File ID: V1118004.D GC Column: Rxi-5SilMS ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	1.86	Poor chromatography	piccolino v	11/18/14 07:27
N-Nitrosodimethylamine	2.52	Poor chromatography	piccolino v	11/18/14 07:27
Pyridine	2.59	Poor chromatography	piccolino v	11/18/14 07:27
7,12-Dimethylbenz(a)anthracene	16.15	Poor chromatography	piccolino v	11/18/14 07:27

Lab Sample ID: IC 180-125450/5 Client Sample ID:

Date Analyzed: 11/18/14 05:19 Lab File ID: V1118005.D GC Column: Rxi-5SilMS ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pyridine	2.59	Poor chromatography	piccolino v	11/18/14 07:28
Dibenz(a,h)anthracene	19.23	Poor chromatography	piccolino v	11/18/14 07:28

Lab Sample ID: IC 180-125450/10 Client Sample ID:

Date Analyzed: 11/18/14 07:43 Lab File ID: V1118010.D GC Column: Rxi-5SilMS ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.26	Poor chromatography	piccolino v	11/18/14 08:25

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Analysis Batch Number: 127527

Lab Sample ID: CCVIS 180-127527/3 Client Sample ID:

Date Analyzed: 12/08/14 10:03 Lab File ID: V1208003.D GC Column: Rxi-5SilMS ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pyridine	2.60	Poor chromatography	piccolino v	12/08/14 10:44
Benzyl alcohol	6.41	Poor chromatography	piccolino v	12/08/14 10:44

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Analysis Batch Number: 127670

Lab Sample ID: CCVIS 180-127670/3 Client Sample ID:

Date Analyzed: 12/09/14 10:39 Lab File ID: V1209003.D GC Column: Rxi-5SilMS ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzyl alcohol	6.44	Poor chromatography	piccolinov	12/09/14 11:49

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Analysis Batch Number: 127929

Lab Sample ID: IC 180-127929/7 Client Sample ID:

Date Analyzed: 12/11/14 11:29 Lab File ID: O1240211.D GC Column: RTX-CLP1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1242 Peak 1	3.33	Split Peak	eppinged	12/12/14 12:03
PCB-1242 Peak 2	4.12	Split Peak	eppinged	12/12/14 12:03
PCB-1242 Peak 3	4.74	Split Peak	eppinged	12/12/14 12:03
PCB-1242 Peak 4	5.30	Split Peak	eppinged	12/12/14 12:03
PCB-1242 Peak 5	5.62	Split Peak	eppinged	12/12/14 12:03

Lab Sample ID: IC 180-127929/11 Client Sample ID:

Date Analyzed: 12/11/14 12:47 Lab File ID: O1240215.D GC Column: RTX-CLP1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	3.33	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 2	3.65	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 3	4.10	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 4	4.27	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 5	4.74	Split Peak	eppinged	12/12/14 12:06

Lab Sample ID: IC 180-127929/11 Client Sample ID:

Date Analyzed: 12/11/14 12:47 Lab File ID: O1240215.D GC Column: RTX-CLP2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	4.11	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 2	4.60	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 3	5.23	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 4	5.43	Split Peak	eppinged	12/12/14 12:06
PCB-1016 Peak 5	6.18	Split Peak	eppinged	12/12/14 12:06

SAMPLE SUMMARY

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-39432-1	ST-071-120114	Water	12/01/2014 1735	12/03/2014 0930
180-39432-2	ST-UNNAMED-120114	Water	12/01/2014 1825	12/03/2014 0930
180-39432-3	ST-018-120114	Water	12/01/2014 1850	12/03/2014 0930
180-39432-4	ST-014-120114	Water	12/01/2014 1920	12/03/2014 0930
180-39432-5	TRIP BLANK	Water	12/01/2014 0000	12/03/2014 0930

EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-39432-1	**ST-071-120114**					
Mercury		0.051	J	0.20	ug/L	7470A
HEM (Oil & Grease)		3.4	J	5.2	mg/L	1664B
Total Suspended Solids		20		2.0	mg/L	SM 2540D
Total Recoverable						
Arsenic		2.4		1.0	ug/L	6020A
Chromium		1.7	J	2.0	ug/L	6020A
Lead		3.6	B	1.0	ug/L	6020A
Selenium		0.42	J	5.0	ug/L	6020A
Thallium		0.042	J B	1.0	ug/L	6020A
Antimony		0.63	J B	2.0	ug/L	6020A
Nickel		4.1		1.0	ug/L	6020A
Zinc		75		5.0	ug/L	6020A
Copper		3.0	B	2.0	ug/L	6020A
180-39432-2	**ST-UNNAMED-120114**					
Mercury		0.083	J	0.20	ug/L	7470A
HEM (Oil & Grease)		2.7	J	5.2	mg/L	1664B
Total Recoverable						
Chromium		0.89	J	2.0	ug/L	6020A
Lead		0.67	J B	1.0	ug/L	6020A
Thallium		0.024	J B	1.0	ug/L	6020A
Antimony		1.2	J B	2.0	ug/L	6020A
Nickel		2.8		1.0	ug/L	6020A
Zinc		12		5.0	ug/L	6020A
Copper		3.1	B	2.0	ug/L	6020A

EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-39432-3	**ST-018-120114**					
2,4-Dimethylphenol		1.8		0.96	ug/L	8270D LL
Naphthalene		0.13	J	0.19	ug/L	8270D LL
Phenol		3.3		0.96	ug/L	8270D LL
HEM (Oil & Grease)		2.7	J	5.2	mg/L	1664B
Cyanide, Total		14		10	ug/L	9014
Total Suspended Solids		30		2.0	mg/L	SM 2540D
Total Recoverable						
Arsenic		2.2		1.0	ug/L	6020A
Chromium		6.8		2.0	ug/L	6020A
Lead		3.2	B	1.0	ug/L	6020A
Selenium		0.90	J	5.0	ug/L	6020A
Antimony		0.88	J B	2.0	ug/L	6020A
Nickel		1.2		1.0	ug/L	6020A
Zinc		9.4		5.0	ug/L	6020A
Copper		2.7	B	2.0	ug/L	6020A
180-39432-4	**ST-014-120114**					
Di-n-butyl phthalate		0.49	J	0.96	ug/L	8270D LL
HEM (Oil & Grease)		3.0	J	5.2	mg/L	1664B
Total Suspended Solids		6.4		2.0	mg/L	SM 2540D
Total Recoverable						
Arsenic		1.1		1.0	ug/L	6020A
Chromium		1.4	J	2.0	ug/L	6020A
Lead		1.2	B	1.0	ug/L	6020A
Antimony		1.1	J B	2.0	ug/L	6020A
Nickel		6.3		1.0	ug/L	6020A
Zinc		20		5.0	ug/L	6020A
Copper		2.4	B	2.0	ug/L	6020A

METHOD SUMMARY

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

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
Semivolatile Organic Compounds by GC/MS - Low Level	TAL PIT	SW846 8270D LL	
Liquid-Liquid Extraction (Continuous)	TAL PIT		SW846 3520C
Polychlorinated Biphenyls (PCBs) (GC)	TAL PIT	SW846 8082A	
Liquid-Liquid Extraction (Separatory Funnel)	TAL PIT		SW846 3510C
Metals (ICP/MS)	TAL PIT	SW846 6020A	
Preparation, Total Recoverable or Dissolved Metals	TAL PIT		SW846 3005A
Mercury (CVAA)	TAL PIT	SW846 7470A	
Preparation, Mercury	TAL PIT		SW846 7470A
HEM and SGT-HEM	TAL PIT	1664B 1664B	
HEM and SGT-HEM (SPE)	TAL PIT		1664B 1664B
Cyanide	TAL PIT	SW846 9014	
Cyanide, Distillation	TAL PIT		SW846 9010C
Solids, Total Suspended (TSS)	TAL PIT	SM SM 2540D	

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

1664B = EPA-821-98-002

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

METHOD / ANALYST SUMMARY

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method	Analyst	Analyst ID
SW846 8260C	Journet, Patrick	PJJ
SW846 8270D LL	Piccolino, Vincent	VVP
SW846 8082A	Oravec, John	JMO
SW846 6020A	Ferguson, Caitlin N	CNF
SW846 7470A	Rosenbaum, Ron	RJR
1664B 1664B	Klingman, Neil A	NAK
SW846 9014	Johnson, Paul	PGJ
SM SM 2540D	Swanson, Jim	JWS

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1
Client Matrix: Water

Date Sampled: 12/01/2014 1735
Date Received: 12/03/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	7120816.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 1929			Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 1929				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.0	5.0
1,1,2,2-Tetrachloroethane	ND		0.93	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.0	5.0
1,1-Dichloroethene	ND		1.1	5.0
1,2-Dichlorobenzene	ND		0.68	5.0
1,2-Dichloroethane	ND		0.96	5.0
1,2-Dichloropropane	ND		1.3	5.0
1,3-Dichlorobenzene	ND		0.51	5.0
1,4-Dichlorobenzene	ND		0.53	5.0
2-Chloroethyl vinyl ether	ND		1.9	10
Acrolein	ND		5.7	100
Acrylonitrile	ND		9.0	50
Benzene	ND		0.99	5.0
Bromoform	ND		1.1	5.0
Bromomethane	ND		1.6	5.0
Carbon tetrachloride	ND		1.1	5.0
Chlorobenzene	ND		0.53	5.0
Chloroform	ND		1.0	5.0
Chloromethane	ND		1.4	5.0
Chlorodibromomethane	ND		0.65	5.0
cis-1,3-Dichloropropene	ND		0.73	5.0
Dichlorobromomethane	ND		0.93	5.0
Ethylbenzene	ND		0.62	5.0
Methylene Chloride	ND		1.1	5.0
Tetrachloroethene	ND		0.82	5.0
Toluene	ND		0.85	5.0
trans-1,2-Dichloroethene	ND		0.75	5.0
trans-1,3-Dichloropropene	ND		0.58	5.0
Trichloroethene	ND		0.80	5.0
Vinyl chloride	ND		1.3	5.0
Chloroethane	ND		0.75	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		62 - 123
4-Bromofluorobenzene (Surr)	98		75 - 120
Dibromofluoromethane (Surr)	109		80 - 120
Toluene-d8 (Surr)	102		80 - 120

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2
Client Matrix: Water

Date Sampled: 12/01/2014 1825
Date Received: 12/03/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	7120817.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 1956			Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 1956				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.0	5.0
1,1,2,2-Tetrachloroethane	ND		0.93	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.0	5.0
1,1-Dichloroethene	ND		1.1	5.0
1,2-Dichlorobenzene	ND		0.68	5.0
1,2-Dichloroethane	ND		0.96	5.0
1,2-Dichloropropane	ND		1.3	5.0
1,3-Dichlorobenzene	ND		0.51	5.0
1,4-Dichlorobenzene	ND		0.53	5.0
2-Chloroethyl vinyl ether	ND		1.9	10
Acrolein	ND		5.7	100
Acrylonitrile	ND		9.0	50
Benzene	ND		0.99	5.0
Bromoform	ND		1.1	5.0
Bromomethane	ND		1.6	5.0
Carbon tetrachloride	ND		1.1	5.0
Chlorobenzene	ND		0.53	5.0
Chloroform	ND		1.0	5.0
Chloromethane	ND		1.4	5.0
Chlorodibromomethane	ND		0.65	5.0
cis-1,3-Dichloropropene	ND		0.73	5.0
Dichlorobromomethane	ND		0.93	5.0
Ethylbenzene	ND		0.62	5.0
Methylene Chloride	ND		1.1	5.0
Tetrachloroethene	ND		0.82	5.0
Toluene	ND		0.85	5.0
trans-1,2-Dichloroethene	ND		0.75	5.0
trans-1,3-Dichloropropene	ND		0.58	5.0
Trichloroethene	ND		0.80	5.0
Vinyl chloride	ND		1.3	5.0
Chloroethane	ND		0.75	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82		62 - 123
4-Bromofluorobenzene (Surr)	85		75 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	90		80 - 120

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3
Client Matrix: Water

Date Sampled: 12/01/2014 1850
Date Received: 12/03/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	7120818.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 2022			Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 2022				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.0	5.0
1,1,2,2-Tetrachloroethane	ND		0.93	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.0	5.0
1,1-Dichloroethene	ND		1.1	5.0
1,2-Dichlorobenzene	ND		0.68	5.0
1,2-Dichloroethane	ND		0.96	5.0
1,2-Dichloropropane	ND		1.3	5.0
1,3-Dichlorobenzene	ND		0.51	5.0
1,4-Dichlorobenzene	ND		0.53	5.0
2-Chloroethyl vinyl ether	ND		1.9	10
Acrolein	ND		5.7	100
Acrylonitrile	ND		9.0	50
Benzene	ND		0.99	5.0
Bromoform	ND		1.1	5.0
Bromomethane	ND		1.6	5.0
Carbon tetrachloride	ND		1.1	5.0
Chlorobenzene	ND		0.53	5.0
Chloroform	ND		1.0	5.0
Chloromethane	ND		1.4	5.0
Chlorodibromomethane	ND		0.65	5.0
cis-1,3-Dichloropropene	ND		0.73	5.0
Dichlorobromomethane	ND		0.93	5.0
Ethylbenzene	ND		0.62	5.0
Methylene Chloride	ND		1.1	5.0
Tetrachloroethene	ND		0.82	5.0
Toluene	ND		0.85	5.0
trans-1,2-Dichloroethene	ND		0.75	5.0
trans-1,3-Dichloropropene	ND		0.58	5.0
Trichloroethene	ND		0.80	5.0
Vinyl chloride	ND		1.3	5.0
Chloroethane	ND		0.75	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		62 - 123
4-Bromofluorobenzene (Surr)	84		75 - 120
Dibromofluoromethane (Surr)	10	X	80 - 120
Toluene-d8 (Surr)	94		80 - 120

Client: EA Engineering, Science, and Technology | Job Number: 180-39432-1

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4 | Date Sampled: 12/01/2014 1920
Client Matrix: Water | Date Received: 12/03/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	7120819.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 2049			Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 2049				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.0	5.0
1,1,2,2-Tetrachloroethane	ND		0.93	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.0	5.0
1,1-Dichloroethene	ND		1.1	5.0
1,2-Dichlorobenzene	ND		0.68	5.0
1,2-Dichloroethane	ND		0.96	5.0
1,2-Dichloropropane	ND		1.3	5.0
1,3-Dichlorobenzene	ND		0.51	5.0
1,4-Dichlorobenzene	ND		0.53	5.0
2-Chloroethyl vinyl ether	ND		1.9	10
Acrolein	ND		5.7	100
Acrylonitrile	ND		9.0	50
Benzene	ND		0.99	5.0
Bromoform	ND		1.1	5.0
Bromomethane	ND		1.6	5.0
Carbon tetrachloride	ND		1.1	5.0
Chlorobenzene	ND		0.53	5.0
Chloroform	ND		1.0	5.0
Chloromethane	ND		1.4	5.0
Chlorodibromomethane	ND		0.65	5.0
cis-1,3-Dichloropropene	ND		0.73	5.0
Dichlorobromomethane	ND		0.93	5.0
Ethylbenzene	ND		0.62	5.0
Methylene Chloride	ND		1.1	5.0
Tetrachloroethene	ND		0.82	5.0
Toluene	ND		0.85	5.0
trans-1,2-Dichloroethene	ND		0.75	5.0
trans-1,3-Dichloropropene	ND		0.58	5.0
Trichloroethene	ND		0.80	5.0
Vinyl chloride	ND		1.3	5.0
Chloroethane	ND		0.75	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		62 - 123
4-Bromofluorobenzene (Surr)	89		75 - 120
Dibromofluoromethane (Surr)	93		80 - 120
Toluene-d8 (Surr)	88		80 - 120

Client: EA Engineering, Science, and Technology | Job Number: 180-39432-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 180-39432-5 | Date Sampled: 12/01/2014 0000
Client Matrix: Water | Date Received: 12/03/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	7120815.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 1903			Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 1903				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.0	5.0
1,1,2,2-Tetrachloroethane	ND		0.93	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.0	5.0
1,1-Dichloroethene	ND		1.1	5.0
1,2-Dichlorobenzene	ND		0.68	5.0
1,2-Dichloroethane	ND		0.96	5.0
1,2-Dichloropropane	ND		1.3	5.0
1,3-Dichlorobenzene	ND		0.51	5.0
1,4-Dichlorobenzene	ND		0.53	5.0
2-Chloroethyl vinyl ether	ND		1.9	10
Acrolein	ND		5.7	100
Acrylonitrile	ND		9.0	50
Benzene	ND		0.99	5.0
Bromoform	ND		1.1	5.0
Bromomethane	ND		1.6	5.0
Carbon tetrachloride	ND		1.1	5.0
Chlorobenzene	ND		0.53	5.0
Chloroform	ND		1.0	5.0
Chloromethane	ND		1.4	5.0
Chlorodibromomethane	ND		0.65	5.0
cis-1,3-Dichloropropene	ND		0.73	5.0
Dichlorobromomethane	ND		0.93	5.0
Ethylbenzene	ND		0.62	5.0
Methylene Chloride	ND		1.1	5.0
Tetrachloroethene	ND		0.82	5.0
Toluene	ND		0.85	5.0
trans-1,2-Dichloroethene	ND		0.75	5.0
trans-1,3-Dichloropropene	ND		0.58	5.0
Trichloroethene	ND		0.80	5.0
Vinyl chloride	ND		1.3	5.0
Chloroethane	ND		0.75	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		62 - 123
4-Bromofluorobenzene (Surr)	107		75 - 120
Dibromofluoromethane (Surr)	115		80 - 120
Toluene-d8 (Surr)	114		80 - 120

Client: EA Engineering, Science, and Technology | Job Number: 180-39432-1

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1 | Date Sampled: 12/01/2014 1735
Client Matrix: Water | Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127527	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1208015.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/08/2014 1544			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	ND		0.028	0.19
Acenaphthylene	ND		0.021	0.19
Anthracene	ND		0.018	0.19
Benzidine	ND		4.6	19
Benzo[a]anthracene	ND		0.035	0.19
Benzo[b]fluoranthene	ND		0.047	0.19
Benzo[k]fluoranthene	ND		0.029	0.19
Benzoic acid	ND		1.6	4.8
Benzo[g,h,i]perylene	ND		0.028	0.19
Benzo[a]pyrene	ND		0.027	0.19
Bis(2-chloroethoxy)methane	ND		0.13	0.96
Bis(2-chloroethyl)ether	ND		0.030	0.96
Bis(2-ethylhexyl) phthalate	ND		0.42	1.9
2,2'-oxybis[1-chloropropane]	ND		0.023	0.96
4-Bromophenyl phenyl ether	ND		0.11	0.96
4-Chlorophenyl phenyl ether	ND		0.077	0.96
2-Chloronaphthalene	ND		0.030	0.19
Butyl benzyl phthalate	ND		0.21	0.96
Chrysene	ND		0.030	0.19
Dibenz(a,h)anthracene	ND		0.026	0.19
Di-n-butyl phthalate	ND		0.23	0.96
Di-n-octyl phthalate	ND		0.20	0.96
Diethyl phthalate	ND		0.29	0.96
Dimethyl phthalate	ND		0.18	0.96
3,3'-Dichlorobenzidine	ND		0.14	0.96
2,4-Dinitrotoluene	ND		0.21	0.96
2,6-Dinitrotoluene	ND		0.13	0.96
2-Chlorophenol	ND		0.22	0.96
2,4-Dichlorophenol	ND		0.065	0.96
2,4-Dimethylphenol	ND		0.16	0.96
2,4-Dinitrophenol	ND		2.4	4.8
2-Nitrophenol	ND		0.11	0.96
2,4,6-Trichlorophenol	ND		0.29	0.96
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.11	0.96
1,2,4-Trichlorobenzene	ND		0.082	0.96
4-Chloro-3-methylphenol	ND		0.16	0.96
4-Nitrophenol	ND		0.77	4.8
4,6-Dinitro-2-methylphenol	ND		1.5	4.8
Fluoranthene	ND		0.020	0.19
Fluorene	ND		0.023	0.19
Hexachlorobenzene	ND		0.059	0.96
Hexachlorobutadiene	ND		0.090	0.96
Hexachlorocyclopentadiene	ND		0.13	0.96
Hexachloroethane	ND		0.13	0.96
Indeno[1,2,3-cd]pyrene	ND		0.042	0.19
Isophorone	ND		0.071	0.96

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1
Client Matrix: Water

Date Sampled: 12/01/2014 1735
Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127527	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1208015.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/08/2014 1544			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	ND		0.022	0.19
Nitrobenzene	ND		0.14	1.9
N-Nitrosodi-n-propylamine	ND		0.048	0.96
N-Nitrosodimethylamine	ND		0.11	0.96
N-Nitrosodiphenylamine	ND		0.12	0.96
Phenanthrene	ND		0.040	0.19
Pyrene	ND		0.022	0.19
Pentachlorophenol	ND		0.48	0.96
Phenol	ND		0.053	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	71		30 - 150
2-Fluorobiphenyl	63		30 - 150
2-Fluorophenol (Surr)	35		30 - 150
Nitrobenzene-d5 (Surr)	61		30 - 150
Phenol-d5 (Surr)	50		30 - 150
Terphenyl-d14 (Surr)	58		10 - 150

Client: EA Engineering, Science, and Technology | Job Number: 180-39432-1

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2 | Date Sampled: 12/01/2014 1825
Client Matrix: Water | Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127670	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1209016.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/09/2014 1649			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	ND		0.028	0.19
Acenaphthylene	ND		0.021	0.19
Anthracene	ND		0.018	0.19
Benzidine	ND		4.6	19
Benzo[a]anthracene	ND		0.035	0.19
Benzo[b]fluoranthene	ND		0.047	0.19
Benzo[k]fluoranthene	ND		0.029	0.19
Benzoic acid	ND		1.6	4.8
Benzo[g,h,i]perylene	ND		0.028	0.19
Benzo[a]pyrene	ND		0.027	0.19
Bis(2-chloroethoxy)methane	ND		0.13	0.96
Bis(2-chloroethyl)ether	ND		0.030	0.96
Bis(2-ethylhexyl) phthalate	ND		0.42	1.9
2,2'-oxybis[1-chloropropane]	ND		0.023	0.96
4-Bromophenyl phenyl ether	ND		0.11	0.96
4-Chlorophenyl phenyl ether	ND		0.077	0.96
2-Chloronaphthalene	ND		0.030	0.19
Butyl benzyl phthalate	ND		0.21	0.96
Chrysene	ND		0.030	0.19
Dibenz(a,h)anthracene	ND		0.026	0.19
Di-n-butyl phthalate	ND		0.23	0.96
Di-n-octyl phthalate	ND		0.20	0.96
Diethyl phthalate	ND		0.29	0.96
Dimethyl phthalate	ND		0.18	0.96
3,3'-Dichlorobenzidine	ND		0.14	0.96
2,4-Dinitrotoluene	ND		0.21	0.96
2,6-Dinitrotoluene	ND		0.13	0.96
2-Chlorophenol	ND		0.22	0.96
2,4-Dichlorophenol	ND		0.065	0.96
2,4-Dimethylphenol	ND		0.16	0.96
2,4-Dinitrophenol	ND		2.4	4.8
2-Nitrophenol	ND		0.11	0.96
2,4,6-Trichlorophenol	ND		0.29	0.96
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.11	0.96
1,2,4-Trichlorobenzene	ND		0.082	0.96
4-Chloro-3-methylphenol	ND		0.16	0.96
4-Nitrophenol	ND		0.77	4.8
4,6-Dinitro-2-methylphenol	ND		1.5	4.8
Fluoranthene	ND		0.020	0.19
Fluorene	ND		0.023	0.19
Hexachlorobenzene	ND		0.059	0.96
Hexachlorobutadiene	ND		0.090	0.96
Hexachlorocyclopentadiene	ND		0.13	0.96
Hexachloroethane	ND		0.13	0.96
Indeno[1,2,3-cd]pyrene	ND		0.042	0.19
Isophorone	ND		0.071	0.96

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2
Client Matrix: Water

Date Sampled: 12/01/2014 1825
Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127670	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1209016.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/09/2014 1649			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	ND		0.022	0.19
Nitrobenzene	ND		0.14	1.9
N-Nitrosodi-n-propylamine	ND		0.048	0.96
N-Nitrosodimethylamine	ND		0.11	0.96
N-Nitrosodiphenylamine	ND		0.12	0.96
Phenanthrene	ND		0.040	0.19
Pyrene	ND		0.022	0.19
Pentachlorophenol	ND		0.48	0.96
Phenol	ND		0.053	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	51		30 - 150
2-Fluorobiphenyl	67		30 - 150
2-Fluorophenol (Surr)	30		30 - 150
Nitrobenzene-d5 (Surr)	68		30 - 150
Phenol-d5 (Surr)	35		30 - 150
Terphenyl-d14 (Surr)	73		10 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3
Client Matrix: Water

Date Sampled: 12/01/2014 1850
Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127527	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1208017.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/08/2014 1641			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	ND		0.028	0.19
Acenaphthylene	ND		0.021	0.19
Anthracene	ND		0.018	0.19
Benzidine	ND		4.6	19
Benzo[a]anthracene	ND		0.035	0.19
Benzo[b]fluoranthene	ND		0.047	0.19
Benzo[k]fluoranthene	ND		0.029	0.19
Benzoic acid	ND		1.6	4.8
Benzo[g,h,i]perylene	ND		0.028	0.19
Benzo[a]pyrene	ND		0.027	0.19
Bis(2-chloroethoxy)methane	ND		0.13	0.96
Bis(2-chloroethyl)ether	ND		0.030	0.96
Bis(2-ethylhexyl) phthalate	ND		0.42	1.9
2,2'-oxybis[1-chloropropane]	ND		0.023	0.96
4-Bromophenyl phenyl ether	ND		0.11	0.96
4-Chlorophenyl phenyl ether	ND		0.077	0.96
2-Chloronaphthalene	ND		0.030	0.19
Butyl benzyl phthalate	ND		0.21	0.96
Chrysene	ND		0.030	0.19
Dibenz(a,h)anthracene	ND		0.026	0.19
Di-n-butyl phthalate	ND		0.23	0.96
Di-n-octyl phthalate	ND		0.20	0.96
Diethyl phthalate	ND		0.29	0.96
Dimethyl phthalate	ND		0.18	0.96
3,3'-Dichlorobenzidine	ND		0.14	0.96
2,4-Dinitrotoluene	ND		0.21	0.96
2,6-Dinitrotoluene	ND		0.13	0.96
2-Chlorophenol	ND		0.22	0.96
2,4-Dichlorophenol	ND		0.065	0.96
2,4-Dimethylphenol	1.8		0.16	0.96
2,4-Dinitrophenol	ND		2.4	4.8
2-Nitrophenol	ND		0.11	0.96
2,4,6-Trichlorophenol	ND		0.29	0.96
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.11	0.96
1,2,4-Trichlorobenzene	ND		0.082	0.96
4-Chloro-3-methylphenol	ND		0.16	0.96
4-Nitrophenol	ND		0.77	4.8
4,6-Dinitro-2-methylphenol	ND		1.5	4.8
Fluoranthene	ND		0.020	0.19
Fluorene	ND		0.023	0.19
Hexachlorobenzene	ND		0.059	0.96
Hexachlorobutadiene	ND		0.090	0.96
Hexachlorocyclopentadiene	ND		0.13	0.96
Hexachloroethane	ND		0.13	0.96
Indeno[1,2,3-cd]pyrene	ND		0.042	0.19
Isophorone	ND		0.071	0.96

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3
Client Matrix: Water

Date Sampled: 12/01/2014 1850
Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127527	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1208017.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/08/2014 1641			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.13	J	0.022	0.19
Nitrobenzene	ND		0.14	1.9
N-Nitrosodi-n-propylamine	ND		0.048	0.96
N-Nitrosodimethylamine	ND		0.11	0.96
N-Nitrosodiphenylamine	ND		0.12	0.96
Phenanthrene	ND		0.040	0.19
Pyrene	ND		0.022	0.19
Pentachlorophenol	ND		0.48	0.96
Phenol	3.3		0.053	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	72		30 - 150
2-Fluorobiphenyl	68		30 - 150
2-Fluorophenol (Surr)	44		30 - 150
Nitrobenzene-d5 (Surr)	61		30 - 150
Phenol-d5 (Surr)	58		30 - 150
Terphenyl-d14 (Surr)	79		10 - 150

Client: EA Engineering, Science, and Technology | Job Number: 180-39432-1

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4 | Date Sampled: 12/01/2014 1920
Client Matrix: Water | Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127527	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1208018.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/08/2014 1709			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0717			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	ND		0.028	0.19
Acenaphthylene	ND		0.021	0.19
Anthracene	ND		0.018	0.19
Benzidine	ND		4.6	19
Benzo[a]anthracene	ND		0.035	0.19
Benzo[b]fluoranthene	ND		0.047	0.19
Benzo[k]fluoranthene	ND		0.029	0.19
Benzoic acid	ND		1.6	4.8
Benzo[g,h,i]perylene	ND		0.028	0.19
Benzo[a]pyrene	ND		0.027	0.19
Bis(2-chloroethoxy)methane	ND		0.13	0.96
Bis(2-chloroethyl)ether	ND		0.030	0.96
Bis(2-ethylhexyl) phthalate	ND		0.42	1.9
2,2'-oxybis[1-chloropropane]	ND		0.023	0.96
4-Bromophenyl phenyl ether	ND		0.11	0.96
4-Chlorophenyl phenyl ether	ND		0.077	0.96
2-Chloronaphthalene	ND		0.030	0.19
Butyl benzyl phthalate	ND		0.21	0.96
Chrysene	ND		0.030	0.19
Dibenz(a,h)anthracene	ND		0.026	0.19
Di-n-butyl phthalate	0.49	J	0.23	0.96
Di-n-octyl phthalate	ND		0.20	0.96
Diethyl phthalate	ND		0.29	0.96
Dimethyl phthalate	ND		0.18	0.96
3,3'-Dichlorobenzidine	ND		0.14	0.96
2,4-Dinitrotoluene	ND		0.21	0.96
2,6-Dinitrotoluene	ND		0.13	0.96
2-Chlorophenol	ND		0.22	0.96
2,4-Dichlorophenol	ND		0.065	0.96
2,4-Dimethylphenol	ND		0.16	0.96
2,4-Dinitrophenol	ND		2.4	4.8
2-Nitrophenol	ND		0.11	0.96
2,4,6-Trichlorophenol	ND		0.29	0.96
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.11	0.96
1,2,4-Trichlorobenzene	ND		0.082	0.96
4-Chloro-3-methylphenol	ND		0.16	0.96
4-Nitrophenol	ND		0.77	4.8
4,6-Dinitro-2-methylphenol	ND		1.5	4.8
Fluoranthene	ND		0.020	0.19
Fluorene	ND		0.023	0.19
Hexachlorobenzene	ND		0.059	0.96
Hexachlorobutadiene	ND		0.090	0.96
Hexachlorocyclopentadiene	ND		0.13	0.96
Hexachloroethane	ND		0.13	0.96
Indeno[1,2,3-cd]pyrene	ND		0.042	0.19
Isophorone	ND		0.071	0.96

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4
Client Matrix: Water

Date Sampled: 12/01/2014 1920
Date Received: 12/03/2014 0930

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-127527	Instrument ID:	CH731
Prep Method:	3520C	Prep Batch:	180-127168	Lab File ID:	V1208018.D
Dilution:	1.0			Initial Weight/Volume:	260 mL
Analysis Date:	12/08/2014 1709			Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0717			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	ND		0.022	0.19
Nitrobenzene	ND		0.14	1.9
N-Nitrosodi-n-propylamine	ND		0.048	0.96
N-Nitrosodimethylamine	ND		0.11	0.96
N-Nitrosodiphenylamine	ND		0.12	0.96
Phenanthrene	ND		0.040	0.19
Pyrene	ND		0.022	0.19
Pentachlorophenol	ND		0.48	0.96
Phenol	ND		0.053	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	70		30 - 150
2-Fluorobiphenyl	61		30 - 150
2-Fluorophenol (Surr)	47		30 - 150
Nitrobenzene-d5 (Surr)	64		30 - 150
Phenol-d5 (Surr)	53		30 - 150
Terphenyl-d14 (Surr)	73		10 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1
Client Matrix: Water

Date Sampled: 12/01/2014 1735
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1550			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.0024	0.0094
PCB-1221	ND		0.0039	0.0094
PCB-1232	ND		0.0037	0.0094
PCB-1242	ND		0.0018	0.0094
PCB-1248	ND		0.0025	0.0094
PCB-1254	ND		0.0028	0.0094
PCB-1260	ND		0.0016	0.0094

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	150	X	60 - 135
Tetrachloro-m-xylene (Surr)	88		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1
Client Matrix: Water

Date Sampled: 12/01/2014 1735
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1550			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	142	X	60 - 135
Tetrachloro-m-xylene (Surr)	87		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2
Client Matrix: Water

Date Sampled: 12/01/2014 1825
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1609			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.0024	0.0094
PCB-1221	ND		0.0039	0.0094
PCB-1232	ND		0.0037	0.0094
PCB-1242	ND		0.0018	0.0094
PCB-1248	ND		0.0025	0.0094
PCB-1254	ND		0.0028	0.0094
PCB-1260	ND		0.0016	0.0094

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	147	X	60 - 135
Tetrachloro-m-xylene (Surr)	101		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2
Client Matrix: Water

Date Sampled: 12/01/2014 1825
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1609			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	142	X	60 - 135
Tetrachloro-m-xylene (Surr)	98		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3
Client Matrix: Water

Date Sampled: 12/01/2014 1850
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1629			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.0024	0.0094
PCB-1221	ND		0.0039	0.0094
PCB-1232	ND		0.0037	0.0094
PCB-1242	ND		0.0018	0.0094
PCB-1248	ND		0.0025	0.0094
PCB-1254	ND		0.0028	0.0094
PCB-1260	ND		0.0016	0.0094

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	131		60 - 135
Tetrachloro-m-xylene (Surr)	105		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3
Client Matrix: Water

Date Sampled: 12/01/2014 1850
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1629			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	118		60 - 135
Tetrachloro-m-xylene (Surr)	103		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4
Client Matrix: Water

Date Sampled: 12/01/2014 1920
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1648			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.0024	0.0094
PCB-1221	ND		0.0039	0.0094
PCB-1232	ND		0.0037	0.0094
PCB-1242	ND		0.0018	0.0094
PCB-1248	ND		0.0025	0.0094
PCB-1254	ND		0.0028	0.0094
PCB-1260	ND		0.0016	0.0094

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	142	X	60 - 135
Tetrachloro-m-xylene (Surr)	92		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4
Client Matrix: Water

Date Sampled: 12/01/2014 1920
Date Received: 12/03/2014 0930

8082A Polychlorinated Biphenyls (PCBs) (GC)

Analysis Method:	8082A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Prep Method:	3510C	Prep Batch:	180-127269	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Analysis Date:	12/13/2014 1648			Injection Volume:	1 uL
Prep Date:	12/04/2014 1150			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	142	X	60 - 135
Tetrachloro-m-xylene (Surr)	88		25 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1
Client Matrix: Water

Date Sampled: 12/01/2014 1735
Date Received: 12/03/2014 0930

6020A Metals (ICP/MS)-Total Recoverable

Analysis Method:	6020A	Analysis Batch:	180-128044	Instrument ID:	M
Prep Method:	3005A	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1013			Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	2.4		0.29	1.0
Cadmium	ND		0.11	1.0
Chromium	1.7	J	0.54	2.0
Lead	3.6	B	0.019	1.0
Selenium	0.42	J	0.42	5.0
Silver	ND		0.036	1.0
Beryllium	ND		0.037	1.0
Thallium	0.042	J B	0.015	1.0
Antimony	0.63	J B	0.019	2.0
Nickel	4.1		0.17	1.0
Zinc	75		0.96	5.0
Copper	3.0	B	0.24	2.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	180-128046	Instrument ID:	K
Prep Method:	7470A	Prep Batch:	180-127920	Lab File ID:	R41211A.CSV
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1256			Final Weight/Volume:	50 mL
Prep Date:	12/11/2014 0605				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.051	J	0.038	0.20

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2
Client Matrix: Water

Date Sampled: 12/01/2014 1825
Date Received: 12/03/2014 0930

6020A Metals (ICP/MS)-Total Recoverable

Analysis Method:	6020A	Analysis Batch:	180-128044	Instrument ID:	M
Prep Method:	3005A	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1040			Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	ND		0.29	1.0
Cadmium	ND		0.11	1.0
Chromium	0.89	J	0.54	2.0
Lead	0.67	J B	0.019	1.0
Selenium	ND		0.42	5.0
Silver	ND		0.036	1.0
Beryllium	ND		0.037	1.0
Thallium	0.024	J B	0.015	1.0
Antimony	1.2	J B	0.019	2.0
Nickel	2.8		0.17	1.0
Zinc	12		0.96	5.0
Copper	3.1	B	0.24	2.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	180-128046	Instrument ID:	K
Prep Method:	7470A	Prep Batch:	180-127920	Lab File ID:	R41211A.CSV
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1257			Final Weight/Volume:	50 mL
Prep Date:	12/11/2014 0605				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.083	J	0.038	0.20

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3
Client Matrix: Water

Date Sampled: 12/01/2014 1850
Date Received: 12/03/2014 0930

6020A Metals (ICP/MS)-Total Recoverable

Analysis Method:	6020A	Analysis Batch:	180-128044	Instrument ID:	M
Prep Method:	3005A	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1044			Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	2.2		0.29	1.0
Cadmium	ND		0.11	1.0
Chromium	6.8		0.54	2.0
Lead	3.2	B	0.019	1.0
Selenium	0.90	J	0.42	5.0
Silver	ND		0.036	1.0
Beryllium	ND		0.037	1.0
Thallium	ND		0.015	1.0
Antimony	0.88	J B	0.019	2.0
Nickel	1.2		0.17	1.0
Zinc	9.4		0.96	5.0
Copper	2.7	B	0.24	2.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	180-128046	Instrument ID:	K
Prep Method:	7470A	Prep Batch:	180-127920	Lab File ID:	R41211A.CSV
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1259			Final Weight/Volume:	50 mL
Prep Date:	12/11/2014 0605				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.038	0.20

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4
Client Matrix: Water

Date Sampled: 12/01/2014 1920
Date Received: 12/03/2014 0930

6020A Metals (ICP/MS)-Total Recoverable

Analysis Method:	6020A	Analysis Batch:	180-128044	Instrument ID:	M
Prep Method:	3005A	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1047			Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	1.1		0.29	1.0
Cadmium	ND		0.11	1.0
Chromium	1.4	J	0.54	2.0
Lead	1.2	B	0.019	1.0
Selenium	ND		0.42	5.0
Silver	ND		0.036	1.0
Beryllium	ND		0.037	1.0
Thallium	ND		0.015	1.0
Antimony	1.1	J B	0.019	2.0
Nickel	6.3		0.17	1.0
Zinc	20		0.96	5.0
Copper	2.4	B	0.24	2.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	180-128046	Instrument ID:	K
Prep Method:	7470A	Prep Batch:	180-127920	Lab File ID:	R41211A.CSV
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1301			Final Weight/Volume:	50 mL
Prep Date:	12/11/2014 0605				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.038	0.20

General Chemistry

Client Sample ID: **ST-071-120114**

Lab Sample ID: 180-39432-1 Date Sampled: 12/01/2014 1735
Client Matrix: Water Date Received: 12/03/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM (Oil & Grease)	3.4	J	mg/L	1.6	5.2	1.0	1664B
Analysis Batch: 180-127859	Analysis Date: 12/10/2014 1207						
Prep Batch: 180-127729	Prep Date: 12/09/2014 1531						
Cyanide, Total	ND		ug/L	2.5	10	1.0	9014
Analysis Batch: 180-127728	Analysis Date: 12/09/2014 1342						
Prep Batch: 180-127665	Prep Date: 12/09/2014 0845						
Total Suspended Solids	20		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 180-127233	Analysis Date: 12/04/2014 1135						

General Chemistry

Client Sample ID: **ST-UNNAMED-120114**

Lab Sample ID: 180-39432-2 Date Sampled: 12/01/2014 1825
Client Matrix: Water Date Received: 12/03/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM (Oil & Grease)	2.7	J	mg/L	1.6	5.2	1.0	1664B
Analysis Batch: 180-127859	Analysis Date: 12/10/2014 1207						
Prep Batch: 180-127729	Prep Date: 12/09/2014 1531						
Cyanide, Total	ND		ug/L	2.5	10	1.0	9014
Analysis Batch: 180-127728	Analysis Date: 12/09/2014 1344						
Prep Batch: 180-127665	Prep Date: 12/09/2014 0845						
Total Suspended Solids	ND		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 180-127233	Analysis Date: 12/04/2014 1135						

General Chemistry

Client Sample ID: **ST-018-120114**

Lab Sample ID: 180-39432-3 Date Sampled: 12/01/2014 1850
Client Matrix: Water Date Received: 12/03/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM (Oil & Grease)	2.7	J	mg/L	1.6	5.2	1.0	1664B
Analysis Batch: 180-127859	Analysis Date: 12/10/2014 1207						
Prep Batch: 180-127729	Prep Date: 12/09/2014 1531						
Cyanide, Total	14		ug/L	2.5	10	1.0	9014
Analysis Batch: 180-127728	Analysis Date: 12/09/2014 1346						
Prep Batch: 180-127665	Prep Date: 12/09/2014 0845						
Total Suspended Solids	30		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 180-127233	Analysis Date: 12/04/2014 1135						

General Chemistry

Client Sample ID: **ST-014-120114**

Lab Sample ID: 180-39432-4 Date Sampled: 12/01/2014 1920
Client Matrix: Water Date Received: 12/03/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM (Oil & Grease)	3.0	J	mg/L	1.6	5.2	1.0	1664B
Analysis Batch: 180-127859	Analysis Date: 12/10/2014 1207						
Prep Batch: 180-127729	Prep Date: 12/09/2014 1531						
Cyanide, Total	ND		ug/L	2.5	10	1.0	9014
Analysis Batch: 180-127728	Analysis Date: 12/09/2014 1348						
Prep Batch: 180-127665	Prep Date: 12/09/2014 0845						
Total Suspended Solids	6.4		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 180-127233	Analysis Date: 12/04/2014 1135						

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

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
180-39432-1	ST-071-120114	109	101	102	98
180-39432-2	ST-UNNAMED-120114	99	82	90	85
180-39432-3	ST-018-120114	10X	80	94	84
180-39432-4	ST-014-120114	93	88	88	89
180-39432-5	TRIP BLANK	115	109	114	107
MB 180-127589/6		82	74	100	80
LCS 180-127589/11		89	91	100	95

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: EA Engineering, Science, and Technology Job Number: 180-39432-1

Surrogate Recovery Report

8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
180-39432-1	ST-071-120114	35	50	61	63	71	58
180-39432-2	ST-UNNAMED-120114	30	35	68	67	51	73
180-39432-3	ST-018-120114	44	58	61	68	72	79
180-39432-4	ST-014-120114	47	53	64	61	70	73
MB 180-127168/1-A		69	67	69	68	58	67
LCS 180-127168/2-A		41	50	56	60	63	58
LCSD 180-127168/3-A		44	57	59	59	63	61

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	30-150
PHL = Phenol-d5 (Surr)	30-150
NBZ = Nitrobenzene-d5 (Surr)	30-150
FBP = 2-Fluorobiphenyl	30-150
TBP = 2,4,6-Tribromophenol (Surr)	30-150
TPH = Terphenyl-d14 (Surr)	10-150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
180-39432-1	ST-071-120114	88	87	150X	142X
180-39432-2	ST-UNNAMED-120114	98	101	142X	147X
180-39432-3	ST-018-120114	103	105	118	131
180-39432-4	ST-014-120114	92	88	142X	142X
MB 180-127269/1-A		91	88	109	107
LCS 180-127269/3-A		88	93	99	109
LCSD 180-127269/4-A		94	97	119	112

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene (Surr)	25-150
DCB = DCB Decachlorobiphenyl (Surr)	60-135

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127589

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 180-127589/6	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	7120806.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 1506	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 1506				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		1.0	5.0
1,1,2,2-Tetrachloroethane	ND		0.93	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.0	5.0
1,1-Dichloroethene	ND		1.1	5.0
1,2-Dichlorobenzene	ND		0.68	5.0
1,2-Dichloroethane	ND		0.96	5.0
1,2-Dichloropropane	ND		1.3	5.0
1,3-Dichlorobenzene	ND		0.51	5.0
1,4-Dichlorobenzene	ND		0.53	5.0
2-Chloroethyl vinyl ether	ND		1.9	10
Acrolein	ND		5.7	100
Acrylonitrile	ND		9.0	50
Benzene	ND		0.99	5.0
Bromoform	ND		1.1	5.0
Bromomethane	ND		1.6	5.0
Carbon tetrachloride	ND		1.1	5.0
Chlorobenzene	ND		0.53	5.0
Chloroform	ND		1.0	5.0
Chloromethane	ND		1.4	5.0
Chlorodibromomethane	ND		0.65	5.0
cis-1,3-Dichloropropene	ND		0.73	5.0
Dichlorobromomethane	ND		0.93	5.0
Ethylbenzene	ND		0.62	5.0
Methylene Chloride	ND		1.1	5.0
Tetrachloroethene	ND		0.82	5.0
Toluene	ND		0.85	5.0
trans-1,2-Dichloroethene	ND		0.75	5.0
trans-1,3-Dichloropropene	ND		0.58	5.0
Trichloroethene	ND		0.80	5.0
Vinyl chloride	ND		1.3	5.0
Chloroethane	ND		0.75	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	74	62 - 123
4-Bromofluorobenzene (Surr)	80	75 - 120
Dibromofluoromethane (Surr)	82	80 - 120
Toluene-d8 (Surr)	100	80 - 120

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Lab Control Sample - Batch: 180-127589

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 180-127589/11	Analysis Batch:	180-127589	Instrument ID:	CHHP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	7120811.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/08/2014 1717	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/08/2014 1717				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	40.0	35.0	88	69 - 134	
1,1,2,2-Tetrachloroethane	40.0	36.8	92	59 - 136	
1,1,2-Trichloroethane	40.0	38.3	96	75 - 126	
1,1-Dichloroethane	40.0	33.4	84	77 - 122	
1,1-Dichloroethene	40.0	42.8	107	69 - 127	
1,2-Dichlorobenzene	40.0	41.9	105	75 - 125	
1,2-Dichloroethane	40.0	40.5	101	63 - 140	
1,2-Dichloropropane	40.0	40.1	100	75 - 114	
1,3-Dichlorobenzene	40.0	40.4	101	76 - 125	
1,4-Dichlorobenzene	40.0	40.3	101	76 - 123	
Benzene	40.0	38.8	97	80 - 120	
Bromoform	40.0	45.8	114	49 - 137	
Bromomethane	40.0	31.9	80	45 - 150	
Carbon tetrachloride	40.0	40.9	102	63 - 139	
Chlorobenzene	40.0	39.0	97	83 - 120	
Chloroform	40.0	37.1	93	77 - 119	
Chloromethane	40.0	31.1	78	49 - 133	
Chlorodibromomethane	40.0	39.0	98	64 - 124	
cis-1,3-Dichloropropene	40.0	37.2	93	74 - 123	
Dichlorobromomethane	40.0	37.2	93	71 - 119	
Ethylbenzene	40.0	39.5	99	79 - 124	
Methylene Chloride	40.0	37.2	93	75 - 120	
Tetrachloroethene	40.0	41.2	103	78 - 126	
Toluene	40.0	37.7	94	80 - 124	
trans-1,2-Dichloroethene	40.0	36.2	90	78 - 120	
trans-1,3-Dichloropropene	40.0	35.2	88	63 - 122	
Trichloroethene	40.0	40.4	101	80 - 120	
Vinyl chloride	40.0	29.6	74	57 - 128	
Chloroethane	40.0	36.6	91	33 - 150	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	62 - 123
4-Bromofluorobenzene (Surr)	95	75 - 120
Dibromofluoromethane (Surr)	89	80 - 120
Toluene-d8 (Surr)	100	80 - 120

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127168

Method: 8270D LL
Preparation: 3520C

Lab Sample ID:	MB 180-127168/1-A	Analysis Batch:	180-127527	Instrument ID:	CH731
Client Matrix:	Water	Prep Batch:	180-127168	Lab File ID:	V1208007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/08/2014 1158	Units:	ug/L	Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	ND		0.029	0.20
Acenaphthylene	ND		0.022	0.20
Anthracene	ND		0.019	0.20
Benzidine	ND		4.7	20
Benzo[a]anthracene	ND		0.037	0.20
Benzo[b]fluoranthene	ND		0.049	0.20
Benzo[k]fluoranthene	ND		0.030	0.20
Benzoic acid	ND		1.6	5.0
Benzo[g,h,i]perylene	ND		0.029	0.20
Benzo[a]pyrene	ND		0.028	0.20
Bis(2-chloroethoxy)methane	ND		0.13	1.0
Bis(2-chloroethyl)ether	ND		0.032	1.0
Bis(2-ethylhexyl) phthalate	ND		0.44	2.0
2,2'-oxybis[1-chloropropane]	ND		0.024	1.0
4-Bromophenyl phenyl ether	ND		0.12	1.0
4-Chlorophenyl phenyl ether	ND		0.080	1.0
2-Chloronaphthalene	ND		0.031	0.20
Butyl benzyl phthalate	ND		0.21	1.0
Chrysene	ND		0.031	0.20
Dibenz(a,h)anthracene	ND		0.027	0.20
Di-n-butyl phthalate	ND		0.24	1.0
Di-n-octyl phthalate	ND		0.20	1.0
Diethyl phthalate	ND		0.30	1.0
Dimethyl phthalate	ND		0.18	1.0
3,3'-Dichlorobenzidine	ND		0.15	1.0
2,4-Dinitrotoluene	ND		0.21	1.0
2,6-Dinitrotoluene	ND		0.14	1.0
2-Chlorophenol	ND		0.23	1.0
2,4-Dichlorophenol	ND		0.067	1.0
2,4-Dimethylphenol	ND		0.17	1.0
2,4-Dinitrophenol	ND		2.5	5.0
2-Nitrophenol	ND		0.11	1.0
2,4,6-Trichlorophenol	ND		0.30	1.0
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.12	1.0
1,2,4-Trichlorobenzene	ND		0.085	1.0
4-Chloro-3-methylphenol	ND		0.17	1.0
4-Nitrophenol	ND		0.80	5.0
4,6-Dinitro-2-methylphenol	ND		1.6	5.0
Fluoranthene	ND		0.021	0.20
Fluorene	ND		0.024	0.20
Hexachlorobenzene	ND		0.061	1.0
Hexachlorobutadiene	ND		0.094	1.0
Hexachlorocyclopentadiene	ND		0.14	1.0
Hexachloroethane	ND		0.14	1.0
Indeno[1,2,3-cd]pyrene	ND		0.043	0.20

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127168

Method: 8270D LL
Preparation: 3520C

Lab Sample ID:	MB 180-127168/1-A	Analysis Batch:	180-127527	Instrument ID:	CH731
Client Matrix:	Water	Prep Batch:	180-127168	Lab File ID:	V1208007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/08/2014 1158	Units:	ug/L	Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Isophorone	ND		0.074	1.0
Naphthalene	ND		0.023	0.20
Nitrobenzene	ND		0.15	2.0
N-Nitrosodi-n-propylamine	ND		0.050	1.0
N-Nitrosodimethylamine	ND		0.12	1.0
N-Nitrosodiphenylamine	ND		0.12	1.0
Phenanthrene	ND		0.042	0.20
Pyrene	ND		0.023	0.20
Pentachlorophenol	ND		0.50	1.0
Phenol	ND		0.055	1.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	58	30 - 150
2-Fluorobiphenyl	68	30 - 150
2-Fluorophenol (Surr)	69	30 - 150
Nitrobenzene-d5 (Surr)	69	30 - 150
Phenol-d5 (Surr)	67	30 - 150
Terphenyl-d14 (Surr)	67	10 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-127168

Method: 8270D LL
Preparation: 3520C

LCS Lab Sample ID:	LCS 180-127168/2-A	Analysis Batch:	180-127527	Instrument ID:	CH731
Client Matrix:	Water	Prep Batch:	180-127168	Lab File ID:	V1208008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/08/2014 1226	Units:	ug/L	Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-127168/3-A	Analysis Batch:	180-127527	Instrument ID:	CH731
Client Matrix:	Water	Prep Batch:	180-127168	Lab File ID:	V1208009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/08/2014 1254	Units:	ug/L	Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acenaphthene	60	60	30 - 150	1	35		
Acenaphthylene	61	62	30 - 150	2	35		
Anthracene	64	63	30 - 150	3	35		
Benzidine	11	11	10 - 150	2	35		
Benzo[a]anthracene	67	70	30 - 150	5	35		
Benzo[b]fluoranthene	63	66	30 - 150	4	35		
Benzo[k]fluoranthene	64	67	30 - 150	4	35		
Benzoic acid	11	13	10 - 150	19	35	J	J
Benzo[g,h,i]perylene	70	72	30 - 150	3	35		
Benzo[a]pyrene	66	68	30 - 150	4	35		
Bis(2-chloroethoxy)methane	55	56	30 - 150	2	35		
Bis(2-chloroethyl)ether	44	53	30 - 150	19	35		
Bis(2-ethylhexyl) phthalate	61	64	30 - 150	4	35		
2,2'-oxybis[1-chloropropane]	45	49	30 - 150	9	35		
4-Bromophenyl phenyl ether	67	66	30 - 150	2	35		
4-Chlorophenyl phenyl ether	66	67	30 - 150	0	35		
2-Chloronaphthalene	55	55	30 - 150	1	35		
Butyl benzyl phthalate	60	63	30 - 150	4	35		
Chrysene	65	68	30 - 150	3	35		
Dibenz(a,h)anthracene	69	71	30 - 150	3	35		
Di-n-butyl phthalate	65	63	30 - 150	4	35		
Di-n-octyl phthalate	57	58	10 - 150	3	35		
Diethyl phthalate	67	66	30 - 150	1	35		
Dimethyl phthalate	67	66	30 - 150	0	35		
3,3'-Dichlorobenzidine	56	56	10 - 150	1	35		
2,4-Dinitrotoluene	68	68	30 - 150	1	35		
2,6-Dinitrotoluene	66	68	30 - 150	3	35		
2-Chlorophenol	48	54	30 - 150	12	35		
2,4-Dichlorophenol	56	60	30 - 150	8	35		
2,4-Dimethylphenol	59	59	30 - 150	0	35		
2,4-Dinitrophenol	43	45	10 - 150	4	35		
2-Nitrophenol	55	61	30 - 150	11	35		
2,4,6-Trichlorophenol	61	61	30 - 150	0	35		
1,2-Diphenylhydrazine(as Azobenzene)	63	64	30 - 150	2	35		
1,2,4-Trichlorobenzene	57	59	30 - 150	2	35		
4-Chloro-3-methylphenol	62	63	30 - 150	2	35		

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-127168

Method: 8270D LL
Preparation: 3520C

LCS Lab Sample ID:	LCS 180-127168/2-A	Analysis Batch:	180-127527	Instrument ID:	CH731
Client Matrix:	Water	Prep Batch:	180-127168	Lab File ID:	V1208008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/08/2014 1226	Units:	ug/L	Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-127168/3-A	Analysis Batch:	180-127527	Instrument ID:	CH731
Client Matrix:	Water	Prep Batch:	180-127168	Lab File ID:	V1208009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/08/2014 1254	Units:	ug/L	Final Weight/Volume:	0.25 mL
Prep Date:	12/04/2014 0715			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
4-Nitrophenol	77	74	30 - 150	5	35		
4,6-Dinitro-2-methylphenol	59	62	30 - 150	5	35		
Fluoranthene	69	66	30 - 150	5	35		
Fluorene	69	68	30 - 150	3	35		
Hexachlorobenzene	62	59	30 - 150	5	35		
Hexachlorobutadiene	60	60	30 - 150	1	35		
Hexachlorocyclopentadiene	56	59	30 - 150	4	35		
Hexachloroethane	46	51	30 - 150	11	35		
Indeno[1,2,3-cd]pyrene	69	72	30 - 150	4	35		
Isophorone	59	61	30 - 150	4	35		
Naphthalene	56	59	30 - 150	6	35		
Nitrobenzene	56	61	30 - 150	9	35		
N-Nitrosodi-n-propylamine	53	63	30 - 150	17	35		
N-Nitrosodimethylamine	48	55	30 - 150	14	35		
N-Nitrosodiphenylamine	62	63	30 - 150	2	35		
Phenanthrene	63	62	30 - 150	2	35		
Pyrene	58	62	30 - 150	6	35		
Pentachlorophenol	44	44	10 - 150	1	35		
Phenol	48	54	30 - 150	13	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	63	63	30 - 150
2-Fluorobiphenyl	60	59	30 - 150
2-Fluorophenol (Surr)	41	44	30 - 150
Nitrobenzene-d5 (Surr)	56	59	30 - 150
Phenol-d5 (Surr)	50	57	30 - 150
Terphenyl-d14 (Surr)	58	61	10 - 150

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-127168

Method: 8270D LL
Preparation: 3520C

LCS Lab Sample ID:	LCS 180-127168/2-A	Units: ug/L		LCSD Lab Sample ID:	LCSD 180-127168/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/08/2014 1226			Analysis Date:	12/08/2014 1254
Prep Date:	12/04/2014 0715			Prep Date:	12/04/2014 0715
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Acenaphthene	20.0	20.0	12.0	12.1
Acenaphthylene	20.0	20.0	12.1	12.4
Anthracene	20.0	20.0	12.9	12.5
Benzidine	20.0	20.0	ND	ND
Benzo[a]anthracene	20.0	20.0	13.4	14.0
Benzo[b]fluoranthene	20.0	20.0	12.6	13.1
Benzo[k]fluoranthene	20.0	20.0	12.8	13.3
Benzoic acid	20.0	20.0	2.22 J	2.69 J
Benzo[g,h,i]perylene	20.0	20.0	14.0	14.4
Benzo[a]pyrene	20.0	20.0	13.1	13.6
Bis(2-chloroethoxy)methane	20.0	20.0	10.9	11.1
Bis(2-chloroethyl)ether	20.0	20.0	8.80	10.6
Bis(2-ethylhexyl) phthalate	20.0	20.0	12.2	12.7
2,2'-oxybis[1-chloropropane]	20.0	20.0	8.93	9.73
4-Bromophenyl phenyl ether	20.0	20.0	13.5	13.2
4-Chlorophenyl phenyl ether	20.0	20.0	13.3	13.3
2-Chloronaphthalene	20.0	20.0	10.9	11.0
Butyl benzyl phthalate	20.0	20.0	12.0	12.5
Chrysene	20.0	20.0	13.1	13.5
Dibenz(a,h)anthracene	20.0	20.0	13.8	14.2
Di-n-butyl phthalate	20.0	20.0	13.1	12.5
Di-n-octyl phthalate	20.0	20.0	11.4	11.7
Diethyl phthalate	20.0	20.0	13.3	13.2
Dimethyl phthalate	20.0	20.0	13.3	13.3
3,3'-Dichlorobenzidine	20.0	20.0	11.1	11.2
2,4-Dinitrotoluene	20.0	20.0	13.6	13.7
2,6-Dinitrotoluene	20.0	20.0	13.3	13.6
2-Chlorophenol	20.0	20.0	9.54	10.8
2,4-Dichlorophenol	20.0	20.0	11.1	12.1
2,4-Dimethylphenol	20.0	20.0	11.8	11.8
2,4-Dinitrophenol	40.0	40.0	17.1	17.8
2-Nitrophenol	20.0	20.0	11.0	12.2
2,4,6-Trichlorophenol	20.0	20.0	12.1	12.1
1,2-Diphenylhydrazine(as Azobenzene)	20.0	20.0	12.5	12.8
1,2,4-Trichlorobenzene	20.0	20.0	11.4	11.7
4-Chloro-3-methylphenol	20.0	20.0	12.3	12.6
4-Nitrophenol	40.0	40.0	30.9	29.6
4,6-Dinitro-2-methylphenol	40.0	40.0	23.7	24.8
Fluoranthene	20.0	20.0	13.9	13.2

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-127168

Method: 8270D LL
Preparation: 3520C

LCS Lab Sample ID:	LCS 180-127168/2-A	Units: ug/L		LCSD Lab Sample ID:	LCSD 180-127168/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/08/2014 1226			Analysis Date:	12/08/2014 1254
Prep Date:	12/04/2014 0715			Prep Date:	12/04/2014 0715
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Fluorene	20.0	20.0	13.9	13.5
Hexachlorobenzene	20.0	20.0	12.5	11.9
Hexachlorobutadiene	20.0	20.0	12.0	12.0
Hexachlorocyclopentadiene	20.0	20.0	11.3	11.7
Hexachloroethane	20.0	20.0	9.22	10.3
Indeno[1,2,3-cd]pyrene	20.0	20.0	13.8	14.4
Isophorone	20.0	20.0	11.7	12.2
Naphthalene	20.0	20.0	11.2	11.9
Nitrobenzene	20.0	20.0	11.1	12.2
N-Nitrosodi-n-propylamine	20.0	20.0	10.6	12.6
N-Nitrosodimethylamine	20.0	20.0	9.55	10.9
N-Nitrosodiphenylamine	20.0	20.0	12.4	12.6
Phenanthrene	20.0	20.0	12.6	12.4
Pyrene	20.0	20.0	11.7	12.4
Pentachlorophenol	40.0	40.0	17.8	17.6
Phenol	20.0	20.0	9.51	10.9

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127269

Method: 8082A
Preparation: 3510C

Lab Sample ID:	MB 180-127269/1-A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Client Matrix:	Water	Prep Batch:	180-127269	Lab File ID:	O1240216.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/13/2014 1530	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	12/04/2014 1150			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.0025	0.010
PCB-1221	ND		0.0041	0.010
PCB-1232	ND		0.0039	0.010
PCB-1242	ND		0.0019	0.010
PCB-1248	ND		0.0027	0.010
PCB-1254	ND		0.0030	0.010
PCB-1260	ND		0.0017	0.010

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	109	60 - 135
Tetrachloro-m-xylene (Surr)	91	25 - 150

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	107	60 - 135
Tetrachloro-m-xylene (Surr)	88	25 - 150

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-127269

Method: 8082A
Preparation: 3510C

LCS Lab Sample ID:	LCS 180-127269/3-A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Client Matrix:	Water	Prep Batch:	180-127269	Lab File ID:	O1240222.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/13/2014 1728	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	12/04/2014 1150			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 180-127269/4-A	Analysis Batch:	180-128212	Instrument ID:	CHGC8
Client Matrix:	Water	Prep Batch:	180-127269	Lab File ID:	O1240223.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/13/2014 1747	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	12/04/2014 1150			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	86	91	55 - 120	5	25		
PCB-1260	113	118	55 - 120	4	25		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	109	119	60 - 135
Tetrachloro-m-xylene (Surr)	93	97	25 - 150

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	99	112	60 - 135
Tetrachloro-m-xylene (Surr)	88	94	25 - 150

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-127269

Method: 8082A
Preparation: 3510C

LCS Lab Sample ID:	LCS 180-127269/3-A	Units:	ug/L	LCSD Lab Sample ID:	LCSD 180-127269/4-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/13/2014 1728			Analysis Date:	12/13/2014 1747
Prep Date:	12/04/2014 1150			Prep Date:	12/04/2014 1150
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
PCB-1016	1.00	1.00	0.860	0.909
PCB-1260	1.00	1.00	1.13	1.18

Method Blank - Batch: 180-127321

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 180-127321/1-A	Analysis Batch:	180-128044	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 0952	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.29	1.0
Cadmium	ND		0.11	1.0
Chromium	ND		0.54	2.0
Lead	0.595	J	0.019	1.0
Selenium	ND		0.42	5.0
Silver	ND		0.036	1.0
Beryllium	ND		0.037	1.0
Thallium	0.0530	J	0.015	1.0
Antimony	0.0400	J	0.019	2.0
Nickel	ND		0.17	1.0
Zinc	ND		0.96	5.0
Copper	0.274	J	0.24	2.0

Lab Control Sample - Batch: 180-127321

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 180-127321/2-A	Analysis Batch:	180-128044	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 0955	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	40.0	37.0	92	80 - 120	
Cadmium	50.0	46.6	93	80 - 120	
Chromium	200	191	96	80 - 120	
Lead	20.0	21.7	108	80 - 120	
Selenium	10.0	9.26	93	80 - 120	
Silver	50.0	46.8	94	80 - 120	
Beryllium	50.0	43.1	86	80 - 120	
Thallium	50.0	51.7	103	80 - 120	
Antimony	500	470	94	80 - 120	
Nickel	500	499	100	80 - 120	
Zinc	500	491	98	80 - 120	
Copper	250	247	99	80 - 120	

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Post Digestion Spike - Batch: 180-127321

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	180-39432-1	Analysis Batch:	180-128044	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1037	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	2.4		40.0	38.5	90	75 - 125	
Cadmium	ND		50.0	46.9	94	75 - 125	
Chromium	1.7	J	200	189	94	75 - 125	
Lead	3.6		20.0	25.1	108	75 - 125	
Selenium	0.42	J	10.0	9.81	98	75 - 125	
Silver	ND		50.0	47.5	95	75 - 125	
Beryllium	ND		50.0	41.6	83	75 - 125	
Thallium	0.042	J	50.0	53.3	106	75 - 125	
Antimony	0.63	J	500	475	95	75 - 125	
Nickel	4.1		500	473	94	75 - 125	
Zinc	75		500	526	90	75 - 125	
Copper	3.0		250	239	94	75 - 125	

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-127321

Method: 6020A
Preparation: 3005A
Total Recoverable

MS Lab Sample ID:	180-39432-1	Analysis Batch:	180-128044	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1020			Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				
Leach Date:	N/A				

MSD Lab Sample ID:	180-39432-1	Analysis Batch:	180-128044	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1024			Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	89	87	75 - 125	2	20		
Cadmium	95	93	75 - 125	2	20		
Chromium	93	91	75 - 125	2	20		
Lead	106	106	75 - 125	1	20		
Selenium	98	97	75 - 125	1	20		
Silver	94	92	75 - 125	1	20		
Beryllium	81	79	75 - 125	3	20		
Thallium	106	106	75 - 125	0	20		
Antimony	93	92	75 - 125	1	20		
Nickel	92	93	75 - 125	1	20		
Zinc	91	89	75 - 125	2	20		
Copper	94	94	75 - 125	1	20		

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-127321

Method: 6020A
Preparation: 3005A
Total Recoverable

MS Lab Sample ID:	180-39432-1	Units: ug/L	MSD Lab Sample ID:	180-39432-1	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	12/11/2014 1020		Analysis Date:	12/11/2014 1024	
Prep Date:	12/05/2014 0645		Prep Date:	12/05/2014 0645	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	2.4		40.0	40.0	37.9	37.1
Cadmium	ND		50.0	50.0	47.4	46.5
Chromium	1.7	J	200	200	187	183
Lead	3.6		20.0	20.0	24.9	24.8
Selenium	0.42	J	10.0	10.0	9.79	9.66
Silver	ND		50.0	50.0	46.8	46.1
Beryllium	ND		50.0	50.0	40.6	39.6
Thallium	0.042	J	50.0	50.0	52.9	53.0
Antimony	0.63	J	500	500	464	459
Nickel	4.1		500	500	466	470
Zinc	75		500	500	531	520
Copper	3.0		250	250	237	238

Serial Dilution - Batch: 180-127321

Method: 6020A
Preparation: 3005A
Total Recoverable

Lab Sample ID:	180-39432-1	Analysis Batch:	180-128044	Instrument ID:	M
Client Matrix:	Water	Prep Batch:	180-127321	Lab File ID:	M41211A.xml
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1016	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/05/2014 0645				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Arsenic	2.4		ND	NC	10	
Cadmium	ND		ND	NC	10	
Chromium	1.7	J	ND	NC	10	
Lead	3.6		3.78	4.2	10	J
Selenium	0.42	J	ND	NC	10	
Silver	ND		ND	NC	10	
Beryllium	ND		ND	NC	10	
Thallium	0.042	J	ND	NC	10	
Antimony	0.63	J	0.315	NC	10	J
Nickel	4.1		4.45	NC	10	J
Zinc	75		82.3	10	10	
Copper	3.0		3.29	NC	10	J

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127920

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 180-127920/1-A	Analysis Batch:	180-128046	Instrument ID:	K
Client Matrix:	Water	Prep Batch:	180-127920	Lab File ID:	R41211A.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1229	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/11/2014 0605				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.038	0.20

Lab Control Sample - Batch: 180-127920

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 180-127920/2-A	Analysis Batch:	180-128046	Instrument ID:	K
Client Matrix:	Water	Prep Batch:	180-127920	Lab File ID:	R41211A.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/11/2014 1231	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/11/2014 0605				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	2.50	2.49	100	80 - 120	

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Method Blank - Batch: 180-127729

Method: 1664B
Preparation: 1664B

Lab Sample ID:	MB 180-127729/1-A	Analysis Batch:	180-127859	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127729	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/10/2014 1207	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/09/2014 1531				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
HEM (Oil & Grease)	ND		1.5	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 180-127729

Method: 1664B
Preparation: 1664B

LCS Lab Sample ID:	LCS 180-127729/2-A	Analysis Batch:	180-127859	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127729	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/10/2014 1207	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/09/2014 1531				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 180-127729/3-A	Analysis Batch:	180-127859	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127729	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/10/2014 1207	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	12/09/2014 1531				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
HEM (Oil & Grease)	84	85	78 - 114	0	18		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 180-127729

Method: 1664B
Preparation: 1664B

LCS Lab Sample ID:	LCS 180-127729/2-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 180-127729/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/10/2014 1207			Analysis Date:	12/10/2014 1207
Prep Date:	12/09/2014 1531			Prep Date:	12/09/2014 1531
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM (Oil & Grease)	40.0	40.0	33.7	33.8

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127665

Method: 9014
Preparation: 9010C

Lab Sample ID:	MB 180-127665/4-A	Analysis Batch:	180-127728	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127665	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/09/2014 1314	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/09/2014 0845				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		2.5	10

Low Level Control Sample - Batch: 180-127665

Method: 9014
Preparation: 9010C

Lab Sample ID:	LLCS 180-127665/1-A	Analysis Batch:	180-127728	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127665	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/09/2014 1307	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/09/2014 0845				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	50.0	46.2	92	90 - 110	

High Level Control Sample - Batch: 180-127665

Method: 9014
Preparation: 9010C

Lab Sample ID:	HLCS 180-127665/2-A	Analysis Batch:	180-127728	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127665	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/09/2014 1309	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/09/2014 0845				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	250	256	102	90 - 110	

Lab Control Sample - Batch: 180-127665

Method: 9014
Preparation: 9010C

Lab Sample ID:	LCS 180-127665/3-A	Analysis Batch:	180-127728	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	180-127665	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/09/2014 1312	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	12/09/2014 0845				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	200	198	99	85 - 115	

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Method Blank - Batch: 180-127233

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 180-127233/2	Analysis Batch:	180-127233	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/04/2014 1135	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	ND		2.0	2.0

Lab Control Sample - Batch: 180-127233

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 180-127233/1	Analysis Batch:	180-127233	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/04/2014 1135	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	56.9	50.0	88	80 - 120	

DATA REPORTING QUALIFIERS

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Lab Section	Qualifier	Description
GC/MS VOA		
	X	Surrogate is outside control limits
GC/MS Semi VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	X	Surrogate is outside control limits
Metals		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:180-127589					
LCS 180-127589/11	Lab Control Sample	T	Water	8260C	
MB 180-127589/6	Method Blank	T	Water	8260C	
180-39432-1	ST-071-120114	T	Water	8260C	
180-39432-2	ST-UNNAMED-120114	T	Water	8260C	
180-39432-3	ST-018-120114	T	Water	8260C	
180-39432-4	ST-014-120114	T	Water	8260C	
180-39432-5	TRIP BLANK	T	Water	8260C	
GC/MS Semi VOA					
Prep Batch: 180-127168					
LCS 180-127168/2-A	Lab Control Sample	T	Water	3520C	
LCSD 180-127168/3-A	Lab Control Sample Duplicate	T	Water	3520C	
MB 180-127168/1-A	Method Blank	T	Water	3520C	
180-39432-1	ST-071-120114	T	Water	3520C	
180-39432-2	ST-UNNAMED-120114	T	Water	3520C	
180-39432-3	ST-018-120114	T	Water	3520C	
180-39432-4	ST-014-120114	T	Water	3520C	
Analysis Batch:180-127527					
LCS 180-127168/2-A	Lab Control Sample	T	Water	8270D LL	180-127168
LCSD 180-127168/3-A	Lab Control Sample Duplicate	T	Water	8270D LL	180-127168
MB 180-127168/1-A	Method Blank	T	Water	8270D LL	180-127168
180-39432-1	ST-071-120114	T	Water	8270D LL	180-127168
180-39432-3	ST-018-120114	T	Water	8270D LL	180-127168
180-39432-4	ST-014-120114	T	Water	8270D LL	180-127168
Analysis Batch:180-127670					
180-39432-2	ST-UNNAMED-120114	T	Water	8270D LL	180-127168

Report Basis
T = Total

Report Basis
T = Total

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 180-127269					
LCS 180-127269/3-A	Lab Control Sample	T	Water	3510C	
LCSD 180-127269/4-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 180-127269/1-A	Method Blank	T	Water	3510C	
180-39432-1	ST-071-120114	T	Water	3510C	
180-39432-2	ST-UNNAMED-120114	T	Water	3510C	
180-39432-3	ST-018-120114	T	Water	3510C	
180-39432-4	ST-014-120114	T	Water	3510C	
Analysis Batch:180-128212					
LCS 180-127269/3-A	Lab Control Sample	T	Water	8082A	180-127269
LCSD 180-127269/4-A	Lab Control Sample Duplicate	T	Water	8082A	180-127269
MB 180-127269/1-A	Method Blank	T	Water	8082A	180-127269
180-39432-1	ST-071-120114	T	Water	8082A	180-127269
180-39432-2	ST-UNNAMED-120114	T	Water	8082A	180-127269
180-39432-3	ST-018-120114	T	Water	8082A	180-127269
180-39432-4	ST-014-120114	T	Water	8082A	180-127269

Report Basis

T = Total

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 180-127321					
LCS 180-127321/2-A	Lab Control Sample	R	Water	3005A	
MB 180-127321/1-A	Method Blank	R	Water	3005A	
180-39432-1	ST-071-120114	R	Water	3005A	
180-39432-1MS	Matrix Spike	R	Water	3005A	
180-39432-1MSD	Matrix Spike Duplicate	R	Water	3005A	
180-39432-2	ST-UNNAMED-120114	R	Water	3005A	
180-39432-3	ST-018-120114	R	Water	3005A	
180-39432-4	ST-014-120114	R	Water	3005A	
Prep Batch: 180-127920					
LCS 180-127920/2-A	Lab Control Sample	T	Water	7470A	
MB 180-127920/1-A	Method Blank	T	Water	7470A	
180-39432-1	ST-071-120114	T	Water	7470A	
180-39432-2	ST-UNNAMED-120114	T	Water	7470A	
180-39432-3	ST-018-120114	T	Water	7470A	
180-39432-4	ST-014-120114	T	Water	7470A	
Analysis Batch:180-128044					
LCS 180-127321/2-A	Lab Control Sample	R	Water	6020A	180-127321
MB 180-127321/1-A	Method Blank	R	Water	6020A	180-127321
180-39432-1	ST-071-120114	R	Water	6020A	180-127321
180-39432-1MS	Matrix Spike	R	Water	6020A	180-127321
180-39432-1MSD	Matrix Spike Duplicate	R	Water	6020A	180-127321
180-39432-2	ST-UNNAMED-120114	R	Water	6020A	180-127321
180-39432-3	ST-018-120114	R	Water	6020A	180-127321
180-39432-4	ST-014-120114	R	Water	6020A	180-127321
Analysis Batch:180-128046					
LCS 180-127920/2-A	Lab Control Sample	T	Water	7470A	180-127920
MB 180-127920/1-A	Method Blank	T	Water	7470A	180-127920
180-39432-1	ST-071-120114	T	Water	7470A	180-127920
180-39432-2	ST-UNNAMED-120114	T	Water	7470A	180-127920
180-39432-3	ST-018-120114	T	Water	7470A	180-127920
180-39432-4	ST-014-120114	T	Water	7470A	180-127920

Report Basis

R = Total Recoverable

T = Total

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:180-127233					
LCS 180-127233/1	Lab Control Sample	T	Water	SM 2540D	
MB 180-127233/2	Method Blank	T	Water	SM 2540D	
180-39432-1	ST-071-120114	T	Water	SM 2540D	
180-39432-2	ST-UNNAMED-120114	T	Water	SM 2540D	
180-39432-3	ST-018-120114	T	Water	SM 2540D	
180-39432-4	ST-014-120114	T	Water	SM 2540D	
Prep Batch: 180-127665					
HLCS 180-127665/2-A	High Level Control Sample	T	Water	9010C	
LCS 180-127665/3-A	Lab Control Sample	T	Water	9010C	
LLCS 180-127665/1-A	Low Level Control Sample	T	Water	9010C	
MB 180-127665/4-A	Method Blank	T	Water	9010C	
180-39432-1	ST-071-120114	T	Water	9010C	
180-39432-2	ST-UNNAMED-120114	T	Water	9010C	
180-39432-3	ST-018-120114	T	Water	9010C	
180-39432-4	ST-014-120114	T	Water	9010C	
Analysis Batch:180-127728					
HLCS 180-127665/2-A	High Level Control Sample	T	Water	9014	180-127665
LCS 180-127665/3-A	Lab Control Sample	T	Water	9014	180-127665
LLCS 180-127665/1-A	Low Level Control Sample	T	Water	9014	180-127665
MB 180-127665/4-A	Method Blank	T	Water	9014	180-127665
180-39432-1	ST-071-120114	T	Water	9014	180-127665
180-39432-2	ST-UNNAMED-120114	T	Water	9014	180-127665
180-39432-3	ST-018-120114	T	Water	9014	180-127665
180-39432-4	ST-014-120114	T	Water	9014	180-127665
Prep Batch: 180-127729					
LCS 180-127729/2-A	Lab Control Sample	T	Water	1664B	
LCSD 180-127729/3-A	Lab Control Sample Duplicate	T	Water	1664B	
MB 180-127729/1-A	Method Blank	T	Water	1664B	
180-39432-1	ST-071-120114	T	Water	1664B	
180-39432-2	ST-UNNAMED-120114	T	Water	1664B	
180-39432-3	ST-018-120114	T	Water	1664B	
180-39432-4	ST-014-120114	T	Water	1664B	
Analysis Batch:180-127859					
LCS 180-127729/2-A	Lab Control Sample	T	Water	1664B	180-127729
LCSD 180-127729/3-A	Lab Control Sample Duplicate	T	Water	1664B	180-127729
MB 180-127729/1-A	Method Blank	T	Water	1664B	180-127729
180-39432-1	ST-071-120114	T	Water	1664B	180-127729
180-39432-2	ST-UNNAMED-120114	T	Water	1664B	180-127729
180-39432-3	ST-018-120114	T	Water	1664B	180-127729
180-39432-4	ST-014-120114	T	Water	1664B	180-127729

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis

T = Total

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Laboratory Chronicle

Lab ID: 180-39432-1 **Client ID: ST-071-120114**

Sample Date/Time: 12/01/2014 17:35 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-39432-L-1		180-127589		12/08/2014 19:29	1	TAL PIT	PJJ
A:8260C	180-39432-L-1		180-127589		12/08/2014 19:29	1	TAL PIT	PJJ
P:3520C	180-39432-E-1-A		180-127527	180-127168	12/04/2014 07:15	1	TAL PIT	BJT
A:8270D LL	180-39432-E-1-A		180-127527	180-127168	12/08/2014 15:44	1	TAL PIT	VVP
P:3510C	180-39432-A-1-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	180-39432-A-1-A		180-128212	180-127269	12/13/2014 15:50	1	TAL PIT	JMO
P:3005A	180-39432-I-1-A		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-1-A		180-128044	180-127321	12/11/2014 10:13	1	TAL PIT	CNF
P:7470A	180-39432-I-1-D		180-128046	180-127920	12/11/2014 06:05	1	TAL PIT	RJR
A:7470A	180-39432-I-1-D		180-128046	180-127920	12/11/2014 12:56	1	TAL PIT	RJR
P:1664B	180-39432-C-1-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	180-39432-C-1-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK
P:9010C	180-39432-H-1-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	180-39432-H-1-A		180-127728	180-127665	12/09/2014 13:42	1	TAL PIT	PGJ
A:SM 2540D	180-39432-G-1		180-127233		12/04/2014 11:35	1	TAL PIT	JWS

Lab ID: 180-39432-1 MS **Client ID: ST-071-120114**

Sample Date/Time: 12/01/2014 17:35 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-39432-I-1-B MS		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-1-B MS		180-128044	180-127321	12/11/2014 10:20	1	TAL PIT	CNF

Lab ID: 180-39432-1 MSD **Client ID: ST-071-120114**

Sample Date/Time: 12/01/2014 17:35 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-39432-I-1-C MSD		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-1-C MSD		180-128044	180-127321	12/11/2014 10:24	1	TAL PIT	CNF

Lab ID: 180-39432-1 SD **Client ID: ST-071-120114**

Sample Date/Time: 12/01/2014 17:35 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	180-39432-I-1-A SD ^5		180-128044	180-127321	12/05/2014 06:45	5	TAL PIT	RJR
A:6020A	180-39432-I-1-A SD ^5		180-128044	180-127321	12/11/2014 10:16	5	TAL PIT	CNF
P:3005A	180-39432-I-1-A PDS		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-1-A PDS		180-128044	180-127321	12/11/2014 10:37	1	TAL PIT	CNF

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Laboratory Chronicle

Lab ID: 180-39432-2 **Client ID: ST-UNNAMED-120114**

Sample Date/Time: 12/01/2014 18:25 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-39432-M-2		180-127589		12/08/2014 19:56	1	TAL PIT	PJJ
A:8260C	180-39432-M-2		180-127589		12/08/2014 19:56	1	TAL PIT	PJJ
P:3520C	180-39432-E-2-A		180-127670	180-127168	12/04/2014 07:15	1	TAL PIT	BJT
A:8270D LL	180-39432-E-2-A		180-127670	180-127168	12/09/2014 16:49	1	TAL PIT	VVP
P:3510C	180-39432-A-2-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	180-39432-A-2-A		180-128212	180-127269	12/13/2014 16:09	1	TAL PIT	JMO
P:3005A	180-39432-I-2-A		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-2-A		180-128044	180-127321	12/11/2014 10:40	1	TAL PIT	CNF
P:7470A	180-39432-I-2-B		180-128046	180-127920	12/11/2014 06:05	1	TAL PIT	RJR
A:7470A	180-39432-I-2-B		180-128046	180-127920	12/11/2014 12:57	1	TAL PIT	RJR
P:1664B	180-39432-C-2-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	180-39432-C-2-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK
P:9010C	180-39432-H-2-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	180-39432-H-2-A		180-127728	180-127665	12/09/2014 13:44	1	TAL PIT	PGJ
A:SM 2540D	180-39432-G-2		180-127233		12/04/2014 11:35	1	TAL PIT	JWS

Lab ID: 180-39432-3 **Client ID: ST-018-120114**

Sample Date/Time: 12/01/2014 18:50 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-39432-L-3		180-127589		12/08/2014 20:22	1	TAL PIT	PJJ
A:8260C	180-39432-L-3		180-127589		12/08/2014 20:22	1	TAL PIT	PJJ
P:3520C	180-39432-E-3-A		180-127527	180-127168	12/04/2014 07:15	1	TAL PIT	BJT
A:8270D LL	180-39432-E-3-A		180-127527	180-127168	12/08/2014 16:41	1	TAL PIT	VVP
P:3510C	180-39432-A-3-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	180-39432-A-3-A		180-128212	180-127269	12/13/2014 16:29	1	TAL PIT	JMO
P:3005A	180-39432-I-3-A		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-3-A		180-128044	180-127321	12/11/2014 10:44	1	TAL PIT	CNF
P:7470A	180-39432-I-3-B		180-128046	180-127920	12/11/2014 06:05	1	TAL PIT	RJR
A:7470A	180-39432-I-3-B		180-128046	180-127920	12/11/2014 12:59	1	TAL PIT	RJR
P:1664B	180-39432-C-3-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	180-39432-C-3-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK
P:9010C	180-39432-H-3-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	180-39432-H-3-A		180-127728	180-127665	12/09/2014 13:46	1	TAL PIT	PGJ
A:SM 2540D	180-39432-G-3		180-127233		12/04/2014 11:35	1	TAL PIT	JWS

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Laboratory Chronicle

Lab ID: 180-39432-4 **Client ID: ST-014-120114**

Sample Date/Time: 12/01/2014 19:20 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-39432-L-4		180-127589		12/08/2014 20:49	1	TAL PIT	PJJ
A:8260C	180-39432-L-4		180-127589		12/08/2014 20:49	1	TAL PIT	PJJ
P:3520C	180-39432-E-4-A		180-127527	180-127168	12/04/2014 07:17	1	TAL PIT	BJT
A:8270D LL	180-39432-E-4-A		180-127527	180-127168	12/08/2014 17:09	1	TAL PIT	VVP
P:3510C	180-39432-A-4-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	180-39432-A-4-A		180-128212	180-127269	12/13/2014 16:48	1	TAL PIT	JMO
P:3005A	180-39432-I-4-A		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	180-39432-I-4-A		180-128044	180-127321	12/11/2014 10:47	1	TAL PIT	CNF
P:7470A	180-39432-I-4-B		180-128046	180-127920	12/11/2014 06:05	1	TAL PIT	RJR
A:7470A	180-39432-I-4-B		180-128046	180-127920	12/11/2014 13:01	1	TAL PIT	RJR
P:1664B	180-39432-C-4-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	180-39432-C-4-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK
P:9010C	180-39432-H-4-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	180-39432-H-4-A		180-127728	180-127665	12/09/2014 13:48	1	TAL PIT	PGJ
A:SM 2540D	180-39432-G-4		180-127233		12/04/2014 11:35	1	TAL PIT	JWS

Lab ID: 180-39432-5 **Client ID: TRIP BLANK**

Sample Date/Time: 12/01/2014 00:00 Received Date/Time: 12/03/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-39432-C-5		180-127589		12/08/2014 19:03	1	TAL PIT	PJJ
A:8260C	180-39432-C-5		180-127589		12/08/2014 19:03	1	TAL PIT	PJJ

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 180-127589/6		180-127589		12/08/2014 15:06	1	TAL PIT	PJJ
A:8260C	MB 180-127589/6		180-127589		12/08/2014 15:06	1	TAL PIT	PJJ
P:3520C	MB 180-127168/1-A		180-127527	180-127168	12/04/2014 07:15	1	TAL PIT	BJT
A:8270D LL	MB 180-127168/1-A		180-127527	180-127168	12/08/2014 11:58	1	TAL PIT	VVP
P:3510C	MB 180-127269/1-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	MB 180-127269/1-A		180-128212	180-127269	12/13/2014 15:30	1	TAL PIT	JMO
P:3005A	MB 180-127321/1-A		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	MB 180-127321/1-A		180-128044	180-127321	12/11/2014 09:52	1	TAL PIT	CNF
P:7470A	MB 180-127920/1-A		180-128046	180-127920	12/11/2014 06:05	1	TAL PIT	RJR
A:7470A	MB 180-127920/1-A		180-128046	180-127920	12/11/2014 12:29	1	TAL PIT	RJR
P:1664B	MB 180-127729/1-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	MB 180-127729/1-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK
P:9010C	MB 180-127665/4-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	MB 180-127665/4-A		180-127728	180-127665	12/09/2014 13:14	1	TAL PIT	PGJ
A:SM 2540D	MB 180-127233/2		180-127233		12/04/2014 11:35	1	TAL PIT	JWS

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Laboratory Chronicle

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 180-127589/11		180-127589		12/08/2014 17:17	1	TAL PIT	PJJ
A:8260C	LCS 180-127589/11		180-127589		12/08/2014 17:17	1	TAL PIT	PJJ
P:3520C	LCS 180-127168/2-A		180-127527	180-127168	12/04/2014 07:15	1	TAL PIT	BJT
A:8270D LL	LCS 180-127168/2-A		180-127527	180-127168	12/08/2014 12:26	1	TAL PIT	VVP
P:3510C	LCS 180-127269/3-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	LCS 180-127269/3-A		180-128212	180-127269	12/13/2014 17:28	1	TAL PIT	JMO
P:3005A	LCS 180-127321/2-A		180-128044	180-127321	12/05/2014 06:45	1	TAL PIT	RJR
A:6020A	LCS 180-127321/2-A		180-128044	180-127321	12/11/2014 09:55	1	TAL PIT	CNF
P:7470A	LCS 180-127920/2-A		180-128046	180-127920	12/11/2014 06:05	1	TAL PIT	RJR
A:7470A	LCS 180-127920/2-A		180-128046	180-127920	12/11/2014 12:31	1	TAL PIT	RJR
P:1664B	LCS 180-127729/2-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	LCS 180-127729/2-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK
P:9010C	LCS 180-127665/3-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	LCS 180-127665/3-A		180-127728	180-127665	12/09/2014 13:12	1	TAL PIT	PGJ
A:SM 2540D	LCS 180-127233/1		180-127233		12/04/2014 11:35	1	TAL PIT	JWS

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:3520C	LCSD 180-127168/3-A		180-127527	180-127168	12/04/2014 07:15	1	TAL PIT	BJT
A:8270D LL	LCSD 180-127168/3-A		180-127527	180-127168	12/08/2014 12:54	1	TAL PIT	VVP
P:3510C	LCSD 180-127269/4-A		180-128212	180-127269	12/04/2014 11:50	1	TAL PIT	CBY
A:8082A	LCSD 180-127269/4-A		180-128212	180-127269	12/13/2014 17:47	1	TAL PIT	JMO
P:1664B	LCSD 180-127729/3-A		180-127859	180-127729	12/09/2014 15:31	1	TAL PIT	NAK
A:1664B	LCSD 180-127729/3-A		180-127859	180-127729	12/10/2014 12:07	1	TAL PIT	NAK

Lab ID: LLCS **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:9010C	LLCS 180-127665/1-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	LLCS 180-127665/1-A		180-127728	180-127665	12/09/2014 13:07	1	TAL PIT	PGJ

Client: EA Engineering, Science, and Technology Job Number: 180-39432-1

Laboratory Chronicle

Lab ID: **HLCS** **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:9010C	HLCS 180-127665/2-A		180-127728	180-127665	12/09/2014 08:45	1	TAL PIT	PGJ
A:9014	HLCS 180-127665/2-A		180-127728	180-127665	12/09/2014 13:09	1	TAL PIT	PGJ

Lab References:
TAL PIT = TestAmerica Pittsburgh

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
GCAR1232CALL4_00007	03/15/15	07/11/14	Hexane, Lot 1241508	250 mL	GCPCBI1232STD_00003	0.125 mL	PCB-1232 Peak 1	0.5 ug/mL
							PCB-1232 Peak 2	0.5 ug/mL
							PCB-1232 Peak 3	0.5 ug/mL
							PCB-1232 Peak 4	0.5 ug/mL
							PCB-1232 Peak 5	0.5 ug/mL
.GCPCBI1232STD_00003	11/30/18		RESTEK, Lot A090290		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
GCAR1242CALL4_00007	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1242STD_00003	0.05 mL	PCB-1242 Peak 1	0.5 ug/mL
							PCB-1242 Peak 2	0.5 ug/mL
							PCB-1242 Peak 3	0.5 ug/mL
							PCB-1242 Peak 4	0.5 ug/mL
							PCB-1242 Peak 5	0.5 ug/mL
.GCPCBI1242STD_00003	11/30/18		RESTEK, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
GCAR1248CALL4_00008	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1248STD_00003	0.05 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
.GCPCBI1248STD_00003	04/30/19		RESTEK, Lot A092864		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
GCAR1660CALL1_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	0.02 mL	PCB-1016 Peak 1	0.01 ug/mL
							PCB-1016 Peak 2	0.01 ug/mL
							PCB-1016 Peak 3	0.01 ug/mL
							PCB-1016 Peak 4	0.01 ug/mL
							PCB-1016 Peak 5	0.01 ug/mL
							PCB-1260 Peak 1	0.01 ug/mL
							PCB-1260 Peak 2	0.01 ug/mL
							PCB-1260 Peak 3	0.01 ug/mL
							PCB-1260 Peak 4	0.01 ug/mL
							PCB-1260 Peak 5	0.01 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.0005 ug/mL
							Tetrachloro-m-xylene (Surr)	0.0005 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL2_00009	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	0.1 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.0025 ug/mL
							Tetrachloro-m-xylene (Surr)	0.0025 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL3_00008	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	0.4 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.01 ug/mL
							Tetrachloro-m-xylene (Surr)	0.01 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL4_00008	03/31/15	09/29/14	HEAXANE, Lot 1305300	400 mL	GC1660WORKS_00011	2 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.025 ug/mL
							Tetrachloro-m-xylene (Surr)	0.025 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL5_00009	03/31/15	09/29/14	HEAXNE, Lot 1305300	400 mL	GC1660WORKS_00011	4 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.05 ug/mL
							Tetrachloro-m-xylene (Surr)	0.05 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL5_00009	03/31/15	09/29/14	HEAXNE, Lot 1305300	400 mL	GC1660WORKS_00011	4 mL	PCB-1016	1 ug/mL
							PCB-1260	1 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016	100 ug/mL
							PCB-1260	100 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016	1000 ug/mL
							PCB-1260	1000 ug/mL
GCAR1660CALL6_00007	03/31/15	09/29/14	Hexane, Lot 1305300	200 mL	GC1660WORKS_00011	4 mL	PCB-1016 Peak 1	2 ug/mL
							PCB-1016 Peak 2	2 ug/mL
							PCB-1016 Peak 3	2 ug/mL
							PCB-1016 Peak 4	2 ug/mL
							PCB-1016 Peak 5	2 ug/mL
							PCB-1260 Peak 1	2 ug/mL
							PCB-1260 Peak 2	2 ug/mL
							PCB-1260 Peak 3	2 ug/mL
							PCB-1260 Peak 4	2 ug/mL
							PCB-1260 Peak 5	2 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.1 ug/mL
							Tetrachloro-m-xylene (Surr)	0.1 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL7_00008	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	8 mL	PCB-1016 Peak 1	4 ug/mL
							PCB-1016 Peak 2	4 ug/mL
							PCB-1016 Peak 3	4 ug/mL
							PCB-1016 Peak 4	4 ug/mL
							PCB-1016 Peak 5	4 ug/mL
							PCB-1260 Peak 1	4 ug/mL
							PCB-1260 Peak 2	4 ug/mL
							PCB-1260 Peak 3	4 ug/mL
							PCB-1260 Peak 4	4 ug/mL
							PCB-1260 Peak 5	4 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.2 ug/mL
							Tetrachloro-m-xylene (Surr)	0.2 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR2154CALL1_00009	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1221STD_00002	0.001 mL	PCB-1221 Peak 1	0.01 ug/mL
							PCB-1221 Peak 2	0.01 ug/mL
							PCB-1221 Peak 3	0.01 ug/mL
					GCPCBI1254STD_00003	0.001 mL	PCB-1254 Peak 1	0.01 ug/mL
							PCB-1254 Peak 2	0.01 ug/mL
							PCB-1254 Peak 3	0.01 ug/mL
							PCB-1254 Peak 4	0.01 ug/mL
							PCB-1254 Peak 5	0.01 ug/mL
.GCPCBI1221STD_00002	12/30/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
.GCPCBI1254STD_00003	02/28/19		RESTEK, Lot A092005		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
GCAR2154CALL2_00007	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1221STD_00002	0.01 mL	PCB-1221 Peak 1	0.1 ug/mL
							PCB-1221 Peak 2	0.1 ug/mL
							PCB-1221 Peak 3	0.1 ug/mL
					GCPCBI1254STD_00003	0.01 mL	PCB-1254 Peak 1	0.1 ug/mL
							PCB-1254 Peak 2	0.1 ug/mL
							PCB-1254 Peak 3	0.1 ug/mL
							PCB-1254 Peak 4	0.1 ug/mL
							PCB-1254 Peak 5	0.1 ug/mL
.GCPCBI1221STD_00002	12/30/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
.GCPCBI1254STD_00003	02/28/19		RESTEK, Lot A092005		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
GCAR2154CALL3_00007	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1221STD_00002	0.025 mL	PCB-1221 Peak 1	0.25 ug/mL
							PCB-1221 Peak 2	0.25 ug/mL
							PCB-1221 Peak 3	0.25 ug/mL
					GCPCBI1254STD_00003	0.025 mL	PCB-1254 Peak 1	0.25 ug/mL
							PCB-1254 Peak 2	0.25 ug/mL
							PCB-1254 Peak 3	0.25 ug/mL
							PCB-1254 Peak 4	0.25 ug/mL
							PCB-1254 Peak 5	0.25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.GCPCBI1221STD_00002	12/30/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
.GCPCBI1254STD_00003	02/28/19		RESTEK, Lot A092005		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
GCAR2154CALL4_00007	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1221STD_00002	0.05 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
					GCPCBI1254STD_00003	0.05 mL	PCB-1254 Peak 1	0.5 ug/mL
							PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
.GCPCBI1221STD_00002	12/30/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
.GCPCBI1254STD_00003	02/28/19		RESTEK, Lot A092005		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
GCAR2154CALL5_00007	03/15/15	07/11/14	Hexane, Lot 1241508	250 mL	GCPCBI1221STD_00002	0.25 mL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
					GCPCBI1254STD_00003	0.25 mL	PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
.GCPCBI1221STD_00002	12/30/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
.GCPCBI1254STD_00003	02/28/19		RESTEK, Lot A092005		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
GCMATRIXWORKS_00011	03/11/15	07/11/14	ACETONE, Lot 1078945/JT BAKER	250 mL	GCMATRIXSPK_00001	1 mL	PCB-1016	40 ug/mL
							PCB-1260	40 ug/mL
.GCMATRIXSPK_00001	09/30/17		RESTEK, Lot A076606		(Purchased Reagent)		PCB-1016	10000 ug/mL
							PCB-1260	10000 ug/mL
MCCV1X_00069	12/18/14	11/18/14	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00005	10 mL	Arsenic	0.1 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Beryllium	0.1 ppm
							Cadmium	0.1 ppm
							Chromium	0.1 ppm
							Copper	0.1 ppm
							Lead	0.1 ppm
							Nickel	0.1 ppm
							Selenium	0.1 ppm
							Silver	0.1 ppm
							Thallium	0.1 ppm
							Zinc	0.1 ppm
					MCALSPECB_00007	10 mL	Antimony	0.1 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Arsenic	5 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	5 ppm
							Nickel	5 ppm
							Selenium	5 ppm
							Silver	5 ppm
							Thallium	5 ppm
							Zinc	5 ppm
.MCALSPECB_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524027			(Purchased Reagent)		Antimony	5 ppm
MCRIX_00058	12/19/14	11/19/14	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00004	1 mL	Arsenic	0.001 ppm
							Beryllium	0.001 ppm
							Cadmium	0.001 ppm
							Chromium	0.002 ppm
							Copper	0.002 ppm
							Lead	0.001 ppm
							Nickel	0.001 ppm
							Selenium	0.005 ppm
							Silver	0.001 ppm
							Thallium	0.001 ppm
							Zinc	0.005 ppm
					MMSCRI-2_00006	1 mL	Antimony	0.002 ppm
.MMSCRI-1B_00004	10/01/15	Inorganic Ventures, Lot H2-MEB549023			(Purchased Reagent)		Arsenic	0.25 ppm
							Beryllium	0.25 ppm
							Cadmium	0.25 ppm
							Chromium	0.5 ppm
							Copper	0.5 ppm
							Lead	0.25 ppm
							Nickel	0.25 ppm
							Selenium	1.25 ppm
							Silver	0.25 ppm
							Thallium	0.25 ppm
							Zinc	1.25 ppm
.MMSCRI-2_00006	10/01/15	Inorganic Ventures, Lot H2-MEB549024			(Purchased Reagent)		Antimony	0.5 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MHgworkingCal_00938	12/12/14	12/11/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntcal_00072	1 mL	Mercury	100 ppb
.MHgIntcal_00072	12/14/14	11/14/14	2% Nitric Acid, Lot 0000072716	100 mL	MCGHG1-1_00008	1 mL	Mercury	10 ppm
..MCGHG1-1_00008	02/01/15	inorganic ventures, Lot F2-HG02105			(Purchased Reagent)		Mercury	1000 ppm
MHgWorkingicv_00915	12/12/14	12/11/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntICV_00056	1 mL	Mercury	100 ppb
.MHgIntICV_00056	12/14/14	11/14/14	2% Nitric Acid, Lot 0000072716	100 mL	MHGICV-1_00005	1 mL	Mercury	10 ppm
..MHGICV-1_00005	07/31/15	ULTRA SCIENTIFIC, Lot T00602			(Purchased Reagent)		Mercury	1000 ppm
MICSABX_00064	01/05/15	12/05/14	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Arsenic	0.02 ppm
							Cadmium	0.02 ppm
							Chromium	0.02 ppm
							Co	0.02 ppm
							Copper	0.02 ppm
							Mn	0.0225 ppm
							Nickel	0.02 ppm
							Silver	0.02 ppm
							Zinc	0.025 ppm
					MMSICSAB-1_00007	0.2 mL	Ba	0.02 ppm
							Beryllium	0.02 ppm
							Lead	0.02 ppm
							Sr	0.025 ppm
							Thallium	0.02 ppm
							V	0.02 ppm
					MMSICSAB-2_00006	0.2 mL	Antimony	0.02 ppm
							B	0.05 ppm
							Selenium	0.05 ppm
							Si	0.5 ppm
							Sn	0.1 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
							Na	1000 ppm
							Ti	20 ppm
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151			(Purchased Reagent)		Arsenic	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cadmium	2 ppm
							Chromium	2 ppm
							Co	2 ppm
							Copper	2 ppm
							Mn	2.25 ppm
							Nickel	2 ppm
							Silver	2 ppm
							Zinc	2.5 ppm
.MMSICSAB-1_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524028			(Purchased Reagent)		Ba	10 ppm
							Beryllium	10 ppm
							Lead	10 ppm
							Sr	12.5 ppm
							Thallium	10 ppm
							V	10 ppm
.MMSICSAB-2_00006	05/01/15	Inorganic Ventures, Lot G2-MEB467043			(Purchased Reagent)		Antimony	10 ppm
							B	25 ppm
							Selenium	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00060	01/05/15	12/05/14	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
							Na	1000 ppm
							Ti	20 ppm
MICVX_00026	01/02/15	12/02/14	2% Nitric Acid, Lot 25106	250 mg/L	MICPMSICV_00018	10 mg/L	Antimony	0.08 mg/L
							Arsenic	0.08 mg/L
							Beryllium	0.08 mg/L
							Cadmium	0.08 mg/L
							Chromium	0.08 mg/L
							Copper	0.08 mg/L
							Lead	0.08 mg/L
							Nickel	0.08 mg/L
							Selenium	0.08 mg/L
							Silver	0.08 mg/L
							Thallium	0.08 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zinc	0.08 mg/L
.MICPMSICV_00018	11/30/15	SPEX CertiPrep, Lot 7-230WL			(Purchased Reagent)		Antimony	2 ppm
							Arsenic	2 ppm
							Beryllium	2 ppm
							Cadmium	2 ppm
							Chromium	2 ppm
							Copper	2 ppm
							Lead	2 ppm
							Nickel	2 ppm
							Selenium	2 ppm
							Silver	2 ppm
							Thallium	2 ppm
							Zinc	2 ppm
MSTD2X_00039	12/18/14	11/18/14	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Arsenic	0.2 ppm
							Beryllium	0.2 ppm
							Cadmium	0.2 ppm
							Chromium	0.2 ppm
							Copper	0.2 ppm
							Lead	0.2 ppm
							Nickel	0.2 ppm
							Selenium	0.2 ppm
							Silver	0.2 ppm
							Thallium	0.2 ppm
							Zinc	0.2 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Arsenic	5 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	5 ppm
							Nickel	5 ppm
							Selenium	5 ppm
							Silver	5 ppm
							Thallium	5 ppm
							Zinc	5 ppm
MSTD3X_00040	12/18/14	11/18/14	2% Nitric Acid, Lot 1241747	250 mL	MCALSPECB_00007	10 mg/L	Antimony	0.2 ppm
.MCALSPECB_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524027			(Purchased Reagent)		Antimony	5 ppm
MTAPITTICPMS_00018	04/01/15	INORGANIC VENTURES, Lot G2-MEB506053			(Purchased Reagent)		Al	200 ug/mL
							Arsenic	4 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Beryllium	5 ug/mL
							Cadmium	5 ug/mL
							Chromium	20 ug/mL
							Co	50 ug/mL
							Copper	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fe	100 ug/mL
							Lead	2 ug/mL
							Mn	50 ug/mL
							Nickel	50 ug/mL
							Selenium	1 ug/mL
							Silver	5 ug/mL
							Sr	100 ug/mL
							Thallium	5 ug/mL
							V	50 ug/mL
							Zinc	50 ug/mL
MTAPITTMSA_00022	10/01/15		INORGANIC VENTURES, Lot H2-MEB532044		(Purchased Reagent)		Ca	5000 ug/mL
							K	5000 ug/mL
							Mg	5000 ug/mL
							Na	5000 ug/mL
MTAPITTMSC_00028	10/01/15		Inorganic Ventures, Lot H2-MEB532046		(Purchased Reagent)		Antimony	50 ug/mL
							Mo	100 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
OP/PESTPCBRTS_00002	12/31/16		RESTEK, Lot A0100240		(Purchased Reagent)		DCB Decachlorobiphenyl	0.2 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.2 ug/mL
							Tetrachloro-m-xylene (Surr)	0.2 ug/mL
OPLVISPKMIX1i_00032	04/28/15	10/28/14	Methanol, Lot 0000038701	100 mL	SVLVstd1_00021	20 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Hexadecane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							Methyl Phenols,Total	400 ug/mL
							n-Decane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							n-Octadecane	200 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
							Total Cresols	400 ug/mL
					SVLVstd2_00008	10 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Atrazine	200 ug/mL
							Benzidine	200 ug/mL
							Caprolactam	200 ug/mL
					SVLVstd7_00001	10 mL	N-Nitrosodiphenylamine	200 ug/mL
					SVLVstd8_00004	10 mL	Benzaldehyde	200 ug/mL
							Benzoic acid	200 ug/mL
							Indene	200 ug/mL
.SVLVstd1_00021	05/31/15		Restek, Lot A099449		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							Methyl Phenols,Total	2000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
							Total Cresols	2000 ug/mL
.SVLVstd2_00008	07/31/15		Restek, Lot A0100416		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
.SVLVstd7_00001	12/31/16		Restek, Lot A099909		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
.SVLVstd8_00004	04/30/15		Restek, Lot A0100635		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
OPQL8270SURi_00025	05/13/15	11/13/14	Methanol, Lot b#0000049909	500 mL	SVLVSURRSPK_00006	20 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
.SVLVSURRSPK_00006	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SVTAPSTD0.4i_00007	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	5 uL	Benzo[e]pyrene	0.2 ug/mL
							2-Naphthylamine	0.2 ug/mL
							2,3,5,6-Tetrachlorophenol	0.2 ug/mL
							2,6-Dichlorophenol	0.2 ug/mL
							7,12-Dimethylbenz(a)anthracene	0.2 ug/mL
							Methyl methanesulfonate	0.2 ug/mL
							1,1'-Biphenyl	0.2 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.2 ug/mL
							1,2,4-Trichlorobenzene	0.2 ug/mL
							1,2-Dichlorobenzene	0.2 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	0.2 ug/mL
							1,3-Dichlorobenzene	0.2 ug/mL
							1,3-Dinitrobenzene	0.2 ug/mL
							1,4-Dichlorobenzene	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	0.2 ug/mL
							1-Methylnaphthalene	0.2 ug/mL
							2,2'-oxybis[1-chloropropane]	0.2 ug/mL
							2,3,4,6-Tetrachlorophenol	0.2 ug/mL
							2,4,5-Trichlorophenol	0.2 ug/mL
							2,4,6-Trichlorophenol	0.2 ug/mL
							2,4-Dichlorophenol	0.2 ug/mL
							2,4-Dimethylphenol	0.2 ug/mL
							2,4-Dinitrophenol	0.4 ug/mL
							2,4-Dinitrotoluene	0.2 ug/mL
							2,6-Dinitrotoluene	0.2 ug/mL
							2-Chloronaphthalene	0.2 ug/mL
							2-Chlorophenol	0.2 ug/mL
							2-Methylnaphthalene	0.2 ug/mL
							2-Methylphenol	0.2 ug/mL
							2-Nitroaniline	0.2 ug/mL
							2-Nitrophenol	0.2 ug/mL
							3-Nitroaniline	0.2 ug/mL
							4,6-Dinitro-2-methylphenol	0.4 ug/mL
							4-Bromophenyl phenyl ether	0.2 ug/mL
							4-Chloro-3-methylphenol	0.2 ug/mL
							4-Chloroaniline	0.2 ug/mL
							4-Chlorophenyl phenyl ether	0.2 ug/mL
							4-Methylphenol	0.2 ug/mL
							4-Nitroaniline	0.2 ug/mL
							4-Nitrophenol	0.4 ug/mL
							Acenaphthene	0.2 ug/mL
							Acenaphthylene	0.2 ug/mL
							Acetophenone	0.2 ug/mL
							Aniline	0.2 ug/mL
							Anthracene	0.2 ug/mL
							Benzo[a]anthracene	0.2 ug/mL
							Benzo[a]pyrene	0.2 ug/mL
							Benzo[b]fluoranthene	0.2 ug/mL
							Benzo[g,h,i]perylene	0.2 ug/mL
							Benzo[k]fluoranthene	0.2 ug/mL
							Benzyl alcohol	0.2 ug/mL
							Bis(2-chloroethoxy)methane	0.2 ug/mL
							Bis(2-chloroethyl)ether	0.2 ug/mL
							Bis(2-ethylhexyl) phthalate	0.2 ug/mL
							Butyl benzyl phthalate	0.2 ug/mL
							Carbazole	0.2 ug/mL
							Chrysene	0.2 ug/mL
							Di-n-butyl phthalate	0.2 ug/mL
							Di-n-octyl phthalate	0.2 ug/mL
							Dibenz(a,h)anthracene	0.2 ug/mL
							Dibenzofuran	0.2 ug/mL
							Diethyl phthalate	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	0.2 ug/mL
							Fluoranthene	0.2 ug/mL
							Fluorene	0.2 ug/mL
							Hexachlorobenzene	0.2 ug/mL
							Hexachlorobutadiene	0.2 ug/mL
							Hexachlorocyclopentadiene	0.2 ug/mL
							Hexachloroethane	0.2 ug/mL
							Hexadecane	0.2 ug/mL
							Indeno[1,2,3-cd]pyrene	0.2 ug/mL
							Isophorone	0.2 ug/mL
							n-Decane	0.2 ug/mL
							N-Nitrosodi-n-propylamine	0.2 ug/mL
							N-Nitrosodimethylamine	0.2 ug/mL
							n-Octadecane	0.2 ug/mL
							Naphthalene	0.2 ug/mL
							Nitrobenzene	0.2 ug/mL
							Pentachlorophenol	0.4 ug/mL
							Phenanthrene	0.2 ug/mL
							Phenol	0.2 ug/mL
							Pyrene	0.2 ug/mL
							Pyridine	0.2 ug/mL
							3,3'-Dichlorobenzidine	0.2 ug/mL
							Atrazine	0.2 ug/mL
							Benzidine	0.2 ug/mL
							Caprolactam	0.2 ug/mL
							N-Nitrosodiphenylamine	0.2 ug/mL
							Benzaldehyde	0.2 ug/mL
							Benzoic acid	0.2 ug/mL
							Indene	0.2 ug/mL
							2,4,6-Tribromophenol (Surr)	0.2 ug/mL
							2-Fluorobiphenyl	0.2 ug/mL
							2-Fluorophenol (Surr)	0.2 ug/mL
							Nitrobenzene-d5 (Surr)	0.2 ug/mL
							Phenol-d5 (Surr)	0.2 ug/mL
							Terphenyl-d14 (Surr)	0.2 ug/mL
							N-Nitrosopyrrolidine	0.2 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15	Restek, Lot A0101615			(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17	absolute, Lot 060514			(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD10i_00079	11/25/14	11/18/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	125 uL	Benzo[e]pyrene	5 ug/mL
							2-Naphthylamine	5 ug/mL
							2,3,5,6-Tetrachlorophenol	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							7,12-Dimethylbenz(a)anthracene	5 ug/mL
							Methyl methanesulfonate	5 ug/mL
							1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Methylphenol	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3,3'-Dichlorobenzidine	5 ug/mL
							Atrazine	5 ug/mL
							Benzidine	5 ug/mL
							Caprolactam	5 ug/mL
							N-Nitrosodiphenylamine	5 ug/mL
							Benzaldehyde	5 ug/mL
							Benzoic acid	5 ug/mL
							Indene	5 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
							N-Nitrosopyrrolidine	5 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD10i_00081	12/11/14	12/04/14	MeCl2, Lot 1053215	1 mL	SVTAPITSTCKi_00004	125 uL	1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Nitrophenol	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							3,3'-Dichlorobenzidine	5 ug/mL
							Benzidine	5 ug/mL
							N-Nitrosodiphenylamine	5 ug/mL
							Benzoic acid	5 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	SVLVstd1_00026	800 uL	1,2,4-Trichlorobenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Nitrophenol	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzoic acid	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Diethyl phthalate	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SVTAPSTD2.0i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	25 uL	Benzo[e]pyrene	1 ug/mL
							2-Naphthylamine	1 ug/mL
							2,3,5,6-Tetrachlorophenol	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							7,12-Dimethylbenz(a)anthracene	1 ug/mL
							Methyl methanesulfonate	1 ug/mL
							1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Methylphenol	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Atrazine	1 ug/mL
							Benzidine	1 ug/mL
							Caprolactam	1 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
							N-Nitrosopyrrolidine	1 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15	Restek, Lot A0101615			(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17	absolute, Lot 060514			(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD20i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	250 uL	Benzo[e]pyrene	10 ug/mL
							2-Naphthylamine	10 ug/mL
							2,3,5,6-Tetrachlorophenol	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							7,12-Dimethylbenz(a)anthracene	10 ug/mL
							Methyl methanesulfonate	10 ug/mL
							1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3,3'-Dichlorobenzidine	10 ug/mL
							Atrazine	10 ug/mL
							Benzidine	10 ug/mL
							Caprolactam	10 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
							N-Nitrosopyrrolidine	10 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD4.0i_00006	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	50 uL	Benzo[e]pyrene	2 ug/mL
							2-Naphthylamine	2 ug/mL
							2,3,5,6-Tetrachlorophenol	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							7,12-Dimethylbenz(a)anthracene	2 ug/mL
							Methyl methanesulfonate	2 ug/mL
							1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Methylphenol	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Atrazine	2 ug/mL
							Benzidine	2 ug/mL
							Caprolactam	2 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
							N-Nitrosopyrrolidine	2 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15	Restek, Lot A0101615			(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15	Restek, Lot A0100824			(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD40i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	500 uL	Benzo[e]pyrene	20 ug/mL
							2-Naphthylamine	20 ug/mL
							2,3,5,6-Tetrachlorophenol	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							7,12-Dimethylbenz(a)anthracene	20 ug/mL
							Methyl methanesulfonate	20 ug/mL
							1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							n-Octadecane	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Atrazine	20 ug/mL
							Benzidine	20 ug/mL
							Caprolactam	20 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
							N-Nitrosopyrrolidine	20 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD60i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVTAPITSTCKi_00004	750 uL	Benzo[e]pyrene	30 ug/mL
							2-Naphthylamine	30 ug/mL
							2,3,5,6-Tetrachlorophenol	30 ug/mL
							2,6-Dichlorophenol	30 ug/mL
							7,12-Dimethylbenz(a)anthracene	30 ug/mL
							Methyl methanesulfonate	30 ug/mL
							1,1'-Biphenyl	30 ug/mL
							1,2,4,5-Tetrachlorobenzene	30 ug/mL
							1,2,4-Trichlorobenzene	30 ug/mL
							1,2-Dichlorobenzene	30 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	30 ug/mL
							1,3-Dichlorobenzene	30 ug/mL
							1,3-Dinitrobenzene	30 ug/mL
							1,4-Dichlorobenzene	30 ug/mL
							1,4-Dioxane	30 ug/mL
							1-Methylnaphthalene	30 ug/mL
							2,2'-oxybis[1-chloropropane]	30 ug/mL
							2,3,4,6-Tetrachlorophenol	30 ug/mL
							2,4,5-Trichlorophenol	30 ug/mL
							2,4,6-Trichlorophenol	30 ug/mL
							2,4-Dichlorophenol	30 ug/mL
							2,4-Dimethylphenol	30 ug/mL
							2,4-Dinitrophenol	60 ug/mL
							2,4-Dinitrotoluene	30 ug/mL
							2,6-Dinitrotoluene	30 ug/mL
							2-Chloronaphthalene	30 ug/mL
							2-Chlorophenol	30 ug/mL
							2-Methylnaphthalene	30 ug/mL
							2-Methylphenol	30 ug/mL
							2-Nitroaniline	30 ug/mL
							2-Nitrophenol	30 ug/mL
							3-Nitroaniline	30 ug/mL
							4,6-Dinitro-2-methylphenol	60 ug/mL
							4-Bromophenyl phenyl ether	30 ug/mL
							4-Chloro-3-methylphenol	30 ug/mL
							4-Chloroaniline	30 ug/mL
							4-Chlorophenyl phenyl ether	30 ug/mL
							4-Methylphenol	30 ug/mL
							4-Nitroaniline	30 ug/mL
							4-Nitrophenol	60 ug/mL
							Acenaphthene	30 ug/mL
							Acenaphthylene	30 ug/mL
							Acetophenone	30 ug/mL
							Aniline	30 ug/mL
							Anthracene	30 ug/mL
							Benzo[a]anthracene	30 ug/mL
							Benzo[a]pyrene	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	30 ug/mL
							Benzo[g,h,i]perylene	30 ug/mL
							Benzo[k]fluoranthene	30 ug/mL
							Benzyl alcohol	30 ug/mL
							Bis(2-chloroethoxy)methane	30 ug/mL
							Bis(2-chloroethyl)ether	30 ug/mL
							Bis(2-ethylhexyl) phthalate	30 ug/mL
							Butyl benzyl phthalate	30 ug/mL
							Carbazole	30 ug/mL
							Chrysene	30 ug/mL
							Di-n-butyl phthalate	30 ug/mL
							Di-n-octyl phthalate	30 ug/mL
							Dibenz(a,h)anthracene	30 ug/mL
							Dibenzofuran	30 ug/mL
							Diethyl phthalate	30 ug/mL
							Dimethyl phthalate	30 ug/mL
							Fluoranthene	30 ug/mL
							Fluorene	30 ug/mL
							Hexachlorobenzene	30 ug/mL
							Hexachlorobutadiene	30 ug/mL
							Hexachlorocyclopentadiene	30 ug/mL
							Hexachloroethane	30 ug/mL
							Hexadecane	30 ug/mL
							Indeno[1,2,3-cd]pyrene	30 ug/mL
							Isophorone	30 ug/mL
							n-Decane	30 ug/mL
							N-Nitrosodi-n-propylamine	30 ug/mL
							N-Nitrosodimethylamine	30 ug/mL
							n-Octadecane	30 ug/mL
							Naphthalene	30 ug/mL
							Nitrobenzene	30 ug/mL
							Pentachlorophenol	60 ug/mL
							Phenanthrene	30 ug/mL
							Phenol	30 ug/mL
							Pyrene	30 ug/mL
							Pyridine	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Atrazine	30 ug/mL
							Benzidine	30 ug/mL
							Caprolactam	30 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							2,4,6-Tribromophenol (Surr)	30 ug/mL
							2-Fluorobiphenyl	30 ug/mL
							2-Fluorophenol (Surr)	30 ug/mL
							Nitrobenzene-d5 (Surr)	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	30 ug/mL
							Terphenyl-d14 (Surr)	30 ug/mL
							N-Nitrosopyrrolidine	30 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD80i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	1000 uL	Benzo[e]pyrene	40 ug/mL
							2-Naphthylamine	40 ug/mL
							2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
							1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
							N-Nitrosopyrrolidine	40 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA2CEVEPRI_00008	10/23/14	10/16/14	Methanol, Lot 34562	10 mL	VOACEVERES_00050	0.25 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00050	02/28/16		Restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
VOA8260INT_00021	10/26/14	09/26/14	Methanol, Lot 34562	10 mL	VOA8260INTRES_00086	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Dioxane-d8 (IS)	500 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00086	02/28/18		Restek, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Dioxane-d8 (IS)	5000 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00017	06/27/15	06/27/14	Methanol, Lot 62345	100 mL	VOA8260SURRES_00046	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_00046	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_00093	12/10/14	12/03/14	Methanol, Lot 85233	8 mL	VOA8260GAS2ND_00084	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00092	1 mL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromoform	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methylene Chloride	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS2ND_00084	11/30/15		Restek, Lot A099261		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOA2ND_00092	01/02/15	12/02/14	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00028	1 mL	1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromoform	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chlorodibromomethane	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dichlorobromomethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methylene Chloride	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260MEGA2_00028	02/28/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00084	10/23/14	10/16/14	Methanol, Lot 34562	8 mL	VOA8260GAS1ST_00063	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_00083	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
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00063	02/28/15		Restek, Lot A093341		(Purchased Reagent)		Bromomethane	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00083	11/13/14	10/13/14	Methanol, Lot 62345	10 mL	VOA8260KET1ST_00026	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_00021	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
							Chlorobromomethane	200 ug/mL
							Chlorodibromomethane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00026	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_00021	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
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
VOA8260VOAPRI_00091	12/10/14	12/03/14	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00071	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00090	1 mL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromoform	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methylene Chloride	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00071	02/28/15		Restek, Lot A093341		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00090	01/02/15	12/02/14	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00017	1 mL	1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromoform	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chlorodibromomethane	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dichlorobromomethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methylene Chloride	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260MEGA1_00017	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOAACROPRI_00002	11/03/14	10/03/14	Methanol, Lot 34562	50 mL	VOAACRORES_00054	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00054	11/30/14		Restek, Lot A0104886		(Purchased Reagent)		Acrolein	20000 ug/mL
VOAACROPRI_00004	12/31/14	12/01/14	Methanol, Lot 34562	50 mL	VOAACRORES_00060	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00060	02/28/15		Restek, Lot A0106504		(Purchased Reagent)		Acrolein	20000 ug/mL
voaW2-clePri_00001	12/11/14	12/04/14	Methanol, Lot 85233	10 mL	VOACEVERES_00057	0.25 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00057	02/28/16		Restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
voaWap9 Pr Re_00001	10/21/14	09/21/14	Methanol, Lot 62345	10 mL	VOACYCLORES_00019	0.25 mL	Cyclohexanone	500 ug/mL
					VOALIST2STD1P_00020	0.125 mL	1,2,3-Trimethylbenzene	25 ug/mL
							1,3,5-Trichlorobenzene	25 ug/mL
							2-Chloro-1,3-butadiene	25 ug/mL
							2-Nitropropane	50 ug/mL
							Benzyl chloride	25 ug/mL
							Ethyl acetate	50 ug/mL
							Ethyl acrylate	25 ug/mL
							Isooctane	25 ug/mL
							Isopropyl alcohol	250 ug/mL
							Methacrylonitrile	250 ug/mL
							Methyl methacrylate	50 ug/mL
							n-Butanol	625 ug/mL
							n-Butyl acetate	25 ug/mL
					VOALIST2STD2P_00016	0.125 mL	2-Methylnaphthalene	25 ug/mL
							Pentachloroethane	25 ug/mL
					VOALIST3STD1P_00009	0.125 mL	Acetonitrile	250 ug/mL
							Ethanol	1250 ug/mL
							Isopropyl ether	25 ug/mL
							Propionitrile	250 ug/mL
							Tert-amyl methyl ether	25 ug/mL
							Tert-butyl ethyl ether	25 ug/mL
.VOACYCLORES_00019	02/01/16		Restek, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
.VOALIST2STD1P_00020	06/30/15		Restek, Lot A0100262		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
							1,3,5-Trichlorobenzene	2000 ug/mL
							2-Chloro-1,3-butadiene	2000 ug/mL
							2-Nitropropane	4000 ug/mL
							Benzyl chloride	2000 ug/mL
							Ethyl acetate	4000 ug/mL
							Ethyl acrylate	2000 ug/mL
							Isooctane	2000 ug/mL
							Isopropyl alcohol	20000 ug/mL
							Methacrylonitrile	20000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl methacrylate	4000 ug/mL
							n-Butanol	50000 ug/mL
							n-Butyl acetate	2000 ug/mL
.VOALIST2STD2P_00016	02/01/15	Restek, Lot A093359			(Purchased Reagent)		2-Methylnaphthalene	2000 ug/mL
							Pentachloroethane	2000 ug/mL
.VOALIST3STD1P_00009	12/31/15	Restek, Lot A099930			(Purchased Reagent)		Acetonitrile	20000 ug/mL
							Ethanol	100000 ug/mL
							Isopropyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
							Tert-butyl ethyl ether	2000 ug/mL
voaWVA pri Re_00003	10/29/14	09/29/14	Methanol, Lot 62345	20 mL	VOA8260VARES_00040	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00040	10/31/14	Restek, Lot A0102473			(Purchased Reagent)		Vinyl acetate	4000 ug/mL
WCN0.1L3_00010	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	250 mL	WCN10Pi_00461	2.5 mL	Cyanide, Total	0.1 mg/L
.WCN10Pi_00461	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
..WCN1000P_00022	01/24/15	LabChem Inc., Lot D199-09			(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.2ICV_00295	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN10Si_00466	2 mL	Cyanide, Total	0.2 mg/L
.WCN10Si_00466	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000S_00015	1 mL	Cyanide, Total	10 mg/L
..WCN1000S_00015	12/31/14	Ricca Chemical Co., Lot 4406986			(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.5L1_00458	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	250 mL	WCN10Pi_00461	12.5 mL	Cyanide, Total	0.5 mg/L
.WCN10Pi_00461	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
..WCN1000P_00022	01/24/15	LabChem Inc., Lot D199-09			(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN10Pi_00461	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
.WCN1000P_00022	01/24/15	LabChem Inc., Lot D199-09			(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN10Si_00466	12/14/14	12/08/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000S_00015	1 mL	Cyanide, Total	10 mg/L
.WCN1000S_00015	12/31/14	Ricca Chemical Co., Lot 4406986			(Purchased Reagent)		Cyanide, Total	1000 mg/L
WHemPSP_00172	06/03/21	J.T.Baker, Lot 0000076186			(Purchased Reagent)		Acetone	0.002 mg/L
							HEM (Oil & Grease)	4000 mg/L
							HEM Polar (Oil and Grease - Polar)	4000 mg/L
							Hexadecane	2000 mg/L
							SGT HEM (Oil and Grease - Nonpolar)	2000 mg/L
							SGT-HEM	2000 mg/L
							Stearic Acid	2000 mg/L
WResPSP_00028	10/31/17	ERA, Lot P233-499			(Purchased Reagent)		Total Suspended Solids	56.9 mg/L

RESTEK

Certificate of Composition

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

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 561323 **Lot No.:** A076606

Description : Custom Aroclor 1016/1260 Standard

Expiration Date[1]**:** September 2017 **Storage:** Refrigerate

Handling: This product contains PCB's

Elution Order	Compound	CAS #	Percent Purity [2]	Concentration [3] (weight/volume)	% Uncertainty [4] (95% C.L.; K=2)
1	Aroclor 1016	12674-11-2	----%	10,000.000 ug/ml	+/-0.59 %
2	Aroclor 1260	11096-82-5	----%	10,000.000 ug/ml	+/-0.59 %
Solvent:	Isooctane	540-84-1	99%		

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

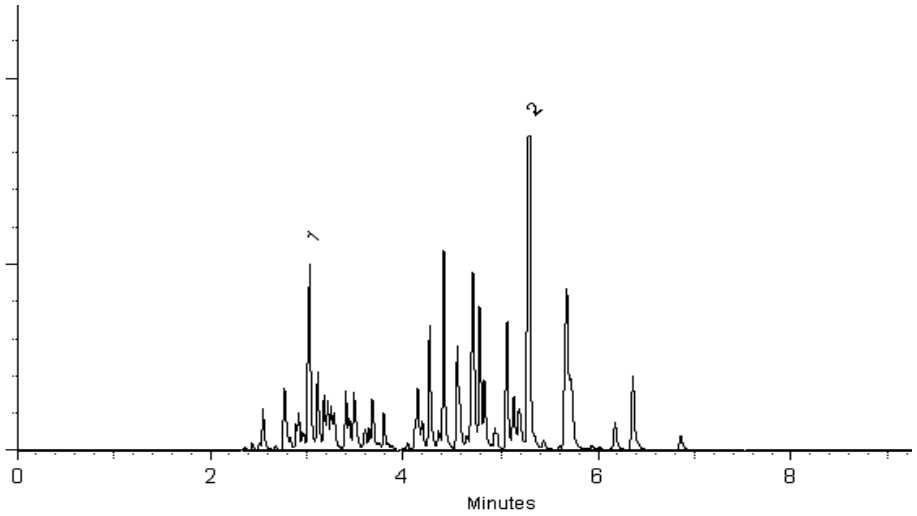
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



Diane Shaffer - QA Analyst

Date Passed: 01-Sep-2010 **Balance:** 1128342313

APPROVED

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

1 Expiration date of the unopened ampule stored at the recommended storage condition.

2A Purity is determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value is rounded to the nearest whole number. Chemical identity is confirmed using GC/MS. See data pack or contact provider for further details.

2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.

2C The following types of compounds will have a listed purity of less than 99%: Aldehyde/Ketone-DNPH compounds, Bromides, Chlorides, HCL salts, HBR salts, sulfates, hydrates, and other compounds as necessary. The listed purity is a correction factor that is equivalent to the percentage of parent compound in the molecule. This correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution. The concentration listed on the certificate is the concentration of the parent compound in the solution.

2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.

3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels) and/or class A glassware used for dilutions.

4 Uncertainties determined using data for balances and glassware from measurement systems analysis methodology, raw material purity, and, when significant, equipment tolerances or calibration results.

RESTEK

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

www.Restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 32007 **Lot No.:** A090667

Description : Aroclor® 1221 Standard

Aroclor 1221 1000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : December 2018 **Storage:** 25°C nominal

Handling: Contains PCBs - sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1221	1,000.0 µg/mL	+/- 5.8686	µg/mL	Gravimetric
	CAS # 11104-28-2		+/- 20.8758	µg/mL	Unstressed
	Purity ----%		+/- 34.3670	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

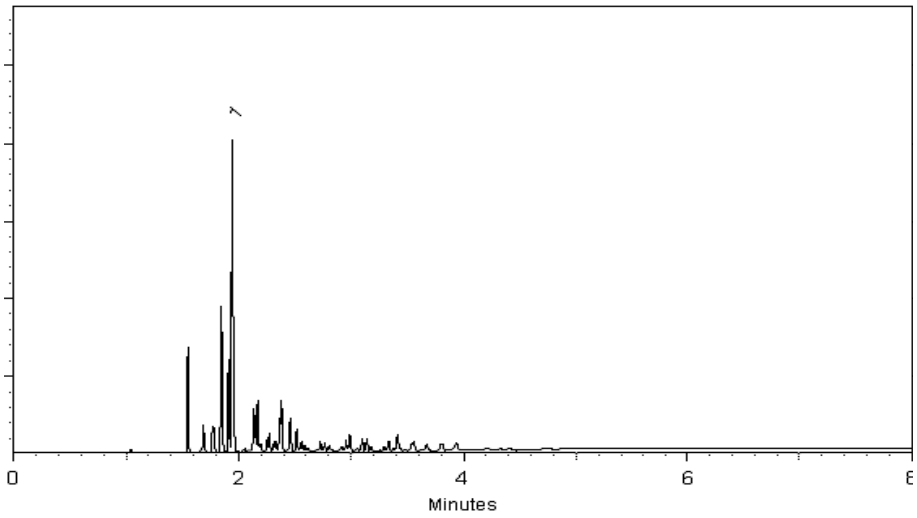
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



Jodi E. Breon - QA Analyst

Date Passed: 13-Sep-2012 **Balance:** 1125113331

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

www.Restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 32008 **Lot No.:** A090290

Description : Aroclor® 1232 Standard

Aroclor 1232 1000ug/mL, Hexane, 1mL/ampul

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

Expiration Date : November 2018 **Storage:** 25°C nominal

Handling: Contains PCBs - sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1232	1,000.0 µg/mL	+/- 5.8686	µg/mL	Gravimetric
	CAS # 11141-16-5		+/- 20.8758	µg/mL	Unstressed
	Purity 99%		+/- 34.3670	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

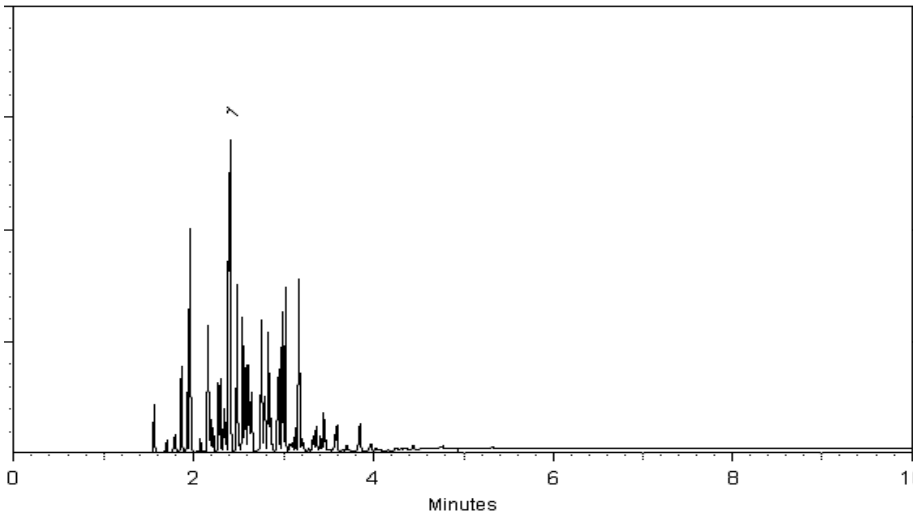
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



Jodi E. Breon - QA Analyst

Date Passed: 27-Aug-2012 **Balance:** 1128342314

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
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. : 32009 **Lot No.:** A090182

Description : Aroclor® 1242 Standard

Aroclor® 1242 Standard 1,000 µg/mL, Hexane, 1mL/ampul

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

Expiration Date : November 30, 2018 **Storage:** 25°C nominal

Handling: This product contains PCB's

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1242	1,000.0 µg/mL	+/- 5.8275	µg/mL	Gravimetric
	CAS # 53469-21-9 (Lot 01141-A)		+/- 20.8643	µg/mL	Unstressed
	Purity ----%		+/- 34.3600	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

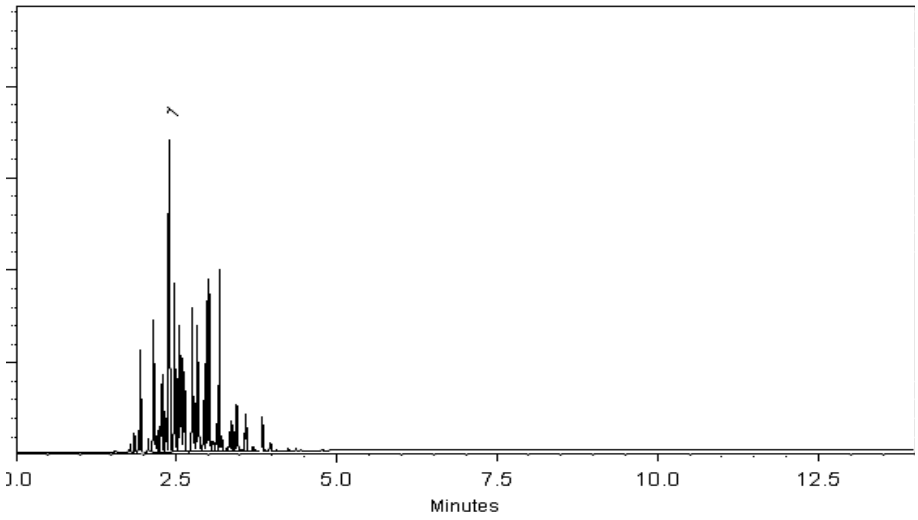
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



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

Rebecca Sauer

Date Mixed: 10-Aug-2012 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst

Date Passed: 15-Aug-2012

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 32010 **Lot No.:** A092864

Description : Aroclor® 1248 Standard

Aroclor 1248 1000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : April 2019 **Storage:** 25°C nominal

Handling: This product contains PCB's

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1248	1,000.0 µg/mL	+/- 5.8686	µg/mL	Gravimetric
	CAS # 12672-29-6		+/- 20.8758	µg/mL	Unstressed
	Purity ----%		+/- 34.3670	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

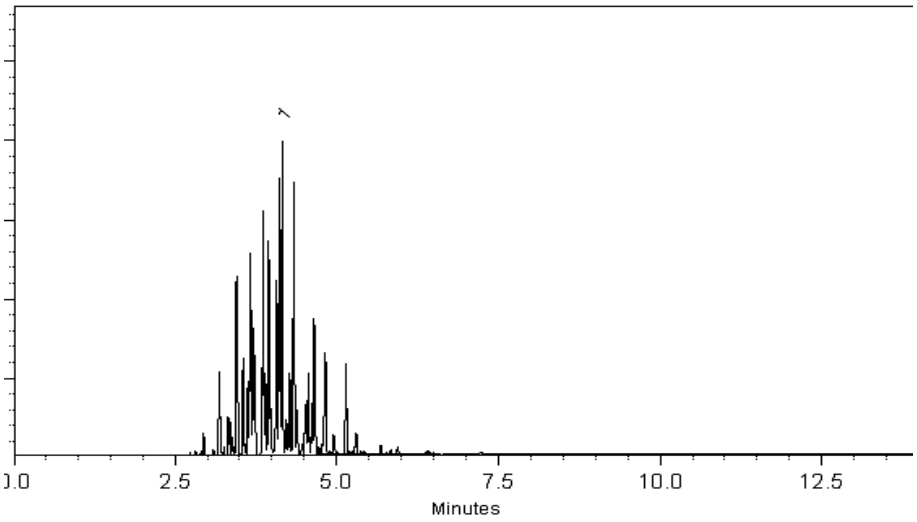
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



Diane Shaffer - QA Analyst

Date Passed: 14-Jan-2013 **Balance:** 1125113331

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 32011 **Lot No.:** A092005

Description : Aroclor® 1254 Standard

Aroclor 1254 1000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : February 2019 **Storage:** 25°C nominal

Handling: This product contains PCB's

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1254	1,000.0 µg/mL	+/- 5.8686	µg/mL	Gravimetric
	CAS # 11097-69-1		+/- 20.8758	µg/mL	Unstressed
	Purity 99%		+/- 34.3670	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

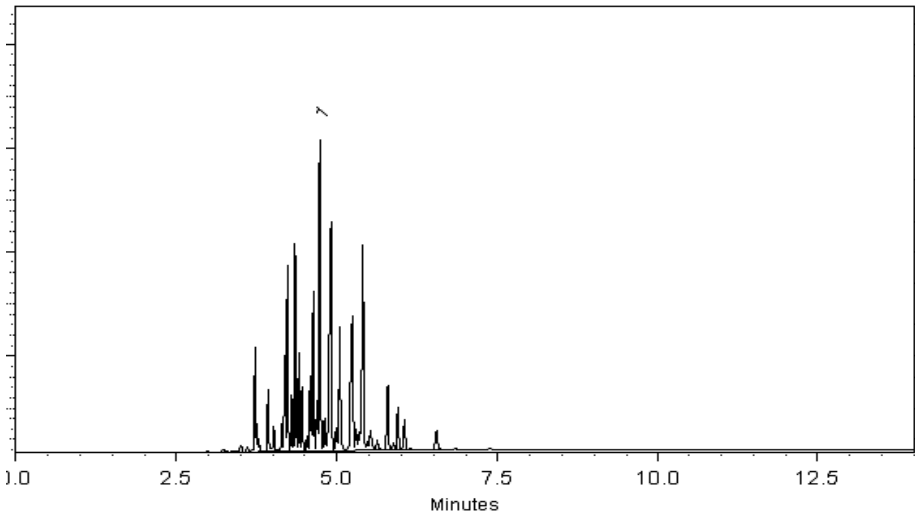
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



Jennifer L. Pollino - QC Analyst

Date Passed: 21-Nov-2012 **Balance:** 1128342313

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

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

www.restek.com

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ 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. : 32039 **Lot No.:** A092844

Description : Aroclor® 1016/1260 Mix

Aroclor 1016/1260 1000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : April 2019 **Storage:** 25°C nominal

Handling: This product contains PCB's

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Aroclor 1016	1,000.0 µg/mL	+/- 5.8275	µg/mL	Gravimetric
	CAS # 12674-11-2		+/- 20.8643	µg/mL	Unstressed
	Purity 99%		+/- 34.3600	µg/mL	Stressed
2	Aroclor 1260	1,000.0 µg/mL	+/- 5.8275	µg/mL	Gravimetric
	CAS # 11096-82-5		+/- 20.8643	µg/mL	Unstressed
	Purity ----%		+/- 34.3600	µg/mL	Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

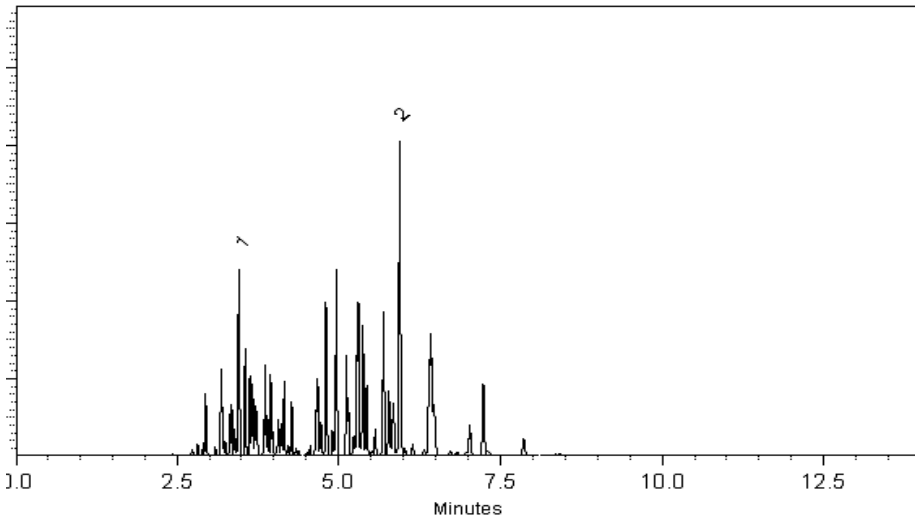
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
200°C to 300°C
@ 25°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD



Diane Shaffer - QA Analyst

Date Passed: 14-Jan-2013 **Balance:** 1125113331

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

tel: 800.669.6799 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

2.0 **DESCRIPTION OF CRM** **Stock Solution**

Catalog No.: 6020ICS-0A

Lot Number: **G2-MEB476152MCA**

Matrix: 1.4% HNO3(v/v)

10,000 µg/mL ea:
Chloride,

2,000 µg/mL ea:
C,

1,000 µg/mL ea:
Al, Ca, Fe, K, Mg, Na, P, S,

20 µg/mL ea:
Mo, Ti

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	1,002 ± 6 µg/mL	Calcium, Ca	1,002 ± 6 µg/mL	Carbon, C	2,004 ± 13 µg/mL
Chloride, Chloride	10,020.0 ± 50.0 µg/mL	Iron, Fe	1,002 ± 7 µg/mL	Magnesium, Mg	1,002 ± 4 µg/mL
Molybdenum, Mo	20.04 ± 0.14 µg/mL	Phosphorus, P	1,002 ± 7 µg/mL	Potassium, K	1,002 ± 4 µg/mL
Sodium, Na	1,002 ± 7 µg/mL	Sulfur, S	1,002 ± 5 µg/mL	Titanium, Ti	20.04 ± 0.13 µg/mL

Certified Density: 1.034 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.
- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
C	Gravimetric		See Sec. 4.2
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Chloride	Acidimetric	84L	84L
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84k	84k
Ti	ICP Assay	3162a	060808

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL

Custom-Grade solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Al		M	Dy	< 0.000100	O	Li	0.002000	M	Pr	< 0.000100	M	Te	< 0.012007
M	Sb	< 0.000600	M	Er	< 0.000100	M	Lu	< 0.000100	M	Re	< 0.000100	M	Tb	< 0.000100
O	As	< 0.020000	M	Eu	< 0.000100	s	Mg		M	Rh	< 0.000100	M	Tl	< 0.000100
O	Ba	< 0.000200	M	Gd	< 0.000100	O	Mn	0.003000	M	Rb	< 0.020012	M	Th	< 0.000100
O	Be	< 0.000090	M	Ga	< 0.001001	O	Hg	< 0.005000	M	Ru	< 0.000100	M	Tm	< 0.000100
M	Bi	< 0.005003	O	Ge	< 0.015000	s	Mo		M	Sm	< 0.000100	M	Sn	< 0.003002
O	B	< 0.005000	M	Au	< 0.001001	M	Nd	< 0.000100	O	Sc	< 0.000700	s	Ti	
O	Cd	0.003400	M	Hf	< 0.002001	O	Ni	< 0.002000	M	Se	< 0.050029	O	W	< 0.007000
s	Ca		M	Ho	< 0.000100	M	Nb	< 0.002001	n	Si		M	U	< 0.000100
M	Ce	< 0.000500	M	In	< 0.001001	n	Os		M	Ag	< 0.001001	O	V	< 0.004000
M	Cs	< 0.001001	M	Ir	< 0.000100	M	Pd	< 0.003002	s	Na		M	Yb	< 0.000100
O	Cr	< 0.010000	s	Fe		s	P		O	Sr	0.005000	M	Y	< 0.000100
M	Co	< 0.001001	M	La	< 0.000200	M	Pt	< 0.000100	s	S		M	Zn	0.016610
O	Cu	< 0.020000	M	Pb	0.002001	s	K		M	Ta	< 0.001001	M	Zr	< 0.004002

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: July 12, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Zachary Saunders

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Allyson Guilliams

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com
tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

2 µg/mL ea:
Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	2.000 ± 0.013 µg/mL	Cadmium, Cd	2.000 ± 0.013 µg/mL	Chromium+3, Cr3	2.000 ± 0.013 µg/mL
Cobalt, Co	2.000 ± 0.013 µg/mL	Copper, Cu	2.000 ± 0.013 µg/mL	Manganese, Mn	2.000 ± 0.013 µg/mL
Nickel, Ni	2.000 ± 0.013 µg/mL	Silver, Ag	2.000 ± 0.013 µg/mL	Zinc, Zn	2.000 ± 0.013 µg/mL

Certified Density: 1.012 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked dally using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-CAL-SPECA-REV

Lot Number: **H2-MEB524026**

Matrix: 3% HNO3(v/v)

2,500 µg/mL ea:
Ca, K, Mg, Na,

1,250 µg/mL ea:
Fe,

25 µg/mL ea:
Al, Mn,

5 µg/mL ea:
Ag, As, Ba, Be, Cd, Co, Cr3, Cu, Ni,
Pb, Se, Sr, Tl, V, Zn

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	24.99 ± 0.18 µg/mL	Arsenic, As	4.998 ± 0.032 µg/mL	Barium, Ba	5.000 ± 0.032 µg/mL
Beryllium, Be	5.000 ± 0.028 µg/mL	Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2,500 ± 11 µg/mL
Chromium+3, Cr3	5.000 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.032 µg/mL	Copper, Cu	4.999 ± 0.032 µg/mL
Iron, Fe	1,250 ± 6 µg/mL	Lead, Pb	4.998 ± 0.025 µg/mL	Magnesium, Mg	2,500 ± 16 µg/mL
Manganese, Mn	24.99 ± 0.17 µg/mL	Nickel, Ni	5.003 ± 0.028 µg/mL	Potassium, K	2,500 ± 11 µg/mL
Selenium, Se	5.002 ± 0.028 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL	Sodium, Na	2,499 ± 11 µg/mL
Strontium, Sr	5.000 ± 0.032 µg/mL	Thallium, Tl	5.000 ± 0.032 µg/mL	Vanadium, V	5.000 ± 0.032 µg/mL
Zinc, Zn	5.004 ± 0.032 µg/mL				

Certified Density: 1.051 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2 [\Sigma(s_i)^2]^{1/2}$

2 = the coverage factor.

$[\Sigma(s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Brenda Francis
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.:	TAPITT-CAL-SPECB
Lot Number:	**H2-MEB524027**
Matrix:	3% HNO3(v/v), tr. HF

250 µg/mL ea:
Si,

5 µg/mL ea:
B, Mo, Sb, Sn, Ti

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	4.999 ± 0.044 µg/mL	Boron, B	5.000 ± 0.032 µg/mL	Molybdenum, Mo	4.999 ± 0.041 µg/mL
Silicon, Si	250.0 ± 1.6 µg/mL	Tin, Sn	4.999 ± 0.041 µg/mL	Titanium, Ti	4.999 ± 0.040 µg/mL

Certified Density: 1.017 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 **TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	Calculated		See Sec. 4.2
B	ICP Assay	3107	070514
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

INORGANIC™ VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 853.01 — ACCREDITED Reference Material Producer Certificate 853.02

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Mercury in 5% (v/v) HNO3**

Catalog Number:	CGHG1-1, CGHG1-2, and CGHG1-5
Lot Number:	**F2-HG02105**
Starting Material:	Hg metal
Starting Material Purity (%):	99.9997
Starting Material Lot No:	1780
Matrix:	5% (v/v) HNO3

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 1,000 ± 6 µg/mL -weighted mean-

Certified Density: 1.018 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1	**Assay Method #1**	**999 ± 4 µg/mL** ICP Assay NIST SRM 3133 Lot Number: 061204
	Assay Method #2	**1,001 ± 3 µg/mL** EDTA NIST SRM 928 Lot Number: 928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an A2LA accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP/MS AND ICP-OES IN µg/mL

CRM's solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Al	0.000049	M	Dy	< 0.012339	O	Li	< 0.000020	M	Pr	< 0.000617	M	Te	< 0.061693
M	Sb	< 0.001028	M	Er	< 0.010282	M	Lu	< 0.000823	M	Re	< 0.002056	M	Tb	< 0.000617
M	As	< 0.020564	M	Eu	< 0.006169	O	Mg	0.000589	M	Rh	< 0.002056	O	Tl	< 0.006000
M	Ba	< 0.020564	M	Gd	< 0.002056	M	Mn	< 0.008226	M	Rb	< 0.002056	M	Th	< 0.002056
M	Be	< 0.001028	M	Ga	< 0.002056	s	Hg		M	Ru	< 0.004113	M	Tm	< 0.000823
M	Bi	< 0.000823	O	Ge	< 0.018000	M	Mo	< 0.004113	M	Sm	< 0.002056	M	Sn	< 0.010282
M	B	< 0.143950	M	Au	< 0.006169	M	Nd	< 0.004113	M	Sc	< 0.020564	M	Ti	< 0.102822
O	Cd	< 0.004600	M	Hf	< 0.004113	O	Ni	< 0.001000	M	Se	< 0.016451	M	W	< 0.020564
O	Ca	0.002160	M	Ho	< 0.001028	M	Nb	< 0.001028	O	Si	< 0.003400	M	U	< 0.004113
M	Ce	< 0.010282	M	In	< 0.020564	n	Os		M	Ag	< 0.004113	M	V	< 0.004113
M	Cs	< 0.000617	M	Ir	< 0.010282	O	Pd	< 0.003800	O	Na	0.000491	M	Yb	< 0.002056
M	Cr	< 0.010282	O	Fe	< 0.001100	O	P	< 0.002600	M	Sr	< 0.001028	M	Y	< 0.082257
M	Co	< 0.006169	M	La	< 0.001028	M	Pt	< 0.004113	O	S	< 0.025000	M	Zn	< 0.041129
M	Cu	< 0.012339	M	Pb	< 0.006169	O	K	< 0.002000	M	Ta	< 0.014395	M	Zr	< 0.010282

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Eletrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipet from container. Do not return portions removed for pipetting to container.

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59; +2; 4 ; Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water. .

Stability - 2-100 ppb levels **not stable** in 1% HNO3 / LDPE container, ***stable*** in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Type	Interferences (underlined indicates severe)
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	atom	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	ion	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	atom	Ta, Co, Th ,Rh , Fe, U
ICP-MS 202 amu	9 ppt	n/a	M+	186W16O

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- QMI File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability.

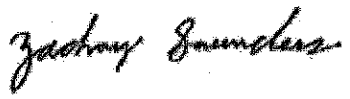
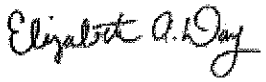
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: January 03, 2013

Expiration Date: EXPIRES 01 FEB 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Zach Saunders, Product Documentation Technician	
Certificate Approved By:	Elizabeth Day, Quality Assurance Specialist	
Certifying Officer:	Paul Gaines, PhD., Senior Technical Director	

Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product #: ICP-080 **Last Update: 4/7/2014**

Section I Product Identification

Name: Mercury Standard

Matrix : water with dilute nitric acid

Section II Composition / Information on Ingredients

Component	CAS#	% by Wt.	LD50	OSHA PEL	ACGIH TLV	RTECS #	Codes
water	007732-18-5	97.9	>90 mL/kg oral rat	N/A	N/A	ZC0110000	
nitric acid	007697-37-2	2	N/A	5 mg/m3	5.2 mg/m3	QU5775000	G
mercury, inorganic compounds as Hg	007439-97-6	0.1	26 mg/kg oral rat	0.1 mg/m3	.025 mg/m3	OV4550000	

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

Section III Hazards Identification

Irritant

All chemicals should be considered hazardous - direct physical contact should be avoided.

Section IV First Aid Measures

Inhalation:	If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.
Skin Contact:	In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician.
Eye Contact:	In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.
Ingestion:	If ingested, contact poison center immediately for recommended procedure. Contact a physician.

Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Matrix

Fire Hazard: non-combustible

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

Section VII Handling and Storage

Store at Room Temperature (18-25°C)

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

Section VIII Exposure Controls / Personal Protection

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

Section IX Physical and Chemical Properties

Physical Data for Matrix

Melting Pt.: 0°C Boiling Pt.: 100°C Density: 1

Vapor Pressure: N/A | Vapor Density: N/A | Water Solubility: soluble
Appearance: colorless liquid | Odor: none | Flash Point: none
Auto-Ignition Temperature: N/A | LEL: N/A | UEL: N/A

Section X Stability and Reactivity

Reactivity Data for Matrix

Stability: stable

Incompatibilities:
organic materials
str. reducing agents
alkalies
antimony salts

Hazardous Decomposition Products: NO2, NO3

Hazardous Effects of Polymerization: none

Section XI Toxicological Information

See Section II for specific toxicological information for the ingredients of this product.

Section XII Ecological Information

No information is available.

Section XIII Disposal Considerations

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

Section XIV Transport Information

Shipment Type: Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

UN Number: UN3264 | Shipping Class: 8 | Packing Group: III

Section XV Regulatory Information

EU Directives Classification

R: 34

Risk Statements: Causes burns.

S: 23-26-36-45

Safety Statements: Do not breathe gas/fumes/vapour/spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section XVI Other Information

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: ZCAL-60-250 **Lot No.** 7-230WL

Description: Custom Claritas Standard

Matrix: 5% HNO_3 / Tr. Tart. Acid / Tr. HF

This **CLARITAS PPT®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Uncertainty	SRM	Analyte	Labeled	Uncertainty	SRM
Ca	1000 µg/mL	±5 µg/mL	3109a*	Co	2 µg/mL	±0.01 µg/mL	3113*
K	1000 µg/mL	±5 µg/mL	3141a*	Cr	2 µg/mL	±0.01 µg/mL	3112a*
Mg	1000 µg/mL	±5 µg/mL	3131a*	Cu	2 µg/mL	±0.01 µg/mL	3114*
Na	1000 µg/mL	±5 µg/mL	3152a*	Mo	2 µg/mL	±0.01 µg/mL	3134*
Fe	500 µg/mL	±3 µg/mL	3126a*	Ni	2 µg/mL	±0.01 µg/mL	3136*
Si	100 µg/mL	±0.5 µg/mL	3150*	Pb	2 µg/mL	±0.01 µg/mL	3128*
Al	10 µg/mL	±0.05 µg/mL	3101a*	Sb	2 µg/mL	±0.01 µg/mL	3102a*
Mn	10 µg/mL	±0.05 µg/mL	3132*	Se	2 µg/mL	±0.01 µg/mL	3149*
Ag	2 µg/mL	±0.01 µg/mL	3151*	Sn	2 µg/mL	±0.01 µg/mL	3161a*
As	2 µg/mL	±0.01 µg/mL	3103a*	Sr	2 µg/mL	±0.01 µg/mL	3153a*
B	2 µg/mL	±0.01 µg/mL	3107*	Ti	2 µg/mL	±0.01 µg/mL	3162a*
Ba	2 µg/mL	±0.01 µg/mL	3104a*	Tl	2 µg/mL	±0.01 µg/mL	3158*
Be	2 µg/mL	±0.01 µg/mL	3105a*	V	2 µg/mL	±0.01 µg/mL	3165*
Cd	2 µg/mL	±0.01 µg/mL	3108*	Zn	2 µg/mL	±0.01 µg/mL	3168a*

* - indicates NIST SRM † - Indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# ALL 8

Trace Metallic Impurities in the Actual Solution via ICP-MS Analysis:

Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L
Au	<0.4	Ga	<2	Ir	<0.1	Pd	<1	Sc	30	Tm	5
Bi	<1	Gd	4	La	5	Pr	5	Sm	<4	U	0.08
Ce	6	Ge	<8	Li	<4	Pt	<0.1	Ta	7	W	10
Cs	<0.08	Hf	0.7	Lu	4	Rb	30	Tb	5	Y	5
Dy	4	Hg	<0.6	Nb	5	Re	4	Te	<4	Yb	4
Er	<0.4	Ho	5	Nd	<3	Rh	<0.2	Th	4	Zr	7
Eu	<0.5	In	<0.2	P	<300	Ru	<2				

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the labeled value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability, as well as transpiration loss. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV 2014 Certifying Officer:

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General & Statistical Principals for Certification
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference materials producers
- ISO/REMCO N280

Material Source:
All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where $k = 2$ is the coverage factor at the 95% confidence level
- u_c is obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:
All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Legal Notice:
SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, Inc. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, Inc. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSCRI-2
Lot Number:	H2-MEB549024
Matrix:	3% (v/v) HNO3 tr HF
Value / Analyte(s):	125 µg/mL ea: Si, 1.25 µg/mL ea: B, Mo, Sn, Ti, 0.5 µg/mL ea: Sb

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony	0.4998 ± 0.0038 µg/mL	Boron	1.250 ± 0.011 µg/mL	Molybdenum	1.252 ± 0.011 µg/mL
Silicon	124.9 ± 0.8 µg/mL	Tin	1.251 ± 0.009 µg/mL	Titanium	1.250 ± 0.010 µg/mL

Certified Density: 1.016 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = 2 [$\Sigma(s_i)^2$]^{½} 2 = the coverage factor.

[$\Sigma(s_i)^2$]^{½} = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 24, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date EXPIRES 01 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-1

Lot Number: **H2-MEB524028**

Matrix: 3% HNO3(v/v)

10 µg/mL ea:

Ba, Be, Pb, Sr, Tl, V

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Barium, Ba	9.99 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL	Lead, Pb	10.01 ± 0.05 µg/mL
Strontium, Sr	10.00 ± 0.06 µg/mL	Thallium, Tl	10.00 ± 0.06 µg/mL	Vanadium, V	9.99 ± 0.06 µg/mL

Certified Density: 1.022 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\Sigma x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$$

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 **TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4ºC. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

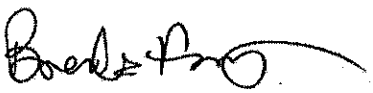
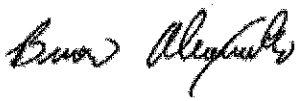
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

Matrix: 3% HNO3(v/v), tr. HF

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.06 µg/mL	Boron, B	24.98 ± 0.17 µg/mL	Selenium, Se	25.01 ± 0.21 µg/mL
Silicon, Si	249.9 ± 1.6 µg/mL	Tin, Sn	50.04 ± 0.36 µg/mL		

Certified Density: 1.018 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\Sigma x_i}{n}$ ($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2 [\Sigma(s_i)^2]^{1/2}$ 2 = the coverage factor.

$[\Sigma(s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

4.2 BALANCE CALIBRATION - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 THERMOMETER CALIBRATION - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 GLASSWARE CALIBRATION - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element; Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 08, 2013

Expiration Date: EXPIRES 01 May 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MS-ICPMS

Lot Number: **G2-MEB506053**

Matrix: 0.7% HNO3(v/v)

200 µg/mL ea:
Al, Ba,

100 µg/mL ea:
B, Fe, Sr,

50 µg/mL ea:
Co, Mn, Ni, V, Zn,

25 µg/mL ea:
Cu,

20 µg/mL ea:
Cr3,

5 µg/mL ea:
Ag, Be, Cd, Tl,

4 µg/mL ea:
As,

2 µg/mL ea:
Pb,

1 µg/mL ea:
Se

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.3 µg/mL	Arsenic, As	4.002 ± 0.030 µg/mL	Barium, Ba	200.0 ± 1.3 µg/mL
Beryllium, Be	5.002 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.001 ± 0.035 µg/mL
Chromium+3, Cr3	20.01 ± 0.13 µg/mL	Cobalt, Co	50.03 ± 0.25 µg/mL	Copper, Cu	25.01 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.001 ± 0.010 µg/mL	Manganese, Mn	50.03 ± 0.32 µg/mL
Nickel, Ni	50.00 ± 0.33 µg/mL	Selenium, Se	1.000 ± 0.007 µg/mL	Silver, Ag	5.002 ± 0.033 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.001 ± 0.034 µg/mL	Vanadium, V	49.99 ± 0.34 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

Certified Density: 1.005 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2\,[\,\Sigma(s_i)^2\,]^{1/2}$

2 = the coverage factor.

$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	Calculated		See Sec. 4.2
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep Tightly sealed when not in use. Store and use at 20 ± 4°C. Do Not pipette from the container. Do Not return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission
- Reporting Defects and Non-Compliance

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

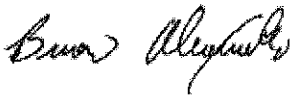
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: December 04, 2013

Expiration Date: EXPIRES 01 APR 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Christy Shortridge Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

MATERIAL SAFETY DATA SHEET
TAPITT-MS-ICPMS

Revision Number 4, Revision Date March 04, 2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code	TAPITTMS-ICPMS
Product name	Multi-element Solution Standard in Dilute Nitric Acid
Common Name	Contains: 200 µg/mL ea: Al, Ba; 100 µg/mL ea: B, Fe, Sr; 50 µg/mL ea: Co, Mn, Ni, V, Zn; 25 µg/mL Cu; 20 µg/mL Cr3; 5 µg/mL ea: Ag, Be, Cd, Tl; 4 µg/mL As; 2 µg/mL Pb; 1 µg/mL Se
Manufacturer, importer, supplier	Inorganic Ventures 300 Technology Drive Christiansburg, VA 24073 web: www.inorganicventures.com
Emergency telephone number	800-424-9300 CHEMTREC (24 hrs)

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% Weight	ACGIH*	OSHA*
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	2 ppm TWA	2 ppm TWA; 5 mg/m3 TWA

* ACGIH - Occupational Exposure Limits - TWAs
* OSHA - Final PELs - Time Weighted Averages (TWAs)

3. HAZARDS IDENTIFICATION

Emergency Overview

- Vapours may be irritating to eyes, nose, throat, and lungs
- Corrosive

Eye contact	• Contact with eyes may cause irritation
Skin contact	• Substance may cause slight skin irritation
Inhalation	• May cause irritation of respiratory tract
Ingestion	• Harmful if swallowed

4. FIRST AID MEASURES

General advice	• Show this safety data sheet to the doctor in attendance
Skin contact	• Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes • Consult a physician if necessary
Eye contact	• Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes • Keep eye wide open while rinsing • If eye irritation persists, consult a specialist
Inhalation	• Move to fresh air in case of accidental inhalation of vapours • If breathing is difficult, give oxygen • Consult a physician if necessary
Ingestion	• Call a physician or Poison Control Centre immediately • If swallowed, seek medical advice immediately and show this container or label • If conscious, drink plenty of water

5. FIRE-FIGHTING MEASURES

Flash point	NA
Suitable extinguishing media	• Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Specific hazards	• Thermal decomposition can lead to release of irritating gases and vapours
Specific methods	• Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations
Special protective equipment for firefighters	• As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
NFPA (National Fire Protection Association)	• Health - 2 • Fire Hazard - 0 • Reactivity - 0
Under conditions giving incomplete combustion, hazardous gases produced may consist of:	• nitrogen oxides (NOx).

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	• Evacuate personnel to safe areas • Keep people away from and upwind of spill/leak • Wear personal protective equipment • Ensure adequate ventilation
Environmental precautions	• Prevent further leakage or spillage if safe to do so • Prevent product from entering drains
Methods for cleaning up	• Dam up • Neutralize with lime milk or soda and flush with plenty of water • Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container • After cleaning, flush away traces with water

7 HANDLING AND STORAGE

Handling

Technical measures/Precautions	• Use only in area provided with appropriate exhaust ventilation
Safe handling advice	• Wear personal protective equipment

Storage

Technical measures/Precautions	• Keep in properly labelled containers • Store at room temperature in the original container • Keep containers tightly closed in a dry, cool and well-ventilated place
Incompatible products	• organic materials • reducing agents

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment	
Hand protection	• impervious gloves
Eye protection	• tightly fitting safety goggles
Respiratory protection	• Ensure adequate ventilation
Skin and body protection	• Chemical resistant apron • Lab coat
Hygiene measures	• When using, do not eat, drink or smoke • Regular cleaning of equipment, work area and clothing

9 PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form liquid.

Appearance	clear
Colour	yellow tint.
Odour	None.

Important Health Safety and Environmental Information

pH	0 to 2
Boiling point/range	100°C
Flash point	N/A
Vapour pressure	NA.
Water solubility	miscible.

10. STABILITY AND REACTIVITY

Stability	• Stable under normal conditions • Hazardous polymerization does not occur
Materials to avoid	• organic materials • reducing agents
Hazardous decomposition products	• nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

CAS	Chemical Name	% Weight	LD50/oral/rat =	LD50/dermal/rat =
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	Inhalation LC50 Rat: 130 mg/kg/4H	Inhalation LC50 Rat: 130 mg/kg/4H

Product Information

Local effects	
Skin irritation	May cause skin irritation and/or dermatitis.
Eye irritation	May cause eye irritation with susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Chronic toxicity	Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Component Information

CAS	Chemical Name	% Weight	EFAD*	EFFSD*	EMD - Ecotoxicity*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	N/A	N/A

* EFAD - Ecotoxicity - Freshwater Algae Data
* EFFSD - Ecotoxicity - Freshwater Fish Species Data
* EMD - Ecotoxicity - Microtox Data

Product Information

Do not allow material to contaminate ground water or sewage system

Other information

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	• In accordance with local and national regulations
Contaminated packaging	• Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT

UN-No	UN3264 / Class 8
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
Packing group	III

IATA-DGR

UN-No	UN3264 / Class 8
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s
Packing group	III

15. REGULATORY INFORMATION

U.S. INVENTORIES:

CAS	Chemical Name	% Weight	CPCL*	NJRTK*	CERCLA/SARA*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	sn 1356	1000 lb final RQ; 454 kg final RQ

* CPCL - California - Proposition 65 - Carcinogens List
* NJRTK - New Jersey - Department of Health RTK List
* CERCLA/SARA - Hazardous Substances and their Reportable Quantities

:

INTERNATIONAL INVENTORIES:

CAS	Chemical Name	% Weight	WHMIS*	EINECCS - European Union*
7732-18-5	Water	~99.3	Uncontrolled product according to WHMIS classification criteria	231-791-2
7697-37-2	Nitric Acid	~0.7	C, E (including 60%, 61.3%, 63%, 67%, 67.18%, 70%, 90%); E (10%)	231-714-2

* WHMIS - Canada - WHMIS - Classifications of Substances
* EINECCS - European Union - European inventory of Existing Commercial Chemical Substances (EINECCS)

:

16. OTHER INFORMATION

The above information is believed to be accurate and represents the best information available to us. It has been compiled from the data presented in various technical publications and our experience and should only be used as a guide for handling this product. It is the user's responsibility to determine the suitability of this information for their particular purposes. We assume that only qualified individuals, trained and familiar with procedures suitable to this product will handle this material. Inorganic Ventures, Inc. assumes no responsibility and shall not be held liable for any damage resulting from misuse of this product.

13316632
1331633

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

Rec'd 9/24/14 RAR

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-A
Lot Number:	H2-MEB532044
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Ca, K, Mg, Na

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 22 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Sodium, Na	5 000 ± 22 µg/mL				

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean
x_i = individual results
n = number of measurements

Uncertainty $(\pm) = 2 [\Sigma(s_i)^2]^{1/2}$ 2 = the coverage factor.
$[\Sigma(s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date EXPIRES 1 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

1331637 / 1331638 / 1331639

INORGANIC VENTURES™

CERTIFICATE OF ANALYSIS

300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

tel: 800 669 6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Rec'D 9/24/14

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	H2-MEB532046
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Si, 200 µg/mL ea: Sn, 100 µg/mL ea: Mo, Ti, 50 µg/mL ea: Sb

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	49.98 ± 0.38 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL	Silicon, Si	1 000 ± 7 µg/mL
Tin, Sn	200.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.7 µg/mL		

Certified Density: 1.017 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean
x_i = individual results
n = number of measurements

Uncertainty (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$ 2 = the coverage factor.
$[\,\Sigma(s_i)^2\,]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date EXPIRES 12/2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Donna Senn

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Brian Alexander

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568719 **Lot No.:** A0100240

Description : OCP/PCB Surrogate Mix RTS

OCP/PCB Surrogate Mix RTS 0.2 µg/ml, Methanol, 100 ml/bottle

Container Size : 100 mL **Pkg Amt:** > 100 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4,5,6-Tetrachloro-m-xylene	0.2 µg/mL	+/- 0.0025	µg/mL	Gravimetric
	CAS # 877-09-8 (Lot 0052481)		+/- 0.0066	µg/mL	Unstressed
	Purity 98%		+/- 0.0086	µg/mL	Stressed
2	Decachlorobiphenyl (BZ# 209)	0.2 µg/mL	+/- 0.0025	µg/mL	Gravimetric
	CAS # 2051-24-3 (Lot ER071509-01)		+/- 0.0067	µg/mL	Unstressed
	Purity 99%		+/- 0.0086	µg/mL	Stressed

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

5V Benzo pyrene primary
100313

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 71016
Lot Number: 100313
Description: Benzo(e)pyrene

Expiration Date: 100318
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000

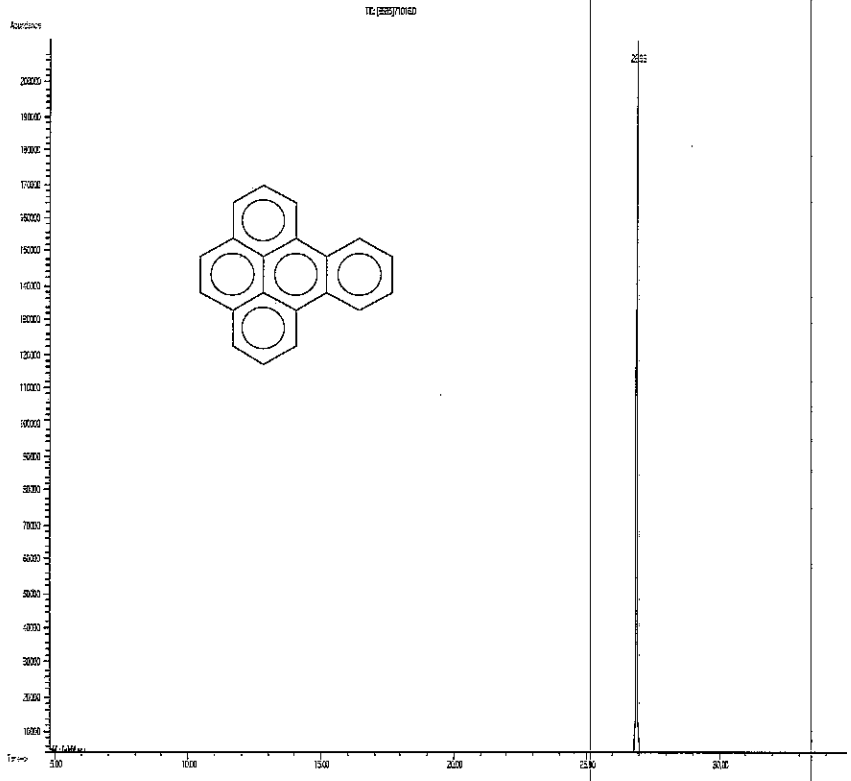
Solvent(s): Lot # 44325 Methylene chloride

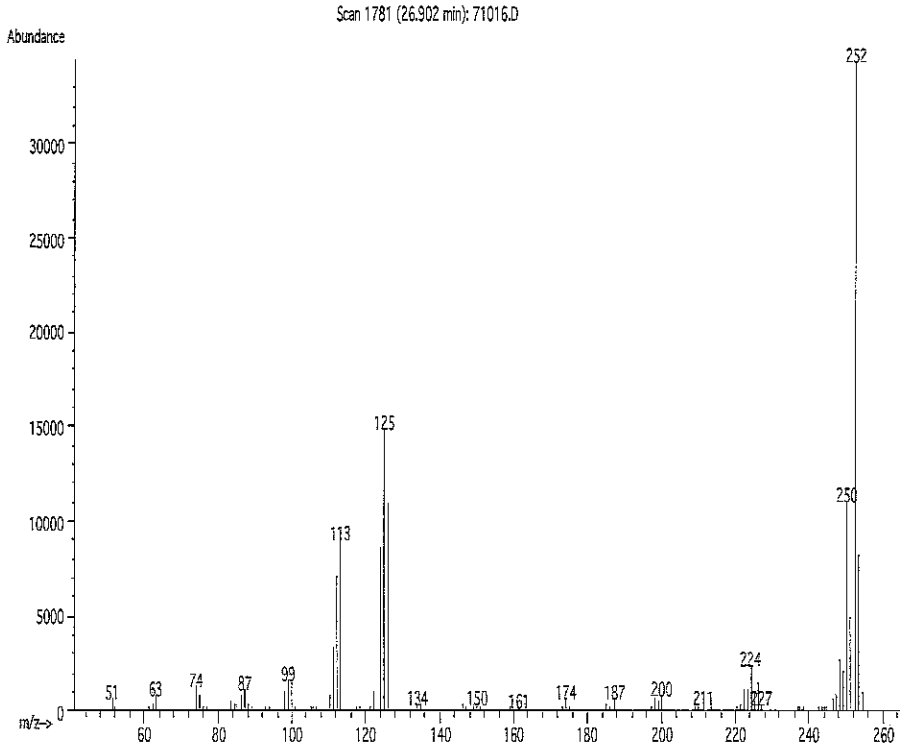
Weight(s) shown below were combined and diluted to: 100.0 5E-05 Balance Uncertainty 0.003 Flask Uncertainty

Formulated By:	Paul Barron	100313 DATE
Reviewed By:	Pedro L. Rentas	100313 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty ± Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(e)pyrene	1016	012011	1000	99	0.2	0.10100	0.10125	1002.5	0.0042	00192-97-2	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





Certificate of Analysis

2-Naphthylamine Solution

Product Number: EPA-1135 **Page:** 1 of 1

Lot Number: CK-1617 **Lot Issue Date:** 20-May-2013 **Expiration Date:** 30-Jun-2017

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
2-naphthylamine	000091-59-8	RM06488	1001 ± 5 µg/mL

Matrix: methanol (methyl alcohol)

Storage: Store at Room Temperature (15-30°C)

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ACCREDITED
ISO 17025:2005 Accredited A2LA Cert. No. 0851-01
ISO 9001:2008 Registered TUV USA, Inc. Cert. No. 09-1009

250 Smith Street, North Kingstown, RI 02852 USA
401-294-9400 Fax: 295-2330
wwww.ultrasci.com

William J. Leary
Quality Assurance Manager

SV / IV int Std lot A093676

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited 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. : 567684 **Lot No.:** A093676

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

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

Expiration Date : February 2018 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dichlorobenzene-d4		2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS #	3855-82-1			+/-	92.7158	µg/mL	Unstressed
	Purity	99%			+/-	101.3766	µg/mL	Stressed
2	Naphthalene-d8		2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS #	1146-65-2			+/-	92.7158	µg/mL	Unstressed
	Purity	99%			+/-	101.3766	µg/mL	Stressed
3	Acenaphthene-d10		2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS #	15067-26-2			+/-	92.7163	µg/mL	Unstressed
	Purity	97%			+/-	101.3771	µg/mL	Stressed
4	Phenanthrene-d10		2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS #	1517-22-2			+/-	92.7158	µg/mL	Unstressed
	Purity	99%			+/-	101.3766	µg/mL	Stressed
5	Chrysene-d12		2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS #	1719-03-5			+/-	92.7150	µg/mL	Unstressed
	Purity	98%			+/-	101.3758	µg/mL	Stressed
6	Perylene-d12		2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS #	1520-96-3			+/-	92.7158	µg/mL	Unstressed
	Purity	99%			+/-	101.3766	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

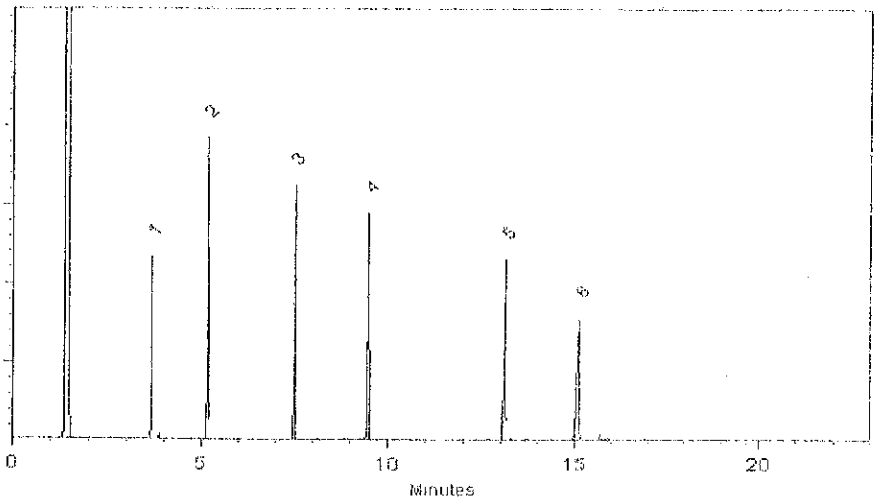
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon - QA Analyst

Date Passed: 27-Feb-2013 Balance: 1128342315

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567679 **Lot No.:** A0102912

Description : 8270 List 2 / Std #2

8270 List 2 / Std #2 1,000 ug/ml, Methylene Chloride, 1 ml/ampul

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

Expiration Date : April 30, 2015 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl methanesulfonate		1,004.0	µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 66-27-3	(Lot MKBJ8702V)			+/- 31.2232	µg/mL	Unstressed
	Purity 99%				+/- 32.8038	µg/mL	Stressed
2	Ethyl methanesulfonate		1,007.0	µg/mL	+/- 5.9813	µg/mL	Gravimetric
	CAS # 62-50-0	(Lot FIN01-LVQL)			+/- 31.3165	µg/mL	Unstressed
	Purity 99%				+/- 32.9019	µg/mL	Stressed
3	Pentachloroethane		1,000.0	µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 76-01-7	(Lot 7GHYB)			+/- 31.0988	µg/mL	Unstressed
	Purity 99%				+/- 32.6732	µg/mL	Stressed
4	2,6-Dichlorophenol		1,000.0	µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot 03518LN)			+/- 31.0988	µg/mL	Unstressed
	Purity 99%				+/- 32.6732	µg/mL	Stressed
5	Hexachloropropene		1,000.0	µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 1888-71-7	(Lot 44391/3)			+/- 31.0988	µg/mL	Unstressed
	Purity 99%				+/- 32.6732	µg/mL	Stressed
6	Isosafrole (cis & trans)		999.6	µg/mL	+/- 5.9373	µg/mL	Gravimetric
	CAS # 120-58-1	(Lot MKBK3786V)			+/- 31.0863	µg/mL	Unstressed
	Purity 98%	83% trans; 17% cis			+/- 32.6601	µg/mL	Stressed
7	1-Chloronaphthalene		1,001.0	µg/mL	+/- 5.9456	µg/mL	Gravimetric
	CAS # 90-13-1	(Lot MYWUK)			+/- 31.1299	µg/mL	Unstressed
	Purity 99%				+/- 32.7058	µg/mL	Stressed
8	1,4-Naphthoquinone		999.0	µg/mL	+/- 5.9338	µg/mL	Gravimetric
	CAS # 130-15-4	(Lot 3232134094)			+/- 31.0677	µg/mL	Unstressed
	Purity 99%				+/- 32.6405	µg/mL	Stressed

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

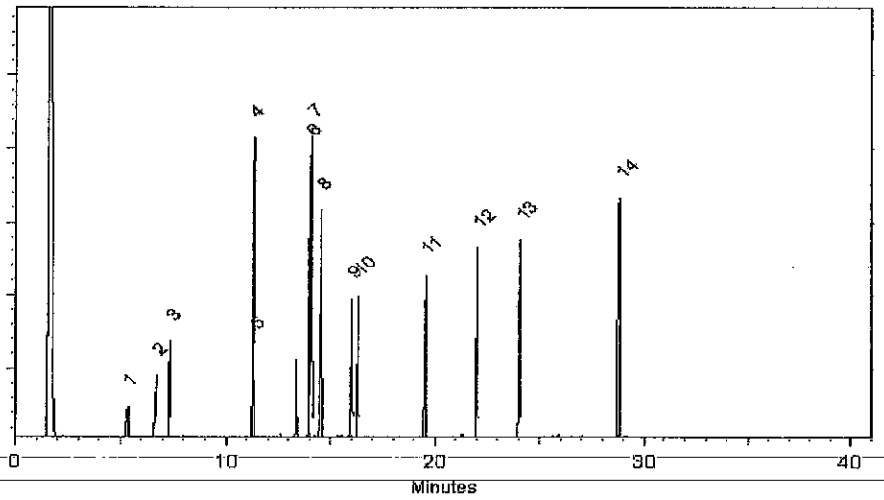
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

F. Joseph Fallon - Mix Technician **Date Mixed:** 23-Apr-2014 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst **Date Passed:** 29-Apr-2014

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567672.sec **Lot No.:** A099449

Description : 8270 List 1 / Std #1 MegaMix

8270 List 1 / Std #1 MegaMix 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : May 31, 2015 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.2	µg/mL	+/- 5.8343	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot 2RHVG)			+/- 6.6955	µg/mL	Unstressed
	Purity 99%				+/- 16.4425	µg/mL	Stressed
2	Pyridine		1,000.7	µg/mL	+/- 5.8314	µg/mL	Gravimetric
	CAS # 110-86-1.SEC	(Lot QN8DK)			+/- 6.6922	µg/mL	Unstressed
	Purity 99%				+/- 16.4343	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,001.7	µg/mL	+/- 5.8372	µg/mL	Gravimetric
	CAS # 62-75-9.SEC	(Lot 31C7)			+/- 6.6989	µg/mL	Unstressed
	Purity 99%				+/- 16.4507	µg/mL	Stressed
4	Aniline		1,000.7	µg/mL	+/- 5.8314	µg/mL	Gravimetric
	CAS # 62-53-3.SEC	(Lot ZCD3N)			+/- 6.6922	µg/mL	Unstressed
	Purity 99%				+/- 16.4343	µg/mL	Stressed
5	Phenol		1,000.7	µg/mL	+/- 5.8314	µg/mL	Gravimetric
	CAS # 108-95-2.SEC	(Lot EDPYN)			+/- 6.6922	µg/mL	Unstressed
	Purity 99%				+/- 16.4343	µg/mL	Stressed
6	Bis(2-chloroethyl)ether		1,001.0	µg/mL	+/- 5.8333	µg/mL	Gravimetric
	CAS # 111-44-4.SEC	(Lot FA010143)			+/- 6.6944	µg/mL	Unstressed
	Purity 99%				+/- 16.4397	µg/mL	Stressed
7	2-Chlorophenol		1,000.2	µg/mL	+/- 5.8285	µg/mL	Gravimetric
	CAS # 95-57-8.SEC	(Lot GJ01)			+/- 6.6888	µg/mL	Unstressed
	Purity 99%				+/- 16.4261	µg/mL	Stressed
8	1,3-Dichlorobenzene		1,000.8	µg/mL	+/- 5.8324	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD-KA)			+/- 6.6933	µg/mL	Unstressed
	Purity 99%				+/- 16.4370	µg/mL	Stressed

25	Bis(2-chloroethoxy)methane		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 111-91-1 *	(Lot 317200)			+/-	6.6877	µg/mL	Unstressed
	Purity 99%				+/-	16.4233	µg/mL	Stressed
26	2,4-Dichlorophenol		1,000.5	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 120-83-2.SEC	(Lot FHM01)			+/-	6.6911	µg/mL	Unstressed
	Purity 99%				+/-	16.4315	µg/mL	Stressed
27	1,2,4-Trichlorobenzene		1,000.3	µg/mL	+/-	5.8295	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot OGO01)			+/-	6.6899	µg/mL	Unstressed
	Purity 99%				+/-	16.4288	µg/mL	Stressed
28	Naphthalene		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	6.6877	µg/mL	Unstressed
	Purity 99%				+/-	16.4233	µg/mL	Stressed
29	4-Chloroaniline		1,001.0	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 106-47-8.SEC	(Lot 10171860)			+/-	6.6944	µg/mL	Unstressed
	Purity 99%				+/-	16.4397	µg/mL	Stressed
30	Hexachlorobutadiene		1,000.7	µg/mL	+/-	5.8317	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 2009400)			+/-	6.6925	µg/mL	Unstressed
	Purity 97%				+/-	16.4351	µg/mL	Stressed
31	2-Methylnaphthalene		1,000.7	µg/mL	+/-	5.8314	µg/mL	Gravimetric
	CAS # 91-57-6.SEC	(Lot 76023-1)			+/-	6.6922	µg/mL	Unstressed
	Purity 99%				+/-	16.4343	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 59-50-7.SEC	(Lot FDO02)			+/-	6.6877	µg/mL	Unstressed
	Purity 99%				+/-	16.4233	µg/mL	Stressed
33	1-Methylnaphthalene		1,000.7	µg/mL	+/-	5.8314	µg/mL	Gravimetric
	CAS # 90-12-0.SEC	(Lot UATSA)			+/-	6.6922	µg/mL	Unstressed
	Purity 99%				+/-	16.4343	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,001.2	µg/mL	+/-	5.8343	µg/mL	Gravimetric
	CAS # 95-94-3.SEC	(Lot AF02)			+/-	6.6955	µg/mL	Unstressed
	Purity 99%				+/-	16.4425	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,001.5	µg/mL	+/-	5.8363	µg/mL	Gravimetric
	CAS # 77-47-4.SEC	(Lot 0012013)			+/-	6.6977	µg/mL	Unstressed
	Purity 99%				+/-	16.4480	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,003.0	µg/mL	+/-	5.8452	µg/mL	Gravimetric
	CAS # 88-06-2.SEC	(Lot UUMYM)			+/-	6.7080	µg/mL	Unstressed
	Purity 98%				+/-	16.4731	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-95-4.SEC	(Lot MKBG3862V/)			+/-	6.6877	µg/mL	Unstressed
	Purity 99%				+/-	16.4233	µg/mL	Stressed
38	2-Chloronaphthalene		1,000.7	µg/mL	+/-	5.8314	µg/mL	Gravimetric
	CAS # 91-58-7.SEC	(Lot LB89364V)			+/-	6.6922	µg/mL	Unstressed
	Purity 99%				+/-	16.4343	µg/mL	Stressed
39	Biphenyl		1,001.2	µg/mL	+/-	5.8343	µg/mL	Gravimetric
	CAS # 92-52-4.SEC	(Lot 330QE)			+/-	6.6955	µg/mL	Unstressed
	Purity 99%				+/-	16.4425	µg/mL	Stressed
40	2-Nitroaniline		1,000.3	µg/mL	+/-	5.8295	µg/mL	Gravimetric
	CAS # 88-74-4.SEC	(Lot T6E7B)			+/-	6.6899	µg/mL	Unstressed
	Purity 99%				+/-	16.4288	µg/mL	Stressed

73	Benzo(b)fluoranthene		1,000.4	µg/mL	+/- 5.8298	µg/mL	Gravimetric
	CAS # 205-99-2.SEC	(Lot 012012)			+/- 6.6903	µg/mL	Unstressed
	Purity 97%				+/- 16.4298	µg/mL	Stressed
74	Benzo(k)fluoranthene		1,000.7	µg/mL	+/- 5.8314	µg/mL	Gravimetric
	CAS # 207-08-9.SEC	(Lot 022011)			+/- 6.6922	µg/mL	Unstressed
	Purity 99%				+/- 16.4343	µg/mL	Stressed
75	Benzo(a)pyrene		1,000.2	µg/mL	+/- 5.8285	µg/mL	Gravimetric
	CAS # 50-32-8.SEC	(Lot 2IGMD)			+/- 6.6888	µg/mL	Unstressed
	Purity 99%				+/- 16.4261	µg/mL	Stressed
76	Indeno(1,2,3-cd)pyrene		1,001.3	µg/mL	+/- 5.8353	µg/mL	Gravimetric
	CAS # 193-39-5.SEC	(Lot 012011)			+/- 6.6966	µg/mL	Unstressed
	Purity 99%				+/- 16.4452	µg/mL	Stressed
77	Dibenz(a,h)anthracene		1,000.5	µg/mL	+/- 5.8304	µg/mL	Gravimetric
	CAS # 53-70-3.SEC	(Lot 0012012)			+/- 6.6911	µg/mL	Unstressed
	Purity 99%				+/- 16.4315	µg/mL	Stressed
78	Benzo(g,h,i)perylene		1,001.5	µg/mL	+/- 5.8363	µg/mL	Gravimetric
	CAS # 191-24-2 *	(Lot ER020708-08)			+/- 6.6977	µg/mL	Unstressed
	Purity 99%				+/- 16.4480	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Specific Reference Material Notes:
The Bis(2-chloroisopropyl)ether contains a 28% impurity of Propane, 1,1'oxybis,, 3-chloro.

Column:
30m x 0.25mm x 0.25um
Rtx-5 (cat.#10223)

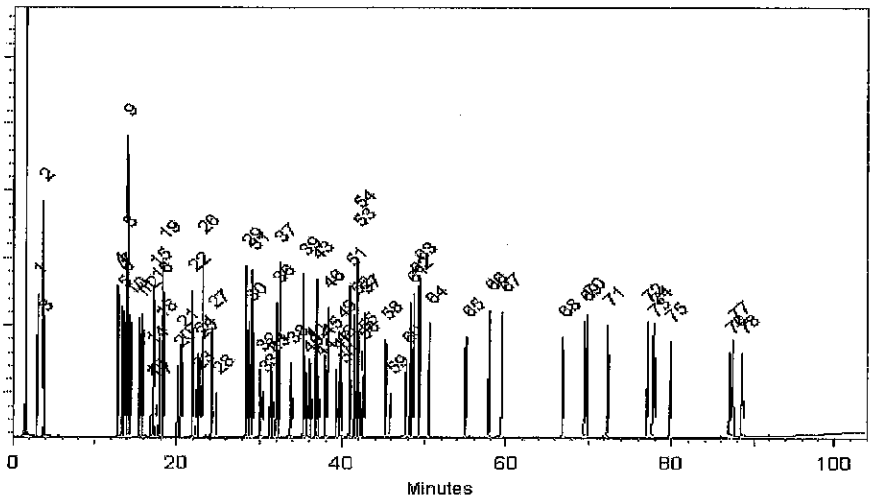
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Michael J Maye

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Mixed: 12-Nov-2013 **Balance:** 1128353505

Date Passed: 20-Nov-2013

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567672 **Lot No.:** A0101615

Description : 8270 List 1 / Std #1 MegaMix

8270 List 1 / Std #1 MegaMix 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : August 31, 2015 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBD4119V)	1,006.4 µg/mL	+/- 5.8510 µg/mL +/- 11.0182 µg/mL +/- 18.6887 µg/mL		Gravimetric Unstressed Stressed
2	Pyridine **CAS #** 110-86-1 **Purity** 99%	(Lot 02718MW)	1,001.7 µg/mL	+/- 5.8237 µg/mL +/- 10.9668 µg/mL +/- 18.6014 µg/mL		Gravimetric Unstressed Stressed
3	N-Nitrosodimethylamine **CAS #** 62-75-9 **Purity** 99%	(Lot 2179300)	1,001.4 µg/mL	+/- 5.8222 µg/mL +/- 10.9640 µg/mL +/- 18.5968 µg/mL		Gravimetric Unstressed Stressed
4	Aniline **CAS #** 62-53-3 **Purity** 99%	(Lot 68396APV)	1,009.3 µg/mL	+/- 5.8682 µg/mL +/- 11.0505 µg/mL +/- 18.7435 µg/mL		Gravimetric Unstressed Stressed
5	Phenol **CAS #** 108-95-2 **Purity** 99%	(Lot SHBC6998V)	1,009.5 µg/mL	+/- 5.8690 µg/mL +/- 11.0522 µg/mL +/- 18.7463 µg/mL		Gravimetric Unstressed Stressed
6	Bis(2-chloroethyl)ether **CAS #** 111-44-4 **Purity** 99%	(Lot 45296HKV)	1,005.2 µg/mL	+/- 5.8440 µg/mL +/- 11.0051 µg/mL +/- 18.6664 µg/mL		Gravimetric Unstressed Stressed
7	2-Chlorophenol **CAS #** 95-57-8 **Purity** 99%	(Lot MKBD3900V)	1,006.4 µg/mL	+/- 5.8510 µg/mL +/- 11.0182 µg/mL +/- 18.6887 µg/mL		Gravimetric Unstressed Stressed
8	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBC1891V)	1,009.2 µg/mL	+/- 5.8673 µg/mL +/- 11.0489 µg/mL +/- 18.7407 µg/mL		Gravimetric Unstressed Stressed

25	Bis(2-chloroethoxy)methane		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
26	2,4-Dichlorophenol		1,009.7	µg/mL	+/-	5.8705	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	11.0549	µg/mL	Unstressed
	Purity 99%				+/-	18.7509	µg/mL	Stressed
27	1,2,4-Trichlorobenzene		1,000.7	µg/mL	+/-	5.8179	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot 26896BM)			+/-	10.9558	µg/mL	Unstressed
	Purity 99%				+/-	18.5829	µg/mL	Stressed
28	Naphthalene		1,001.0	µg/mL	+/-	5.8196	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	10.9591	µg/mL	Unstressed
	Purity 99%				+/-	18.5884	µg/mL	Stressed
29	4-Chloroaniline		999.5	µg/mL	+/-	5.8112	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9432	µg/mL	Unstressed
	Purity 98%				+/-	18.5615	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.9	µg/mL	+/-	5.8249	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot K22W009)			+/-	10.9690	µg/mL	Unstressed
	Purity 98%				+/-	18.6052	µg/mL	Stressed
31	2-Methylnaphthalene		1,006.1	µg/mL	+/-	5.8497	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	11.0158	µg/mL	Unstressed
	Purity 96%				+/-	18.6846	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,004.2	µg/mL	+/-	5.8382	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9941	µg/mL	Unstressed
	Purity 99%				+/-	18.6479	µg/mL	Stressed
33	1-Methylnaphthalene		1,000.6	µg/mL	+/-	5.8173	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 5250.00-10)			+/-	10.9547	µg/mL	Unstressed
	Purity 99%				+/-	18.5810	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,009.5	µg/mL	+/-	5.8690	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 2220500)			+/-	11.0522	µg/mL	Unstressed
	Purity 99%				+/-	18.7463	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBH7393V)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
38	2-Chloronaphthalene		1,004.8	µg/mL	+/-	5.8417	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot FIJ01)			+/-	11.0007	µg/mL	Unstressed
	Purity 99%				+/-	18.6590	µg/mL	Stressed
39	Biphenyl		1,005.6	µg/mL	+/-	5.8464	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	11.0095	µg/mL	Unstressed
	Purity 99%				+/-	18.6739	µg/mL	Stressed
40	2-Nitroaniline		1,007.1	µg/mL	+/-	5.8551	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBF9132V)			+/-	11.0259	µg/mL	Unstressed
	Purity 99%				+/-	18.7017	µg/mL	Stressed

57	Azobenzene		1,006.5	µg/mL	+/-	5.8516	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot 130305JLM)			+/-	11.0193	µg/mL	Unstressed
	Purity 99%				+/-	18.6906	µg/mL	Stressed
58	4-Bromophenyl phenyl ether		1,003.7	µg/mL	+/-	5.8353	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	10.9887	µg/mL	Unstressed
	Purity 99%				+/-	18.6386	µg/mL	Stressed
59	Hexachlorobenzene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB93343V)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
60	Pentachlorophenol		2,006.3	µg/mL	+/-	11.6648	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 130826JLM)			+/-	21.9664	µg/mL	Unstressed
	Purity 99%				+/-	37.2586	µg/mL	Stressed
61	Phenanthrene		1,004.4	µg/mL	+/-	5.8394	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBJ4205V)			+/-	10.9963	µg/mL	Unstressed
	Purity 99%				+/-	18.6516	µg/mL	Stressed
62	Anthracene		1,007.3	µg/mL	+/-	5.8565	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	11.0286	µg/mL	Unstressed
	Purity 99%				+/-	18.7064	µg/mL	Stressed
63	n-Hexadecane (C16)		1,001.9	µg/mL	+/-	5.8248	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBC3991V)			+/-	10.9690	µg/mL	Unstressed
	Purity 99%				+/-	18.6051	µg/mL	Stressed
64	Carbazole		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9685	µg/mL	Unstressed
	Purity 98%				+/-	18.6043	µg/mL	Stressed
65	Di-n-butylphthalate		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBG1851V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
66	Fluoranthene		1,009.4	µg/mL	+/-	5.8685	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot 00828AJ)			+/-	11.0511	µg/mL	Unstressed
	Purity 98%				+/-	18.7444	µg/mL	Stressed
67	Pyrene		1,004.0	µg/mL	+/-	5.8371	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9921	µg/mL	Unstressed
	Purity 98%				+/-	18.6443	µg/mL	Stressed
68	Benzyl butyl phthalate		1,005.4	µg/mL	+/-	5.8452	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	11.0073	µg/mL	Unstressed
	Purity 99%				+/-	18.6701	µg/mL	Stressed
69	Benz(a)anthracene		1,006.4	µg/mL	+/-	5.8513	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	11.0188	µg/mL	Unstressed
	Purity 99%				+/-	18.6896	µg/mL	Stressed
70	Chrysene		1,003.2	µg/mL	+/-	5.8327	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9837	µg/mL	Unstressed
	Purity 99%				+/-	18.6302	µg/mL	Stressed
71	Bis(2-ethylhexyl)phthalate		1,000.9	µg/mL	+/-	5.8190	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBH9511V)			+/-	10.9580	µg/mL	Unstressed
	Purity 99%				+/-	18.5866	µg/mL	Stressed
72	Di-n-octyl phthalate		1,002.3	µg/mL	+/-	5.8272	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 1674300)			+/-	10.9733	µg/mL	Unstressed
	Purity 99%				+/-	18.6126	µg/mL	Stressed

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

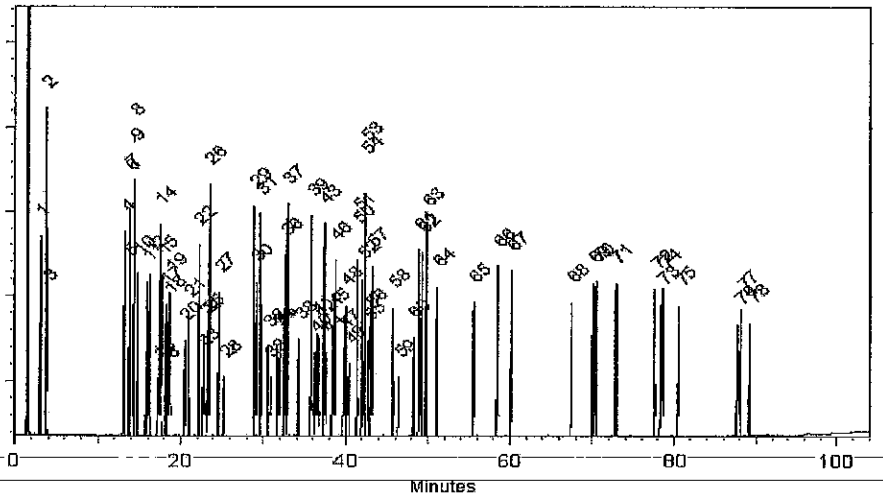
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



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

Rebecca Hanner

Date Mixed: 26-Feb-2014 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 04-Mar-2014

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567673.sec **Lot No.:** A0100416

Description : 8270 List 1 / Std #2 Amines

8270 List 1 / Std #2 Amines 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2015 **Storage:** 10°C or colder

Handling: Contains carcinogen

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	epsilon-Caprolactam **CAS #** 105-60-2.SEC (Lot BLJTB) **Purity** 99%	2,003.0 µg/mL	+/- 11.7547 µg/mL +/- 21.9884 µg/mL +/- 37.2316 µg/mL	Gravimetric Unstressed Stressed
2	Atrazine **CAS #** 1912-24-9.SEC (Lot 1132400) **Purity** 99%	2,004.0 µg/mL	+/- 11.7606 µg/mL +/- 21.9994 µg/mL +/- 37.2502 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5.SEC (Lot 1301900) **Purity** 99%	2,005.0 µg/mL	+/- 11.7665 µg/mL +/- 22.0103 µg/mL +/- 37.2688 µg/mL	Gravimetric Unstressed Stressed
4	3,3'-Dichlorobenzidine **CAS #** 91-94-1.SEC (Lot 2010900) **Purity** 99%	2,001.0 µg/mL	+/- 11.7430 µg/mL +/- 21.9664 µg/mL +/- 37.1944 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567673 **Lot No.:** A0100824

Description : 8270 List 1 / Std #2 Amines

8270 List 1 / Std #2 Amines 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2015 **Storage:** 10°C or colder

Handling: Contains carcinogen

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	epsilon-Caprolactam		2,004.8	µg/mL	+/- 11.7653	µg/mL	Gravimetric
	CAS # 105-60-2	(Lot 10000218)			+/- 22.0081	µg/mL	Unstressed
	Purity 99%				+/- 37.2650	µg/mL	Stressed
2	Atrazine		2,000.4	µg/mL	+/- 11.7393	µg/mL	Gravimetric
	CAS # 1912-24-9	(Lot TZ8ED)			+/- 21.9596	µg/mL	Unstressed
	Purity 98%				+/- 37.1828	µg/mL	Stressed
3	Benzidine		2,010.4	µg/mL	+/- 11.7982	µg/mL	Gravimetric
	CAS # 92-87-5	(Lot 140107JLM)			+/- 22.0696	µg/mL	Unstressed
	Purity 99%				+/- 37.3691	µg/mL	Stressed
4	3,3'-Dichlorobenzidine		2,000.0	µg/mL	+/- 11.7371	µg/mL	Gravimetric
	CAS # 91-94-1	(Lot 140109JLM)			+/- 21.9554	µg/mL	Unstressed
	Purity 99%				+/- 37.1758	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568725 **Lot No.:** A0101573

Description : 8270 List 1/ Std #7 Diphenylamine

8270 List 1/ Std #7 Diphenylamine 1,710 µg/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : February 28, 2017 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diphenylamine	1,706.8 µg/mL	+/- 10.0165	µg/mL	Gravimetric
	CAS # 122-39-4 (Lot 07525MF)		+/- 18.7368	µg/mL	Unstressed
	Purity 99%		+/- 31.7258	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

Tech Tips:

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568725.sec **Lot No.:** A099909

Description : 8270 List 1/ Std #7 Diphenylamine

8270 List 1/ Std #7 Diphenylamine 1,710 µg/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diphenylamine	1,696.0 µg/mL	+/- 9.9531	µg/mL	Gravimetric
	CAS # 122-39-4.SEC (Lot 10164691)		+/- 18.6182	µg/mL	Unstressed
	Purity 99%		+/- 31.5251	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

Tech Tips:
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #2122.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568724 **Lot No.:** A0103145

Description : 8270 List 1/ Std #8

8270 List 1/ Std #8 2,000 µg/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : May 31, 2015 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde **CAS #** 100-52-7 (Lot SHBC6366V) **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 µg/mL +/- 64.1312 µg/mL +/- 74.5440 µg/mL	Gravimetric Unstressed Stressed
2	Indene **CAS #** 95-13-6 (Lot MKBH4027V) **Purity** 99%	2,012.0 µg/mL	+/- 11.8075 µg/mL +/- 64.5160 µg/mL +/- 74.9913 µg/mL	Gravimetric Unstressed Stressed
3	Benzoic acid **CAS #** 65-85-0 (Lot MKBG9391V) **Purity** 99%	2,003.0 µg/mL	+/- 11.7547 µg/mL +/- 64.2274 µg/mL +/- 74.6558 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

5V 8270 List 1 Std. 568724.sec
A0103007

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 568724.sec **Lot No.:** A0103007

Description : 8270 List 1/ Std #8

8270 List 1/ Std #8 2,000 µg/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : April 30, 2015 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde		2,001.3 µg/mL	+/- 11.7449 µg/mL	Gravimetric
	CAS # 100-52-7.SEC	(Lot E7DWH)		+/- 64.1739 µg/mL	Unstressed
	Purity 99%			+/- 74.5937 µg/mL	Stressed
2	Indene		2,002.7 µg/mL	+/- 11.7528 µg/mL	Gravimetric
	CAS # 95-13-6.SEC	(Lot IG5TI)		+/- 64.2167 µg/mL	Unstressed
	Purity 99%			+/- 74.6434 µg/mL	Stressed
3	Benzoic acid		2,000.8 µg/mL	+/- 11.7417 µg/mL	Gravimetric
	CAS # 65-85-0.SEC	(Lot QD3UO)		+/- 64.1564 µg/mL	Unstressed
	Purity 97%			+/- 74.5733 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

7 08636
7 08635

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.03

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.

5 VIALS SURR SPK

Catalog No. : 567685 **Lot No.:** A093638

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : February 2018 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L., K=2)		
1	2-Fluorophenol	5,000.0	µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 367-12-4			+/- 132.9492	µg/mL	Unstressed
	Purity 99%			+/- 163.4029	µg/mL	Stressed
2	Phenol-d5	5,000.0	µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 4165-62-2			+/- 132.9492	µg/mL	Unstressed
	Purity 99%			+/- 163.4029	µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0	µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 4165-60-0			+/- 132.9492	µg/mL	Unstressed
	Purity 99%			+/- 163.4029	µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0	µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 321-60-8			+/- 132.9492	µg/mL	Unstressed
	Purity 99%			+/- 163.4029	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0	µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 118-79-6			+/- 132.9492	µg/mL	Unstressed
	Purity 99%			+/- 163.4029	µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0	µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 1718-51-0			+/- 132.9492	µg/mL	Unstressed
	Purity 99%			+/- 163.4029	µg/mL	Stressed
Solvent:	Methylene Chloride					
	CAS # 75-09-2					
	Purity 99%					

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

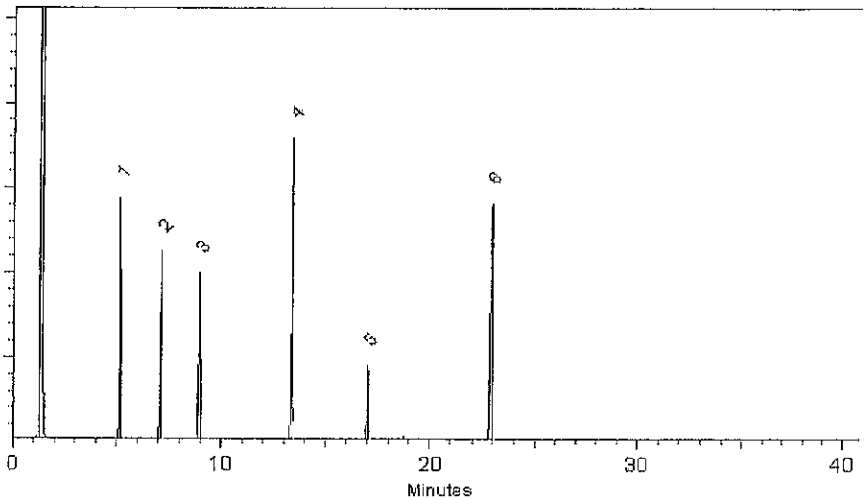
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Diane Shaffer - QAAnalyst

Date Passed: 22-Feb-2013 **Balance:** 1128342313

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567685 **Lot No.:** A093638

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

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

Expiration Date : February 2018 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 367-12-4		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
2	Phenol-d5	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 4165-62-2		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 4165-60-0		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 321-60-8		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 118-79-6		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 1718-51-0		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

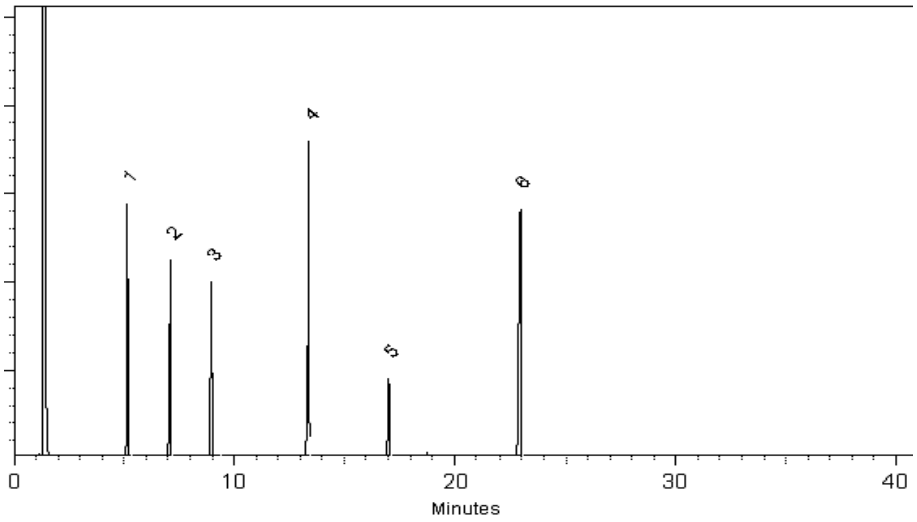
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Diane Shaffer - QA Analyst

Date Passed: 22-Feb-2013 **Balance:** 1128342313

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70451
Lot Number: 060514
Description: N-Nitrosopyrrolidine

Expiration Date: 060517
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1000

Solvent(s): Lot # 62418 Methylene chloride

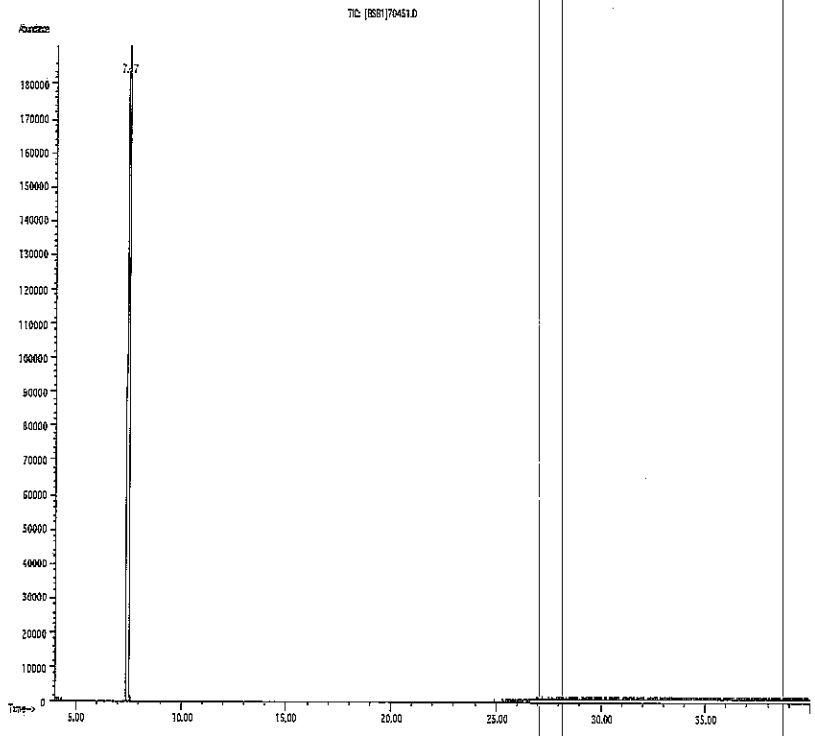
Formulated By: Paul Barron 060514 DATE

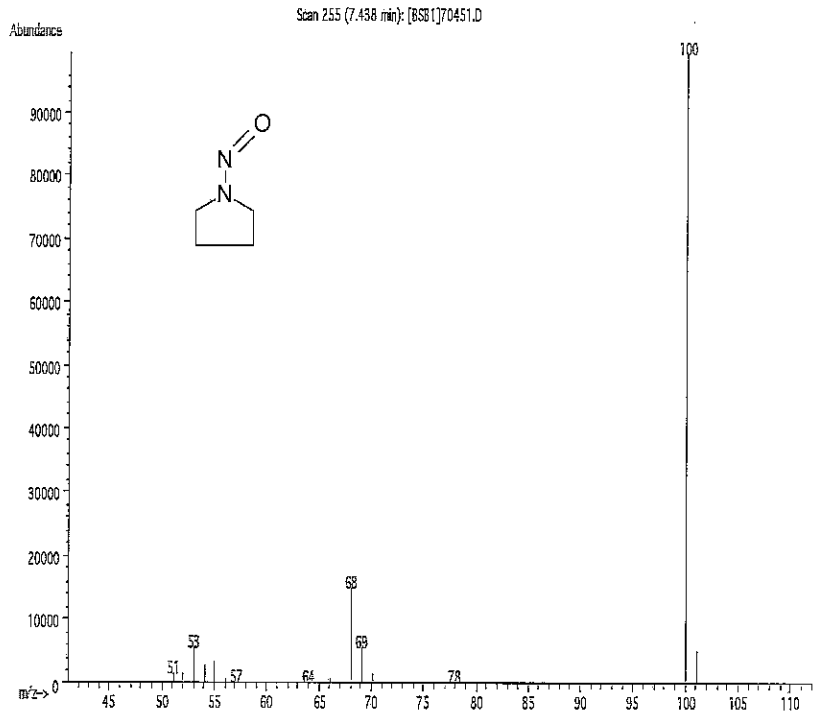
Reviewed By: Pedro L. Rentas 060514 DATE

Weight(s) shown below were combined and diluted to: 25.0 5E-05 Balance Uncertainty 0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. N-Nitrosopyrrolidine	451	04025BM	1000	99	0.2	0.02524	0.02530	1002.2	0.00565	00930-55-2	N/A	orl-rat 900mg/kg

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 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%

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 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%

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567645.sec **Lot No.:** A099261

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 : November 30, 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)	2,002.2 µg/mL	+/- 16.7616 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/- 21.2987 µg/mL	Unstressed
	Purity 99%		+/- 24.7536 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/- 15.8216 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 21.2729 µg/mL	Unstressed
	Purity 99%		+/- 24.7262 µg/mL	Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/- 14.6785 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 21.2759 µg/mL	Unstressed
	Purity 99%		+/- 24.7329 µg/mL	Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/- 16.7307 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 21.3051 µg/mL	Unstressed
	Purity 99%		+/- 24.7611 µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/- 16.2313 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 21.2671 µg/mL	Unstressed
	Purity 99%		+/- 24.7183 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/- 14.6721 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 21.2666 µg/mL	Unstressed
	Purity 99%		+/- 24.7221 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/- 15.1665 µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 21.3071 µg/mL	Unstressed
	Purity 99%		+/- 24.7678 µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/- 16.2157 µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/- 21.2894 µg/mL	Unstressed
	Purity 99%		+/- 24.7442 µg/mL	Stressed

RESTEK

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

www.restek.com

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ 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. : 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%

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 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%

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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 **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)

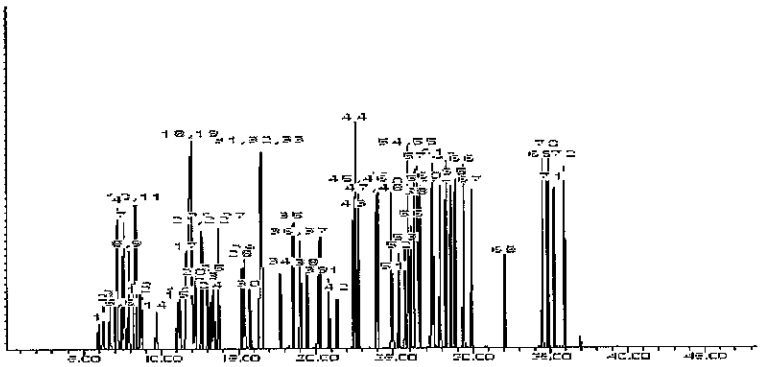
Carrier Gas:
helium-constant pressure 30 psi

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

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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 **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)

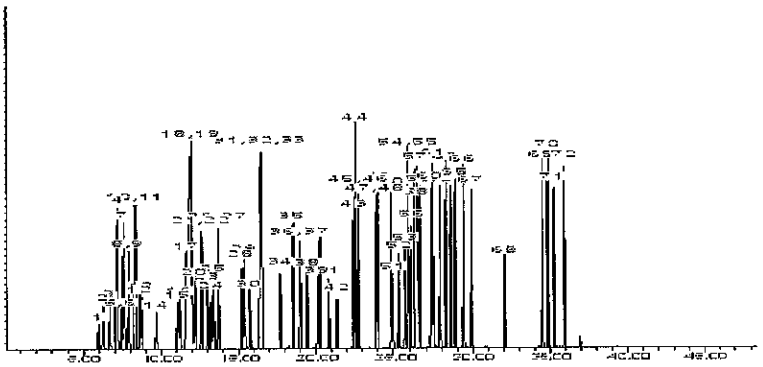
Carrier Gas:
helium-constant pressure 30 psi

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

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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)

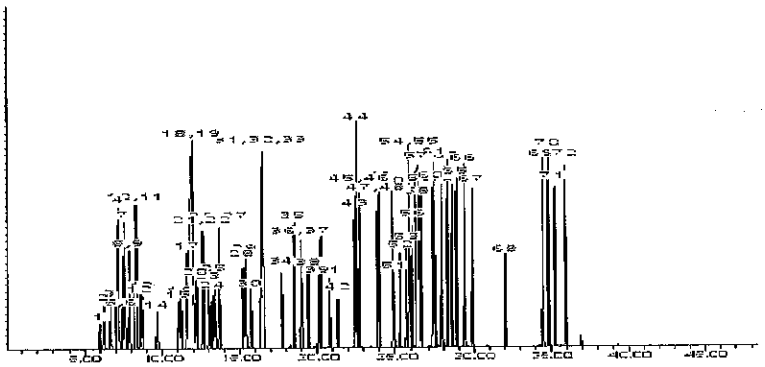
Carrier Gas:
helium-constant pressure 30 psi

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 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

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567646 **Lot No.:** A0102473

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 : October 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	4,007.3 µg/mL	+/- 23.5173	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot 131011JLM)		+/- 213.2854	µg/mL	Unstressed
	Purity 99%		+/- 213.5206	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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0104886

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

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acrolein	19,780.0 µg/mL	+/- 115.8162	µg/mL Gravimetric
	CAS # 107-02-8 (Lot 140429JLM)		+/- 634.2090	µg/mL Unstressed
	Purity 99%		+/- 737.1986	µg/mL Stressed

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0106504

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 : February 28, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,767.0 µg/mL	+/- 115.7401	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 140903JLM)		+/- 633.7922	µg/mL	Unstressed
	Purity 99%		+/- 736.7140	µg/mL	Stressed

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567643 **Lot No.:** A093368

Description : 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/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	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

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

Tech Tips:

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

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567643 **Lot No.:** A093368

Description : 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/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	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

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

Tech Tips:

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

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567648 **Lot No.:** A093361

Description : 8260 List 2 / Std #3 Cyclohexanone

8260 List 2 / Std #3 Cyclohexanone 20,000 ug/ml, Water, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Cyclohexanone	20,000.0 µg/mL	+/- 116.2756	µg/mL	Gravimetric
	CAS # 108-94-1		+/- 1,597.3791	µg/mL	Unstressed
	Purity 99%		+/- 1,598.1615	µg/mL	Stressed

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568722 **Lot No.:** A0100262

Description : 8260 List 2/ Std #1 Additions (2014)

8260 List 2/ Std #1 Additions (2014) 2,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : June 30, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	2-Propanol (isopropanol) **CAS #** 67-63-0 (Lot SHBC5752V) **Purity** 99%	20,007.0 µg/mL	+/- 117.1454 µg/mL +/- 1,064.8186 µg/mL +/- 1,065.9927 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) **CAS #** 126-99-8 (Lot 130611JLM) **Purity** 99%	2,000.0 µg/mL	+/- 32.2441 µg/mL +/- 110.6029 µg/mL +/- 110.7159 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 (Lot SHBD3394V) **Purity** 99%	4,002.0 µg/mL	+/- 23.4860 µg/mL +/- 213.0015 µg/mL +/- 213.2364 µg/mL	Gravimetric Unstressed Stressed
4	Methacrylonitrile **CAS #** 126-98-7 (Lot 2194000) **Purity** 99%	20,000.5 µg/mL	+/- 117.1073 µg/mL +/- 1,064.4727 µg/mL +/- 1,065.6464 µg/mL	Gravimetric Unstressed Stressed
5	2,2,4-Trimethylpentane (isooctane) **CAS #** 540-84-1 (Lot SHBB2470V) **Purity** 99%	2,004.5 µg/mL	+/- 11.7635 µg/mL +/- 106.6871 µg/mL +/- 106.8047 µg/mL	Gravimetric Unstressed Stressed
6	1-Butanol **CAS #** 71-36-3 (Lot SHBC1840V) **Purity** 99%	50,001.0 µg/mL	+/- 292.7518 µg/mL +/- 2,661.1667 µg/mL +/- 2,664.1010 µg/mL	Gravimetric Unstressed Stressed
7	1,4-Difluorobenzene **CAS #** 540-36-3 (Lot 13105AO) **Purity** 99%	2,006.5 µg/mL	+/- 11.7753 µg/mL +/- 106.7935 µg/mL +/- 106.9112 µg/mL	Gravimetric Unstressed Stressed
8	Ethyl acrylate **CAS #** 140-88-5 (Lot 10129902) **Purity** 99%	2,005.5 µg/mL	+/- 11.7694 µg/mL +/- 106.7403 µg/mL +/- 106.8580 µg/mL	Gravimetric Unstressed Stressed

9	Methyl methacrylate		4,003.0	µg/mL	+/-	23.4918	µg/mL	Gravimetric
	CAS # 80-62-6	(Lot MKBK0839V)			+/-	213.0548	µg/mL	Unstressed
	Purity 99%				+/-	213.2897	µg/mL	Stressed
10	2-Nitropropane		4,006.6	µg/mL	+/-	23.5129	µg/mL	Gravimetric
	CAS # 79-46-9	(Lot BCBJ4343V)			+/-	213.2456	µg/mL	Unstressed
	Purity 97%				+/-	213.4807	µg/mL	Stressed
11	Butyl acetate		2,001.0	µg/mL	+/-	11.7430	µg/mL	Gravimetric
	CAS # 123-86-4	(Lot SHBC9340V)			+/-	106.5008	µg/mL	Unstressed
	Purity 99%				+/-	106.6182	µg/mL	Stressed
12	1-Chlorohexane		2,007.5	µg/mL	+/-	11.7811	µg/mL	Gravimetric
	CAS # 544-10-5	(Lot 05107LK)			+/-	106.8467	µg/mL	Unstressed
	Purity 99%				+/-	106.9645	µg/mL	Stressed
13	1,2,3-Trimethylbenzene		2,004.0	µg/mL	+/-	11.7607	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 8776.05-10)			+/-	106.6615	µg/mL	Unstressed
	Purity 97%				+/-	106.7791	µg/mL	Stressed
14	Benzyl chloride		2,009.0	µg/mL	+/-	11.7899	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot 20396EK)			+/-	106.9266	µg/mL	Unstressed
	Purity 99%				+/-	107.0445	µg/mL	Stressed
15	1,3,5-Trichlorobenzene		2,000.0	µg/mL	+/-	11.7371	µg/mL	Gravimetric
	CAS # 108-70-3	(Lot 11319AS)			+/-	106.4475	µg/mL	Unstressed
	Purity 99%				+/-	106.5649	µg/mL	Stressed

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

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
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. : 567719 **Lot No.:** A093359

Description : 8260 List 2 / Std #2

8260 List 2 / Std #2 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	Pentachloroethane	2,000.0 µg/mL	+/- 11.6550	µg/mL	Gravimetric
	CAS # 76-01-7		+/- 24.1205	µg/mL	Unstressed
	Purity 99%		+/- 27.2132	µg/mL	Stressed
2	2-Methylnaphthalene	1,999.9 µg/mL	+/- 11.6546	µg/mL	Gravimetric
	CAS # 91-57-6		+/- 24.1196	µg/mL	Unstressed
	Purity 96%		+/- 27.2121	µg/mL	Stressed

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568723 **Lot No.:** A099930

Description : 8260 List 3/ Std#1 Polar Additions

8260 List 3/ Std#1 Polar Additions 2,000-100,000 µg/ml, 1 ml/ampul

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

Expiration Date : December 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Ethanol **CAS #** 64-17-5 (Lot SHBC8676V) **Purity** 99%	100,255.6 µg/mL	+/- 586.9883 µg/mL +/- 3,493.5733 µg/mL +/- 3,613.2792 µg/mL	Gravimetric Unstressed Stressed
2	Acetonitrile **CAS #** 75-05-8 (Lot SHBB3177V) **Purity** 98%	20,015.9 µg/mL	+/- 117.1976 µg/mL +/- 697.4888 µg/mL +/- 721.3879 µg/mL	Gravimetric Unstressed Stressed
3	Diisopropyl ether (DIPE) **CAS #** 108-20-3 (Lot SHBB6268V) **Purity** 99%	2,001.6 µg/mL	+/- 11.7465 µg/mL +/- 69.7537 µg/mL +/- 72.1435 µg/mL	Gravimetric Unstressed Stressed
4	Ethyl-tert-butyl ether (ETBE) **CAS #** 637-92-3 (Lot MKBP5984V) **Purity** 99%	2,008.4 µg/mL	+/- 11.7864 µg/mL +/- 69.9907 µg/mL +/- 72.3885 µg/mL	Gravimetric Unstressed Stressed
5	Propionitrile **CAS #** 107-12-0 (Lot BCBK0700V) **Purity** 99%	20,039.6 µg/mL	+/- 117.3363 µg/mL +/- 698.3142 µg/mL +/- 722.2416 µg/mL	Gravimetric Unstressed Stressed
6	tert-Amyl alcohol **CAS #** 75-85-4 (Lot STBB1898V) **Purity** 99%	20,035.2 µg/mL	+/- 117.3105 µg/mL +/- 698.1609 µg/mL +/- 722.0831 µg/mL	Gravimetric Unstressed Stressed
7	tert-Amyl methyl ether (TAME) **CAS #** 994-05-8 (Lot OS1028/4V) **Purity** 99%	2,005.6 µg/mL	+/- 11.7700 µg/mL +/- 69.8931 µg/mL +/- 72.2876 µg/mL	Gravimetric Unstressed Stressed

1320546
ID: WCN1000P_00022
Exp:01/24/15 Prpd:PGJ Opn:09/12/14
Cyanide 1000 ppm Primary

LabChem
performance through chemistry
Jackson's Pointe Commerce Park - Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

1320547
ID: WAvCN1000P_00015
Exp:01/24/15 Prpd:PGJ Opn:09/12/14
Available Cyanide 1000 pp

CERTIFICATE OF ANALYSIS

Description: CYANIDE STANDARD, 1000ppm (1ml = 1mg CN)

Catalog Number: LC13545
Lot Number: D199-09

Mfg Date: 07/24/2014
Expiration Date: 01/24/2015

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm CN	1000ppm +/- 10ppm	1001ppm
Concentration mg CN/mL	1.000mg/mL +/- 0.010 mg CN/mL	1.001 mg CN/mL
Traceable to NIST	Potassium Chloride	999b

Submitted By: Greg Albright, Chemist Supervisor

Greg Albright

An ISO9001:2008 certified company. Registration # 0306-01

09/11/2014 8:37:55 AM

Form #17.12 06/19/2012

Page 1 of 1

RICCA CHEMICAL COMPANY

Arlington, TX 76012
Pocomoke City, MD 21851
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

1322242
ID: WCN1000S_00015
Exp:12/31/14 Prpd:PGJ Opn:09/15/14
Cyanide 1000 ppm Secondar

1322243
ID: WAvCN1000S_00016
Exp:12/31/14 Prpd:PGJ Opn:09/15/14
Available Cyanide 1000 Se

Certificate of Analysis

Cyanide Standard, 1 mL = 1 mg CN, 1000 ppm CN

Lot Number: 4406986 Product Number: 2543 Expiration Date: DEC 2014 Manufacture Date:6/27/2014

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.
Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard.
Restandardize weekly if extreme accuracy is required.

Contains:

Name	CAS#	Grade
Potassium Cyanide, KCN	151-50-8	ACS
Sodium Hydroxide, NaOH	1310-73-2	ACS
Water, Deionized, H2O	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, cyanide odor	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1000 ± 5 ppm CN-	1000 ppm CN-

Specification	Reference	Method Number
Stock Standard Cyanide Solution	APHA	4500-CN- F
Stock Cyanide Solution	APHA	4500-CN- E
Stock Cyanide Solution	APHA	4500-CN- K
Stock Cyanide Solution	APHA	4500-CN- H
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846)	7.3.3.2
Cyanide Calibration Stock Solution (1,000 mg/L CN-)	EPA (SW-846)	9213
Stock Cyanide Solution	EPA	335.3
Stock Cyanide Solution	EPA	335.2
Cyanide Solution Stock	ASTM	D 4282
Simple Cyanide Solution, Stock (1.0 g/L CN)	ASTM	D 4374

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
2543-4	6 months
2543-32	6 months
2543-16	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

LaNelle Ohlhausen
Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Version: 2

To determine manufacture site using lot number, visit http://www.riccachemical.com/Documents/lot.pdf.

Version: 2

ERA

A Waters Company

Reference Material

▪ Certificate of Analysis ▪

Product:	WatR™ Pollution Solids
Catalog Number:	499
Lot No.	P233-499
Certificate Issue Date:	September 10, 2014
Expiration Date:	October 31, 2017
Revision Number:	Original

1391435
ID WResPSP_00028
Exp: 10/31/17 Prpd SJK
ERA Solids

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/L	%	mg/L	mg/L
Total Suspended Solids	56.9	1.60	45.5 - 61.5	44.9 - 64.6
Total Dissolved Solids at 180°C	212	7.51	186 - 238	167 - 257
Total Solids at 105°C	272	6.41	224 - 305	227 - 317
pH (s.u.)	9.04	NA	8.84 - 9.24	-

ANALYTICAL VERIFICATION

Parameter	Certified	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/L	mg/L	%			%
Total Suspended Solids	56.9	53.9	94.8	18	-	-
Total Dissolved Solids at 180°C	212	210	99.0	9	999b	98.9
Total Solids at 105°C	272	278	102	7	999b	102
pH (s.u.)	9.04	-	-	-	187e	100

1. The Certified Values are the actual "made-to" concentrations confirmed by ERA analytical verification. . The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

ACCREDITED

ACCREDITED

Certification Summary

Client: EA Engineering, Science, and Technology
Project/Site: Sparrows Point Trust Offshore Investigat

TestAmerica Job ID: 180-39432-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	State Program	9	2891
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

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.

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

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 #
ST-071-120114	180-39432-1	109	101	102	98
ST-UNNAMED-120114	180-39432-2	99	82	90	85
ST-018-120114	180-39432-3	10 X	80	94	84
ST-014-120114	180-39432-4	93	88	88	89
TRIP BLANK	180-39432-5	115	109	114	107
	MB 180-127589/6	82	74	100	80
	LCS 180-127589/11	89	91	100	95

	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.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7120811.D

Lab ID: LCS 180-127589/11 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	40.0	35.0	88	69-134	
1,1,2,2-Tetrachloroethane	40.0	36.8	92	59-136	
1,1,2-Trichloroethane	40.0	38.3	96	75-126	
1,1-Dichloroethane	40.0	33.4	84	77-122	
1,1-Dichloroethene	40.0	42.8	107	69-127	
1,2-Dichlorobenzene	40.0	41.9	105	75-125	
1,2-Dichloroethane	40.0	40.5	101	63-140	
1,2-Dichloropropane	40.0	40.1	100	75-114	
1,3-Dichlorobenzene	40.0	40.4	101	76-125	
1,4-Dichlorobenzene	40.0	40.3	101	76-123	
Benzene	40.0	38.8	97	80-120	
Bromoform	40.0	45.8	114	49-137	
Bromomethane	40.0	31.9	80	45-150	
Carbon tetrachloride	40.0	40.9	102	63-139	
Chlorobenzene	40.0	39.0	97	83-120	
Chloroform	40.0	37.1	93	77-119	
Chloromethane	40.0	31.1	78	49-133	
Chlorodibromomethane	40.0	39.0	98	64-124	
cis-1,3-Dichloropropene	40.0	37.2	93	74-123	
Dichlorobromomethane	40.0	37.2	93	71-119	
Ethylbenzene	40.0	39.5	99	79-124	
Methylene Chloride	40.0	37.2	93	75-120	
Tetrachloroethene	40.0	41.2	103	78-126	
Toluene	40.0	37.7	94	80-124	
trans-1,2-Dichloroethene	40.0	36.2	90	78-120	
trans-1,3-Dichloropropene	40.0	35.2	88	63-122	
Trichloroethene	40.0	40.4	101	80-120	
Vinyl chloride	40.0	29.6	74	57-128	
Chloroethane	40.0	36.6	91	33-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: 7120806.D Lab Sample ID: MB 180-127589/6

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

Instrument ID: CHHP7 Date Analyzed: 12/08/2014 15:06

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 180-127589/11	7120811.D	12/08/2014 17:17
TRIP BLANK	180-39432-5	7120815.D	12/08/2014 19:03
ST-071-120114	180-39432-1	7120816.D	12/08/2014 19:29
ST-UNNAMED-120114	180-39432-2	7120817.D	12/08/2014 19:56
ST-018-120114	180-39432-3	7120818.D	12/08/2014 20:22
ST-014-120114	180-39432-4	7120819.D	12/08/2014 20:49

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: 7102001.D BFB Injection Date: 10/20/2014

Instrument ID: CHHP7 BFB Injection Time: 11:48

Analysis Batch No.: 122015

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.5	
75	30.0 - 60.0 % of mass 95	48.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.6	(0.8)1
174	50.0 - 120.00 % of mass 95	77.1	
175	5.0 - 9.0 % of mass 174	5.6	(7.3)1
176	95.0 - 101.0 % of mass 174	77.7	(100.8)1
177	5.0 - 9.0 % of mass 176	4.8	(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
	IC 180-122015/3	7102003.D	10/20/2014	12:49
	IC 180-122015/4	7102004.D	10/20/2014	13:15
	IC 180-122015/5	7102005.D	10/20/2014	13:42
	IC 180-122015/6	7102006.D	10/20/2014	14:12
	IC 180-122015/7	7102007.D	10/20/2014	14:42
	IC 180-122015/8	7102008.D	10/20/2014	15:08
	IC 180-122015/9	7102009.D	10/20/2014	15:38

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: 7102101.D BFB Injection Date: 10/21/2014

Instrument ID: CHHP7 BFB Injection Time: 08:37

Analysis Batch No.: 122150

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	26.6	
75	30.0 - 60.0 % of mass 95	53.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.6	(0.8)1
174	50.0 - 120.00 % of mass 95	79.3	
175	5.0 - 9.0 % of mass 174	5.9	(7.5)1
176	95.0 - 101.0 % of mass 174	78.1	(98.4)1
177	5.0 - 9.0 % of mass 176	5.9	(7.6)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-122150/4	7102104.D	10/21/2014	10:13
	IC 180-122150/5	7102105.D	10/21/2014	10:40
	IC 180-122150/7	7102107.D	10/21/2014	11:36
	IC 180-122150/8	7102108.D	10/21/2014	12:35
	IC 180-122150/9	7102109.D	10/21/2014	13:50
	IC 180-122150/13	7102113.D	10/21/2014	17:35
	ICIS 180-122150/15	7102115.D	10/21/2014	18:28

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: 7120801.D BFB Injection Date: 12/08/2014

Instrument ID: CHHP7 BFB Injection Time: 10:12

Analysis Batch No.: 127589

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.5	
75	30.0 - 60.0 % of mass 95	46.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	9.0	
173	Less than 2.0 % of mass 174	0.5	(0.5)1
174	50.0 - 120.00 % of mass 95	90.8	
175	5.0 - 9.0 % of mass 174	6.2	(6.9)1
176	95.0 - 101.0 % of mass 174	90.0	(99.1)1
177	5.0 - 9.0 % of mass 176	6.4	(7.1)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-127589/3	7120803.D	12/08/2014	12:33
	CCV 180-127589/5	7120805.D	12/08/2014	14:36
	MB 180-127589/6	7120806.D	12/08/2014	15:06
	LCS 180-127589/11	7120811.D	12/08/2014	17:17
TRIP BLANK	180-39432-5	7120815.D	12/08/2014	19:03
ST-071-120114	180-39432-1	7120816.D	12/08/2014	19:29
ST-UNNAMED-120114	180-39432-2	7120817.D	12/08/2014	19:56
ST-018-120114	180-39432-3	7120818.D	12/08/2014	20:22
ST-014-120114	180-39432-4	7120819.D	12/08/2014	20:49

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVIS 180-127589/3 Date Analyzed: 12/08/2014 12:33

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7120803.D Heated Purge: (Y/N) N

Calibration ID: 18679

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		70352	4.66	156630	7.40	36973	10.47
UPPER LIMIT							
LOWER LIMIT							
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-127589/5		64986	4.54	172848	7.40	38716	10.47
MB 180-127589/6		59841	4.59	296770	7.42	63288	10.48
LCS 180-127589/11		55585	4.58	159801	7.41	38703	10.47
180-39432-5	TRIP BLANK	82569	4.55	169982	7.42	37540	10.47
180-39432-1	ST-071-120114	75360	4.58	186151	7.42	45111	10.47
180-39432-2	ST-UNNAMED-120114	81272	4.59	177528	7.41	42310	10.47
180-39432-3	ST-018-120114	80054	4.56	193303	7.40	44139	10.47
180-39432-4	ST-014-120114	71151	4.56	159170	7.41	39801	10.47

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.: 180-39432-1

SDG No.:

Sample No.: CCVIS 180-127589/3 Date Analyzed: 12/08/2014 12:33

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7120803.D Heated Purge: (Y/N) N

Calibration ID: 18679

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		54728	12.79				
UPPER LIMIT							
LOWER LIMIT							
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-127589/5		58977	12.79				
MB 180-127589/6		77665	12.79				
LCS 180-127589/11		52183	12.79				
180-39432-5	TRIP BLANK	53769	12.80				
180-39432-1	ST-071-120114	55206	12.80				
180-39432-2	ST-UNNAMED-120114	57299	12.79				
180-39432-3	ST-018-120114	55873	12.79				
180-39432-4	ST-014-120114	51144	12.79				

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Matrix: Water Lab File ID: 7120816.D

Analysis Method: 8260C Date Collected: 12/01/2014 17:35

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 19:29

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.93
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.2
75-34-3	1,1-Dichloroethane	ND		5.0	1.0
75-35-4	1,1-Dichloroethene	ND		5.0	1.1
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.68
107-06-2	1,2-Dichloroethane	ND		5.0	0.96
78-87-5	1,2-Dichloropropane	ND		5.0	1.3
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.51
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.53
110-75-8	2-Chloroethyl vinyl ether	ND		10	1.9
107-02-8	Acrolein	ND		100	5.7
107-13-1	Acrylonitrile	ND		50	9.0
71-43-2	Benzene	ND		5.0	0.99
75-25-2	Bromoform	ND		5.0	1.1
74-83-9	Bromomethane	ND		5.0	1.6
56-23-5	Carbon tetrachloride	ND		5.0	1.1
108-90-7	Chlorobenzene	ND		5.0	0.53
67-66-3	Chloroform	ND		5.0	1.0
74-87-3	Chloromethane	ND		5.0	1.4
124-48-1	Chlorodibromomethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.73
75-27-4	Dichlorobromomethane	ND		5.0	0.93
100-41-4	Ethylbenzene	ND		5.0	0.62
75-09-2	Methylene Chloride	ND		5.0	1.1
127-18-4	Tetrachloroethene	ND		5.0	0.82
108-88-3	Toluene	ND		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.58
79-01-6	Trichloroethene	ND		5.0	0.80
75-01-4	Vinyl chloride	ND		5.0	1.3
75-00-3	Chloroethane	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Matrix: Water Lab File ID: 7120816.D

Analysis Method: 8260C Date Collected: 12/01/2014 17:35

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 19:29

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		62-123
460-00-4	4-Bromofluorobenzene (Surr)	98		75-120
1868-53-7	Dibromofluoromethane (Surr)	109		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120816.D
Lims ID: 180-39432-L-1 Lab Sample ID: 180-39432-1
Client ID: ST-071-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 19:29:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-39432-L-1
Misc. Info.: 180-0004755-016
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:32:51 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 09-Dec-2014 08:29:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.576	4.586	-0.010	76	75360	5000.0	M
* 2 Fluorobenzene (IS)	96	7.417	7.403	0.014	98	186151	250.0	
* 3 Chlorobenzene-d5	119	10.471	10.469	0.002	92	45111	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.787	0.008	93	55206	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.663	6.666	-0.003	91	50485	272.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.031	0.015	94	58826	251.3	
$ 7 Toluene-d8 (Surr)	98	9.035	9.039	-0.004	95	198214	255.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.637	0.003	94	70367	245.2	
11 Chloromethane	50		2.000				ND	
12 Vinyl chloride	62		2.171				ND	
14 Bromomethane	94		2.493				ND	
15 Chloroethane	64		2.603				ND	
21 Acrolein	56		3.460				ND	
20 1,1-Dichloroethene	96		3.558				ND	
30 Methylene Chloride	84		4.361				ND	
32 Acrylonitrile	53		4.780				ND	
31 trans-1,2-Dichloroethene	96		4.787				ND	
36 1,1-Dichloroethane	63		5.346				ND	
48 Chloroform	83		6.490				ND	
50 1,1,1-Trichloroethane	97		6.685				ND	
52 Carbon tetrachloride	117		6.861				ND	
54 Benzene	78		7.092				ND	
55 1,2-Dichloroethane	62		7.117				ND	
60 Trichloroethene	130		7.786				ND	
64 1,2-Dichloropropane	63		8.017				ND	
68 Dichlorobromomethane	83		8.309				ND	
69 2-Chloroethyl vinyl ether	63		8.632				ND	
71 cis-1,3-Dichloropropene	75		8.765				ND	
73 Toluene	91		9.106				ND	
74 trans-1,3-Dichloropropene	75		9.325				ND	
76 1,1,2-Trichloroethane	97		9.501				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.641				ND	
81 Chlorodibromomethane	129		9.897				ND	
83 Chlorobenzene	112		10.499				ND	
85 Ethylbenzene	106		10.602				ND	
90 Bromoform	173		11.308				ND	
93 1,1,2,2-Tetrachloroethane	83		11.770				ND	
105 1,3-Dichlorobenzene	146		12.725				ND	
107 1,4-Dichlorobenzene	146		12.817				ND	
111 1,2-Dichlorobenzene	146		13.188				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00025	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added: 10.00	Units: uL	Run Reagent

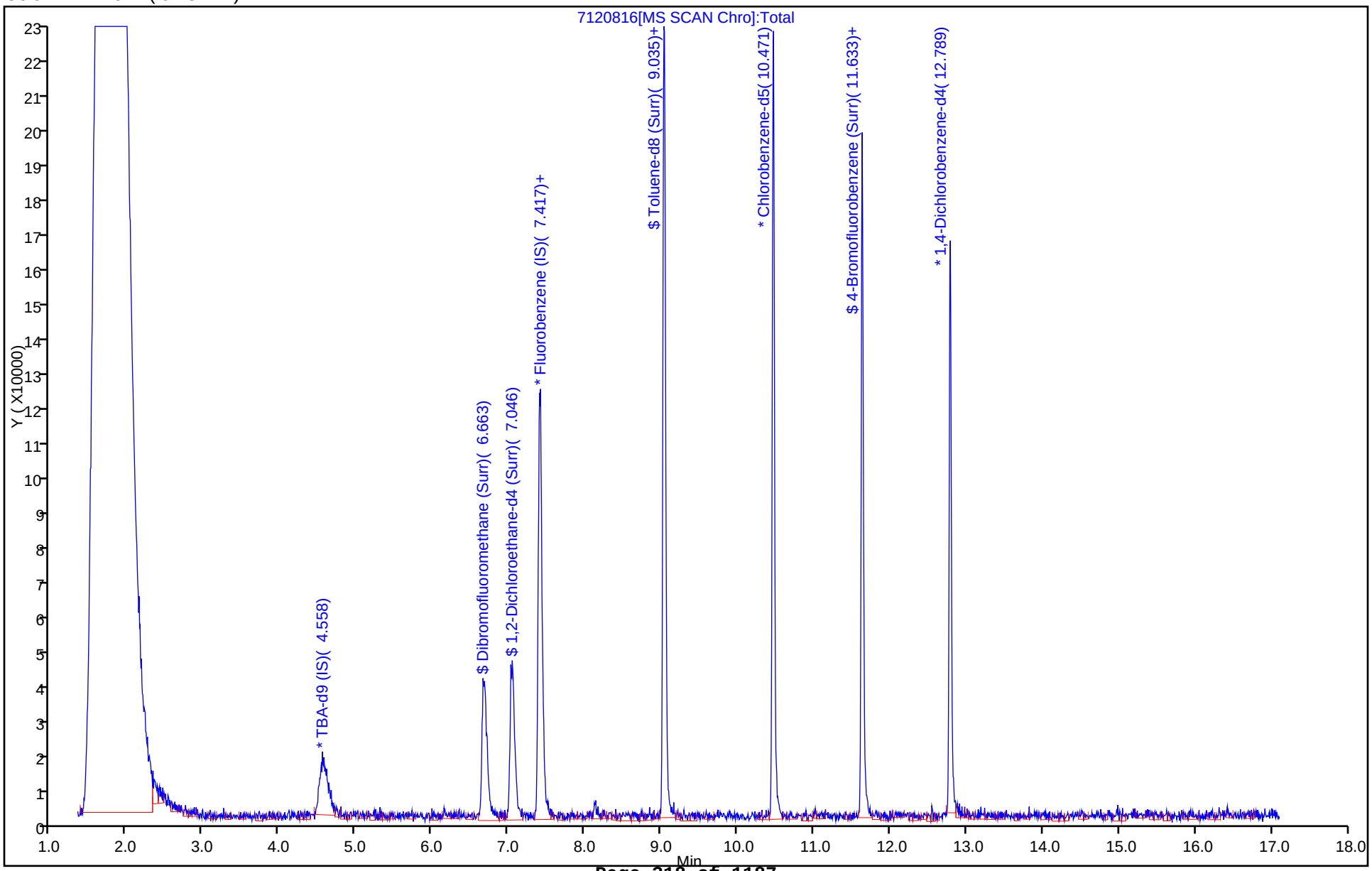
Report Date: 09-Dec-2014 08:33:23 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120816.D

Injection Date:	08-Dec-2014 19:29:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-39432-L-1	Lab Sample ID:	180-39432-1	Worklist Smp#:	16
Client ID:	ST-071-120114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

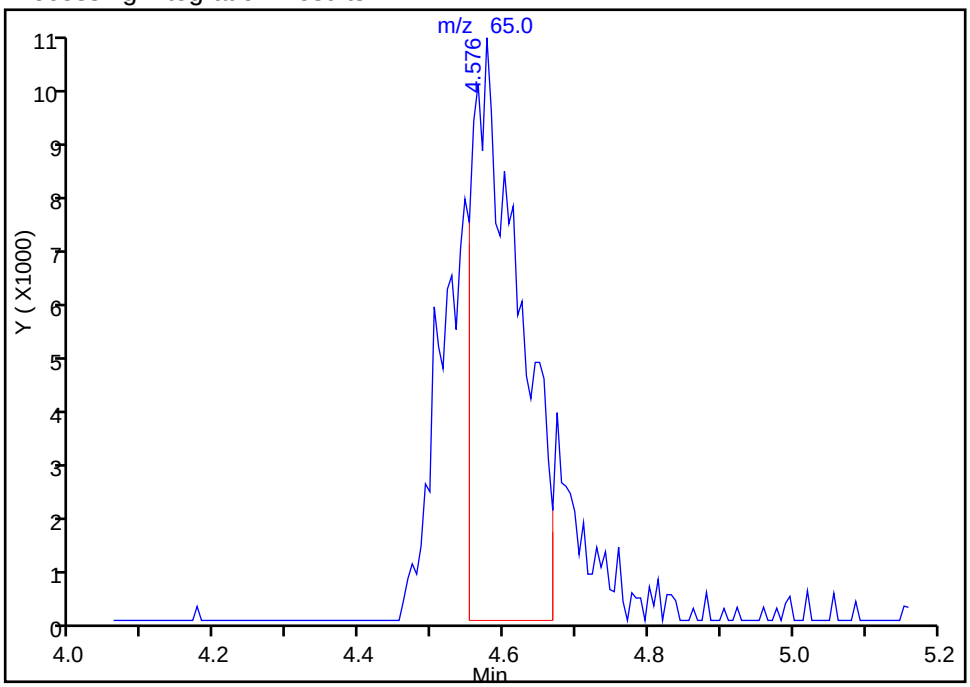
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120816.D				
Injection Date:	08-Dec-2014 19:29:30	Instrument ID:	CHHP7		
Lims ID:	180-39432-L-1	Lab Sample ID:	180-39432-1		
Client ID:	ST-071-120114				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

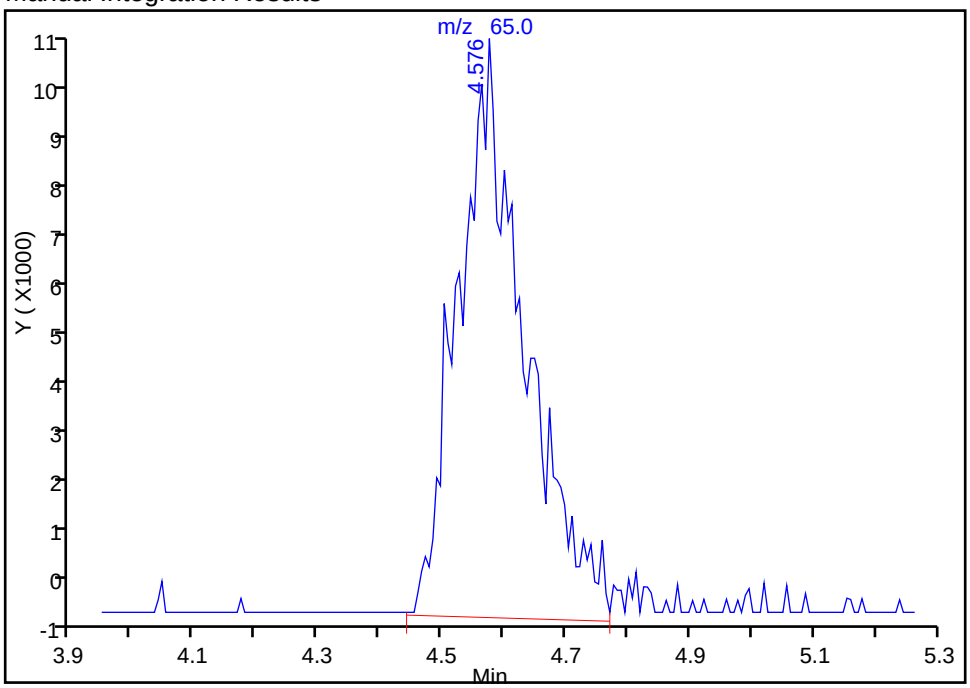
Processing Integration Results

RT: 4.58
Response: 45300
Amount: 5000.0000



Manual Integration Results

RT: 4.58
Response: 75360
Amount: 5000.0000



Reviewer: journetp, 09-Dec-2014 08:29:38
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Matrix: Water Lab File ID: 7120817.D

Analysis Method: 8260C Date Collected: 12/01/2014 18:25

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 19:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.93
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.2
75-34-3	1,1-Dichloroethane	ND		5.0	1.0
75-35-4	1,1-Dichloroethene	ND		5.0	1.1
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.68
107-06-2	1,2-Dichloroethane	ND		5.0	0.96
78-87-5	1,2-Dichloropropane	ND		5.0	1.3
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.51
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.53
110-75-8	2-Chloroethyl vinyl ether	ND		10	1.9
107-02-8	Acrolein	ND		100	5.7
107-13-1	Acrylonitrile	ND		50	9.0
71-43-2	Benzene	ND		5.0	0.99
75-25-2	Bromoform	ND		5.0	1.1
74-83-9	Bromomethane	ND		5.0	1.6
56-23-5	Carbon tetrachloride	ND		5.0	1.1
108-90-7	Chlorobenzene	ND		5.0	0.53
67-66-3	Chloroform	ND		5.0	1.0
74-87-3	Chloromethane	ND		5.0	1.4
124-48-1	Chlorodibromomethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.73
75-27-4	Dichlorobromomethane	ND		5.0	0.93
100-41-4	Ethylbenzene	ND		5.0	0.62
75-09-2	Methylene Chloride	ND		5.0	1.1
127-18-4	Tetrachloroethene	ND		5.0	0.82
108-88-3	Toluene	ND		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.58
79-01-6	Trichloroethene	ND		5.0	0.80
75-01-4	Vinyl chloride	ND		5.0	1.3
75-00-3	Chloroethane	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Matrix: Water Lab File ID: 7120817.D

Analysis Method: 8260C Date Collected: 12/01/2014 18:25

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 19:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		62-123
460-00-4	4-Bromofluorobenzene (Surr)	85		75-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	90		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120817.D
Lims ID: 180-39432-M-2 Lab Sample ID: 180-39432-2
Client ID: ST-UNNAMED-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 19:56:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-39432-M-2
Misc. Info.: 180-0004755-017
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:32:51 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 09-Dec-2014 08:30:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.586	4.586	0.000	65	81272	5000.0	M
* 2 Fluorobenzene (IS)	96	7.409	7.403	0.006	98	177528	250.0	
* 3 Chlorobenzene-d5	119	10.469	10.469	0.000	94	42310	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	95	57299	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.673	6.666	0.007	94	43847	247.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.031	0.013	85	45732	204.8	
$ 7 Toluene-d8 (Surr)	98	9.040	9.039	0.001	95	163004	224.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.637	-0.005	91	56949	211.6	
11 Chloromethane	50		2.000				ND	
12 Vinyl chloride	62		2.171				ND	
14 Bromomethane	94		2.493				ND	
15 Chloroethane	64		2.603				ND	
21 Acrolein	56		3.460				ND	
20 1,1-Dichloroethene	96		3.558				ND	
30 Methylene Chloride	84		4.361				ND	
32 Acrylonitrile	53		4.780				ND	
31 trans-1,2-Dichloroethene	96		4.787				ND	
36 1,1-Dichloroethane	63		5.346				ND	
48 Chloroform	83		6.490				ND	
50 1,1,1-Trichloroethane	97		6.685				ND	
52 Carbon tetrachloride	117		6.861				ND	
54 Benzene	78		7.092				ND	
55 1,2-Dichloroethane	62		7.117				ND	
60 Trichloroethene	130		7.786				ND	
64 1,2-Dichloropropane	63		8.017				ND	
68 Dichlorobromomethane	83		8.309				ND	
69 2-Chloroethyl vinyl ether	63		8.632				ND	
71 cis-1,3-Dichloropropene	75		8.765				ND	
73 Toluene	91		9.106				ND	
74 trans-1,3-Dichloropropene	75		9.325				ND	
76 1,1,2-Trichloroethane	97		9.501				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.641				ND	
81 Chlorodibromomethane	129		9.897				ND	
83 Chlorobenzene	112		10.499				ND	
85 Ethylbenzene	106		10.602				ND	
90 Bromoform	173		11.308				ND	
93 1,1,2,2-Tetrachloroethane	83		11.770				ND	
105 1,3-Dichlorobenzene	146		12.725				ND	
107 1,4-Dichlorobenzene	146		12.817				ND	
111 1,2-Dichlorobenzene	146		13.188				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00025	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added: 10.00	Units: uL	Run Reagent

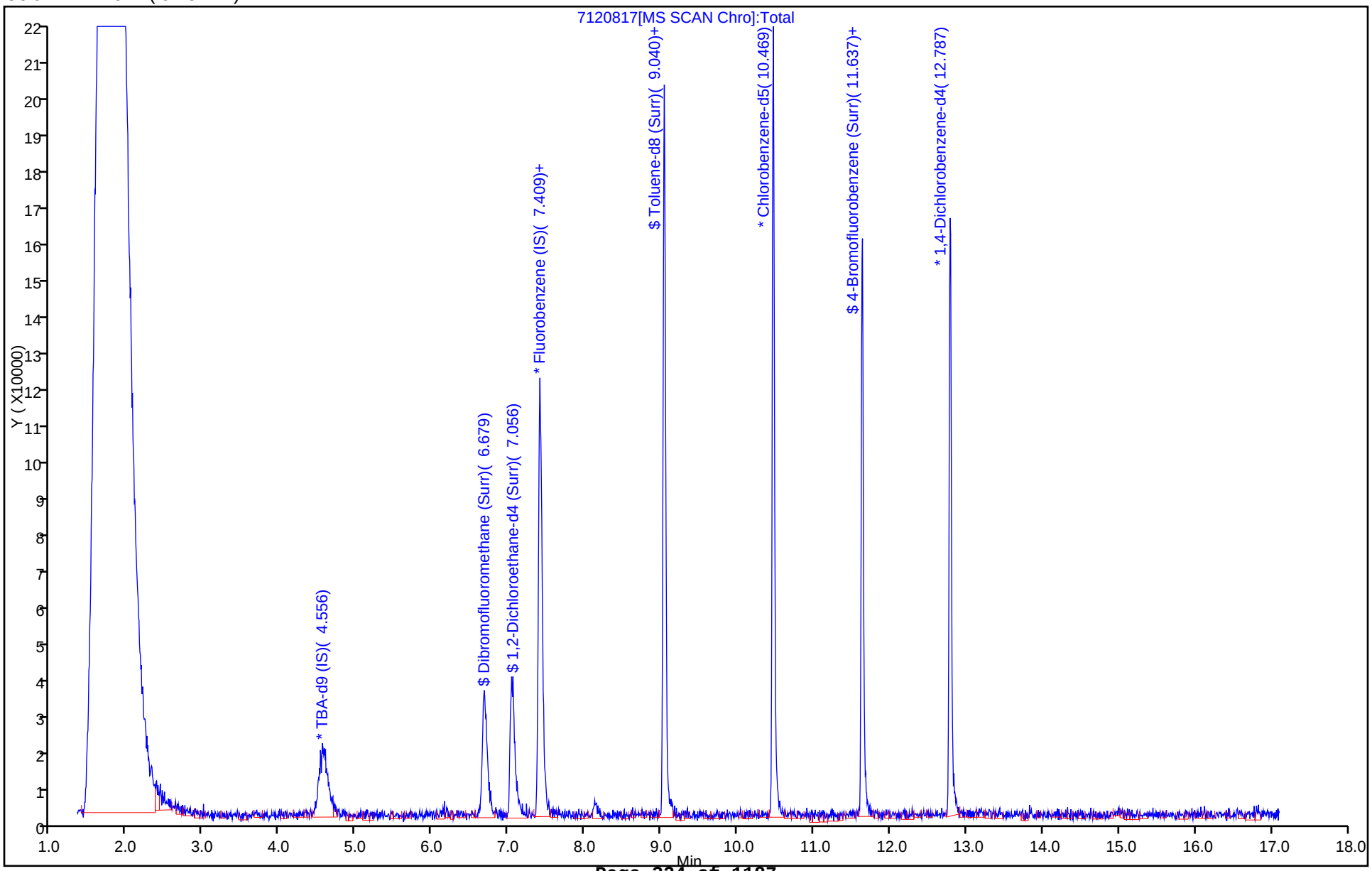
Report Date: 09-Dec-2014 08:33:22 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120817.D

Injection Date:	08-Dec-2014 19:56:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-39432-M-2	Lab Sample ID:	180-39432-2	Worklist Smp#:	17
Client ID:	ST-UNNAMED-120114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

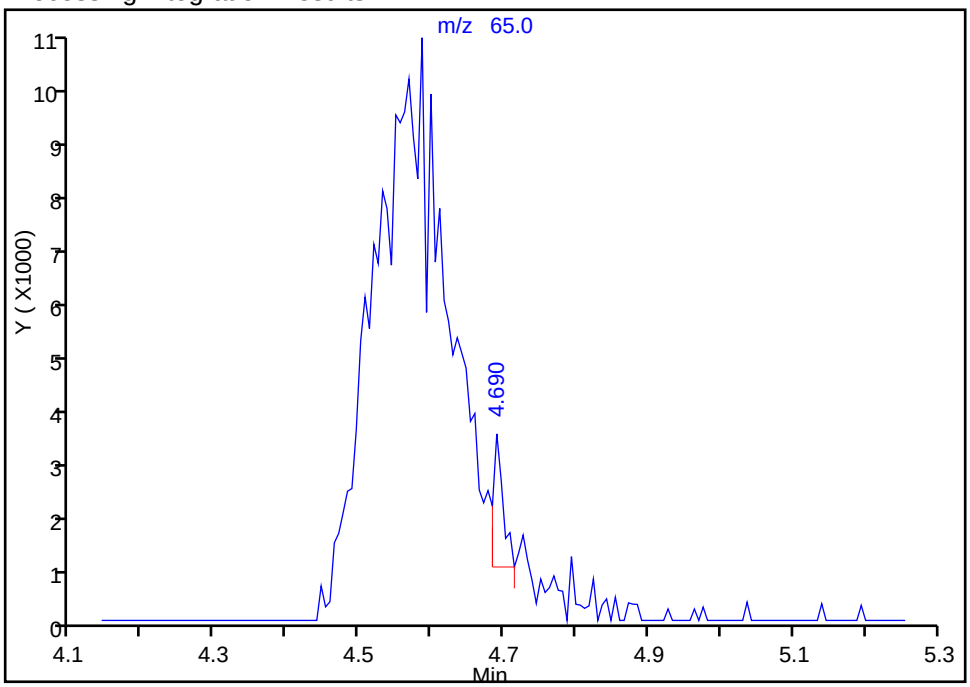
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120817.D				
Injection Date:	08-Dec-2014 19:56:30	Instrument ID:	CHHP7		
Lims ID:	180-39432-M-2	Lab Sample ID:	180-39432-2		
Client ID:	ST-UNNAMED-120114				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

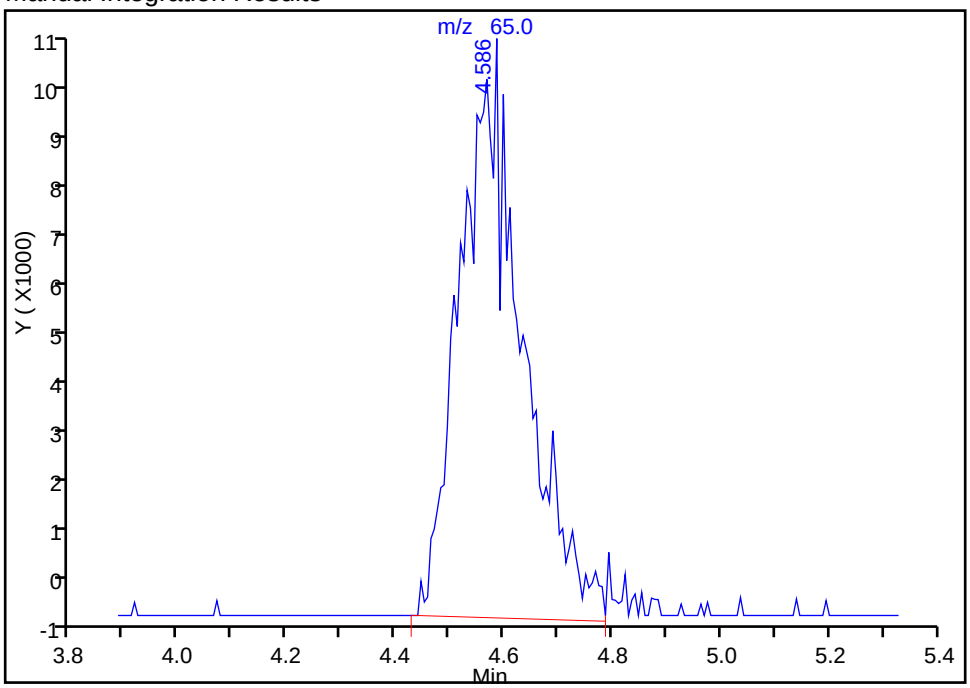
Processing Integration Results

RT: 4.69
Response: 2224
Amount: 5000.0000



Manual Integration Results

RT: 4.59
Response: 81272
Amount: 5000.0000



Reviewer: journetp, 09-Dec-2014 08:30:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Matrix: Water Lab File ID: 7120818.D

Analysis Method: 8260C Date Collected: 12/01/2014 18:50

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 20:22

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.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.93
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.2
75-34-3	1,1-Dichloroethane	ND		5.0	1.0
75-35-4	1,1-Dichloroethene	ND		5.0	1.1
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.68
107-06-2	1,2-Dichloroethane	ND		5.0	0.96
78-87-5	1,2-Dichloropropane	ND		5.0	1.3
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.51
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.53
110-75-8	2-Chloroethyl vinyl ether	ND		10	1.9
107-02-8	Acrolein	ND		100	5.7
107-13-1	Acrylonitrile	ND		50	9.0
71-43-2	Benzene	ND		5.0	0.99
75-25-2	Bromoform	ND		5.0	1.1
74-83-9	Bromomethane	ND		5.0	1.6
56-23-5	Carbon tetrachloride	ND		5.0	1.1
108-90-7	Chlorobenzene	ND		5.0	0.53
67-66-3	Chloroform	ND		5.0	1.0
74-87-3	Chloromethane	ND		5.0	1.4
124-48-1	Chlorodibromomethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.73
75-27-4	Dichlorobromomethane	ND		5.0	0.93
100-41-4	Ethylbenzene	ND		5.0	0.62
75-09-2	Methylene Chloride	ND		5.0	1.1
127-18-4	Tetrachloroethene	ND		5.0	0.82
108-88-3	Toluene	ND		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.58
79-01-6	Trichloroethene	ND		5.0	0.80
75-01-4	Vinyl chloride	ND		5.0	1.3
75-00-3	Chloroethane	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Matrix: Water Lab File ID: 7120818.D

Analysis Method: 8260C Date Collected: 12/01/2014 18:50

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 20:22

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.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		62-123
460-00-4	4-Bromofluorobenzene (Surr)	84		75-120
1868-53-7	Dibromofluoromethane (Surr)	10	X	80-120
2037-26-5	Toluene-d8 (Surr)	94		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120818.D
Lims ID: 180-39432-L-3 Lab Sample ID: 180-39432-3
Client ID: ST-018-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 20:22:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-39432-L-3
Misc. Info.: 180-0004755-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:38:58 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 09-Dec-2014 08:42:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.562	4.659	-0.097	52	80054	5000.0	M
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	98	193303	250.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.001	92	44139	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.005	94	55873	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.666	0.019	1	4661	24.2	M
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.038	7.031	0.007	94	48480	199.4	
$ 7 Toluene-d8 (Surr)	98	9.033	9.039	-0.006	95	178826	235.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.637	0.001	94	58884	209.7	
11 Chloromethane	50		2.000				ND	
12 Vinyl chloride	62		2.171				ND	
14 Bromomethane	94		2.493				ND	
15 Chloroethane	64		2.603				ND	
21 Acrolein	56		3.460				ND	
20 1,1-Dichloroethene	96		3.558				ND	
30 Methylene Chloride	84		4.361				ND	
32 Acrylonitrile	53		4.780				ND	
31 trans-1,2-Dichloroethene	96		4.787				ND	
36 1,1-Dichloroethane	63		5.346				ND	
48 Chloroform	83		6.490				ND	
50 1,1,1-Trichloroethane	97		6.685				ND	
52 Carbon tetrachloride	117		6.861				ND	
54 Benzene	78		7.092				ND	
55 1,2-Dichloroethane	62		7.117				ND	
60 Trichloroethene	130		7.786				ND	
64 1,2-Dichloropropane	63		8.017				ND	
68 Dichlorobromomethane	83		8.309				ND	
69 2-Chloroethyl vinyl ether	63		8.632				ND	
71 cis-1,3-Dichloropropene	75		8.765				ND	
73 Toluene	91		9.106				ND	
74 trans-1,3-Dichloropropene	75		9.325				ND	
76 1,1,2-Trichloroethane	97		9.501				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.641				ND	
81 Chlorodibromomethane	129		9.897				ND	
83 Chlorobenzene	112		10.499				ND	
85 Ethylbenzene	106		10.602				ND	
90 Bromoform	173		11.308				ND	
93 1,1,2,2-Tetrachloroethane	83		11.770				ND	
105 1,3-Dichlorobenzene	146		12.725				ND	
107 1,4-Dichlorobenzene	146		12.817				ND	
111 1,2-Dichlorobenzene	146		13.188				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00025	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added: 10.00	Units: uL	Run Reagent

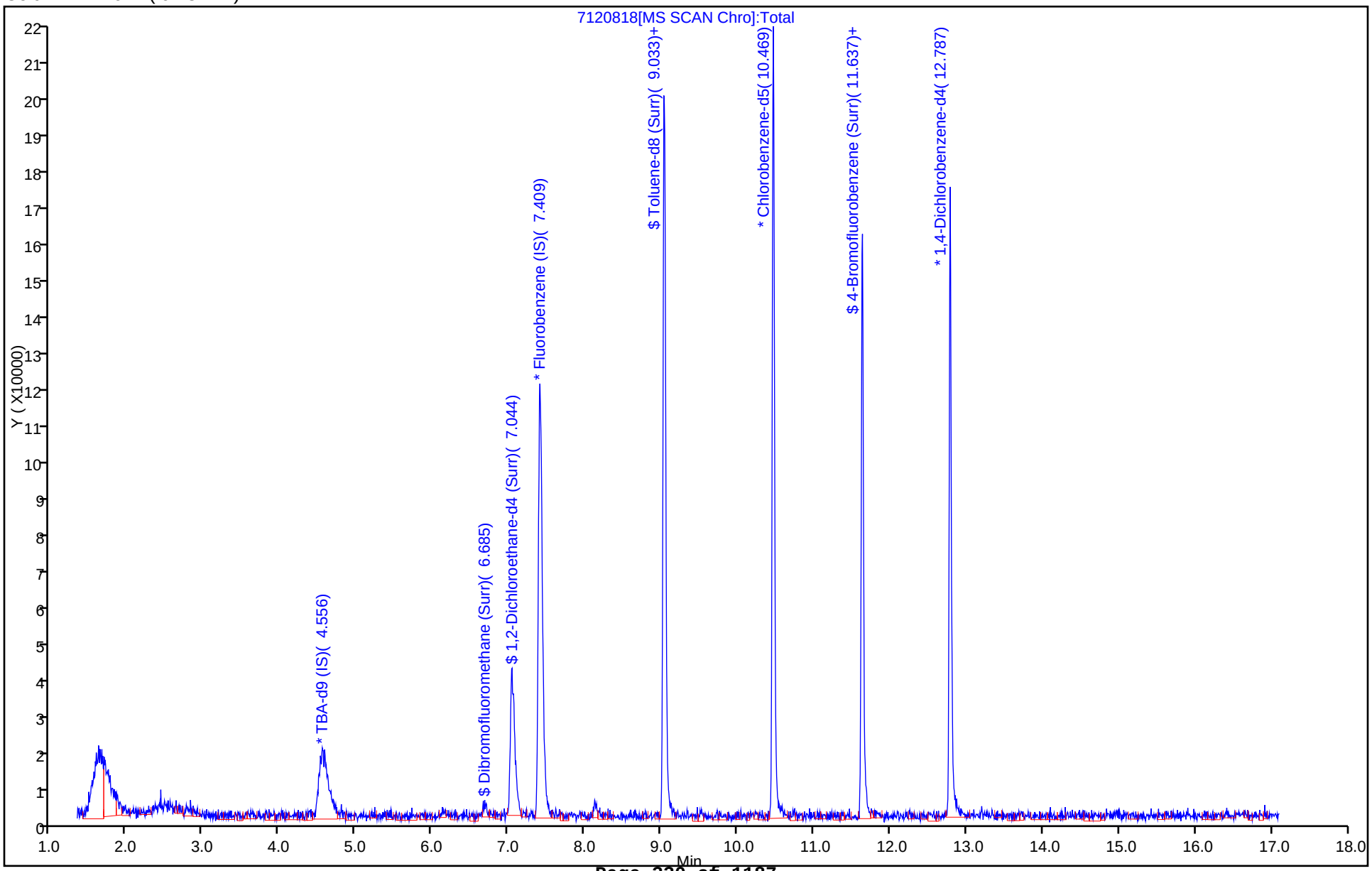
Report Date: 09-Dec-2014 08:42:07 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120818.D

Injection Date:	08-Dec-2014 20:22:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-39432-L-3	Lab Sample ID:	180-39432-3	Worklist Smp#:	18
Client ID:	ST-018-120114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

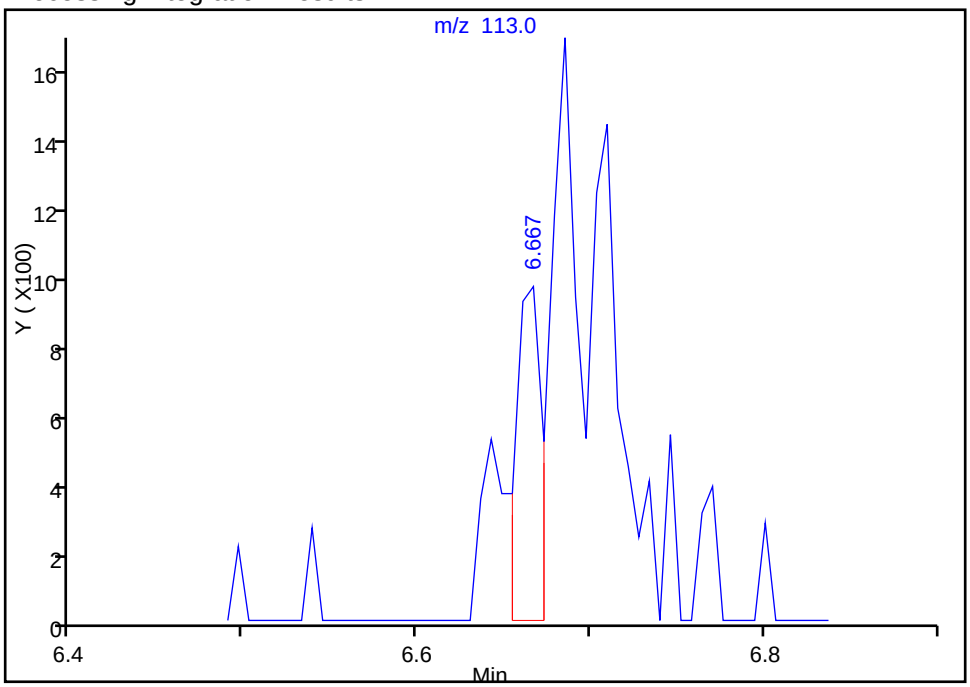
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120818.D				
Injection Date:	08-Dec-2014 20:22:30	Instrument ID:	CHHP7		
Lims ID:	180-39432-L-3	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

$ 5 Dibromofluoromethane (Surr), CAS: 1868-53-7

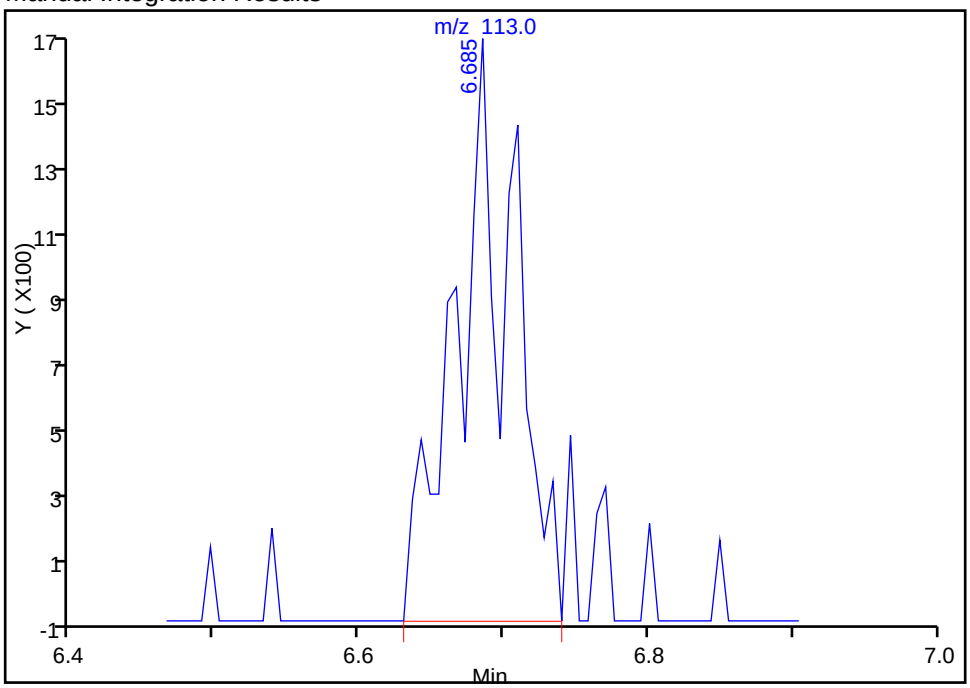
Processing Integration Results

RT: 6.67
Response: 1015
Amount: 5.268757



Manual Integration Results

RT: 6.69
Response: 4661
Amount: 24.194755



Reviewer: journetp, 09-Dec-2014 08:30:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

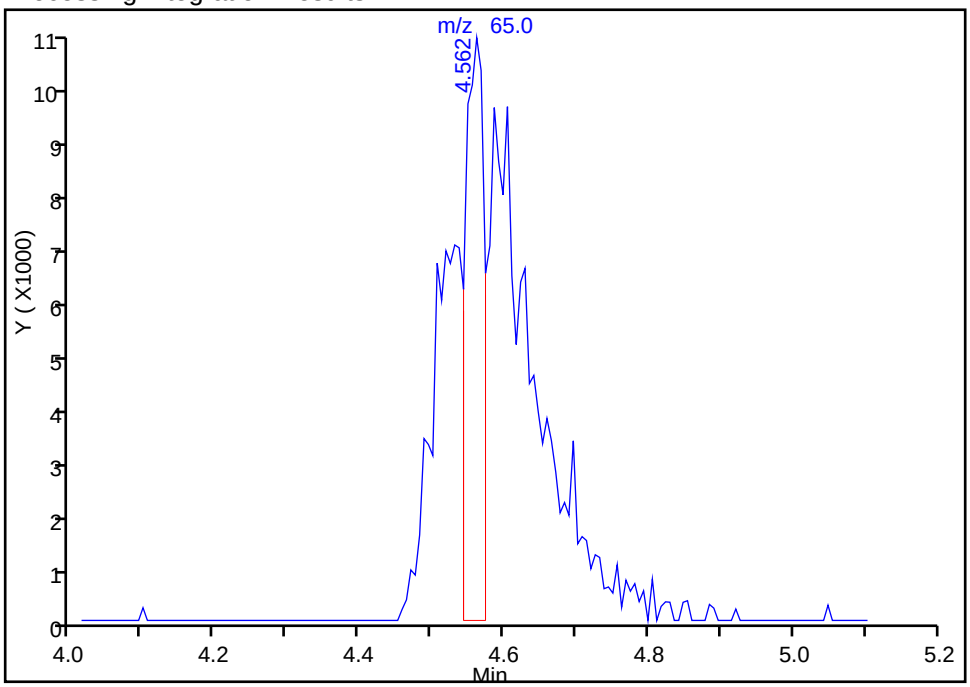
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120818.D				
Injection Date:	08-Dec-2014 20:22:30	Instrument ID:	CHHP7		
Lims ID:	180-39432-L-3	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

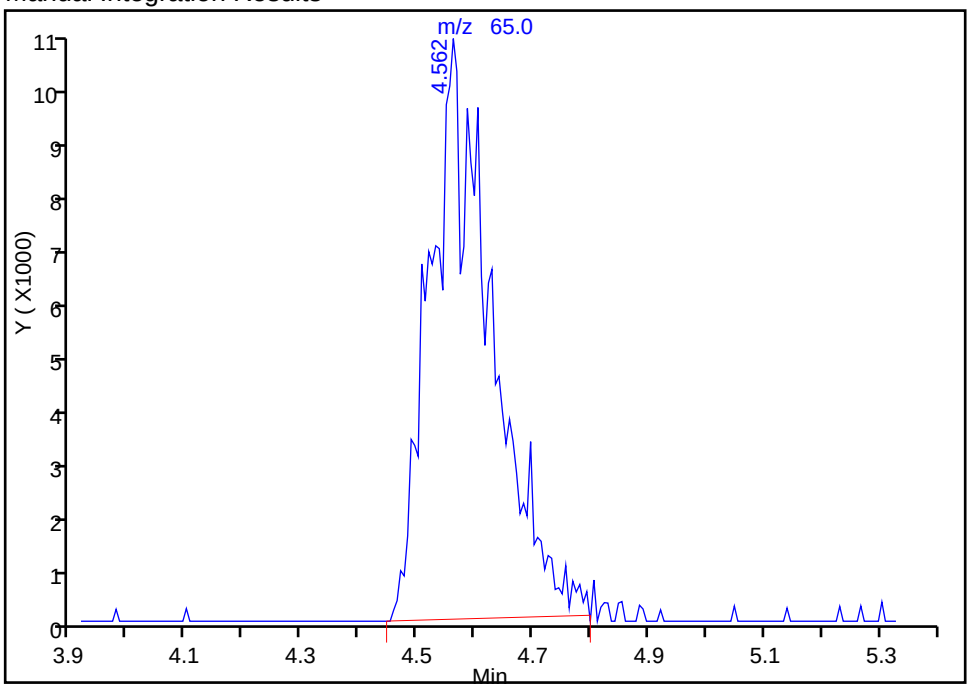
Processing Integration Results

RT: 4.56
Response: 19404
Amount: 5000.0000



Manual Integration Results

RT: 4.56
Response: 80054
Amount: 5000.0000



Reviewer: journetp, 09-Dec-2014 08:30:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Matrix: Water Lab File ID: 7120819.D

Analysis Method: 8260C Date Collected: 12/01/2014 19:20

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 20:49

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.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.93
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.2
75-34-3	1,1-Dichloroethane	ND		5.0	1.0
75-35-4	1,1-Dichloroethene	ND		5.0	1.1
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.68
107-06-2	1,2-Dichloroethane	ND		5.0	0.96
78-87-5	1,2-Dichloropropane	ND		5.0	1.3
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.51
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.53
110-75-8	2-Chloroethyl vinyl ether	ND		10	1.9
107-02-8	Acrolein	ND		100	5.7
107-13-1	Acrylonitrile	ND		50	9.0
71-43-2	Benzene	ND		5.0	0.99
75-25-2	Bromoform	ND		5.0	1.1
74-83-9	Bromomethane	ND		5.0	1.6
56-23-5	Carbon tetrachloride	ND		5.0	1.1
108-90-7	Chlorobenzene	ND		5.0	0.53
67-66-3	Chloroform	ND		5.0	1.0
74-87-3	Chloromethane	ND		5.0	1.4
124-48-1	Chlorodibromomethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.73
75-27-4	Dichlorobromomethane	ND		5.0	0.93
100-41-4	Ethylbenzene	ND		5.0	0.62
75-09-2	Methylene Chloride	ND		5.0	1.1
127-18-4	Tetrachloroethene	ND		5.0	0.82
108-88-3	Toluene	ND		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.58
79-01-6	Trichloroethene	ND		5.0	0.80
75-01-4	Vinyl chloride	ND		5.0	1.3
75-00-3	Chloroethane	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Matrix: Water Lab File ID: 7120819.D

Analysis Method: 8260C Date Collected: 12/01/2014 19:20

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 20:49

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.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		62-123
460-00-4	4-Bromofluorobenzene (Surr)	89		75-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	88		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120819.D
Lims ID: 180-39432-L-4 Lab Sample ID: 180-39432-4
Client ID: ST-014-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 20:49:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-39432-L-4
Misc. Info.: 180-0004755-019
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:32:51 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 09-Dec-2014 08:32:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.555	4.586	-0.031	91	71151	5000.0	M
* 2 Fluorobenzene (IS)	96	7.414	7.403	0.011	98	159170	250.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	-0.001	94	39801	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	94	51144	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.666	0.012	89	37054	233.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.031	0.018	95	44066	220.1	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	95	149867	218.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.637	-0.006	92	56089	221.5	
11 Chloromethane	50		2.000				ND	
12 Vinyl chloride	62		2.171				ND	
14 Bromomethane	94		2.493				ND	
15 Chloroethane	64		2.603				ND	
21 Acrolein	56		3.460				ND	
20 1,1-Dichloroethene	96		3.558				ND	
30 Methylene Chloride	84		4.361				ND	
32 Acrylonitrile	53		4.780				ND	
31 trans-1,2-Dichloroethene	96		4.787				ND	
36 1,1-Dichloroethane	63		5.346				ND	
48 Chloroform	83		6.490				ND	
50 1,1,1-Trichloroethane	97		6.685				ND	
52 Carbon tetrachloride	117		6.861				ND	
54 Benzene	78		7.092				ND	
55 1,2-Dichloroethane	62		7.117				ND	
60 Trichloroethene	130		7.786				ND	
64 1,2-Dichloropropane	63		8.017				ND	
68 Dichlorobromomethane	83		8.309				ND	
69 2-Chloroethyl vinyl ether	63		8.632				ND	
71 cis-1,3-Dichloropropene	75		8.765				ND	
73 Toluene	91		9.106				ND	
74 trans-1,3-Dichloropropene	75		9.325				ND	
76 1,1,2-Trichloroethane	97		9.501				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.641				ND	
81 Chlorodibromomethane	129		9.897				ND	
83 Chlorobenzene	112		10.499				ND	
85 Ethylbenzene	106		10.602				ND	
90 Bromoform	173		11.308				ND	
93 1,1,2,2-Tetrachloroethane	83		11.770				ND	
105 1,3-Dichlorobenzene	146		12.725				ND	
107 1,4-Dichlorobenzene	146		12.817				ND	
111 1,2-Dichlorobenzene	146		13.188				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00025	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added: 10.00	Units: uL	Run Reagent

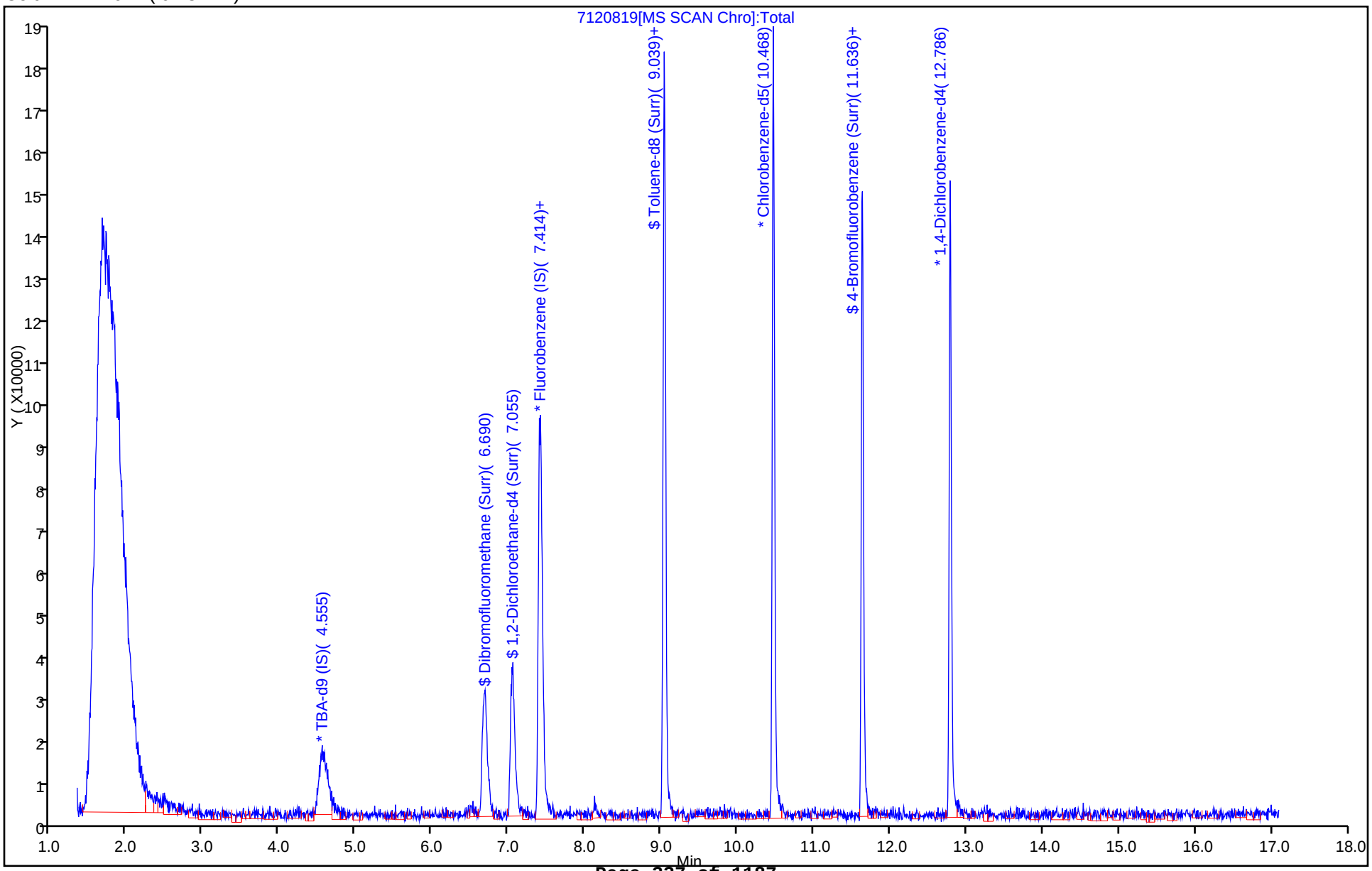
Report Date: 09-Dec-2014 08:33:20 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120819.D

Injection Date:	08-Dec-2014 20:49:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-39432-L-4	Lab Sample ID:	180-39432-4	Worklist Smp#:	19
Client ID:	ST-014-120114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

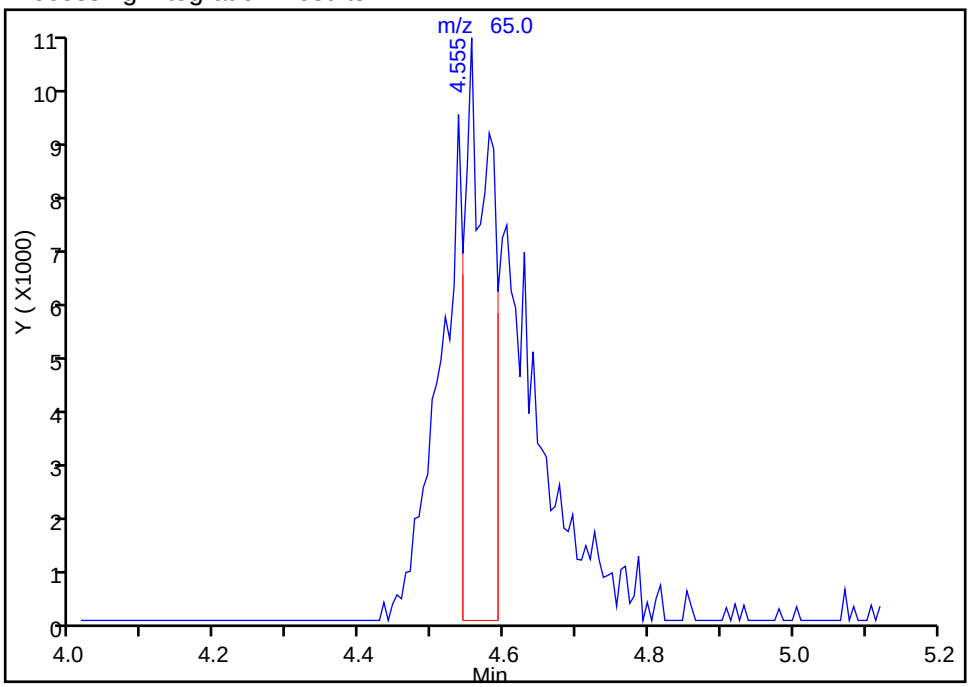
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120819.D				
Injection Date:	08-Dec-2014 20:49:30	Instrument ID:	CHHP7		
Lims ID:	180-39432-L-4	Lab Sample ID:	180-39432-4		
Client ID:	ST-014-120114				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

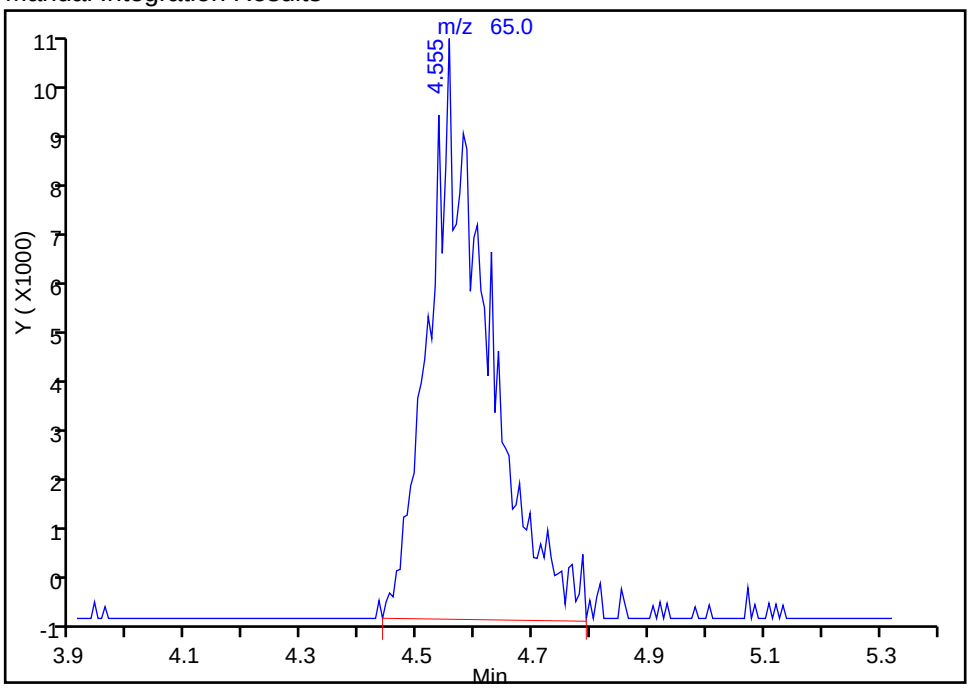
Processing Integration Results

RT: 4.56
Response: 24794
Amount: 5000.0000



Manual Integration Results

RT: 4.56
Response: 71151
Amount: 5000.0000



Reviewer: journetp, 09-Dec-2014 08:32:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: TRIP BLANK Lab Sample ID: 180-39432-5

Matrix: Water Lab File ID: 7120815.D

Analysis Method: 8260C Date Collected: 12/01/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 19:03

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.93
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.2
75-34-3	1,1-Dichloroethane	ND		5.0	1.0
75-35-4	1,1-Dichloroethene	ND		5.0	1.1
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.68
107-06-2	1,2-Dichloroethane	ND		5.0	0.96
78-87-5	1,2-Dichloropropane	ND		5.0	1.3
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.51
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.53
110-75-8	2-Chloroethyl vinyl ether	ND		10	1.9
107-02-8	Acrolein	ND		100	5.7
107-13-1	Acrylonitrile	ND		50	9.0
71-43-2	Benzene	ND		5.0	0.99
75-25-2	Bromoform	ND		5.0	1.1
74-83-9	Bromomethane	ND		5.0	1.6
56-23-5	Carbon tetrachloride	ND		5.0	1.1
108-90-7	Chlorobenzene	ND		5.0	0.53
67-66-3	Chloroform	ND		5.0	1.0
74-87-3	Chloromethane	ND		5.0	1.4
124-48-1	Chlorodibromomethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.73
75-27-4	Dichlorobromomethane	ND		5.0	0.93
100-41-4	Ethylbenzene	ND		5.0	0.62
75-09-2	Methylene Chloride	ND		5.0	1.1
127-18-4	Tetrachloroethene	ND		5.0	0.82
108-88-3	Toluene	ND		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.58
79-01-6	Trichloroethene	ND		5.0	0.80
75-01-4	Vinyl chloride	ND		5.0	1.3
75-00-3	Chloroethane	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: TRIP BLANK Lab Sample ID: 180-39432-5

Matrix: Water Lab File ID: 7120815.D

Analysis Method: 8260C Date Collected: 12/01/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 19:03

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		62-123
460-00-4	4-Bromofluorobenzene (Surr)	107		75-120
1868-53-7	Dibromofluoromethane (Surr)	115		80-120
2037-26-5	Toluene-d8 (Surr)	114		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120815.D
Lims ID: 180-39432-C-5 Lab Sample ID: 180-39432-5
Client ID: TRIP BLANK
Sample Type: Client
Inject. Date: 08-Dec-2014 19:03:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-39432-C-5
Misc. Info.: 180-0004755-015
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:32:51 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 09-Dec-2014 08:27:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.546	4.586	-0.040	92	82569	5000.0	M
* 2 Fluorobenzene (IS)	96	7.417	7.403	0.014	98	169982	250.0	
* 3 Chlorobenzene-d5	119	10.465	10.469	-0.004	92	37540	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.787	0.008	94	53769	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.666	0.009	92	48529	286.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.031	0.015	95	58357	273.0	
$ 7 Toluene-d8 (Surr)	98	9.041	9.039	0.002	95	184133	285.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.637	-0.003	92	63782	267.1	
11 Chloromethane	50		2.000				ND	
12 Vinyl chloride	62		2.171				ND	
14 Bromomethane	94		2.493				ND	
15 Chloroethane	64		2.603				ND	
21 Acrolein	56		3.460				ND	
20 1,1-Dichloroethene	96		3.558				ND	
30 Methylene Chloride	84		4.361				ND	
32 Acrylonitrile	53		4.780				ND	
31 trans-1,2-Dichloroethene	96		4.787				ND	
36 1,1-Dichloroethane	63		5.346				ND	
48 Chloroform	83		6.490				ND	
50 1,1,1-Trichloroethane	97		6.685				ND	
52 Carbon tetrachloride	117		6.861				ND	
54 Benzene	78		7.092				ND	
55 1,2-Dichloroethane	62		7.117				ND	
60 Trichloroethene	130		7.786				ND	
64 1,2-Dichloropropane	63		8.017				ND	
68 Dichlorobromomethane	83		8.309				ND	
69 2-Chloroethyl vinyl ether	63		8.632				ND	
71 cis-1,3-Dichloropropene	75		8.765				ND	
73 Toluene	91		9.106				ND	
74 trans-1,3-Dichloropropene	75		9.325				ND	
76 1,1,2-Trichloroethane	97		9.501				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.641				ND	
81 Chlorodibromomethane	129		9.897				ND	
83 Chlorobenzene	112		10.499				ND	
85 Ethylbenzene	106		10.602				ND	
90 Bromoform	173		11.308				ND	
93 1,1,2,2-Tetrachloroethane	83		11.770				ND	
105 1,3-Dichlorobenzene	146		12.725				ND	
107 1,4-Dichlorobenzene	146		12.817				ND	
111 1,2-Dichlorobenzene	146		13.188				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00025	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added: 10.00	Units: uL	Run Reagent

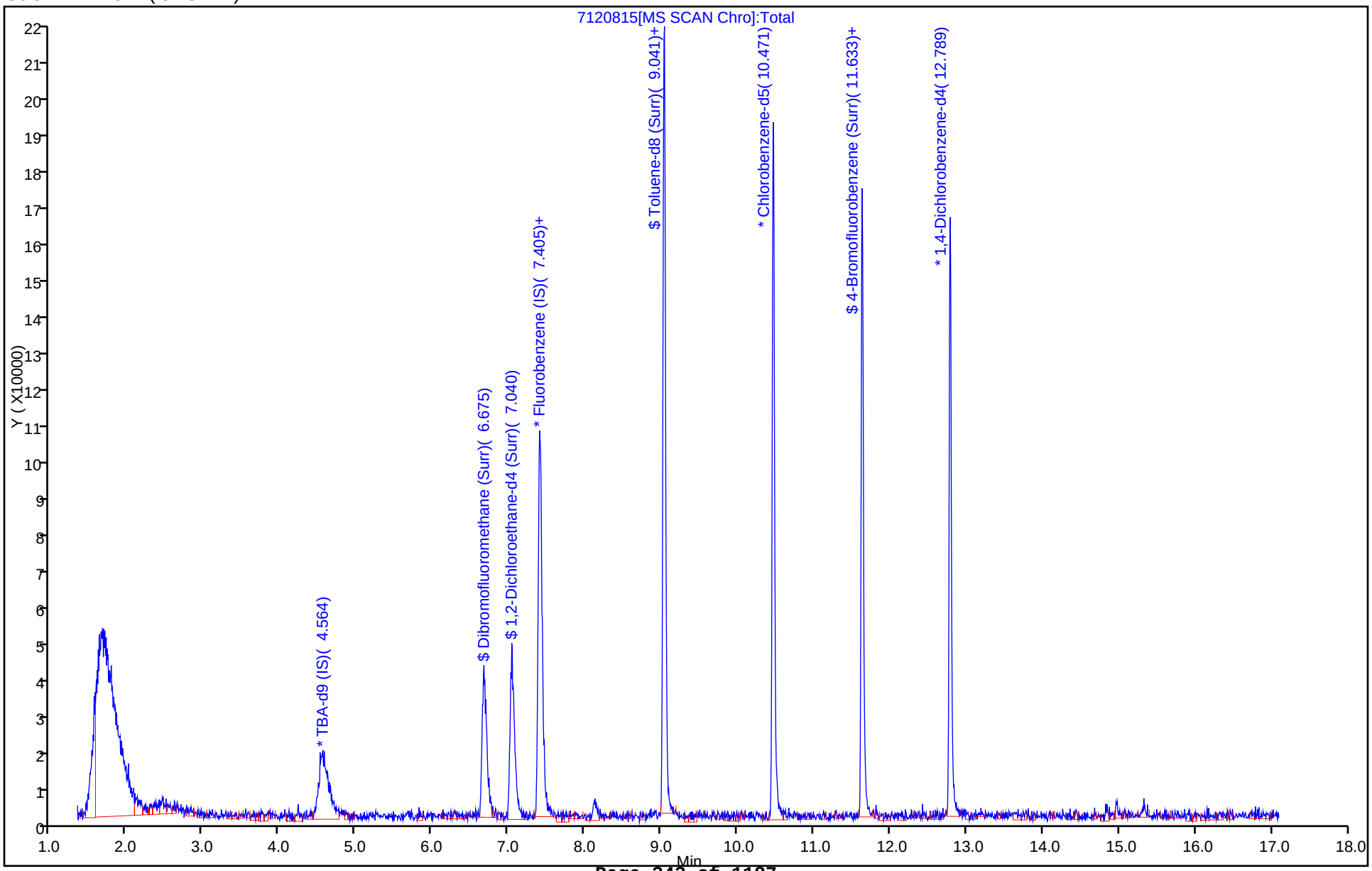
Report Date: 09-Dec-2014 08:33:23 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120815.D

Injection Date:	08-Dec-2014 19:03:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-39432-C-5	Lab Sample ID:	180-39432-5	Worklist Smp#:	15
Client ID:	TRIP BLANK				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

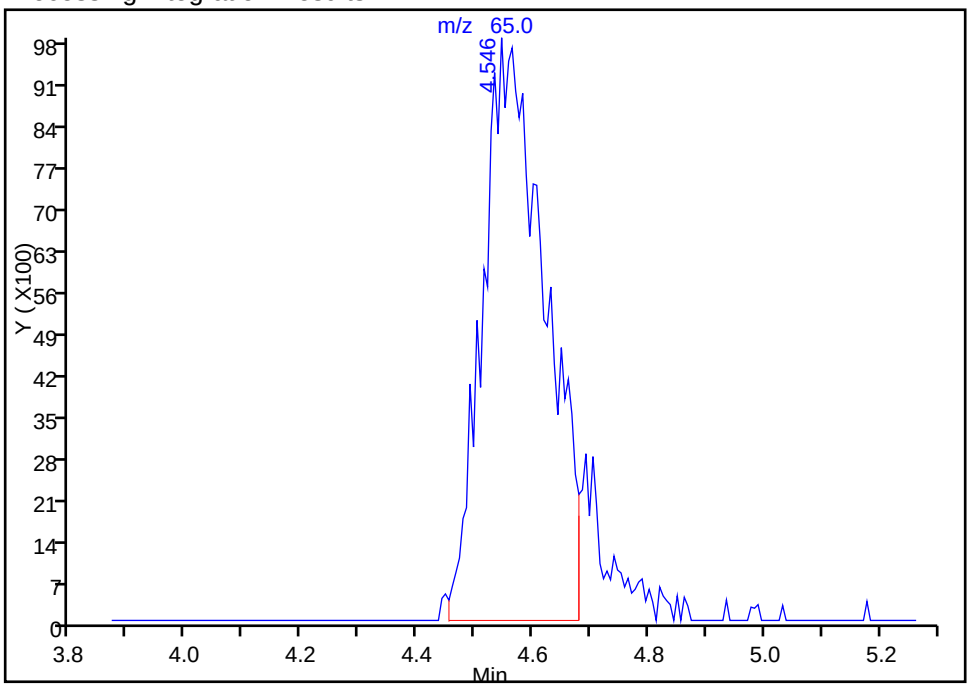
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120815.D				
Injection Date:	08-Dec-2014 19:03:30	Instrument ID:	CHHP7		
Lims ID:	180-39432-C-5	Lab Sample ID:	180-39432-5		
Client ID:	TRIP BLANK				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

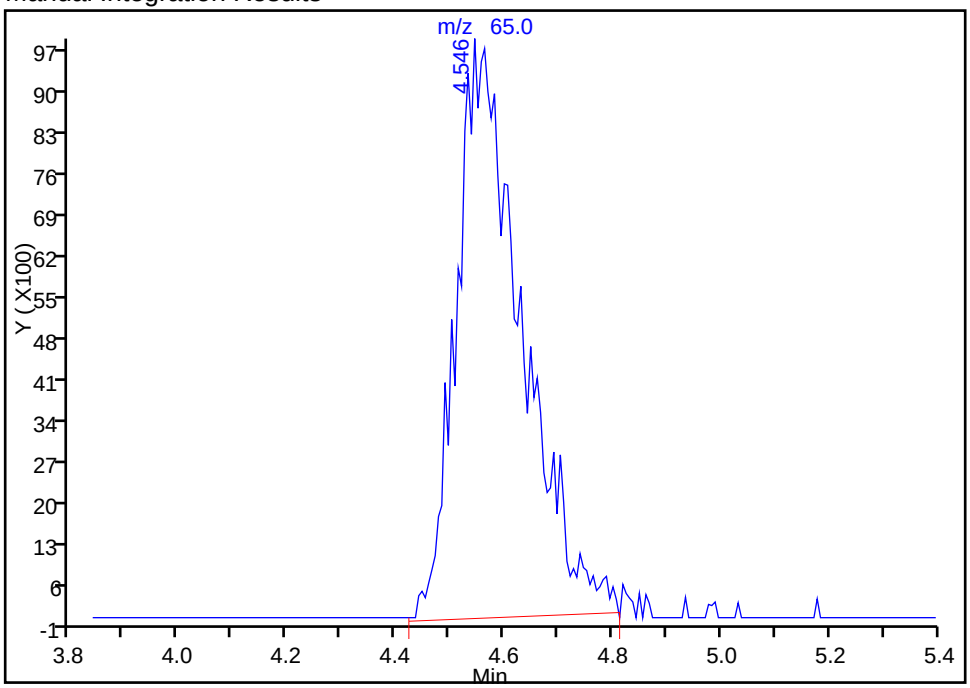
Processing Integration Results

RT: 4.55
Response: 74433
Amount: 5000.0000



Manual Integration Results

RT: 4.55
Response: 82569
Amount: 5000.0000



Reviewer: journetp, 09-Dec-2014 08:27:51
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.: 180-39432-1 Analy Batch No.: 122015

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2014 12:49 Calibration End Date: 10/20/2014 15:38 Calibration ID: 18641

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-122015/3	7102003.D
Level 2	IC 180-122015/4	7102004.D
Level 3	IC 180-122015/5	7102005.D
Level 4	IC 180-122015/6	7102006.D
Level 5	IC 180-122015/7	7102007.D
Level 6	IC 180-122015/8	7102008.D
Level 7	IC 180-122015/9	7102009.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								
Ethanol	0.0942 0.1622	0.1866 +++++	0.2032	0.1791	0.1841	Qua	-76.50	0.2078	-0.000001		0.0100				0.9990		0.9900
Acetonitrile	0.0252 0.0273	0.0255 0.0217	0.0269	0.0253	0.0186	Ave		0.0248			0.0100	13.0		20.0			
Chloroprene	0.8574 0.7971	0.7315 0.7030	0.7349	0.7120	0.7092	Ave		0.7570			0.0100	7.7		20.0			
Isopropyl alcohol	0.2122 0.1856	0.2034 0.1475	0.1777	0.1701	0.1761	Ave		0.1875			0.0100	8.9		20.0			
Isopropyl ether	2.1278 1.8559	1.9579 +++++	1.9169	1.6893	1.7481	Ave		1.8827			0.0100	8.3		20.0			
Tert-butyl ethyl ether	1.6661 1.5150	1.6516 1.1937	1.3580	1.3860	1.3477	Ave		1.4874			0.0100	9.8		20.0			
Propionitrile	0.0397 0.0385	0.0473 0.0336	0.0384	0.0359	0.0327	Ave		0.0387			0.0100	13.0		20.0			
Ethyl acetate	0.3828 0.2116	0.2947 0.1863	0.1987	0.2021	0.1918	Qua	12.500	0.1473	0.0000435		0.0100				1.0000		0.9900
Methacrylonitrile	0.2284 0.1829	0.2281 +++++	0.1955	0.1770	0.1709	Ave		0.1971			0.0100	13.0		20.0			
Isooctane		1.6911				Ave		2.0520			0.0100	11.0		20.0			
Tert-amyl methyl ether	1.4796 1.1003	1.3214	1.0639	1.0233	0.9760	Ave		1.1608			0.0100	17.0		20.0			
n-Butanol	0.0066 0.0056	0.0081 0.0051	0.0061	0.0060	0.0059	Ave		0.0064		*	0.0100	14.0		20.0			
Ethyl acrylate	1.8576 1.5738	1.7625 1.3018	1.6521	1.3076	1.3266	Ave		1.5800			0.0100	14.0		20.0			
Methyl methacrylate	0.2010 0.1657	0.1847 0.1442	0.1649	0.1630	0.1453	Ave		0.1708			0.0100	11.0		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.: 180-39432-1 Analy Batch No.: 122015

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2014 12:49 Calibration End Date: 10/20/2014 15:38 Calibration ID: 18641

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								
2-Nitropropane	0.4716 0.3501	0.3882 0.2974	0.3606	0.3029	0.2828	Ave		0.3594			0.0100	19.0		20.0			
2-Chloroethyl vinyl ether	0.1571 0.1524	0.1772 0.1505	0.1369	0.1419	0.1359	Ave		0.1502			0.0100	10.0		20.0			
n-Butyl acetate	2.9223 1.9748	2.3536 1.5847	1.8844	1.7035	1.7010	Qua	48.024	1.2823	0.0009836		0.0100				1.0000		0.9900
Cyclohexanone	0.0121 0.0138	0.0084 0.0131	0.0171	0.0163	0.0155	Qua	-5.486	0.0189	0		0.0100				0.9980		0.9900
Pentachloroethane	0.8641 0.7240	0.7491	0.7989	0.6665	0.7029	Ave		0.7509			0.0100	9.5		20.0			
1,2,3-Trimethylbenzene	4.4408 3.4013	3.7569	3.7148	3.2178	3.3535	Ave		3.6475			0.0100	12.0		20.0			
Benzyl chloride	1.3321 1.3669	1.3316 1.1763	1.2919	1.2414	1.1930	Ave		1.2928			0.0100	5.0		20.0			
1,3,5-Trichlorobenzene	0.3710 0.4268	0.3766	0.3832	0.4911	0.6742	Ave		0.4538			0.0100	26.0	*	20.0			
2-Methylnaphthalene	+++++ 0.0025	+++++ 0.0489	0.0031	0.0014	+++++	Ave		0.0023		*	0.0100	36.0	*	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.: 180-39432-1 Analy Batch No.: 122015

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2014 12:49 Calibration End Date: 10/20/2014 15:38 Calibration ID: 18641

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-122015/3	7102003.D
Level 2	IC 180-122015/4	7102004.D
Level 3	IC 180-122015/5	7102005.D
Level 4	IC 180-122015/6	7102006.D
Level 5	IC 180-122015/7	7102007.D
Level 6	IC 180-122015/8	7102008.D
Level 7	IC 180-122015/9	7102009.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
Ethanol	TBA	Qua	1835 71784	9093 +++++	20313	30253	31830	1250 31250	2500 +++++	6250	10000	12500
Acetonitrile	FB	Ave	4953 114639	9516 206764	28084	41062	37450	250 6250	500 12500	1250	2000	2500
Chloroprene	FB	Ave	16838 335133	27277 669852	76847	115517	142832	25.0 625	50.0 1250	125	200	250
Isopropyl alcohol	FB	Ave	41674 780276	75835 1405680	185847	275985	354702	250 6250	500 12500	1250	2000	2500
Isopropyl ether	FB	Ave	41788 780276	73005 +++++	200451	274054	352090	25.0 625	50.0 +++++	125	200	250
Tert-butyl ethyl ether	FB	Ave	32720 636966	61581 1137522	142000	224849	271428	25.0 625	50.0 1250	125	200	250
Propionitrile	FB	Ave	7791 161902	17627 320197	40169	58291	65855	250 6250	500 12500	1250	2000	2500
Ethyl acetate	FB	Qua	15036 177951	21973 355050	41560	65569	77280	50.0 1250	100 2500	250	400	500
Methacrylonitrile	FB	Ave	44853 769043	85052 +++++	204452	287088	344298	250 6250	500 +++++	1250	2000	2500
Isooctane	FB	Ave		1611476					1250			
Tert-amyl methyl ether	FB	Ave	29057 462596	49272	111254	166017	196577	25.0 625	50.0	125	200	250
n-Butanol	FB	Ave	3257 59104	7556 121536	16046	24179	29460	625 15625	1250 31250	3125	5000	6250
Ethyl acrylate	CBZ	Ave	8526 144010	15483 285337	36807	49087	59345	25.0 625	50.0 1250	125	200	250
Methyl methacrylate	FB	Ave	7894 139362	13775 274727	34492	52872	58541	50.0 1250	100 2500	250	400	500
2-Nitropropane	CBZ	Ave	4329 64076	6820 130352	16067	22741	25300	50.0 1250	100 2500	250	400	500

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 122015

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2014 12:49 Calibration End Date: 10/20/2014 15:38 Calibration ID: 18641

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
2-Chloroethyl vinyl ether	FB	Ave	6170 128130	13216 286826	28631	46031	54746	50.0 1250	100 2500	250	400	500
n-Butyl acetate	CBZ	Qua	13413 180710	20676 347336	41983	63949	76093	25.0 625	50.0 1250	125	200	250
Cyclohexanone	CBZ	Qua	1115 25196	1473 57224	7609	12257	13824	500 12500	1000 25000	2500	4000	5000
Pentachloroethane	DCB	Ave	4767 97881	8574	23089	33184	42703	25.0 625	50.0	125	200	250
1,2,3-Trimethylbenzene	DCB	Ave	24500 459832	43002	107361	160223	203731	25.0 625	50.0	125	200	250
Benzyl chloride	DCB	Ave	7349 184803	15242 372964	37338	61810	72474	25.0 625	50.0 1250	125	200	250
1,3,5-Trichlorobenzene	DCB	Ave	2047 57703	4311	11074	24454	40959	25.0 625	50.0	125	200	250
2-Methylnaphthalene	DCB	Ave	+++++ 336	+++++ 15517	90	71	+++++	+++++ 625	+++++ 1250	125	200	+++++

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Oct-2014 12:49:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003900-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Oct-2014 13:30:07 Calib Date: 20-Oct-2014 14:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.579	4.592	-0.013	94	77924	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.414	7.415	-0.001	98	196387	250.0	250.0	
* 4 Chlorobenzene-d5	119	10.468	10.463	0.005	93	45898	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.785	12.787	-0.002	95	55170	250.0	250.0	
18 Ethanol	45	4.056	4.124	-0.068	23	1835	1250.0	801.4	
27 Acetonitrile	40	4.256	4.233	0.023	76	4953	250.0	259.5	M
38 2-Chloro-1,3-butadiene	53	5.504	5.505	-0.001	1	16838	25.0	28.6	M
39 Isopropyl ether	45	5.534	5.529	0.005	96	41788	25.0	28.2	M
26 Isopropyl alcohol	45	5.534	5.529	0.005	90	41674	250.0	282.3	
40 Tert-butyl ethyl ether	59	5.972	5.973	-0.001	97	32720	25.0	28.1	M
44 Propionitrile	54	6.234	6.253	-0.019	87	7791	250.0	255.6	M
45 Ethyl acetate	43	6.301	6.265	0.035	74	15036	50.0	48.4	M
46 Methacrylonitrile	41	6.392	6.405	-0.013	96	44853	250.0	285.5	
57 Isooctane	57	7.219	7.220	-0.001	97	47056	NC	NC	M
58 Tert-amyl methyl ether	73	7.262	7.257	0.005	95	29057	25.0	31.5	M
60 n-Butanol	56	7.821	7.786	0.035	1	3257	625.0	634.2	M
62 Ethyl acrylate	55	7.937	7.932	0.005	53	8526	25.0	29.4	
66 Methyl methacrylate	69	8.180	8.170	0.011	1	7894	50.0	58.5	M
69 2-Nitropropane	41	8.570	8.559	0.011	1	4329	50.0	65.3	M
70 2-Chloroethyl vinyl ether	63	8.643	8.644	-0.001	86	6170	50.0	52.4	
80 n-Butyl acetate	43	9.896	9.885	0.011	95	13413	25.0	24.4	M
92 Cyclohexanone	55	11.599	11.576	0.023	1	1115	500.0	437.7	
102 Pentachloroethane	167	12.408	12.410	-0.002	89	4767	25.0	28.6	
108 1,2,3-Trimethylbenzene	105	12.858	12.860	-0.002	99	24500	25.0	30.0	
109 Benzyl chloride	91	12.956	12.945	0.011	93	7349	25.0	26.1	M
113 1,3,5-Trichlorobenzene	180	14.197	14.180	0.017	1	2047	25.0	20.2	M

QC Flag Legend

Processing Flags
NC - Not Calibrated

Review Flags
M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added: 1.00	Units: uL
VOA8260INT_00021	Amount Added: 10.00	Units: uL
VOA2CEVEPRI_00008	Amount Added: 1.00	Units: uL

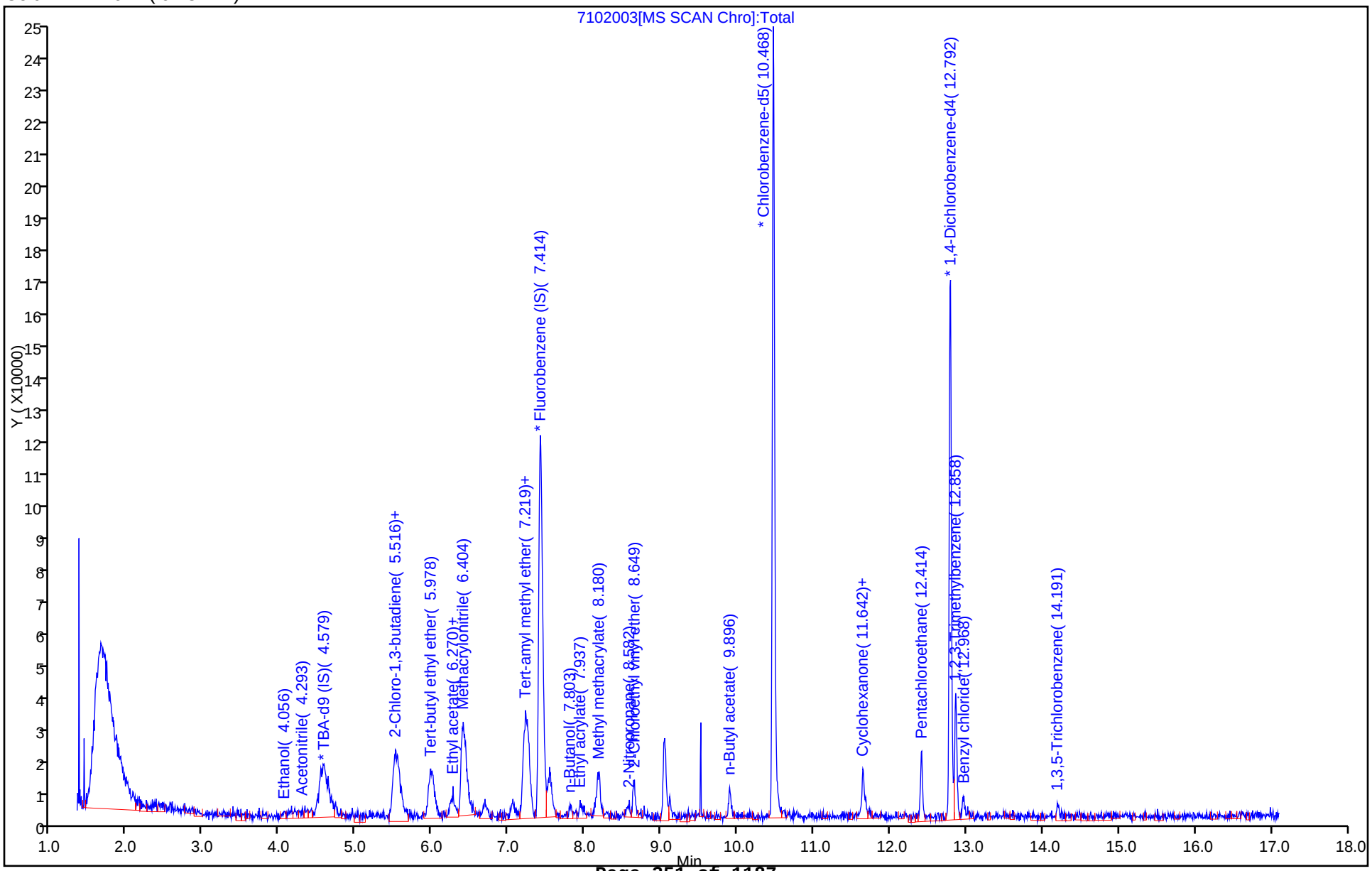
Report Date: 22-Oct-2014 13:30:08 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D

Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

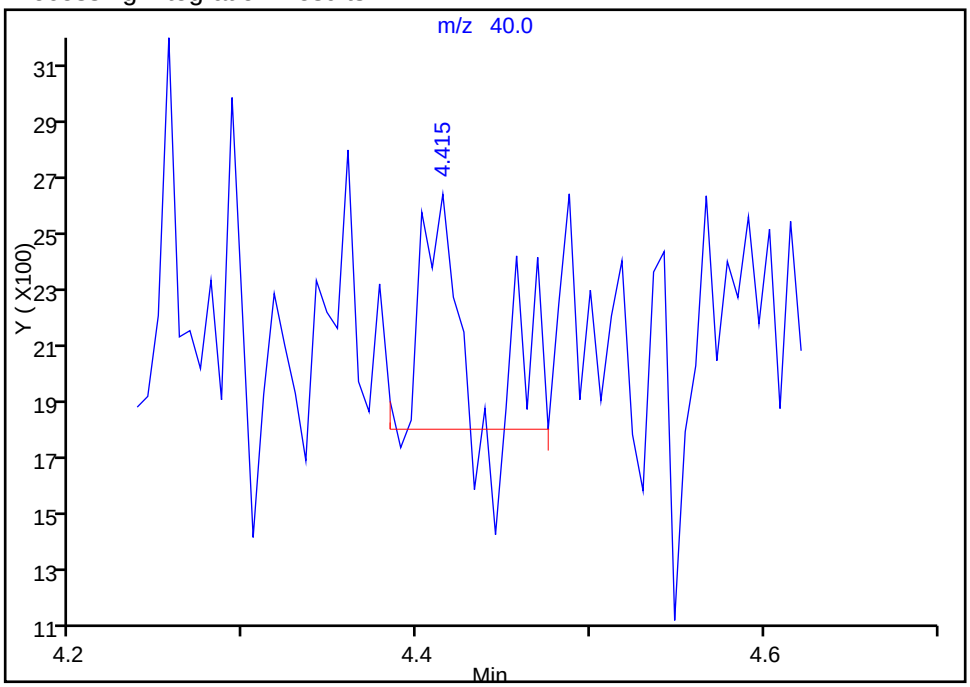
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

27 Acetonitrile, CAS: 75-05-8

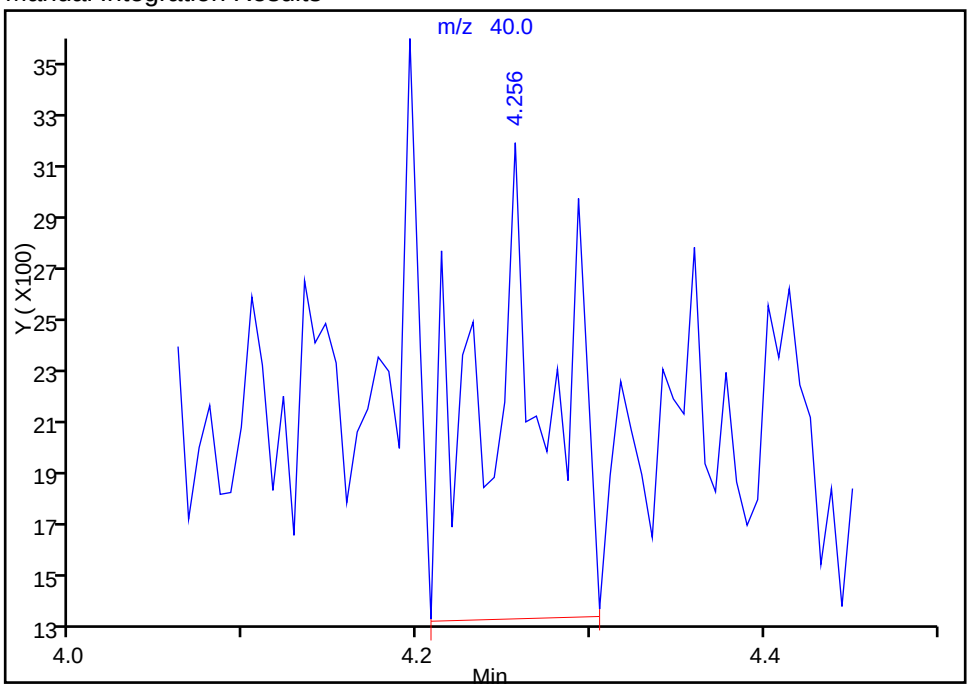
Processing Integration Results

RT: 4.41
Response: 1421
Amount: 199.7256



Manual Integration Results

RT: 4.26
Response: 4953
Amount: 259.4635



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

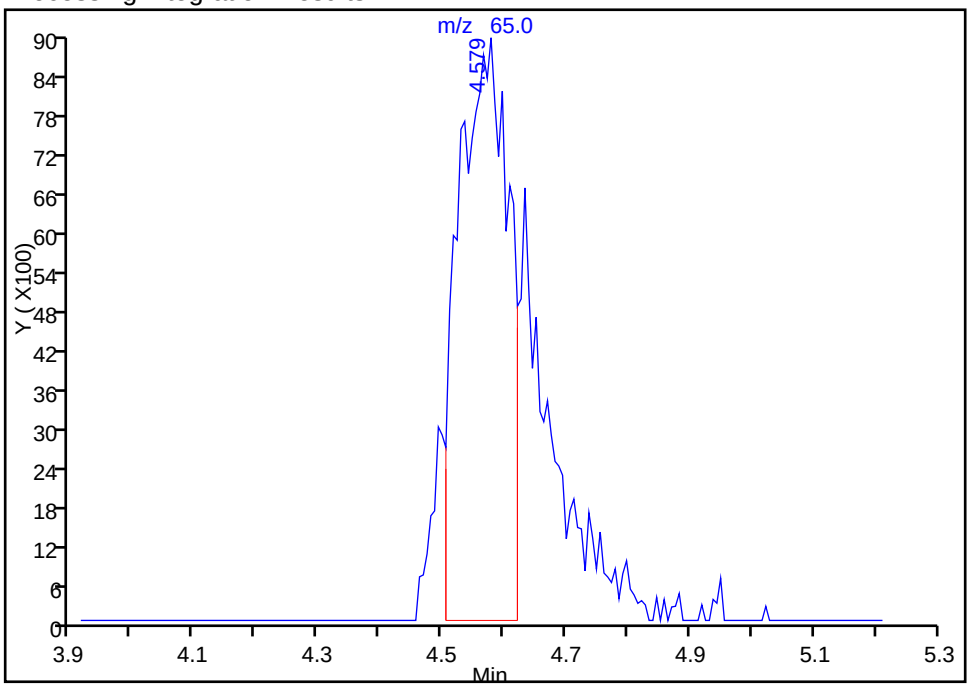
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

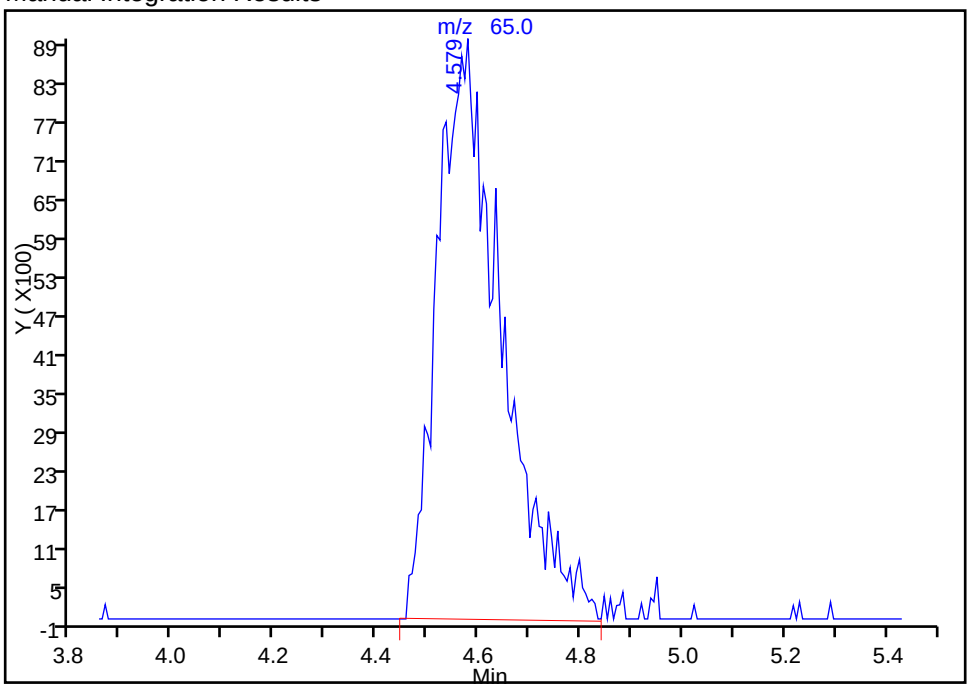
Processing Integration Results

RT: 4.58
Response: 49985
Amount: 5000.0000



Manual Integration Results

RT: 4.58
Response: 77924
Amount: 5000.0000



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

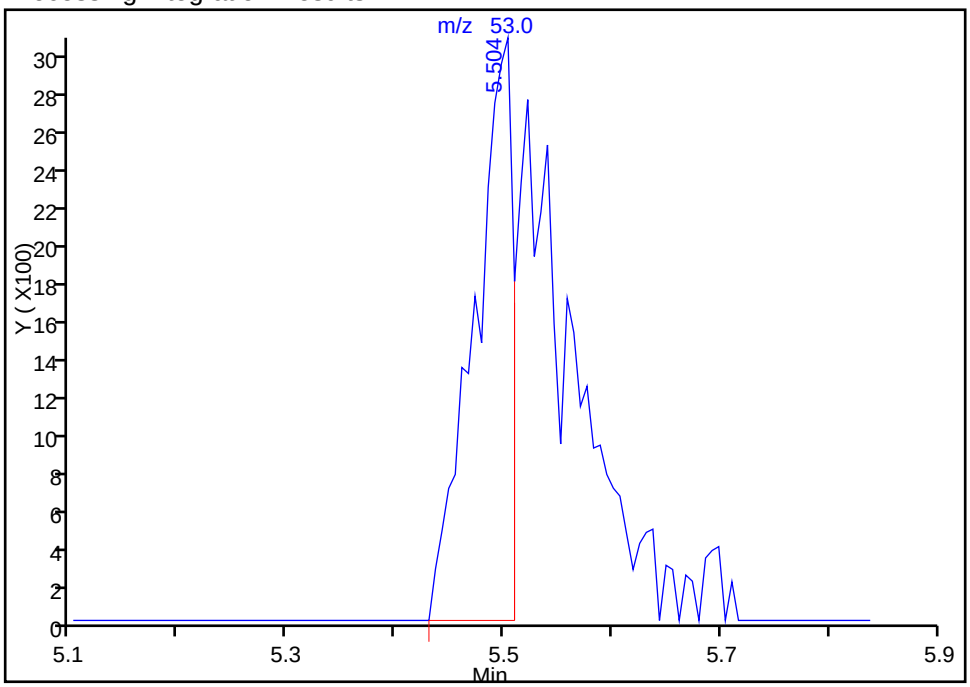
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D
Injection Date: 20-Oct-2014 12:49:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

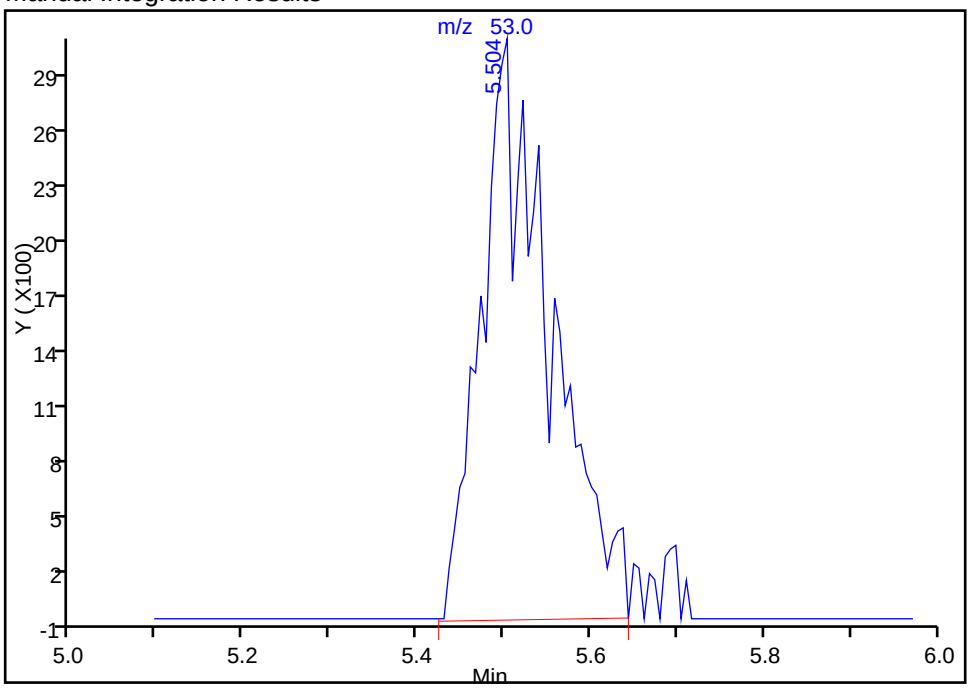
Processing Integration Results

RT: 5.50
Response: 7503
Amount: 19.997363



Manual Integration Results

RT: 5.50
Response: 16838
Amount: 28.617397



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

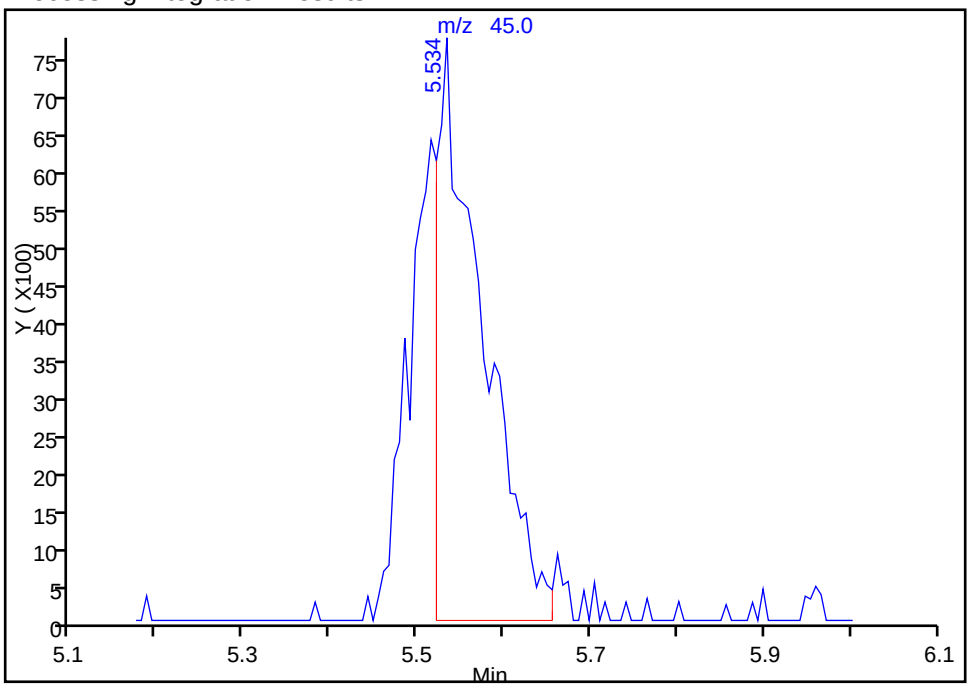
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

39 Isopropyl ether, CAS: 108-20-3

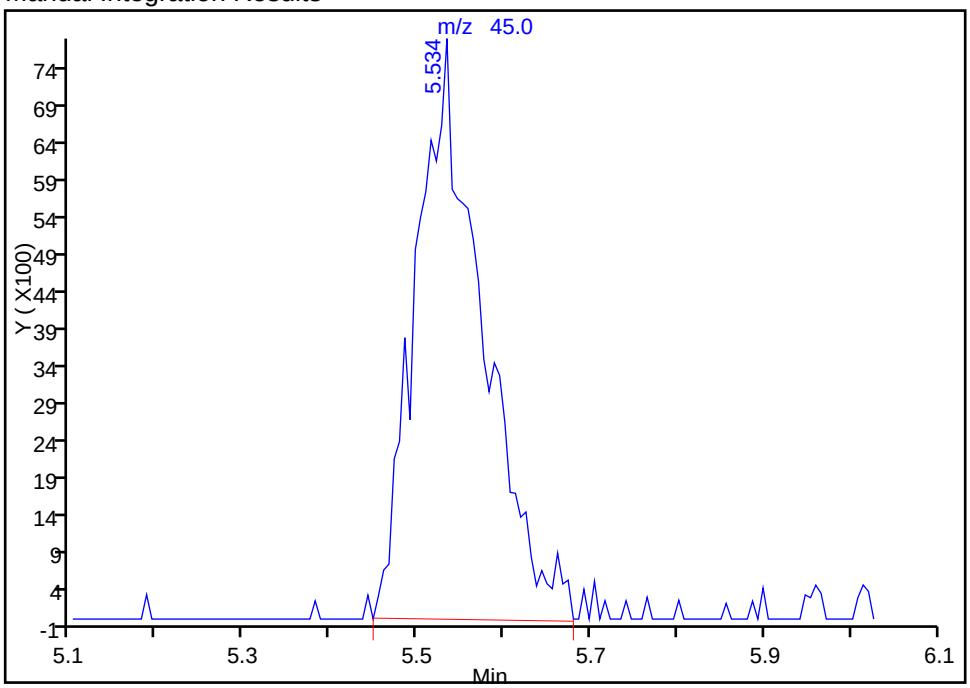
Processing Integration Results

RT: 5.53
Response: 28193
Amount: 20.307715



Manual Integration Results

RT: 5.53
Response: 41788
Amount: 28.175445



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

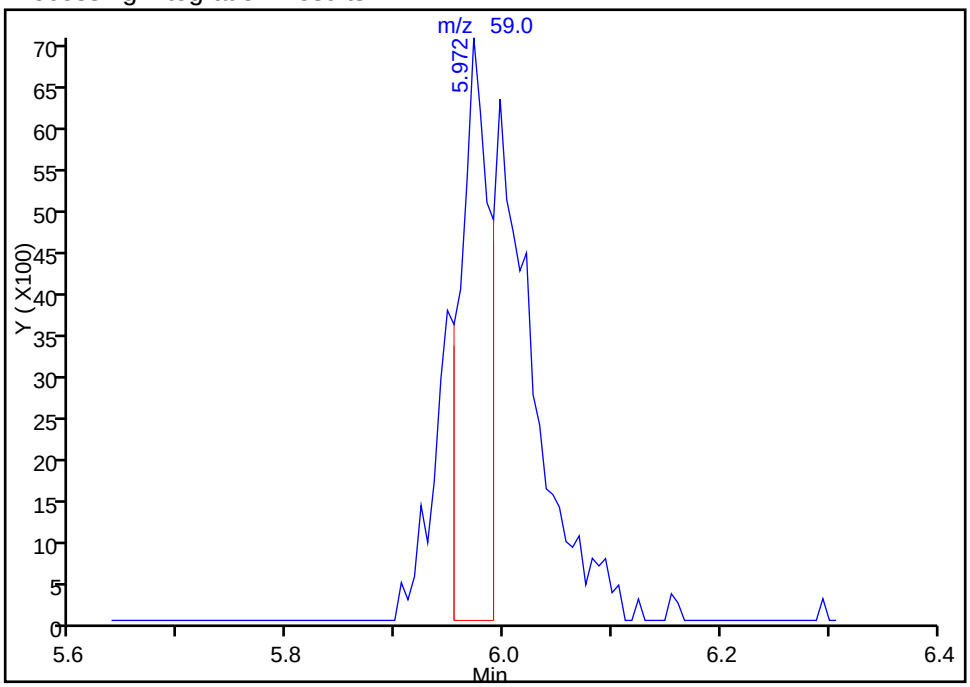
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

40 Tert-butyl ethyl ether, CAS: 637-92-3

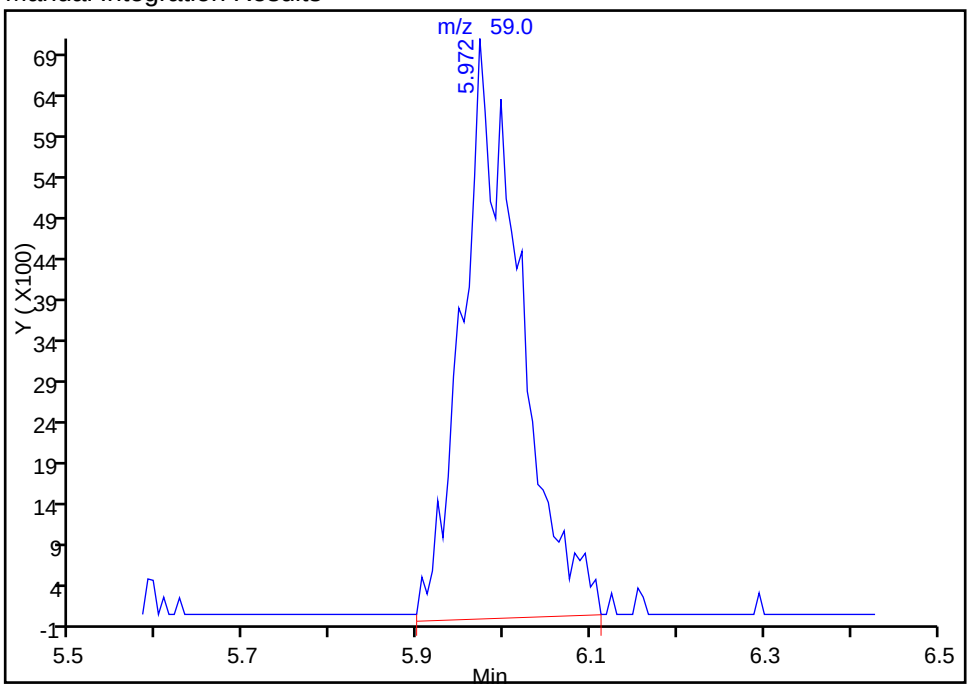
Processing Integration Results

RT: 5.97
Response: 13089
Amount: 31.907187



Manual Integration Results

RT: 5.97
Response: 32720
Amount: 28.108442



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

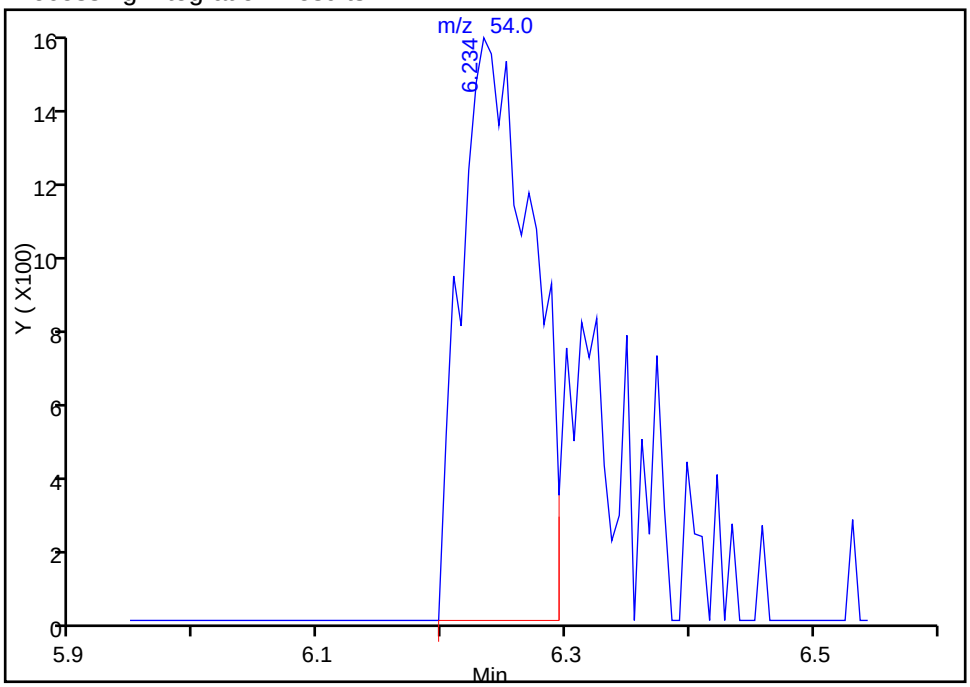
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D
Injection Date: 20-Oct-2014 12:49:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

44 Propionitrile, CAS: 107-12-0

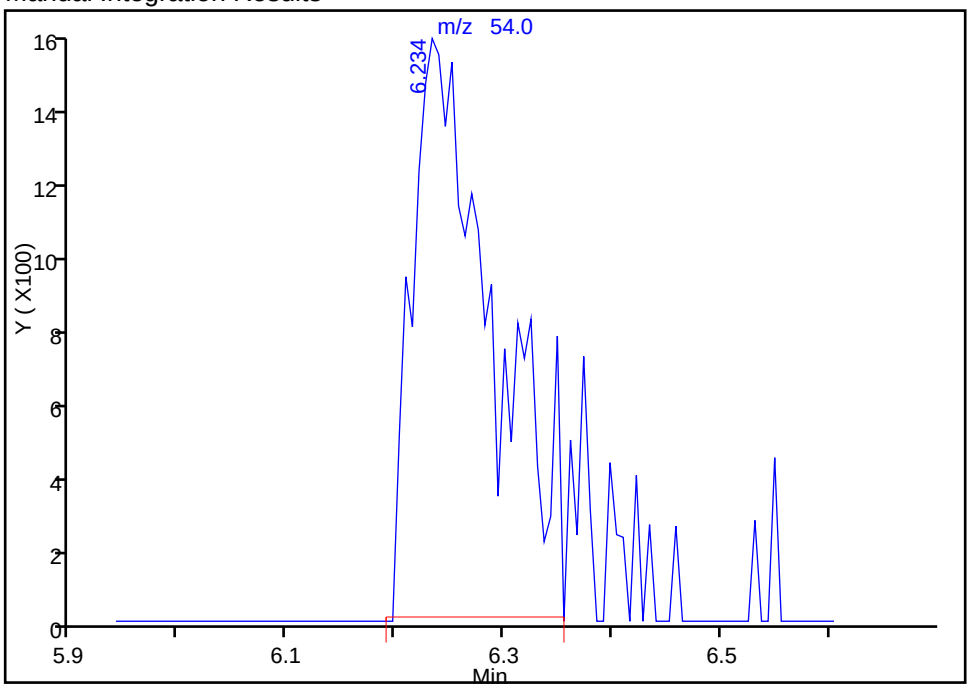
Processing Integration Results

RT: 6.23
Response: 6064
Amount: 210.0089



Manual Integration Results

RT: 6.23
Response: 7791
Amount: 255.6322



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

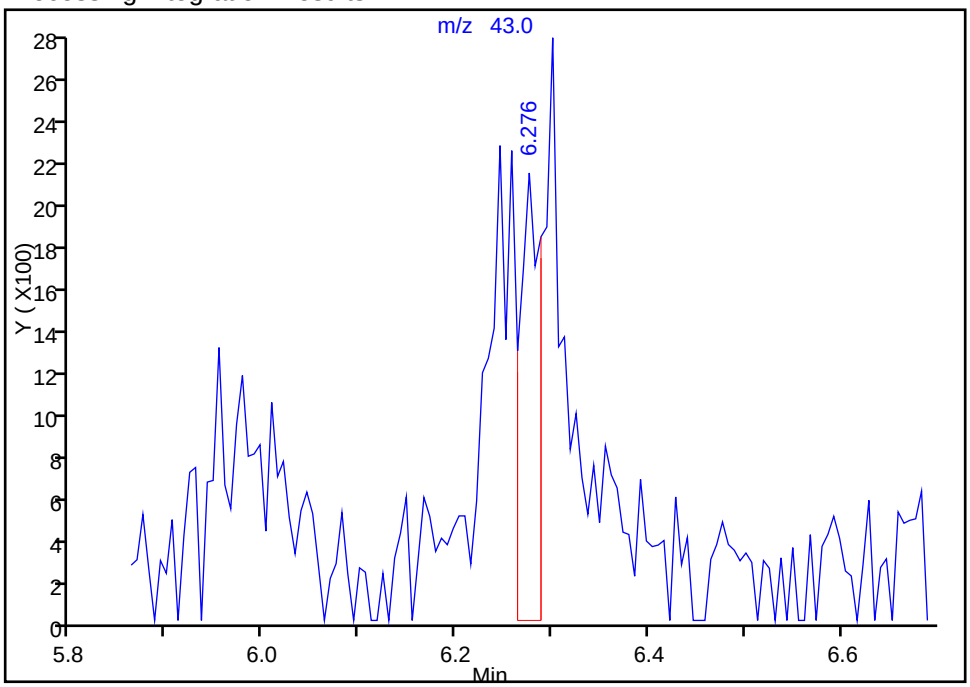
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

45 Ethyl acetate, CAS: 141-78-6

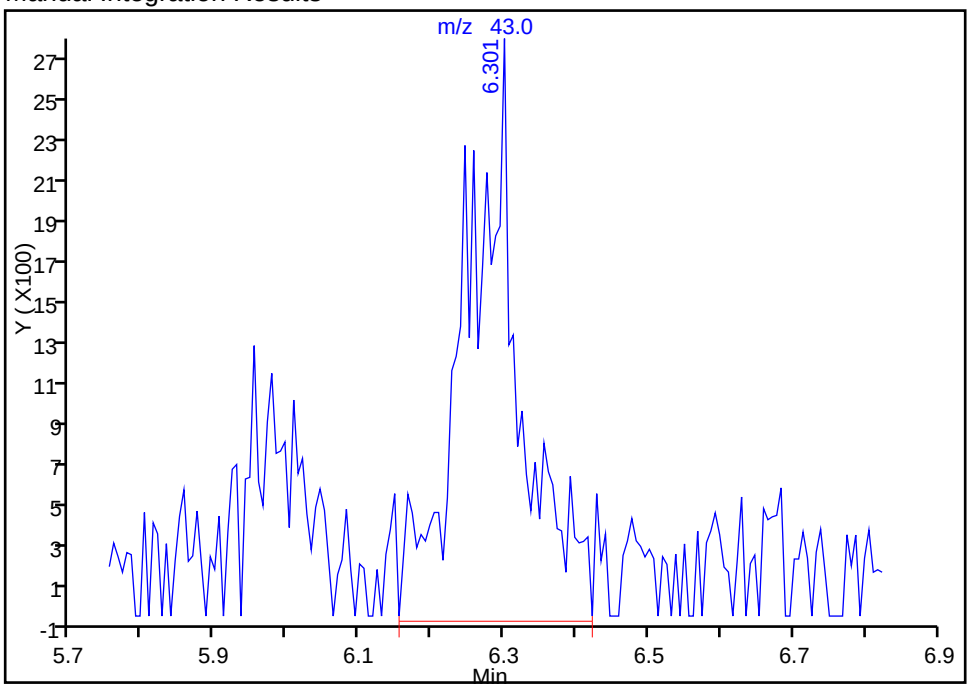
Processing Integration Results

RT: 6.28
Response: 3162
Amount: 39.966023



Manual Integration Results

RT: 6.30
Response: 15036
Amount: 48.418498



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

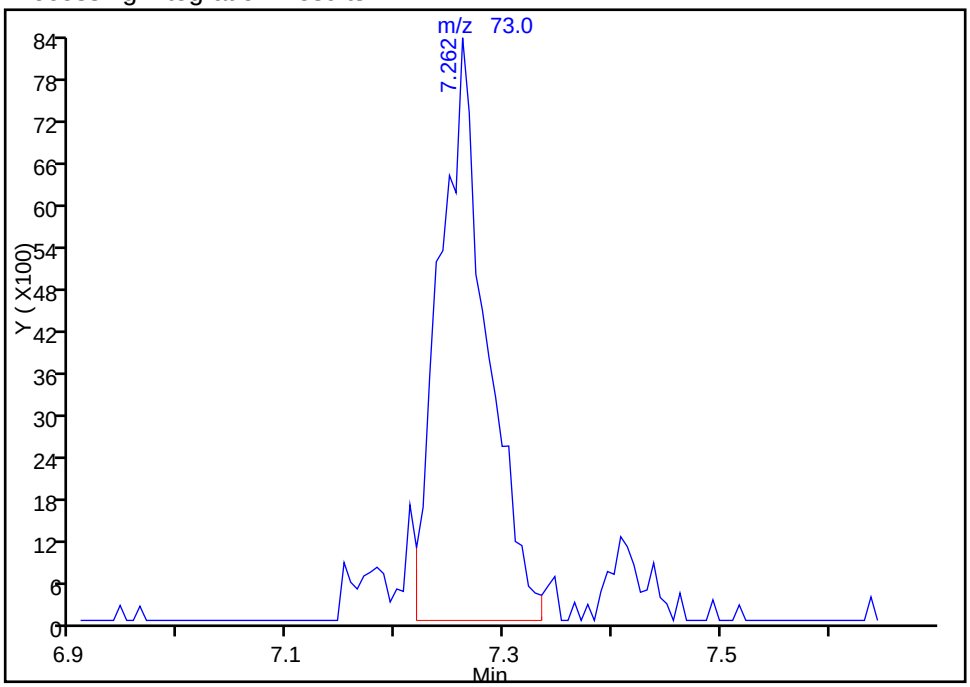
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D
Injection Date: 20-Oct-2014 12:49:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

58 Tert-amyl methyl ether, CAS: 994-05-8

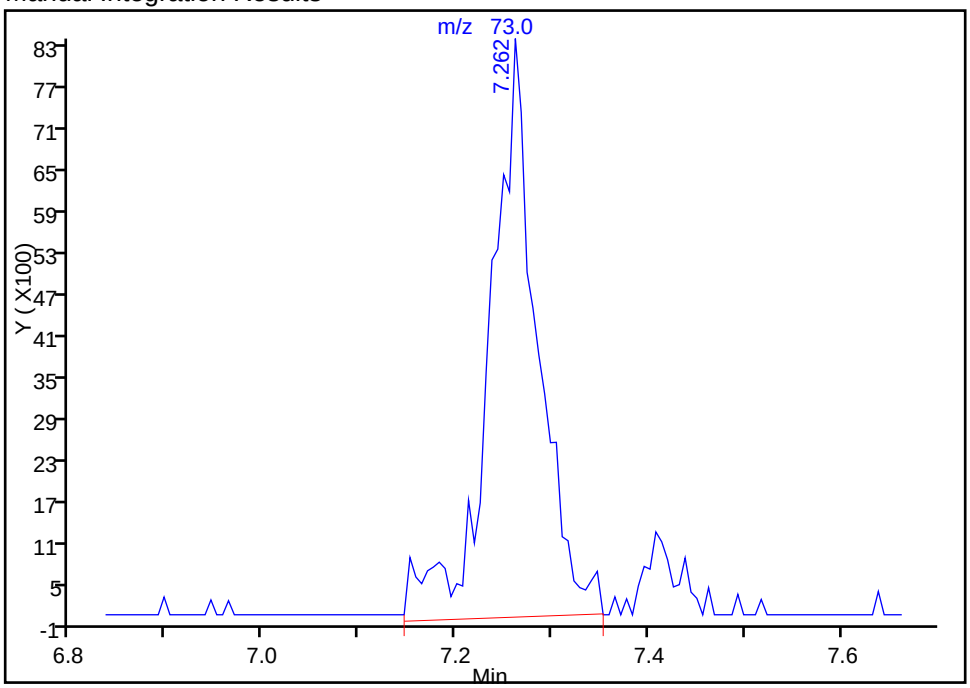
Processing Integration Results

RT: 7.26
Response: 25431
Amount: 28.499565



Manual Integration Results

RT: 7.26
Response: 29057
Amount: 31.537849



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

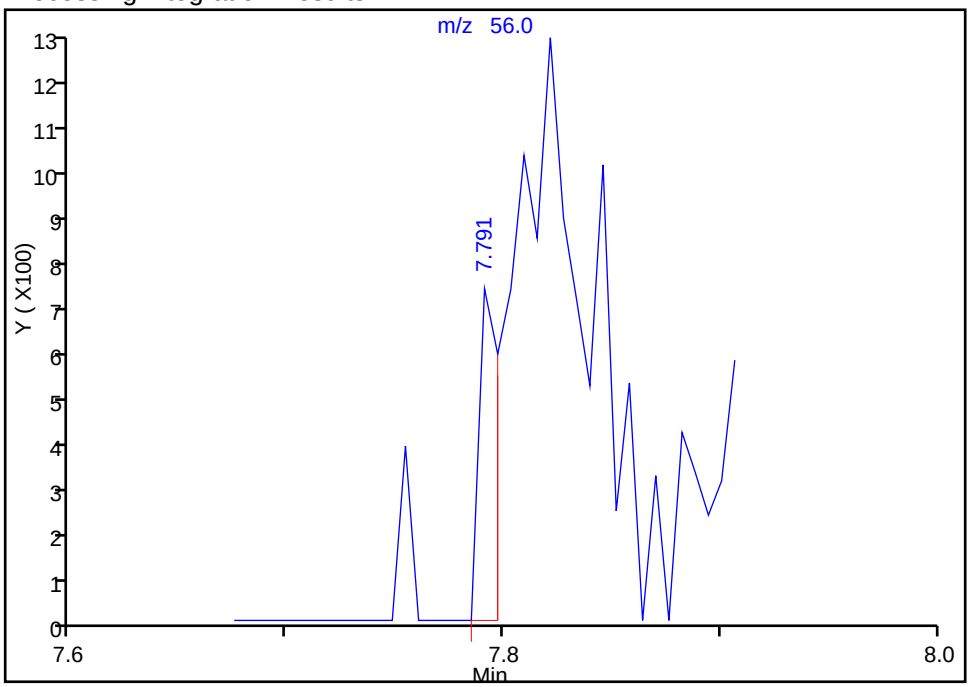
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 n-Butanol, CAS: 71-36-3

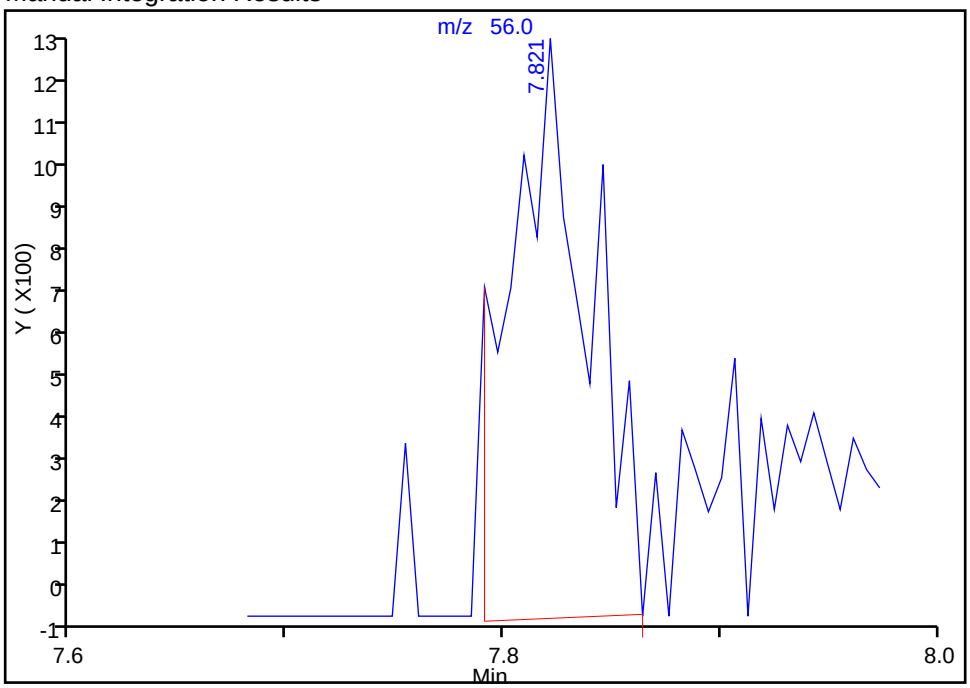
Processing Integration Results

RT: 7.79
Response: 471
Amount: 111.2091



Manual Integration Results

RT: 7.82
Response: 3257
Amount: 634.1602



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

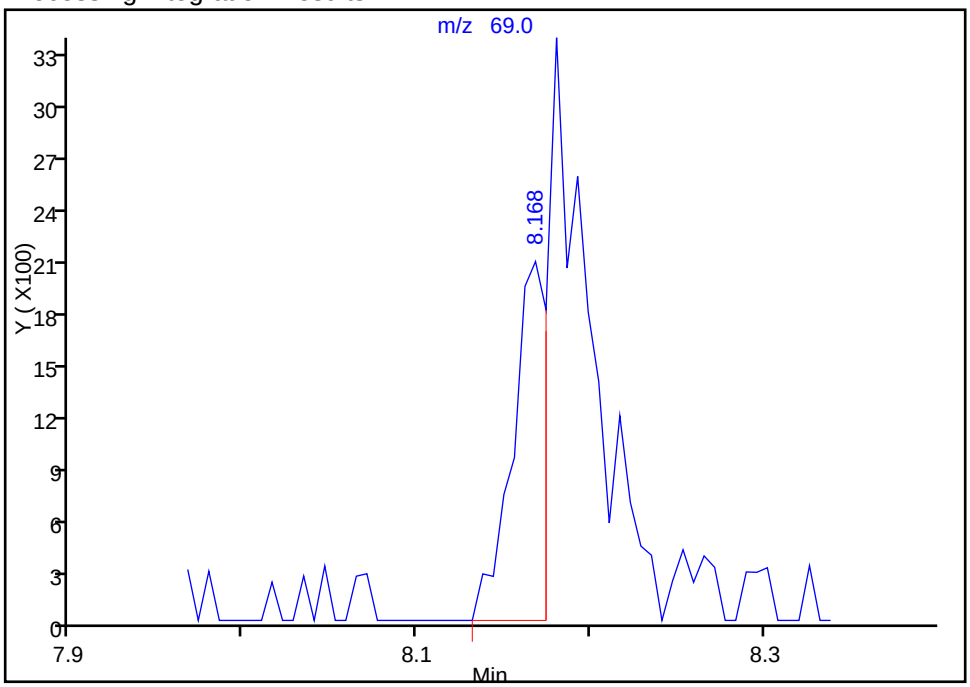
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

66 Methyl methacrylate, CAS: 80-62-6

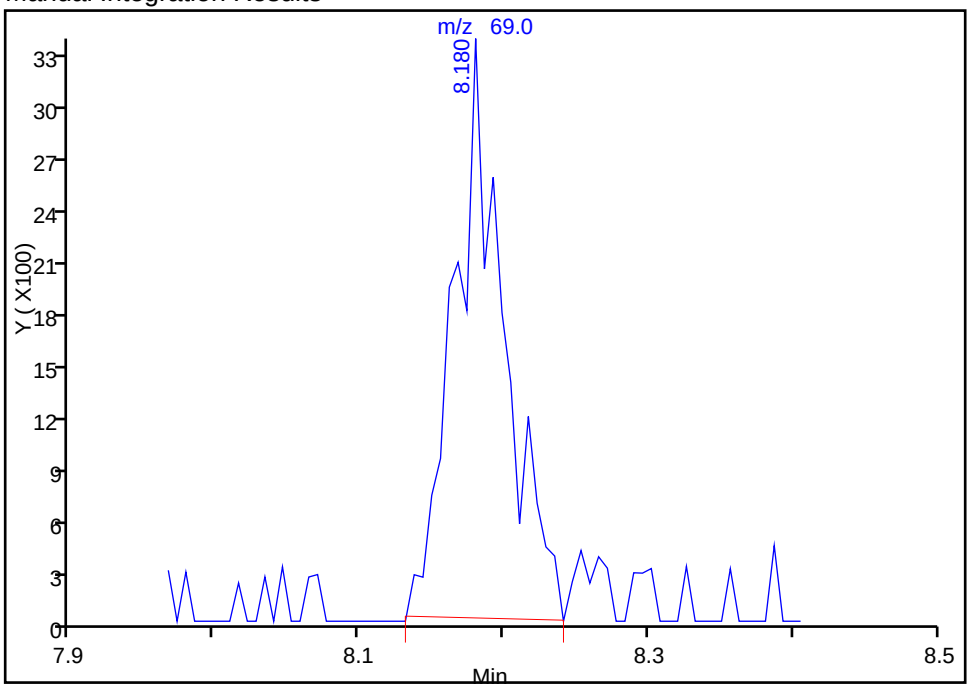
Processing Integration Results

RT: 8.17
Response: 2865
Amount: 48.150435



Manual Integration Results

RT: 8.18
Response: 7894
Amount: 58.499103



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

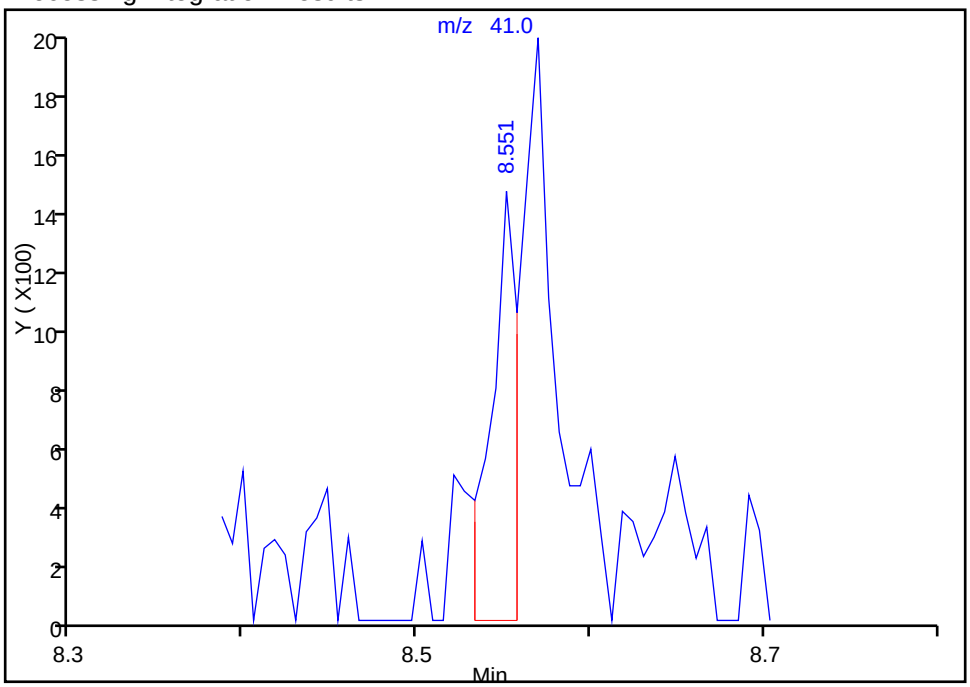
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

69 2-Nitropropane, CAS: 79-46-9

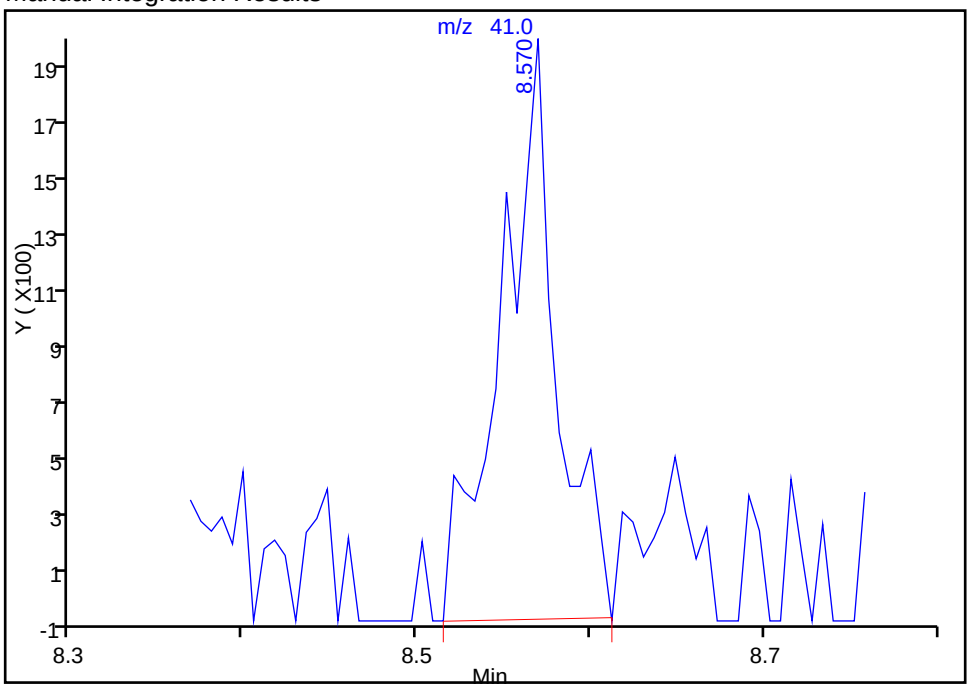
Processing Integration Results

RT: 8.55
Response: 1519
Amount: 57.234091



Manual Integration Results

RT: 8.57
Response: 4329
Amount: 65.280210



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

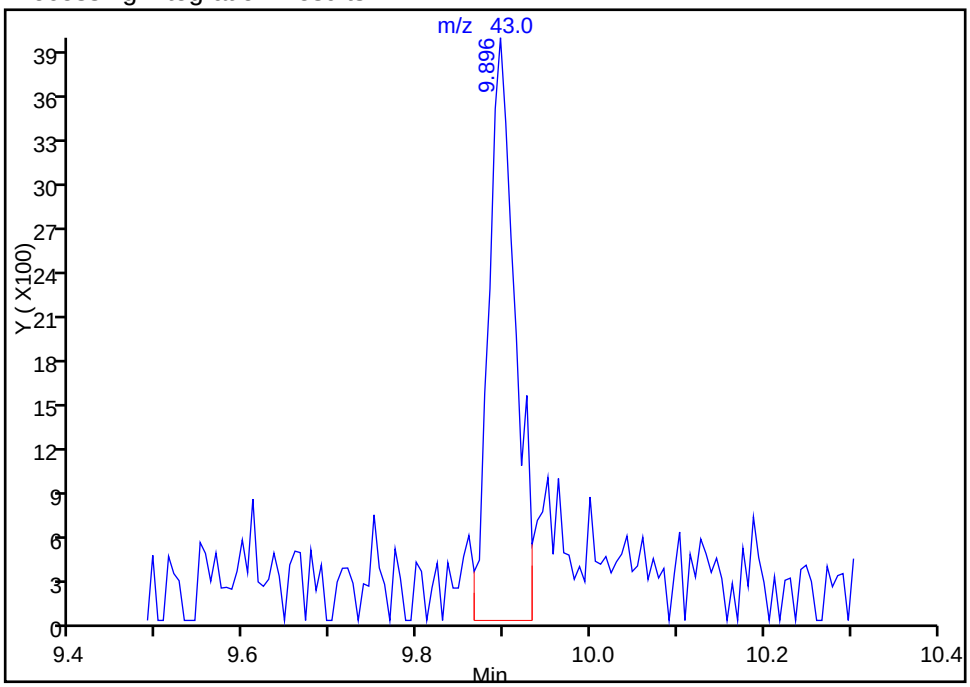
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D
Injection Date: 20-Oct-2014 12:49:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

80 n-Butyl acetate, CAS: 123-86-4

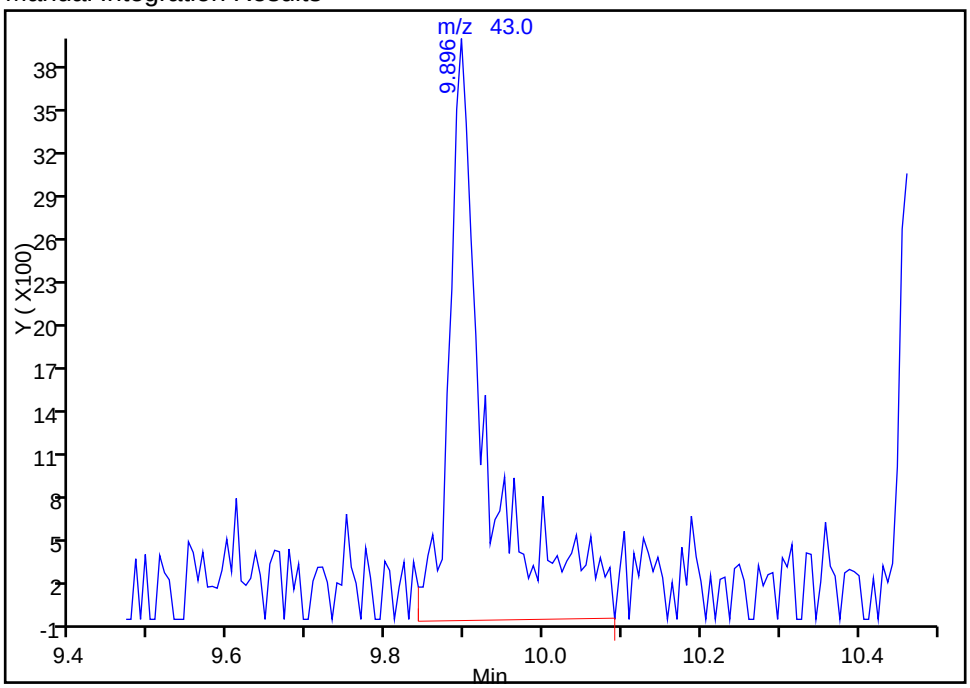
Processing Integration Results

RT: 9.90
Response: 8431
Amount: 24.653699



Manual Integration Results

RT: 9.90
Response: 13413
Amount: 24.399214



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

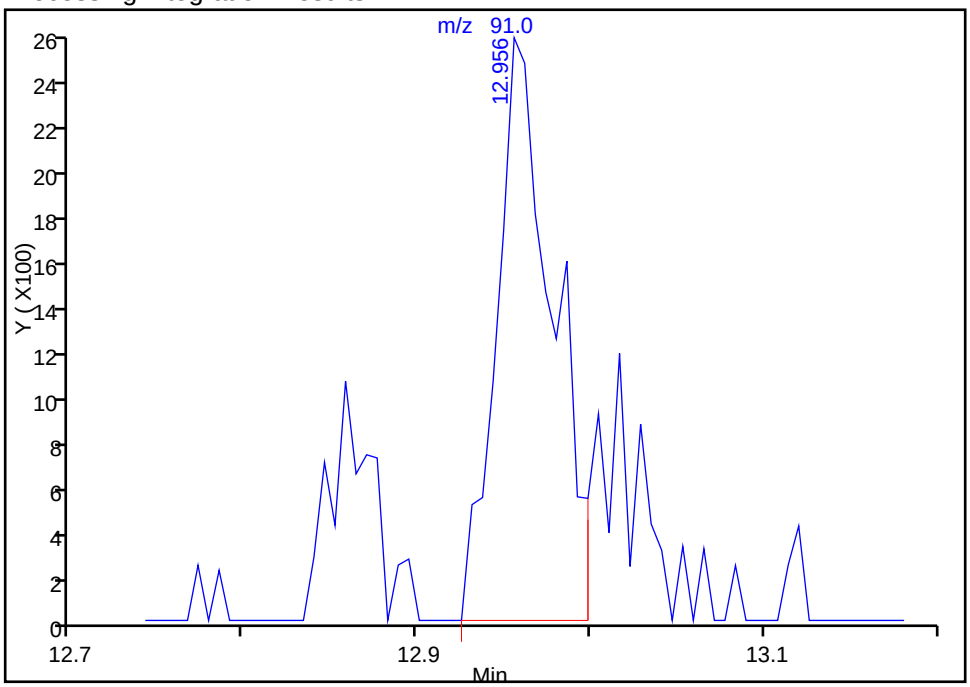
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

109 Benzyl chloride, CAS: 100-44-7

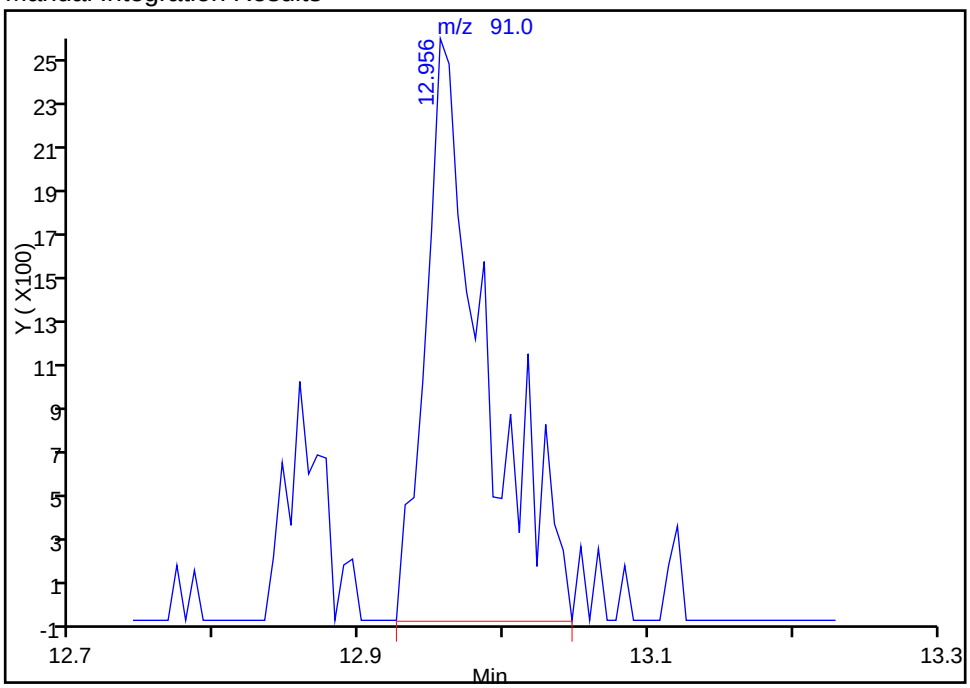
Processing Integration Results

RT: 12.96
Response: 5766
Amount: 21.153570



Manual Integration Results

RT: 12.96
Response: 7349
Amount: 26.057824



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

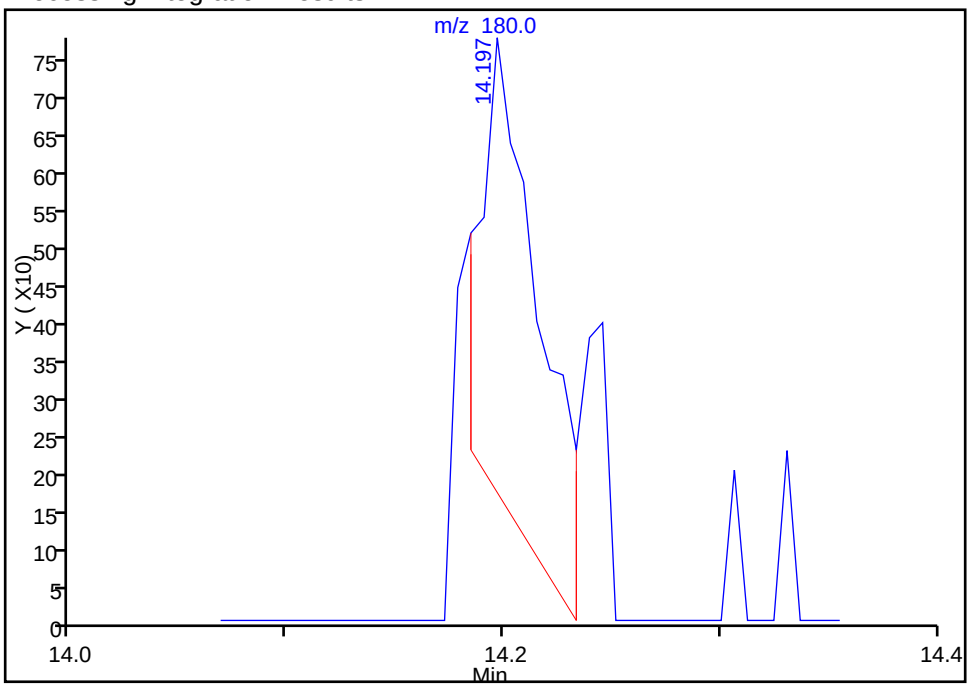
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102003.D				
Injection Date:	20-Oct-2014 12:49:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

113 1,3,5-Trichlorobenzene, CAS: 108-70-3

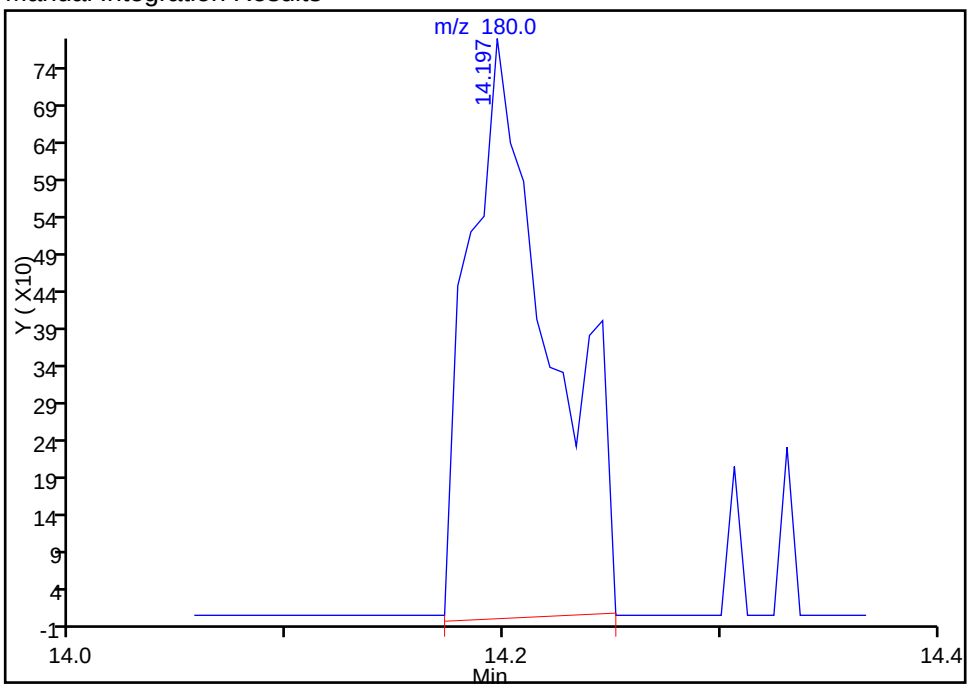
Processing Integration Results

RT: 14.20
Response: 1214
Amount: 12.406484



Manual Integration Results

RT: 14.20
Response: 2047
Amount: 20.198572



Reviewer: journetp, 20-Oct-2014 16:54:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Oct-2014 13:15:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003900-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Oct-2014 13:30:09 Calib Date: 20-Oct-2014 14:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.592	4.592	0.000	92	97480	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.415	7.415	0.000	98	186433	250.0	250.0	
* 4 Chlorobenzene-d5	119	10.469	10.463	0.006	93	43924	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	97	57231	250.0	250.0	
18 Ethanol	45	4.124	4.124	0.000	30	9093	2500.0	2655.5	M
27 Acetonitrile	40	4.203	4.233	-0.030	56	9516	500.0	525.1	M
38 2-Chloro-1,3-butadiene	53	5.487	5.505	-0.018	56	27277	50.0	48.8	M
39 Isopropyl ether	45	5.529	5.529	0.000	98	73005	50.0	51.9	
26 Isopropyl alcohol	45	5.529	5.529	0.000	93	75835	500.0	541.2	
40 Tert-butyl ethyl ether	59	5.973	5.973	0.000	40	61581	50.0	55.7	M
44 Propionitrile	54	6.253	6.253	0.000	49	17627	500.0	609.2	M
45 Ethyl acetate	43	6.253	6.265	-0.012	41	21973	100.0	109.1	M
46 Methacrylonitrile	41	6.393	6.405	-0.012	96	85052	500.0	570.3	M
57 Isooctane	57	7.214	7.220	-0.006	97	80669	NC	NC	
58 Tert-amyl methyl ether	73	7.251	7.257	-0.006	97	49272	50.0	56.3	
60 n-Butanol	56	7.786	7.786	0.000	4	7556	1250.0	1549.8	M
62 Ethyl acrylate	55	7.938	7.932	0.006	97	15483	50.0	55.7	
66 Methyl methacrylate	69	8.175	8.170	0.006	89	13775	100.0	107.5	
69 2-Nitropropane	41	8.559	8.559	0.000	95	6820	100.0	107.5	M
70 2-Chloroethyl vinyl ether	63	8.632	8.644	-0.012	89	13216	100.0	118.3	
80 n-Butyl acetate	43	9.891	9.885	0.006	95	20676	50.0	52.6	
92 Cyclohexanone	55	11.582	11.576	0.006	1	1473	1000.0	604.2	
102 Pentachloroethane	167	12.410	12.410	0.000	88	8574	50.0	49.5	
108 1,2,3-Trimethylbenzene	105	12.860	12.860	0.000	97	43002	50.0	50.8	
109 Benzyl chloride	91	12.951	12.945	0.006	75	15242	50.0	52.1	
113 1,3,5-Trichlorobenzene	180	14.192	14.180	0.012	88	4311	50.0	41.0	M

QC Flag Legend

Processing Flags
NC - Not Calibrated

Review Flags
M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added:	2.00	Units: uL
VOA2CEVEPRI_00008	Amount Added:	2.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL

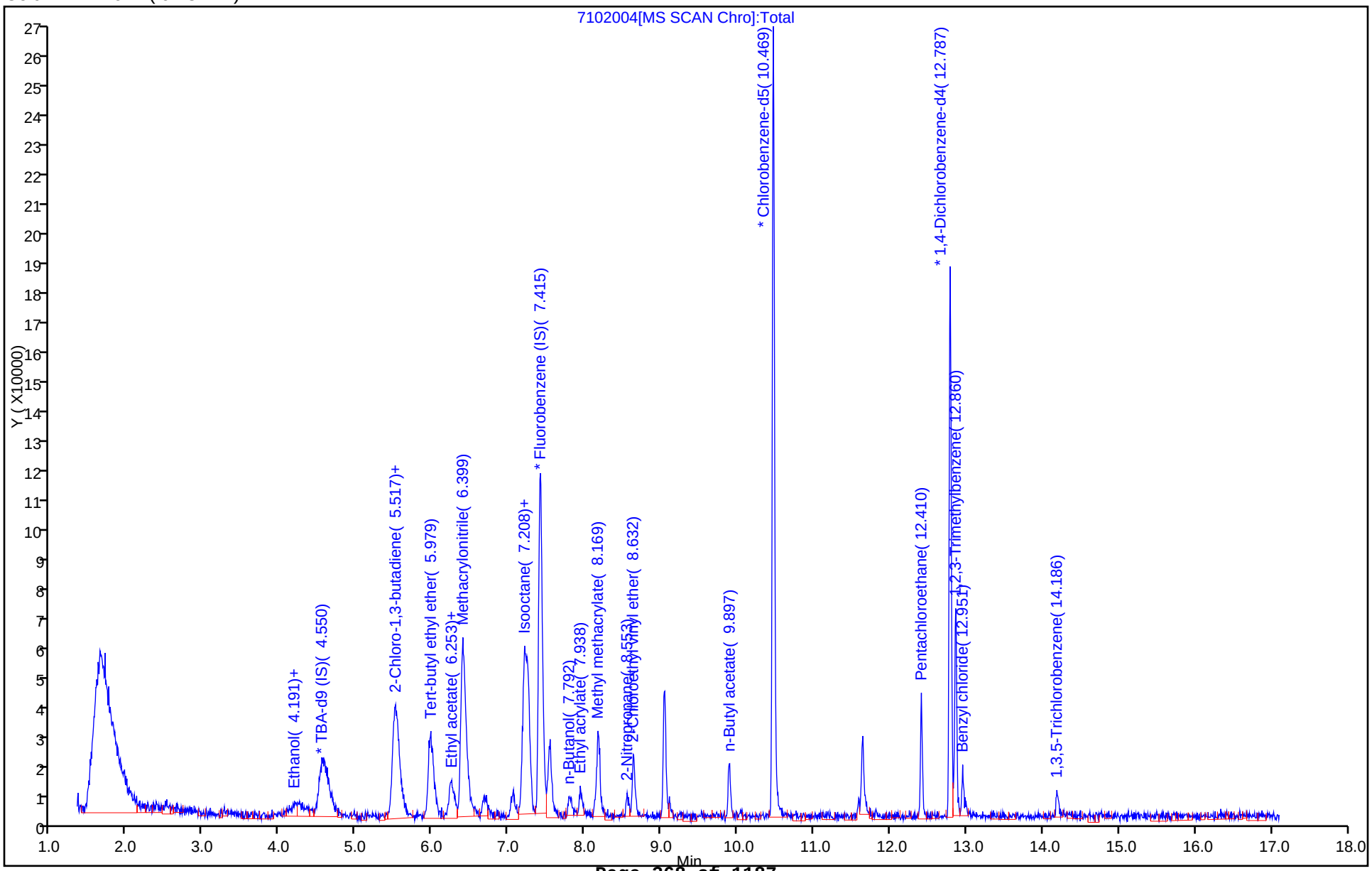
Report Date: 22-Oct-2014 13:30:09 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D

Injection Date:	20-Oct-2014 13:15:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

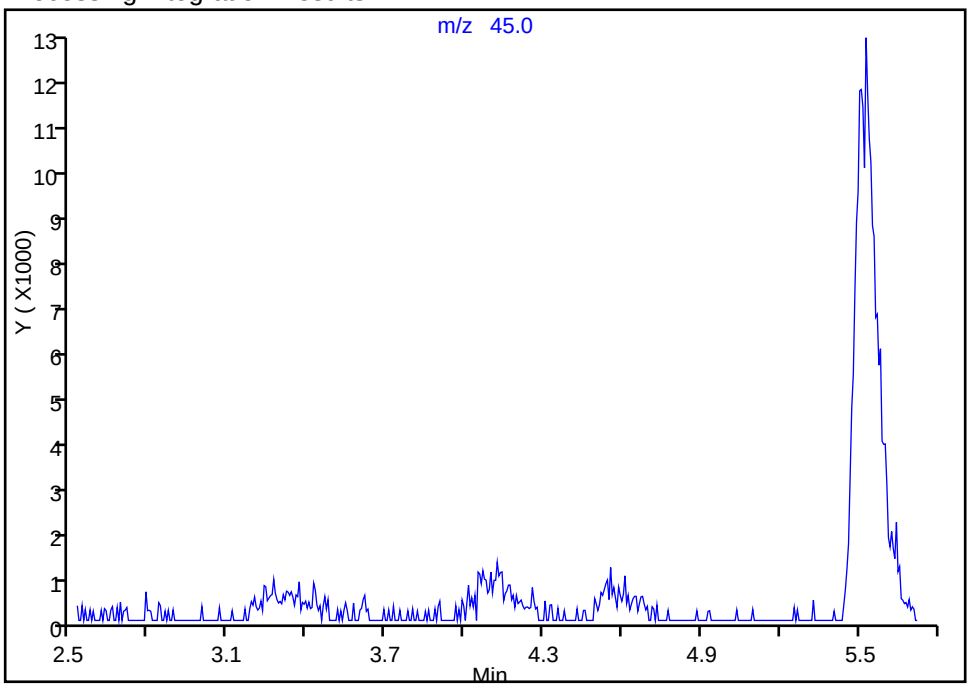
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D				
Injection Date:	20-Oct-2014 13:15:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Ethanol, CAS: 64-17-5

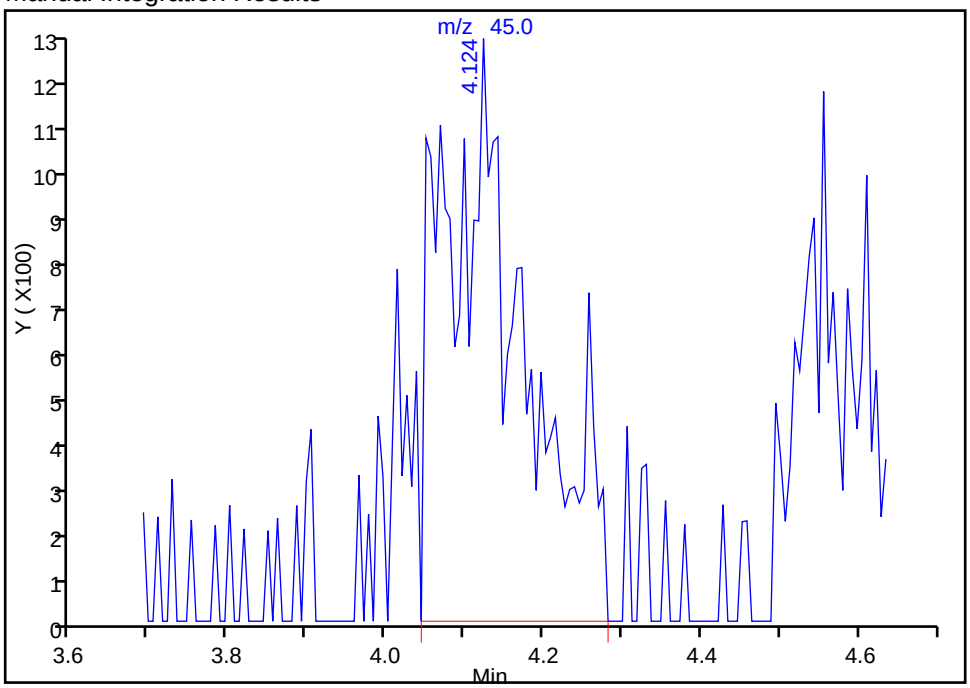
Not Detected
Expected RT: 4.12

Processing Integration Results



Manual Integration Results

RT: 4.12
Response: 9093
Amount: 2655.4949



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

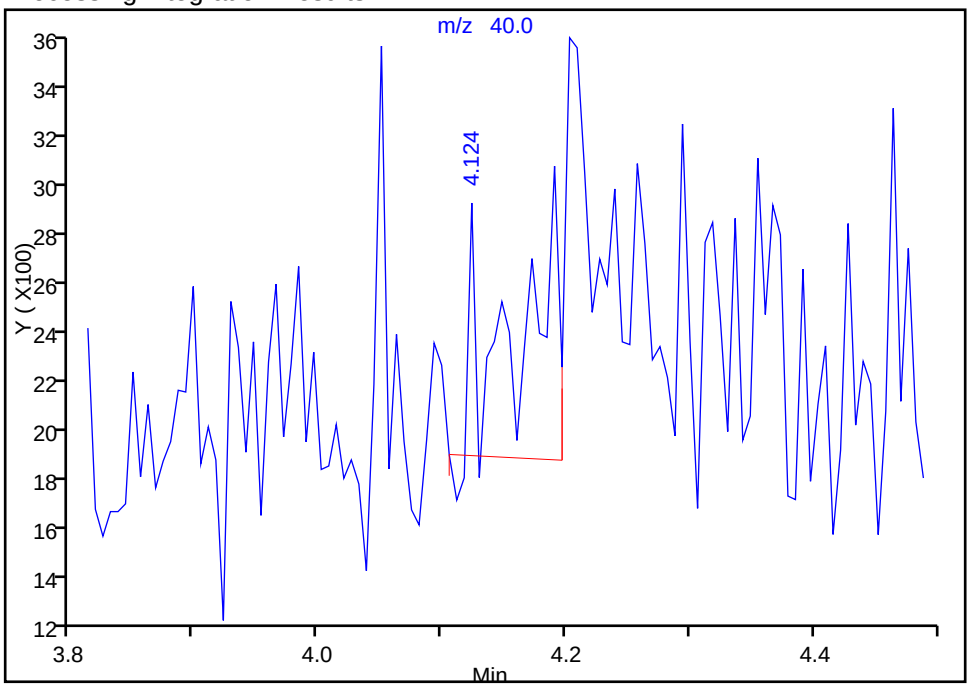
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

27 Acetonitrile, CAS: 75-05-8

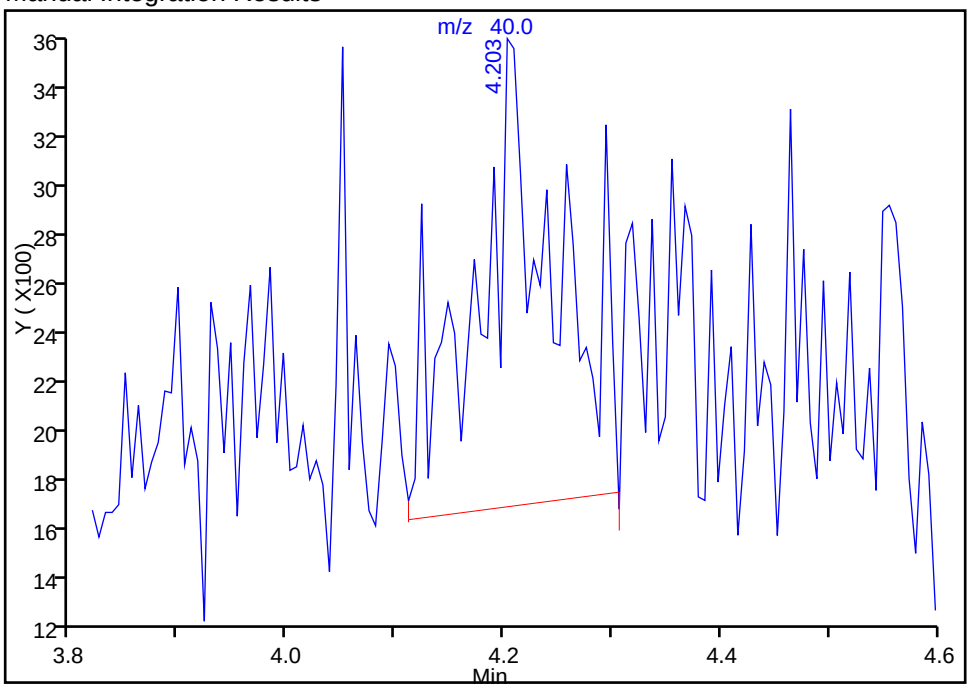
Processing Integration Results

RT: 4.12
Response: 2360
Amount: 107.8289



Manual Integration Results

RT: 4.20
Response: 9516
Amount: 525.1125



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

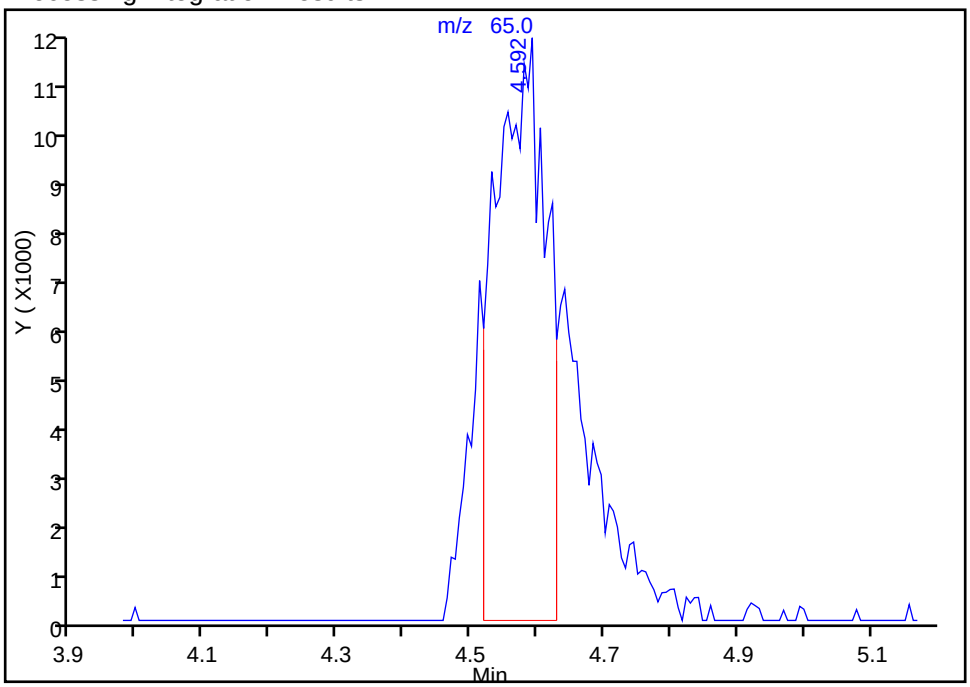
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

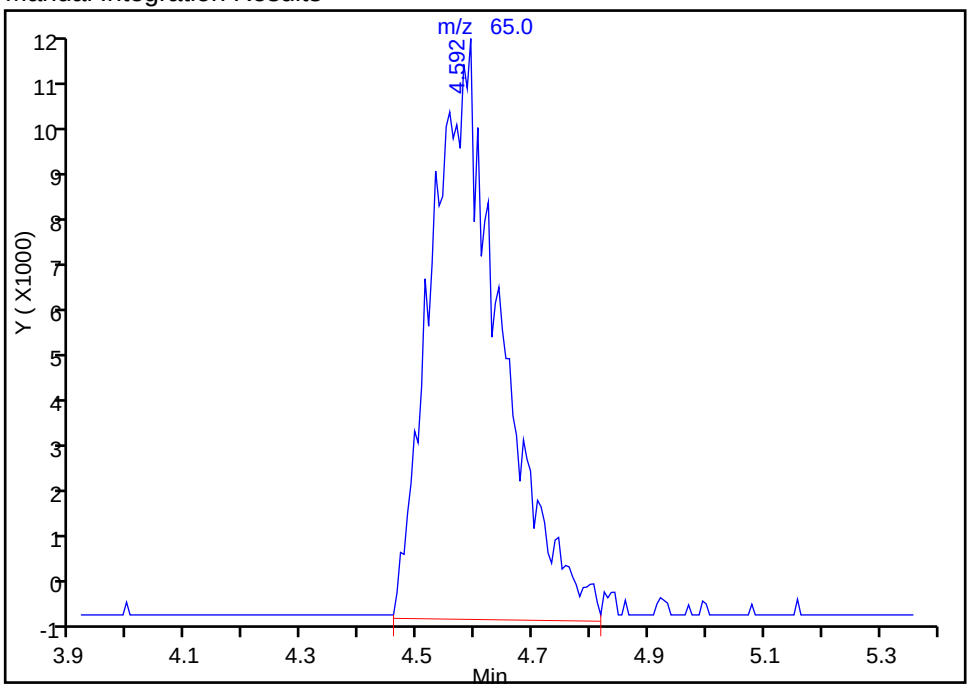
Processing Integration Results

RT: 4.59
Response: 60686
Amount: 5000.0000



Manual Integration Results

RT: 4.59
Response: 97480
Amount: 5000.0000



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

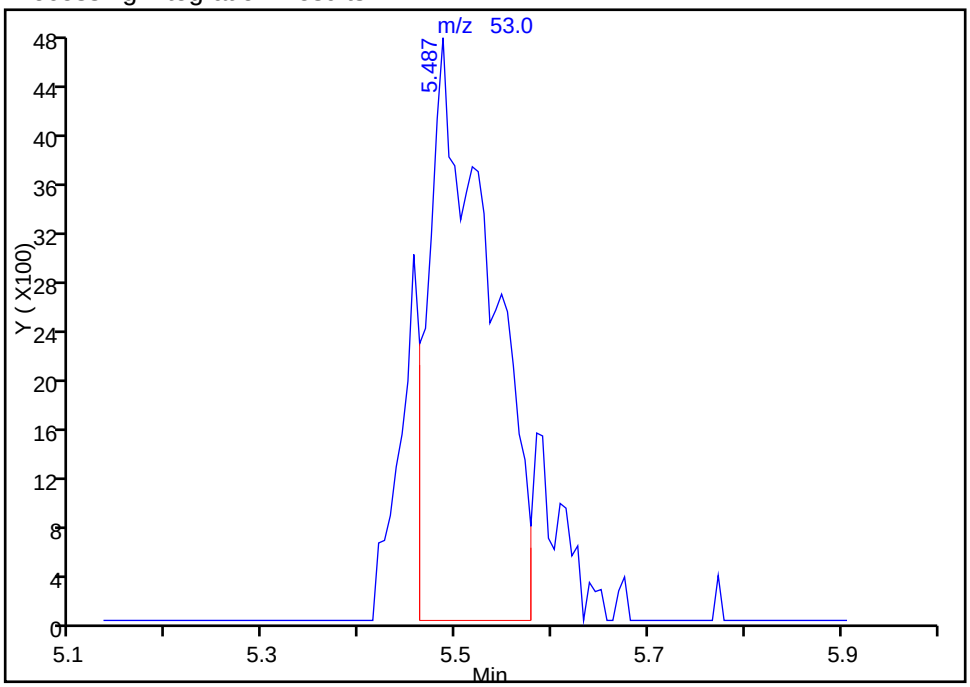
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

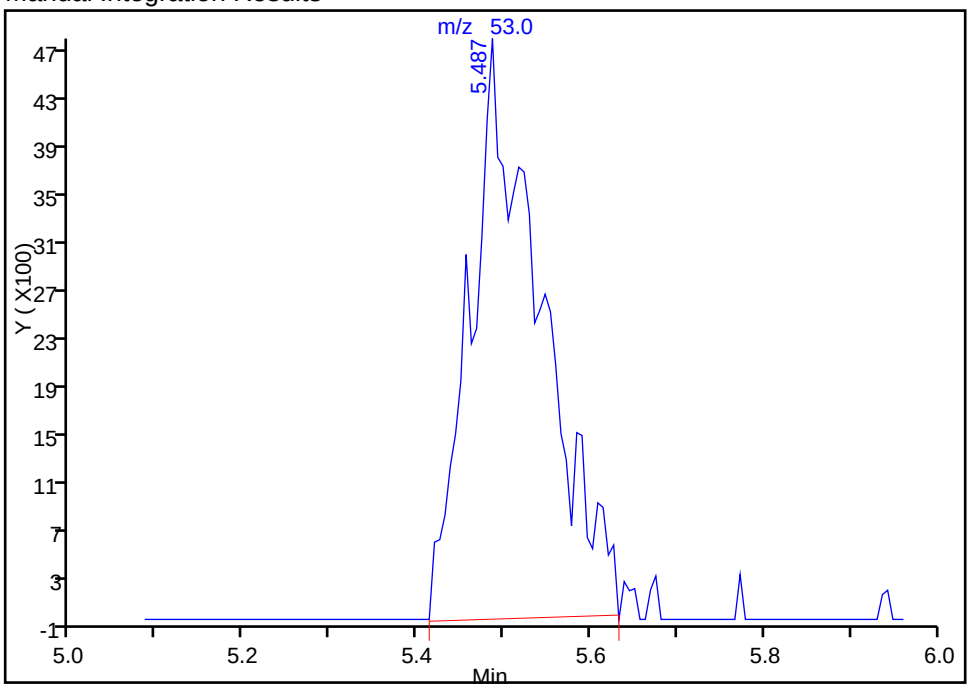
Processing Integration Results

RT: 5.49
Response: 21110
Amount: 41.568937



Manual Integration Results

RT: 5.49
Response: 27277
Amount: 48.834436



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

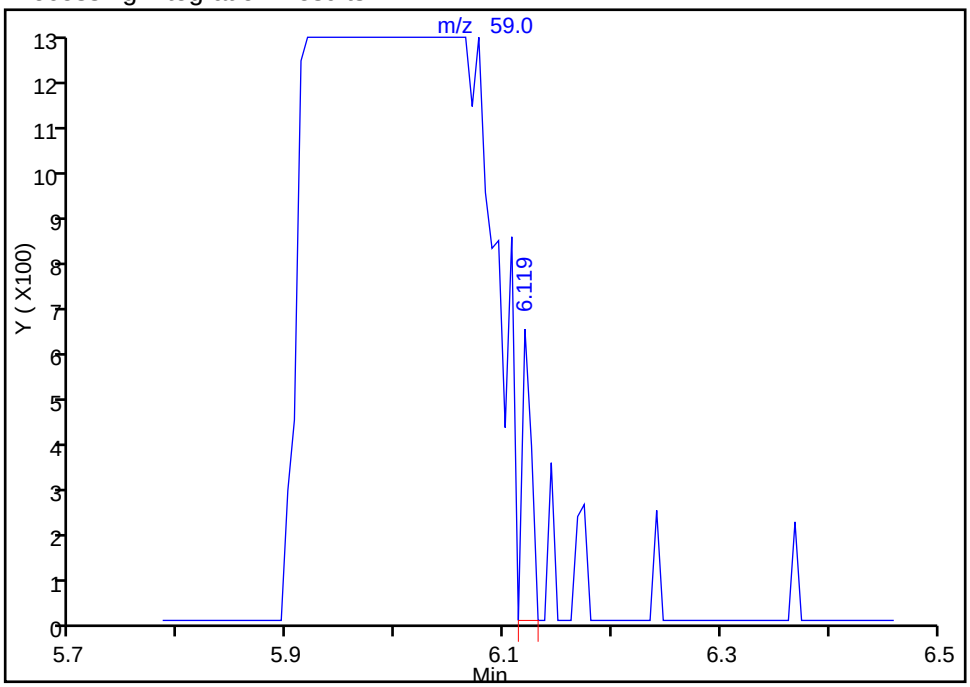
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

40 Tert-butyl ethyl ether, CAS: 637-92-3

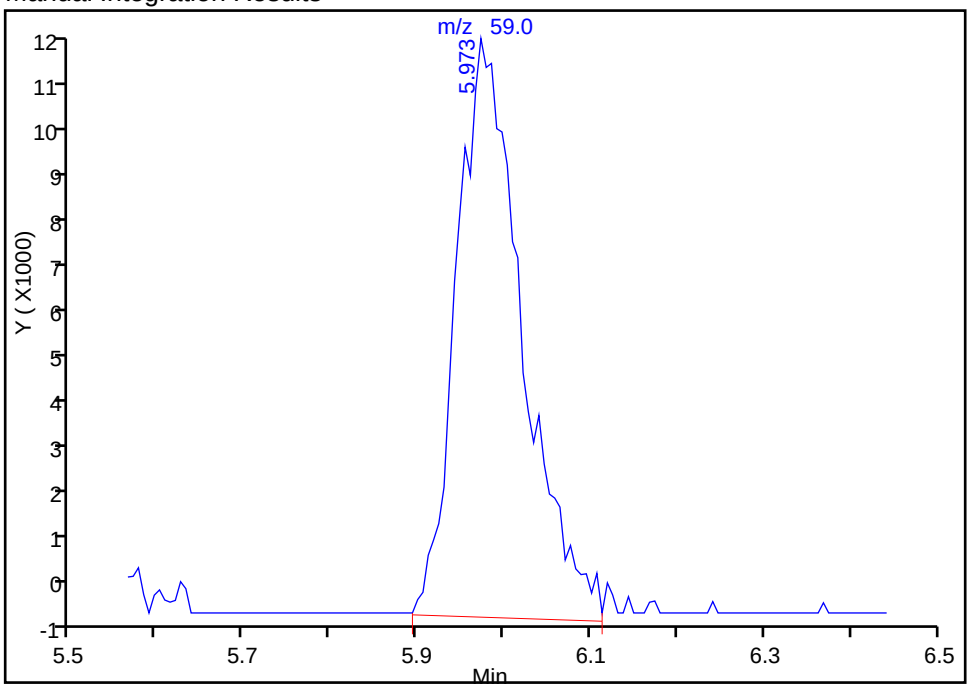
Processing Integration Results

RT: 6.12
Response: 353
Amount: 2.065461



Manual Integration Results

RT: 5.97
Response: 61581
Amount: 55.726295



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

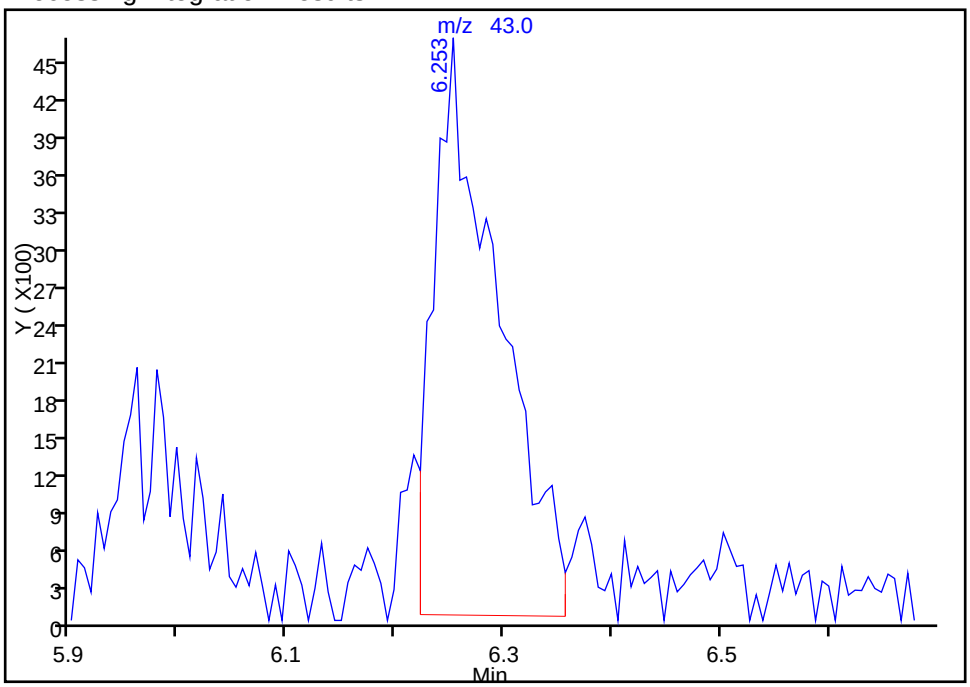
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

45 Ethyl acetate, CAS: 141-78-6

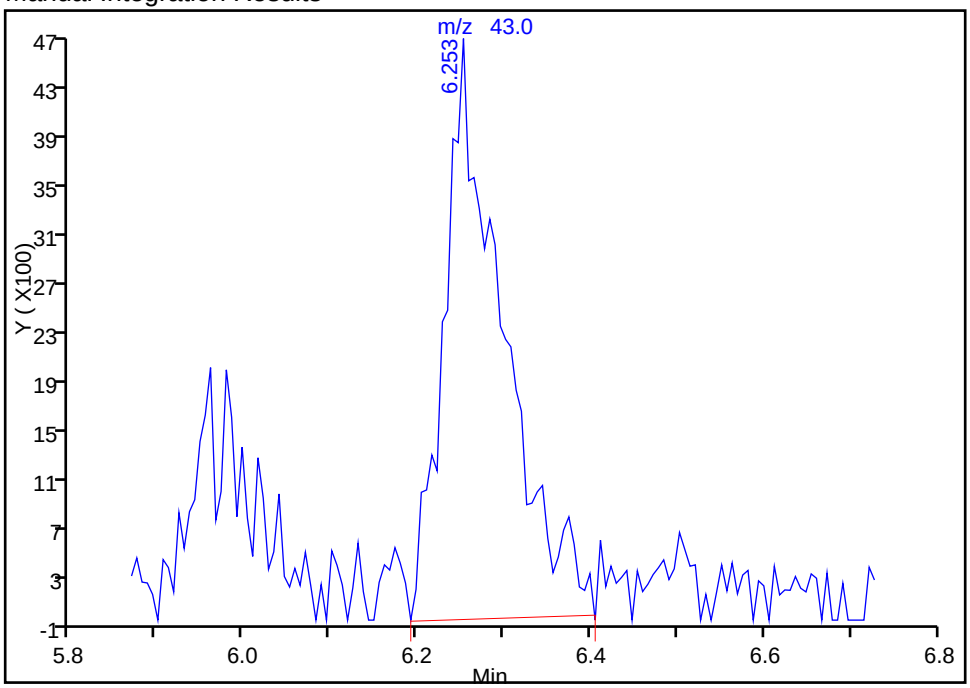
Processing Integration Results

RT: 6.25
Response: 19208
Amount: 79.068009



Manual Integration Results

RT: 6.25
Response: 21973
Amount: 109.1379



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

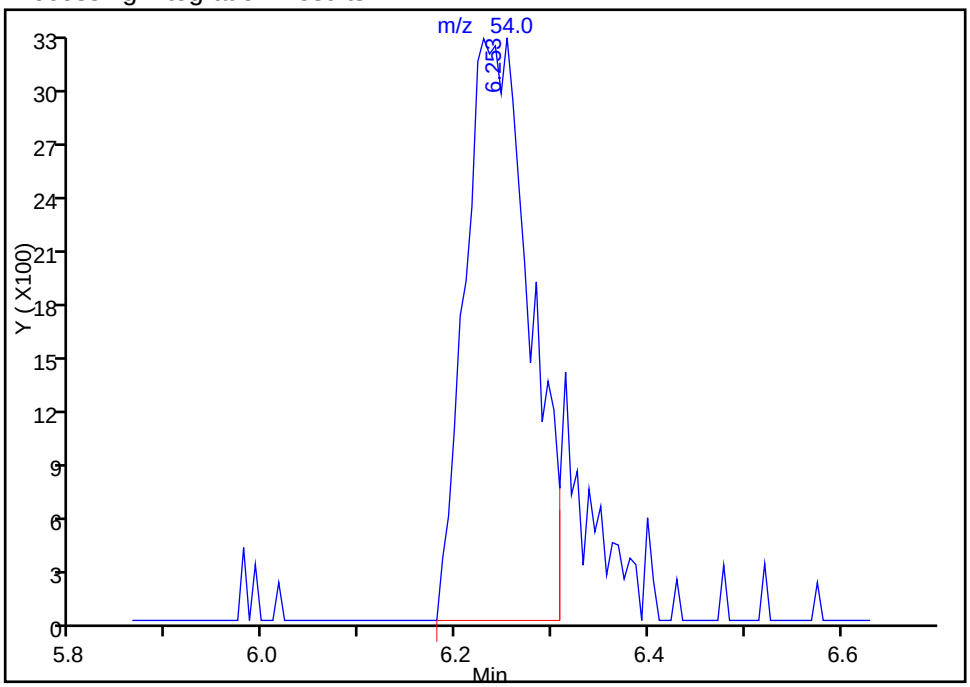
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

44 Propionitrile, CAS: 107-12-0

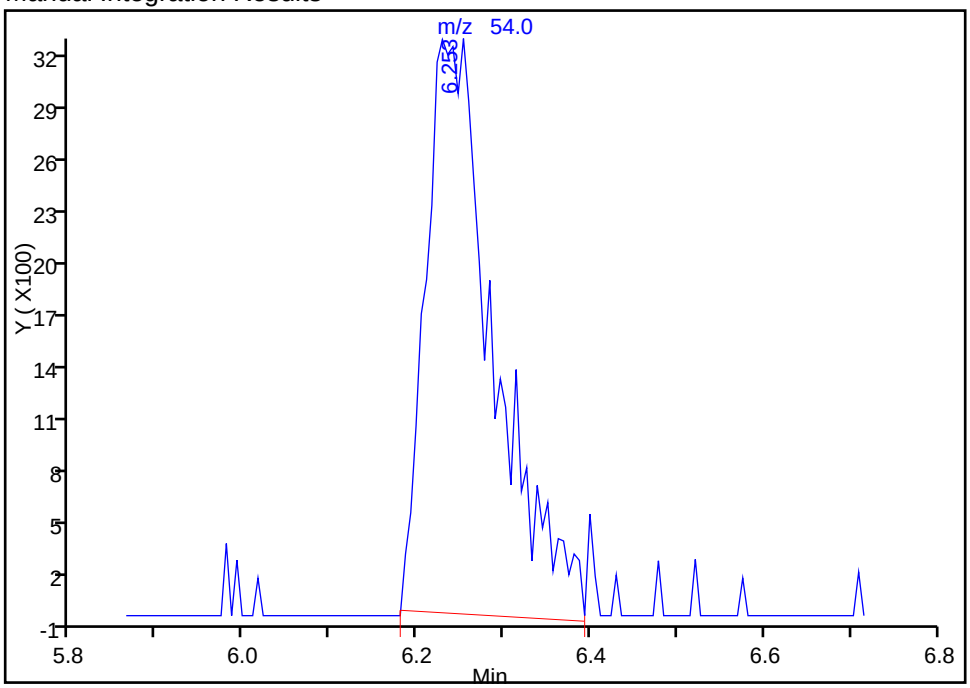
Processing Integration Results

RT: 6.25
Response: 15066
Amount: 464.4684



Manual Integration Results

RT: 6.25
Response: 17627
Amount: 609.2432



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

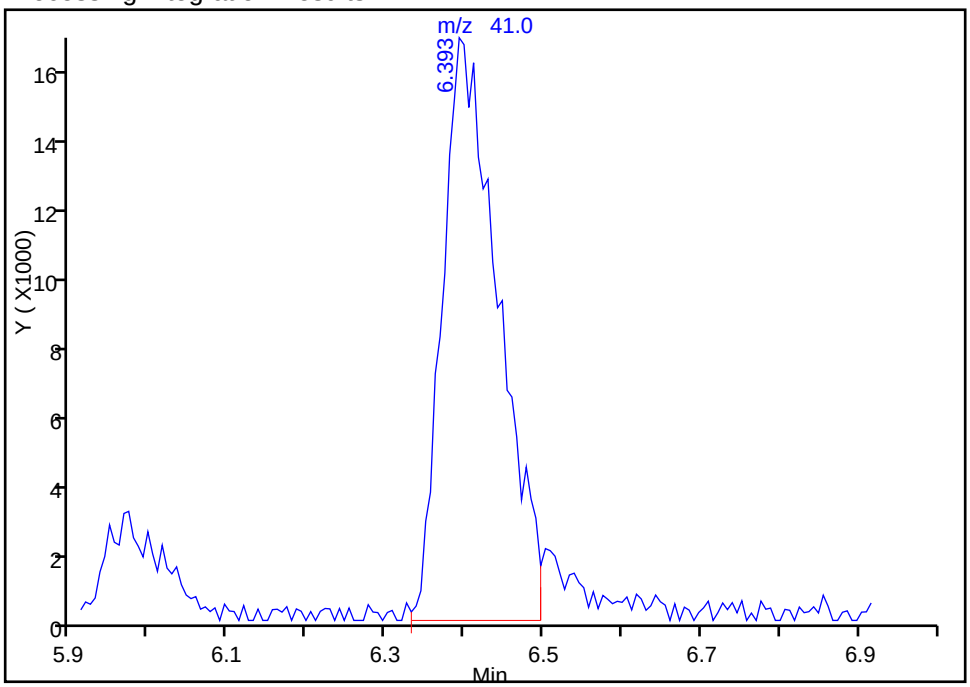
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

46 Methacrylonitrile, CAS: 126-98-7

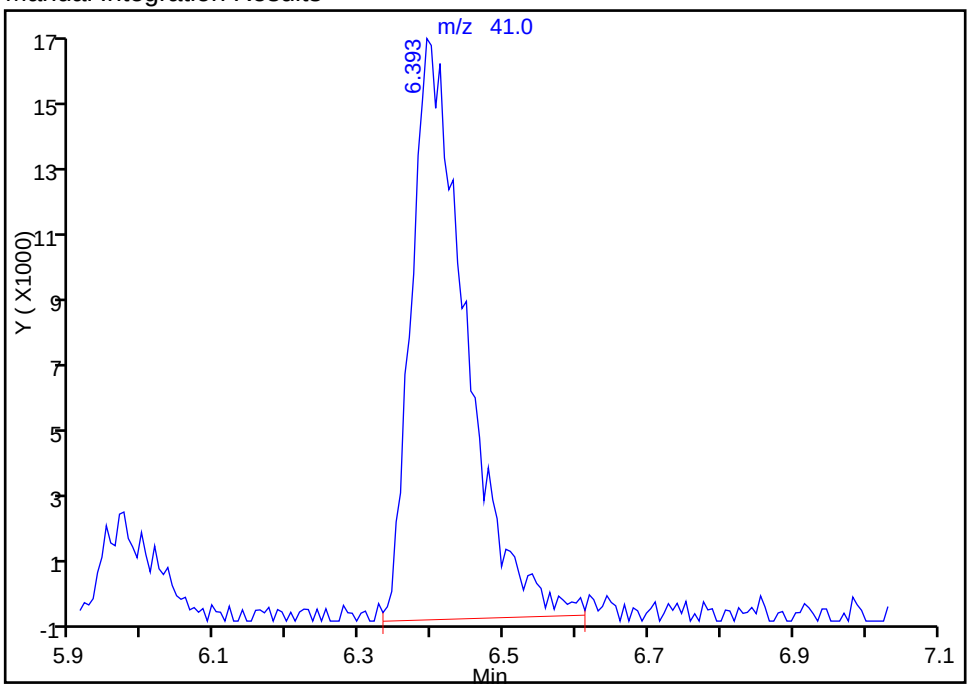
Processing Integration Results

RT: 6.39
Response: 79996
Amount: 533.1911



Manual Integration Results

RT: 6.39
Response: 85052
Amount: 570.3036



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

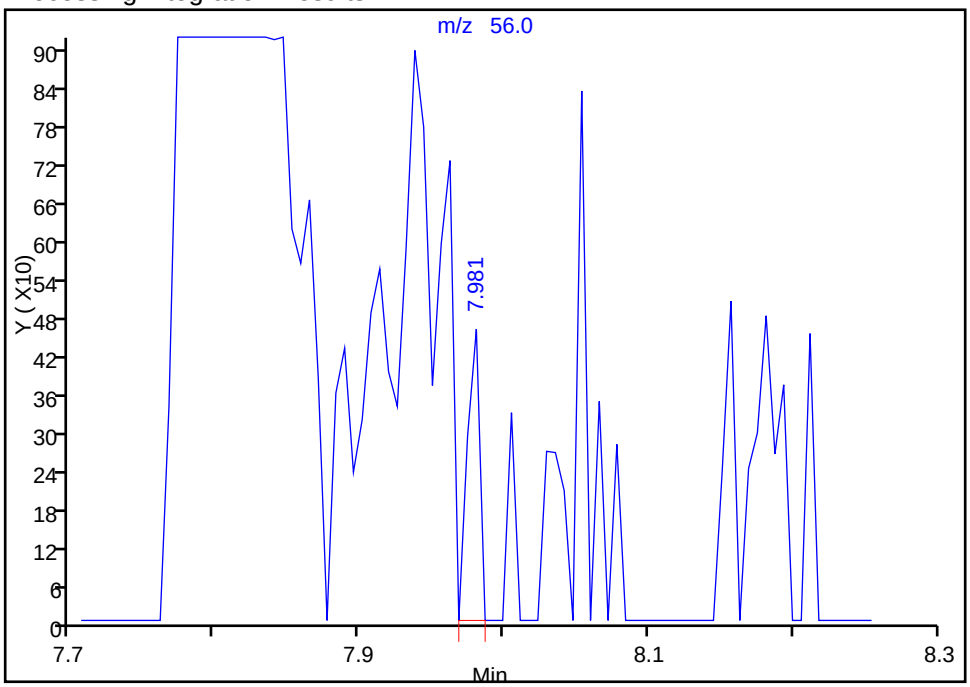
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

60 n-Butanol, CAS: 71-36-3

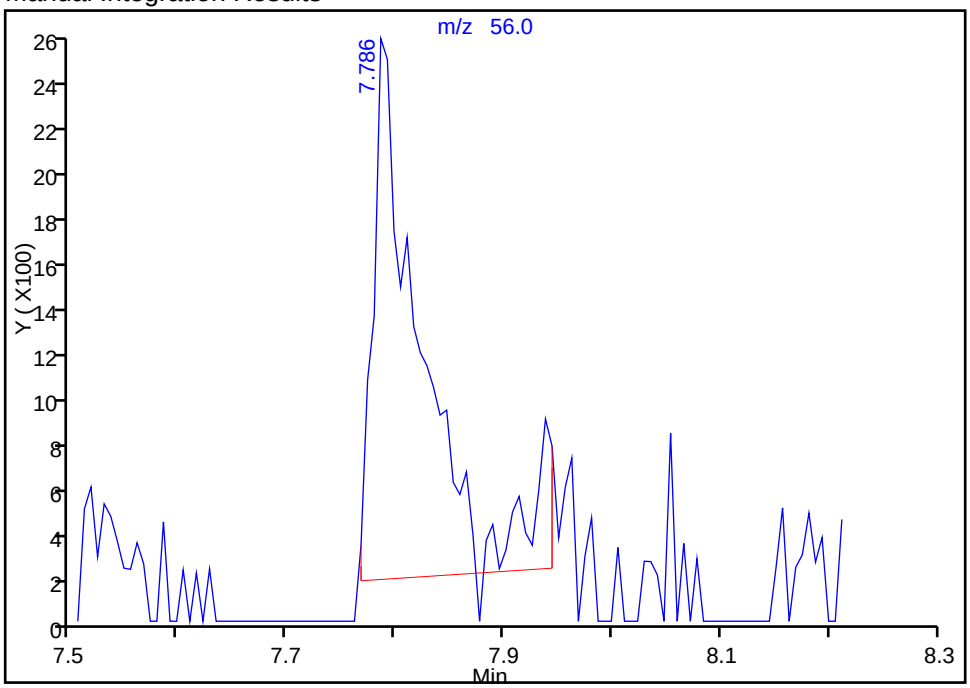
Processing Integration Results

RT: 7.98
Response: 274
Amount: 58.798080



Manual Integration Results

RT: 7.79
Response: 7556
Amount: 1549.7553



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

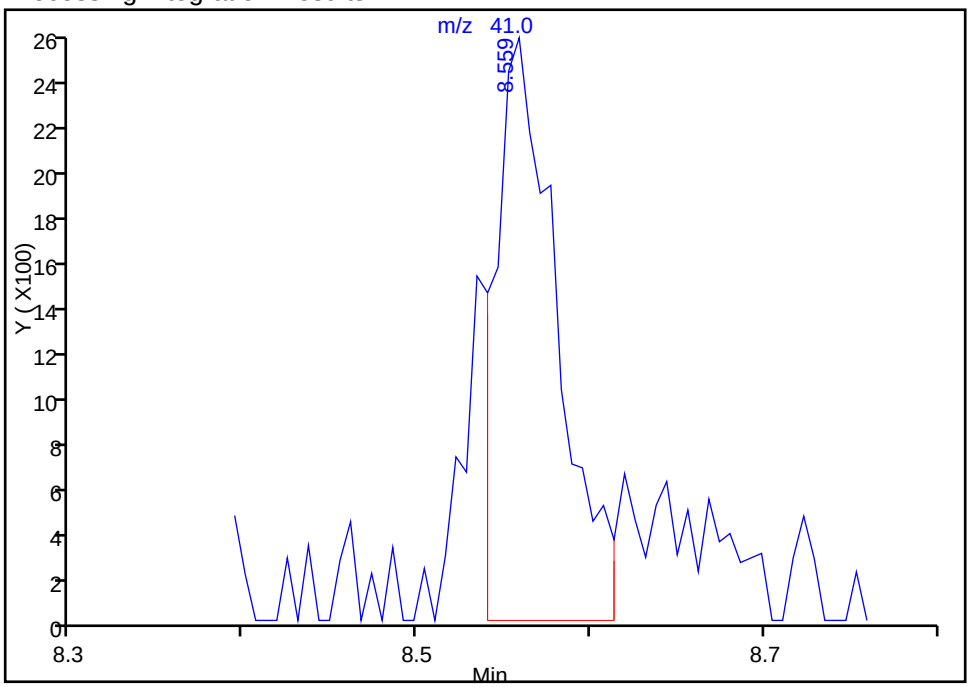
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D				
Injection Date:	20-Oct-2014 13:15:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

69 2-Nitropropane, CAS: 79-46-9

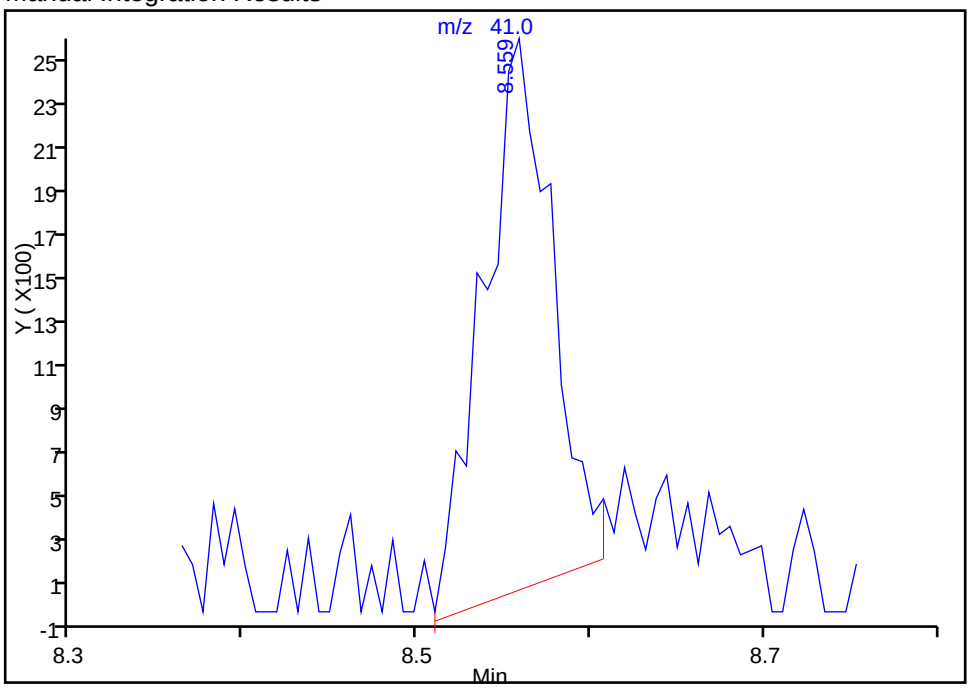
Processing Integration Results

RT: 8.56
Response: 6398
Amount: 104.1589



Manual Integration Results

RT: 8.56
Response: 6820
Amount: 107.4658



Reviewer: journetp, 20-Oct-2014 14:00:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

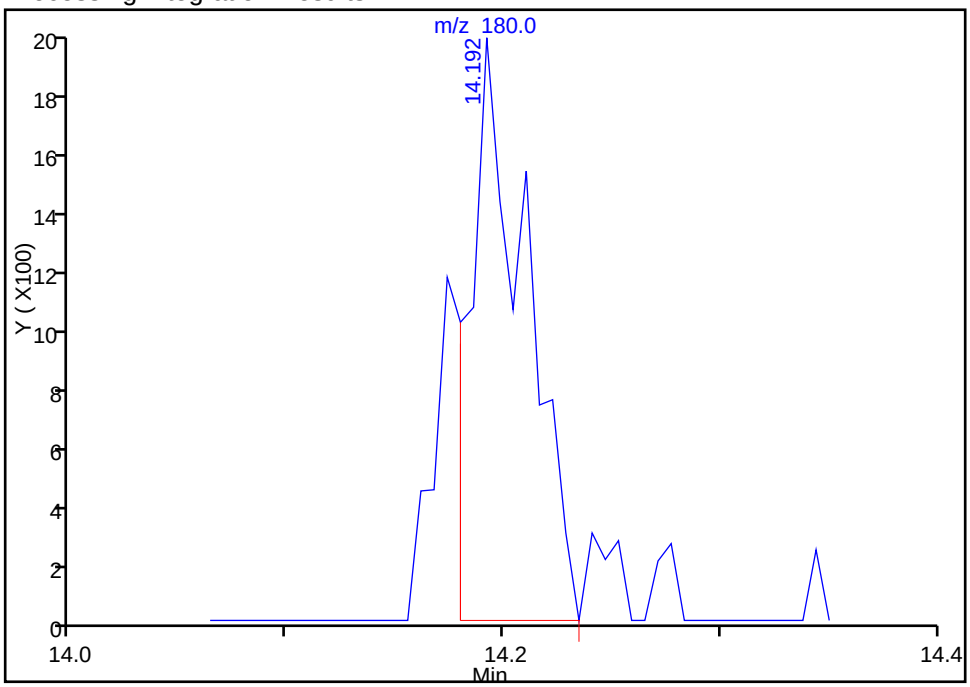
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102004.D
Injection Date: 20-Oct-2014 13:15:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

113 1,3,5-Trichlorobenzene, CAS: 108-70-3

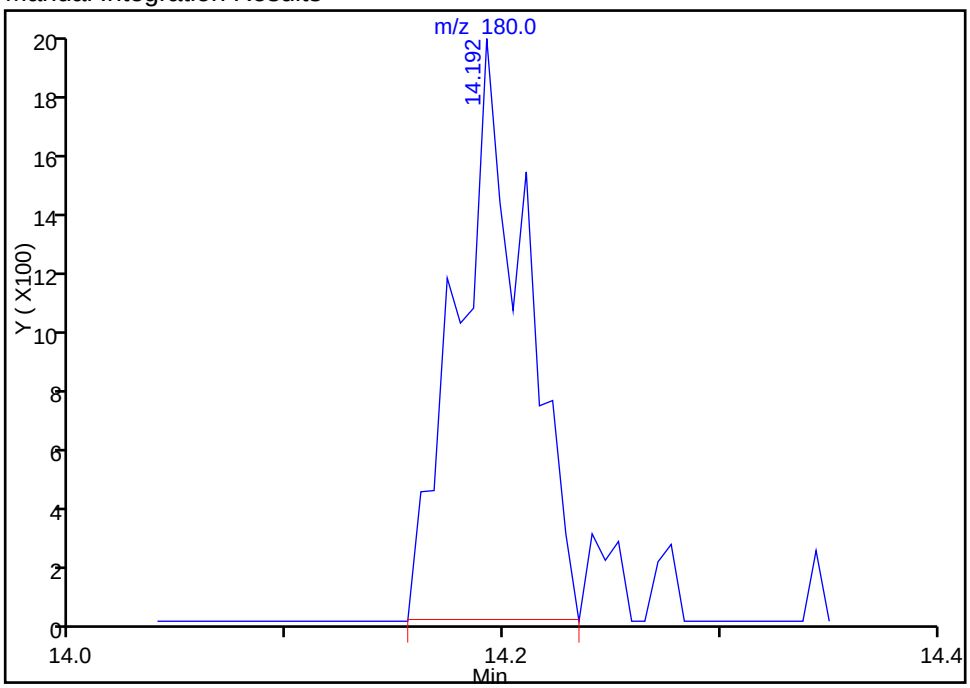
Processing Integration Results

RT: 14.19
Response: 3593
Amount: 30.883463



Manual Integration Results

RT: 14.19
Response: 4311
Amount: 41.006481



Reviewer: journetp, 20-Oct-2014 14:01:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Oct-2014 13:42:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003900-005
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Oct-2014 13:30:05 Calib Date: 20-Oct-2014 14:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.577	4.592	-0.015	98	79969	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.412	7.415	-0.003	98	209136	250.0	250.0	
* 3 Dioxane-d8 (IS)	96	8.124	8.200	-0.076	3	5799	5000.0	5000.0	M
* 4 Chlorobenzene-d5	119	10.466	10.463	0.003	94	44558	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.790	12.787	0.003	97	57802	250.0	250.0	
18 Ethanol	45	4.115	4.124	-0.009	36	20313	6250.0	6929.0	M
27 Acetonitrile	40	4.236	4.233	0.003	94	28084	1250.0	1381.5	
38 2-Chloro-1,3-butadiene	53	5.502	5.505	-0.003	92	76847	125.0	122.6	
39 Isopropyl ether	45	5.520	5.529	-0.009	41	200451	125.0	126.9	M
26 Isopropyl alcohol	45	5.520	5.529	-0.009	94	185847	1250.0	1182.3	
40 Tert-butyl ethyl ether	59	5.976	5.973	0.003	98	142000	125.0	114.6	
44 Propionitrile	54	6.232	6.253	-0.021	98	40169	1250.0	1237.6	M
45 Ethyl acetate	43	6.256	6.265	-0.009	91	41560	250.0	228.0	
46 Methacrylonitrile	41	6.396	6.405	-0.009	96	204452	1250.0	1222.1	
57 Isooctane	57	7.211	7.220	-0.009	98	225972	NC	NC	
58 Tert-amyl methyl ether	73	7.254	7.257	-0.003	97	111254	125.0	113.4	
60 n-Butanol	56	7.789	7.786	0.003	65	16046	3125.0	2933.8	M
62 Ethyl acrylate	55	7.947	7.932	0.015	98	36807	125.0	130.6	
66 Methyl methacrylate	69	8.166	8.170	-0.003	93	34492	250.0	240.0	
69 2-Nitropropane	41	8.556	8.559	-0.003	64	16067	250.0	249.6	
70 2-Chloroethyl vinyl ether	63	8.635	8.644	-0.009	89	28631	250.0	228.5	
80 n-Butyl acetate	43	9.888	9.885	0.003	97	41983	125.0	127.1	
92 Cyclohexanone	55	11.573	11.576	-0.003	59	7609	2500.0	3076.5	M
102 Pentachloroethane	167	12.413	12.410	0.003	94	23089	125.0	132.0	
108 1,2,3-Trimethylbenzene	105	12.857	12.860	-0.003	98	107361	125.0	125.6	
109 Benzyl chloride	91	12.948	12.945	0.003	99	37338	125.0	126.4	
113 1,3,5-Trichlorobenzene	180	14.183	14.180	0.003	95	11074	125.0	104.3	
118 2-Methylnaphthalene	142	16.580	16.504	0.076	1	90	125.0	171.5	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added:	5.00	Units: uL
VOA2CEVEPRI_00008	Amount Added:	5.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL

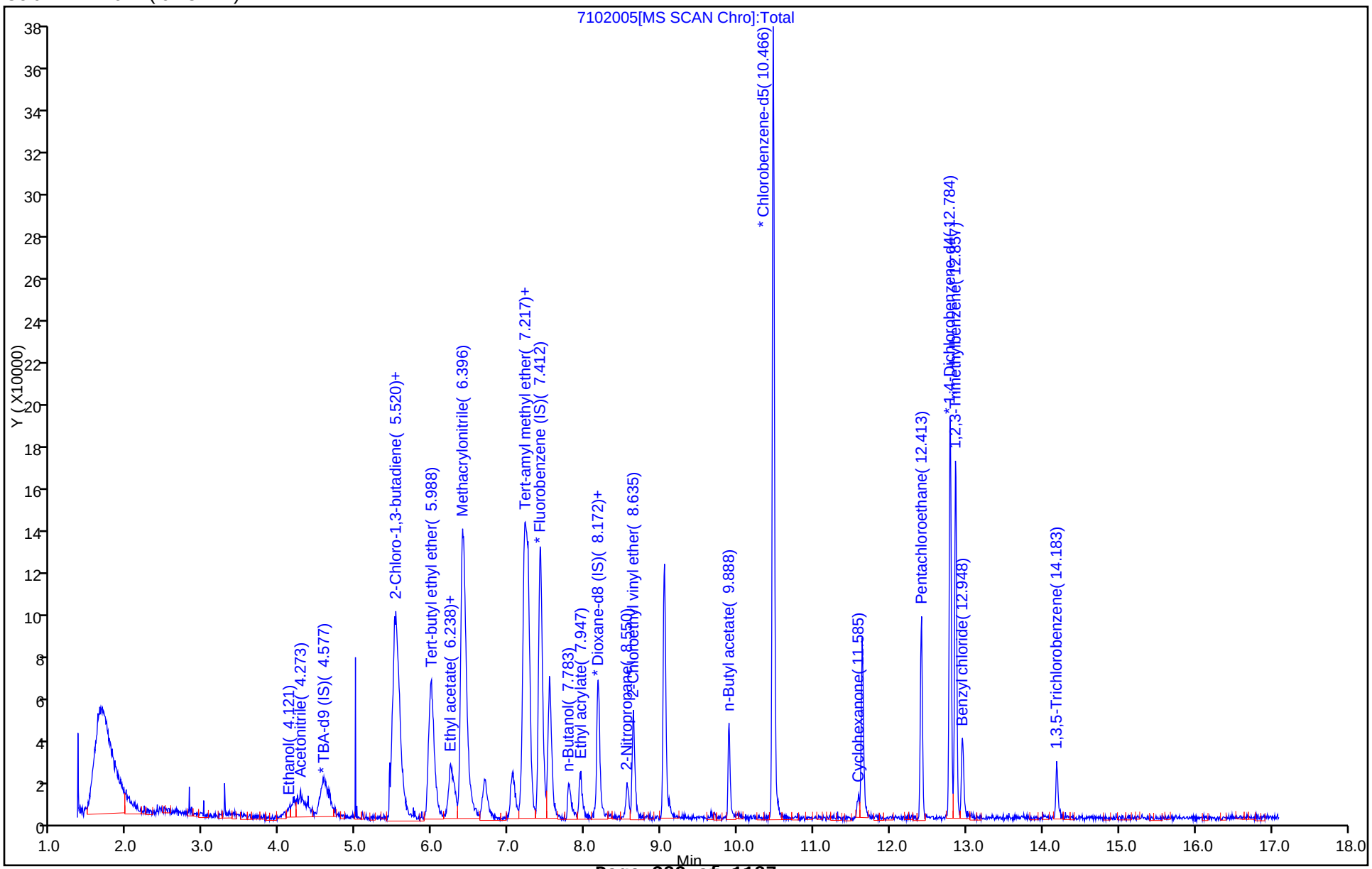
Report Date: 22-Oct-2014 13:30:06 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D

Injection Date:	20-Oct-2014 13:42:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

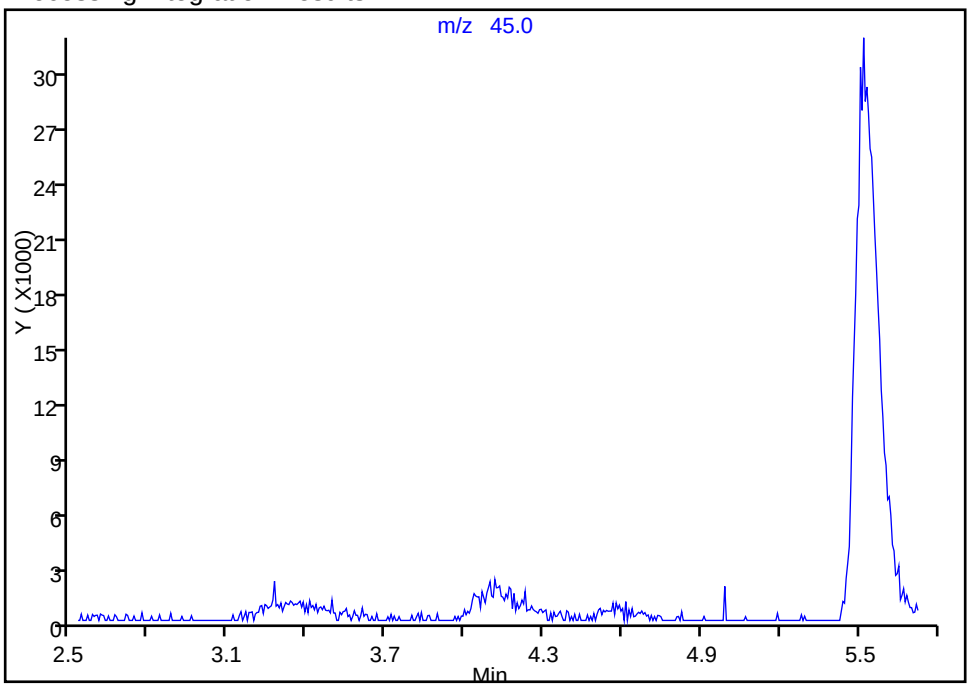
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D				
Injection Date:	20-Oct-2014 13:42:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Ethanol, CAS: 64-17-5

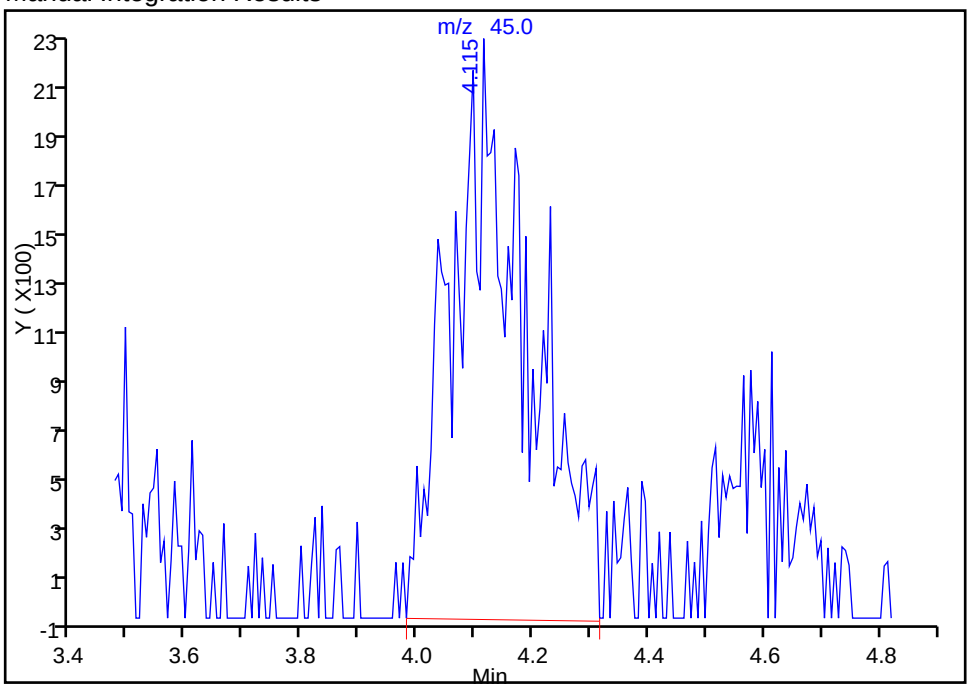
Not Detected
Expected RT: 4.12

Processing Integration Results



Manual Integration Results

RT: 4.11
Response: 20313
Amount: 6929.0385



Reviewer: journetp, 20-Oct-2014 14:23:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

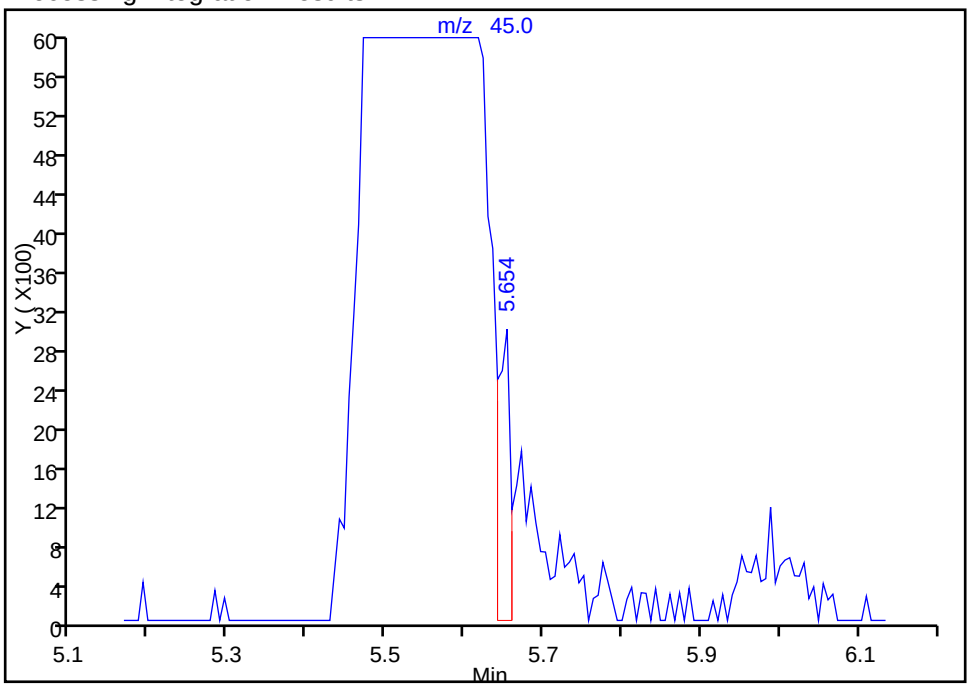
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D				
Injection Date:	20-Oct-2014 13:42:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

39 Isopropyl ether, CAS: 108-20-3

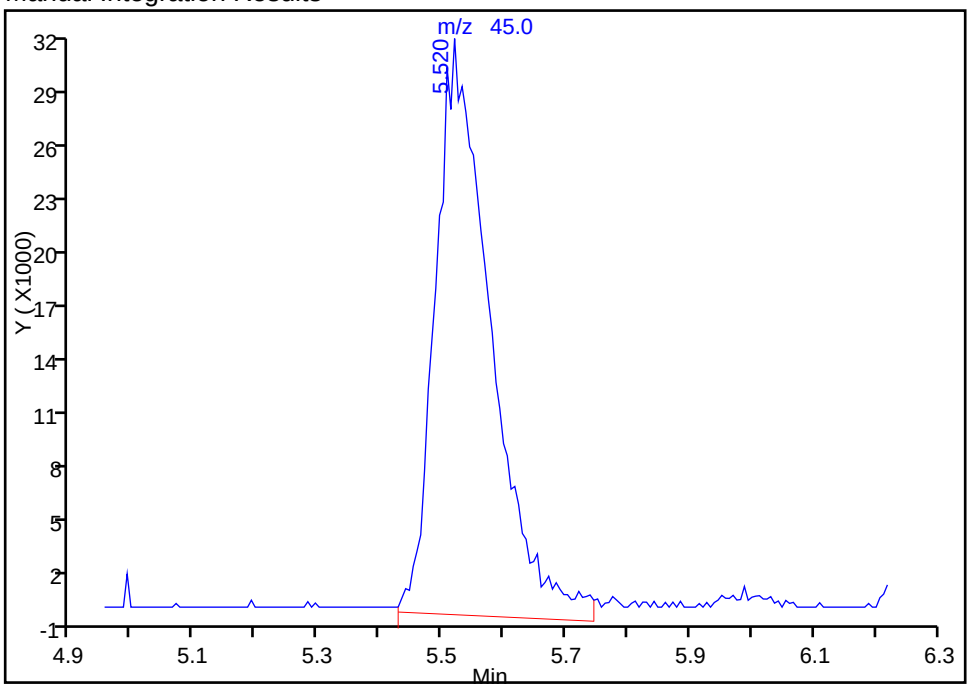
Processing Integration Results

RT: 5.65
Response: 3327
Amount: 2.773312



Manual Integration Results

RT: 5.52
Response: 200451
Amount: 126.9145



Reviewer: journetp, 20-Oct-2014 14:23:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

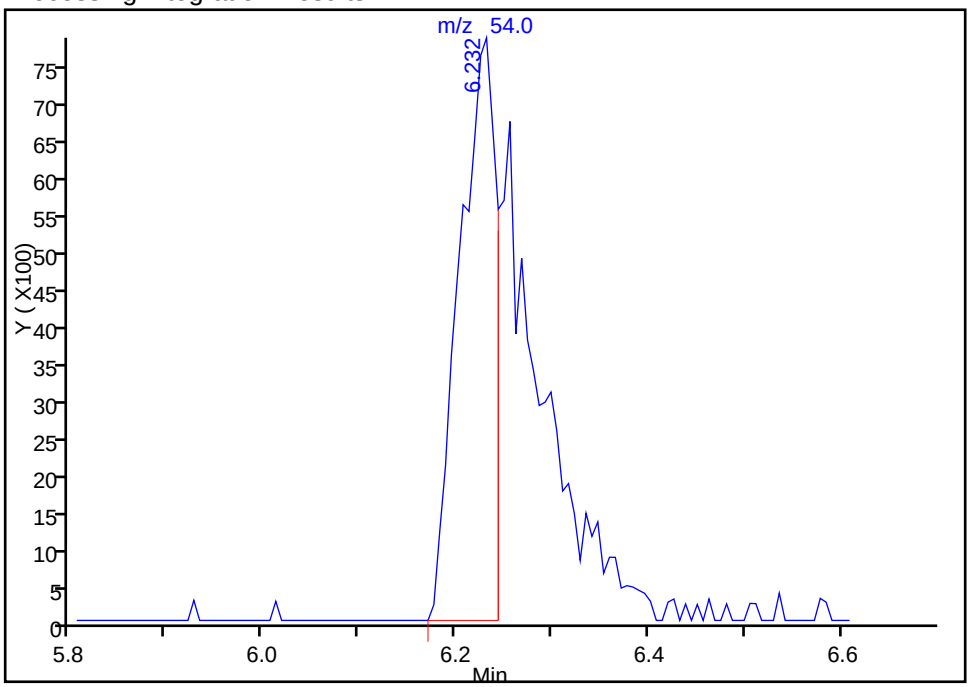
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D
Injection Date: 20-Oct-2014 13:42:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

44 Propionitrile, CAS: 107-12-0

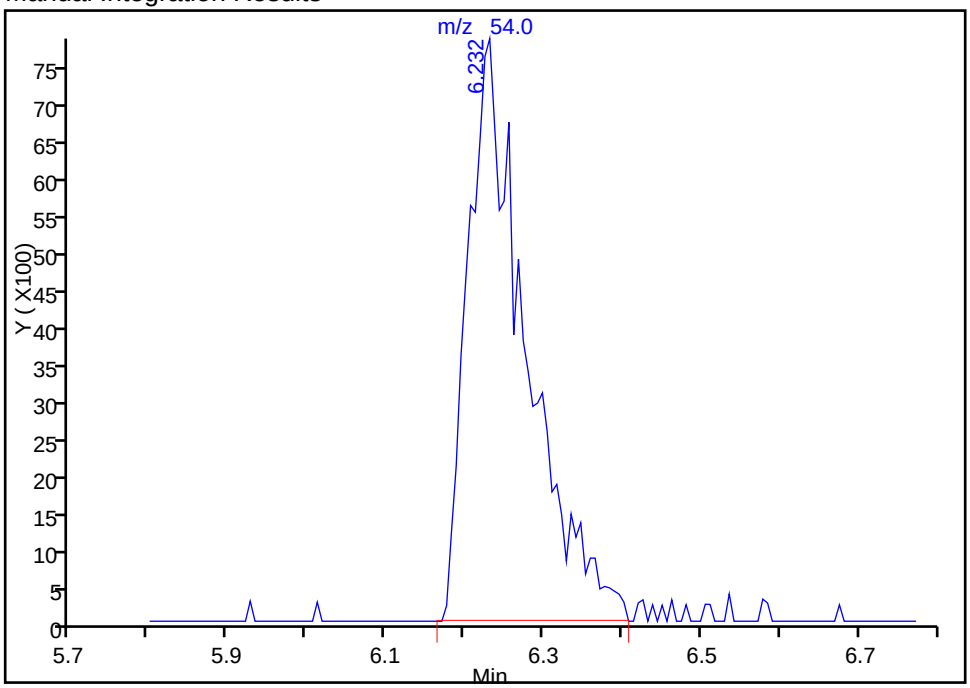
Processing Integration Results

RT: 6.23
Response: 20684
Amount: 634.7662



Manual Integration Results

RT: 6.23
Response: 40169
Amount: 1237.6484



Reviewer: journetp, 20-Oct-2014 14:23:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

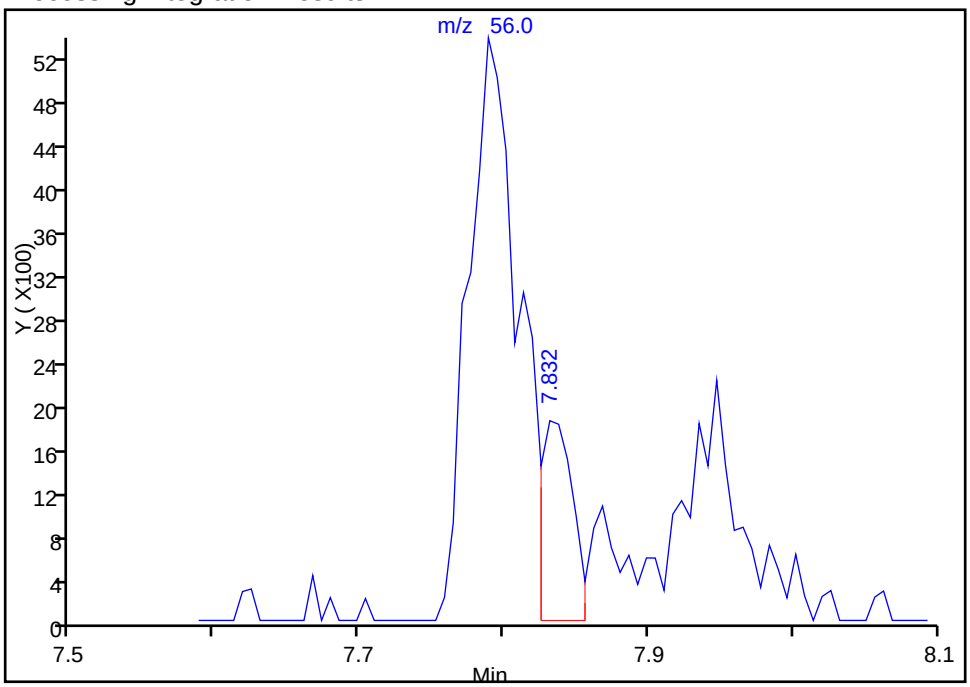
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D
Injection Date: 20-Oct-2014 13:42:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

60 n-Butanol, CAS: 71-36-3

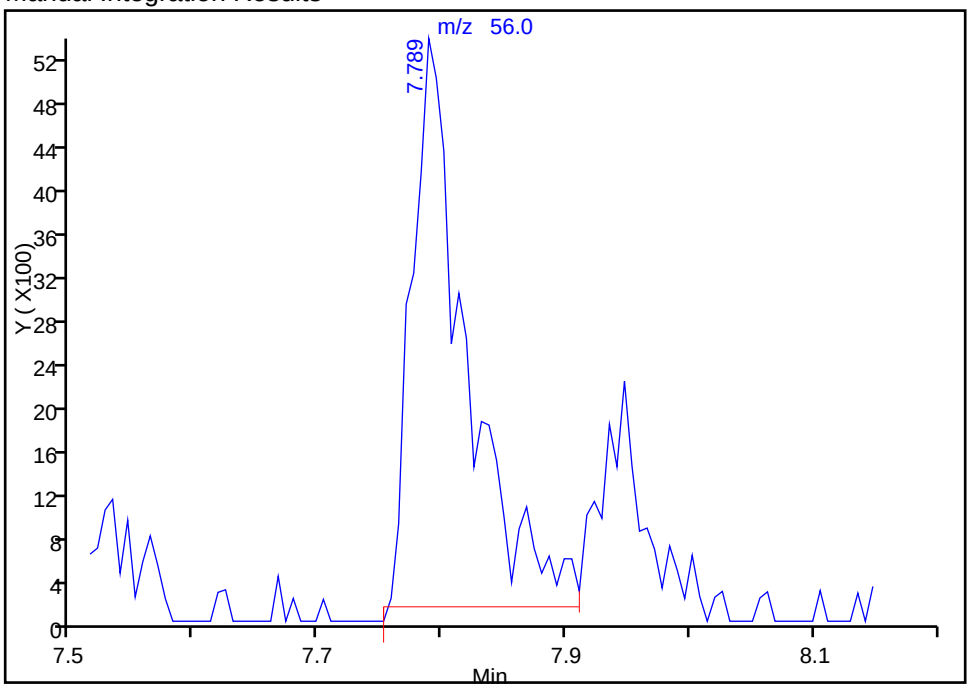
Processing Integration Results

RT: 7.83
Response: 2875
Amount: 531.2010



Manual Integration Results

RT: 7.79
Response: 16046
Amount: 2933.8099



Reviewer: journetp, 20-Oct-2014 14:23:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

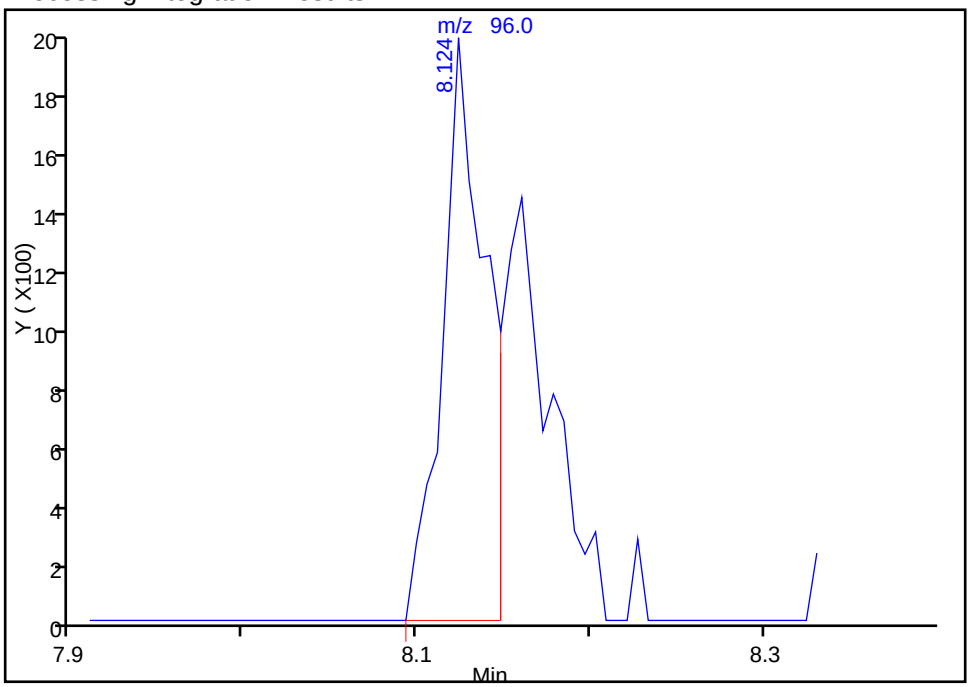
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D
Injection Date: 20-Oct-2014 13:42:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 3 Dioxane-d8 (IS), CAS: 17647-74-4

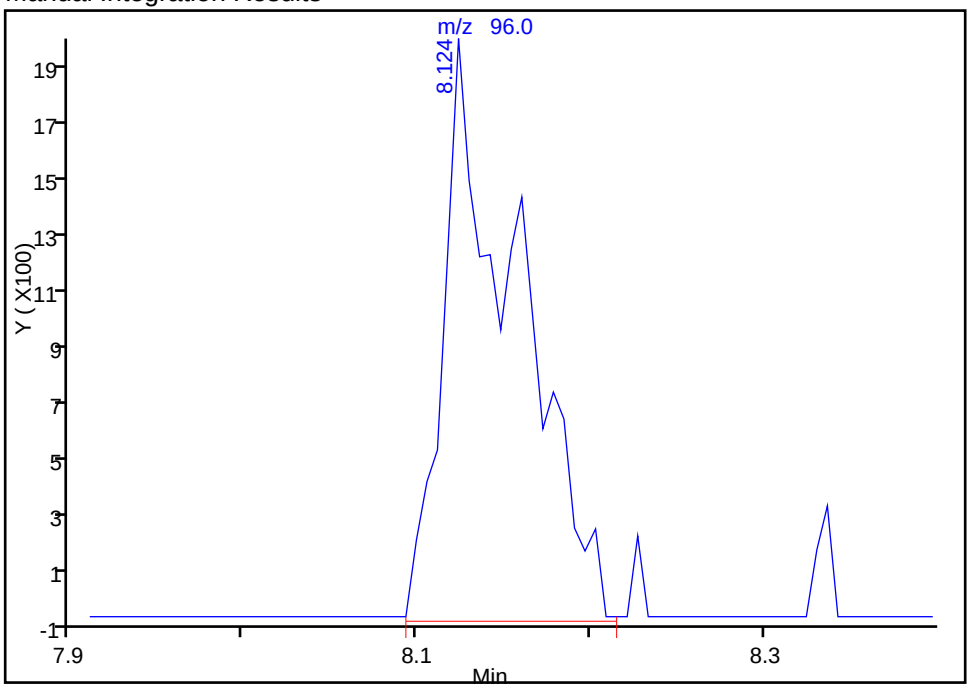
Processing Integration Results

RT: 8.12
Response: 3340
Amount: 5000.0000



Manual Integration Results

RT: 8.12
Response: 5799
Amount: 5000.0000



Reviewer: journetp, 22-Oct-2014 13:30:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

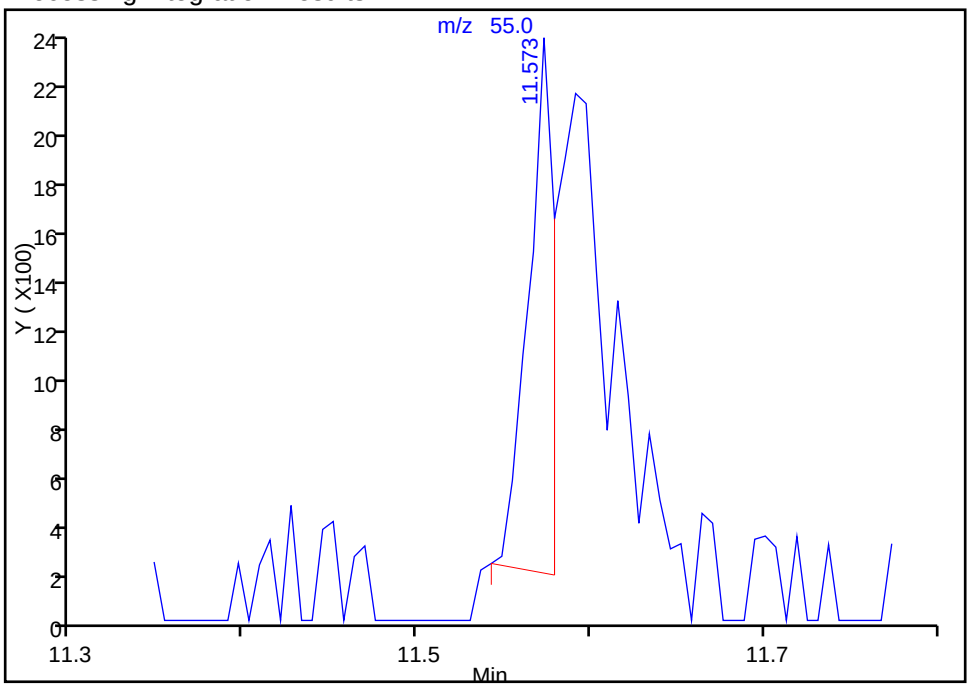
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D				
Injection Date:	20-Oct-2014 13:42:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

92 Cyclohexanone, CAS: 108-94-1

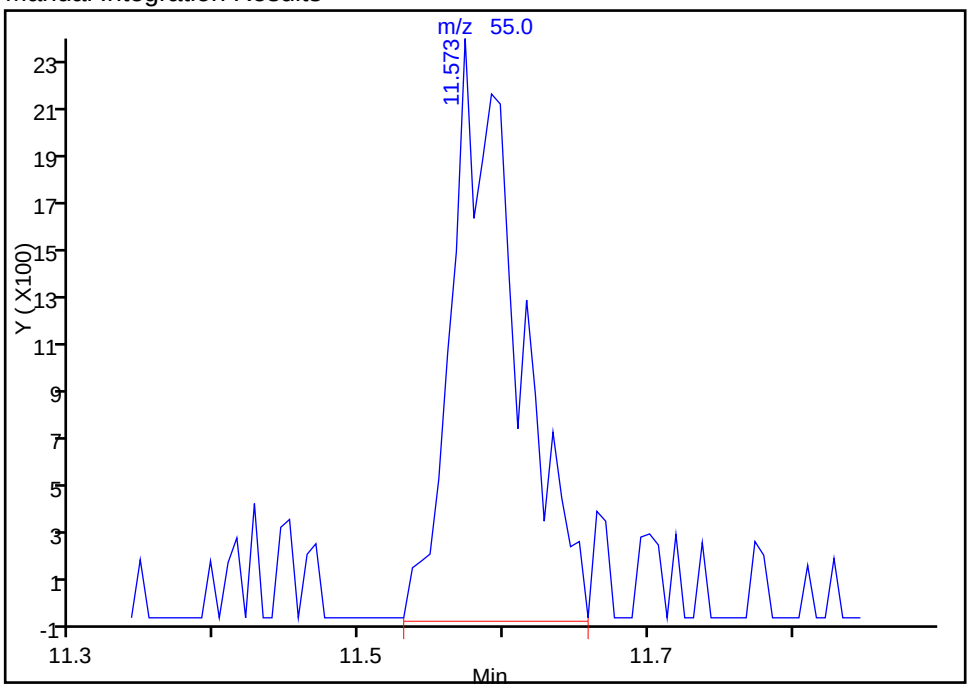
Processing Integration Results

RT: 11.57
Response: 2251
Amount: 452.5103



Manual Integration Results

RT: 11.57
Response: 7609
Amount: 3076.4911



Reviewer: journetp, 20-Oct-2014 14:23:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

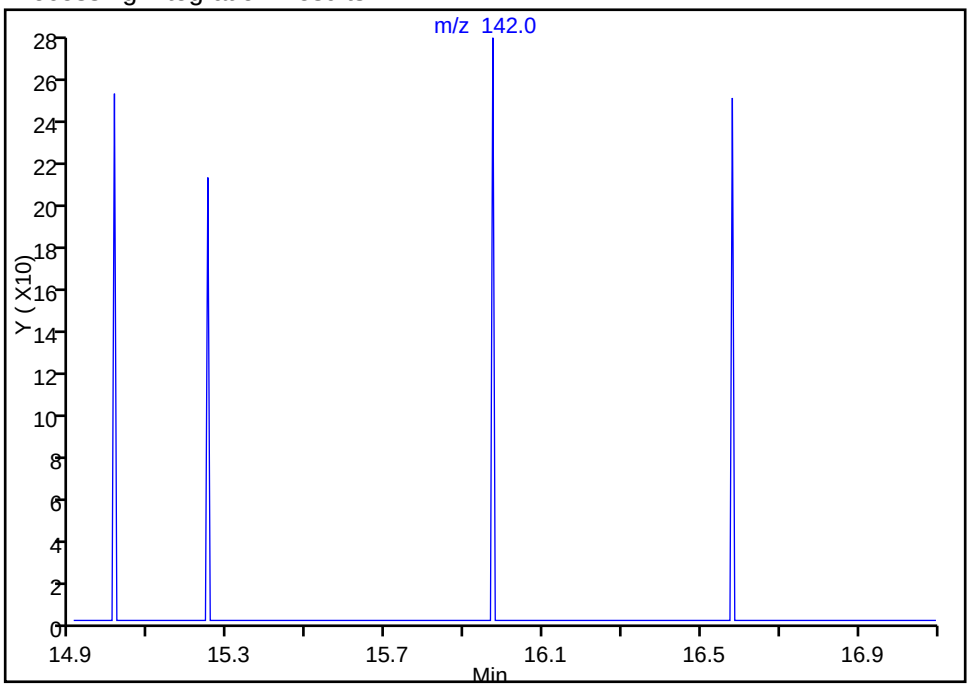
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102005.D
Injection Date: 20-Oct-2014 13:42:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

118 2-Methylnaphthalene, CAS: 91-57-6

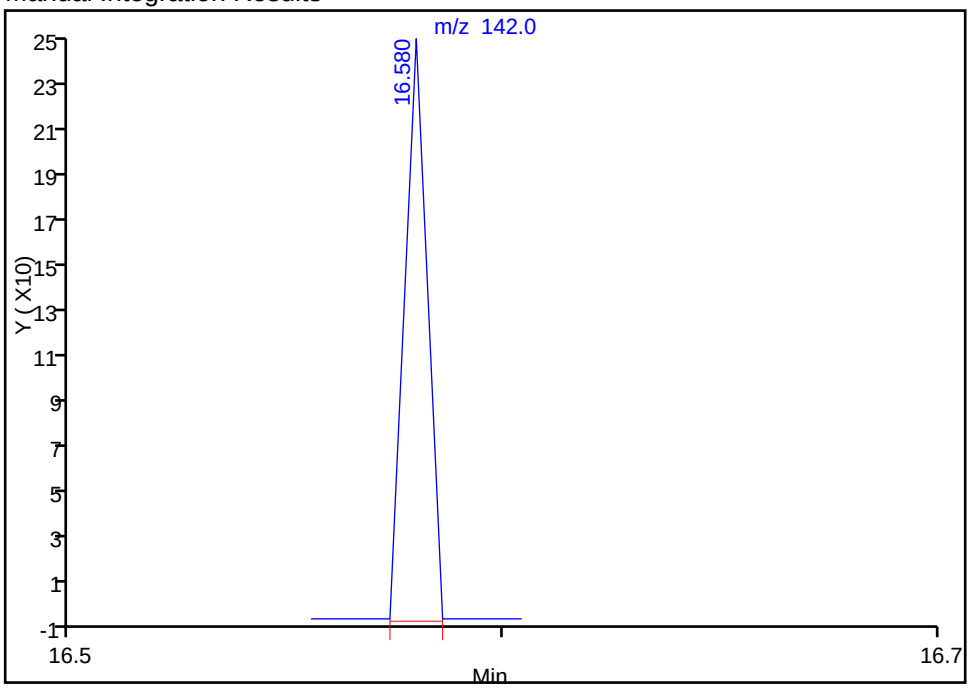
Not Detected
Expected RT: 16.50

Processing Integration Results



Manual Integration Results

RT: 16.58
Response: 90
Amount: 171.4797



Reviewer: journetp, 20-Oct-2014 14:23:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Oct-2014 14:12:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 180-0003900-006
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Oct-2014 13:30:10 Calib Date: 20-Oct-2014 14:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.592	4.592	0.000	95	84461	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.415	7.415	0.000	98	202791	250.0	250.0	
* 4 Chlorobenzene-d5	119	10.463	10.463	0.000	91	46924	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	96	62240	250.0	250.0	
18 Ethanol	45	4.124	4.124	0.000	56	30253	10000	9699.0	M
27 Acetonitrile	40	4.233	4.233	0.000	77	41062	2000.0	2083.1	M
38 2-Chloro-1,3-butadiene	53	5.505	5.505	0.000	82	115517	200.0	190.1	
39 Isopropyl ether	45	5.529	5.529	0.000	96	274054	200.0	178.9	
26 Isopropyl alcohol	45	5.529	5.529	0.000	92	275985	2000.0	1810.6	
40 Tert-butyl ethyl ether	59	5.973	5.973	0.000	97	224849	200.0	187.1	
44 Propionitrile	54	6.253	6.253	0.000	99	58291	2000.0	1852.2	
45 Ethyl acetate	43	6.265	6.265	0.000	98	65569	400.0	411.2	
46 Methacrylonitrile	41	6.405	6.405	0.000	96	287088	2000.0	1769.7	
57 Isooctane	57	7.220	7.220	0.000	97	328589	NC	NC	
58 Tert-amyl methyl ether	73	7.257	7.257	0.000	97	166017	200.0	174.5	
60 n-Butanol	56	7.786	7.786	0.000	54	24179	5000.0	4559.1	M
62 Ethyl acrylate	55	7.932	7.932	0.000	98	49087	200.0	165.4	
66 Methyl methacrylate	69	8.170	8.170	0.000	94	52872	400.0	379.4	
69 2-Nitropropane	41	8.559	8.559	0.000	95	22741	400.0	335.4	
70 2-Chloroethyl vinyl ether	63	8.644	8.644	0.000	89	46031	400.0	378.8	
80 n-Butyl acetate	43	9.885	9.885	0.000	97	63949	200.0	193.5	
92 Cyclohexanone	55	11.576	11.576	0.000	92	12257	4000.0	4705.9	
102 Pentachloroethane	167	12.410	12.410	0.000	91	33184	200.0	176.2	
108 1,2,3-Trimethylbenzene	105	12.860	12.860	0.000	99	160223	200.0	174.1	
109 Benzyl chloride	91	12.945	12.945	0.000	100	61810	200.0	194.3	
113 1,3,5-Trichlorobenzene	180	14.180	14.180	0.000	95	24454	200.0	213.9	
118 2-Methylnaphthalene	142	16.504	16.504	0.000	1	71	200.0	125.6	M

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added:	8.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA2CEVEPRI_00008	Amount Added:	8.00	Units: uL

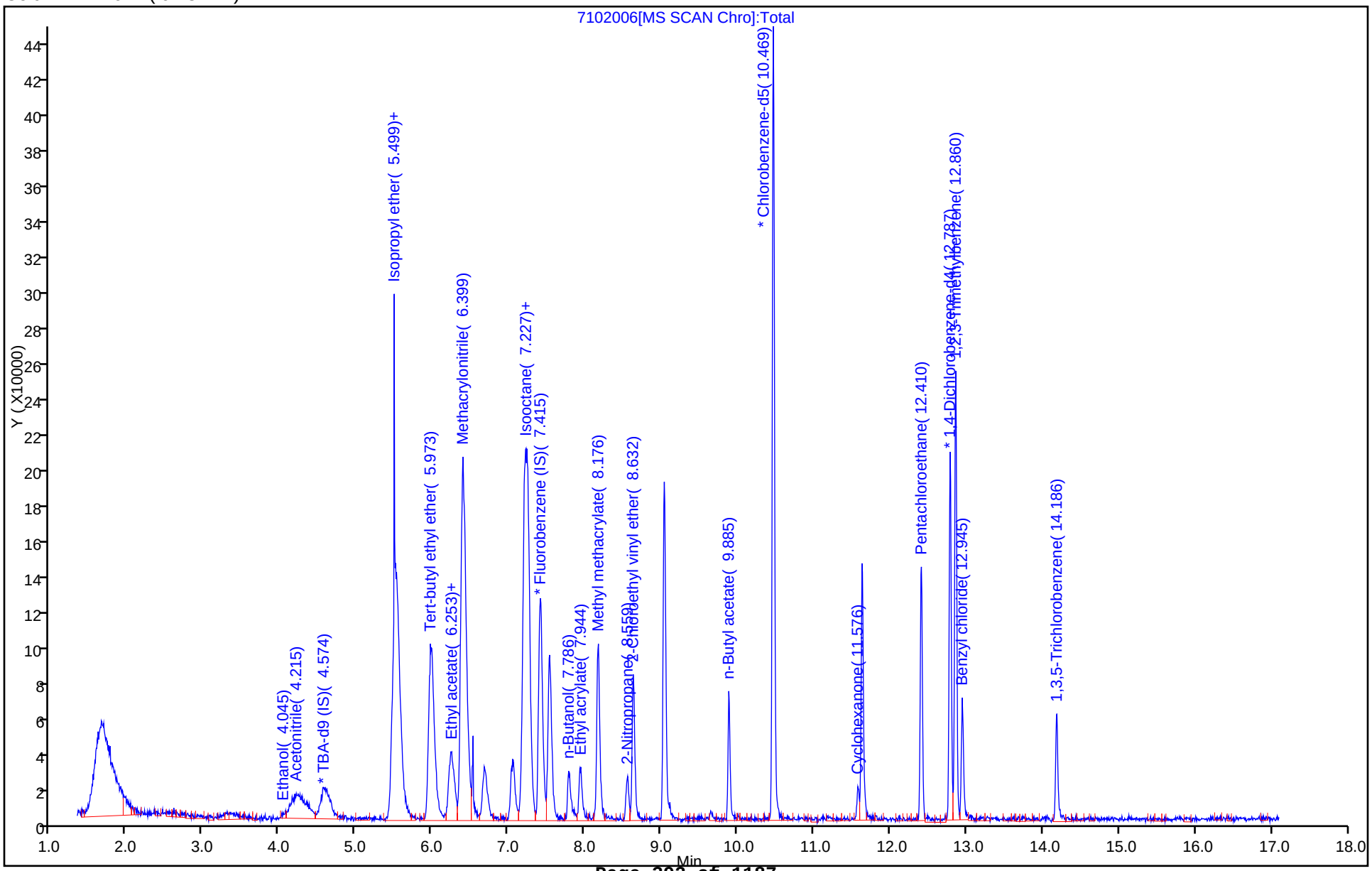
Report Date: 22-Oct-2014 13:30:11 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D

Injection Date:	20-Oct-2014 14:12:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

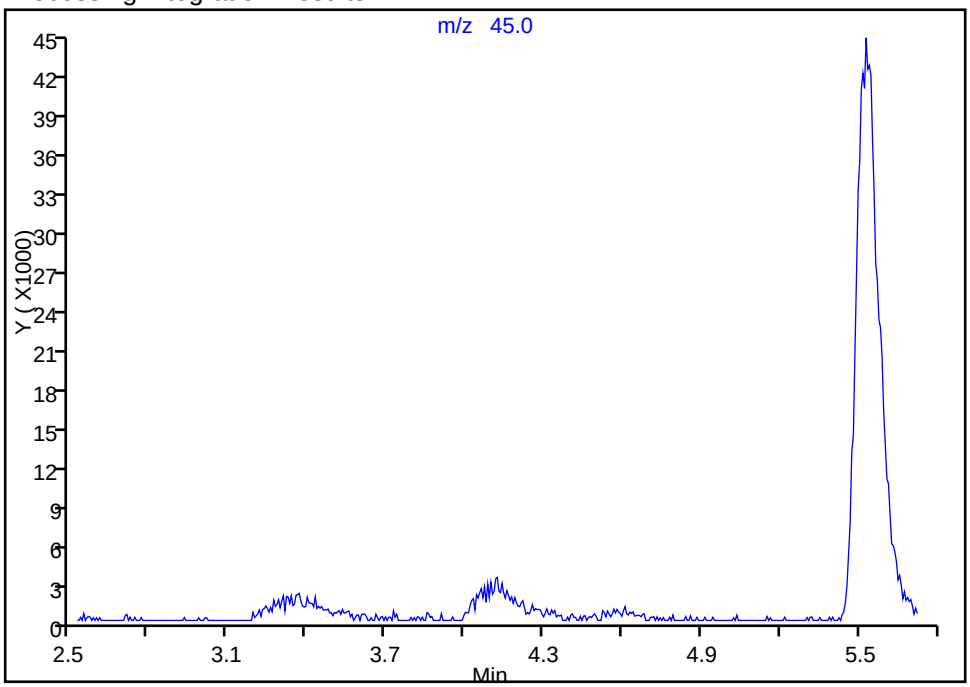
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D				
Injection Date:	20-Oct-2014 14:12:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Ethanol, CAS: 64-17-5

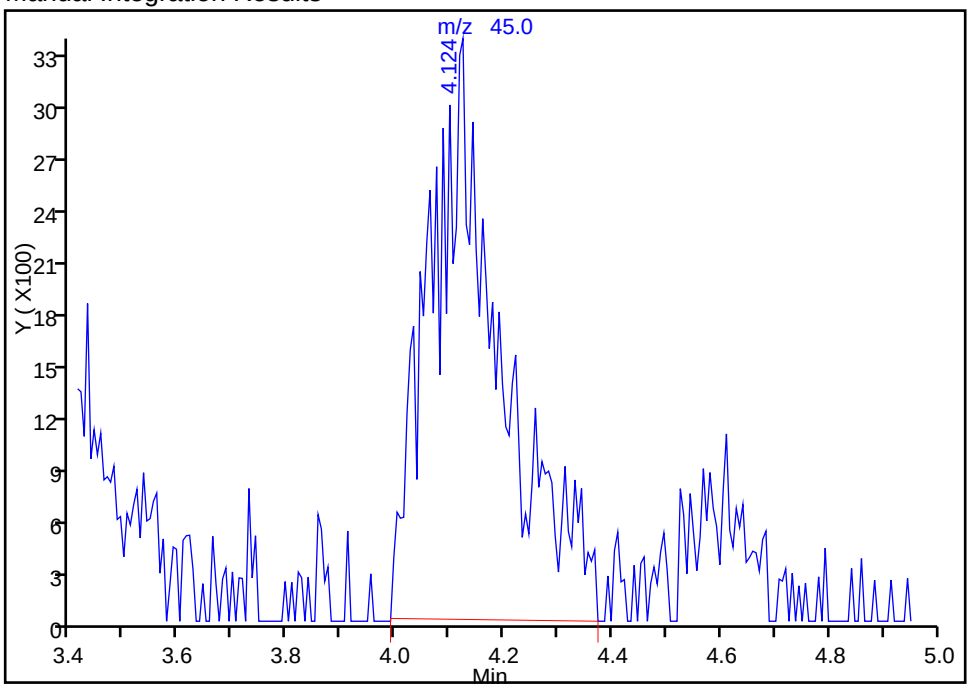
Not Detected
Expected RT: 4.12

Processing Integration Results



Manual Integration Results

RT: 4.12
Response: 30253
Amount: 9698.9556



Reviewer: journetp, 20-Oct-2014 15:15:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

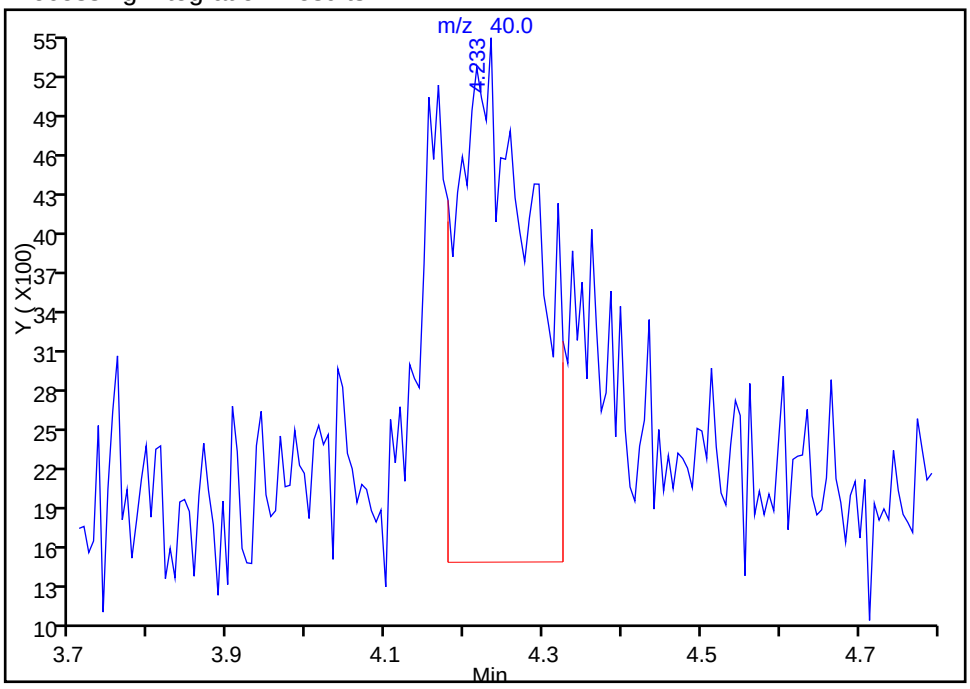
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D
Injection Date: 20-Oct-2014 14:12:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

27 Acetonitrile, CAS: 75-05-8

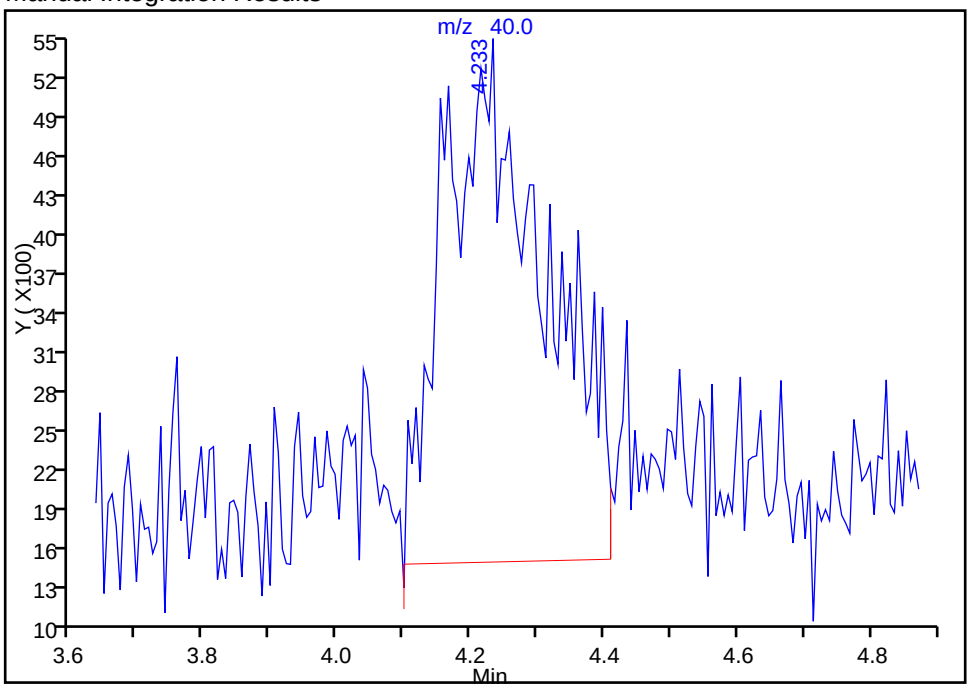
Processing Integration Results

RT: 4.23
Response: 24954
Amount: 1065.7254



Manual Integration Results

RT: 4.23
Response: 41062
Amount: 2083.1096



Reviewer: journetp, 20-Oct-2014 15:15:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

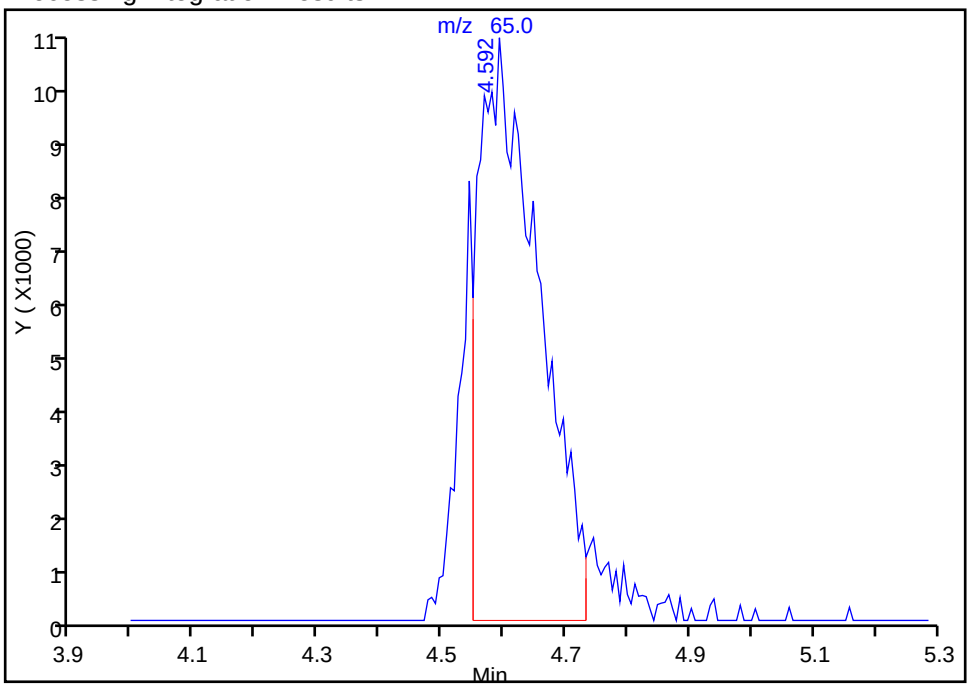
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D				
Injection Date:	20-Oct-2014 14:12:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

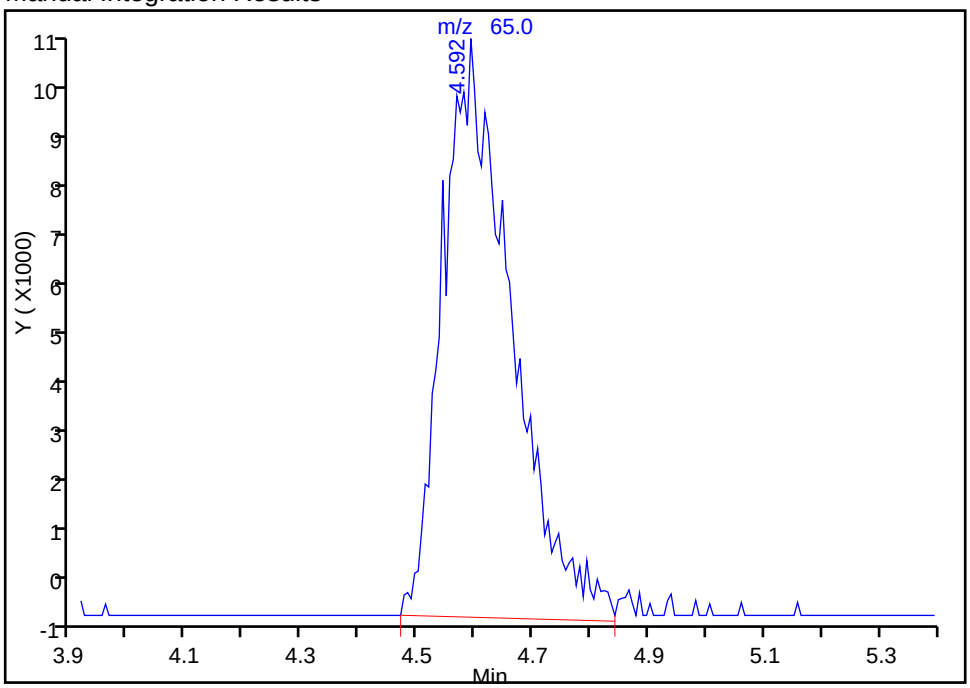
Processing Integration Results

RT: 4.59
Response: 68159
Amount: 5000.0000



Manual Integration Results

RT: 4.59
Response: 84461
Amount: 5000.0000



Reviewer: journetp, 20-Oct-2014 15:15:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

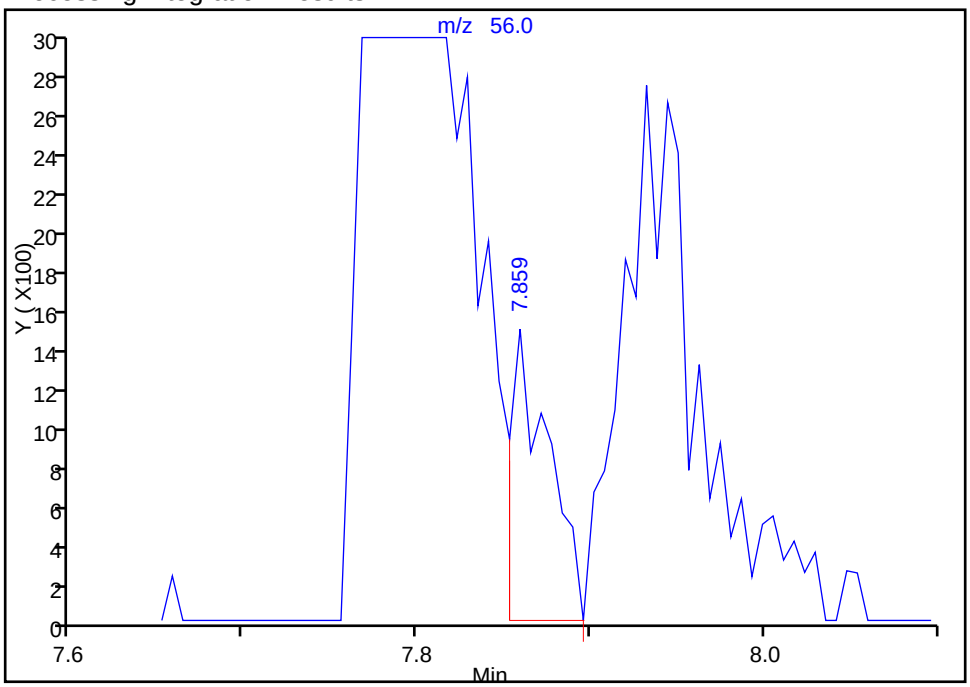
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D				
Injection Date:	20-Oct-2014 14:12:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 n-Butanol, CAS: 71-36-3

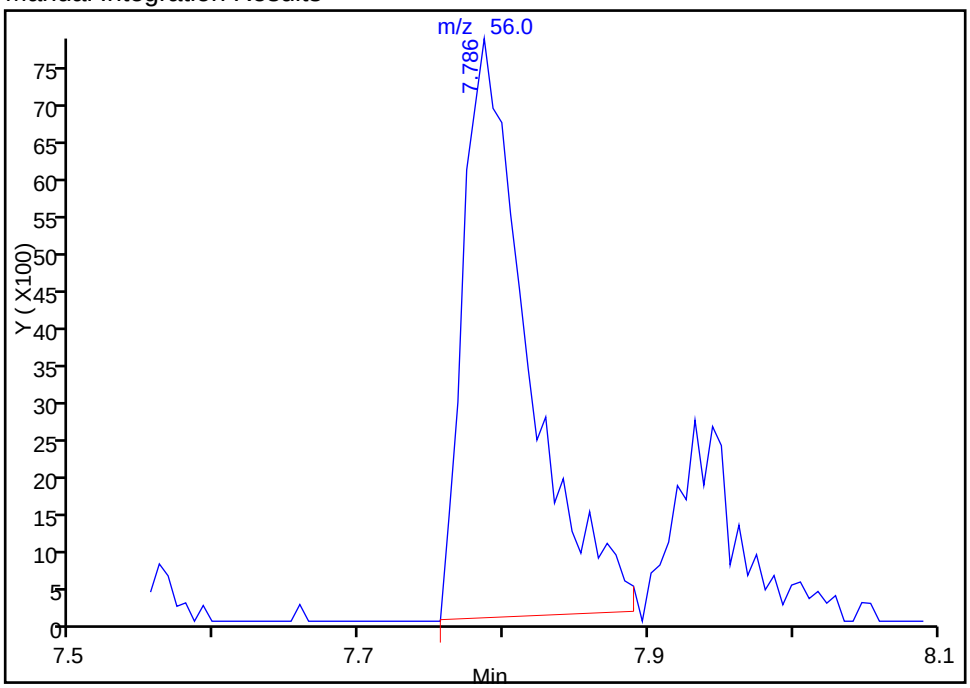
Processing Integration Results

RT: 7.86
Response: 2251
Amount: 447.0182



Manual Integration Results

RT: 7.79
Response: 24179
Amount: 4559.1475



Reviewer: journetp, 20-Oct-2014 15:15:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

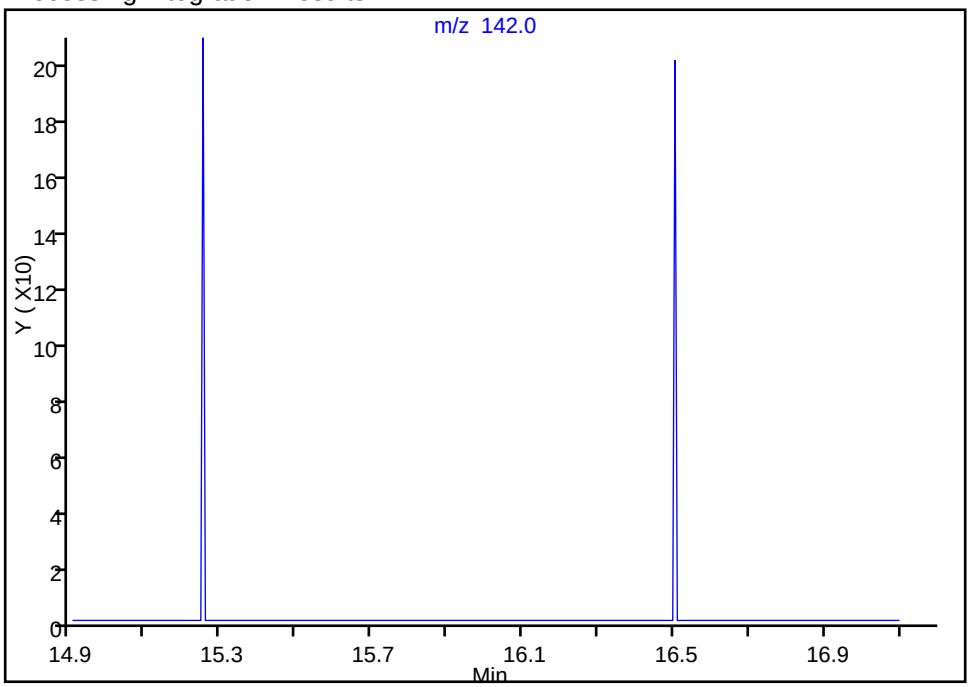
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102006.D				
Injection Date:	20-Oct-2014 14:12:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

118 2-Methylnaphthalene, CAS: 91-57-6

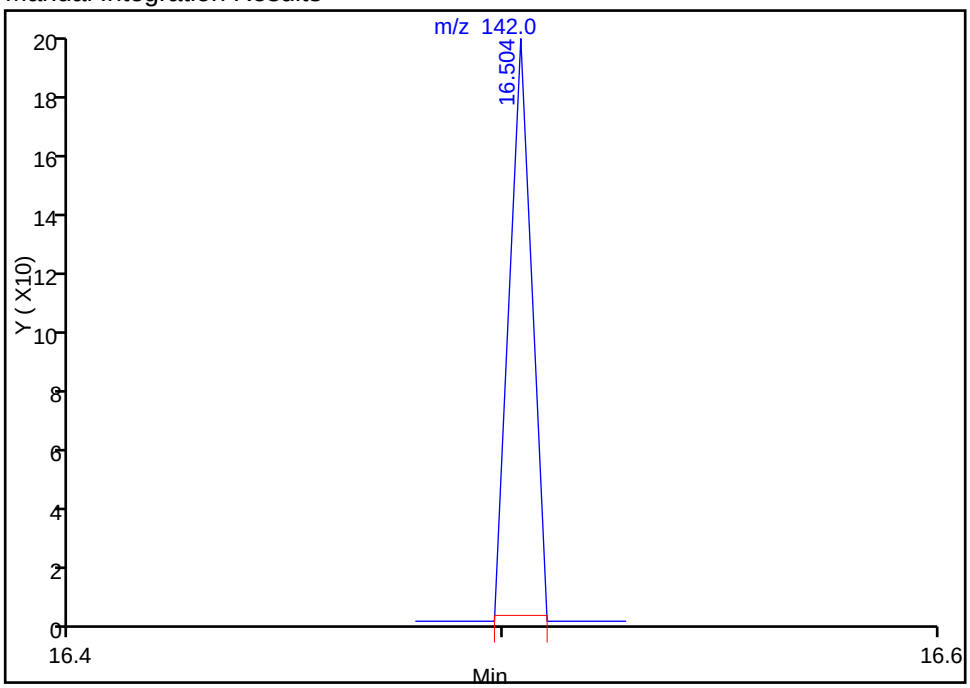
Not Detected
Expected RT: 16.50

Processing Integration Results



Manual Integration Results

RT: 16.50
Response: 71
Amount: 125.6325



Reviewer: journetp, 20-Oct-2014 15:15:14
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Oct-2014 14:42:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003900-007
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Oct-2014 13:30:12 Calib Date: 20-Oct-2014 14:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.580	4.592	-0.012	95	69144	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.409	7.415	-0.006	98	201408	250.0	250.0	
* 4 Chlorobenzene-d5	119	10.469	10.463	0.006	90	44735	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	97	60751	250.0	250.0	
18 Ethanol	45	4.106	4.124	-0.018	15	31830	12500	12415	
27 Acetonitrile	40	4.185	4.233	-0.048	84	37450	2500.0	1912.9	M
38 2-Chloro-1,3-butadiene	53	5.517	5.505	0.012	56	142832	250.0	236.7	
39 Isopropyl ether	45	5.523	5.529	-0.006	97	352090	250.0	231.5	
26 Isopropyl alcohol	45	5.523	5.529	-0.006	92	354702	2500.0	2343.0	
40 Tert-butyl ethyl ether	59	5.967	5.973	-0.006	98	271428	250.0	227.4	
44 Propionitrile	54	6.223	6.253	-0.030	98	65855	2500.0	2106.9	
45 Ethyl acetate	43	6.253	6.265	-0.012	99	77280	500.0	500.0	
46 Methacrylonitrile	41	6.399	6.405	-0.006	97	344298	2500.0	2137.0	
57 Isooctane	57	7.208	7.220	-0.012	97	369799	NC	NC	
58 Tert-amyl methyl ether	73	7.257	7.257	0.000	98	196577	250.0	208.0	
60 n-Butanol	56	7.780	7.786	-0.006	92	29460	6250.0	5593.1	
62 Ethyl acrylate	55	7.932	7.932	0.000	98	59345	250.0	209.7	
66 Methyl methacrylate	69	8.170	8.170	0.001	94	58541	500.0	423.0	
69 2-Nitropropane	41	8.553	8.559	-0.006	97	25300	500.0	391.4	
70 2-Chloroethyl vinyl ether	63	8.632	8.644	-0.012	91	54746	500.0	453.6	
80 n-Butyl acetate	43	9.885	9.885	0.000	97	76093	250.0	247.0	
92 Cyclohexanone	55	11.582	11.576	0.006	89	13824	5000.0	5567.2	
102 Pentachloroethane	167	12.410	12.410	0.000	91	42703	250.0	232.4	
108 1,2,3-Trimethylbenzene	105	12.860	12.860	0.000	99	203731	250.0	226.8	
109 Benzyl chloride	91	12.945	12.945	0.000	99	72474	250.0	233.4	
113 1,3,5-Trichlorobenzene	180	14.180	14.180	0.000	96	40959	250.0	367.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Review Flags
M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added:	10.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA2CEVEPRI_00008	Amount Added:	10.00	Units: uL

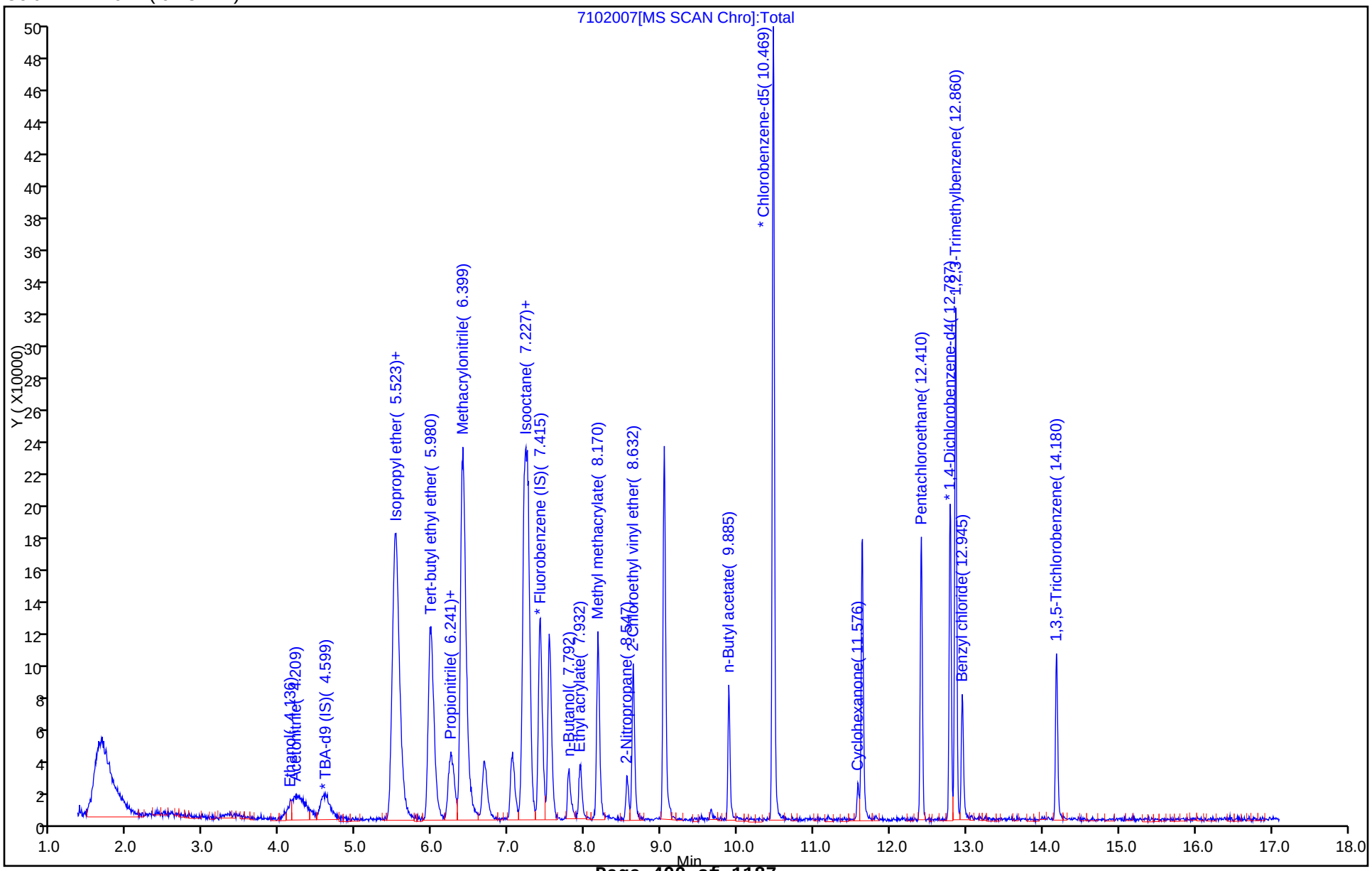
Report Date: 22-Oct-2014 13:30:13 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D

Injection Date:	20-Oct-2014 14:42:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

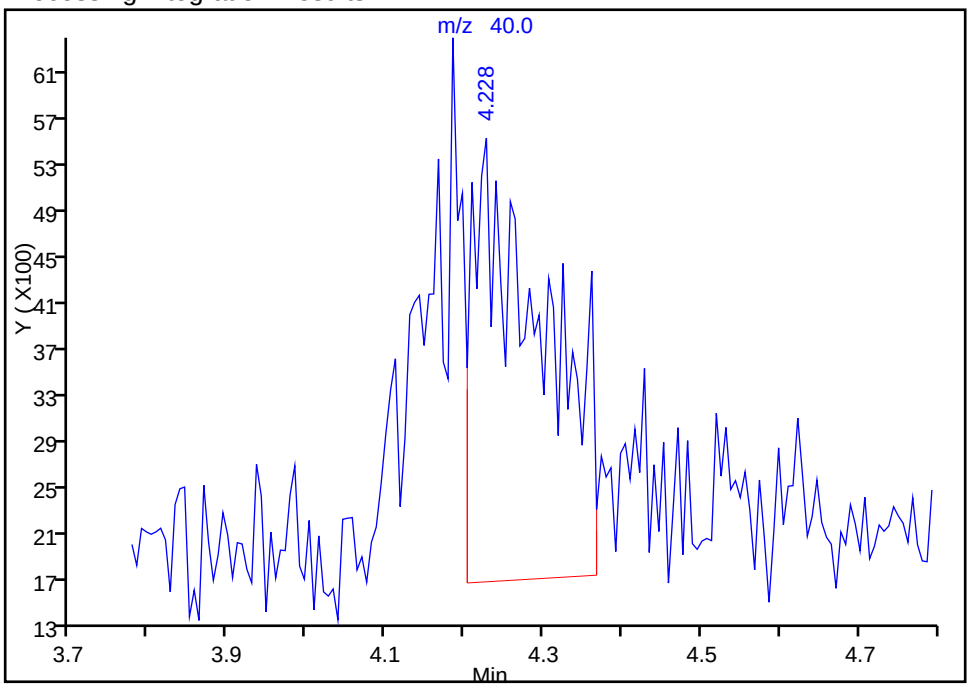
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D				
Injection Date:	20-Oct-2014 14:42:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

27 Acetonitrile, CAS: 75-05-8

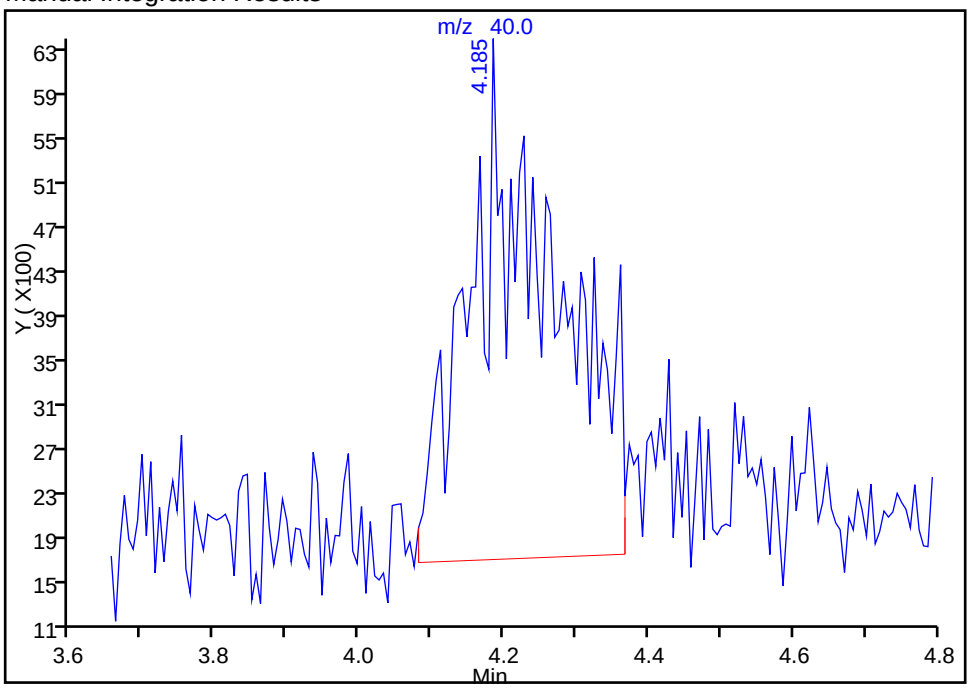
Processing Integration Results

RT: 4.23
Response: 23446
Amount: 1007.5098



Manual Integration Results

RT: 4.18
Response: 37450
Amount: 1912.9156



Reviewer: journetp, 20-Oct-2014 15:17:47
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

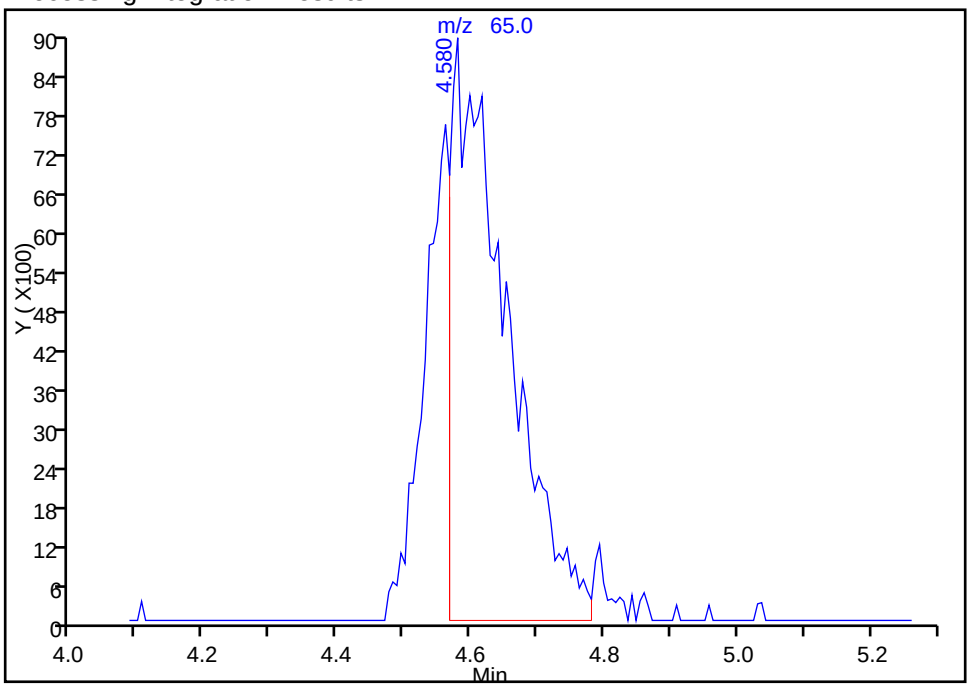
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102007.D				
Injection Date:	20-Oct-2014 14:42:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

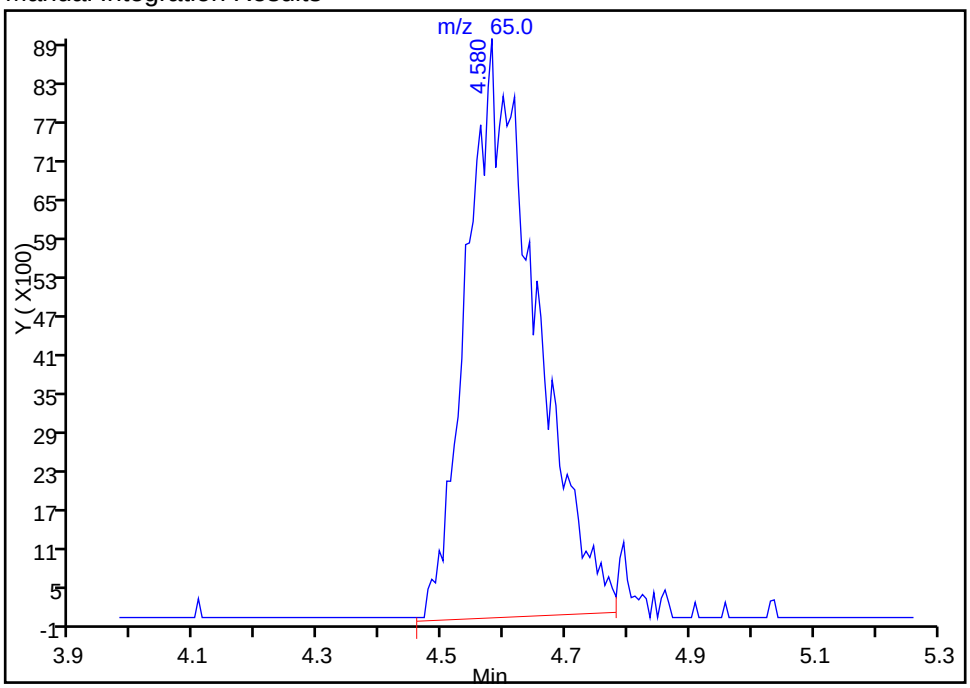
Processing Integration Results

RT: 4.58
Response: 51238
Amount: 5000.0000



Manual Integration Results

RT: 4.58
Response: 69144
Amount: 5000.0000



Reviewer: journetp, 20-Oct-2014 15:17:47
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102008.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Oct-2014 15:08:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003900-008
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 22-Oct-2014 13:30:13 Calib Date: 20-Oct-2014 15:08:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102008.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.592	4.592	0.000	94	70818	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.409	7.415	-0.006	98	168176	250.0	250.0	
* 4 Chlorobenzene-d5	119	10.469	10.463	0.006	67	36603	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	97	54078	250.0	250.0	
18 Ethanol	45	4.105	4.124	-0.019	42	71784	31250	31280	
27 Acetonitrile	40	4.197	4.233	-0.036	95	114639	6250.0	6873.0	
38 2-Chloro-1,3-butadiene	53	5.492	5.505	-0.013	94	335133	625.0	658.1	
39 Isopropyl ether	45	5.517	5.529	-0.012	98	780276	625.0	616.1	
26 Isopropyl alcohol	45	5.517	5.529	-0.012	91	780276	6250.0	6185.5	
40 Tert-butyl ethyl ether	59	5.985	5.973	0.012	98	636966	625.0	636.6	
44 Propionitrile	54	6.235	6.253	-0.018	99	161902	6250.0	6211.0	
45 Ethyl acetate	43	6.259	6.265	-0.006	99	177951	1250.0	1250.0	
46 Methacrylonitrile	41	6.399	6.405	-0.006	96	769043	6250.0	5799.0	
57 Isooctane	57	7.214	7.220	-0.006	98	878925	NC	NC	
58 Tert-amyl methyl ether	73	7.257	7.257	0.000	97	462596	625.0	592.4	
60 n-Butanol	56	7.786	7.786	0.000	92	59104	15625	13759	
62 Ethyl acrylate	55	7.938	7.932	0.006	98	144010	625.0	622.5	
66 Methyl methacrylate	69	8.169	8.170	0.000	94	139362	1250.0	1213.1	
69 2-Nitropropane	41	8.552	8.559	-0.007	95	64076	1250.0	1217.9	
70 2-Chloroethyl vinyl ether	63	8.631	8.644	-0.013	90	128130	1250.0	1267.9	
80 n-Butyl acetate	43	9.885	9.885	0.000	97	180710	625.0	625.2	
92 Cyclohexanone	55	11.576	11.576	0.000	95	25196	12500	12514	
102 Pentachloroethane	167	12.409	12.410	-0.001	94	97881	625.0	602.6	
108 1,2,3-Trimethylbenzene	105	12.859	12.860	-0.001	99	459832	625.0	582.8	
109 Benzyl chloride	91	12.945	12.945	0.000	99	184803	625.0	660.8	
113 1,3,5-Trichlorobenzene	180	14.180	14.180	0.000	95	57703	625.0	587.8	M
118 2-Methylnaphthalene	142	16.467	16.504	-0.037	1	336	625.0	663.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added:	25.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA2CEVEPRI_00008	Amount Added:	25.00	Units: uL

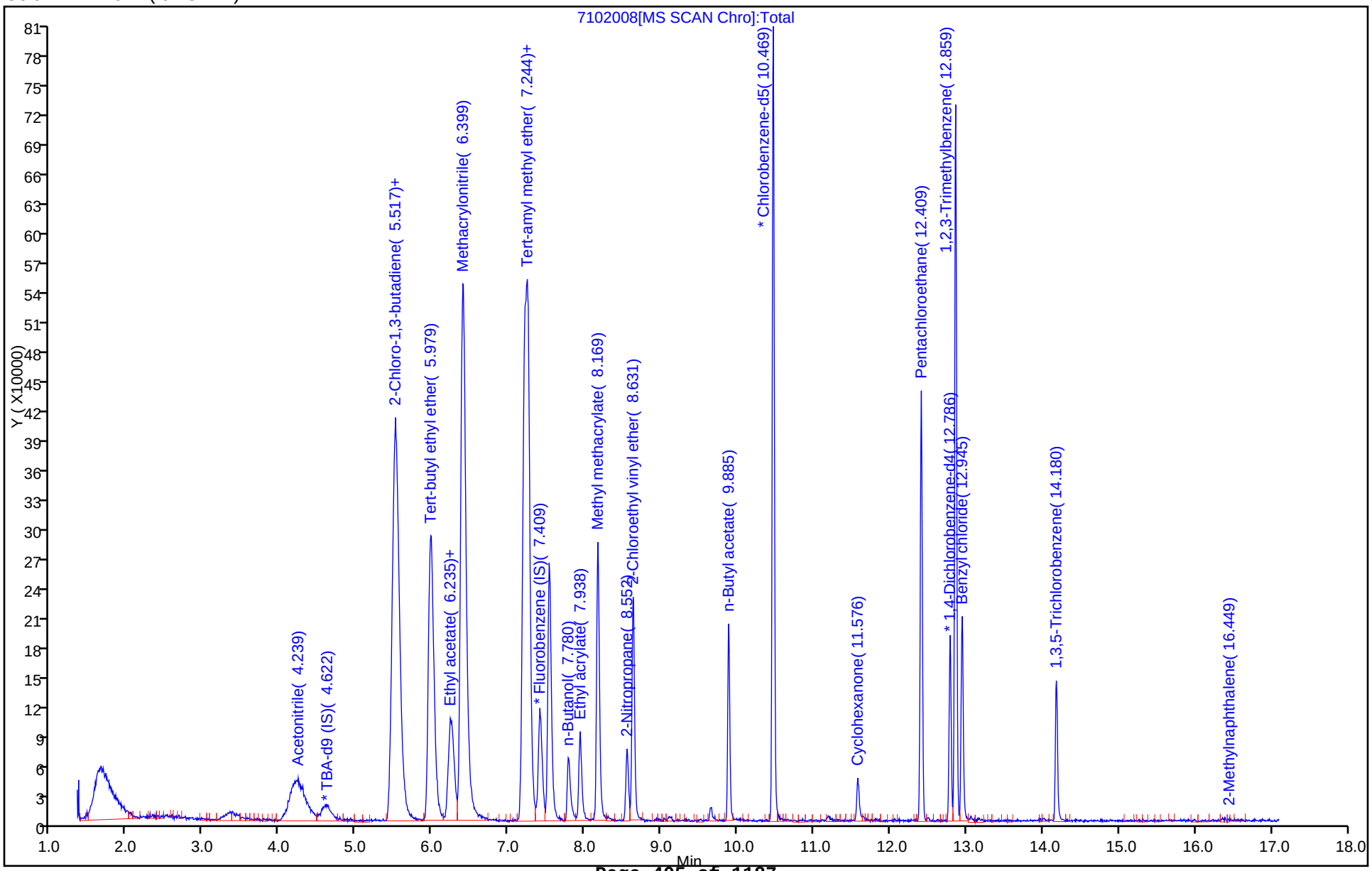
Report Date: 22-Oct-2014 13:30:14 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102008.D

Injection Date:	20-Oct-2014 15:08:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

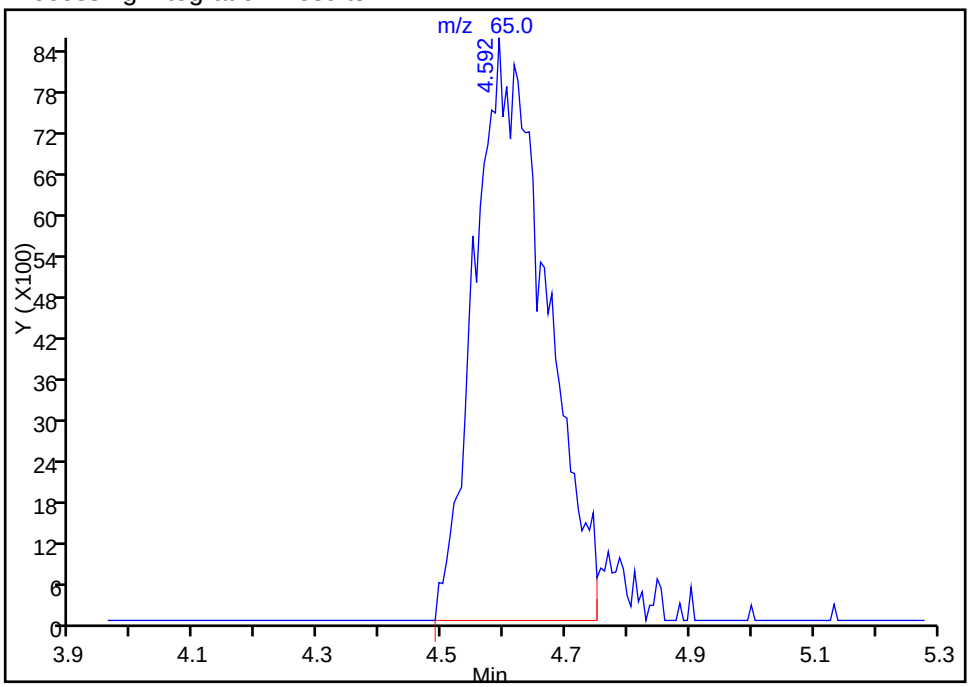
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102008.D
Injection Date: 20-Oct-2014 15:08:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

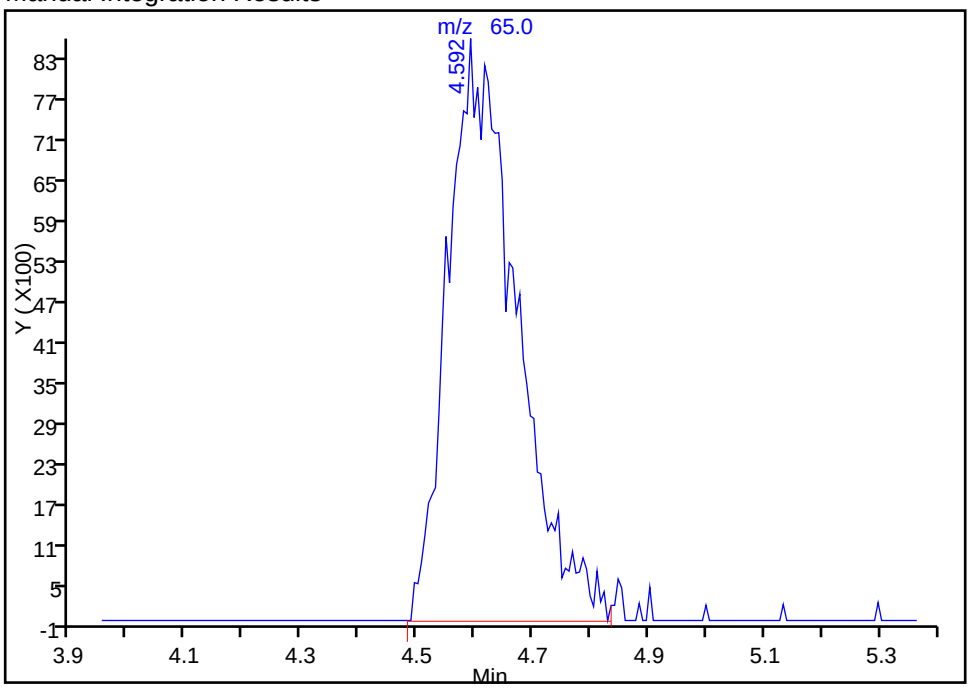
Processing Integration Results

RT: 4.59
Response: 67743
Amount: 5000.0000



Manual Integration Results

RT: 4.59
Response: 70818
Amount: 5000.0000



Reviewer: journetp, 20-Oct-2014 15:44:09
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

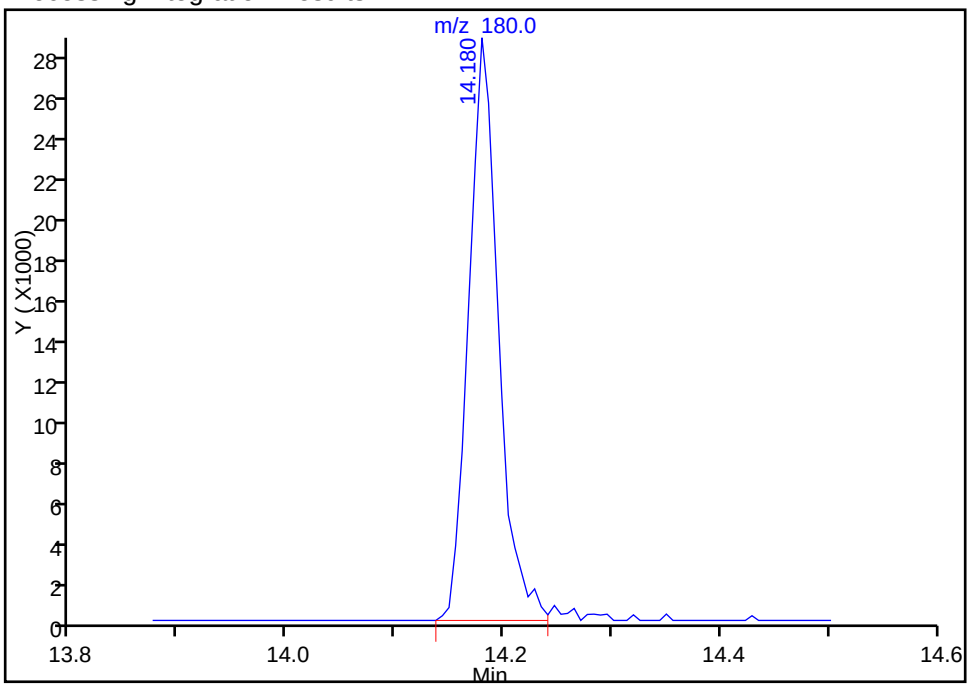
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102008.D
Injection Date: 20-Oct-2014 15:08:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

113 1,3,5-Trichlorobenzene, CAS: 108-70-3

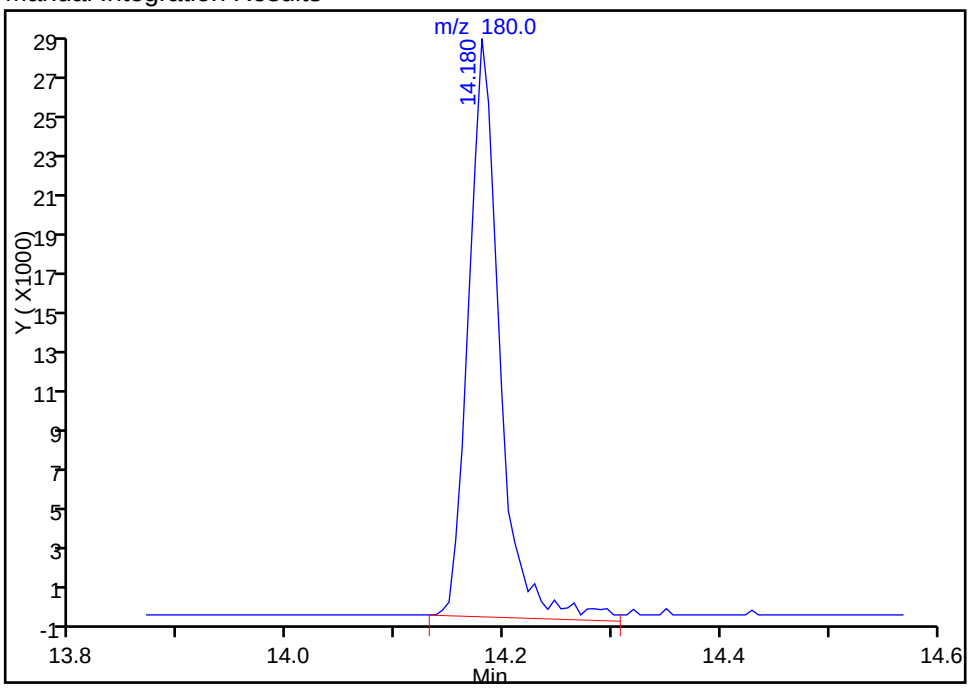
Processing Integration Results

RT: 14.18
Response: 54756
Amount: 544.3969



Manual Integration Results

RT: 14.18
Response: 57703
Amount: 587.7924



Reviewer: journetp, 20-Oct-2014 17:16:04
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102009.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Oct-2014 15:38:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003900-009
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub3

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 20-Oct-2014 17:45:20 Calib Date: 20-Oct-2014 15:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102009.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK037

First Level Reviewer: journetp Date: 20-Oct-2014 16:47:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.701	4.592	0.109	64	70368	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.402	7.415	-0.013	97	190581	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.462	10.463	-0.001	93	43837	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	97	63415	250.0	250.0	
18 Ethanol	45	4.044	4.124	-0.080	4	1756	62500	975.0	
27 Acetonitrile	40	4.209	4.233	-0.024	99	206764	12500	11138	
37 2-Chloro-1,3-butadiene	53	5.456	5.505	-0.049	93	669852	1250.0	1172.7	
39 Isopropyl ether	45	5.523	5.529	-0.006	97	1404357	1250.0	978.5	
28 Isopropyl alcohol	45	5.523	5.529	-0.006	91	1405680	12500	10142	
40 Tert-butyl ethyl ether	59	5.979	5.973	0.006	98	1137522	1250.0	1032.3	
45 Propionitrile	54	6.228	6.253	-0.025	99	320197	12500	11049	
43 Ethyl acetate	43	6.253	6.265	-0.012	99	355050	2500.0	2522.4	
46 Methacrylonitrile	41	6.411	6.405	0.006	97	1455547	12500	9685.3	
56 Isooctane	57	7.202	7.220	-0.018	97	1611476	1250.0	1030.2	
59 Tert-amyl methyl ether	73	7.256	7.257	-0.001	96	841340	1250.0	941.0	
61 n-Butanol	56	7.798	7.786	0.012	94	121536	31250	25705	
62 Ethyl acrylate	55	7.932	7.932	0.000	98	285337	1250.0	1056.5	
65 Methyl methacrylate	69	8.163	8.170	-0.006	94	274727	2500.0	2158.4	
70 2-Nitropropane	41	8.546	8.559	-0.013	97	130352	2500.0	2121.0	
69 2-Chloroethyl vinyl ether	63	8.625	8.644	-0.019	91	286826	2500.0	2503.9	
80 n-Butyl acetate	43	9.884	9.885	-0.001	97	347336	1250.0	1177.3	
92 Cyclohexanone	55	11.576	11.576	0.000	97	57224	25000	25094	
102 Pentachloroethane	167	12.409	12.410	-0.001	93	189370	NC	NC	
108 1,2,3-Trimethylbenzene	105	12.865	12.860	0.005	98	869411	1250.0	927.2	
109 Benzyl chloride	91	12.944	12.945	-0.001	99	372964	1250.0	1152.1	
113 1,3,5-Trichlorobenzene	180	14.179	14.180	-0.001	96	175559	1250.0	1706.8	
118 2-Methylnaphthalene	142	16.327	16.504	-0.177	90	15517	1250.0	1250.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

voaWap9 Pr Re_00001	Amount Added:	50.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA2CEVEPRI_00008	Amount Added:	50.00	Units: uL

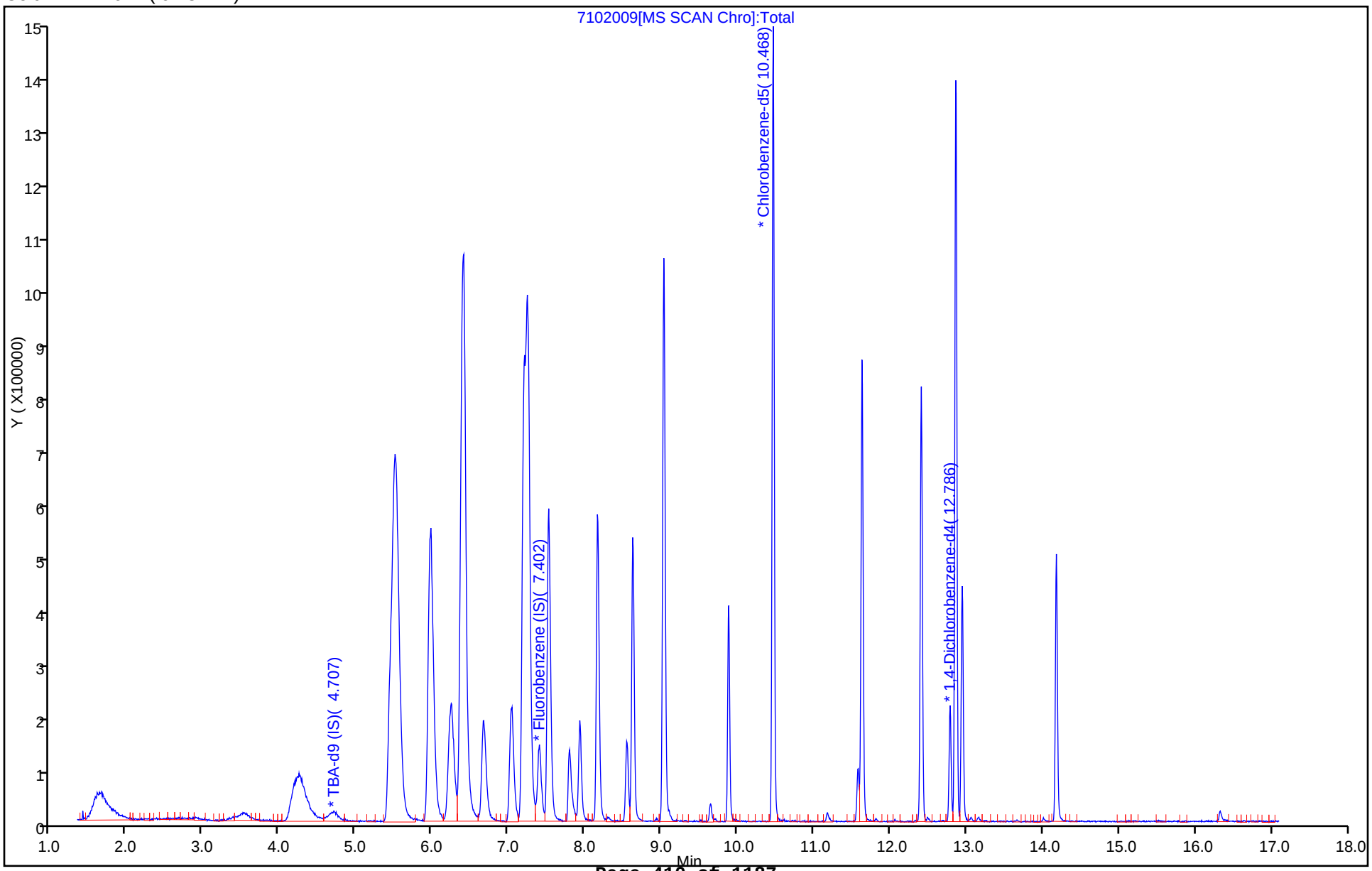
Report Date: 20-Oct-2014 17:45:20 Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102009.D

Injection Date:	20-Oct-2014 15:38:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

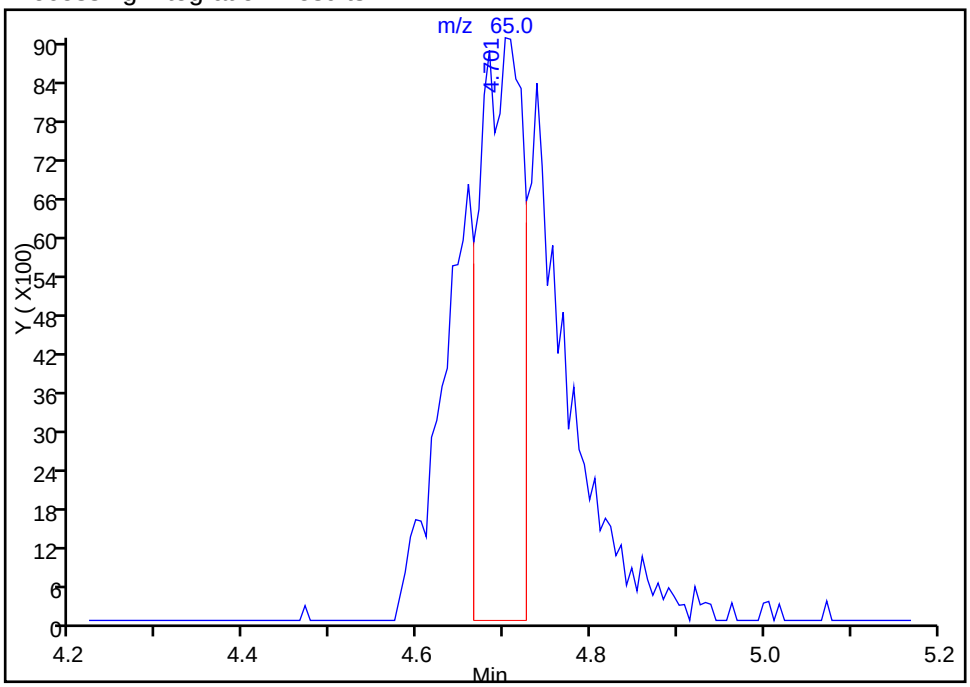
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102009.D
Injection Date: 20-Oct-2014 15:38:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

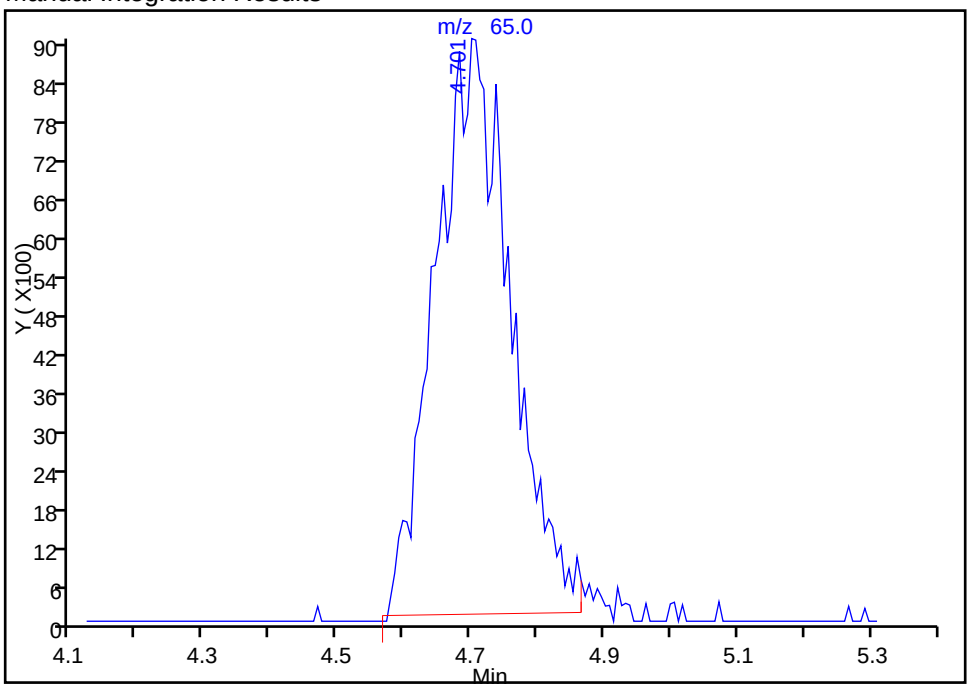
Processing Integration Results

RT: 4.70
Response: 31448
Amount: 5000.0000



Manual Integration Results

RT: 4.70
Response: 70368
Amount: 5000.0000



Reviewer: journetp, 20-Oct-2014 16:47:21
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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-122150/13	7102113.D
Level 2	IC 180-122150/4	7102104.D
Level 3	IC 180-122150/5	7102105.D
Level 4	ICIS 180-122150/15	7102115.D
Level 5	IC 180-122150/7	7102107.D
Level 6	IC 180-122150/8	7102108.D
Level 7	IC 180-122150/9	7102109.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	0.4069 0.4000	0.3267 0.4293	0.3719	0.4195	0.4208	Ave		0.3964			0.1000	9.1		20.0			
Chloromethane	0.9431 0.8512	0.7895 0.8505	0.9254	0.8148	0.9890	Ave		0.8805			0.1000	8.3		20.0			
1,3-Butadiene	0.7467 0.6611	0.6244 0.6363	0.7137	0.6981	0.6386	Ave		0.6741			0.0100	6.8		20.0			
Vinyl chloride	0.6414 0.5436	0.4984 0.5626	0.5945	0.6257	0.5824	Ave		0.5784			0.1000	8.5		20.0			
Bromomethane	0.2631 0.2032	0.2257 0.2082	0.2169	0.2314	0.2179	Ave		0.2238			0.0500	8.9		20.0			
Chloroethane	0.2832 0.2591	0.2319 0.2591	0.2518	0.2771	0.2562	Ave		0.2598			0.0500	6.5		20.0			
Dichlorofluoromethane	0.8481 0.7042	0.6240 0.6996	0.6851	0.7509	0.7226	Ave		0.7192			0.0100	9.6		20.0			
Trichlorofluoromethane	0.6165 0.5671	0.5193 0.5854	0.5572	0.6208	0.5753	Ave		0.5774			0.1000	6.1		20.0			
Ethyl ether	0.1861 0.2922	0.2229 0.2881	0.2610	0.2560	0.3044	Ave		0.2587			0.0100	16.0		20.0			
Acrolein	0.0448 0.0379	0.0283 0.0404	0.0395	0.0328	0.0432	Ave		0.0381			0.0100	15.0		20.0			
1,1-Dichloroethene	0.2128 0.3094	0.2681 0.2903	0.3060	0.3282	0.3255	Ave		0.2915			0.1000	14.0		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2621 0.3175	0.2692 0.3151	0.3227	0.3352	0.3344	Ave		0.3080			0.1000	9.7		20.0			
Iodomethane	0.4168 0.4191	0.3530 0.4203	0.4721	0.4677	0.4702	Ave		0.4313			0.0100	10.0		20.0			
Acetone	0.0415 0.1393	0.1481 0.1506	0.1188	0.1320	0.1554	Lin1	-2.048	0.1498			0.0500				0.9950		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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	1.1300 1.0428	1.0705 0.9817	1.1219	1.1422	1.1097	Ave		1.0855			0.1000	5.3		20.0			
Allyl chloride	0.2822 0.3377	0.2582 0.3334	0.3887	0.3612	0.3312	Ave		0.3275			0.0100	14.0		20.0			
Methyl acetate	0.2745 0.2437	0.2371 0.2528	0.2282	0.2251	0.2628	Ave		0.2463			0.1000	7.4		20.0			
Methylene Chloride	0.4827 0.3604	0.4260 0.3333	0.3841	0.3628	0.3827	Ave		0.3903			0.1000	13.0		20.0			
trans-1,2-Dichloroethene	0.4041 0.3525	0.3162 0.3453	0.3647	0.3843	0.3746	Ave		0.3631			0.1000	7.9		20.0			
Acrylonitrile	0.1054 0.0999	0.0879 0.1008	0.0814	0.0919	0.1096	Ave		0.0967			0.0100	10.0		20.0			
Methyl tert-butyl ether	0.9543 0.8807	0.8692 0.8483	0.8444	0.9215	0.9827	Ave		0.9002			0.1000	6.0		20.0			
tert-Butyl alcohol	1.3836 1.4475	1.3474 1.4484	1.2897	1.2937	1.2817	Ave		1.3560			0.0100	5.3		20.0			
Hexane	0.6969 0.6224	0.6754 0.6482	0.5787	0.5848	0.6112	Ave		0.6311			0.0100	7.1		20.0			
1,1-Dichloroethane	0.8681 0.7600	0.5562 0.7454	0.7665	0.7586	0.7443	Ave		0.7427			0.2000	12.0		20.0			
Vinyl acetate	0.3064 0.2659	0.4641 0.2936	0.2576	0.2870	0.2865	Lin	-0.472	0.2885			0.0100				0.9970		0.9900
2,2-Dichloropropane	0.5780 0.5176	0.4870 0.4862	0.3727	0.5698	0.5655	Ave		0.5110			0.0100	14.0		20.0			
cis-1,2-Dichloroethene	0.4119 0.3762	0.3435 0.3630	0.3907	0.3705	0.3853	Ave		0.3773			0.1000	5.8		20.0			
2-Butanone (MEK)	0.1428 0.1421	0.1268 0.1734	0.1173	0.1265	0.1559	Ave		0.1407			0.0500	14.0		20.0			
Chlorobromomethane	0.1806 0.1413	0.1072 0.1414	0.1278	0.1268	0.1358	Ave		0.1373			0.0100	16.0		20.0			
Tetrahydrofuran	0.1073 0.0908	0.0818 0.0973	0.0798	0.0747	0.0960	Ave		0.0897			0.0100	13.0		20.0			
Chloroform	0.7329 0.6105	0.4983 0.6047	0.6341	0.6217	0.6148	Ave		0.6167			0.2000	11.0		20.0			
1,1,1-Trichloroethane	0.6774 0.5401	0.4790 0.5452	0.5655	0.6203	0.5823	Ave		0.5728			0.1000	11.0		20.0			
Cyclohexane	0.9341 0.8280	0.7423 0.7791	0.9223	0.8860	0.9293	Ave		0.8602			0.1000	9.0		20.0			
Carbon tetrachloride	0.4796 0.4257	0.2925 0.4344	0.4270	0.4787	0.4627	Ave		0.4287			0.1000	15.0		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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	0.4881 0.4139	0.4700 0.4307	0.4250	0.4222	0.4267	Ave		0.4395			0.0100	6.4		20.0			
Benzene	1.4259 1.1503	1.2283 1.1646	1.2494	1.1854	1.2127	Ave		1.2309			0.5000	7.5		20.0			
1,2-Dichloroethane	0.4314 0.3606	0.1939 0.3891	0.3469	0.3415	0.3622	Qua	-1.096	0.3413	0.0000387		0.1000				1.0000		0.9900
Isobutyl alcohol	0.0064 0.0073	0.0059 0.0083	0.0063	0.0068	0.0071	Ave		0.0069		*	0.0100	12.0		20.0			
n-Heptane	0.7771 0.6362	0.7070 0.6616	0.5848	0.5847	0.6314	Ave		0.6547			0.0100	11.0		20.0			
Trichloroethene	0.3110 0.2740	0.2539 0.2829	0.2384	0.2651	0.2527	Ave		0.2683			0.2000	8.9		20.0			
Methylcyclohexane	0.8112 0.7017	0.7315 0.6759	0.7394	0.7022	0.7303	Ave		0.7274			0.1000	5.9		20.0			
1,2-Dichloropropane	0.3577 0.3168	0.2481 0.3164	0.3288	0.3239	0.3332	Ave		0.3178			0.1000	11.0		20.0			
Dibromomethane	0.1290 0.1331	0.1220 0.1466	0.1145	0.1149	0.1285	Ave		0.1270			0.0100	8.8		20.0			
1,4-Dioxane	0.0002 0.0013	0.0004 0.0016	0.0009	0.0011	0.0012	Qua	-0.546	0.0011	0	*	0.0100				1.0000		0.9900
Dichlorobromomethane	0.4366 0.4147	0.3972 0.4454	0.3859	0.4013	0.4254	Ave		0.4152			0.2000	5.2		20.0			
cis-1,3-Dichloropropene	0.5062 0.4902	0.4676 0.5072	0.4179	0.4741	0.4898	Ave		0.4790			0.2000	6.4		20.0			
4-Methyl-2-pentanone (MIBK)	1.2433 1.1902	1.1950 1.2156	1.0171	0.9091	1.2455	Ave		1.1451			0.1000	11.0		20.0			
Toluene	7.4335 4.6779	5.9448 4.4525	5.1143	4.7191	5.0254	Ave		5.3382			0.4000	20.0		20.0			
trans-1,3-Dichloropropene	1.6606 1.6080	1.6263 1.6381	1.5205	1.4327	1.5678	Ave		1.5791			0.1000	5.1		20.0			
Ethyl methacrylate	1.2780 1.2710	1.3121 1.3170	1.1887	1.1559	1.4123	Ave		1.2764			0.0100	6.7		20.0			
1,1,2-Trichloroethane	1.0093 0.8006	0.7909 0.8322	0.7489	0.7412	0.8546	Ave		0.8254			0.1000	11.0		20.0			
Tetrachloroethene	1.2009 0.9468	1.0960 0.9292	0.8671	0.8835	1.0152	Ave		0.9912			0.2000	12.0		20.0			
1,3-Dichloropropane	1.7016 1.4296	1.5283 1.4237	1.3869	1.4328	1.5571	Ave		1.4943			0.0100	7.4		20.0			
2-Hexanone	0.8690 0.7786	0.6201 0.9197	0.6731	0.6705	0.8323	Ave		0.7662			0.1000	15.0		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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	1.1205 1.0351	0.9622 1.0516	0.9578	0.9418	1.0383	Ave		1.0153			0.1000	6.3		20.0			
1,2-Dibromoethane	0.7981 0.8353	0.7714 0.8557	0.7309	0.7238	0.8726	Ave		0.7983			0.1000	7.4		20.0			
Chlorobenzene	3.5582 3.1233	3.3965 3.0674	3.1705	3.0879	3.1947	Ave		3.2284			0.5000	5.6		20.0			
1,1,1,2-Tetrachloroethane	1.2370 1.1091	1.1903 1.0816	1.1975	1.0639	1.1284	Ave		1.1440			0.0100	5.7		20.0			
Ethylbenzene	2.0440 1.5672	1.8675 1.4759	1.6934	1.6029	1.6978	Ave		1.7069			0.1000	11.0		20.0			
m-Xylene & p-Xylene	2.3716 2.0134	2.4683 1.9386	2.1738	2.0706	2.1791	Ave		2.1736			0.1000	8.8		20.0			
o-Xylene	2.7105 2.1288	2.3093 2.0429	2.2244	2.2362	2.3357	Ave		2.2840			0.3000	9.3		20.0			
Styrene	4.3659 3.3072	3.7093 3.0679	3.9035	3.7491	3.5584	Ave		3.6659			0.3000	11.0		20.0			
Bromoform	0.6986 0.6020	0.5596 0.6493	0.5680	0.5700	0.6502	Ave		0.6140			0.1000	8.6		20.0			
Isopropylbenzene	7.5704 6.1202	6.5580 5.6272	6.6577	6.3928	6.5799	Ave		6.5009			0.1000	9.1		20.0			
1,1,2,2-Tetrachloroethane	1.1831 1.0463	0.9937 1.0465	1.0592	0.9763	1.1351	Ave		1.0629			0.3000	6.9		20.0			
Bromobenzene	1.0860 1.0031	0.9474 0.9946	0.9549	1.0222	0.9798	Ave		0.9983			0.0100	4.7		20.0			
1,2,3-Trichloropropane	0.1692 0.2025	0.1734 0.2259	0.1661	0.1787	0.2129	Ave		0.1898			0.0100	13.0		20.0			
trans-1,4-Dichloro-2-butene	0.0561 0.2590	0.0120 0.2943	0.2485	0.2387	0.2702	Qua	-4.857	0.2525	0.0000359		0.0100				0.9990		0.9900
N-Propylbenzene	1.5219 1.2523	1.3826 1.2795	1.3319	1.3343	1.2475	Ave		1.3357			0.0100	7.2		20.0			
2-Chlorotoluene	1.2430 0.9977	1.0516 1.0018	1.0571	1.0127	0.9822	Ave		1.0495			0.0100	8.6		20.0			
1,3,5-Trimethylbenzene	4.3854 3.8108	4.1914 3.7573	4.0510	4.0321	3.8098	Ave		4.0054			0.0100	5.8		20.0			
4-Chlorotoluene	1.0299 0.9156	1.0803 0.9208	1.0157	0.9852	0.9002	Ave		0.9782			0.0100	7.0		20.0			
tert-Butylbenzene	4.5071 3.7860	4.0084 3.8089	3.8301	3.6605	3.4220	Ave		3.8604			0.0100	8.7		20.0			
1,2,4-Trimethylbenzene	4.4447 3.6960	4.0142 3.5584	4.0854	4.0126	3.6535	Ave		3.9235			0.0100	7.9		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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	6.1672 5.1685	5.4909 5.0315	5.4660	5.3325	4.9968	Ave		5.3791			0.0100	7.4		20.0			
1,3-Dichlorobenzene	1.9962 1.8210	1.7264 1.8421	1.8586	1.7853	1.6910	Ave		1.8172			0.6000	5.5		20.0			
4-Isopropyltoluene	5.1148 4.1134	4.8928 3.9230	4.6394	4.5070	4.2002	Ave		4.4844			0.0100	9.6		20.0			
1,4-Dichlorobenzene	1.7540 1.6252	1.7050 1.7063	1.6561	1.6269	1.5625	Ave		1.6623			0.5000	3.9		20.0			
n-Butylbenzene	4.2002 4.0421	3.9706 3.8520	4.1607	4.0194	3.7035	Ave		3.9926			0.0100	4.3		20.0			
1,2-Dichlorobenzene	1.3878 1.4072	1.5137 1.3830	1.4339	1.4323	1.3796	Ave		1.4196			0.4000	3.3		20.0			
1,2-Dibromo-3-Chloropropane	0.0130 0.1009	0.0153 +++++	0.0296	0.0842	0.0692	Qua	-2.607	0.0691	0.0000577		0.0500				0.9920		0.9900
1,2,4-Trichlorobenzene	0.2161 0.6290	0.3236 +++++	0.2658	0.5494	0.4282	Qua	-6.916	0.3994	0.0003851		0.2000				0.9920		0.9900
Hexachlorobutadiene	0.4215 0.4370	0.3453 +++++	0.2116	0.4027	0.3576	Qua	-1.022	0.3151	0.0001986		0.0100				0.9930		0.9900
Naphthalene	0.3696 0.8949	0.6060 +++++	0.3526	0.7006	0.5720	Qua	-1.137	0.4352	0.0007385		0.0100				0.9940		0.9900
1,2,3-Trichlorobenzene	0.3378 0.3694	0.2174 +++++	0.1140	0.2734	0.2338	Qua	1.6856	0.1465	0.0003529		0.0100				0.9940		0.9900
Dibromofluoromethane (Surr)	0.2630 0.2503	0.2419 0.2363	0.2648	0.2519	0.2359	Ave		0.2491				4.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4008 0.3157	0.2917 0.3141	0.2776	0.2960	0.3049	Ave		0.3144				13.0		20.0			
Toluene-d8 (Surr)	5.2055 4.1648	4.5589 3.8260	4.1523	3.9021	4.2884	Ave		4.2997				11.0		20.0			
4-Bromofluorobenzene (Surr)	1.9341 1.5456	1.5484 1.4460	1.5991	1.5532	1.5057	Ave		1.5903				10.0		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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-122150/13	7102113.D
Level 2	IC 180-122150/4	7102104.D
Level 3	IC 180-122150/5	7102105.D
Level 4	ICIS 180-122150/15	7102115.D
Level 5	IC 180-122150/7	7102107.D
Level 6	IC 180-122150/8	7102108.D
Level 7	IC 180-122150/9	7102109.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	8229 185781	14311 379050	36057	61251	76400	25.0 625	50.0 1250	125	200	250
Chloromethane	FB	Ave	19075 395387	34586 750972	89707	118981	179552	25.0 625	50.0 1250	125	200	250
1,3-Butadiene	FB	Ave	15103 307095	27352 561883	69188	101934	115943	25.0 625	50.0 1250	125	200	250
Vinyl chloride	FB	Ave	12972 252506	21832 496816	57631	91361	105742	25.0 625	50.0 1250	125	200	250
Bromomethane	FB	Ave	5322 94388	9887 183871	21024	33792	39565	25.0 625	50.0 1250	125	200	250
Chloroethane	FB	Ave	5728 120368	10161 228814	24412	40458	46518	25.0 625	50.0 1250	125	200	250
Dichlorofluoromethane	FB	Ave	17152 327081	27334 617782	66414	109647	131199	25.0 625	50.0 1250	125	200	250
Trichlorofluoromethane	FB	Ave	12468 263404	22749 516892	54015	90646	104446	25.0 625	50.0 1250	125	200	250
Ethyl ether	FB	Ave	3763 135711	9764 254364	25305	37380	55272	25.0 625	50.0 1250	125	200	250
Acrolein	FB	Ave	9055 31704	9282 35679	19167	20952	31366	250 1125	375 1250	625	875	1000
1,1-Dichloroethene	FB	Ave	4303 143706	11744 256309	29663	47926	59105	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	5301 147492	11792 278225	31283	48943	60713	25.0 625	50.0 1250	125	200	250
Iodomethane	FB	Ave	8430 194659	15462 371118	45764	68292	85373	25.0 625	50.0 1250	125	200	250
Acetone	FB	Lin1	840 64723	6489 132946	11513	19280	28213	25.0 625	50.0 1250	125	200	250
Carbon disulfide	FB	Ave	22854 484373	46895 866808	108753	166773	201469	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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Ave	5708 156846	11310 294357	37677	52737	60140	25.0 625	50.0 1250	125	200	250
Methyl acetate	FB	Ave	27763 566016	51924 1116057	110633	164322	238573	125 3125	250 6250	625	1000	1250
Methylene Chloride	FB	Ave	9763 167383	18660 294315	37232	52974	69474	25.0 625	50.0 1250	125	200	250
trans-1,2-Dichloroethene	FB	Ave	8172 163732	13850 304899	35356	56107	68015	25.0 625	50.0 1250	125	200	250
Acrylonitrile	FB	Ave	21317 464143	38514 890490	78897	134241	198957	250 6250	500 12500	1250	2000	2500
Methyl tert-butyl ether	FB	Ave	19300 409063	38078 749036	81860	134561	178415	25.0 625	50.0 1250	125	200	250
tert-Butyl alcohol	TBA	Ave	5463 121361	9489 231966	21449	39922	46019	250 6250	500 12500	1250	2000	2500
Hexane	FB	Ave	14095 289120	29588 572328	56100	85395	110961	25.0 625	50.0 1250	125	200	250
1,1-Dichloroethane	FB	Ave	17557 353024	24364 658200	74308	110768	135125	25.0 625	50.0 1250	125	200	250
Vinyl acetate	FB	Lin	6198 123528	20331 259232	24972	41911	52009	25.0 625	50.0 1250	125	200	250
2,2-Dichloropropane	FB	Ave	11690 240411	21334 429274	36127	83205	102677	25.0 625	50.0 1250	125	200	250
cis-1,2-Dichloroethene	FB	Ave	8331 174723	15049 320546	37879	54100	69958	25.0 625	50.0 1250	125	200	250
2-Butanone (MEK)	FB	Ave	2889 65984	5554 153144	11375	18478	28296	25.0 625	50.0 1250	125	200	250
Chlorobromomethane	FB	Ave	3653 65617	4695 124870	12393	18515	24663	25.0 625	50.0 1250	125	200	250
Tetrahydrofuran	FB	Ave	4340 84320	7169 171831	15464	21810	34844	50.0 1250	100 2500	250	400	500
Chloroform	FB	Ave	14823 283592	21829 533955	61469	90776	111616	25.0 625	50.0 1250	125	200	250
1,1,1-Trichloroethane	FB	Ave	13700 250864	20986 481411	54822	90568	105716	25.0 625	50.0 1250	125	200	250
Cyclohexane	FB	Ave	18893 384581	32518 687977	89406	129374	168722	25.0 625	50.0 1250	125	200	250
Carbon tetrachloride	FB	Ave	9700 197758	12813 383618	41391	69892	84011	25.0 625	50.0 1250	125	200	250
1,1-Dichloropropene	FB	Ave	9871 192263	20590 380284	41204	61643	77469	25.0 625	50.0 1250	125	200	250
Benzene	FB	Ave	28839 534331	53808 1028342	121116	173089	220179	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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	Qua	8726 167478	8496 343573	33629	49862	65763	25.0 625	50.0 1250	125	200	250
Isobutyl alcohol	FB	Ave	3223 85306	6417 183856	15333	24749	32364	625 15625	1250 31250	3125	5000	6250
n-Heptane	FB	Ave	15717 295525	30971 584189	56692	85376	114640	25.0 625	50.0 1250	125	200	250
Trichloroethene	FB	Ave	6291 127265	11122 249762	23110	38709	45887	25.0 625	50.0 1250	125	200	250
Methylcyclohexane	FB	Ave	16406 325917	32045 596799	71675	102531	132590	25.0 625	50.0 1250	125	200	250
1,2-Dichloropropane	FB	Ave	7235 147143	10870 279389	31877	47295	60490	25.0 625	50.0 1250	125	200	250
Dibromomethane	FB	Ave	2609 61846	5345 129458	11100	16781	23331	25.0 625	50.0 1250	125	200	250
1,4-Dioxane	FB	Qua	88 12471	365 29120	1693	3336	4288	500 12500	1000 25000	2500	4000	5000
Dichlorobromomethane	FB	Ave	8830 192641	17401 393297	37409	58596	77225	25.0 625	50.0 1250	125	200	250
cis-1,3-Dichloropropene	FB	Ave	10238 227675	20483 447830	40515	69224	88926	25.0 625	50.0 1250	125	200	250
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	5723 128319	12009 257594	21819	33968	54015	25.0 625	50.0 1250	125	200	250
Toluene	CBZ	Ave	34218 504337	59742 943544	109711	176324	217948	25.0 625	50.0 1250	125	200	250
trans-1,3-Dichloropropene	CBZ	Ave	7644 173362	16343 347141	32618	53532	67992	25.0 625	50.0 1250	125	200	250
Ethyl methacrylate	CBZ	Ave	5883 137027	13186 279094	25499	43190	61248	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloroethane	CBZ	Ave	4646 86319	7948 176360	16065	27695	37062	25.0 625	50.0 1250	125	200	250
Tetrachloroethene	CBZ	Ave	5528 102076	11014 196903	18600	33012	44028	25.0 625	50.0 1250	125	200	250
1,3-Dichloropropane	CBZ	Ave	7833 154129	15359 301705	29752	53535	67531	25.0 625	50.0 1250	125	200	250
2-Hexanone	CBZ	Ave	4000 83945	6232 194902	14440	25051	36096	25.0 625	50.0 1250	125	200	250
Chlorodibromomethane	CBZ	Ave	5158 111596	9670 222841	20546	35191	45030	25.0 625	50.0 1250	125	200	250
1,2-Dibromoethane	CBZ	Ave	3674 90055	7752 181337	15680	27044	37845	25.0 625	50.0 1250	125	200	250
Chlorobenzene	CBZ	Ave	16379 336729	34133 650024	68014	115377	138551	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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	5694 119573	11962 229216	25689	39750	48939	25.0 625	50.0 1250	125	200	250
Ethylbenzene	CBZ	Ave	9409 168965	18767 312764	36326	59890	73632	25.0 625	50.0 1250	125	200	250
m-Xylene & p-Xylene	CBZ	Ave	10917 217070	24805 410812	46632	77366	94504	25.0 625	50.0 1250	125	200	250
o-Xylene	CBZ	Ave	12477 229514	23207 432912	47718	83554	101298	25.0 625	50.0 1250	125	200	250
Styrene	CBZ	Ave	20097 356554	37276 650143	83738	140080	154324	25.0 625	50.0 1250	125	200	250
Bromoform	CBZ	Ave	3216 64903	5624 137594	12184	21297	28198	25.0 625	50.0 1250	125	200	250
Isopropylbenzene	CBZ	Ave	34848 659829	65904 1192487	142822	238861	285365	25.0 625	50.0 1250	125	200	250
1,1,2,2-Tetrachloroethane	CBZ	Ave	5446 112804	9986 221770	22723	36480	49226	25.0 625	50.0 1250	125	200	250
Bromobenzene	DCB	Ave	6876 131941	11842 242634	26910	47106	56131	25.0 625	50.0 1250	125	200	250
1,2,3-Trichloropropane	DCB	Ave	1071 26634	2167 55116	4682	8236	12196	25.0 625	50.0 1250	125	200	250
trans-1,4-Dichloro-2-butene	DCB	Qua	355 34072	150 71793	7004	10999	15481	25.0 625	50.0 1250	125	200	250
N-Propylbenzene	DCB	Ave	9636 164716	17283 312137	37533	61492	71470	25.0 625	50.0 1250	125	200	250
2-Chlorotoluene	DCB	Ave	7870 131231	13145 244389	29790	46671	56272	25.0 625	50.0 1250	125	200	250
1,3,5-Trimethylbenzene	DCB	Ave	27766 501241	52393 916602	114160	185818	218260	25.0 625	50.0 1250	125	200	250
4-Chlorotoluene	DCB	Ave	6521 120435	13504 224628	28622	45402	51569	25.0 625	50.0 1250	125	200	250
tert-Butylbenzene	DCB	Ave	28536 497976	50105 929182	107933	168692	196042	25.0 625	50.0 1250	125	200	250
1,2,4-Trimethylbenzene	DCB	Ave	28141 486133	50177 868079	115128	184919	209303	25.0 625	50.0 1250	125	200	250
sec-Butylbenzene	DCB	Ave	39047 679818	68636 1227425	154036	245747	286264	25.0 625	50.0 1250	125	200	250
1,3-Dichlorobenzene	DCB	Ave	12639 239516	21580 449380	52375	82277	96877	25.0 625	50.0 1250	125	200	250
4-Isopropyltoluene	DCB	Ave	32384 541033	61160 957026	130742	207703	240623	25.0 625	50.0 1250	125	200	250
1,4-Dichlorobenzene	DCB	Ave	11105 213764	21312 416264	46669	74975	89516	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.: 180-39432-1 Analy Batch No.: 122150

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/21/2014 10:13 Calibration End Date: 10/21/2014 18:28 Calibration ID: 18679

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	26593 531663	49632 939699	117250	185235	212168	25.0 625	50.0 1250	125	200	250
1,2-Dichlorobenzene	DCB	Ave	8787 185095	18921 337392	40407	66007	79034	25.0 625	50.0 1250	125	200	250
1,2-Dibromo-3-Chloropropane	DCB	Qua	82 13273	191 +++++	834	3881	3964	25.0 625	50.0 +++++	125	200	250
1,2,4-Trichlorobenzene	DCB	Qua	1368 82738	4045 +++++	7489	25320	24530	25.0 625	50.0 +++++	125	200	250
Hexachlorobutadiene	DCB	Qua	2669 57483	4316 +++++	5962	18560	20485	25.0 625	50.0 +++++	125	200	250
Naphthalene	DCB	Qua	2340 117706	7575 +++++	9937	32287	32769	25.0 625	50.0 +++++	125	200	250
1,2,3-Trichlorobenzene	DCB	Qua	2139 48592	2718 +++++	3213	12600	13394	25.0 625	50.0 +++++	125	200	250
Dibromofluoromethane (Surr)	FB	Ave	5319 116278	10598 208635	25666	36780	42824	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8107 146628	12779 277315	26914	43216	55364	25.0 625	50.0 1250	125	200	250
Toluene-d8 (Surr)	CBZ	Ave	23962 449020	45814 810789	89076	145797	185985	25.0 625	50.0 1250	125	200	250
4-Bromofluorobenzene (Surr)	CBZ	Ave	8903 166633	15560 306426	34304	58035	65301	25.0 625	50.0 1250	125	200	250

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Oct-2014 10:13:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:06:28 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: journetp Date: 21-Oct-2014 12:26:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.795	4.755	0.040	71	70422	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.399	7.396	0.003	96	219039	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.465	10.462	0.003	93	50247	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.786	0.003	96	62500	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.663	6.672	-0.009	61	10598	50.0	48.5	M
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.031	0.009	62	12779	50.0	46.4	M
$ 7 Toluene-d8 (Surr)	98	9.041	9.032	0.009	97	45814	50.0	53.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.630	0.009	87	15560	50.0	48.7	
10 Dichlorodifluoromethane	85	1.966	1.860	0.106	1	14311	50.0	41.2	M
11 Chloromethane	50	2.015	2.000	0.015	7	34586	50.0	44.8	M
12 Vinyl chloride	62	2.136	2.182	-0.046	4	21832	50.0	43.1	M
13 Butadiene	39	2.155	2.182	-0.027	91	27352	50.0	46.3	M
14 Bromomethane	94	2.495	2.486	0.009	39	9887	50.0	50.4	M
15 Chloroethane	64	2.629	2.608	0.021	42	10161	50.0	44.6	M
16 Dichlorofluoromethane	67	2.854	2.857	-0.003	68	27334	50.0	43.4	
17 Trichlorofluoromethane	101	2.958	2.894	0.064	45	22749	50.0	45.0	
19 Ethyl ether	59	3.298	3.301	-0.003	21	9764	50.0	43.1	M
21 Acrolein	56	3.578	3.466	0.112	31	9282	375.0	277.9	M
20 1,1-Dichloroethene	96	3.548	3.527	0.021	46	11744	50.0	46.0	
22 1,1,2-Trichloro-1,2,2-trif	101	3.657	3.673	-0.016	7	11792	50.0	43.7	M
23 Iodomethane	142	3.742	3.709	0.033	73	15462	50.0	40.9	M
25 Acetone	43	3.755	3.794	-0.039	0	6489	50.0	63.1	M
24 Carbon disulfide	76	3.846	3.813	0.034	1	46895	50.0	49.3	M
26 3-Chloro-1-propene	76	4.095	4.105	-0.009	1	11310	50.0	39.4	M
29 Methyl acetate	43	4.260	4.287	-0.027	76	51924	250.0	240.6	M
30 Methylene Chloride	84	4.345	4.336	0.009	74	18660	50.0	54.6	M
31 trans-1,2-Dichloroethene	96	4.777	4.731	0.046	61	13850	50.0	43.5	M
32 Acrylonitrile	53	4.795	4.774	0.021	98	38514	500.0	454.5	M
33 Methyl tert-butyl ether	73	4.850	4.853	-0.003	94	38078	50.0	48.3	M
34 2-Methyl-2-propanol	59	4.929	4.871	0.058	63	9489	500.0	496.8	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.142	5.145	-0.003	91	29588	50.0	53.5	M
36 1,1-Dichloroethane	63	5.349	5.339	0.009	48	24364	50.0	37.4	
38 Vinyl acetate	43	5.513	5.479	0.034	43	20331	50.0	82.1	
41 2,2-Dichloropropane	77	6.085	6.076	0.009	70	21334	50.0	47.7	
42 cis-1,2-Dichloroethene	96	6.103	6.088	0.015	87	15049	50.0	45.5	
44 2-Butanone (MEK)	43	6.218	6.179	0.039	32	5554	50.0	45.1	
47 Chlorobromomethane	128	6.395	6.386	0.009	84	4695	50.0	39.0	M
49 Tetrahydrofuran	42	6.474	6.477	-0.003	61	7169	100.0	91.3	
48 Chloroform	83	6.480	6.477	0.003	96	21829	50.0	40.4	
50 1,1,1-Trichloroethane	97	6.669	6.666	0.003	91	20986	50.0	41.8	
51 Cyclohexane	56	6.717	6.720	-0.003	92	32518	50.0	43.1	
52 Carbon tetrachloride	117	6.863	6.848	0.015	92	12813	50.0	34.1	
53 1,1-Dichloropropene	75	6.857	6.860	-0.003	88	20590	50.0	53.5	
54 Benzene	78	7.101	7.085	0.016	98	53808	50.0	49.9	
55 1,2-Dichloroethane	62	7.143	7.116	0.027	68	8496	50.0	31.5	
57 Isobutyl alcohol	41	7.137	7.134	0.003	32	6417	1250.0	1064.9	
58 n-Heptane	43	7.393	7.402	-0.009	46	30971	50.0	54.0	
60 Trichloroethene	130	7.788	7.791	-0.003	89	11122	50.0	47.3	
63 Methylcyclohexane	83	7.977	7.980	-0.003	95	32045	50.0	50.3	
64 1,2-Dichloropropane	63	8.025	8.016	0.009	74	10870	50.0	39.0	
66 Dibromomethane	93	8.159	8.150	0.009	89	5345	50.0	48.1	
67 1,4-Dioxane	88	8.238	8.187	0.051	1	365	1000.0	837.1	
68 Dichlorobromomethane	83	8.311	8.308	0.003	92	17401	50.0	47.8	
71 cis-1,3-Dichloropropene	75	8.767	8.764	0.003	91	20483	50.0	48.8	
72 4-Methyl-2-pentanone (MIBK	43	8.938	8.935	0.003	96	12009	50.0	52.2	
73 Toluene	91	9.096	9.099	-0.003	98	59742	50.0	55.7	
74 trans-1,3-Dichloropropene	75	9.321	9.324	-0.003	96	16343	50.0	51.5	
75 Ethyl methacrylate	69	9.424	9.421	0.003	92	13186	50.0	51.4	
76 1,1,2-Trichloroethane	97	9.510	9.507	0.003	92	7948	50.0	47.9	
77 Tetrachloroethene	164	9.643	9.640	0.003	95	11014	50.0	55.3	
78 1,3-Dichloropropane	76	9.674	9.665	0.009	95	15359	50.0	51.1	
79 2-Hexanone	43	9.765	9.762	0.003	96	6232	50.0	40.5	
81 Chlorodibromomethane	129	9.899	9.896	0.003	86	9670	50.0	47.4	
82 Ethylene Dibromide	107	10.015	10.012	0.003	93	7752	50.0	48.3	
83 Chlorobenzene	112	10.495	10.492	0.003	89	34133	50.0	52.6	
84 1,1,1,2-Tetrachloroethane	131	10.574	10.571	0.003	92	11962	50.0	52.0	
85 Ethylbenzene	106	10.599	10.602	-0.003	99	18767	50.0	54.7	
86 m-Xylene & p-Xylene	106	10.714	10.717	-0.003	97	24805	50.0	56.8	
88 o-Xylene	106	11.116	11.113	0.003	96	23207	50.0	50.6	
89 Styrene	104	11.134	11.125	0.009	90	37276	50.0	50.6	
90 Bromoform	173	11.316	11.313	0.003	93	5624	50.0	45.6	
91 Isopropylbenzene	105	11.481	11.478	0.003	97	65904	50.0	50.4	
93 1,1,2,2-Tetrachloroethane	83	11.773	11.776	-0.003	93	9986	50.0	46.7	
94 Bromobenzene	156	11.785	11.788	-0.003	94	11842	50.0	47.4	
95 1,2,3-Trichloropropane	110	11.815	11.818	-0.003	46	2167	50.0	45.7	
96 trans-1,4-Dichloro-2-buten	53	11.979	11.824	0.155	5	150	50.0	21.5	
97 N-Propylbenzene	120	11.882	11.885	-0.003	100	17283	50.0	51.8	
98 2-Chlorotoluene	126	11.979	11.977	0.002	94	13145	50.0	50.1	
99 1,3,5-Trimethylbenzene	105	12.059	12.062	-0.003	94	52393	50.0	52.3	
100 4-Chlorotoluene	126	12.083	12.086	-0.003	98	13504	50.0	55.2	
101 tert-Butylbenzene	119	12.387	12.390	-0.003	94	50105	50.0	51.9	
103 1,2,4-Trimethylbenzene	105	12.436	12.433	0.003	97	50177	50.0	51.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.606	12.609	-0.003	96	68636	50.0	51.0	
105 1,3-Dichlorobenzene	146	12.728	12.719	0.009	95	21580	50.0	47.5	
106 4-Isopropyltoluene	119	12.752	12.749	0.003	97	61160	50.0	54.6	
107 1,4-Dichlorobenzene	146	12.807	12.810	-0.003	94	21312	50.0	51.3	
110 n-Butylbenzene	91	13.166	13.163	0.003	99	49632	50.0	49.7	
111 1,2-Dichlorobenzene	146	13.196	13.187	0.009	95	18921	50.0	53.3	
112 1,2-Dibromo-3-Chloropropan	75	13.999	13.972	0.027	1	191	50.0	46.9	
114 1,2,4-Trichlorobenzene	180	14.808	14.799	0.009	91	4045	50.0	54.9	
115 Hexachlorobutadiene	225	14.966	14.970	-0.004	88	4316	50.0	56.0	
116 Naphthalene	128	15.076	15.055	0.021	8	7575	50.0	65.1	
117 1,2,3-Trichlorobenzene	180	15.313	15.304	0.009	89	2718	50.0	55.3	M
S 129 Xylenes, Total	106				0		100.0	107.3	
S 130 1,2-Dichloroethene, Total	96				0		100.0	89.1	
S 131 1,3-Dichloropropene, Total	1				0		100.0	100.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00084	Amount Added:	2.00	Units: uL
VOAACROPRI_00002	Amount Added:	15.00	Units: uL
voaWVA pri Re_00003	Amount Added:	2.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA8260SURR_00017	Amount Added:	2.00	Units: uL

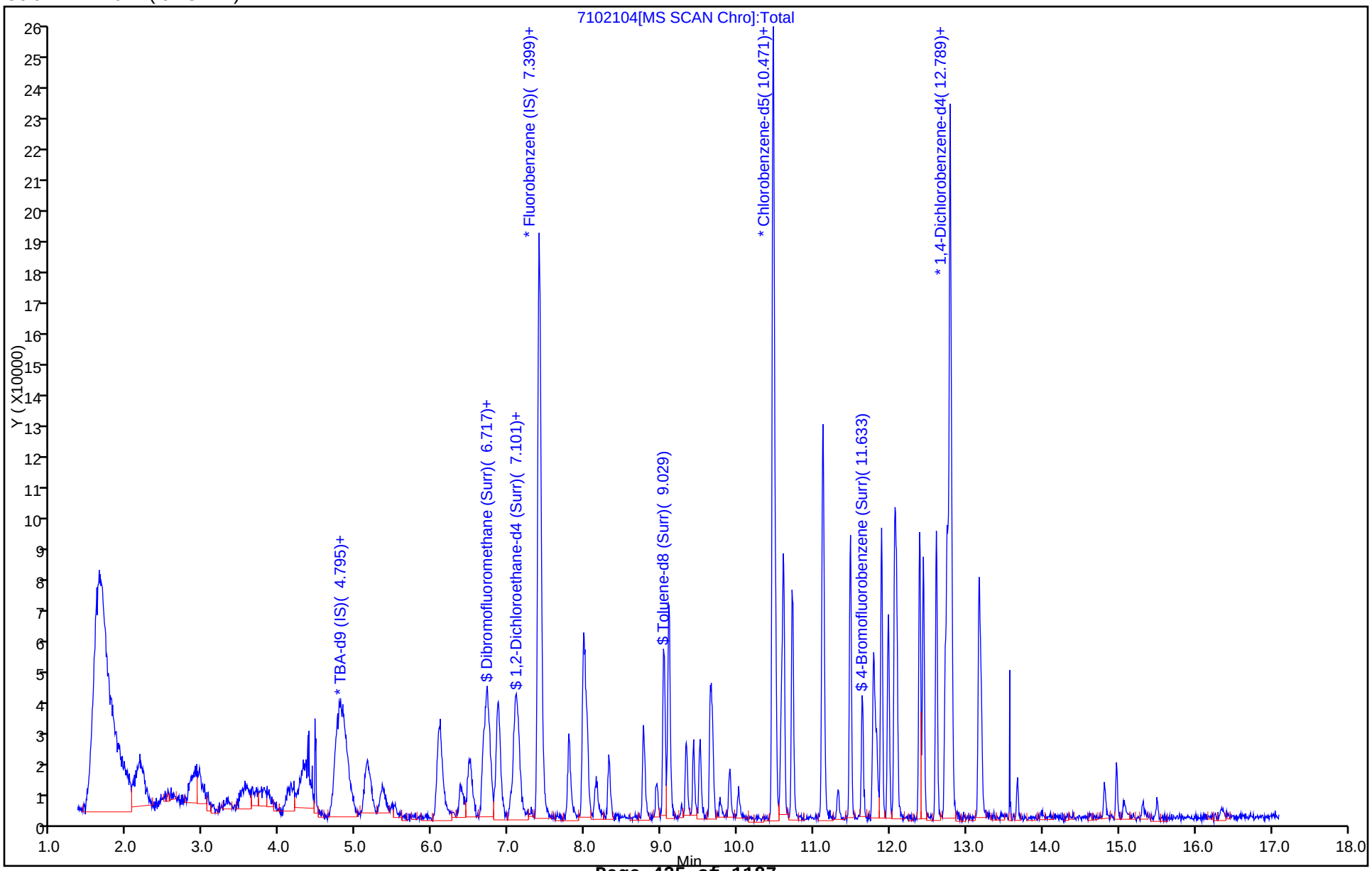
Report Date: 23-Oct-2014 09:06:30 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D

Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

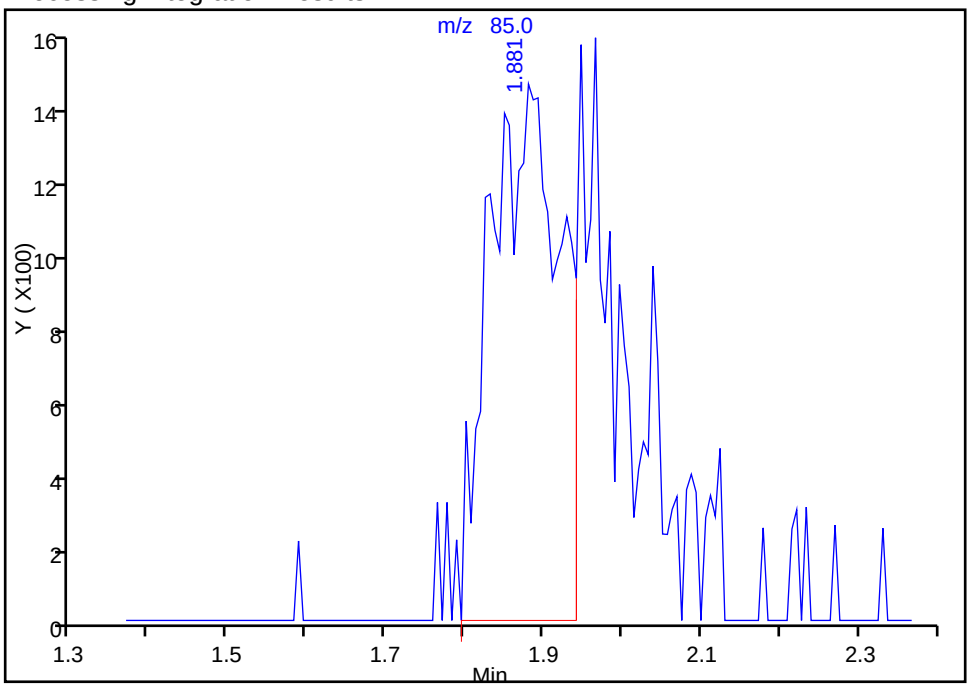
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

10 Dichlorodifluoromethane, CAS: 75-71-8

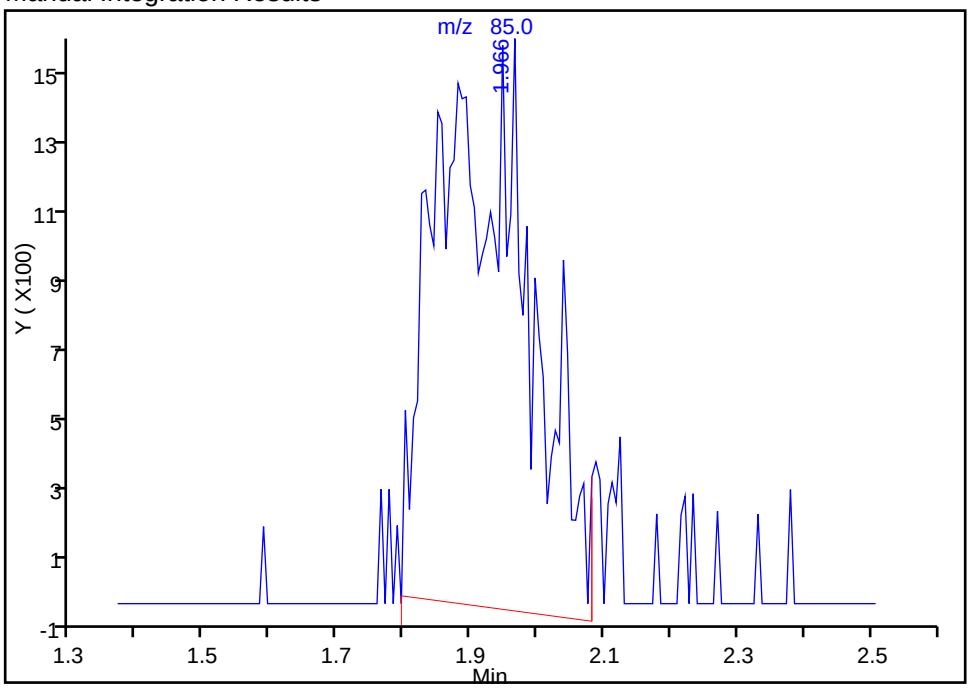
Processing Integration Results

RT: 1.88
Response: 8710
Amount: 28.675860



Manual Integration Results

RT: 1.97
Response: 14311
Amount: 41.202173



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

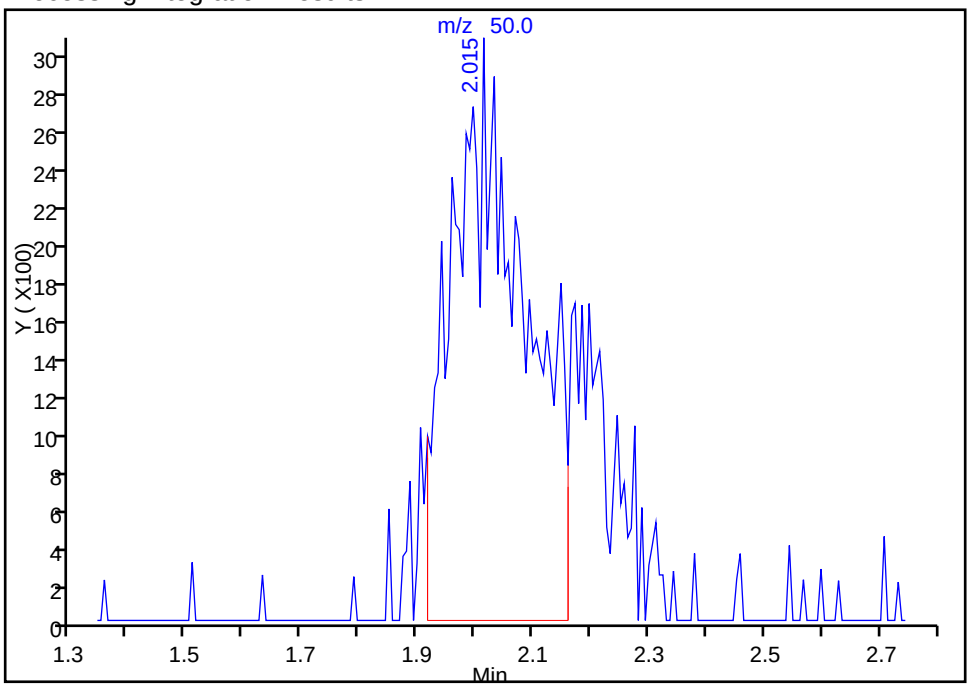
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

11 Chloromethane, CAS: 74-87-3

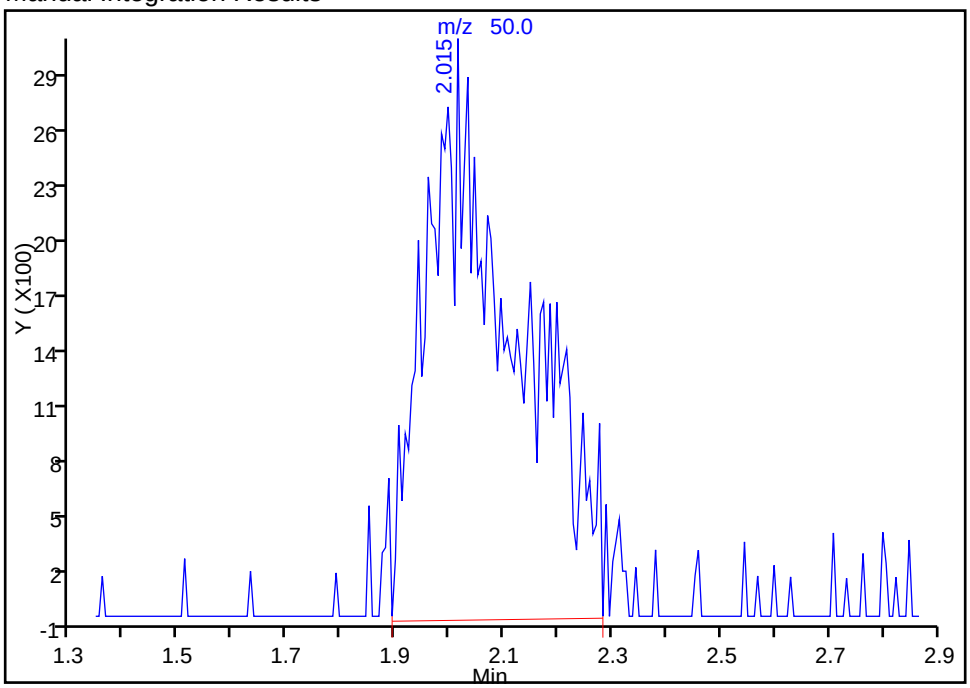
Processing Integration Results

RT: 2.01
Response: 26283
Amount: 39.962375



Manual Integration Results

RT: 2.01
Response: 34586
Amount: 44.832036



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

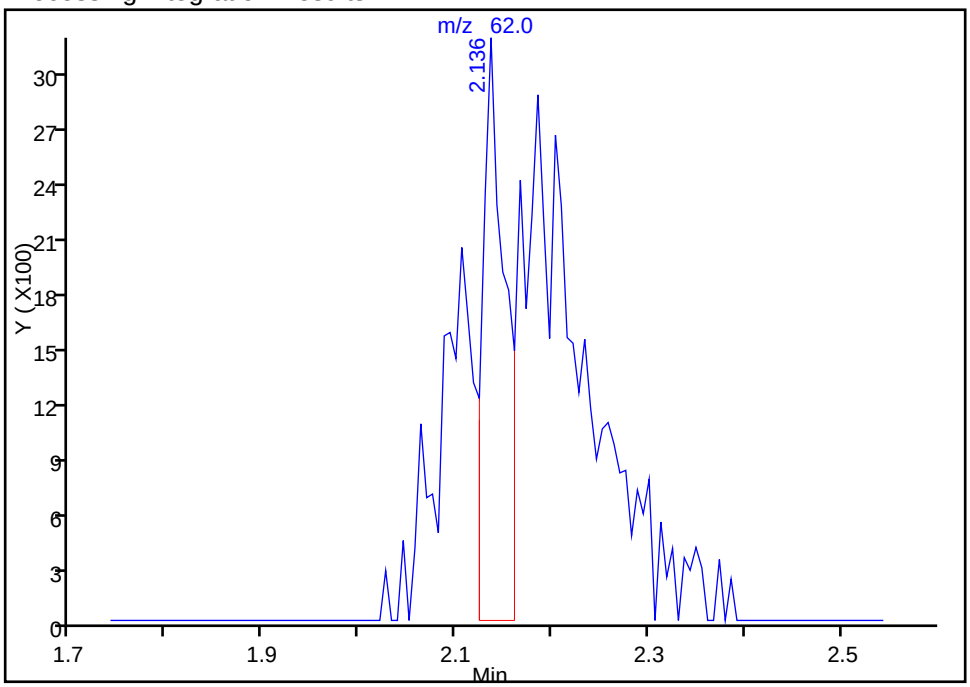
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Vinyl chloride, CAS: 75-01-4

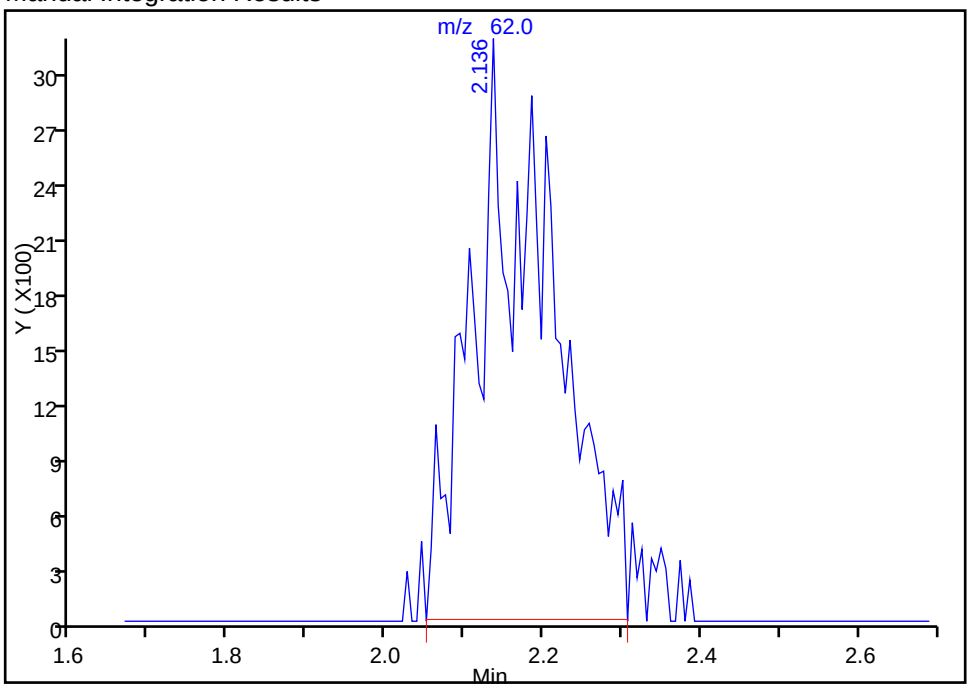
Processing Integration Results

RT: 2.14
Response: 5194
Amount: 12.185534



Manual Integration Results

RT: 2.14
Response: 21832
Amount: 43.082851



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

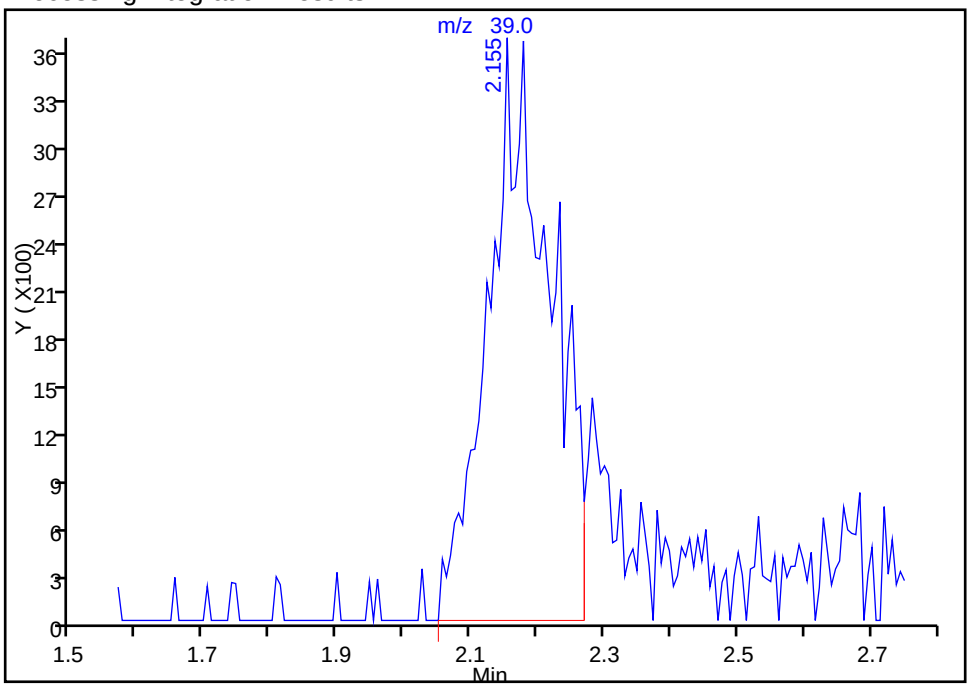
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

13 Butadiene, CAS: 106-99-0

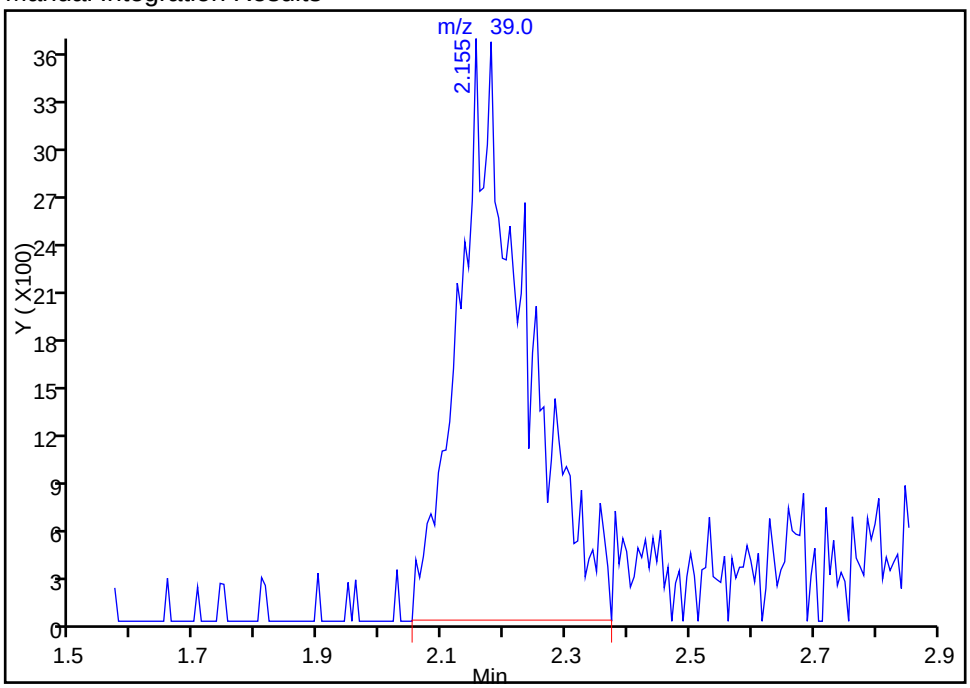
Processing Integration Results

RT: 2.15
Response: 23441
Amount: 38.608102



Manual Integration Results

RT: 2.15
Response: 27352
Amount: 46.307948



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

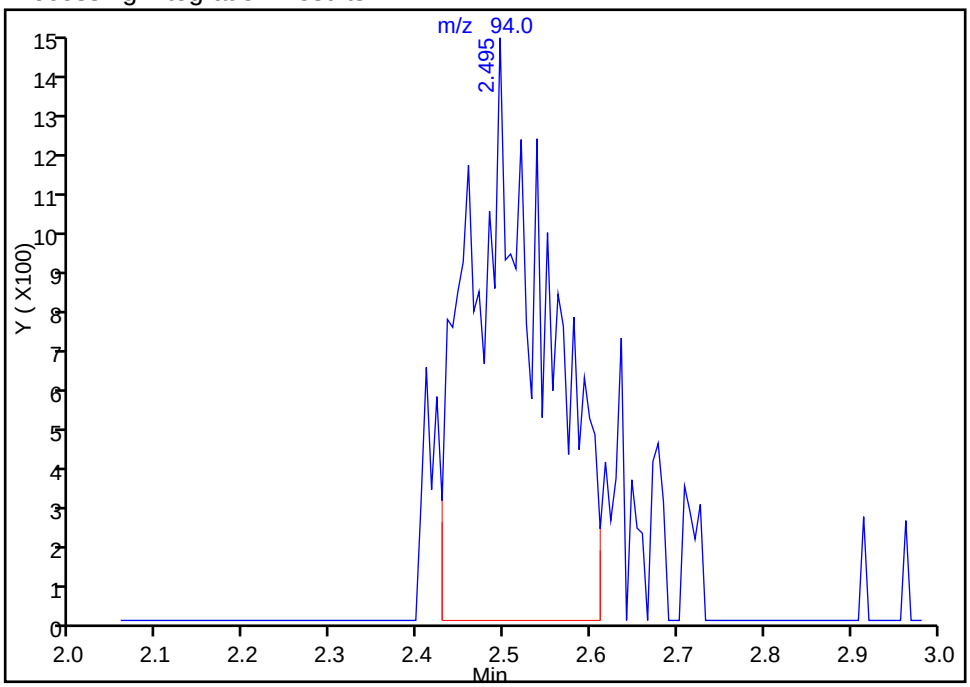
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Bromomethane, CAS: 74-83-9

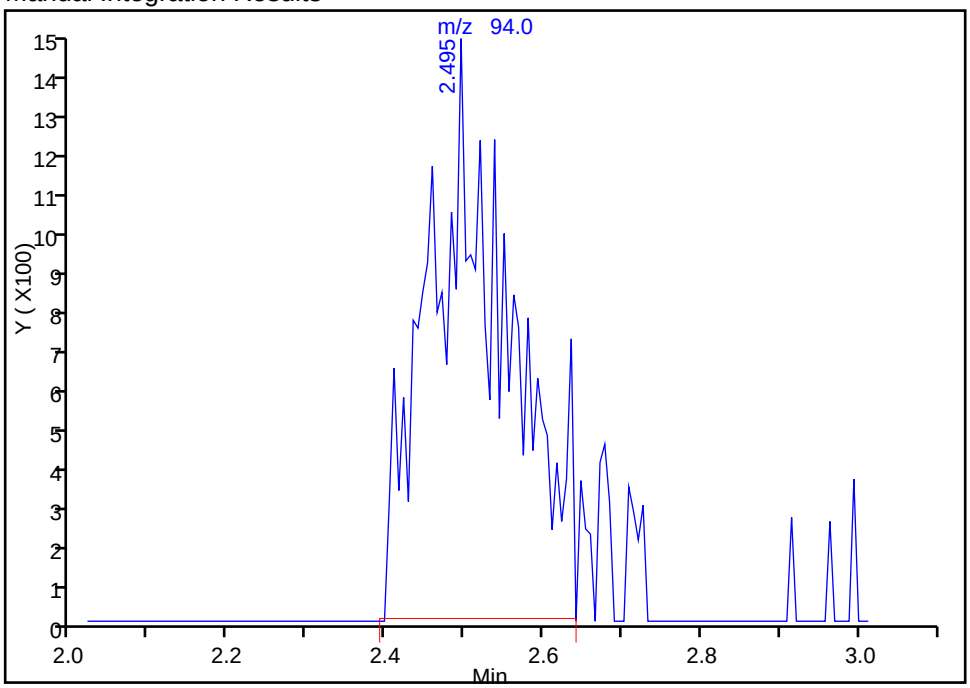
Processing Integration Results

RT: 2.50
Response: 8696
Amount: 47.043499



Manual Integration Results

RT: 2.50
Response: 9887
Amount: 50.425841



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

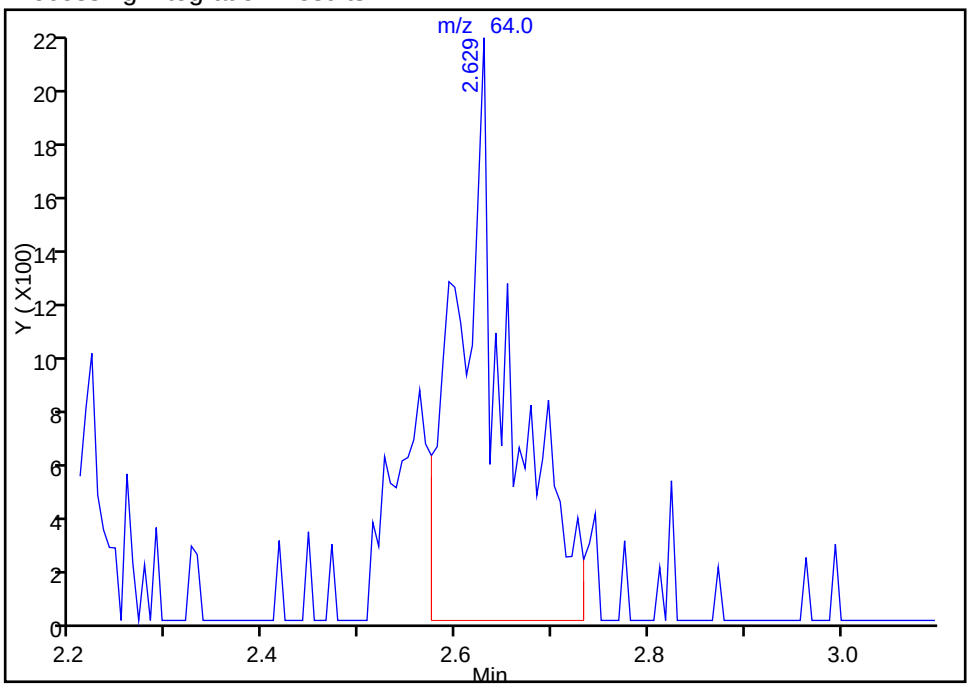
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

15 Chloroethane, CAS: 75-00-3

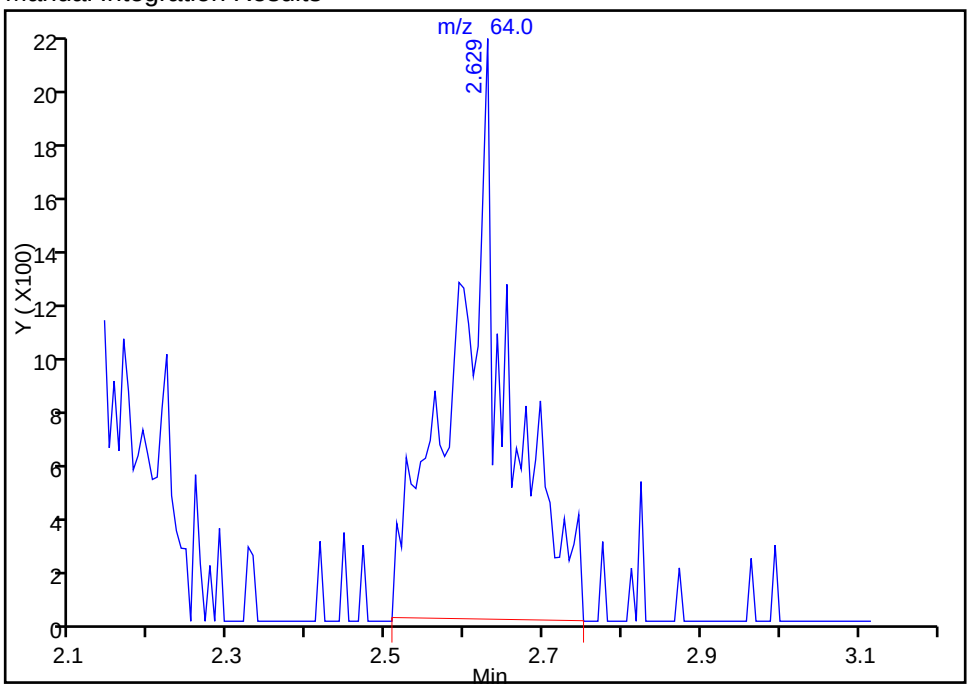
Processing Integration Results

RT: 2.63
Response: 7943
Amount: 38.083714



Manual Integration Results

RT: 2.63
Response: 10161
Amount: 44.640419



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

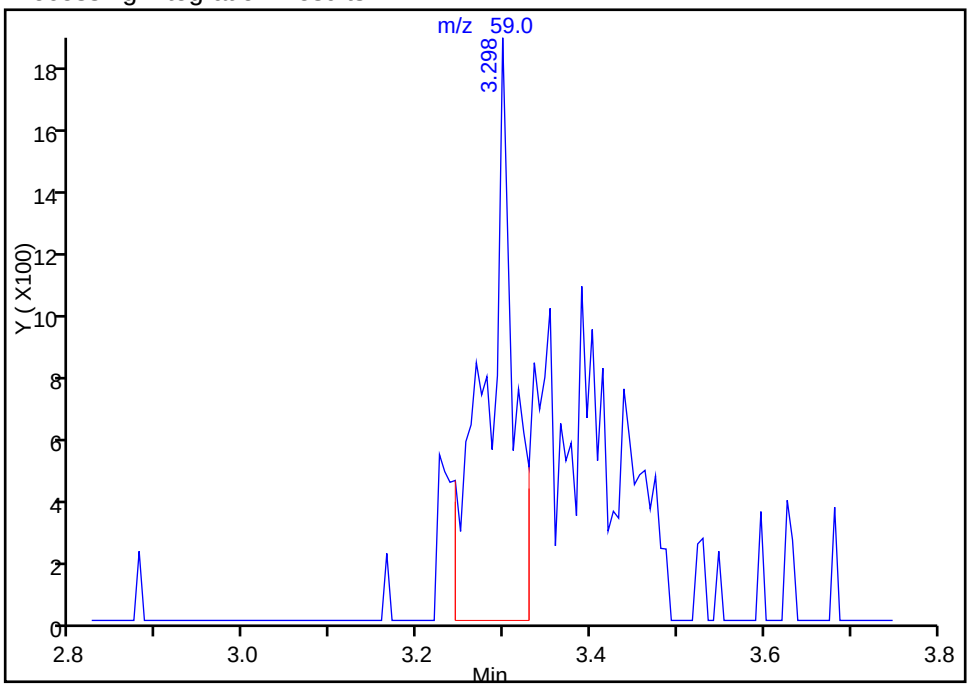
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

19 Ethyl ether, CAS: 60-29-7

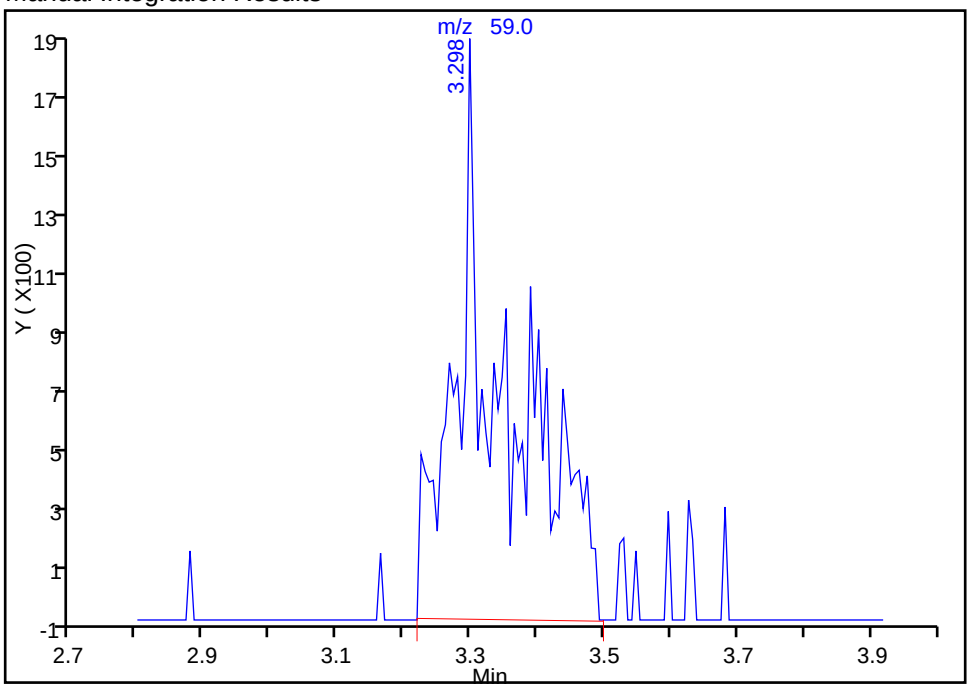
Processing Integration Results

RT: 3.30
Response: 3996
Amount: 24.337892



Manual Integration Results

RT: 3.30
Response: 9764
Amount: 43.083500



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

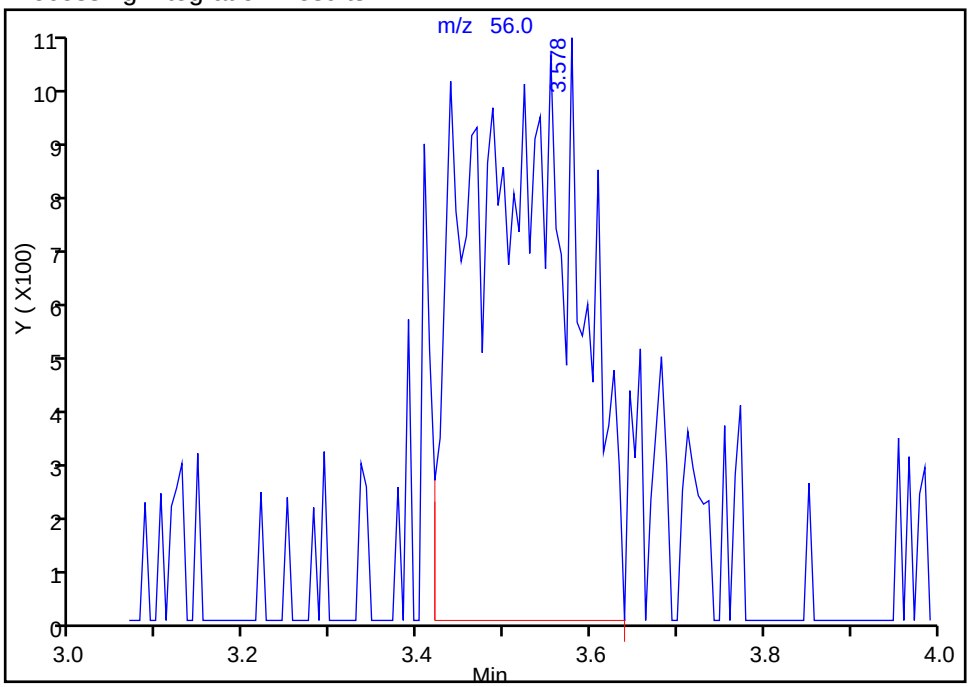
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 Acrolein, CAS: 107-02-8

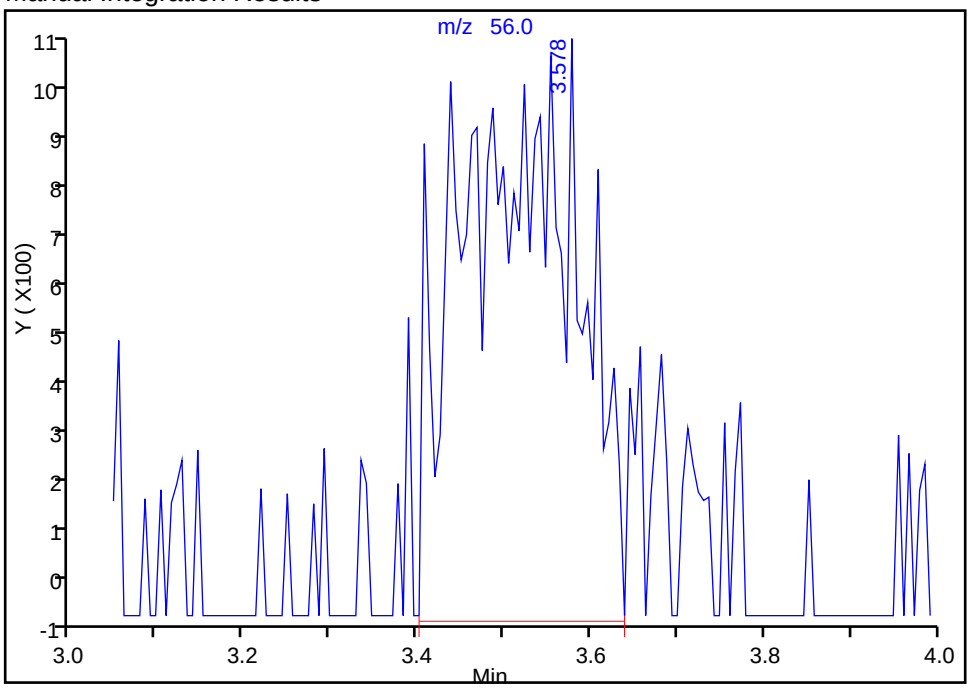
Processing Integration Results

RT: 3.58
Response: 8654
Amount: 382.6581



Manual Integration Results

RT: 3.58
Response: 9282
Amount: 277.8705



Reviewer: journetp, 21-Oct-2014 13:15:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

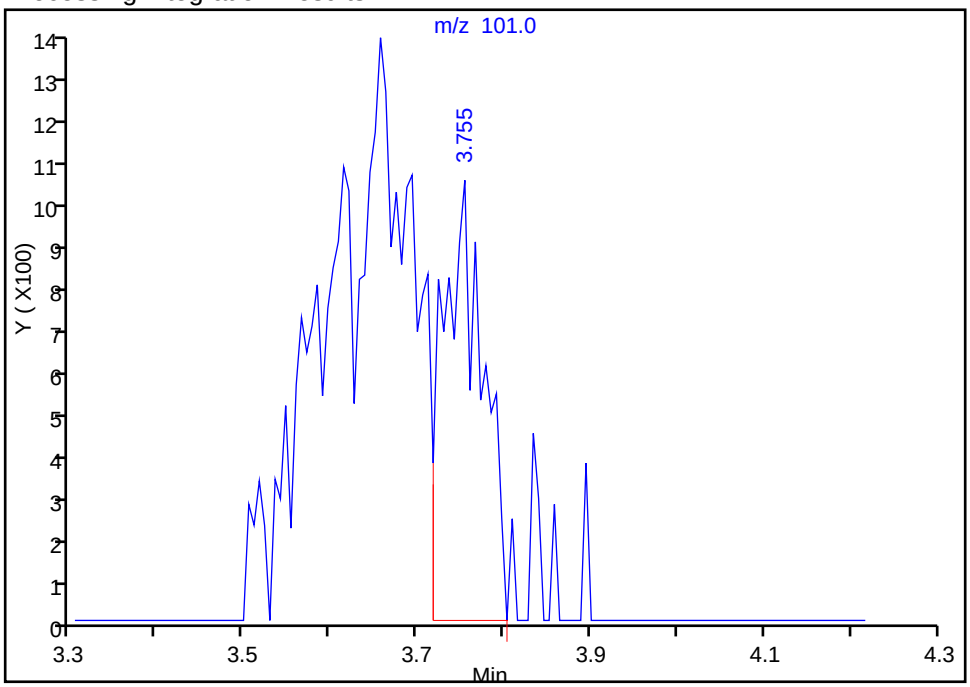
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

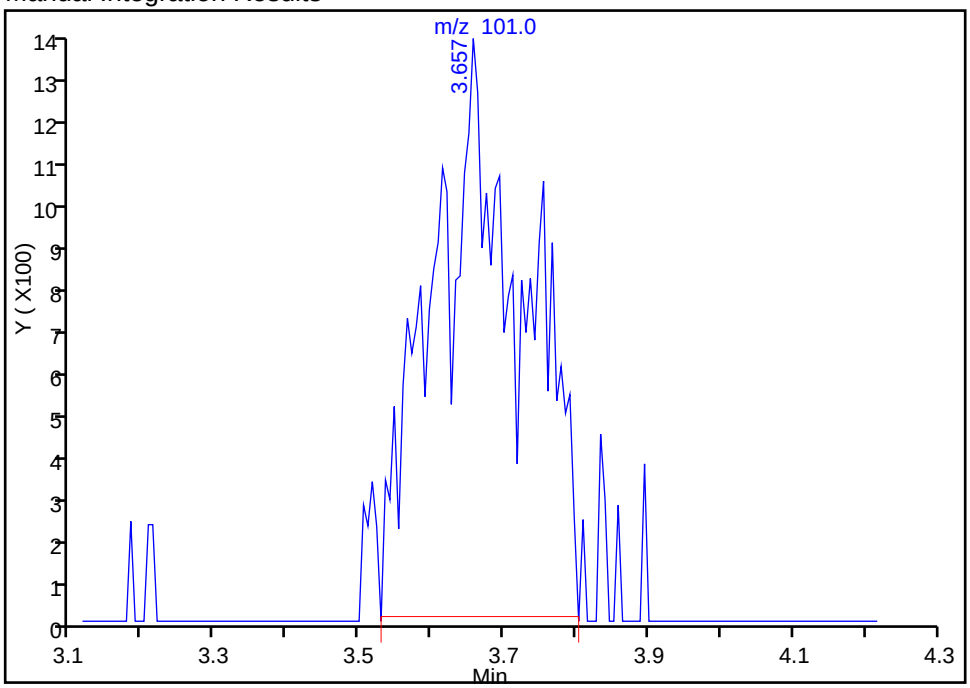
Processing Integration Results

RT: 3.75
Response: 3304
Amount: 14.993437



Manual Integration Results

RT: 3.66
Response: 11792
Amount: 43.693454



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

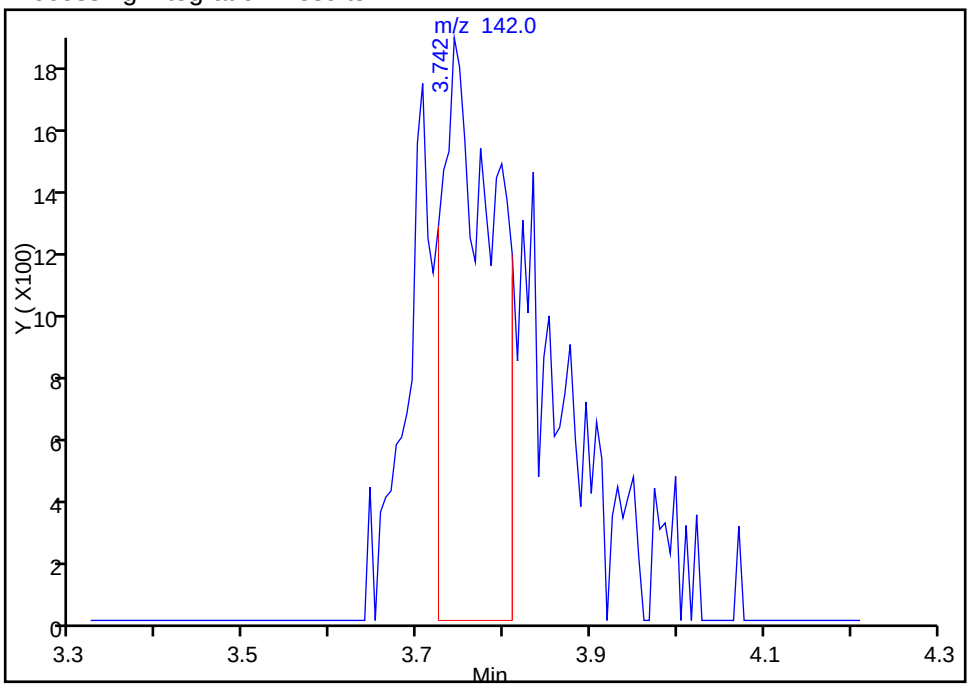
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 Iodomethane, CAS: 74-88-4

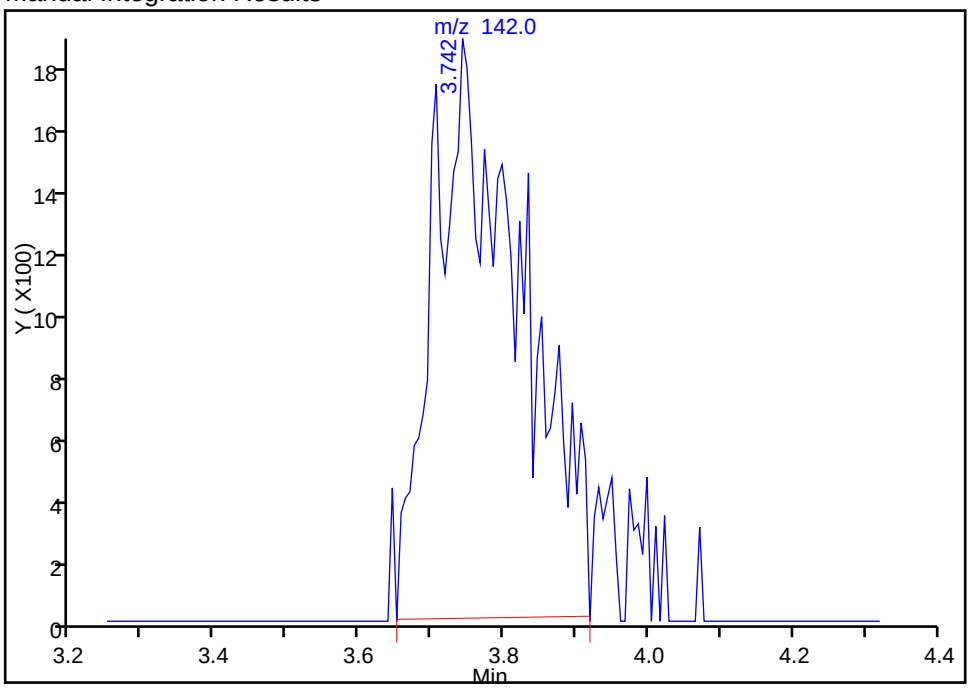
Processing Integration Results

RT: 3.74
Response: 7635
Amount: 27.327386



Manual Integration Results

RT: 3.74
Response: 15462
Amount: 40.916527



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

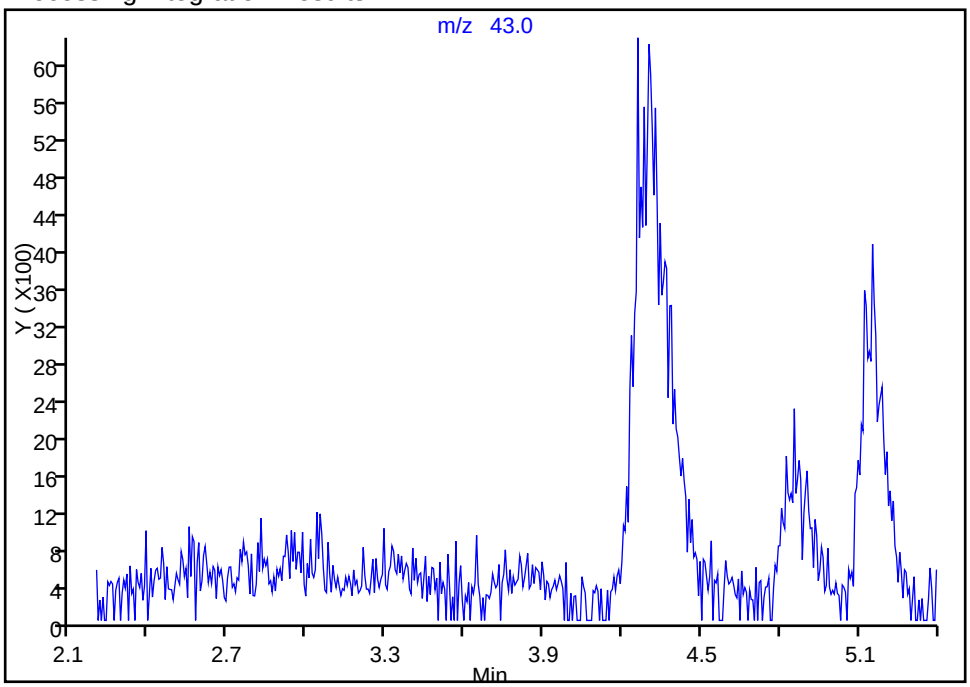
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

25 Acetone, CAS: 67-64-1

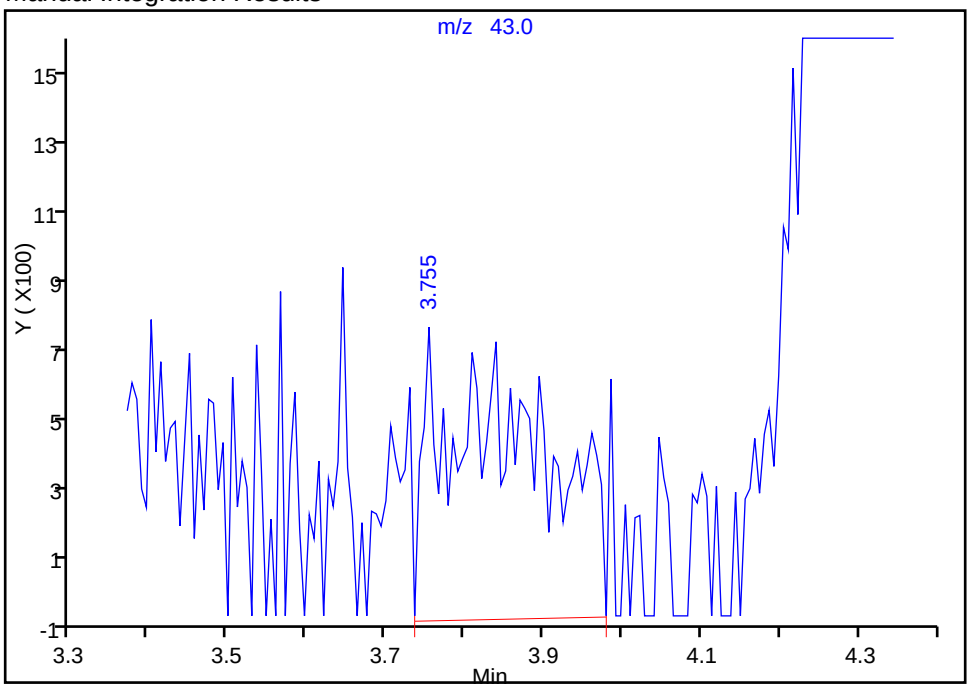
Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.75
Response: 6489
Amount: 63.127013



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

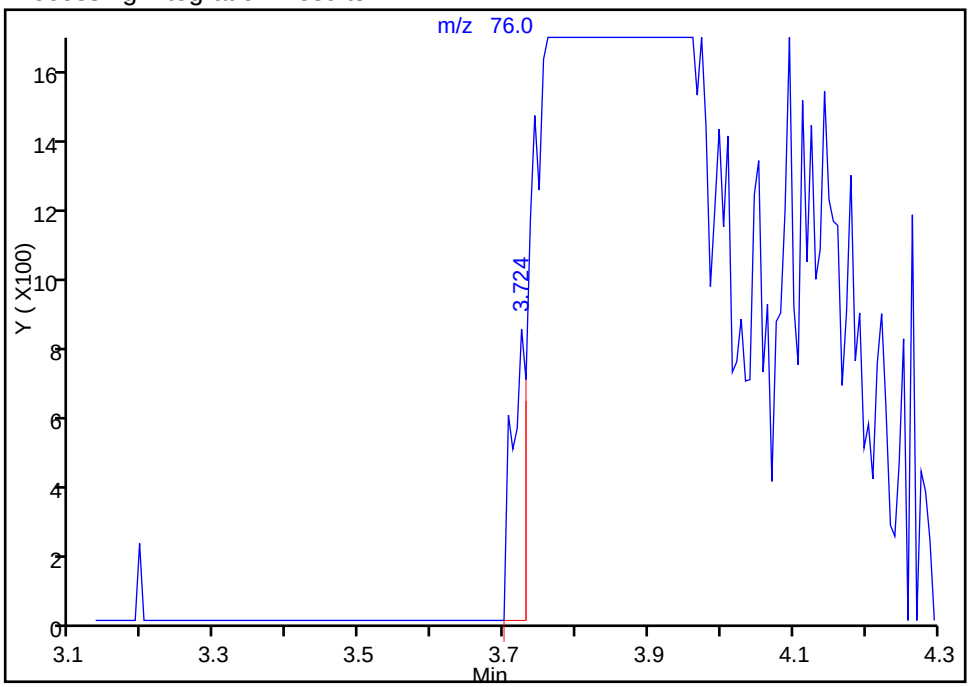
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Carbon disulfide, CAS: 75-15-0

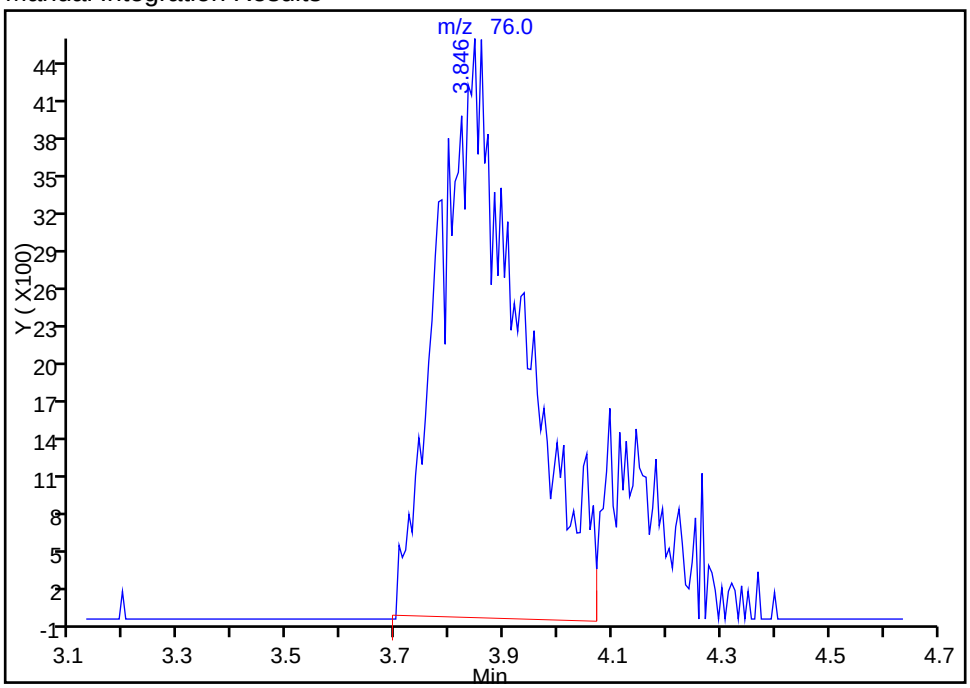
Processing Integration Results

RT: 3.72
Response: 1122
Amount: 1.443555



Manual Integration Results

RT: 3.85
Response: 46895
Amount: 49.307148



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

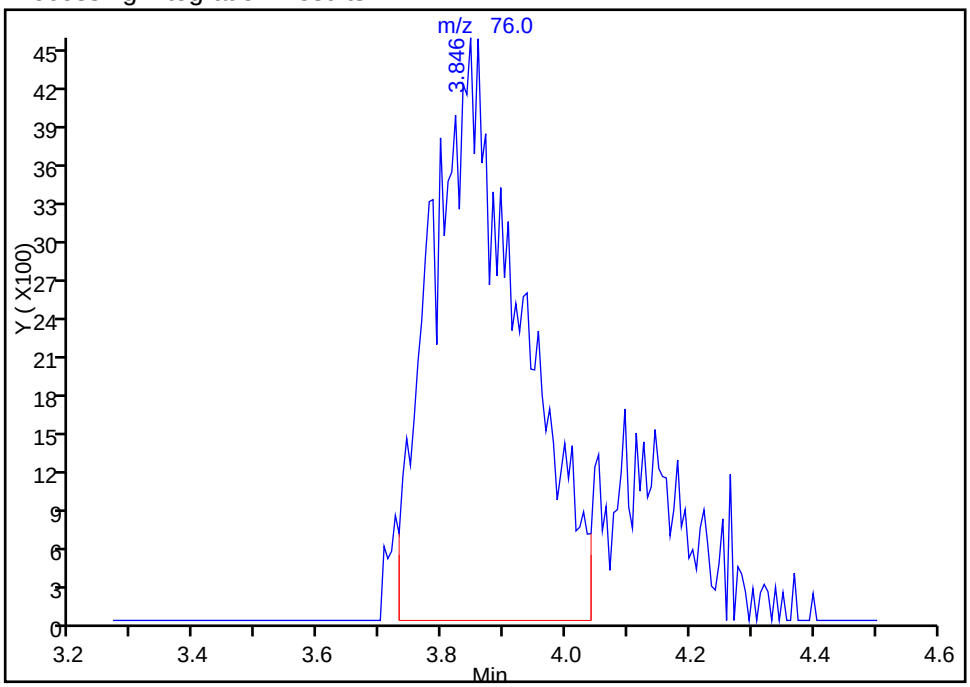
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 3-Chloro-1-propene, CAS: 107-05-1

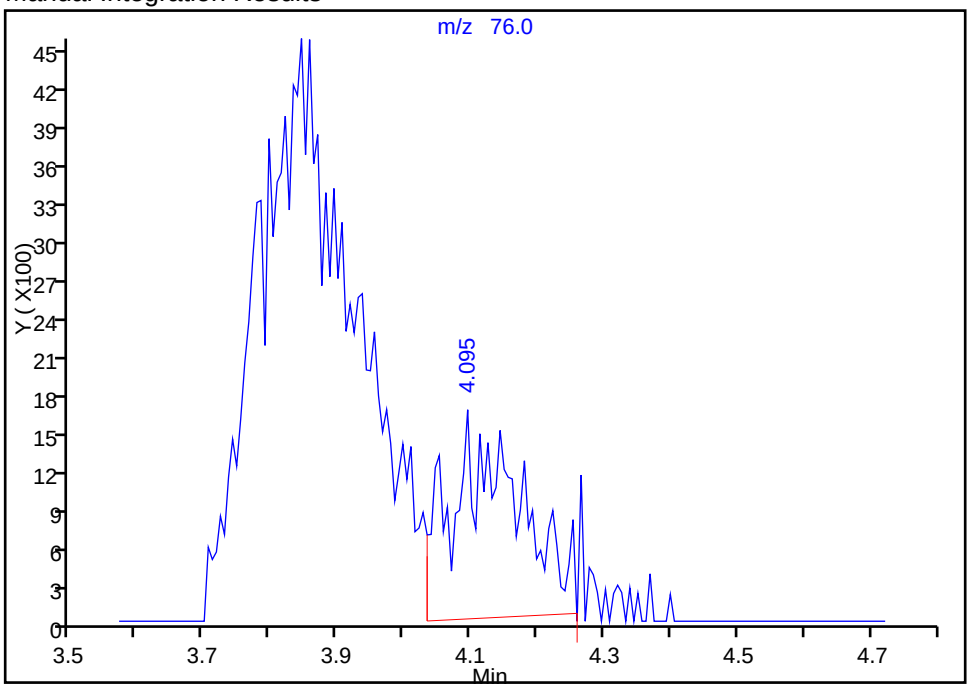
Processing Integration Results

RT: 3.85
Response: 44548
Amount: 97.512766



Manual Integration Results

RT: 4.10
Response: 11310
Amount: 39.415638



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

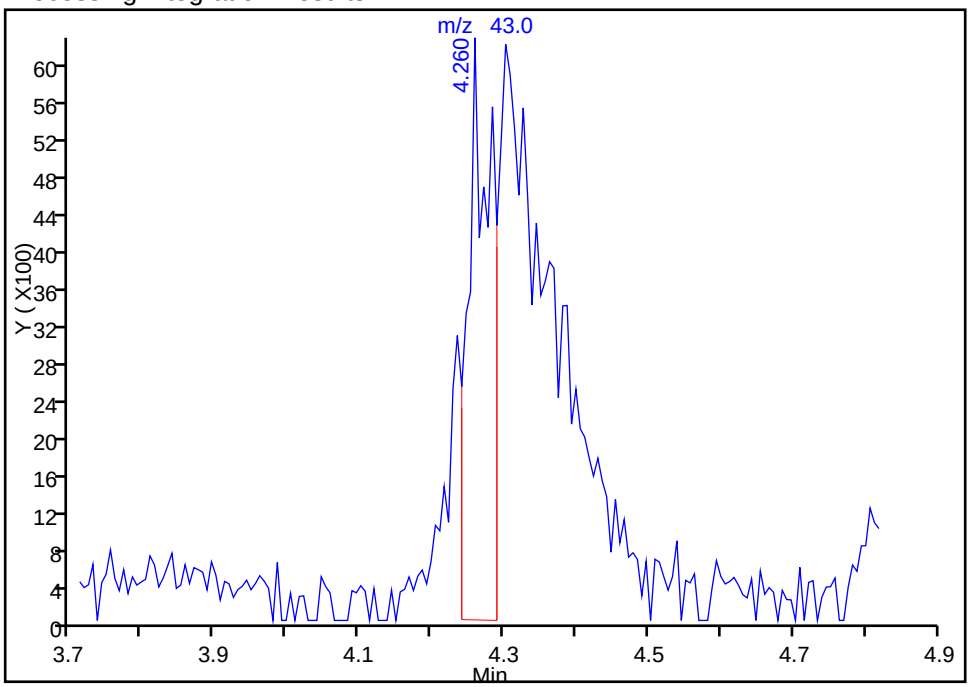
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

29 Methyl acetate, CAS: 79-20-9

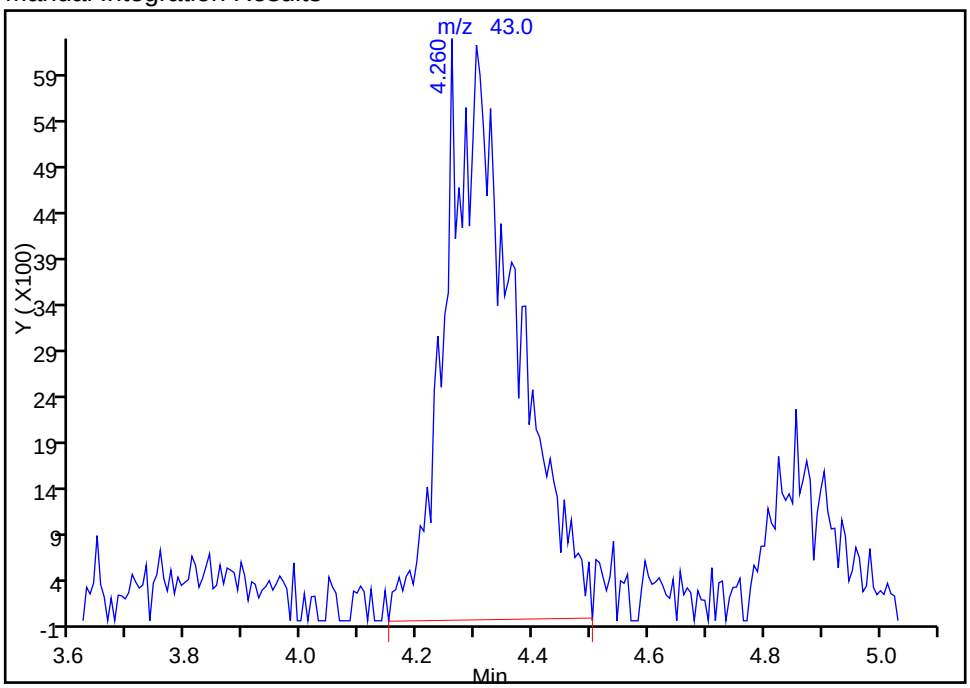
Processing Integration Results

RT: 4.26
Response: 13882
Amount: 80.329183



Manual Integration Results

RT: 4.26
Response: 51924
Amount: 240.5973



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

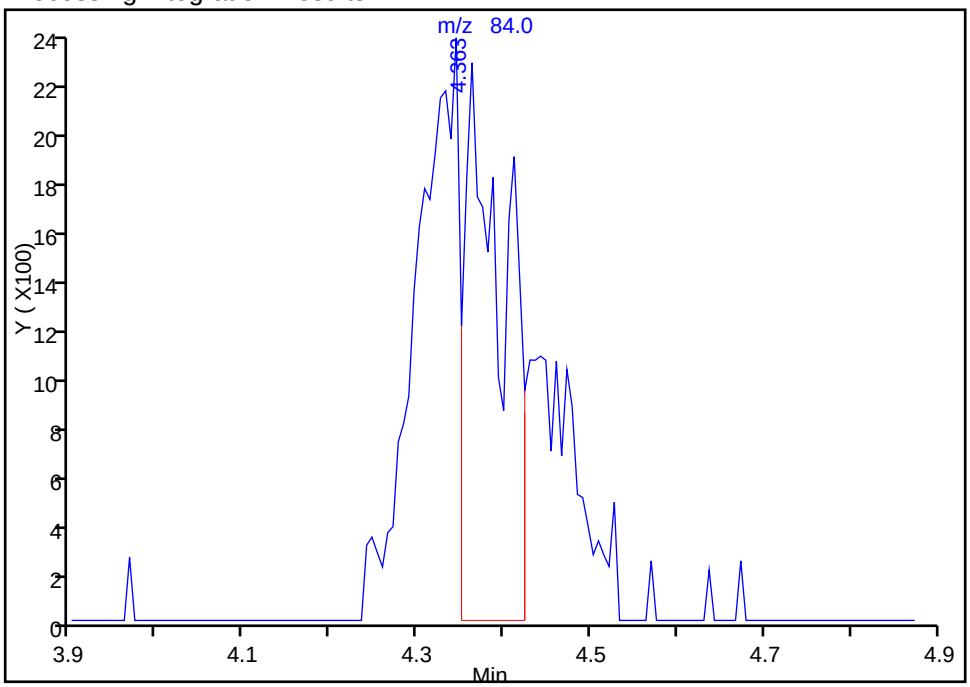
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

30 Methylene Chloride, CAS: 75-09-2

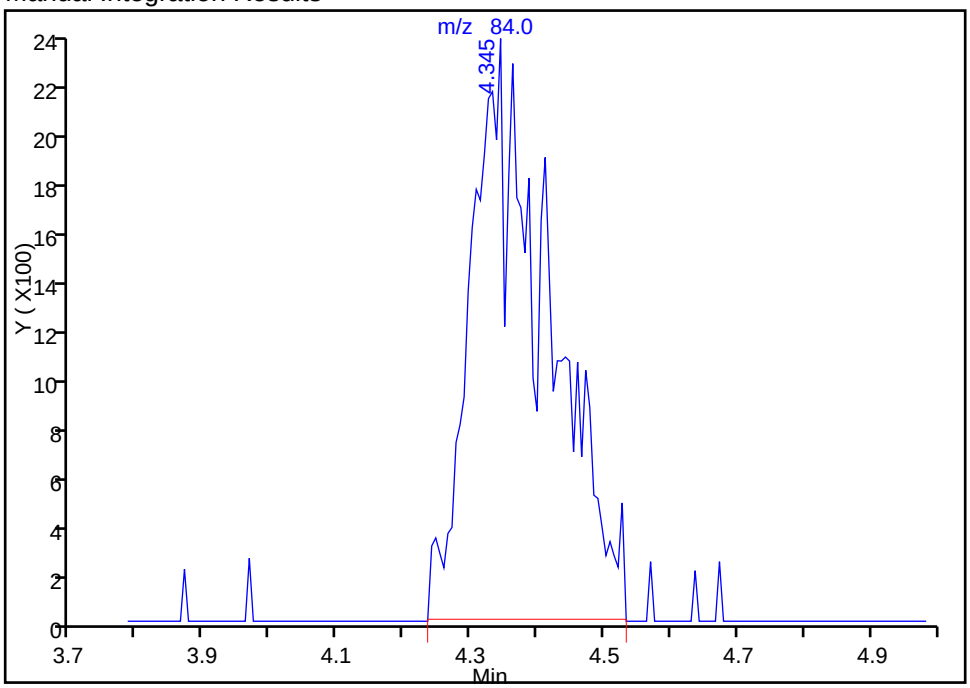
Processing Integration Results

RT: 4.36
Response: 7060
Amount: 22.712742



Manual Integration Results

RT: 4.34
Response: 18660
Amount: 54.572010



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

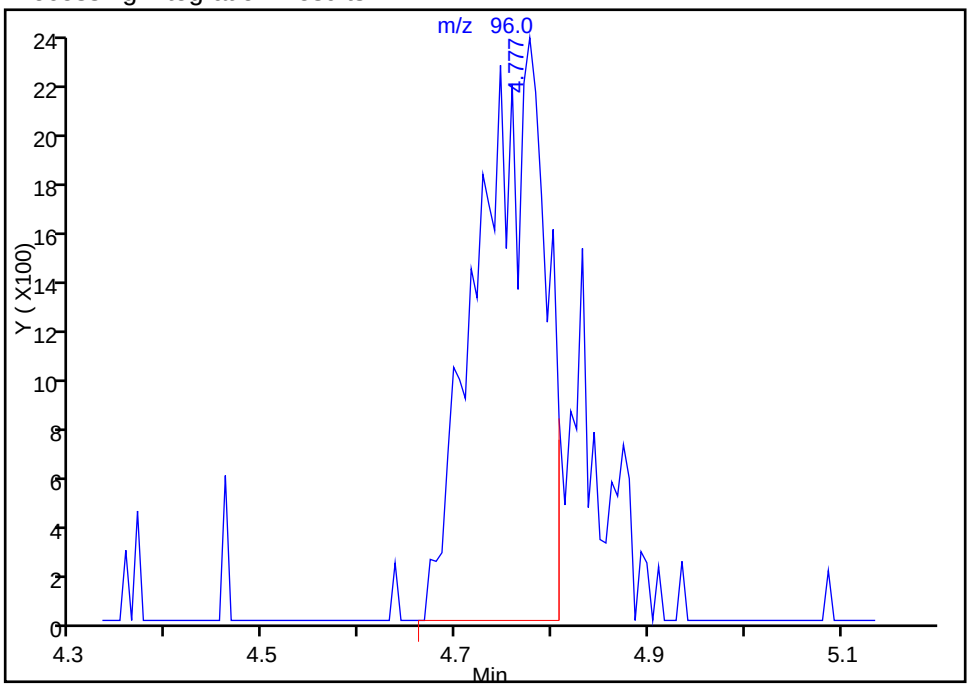
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

31 trans-1,2-Dichloroethene, CAS: 156-60-5

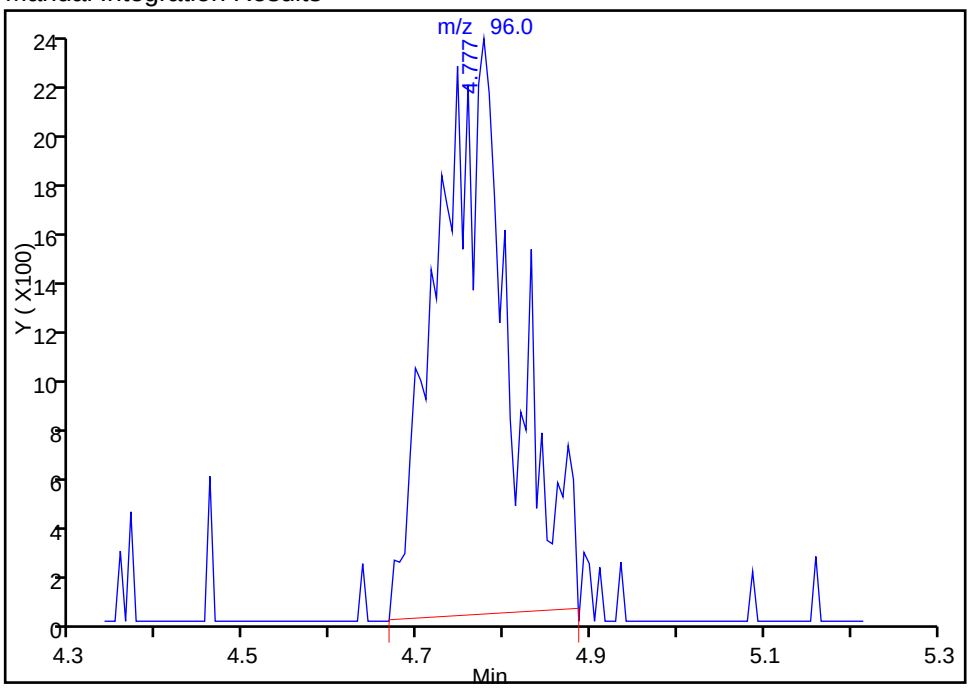
Processing Integration Results

RT: 4.78
Response: 11406
Amount: 37.247666



Manual Integration Results

RT: 4.78
Response: 13850
Amount: 43.537212



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

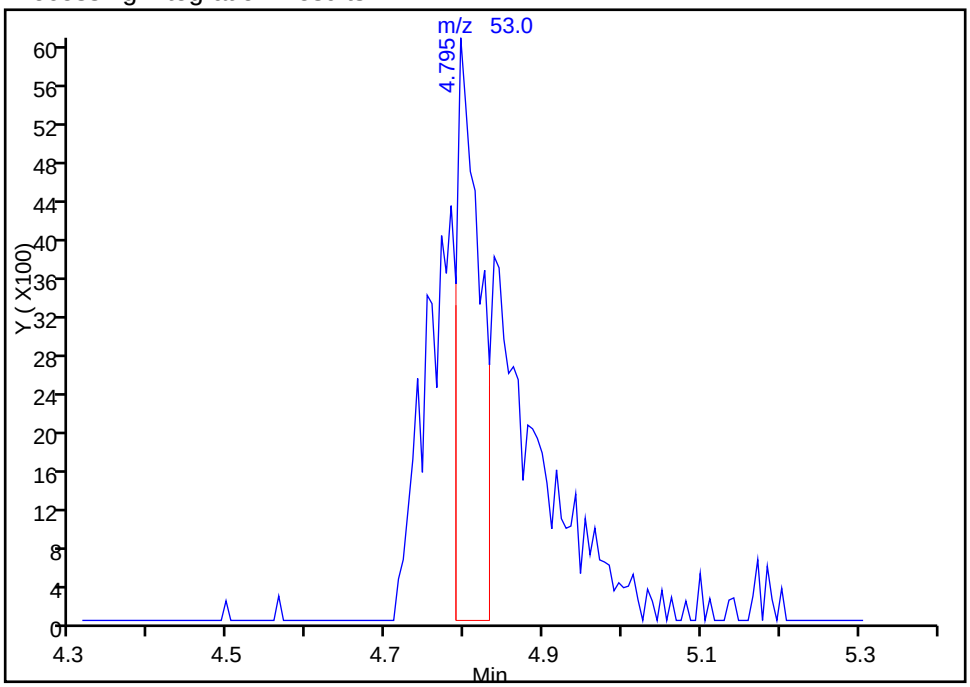
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 Acrylonitrile, CAS: 107-13-1

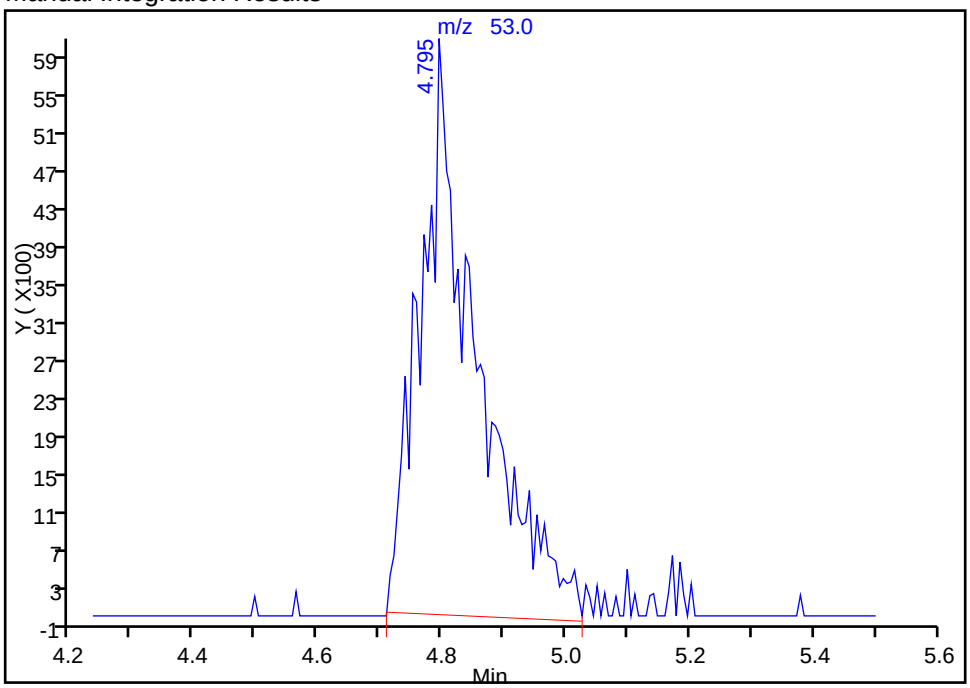
Processing Integration Results

RT: 4.79
Response: 12274
Amount: 182.9191



Manual Integration Results

RT: 4.79
Response: 38514
Amount: 454.5174



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

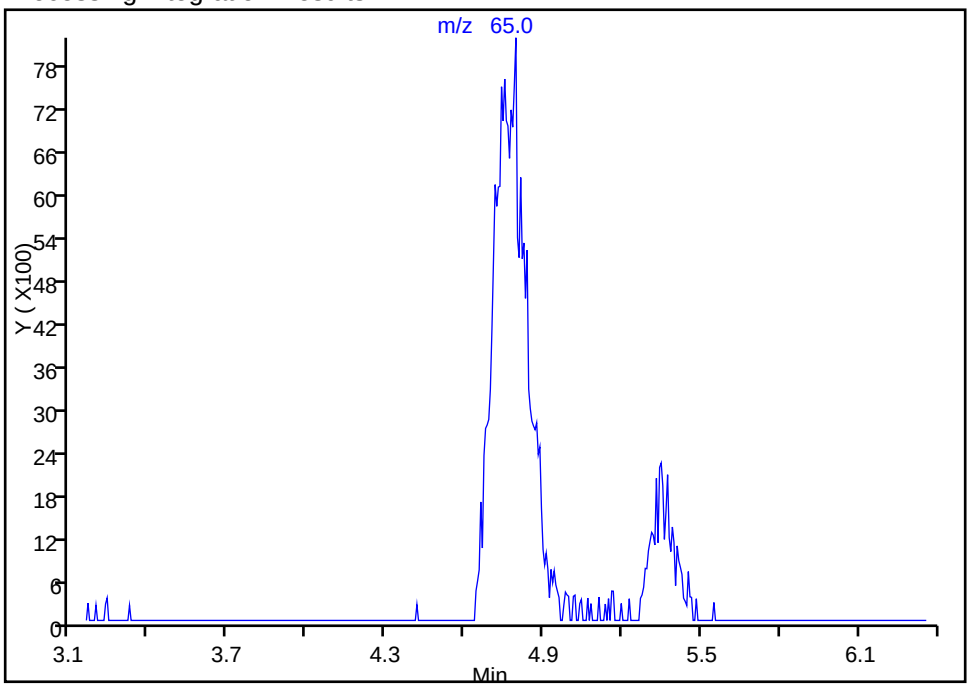
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

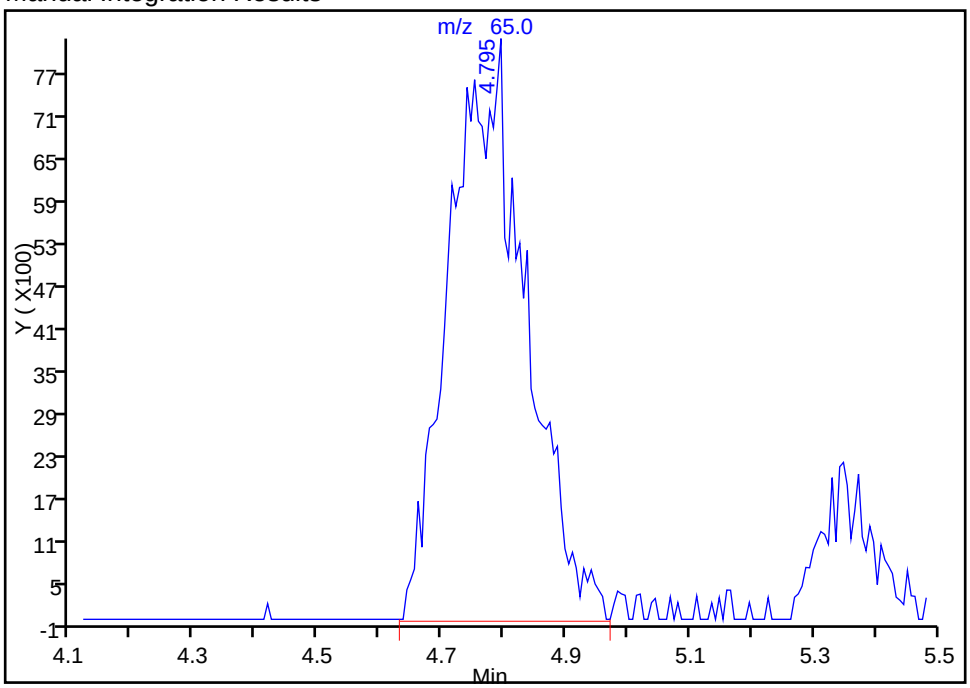
Not Detected
Expected RT: 4.76

Processing Integration Results



Manual Integration Results

RT: 4.79
Response: 70422
Amount: 5000.0000



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

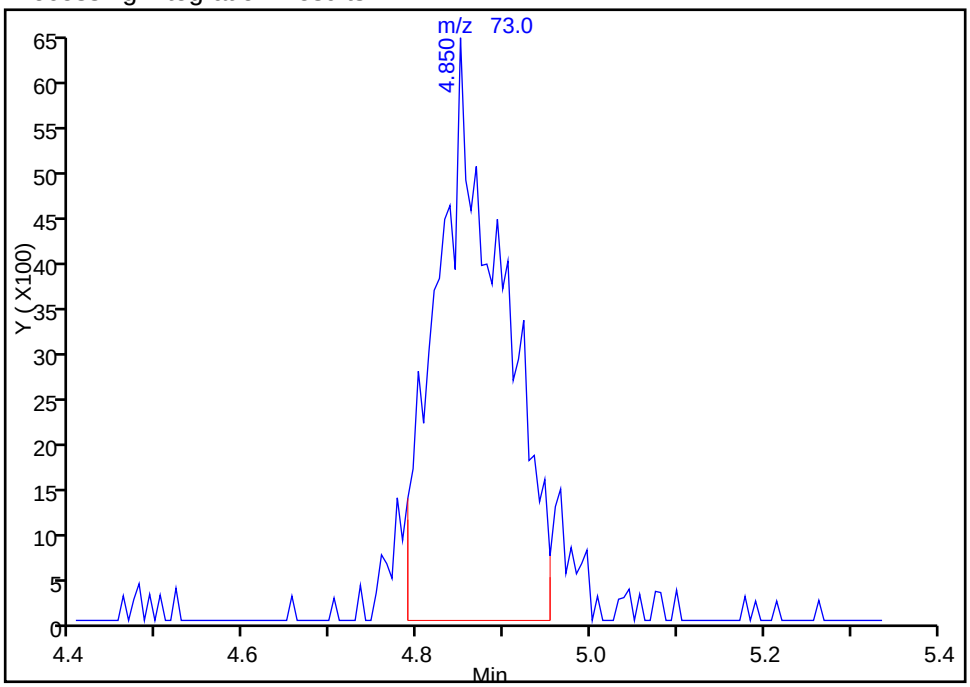
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Methyl tert-butyl ether, CAS: 1634-04-4

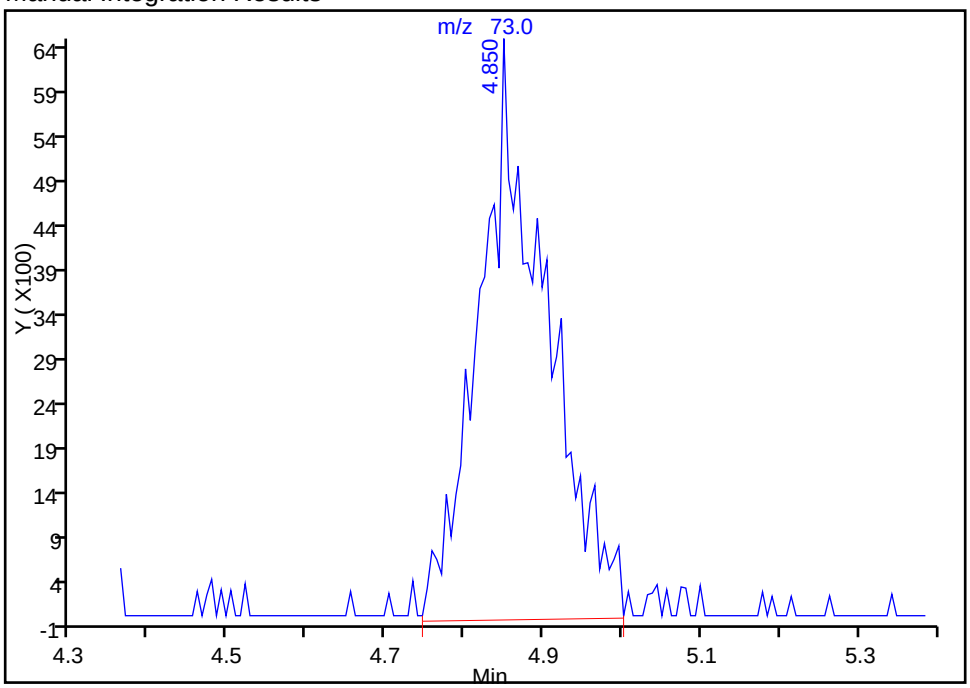
Processing Integration Results

RT: 4.85
Response: 33602
Amount: 43.490586



Manual Integration Results

RT: 4.85
Response: 38078
Amount: 48.280838



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

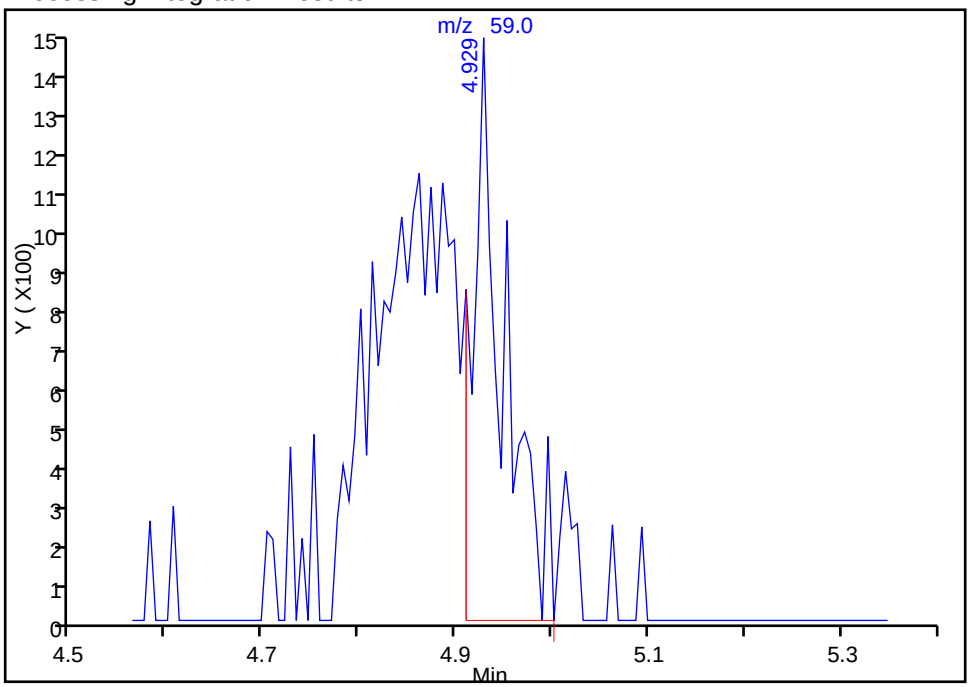
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

34 2-Methyl-2-propanol, CAS: 75-65-0

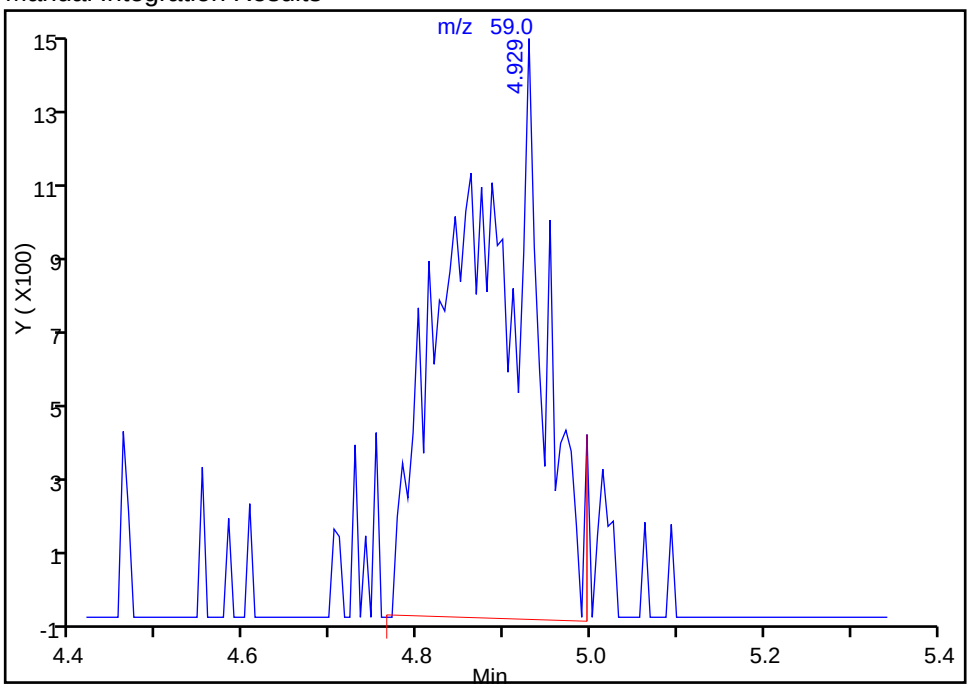
Processing Integration Results

RT: 4.93
Response: 3299
Amount: 286.9668



Manual Integration Results

RT: 4.93
Response: 9489
Amount: 496.8458



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

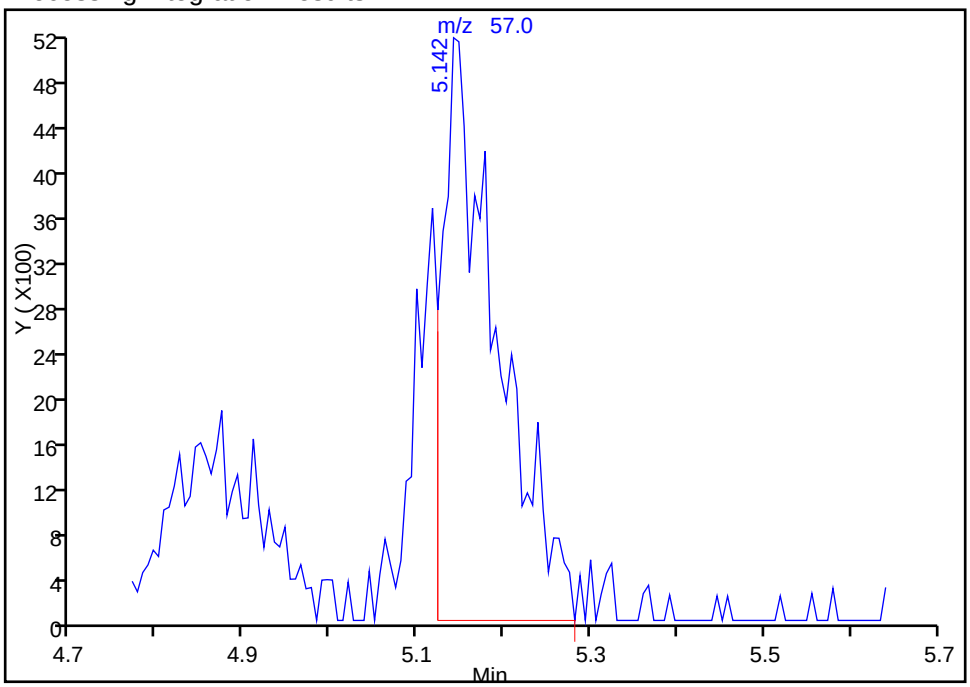
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D				
Injection Date:	21-Oct-2014 10:13:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

35 Hexane, CAS: 110-54-3

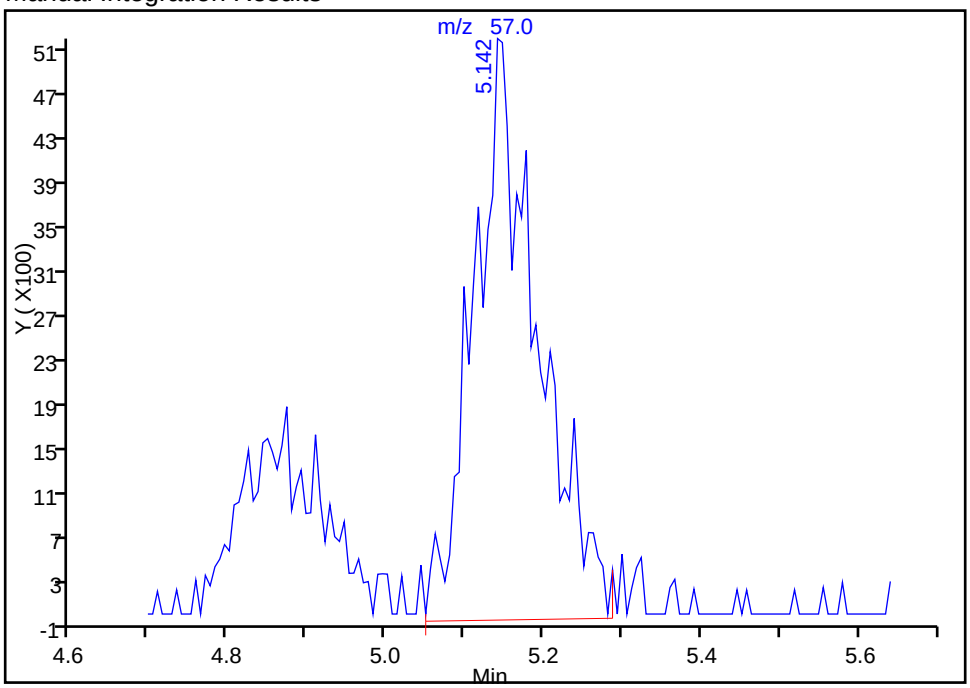
Processing Integration Results

RT: 5.14
Response: 22540
Amount: 41.541260



Manual Integration Results

RT: 5.14
Response: 29588
Amount: 53.511153



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

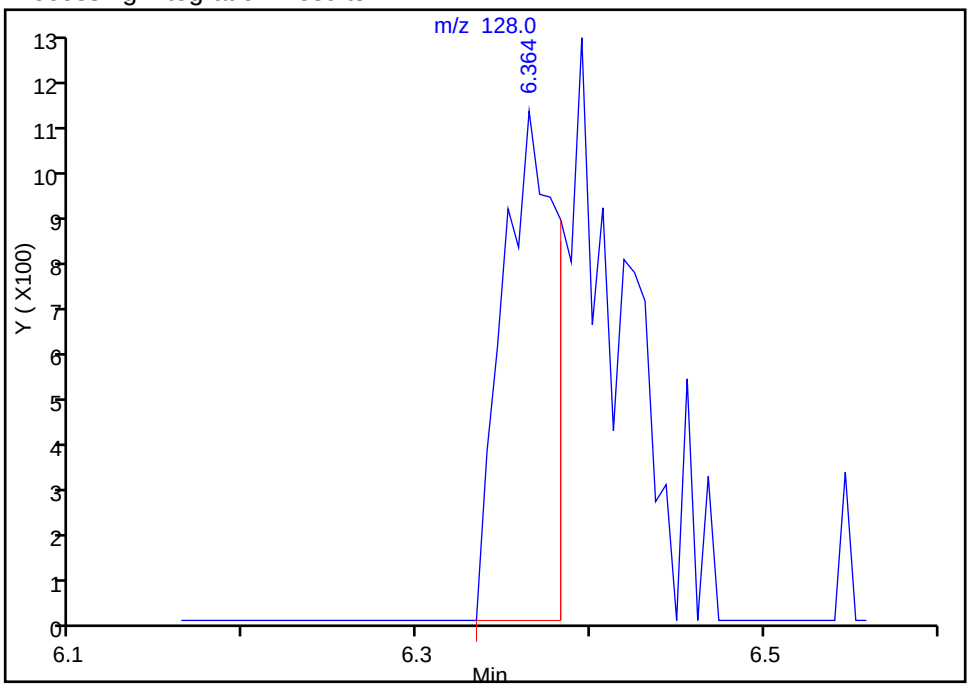
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

47 Chlorobromomethane, CAS: 74-97-5

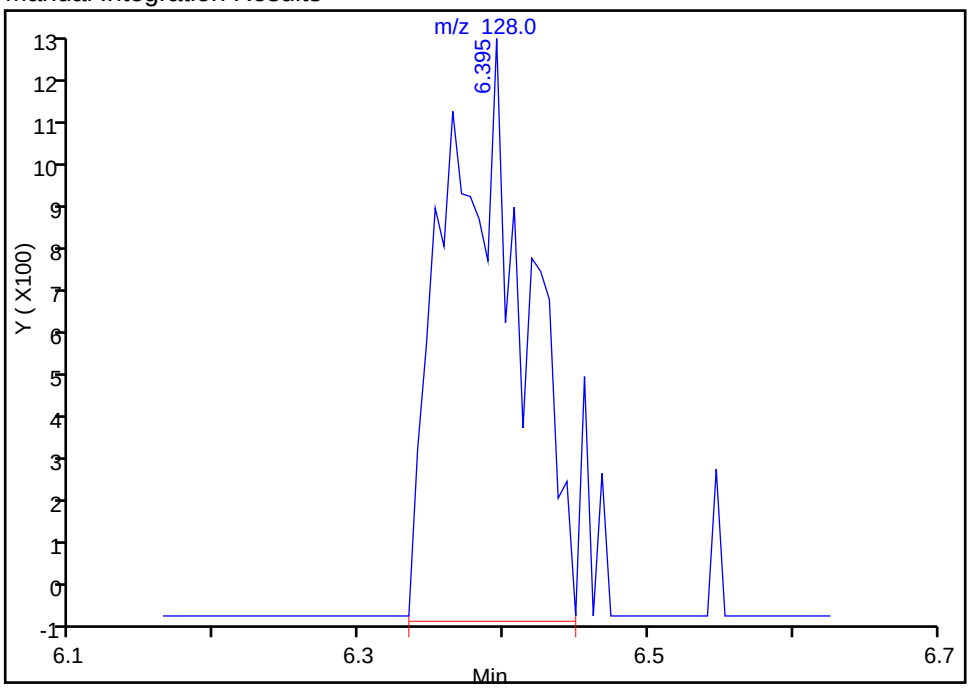
Processing Integration Results

RT: 6.36
Response: 2256
Amount: 19.910078



Manual Integration Results

RT: 6.39
Response: 4695
Amount: 39.034562



Reviewer: journetp, 22-Oct-2014 08:43:04
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

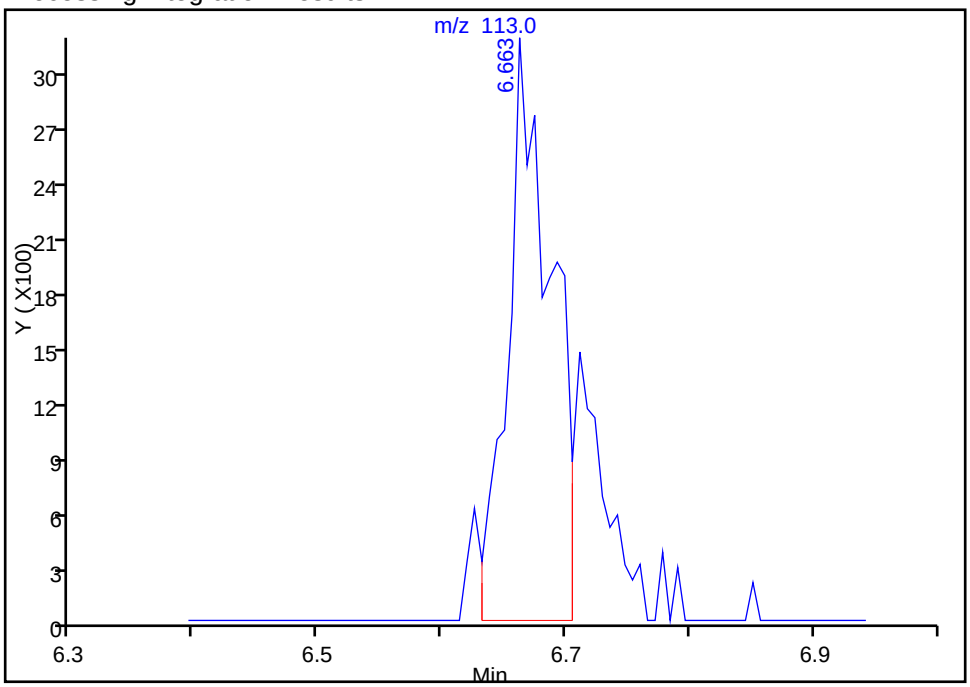
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

$ 5 Dibromofluoromethane (Surr), CAS: 1868-53-7

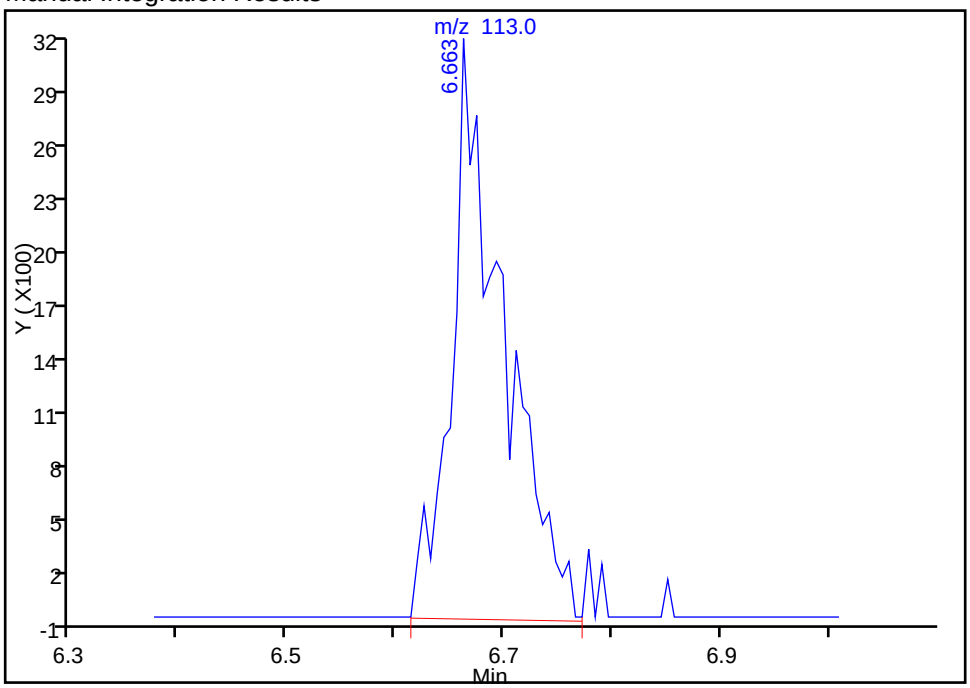
Processing Integration Results

RT: 6.66
Response: 7817
Amount: 55.832048



Manual Integration Results

RT: 6.66
Response: 10598
Amount: 48.549324



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

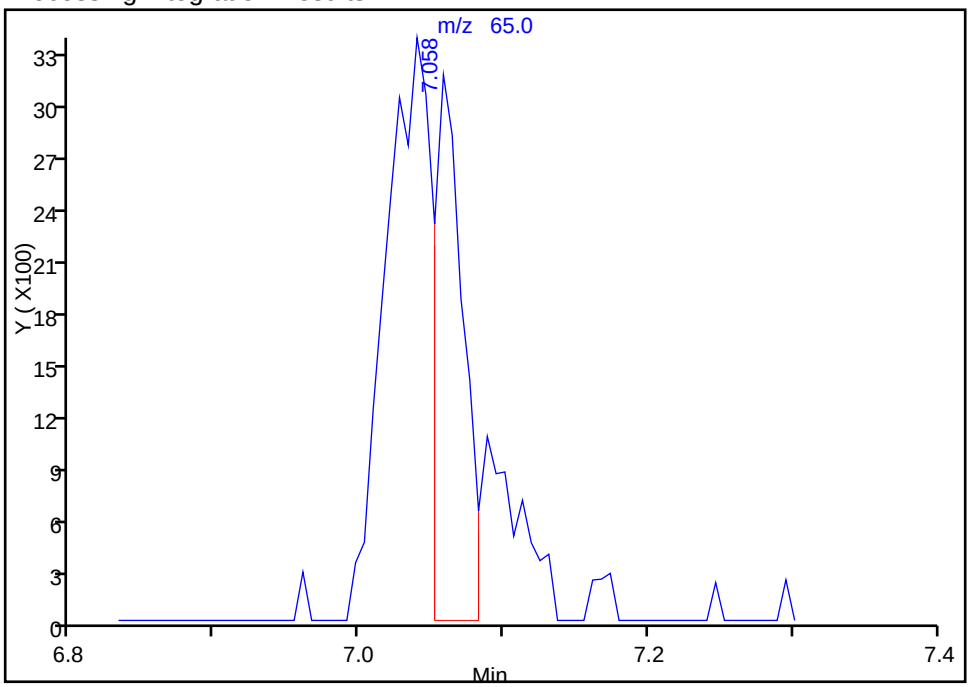
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

$ 6 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

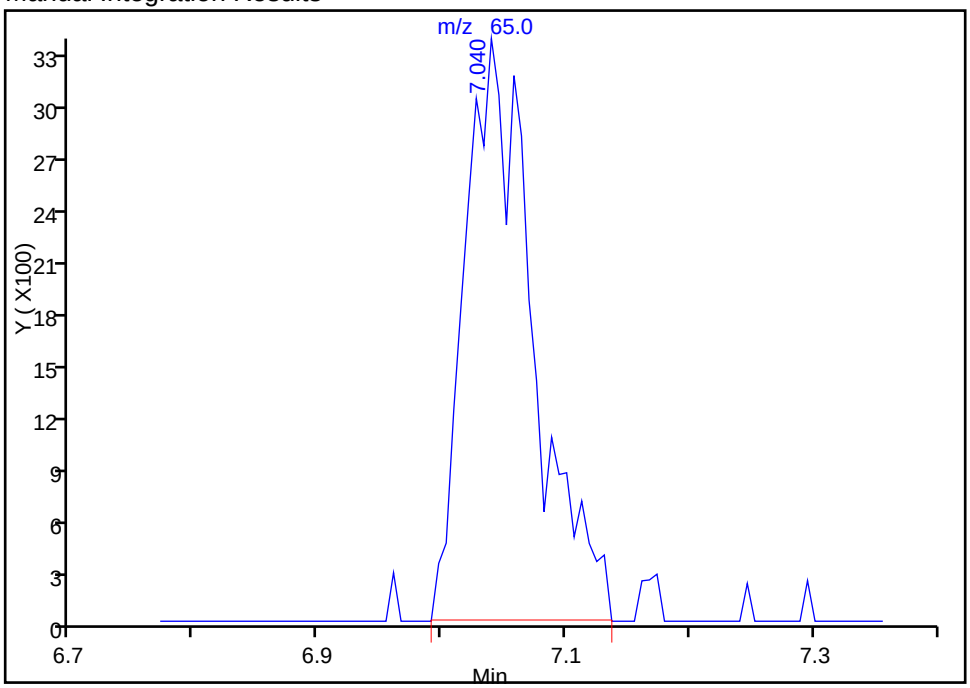
Processing Integration Results

RT: 7.06
Response: 4360
Amount: 25.465903



Manual Integration Results

RT: 7.04
Response: 12779
Amount: 46.390533



Reviewer: journetp, 21-Oct-2014 12:26:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

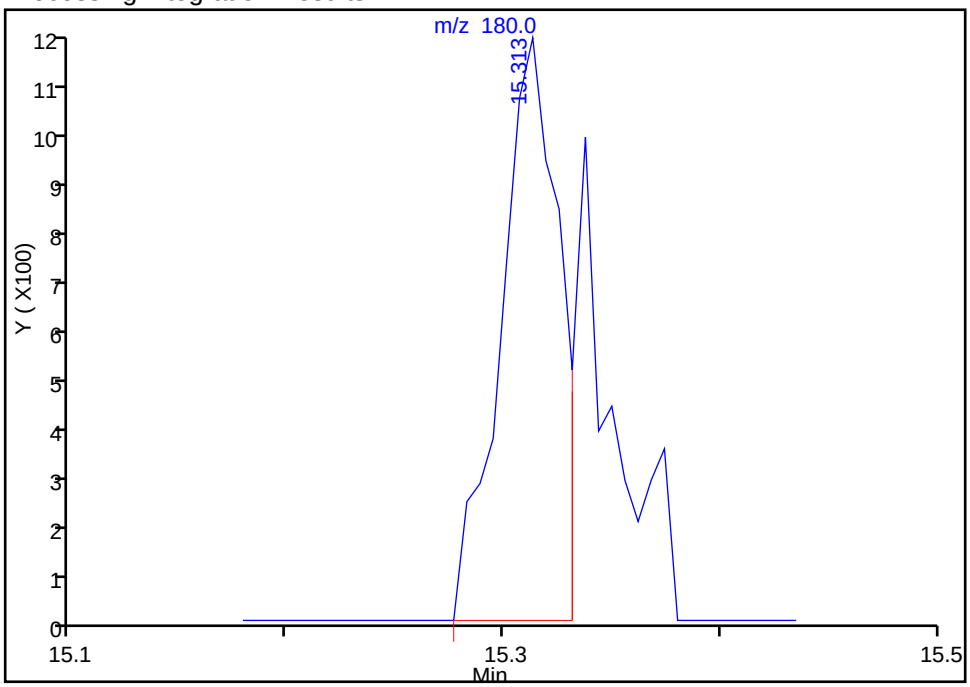
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102104.D
Injection Date: 21-Oct-2014 10:13:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

117 1,2,3-Trichlorobenzene, CAS: 87-61-6

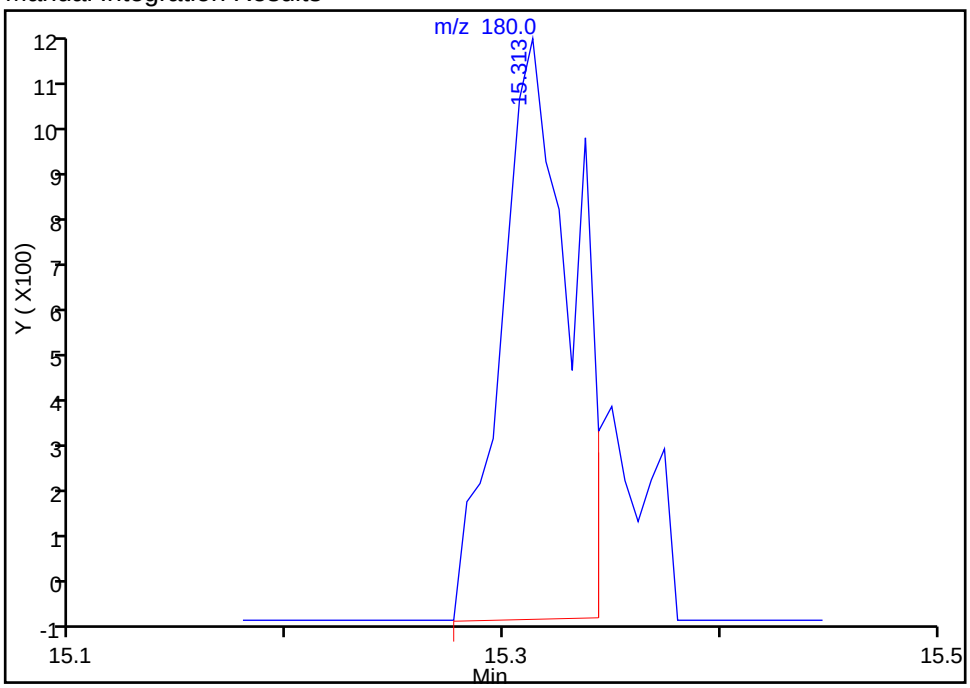
Processing Integration Results

RT: 15.31
Response: 2228
Amount: 29.118653



Manual Integration Results

RT: 15.31
Response: 2718
Amount: 55.319182



Reviewer: journetp, 22-Oct-2014 09:03:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Oct-2014 10:40:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-005
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:00:25 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.738	4.755	-0.017	92	66524	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.397	7.396	0.001	94	193881	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.463	10.462	0.001	92	42904	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.786	0.001	95	56361	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.673	6.672	0.001	59	25666	125.0	132.8	M
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.031	0.019	93	26914	125.0	110.4	
$ 7 Toluene-d8 (Surr)	98	9.033	9.032	0.001	96	89076	125.0	120.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	87	34304	125.0	125.7	
10 Dichlorodifluoromethane	85	1.946	1.860	0.086	63	36057	125.0	117.3	M
11 Chloromethane	50	2.037	2.000	0.037	43	89707	125.0	131.4	M
13 Butadiene	39	2.195	2.182	0.013	94	69188	125.0	132.3	
12 Vinyl chloride	62	2.195	2.182	0.013	91	57631	125.0	128.5	M
14 Bromomethane	94	2.493	2.486	0.007	0	21024	125.0	121.1	M
15 Chloroethane	64	2.621	2.608	0.013	67	24412	125.0	121.2	
16 Dichlorofluoromethane	67	2.901	2.857	0.044	76	66414	125.0	119.1	
17 Trichlorofluoromethane	101	2.919	2.894	0.025	56	54015	125.0	120.6	
19 Ethyl ether	59	3.333	3.301	0.032	73	25305	125.0	126.1	M
21 Acrolein	56	3.503	3.466	0.037	58	19167	625.0	648.2	M
20 1,1-Dichloroethene	96	3.558	3.527	0.031	68	29663	125.0	131.2	M
22 1,1,2-Trichloro-1,2,2-trif	101	3.649	3.673	-0.024	46	31283	125.0	131.0	M
23 Iodomethane	142	3.747	3.709	0.038	75	45764	125.0	136.8	M
25 Acetone	43	3.771	3.794	-0.023	21	11513	125.0	112.8	M
24 Carbon disulfide	76	3.832	3.813	0.020	1	108753	125.0	129.2	M
26 3-Chloro-1-propene	76	4.124	4.105	0.020	1	37677	125.0	148.3	M
29 Methyl acetate	43	4.300	4.287	0.013	90	110633	625.0	579.2	M
30 Methylene Chloride	84	4.337	4.336	0.001	80	37232	125.0	123.0	M
31 trans-1,2-Dichloroethene	96	4.750	4.731	0.019	89	35356	125.0	125.6	
32 Acrylonitrile	53	4.799	4.774	0.025	99	78897	1250.0	1051.9	
33 Methyl tert-butyl ether	73	4.854	4.853	0.001	94	81860	125.0	117.3	
34 2-Methyl-2-propanol	59	4.866	4.871	-0.005	43	21449	1250.0	1188.9	
35 Hexane	57	5.158	5.145	0.013	92	56100	125.0	114.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.359	5.339	0.020	96	74308	125.0	129.0	
38 Vinyl acetate	43	5.493	5.479	0.014	67	24972	125.0	113.2	
41 2,2-Dichloropropane	77	6.089	6.076	0.013	77	36127	125.0	91.2	
42 cis-1,2-Dichloroethene	96	6.095	6.088	0.007	86	37879	125.0	129.4	
44 2-Butanone (MEK)	43	6.210	6.179	0.031	61	11375	125.0	104.3	
47 Chlorobromomethane	128	6.375	6.386	-0.011	89	12393	125.0	116.4	
49 Tetrahydrofuran	42	6.472	6.477	-0.005	54	15464	250.0	222.4	
48 Chloroform	83	6.484	6.477	0.007	94	61469	125.0	128.5	
50 1,1,1-Trichloroethane	97	6.673	6.666	0.007	93	54822	125.0	123.4	
51 Cyclohexane	56	6.727	6.720	0.007	95	89406	125.0	134.0	
52 Carbon tetrachloride	117	6.861	6.848	0.013	91	41391	125.0	124.5	
53 1,1-Dichloropropene	75	6.867	6.860	0.007	86	41204	125.0	120.9	
54 Benzene	78	7.086	7.085	0.001	97	121116	125.0	126.9	
55 1,2-Dichloroethane	62	7.117	7.116	0.001	97	33629	125.0	128.4	
57 Isobutyl alcohol	41	7.141	7.134	0.007	67	15333	3125.0	2874.6	
58 n-Heptane	43	7.409	7.402	0.007	57	56692	125.0	111.7	
60 Trichloroethene	130	7.792	7.791	0.001	92	23110	125.0	111.1	
63 Methylcyclohexane	83	7.987	7.980	0.007	94	71675	125.0	127.1	
64 1,2-Dichloropropane	63	8.023	8.016	0.007	93	31877	125.0	129.3	
66 Dibromomethane	93	8.139	8.150	-0.011	96	11100	125.0	112.7	
67 1,4-Dioxane	88	8.206	8.187	0.019	35	1693	2500.0	2240.0	
68 Dichlorobromomethane	83	8.315	8.308	0.007	97	37409	125.0	116.2	
71 cis-1,3-Dichloropropene	75	8.772	8.764	0.008	90	40515	125.0	109.1	
72 4-Methyl-2-pentanone (MIBK	43	8.942	8.935	0.007	97	21819	125.0	111.0	
73 Toluene	91	9.100	9.099	0.001	97	109711	125.0	119.8	
74 trans-1,3-Dichloropropene	75	9.325	9.324	0.001	98	32618	125.0	120.4	
75 Ethyl methacrylate	69	9.416	9.421	-0.005	95	25499	125.0	116.4	
76 1,1,2-Trichloroethane	97	9.514	9.507	0.007	93	16065	125.0	113.4	
77 Tetrachloroethene	164	9.648	9.640	0.008	93	18600	125.0	109.3	
78 1,3-Dichloropropane	76	9.672	9.665	0.007	98	29752	125.0	116.0	
79 2-Hexanone	43	9.763	9.762	0.001	96	14440	125.0	109.8	
81 Chlorodibromomethane	129	9.897	9.896	0.001	88	20546	125.0	117.9	
82 Ethylene Dibromide	107	10.013	10.012	0.001	98	15680	125.0	114.5	
83 Chlorobenzene	112	10.493	10.492	0.001	91	68014	125.0	122.8	
84 1,1,1,2-Tetrachloroethane	131	10.572	10.571	0.001	93	25689	125.0	130.8	
85 Ethylbenzene	106	10.603	10.602	0.001	99	36326	125.0	124.0	
86 m-Xylene & p-Xylene	106	10.718	10.717	0.001	98	46632	125.0	125.0	
88 o-Xylene	106	11.114	11.113	0.001	97	47718	125.0	121.7	
89 Styrene	104	11.126	11.125	0.001	94	83738	125.0	133.1	
90 Bromoform	173	11.314	11.313	0.001	96	12184	125.0	115.6	
91 Isopropylbenzene	105	11.473	11.478	-0.005	97	142822	125.0	128.0	
93 1,1,2,2-Tetrachloroethane	83	11.771	11.776	-0.005	92	22723	125.0	124.6	
94 Bromobenzene	156	11.789	11.788	0.001	97	26910	125.0	119.6	
95 1,2,3-Trichloropropane	110	11.813	11.818	-0.005	79	4682	125.0	109.4	
96 trans-1,4-Dichloro-2-buten	53	11.832	11.824	0.008	67	7004	125.0	139.5	
97 N-Propylbenzene	120	11.886	11.885	0.001	99	37533	125.0	124.6	
98 2-Chlorotoluene	126	11.977	11.977	0.000	95	29790	125.0	125.9	
99 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	96	114160	125.0	126.4	
100 4-Chlorotoluene	126	12.081	12.086	-0.005	98	28622	125.0	129.8	
101 tert-Butylbenzene	119	12.385	12.390	-0.005	95	107933	125.0	124.0	
103 1,2,4-Trimethylbenzene	105	12.434	12.433	0.001	98	115128	125.0	130.2	
104 sec-Butylbenzene	105	12.604	12.609	-0.005	95	154036	125.0	127.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.720	12.719	0.001	96	52375	125.0	127.8	
106 4-Isopropyltoluene	119	12.750	12.749	0.001	98	130742	125.0	129.3	
107 1,4-Dichlorobenzene	146	12.811	12.810	0.001	94	46669	125.0	124.5	
110 n-Butylbenzene	91	13.158	13.163	-0.005	99	117250	125.0	130.3	
111 1,2-Dichlorobenzene	146	13.182	13.187	-0.005	93	40407	125.0	126.3	
112 1,2-Dibromo-3-Chloropropan	75	13.973	13.972	0.001	3	834	125.0	85.2	
114 1,2,4-Trichlorobenzene	180	14.812	14.799	0.013	90	7489	125.0	92.3	
115 Hexachlorobutadiene	225	14.971	14.970	0.001	91	5962	125.0	82.8	
116 Naphthalene	128	15.062	15.055	0.007	95	9937	125.0	90.1	
117 1,2,3-Trichlorobenzene	180	15.299	15.304	-0.005	93	3213	125.0	72.9	M
S 130 1,2-Dichloroethene, Total	96				0		250.0	255.0	
S 129 Xylenes, Total	106				0		250.0	246.7	
S 131 1,3-Dichloropropene, Total	1				0		250.0	229.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00084	Amount Added:	5.00	Units: uL
VOAACROPRI_00002	Amount Added:	25.00	Units: uL
voaWVA pri Re_00003	Amount Added:	5.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA8260SURR_00017	Amount Added:	5.00	Units: uL

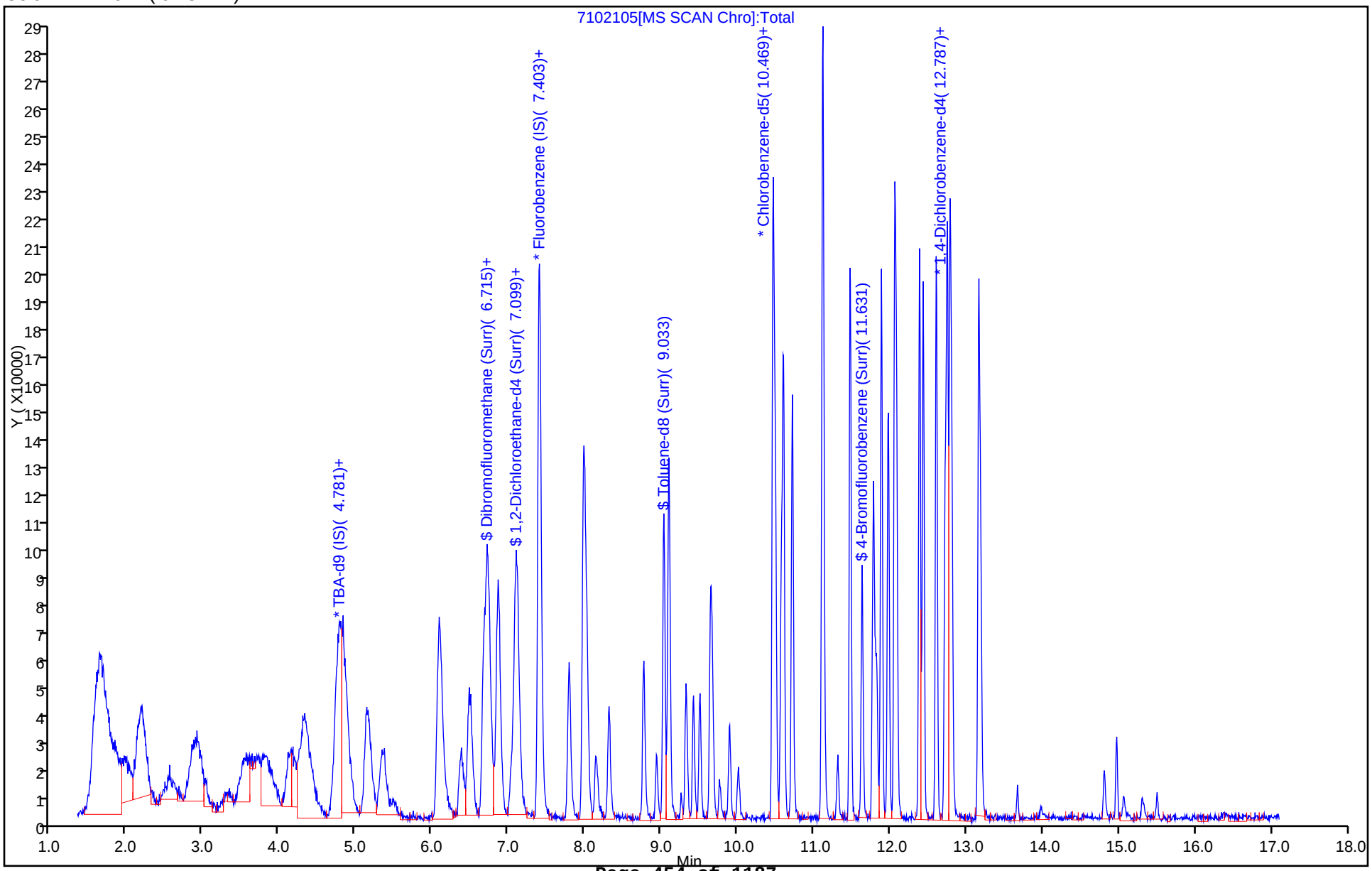
Report Date: 23-Oct-2014 09:00:27 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D

Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

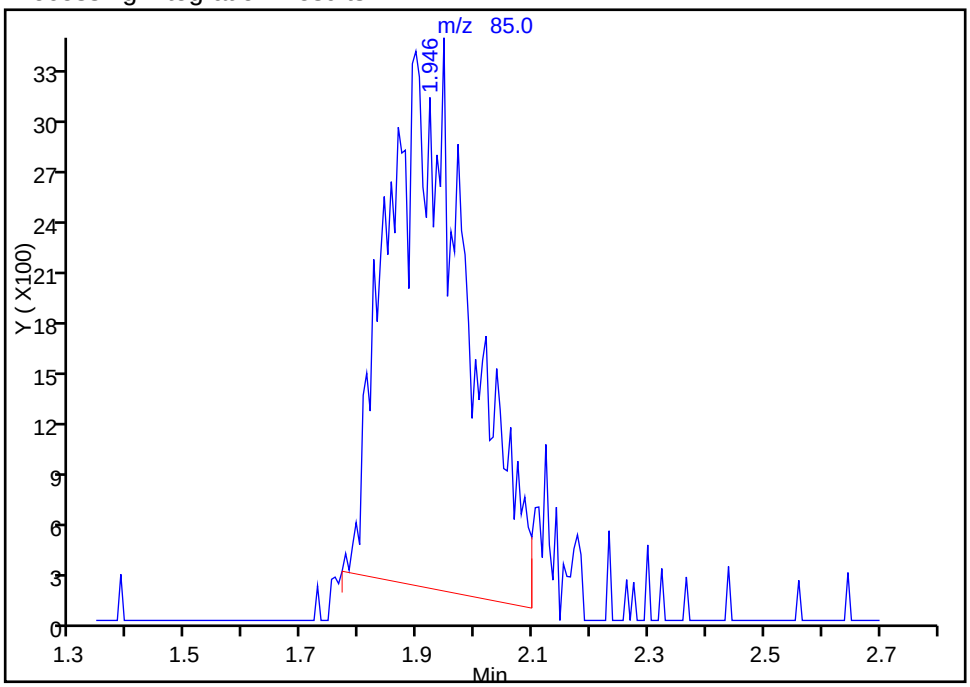
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

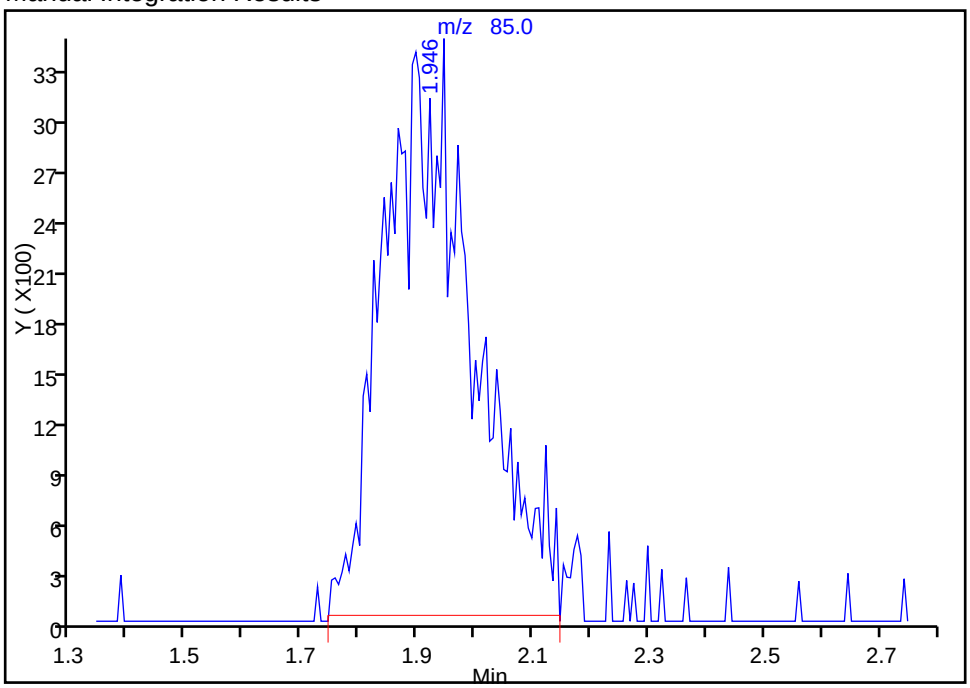
Processing Integration Results

RT: 1.95
Response: 31484
Amount: 159.0253



Manual Integration Results

RT: 1.95
Response: 36057
Amount: 117.2805



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

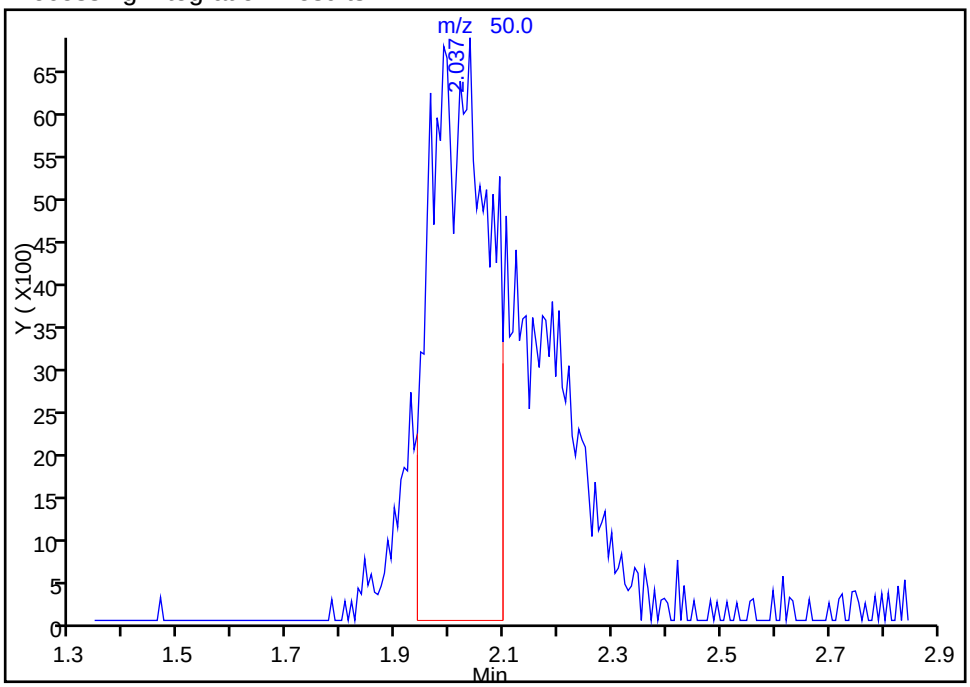
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

11 Chloromethane, CAS: 74-87-3

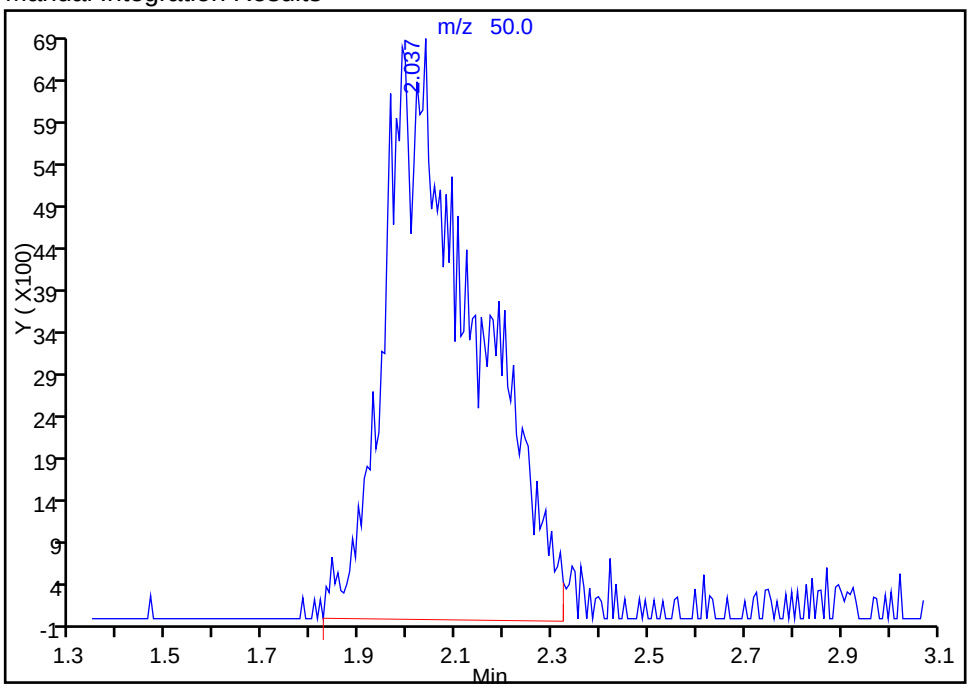
Processing Integration Results

RT: 2.04
Response: 50006
Amount: 111.9881



Manual Integration Results

RT: 2.04
Response: 89707
Amount: 131.3713



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

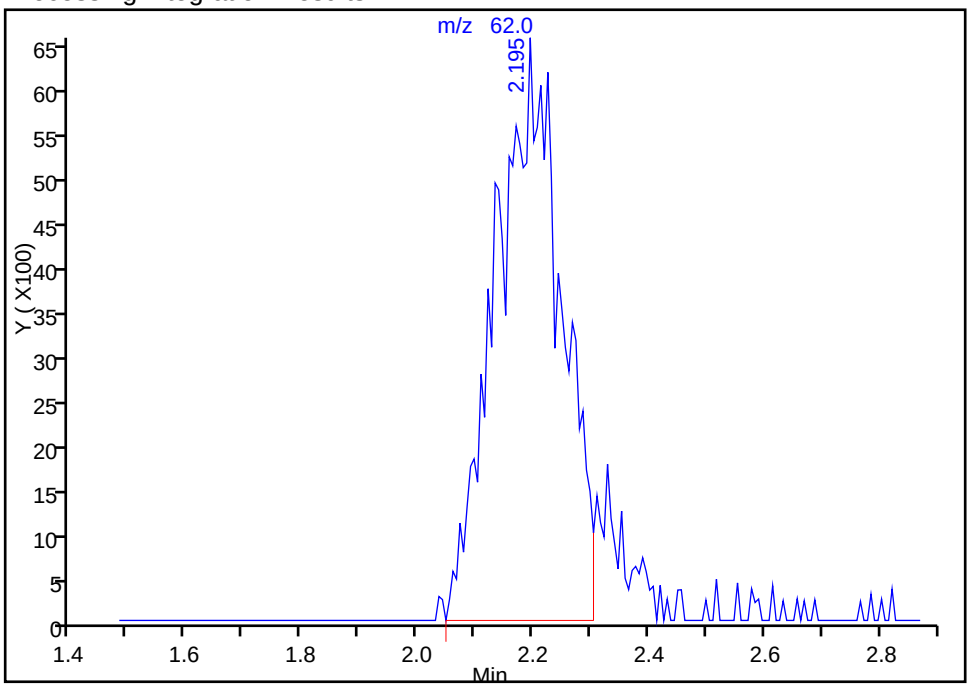
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D				
Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Vinyl chloride, CAS: 75-01-4

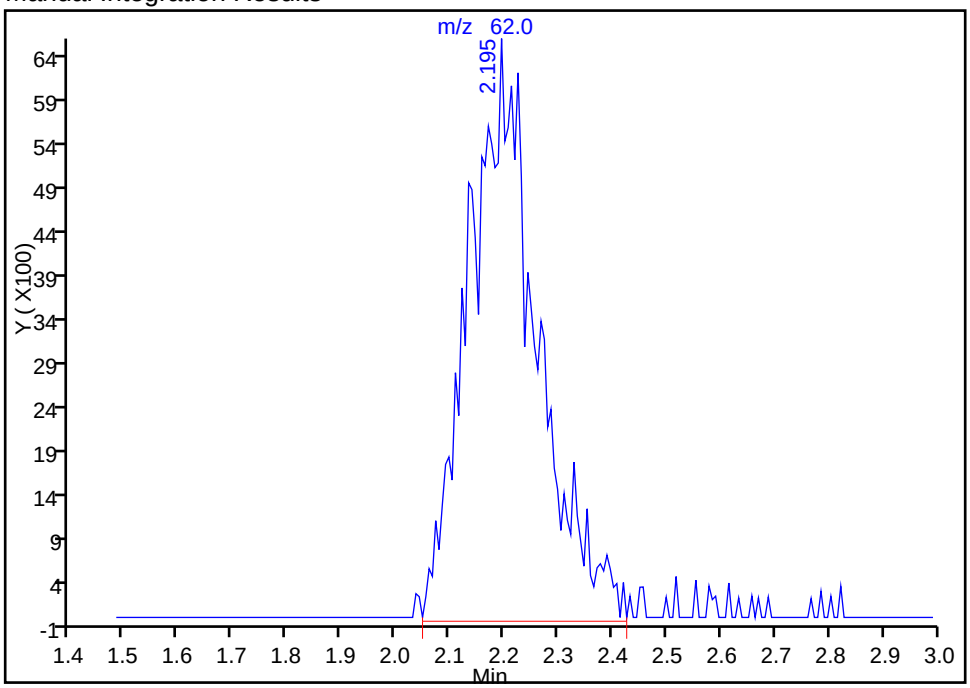
Processing Integration Results

RT: 2.20
Response: 51576
Amount: 177.5324



Manual Integration Results

RT: 2.20
Response: 57631
Amount: 128.4852



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

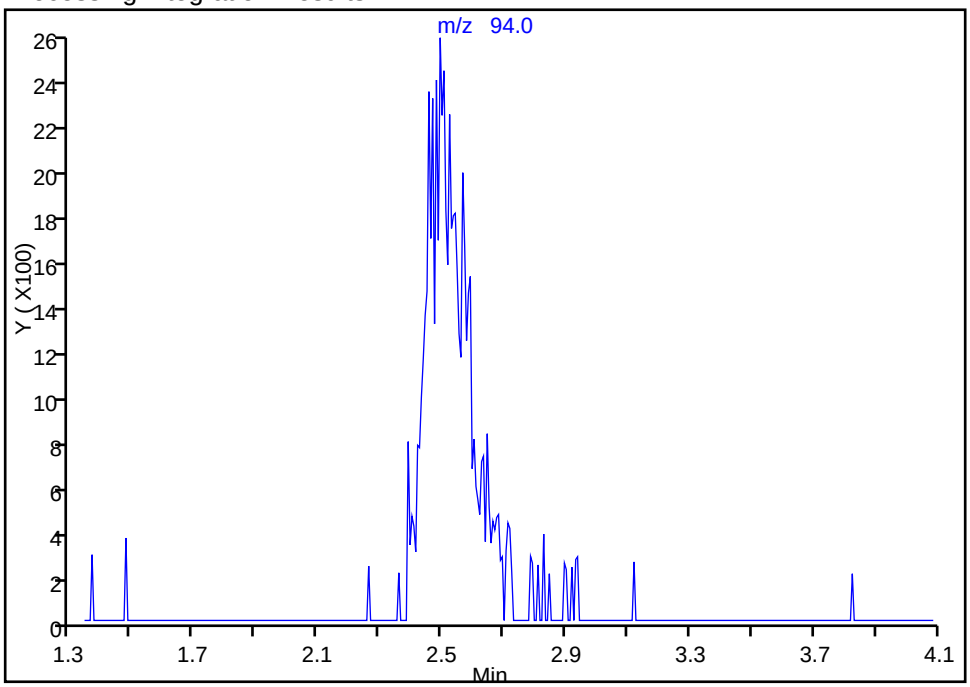
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D				
Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Bromomethane, CAS: 74-83-9

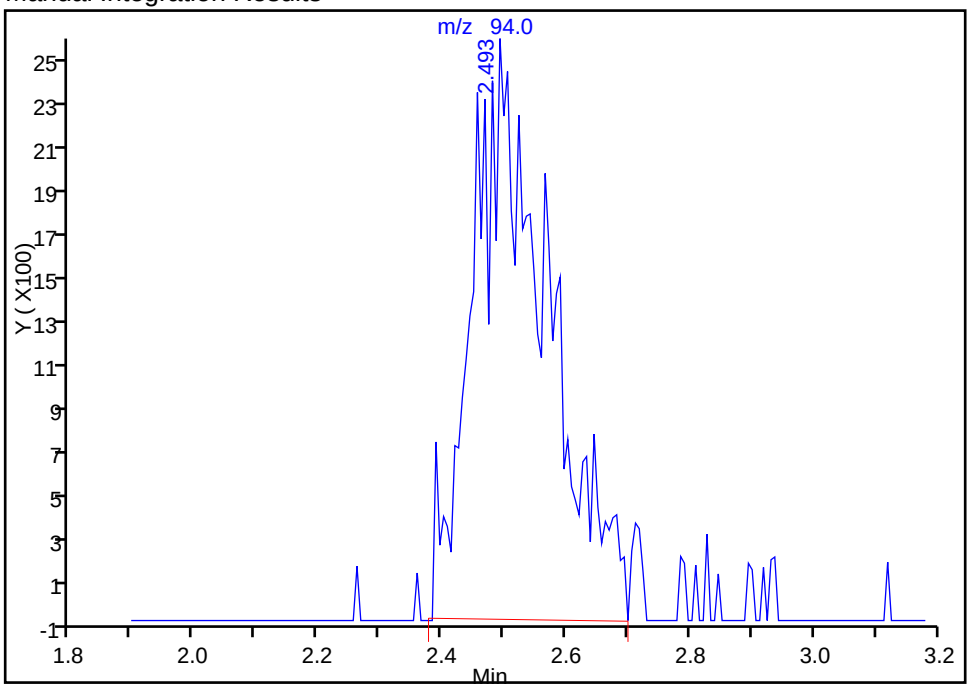
Not Detected
Expected RT: 2.49

Processing Integration Results



Manual Integration Results

RT: 2.49
Response: 21024
Amount: 121.1407



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

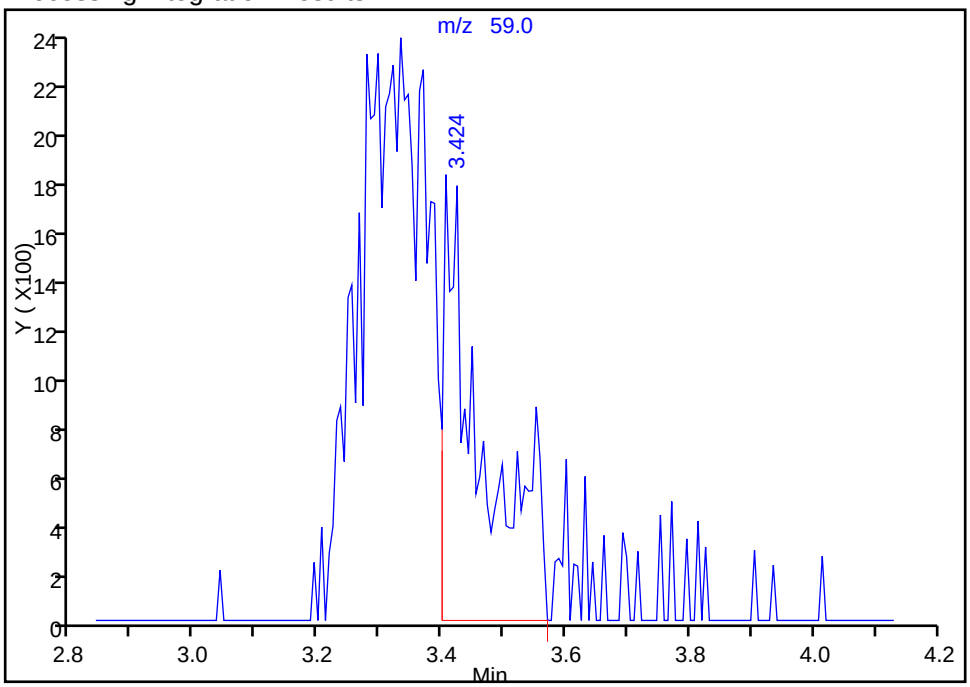
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D				
Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

19 Ethyl ether, CAS: 60-29-7

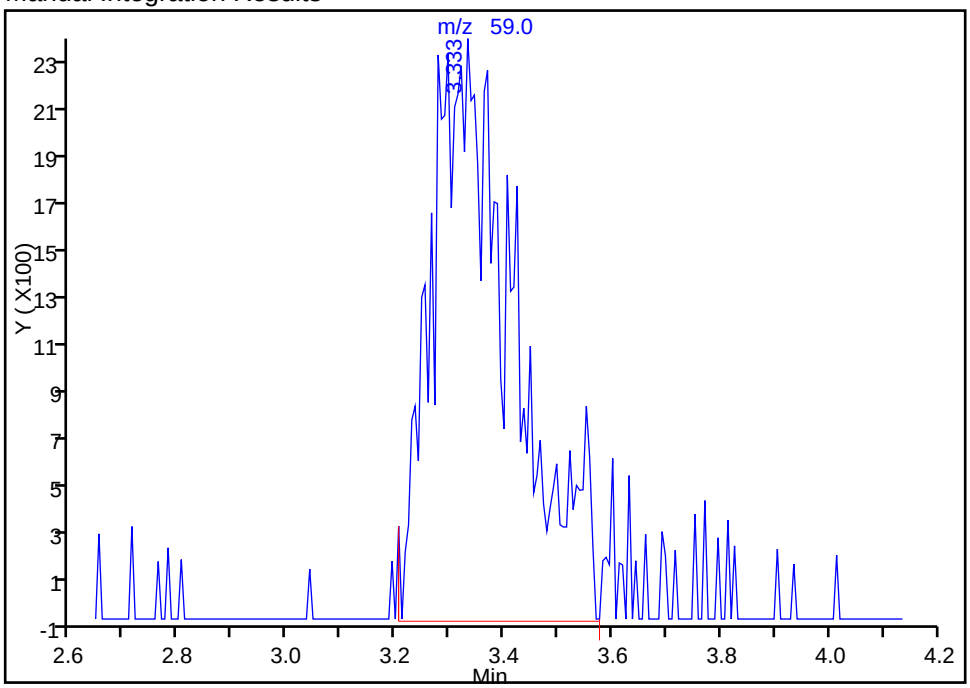
Processing Integration Results

RT: 3.42
Response: 7451
Amount: 72.512549



Manual Integration Results

RT: 3.33
Response: 25305
Amount: 126.1467



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

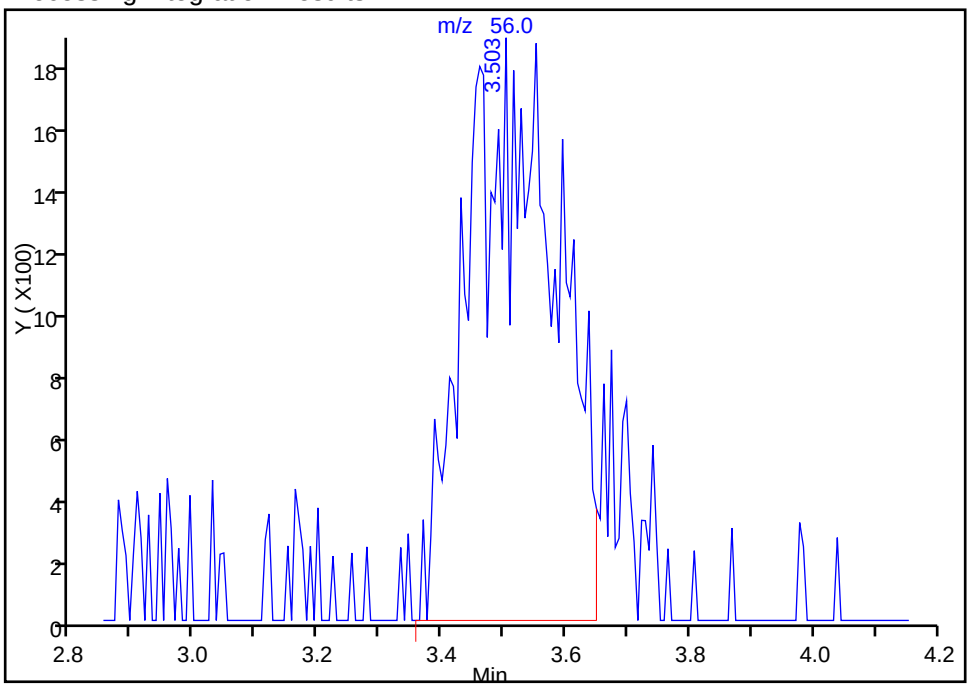
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 Acrolein, CAS: 107-02-8

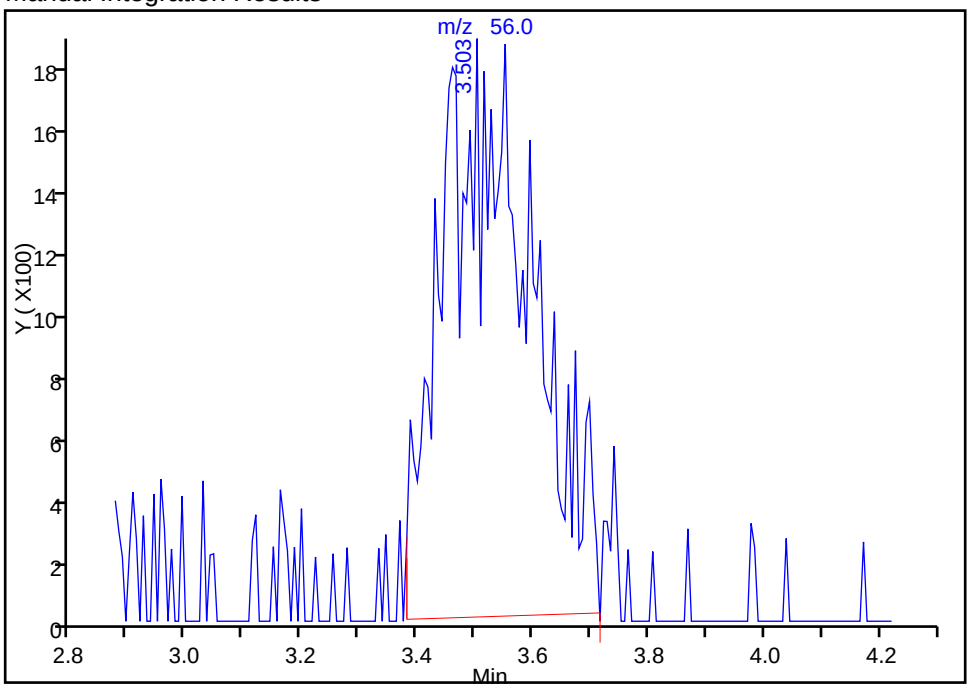
Processing Integration Results

RT: 3.50
Response: 17930
Amount: 1087.8218



Manual Integration Results

RT: 3.50
Response: 19167
Amount: 648.2481



Reviewer: journetp, 21-Oct-2014 13:16:08
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

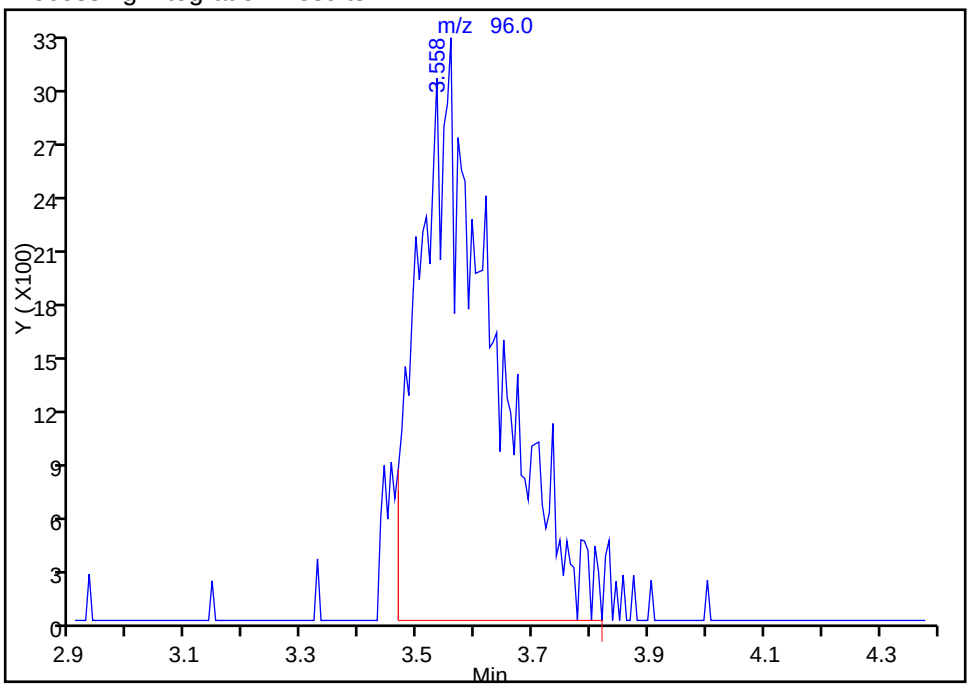
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

20 1,1-Dichloroethene, CAS: 75-35-4

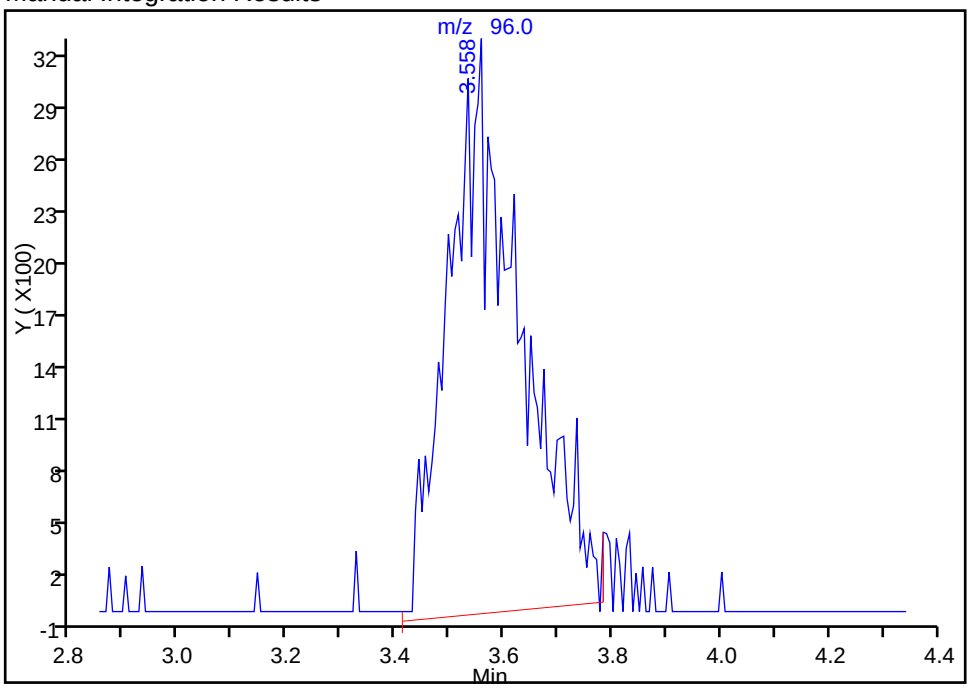
Processing Integration Results

RT: 3.56
Response: 28901
Amount: 158.1001



Manual Integration Results

RT: 3.56
Response: 29663
Amount: 131.2304



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

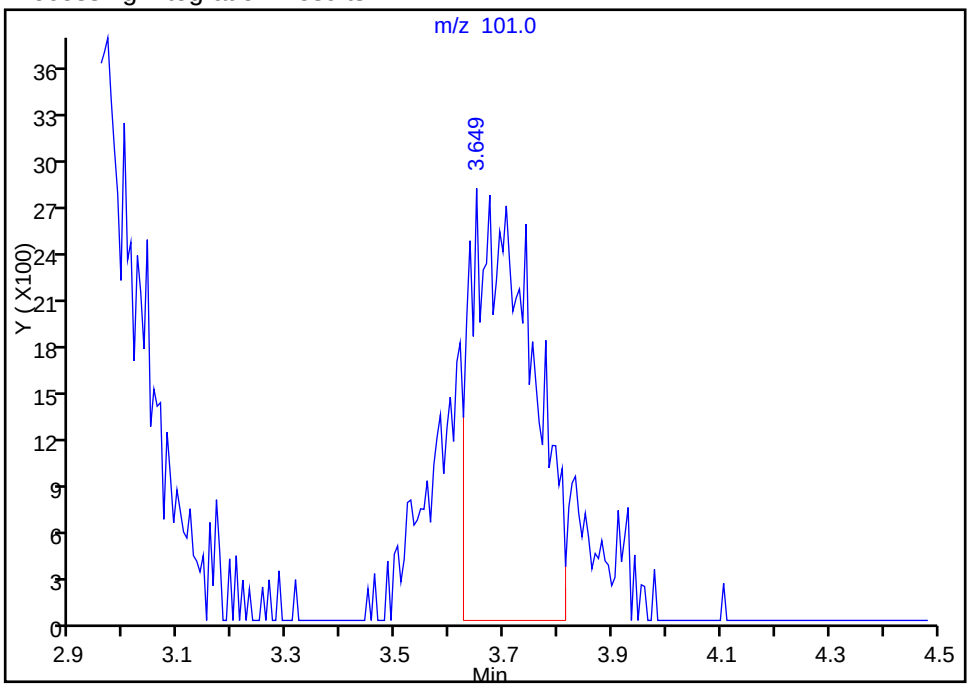
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

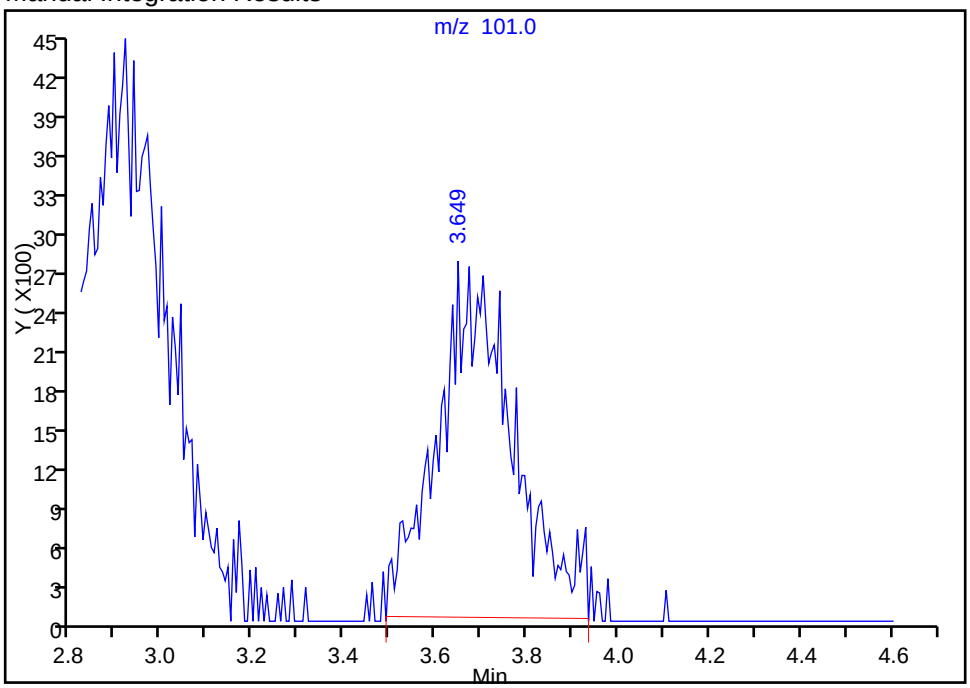
Processing Integration Results

RT: 3.65
Response: 21382
Amount: 167.4429



Manual Integration Results

RT: 3.65
Response: 31283
Amount: 130.9554



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

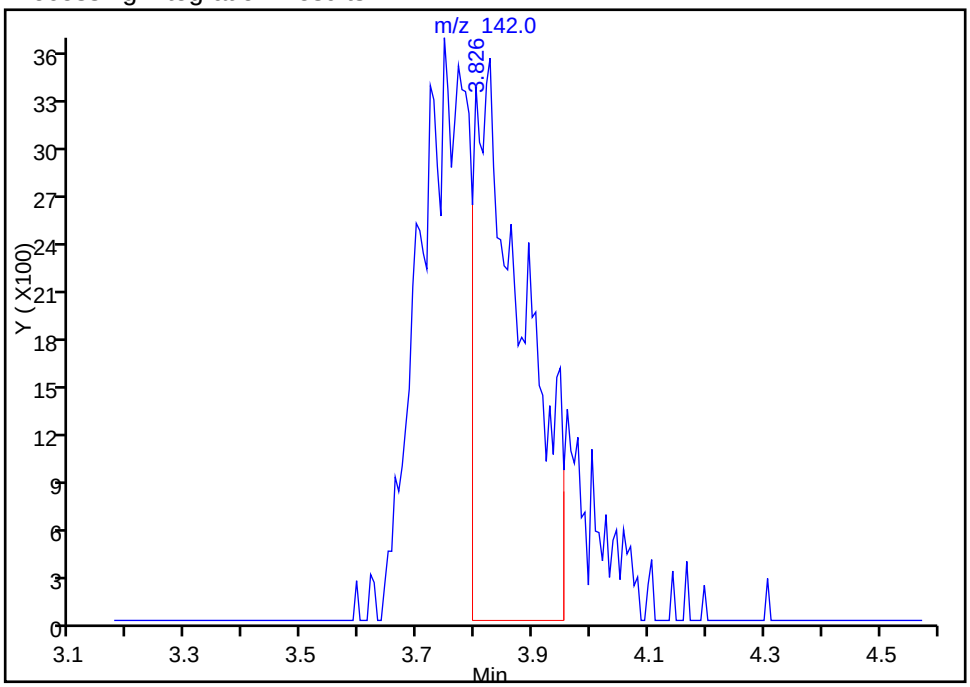
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D				
Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 Iodomethane, CAS: 74-88-4

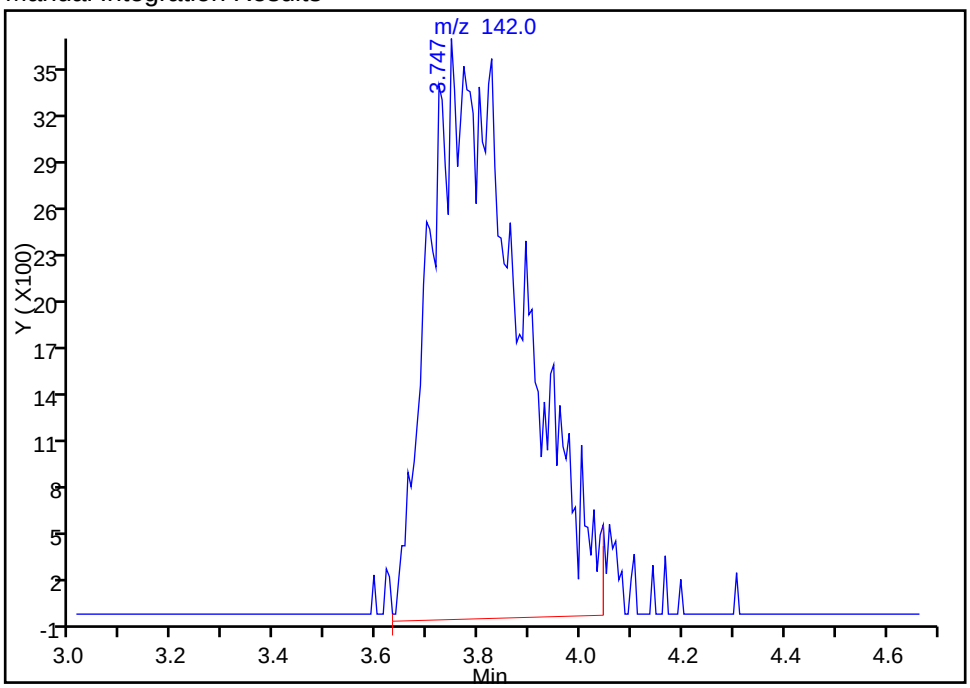
Processing Integration Results

RT: 3.83
Response: 20790
Amount: 111.4314



Manual Integration Results

RT: 3.75
Response: 45764
Amount: 136.8180



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

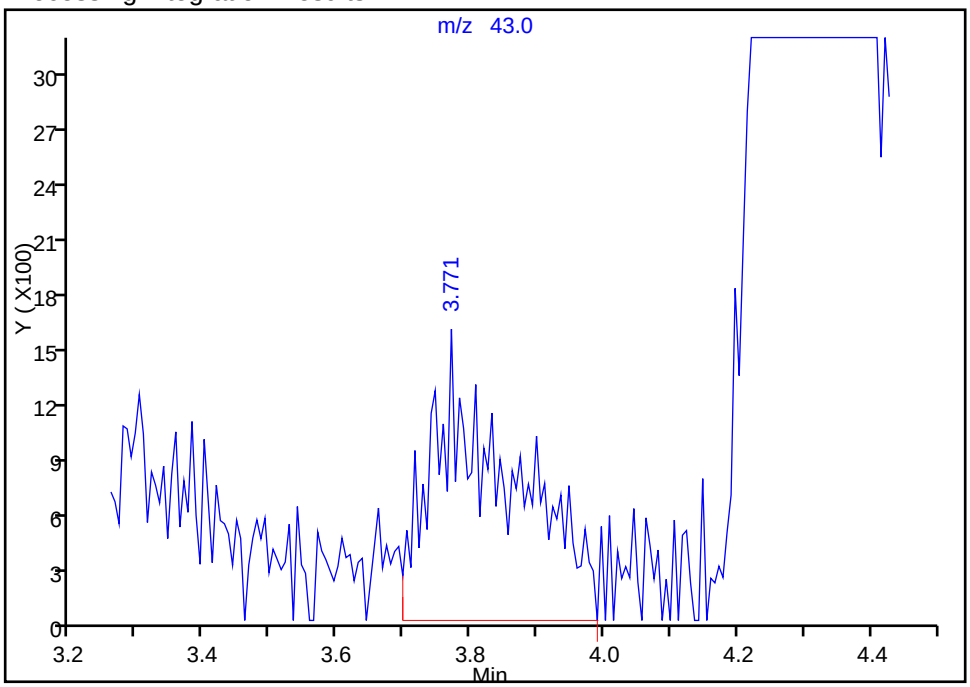
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

25 Acetone, CAS: 67-64-1

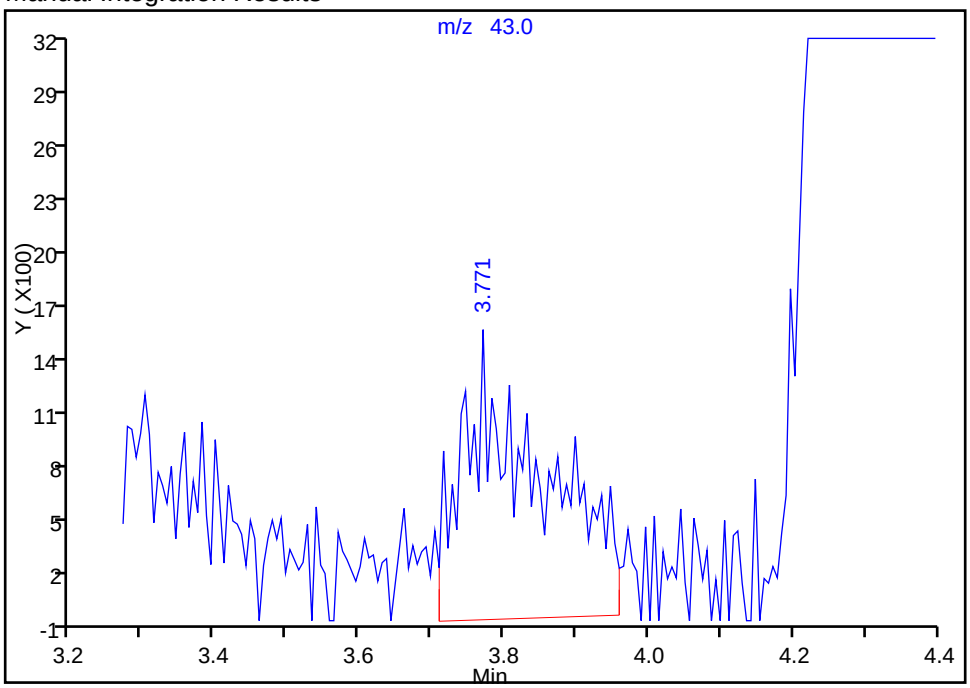
Processing Integration Results

RT: 3.77
Response: 12487
Amount: 153.6854



Manual Integration Results

RT: 3.77
Response: 11513
Amount: 112.7972



Reviewer: journetp, 21-Oct-2014 13:20:20
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

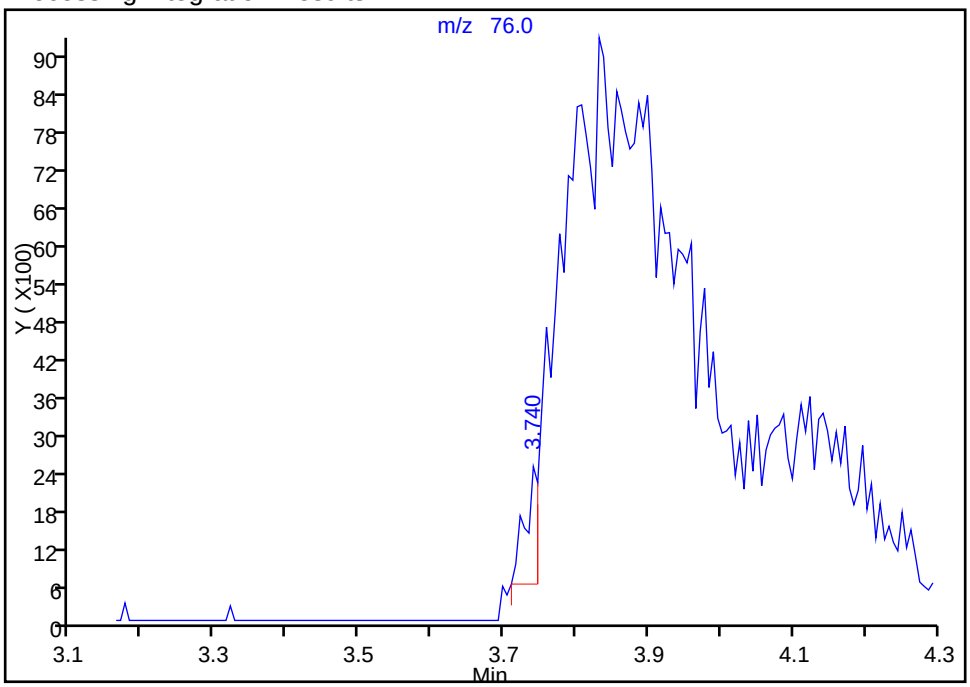
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Carbon disulfide, CAS: 75-15-0

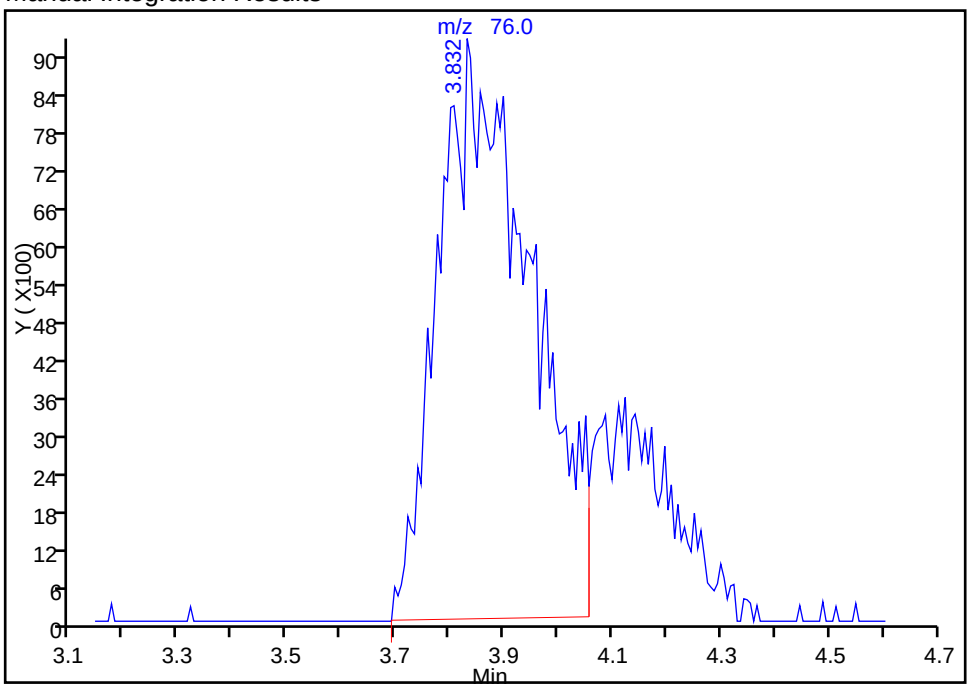
Processing Integration Results

RT: 3.74
Response: 2398
Amount: 7.043985



Manual Integration Results

RT: 3.83
Response: 108753
Amount: 129.1846



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

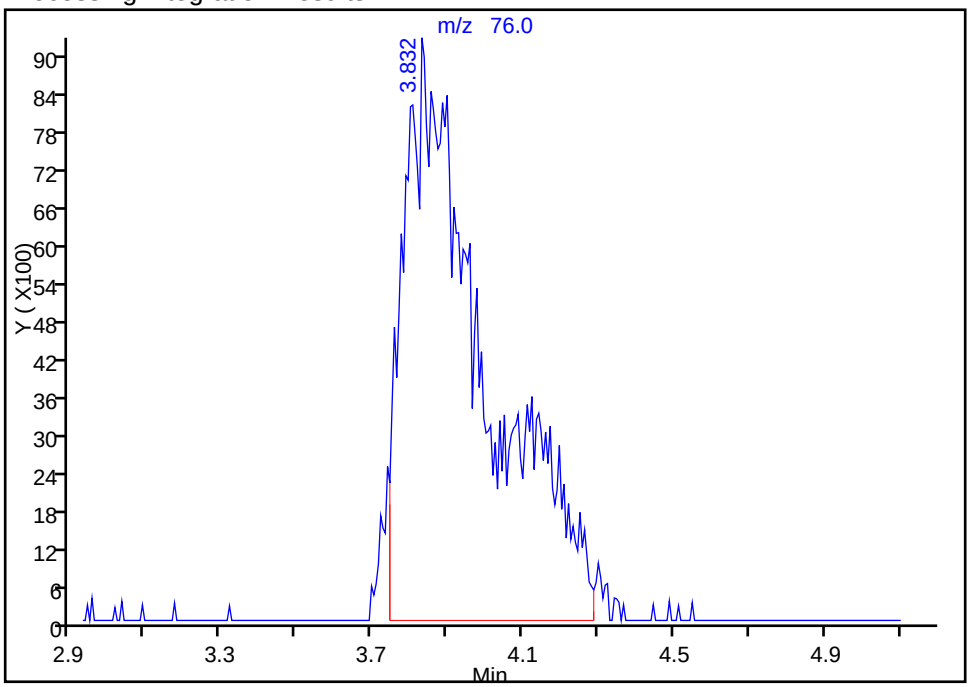
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 3-Chloro-1-propene, CAS: 107-05-1

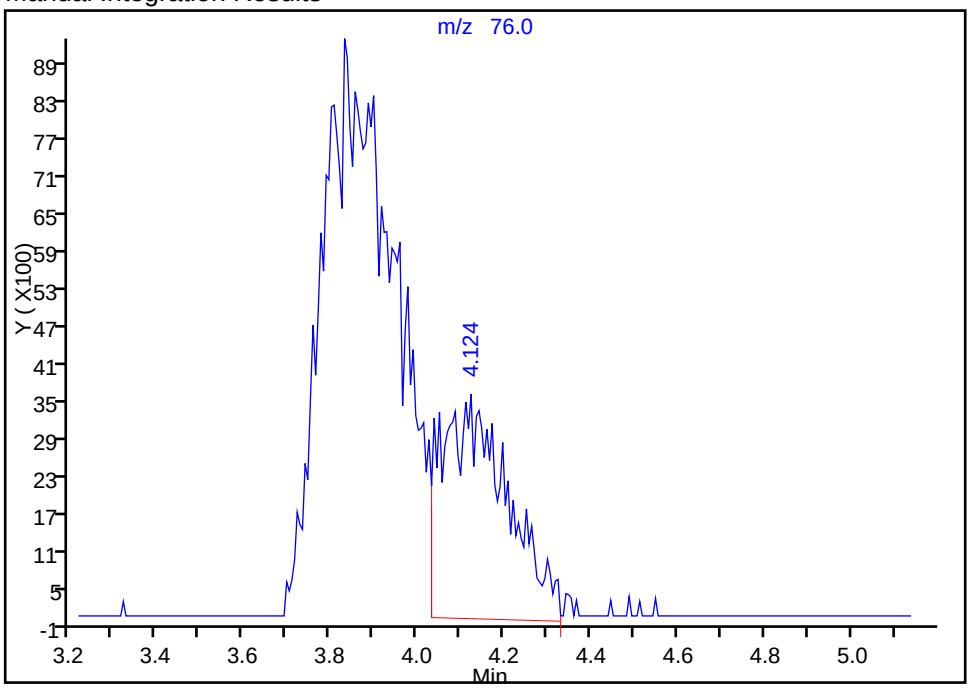
Processing Integration Results

RT: 3.83
Response: 136868
Amount: 187.9745



Manual Integration Results

RT: 4.12
Response: 37677
Amount: 148.3435



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

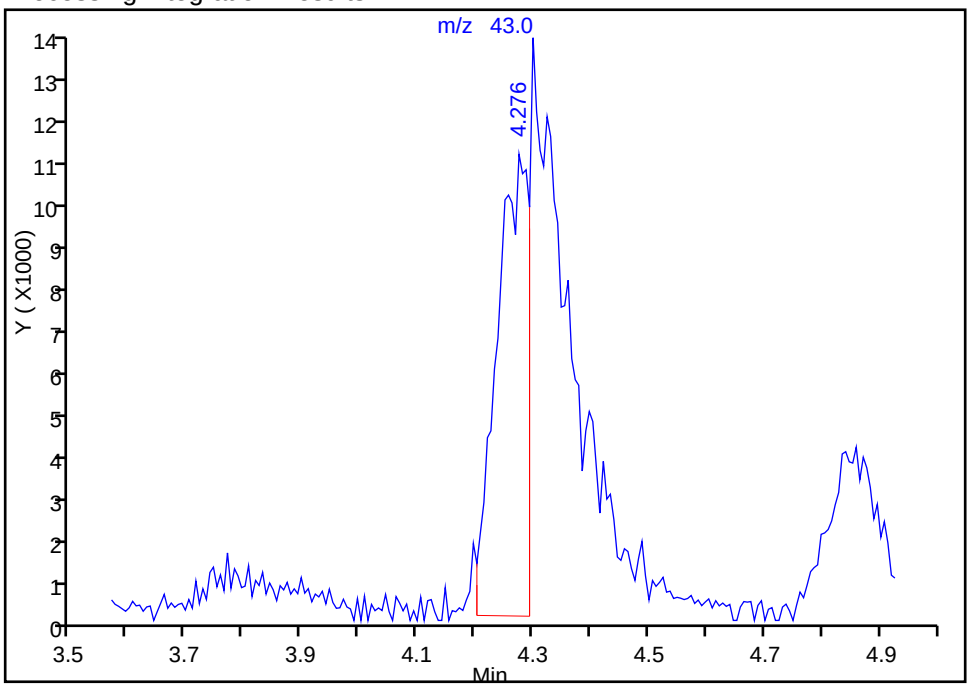
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

29 Methyl acetate, CAS: 79-20-9

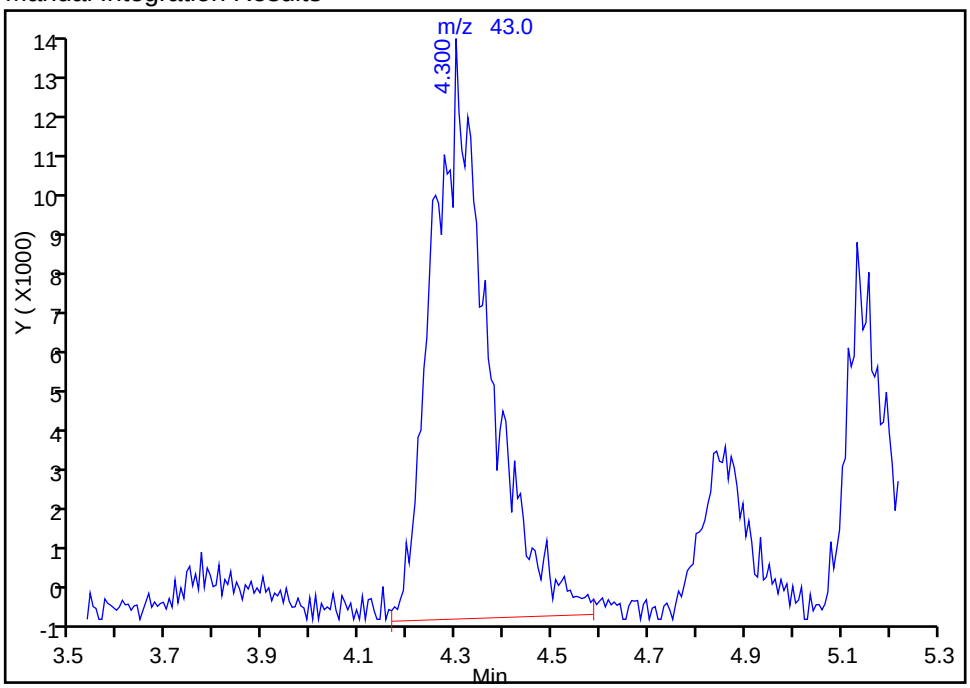
Processing Integration Results

RT: 4.28
Response: 41516
Amount: 495.6032



Manual Integration Results

RT: 4.30
Response: 110633
Amount: 579.1534



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

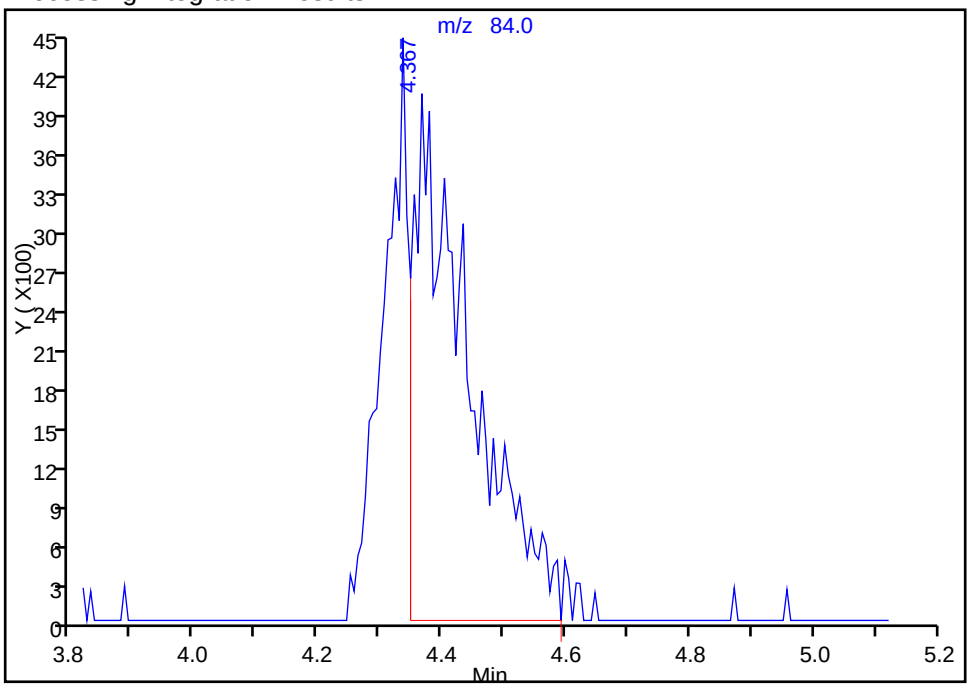
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D				
Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

30 Methylene Chloride, CAS: 75-09-2

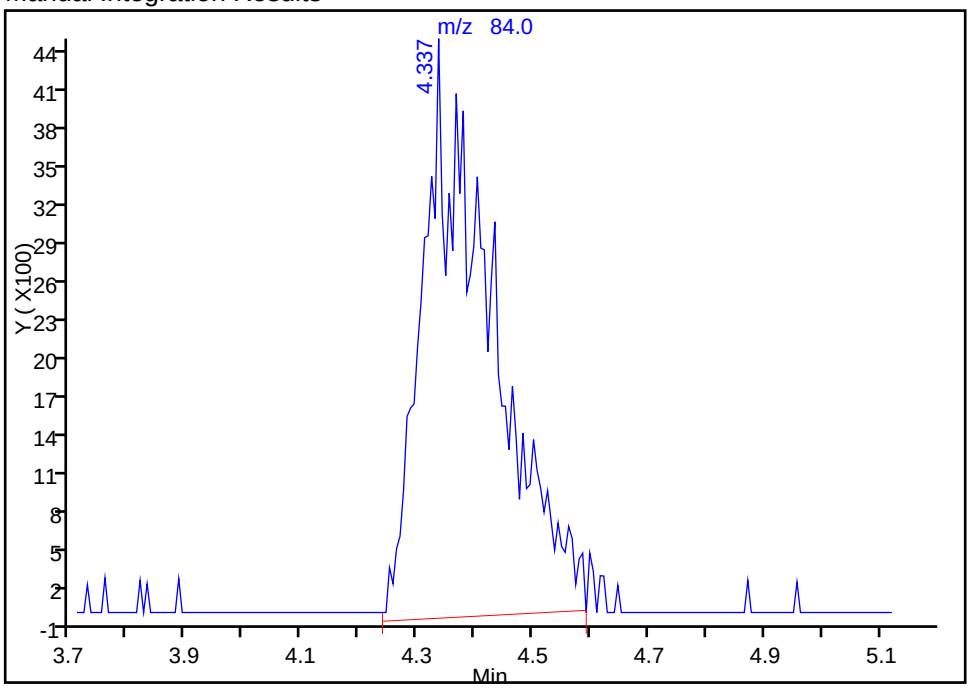
Processing Integration Results

RT: 4.37
Response: 25092
Amount: 133.7371



Manual Integration Results

RT: 4.34
Response: 37232
Amount: 123.0158



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

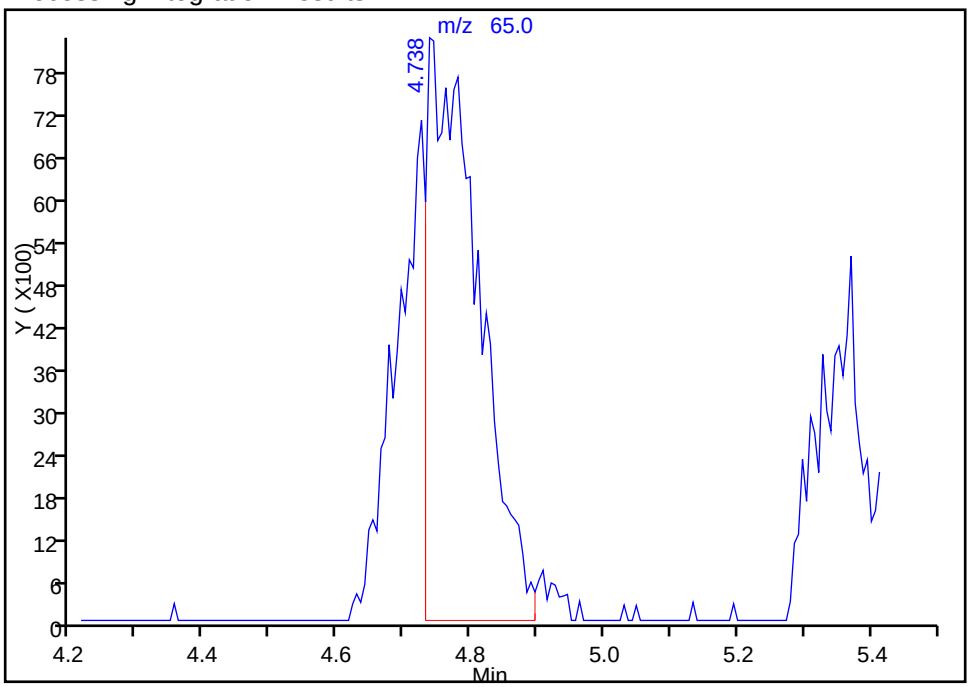
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D				
Injection Date:	21-Oct-2014 10:40:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

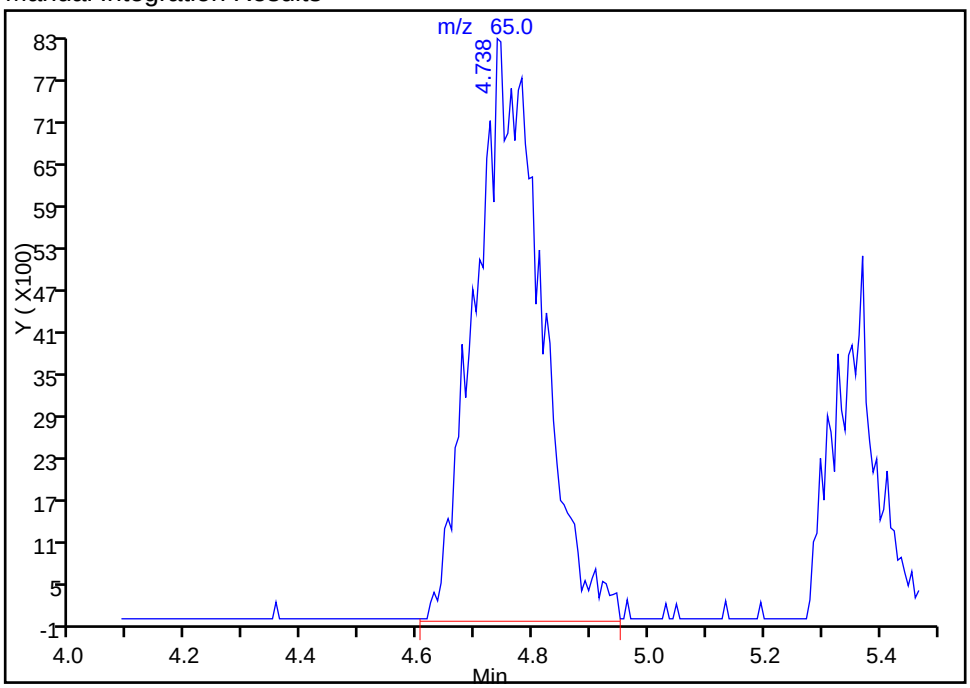
Processing Integration Results

RT: 4.74
Response: 44623
Amount: 5000.0000



Manual Integration Results

RT: 4.74
Response: 66524
Amount: 5000.0000



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

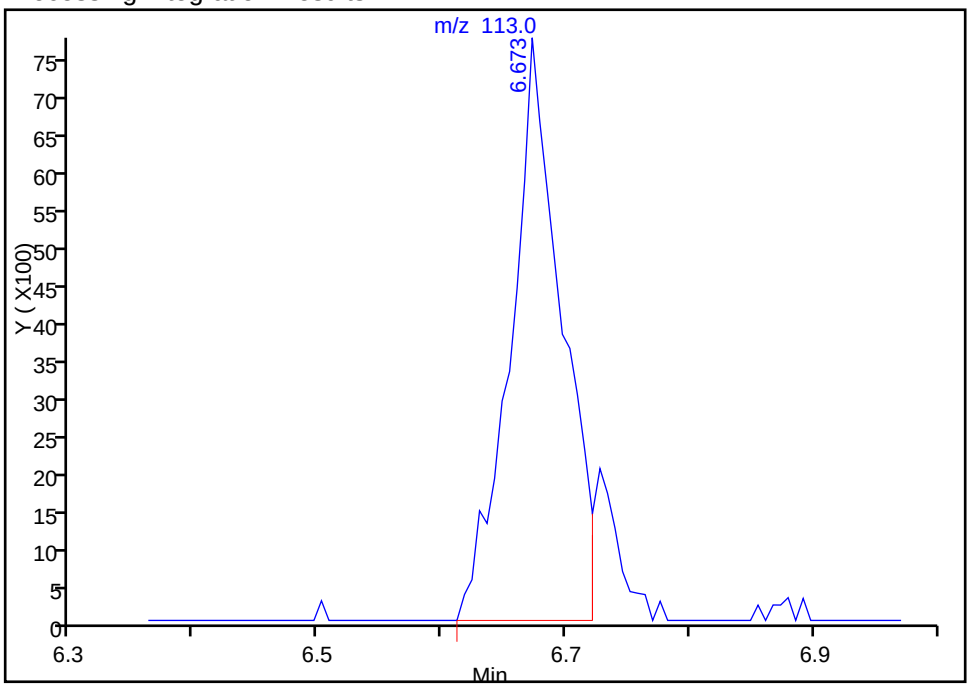
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

$ 5 Dibromofluoromethane (Surr), CAS: 1868-53-7

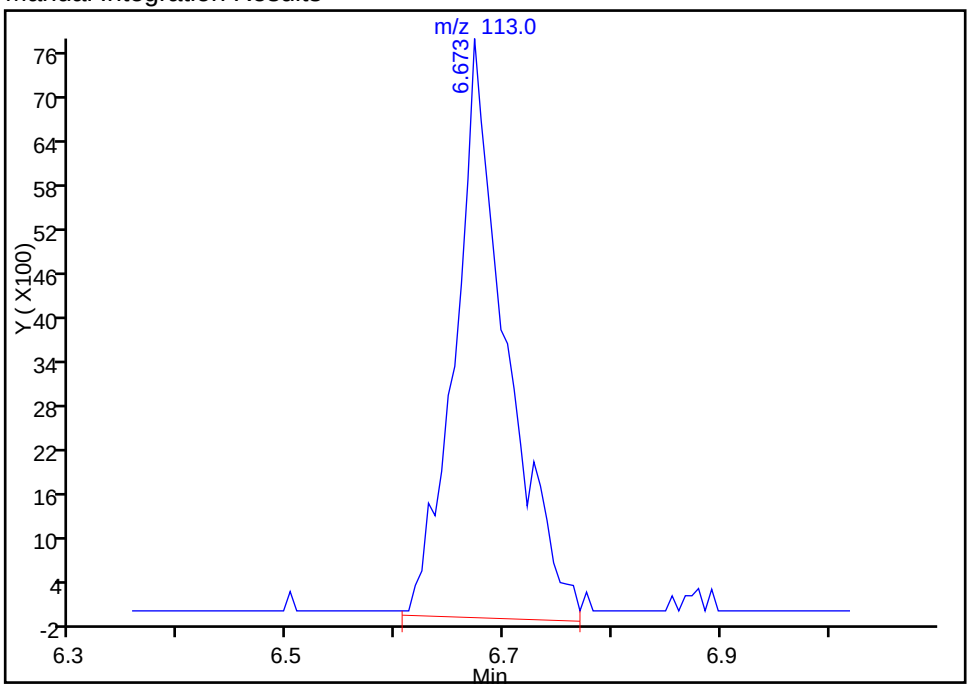
Processing Integration Results

RT: 6.67
Response: 22220
Amount: 236.6976



Manual Integration Results

RT: 6.67
Response: 25666
Amount: 132.8323



Reviewer: journetp, 21-Oct-2014 12:03:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

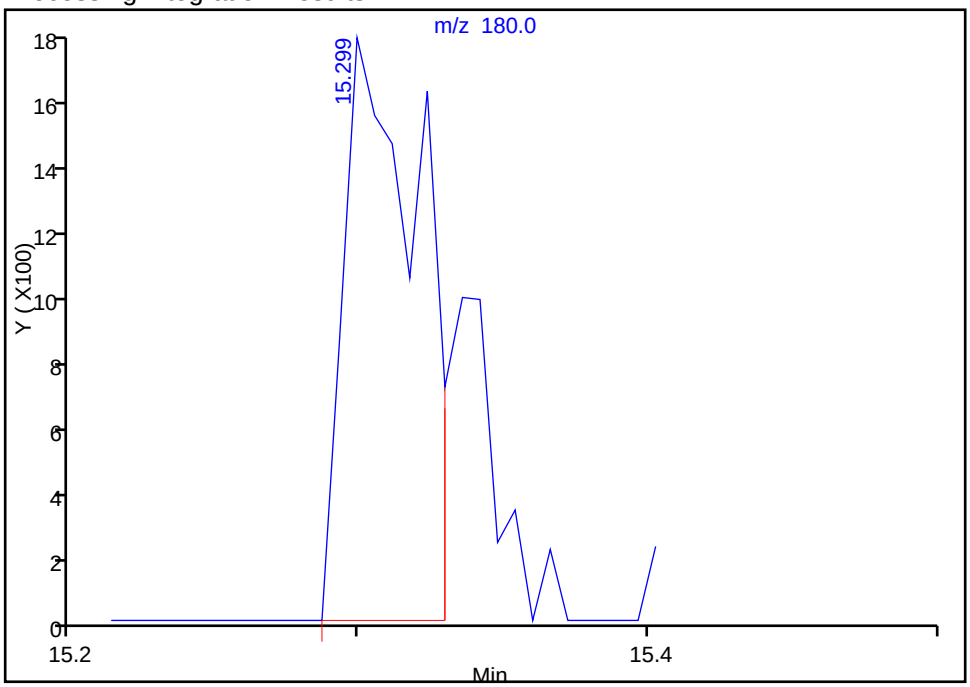
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102105.D
Injection Date: 21-Oct-2014 10:40:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

117 1,2,3-Trichlorobenzene, CAS: 87-61-6

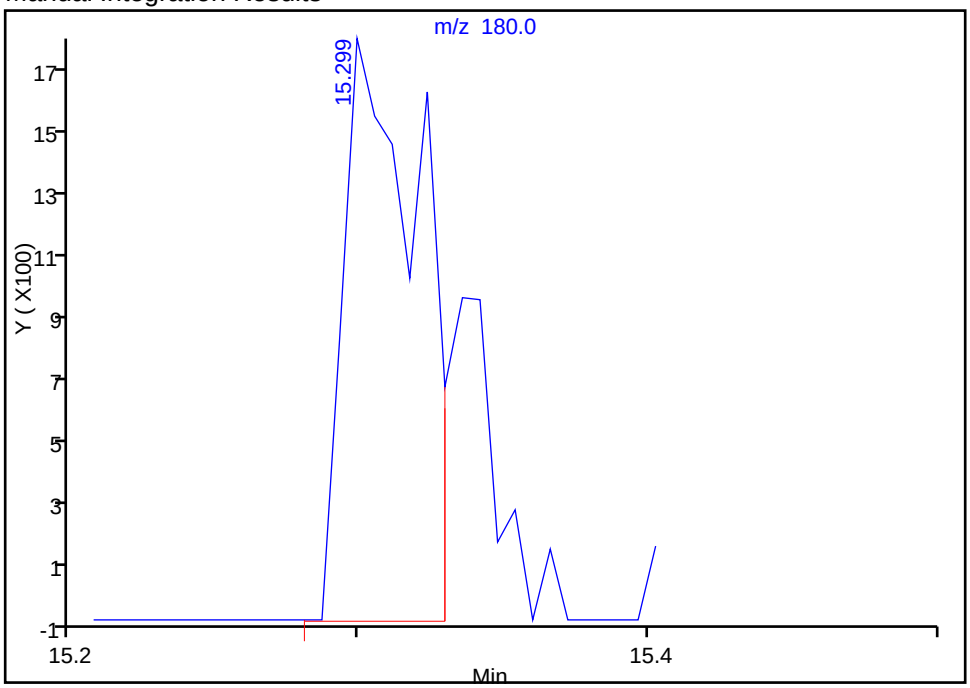
Processing Integration Results

RT: 15.30
Response: 3200
Amount: 44.576477



Manual Integration Results

RT: 15.30
Response: 3213
Amount: 72.940763



Reviewer: journetp, 22-Oct-2014 08:59:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 23-Oct-2014 09:06:33 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Oct-2014 11:36:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-007
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:06:31 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: journetp Date: 21-Oct-2014 12:44:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.667	4.755	-0.088	77	71810	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.398	7.396	0.002	92	181555	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.464	10.462	0.002	93	43369	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.782	12.786	-0.004	94	57289	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.674	6.672	0.002	44	42824	250.0	236.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.039	7.031	0.008	94	55364	250.0	242.5	
$ 7 Toluene-d8 (Surr)	98	9.035	9.032	0.003	95	185985	250.0	249.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.630	0.002	88	65301	250.0	236.7	
10 Dichlorodifluoromethane	85	2.130	1.860	0.270	59	76400	250.0	265.4	M
11 Chloromethane	50	1.996	2.000	-0.004	57	179552	250.0	280.8	
12 Vinyl chloride	62	2.185	2.182	0.003	73	105742	250.0	251.8	
13 Butadiene	39	2.185	2.182	0.003	95	115943	250.0	236.8	
14 Bromomethane	94	2.495	2.486	0.009	80	39565	250.0	243.5	
15 Chloroethane	64	2.592	2.608	-0.016	48	46518	250.0	246.6	
16 Dichlorofluoromethane	67	2.909	2.857	0.052	75	131199	250.0	251.2	
17 Trichlorofluoromethane	101	2.890	2.894	-0.004	56	104446	250.0	249.1	
19 Ethyl ether	59	3.335	3.301	0.034	79	55272	250.0	294.2	
21 Acrolein	56	3.523	3.466	0.057	44	31366	1000.0	1132.9	M
20 1,1-Dichloroethene	96	3.572	3.527	0.045	82	59105	250.0	279.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.742	3.673	0.069	72	60713	250.0	271.4	M
23 Iodomethane	142	3.791	3.709	0.082	89	85373	250.0	272.6	M
25 Acetone	43	3.754	3.794	-0.040	52	28213	250.0	273.1	M
24 Carbon disulfide	76	3.864	3.813	0.052	97	201469	250.0	255.6	M
26 3-Chloro-1-propene	76	4.077	4.105	-0.027	0	60140	250.0	252.9	M
29 Methyl acetate	43	4.284	4.287	-0.003	99	238573	1250.0	1333.7	M
30 Methylene Chloride	84	4.375	4.336	0.039	88	69474	250.0	245.1	
31 trans-1,2-Dichloroethene	96	4.776	4.731	0.045	81	68015	250.0	257.9	
32 Acrylonitrile	53	4.789	4.774	0.014	98	198957	2500.0	2832.7	
33 Methyl tert-butyl ether	73	4.825	4.853	-0.028	98	178415	250.0	272.9	
34 2-Methyl-2-propanol	59	4.764	4.871	-0.107	58	46019	2500.0	2363.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.160	5.145	0.015	98	110961	250.0	242.1	
36 1,1-Dichloroethane	63	5.354	5.339	0.015	97	135125	250.0	250.5	
38 Vinyl acetate	43	5.476	5.479	-0.003	67	52009	250.0	249.8	
41 2,2-Dichloropropane	77	6.084	6.076	0.008	76	102677	250.0	276.7	
42 cis-1,2-Dichloroethene	96	6.103	6.088	0.015	86	69958	250.0	255.3	
44 2-Butanone (MEK)	43	6.188	6.179	0.009	91	28296	250.0	276.9	
47 Chlorobromomethane	128	6.376	6.386	-0.010	84	24663	250.0	247.4	
49 Tetrahydrofuran	42	6.468	6.477	-0.009	62	34844	500.0	535.2	
48 Chloroform	83	6.492	6.477	0.015	96	111616	250.0	249.2	
50 1,1,1-Trichloroethane	97	6.680	6.666	0.014	78	105716	250.0	254.1	
51 Cyclohexane	56	6.735	6.720	0.015	96	168722	250.0	270.1	
52 Carbon tetrachloride	117	6.875	6.848	0.027	91	84011	250.0	269.9	
53 1,1-Dichloropropene	75	6.863	6.860	0.003	86	77469	250.0	242.7	
54 Benzene	78	7.100	7.085	0.015	97	220179	250.0	246.3	
55 1,2-Dichloroethane	62	7.118	7.116	0.002	96	65763	250.0	260.8	
57 Isobutyl alcohol	41	7.100	7.134	-0.034	64	32364	6250.0	6479.5	
58 n-Heptane	43	7.404	7.402	0.002	85	114640	250.0	241.1	
60 Trichloroethene	130	7.794	7.791	0.003	93	45887	250.0	235.5	
63 Methylcyclohexane	83	7.995	7.980	0.014	95	132590	250.0	251.0	
64 1,2-Dichloropropane	63	8.025	8.016	0.009	95	60490	250.0	262.1	
66 Dibromomethane	93	8.147	8.150	-0.003	93	23331	250.0	253.1	
67 1,4-Dioxane	88	8.189	8.187	0.002	30	4288	5000.0	5186.7	M
68 Dichlorobromomethane	83	8.317	8.308	0.009	97	77225	250.0	256.1	
71 cis-1,3-Dichloropropene	75	8.773	8.764	0.009	90	88926	250.0	255.6	
72 4-Methyl-2-pentanone (MIBK	43	8.937	8.935	0.002	98	54015	250.0	271.9	
73 Toluene	91	9.102	9.099	0.003	97	217948	250.0	235.4	
74 trans-1,3-Dichloropropene	75	9.327	9.324	0.003	99	67992	250.0	248.2	
75 Ethyl methacrylate	69	9.424	9.421	0.003	95	61248	250.0	276.6	
76 1,1,2-Trichloroethane	97	9.503	9.507	-0.004	94	37062	250.0	258.8	
77 Tetrachloroethene	164	9.649	9.640	0.009	94	44028	250.0	256.0	
78 1,3-Dichloropropane	76	9.667	9.665	0.002	97	67531	250.0	260.5	
79 2-Hexanone	43	9.759	9.762	-0.003	98	36096	250.0	271.6	
81 Chlorodibromomethane	129	9.899	9.896	0.003	89	45030	250.0	255.7	
82 Ethylene Dibromide	107	10.020	10.012	0.008	98	37845	250.0	273.3	
83 Chlorobenzene	112	10.495	10.492	0.003	89	138551	250.0	247.4	
84 1,1,1,2-Tetrachloroethane	131	10.574	10.571	0.003	92	48939	250.0	246.6	
85 Ethylbenzene	106	10.604	10.602	0.002	99	73632	250.0	248.7	
86 m-Xylene & p-Xylene	106	10.714	10.717	-0.003	98	94504	250.0	250.6	
88 o-Xylene	106	11.109	11.113	-0.004	95	101298	250.0	255.7	
89 Styrene	104	11.127	11.125	0.002	91	154324	250.0	242.7	
90 Bromoform	173	11.316	11.313	0.003	95	28198	250.0	264.8	
91 Isopropylbenzene	105	11.474	11.478	-0.004	97	285365	250.0	253.0	
93 1,1,2,2-Tetrachloroethane	83	11.772	11.776	-0.004	94	49226	250.0	267.0	
94 Bromobenzene	156	11.785	11.788	-0.004	98	56131	250.0	245.4	
95 1,2,3-Trichloropropane	110	11.821	11.818	0.003	84	12196	250.0	280.4	
96 trans-1,4-Dichloro-2-buten	53	11.833	11.824	0.009	69	15481	250.0	275.9	
97 N-Propylbenzene	120	11.888	11.885	0.003	99	71470	250.0	233.5	
98 2-Chlorotoluene	126	11.973	11.977	-0.004	94	56272	250.0	234.0	
99 1,3,5-Trimethylbenzene	105	12.064	12.062	0.002	95	218260	250.0	237.8	
100 4-Chlorotoluene	126	12.083	12.086	-0.003	99	51569	250.0	230.0	
101 tert-Butylbenzene	119	12.387	12.390	-0.003	95	196042	250.0	221.6	
103 1,2,4-Trimethylbenzene	105	12.435	12.433	0.002	97	209303	250.0	232.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.606	12.609	-0.003	95	286264	250.0	232.2	
105 1,3-Dichlorobenzene	146	12.721	12.719	0.002	94	96877	250.0	232.6	
106 4-Isopropyltoluene	119	12.752	12.749	0.003	98	240623	250.0	234.2	
107 1,4-Dichlorobenzene	146	12.807	12.810	-0.003	88	89516	250.0	235.0	
110 n-Butylbenzene	91	13.159	13.163	-0.004	99	212168	250.0	231.9	
111 1,2-Dichlorobenzene	146	13.184	13.187	-0.003	95	79034	250.0	242.9	
112 1,2-Dibromo-3-Chloropropan	75	13.981	13.972	0.009	83	3964	250.0	240.0	
114 1,2,4-Trichlorobenzene	180	14.802	14.799	0.003	93	24530	250.0	233.0	
115 Hexachlorobutadiene	225	14.972	14.970	0.002	95	20485	250.0	248.1	
116 Naphthalene	128	15.057	15.055	0.002	97	32769	250.0	236.4	
117 1,2,3-Trichlorobenzene	180	15.301	15.304	-0.003	94	13394	250.0	244.0	
S 129 Xylenes, Total	106				0		500.0	506.3	
S 130 1,2-Dichloroethene, Total	96				0		500.0	513.3	
S 131 1,3-Dichloropropene, Total	1				0		500.0	503.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00084	Amount Added:	10.00	Units: uL
VOAACROPRI_00002	Amount Added:	40.00	Units: uL
voaWVA pri Re_00003	Amount Added:	10.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA8260SURR_00017	Amount Added:	10.00	Units: uL

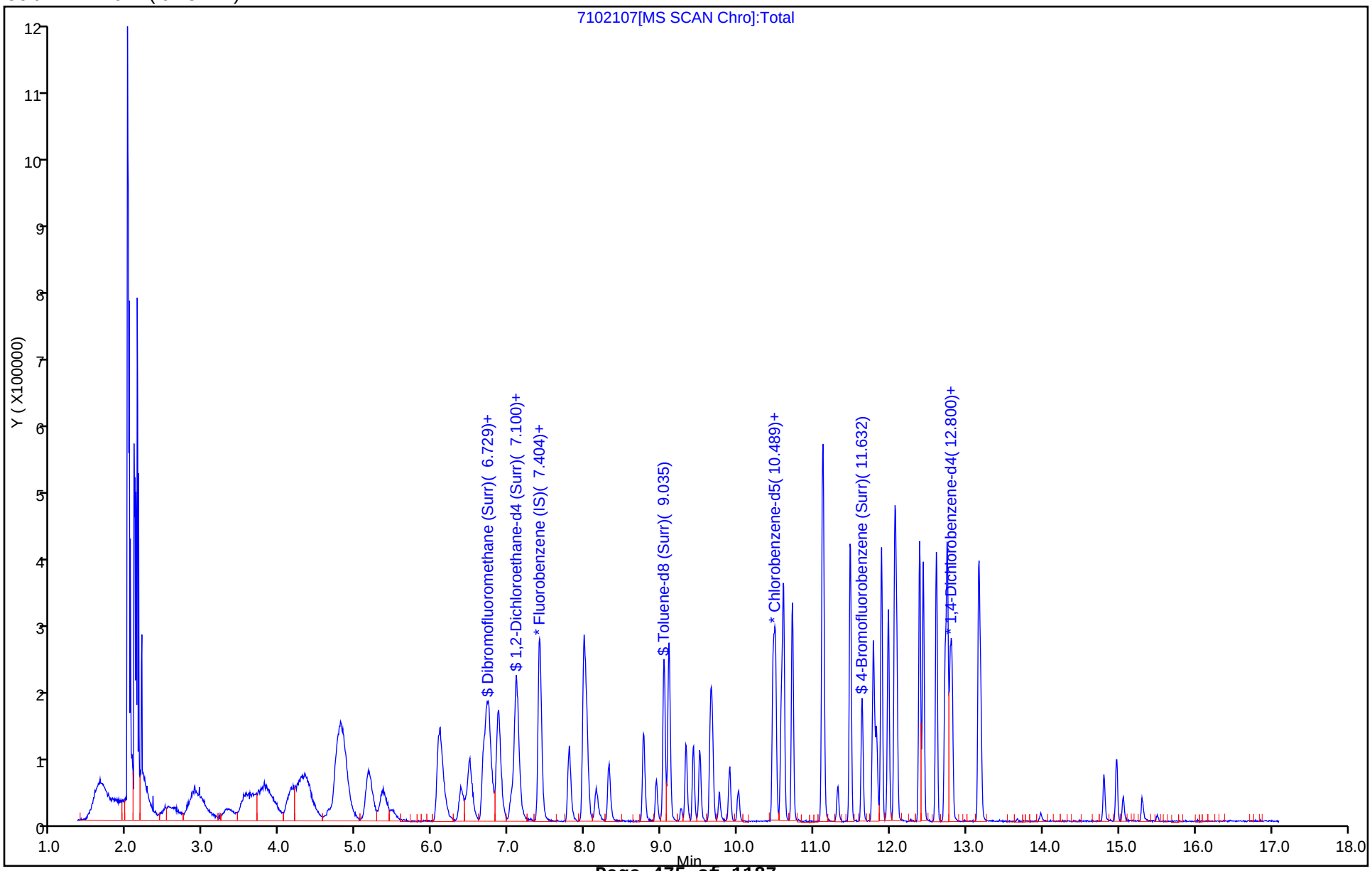
Report Date: 23-Oct-2014 09:06:33 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D

Injection Date:	21-Oct-2014 11:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

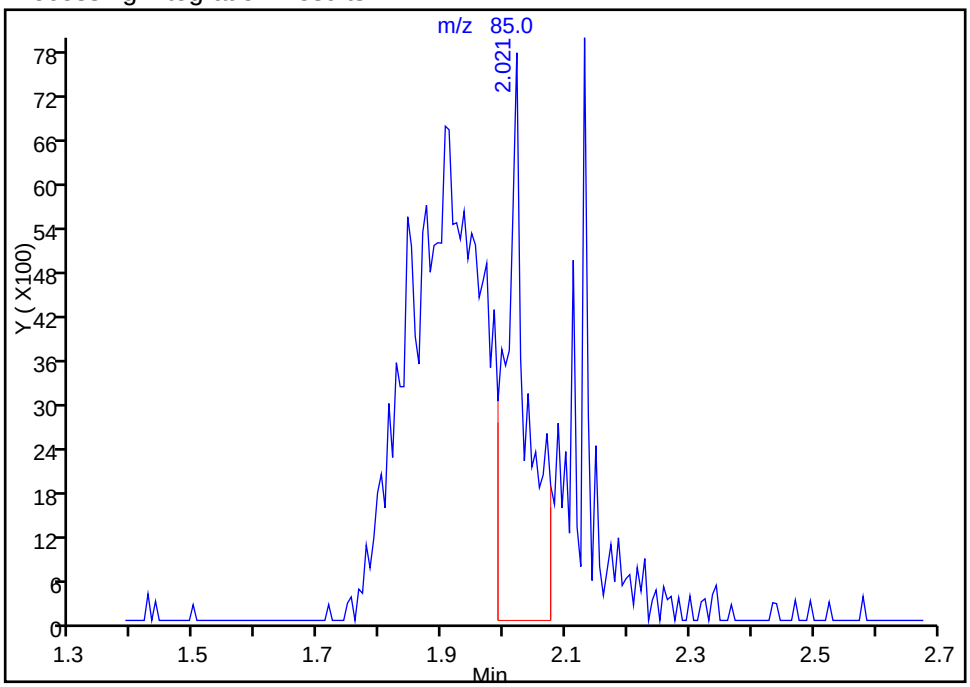
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

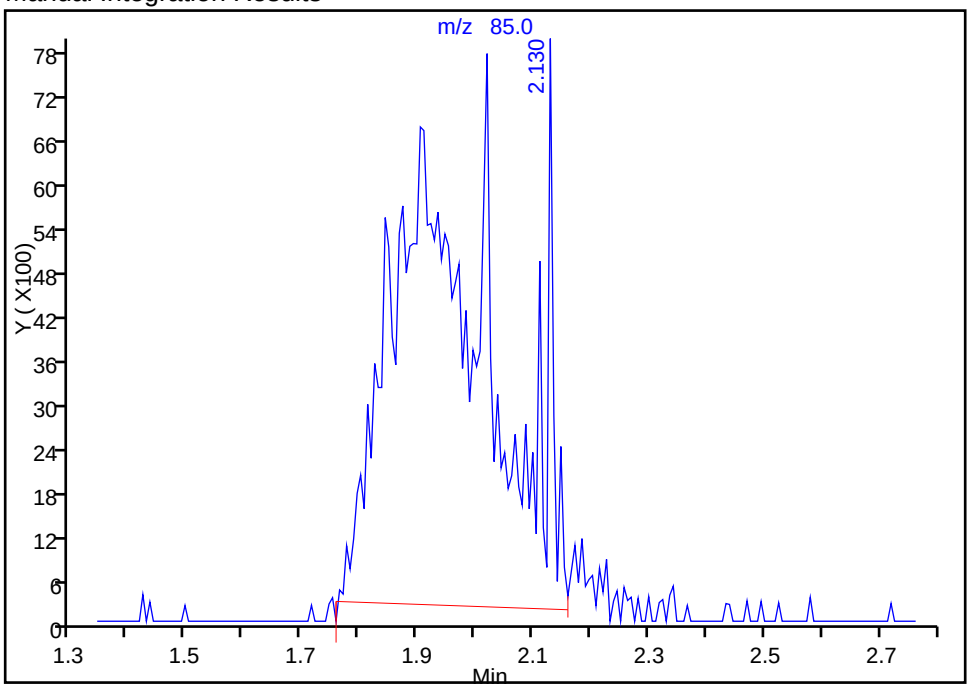
Processing Integration Results

RT: 2.02
Response: 17666
Amount: 72.614755



Manual Integration Results

RT: 2.13
Response: 76400
Amount: 265.3730



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

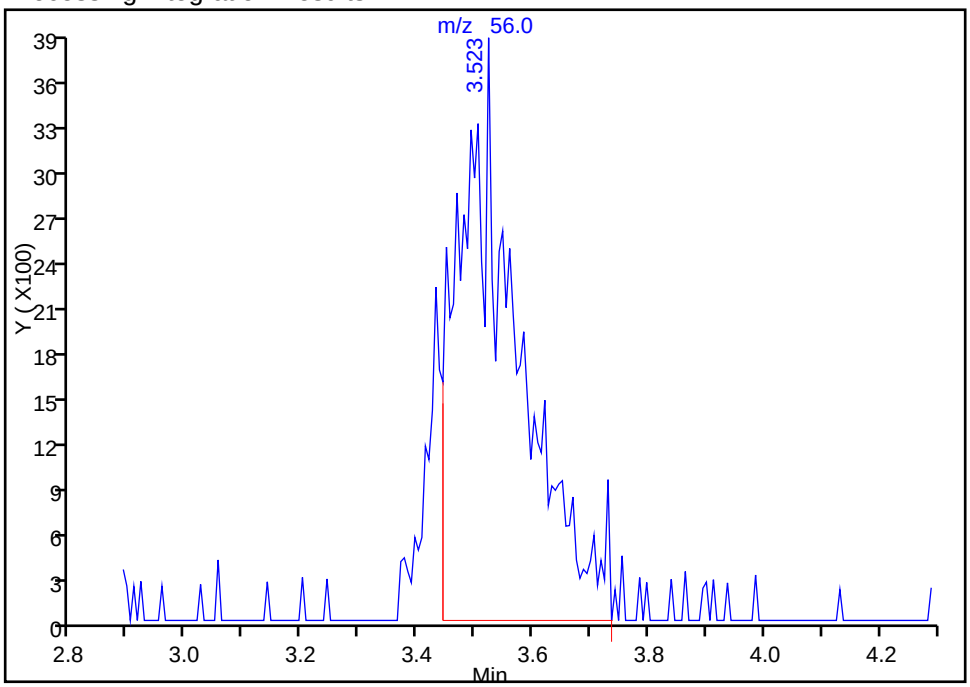
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 Acrolein, CAS: 107-02-8

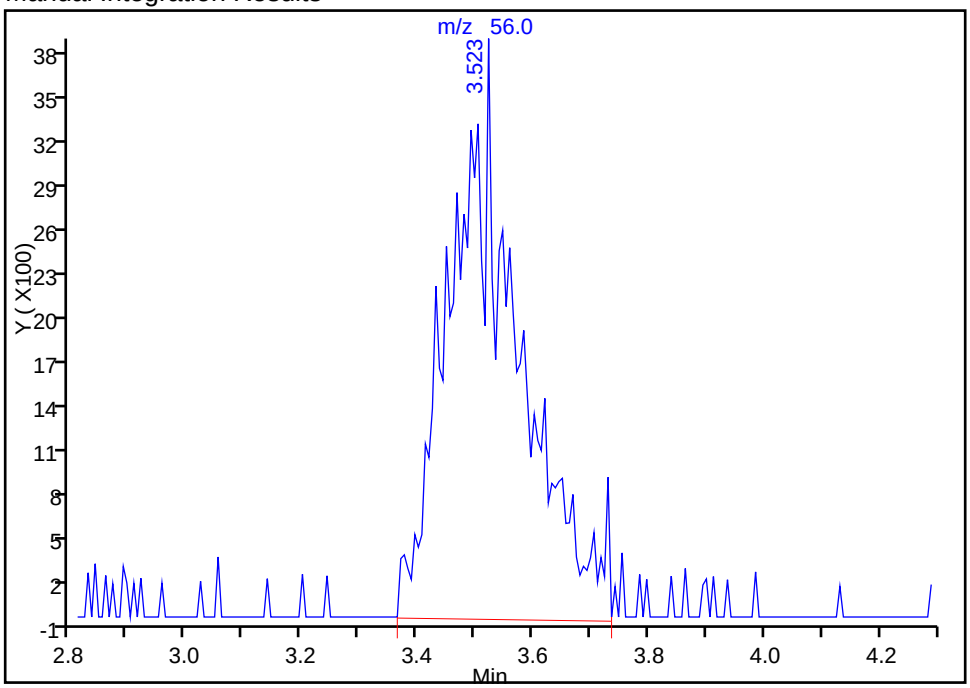
Processing Integration Results

RT: 3.52
Response: 27191
Amount: 1306.9513



Manual Integration Results

RT: 3.52
Response: 31366
Amount: 1132.8523



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

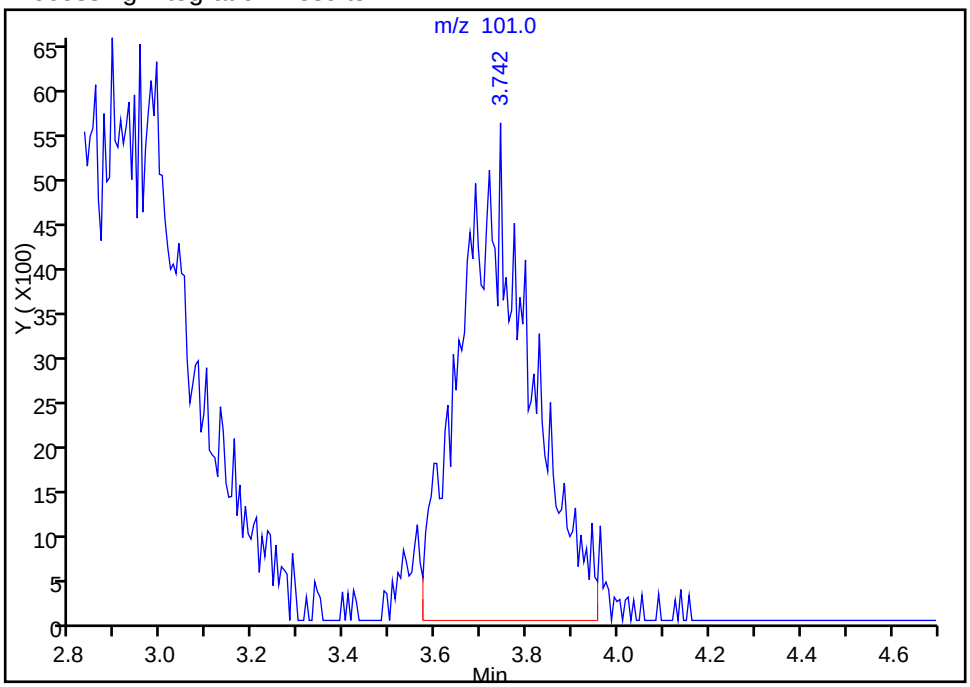
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

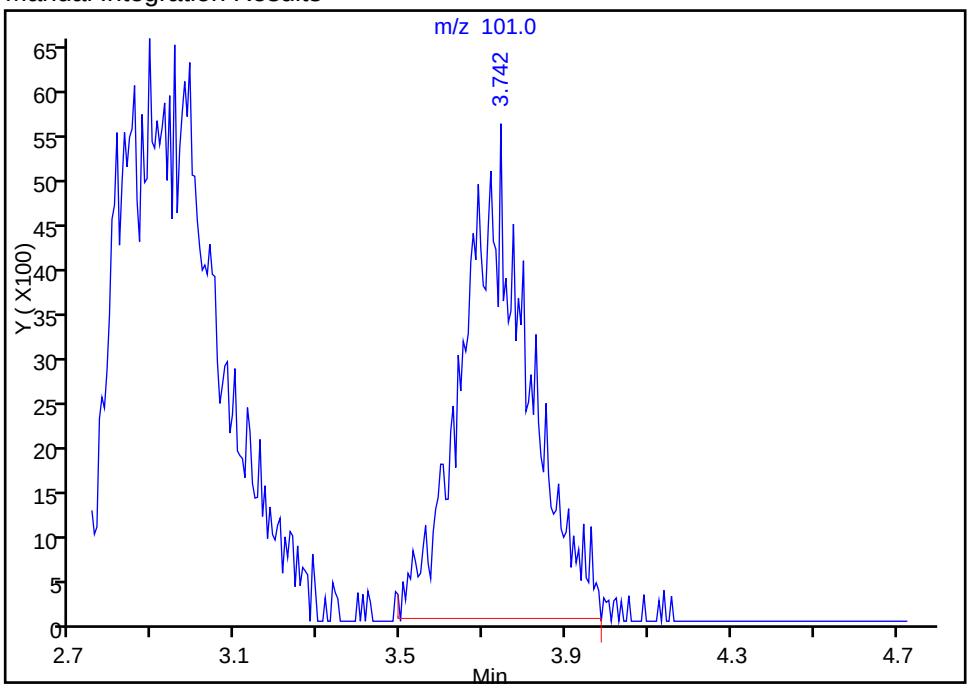
Processing Integration Results

RT: 3.74
Response: 58274
Amount: 263.8330



Manual Integration Results

RT: 3.74
Response: 60713
Amount: 271.4087



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

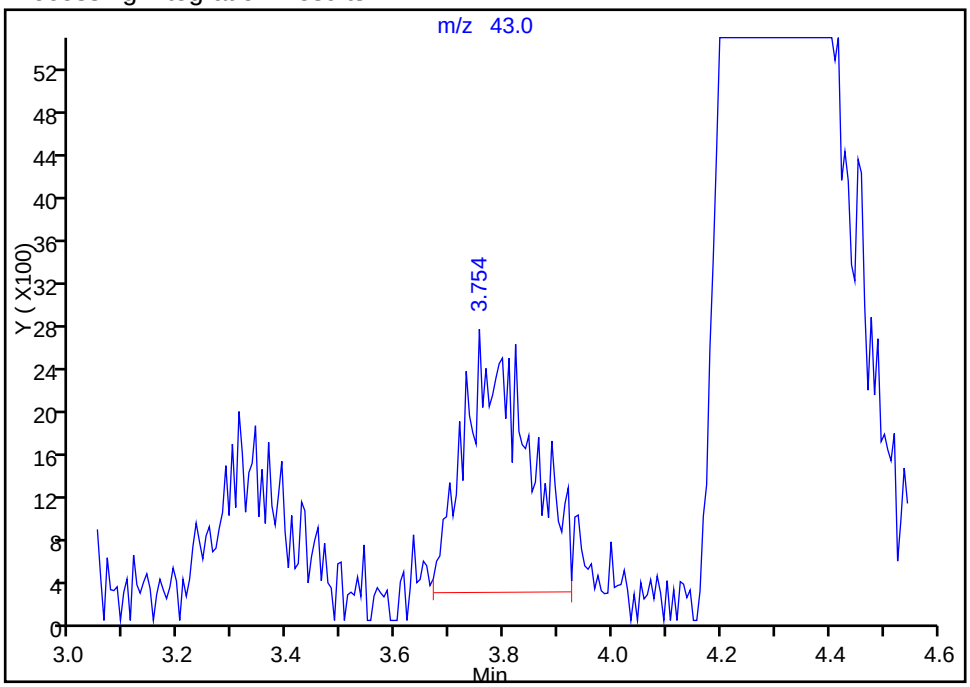
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

25 Acetone, CAS: 67-64-1

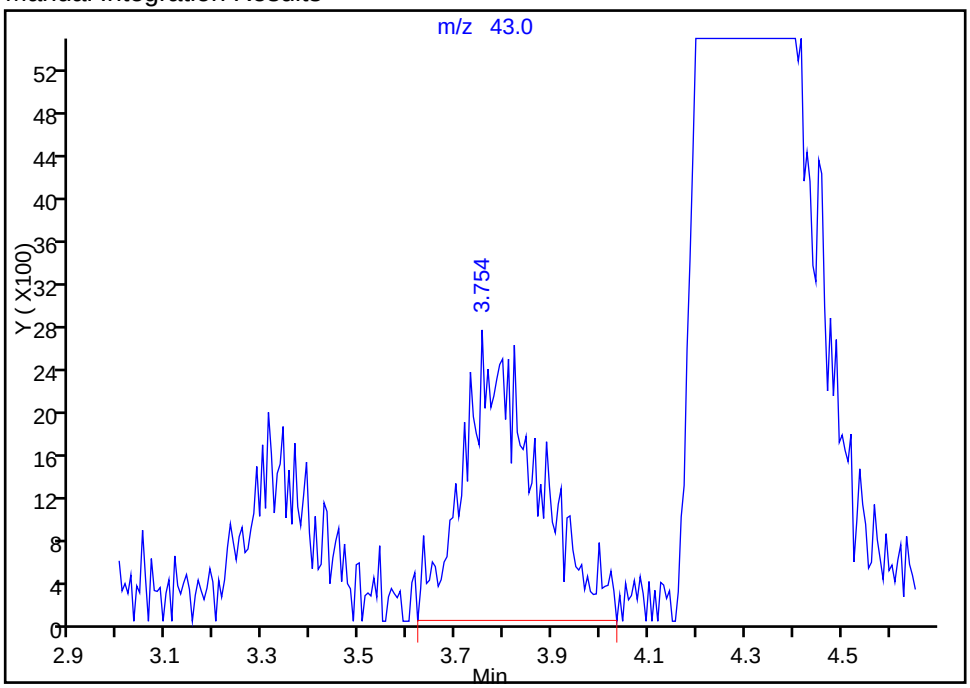
Processing Integration Results

RT: 3.75
Response: 20091
Amount: 256.1648



Manual Integration Results

RT: 3.75
Response: 28213
Amount: 273.0648



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

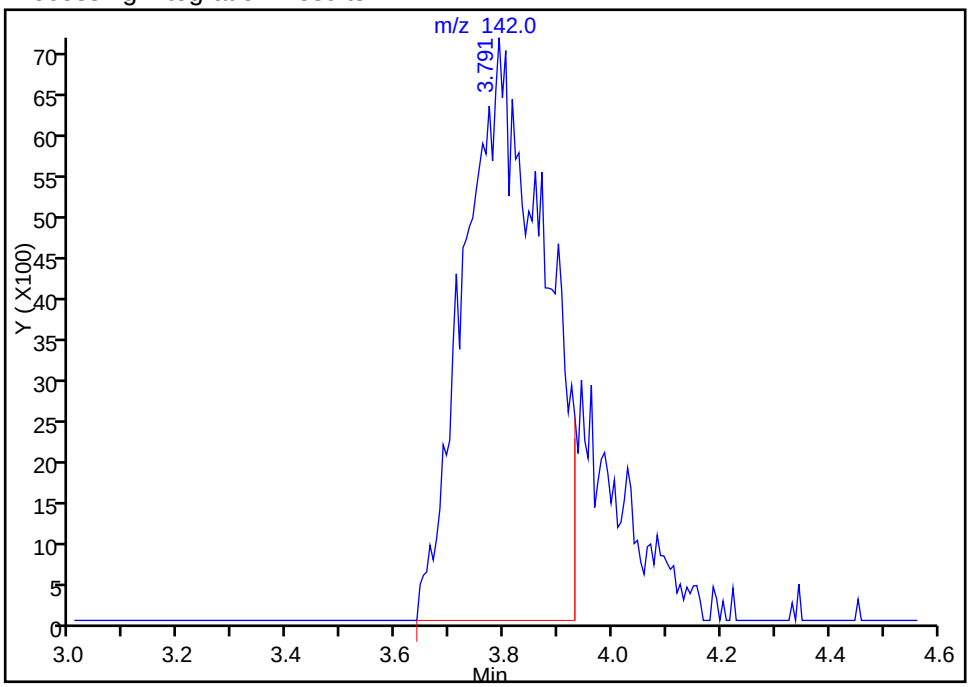
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D				
Injection Date:	21-Oct-2014 11:36:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 Iodomethane, CAS: 74-88-4

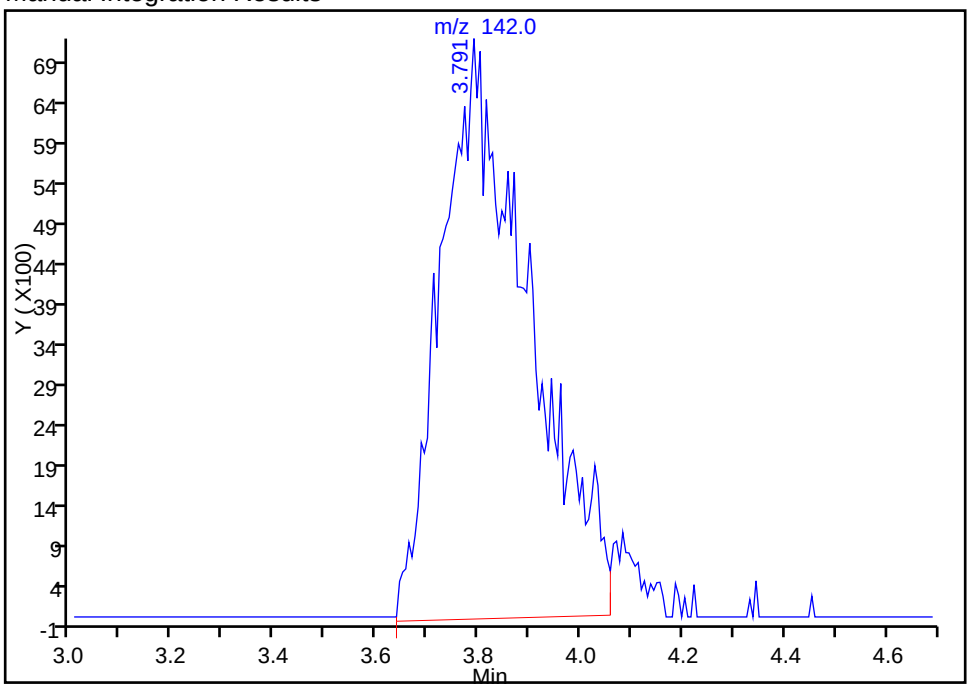
Processing Integration Results

RT: 3.79
Response: 72295
Amount: 237.7848



Manual Integration Results

RT: 3.79
Response: 85373
Amount: 272.5630



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

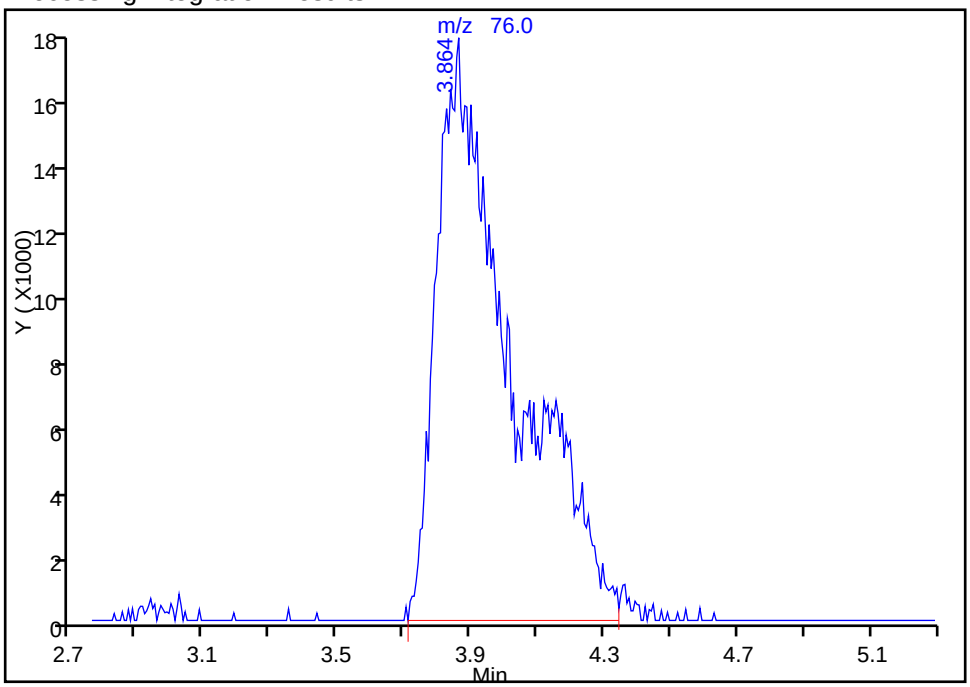
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Carbon disulfide, CAS: 75-15-0

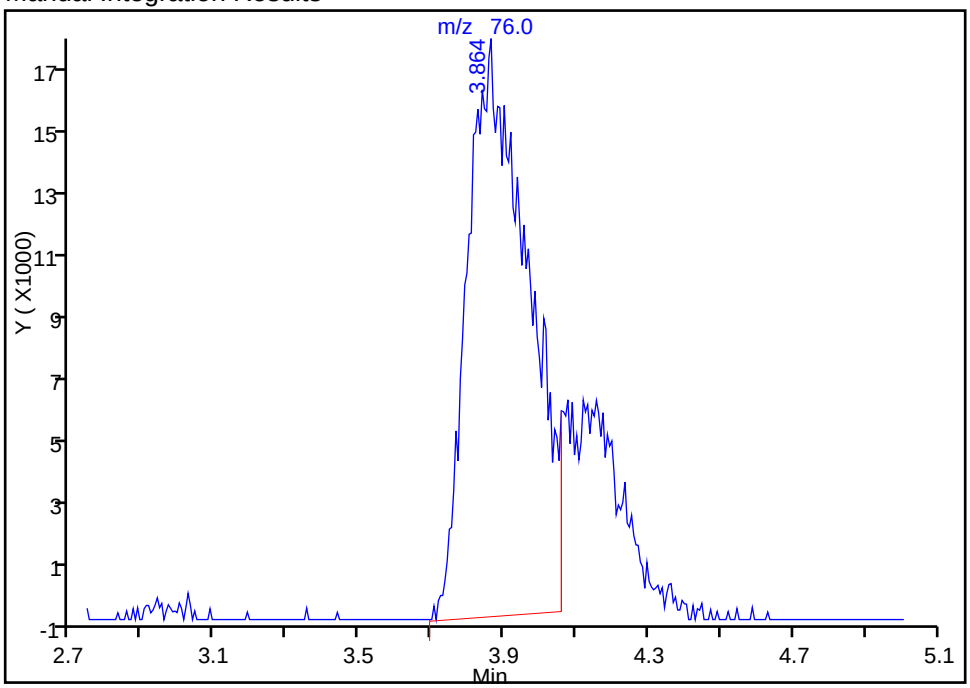
Processing Integration Results

RT: 3.86
Response: 270685
Amount: 303.1575



Manual Integration Results

RT: 3.86
Response: 201469
Amount: 255.5670



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

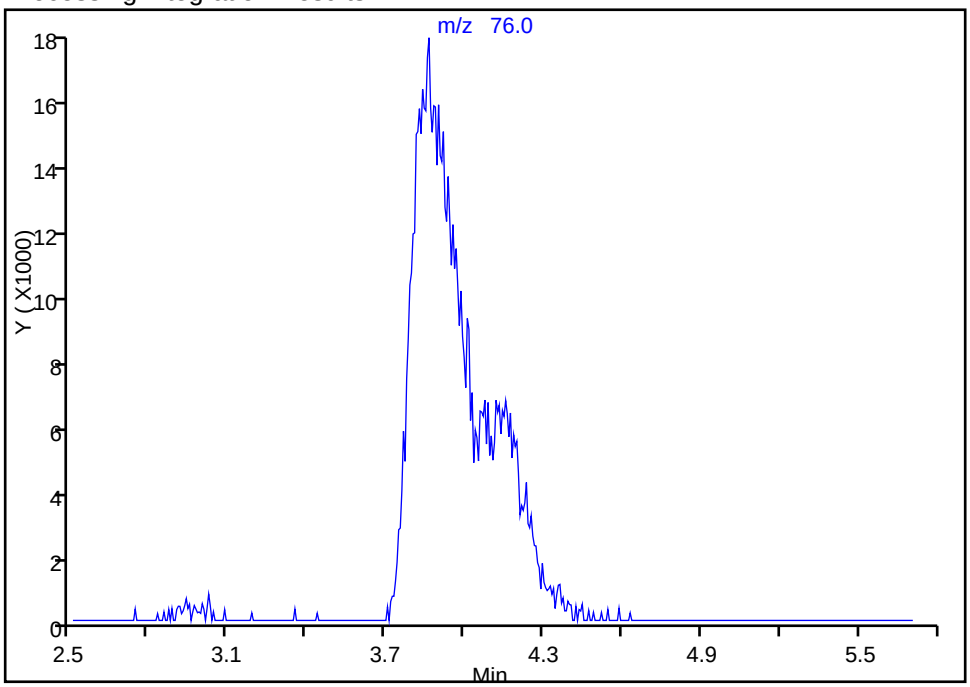
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 3-Chloro-1-propene, CAS: 107-05-1

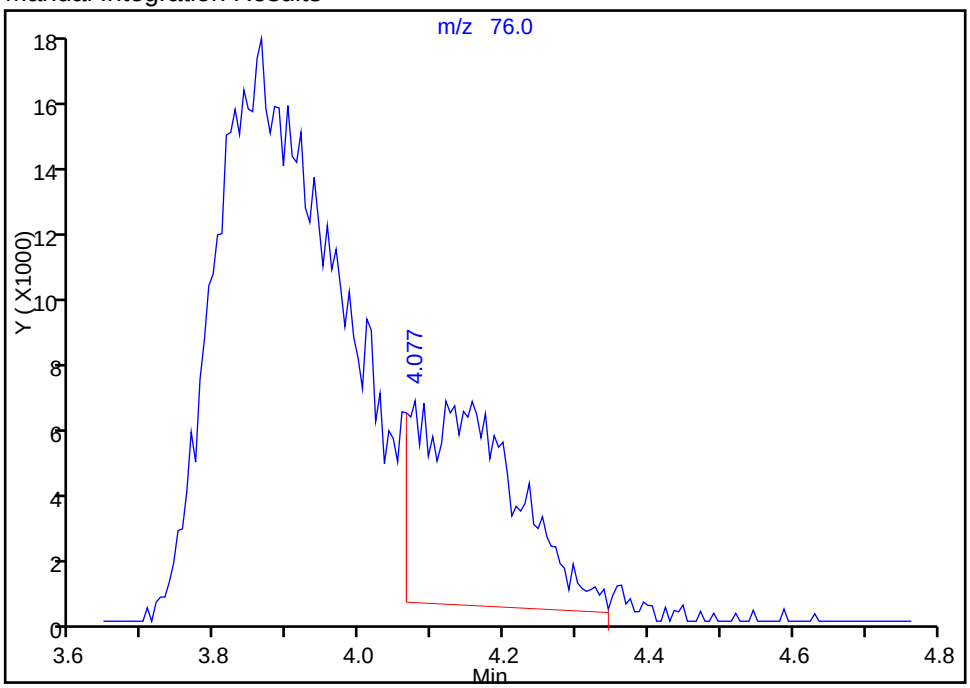
Not Detected
Expected RT: 4.10

Processing Integration Results



Manual Integration Results

RT: 4.08
Response: 60140
Amount: 252.8614



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

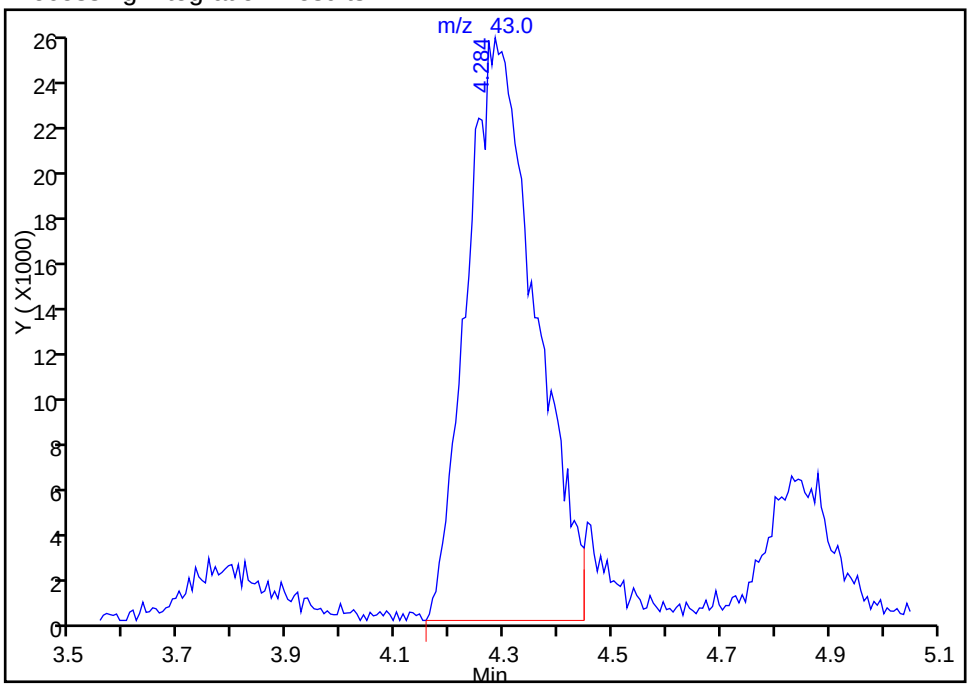
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D				
Injection Date:	21-Oct-2014 11:36:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

29 Methyl acetate, CAS: 79-20-9

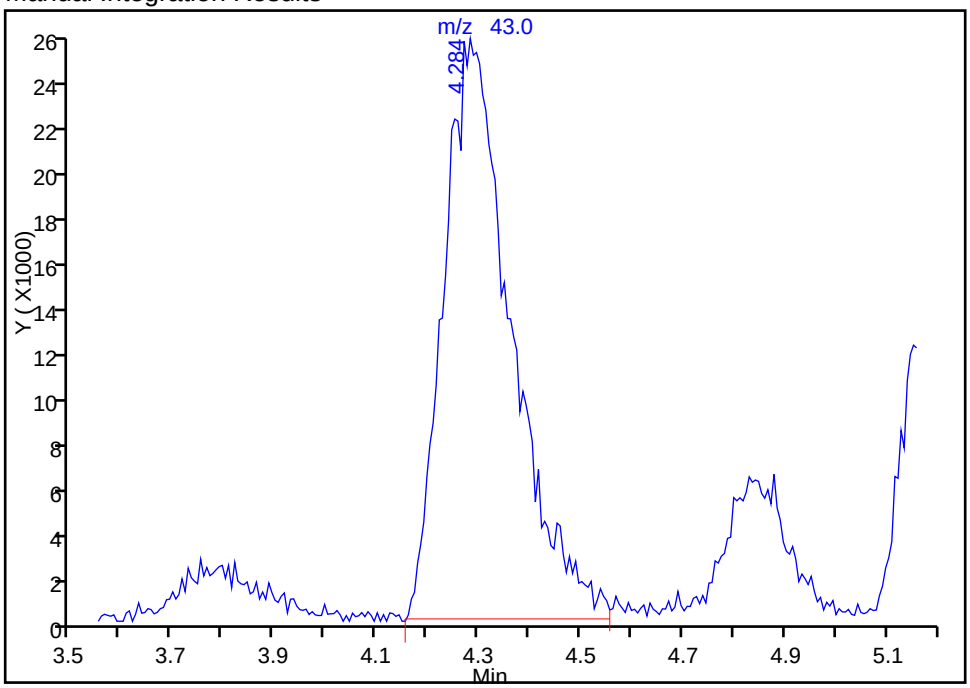
Processing Integration Results

RT: 4.28
Response: 228288
Amount: 1314.8345



Manual Integration Results

RT: 4.28
Response: 238573
Amount: 1333.6971



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

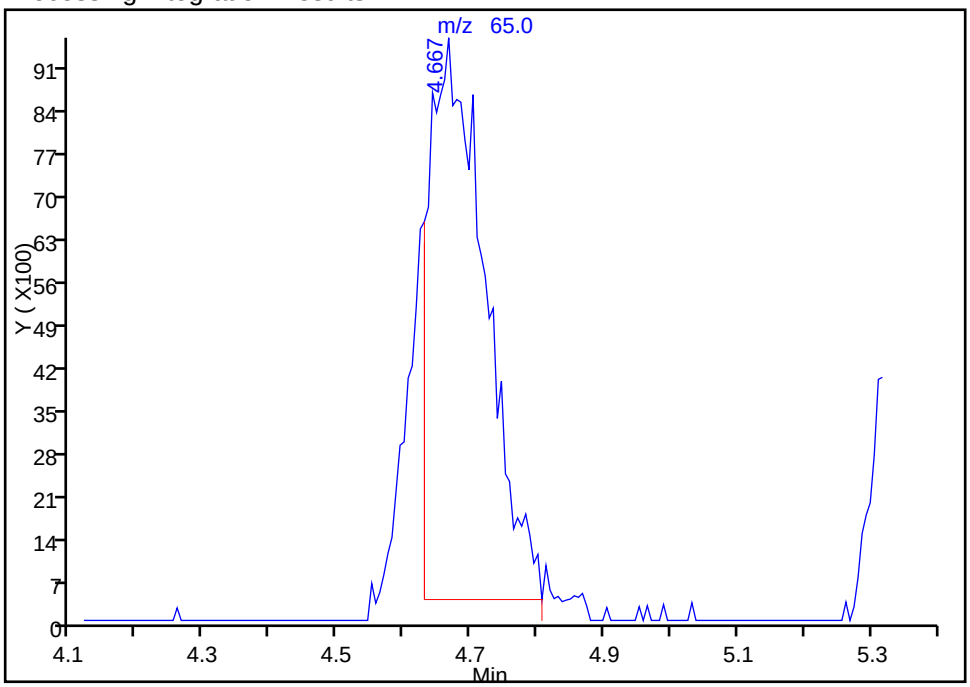
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

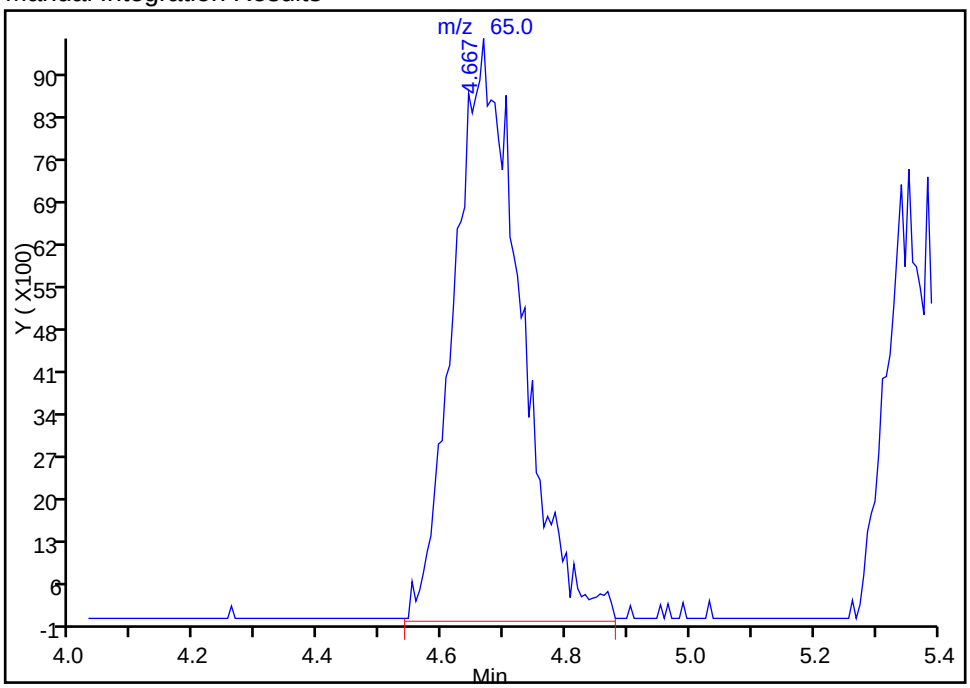
Processing Integration Results

RT: 4.67
Response: 53621
Amount: 5000.0000



Manual Integration Results

RT: 4.67
Response: 71810
Amount: 5000.0000



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

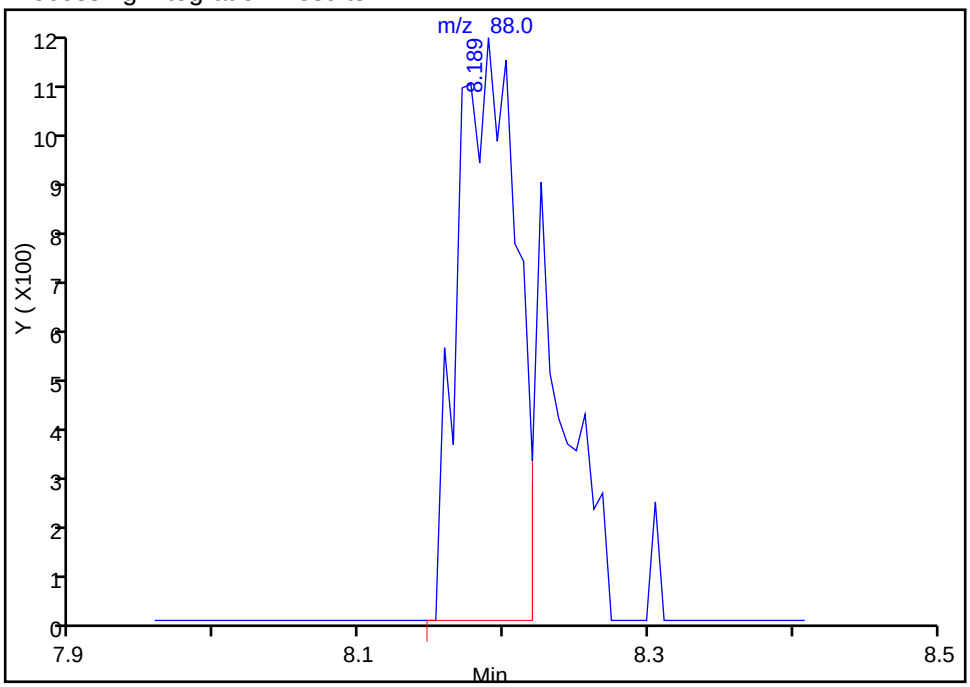
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102107.D
Injection Date: 21-Oct-2014 11:36:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

67 1,4-Dioxane, CAS: 123-91-1

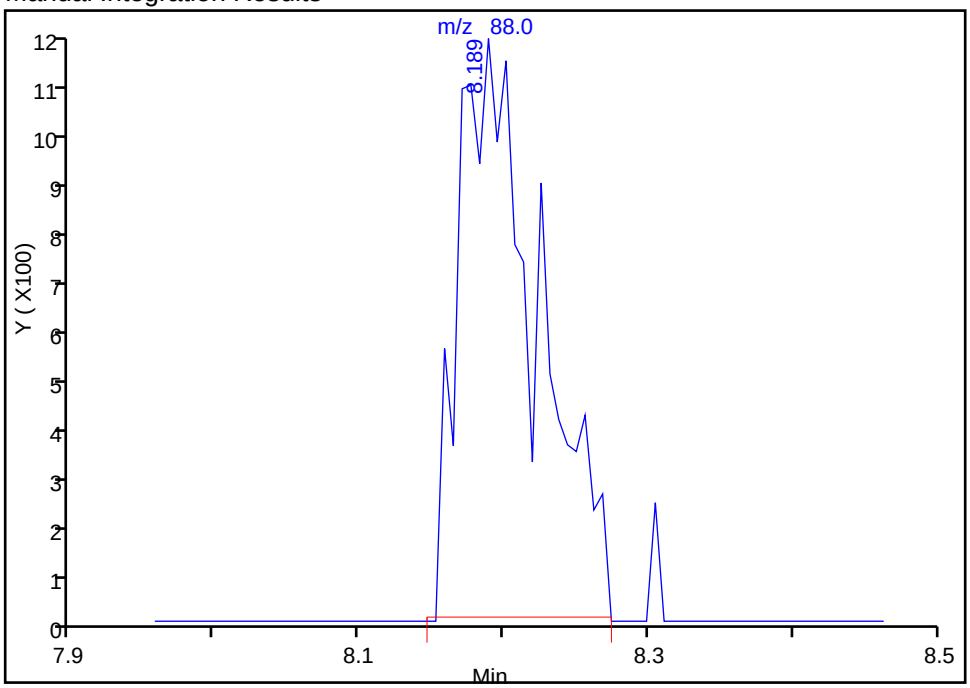
Processing Integration Results

RT: 8.19
Response: 3168
Amount: 5045.3813



Manual Integration Results

RT: 8.19
Response: 4288
Amount: 5186.6882



Reviewer: journetp, 21-Oct-2014 12:44:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Oct-2014 12:35:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-008
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:06:34 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: journetp Date: 21-Oct-2014 13:07:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.763	4.755	0.008	1	67073	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.397	7.396	0.001	70	185798	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.463	10.462	0.001	93	43125	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.786	0.001	93	52612	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.673	6.672	0.001	86	116278	625.0	628.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.032	7.031	0.001	94	146628	625.0	627.5	
$ 7 Toluene-d8 (Surr)	98	9.040	9.032	0.008	96	449020	625.0	605.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.630	0.007	86	166633	625.0	607.4	
10 Dichlorodifluoromethane	85	1.910	1.860	0.050	60	185781	625.0	630.6	
11 Chloromethane	50	2.044	2.000	0.044	88	395387	625.0	604.2	
12 Vinyl chloride	62	2.208	2.182	0.026	74	252506	625.0	587.4	
13 Butadiene	39	2.196	2.182	0.014	97	307095	625.0	612.9	
14 Bromomethane	94	2.518	2.486	0.032	92	94388	625.0	567.5	
15 Chloroethane	64	2.603	2.608	-0.005	56	120368	625.0	623.4	
16 Dichlorofluoromethane	67	2.895	2.857	0.038	98	327081	625.0	611.9	
17 Trichlorofluoromethane	101	2.901	2.894	0.007	75	263404	625.0	613.9	
19 Ethyl ether	59	3.327	3.301	0.026	98	135711	625.0	706.0	
21 Acrolein	56	3.510	3.466	0.044	23	31704	1125.0	1118.9	M
20 1,1-Dichloroethene	96	3.552	3.527	0.025	86	143706	625.0	663.4	
22 1,1,2-Trichloro-1,2,2-trif	101	3.650	3.673	-0.023	78	147492	625.0	644.3	
23 Iodomethane	142	3.771	3.709	0.062	60	194659	625.0	607.3	M
25 Acetone	43	3.814	3.794	0.020	28	64723	625.0	595.1	
24 Carbon disulfide	76	3.844	3.813	0.032	100	484373	625.0	600.4	M
26 3-Chloro-1-propene	76	4.148	4.105	0.044	0	156846	625.0	644.4	M
29 Methyl acetate	43	4.301	4.287	0.014	100	566016	3125.0	3091.9	
30 Methylene Chloride	84	4.355	4.336	0.019	95	167383	625.0	577.1	
31 trans-1,2-Dichloroethene	96	4.745	4.731	0.014	88	163732	625.0	606.8	
32 Acrylonitrile	53	4.787	4.774	0.013	100	464143	6250.0	6457.5	
33 Methyl tert-butyl ether	73	4.860	4.853	0.007	98	409063	625.0	611.5	
34 2-Methyl-2-propanol	59	4.860	4.871	-0.011	48	121361	6250.0	6671.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.152	5.145	0.007	96	289120	625.0	616.4	
36 1,1-Dichloroethane	63	5.347	5.339	0.008	97	353024	625.0	639.6	
38 Vinyl acetate	43	5.475	5.479	-0.004	96	123528	625.0	577.7	
41 2,2-Dichloropropane	77	6.095	6.076	0.019	70	240411	625.0	633.1	
42 cis-1,2-Dichloroethene	96	6.095	6.088	0.007	89	174723	625.0	623.1	
44 2-Butanone (MEK)	43	6.180	6.179	0.001	84	65984	625.0	631.0	
47 Chlorobromomethane	128	6.381	6.386	-0.005	85	65617	625.0	643.1	
49 Tetrahydrofuran	42	6.472	6.477	-0.005	93	84320	1250.0	1265.5	
48 Chloroform	83	6.491	6.477	0.014	96	283592	625.0	618.7	
50 1,1,1-Trichloroethane	97	6.685	6.666	0.019	98	250864	625.0	589.3	
51 Cyclohexane	56	6.740	6.720	0.020	97	384581	625.0	601.6	
52 Carbon tetrachloride	117	6.862	6.848	0.014	92	197758	625.0	620.8	
53 1,1-Dichloropropene	75	6.862	6.860	0.002	87	192263	625.0	588.6	
54 Benzene	78	7.099	7.085	0.014	98	534331	625.0	584.1	
55 1,2-Dichloroethane	62	7.123	7.116	0.007	95	167478	625.0	619.9	
57 Isobutyl alcohol	41	7.117	7.134	-0.017	77	85306	15625	16689	
58 n-Heptane	43	7.403	7.402	0.001	97	295525	625.0	607.4	
60 Trichloroethene	130	7.792	7.791	0.001	95	127265	625.0	638.3	
63 Methylcyclohexane	83	7.987	7.980	0.007	94	325917	625.0	602.9	
64 1,2-Dichloropropane	63	8.024	8.016	0.008	92	147143	625.0	622.9	
66 Dibromomethane	93	8.145	8.150	-0.005	96	61846	625.0	655.5	
67 1,4-Dioxane	88	8.188	8.187	0.001	92	12471	12500	12389	
68 Dichlorobromomethane	83	8.316	8.308	0.008	97	192641	625.0	624.3	
71 cis-1,3-Dichloropropene	75	8.766	8.764	0.002	91	227675	625.0	639.6	
72 4-Methyl-2-pentanone (MIBK	43	8.936	8.935	0.001	98	128319	625.0	649.6	
73 Toluene	91	9.100	9.099	0.001	97	504337	625.0	547.7	
74 trans-1,3-Dichloropropene	75	9.325	9.324	0.001	98	173362	625.0	636.4	
75 Ethyl methacrylate	69	9.423	9.421	0.002	95	137027	625.0	622.3	
76 1,1,2-Trichloroethane	97	9.508	9.507	0.001	95	86319	625.0	606.3	
77 Tetrachloroethene	164	9.648	9.640	0.008	92	102076	625.0	597.0	
78 1,3-Dichloropropane	76	9.672	9.665	0.007	99	154129	625.0	597.9	
79 2-Hexanone	43	9.763	9.762	0.001	98	83945	625.0	635.1	
81 Chlorodibromomethane	129	9.897	9.896	0.001	90	111596	625.0	637.2	
82 Ethylene Dibromide	107	10.013	10.012	0.001	97	90055	625.0	654.0	
83 Chlorobenzene	112	10.493	10.492	0.001	90	336729	625.0	604.7	
84 1,1,1,2-Tetrachloroethane	131	10.579	10.571	0.008	92	119573	625.0	605.9	
85 Ethylbenzene	106	10.603	10.602	0.001	99	168965	625.0	573.8	
86 m-Xylene & p-Xylene	106	10.719	10.717	0.002	97	217070	625.0	578.9	
88 o-Xylene	106	11.114	11.113	0.001	99	229514	625.0	582.5	
89 Styrene	104	11.126	11.125	0.001	94	356554	625.0	563.8	
90 Bromoform	173	11.315	11.313	0.002	93	64903	625.0	612.8	
91 Isopropylbenzene	105	11.479	11.478	0.001	97	659829	625.0	588.4	
93 1,1,2,2-Tetrachloroethane	83	11.771	11.776	-0.005	94	112804	625.0	615.2	
94 Bromobenzene	156	11.789	11.788	0.001	97	131941	625.0	628.0	
95 1,2,3-Trichloropropane	110	11.820	11.818	0.002	86	26634	625.0	666.8	
96 trans-1,4-Dichloro-2-buten	53	11.832	11.824	0.008	92	34072	625.0	607.8	
97 N-Propylbenzene	120	11.893	11.885	0.008	99	164716	625.0	586.0	
98 2-Chlorotoluene	126	11.978	11.977	0.001	94	131231	625.0	594.2	
99 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	95	501241	625.0	594.6	
100 4-Chlorotoluene	126	12.087	12.086	0.001	99	120435	625.0	585.0	
101 tert-Butylbenzene	119	12.392	12.390	0.002	95	497976	625.0	613.0	
103 1,2,4-Trimethylbenzene	105	12.440	12.433	0.007	99	486133	625.0	588.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.611	12.609	0.002	96	679818	625.0	600.5	
105 1,3-Dichlorobenzene	146	12.726	12.719	0.007	96	239516	625.0	626.3	
106 4-Isopropyltoluene	119	12.750	12.749	0.001	98	541033	625.0	573.3	
107 1,4-Dichlorobenzene	146	12.811	12.810	0.001	95	213764	625.0	611.1	
110 n-Butylbenzene	91	13.164	13.163	0.001	99	531663	625.0	632.7	
111 1,2-Dichlorobenzene	146	13.188	13.187	0.001	95	185095	625.0	619.5	
112 1,2-Dibromo-3-Chloropropan	75	13.967	13.972	-0.005	79	13273	625.0	624.6	
114 1,2,4-Trichlorobenzene	180	14.801	14.799	0.002	93	82738	625.0	625.0	
115 Hexachlorobutadiene	225	14.971	14.970	0.001	95	57483	625.0	624.3	
116 Naphthalene	128	15.050	15.055	-0.005	98	117706	625.0	625.0	
117 1,2,3-Trichlorobenzene	180	15.299	15.304	-0.005	95	48592	625.0	624.6	
S 129 Xylenes, Total	106				0		1250.0	1161.5	
S 130 1,2-Dichloroethene, Total	96				0		1250.0	1229.9	
S 131 1,3-Dichloropropene, Total	1				0		1250.0	1276.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00084	Amount Added:	25.00	Units: uL
VOAACROPRI_00002	Amount Added:	45.00	Units: uL
voaWVA pri Re_00003	Amount Added:	25.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA8260SURR_00017	Amount Added:	25.00	Units: uL

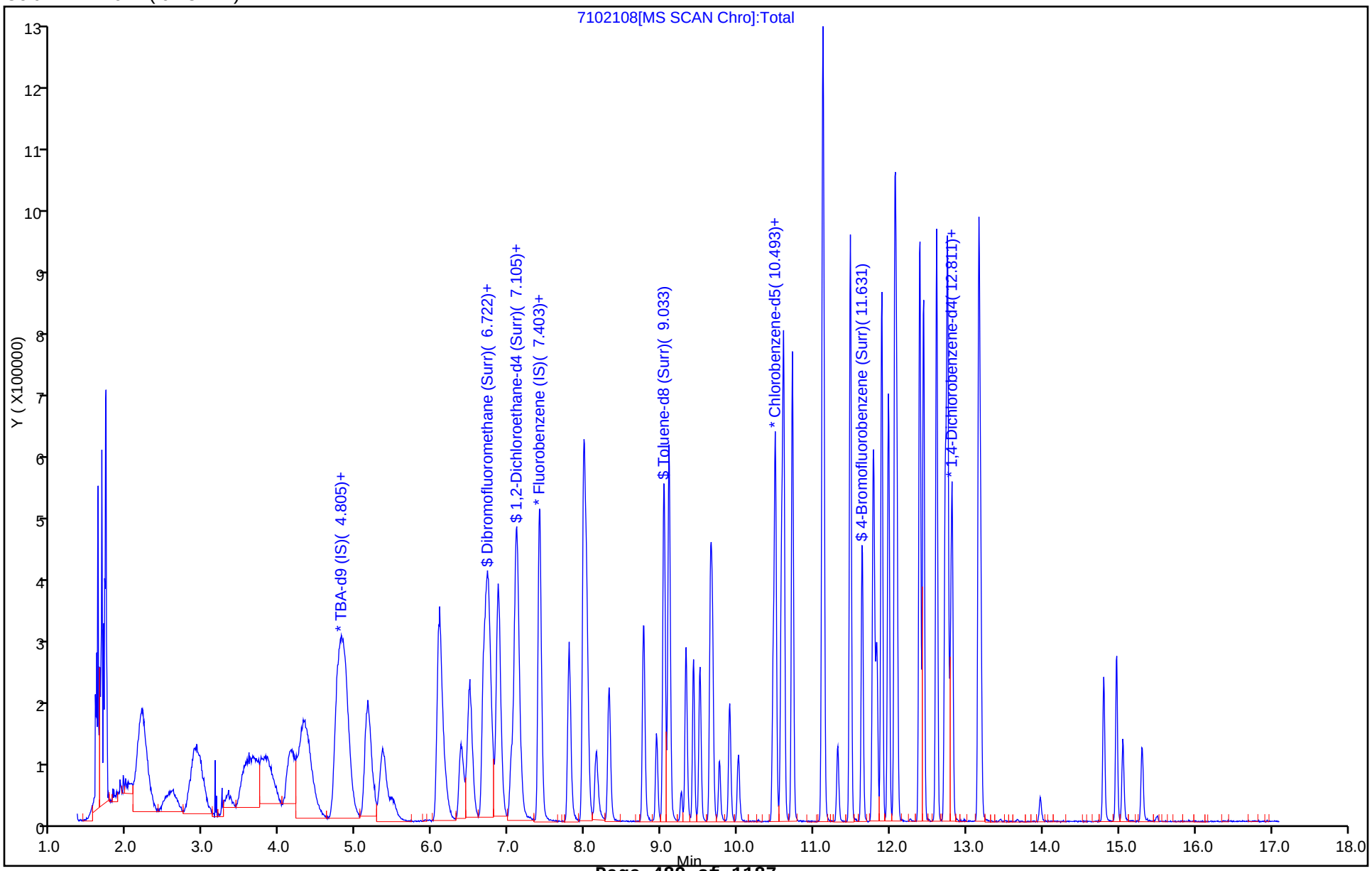
Report Date: 23-Oct-2014 09:06:35 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D

Injection Date:	21-Oct-2014 12:35:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

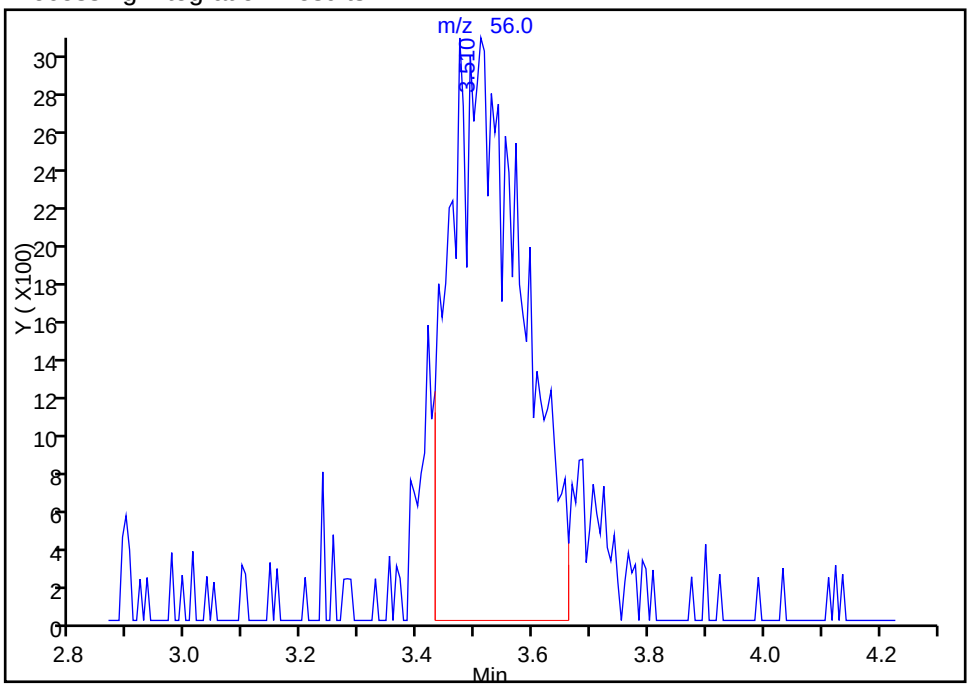
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D
Injection Date: 21-Oct-2014 12:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 Acrolein, CAS: 107-02-8

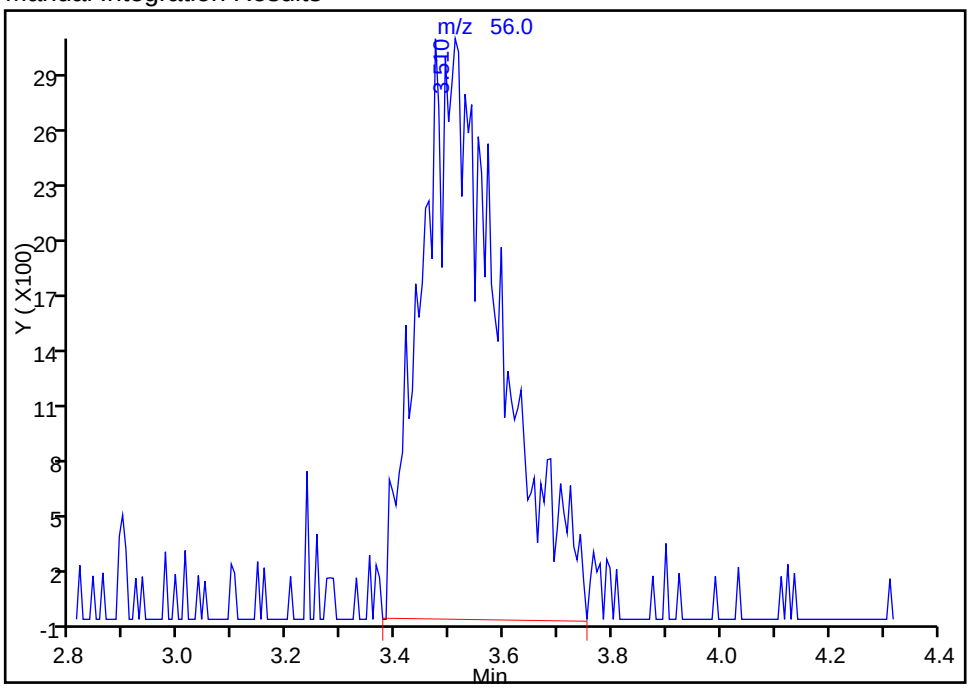
Processing Integration Results

RT: 3.51
Response: 26600
Amount: 1198.0964



Manual Integration Results

RT: 3.51
Response: 31704
Amount: 1118.9106



Reviewer: journetp, 21-Oct-2014 13:07:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

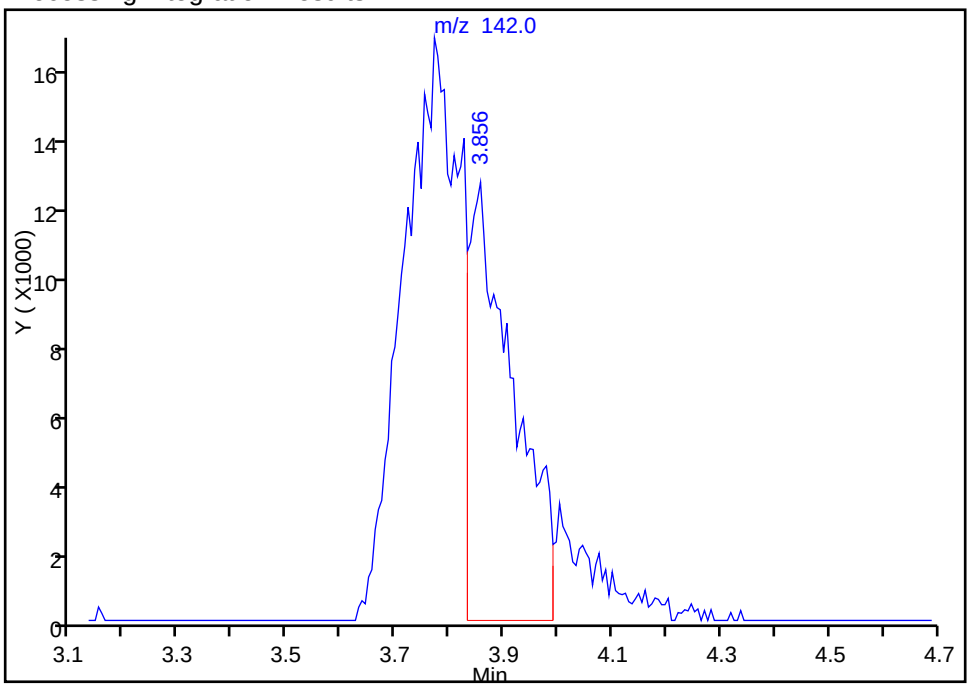
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D
Injection Date: 21-Oct-2014 12:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

23 Iodomethane, CAS: 74-88-4

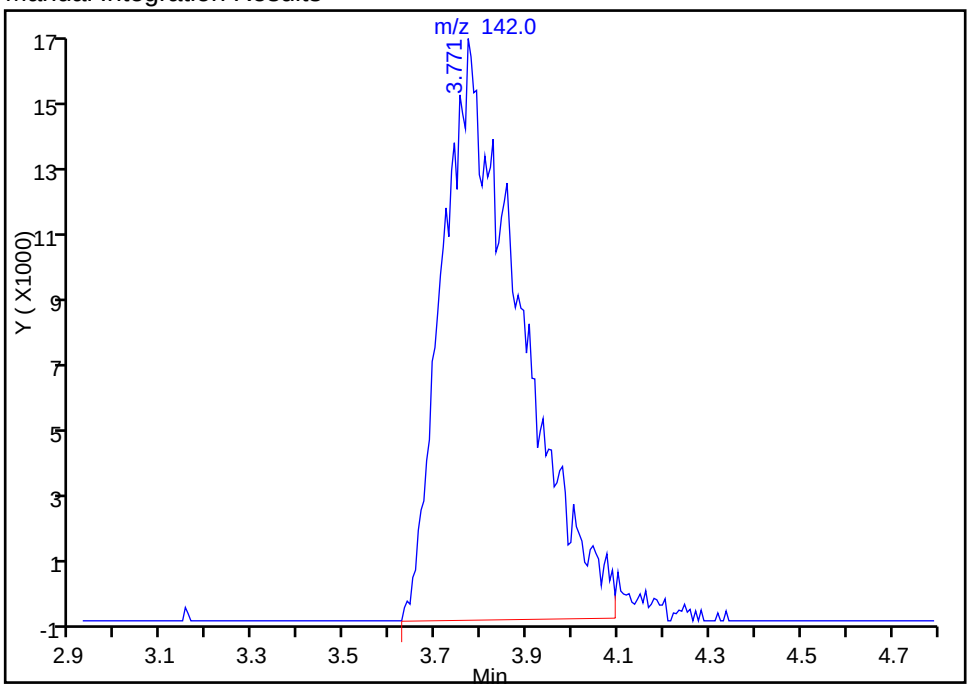
Processing Integration Results

RT: 3.86
Response: 70943
Amount: 201.4799



Manual Integration Results

RT: 3.77
Response: 194659
Amount: 607.2786



Reviewer: journetp, 21-Oct-2014 13:07:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

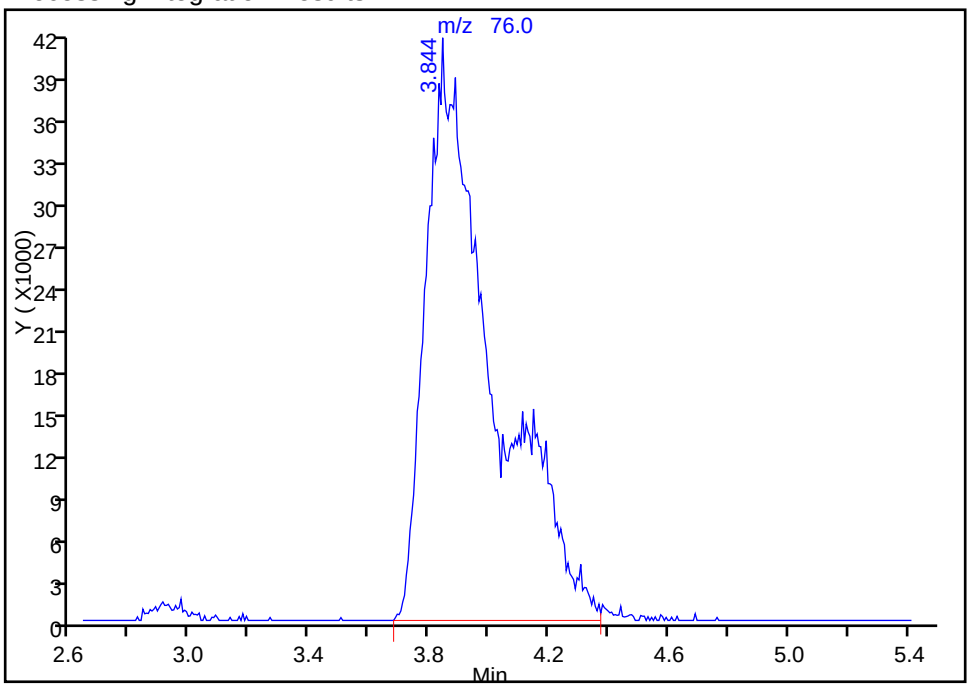
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D
Injection Date: 21-Oct-2014 12:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Carbon disulfide, CAS: 75-15-0

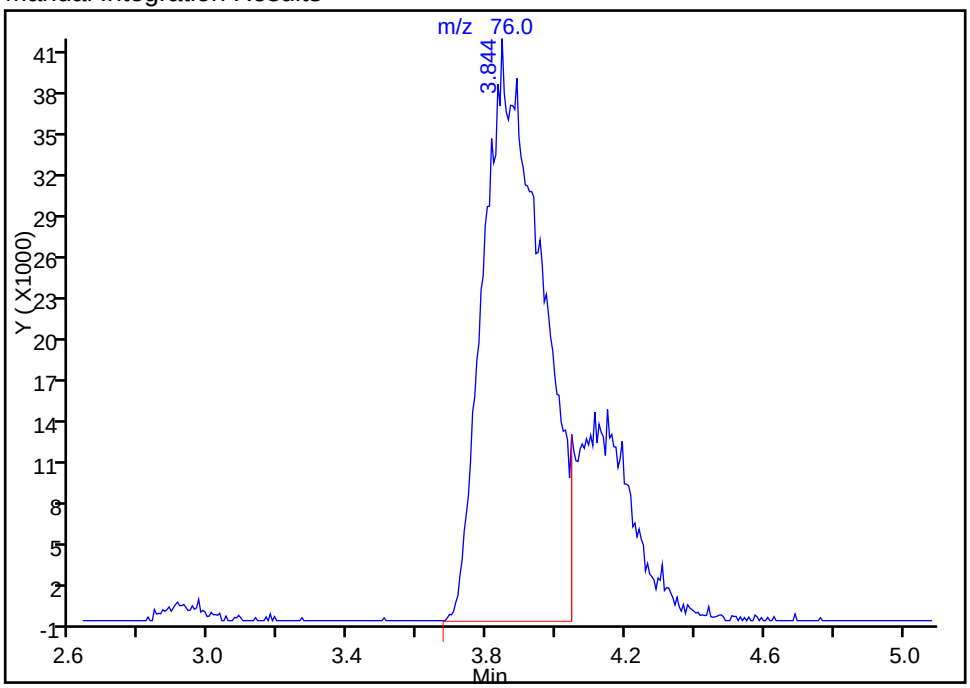
Processing Integration Results

RT: 3.84
Response: 639451
Amount: 729.1984



Manual Integration Results

RT: 3.84
Response: 484373
Amount: 600.4041



Reviewer: journetp, 21-Oct-2014 13:07:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

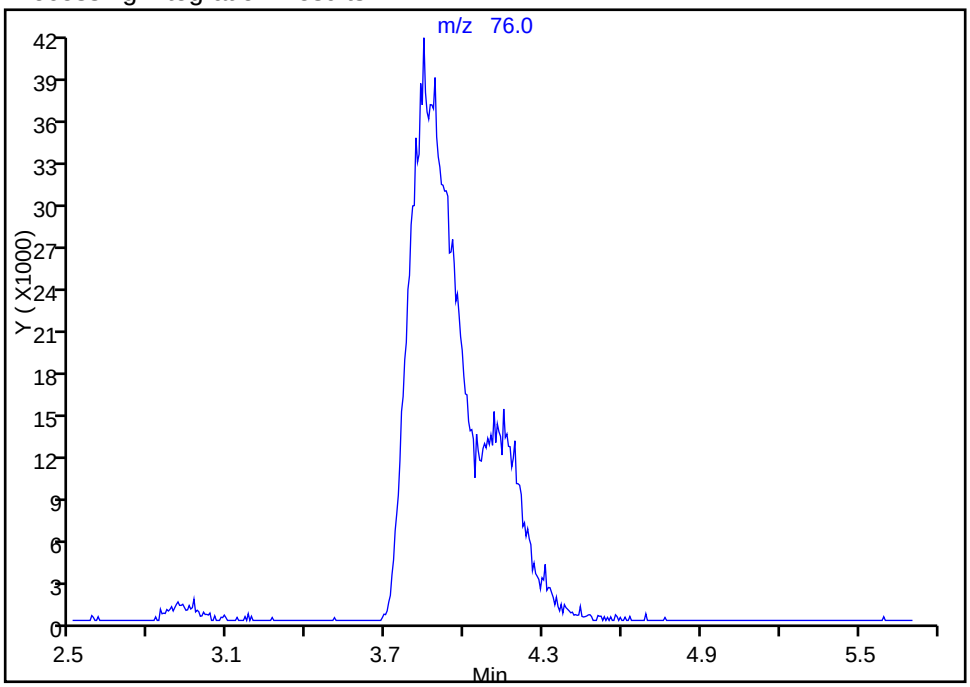
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D
Injection Date: 21-Oct-2014 12:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 3-Chloro-1-propene, CAS: 107-05-1

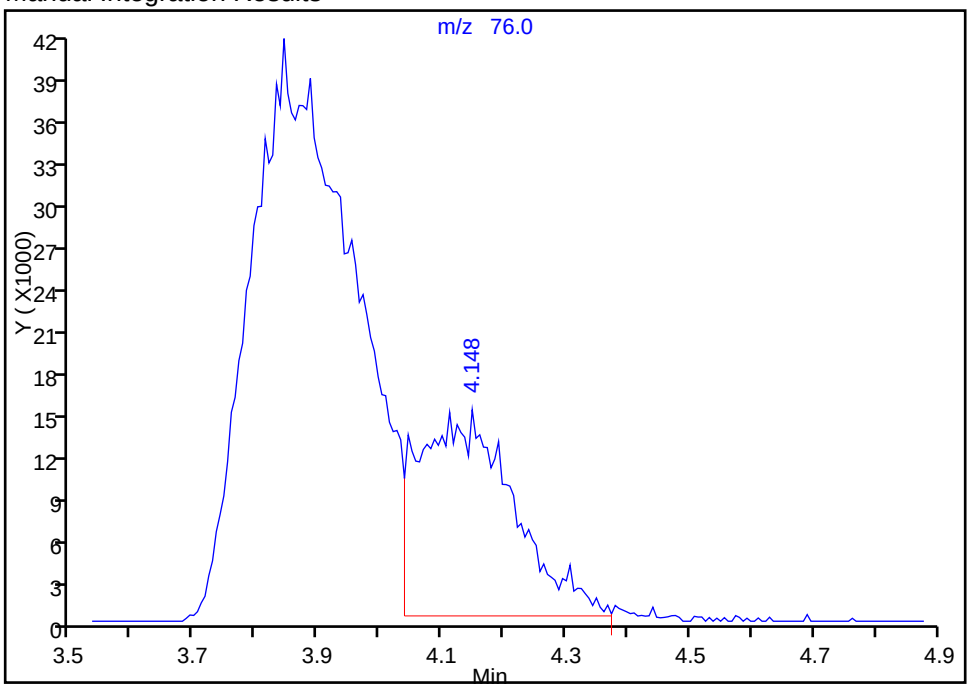
Not Detected
Expected RT: 4.10

Processing Integration Results



Manual Integration Results

RT: 4.15
Response: 156846
Amount: 644.4064



Reviewer: journetp, 21-Oct-2014 13:07:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

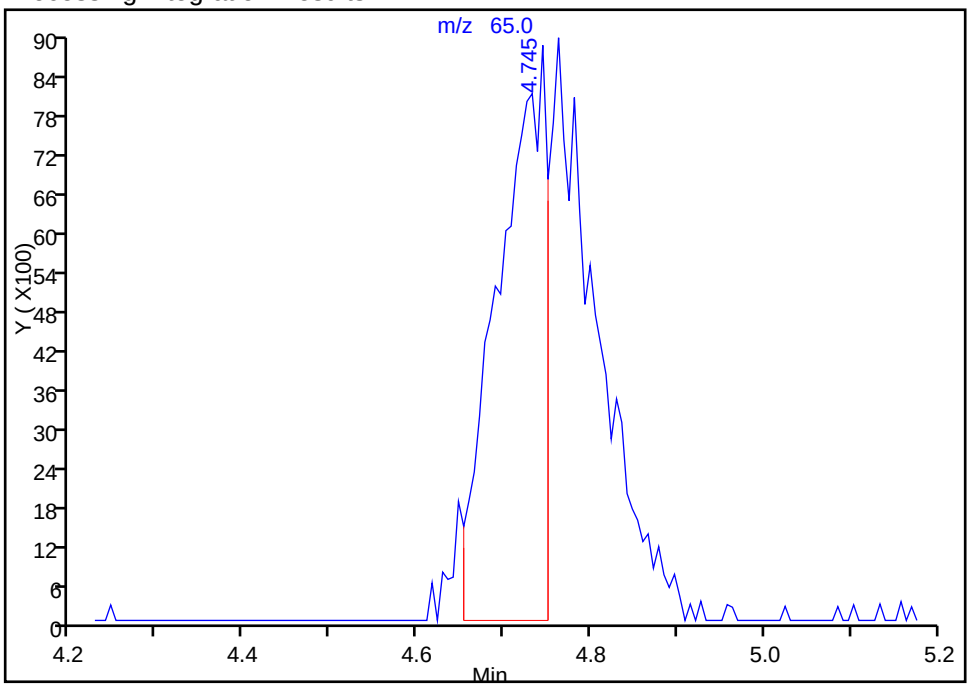
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102108.D				
Injection Date:	21-Oct-2014 12:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

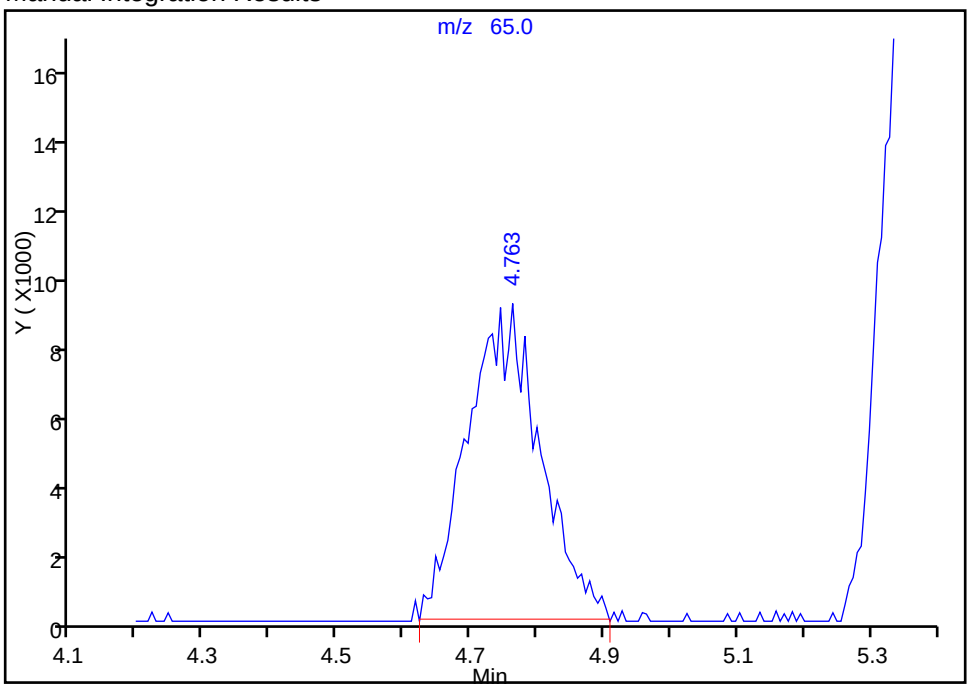
Processing Integration Results

RT: 4.74
Response: 34105
Amount: 5000.0000



Manual Integration Results

RT: 4.76
Response: 67073
Amount: 5000.0000



Reviewer: journetp, 21-Oct-2014 13:07:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Oct-2014 13:50:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-009
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:06:35 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: journetp Date: 21-Oct-2014 14:58:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.886	4.755	0.131	1	64061	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.399	7.396	0.003	49	176601	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.465	10.462	0.003	93	42383	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.786	0.009	90	48790	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.663	6.672	-0.009	74	208635	1250.0	1185.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.031	0.009	94	277315	1250.0	1248.6	
$ 7 Toluene-d8 (Surr)	98	9.035	9.032	0.003	95	810789	1250.0	1112.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.630	0.009	85	306426	1250.0	1136.6	
10 Dichlorodifluoromethane	85	1.893	1.860	0.033	95	379050	1250.0	1353.6	
11 Chloromethane	50	2.051	2.000	0.051	99	750972	1250.0	1207.4	
12 Vinyl chloride	62	2.234	2.182	0.052	93	496816	1250.0	1216.0	
13 Butadiene	39	2.191	2.182	0.009	96	561883	1250.0	1179.9	
14 Bromomethane	94	2.489	2.486	0.003	90	183871	1250.0	1163.1	
15 Chloroethane	64	2.611	2.608	0.003	97	228814	1250.0	1246.8	
16 Dichlorofluoromethane	67	2.891	2.857	0.034	98	617782	1250.0	1216.0	
17 Trichlorofluoromethane	101	2.921	2.894	0.027	90	516892	1250.0	1267.4	
19 Ethyl ether	59	3.298	3.301	-0.003	95	254364	1250.0	1392.1	
21 Acrolein	56	3.426	3.466	-0.040	53	35679	1250.0	1324.8	M
20 1,1-Dichloroethene	96	3.542	3.527	0.015	93	256309	1250.0	1244.9	
22 1,1,2-Trichloro-1,2,2-trif	101	3.621	3.673	-0.052	89	278225	1250.0	1278.7	M
23 Iodomethane	142	3.742	3.709	0.033	98	371118	1250.0	1218.1	
25 Acetone	43	3.828	3.794	0.034	28	132946	1250.0	1270.3	
24 Carbon disulfide	76	3.852	3.813	0.040	99	866808	1250.0	1130.4	M
26 3-Chloro-1-propene	76	4.083	4.105	-0.021	0	294357	1250.0	1272.4	M
29 Methyl acetate	43	4.284	4.287	-0.003	98	1116057	6250.0	6414.1	
30 Methylene Chloride	84	4.345	4.336	0.009	96	294315	1250.0	1067.6	
31 trans-1,2-Dichloroethene	96	4.722	4.731	-0.009	91	304899	1250.0	1188.8	
32 Acrylonitrile	53	4.801	4.774	0.027	99	890490	12500	13034	
33 Methyl tert-butyl ether	73	4.868	4.853	0.015	99	749036	1250.0	1178.0	
34 2-Methyl-2-propanol	59	4.984	4.871	0.113	91	231966	12500	13352	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.123	5.145	-0.022	97	572328	1250.0	1283.8	
36 1,1-Dichloroethane	63	5.324	5.339	-0.015	97	658200	1250.0	1254.5	
38 Vinyl acetate	43	5.476	5.479	-0.003	97	259232	1250.0	1273.4	
41 2,2-Dichloropropane	77	6.072	6.076	-0.004	61	429274	1250.0	1189.3	
42 cis-1,2-Dichloroethene	96	6.085	6.088	-0.003	87	320546	1250.0	1202.6	
44 2-Butanone (MEK)	43	6.188	6.179	0.009	95	153144	1250.0	1540.9	
47 Chlorobromomethane	128	6.377	6.386	-0.009	86	124870	1250.0	1287.7	
49 Tetrahydrofuran	42	6.480	6.477	0.003	57	171831	2500.0	2713.2	
48 Chloroform	83	6.486	6.477	0.009	96	533955	1250.0	1225.7	
50 1,1,1-Trichloroethane	97	6.675	6.666	0.009	98	481411	1250.0	1189.7	
51 Cyclohexane	56	6.723	6.720	0.003	97	687977	1250.0	1132.2	
52 Carbon tetrachloride	117	6.851	6.848	0.003	88	383618	1250.0	1266.9	
53 1,1-Dichloropropene	75	6.863	6.860	0.003	88	380284	1250.0	1224.9	
54 Benzene	78	7.082	7.085	-0.003	98	1028342	1250.0	1182.6	
55 1,2-Dichloroethane	62	7.119	7.116	0.003	96	343573	1250.0	1250.8	
57 Isobutyl alcohol	41	7.137	7.134	0.003	94	183856	31250	37842	
58 n-Heptane	43	7.399	7.402	-0.003	98	584189	1250.0	1263.2	
60 Trichloroethene	130	7.788	7.791	-0.003	93	249762	1250.0	1317.9	
63 Methylcyclohexane	83	7.983	7.980	0.003	94	596799	1250.0	1161.4	
64 1,2-Dichloropropane	63	8.025	8.016	0.009	92	279389	1250.0	1244.3	
66 Dibromomethane	93	8.141	8.150	-0.009	95	129458	1250.0	1443.5	
67 1,4-Dioxane	88	8.202	8.187	0.015	94	29120	25000	25015	
68 Dichlorobromomethane	83	8.311	8.308	0.003	97	393297	1250.0	1340.9	
71 cis-1,3-Dichloropropene	75	8.767	8.764	0.003	90	447830	1250.0	1323.5	
72 4-Methyl-2-pentanone (MIBK	43	8.944	8.935	0.009	99	257594	1250.0	1326.9	
73 Toluene	91	9.102	9.099	0.003	97	943544	1250.0	1042.6	
74 trans-1,3-Dichloropropene	75	9.321	9.324	-0.003	99	347141	1250.0	1296.7	
75 Ethyl methacrylate	69	9.424	9.421	0.003	95	279094	1250.0	1289.7	
76 1,1,2-Trichloroethane	97	9.504	9.507	-0.003	94	176360	1250.0	1260.3	
77 Tetrachloroethene	164	9.643	9.640	0.003	93	196903	1250.0	1171.7	
78 1,3-Dichloropropane	76	9.674	9.665	0.009	98	301705	1250.0	1190.9	
79 2-Hexanone	43	9.765	9.762	0.003	99	194902	1250.0	1500.5	
81 Chlorodibromomethane	129	9.899	9.896	0.003	90	222841	1250.0	1294.6	
82 Ethylene Dibromide	107	10.008	10.012	-0.004	99	181337	1250.0	1339.9	
83 Chlorobenzene	112	10.495	10.492	0.003	89	650024	1250.0	1187.7	
84 1,1,1,2-Tetrachloroethane	131	10.580	10.571	0.009	93	229216	1250.0	1181.9	
85 Ethylbenzene	106	10.605	10.602	0.003	99	312764	1250.0	1080.8	
86 m-Xylene & p-Xylene	106	10.720	10.717	0.003	97	410812	1250.0	1114.8	
88 o-Xylene	106	11.116	11.113	0.003	98	432912	1250.0	1118.0	
89 Styrene	104	11.134	11.125	0.009	93	650143	1250.0	1046.1	
90 Bromoform	173	11.316	11.313	0.003	95	137594	1250.0	1321.9	
91 Isopropylbenzene	105	11.481	11.478	0.003	98	1192487	1250.0	1082.0	
93 1,1,2,2-Tetrachloroethane	83	11.773	11.776	-0.003	95	221770	1250.0	1230.7	
94 Bromobenzene	156	11.791	11.788	0.003	97	242634	1250.0	1245.4	
95 1,2,3-Trichloropropane	110	11.821	11.818	0.003	86	55116	1250.0	1487.9	
96 trans-1,4-Dichloro-2-buten	53	11.834	11.824	0.010	92	71793	1250.0	1252.8	
97 N-Propylbenzene	120	11.894	11.885	0.009	98	312137	1250.0	1197.4	
98 2-Chlorotoluene	126	11.986	11.977	0.009	94	244389	1250.0	1193.2	
99 1,3,5-Trimethylbenzene	105	12.071	12.062	0.009	96	916602	1250.0	1172.6	
100 4-Chlorotoluene	126	12.089	12.086	0.003	99	224628	1250.0	1176.6	
101 tert-Butylbenzene	119	12.393	12.390	0.003	95	929182	1250.0	1233.3	
103 1,2,4-Trimethylbenzene	105	12.442	12.433	0.009	98	868079	1250.0	1133.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.612	12.609	0.003	96	1227425	1250.0	1169.2	
105 1,3-Dichlorobenzene	146	12.728	12.719	0.009	95	449380	1250.0	1267.1	
106 4-Isopropyltoluene	119	12.758	12.749	0.009	97	957026	1250.0	1093.5	
107 1,4-Dichlorobenzene	146	12.819	12.810	0.009	91	416264	1250.0	1283.1	
110 n-Butylbenzene	91	13.166	13.163	0.003	98	939699	1250.0	1206.0	
111 1,2-Dichlorobenzene	146	13.190	13.187	0.003	95	337392	1250.0	1217.8	
112 1,2-Dibromo-3-Chloropropan	75	13.969	13.972	-0.003	79	24481	1250.0	1006.6	
114 1,2,4-Trichlorobenzene	180	14.802	14.799	0.003	95	161994	1250.0	1044.2	
115 Hexachlorobutadiene	225	14.973	14.970	0.003	95	105449	1250.0	1038.3	
116 Naphthalene	128	15.052	15.055	-0.003	98	237039	1250.0	1021.8	
117 1,2,3-Trichlorobenzene	180	15.301	15.304	-0.003	93	101550	1250.0	1022.3	
S 129 Xylenes, Total	106				0		2500.0	2232.9	
S 130 1,2-Dichloroethene, Total	96				0		2500.0	2391.4	
S 131 1,3-Dichloropropene, Total	1				0		2500.0	2620.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00084	Amount Added:	50.00	Units: uL
VOAACROPRI_00002	Amount Added:	50.00	Units: uL
voaWVA pri Re_00003	Amount Added:	50.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
VOA8260SURR_00017	Amount Added:	50.00	Units: uL

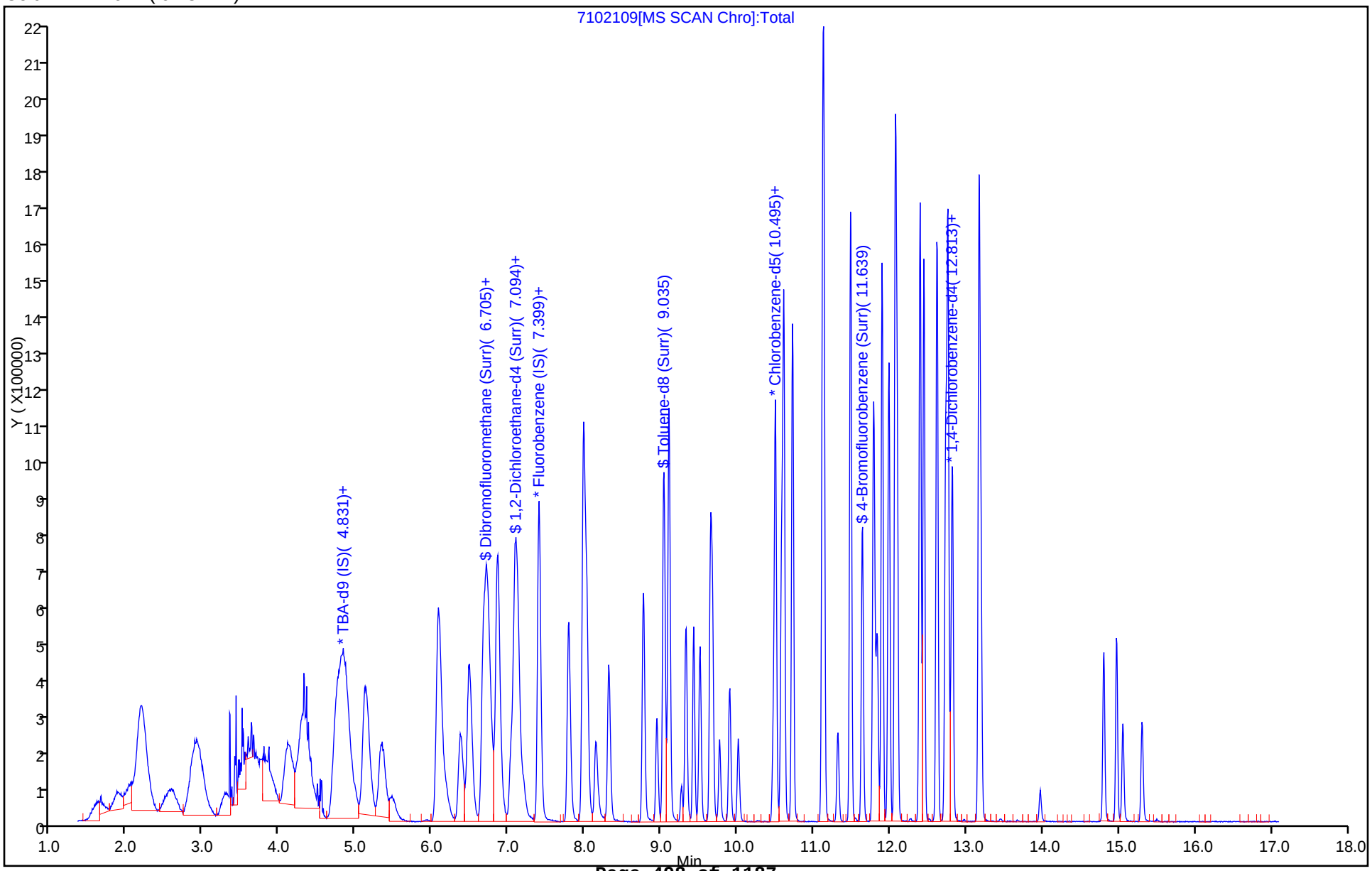
Report Date: 23-Oct-2014 09:06:37 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D

Injection Date:	21-Oct-2014 13:50:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

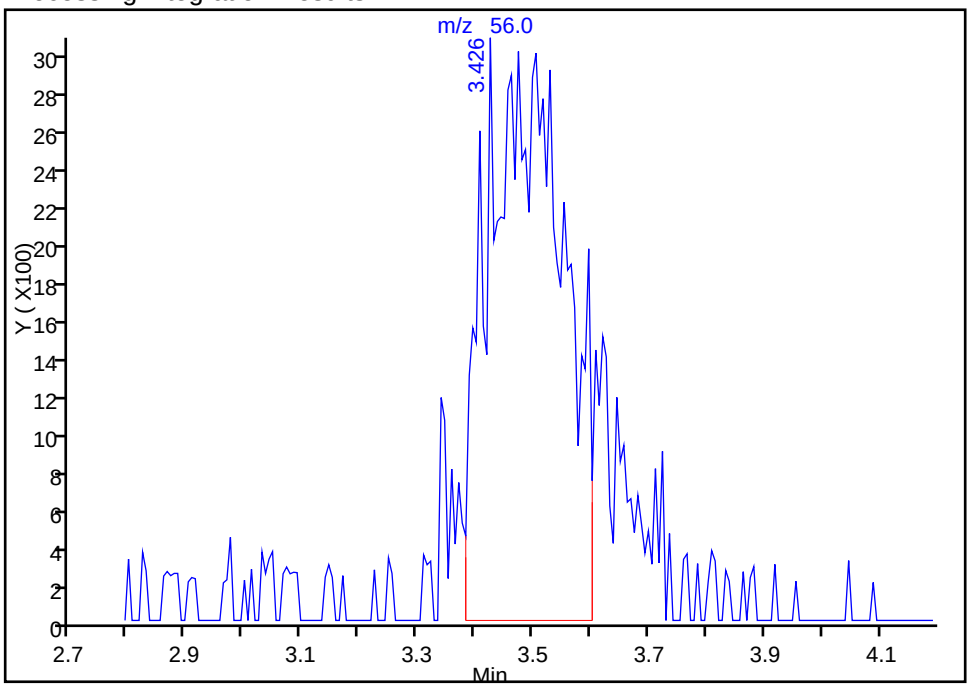
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D				
Injection Date:	21-Oct-2014 13:50:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

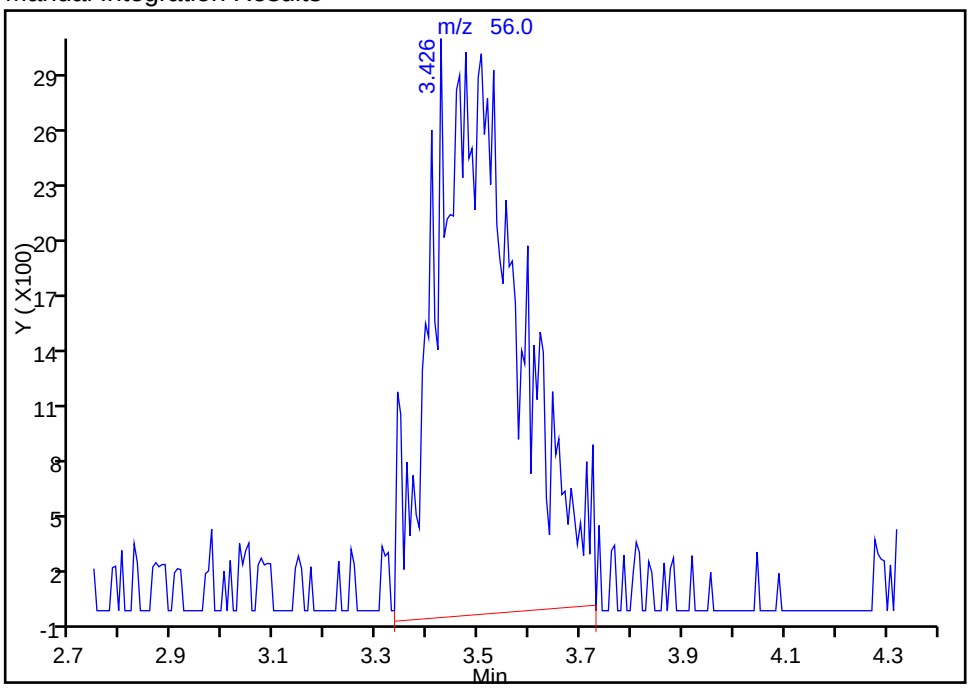
Processing Integration Results

RT: 3.43
Response: 27882
Amount: 1325.5743



Manual Integration Results

RT: 3.43
Response: 35679
Amount: 1324.7742



Reviewer: journetp, 21-Oct-2014 14:58:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

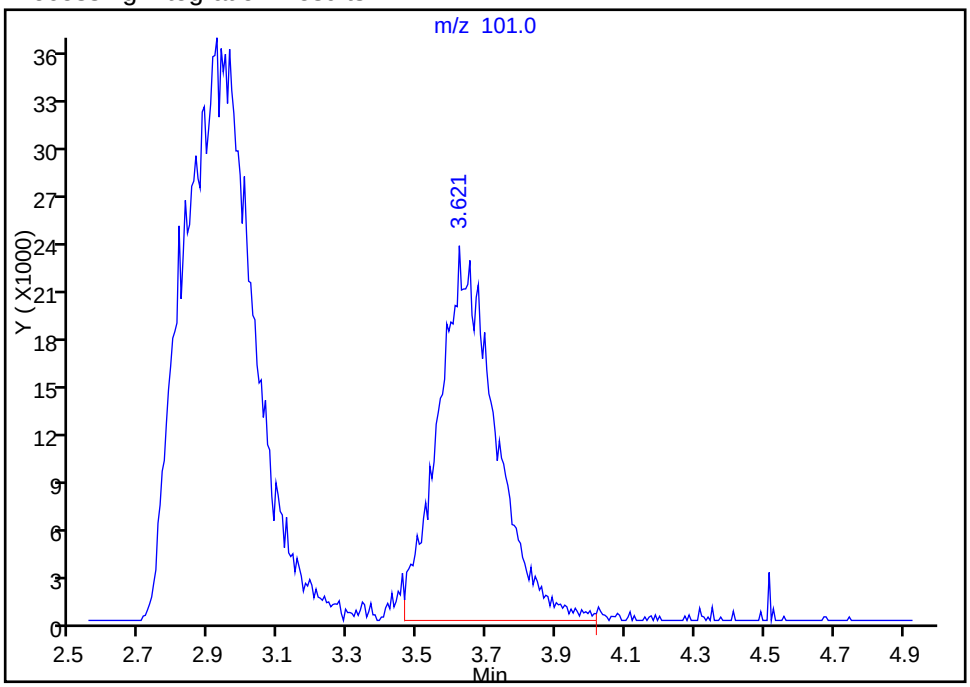
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D				
Injection Date:	21-Oct-2014 13:50:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

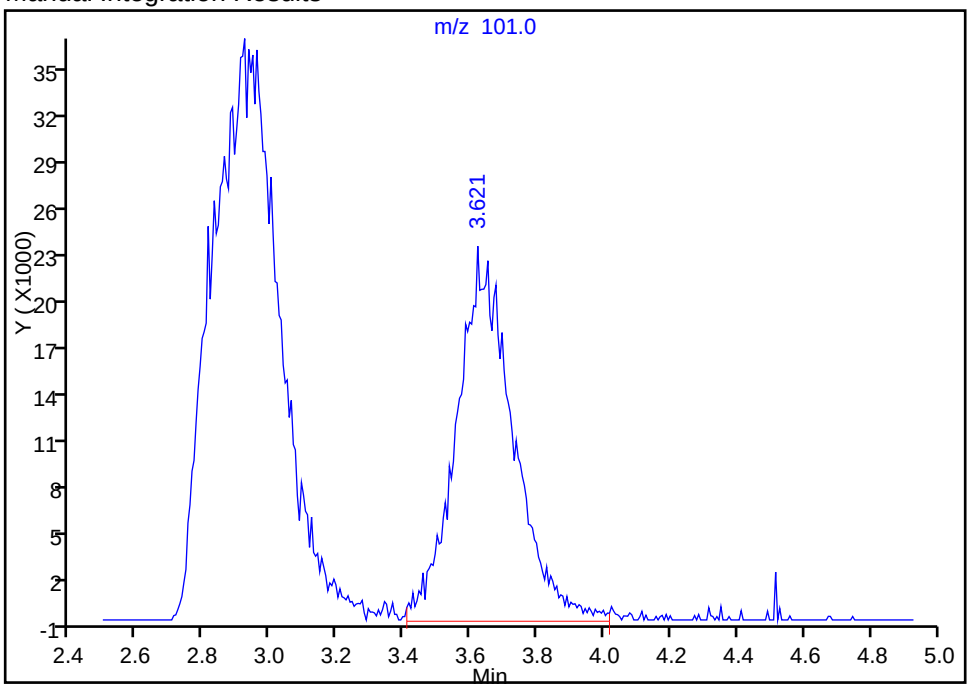
Processing Integration Results

RT: 3.62
Response: 270526
Amount: 1242.1693



Manual Integration Results

RT: 3.62
Response: 278225
Amount: 1278.6549



Reviewer: journetp, 21-Oct-2014 14:58:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

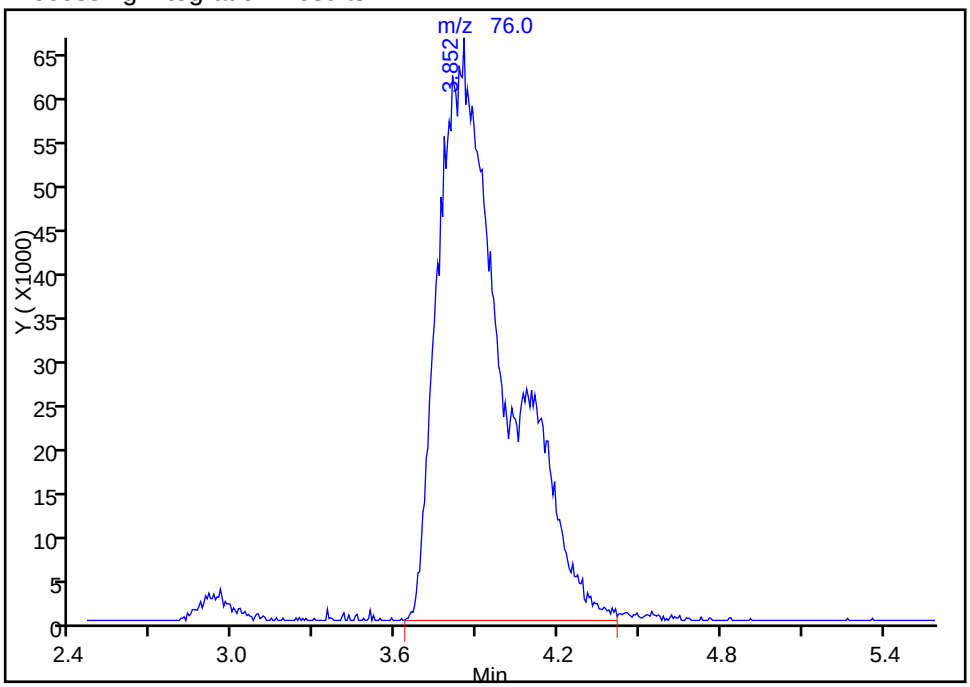
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D
Injection Date: 21-Oct-2014 13:50:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Carbon disulfide, CAS: 75-15-0

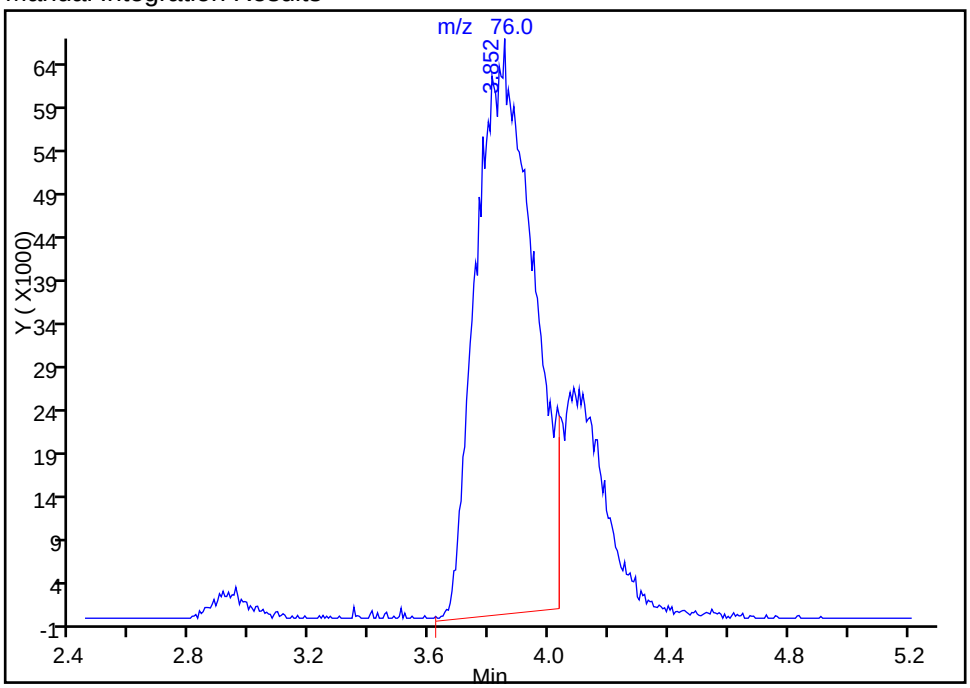
Processing Integration Results

RT: 3.85
Response: 1136338
Amount: 1401.8182



Manual Integration Results

RT: 3.85
Response: 866808
Amount: 1130.4062



Reviewer: journetp, 21-Oct-2014 14:58:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

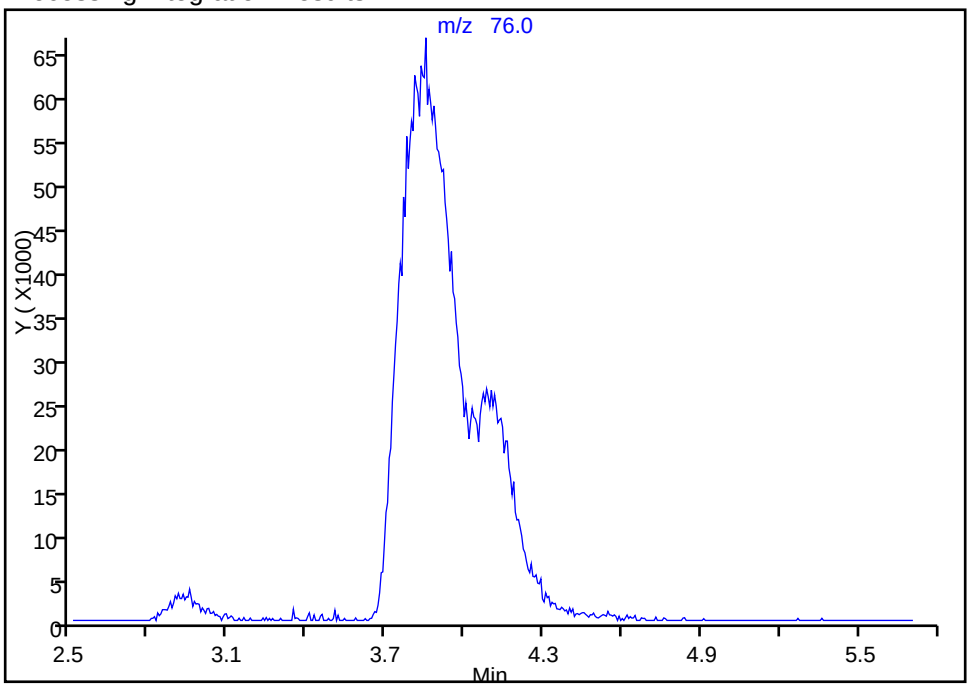
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D				
Injection Date:	21-Oct-2014 13:50:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 3-Chloro-1-propene, CAS: 107-05-1

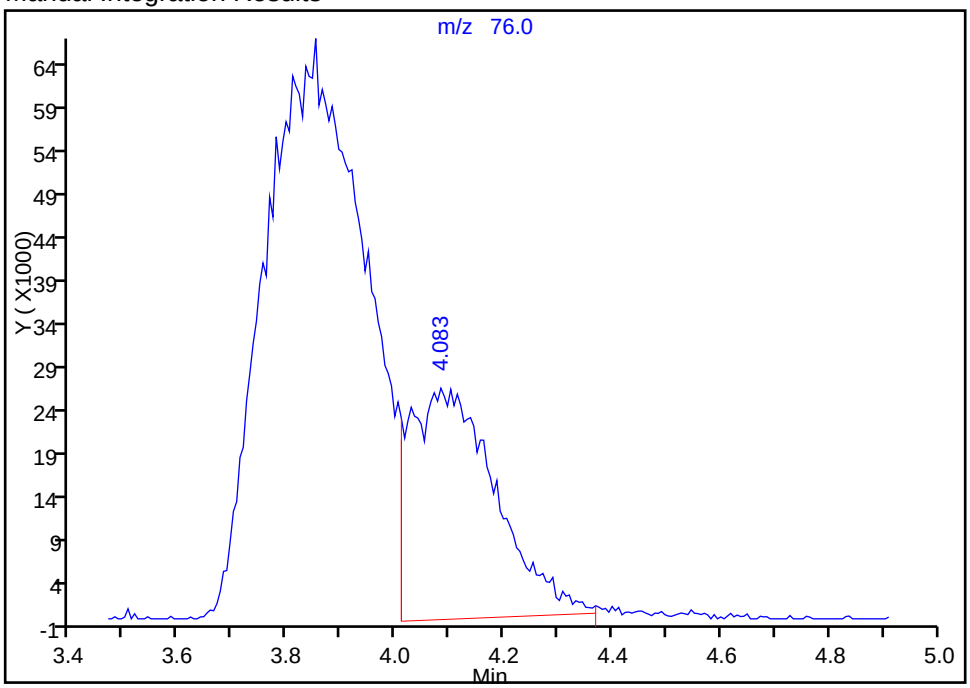
Not Detected
Expected RT: 4.10

Processing Integration Results



Manual Integration Results

RT: 4.08
Response: 294357
Amount: 1272.3559



Reviewer: journetp, 21-Oct-2014 14:58:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

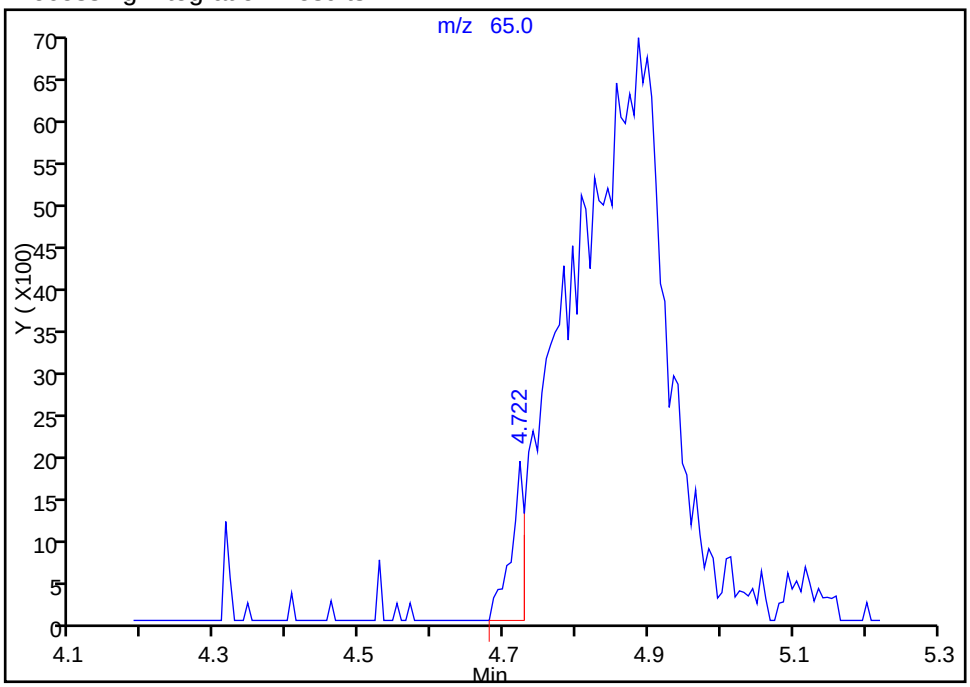
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102109.D
Injection Date: 21-Oct-2014 13:50:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

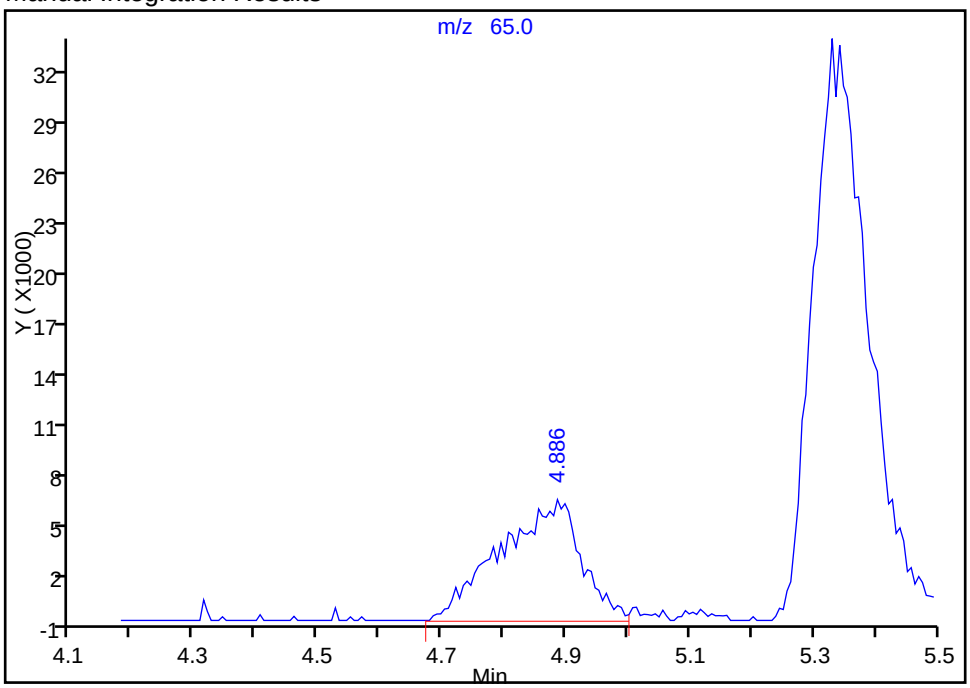
Processing Integration Results

RT: 4.72
Response: 2455
Amount: 5000.0000



Manual Integration Results

RT: 4.89
Response: 64061
Amount: 5000.0000



Reviewer: journetp, 21-Oct-2014 14:58:42
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 23-Oct-2014 09:06:39 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Oct-2014 17:35:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-013
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:06:38 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: journetp Date: 21-Oct-2014 18:31:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.873	4.755	0.118	84	78968	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.392	7.396	-0.004	97	202252	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.470	10.462	0.008	94	46032	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.786	0.002	96	63314	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.672	0.014	1	5319	25.0	26.4	M
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.039	7.031	0.008	48	8107	25.0	31.9	M
$ 7 Toluene-d8 (Surr)	98	9.040	9.032	0.008	93	23962	25.0	30.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.630	0.002	87	8903	25.0	30.4	
10 Dichlorodifluoromethane	85	1.868	1.860	0.008	51	8229	25.0	25.7	M
11 Chloromethane	50	1.983	2.000	-0.017	2	19075	25.0	26.8	M
12 Vinyl chloride	62	2.160	2.182	-0.022	1	12972	25.0	27.7	M
13 Butadiene	39	2.154	2.182	-0.028	67	15103	25.0	27.7	M
14 Bromomethane	94	2.458	2.486	-0.028	1	5322	25.0	29.4	M
15 Chloroethane	64	2.586	2.608	-0.022	53	5728	25.0	27.3	M
16 Dichlorofluoromethane	67	2.835	2.857	-0.022	51	17152	25.0	29.5	
17 Trichlorofluoromethane	101	2.866	2.894	-0.028	28	12468	25.0	26.7	M
19 Ethyl ether	59	3.237	3.301	-0.064	51	3763	25.0	18.0	M
21 Acrolein	56	3.474	3.466	0.008	28	9055	250.0	293.6	M
20 1,1-Dichloroethene	96	3.504	3.527	-0.023	14	4303	25.0	18.2	M
22 1,1,2-Trichloro-1,2,2-trif	101	3.681	3.673	0.008	1	5301	25.0	21.3	M
23 Iodomethane	142	3.796	3.709	0.087	16	8430	25.0	24.2	M
25 Acetone	43	3.772	3.794	-0.022	1	840	25.0	20.6	
24 Carbon disulfide	76	3.802	3.813	-0.010	72	22854	25.0	26.0	M
26 3-Chloro-1-propene	76	4.137	4.105	0.033	1	5708	25.0	21.5	M
29 Methyl acetate	43	4.307	4.287	0.020	72	27763	125.0	139.3	M
30 Methylene Chloride	84	4.356	4.336	0.020	56	9763	25.0	30.9	M
31 trans-1,2-Dichloroethene	96	4.745	4.731	0.014	57	8172	25.0	27.8	
32 Acrylonitrile	53	4.818	4.774	0.044	56	21317	250.0	272.4	M
33 Methyl tert-butyl ether	73	4.837	4.853	-0.016	52	19300	25.0	26.5	M
34 2-Methyl-2-propanol	59	4.867	4.871	-0.004	10	5463	250.0	255.1	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.129	5.145	-0.016	91	14095	25.0	27.6	
36 1,1-Dichloroethane	63	5.342	5.339	0.003	30	17557	25.0	29.2	M
38 Vinyl acetate	43	5.518	5.479	0.039	43	6198	25.0	28.2	M
41 2,2-Dichloropropane	77	6.102	6.076	0.026	65	11690	25.0	28.3	M
42 cis-1,2-Dichloroethene	96	6.108	6.088	0.020	86	8331	25.0	27.3	M
44 2-Butanone (MEK)	43	6.205	6.179	0.026	25	2889	25.0	25.4	
47 Chlorobromomethane	128	6.357	6.386	-0.029	6	3653	25.0	32.9	
49 Tetrahydrofuran	42	6.491	6.477	0.014	6	4340	50.0	59.8	M
48 Chloroform	83	6.497	6.477	0.020	89	14823	25.0	29.7	
50 1,1,1-Trichloroethane	97	6.662	6.666	-0.004	57	13700	25.0	29.6	M
51 Cyclohexane	56	6.716	6.720	-0.004	95	18893	25.0	27.1	M
52 Carbon tetrachloride	117	6.850	6.848	0.002	91	9700	25.0	28.0	
53 1,1-Dichloropropene	75	6.862	6.860	0.002	89	9871	25.0	27.8	
54 Benzene	78	7.094	7.085	0.009	96	28839	25.0	29.0	M
55 1,2-Dichloroethane	62	7.124	7.116	0.008	45	8726	25.0	34.7	M
57 Isobutyl alcohol	41	7.167	7.134	0.033	2	3223	625.0	579.2	M
58 n-Heptane	43	7.392	7.402	-0.010	64	15717	25.0	29.7	
60 Trichloroethene	130	7.799	7.791	0.008	57	6291	25.0	29.0	M
63 Methylcyclohexane	83	7.970	7.980	-0.010	96	16406	25.0	27.9	
64 1,2-Dichloropropane	63	8.018	8.016	0.002	48	7235	25.0	28.1	M
66 Dibromomethane	93	8.158	8.150	0.008	51	2609	25.0	25.4	M
67 1,4-Dioxane	88	8.195	8.187	0.008	1	88	500.0	572.3	M
68 Dichlorobromomethane	83	8.316	8.308	0.008	97	8830	25.0	26.3	
71 cis-1,3-Dichloropropene	75	8.767	8.764	0.003	86	10238	25.0	26.4	
72 4-Methyl-2-pentanone (MIBK	43	8.955	8.935	0.020	51	5723	25.0	27.1	M
73 Toluene	91	9.107	9.099	0.008	98	34218	25.0	34.8	
74 trans-1,3-Dichloropropene	75	9.326	9.324	0.002	94	7644	25.0	26.3	
75 Ethyl methacrylate	69	9.430	9.421	0.009	91	5883	25.0	25.0	M
76 1,1,2-Trichloroethane	97	9.509	9.507	0.002	83	4646	25.0	30.6	
77 Tetrachloroethene	164	9.643	9.640	0.003	88	5528	25.0	30.3	
78 1,3-Dichloropropane	76	9.673	9.665	0.008	94	7833	25.0	28.5	
79 2-Hexanone	43	9.776	9.762	0.014	27	4000	25.0	28.4	
81 Chlorodibromomethane	129	9.904	9.896	0.008	86	5158	25.0	27.6	
82 Ethylene Dibromide	107	10.014	10.012	0.002	34	3674	25.0	25.0	
83 Chlorobenzene	112	10.494	10.492	0.002	90	16379	25.0	27.6	
84 1,1,1,2-Tetrachloroethane	131	10.573	10.571	0.002	85	5694	25.0	27.0	
85 Ethylbenzene	106	10.610	10.602	0.008	98	9409	25.0	29.9	
86 m-Xylene & p-Xylene	106	10.725	10.717	0.008	97	10917	25.0	27.3	
88 o-Xylene	106	11.115	11.113	0.002	95	12477	25.0	29.7	
89 Styrene	104	11.133	11.125	0.008	92	20097	25.0	29.8	
90 Bromoform	173	11.316	11.313	0.003	88	3216	25.0	28.4	
91 Isopropylbenzene	105	11.486	11.478	0.008	98	34848	25.0	29.1	
93 1,1,2,2-Tetrachloroethane	83	11.784	11.776	0.008	62	5446	25.0	27.8	M
94 Bromobenzene	156	11.796	11.788	0.008	95	6876	25.0	27.2	M
95 1,2,3-Trichloropropane	110	11.820	11.818	0.002	78	1071	25.0	22.3	
96 trans-1,4-Dichloro-2-buten	53	11.827	11.824	0.003	1	355	25.0	24.7	
97 N-Propylbenzene	120	11.887	11.885	0.002	99	9636	25.0	28.5	
98 2-Chlorotoluene	126	11.973	11.977	-0.004	95	7870	25.0	29.6	
99 1,3,5-Trimethylbenzene	105	12.064	12.062	0.002	95	27766	25.0	27.4	
100 4-Chlorotoluene	126	12.088	12.086	0.002	97	6521	25.0	26.3	
101 tert-Butylbenzene	119	12.386	12.390	-0.004	92	28536	25.0	29.2	
103 1,2,4-Trimethylbenzene	105	12.441	12.433	0.008	96	28141	25.0	28.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.605	12.609	-0.004	95	39047	25.0	28.7	
105 1,3-Dichlorobenzene	146	12.721	12.719	0.002	94	12639	25.0	27.5	
106 4-Isopropyltoluene	119	12.757	12.749	0.008	96	32384	25.0	28.5	
107 1,4-Dichlorobenzene	146	12.806	12.810	-0.004	88	11105	25.0	26.4	
110 n-Butylbenzene	91	13.171	13.163	0.008	98	26593	25.0	26.3	
111 1,2-Dichlorobenzene	146	13.195	13.187	0.008	90	8787	25.0	24.4	
112 1,2-Dibromo-3-Chloropropan	75	13.998	13.972	0.026	1	82	25.0	41.0	M
114 1,2,4-Trichlorobenzene	180	14.820	14.799	0.021	1	1368	25.0	30.0	
115 Hexachlorobutadiene	225	14.966	14.970	-0.004	85	2669	25.0	35.9	
116 Naphthalene	128	15.093	15.055	0.038	1	2340	25.0	23.0	M
117 1,2,3-Trichlorobenzene	180	15.325	15.304	0.020	85	2139	25.0	41.9	M
S 129 Xylenes, Total	106				0		50.0	56.9	
S 130 1,2-Dichloroethene, Total	96				0		50.0	55.1	
S 131 1,3-Dichloropropene, Total	1				0		50.0	52.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaWVA pri Re_00003	Amount Added:	1.00	Units: uL
VOAACROPRI_00002	Amount Added:	10.00	Units: uL
VOA8260VOAPRI_00084	Amount Added:	1.00	Units: uL
VOA8260SURR_00017	Amount Added:	1.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL

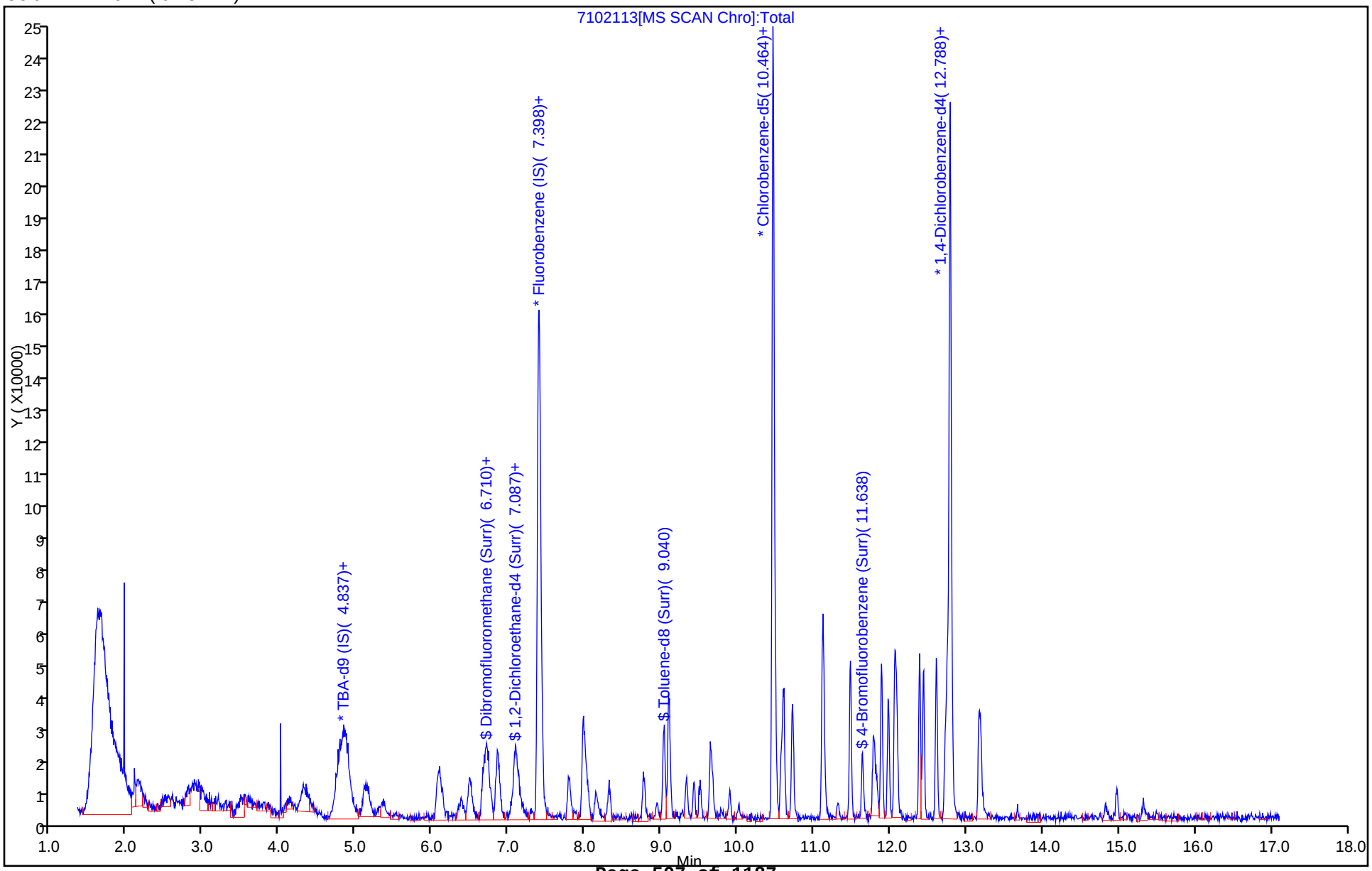
Report Date: 23-Oct-2014 09:06:39 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D

Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	IC			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

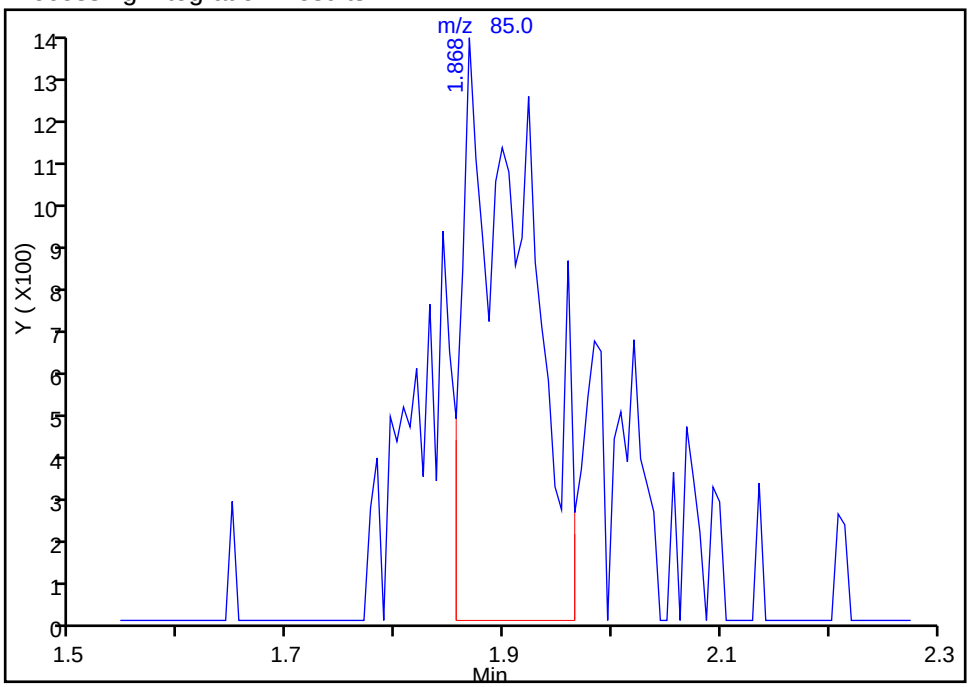
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

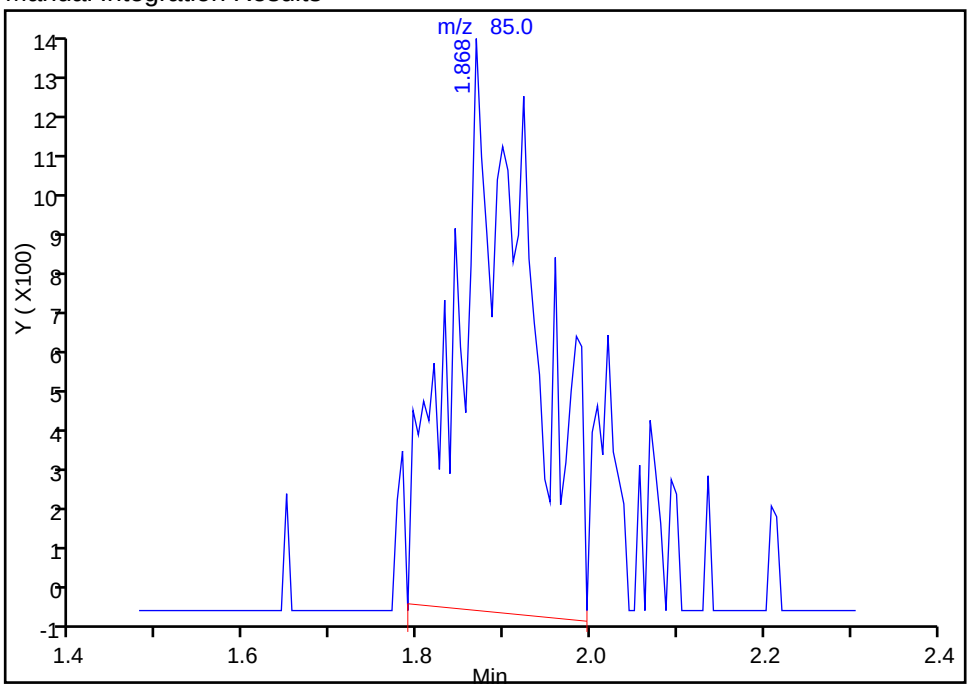
Processing Integration Results

RT: 1.87
Response: 5466
Amount: 18.097262



Manual Integration Results

RT: 1.87
Response: 8229
Amount: 25.658179



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

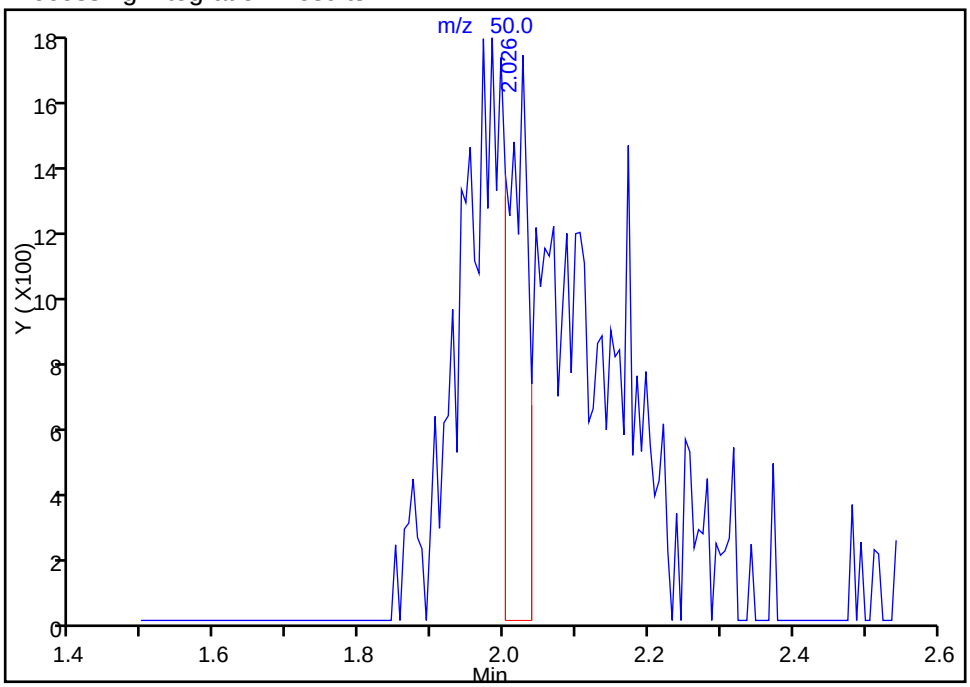
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

11 Chloromethane, CAS: 74-87-3

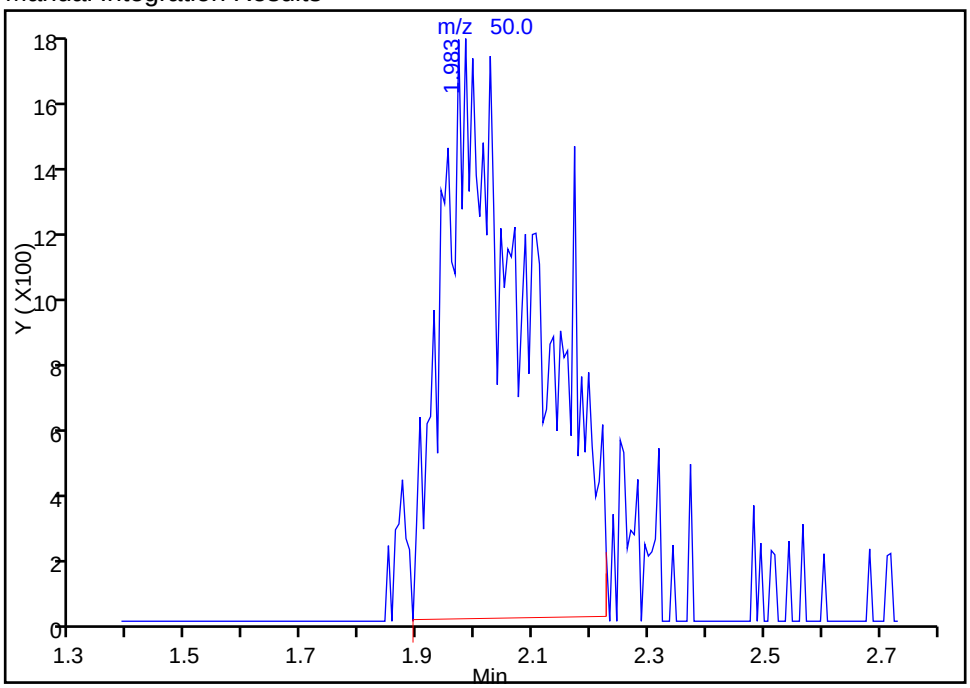
Processing Integration Results

RT: 2.03
Response: 3292
Amount: 15.264145



Manual Integration Results

RT: 1.98
Response: 19075
Amount: 26.778195



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

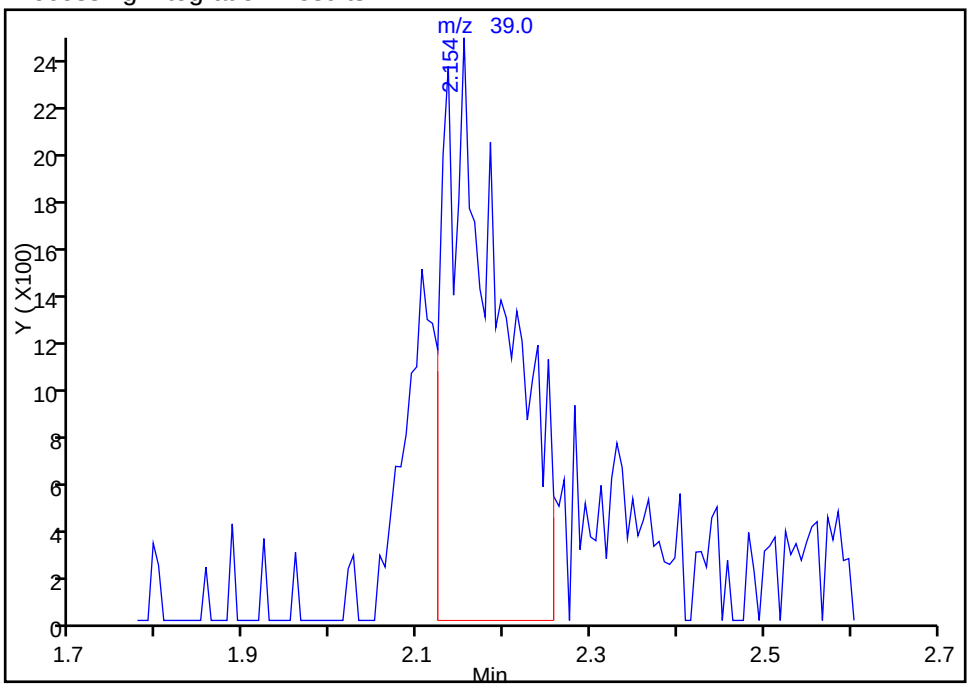
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Butadiene, CAS: 106-99-0

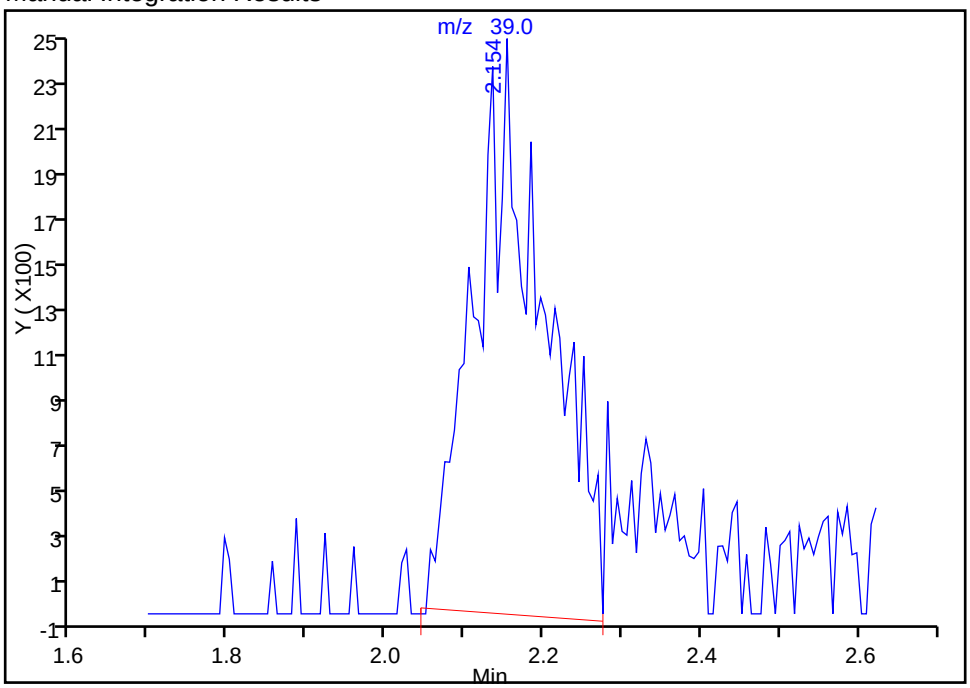
Processing Integration Results

RT: 2.15
Response: 11403
Amount: 21.691152



Manual Integration Results

RT: 2.15
Response: 15103
Amount: 27.692254



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

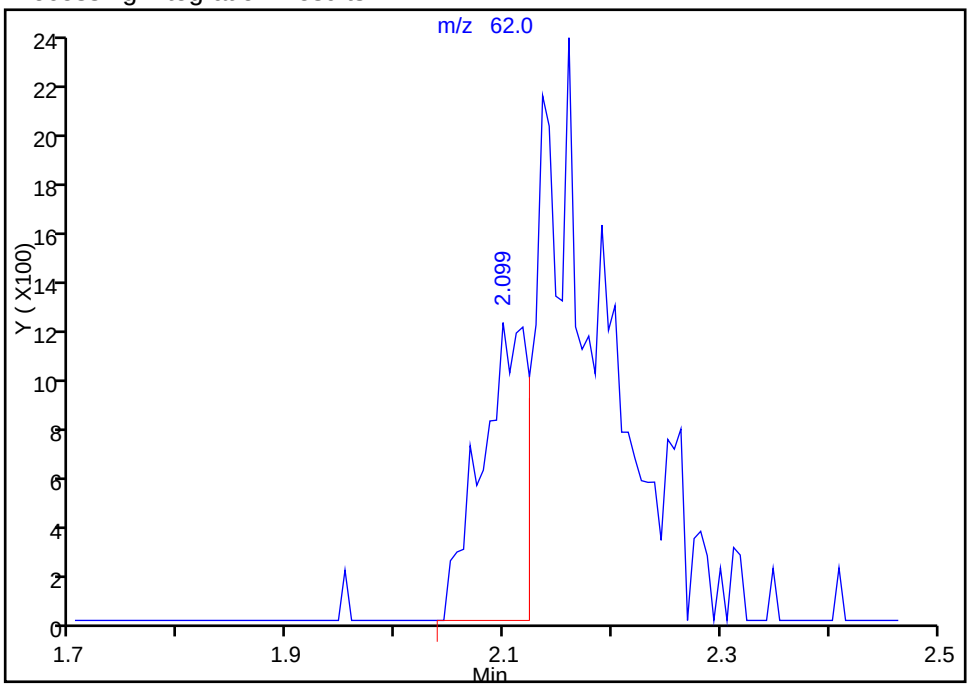
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

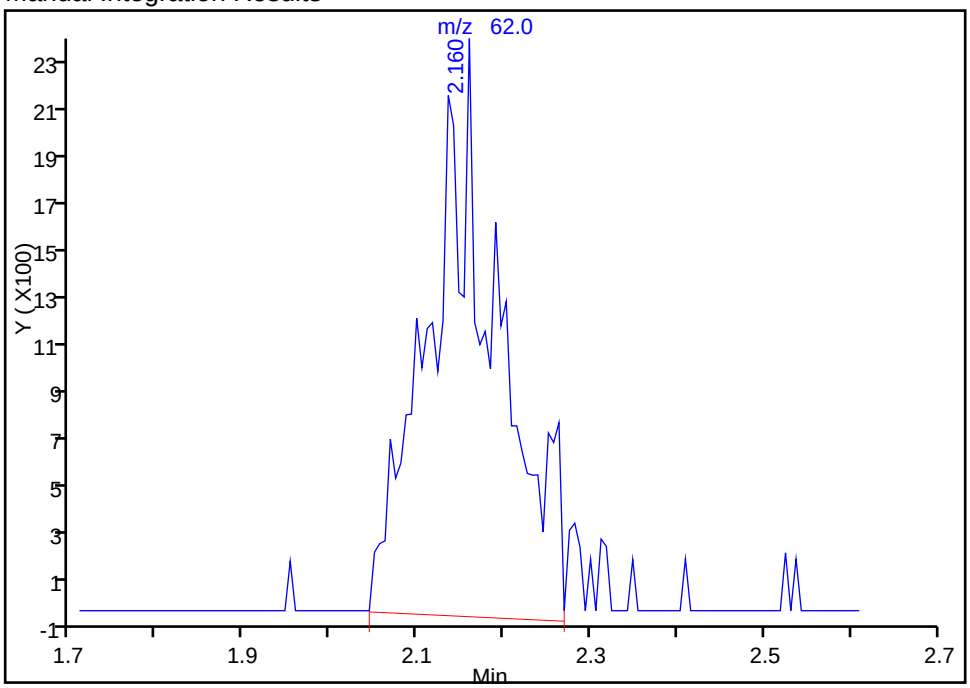
Processing Integration Results

RT: 2.10
Response: 3551
Amount: 18.338086



Manual Integration Results

RT: 2.16
Response: 12972
Amount: 27.723399



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

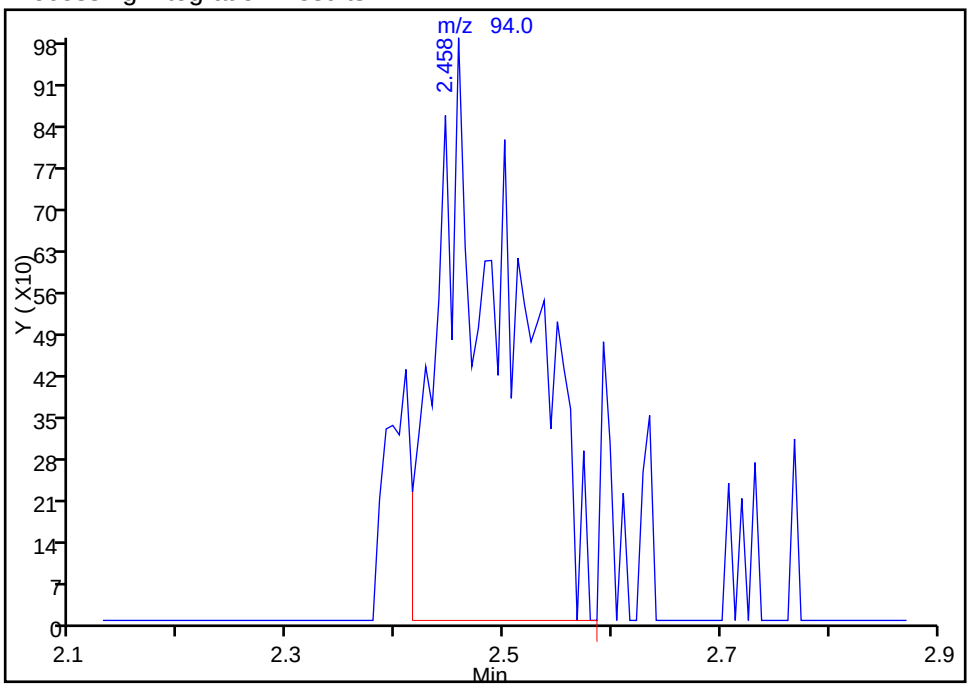
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Bromomethane, CAS: 74-83-9

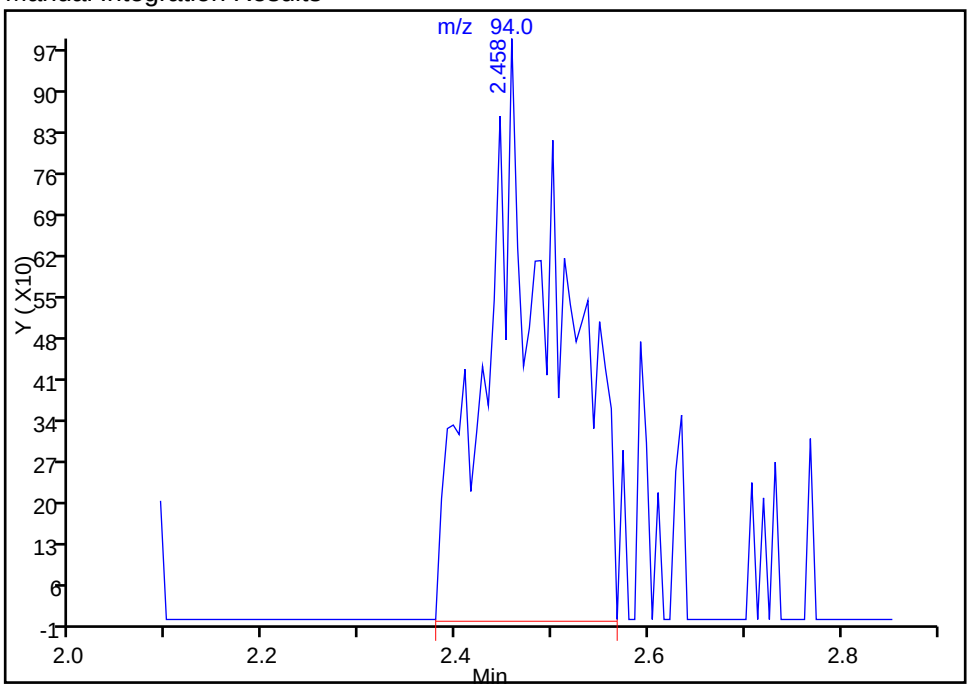
Processing Integration Results

RT: 2.46
Response: 4807
Amount: 27.723608



Manual Integration Results

RT: 2.46
Response: 5322
Amount: 29.396262



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

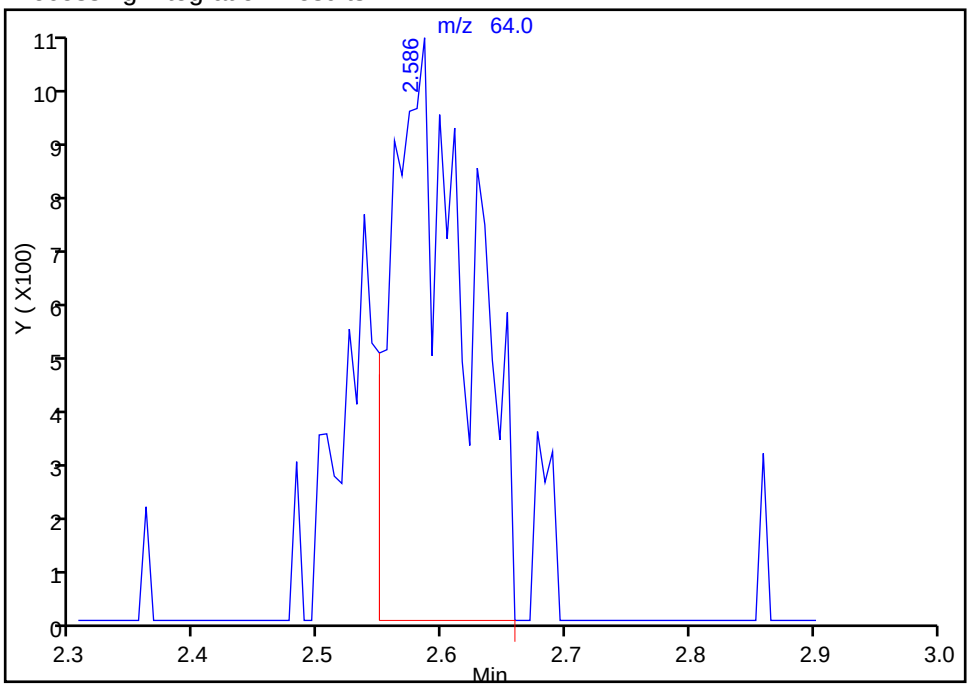
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Chloroethane, CAS: 75-00-3

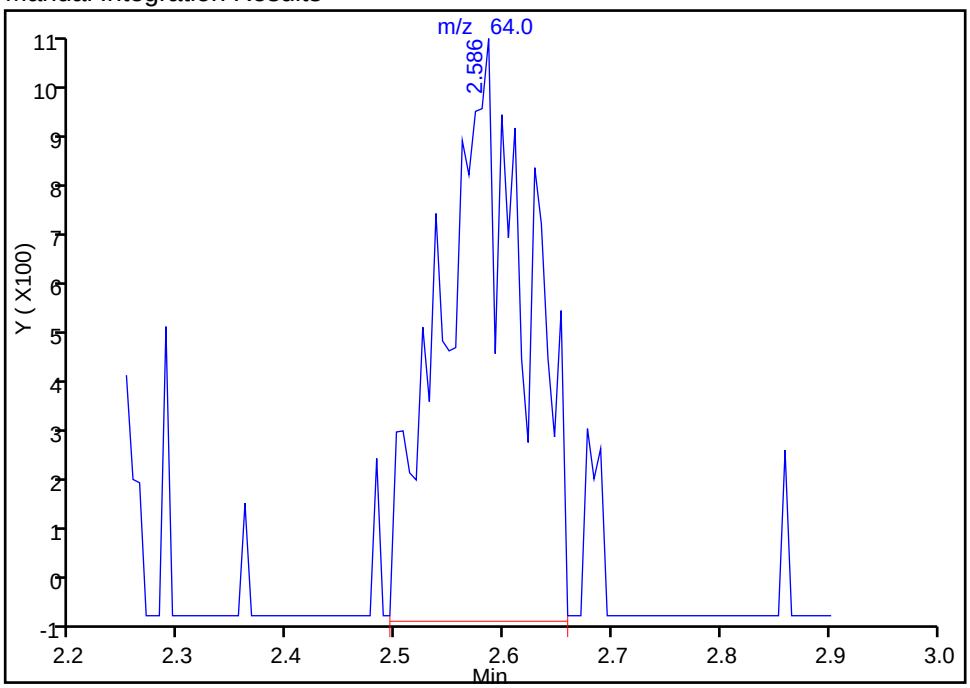
Processing Integration Results

RT: 2.59
Response: 4417
Amount: 21.855209



Manual Integration Results

RT: 2.59
Response: 5728
Amount: 27.253573



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

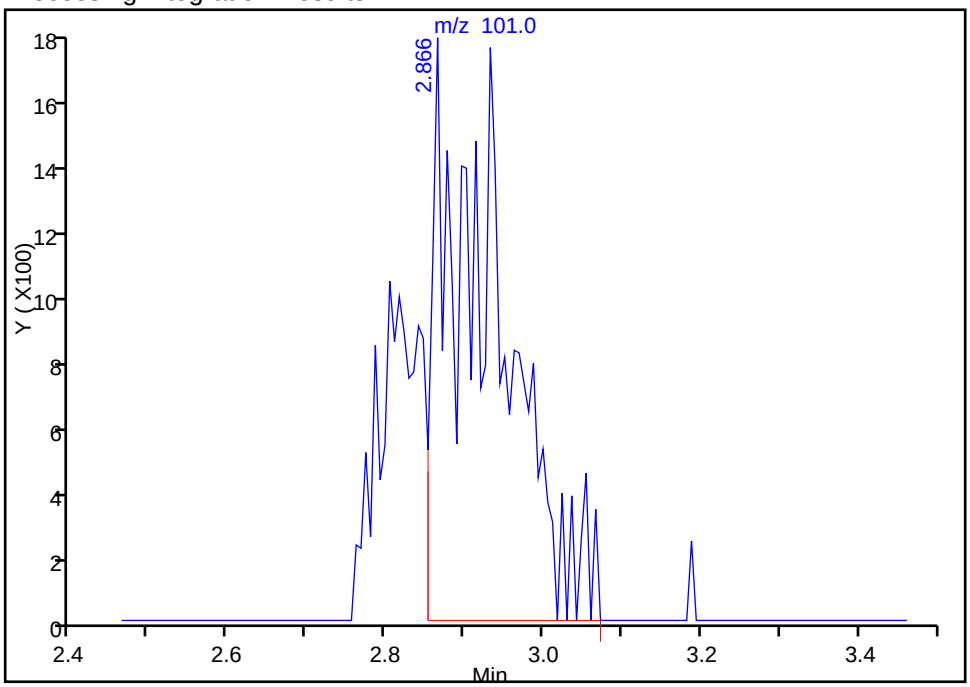
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

17 Trichlorofluoromethane, CAS: 75-69-4

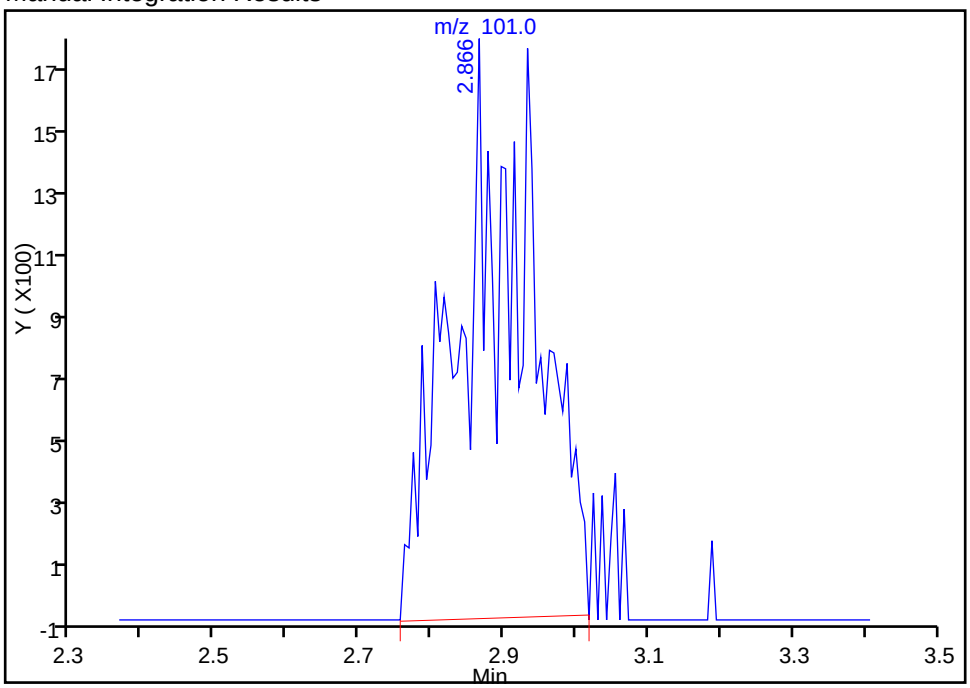
Processing Integration Results

RT: 2.87
Response: 9557
Amount: 21.546022



Manual Integration Results

RT: 2.87
Response: 12468
Amount: 26.693243



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

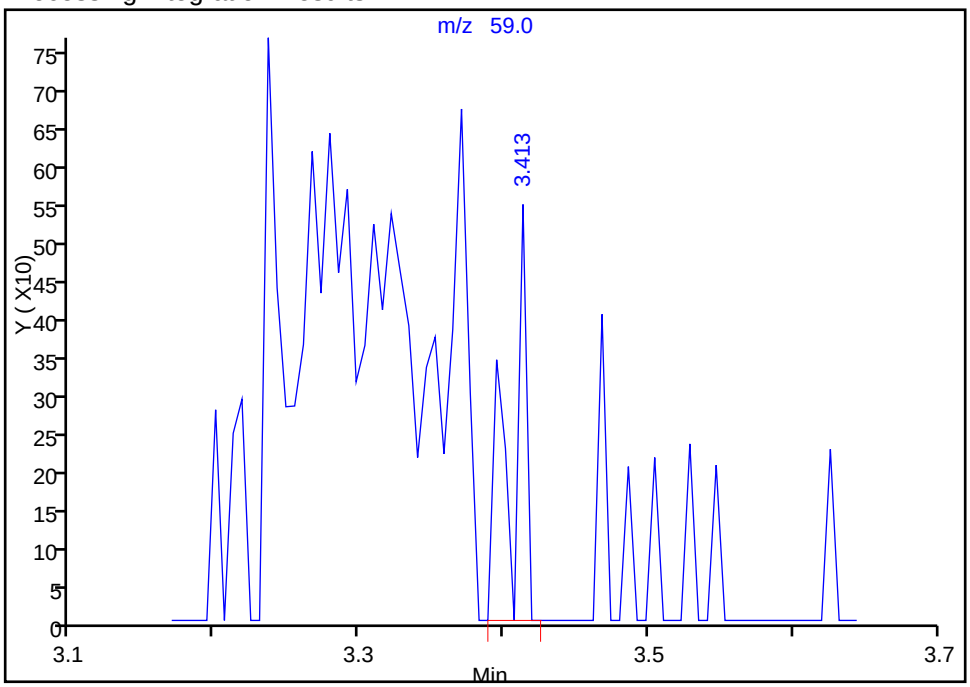
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

19 Ethyl ether, CAS: 60-29-7

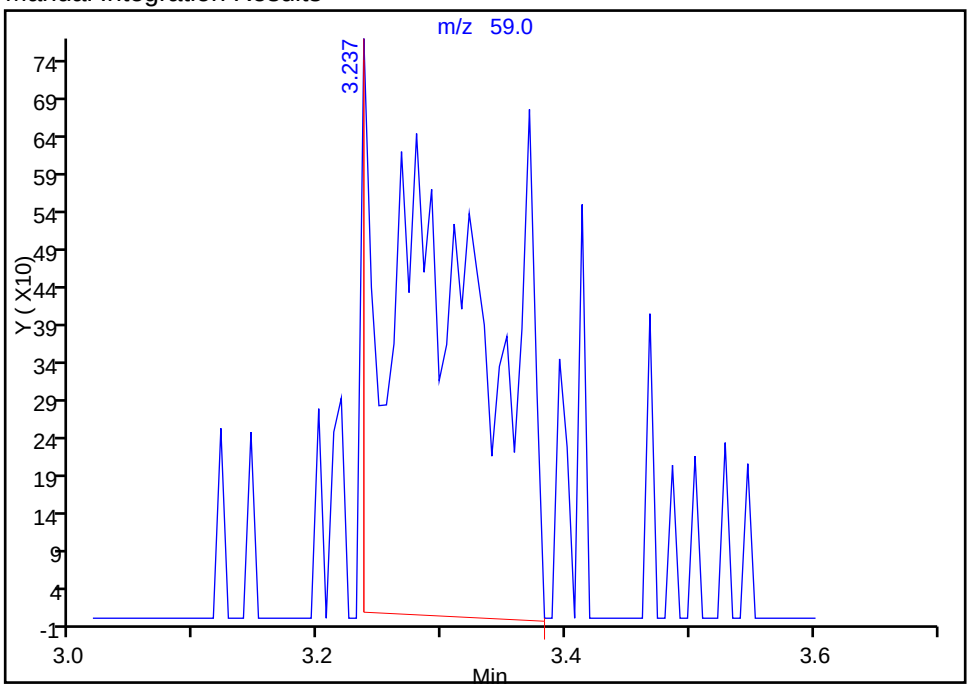
Processing Integration Results

RT: 3.41
Response: 409
Amount: 23.241345



Manual Integration Results

RT: 3.24
Response: 3763
Amount: 17.982333



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

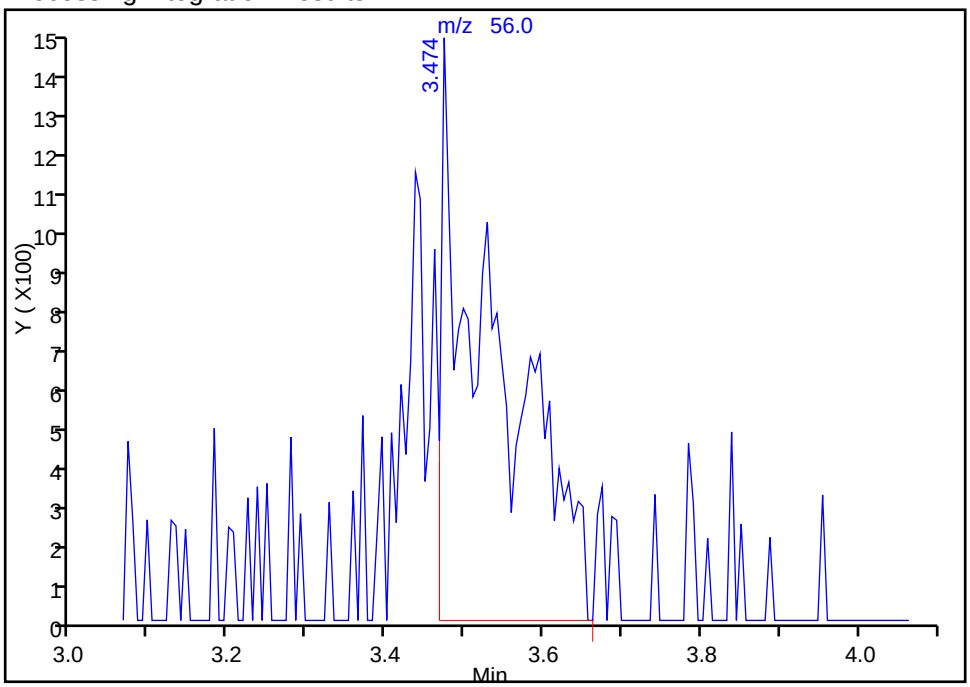
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

21 Acrolein, CAS: 107-02-8

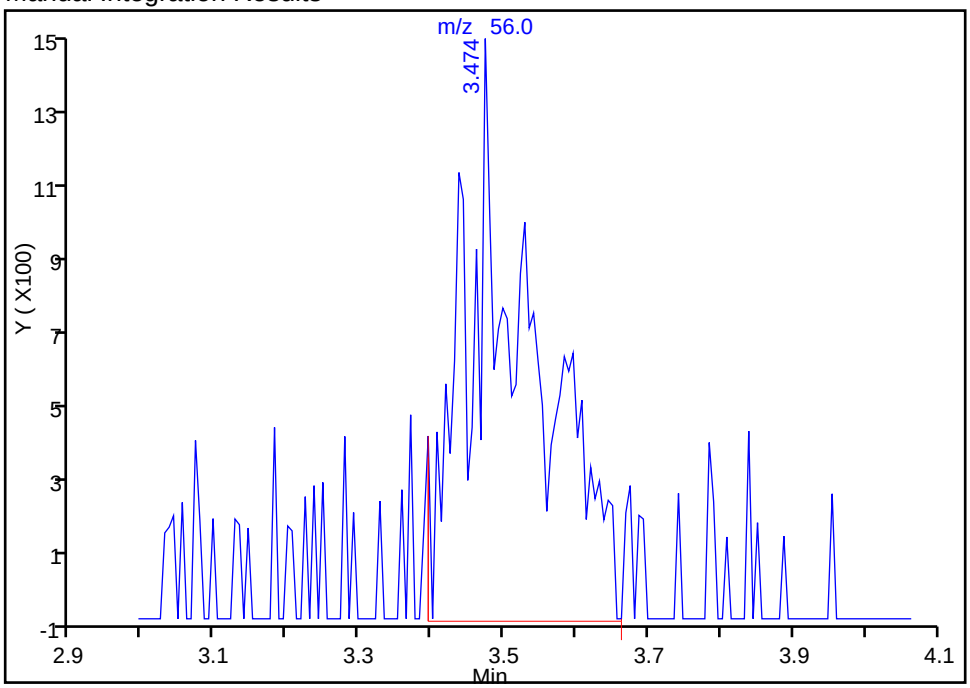
Processing Integration Results

RT: 3.47
Response: 6545
Amount: 246.9346



Manual Integration Results

RT: 3.47
Response: 9055
Amount: 293.5743



Reviewer: journetp, 22-Oct-2014 08:27:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

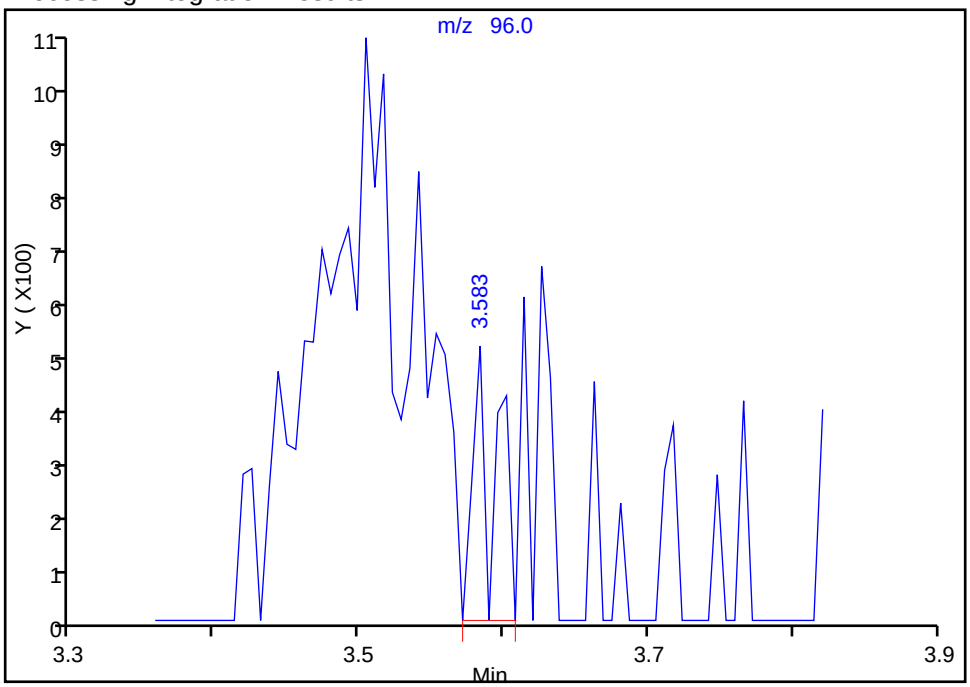
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

20 1,1-Dichloroethene, CAS: 75-35-4

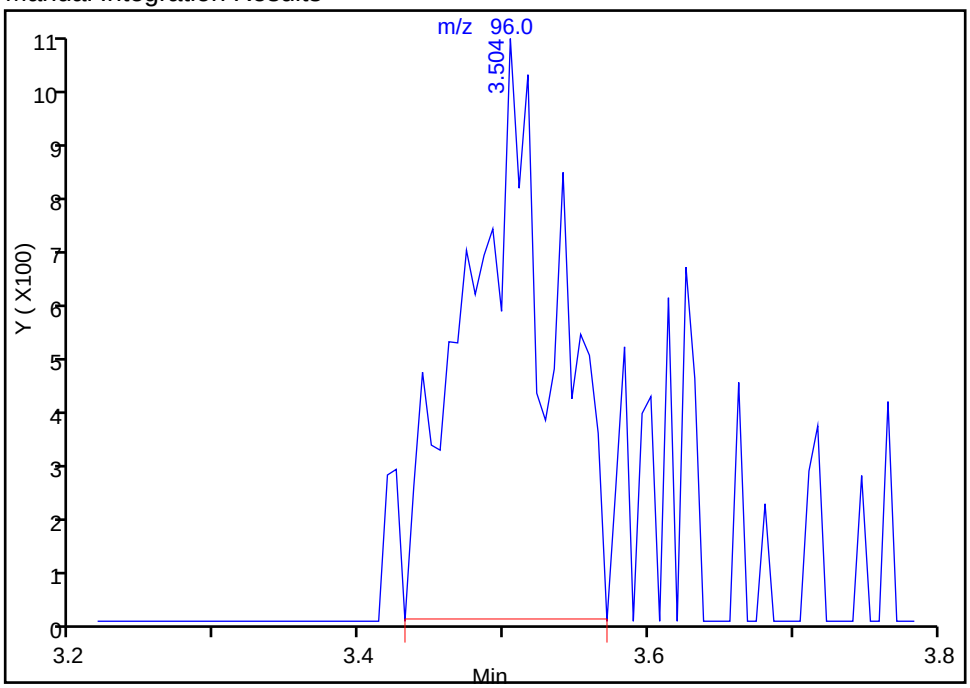
Processing Integration Results

RT: 3.58
Response: 543
Amount: 2.565992



Manual Integration Results

RT: 3.50
Response: 4303
Amount: 18.248757



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

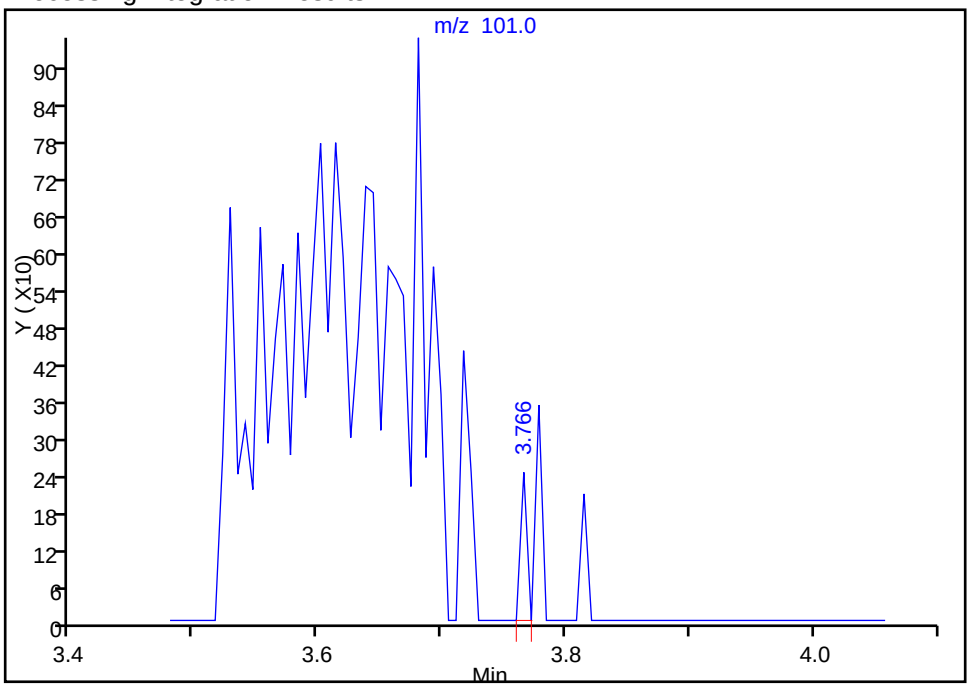
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

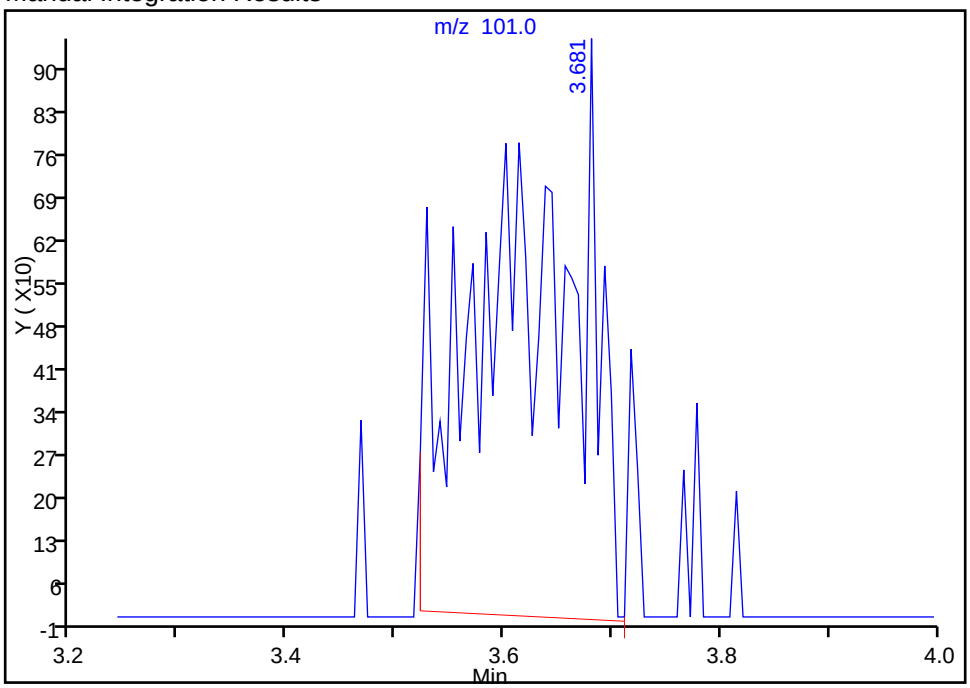
Processing Integration Results

RT: 3.77
Response: 88
Amount: 10.976081



Manual Integration Results

RT: 3.68
Response: 5301
Amount: 21.272344



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

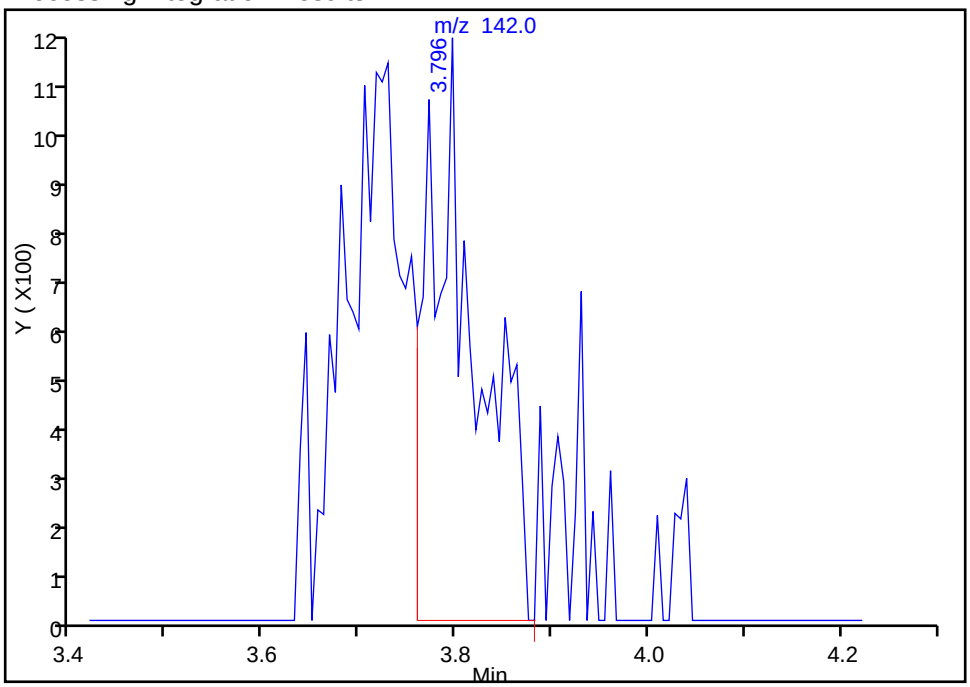
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

23 Iodomethane, CAS: 74-88-4

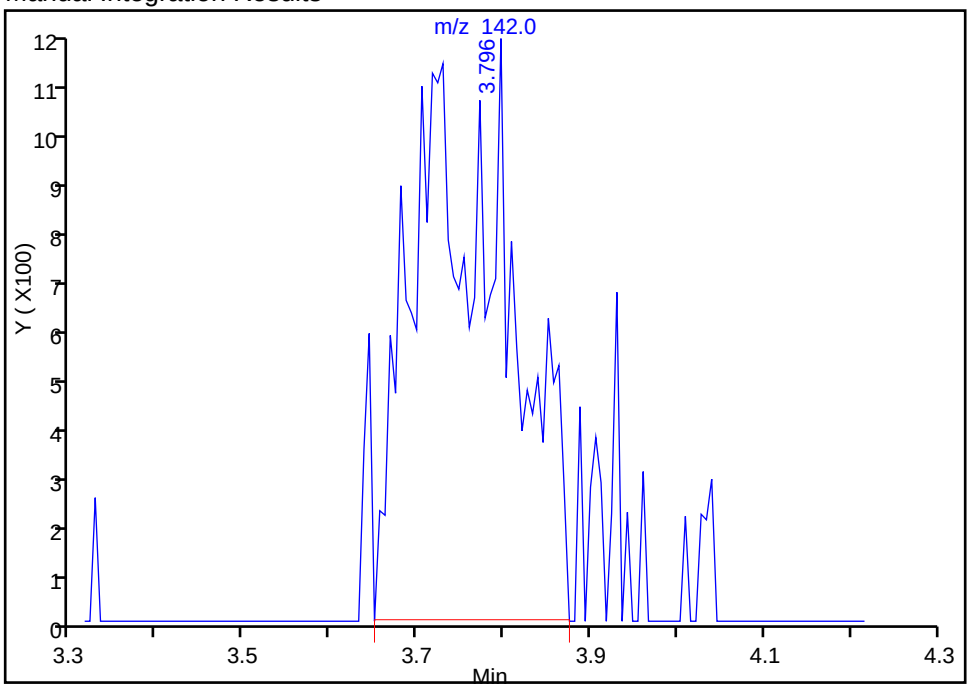
Processing Integration Results

RT: 3.80
Response: 4049
Amount: 24.087961



Manual Integration Results

RT: 3.80
Response: 8430
Amount: 24.159575



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

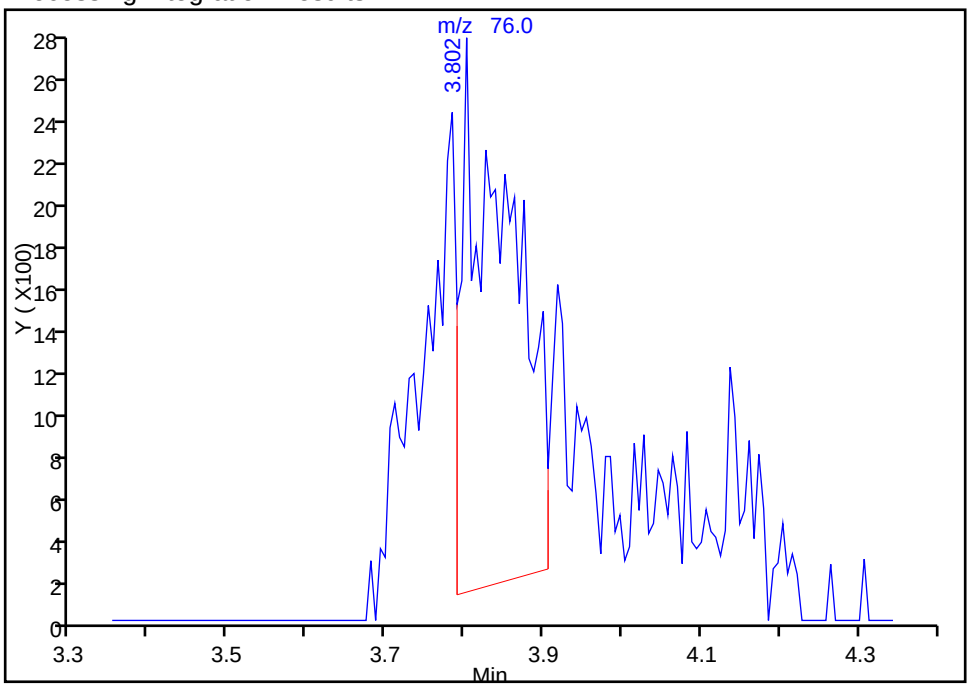
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Carbon disulfide, CAS: 75-15-0

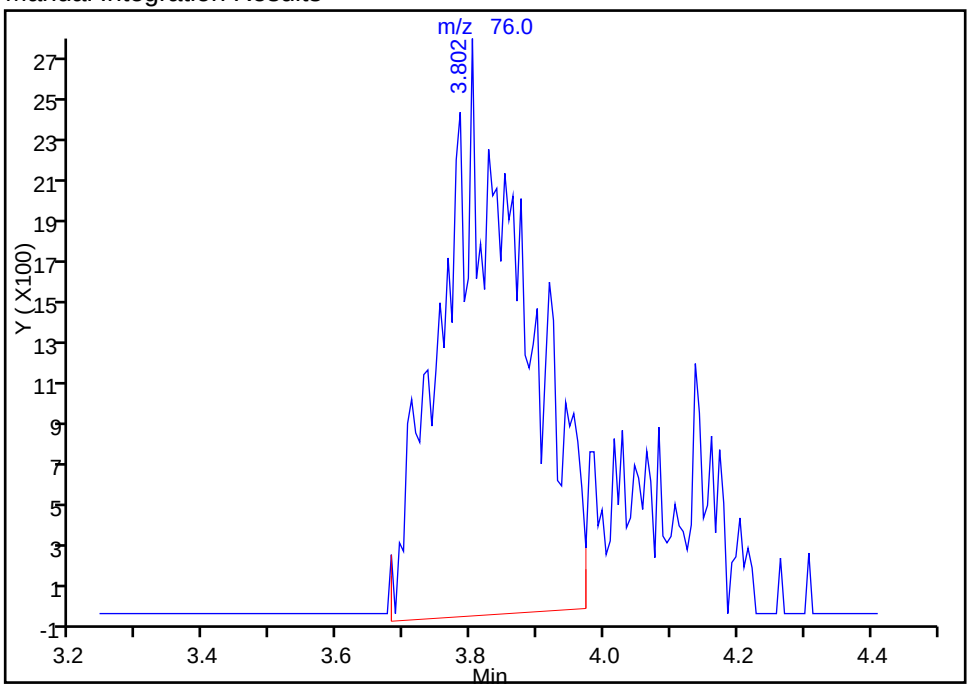
Processing Integration Results

RT: 3.80
Response: 10914
Amount: 13.830791



Manual Integration Results

RT: 3.80
Response: 22854
Amount: 26.024008



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

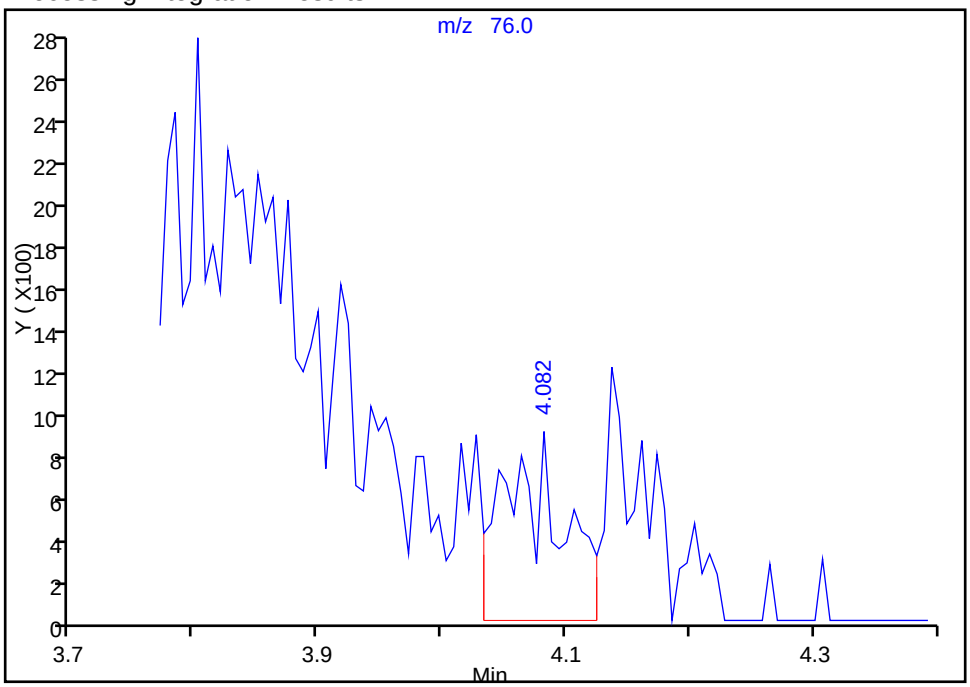
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 3-Chloro-1-propene, CAS: 107-05-1

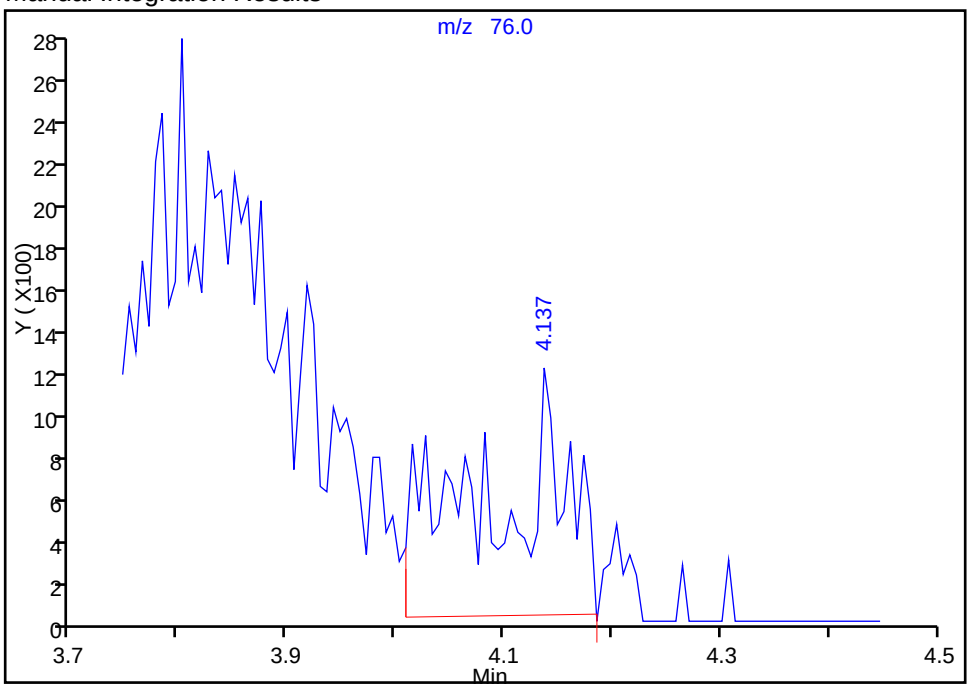
Processing Integration Results

RT: 4.08
Response: 2877
Amount: 19.246166



Manual Integration Results

RT: 4.14
Response: 5708
Amount: 21.543613



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

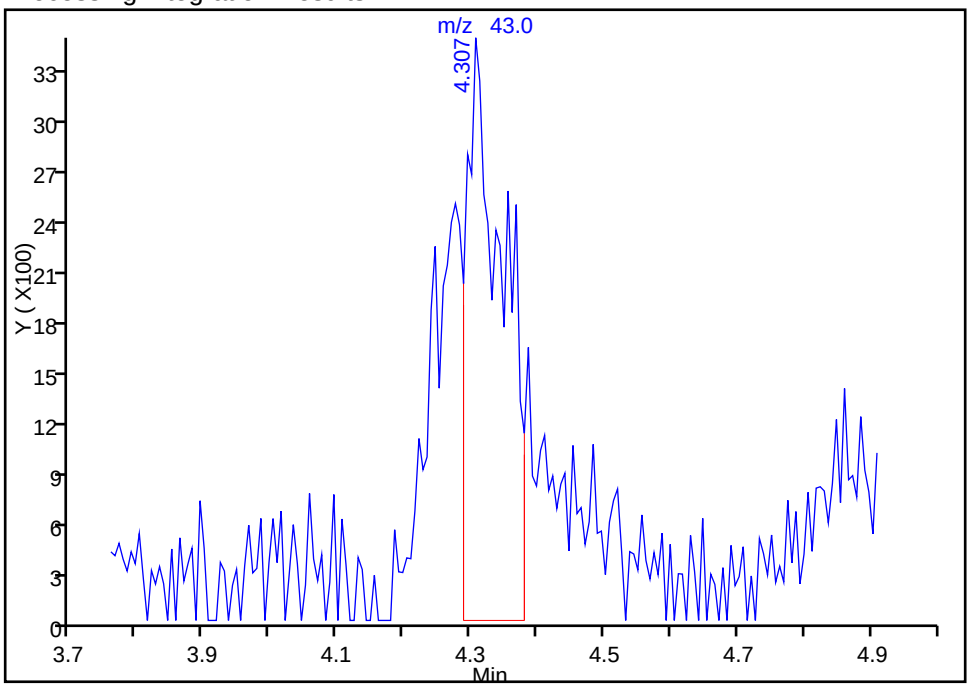
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

29 Methyl acetate, CAS: 79-20-9

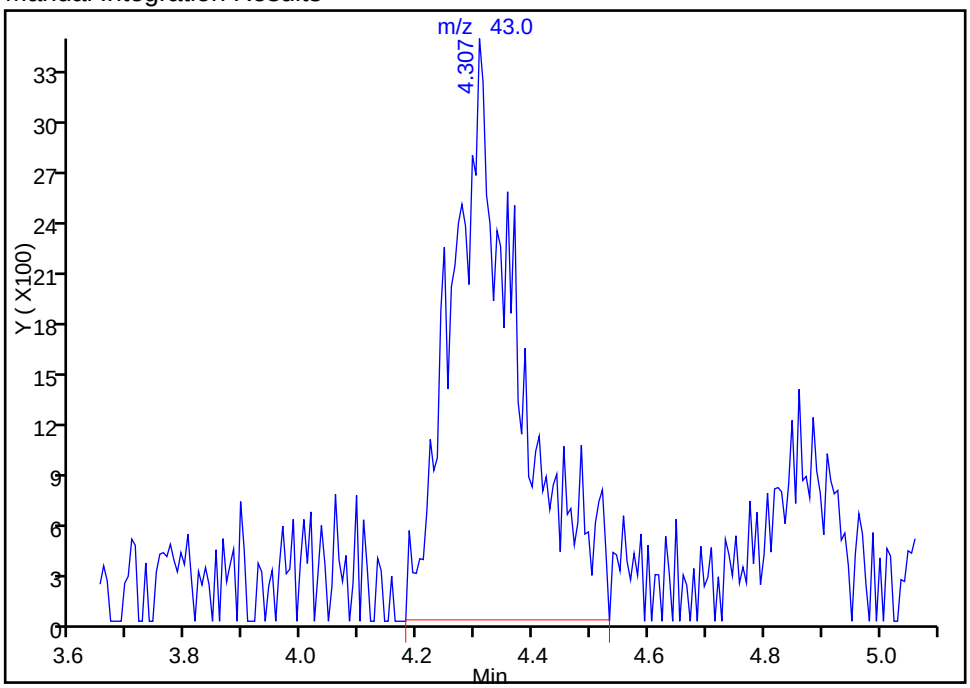
Processing Integration Results

RT: 4.31
Response: 13280
Amount: 116.3921



Manual Integration Results

RT: 4.31
Response: 27763
Amount: 139.3214



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

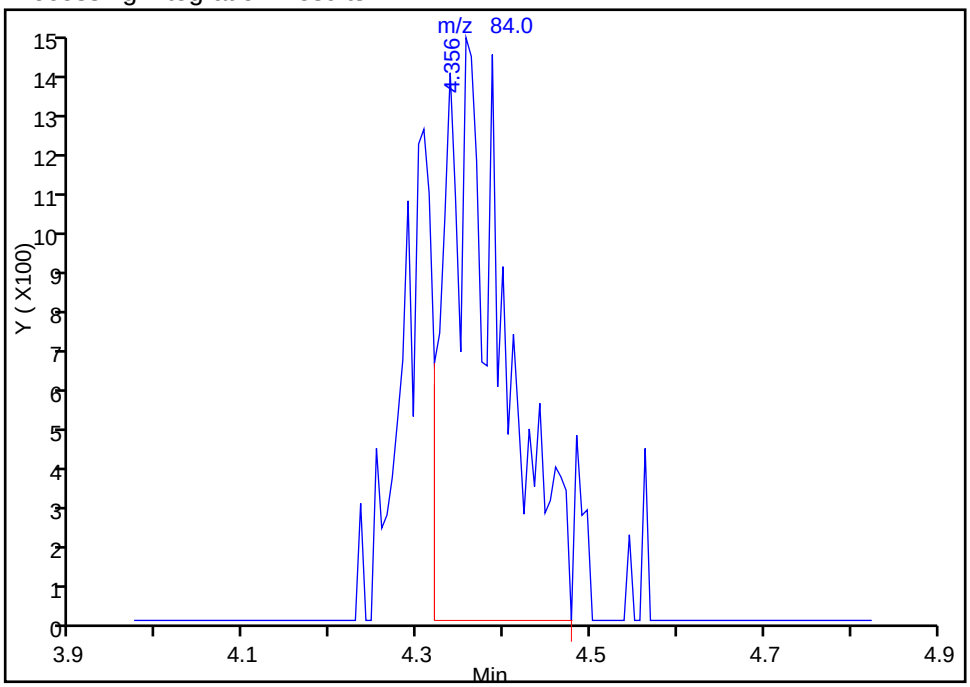
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

30 Methylene Chloride, CAS: 75-09-2

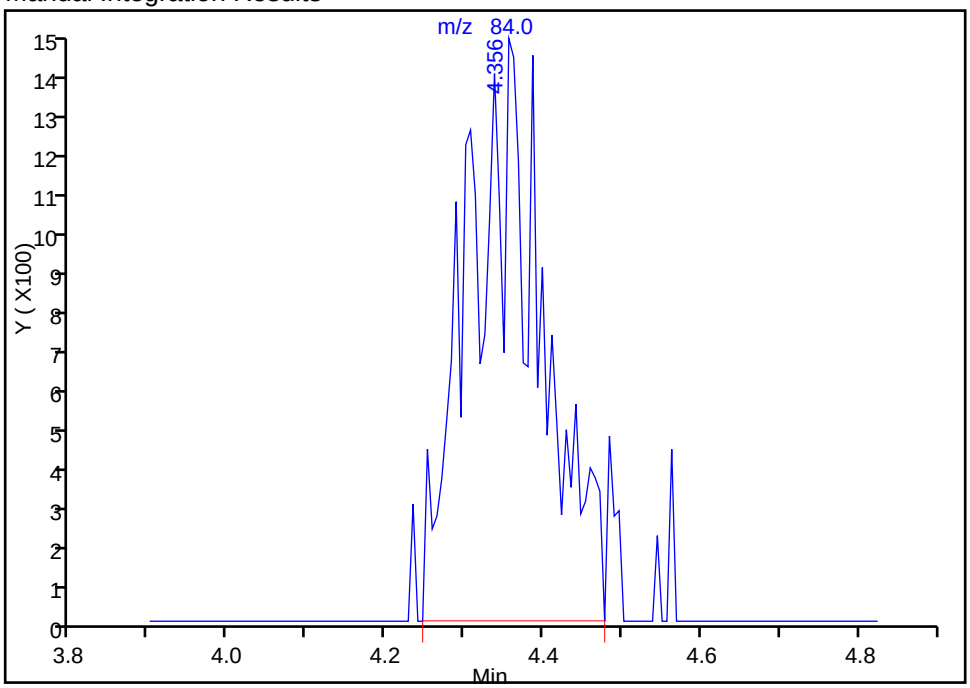
Processing Integration Results

RT: 4.36
Response: 6973
Amount: 22.996607



Manual Integration Results

RT: 4.36
Response: 9763
Amount: 30.922189



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

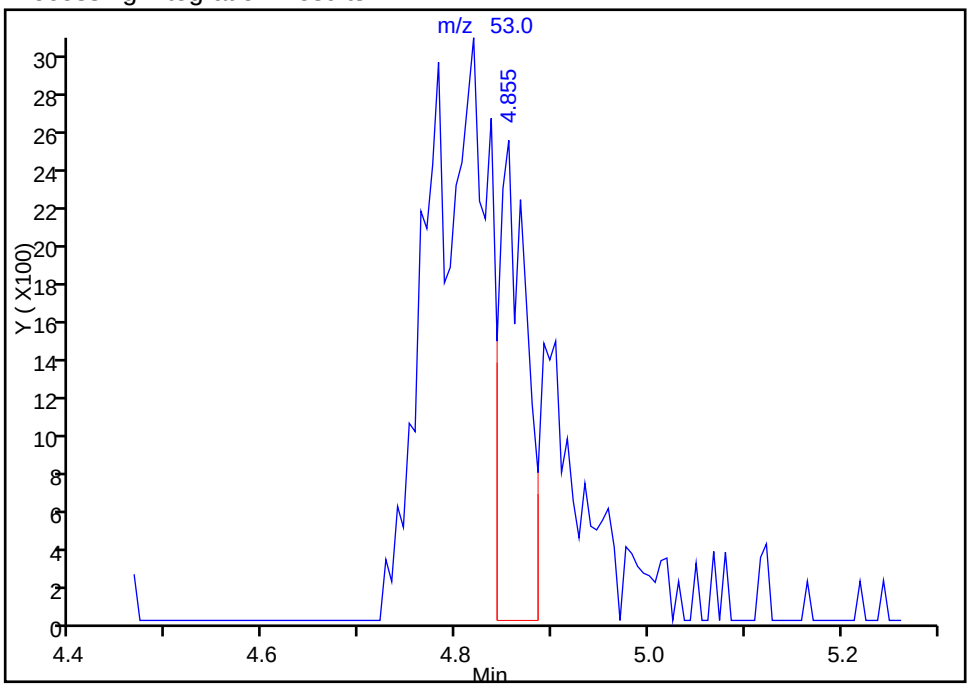
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 Acrylonitrile, CAS: 107-13-1

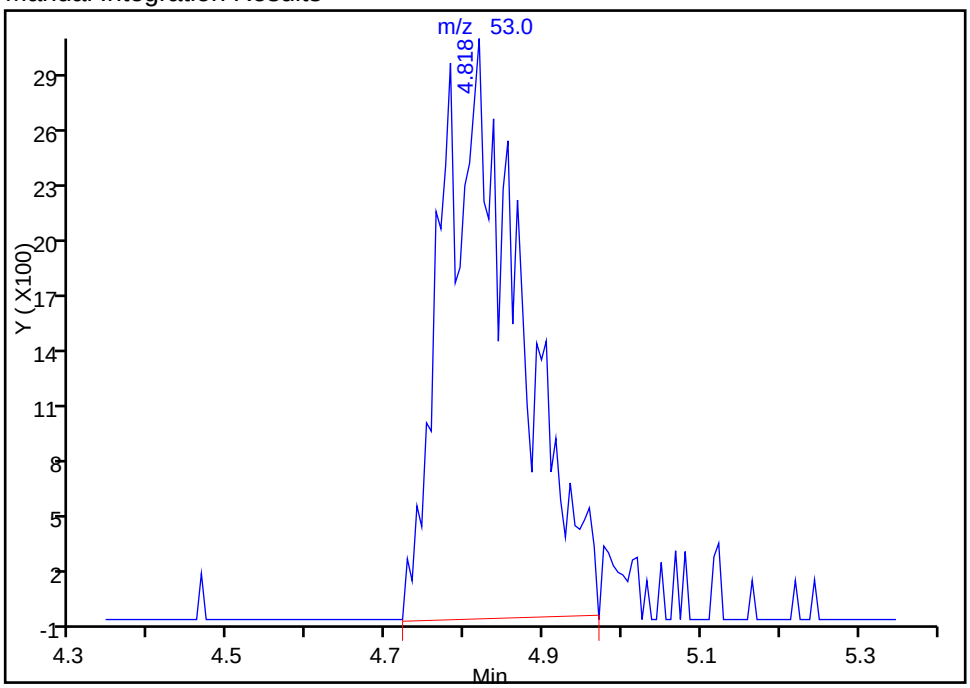
Processing Integration Results

RT: 4.85
Response: 5015
Amount: 221.0469



Manual Integration Results

RT: 4.82
Response: 21317
Amount: 272.4499



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

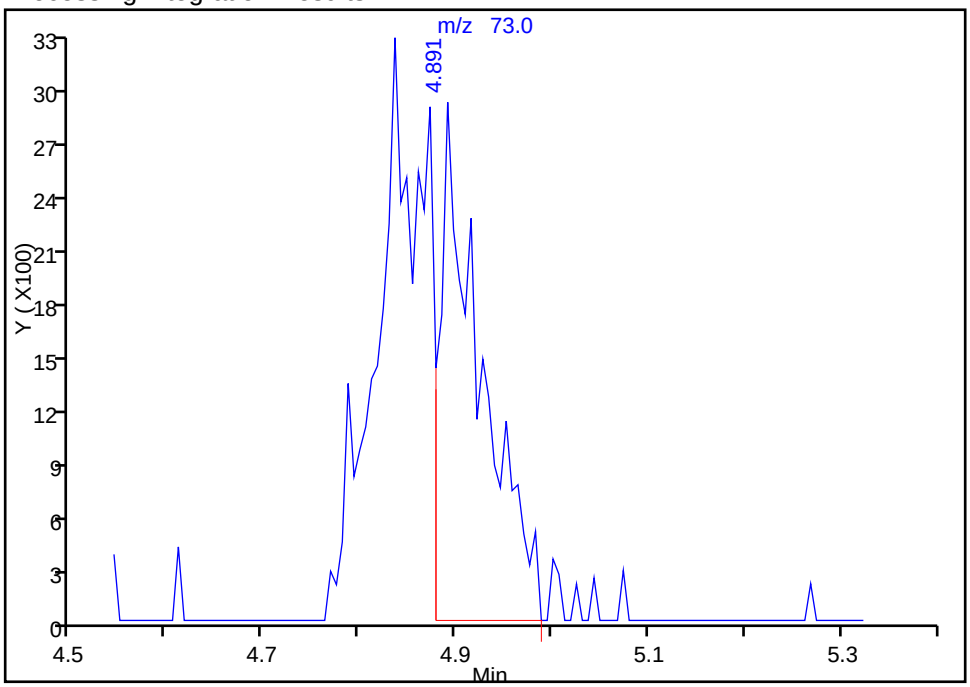
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

33 Methyl tert-butyl ether, CAS: 1634-04-4

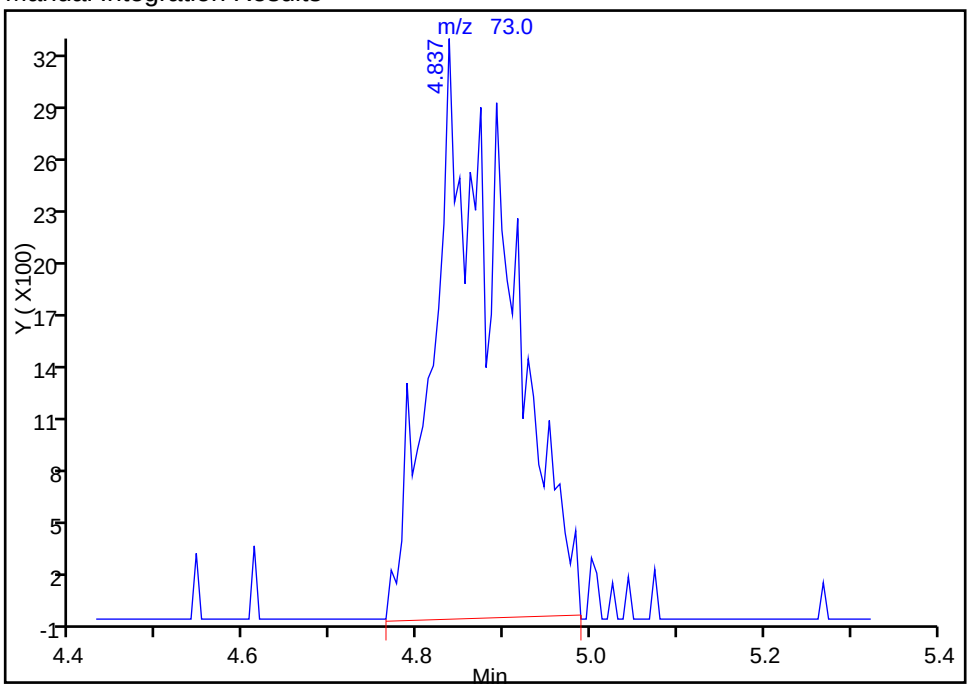
Processing Integration Results

RT: 4.89
Response: 8579
Amount: 18.868889



Manual Integration Results

RT: 4.84
Response: 19300
Amount: 26.502485



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

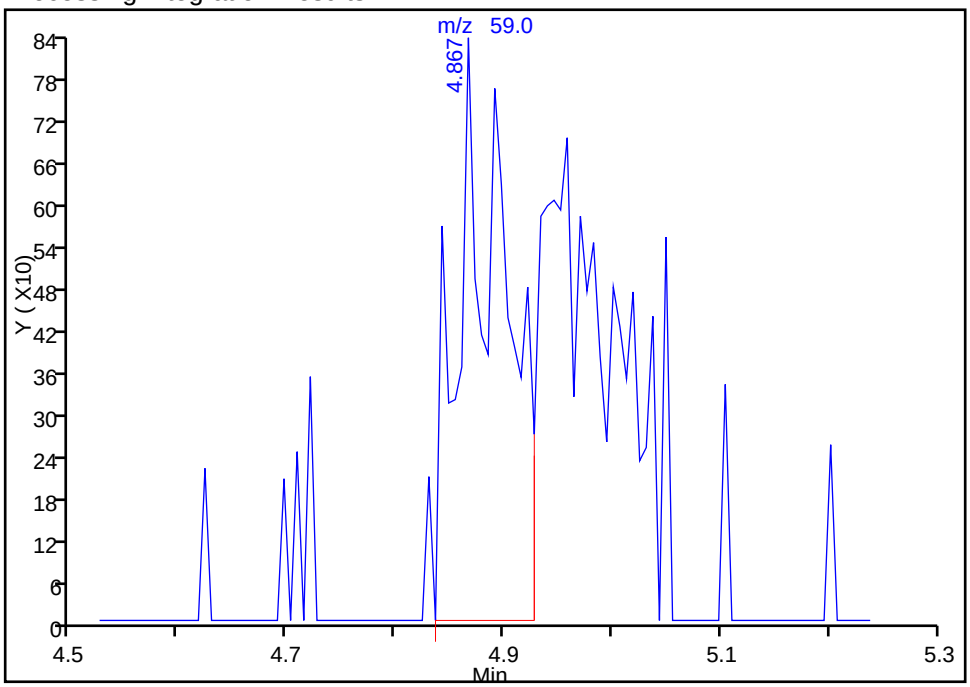
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

34 2-Methyl-2-propanol, CAS: 75-65-0

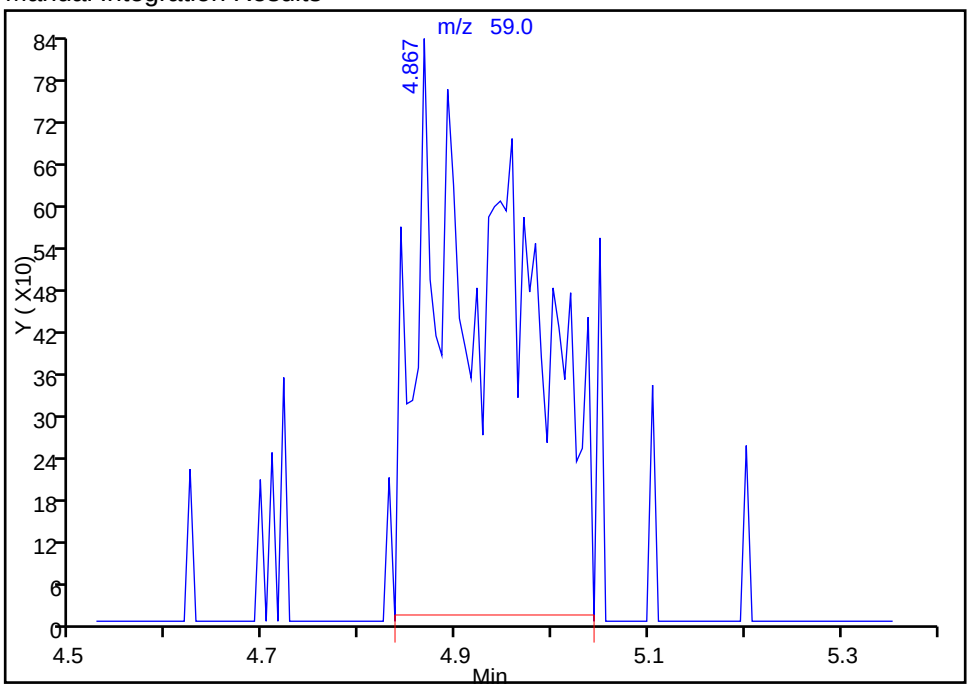
Processing Integration Results

RT: 4.87
Response: 2559
Amount: 239.4529



Manual Integration Results

RT: 4.87
Response: 5463
Amount: 255.0878



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

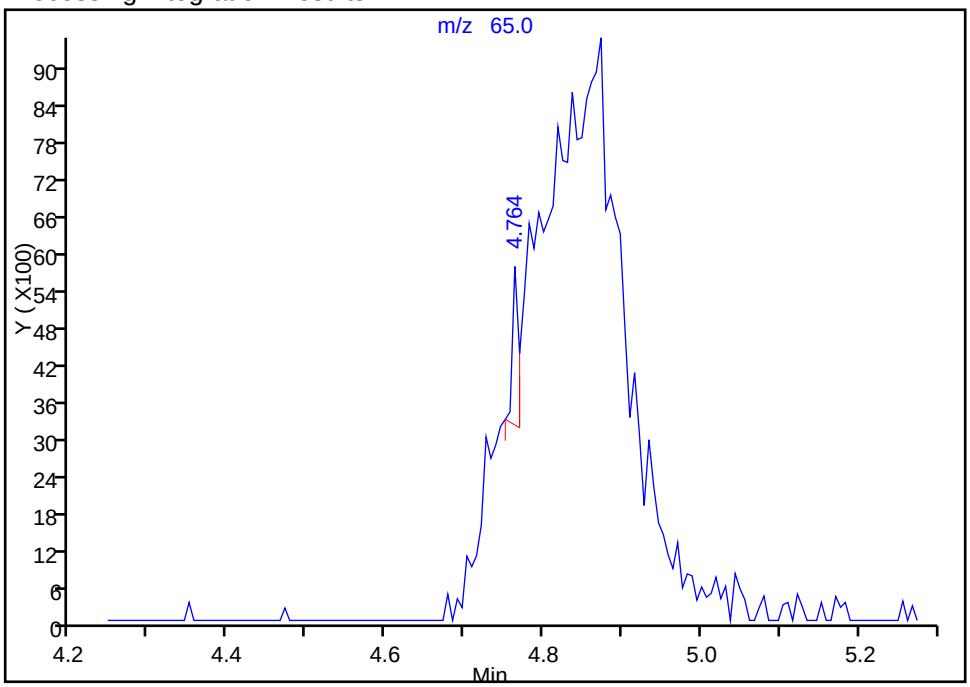
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

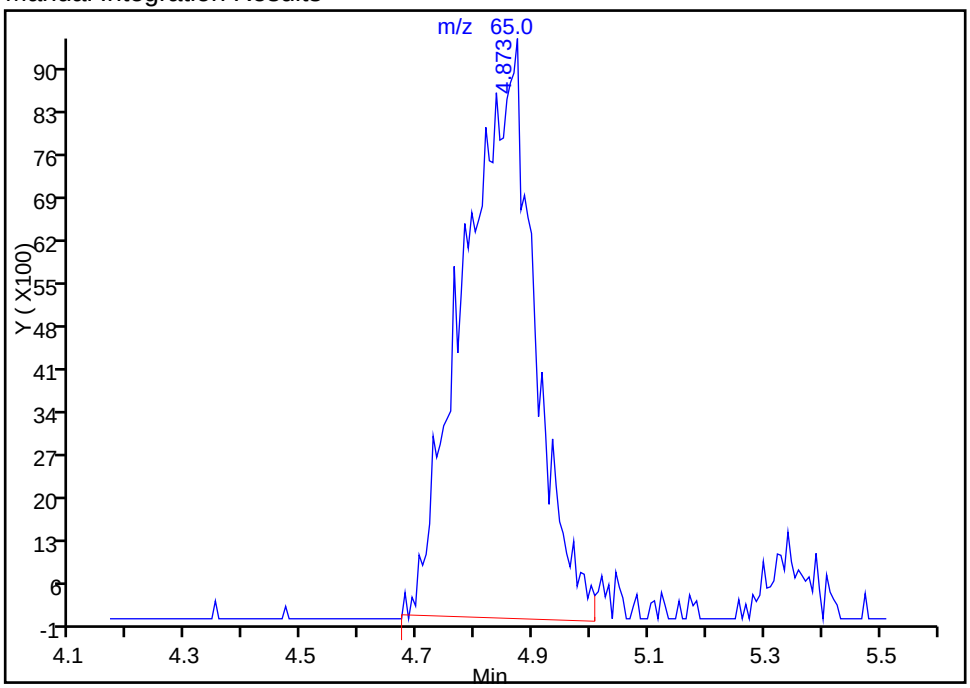
Processing Integration Results

RT: 4.76
Response: 1432
Amount: 5000.0000



Manual Integration Results

RT: 4.87
Response: 78968
Amount: 5000.0000



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

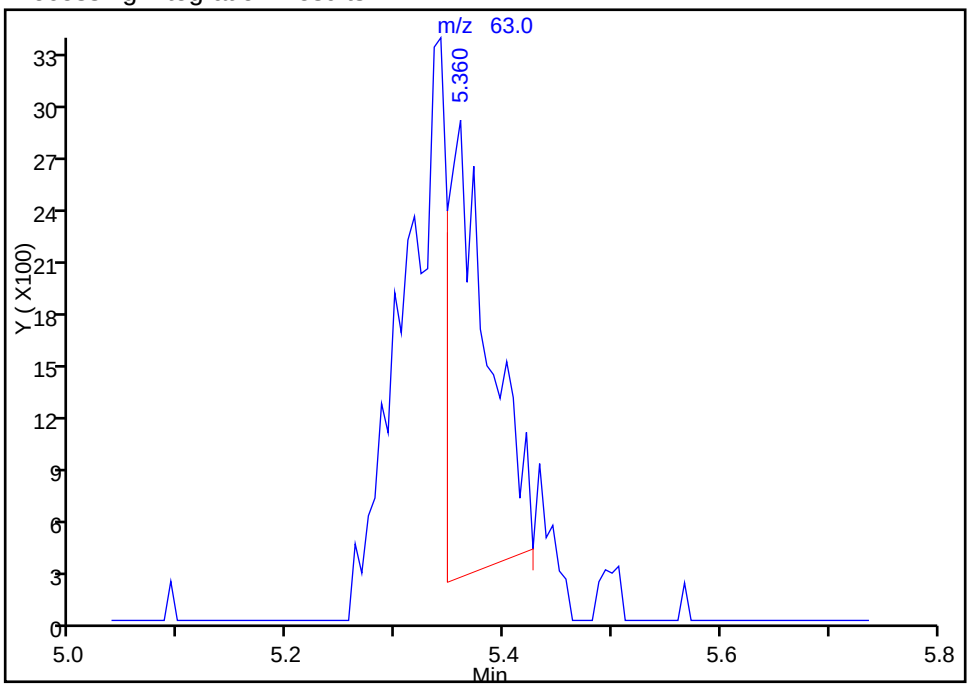
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

36 1,1-Dichloroethane, CAS: 75-34-3

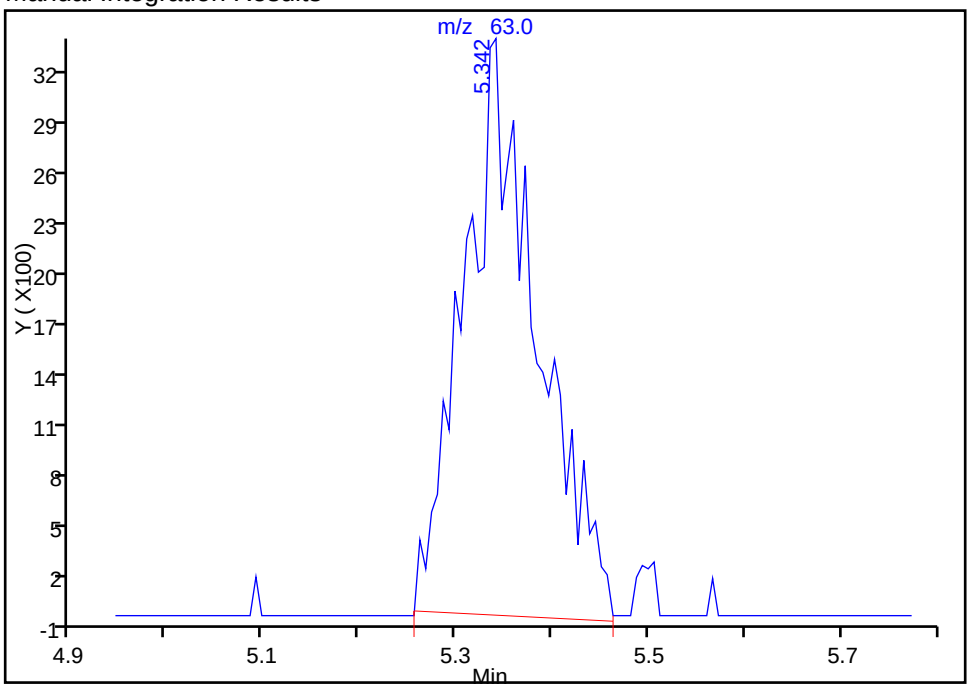
Processing Integration Results

RT: 5.36
Response: 6763
Amount: 24.776258



Manual Integration Results

RT: 5.34
Response: 17557
Amount: 29.219379



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

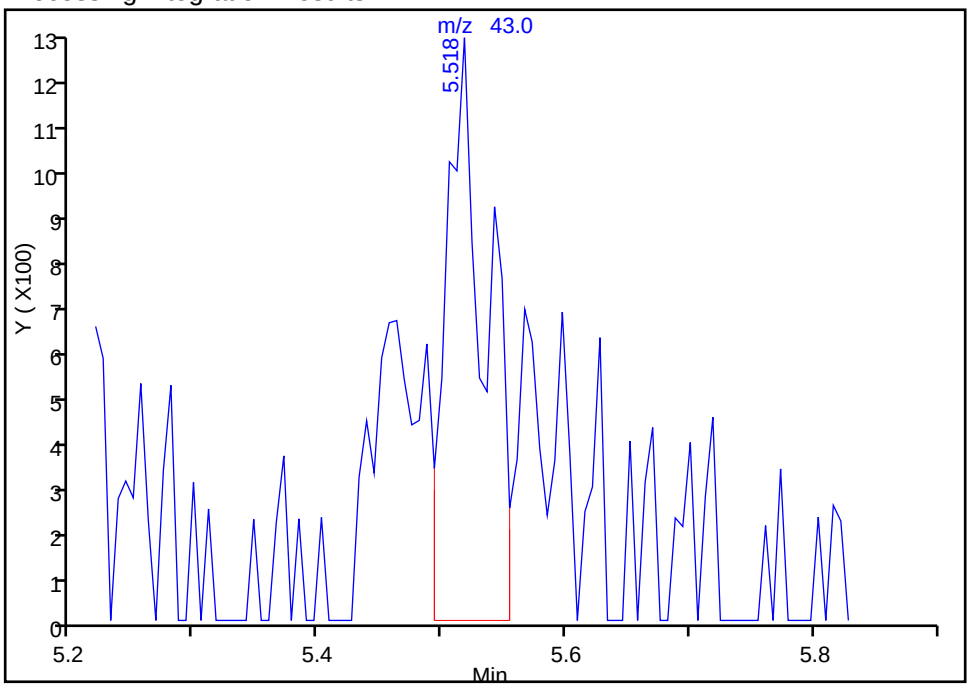
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

38 Vinyl acetate, CAS: 108-05-4

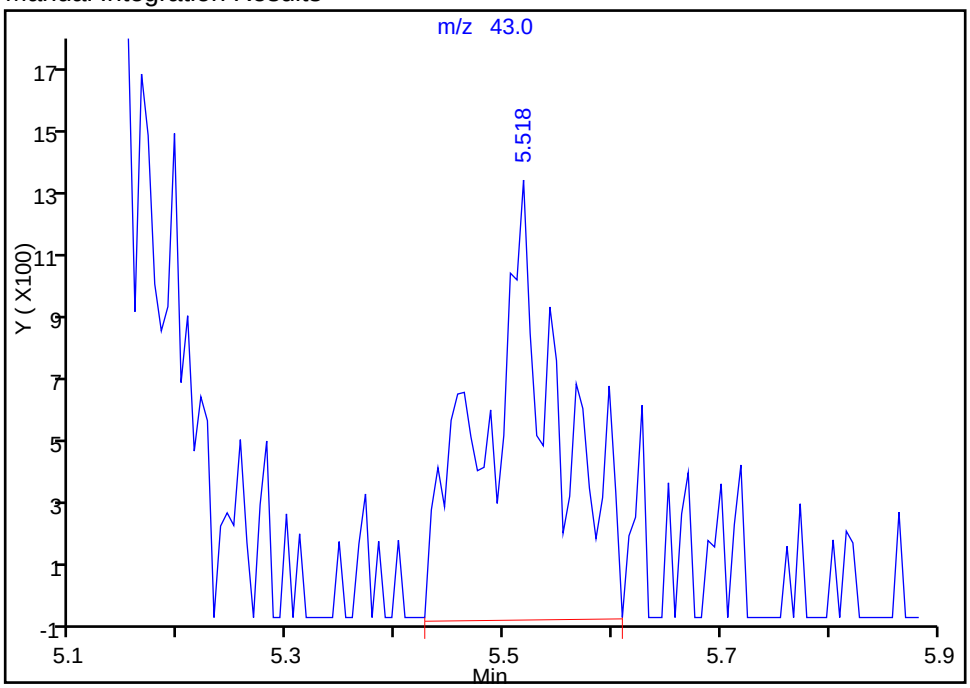
Processing Integration Results

RT: 5.52
Response: 2925
Amount: 19.676065



Manual Integration Results

RT: 5.52
Response: 6198
Amount: 28.188365



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

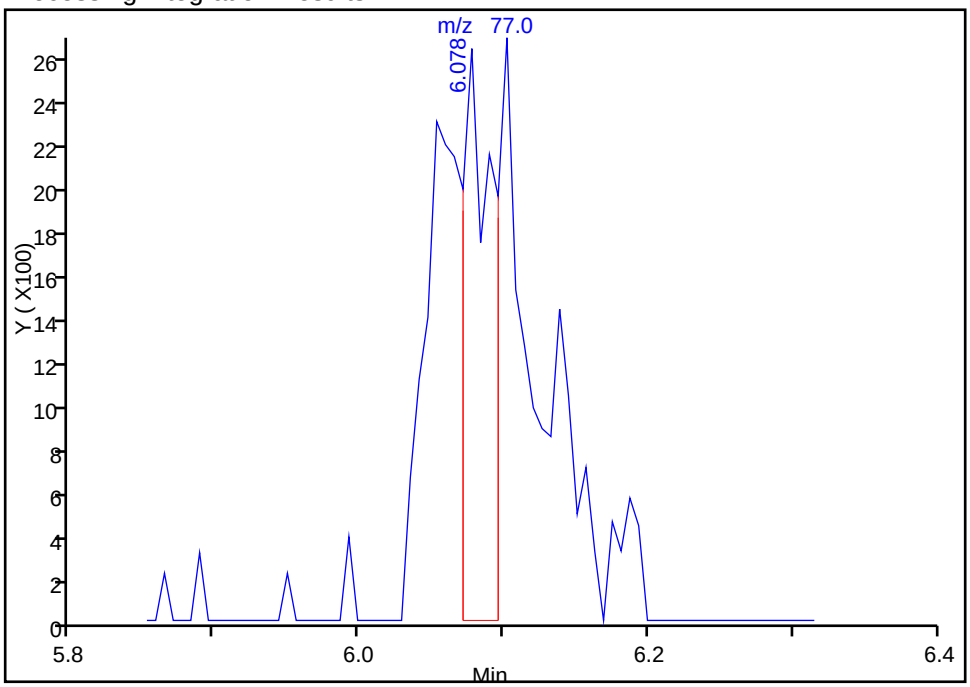
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

41 2,2-Dichloropropane, CAS: 594-20-7

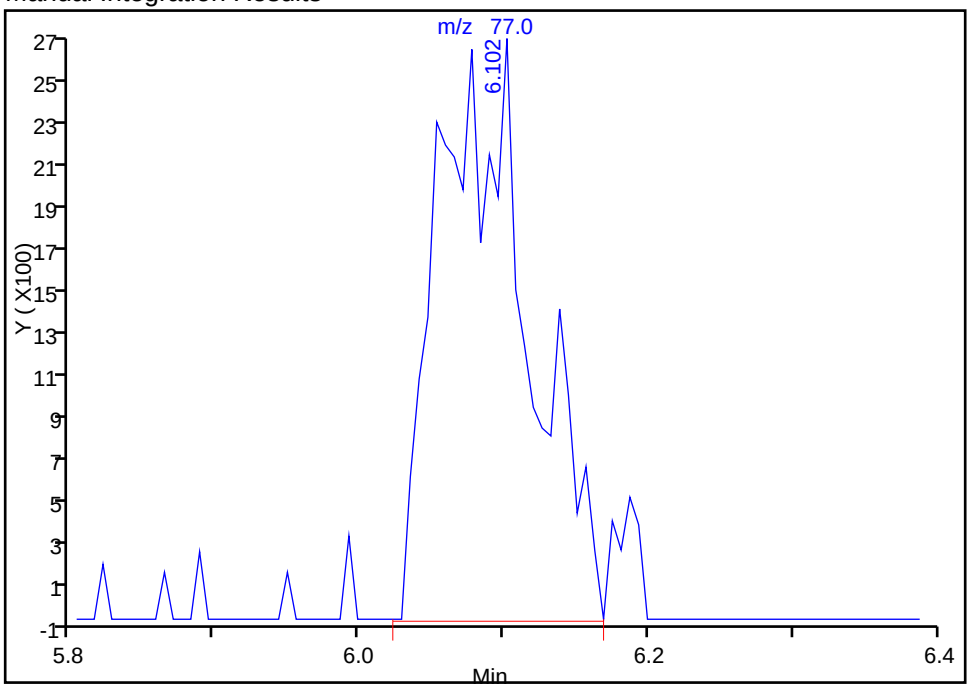
Processing Integration Results

RT: 6.08
Response: 3745
Amount: 19.606421



Manual Integration Results

RT: 6.10
Response: 11690
Amount: 28.279401



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

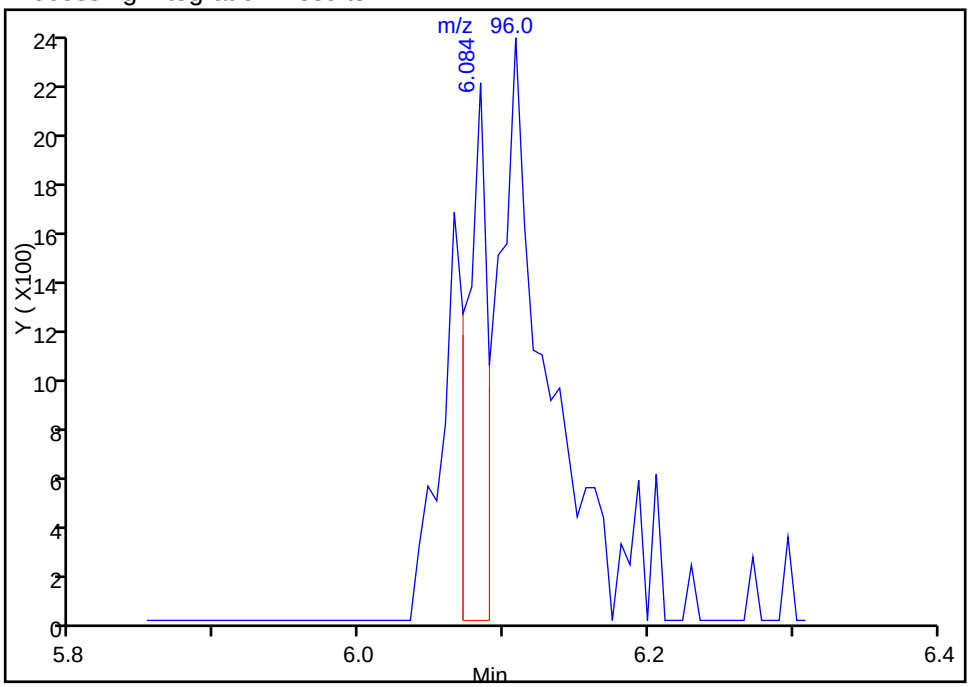
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

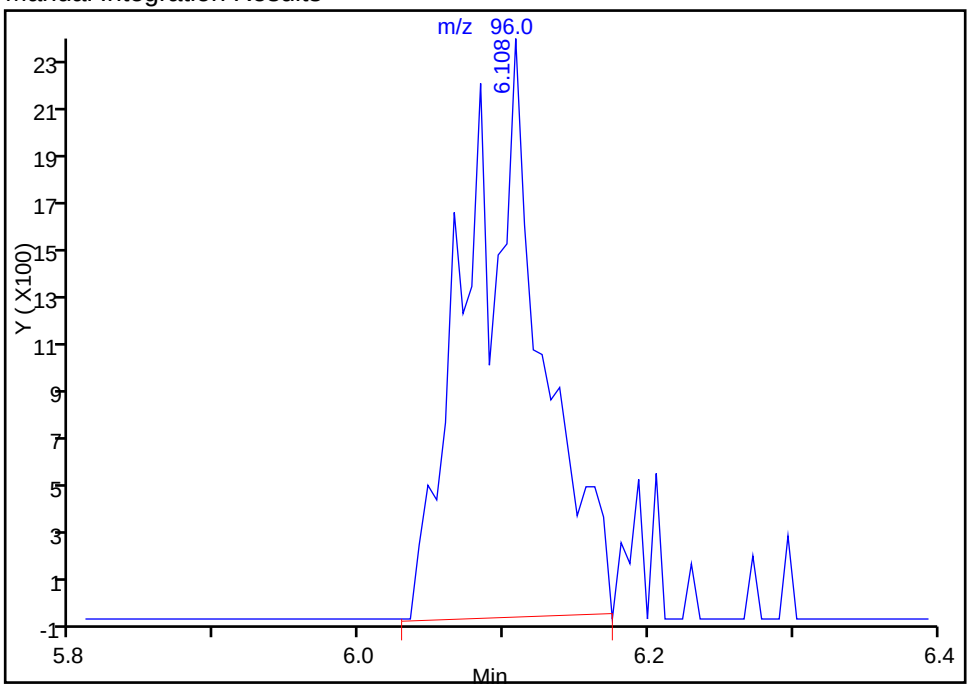
Processing Integration Results

RT: 6.08
Response: 2104
Amount: 16.055578



Manual Integration Results

RT: 6.11
Response: 8331
Amount: 27.292480



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

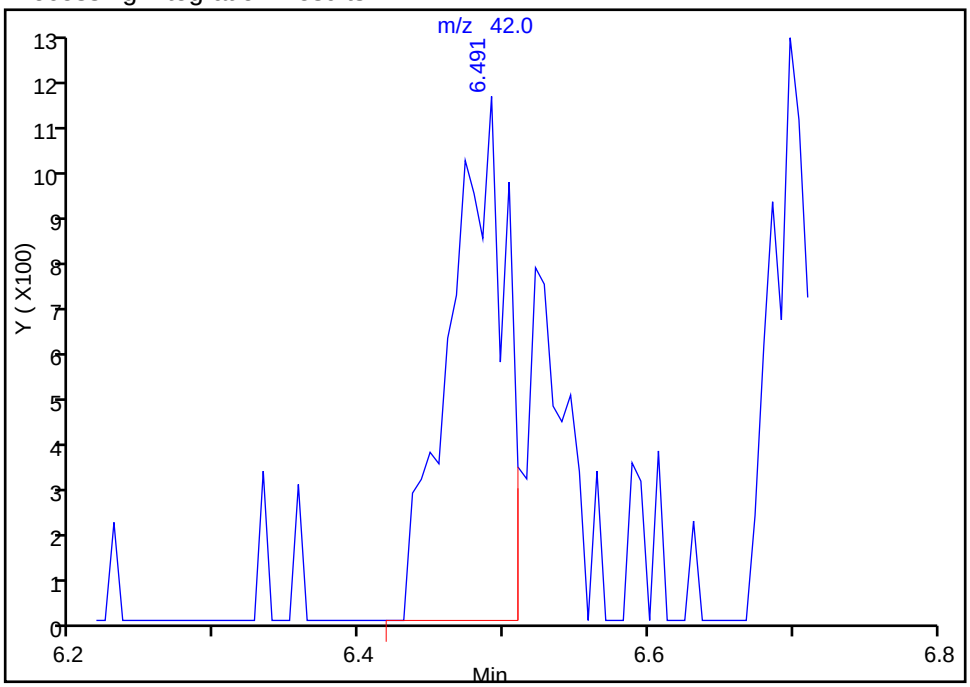
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

49 Tetrahydrofuran, CAS: 109-99-9

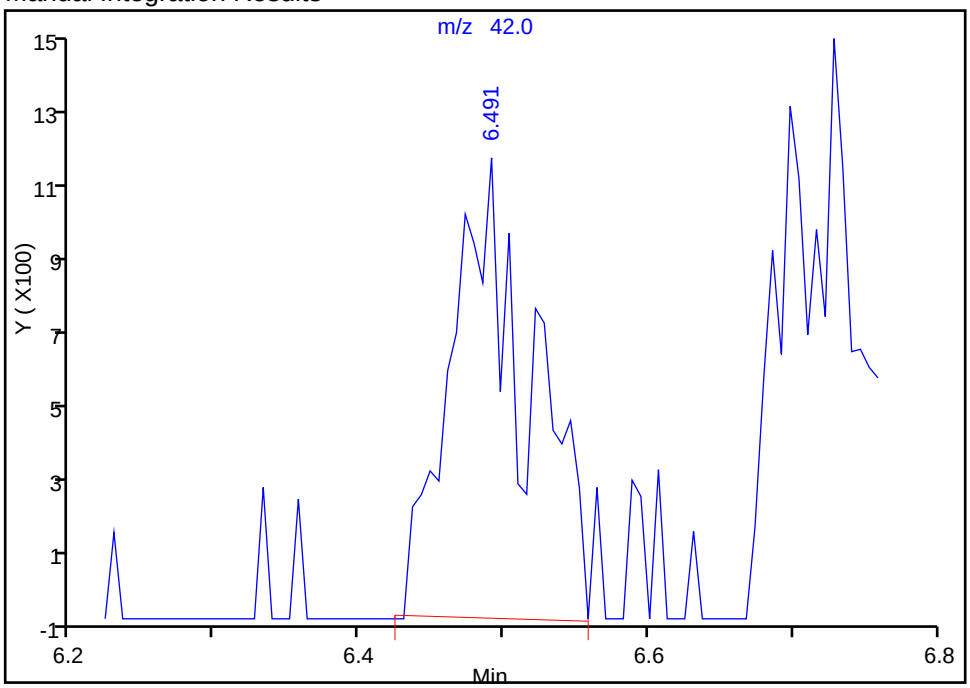
Processing Integration Results

RT: 6.49
Response: 3063
Amount: 44.440569



Manual Integration Results

RT: 6.49
Response: 4340
Amount: 59.836148



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

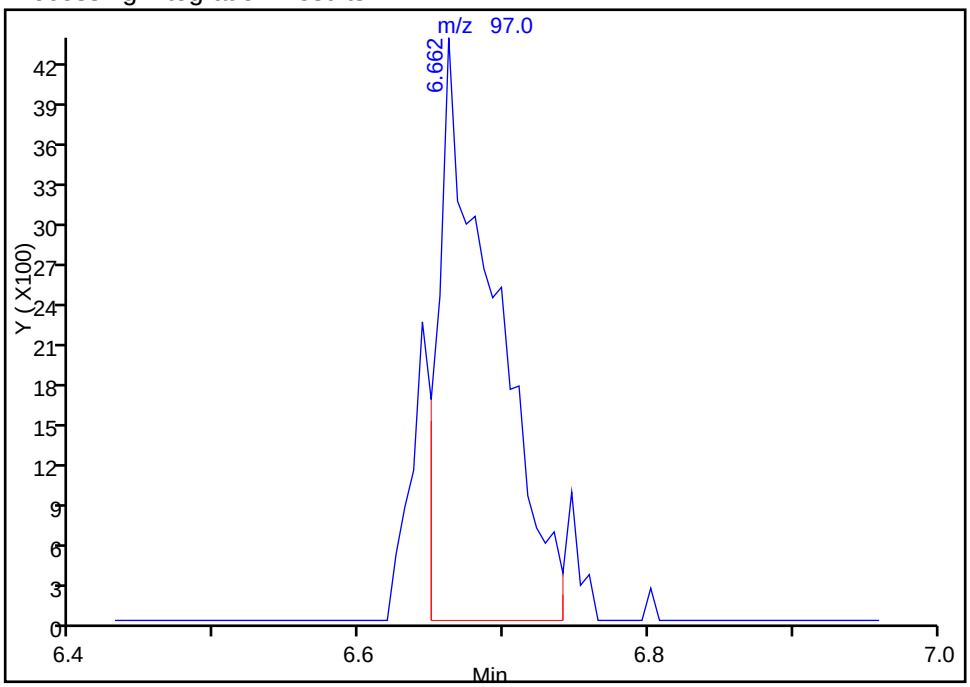
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

50 1,1,1-Trichloroethane, CAS: 71-55-6

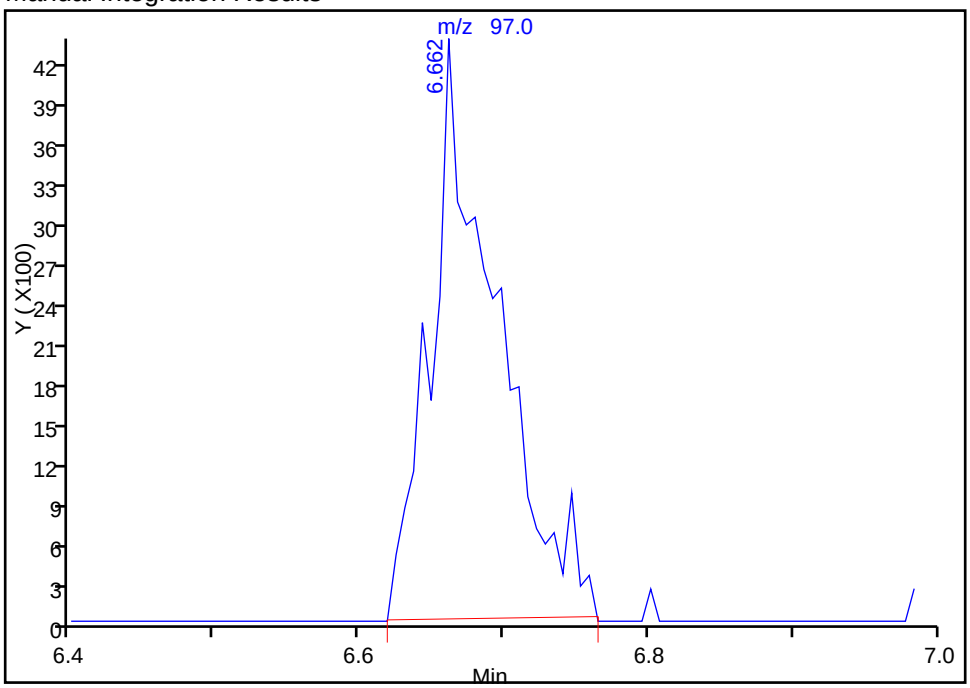
Processing Integration Results

RT: 6.66
Response: 11617
Amount: 26.105158



Manual Integration Results

RT: 6.66
Response: 13700
Amount: 29.562934



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

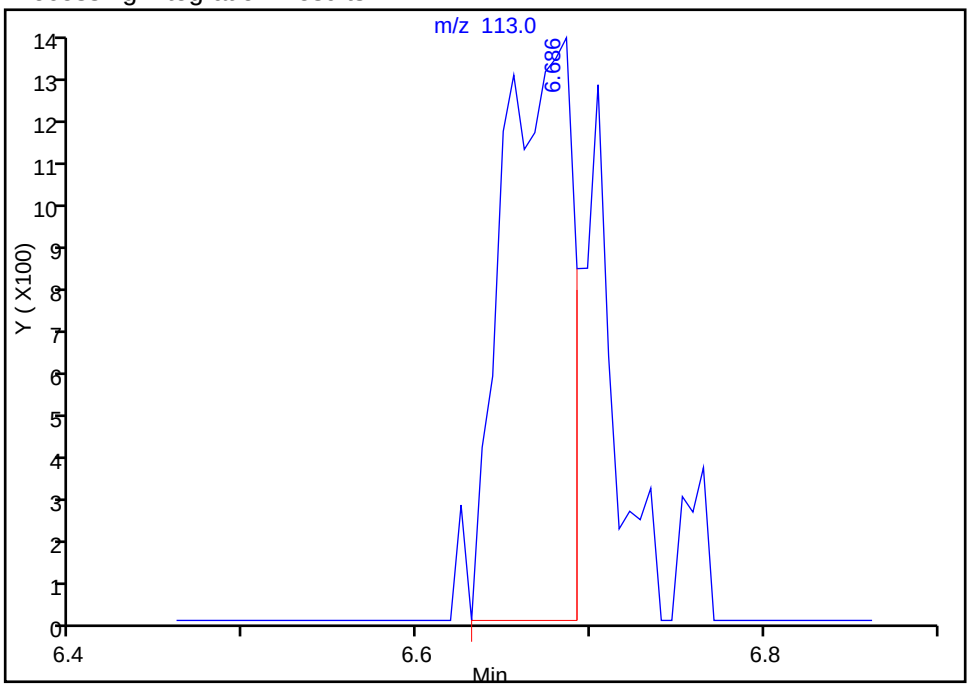
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

$ 5 Dibromofluoromethane (Surr), CAS: 1868-53-7

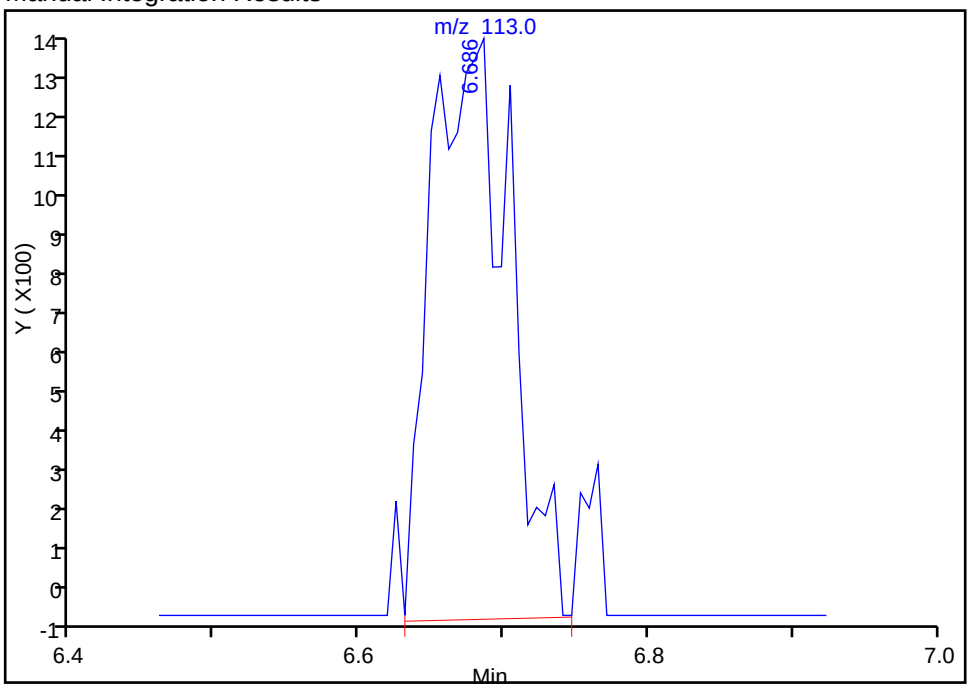
Processing Integration Results

RT: 6.69
Response: 3874
Amount: 20.151780



Manual Integration Results

RT: 6.69
Response: 5319
Amount: 26.388693



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

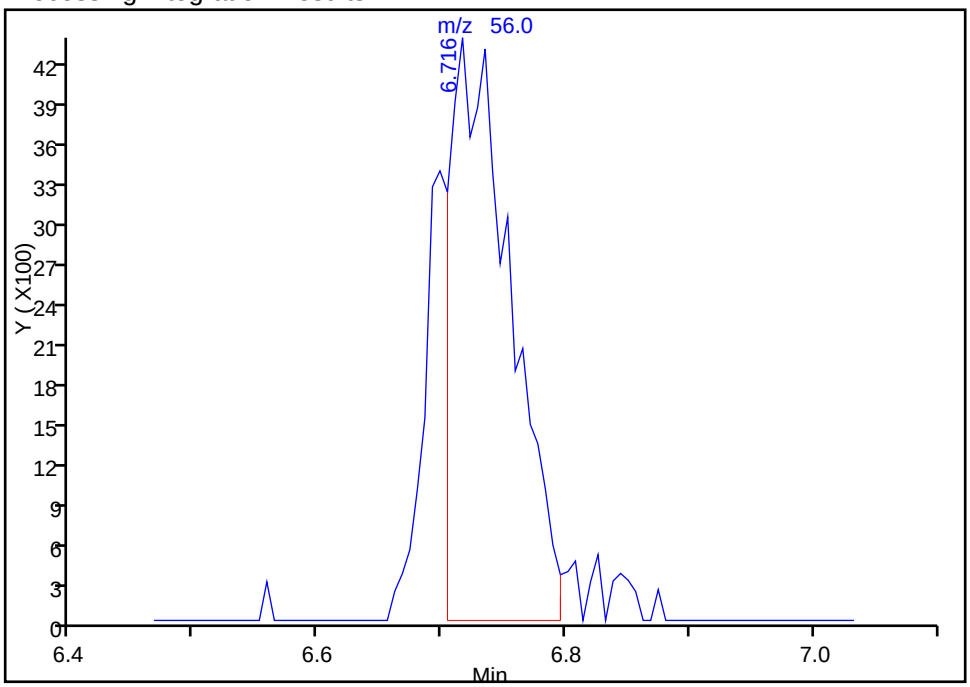
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

51 Cyclohexane, CAS: 110-82-7

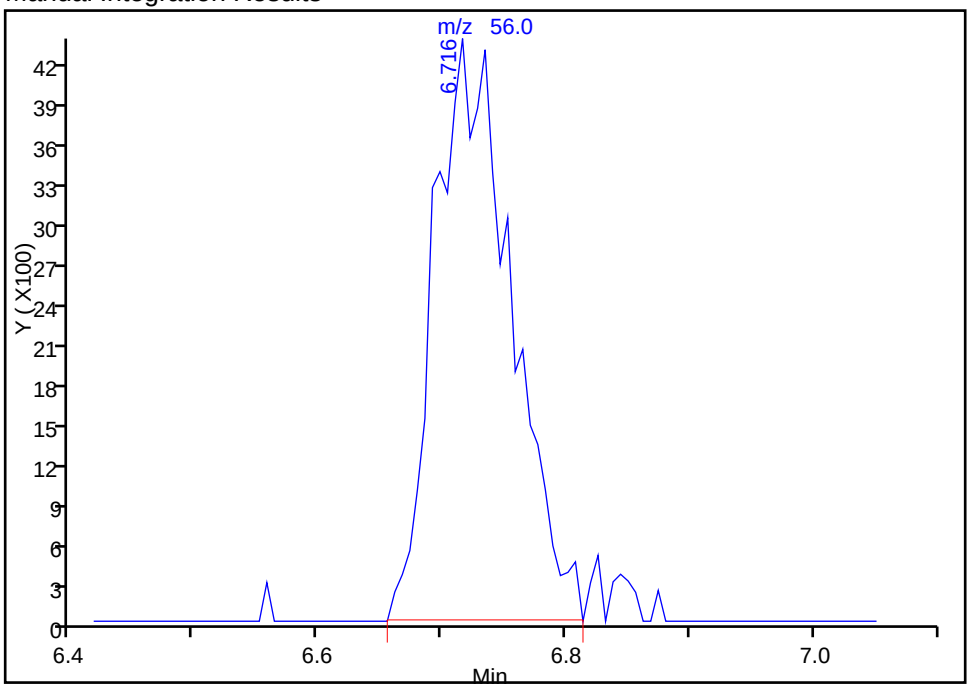
Processing Integration Results

RT: 6.72
Response: 14955
Amount: 22.081636



Manual Integration Results

RT: 6.72
Response: 18893
Amount: 27.149914



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

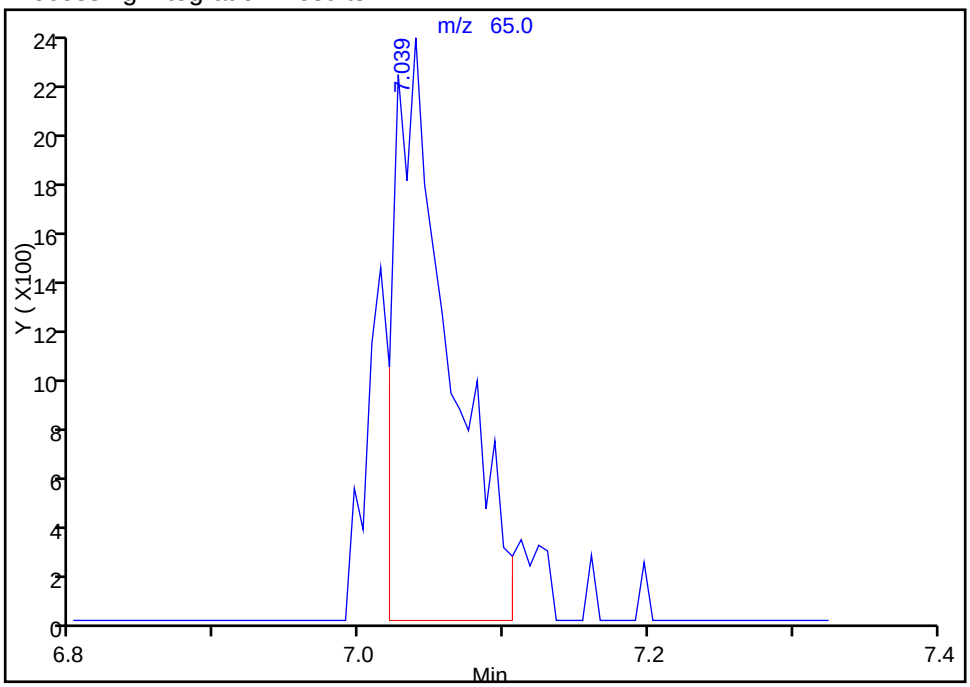
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

$ 6 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

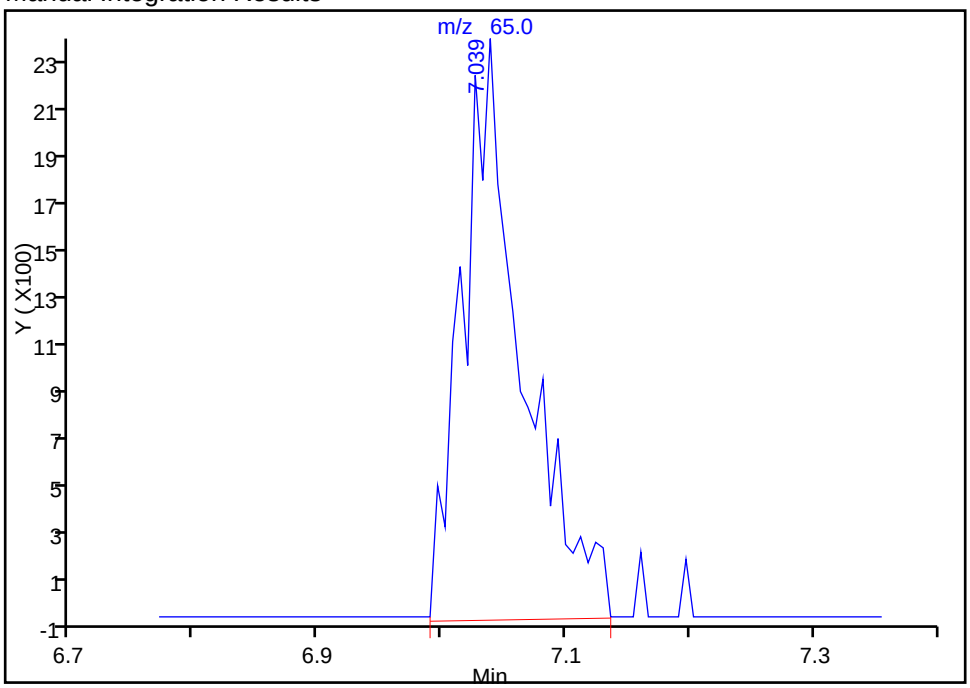
Processing Integration Results

RT: 7.04
Response: 6312
Amount: 25.808792



Manual Integration Results

RT: 7.04
Response: 8107
Amount: 31.872878



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

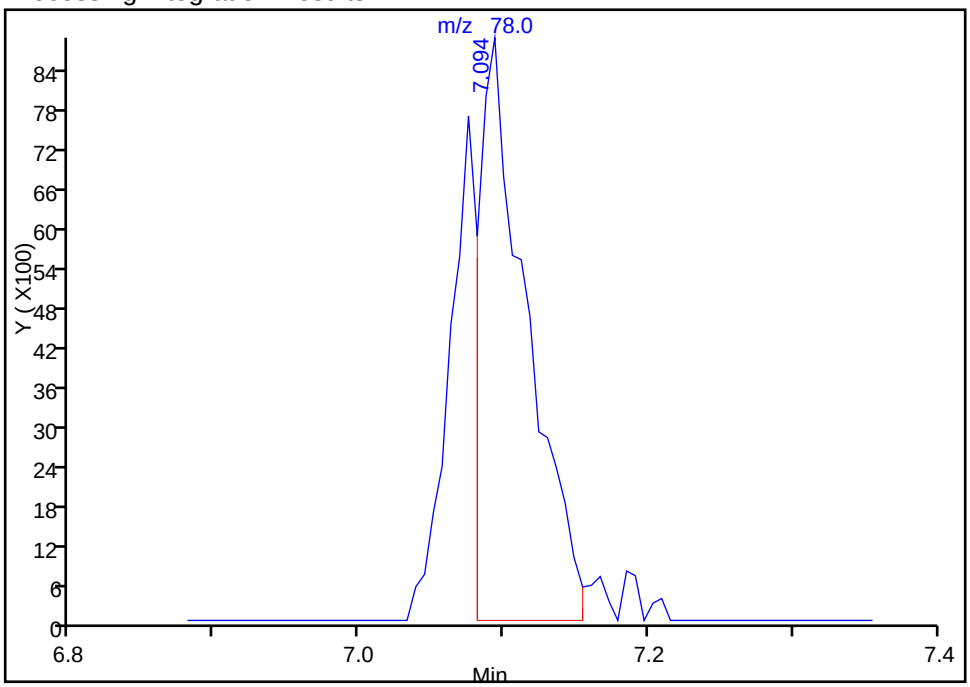
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

54 Benzene, CAS: 71-43-2

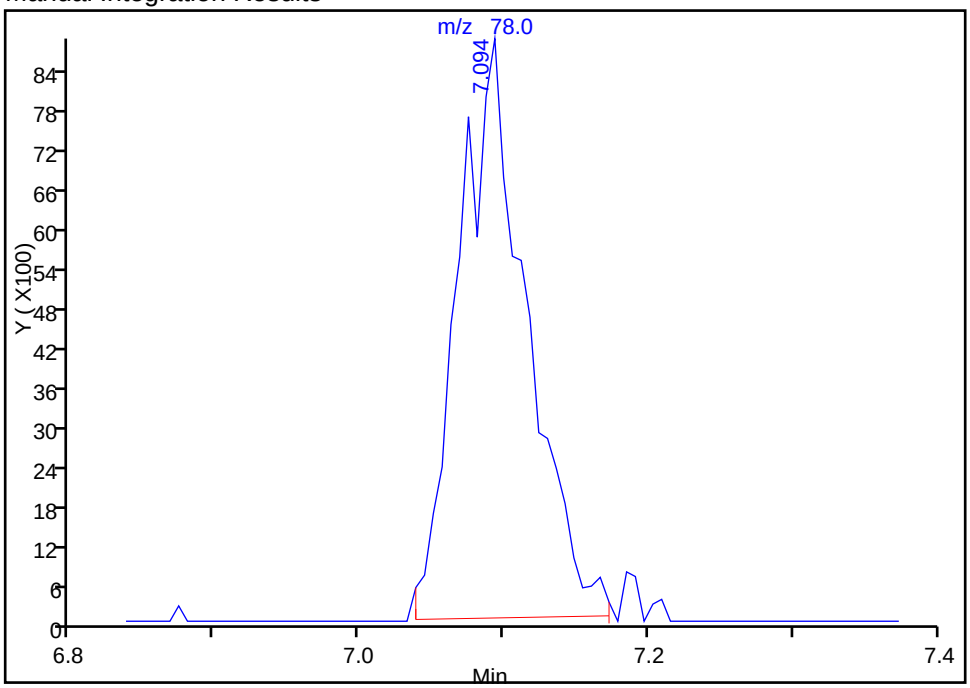
Processing Integration Results

RT: 7.09
Response: 20433
Amount: 25.221193



Manual Integration Results

RT: 7.09
Response: 28839
Amount: 28.959238



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

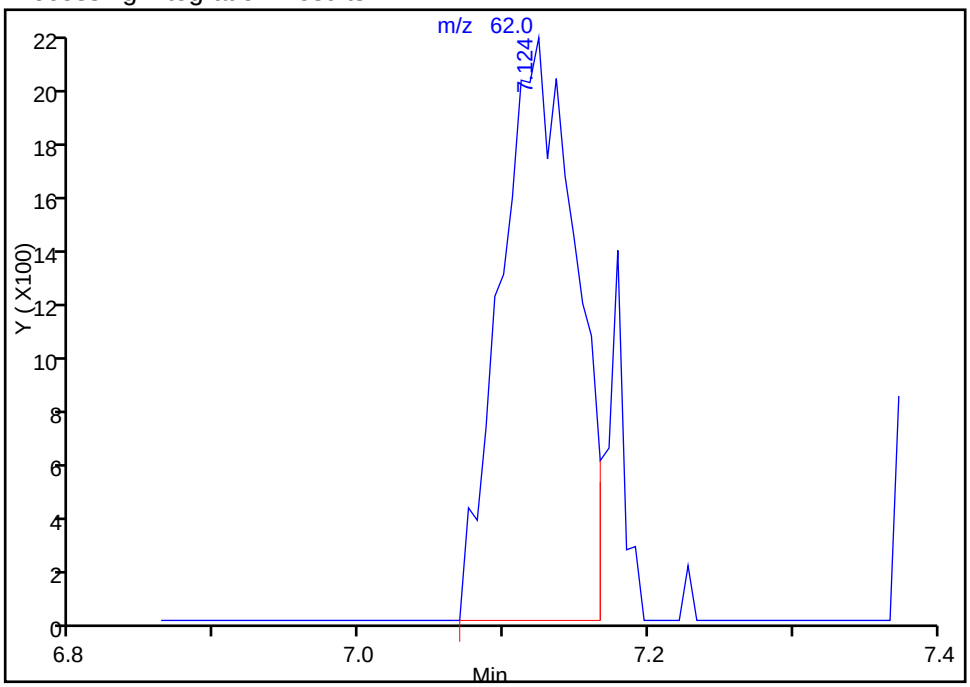
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 1,2-Dichloroethane, CAS: 107-06-2

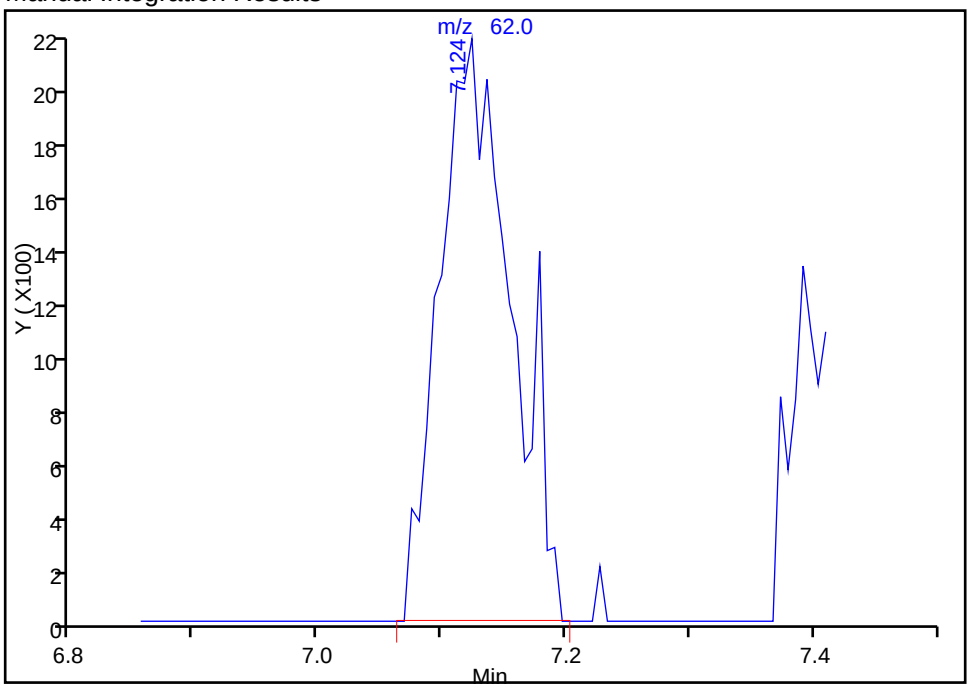
Processing Integration Results

RT: 7.12
Response: 7821
Amount: 33.293040



Manual Integration Results

RT: 7.12
Response: 8726
Amount: 34.677984



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

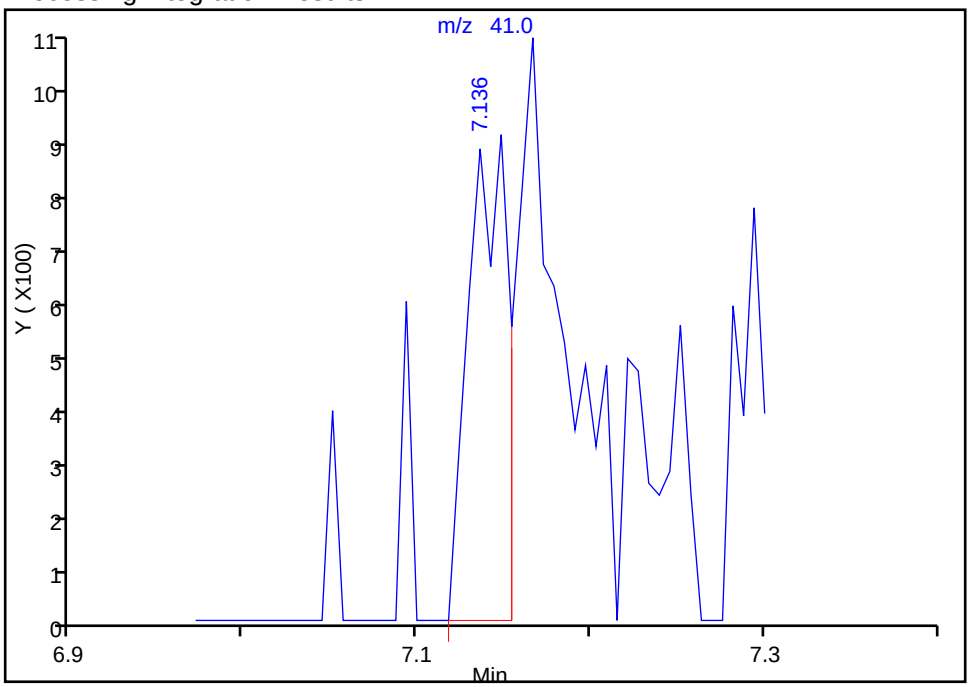
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

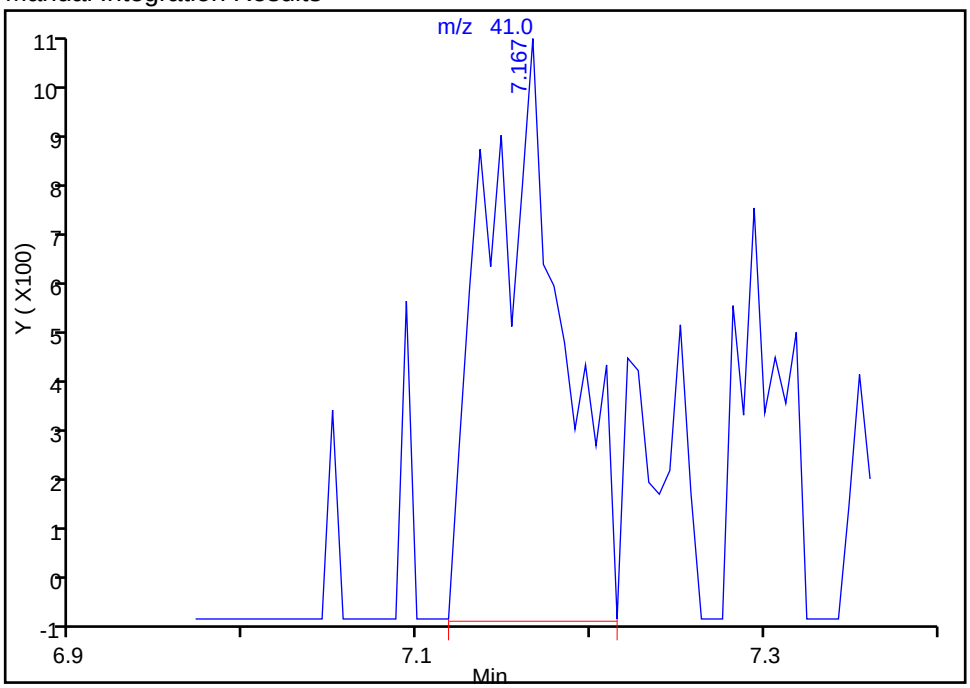
Processing Integration Results

RT: 7.14
Response: 1357
Amount: 612.8484



Manual Integration Results

RT: 7.17
Response: 3223
Amount: 579.2319



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

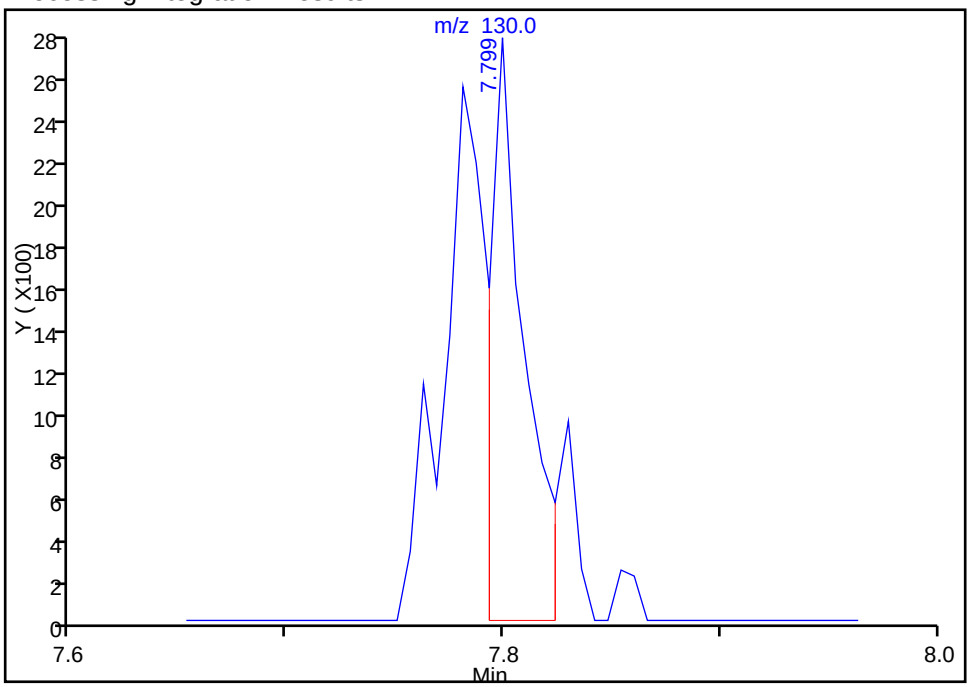
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 Trichloroethene, CAS: 79-01-6

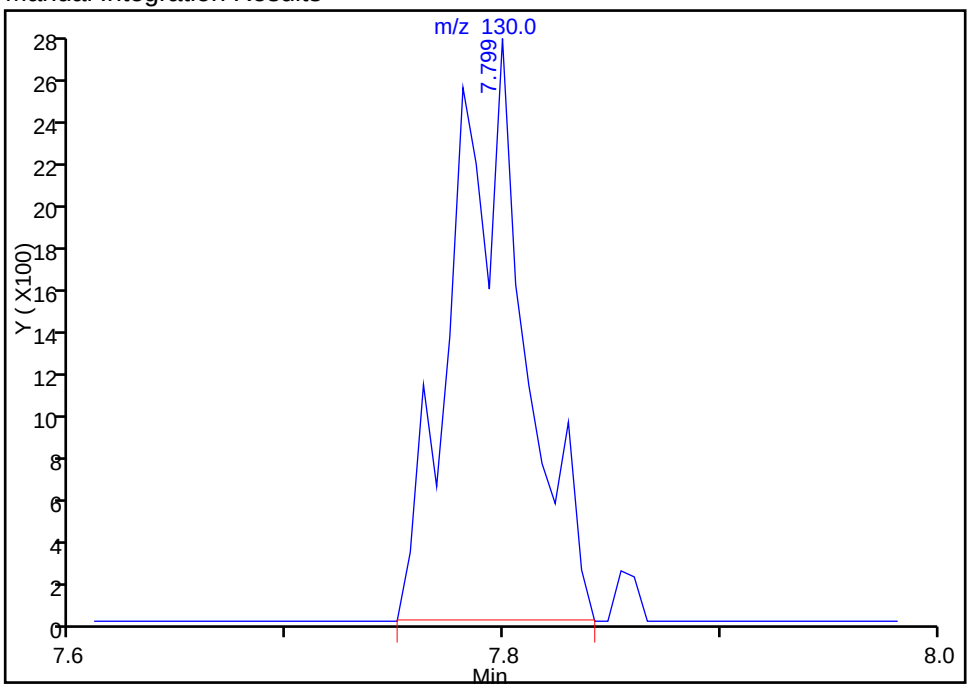
Processing Integration Results

RT: 7.80
Response: 2989
Amount: 23.844783



Manual Integration Results

RT: 7.80
Response: 6291
Amount: 28.984600



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

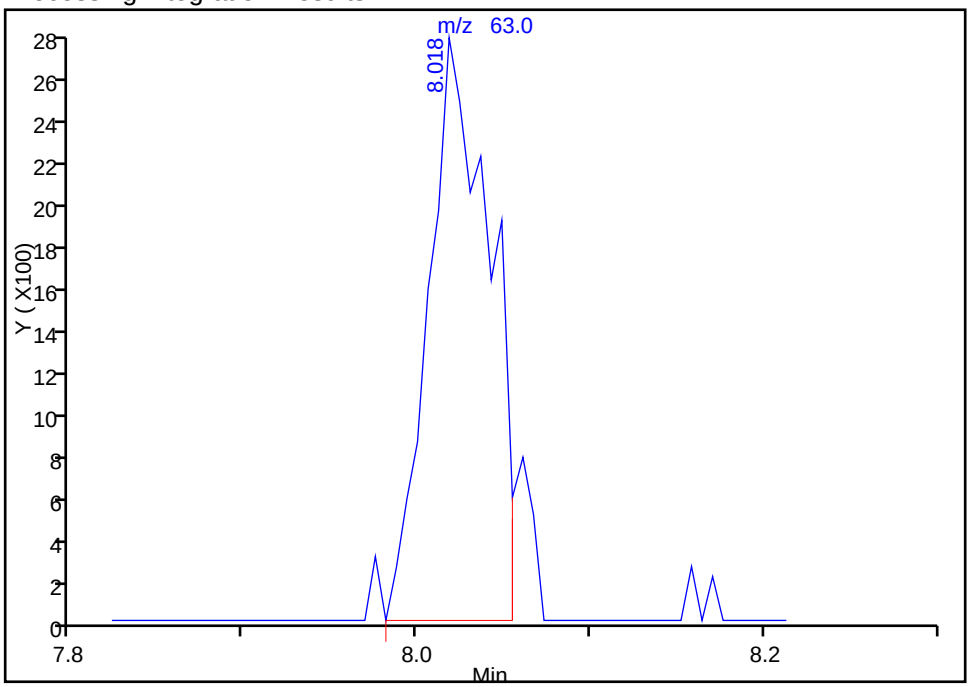
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 1,2-Dichloropropane, CAS: 78-87-5

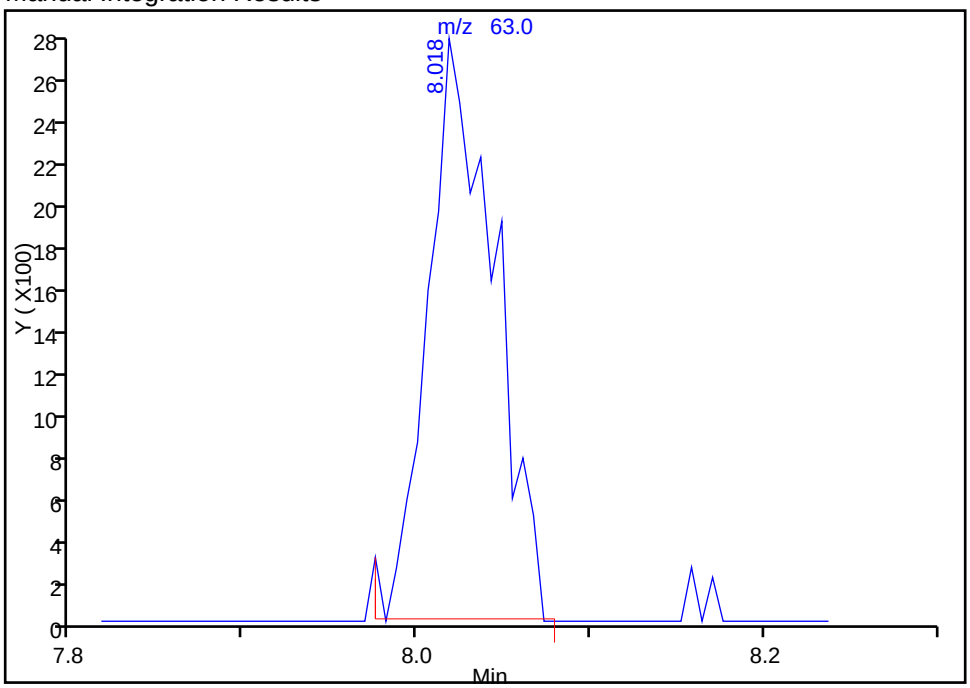
Processing Integration Results

RT: 8.02
Response: 6739
Amount: 26.331579



Manual Integration Results

RT: 8.02
Response: 7235
Amount: 28.136078



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

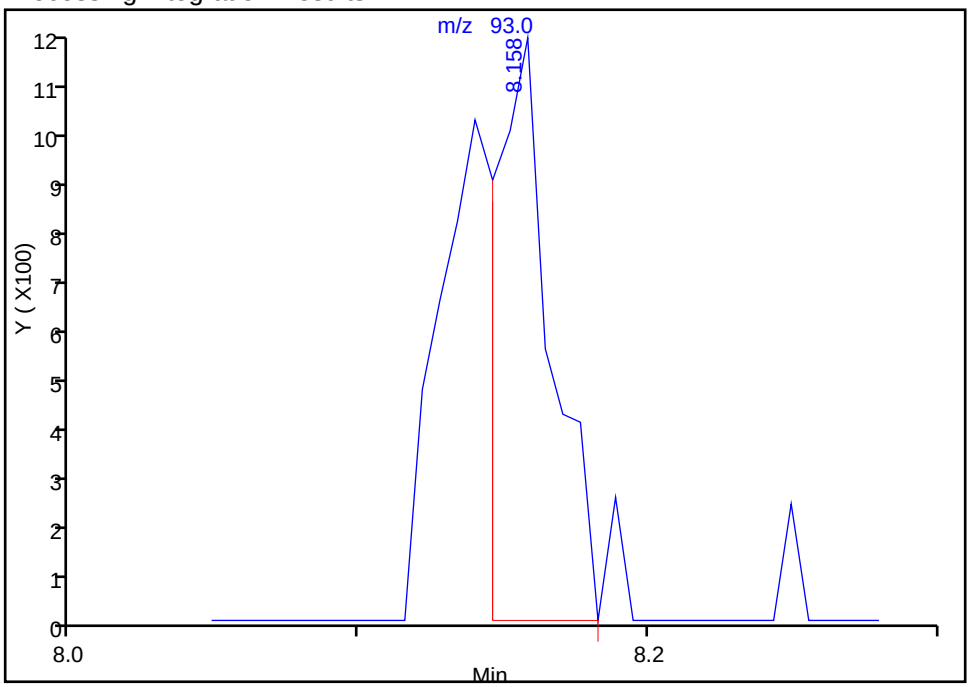
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

66 Dibromomethane, CAS: 74-95-3

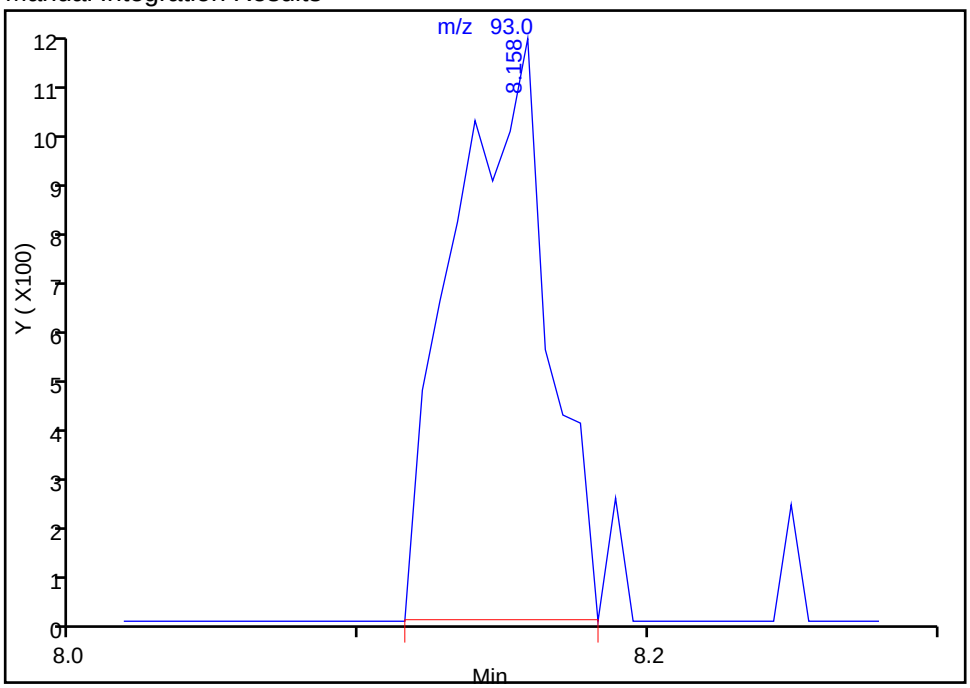
Processing Integration Results

RT: 8.16
Response: 1577
Amount: 24.355969



Manual Integration Results

RT: 8.16
Response: 2609
Amount: 25.401758



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

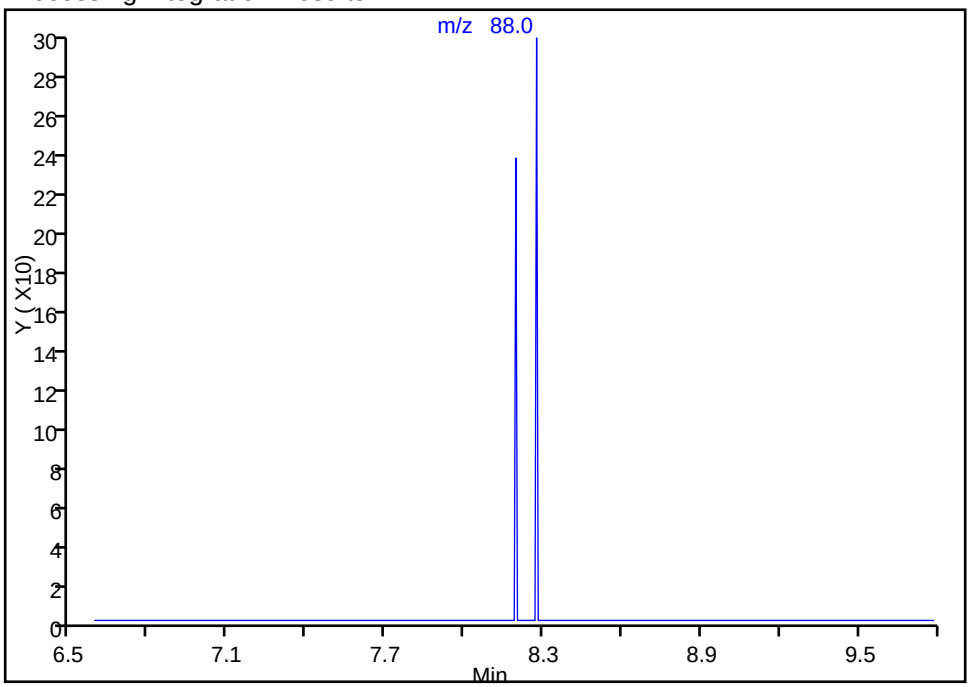
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

67 1,4-Dioxane, CAS: 123-91-1

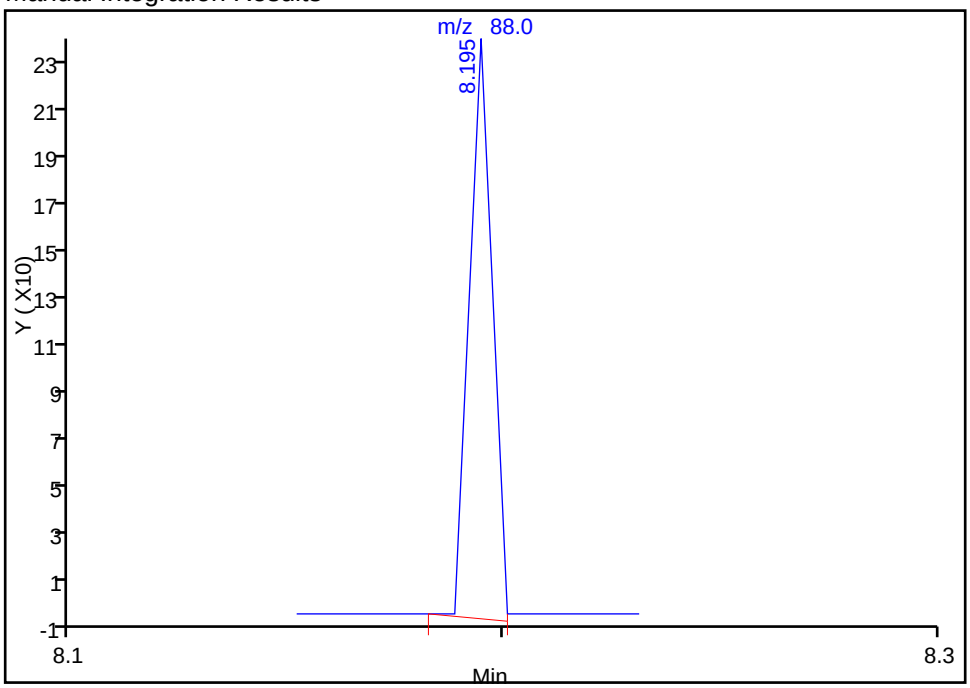
Not Detected
Expected RT: 8.19

Processing Integration Results



Manual Integration Results

RT: 8.19
Response: 88
Amount: 572.2963



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

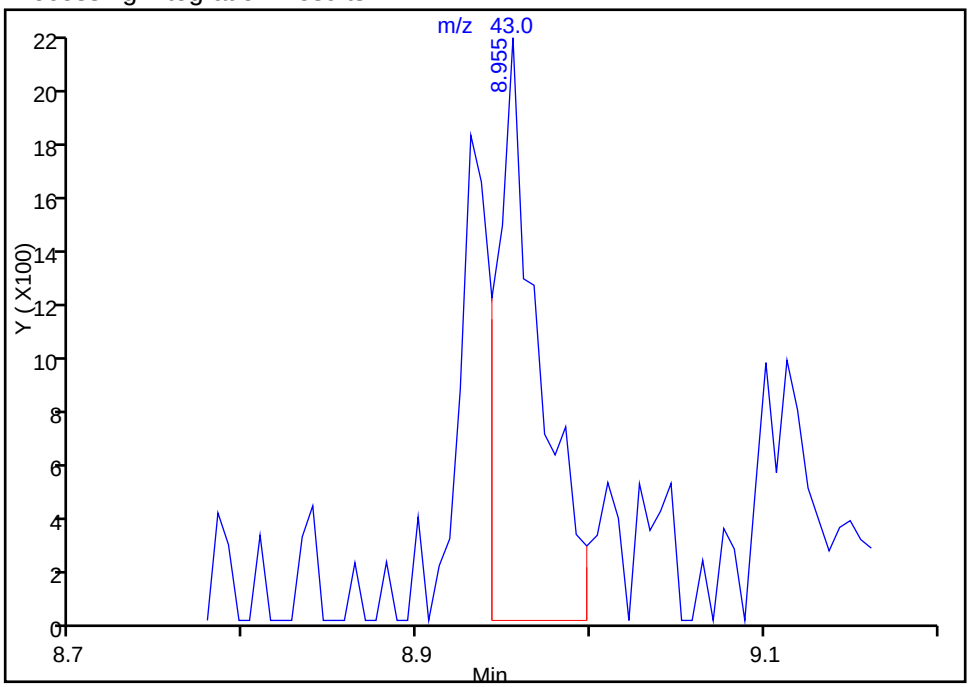
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

72 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

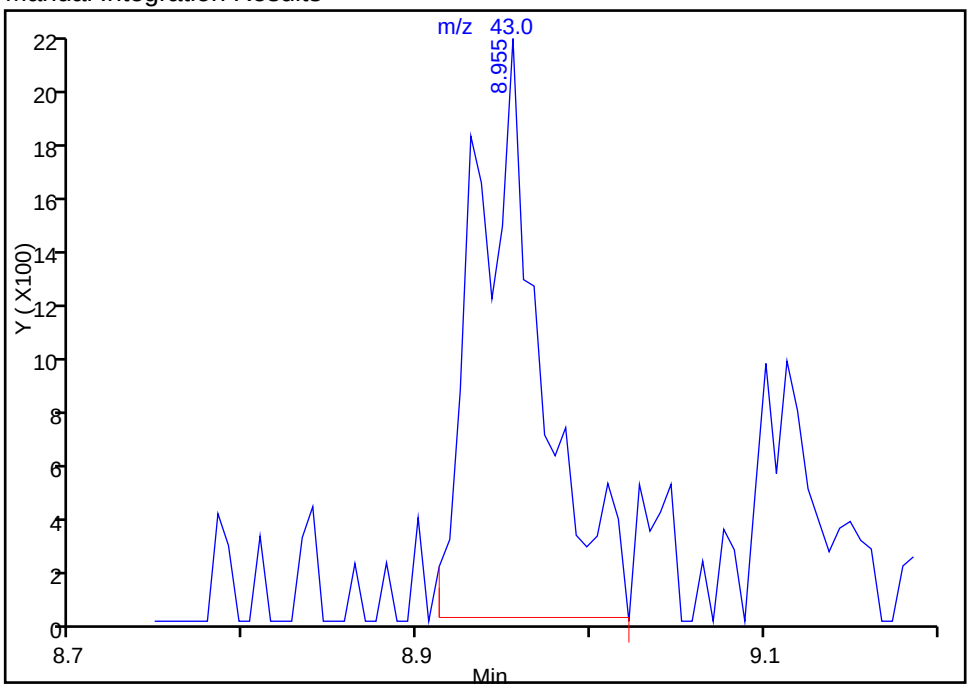
Processing Integration Results

RT: 8.96
Response: 3632
Amount: 25.623454



Manual Integration Results

RT: 8.96
Response: 5723
Amount: 27.143118



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

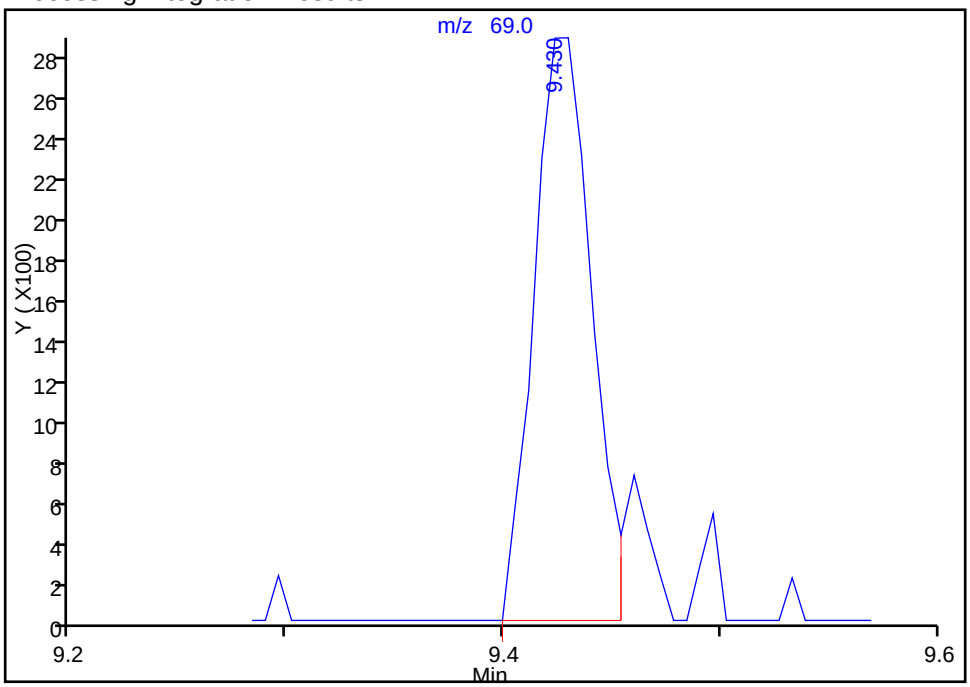
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

75 Ethyl methacrylate, CAS: 97-63-2

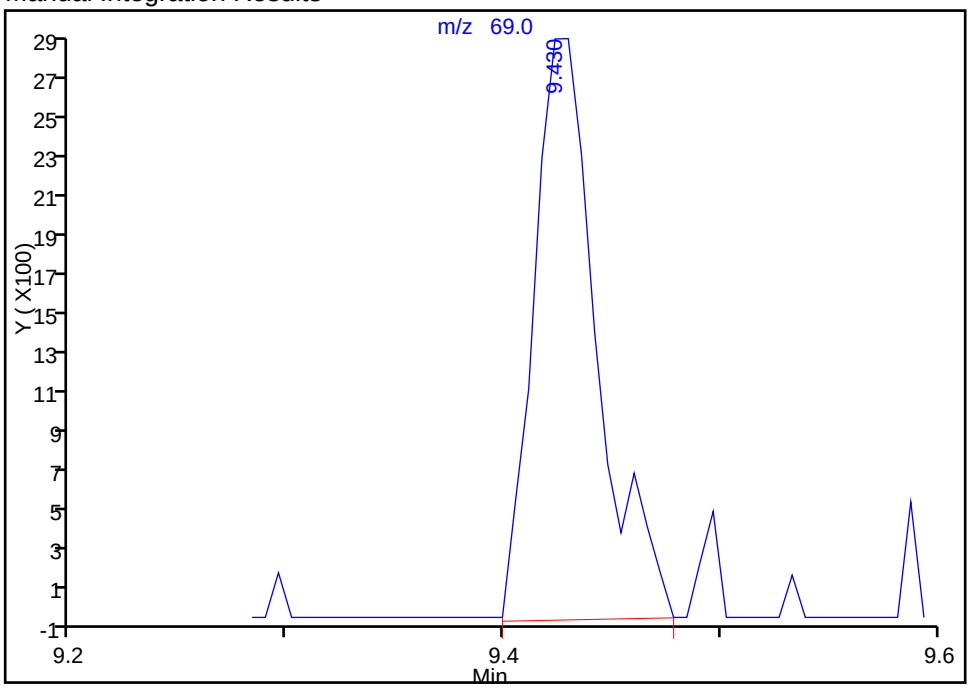
Processing Integration Results

RT: 9.43
Response: 5327
Amount: 23.157298



Manual Integration Results

RT: 9.43
Response: 5883
Amount: 25.031364



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

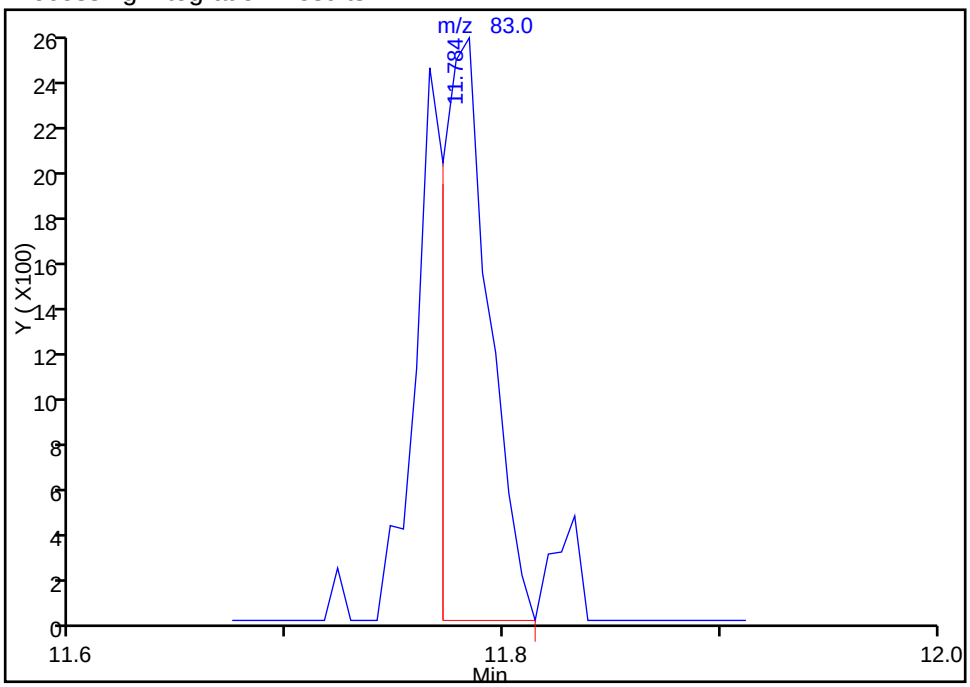
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

93 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

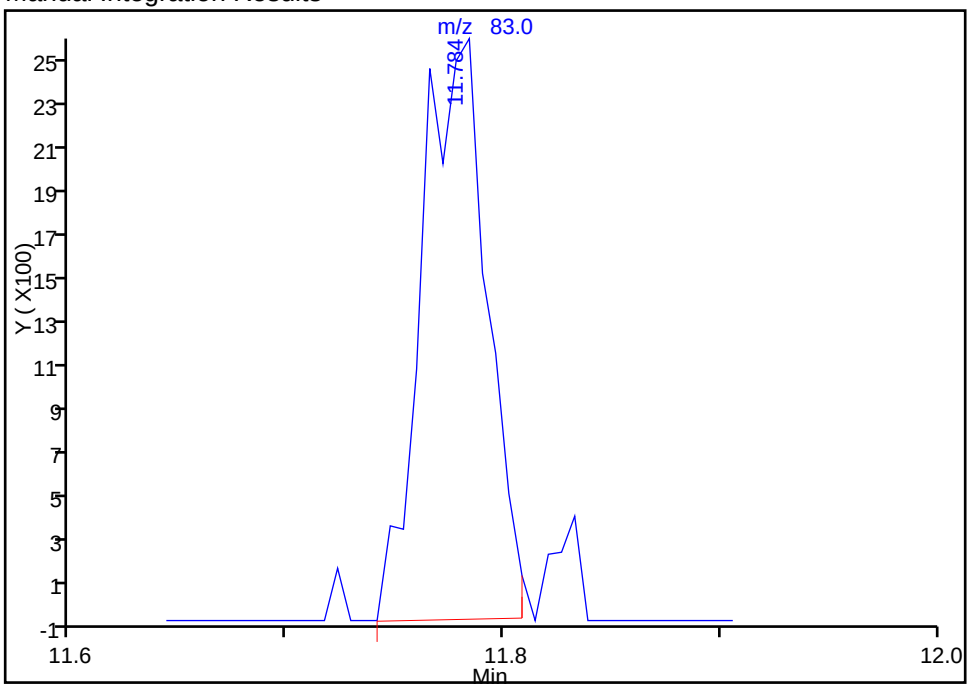
Processing Integration Results

RT: 11.78
Response: 3860
Amount: 20.655759



Manual Integration Results

RT: 11.78
Response: 5446
Amount: 27.827223



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

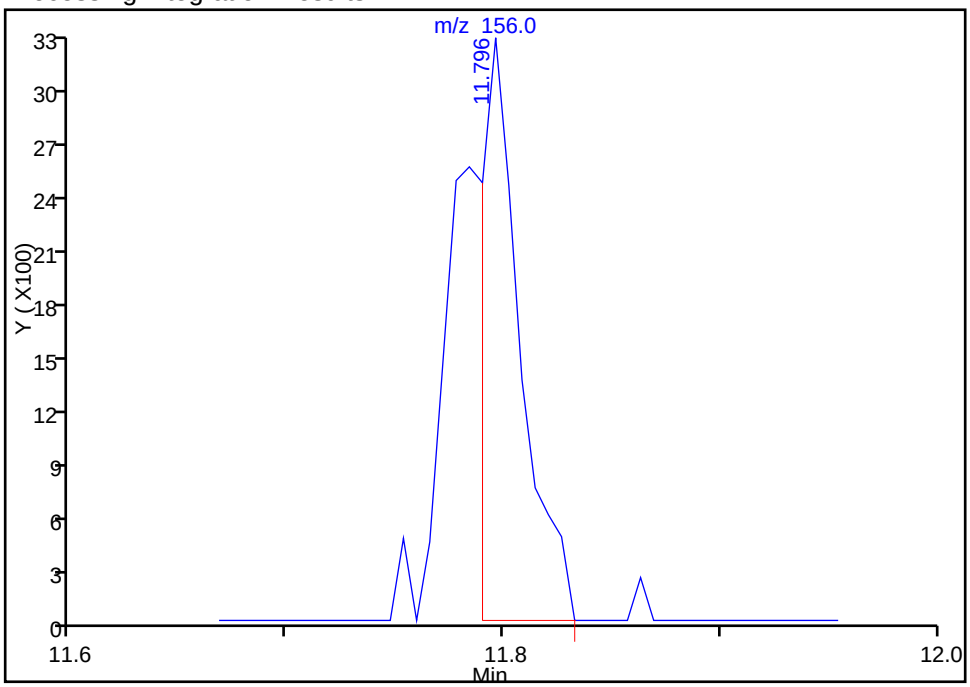
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D				
Injection Date:	21-Oct-2014 17:35:30	Instrument ID:	CHHP7		
Lims ID:	IC				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

94 Bromobenzene, CAS: 108-86-1

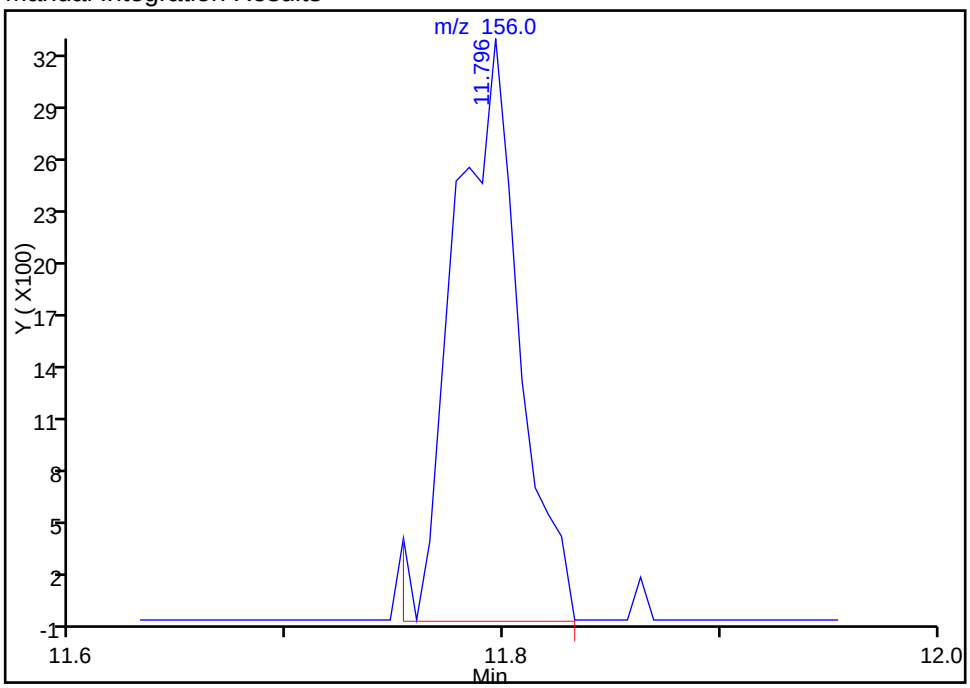
Processing Integration Results

RT: 11.80
Response: 4143
Amount: 17.602035



Manual Integration Results

RT: 11.80
Response: 6876
Amount: 27.197144



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

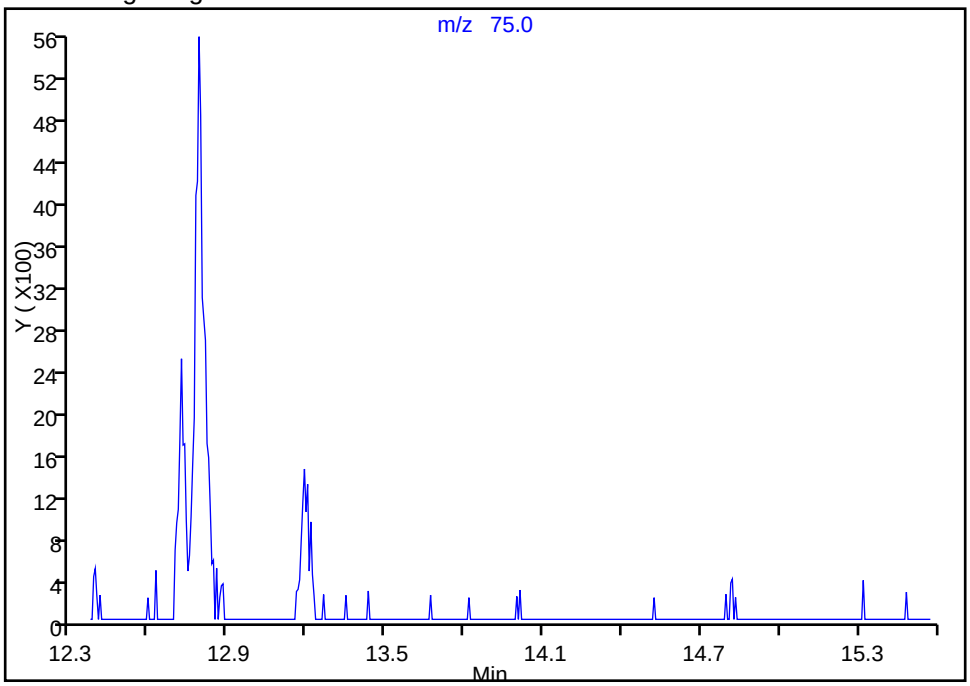
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

112 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

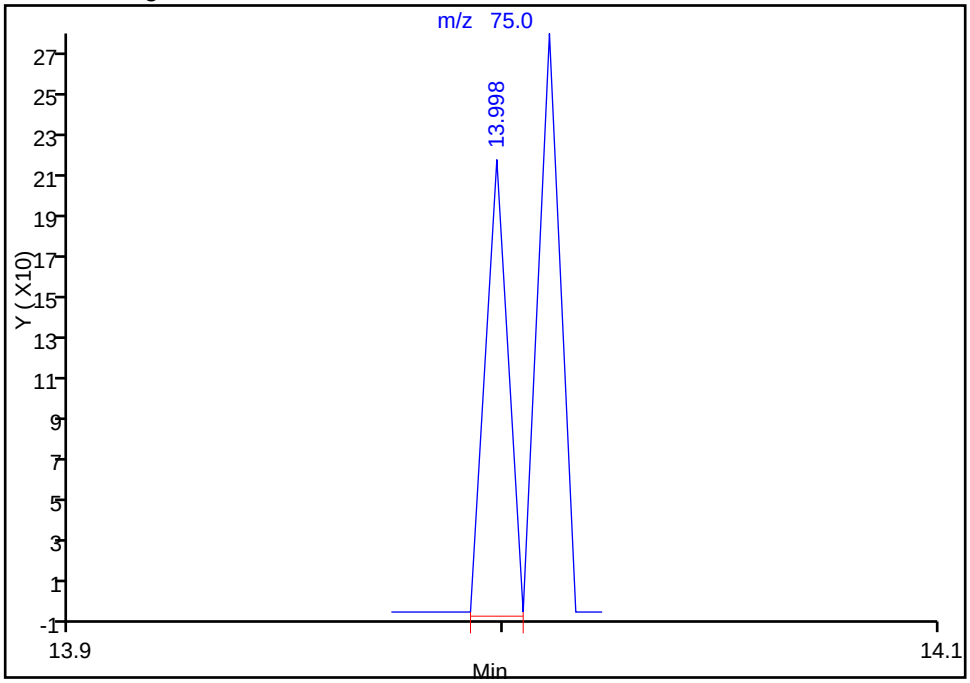
Not Detected
Expected RT: 13.97

Processing Integration Results



Manual Integration Results

RT: 14.00
Response: 82
Amount: 41.012787



Reviewer: journetp, 22-Oct-2014 07:55:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

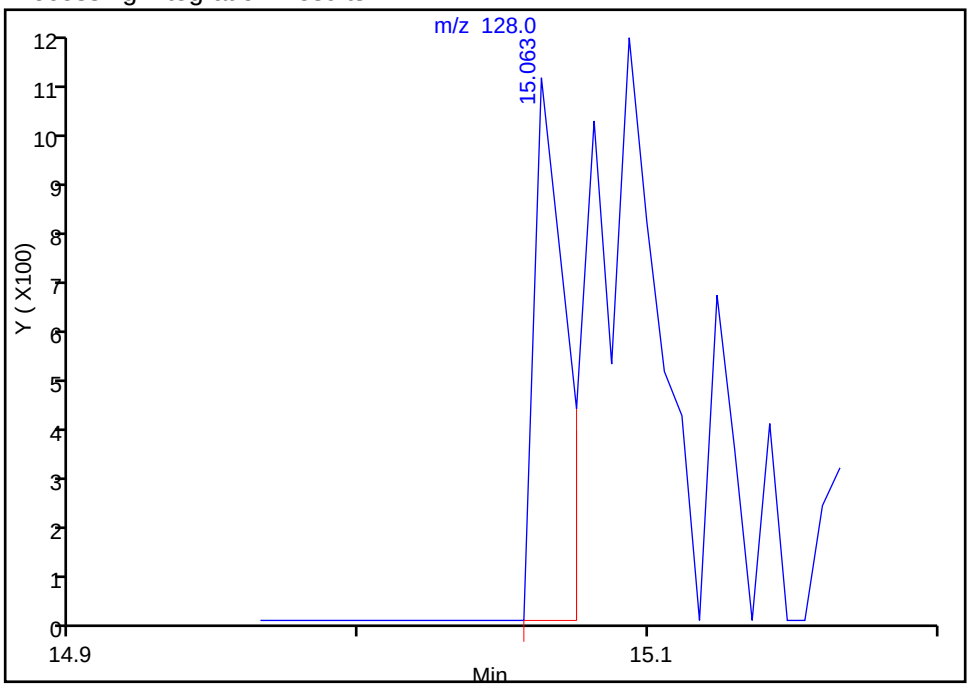
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

116 Naphthalene, CAS: 91-20-3

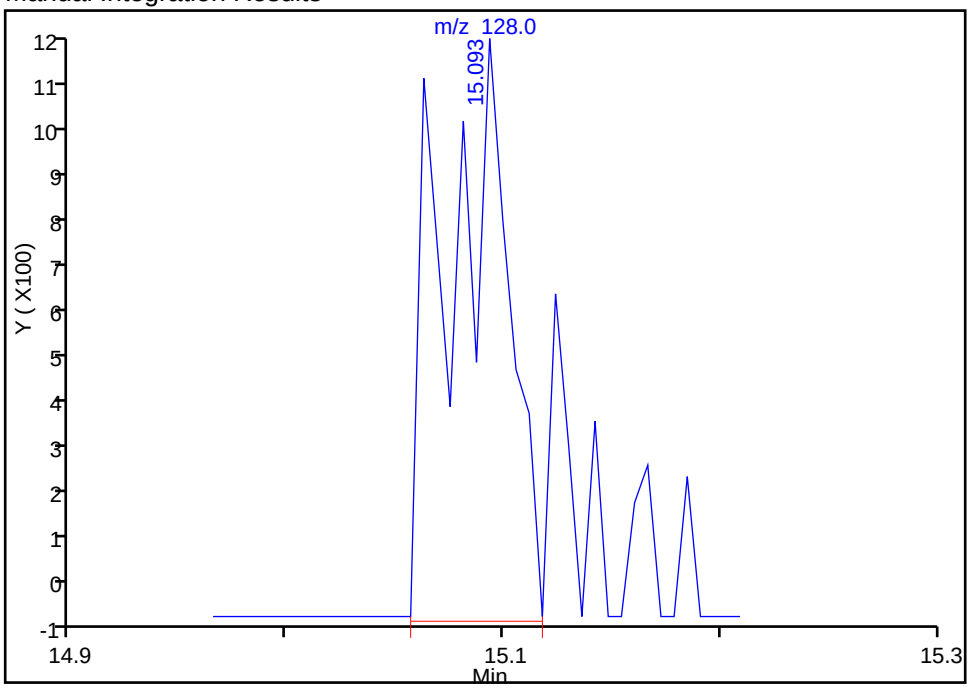
Processing Integration Results

RT: 15.06
Response: 785
Amount: 5.459983



Manual Integration Results

RT: 15.09
Response: 2340
Amount: 22.950694



Reviewer: journetp, 21-Oct-2014 18:31:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

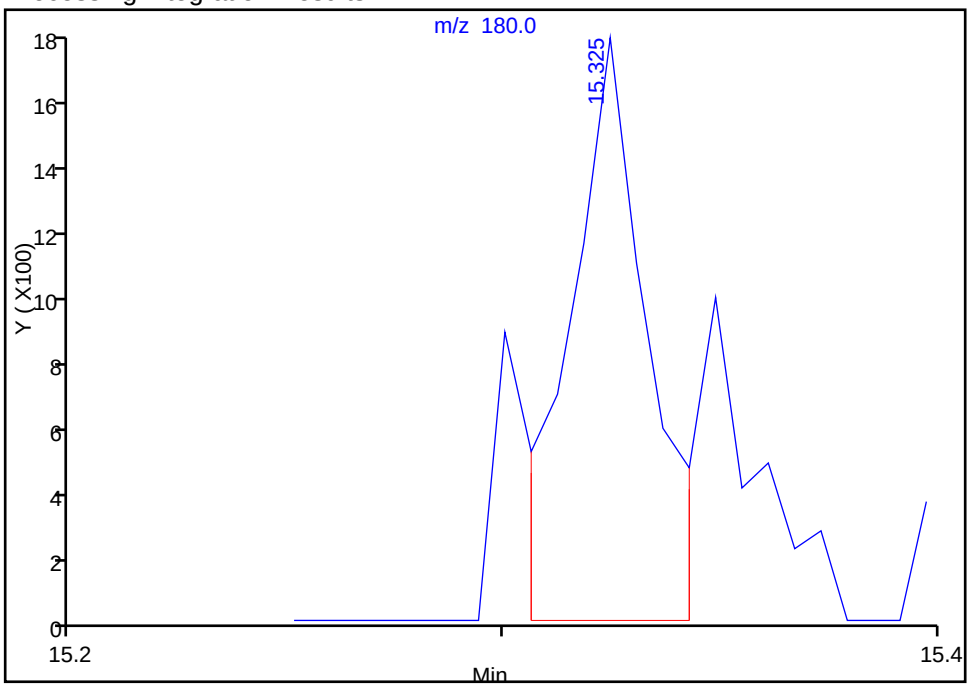
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102113.D
Injection Date: 21-Oct-2014 17:35:30 Instrument ID: CHHP7
Lims ID: IC
Client ID:
Operator ID: 034635 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

117 1,2,3-Trichlorobenzene, CAS: 87-61-6

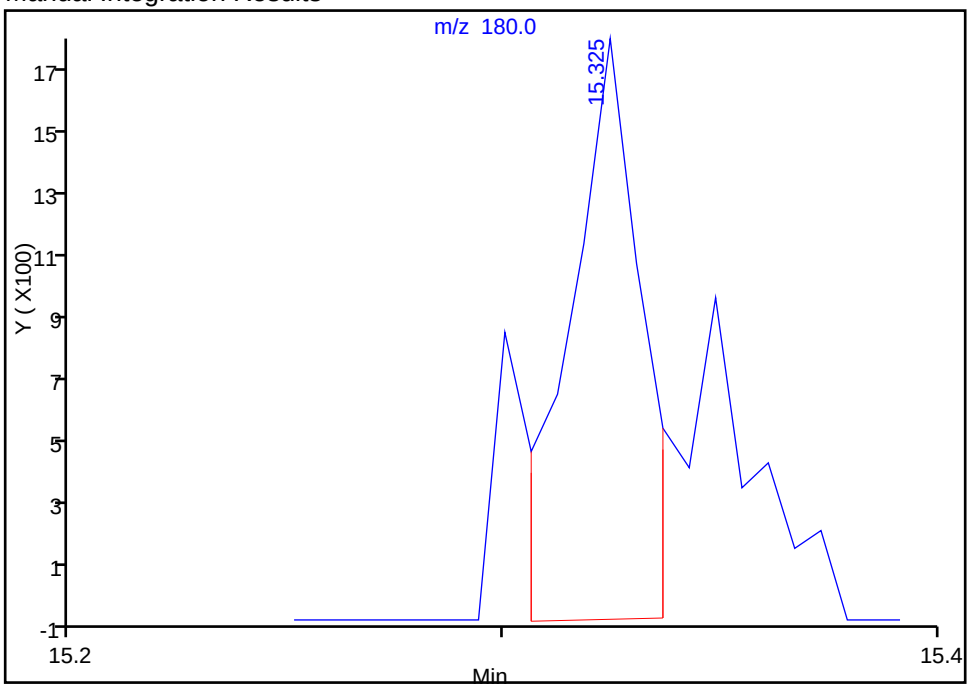
Processing Integration Results

RT: 15.32
Response: 2313
Amount: 33.819347



Manual Integration Results

RT: 15.32
Response: 2139
Amount: 41.904757



Reviewer: journetp, 22-Oct-2014 08:57:18
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 21-Oct-2014 18:28:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0003919-015
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 23-Oct-2014 09:06:41 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: journetp Date: 22-Oct-2014 08:22:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.755	4.755	0.000	77	77149	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.396	7.396	0.000	94	182520	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.462	10.462	0.000	92	46705	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	96	57606	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.672	6.672	0.000	61	36780	200.0	202.2	M
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.031	7.031	0.000	69	43216	200.0	188.3	
$ 7 Toluene-d8 (Surr)	98	9.032	9.032	0.000	96	145797	200.0	181.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	87	58035	200.0	195.3	
10 Dichlorodifluoromethane	85	1.860	1.860	0.000	16	61251	200.0	211.6	M
11 Chloromethane	50	2.000	2.000	0.000	48	118981	200.0	185.1	
12 Vinyl chloride	62	2.182	2.182	0.000	93	91361	200.0	216.4	
13 Butadiene	39	2.182	2.182	0.000	95	101934	200.0	207.1	
14 Bromomethane	94	2.486	2.486	0.000	74	33792	200.0	206.8	M
15 Chloroethane	64	2.608	2.608	0.000	65	40458	200.0	213.3	
16 Dichlorofluoromethane	67	2.857	2.857	0.000	96	109647	200.0	208.8	
17 Trichlorofluoromethane	101	2.894	2.894	0.000	54	90646	200.0	215.0	
19 Ethyl ether	59	3.301	3.301	0.000	65	37380	200.0	197.9	M
21 Acrolein	56	3.466	3.466	0.000	16	20952	875.0	752.7	M
20 1,1-Dichloroethene	96	3.527	3.527	0.000	81	47926	200.0	225.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.673	3.673	0.000	72	48943	200.0	217.6	
23 Iodomethane	142	3.709	3.709	0.000	71	68292	200.0	216.9	M
25 Acetone	43	3.794	3.794	0.000	24	19280	200.0	190.0	M
24 Carbon disulfide	76	3.813	3.813	0.000	95	166773	200.0	210.4	M
26 3-Chloro-1-propene	76	4.105	4.105	0.000	74	52737	200.0	220.6	M
29 Methyl acetate	43	4.287	4.287	0.000	100	164322	1000.0	913.8	M
30 Methylene Chloride	84	4.336	4.336	0.000	89	52974	200.0	185.9	
31 trans-1,2-Dichloroethene	96	4.731	4.731	0.000	94	56107	200.0	211.7	
32 Acrylonitrile	53	4.774	4.774	0.000	99	134241	2000.0	1901.2	M
33 Methyl tert-butyl ether	73	4.853	4.853	0.000	98	134561	200.0	204.8	
34 2-Methyl-2-propanol	59	4.871	4.871	0.000	43	39922	2000.0	1908.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.145	5.145	0.000	95	85395	200.0	185.3	
36 1,1-Dichloroethane	63	5.339	5.339	0.000	96	110768	200.0	204.3	
38 Vinyl acetate	43	5.479	5.479	0.000	93	41911	200.0	200.6	
41 2,2-Dichloropropane	77	6.076	6.076	0.000	75	83205	200.0	223.0	
42 cis-1,2-Dichloroethene	96	6.088	6.088	0.000	87	54100	200.0	196.4	
44 2-Butanone (MEK)	43	6.179	6.179	0.000	68	18478	200.0	179.9	
47 Chlorobromomethane	128	6.386	6.386	0.000	84	18515	200.0	184.7	
49 Tetrahydrofuran	42	6.477	6.477	0.000	55	21810	400.0	333.2	
48 Chloroform	83	6.477	6.477	0.000	96	90776	200.0	201.6	
50 1,1,1-Trichloroethane	97	6.666	6.666	0.000	97	90568	200.0	216.6	
51 Cyclohexane	56	6.720	6.720	0.000	97	129374	200.0	206.0	
52 Carbon tetrachloride	117	6.848	6.848	0.000	92	69892	200.0	223.3	
53 1,1-Dichloropropene	75	6.860	6.860	0.000	92	61643	200.0	192.1	
54 Benzene	78	7.085	7.085	0.000	98	173089	200.0	192.6	
55 1,2-Dichloroethane	62	7.116	7.116	0.000	91	49862	200.0	198.8	
57 Isobutyl alcohol	41	7.134	7.134	0.000	80	24749	5000.0	4928.7	
58 n-Heptane	43	7.402	7.402	0.000	69	85376	200.0	178.6	
60 Trichloroethene	130	7.791	7.791	0.000	93	38709	200.0	197.6	
63 Methylcyclohexane	83	7.980	7.980	0.000	95	102531	200.0	193.1	
64 1,2-Dichloropropane	63	8.016	8.016	0.000	95	47295	200.0	203.8	
66 Dibromomethane	93	8.150	8.150	0.000	94	16781	200.0	181.0	
67 1,4-Dioxane	88	8.187	8.187	0.000	27	3336	4000.0	4185.5	
68 Dichlorobromomethane	83	8.308	8.308	0.000	97	58596	200.0	193.3	
71 cis-1,3-Dichloropropene	75	8.764	8.764	0.000	90	69224	200.0	198.0	
72 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	98	33968	200.0	158.8	
73 Toluene	91	9.099	9.099	0.000	98	176324	200.0	176.8	
74 trans-1,3-Dichloropropene	75	9.324	9.324	0.000	99	53532	200.0	181.5	
75 Ethyl methacrylate	69	9.421	9.421	0.000	91	43190	200.0	181.1	
76 1,1,2-Trichloroethane	97	9.507	9.507	0.000	91	27695	200.0	179.6	
77 Tetrachloroethene	164	9.640	9.640	0.000	95	33012	200.0	178.3	
78 1,3-Dichloropropane	76	9.665	9.665	0.000	98	53535	200.0	191.8	
79 2-Hexanone	43	9.762	9.762	0.000	98	25051	200.0	175.0	
81 Chlorodibromomethane	129	9.896	9.896	0.000	86	35191	200.0	185.5	
82 Ethylene Dibromide	107	10.012	10.012	0.000	99	27044	200.0	181.3	
83 Chlorobenzene	112	10.492	10.492	0.000	90	115377	200.0	191.3	
84 1,1,1,2-Tetrachloroethane	131	10.571	10.571	0.000	93	39750	200.0	186.0	
85 Ethylbenzene	106	10.602	10.602	0.000	99	59890	200.0	187.8	
86 m-Xylene & p-Xylene	106	10.717	10.717	0.000	97	77366	200.0	190.5	
88 o-Xylene	106	11.113	11.113	0.000	98	83554	200.0	195.8	
89 Styrene	104	11.125	11.125	0.000	95	140080	200.0	204.5	
90 Bromoform	173	11.313	11.313	0.000	93	21297	200.0	185.7	
91 Isopropylbenzene	105	11.478	11.478	0.000	96	238861	200.0	196.7	
93 1,1,2,2-Tetrachloroethane	83	11.776	11.776	0.000	94	36480	200.0	183.7	
94 Bromobenzene	156	11.788	11.788	0.000	98	47106	200.0	204.8	
95 1,2,3-Trichloropropane	110	11.818	11.818	0.000	83	8236	200.0	188.3	
96 trans-1,4-Dichloro-2-buten	53	11.824	11.824	0.000	70	10999	200.0	202.4	
97 N-Propylbenzene	120	11.885	11.885	0.000	100	61492	200.0	199.8	
98 2-Chlorotoluene	126	11.977	11.977	0.000	94	46671	200.0	193.0	
99 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	95	185818	200.0	201.3	
100 4-Chlorotoluene	126	12.086	12.086	0.000	99	45402	200.0	201.4	
101 tert-Butylbenzene	119	12.390	12.390	0.000	96	168692	200.0	189.6	
103 1,2,4-Trimethylbenzene	105	12.433	12.433	0.000	98	184919	200.0	204.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.609	12.609	0.000	95	245747	200.0	198.3	
105 1,3-Dichlorobenzene	146	12.719	12.719	0.000	96	82277	200.0	196.5	
106 4-Isopropyltoluene	119	12.749	12.749	0.000	98	207703	200.0	201.0	
107 1,4-Dichlorobenzene	146	12.810	12.810	0.000	90	74975	200.0	195.7	
110 n-Butylbenzene	91	13.163	13.163	0.000	99	185235	200.0	201.3	
111 1,2-Dichlorobenzene	146	13.187	13.187	0.000	93	66007	200.0	201.8	
112 1,2-Dibromo-3-Chloropropan	75	13.978	13.972	0.006	78	3881	200.0	235.3	M
114 1,2,4-Trichlorobenzene	180	14.799	14.799	0.000	93	25320	200.0	237.9	
115 Hexachlorobutadiene	225	14.970	14.970	0.000	94	18560	200.0	226.5	
116 Naphthalene	128	15.055	15.055	0.000	97	32287	200.0	232.7	
117 1,2,3-Trichlorobenzene	180	15.304	15.304	0.000	94	12600	200.0	232.0	
S 129 Xylenes, Total	106				0		400.0	386.3	
S 130 1,2-Dichloroethene, Total	96				0		400.0	408.1	
S 131 1,3-Dichloropropene, Total	1				0		400.0	379.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL
VOA8260INT_00021	Amount Added:	10.00	Units: uL
voaWVA pri Re_00003	Amount Added:	8.00	Units: uL
VOAACROPRI_00002	Amount Added:	35.00	Units: uL
VOA8260VOAPRI_00084	Amount Added:	8.00	Units: uL

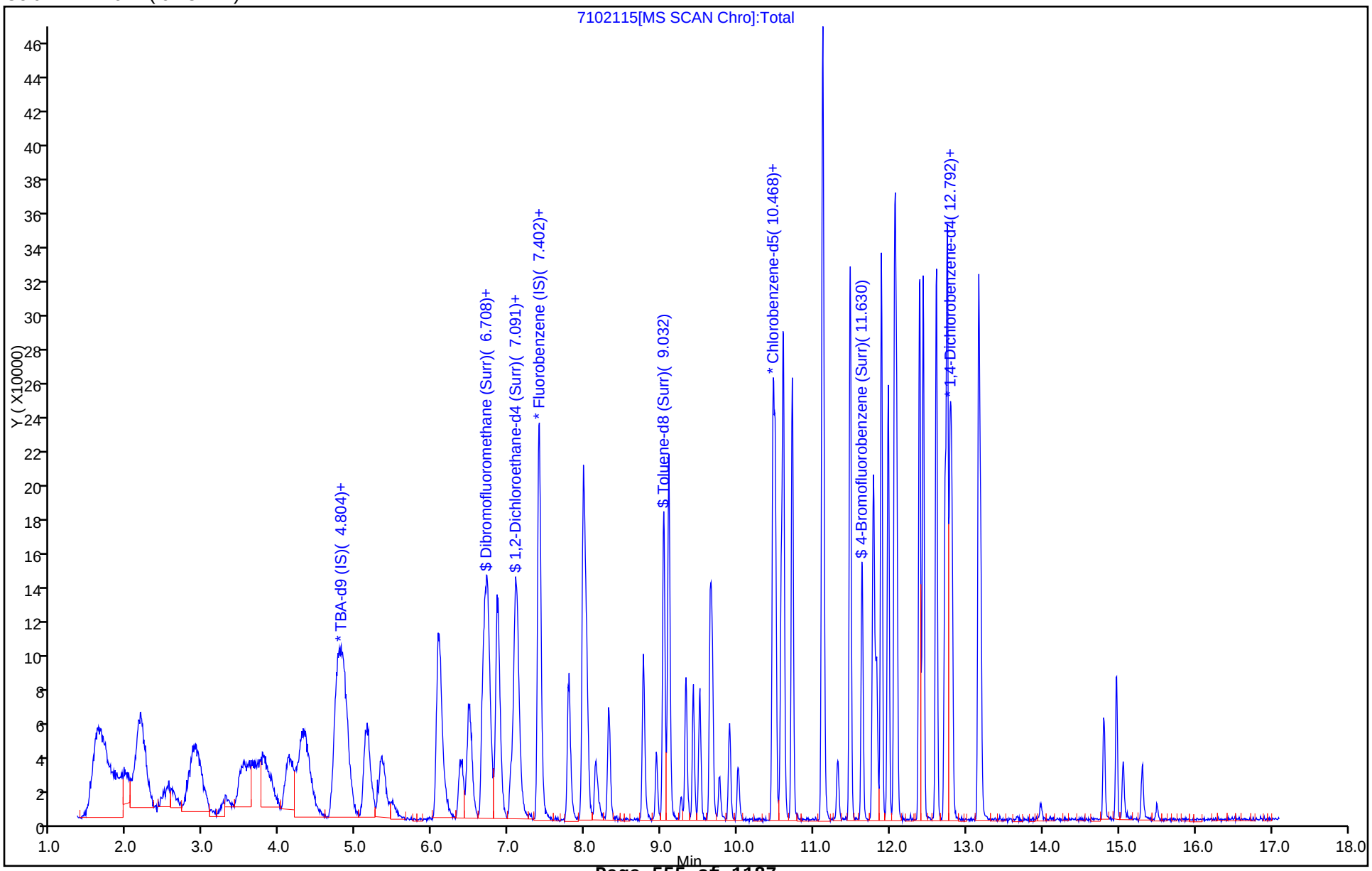
Report Date: 23-Oct-2014 09:06:43 Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ICIS			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

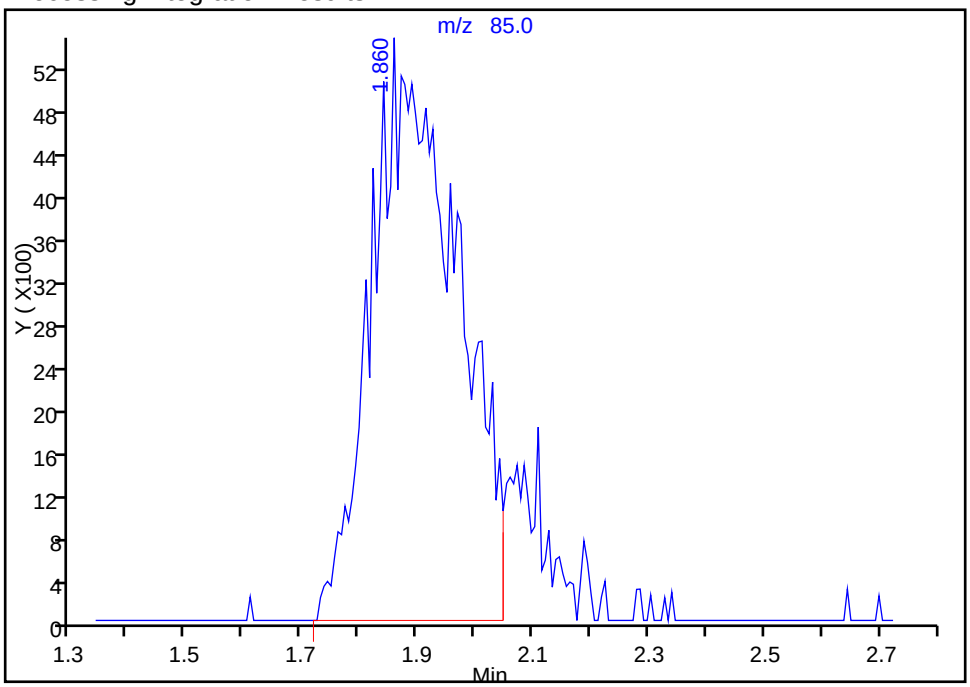
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

10 Dichlorodifluoromethane, CAS: 75-71-8

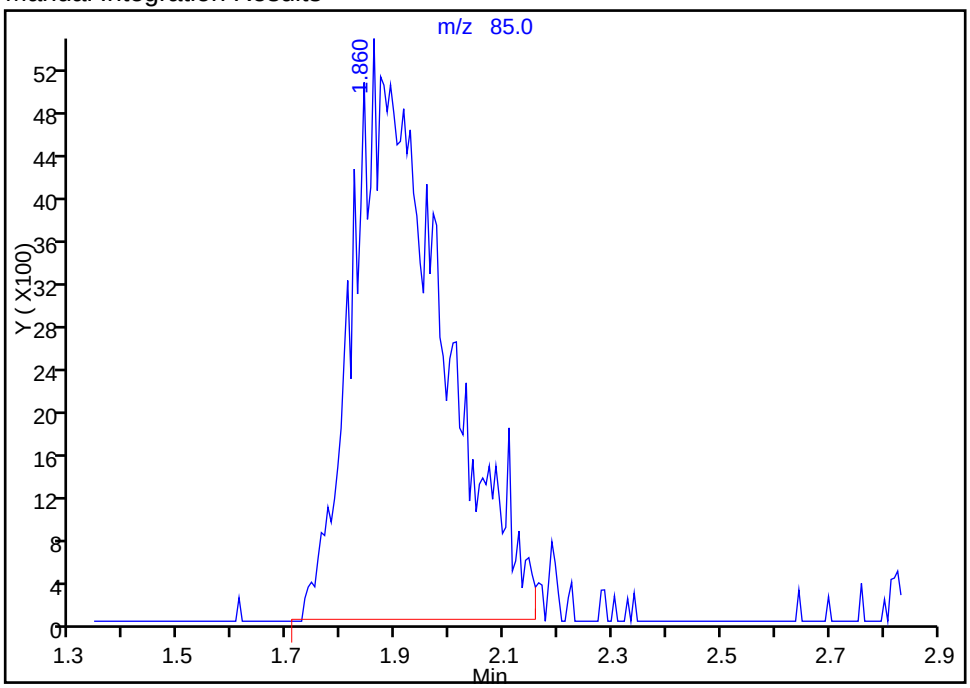
Processing Integration Results

RT: 1.86
Response: 55625
Amount: 194.8962



Manual Integration Results

RT: 1.86
Response: 61251
Amount: 211.6286



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

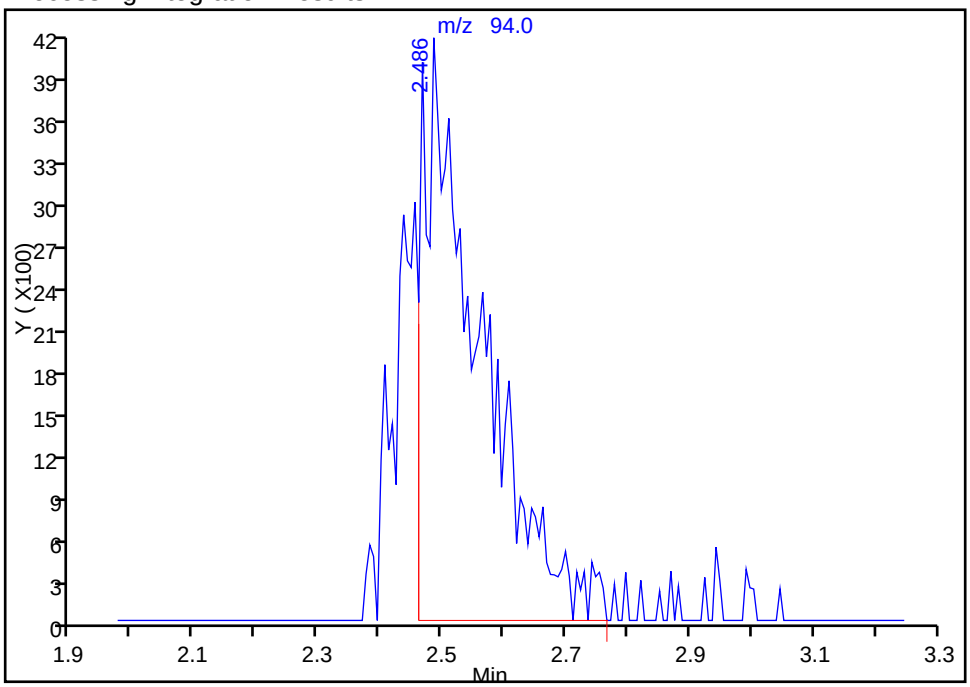
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

14 Bromomethane, CAS: 74-83-9

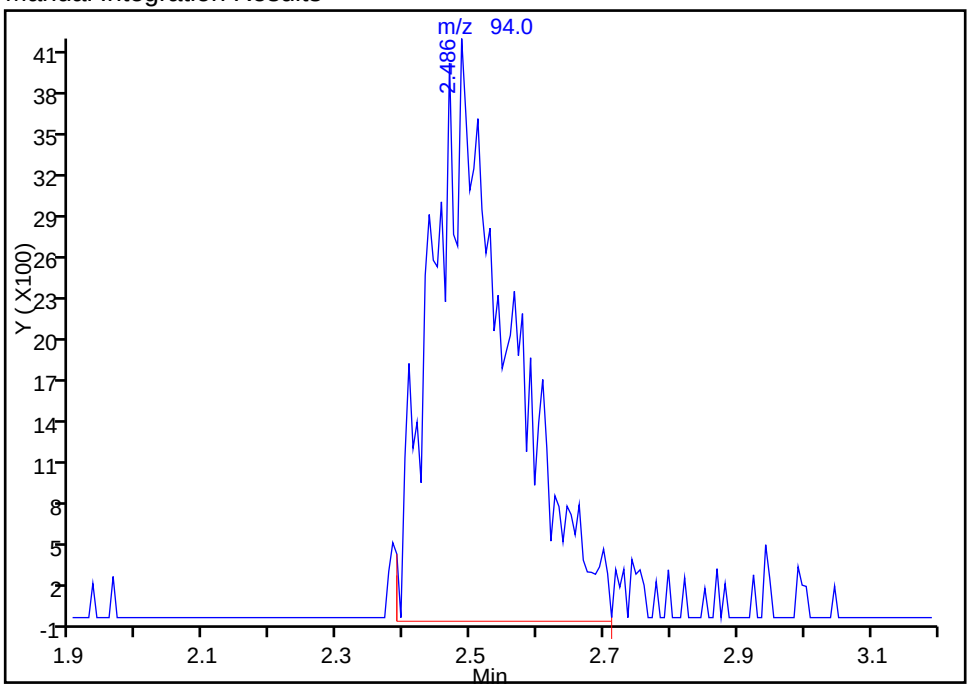
Processing Integration Results

RT: 2.49
Response: 26632
Amount: 168.2734



Manual Integration Results

RT: 2.49
Response: 33792
Amount: 206.8300



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

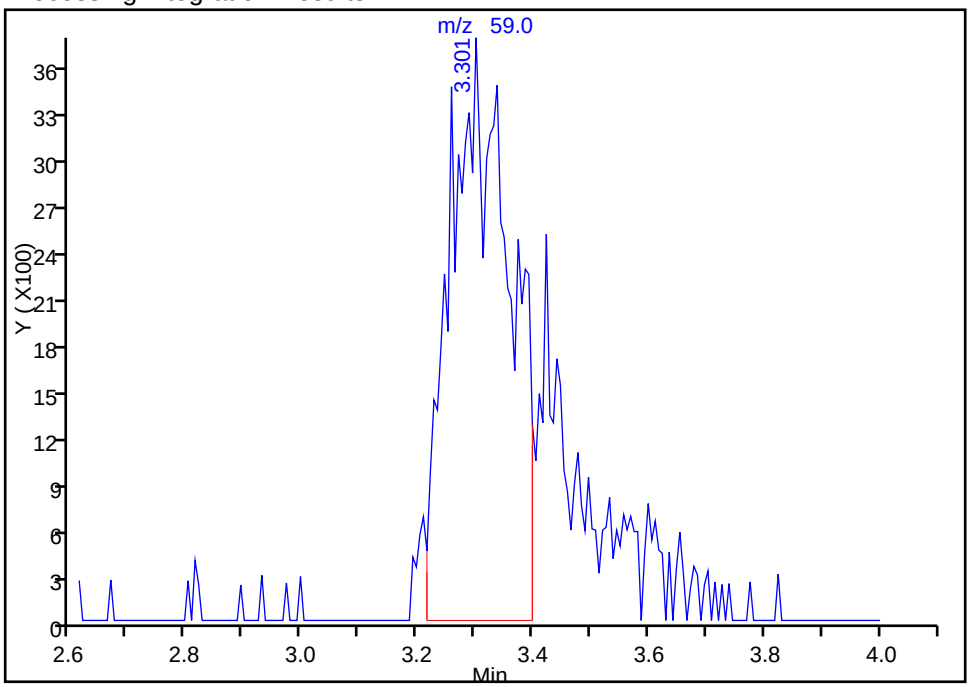
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

19 Ethyl ether, CAS: 60-29-7

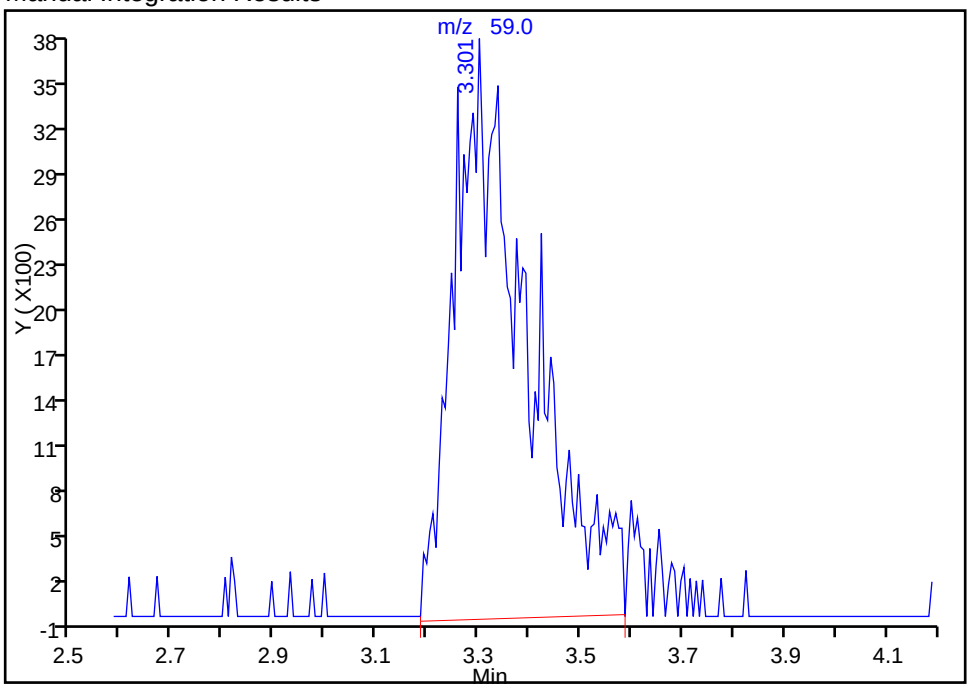
Processing Integration Results

RT: 3.30
Response: 26767
Amount: 142.9835



Manual Integration Results

RT: 3.30
Response: 37380
Amount: 197.9400



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

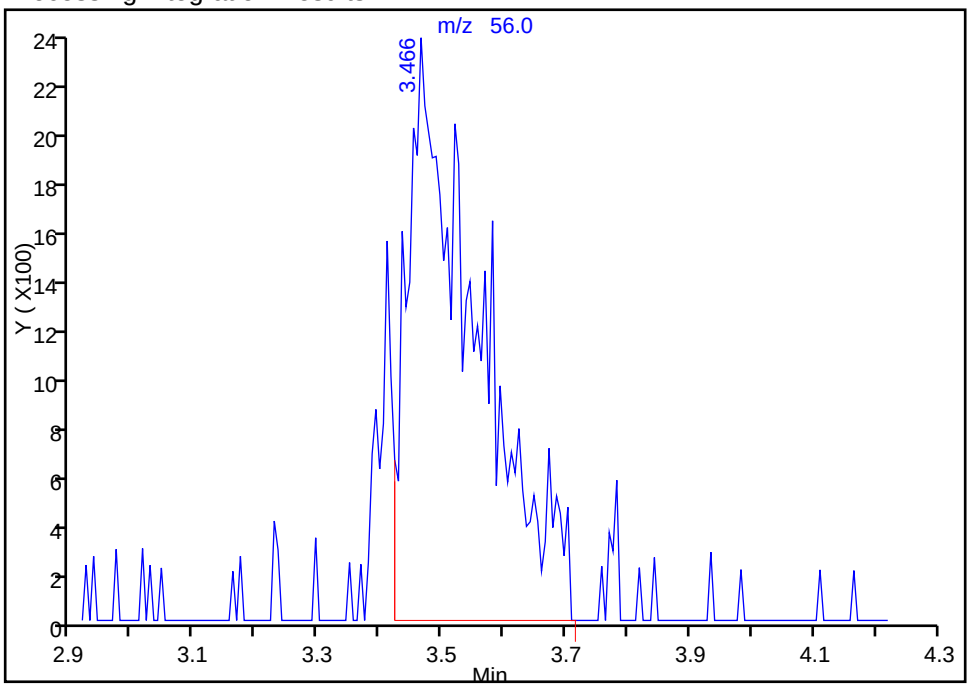
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

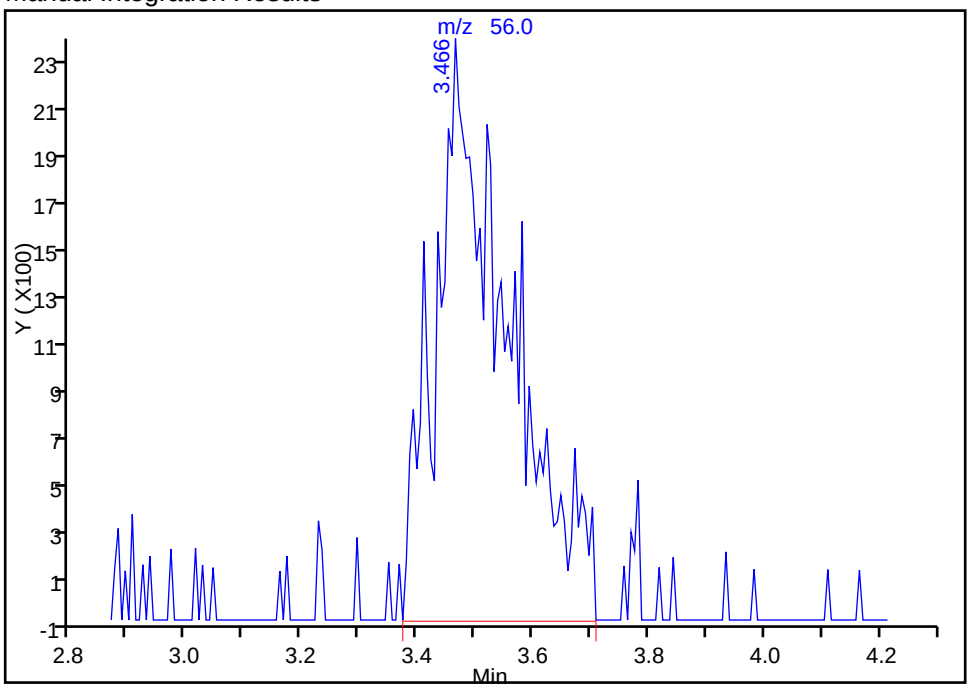
Processing Integration Results

RT: 3.47
Response: 18737
Amount: 871.7852



Manual Integration Results

RT: 3.47
Response: 20952
Amount: 752.7268



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

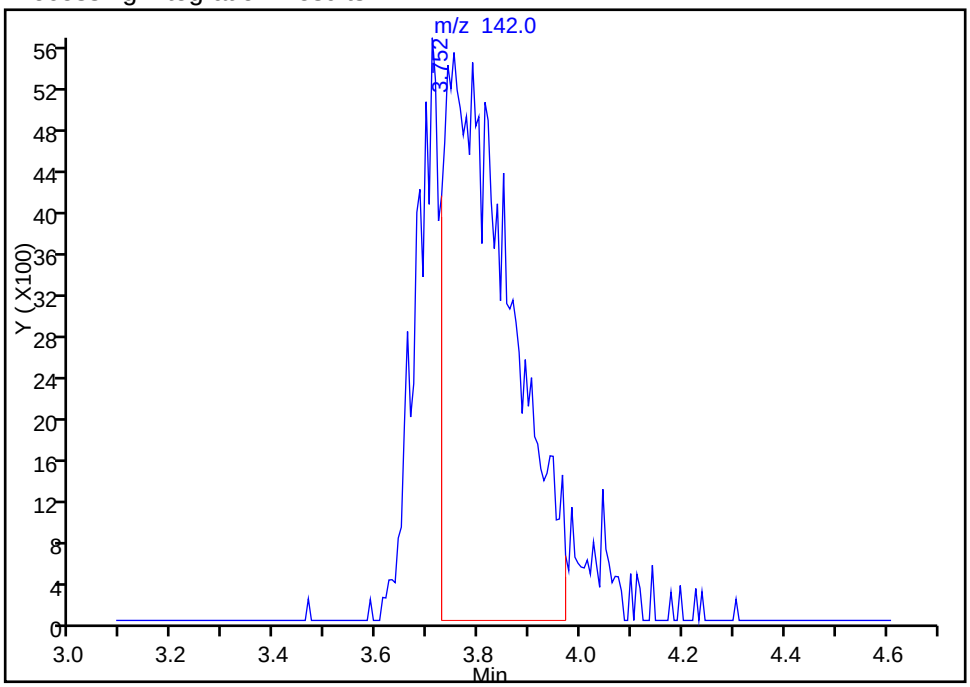
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 Iodomethane, CAS: 74-88-4

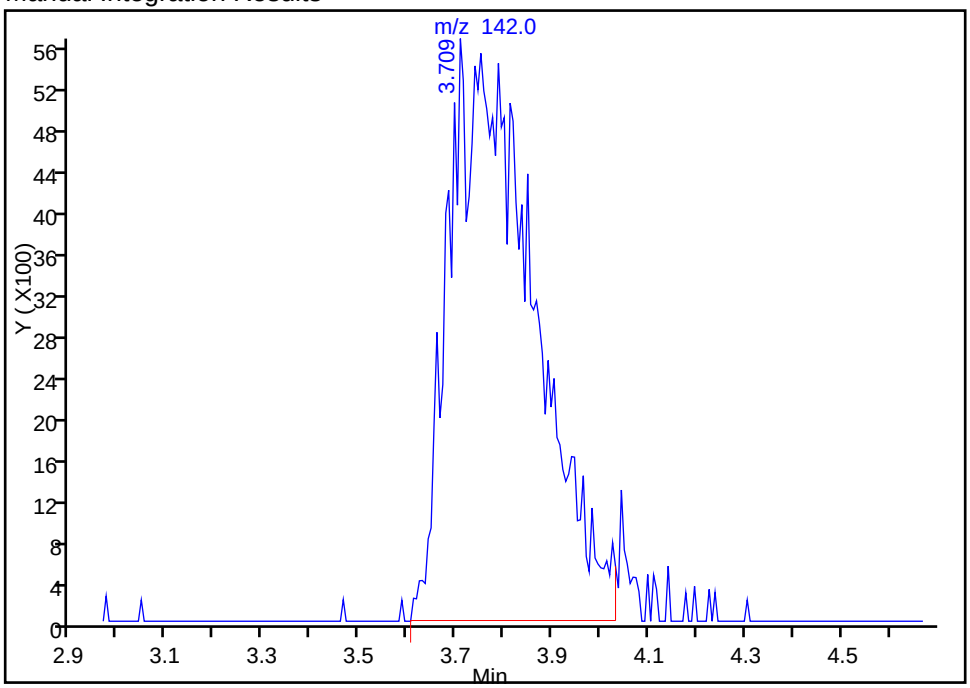
Processing Integration Results

RT: 3.75
Response: 49033
Amount: 162.8292



Manual Integration Results

RT: 3.71
Response: 68292
Amount: 216.8772



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

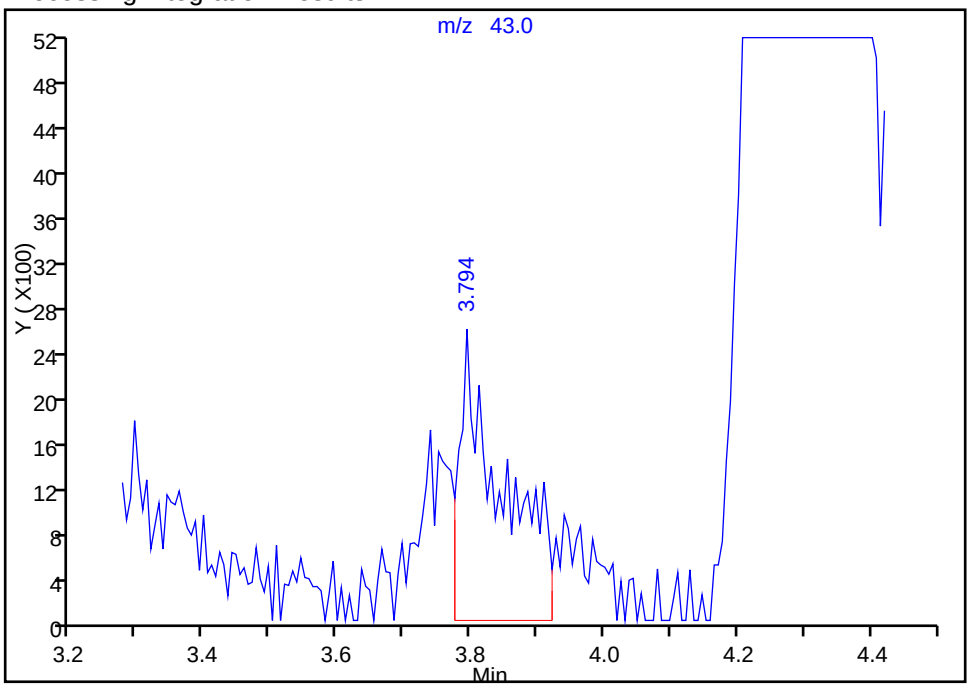
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

25 Acetone, CAS: 67-64-1

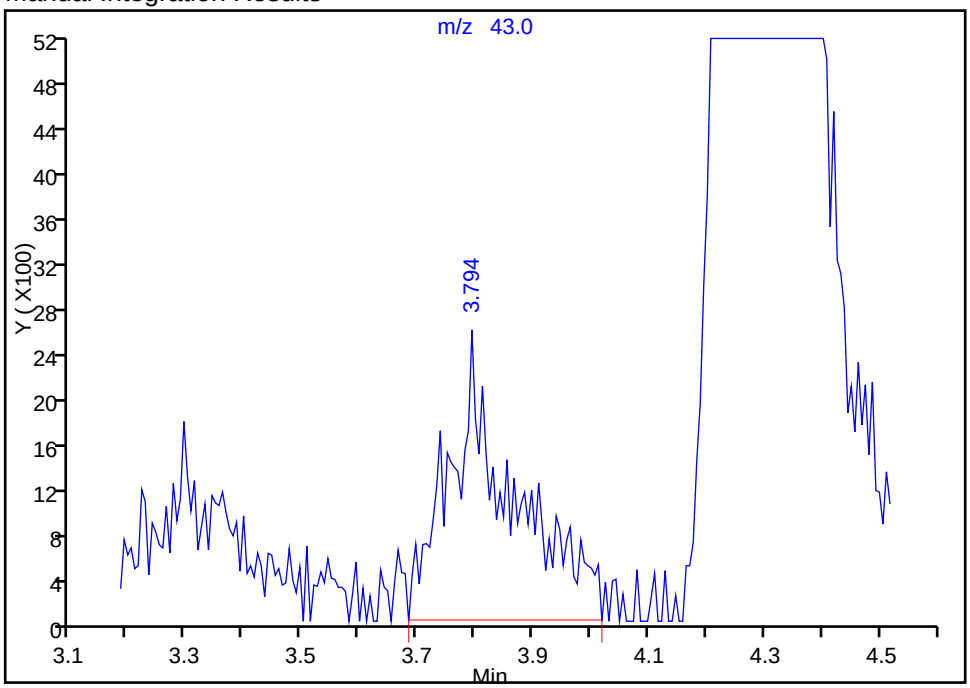
Processing Integration Results

RT: 3.79
Response: 11286
Amount: 116.1039



Manual Integration Results

RT: 3.79
Response: 19280
Amount: 189.9985



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

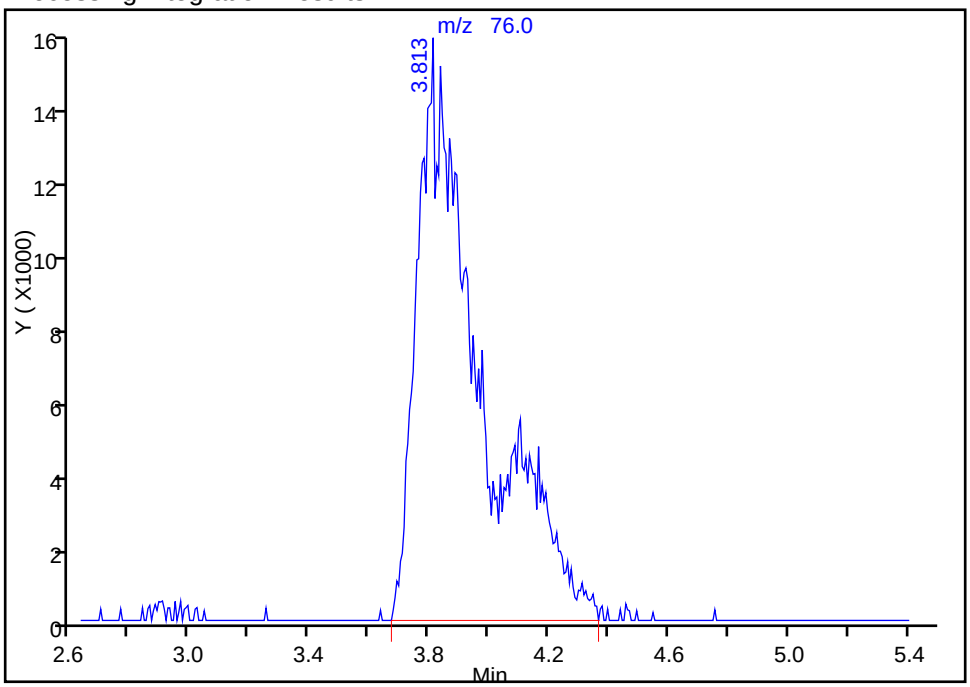
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

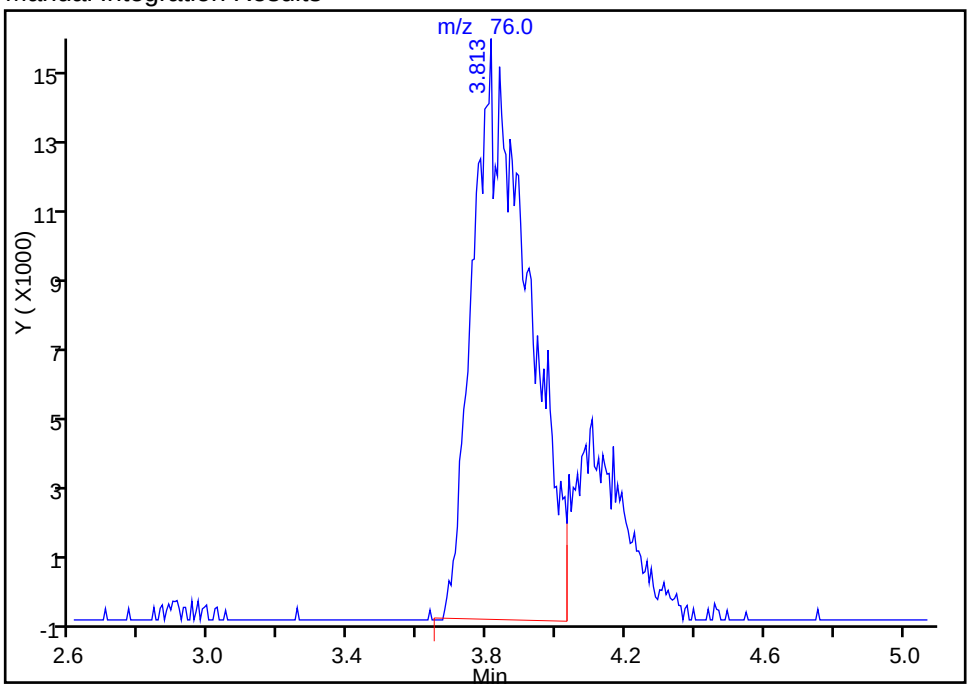
Processing Integration Results

RT: 3.81
Response: 215934
Amount: 260.9075



Manual Integration Results

RT: 3.81
Response: 166773
Amount: 210.4360



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

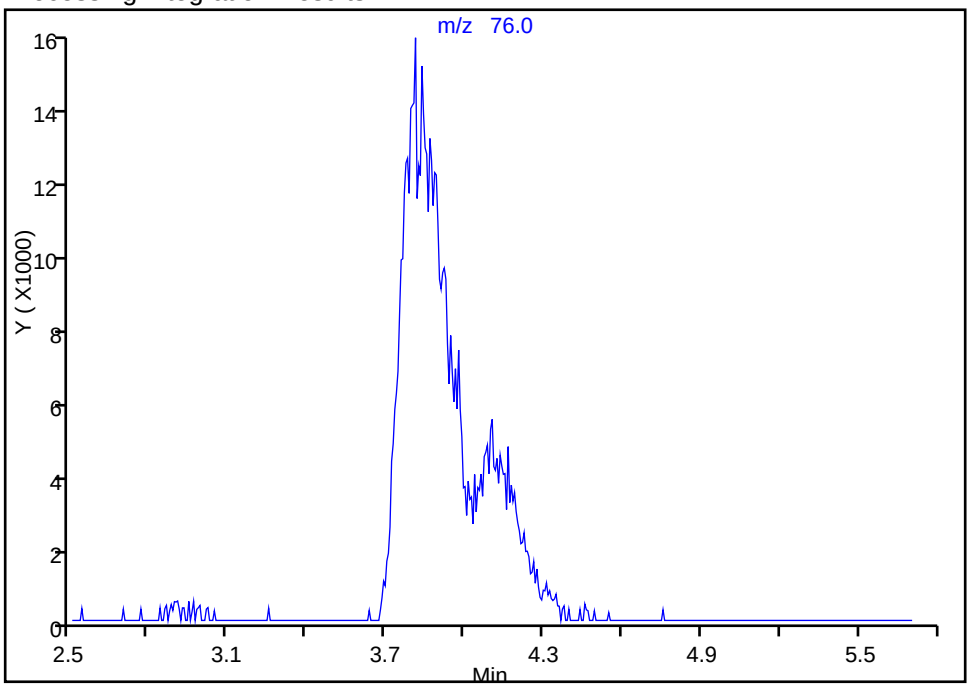
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 3-Chloro-1-propene, CAS: 107-05-1

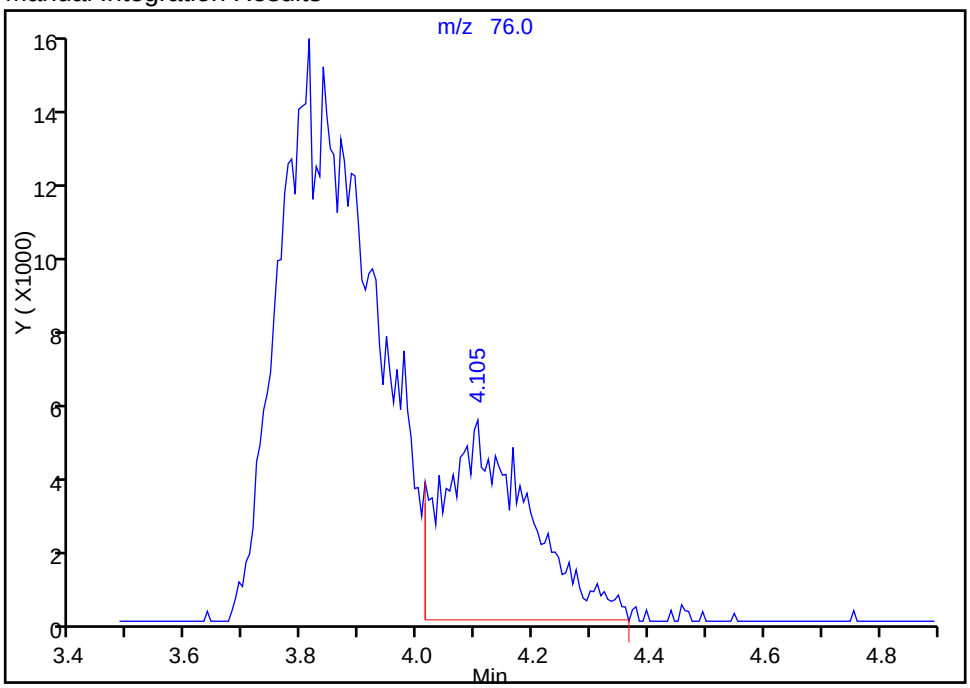
Processing Integration Results

Not Detected
Expected RT: 4.10



Manual Integration Results

RT: 4.10
Response: 52737
Amount: 220.5628



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

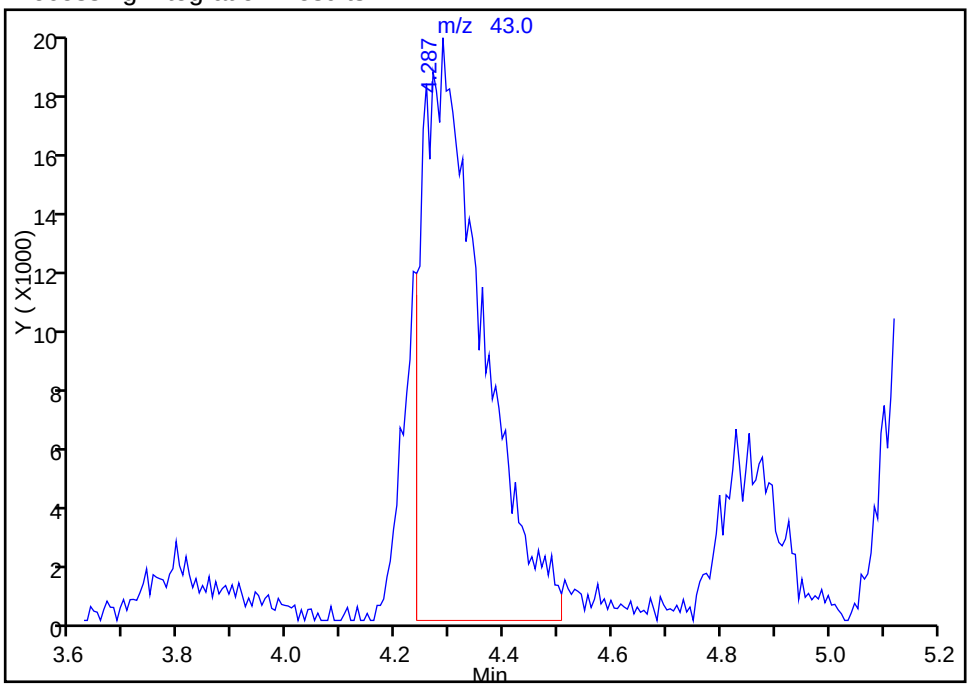
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

29 Methyl acetate, CAS: 79-20-9

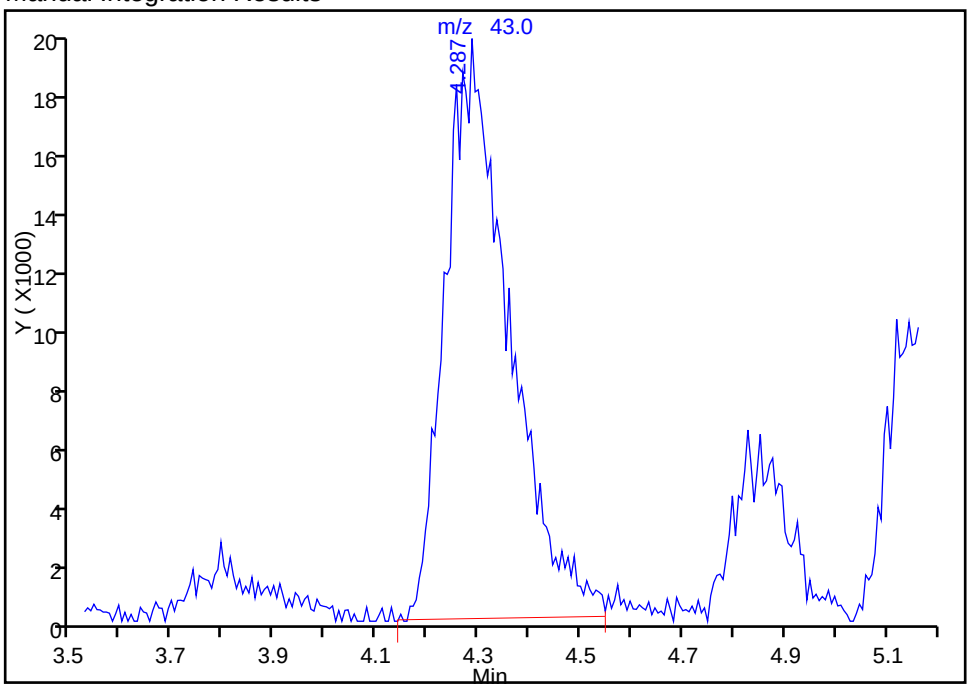
Processing Integration Results

RT: 4.29
Response: 145651
Amount: 822.1232



Manual Integration Results

RT: 4.29
Response: 164322
Amount: 913.7542



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

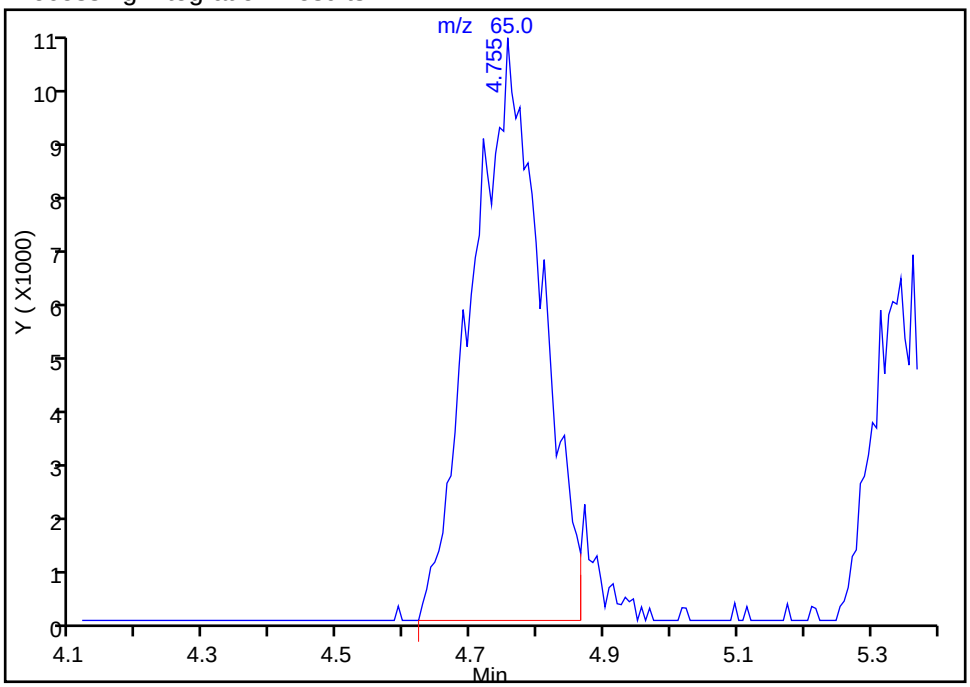
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

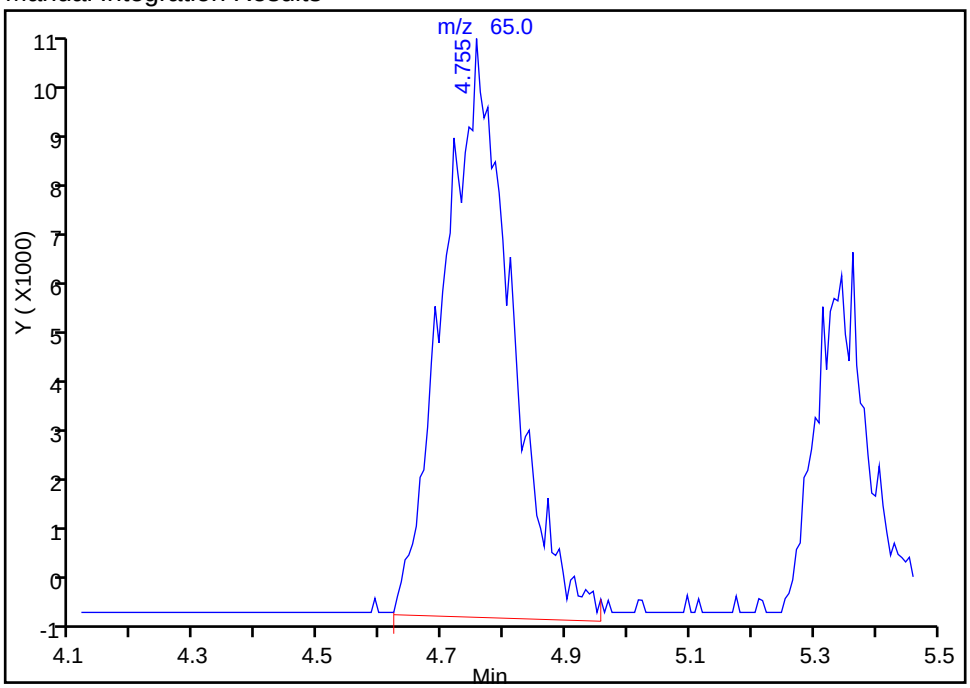
Processing Integration Results

RT: 4.76
Response: 71825
Amount: 5000.0000



Manual Integration Results

RT: 4.76
Response: 77149
Amount: 5000.0000



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

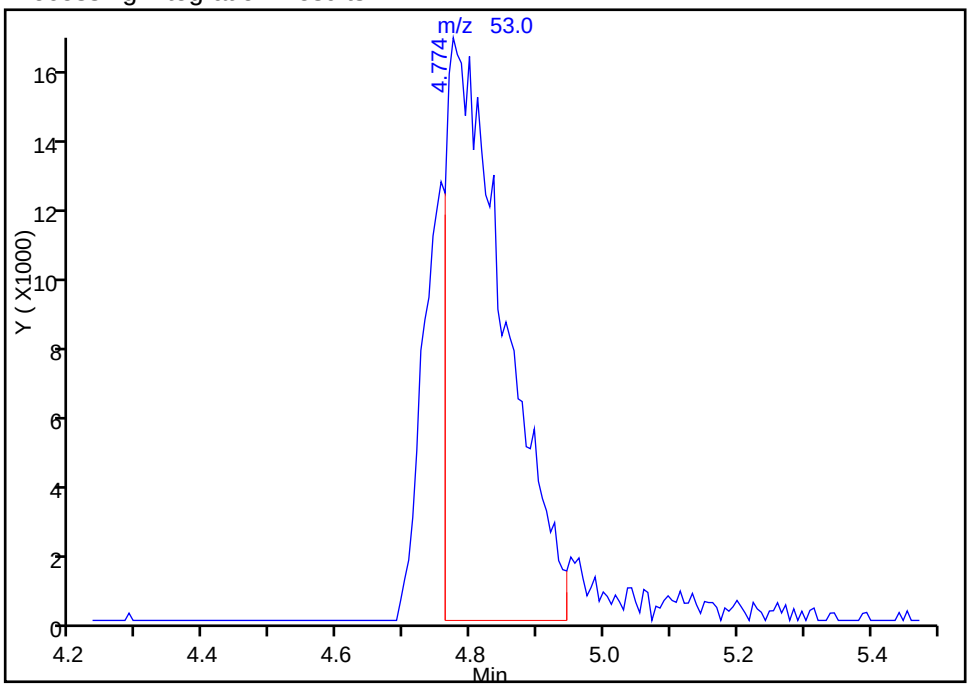
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Injection Date:	21-Oct-2014 18:28:30	Instrument ID:	CHHP7		
Lims ID:	ICIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 Acrylonitrile, CAS: 107-13-1

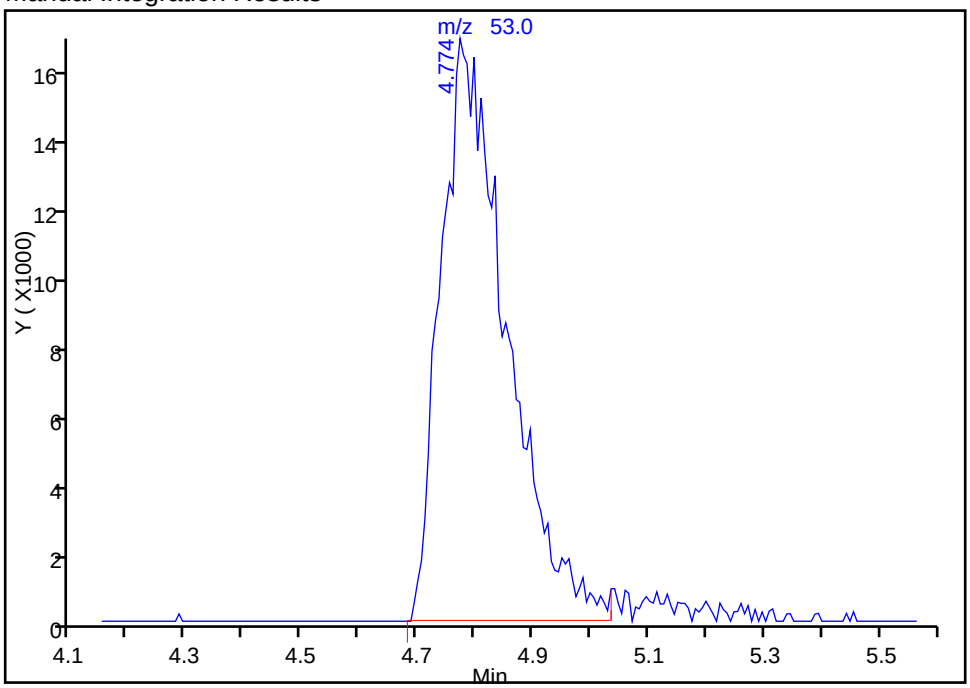
Processing Integration Results

RT: 4.77
Response: 102597
Amount: 1501.0922



Manual Integration Results

RT: 4.77
Response: 134241
Amount: 1901.2012



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

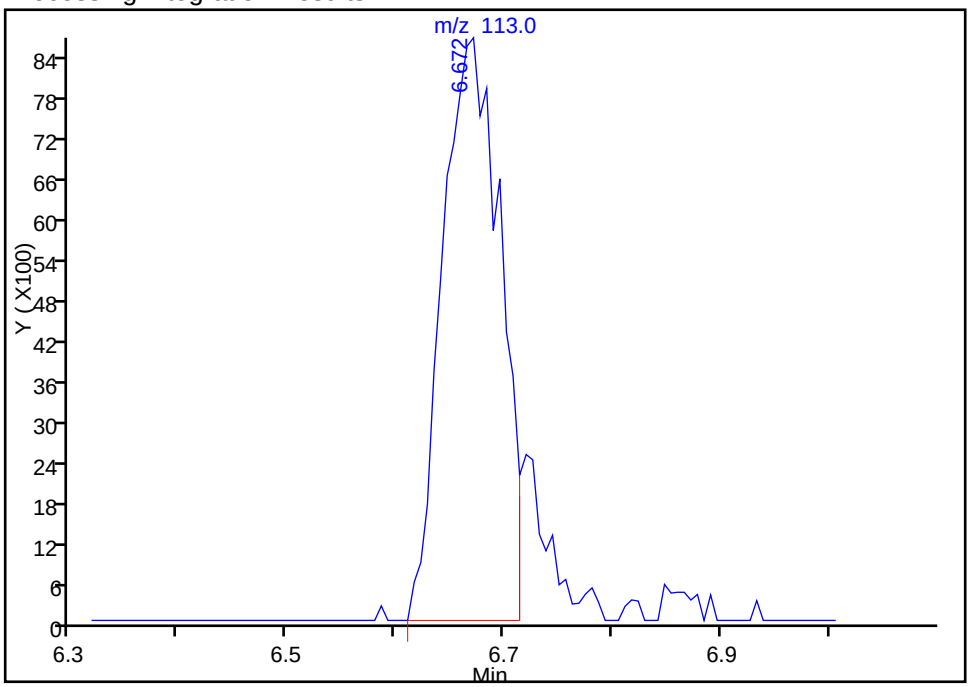
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

$ 5 Dibromofluoromethane (Surr), CAS: 1868-53-7

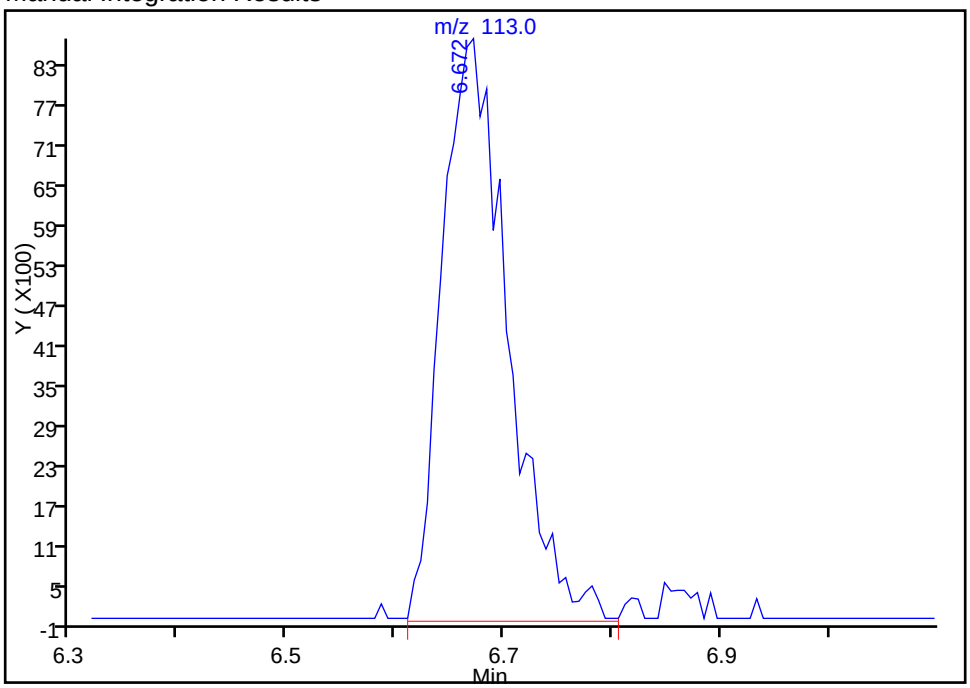
Processing Integration Results

RT: 6.67
Response: 32186
Amount: 180.1953



Manual Integration Results

RT: 6.67
Response: 36780
Amount: 202.2004



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

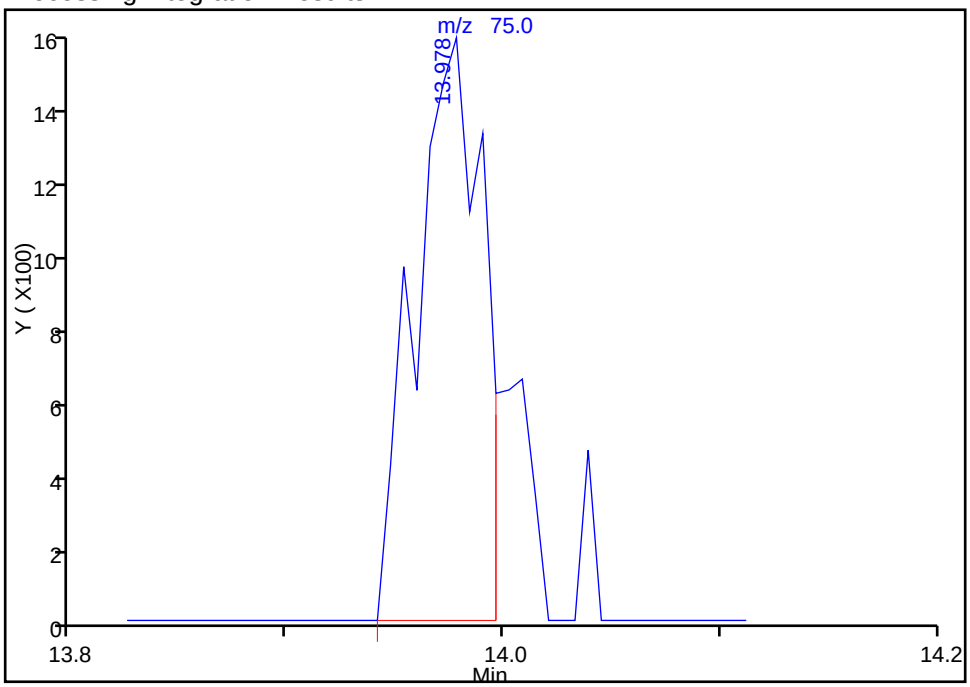
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D
Injection Date: 21-Oct-2014 18:28:30 Instrument ID: CHHP7
Lims ID: ICIS
Client ID:
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

112 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

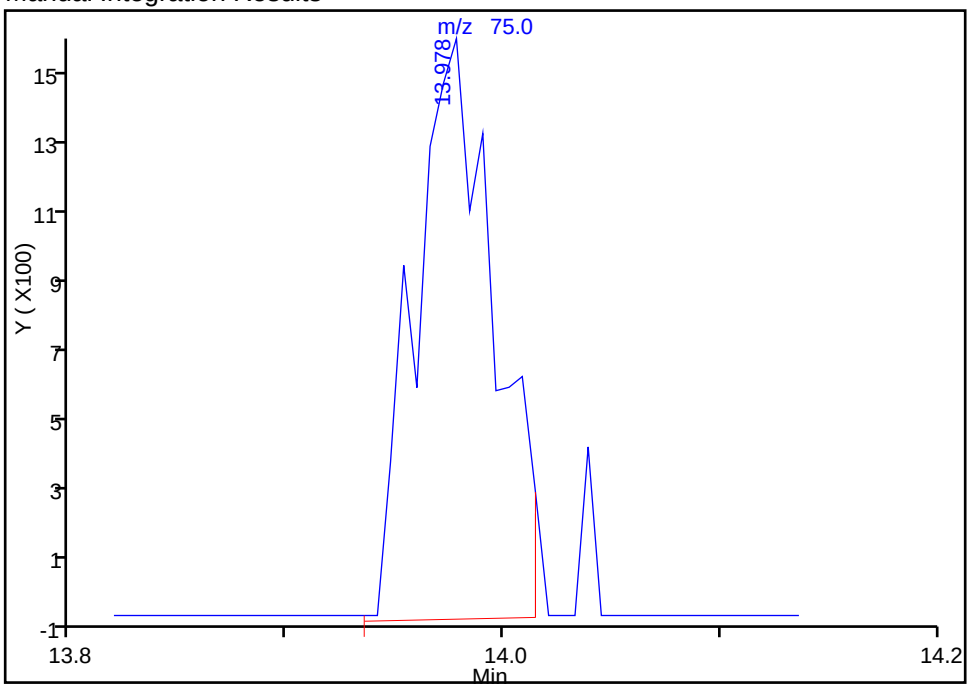
Processing Integration Results

RT: 13.98
Response: 3266
Amount: 225.2105



Manual Integration Results

RT: 13.98
Response: 3881
Amount: 235.2684



Reviewer: journetp, 22-Oct-2014 08:22:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127589/3 Calibration Date: 12/08/2014 12:33

Instrument ID: CHHP7 Calib Start Date: 10/21/2014 10:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/21/2014 18:28

Lab File ID: 7120803.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	0.3964	0.2855		28.8	40.0	-28.0	
Chloromethane	Ave	0.8805	0.6695		30.4	40.0	-24.0	
Vinyl chloride	Ave	0.5784	0.4512		31.2	40.0	-22.0	
1,3-Butadiene	Ave	0.6741	0.5147		30.5	40.0	-23.6	
Bromomethane	Ave	0.2238	0.2110		37.7	40.0	-5.7	
Chloroethane	Ave	0.2598	0.2672		41.1	40.0	2.9	
Dichlorofluoromethane	Ave	0.7192	0.6112		34.0	40.0	-15.0	
Trichlorofluoromethane	Ave	0.5774	0.4326		30.0	40.0	-25.1	
Ethyl ether	Ave	0.2587	0.2495		38.6	40.0	-3.5	
Acrolein	Ave	0.0381	0.0364		167	175	-4.6	
1,1-Dichloroethene	Ave	0.2915	0.3275		44.9	40.0	12.4	
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3080	0.3591		46.6	40.0	16.6	
Acetone	Lin1		0.1253		36.2	40.0	-9.5	
Iodomethane	Ave	0.4313	0.4958		46.0	40.0	15.0	
Carbon disulfide	Ave	1.086	1.004		37.0	40.0	-7.5	
Allyl chloride	Ave	0.3275	0.2957		36.1	40.0	-9.7	
Methyl acetate	Ave	0.2463	0.2226		181	200	-9.6	
Methylene Chloride	Ave	0.3903	0.3978		40.8	40.0	1.9	
tert-Butyl alcohol	Ave	1.356	1.294		382	400	-4.6	
Acrylonitrile	Ave	0.0967	0.1039		430	400	7.5	
trans-1,2-Dichloroethene	Ave	0.3631	0.3527		38.9	40.0	-2.9	
Methyl tert-butyl ether	Ave	0.9002	0.8357		37.1	40.0	-7.2	
Hexane	Ave	0.6311	0.5621		35.6	40.0	-10.9	
1,1-Dichloroethane	Ave	0.7427	0.6403		34.5	40.0	-13.8	
Vinyl acetate	Lin		0.3028		42.3	40.0	5.8	
2,2-Dichloropropane	Ave	0.5110	0.4432		34.7	40.0	-13.3	
cis-1,2-Dichloroethene	Ave	0.3773	0.3653		38.7	40.0	-3.2	
2-Butanone (MEK)	Ave	0.1407	0.1599		45.4	40.0	13.6	
Chlorobromomethane	Ave	0.1373	0.1238		36.1	40.0	-9.8	
Tetrahydrofuran	Ave	0.0897	0.0849		75.7	80.0	-5.3	
Chloroform	Ave	0.6167	0.5797		37.6	40.0	-6.0	
1,1,1-Trichloroethane	Ave	0.5728	0.5042		35.2	40.0	-12.0	
Cyclohexane	Ave	0.8602	0.7777		36.2	40.0	-9.6	
1,1-Dichloropropene	Ave	0.4395	0.4095		37.3	40.0	-6.8	
Carbon tetrachloride	Ave	0.4287	0.4172		38.9	40.0	-2.7	
Isobutyl alcohol	Ave	0.0069	0.0091		1320	1000	31.8	
Benzene	Ave	1.231	1.138		37.0	40.0	-7.5	
1,2-Dichloroethane	Qua		0.3553		41.3	40.0	3.3	
n-Heptane	Ave	0.6547	0.5831		35.6	40.0	-10.9	
Trichloroethene	Ave	0.2683	0.2776		41.4	40.0	3.5	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127589/3 Calibration Date: 12/08/2014 12:33

Instrument ID: CHHP7 Calib Start Date: 10/21/2014 10:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/21/2014 18:28

Lab File ID: 7120803.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	0.7274	0.6942		38.2	40.0	-4.6	
1,2-Dichloropropane	Ave	0.3178	0.3157		39.7	40.0	-0.7	
Dibromomethane	Ave	0.1270	0.1023		32.2	40.0	-19.4	
1,4-Dioxane	Qua		0.0019		1260	800	57.5	
Dichlorobromomethane	Ave	0.4152	0.4044		39.0	40.0	-2.6	
cis-1,3-Dichloropropene	Ave	0.4790	0.4848		40.5	40.0	1.2	
4-Methyl-2-pentanone (MIBK)	Ave	1.145	1.553		54.3	40.0	35.6	
Toluene	Ave	5.338	5.203		39.0	40.0	-2.5	
trans-1,3-Dichloropropene	Ave	1.579	1.617		41.0	40.0	2.4	
Ethyl methacrylate	Ave	1.276	1.285		40.3	40.0	0.7	
1,1,2-Trichloroethane	Ave	0.8254	0.8919		43.2	40.0	8.1	
Tetrachloroethene	Ave	0.9912	1.092		44.1	40.0	10.2	
1,3-Dichloropropane	Ave	1.494	1.587		42.5	40.0	6.2	
2-Hexanone	Ave	0.7662	1.130		59.0	40.0	47.4	
Chlorodibromomethane	Ave	1.015	1.050		41.4	40.0	3.4	
1,2-Dibromoethane	Ave	0.7983	0.8225		41.2	40.0	3.0	
Chlorobenzene	Ave	3.228	3.303		40.9	40.0	2.3	
1,1,1,2-Tetrachloroethane	Ave	1.144	1.176		41.1	40.0	2.8	
Ethylbenzene	Ave	1.707	1.663		39.0	40.0	-2.6	
m-Xylene & p-Xylene	Ave	2.174	2.126		39.1	40.0	-2.2	
o-Xylene	Ave	2.284	2.248		39.4	40.0	-1.6	
Styrene	Ave	3.666	3.943		43.0	40.0	7.6	
Bromoform	Ave	0.6140	0.7166		46.7	40.0	16.7	
Isopropylbenzene	Ave	6.501	6.454		39.7	40.0	-0.7	
1,1,2,2-Tetrachloroethane	Ave	1.063	1.112		41.8	40.0	4.6	
Bromobenzene	Ave	0.998	0.9875		39.6	40.0	-1.1	
1,2,3-Trichloropropane	Ave	0.1898	0.1862		39.2	40.0	-1.9	
trans-1,4-Dichloro-2-butene	Qua		0.1987		34.5	40.0	-13.8	
N-Propylbenzene	Ave	1.336	1.134		33.9	40.0	-15.1	
2-Chlorotoluene	Ave	1.049	0.9291		35.4	40.0	-11.5	
1,3,5-Trimethylbenzene	Ave	4.005	3.501		35.0	40.0	-12.6	
4-Chlorotoluene	Ave	0.9782	0.8612		35.2	40.0	-12.0	
tert-Butylbenzene	Ave	3.860	3.435		35.6	40.0	-11.0	
1,2,4-Trimethylbenzene	Ave	3.924	3.486		35.5	40.0	-11.2	
sec-Butylbenzene	Ave	5.379	4.707		35.0	40.0	-12.5	
1,3-Dichlorobenzene	Ave	1.817	1.807		39.8	40.0	-0.6	
4-Isopropyltoluene	Ave	4.484	4.055		36.2	40.0	-9.6	
1,4-Dichlorobenzene	Ave	1.662	1.641		39.5	40.0	-1.3	
n-Butylbenzene	Ave	3.993	3.637		36.4	40.0	-8.9	
1,2-Dichlorobenzene	Ave	1.420	1.429		40.3	40.0	0.7	
1,2-Dibromo-3-Chloropropane	Qua		0.0562		35.0	40.0	-12.5	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127589/3 Calibration Date: 12/08/2014 12:33

Instrument ID: CHHP7 Calib Start Date: 10/21/2014 10:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/21/2014 18:28

Lab File ID: 7120803.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	Qua		0.3779		35.3	40.0	-11.8	
Hexachlorobutadiene	Qua		0.5222		56.8	40.0	41.9	
Naphthalene	Qua		0.3979		29.6	40.0	-25.9	
1,2,3-Trichlorobenzene	Qua		0.2409		42.1	40.0	5.3	
Dibromofluoromethane (Surr)	Ave	0.2491	0.2031		32.6	40.0	-18.5	
1,2-Dichloroethane-d4 (Surr)	Ave	0.3144	0.2704		34.4	40.0	-14.0	
Toluene-d8 (Surr)	Ave	4.300	4.333		40.3	40.0	0.8	
4-Bromofluorobenzene (Surr)	Ave	1.590	1.426		35.9	40.0	-10.3	

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Dec-2014 12:33:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0004755-002
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:33:30 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 08-Dec-2014 13:08:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.659	4.659	0.000	61	70352	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.396	7.396	0.000	94	156630	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	91	36973	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	93	54728	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.666	6.666	0.000	62	25451	200.0	163.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.031	7.031	0.000	89	33886	200.0	172.0	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	95	128150	200.0	201.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.637	0.000	93	42190	200.0	179.4	
10 Dichlorodifluoromethane	85	1.891	1.891	0.000	1	35779	200.0	144.1	M
11 Chloromethane	50	2.000	2.000	0.000	29	83893	200.0	152.1	M
12 Vinyl chloride	62	2.171	2.171	0.000	69	56531	200.0	156.0	M
13 Butadiene	39	2.189	2.189	0.000	74	64497	200.0	152.7	M
14 Bromomethane	94	2.493	2.493	0.000	40	26442	200.0	188.6	M
15 Chloroethane	64	2.603	2.603	0.000	63	33486	200.0	205.7	
16 Dichlorofluoromethane	67	2.840	2.840	0.000	83	76588	200.0	170.0	
17 Trichlorofluoromethane	101	2.846	2.846	0.000	51	54203	200.0	149.8	M
19 Ethyl ether	59	3.302	3.302	0.000	85	31265	200.0	192.9	M
21 Acrolein	56	3.460	3.460	0.000	43	19945	875.0	835.0	
20 1,1-Dichloroethene	96	3.558	3.558	0.000	82	41036	200.0	224.7	
22 1,1,2-Trichloro-1,2,2-trif	101	3.679	3.679	0.000	1	45000	200.0	233.2	M
25 Acetone	43	3.728	3.728	0.000	37	15696	200.0	180.9	
23 Iodomethane	142	3.758	3.758	0.000	91	62128	200.0	229.9	M
24 Carbon disulfide	76	3.874	3.874	0.000	1	125815	200.0	185.0	M
26 3-Chloro-1-propene	76	4.136	4.136	0.000	61	37052	200.0	180.6	M
29 Methyl acetate	43	4.269	4.269	0.000	99	139441	1000.0	903.6	
30 Methylene Chloride	84	4.361	4.361	0.000	56	49840	200.0	203.8	M
34 2-Methyl-2-propanol	59	4.744	4.744	0.000	47	36415	2000.0	1908.6	
32 Acrylonitrile	53	4.780	4.780	0.000	98	130219	2000.0	2149.1	M
31 trans-1,2-Dichloroethene	96	4.787	4.787	0.000	79	44188	200.0	194.3	
33 Methyl tert-butyl ether	73	4.847	4.847	0.000	95	104716	200.0	185.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Hexane	57	5.152	5.152	0.000	95	70431	200.0	178.1	
36 1,1-Dichloroethane	63	5.346	5.346	0.000	97	80234	200.0	172.4	
38 Vinyl acetate	43	5.468	5.468	0.000	94	37946	200.0	211.5	
41 2,2-Dichloropropane	77	6.094	6.094	0.000	82	55539	200.0	173.5	
42 cis-1,2-Dichloroethene	96	6.101	6.101	0.000	3	45769	200.0	193.6	M
44 2-Butanone (MEK)	43	6.155	6.155	0.000	89	20030	200.0	227.2	
47 Chlorobromomethane	128	6.368	6.368	0.000	90	15515	200.0	180.4	
49 Tetrahydrofuran	42	6.459	6.459	0.000	85	21272	400.0	378.7	
48 Chloroform	83	6.490	6.490	0.000	96	72635	200.0	188.0	
50 1,1,1-Trichloroethane	97	6.685	6.685	0.000	92	63177	200.0	176.0	
51 Cyclohexane	56	6.739	6.739	0.000	97	97449	200.0	180.8	
52 Carbon tetrachloride	117	6.861	6.861	0.000	87	52270	200.0	194.6	
53 1,1-Dichloropropene	75	6.861	6.861	0.000	86	51313	200.0	186.3	M
57 Isobutyl alcohol	41	7.086	7.086	0.000	62	28401	5000.0	6590.9	
54 Benzene	78	7.092	7.092	0.000	97	142622	200.0	184.9	
55 1,2-Dichloroethane	62	7.117	7.117	0.000	94	44524	200.0	206.6	
58 n-Heptane	43	7.409	7.409	0.000	70	73059	200.0	178.1	
60 Trichloroethene	130	7.786	7.786	0.000	93	34788	200.0	207.0	M
63 Methylcyclohexane	83	7.986	7.986	0.000	94	86991	200.0	190.9	
64 1,2-Dichloropropane	63	8.017	8.017	0.000	80	39563	200.0	198.7	
66 Dibromomethane	93	8.151	8.151	0.000	94	12824	200.0	161.2	
67 1,4-Dioxane	88	8.181	8.181	0.000	37	4663	4000.0	6302.0	
68 Dichlorobromomethane	83	8.309	8.309	0.000	96	50667	200.0	194.8	
71 cis-1,3-Dichloropropene	75	8.765	8.765	0.000	90	60744	200.0	202.4	
72 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	98	45937	200.0	271.3	
73 Toluene	91	9.106	9.106	0.000	97	153899	200.0	194.9	
74 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	99	47823	200.0	204.8	
75 Ethyl methacrylate	69	9.422	9.422	0.000	95	38012	200.0	201.4	
76 1,1,2-Trichloroethane	97	9.501	9.501	0.000	91	26381	200.0	216.1	
77 Tetrachloroethene	164	9.641	9.641	0.000	92	32314	200.0	220.4	
78 1,3-Dichloropropane	76	9.665	9.665	0.000	97	46950	200.0	212.4	
79 2-Hexanone	43	9.757	9.757	0.000	96	33413	200.0	294.9	
81 Chlorodibromomethane	129	9.897	9.897	0.000	91	31061	200.0	206.9	
82 Ethylene Dibromide	107	10.012	10.012	0.000	99	24328	200.0	206.1	
83 Chlorobenzene	112	10.499	10.499	0.000	91	97710	200.0	204.7	
84 1,1,1,2-Tetrachloroethane	131	10.572	10.572	0.000	93	34786	200.0	205.6	
85 Ethylbenzene	106	10.602	10.602	0.000	99	49193	200.0	194.9	
86 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	62892	200.0	195.6	
88 o-Xylene	106	11.113	11.113	0.000	96	66482	200.0	196.8	
89 Styrene	104	11.126	11.126	0.000	87	116618	200.0	215.1	
90 Bromoform	173	11.308	11.308	0.000	91	21197	200.0	233.4	
91 Isopropylbenzene	105	11.478	11.478	0.000	97	190886	200.0	198.5	
93 1,1,2,2-Tetrachloroethane	83	11.770	11.770	0.000	94	32888	200.0	209.2	
94 Bromobenzene	156	11.783	11.783	0.000	93	43236	200.0	197.8	
95 1,2,3-Trichloropropane	110	11.819	11.819	0.000	82	8151	200.0	196.2	
96 trans-1,4-Dichloro-2-buten	53	11.825	11.825	0.000	67	8700	200.0	172.4	
97 N-Propylbenzene	120	11.886	11.886	0.000	99	49634	200.0	169.7	
98 2-Chlorotoluene	126	11.977	11.977	0.000	95	40677	200.0	177.1	
99 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	96	153289	200.0	174.8	
100 4-Chlorotoluene	126	12.087	12.087	0.000	99	37707	200.0	176.1	
101 tert-Butylbenzene	119	12.391	12.391	0.000	93	150373	200.0	177.9	
103 1,2,4-Trimethylbenzene	105	12.440	12.440	0.000	95	152618	200.0	177.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
104 sec-Butylbenzene	105	12.610	12.610	0.000	95	206089	200.0	175.0	
105 1,3-Dichlorobenzene	146	12.725	12.725	0.000	98	79105	200.0	198.8	
106 4-Isopropyltoluene	119	12.750	12.750	0.000	98	177540	200.0	180.9	
107 1,4-Dichlorobenzene	146	12.817	12.817	0.000	93	71864	200.0	197.5	
110 n-Butylbenzene	91	13.163	13.163	0.000	98	159234	200.0	182.2	
111 1,2-Dichlorobenzene	146	13.188	13.188	0.000	95	62564	200.0	201.3	
112 1,2-Dibromo-3-Chloropropan	75	13.960	13.960	0.000	1	2462	200.0	174.9	
114 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	94	16543	200.0	176.5	
115 Hexachlorobutadiene	225	14.964	14.964	0.000	91	22861	200.0	283.8	
116 Naphthalene	128	15.055	15.055	0.000	97	17422	200.0	148.2	M
117 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	91	10545	200.0	210.5	M
S 130 1,2-Dichloroethene, Total	96				0		400.0	387.9	
S 129 Xylenes, Total	106				0		400.0	392.5	
S 131 1,3-Dichloropropene, Total	1				0		400.0	407.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL
VOA8260VOAPRI_00091	Amount Added:	8.00	Units: uL
VOAACROPRI_00004	Amount Added:	35.00	Units: uL
VOA8260INT_00025	Amount Added:	10.00	Units: uL
voaWVA pri Re_00005	Amount Added:	8.00	Units: uL

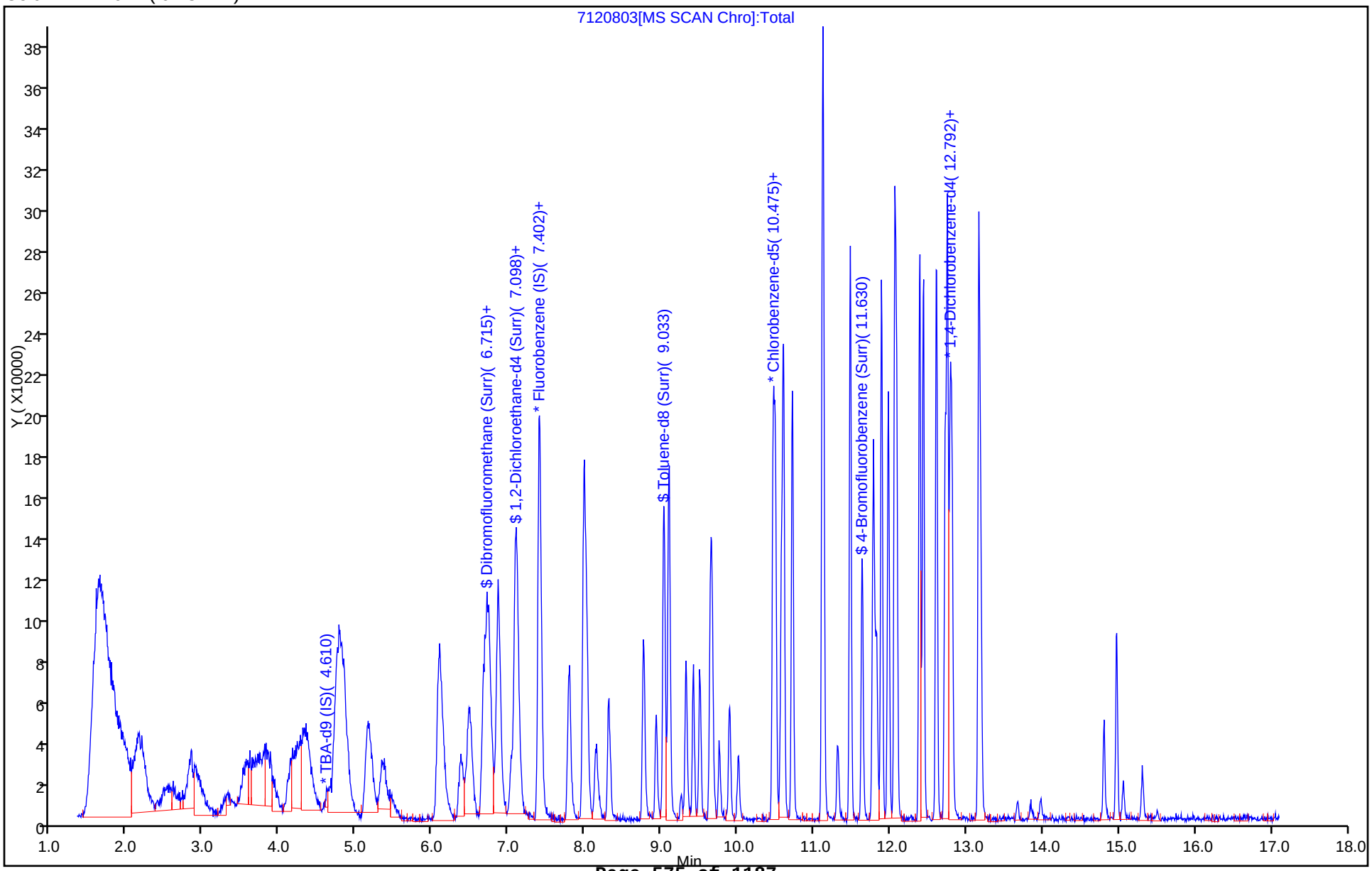
Report Date: 09-Dec-2014 08:33:31 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D

Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

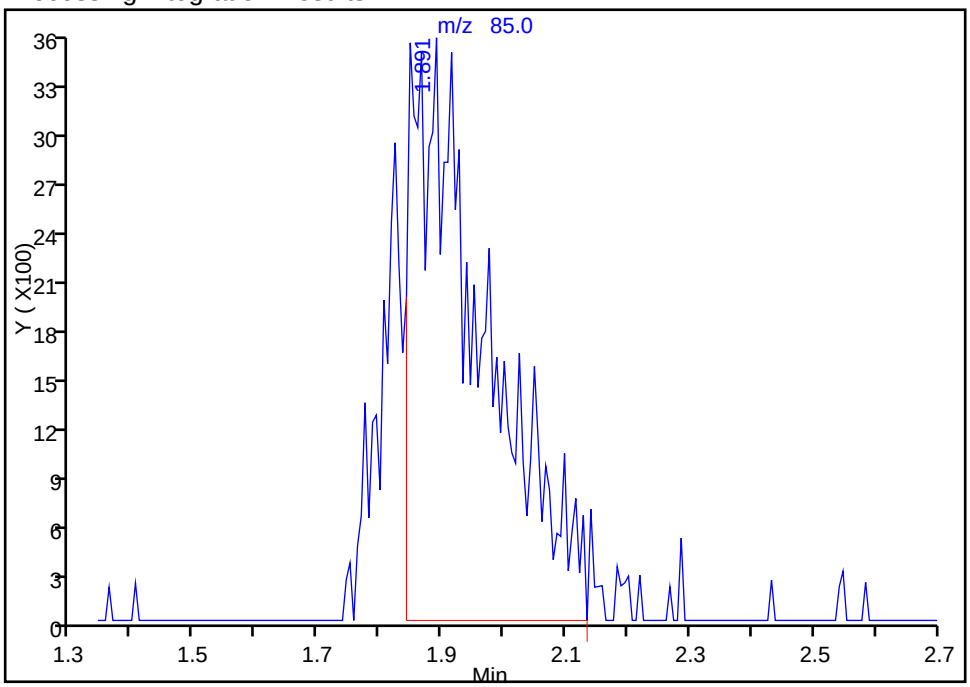
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

10 Dichlorodifluoromethane, CAS: 75-71-8

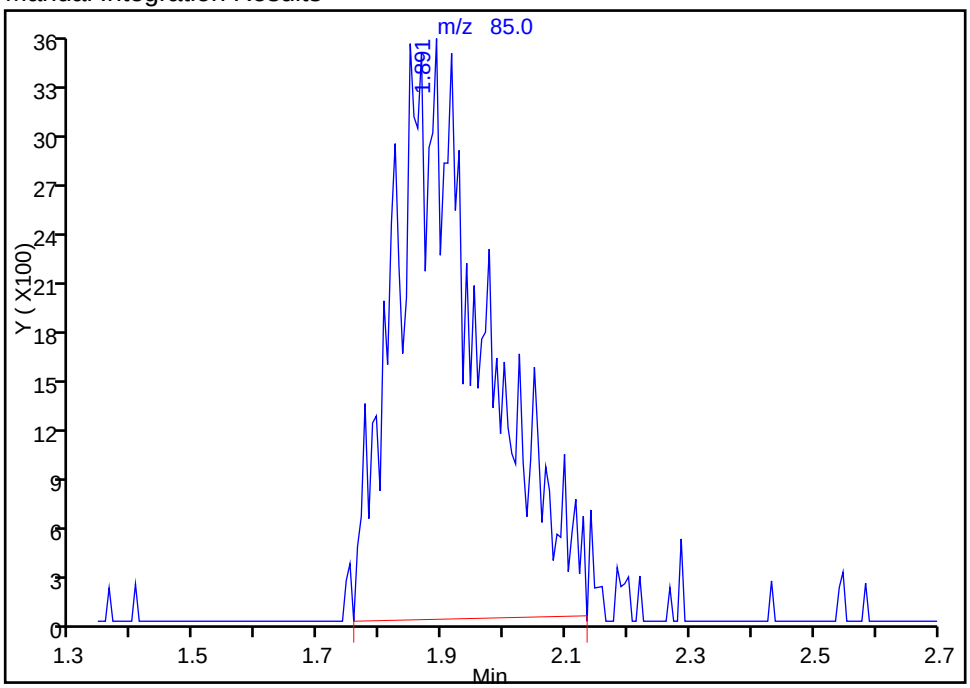
Processing Integration Results

RT: 1.89
Response: 29264
Amount: 117.8231



Manual Integration Results

RT: 1.89
Response: 35779
Amount: 144.0538



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

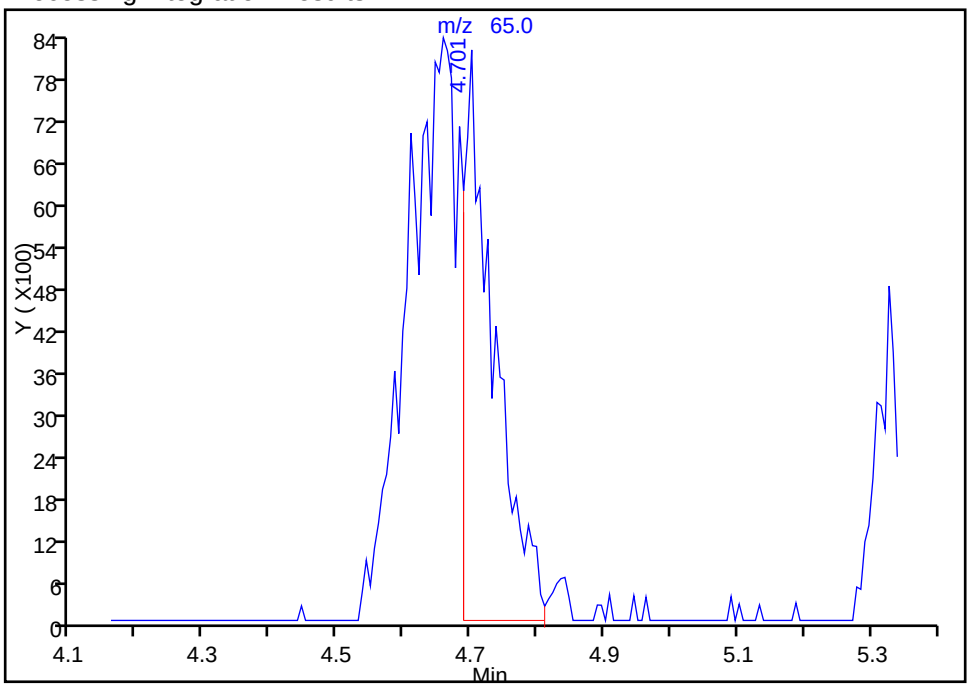
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

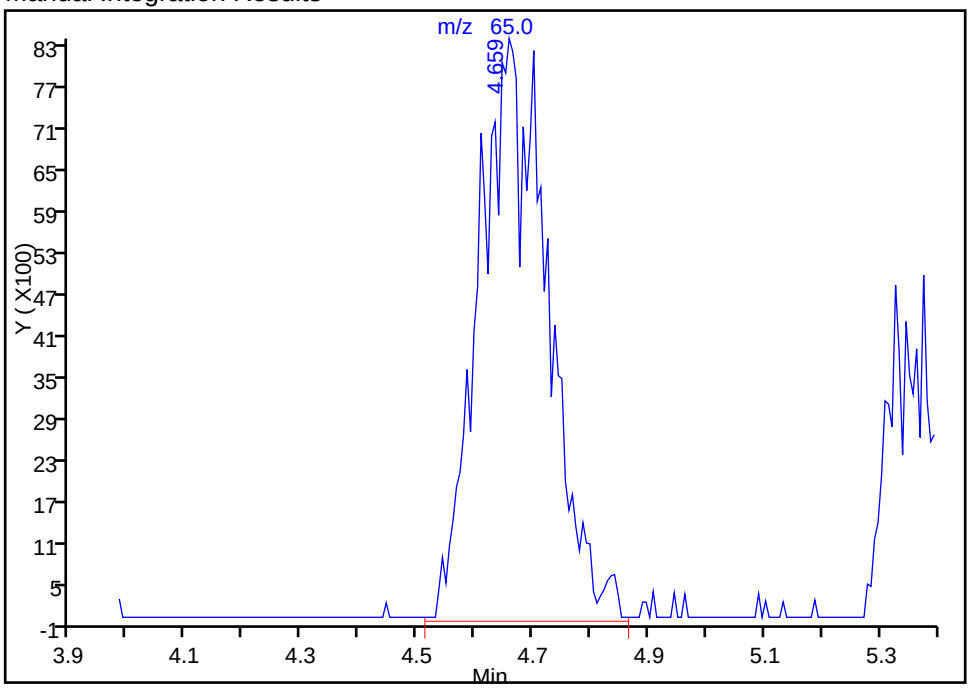
Processing Integration Results

RT: 4.70
Response: 25515
Amount: 5000.0000



Manual Integration Results

RT: 4.66
Response: 70352
Amount: 5000.0000



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

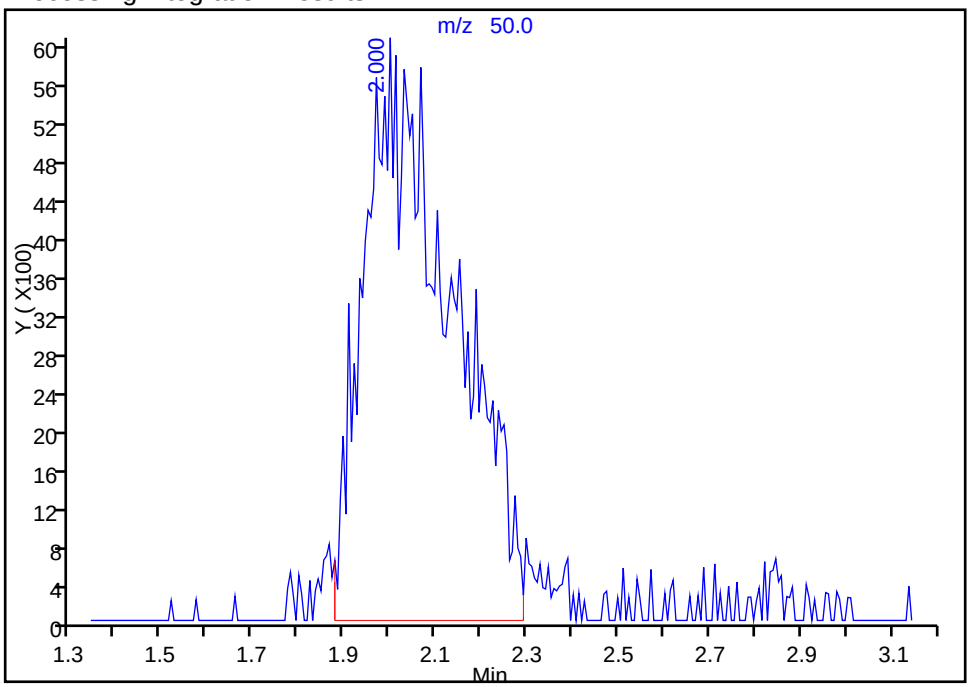
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Chloromethane, CAS: 74-87-3

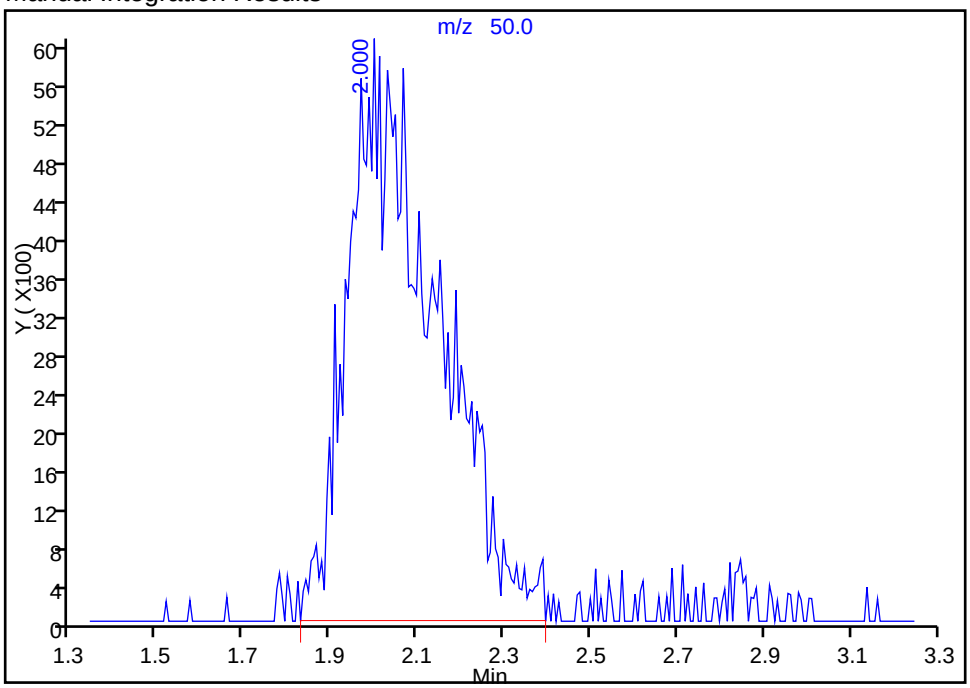
Processing Integration Results

RT: 2.00
Response: 80075
Amount: 145.1549



Manual Integration Results

RT: 2.00
Response: 83893
Amount: 152.0759



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

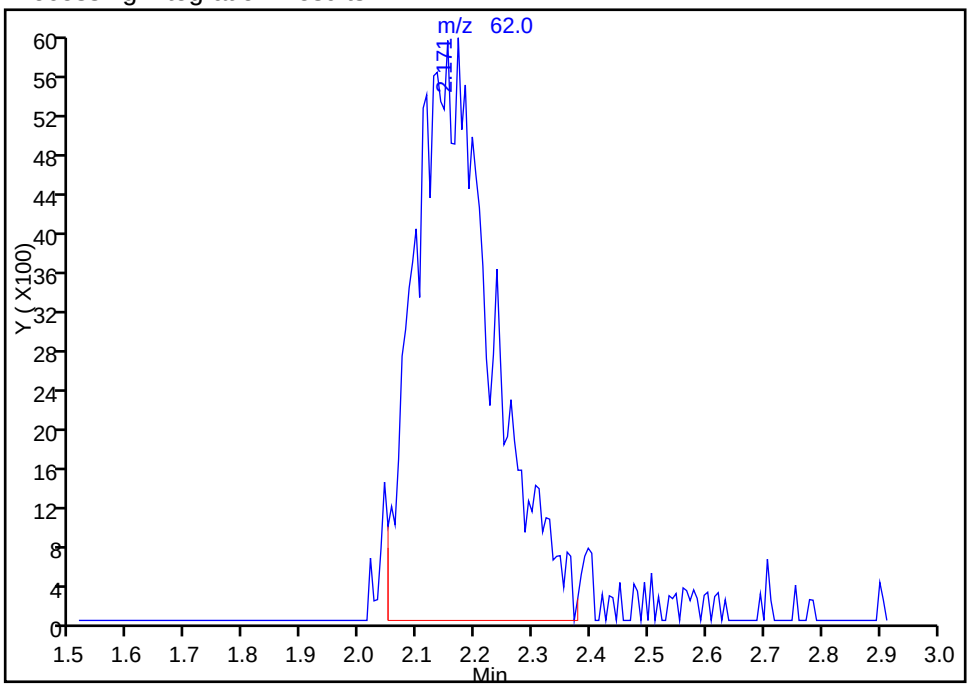
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Vinyl chloride, CAS: 75-01-4

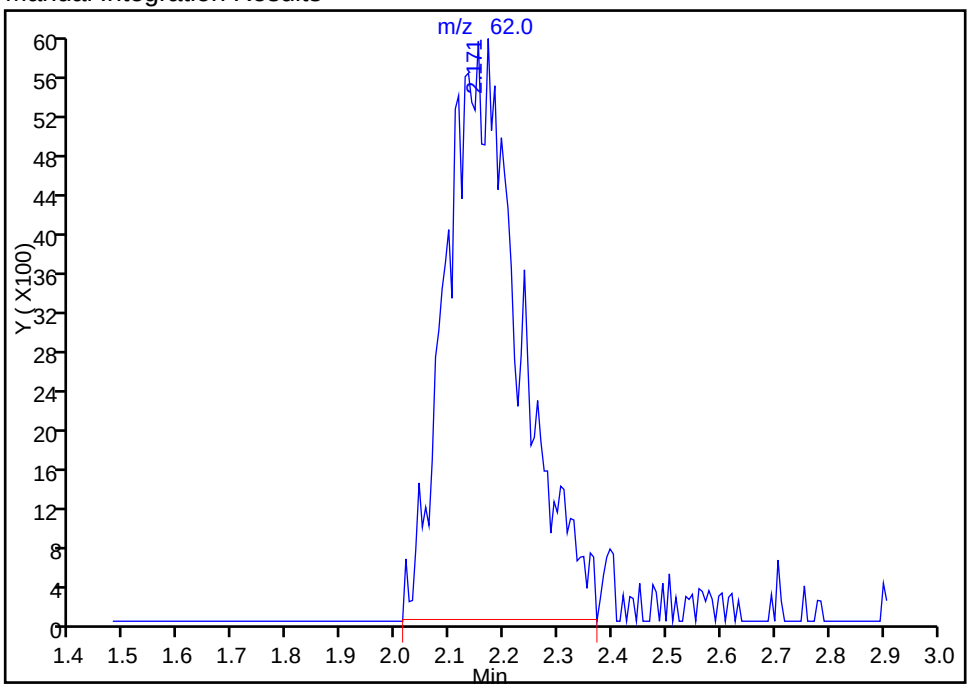
Processing Integration Results

RT: 2.17
Response: 55837
Amount: 154.0918



Manual Integration Results

RT: 2.17
Response: 56531
Amount: 156.0070



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

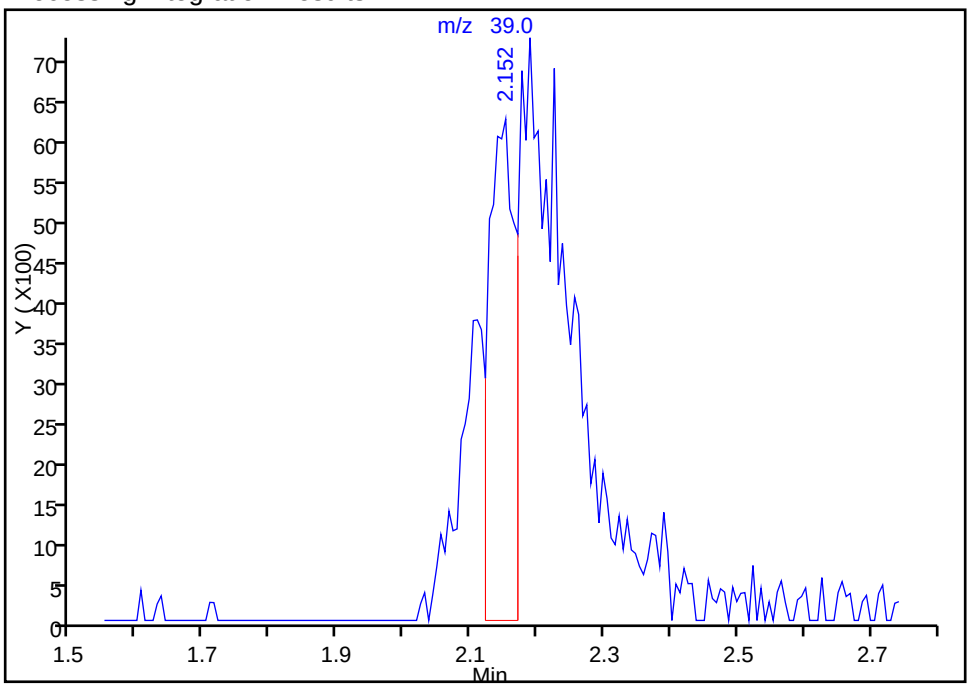
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Butadiene, CAS: 106-99-0

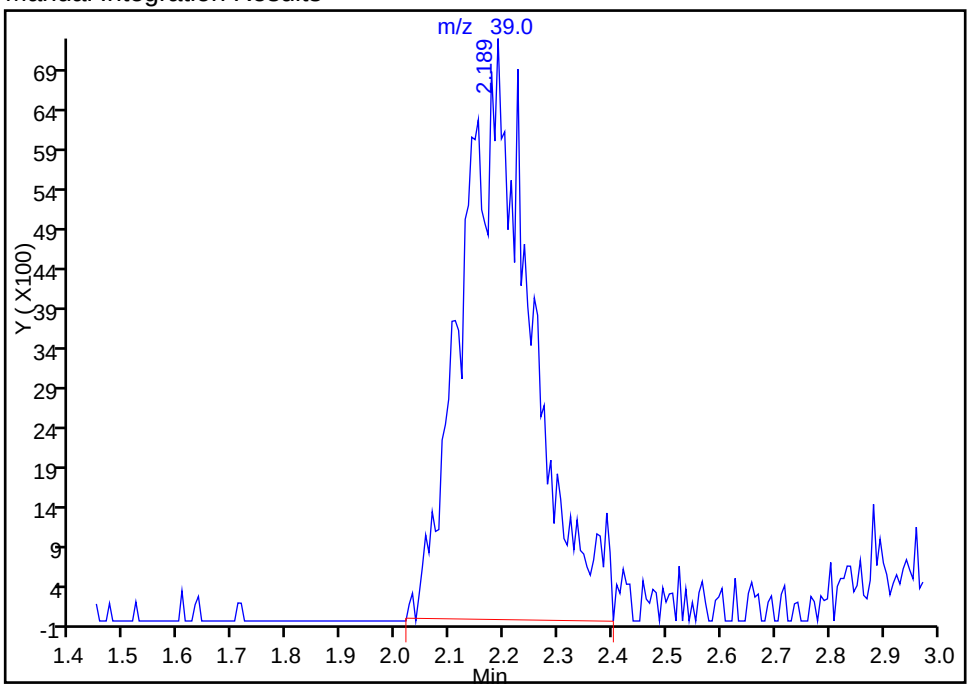
Processing Integration Results

RT: 2.15
Response: 16929
Amount: 40.081527



Manual Integration Results

RT: 2.19
Response: 64497
Amount: 152.7047



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

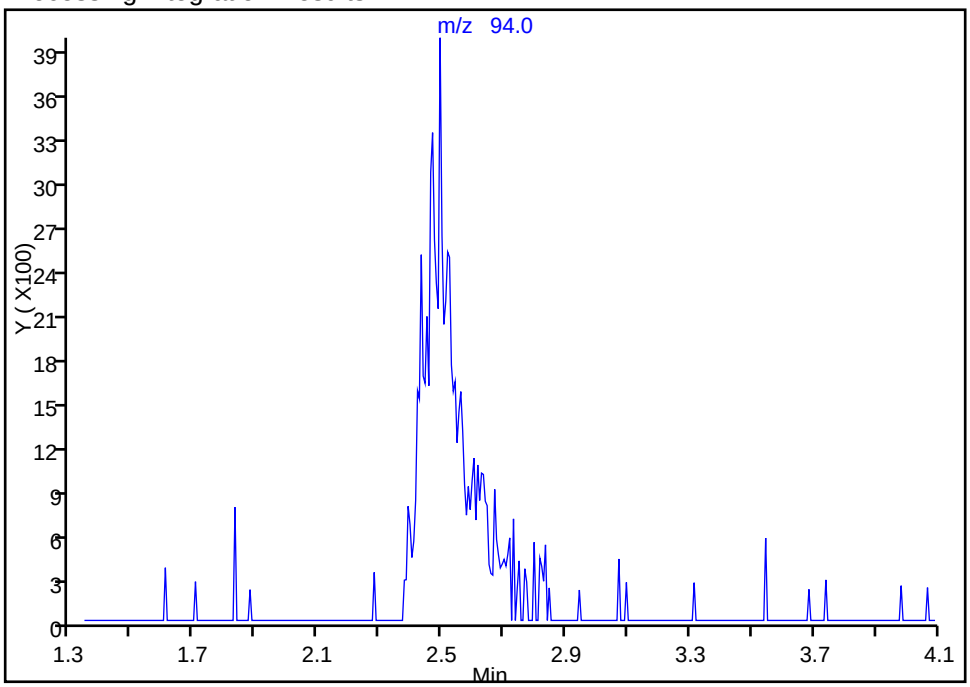
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D
Injection Date: 08-Dec-2014 12:33:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

14 Bromomethane, CAS: 74-83-9

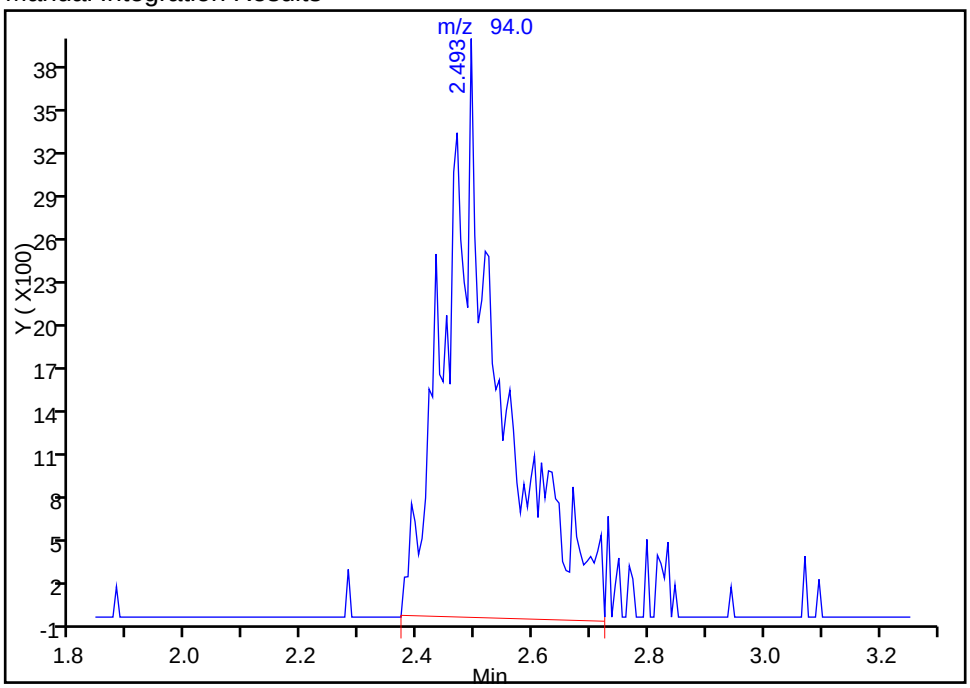
Processing Integration Results

Not Detected
Expected RT: 2.49



Manual Integration Results

RT: 2.49
Response: 26442
Amount: 188.5947



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

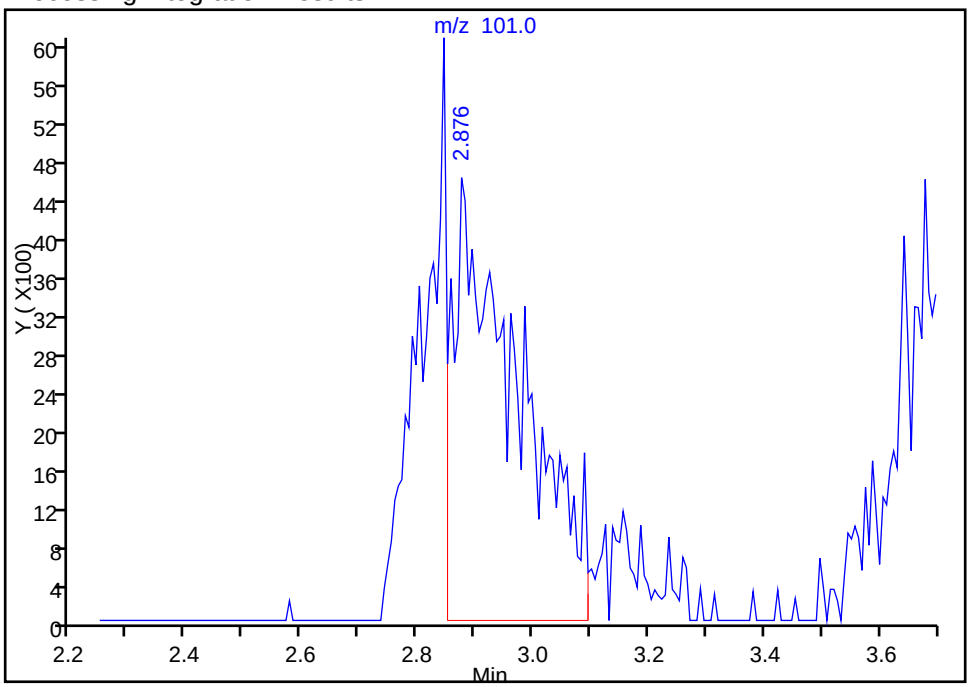
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

17 Trichlorofluoromethane, CAS: 75-69-4

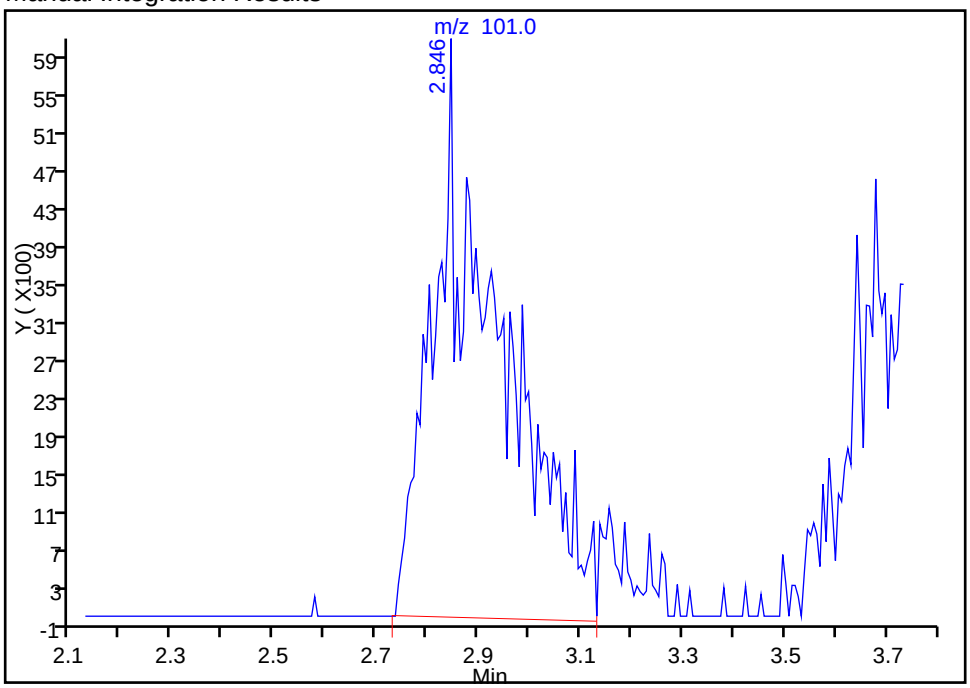
Processing Integration Results

RT: 2.88
Response: 35858
Amount: 99.130770



Manual Integration Results

RT: 2.85
Response: 54203
Amount: 149.8462



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

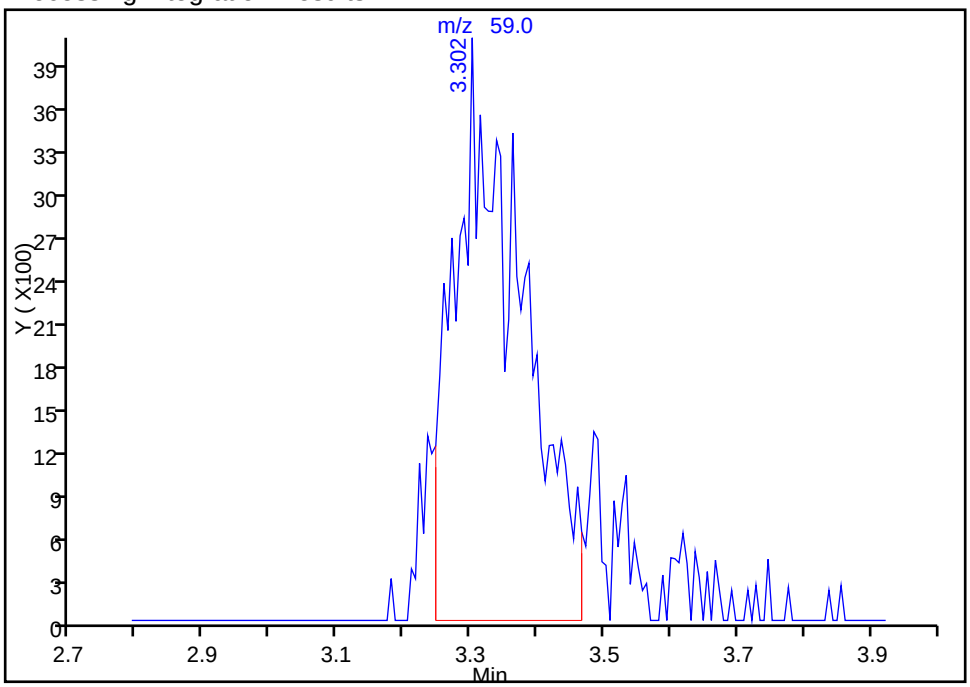
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

19 Ethyl ether, CAS: 60-29-7

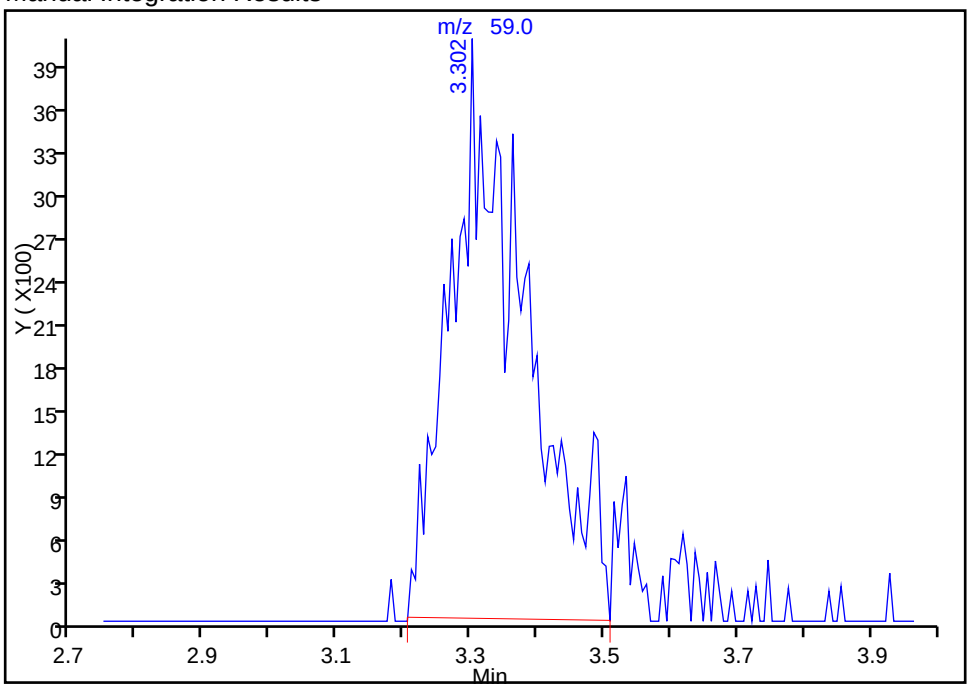
Processing Integration Results

RT: 3.30
Response: 28074
Amount: 173.2343



Manual Integration Results

RT: 3.30
Response: 31265
Amount: 192.9248



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

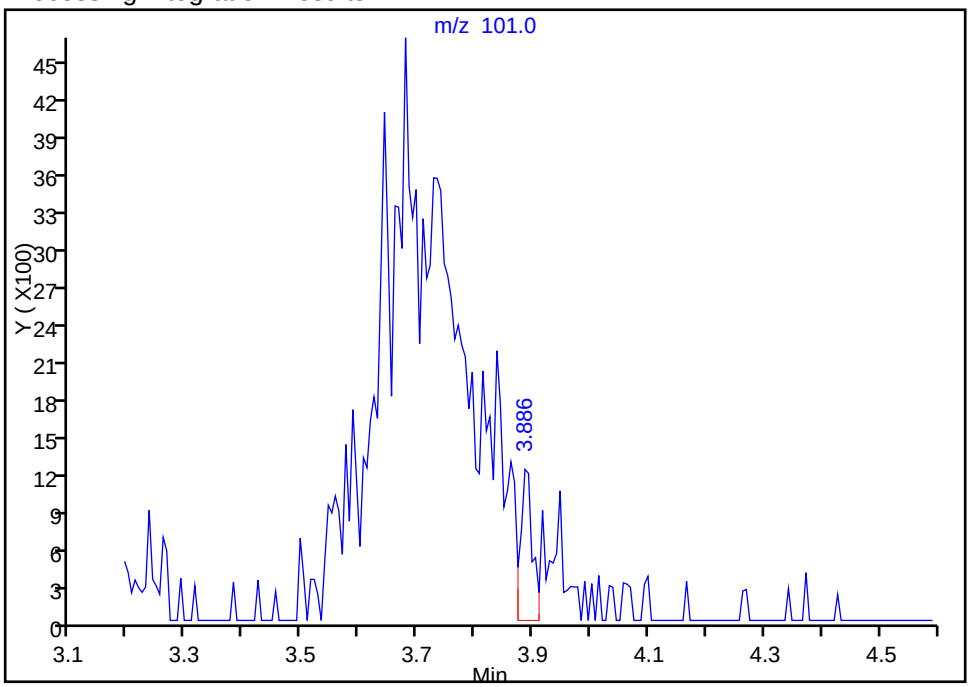
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D
Injection Date: 08-Dec-2014 12:33:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

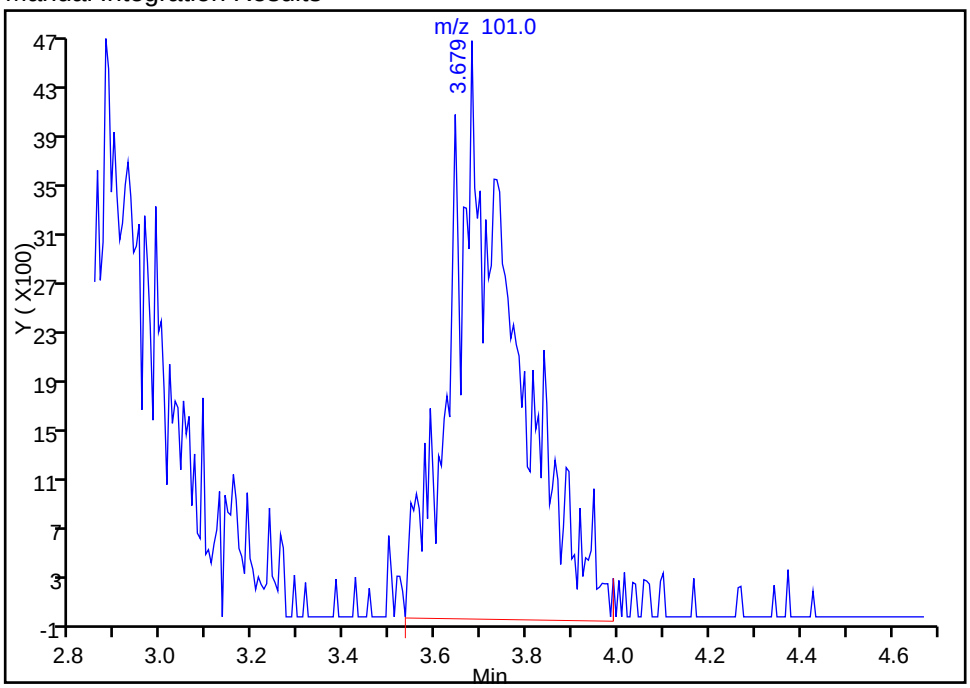
Processing Integration Results

RT: 3.89
Response: 1704
Amount: 8.829681



Manual Integration Results

RT: 3.68
Response: 45000
Amount: 233.1782



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

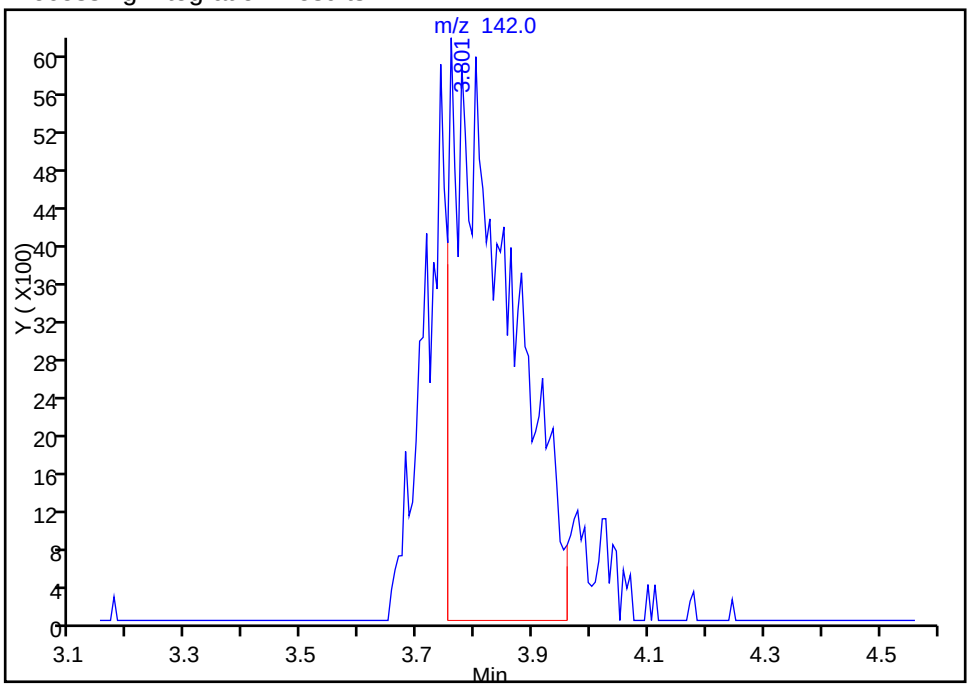
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 Iodomethane, CAS: 74-88-4

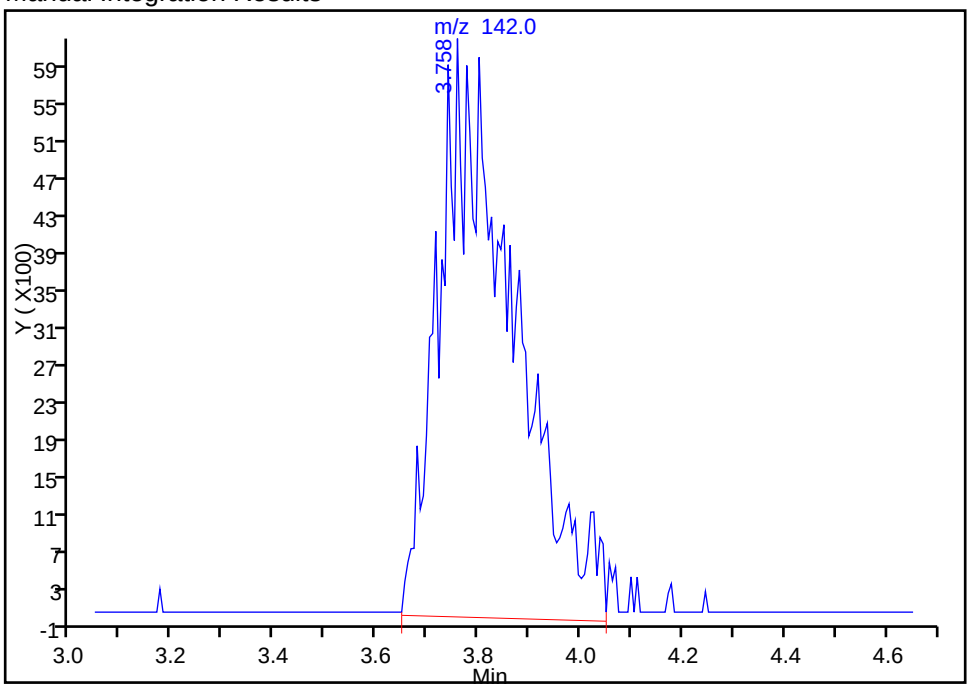
Processing Integration Results

RT: 3.80
Response: 42631
Amount: 157.7630



Manual Integration Results

RT: 3.76
Response: 62128
Amount: 229.9148



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

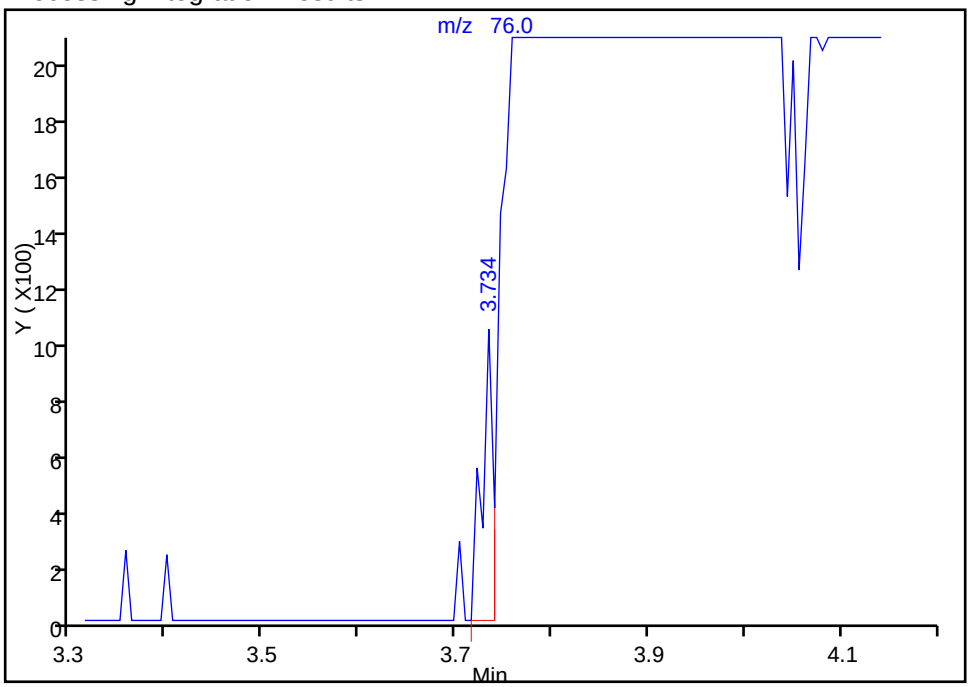
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Carbon disulfide, CAS: 75-15-0

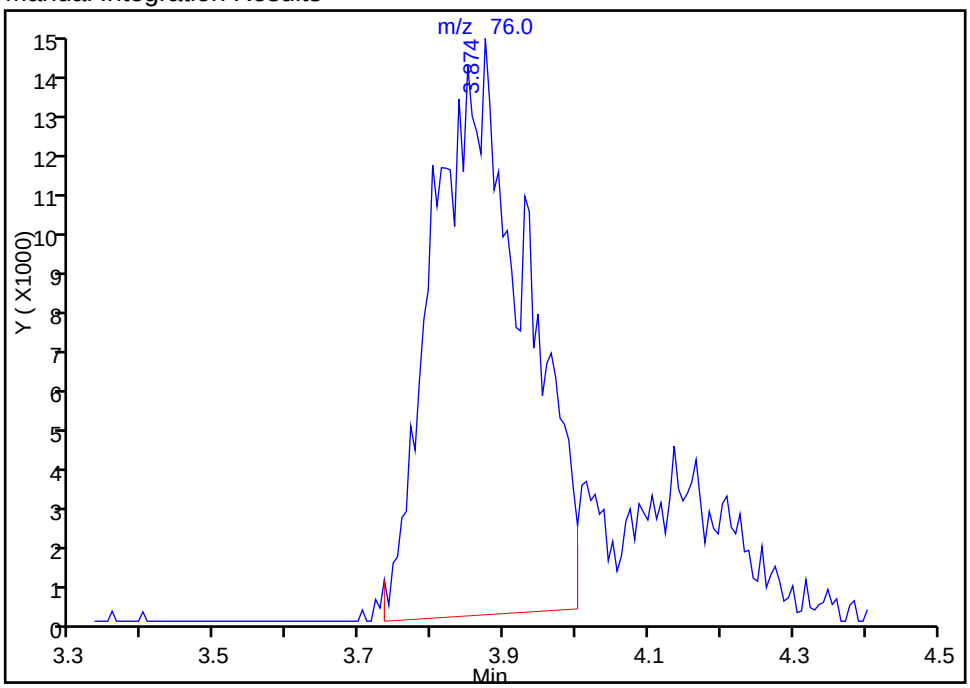
Processing Integration Results

RT: 3.73
Response: 839
Amount: 1.233650



Manual Integration Results

RT: 3.87
Response: 125815
Amount: 184.9960



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

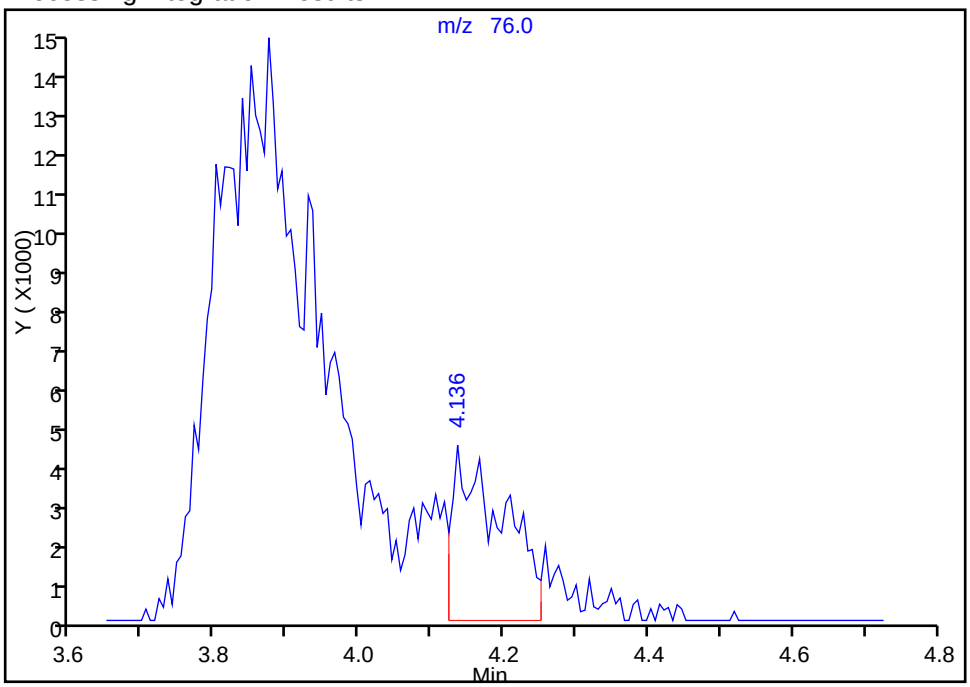
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 3-Chloro-1-propene, CAS: 107-05-1

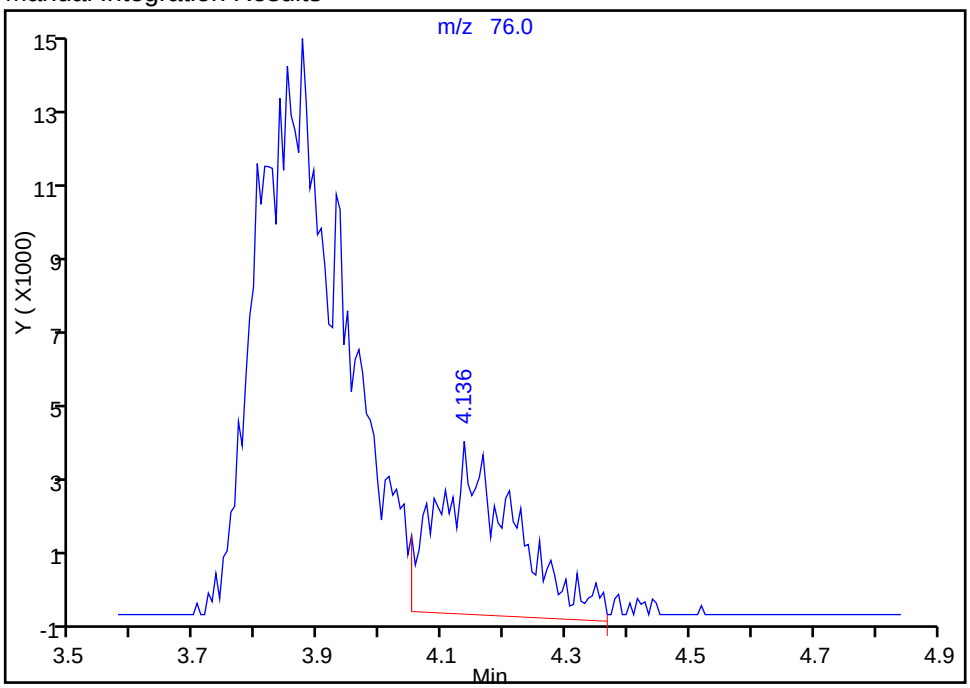
Processing Integration Results

RT: 4.14
Response: 20920
Amount: 101.9563



Manual Integration Results

RT: 4.14
Response: 37052
Amount: 180.5777



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

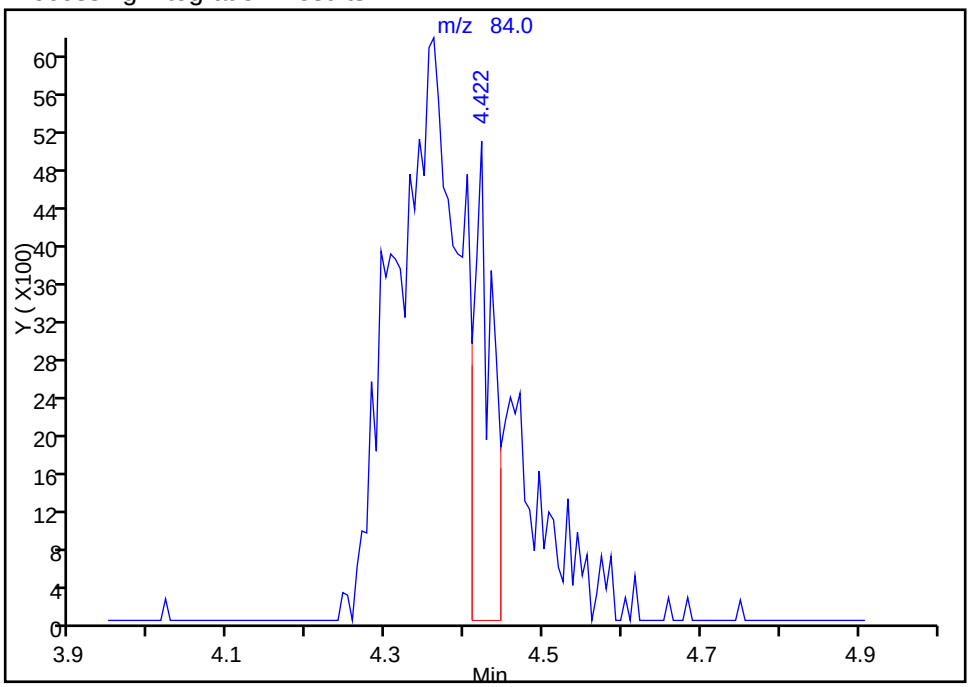
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D
Injection Date: 08-Dec-2014 12:33:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

30 Methylene Chloride, CAS: 75-09-2

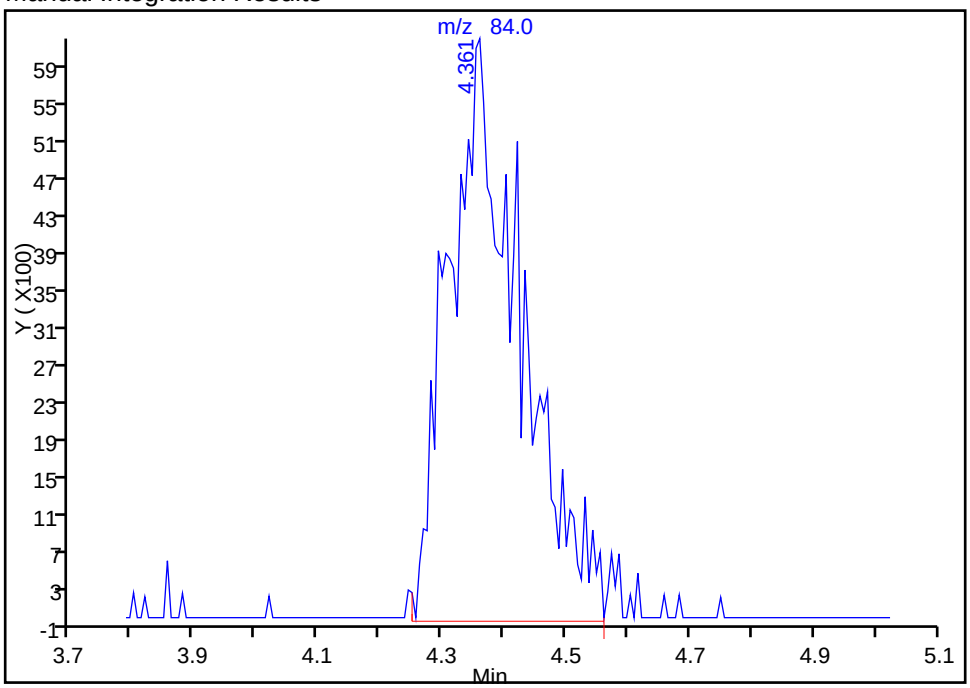
Processing Integration Results

RT: 4.42
Response: 8060
Amount: 32.963996



Manual Integration Results

RT: 4.36
Response: 49840
Amount: 203.8369



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

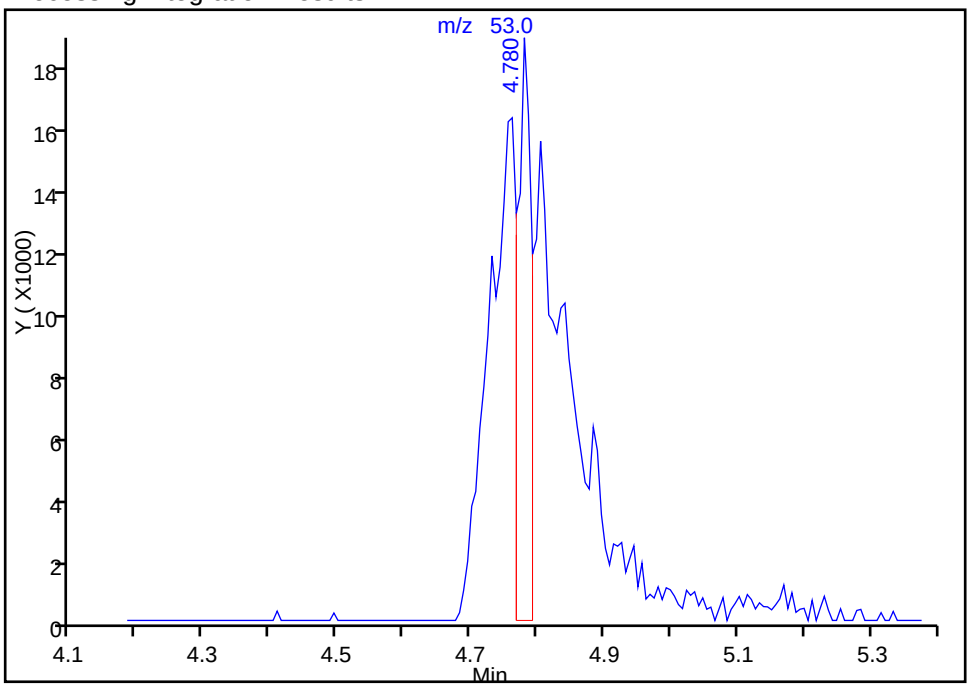
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 Acrylonitrile, CAS: 107-13-1

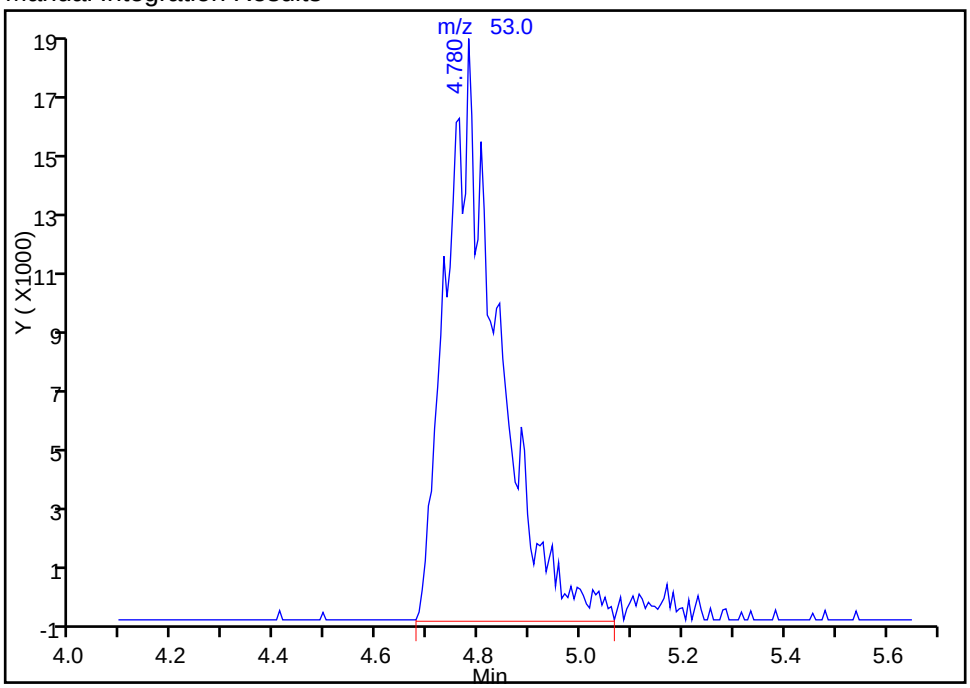
Processing Integration Results

RT: 4.78
Response: 26406
Amount: 435.7938



Manual Integration Results

RT: 4.78
Response: 130219
Amount: 2149.0810



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

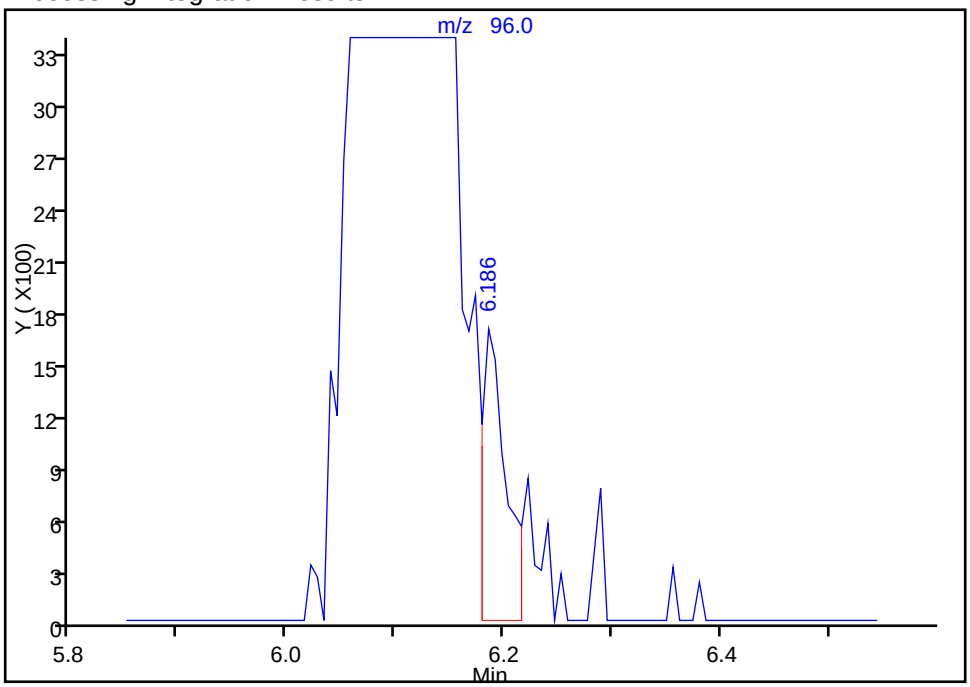
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D
Injection Date: 08-Dec-2014 12:33:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

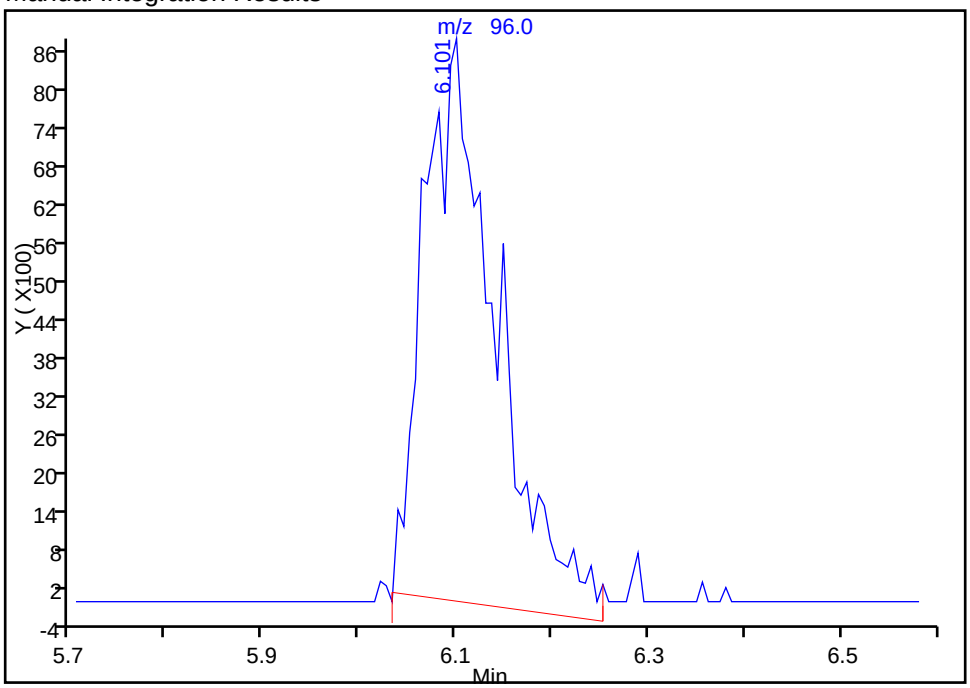
Processing Integration Results

RT: 6.19
Response: 2566
Amount: 10.854764



Manual Integration Results

RT: 6.10
Response: 45769
Amount: 193.6133



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

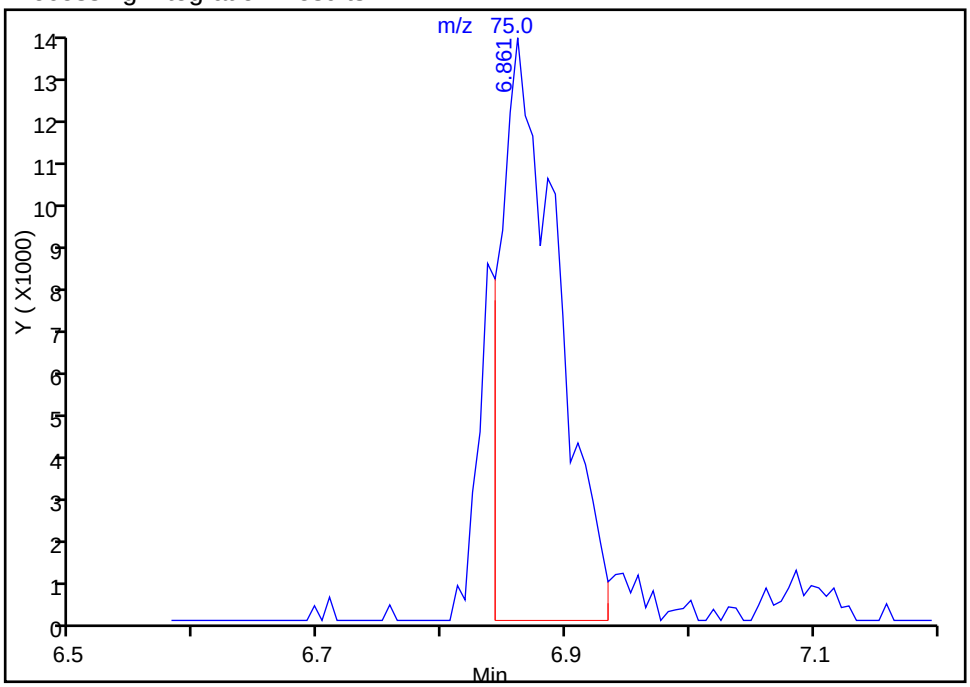
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

53 1,1-Dichloropropene, CAS: 563-58-6

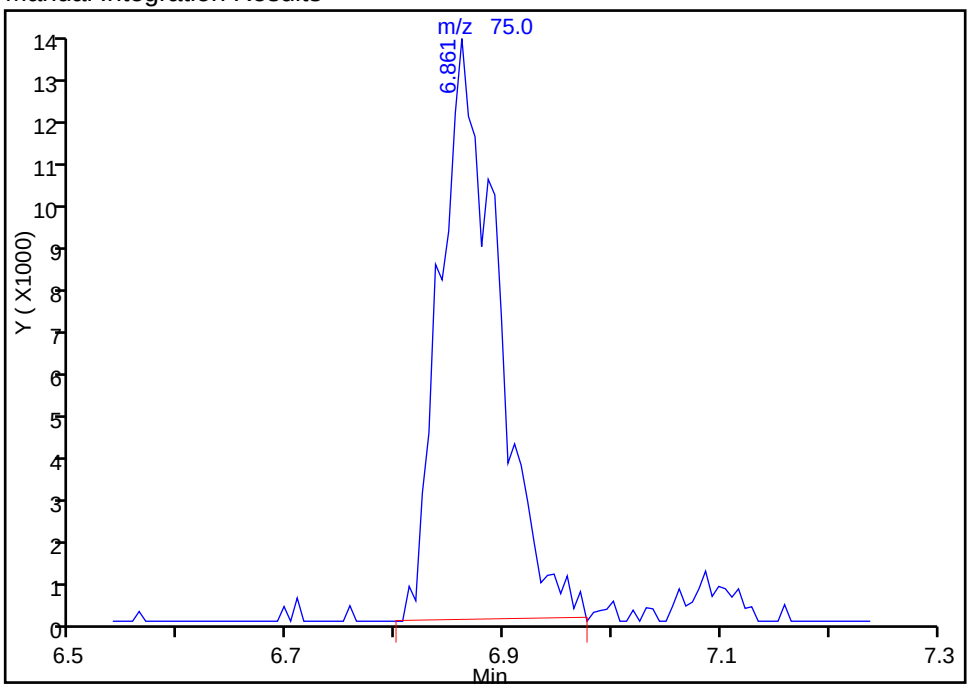
Processing Integration Results

RT: 6.86
Response: 43841
Amount: 159.2130



Manual Integration Results

RT: 6.86
Response: 51313
Amount: 186.3483



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

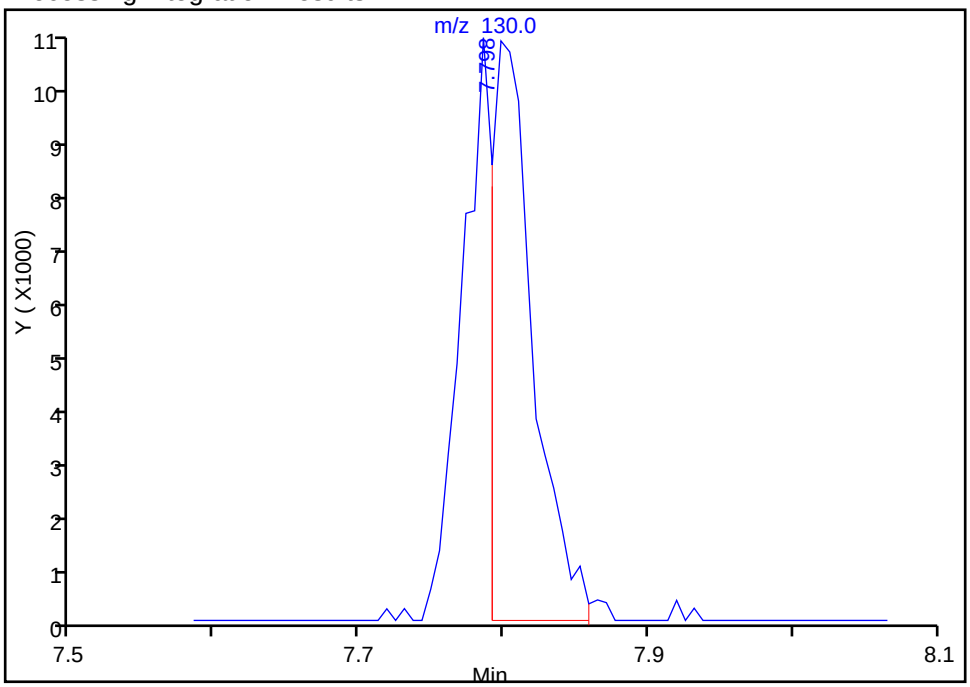
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 Trichloroethene, CAS: 79-01-6

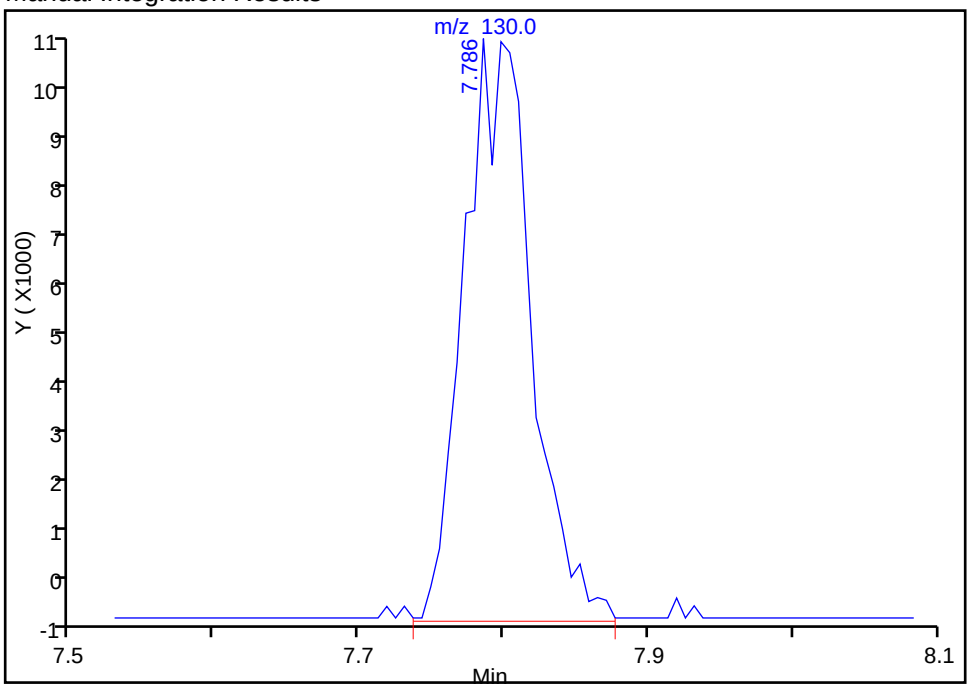
Processing Integration Results

RT: 7.80
Response: 21187
Amount: 126.0477



Manual Integration Results

RT: 7.79
Response: 34788
Amount: 206.9641



Reviewer: journetp, 08-Dec-2014 13:08:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

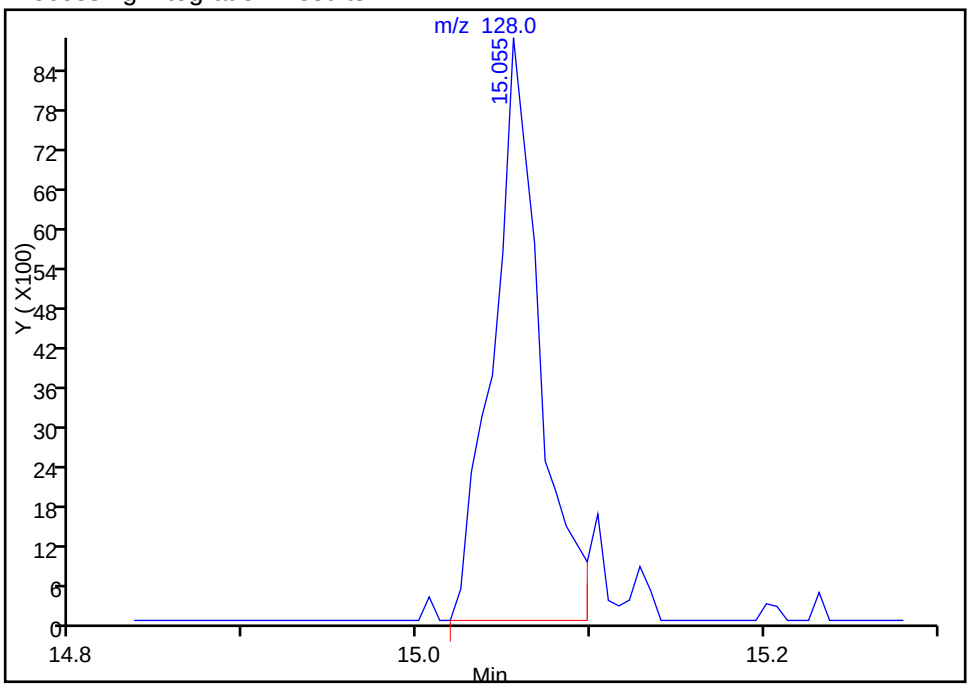
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

116 Naphthalene, CAS: 91-20-3

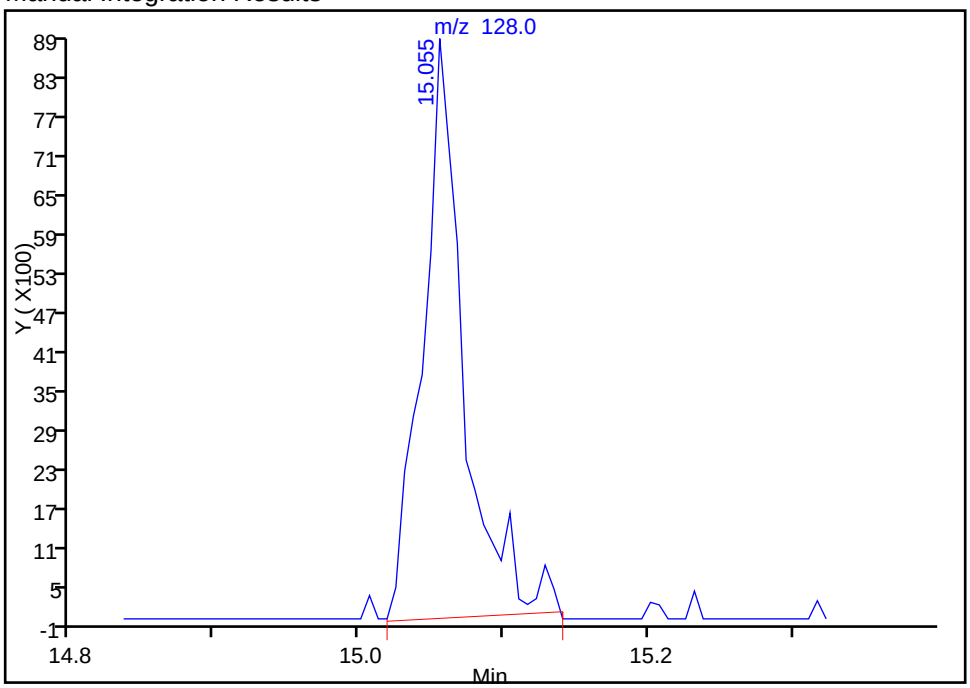
Processing Integration Results

RT: 15.06
Response: 16345
Amount: 140.6282



Manual Integration Results

RT: 15.06
Response: 17422
Amount: 148.2149



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

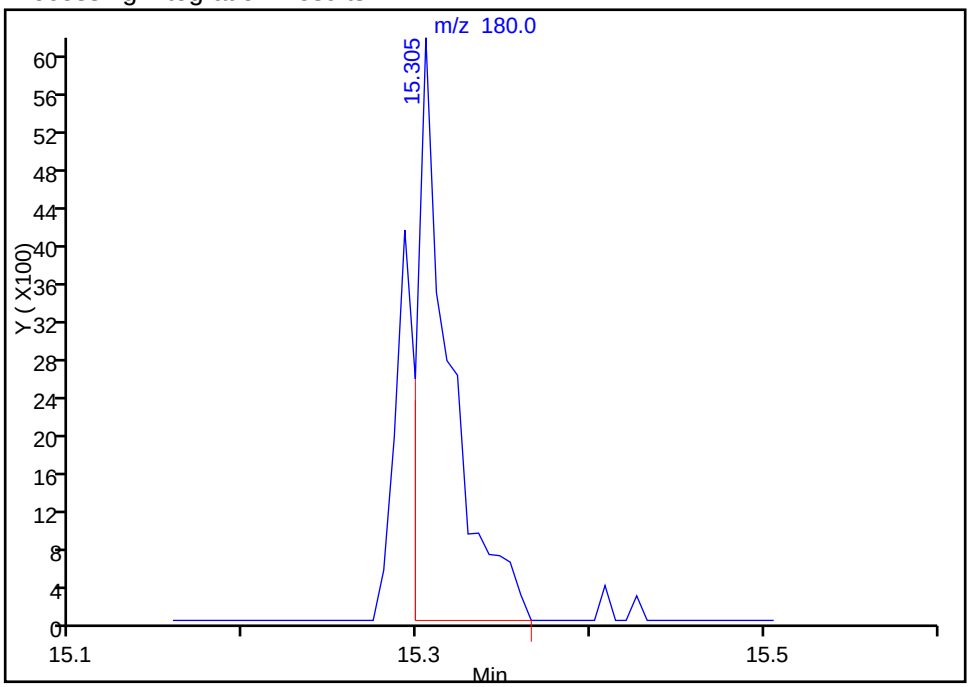
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120803.D				
Injection Date:	08-Dec-2014 12:33:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

117 1,2,3-Trichlorobenzene, CAS: 87-61-6

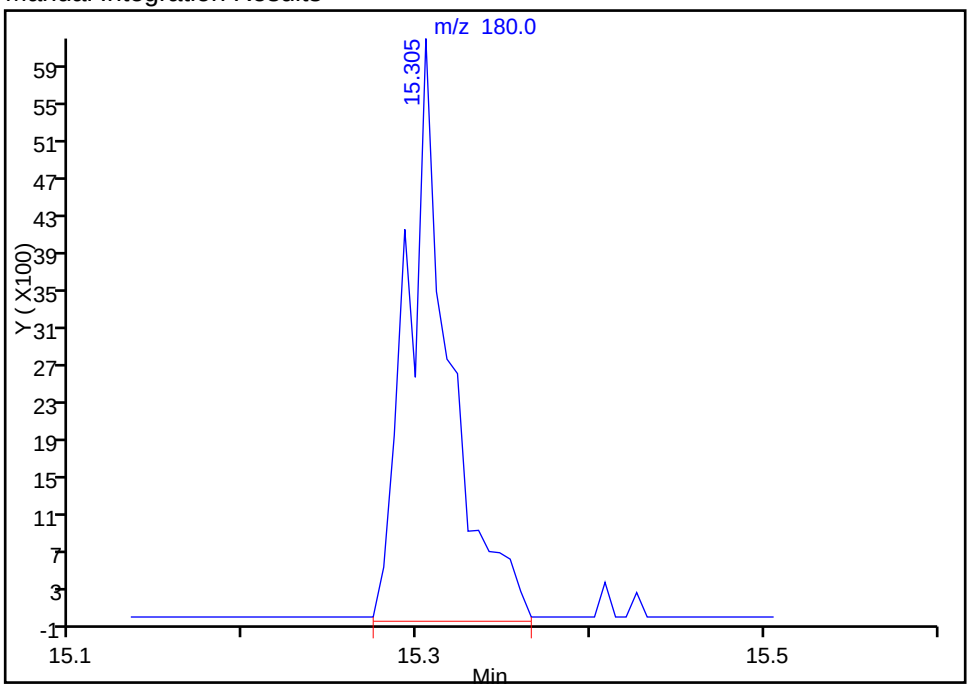
Processing Integration Results

RT: 15.30
Response: 7880
Amount: 166.9857



Manual Integration Results

RT: 15.30
Response: 10545
Amount: 210.5011



Reviewer: journetp, 08-Dec-2014 13:24:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-127589/5 Calibration Date: 12/08/2014 14:36

Instrument ID: CHHP7 Calib Start Date: 10/20/2014 12:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/20/2014 15:38

Lab File ID: 7120805.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
2-Chloroethyl vinyl ether	Ave	0.1502	0.1523		81.1	80.0	1.4	

Report Date: 09-Dec-2014 08:58:07 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120805.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 08-Dec-2014 14:36:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 180-0004755-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_CHHP7*sub8

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:58:06 Calib Date: 20-Oct-2014 15:08:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102008.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 09-Dec-2014 08:57:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.544	4.544	0.000	85	64986	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.403	7.403	0.000	98	172848	250.0	250.0	
* 3 Dioxane-d8 (IS)	96	8.151	8.151	0.000	2	2488	5000.0	5000.0	M
* 4 Chlorobenzene-d5	119	10.469	10.469	0.000	93	38716	250.0	250.0	
* 5 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	94	58977	250.0	250.0	
70 2-Chloroethyl vinyl ether	63	8.632	8.632	0.000	89	42121	400.0	405.5	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

voaW2-clePri_00001 Amount Added: 8.00 Units: uL
VOA8260INT_00025 Amount Added: 10.00 Units: uL

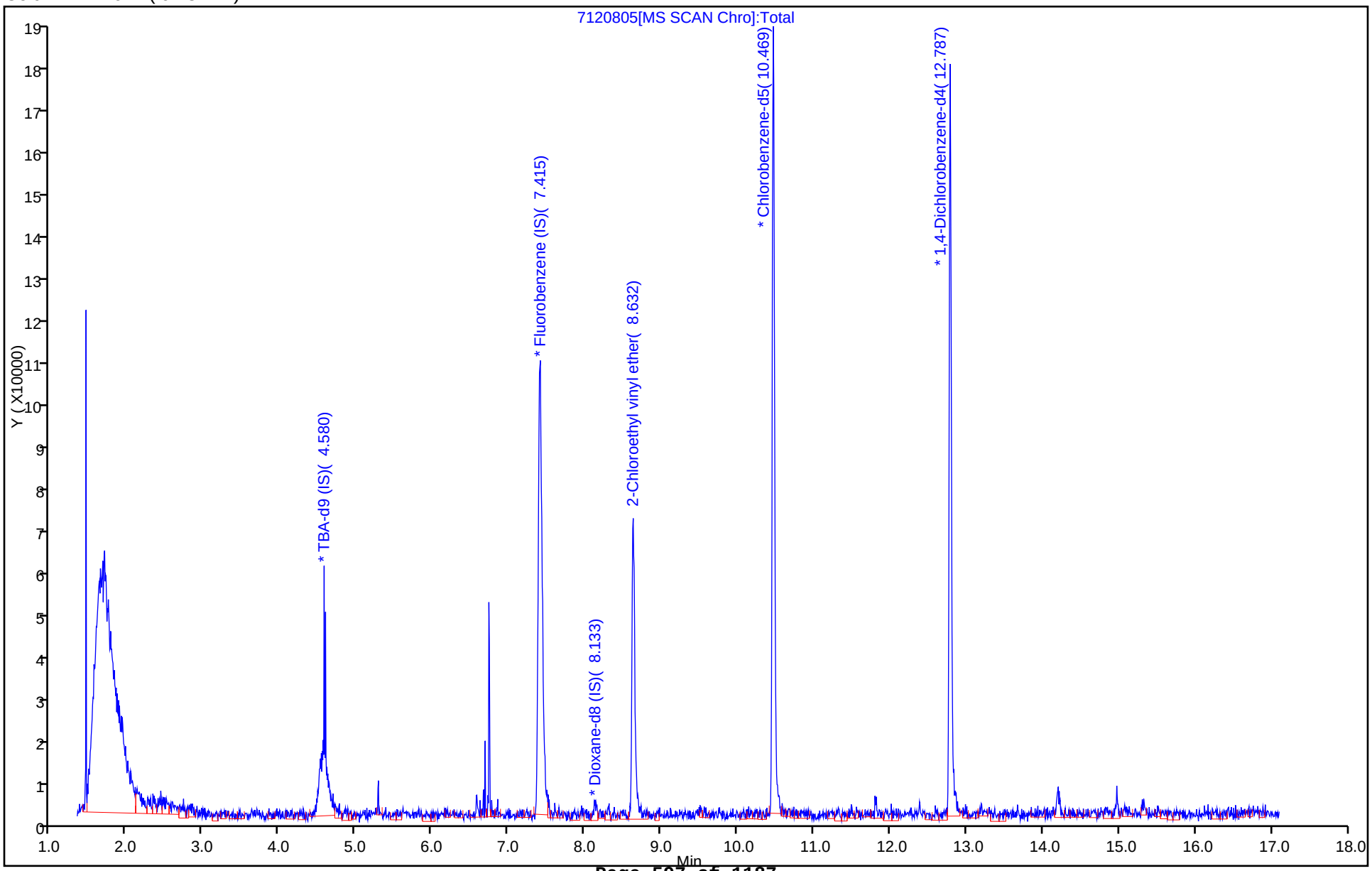
Report Date: 09-Dec-2014 08:58:07 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120805.D

Injection Date:	08-Dec-2014 14:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCV			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

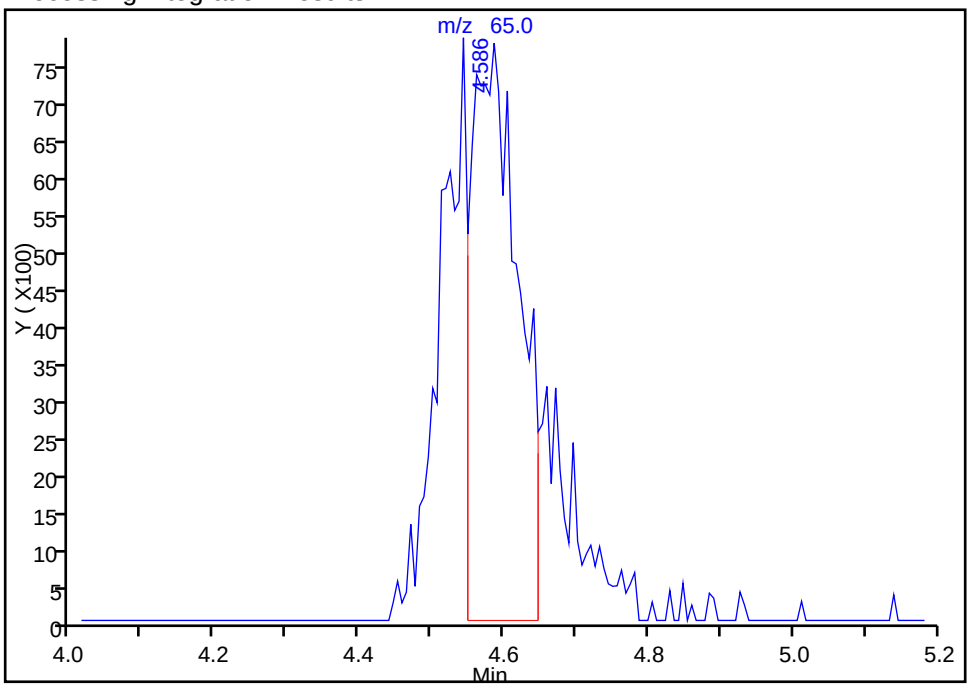
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120805.D
Injection Date: 08-Dec-2014 14:36:30 Instrument ID: CHHP7
Lims ID: CCV
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

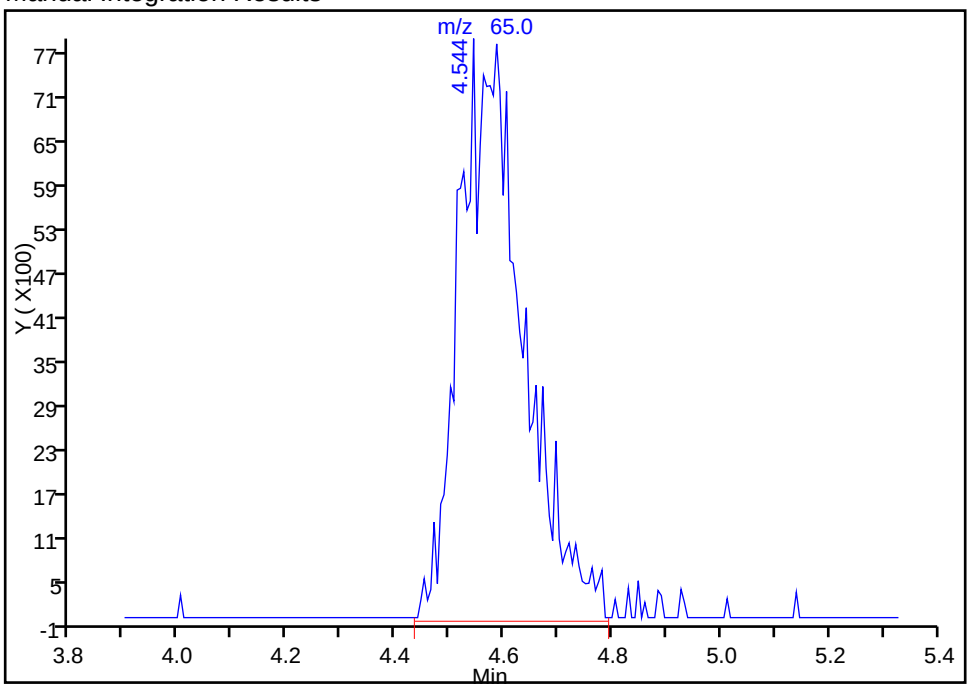
Processing Integration Results

RT: 4.59
Response: 35195
Amount: 5000.0000



Manual Integration Results

RT: 4.54
Response: 64986
Amount: 5000.0000



Reviewer: journetp, 09-Dec-2014 08:52:55
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 20-Oct-2014 11:48:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0003900-001
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 20-Oct-2014 18:03:15 Calib Date: 20-Oct-2014 15:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102009.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK037

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	11.643	11.643	0.000	0	129637	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

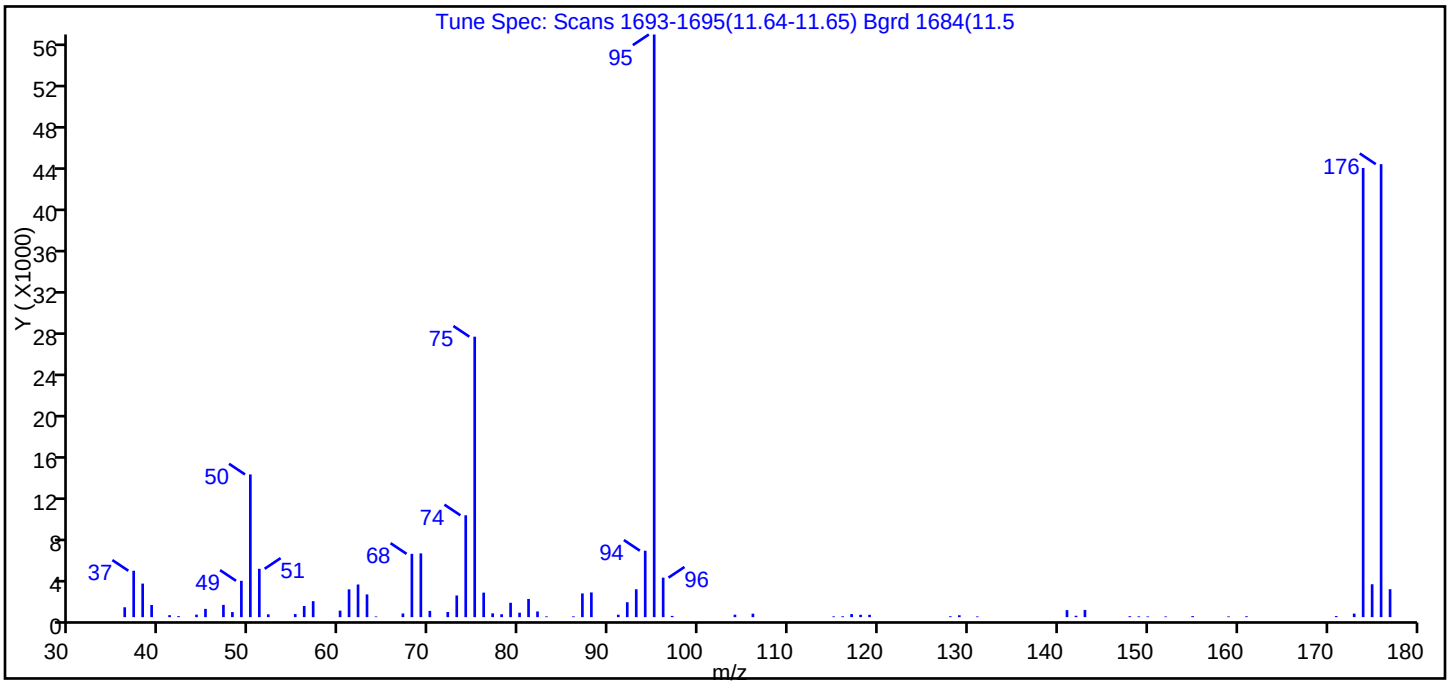
VOABFB50_00055 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102001.D				
Injection Date:	20-Oct-2014 11:48:30	Instrument ID:	CHHP7		
Lims ID:	BFB				
Client ID:					
Operator ID:	034635	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	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	24.50
75	30.00 - 60.00% of mass 95	48.10
96	5.00 - 9.00% of mass 95	6.80
173	Less than 2.00% of mass 174	0.60 (0.80)
174	50.00 - 120.00% of mass 95	77.10
175	5.00 - 9.00% of mass 174	5.60 (7.30)
176	95.00 - 101.00% of mass 174	77.70 (100.80)
177	5.00 - 9.00% of mass 176	4.80 (6.20)

Data File: \\PITCHROM\ChromData\CHHP7\20141020-3900.b\7102001.D\MSVOA_CHHP7.rslt\spectra.d
Injection Date: 20-Oct-2014 11:48:30
Spectrum: Tune Spec: Scans 1693-1695(11.64-11.65) Bgrd 1684(11.5
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	952	62.00	3150	86.00	77	131.00	70
37.00	4477	63.00	2191	87.00	2289	141.00	678
38.00	3237	64.00	67	88.00	2382	142.00	135
39.00	1174	67.00	354	91.00	230	143.00	696
41.00	190	68.00	6107	92.00	1440	148.00	89
42.00	95	69.00	6152	93.00	2690	149.00	76
44.00	239	70.00	605	94.00	6410	150.00	67
45.00	798	72.00	500	95.00	56224	152.00	67
47.00	1183	73.00	2090	96.00	3812	155.00	100
48.00	488	74.00	9827	97.00	120	159.00	72
49.00	3506	75.00	27064	104.00	236	161.00	84
50.00	13770	76.00	2365	106.00	336	171.00	106
51.00	4666	77.00	368	115.00	74	173.00	341
52.00	273	78.00	280	116.00	83	174.00	43344
55.00	297	79.00	1385	117.00	297	175.00	3175
56.00	1075	80.00	427	118.00	229	176.00	43712
57.00	1545	81.00	1755	119.00	225	177.00	2696
60.00	629	82.00	547	128.00	81		
61.00	2684	83.00	76	129.00	182		

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102101.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Oct-2014 08:37:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0003919-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\MSVOA_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	22-Oct-2014 09:27:41	Calib Date:	21-Oct-2014 18:28:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK035				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	11.637	11.637	0.000	0	118716	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

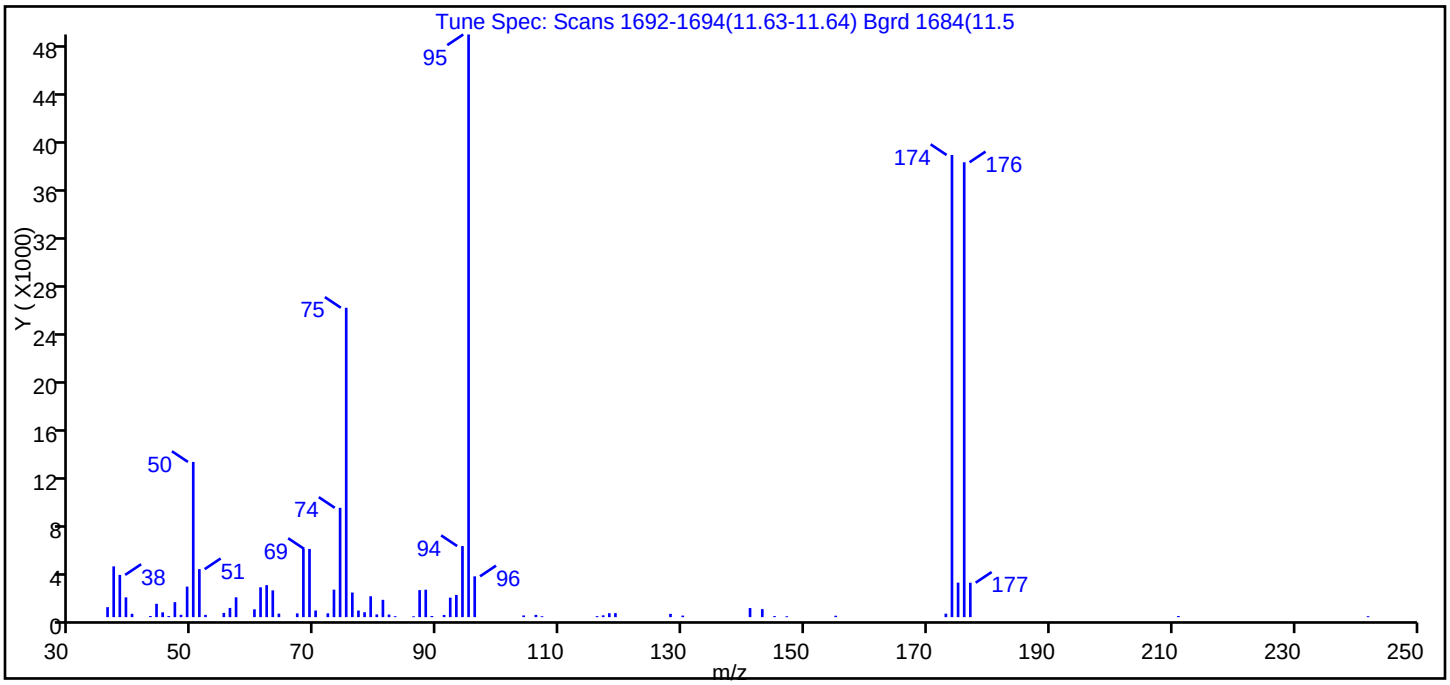
VOABFB50_00055 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102101.D
Injection Date: 21-Oct-2014 08:37:30 Instrument ID: CHHP7
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_CHHP7 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	26.60
75	30.00 - 60.00% of mass 95	53.10
96	5.00 - 9.00% of mass 95	7.00
173	Less than 2.00% of mass 174	0.60 (0.80)
174	50.00 - 120.00% of mass 95	79.30
175	5.00 - 9.00% of mass 174	5.90 (7.50)
176	95.00 - 101.00% of mass 174	78.10 (98.40)
177	5.00 - 9.00% of mass 176	5.90 (7.60)

Data File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102101.D\MSVOA_CHHP7.rslt\spectra.d
Injection Date: 21-Oct-2014 08:37:30
Spectrum: Tune Spec: Scans 1692-1694(11.63-11.64) Bgrd 1684(11.5
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	828	60.00	648	81.00	1433	118.00	323
37.00	4196	61.00	2467	82.00	215	119.00	332
38.00	3491	62.00	2647	83.00	78	128.00	273
39.00	1638	63.00	2213	86.00	71	130.00	128
40.00	278	64.00	292	87.00	2235	141.00	751
43.00	96	67.00	312	88.00	2267	143.00	662
44.00	1104	68.00	5638	89.00	96	145.00	88
45.00	398	69.00	5638	91.00	181	147.00	75
46.00	89	70.00	549	92.00	1611	155.00	117
47.00	1239	72.00	317	93.00	1833	173.00	289
48.00	191	73.00	2274	94.00	5876	174.00	38192
49.00	2524	74.00	9036	95.00	48152	175.00	2852
50.00	12829	75.00	25568	96.00	3373	176.00	37592
51.00	3968	76.00	2032	104.00	140	177.00	2846
52.00	190	77.00	546	106.00	188	211.00	94
55.00	351	78.00	405	107.00	74	242.00	78
56.00	761	79.00	1726	116.00	85		
57.00	1640	80.00	226	117.00	150		

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120801.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 08-Dec-2014 10:12:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: bfb
Misc. Info.: 180-0004748-001
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:43:18 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 08-Dec-2014 11:13:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 9 BFB	95	11.636	11.636	0.000	0	69676	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

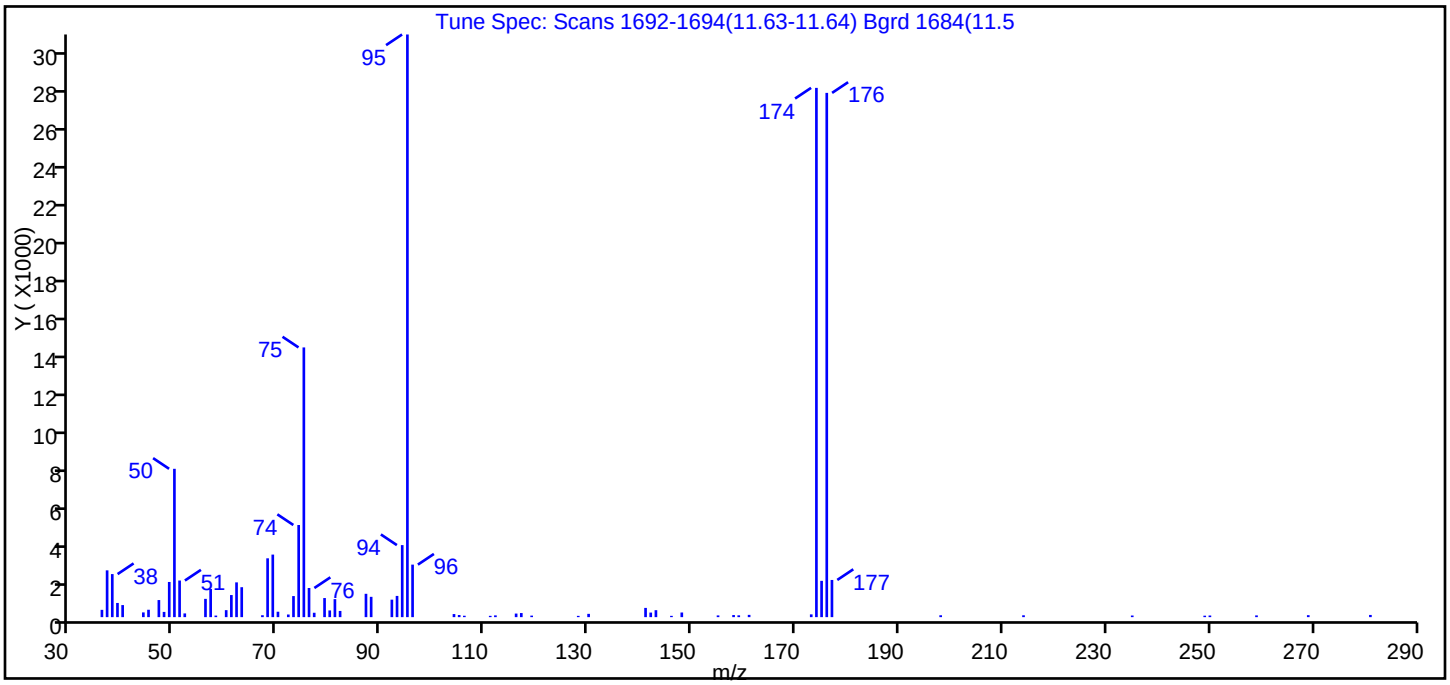
VOABFB50_00057 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120801.D				
Injection Date:	08-Dec-2014 10:12:30	Instrument ID:	CHHP7		
Lims ID:	BFB				
Client ID:					
Operator ID:	034635	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	25.5
75	30 to 60% of m/z 95	46.3
96	5 to 9% of m/z 95	9.0
173	Less than 2% of m/z 174	0.5 (0.5)
174	50 to 120% of m/z 95	90.8
175	5 to 9% of m/z 174	6.2 (6.9)
176	Greater than 95% but less than 101% of m/z 174	90.0 (99.1)
177	5 to 9% of m/z 176	6.4 (7.1)

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120801.D\MSVOA_CHHP7.rslt\spectra.d
Injection Date: 08-Dec-2014 10:12:30
Spectrum: Tune Spec: Scans 1692-1694(11.63-11.64) Bgrd 1684(11.5
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 73

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	385	63.00	1579	94.00	3799	158.00	111
37.00	2468	67.00	101	95.00	30728	159.00	96
38.00	2271	68.00	3103	96.00	2770	161.00	120
39.00	748	69.00	3299	104.00	163	173.00	146
40.00	636	70.00	286	105.00	112	174.00	27912
44.00	250	72.00	139	106.00	74	175.00	1915
45.00	390	73.00	1111	111.00	69	176.00	27648
47.00	901	74.00	4859	112.00	93	177.00	1961
48.00	276	75.00	14224	116.00	189	198.00	99
49.00	1855	76.00	1537	117.00	216	214.00	98
50.00	7823	77.00	231	119.00	81	235.00	86
51.00	1931	79.00	1007	128.00	68	249.00	77
52.00	196	80.00	354	130.00	174	250.00	86
56.00	964	81.00	950	141.00	487	259.00	92
57.00	1483	82.00	327	142.00	241	269.00	104
58.00	83	87.00	1231	143.00	367	281.00	116
60.00	369	88.00	1071	146.00	69		
61.00	1165	92.00	922	148.00	245		
62.00	1834	93.00	1119	155.00	91		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-127589/6

Matrix: Water Lab File ID: 7120806.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 15:06

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.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.93
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.2
75-34-3	1,1-Dichloroethane	ND		5.0	1.0
75-35-4	1,1-Dichloroethene	ND		5.0	1.1
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.68
107-06-2	1,2-Dichloroethane	ND		5.0	0.96
78-87-5	1,2-Dichloropropane	ND		5.0	1.3
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.51
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.53
110-75-8	2-Chloroethyl vinyl ether	ND		10	1.9
107-02-8	Acrolein	ND		100	5.7
107-13-1	Acrylonitrile	ND		50	9.0
71-43-2	Benzene	ND		5.0	0.99
75-25-2	Bromoform	ND		5.0	1.1
74-83-9	Bromomethane	ND		5.0	1.6
56-23-5	Carbon tetrachloride	ND		5.0	1.1
108-90-7	Chlorobenzene	ND		5.0	0.53
67-66-3	Chloroform	ND		5.0	1.0
74-87-3	Chloromethane	ND		5.0	1.4
124-48-1	Chlorodibromomethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.73
75-27-4	Dichlorobromomethane	ND		5.0	0.93
100-41-4	Ethylbenzene	ND		5.0	0.62
75-09-2	Methylene Chloride	ND		5.0	1.1
127-18-4	Tetrachloroethene	ND		5.0	0.82
108-88-3	Toluene	ND		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.58
79-01-6	Trichloroethene	ND		5.0	0.80
75-01-4	Vinyl chloride	ND		5.0	1.3
75-00-3	Chloroethane	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-127589/6

Matrix: Water Lab File ID: 7120806.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 15:06

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.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	74		62-123
460-00-4	4-Bromofluorobenzene (Surr)	80		75-120
1868-53-7	Dibromofluoromethane (Surr)	82		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120806.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 08-Dec-2014 15:06:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0004755-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:32:51 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 08-Dec-2014 15:46:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.586	4.586	0.000	83	59841	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.421	7.403	0.018	98	296770	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.475	10.469	0.006	94	63288	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.793	12.787	0.006	95	77665	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.703	6.666	0.037	93	60390	250.0	204.2	M
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.031	0.019	90	69148	250.0	185.3	
$ 7 Toluene-d8 (Surr)	98	9.045	9.039	0.006	95	272204	250.0	250.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.637	0.001	93	80734	250.0	200.5	
10 Dichlorodifluoromethane	85		1.891					ND	
11 Chloromethane	50		2.000					ND	
12 Vinyl chloride	62		2.171					ND	
13 Butadiene	39		2.189					ND	
14 Bromomethane	94		2.493					ND	
15 Chloroethane	64		2.603					ND	
16 Dichlorofluoromethane	67		2.840					ND	
17 Trichlorofluoromethane	101		2.846					ND	
19 Ethyl ether	59		3.302					ND	
21 Acrolein	56		3.460					ND	
20 1,1-Dichloroethene	96		3.558					ND	
22 1,1,2-Trichloro-1,2,2-trif	101		3.679					ND	
25 Acetone	43		3.728					ND	
23 Iodomethane	142		3.758					ND	
24 Carbon disulfide	76		3.874					ND	
18 Ethanol	45		4.124					ND	
26 3-Chloro-1-propene	76		4.136					ND	
27 Acetonitrile	40		4.233					ND	
29 Methyl acetate	43		4.269					ND	
30 Methylene Chloride	84		4.361					ND	
34 2-Methyl-2-propanol	59		4.744					ND	
32 Acrylonitrile	53		4.780					ND	
31 trans-1,2-Dichloroethene	96		4.787					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 Methyl tert-butyl ether	73		4.847					ND	
35 Hexane	57		5.152					ND	
36 1,1-Dichloroethane	63		5.346					ND	
38 Vinyl acetate	43		5.468					ND	
37 2-Chloro-1,3-butadiene	53		5.505					ND	
28 Isopropyl alcohol	45		5.529					ND	
39 Isopropyl ether	45		5.529					ND	
40 Tert-butyl ethyl ether	59		5.973					ND	
41 2,2-Dichloropropane	77		6.094					ND	
42 cis-1,2-Dichloroethene	96		6.101					ND	
44 2-Butanone (MEK)	43		6.155					ND	
45 Propionitrile	54		6.253					ND	
43 Ethyl acetate	43		6.265					ND	
47 Chlorobromomethane	128		6.368					ND	
46 Methacrylonitrile	41		6.405					ND	
49 Tetrahydrofuran	42		6.459					ND	
48 Chloroform	83		6.490					ND	
50 1,1,1-Trichloroethane	97		6.685					ND	
51 Cyclohexane	56		6.739					ND	
52 Carbon tetrachloride	117		6.861					ND	
53 1,1-Dichloropropene	75		6.861					ND	
57 Isobutyl alcohol	41		7.086					ND	
54 Benzene	78		7.092					ND	
55 1,2-Dichloroethane	62		7.117					ND	
56 Isooctane	57		7.220					ND	
59 Tert-amyl methyl ether	73		7.257					ND	
58 n-Heptane	43		7.409					ND	
60 Trichloroethene	130		7.786					ND	
61 n-Butanol	56		7.786					ND	
62 Ethyl acrylate	55		7.932					ND	
63 Methylcyclohexane	83		7.986					ND	
64 1,2-Dichloropropane	63		8.017					ND	
66 Dibromomethane	93		8.151					ND	
65 Methyl methacrylate	69		8.170					ND	
67 1,4-Dioxane	88		8.181					ND	
68 Dichlorobromomethane	83		8.309					ND	
70 2-Nitropropane	41		8.559					ND	
69 2-Chloroethyl vinyl ether	63		8.632					ND	
71 cis-1,3-Dichloropropene	75		8.765					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.935					ND	
73 Toluene	91		9.106					ND	
74 trans-1,3-Dichloropropene	75		9.325					ND	
75 Ethyl methacrylate	69		9.422					ND	
76 1,1,2-Trichloroethane	97		9.501					ND	
77 Tetrachloroethene	164		9.641					ND	
78 1,3-Dichloropropane	76		9.665					ND	
79 2-Hexanone	43		9.757					ND	
80 n-Butyl acetate	43	9.921	9.885	0.036	1	183			NC
81 Chlorodibromomethane	129		9.897					ND	
82 Ethylene Dibromide	107		10.012					ND	
83 Chlorobenzene	112		10.499					ND	
84 1,1,1,2-Tetrachloroethane	131		10.572					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 Ethylbenzene	106		10.602					ND	
86 m-Xylene & p-Xylene	106		10.718					ND	
87 4-Chlorobenzotrifluoride	180		10.744					ND	
88 o-Xylene	106		11.113					ND	
89 Styrene	104		11.126					ND	
90 Bromoform	173		11.308					ND	
91 Isopropylbenzene	105		11.478					ND	
92 Cyclohexanone	55		11.576					ND	
93 1,1,2,2-Tetrachloroethane	83		11.770					ND	
94 Bromobenzene	156		11.783					ND	
95 1,2,3-Trichloropropane	110		11.819					ND	
96 trans-1,4-Dichloro-2-buten	53		11.825					ND	
97 N-Propylbenzene	120		11.886					ND	
98 2-Chlorotoluene	126		11.977					ND	
99 1,3,5-Trimethylbenzene	105		12.062					ND	
100 4-Chlorotoluene	126		12.087					ND	
101 tert-Butylbenzene	119		12.391					ND	
102 Pentachloroethane	167		12.410					ND	
103 1,2,4-Trimethylbenzene	105		12.440					ND	
104 sec-Butylbenzene	105		12.610					ND	
105 1,3-Dichlorobenzene	146		12.725					ND	
106 4-Isopropyltoluene	119		12.750					ND	
107 1,4-Dichlorobenzene	146		12.817					ND	
108 1,2,3-Trimethylbenzene	105		12.860					ND	
109 Benzyl chloride	91		12.945					ND	
110 n-Butylbenzene	91		13.163					ND	
111 1,2-Dichlorobenzene	146		13.188					ND	
112 1,2-Dibromo-3-Chloropropan	75		13.960					ND	
113 1,3,5-Trichlorobenzene	180	14.210	14.180	0.030	1	269			NC
114 1,2,4-Trichlorobenzene	180		14.806					ND	
115 Hexachlorobutadiene	225		14.964					ND	
116 Naphthalene	128		15.055					ND	
117 1,2,3-Trichlorobenzene	180		15.305					ND	
118 2-Methylnaphthalene	142		16.504					ND	
123 1,2-dichloro-4-(trifluorom	214		0.000					ND	
121 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
126 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
125 2,4,5-Trichlorotoluene	159		0.000					ND	
127 2,5-Dichlorobenzotrifluori	214		0.000					ND	
122 2,3,6-Trichlorotoluene	159		0.000					ND	
120 3-Chlorotoluene	126		0.000					ND	
128 3-Chlorobenzotrifluoride	180		0.000					ND	
119 2-Chlorobenzotrifluoride	180		0.000					ND	
124 2,4-Dichloro-1-(triflourom	214		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 129 Xylenes, Total	106		1.000					ND	
S 131 1,3-Dichloropropene, Total	1		0.000					ND	
T 134 Tetrahydrofuran TIC	42		0.000					ND	
T 133 Methyl n-amyl ketone TIC	43		0.000					ND	
T 132 Mesityl oxide TIC	83		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00025	Amount Added:	10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added:	10.00	Units: uL	Run Reagent

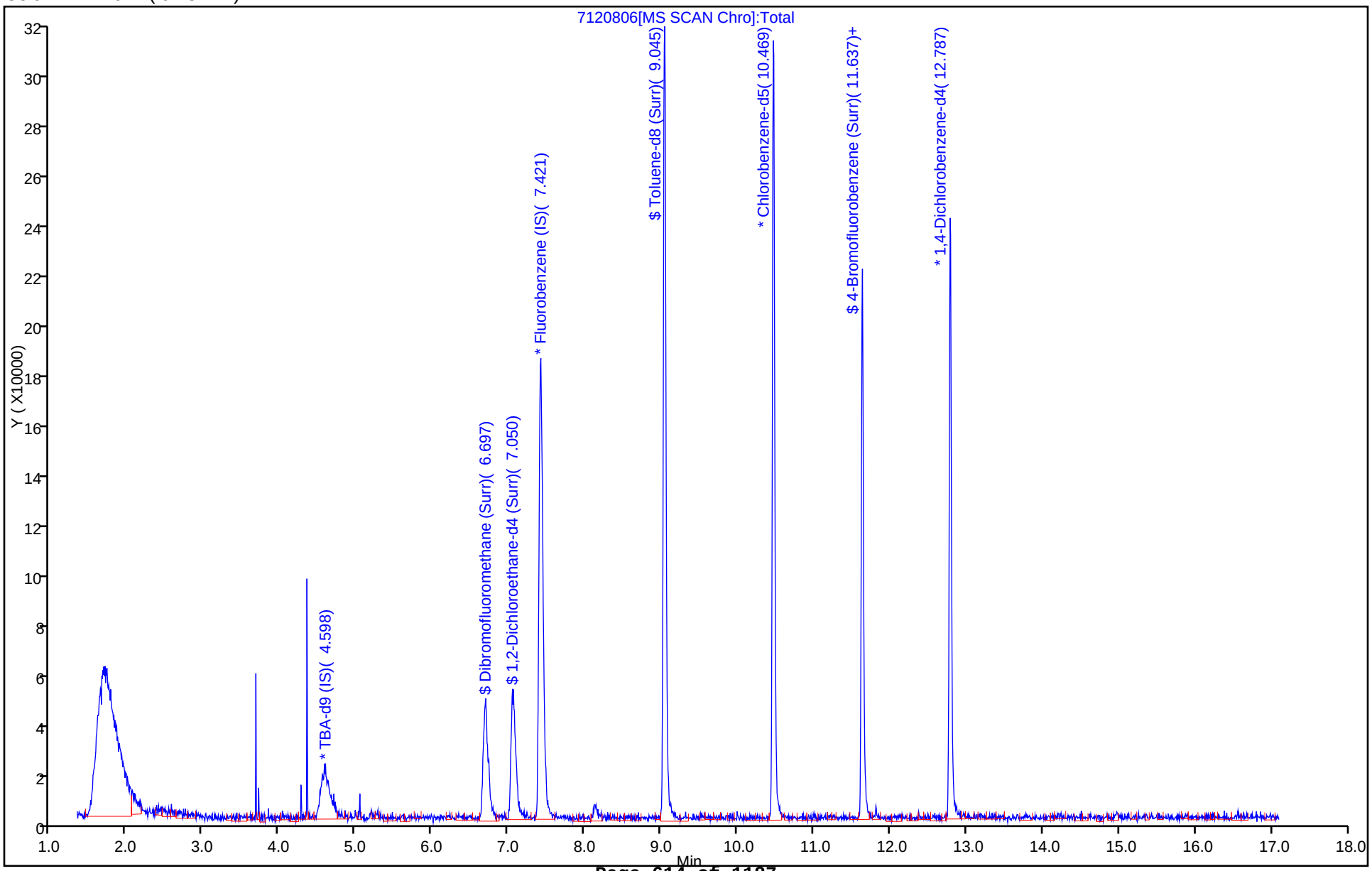
Report Date: 09-Dec-2014 08:33:29 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120806.D

Injection Date:	08-Dec-2014 15:06:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

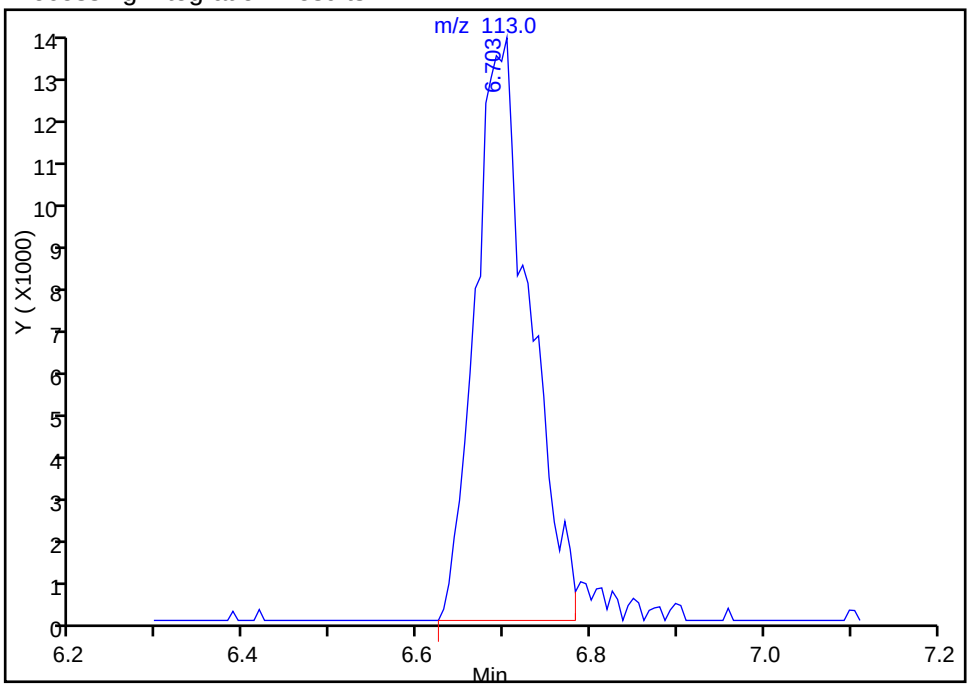
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120806.D				
Injection Date:	08-Dec-2014 15:06:30	Instrument ID:	CHHP7		
Lims ID:	mb				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

$ 5 Dibromofluoromethane (Surr), CAS: 1868-53-7

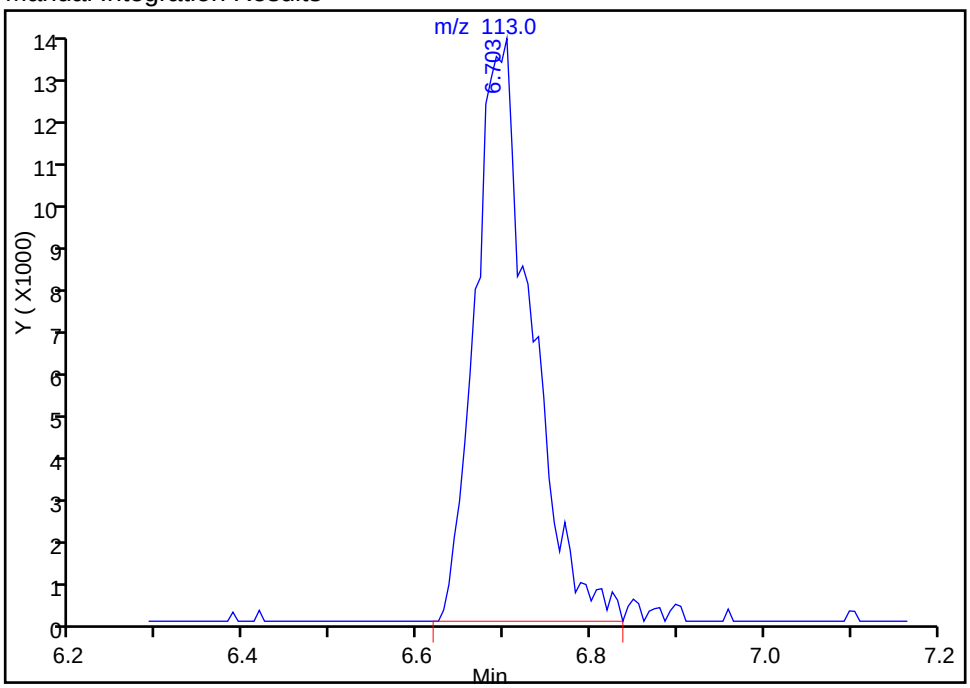
Processing Integration Results

RT: 6.70
Response: 58516
Amount: 197.8497



Manual Integration Results

RT: 6.70
Response: 60390
Amount: 204.1859



Reviewer: journetp, 08-Dec-2014 15:46:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-127589/11

Matrix: Water Lab File ID: 7120811.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 17:17

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.: 127589 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	35.0		5.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	36.8		5.0	0.93
79-00-5	1,1,2-Trichloroethane	38.3		5.0	1.2
75-34-3	1,1-Dichloroethane	33.4		5.0	1.0
75-35-4	1,1-Dichloroethene	42.8		5.0	1.1
95-50-1	1,2-Dichlorobenzene	41.9		5.0	0.68
107-06-2	1,2-Dichloroethane	40.5		5.0	0.96
78-87-5	1,2-Dichloropropane	40.1		5.0	1.3
541-73-1	1,3-Dichlorobenzene	40.4		5.0	0.51
106-46-7	1,4-Dichlorobenzene	40.3		5.0	0.53
107-13-1	Acrylonitrile	351		50	9.0
71-43-2	Benzene	38.8		5.0	0.99
75-25-2	Bromoform	45.8		5.0	1.1
74-83-9	Bromomethane	31.9		5.0	1.6
56-23-5	Carbon tetrachloride	40.9		5.0	1.1
108-90-7	Chlorobenzene	39.0		5.0	0.53
67-66-3	Chloroform	37.1		5.0	1.0
74-87-3	Chloromethane	31.1		5.0	1.4
124-48-1	Chlorodibromomethane	39.0		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	37.2		5.0	0.73
75-27-4	Dichlorobromomethane	37.2		5.0	0.93
100-41-4	Ethylbenzene	39.5		5.0	0.62
75-09-2	Methylene Chloride	37.2		5.0	1.1
127-18-4	Tetrachloroethene	41.2		5.0	0.82
108-88-3	Toluene	37.7		5.0	0.85
156-60-5	trans-1,2-Dichloroethene	36.2		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	35.2		5.0	0.58
79-01-6	Trichloroethene	40.4		5.0	0.80
75-01-4	Vinyl chloride	29.6		5.0	1.3
75-00-3	Chloroethane	36.6		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-127589/11

Matrix: Water Lab File ID: 7120811.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 12/08/2014 17:17

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.: 127589 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		62-123
460-00-4	4-Bromofluorobenzene (Surr)	95		75-120
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 08-Dec-2014 17:17:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0004755-011
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\MSVOA_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Dec-2014 08:32:51 Calib Date: 21-Oct-2014 18:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20141021-3919.b\7102115.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 08-Dec-2014 17:46:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.576	4.586	-0.010	55	55585	5000.0	5000.0	M
* 2 Fluorobenzene (IS)	96	7.411	7.403	0.008	93	159801	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.471	10.469	0.002	92	38703	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.787	0.002	93	52183	250.0	250.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.666	0.015	64	35381	250.0	222.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.034	7.031	0.003	54	45514	250.0	226.5	M
$ 7 Toluene-d8 (Surr)	98	9.041	9.039	0.002	95	166821	250.0	250.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.637	-0.009	93	58457	250.0	237.4	
10 Dichlorodifluoromethane	85	1.881	1.891	-0.010	1	38025	200.0	150.1	M
11 Chloromethane	50	1.972	2.000	-0.028	83	87619	200.0	155.7	M
12 Vinyl chloride	62	2.161	2.171	-0.010	88	54734	200.0	148.1	M
13 Butadiene	39	2.191	2.189	0.002	72	63733	200.0	147.9	M
14 Bromomethane	94	2.532	2.493	0.039	59	22811	200.0	159.5	
15 Chloroethane	64	2.617	2.603	0.014	51	30387	200.0	183.0	
16 Dichlorofluoromethane	67	2.933	2.840	0.093	74	77485	200.0	168.5	
17 Trichlorofluoromethane	101	2.976	2.846	0.130	45	51218	200.0	138.8	M
19 Ethyl ether	59	3.323	3.302	0.021	77	32807	200.0	198.4	
20 1,1-Dichloroethene	96	3.663	3.558	0.105	73	39828	200.0	213.8	
22 1,1,2-Trichloro-1,2,2-trif	101	3.785	3.679	0.106	53	40774	200.0	207.1	M
25 Acetone	43	3.749	3.728	0.021	33	12915	200.0	148.6	M
23 Iodomethane	142	3.828	3.758	0.070	77	62335	200.0	226.1	M
24 Carbon disulfide	76	3.925	3.874	0.051	1	138355	200.0	199.4	M
26 3-Chloro-1-propene	76	4.162	4.136	0.026	60	48664	200.0	232.5	M
29 Methyl acetate	43	4.278	4.269	0.009	81	119125	1000.0	756.6	M
30 Methylene Chloride	84	4.381	4.361	0.020	77	46421	200.0	186.1	M
34 2-Methyl-2-propanol	59	4.691	4.744	-0.053	33	31000	2000.0	2056.4	
32 Acrylonitrile	53	4.783	4.780	0.003	97	108423	2000.0	1753.9	M
31 trans-1,2-Dichloroethene	96	4.783	4.787	-0.004	84	41999	200.0	181.0	
33 Methyl tert-butyl ether	73	4.831	4.847	-0.016	97	104606	200.0	181.8	M
35 Hexane	57	5.190	5.152	0.038	91	67915	200.0	168.4	
36 1,1-Dichloroethane	63	5.373	5.346	0.027	92	79354	200.0	167.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
41 2,2-Dichloropropane	77	6.097	6.094	0.003	70	45501	200.0	139.3	
42 cis-1,2-Dichloroethene	96	6.133	6.101	0.032	18	44641	200.0	185.1	M
44 2-Butanone (MEK)	43	6.176	6.155	0.021	50	14197	200.0	157.9	M
47 Chlorobromomethane	128	6.377	6.368	0.009	86	15971	200.0	182.0	
49 Tetrahydrofuran	42	6.456	6.459	-0.003	81	18995	400.0	331.5	
48 Chloroform	83	6.486	6.490	-0.004	96	73154	200.0	185.6	
50 1,1,1-Trichloroethane	97	6.693	6.685	0.008	94	64139	200.0	175.2	
51 Cyclohexane	56	6.742	6.739	0.003	30	102932	200.0	187.2	M
52 Carbon tetrachloride	117	6.875	6.861	0.014	92	56064	200.0	204.6	
53 1,1-Dichloropropene	75	6.882	6.861	0.021	86	51816	200.0	184.4	
57 Isobutyl alcohol	41	7.070	7.086	-0.016	90	24966	5000.0	5678.8	
54 Benzene	78	7.094	7.092	0.002	18	152571	200.0	193.9	M
55 1,2-Dichloroethane	62	7.125	7.117	0.009	93	44466	200.0	202.4	
58 n-Heptane	43	7.411	7.409	0.003	67	68742	200.0	164.3	
60 Trichloroethene	130	7.806	7.786	0.020	94	34661	200.0	202.1	
63 Methylcyclohexane	83	7.995	7.986	0.009	94	85253	200.0	183.3	
64 1,2-Dichloropropane	63	8.031	8.017	0.014	89	40761	200.0	200.6	
66 Dibromomethane	93	8.153	8.151	0.002	91	17425	200.0	214.7	M
67 1,4-Dioxane	88	8.196	8.181	0.015	35	3012	4000.0	4294.1	
68 Dichlorobromomethane	83	8.311	8.309	0.002	95	49368	200.0	186.0	
71 cis-1,3-Dichloropropene	75	8.773	8.765	0.008	90	57012	200.0	186.2	
72 4-Methyl-2-pentanone (MIBK	43	8.938	8.935	0.003	98	38437	200.0	216.8	
73 Toluene	91	9.102	9.106	-0.004	98	155736	200.0	188.4	
74 trans-1,3-Dichloropropene	75	9.327	9.325	0.002	96	43013	200.0	175.9	
75 Ethyl methacrylate	69	9.418	9.422	-0.004	94	39320	200.0	199.0	
76 1,1,2-Trichloroethane	97	9.504	9.501	0.003	91	24450	200.0	191.3	
77 Tetrachloroethene	164	9.650	9.641	0.009	94	31616	200.0	206.0	
78 1,3-Dichloropropane	76	9.668	9.665	0.003	95	41349	200.0	178.7	
79 2-Hexanone	43	9.759	9.757	0.002	96	24275	200.0	204.7	
81 Chlorodibromomethane	129	9.899	9.897	0.002	89	30677	200.0	195.2	
82 Ethylene Dibromide	107	10.015	10.012	0.003	98	23046	200.0	186.5	
83 Chlorobenzene	112	10.501	10.499	0.002	92	97413	200.0	194.9	
84 1,1,1,2-Tetrachloroethane	131	10.574	10.572	0.002	91	32954	200.0	186.1	
85 Ethylbenzene	106	10.611	10.602	0.009	99	52237	200.0	197.7	
86 m-Xylene & p-Xylene	106	10.720	10.718	0.002	98	66426	200.0	197.4	
88 o-Xylene	106	11.116	11.113	0.003	97	67847	200.0	191.9	
89 Styrene	104	11.128	11.126	0.002	87	114510	200.0	201.8	
90 Bromoform	173	11.304	11.308	-0.004	97	21765	200.0	229.0	
91 Isopropylbenzene	105	11.481	11.478	0.003	96	198517	200.0	197.3	
93 1,1,2,2-Tetrachloroethane	83	11.773	11.770	0.003	59	30259	200.0	183.9	
94 Bromobenzene	156	11.785	11.783	0.002	94	43570	200.0	209.1	
95 1,2,3-Trichloropropane	110	11.815	11.819	-0.004	76	8637	200.0	218.0	
96 trans-1,4-Dichloro-2-buten	53	11.833	11.825	0.008	72	7804	200.0	163.5	
97 N-Propylbenzene	120	11.888	11.886	0.002	99	52705	200.0	189.0	
98 2-Chlorotoluene	126	11.979	11.977	0.002	95	39614	200.0	180.8	
99 1,3,5-Trimethylbenzene	105	12.059	12.062	-0.003	96	149280	200.0	178.6	
100 4-Chlorotoluene	126	12.083	12.087	-0.004	98	39231	200.0	192.1	
101 tert-Butylbenzene	119	12.387	12.391	-0.004	91	147593	200.0	183.2	
103 1,2,4-Trimethylbenzene	105	12.436	12.440	-0.004	96	147302	200.0	179.9	
104 sec-Butylbenzene	105	12.612	12.610	0.002	95	201066	200.0	179.1	
105 1,3-Dichlorobenzene	146	12.722	12.725	-0.003	97	76607	200.0	202.0	
106 4-Isopropyltoluene	119	12.752	12.750	0.002	98	179176	200.0	191.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 1,4-Dichlorobenzene	146	12.813	12.817	-0.004	92	69919	200.0	201.5	
110 n-Butylbenzene	91	13.166	13.163	0.003	98	155693	200.0	186.8	
111 1,2-Dichlorobenzene	146	13.190	13.188	0.002	97	62035	200.0	209.3	
112 1,2-Dibromo-3-Chloropropan	75	13.975	13.960	0.015	80	1981	200.0	155.0	
114 1,2,4-Trichlorobenzene	180	14.808	14.806	0.002	90	17682	200.0	193.4	
115 Hexachlorobutadiene	225	14.966	14.964	0.002	92	20627	200.0	270.7	
116 Naphthalene	128	15.052	15.055	-0.003	97	24131	200.0	200.2	
117 1,2,3-Trichlorobenzene	180	15.313	15.305	0.008	92	10107	200.0	211.4	
S 130 1,2-Dichloroethene, Total	96				0		400.0	366.1	
S 129 Xylenes, Total	106				0		400.0	389.3	
S 131 1,3-Dichloropropene, Total	1				0		400.0	362.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00093	Amount Added: 8.00	Units: uL	
VOA8260INT_00025	Amount Added: 10.00	Units: uL	Run Reagent
VOA8260SURR_00017	Amount Added: 10.00	Units: uL	Run Reagent

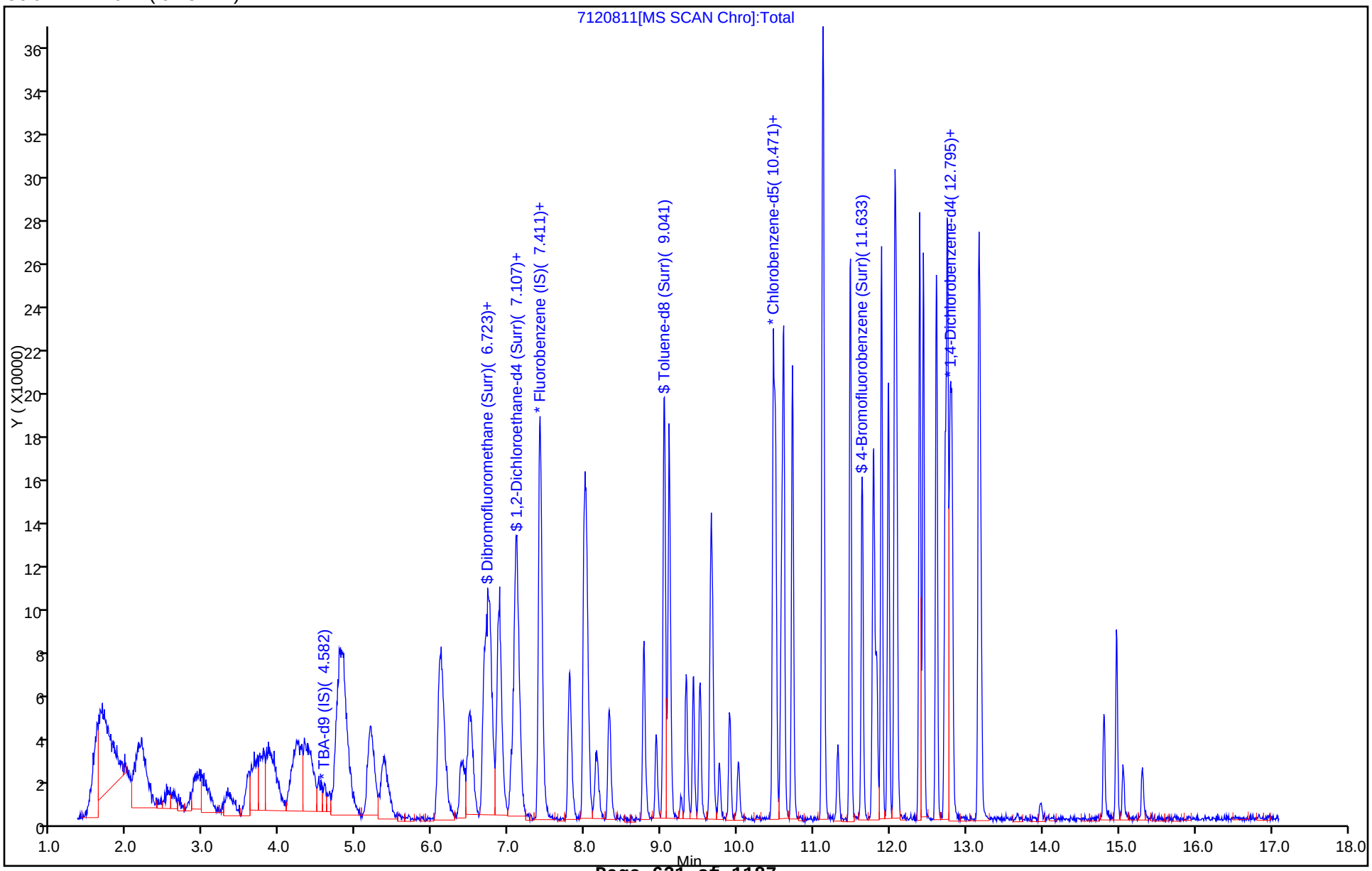
Report Date: 09-Dec-2014 08:33:25 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D

Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

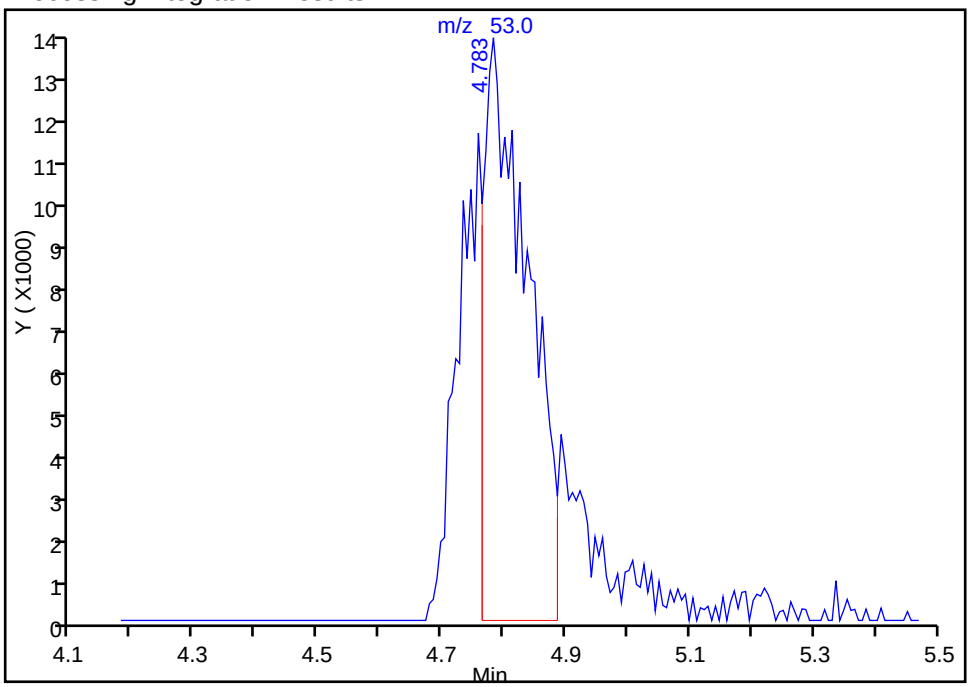
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 Acrylonitrile, CAS: 107-13-1

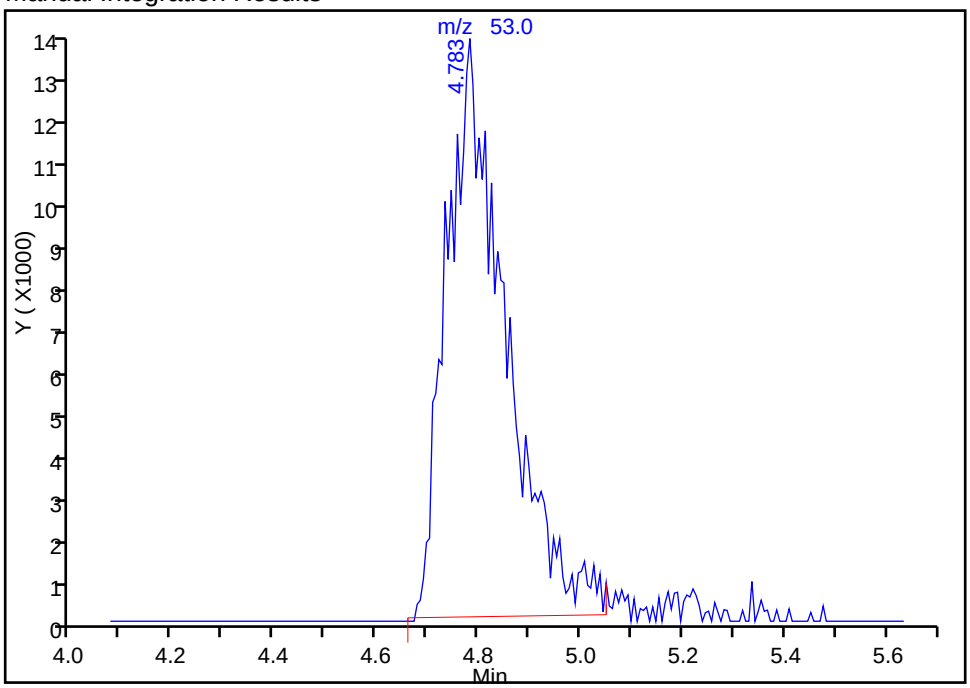
Processing Integration Results

RT: 4.78
Response: 66998
Amount: 1083.7665



Manual Integration Results

RT: 4.78
Response: 108423
Amount: 1753.8615



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

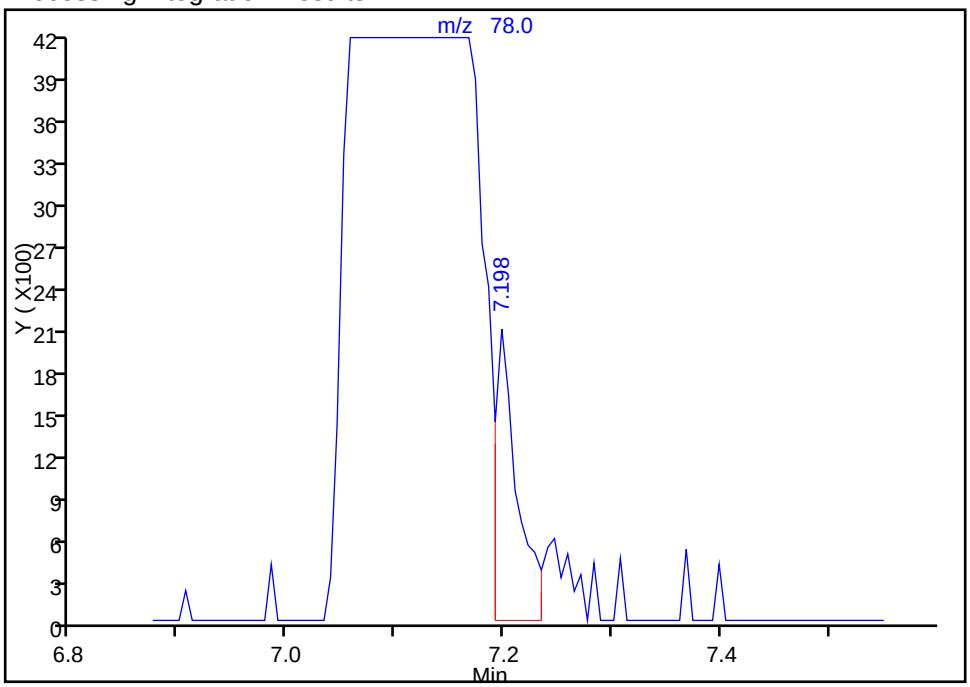
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

54 Benzene, CAS: 71-43-2

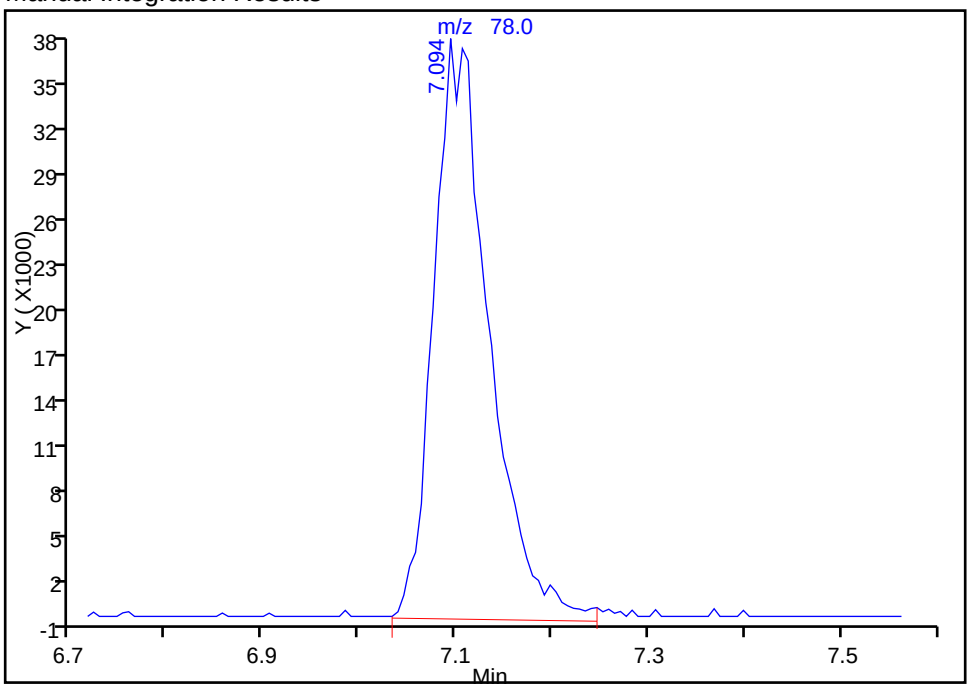
Processing Integration Results

RT: 7.20
Response: 2935
Amount: 3.730168



Manual Integration Results

RT: 7.09
Response: 152571
Amount: 193.9065



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

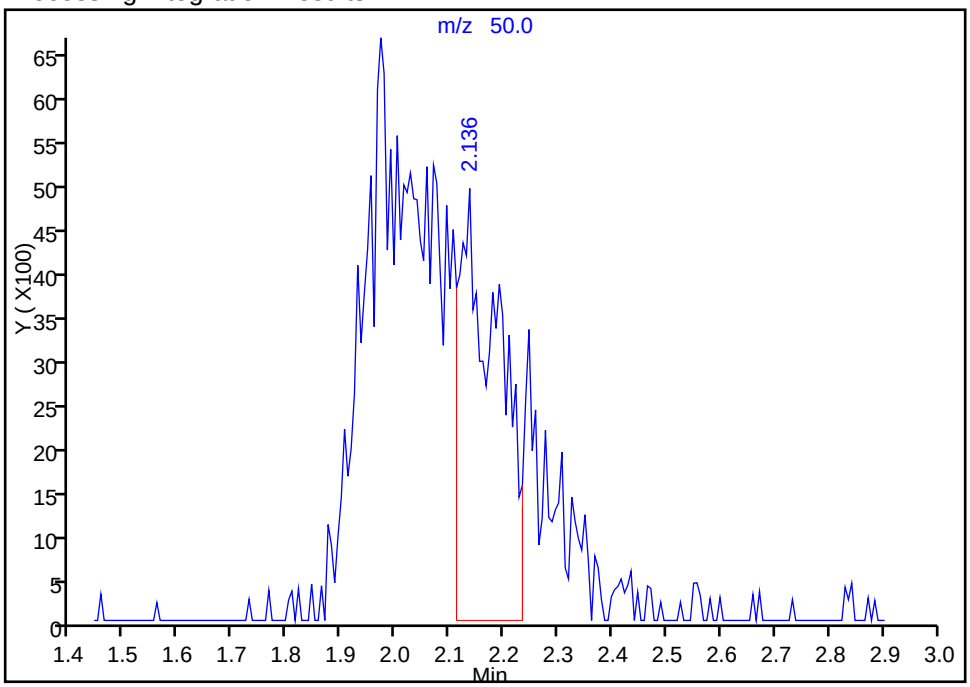
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Chloromethane, CAS: 74-87-3

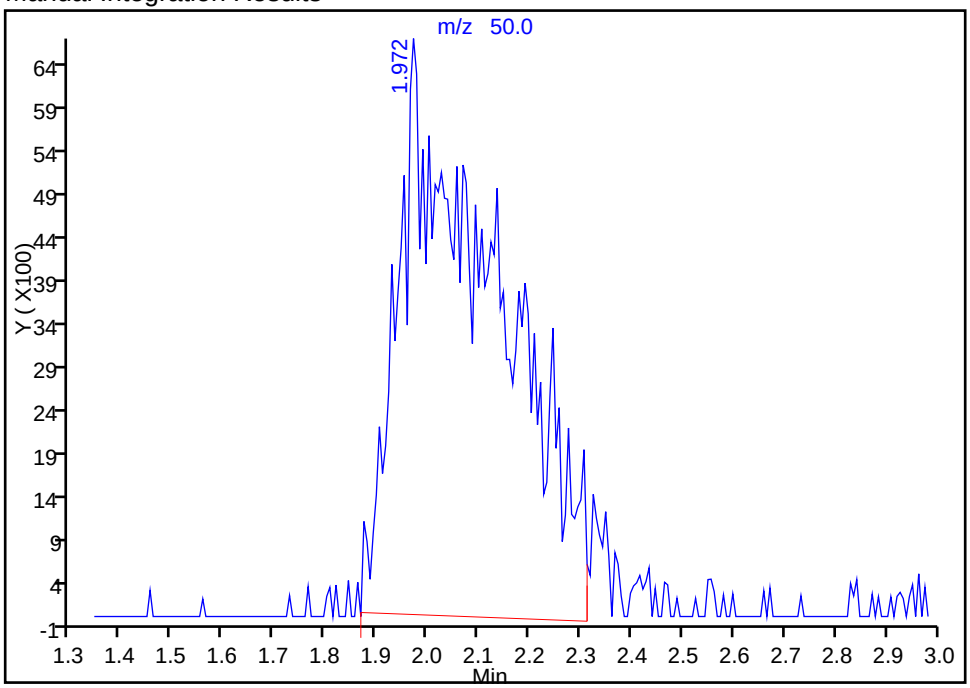
Processing Integration Results

RT: 2.14
Response: 24629
Amount: 43.759954



Manual Integration Results

RT: 1.97
Response: 87619
Amount: 155.6784



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

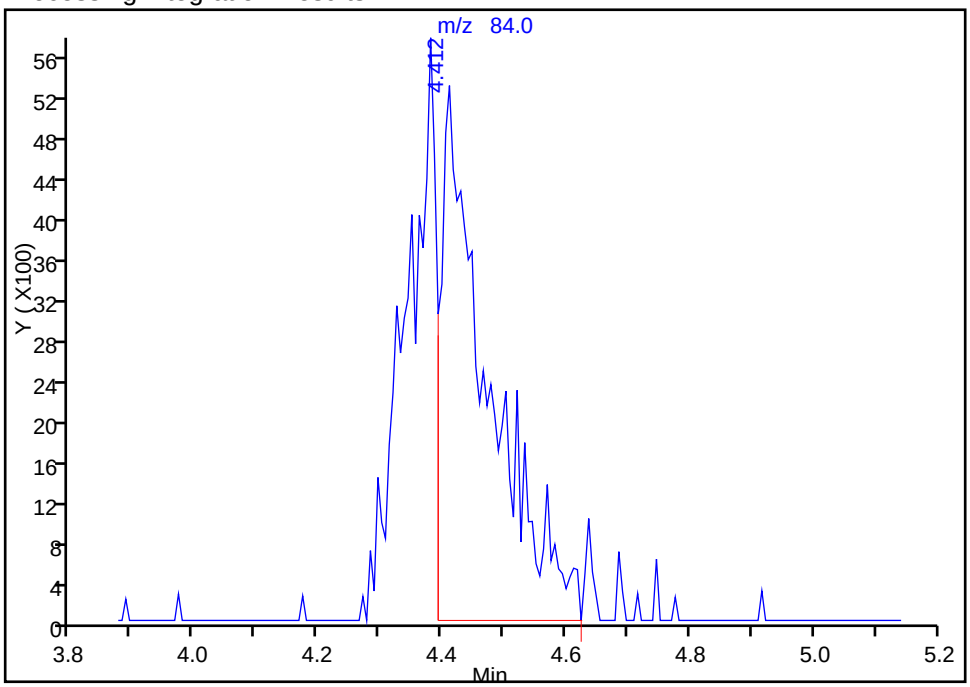
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

30 Methylene Chloride, CAS: 75-09-2

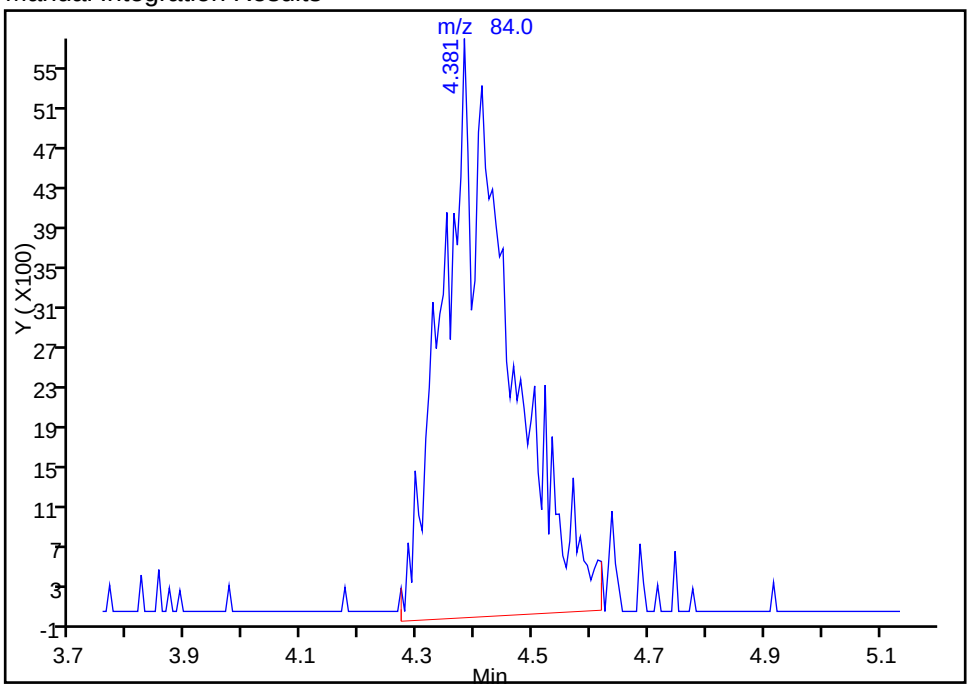
Processing Integration Results

RT: 4.41
Response: 27588
Amount: 110.5912



Manual Integration Results

RT: 4.38
Response: 46421
Amount: 186.0865



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

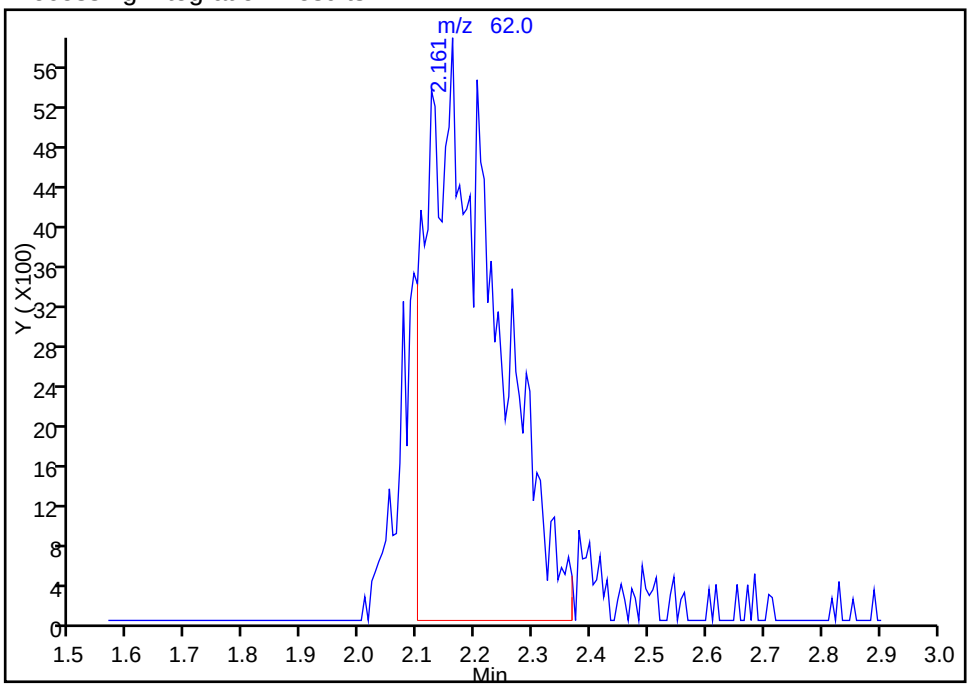
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Vinyl chloride, CAS: 75-01-4

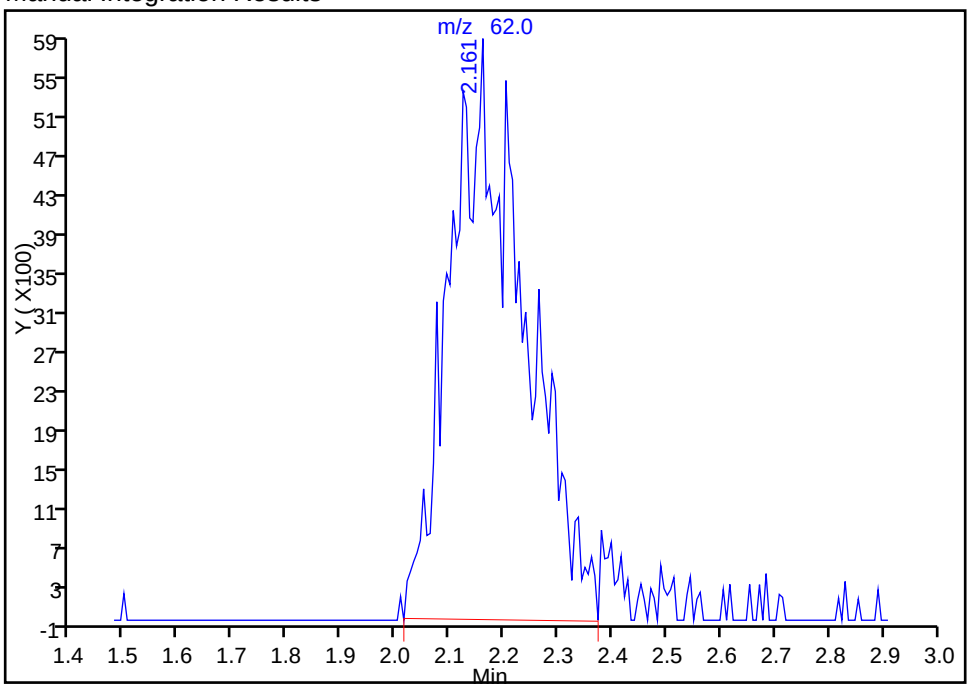
Processing Integration Results

RT: 2.16
Response: 47857
Amount: 129.4489



Manual Integration Results

RT: 2.16
Response: 54734
Amount: 148.0506



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

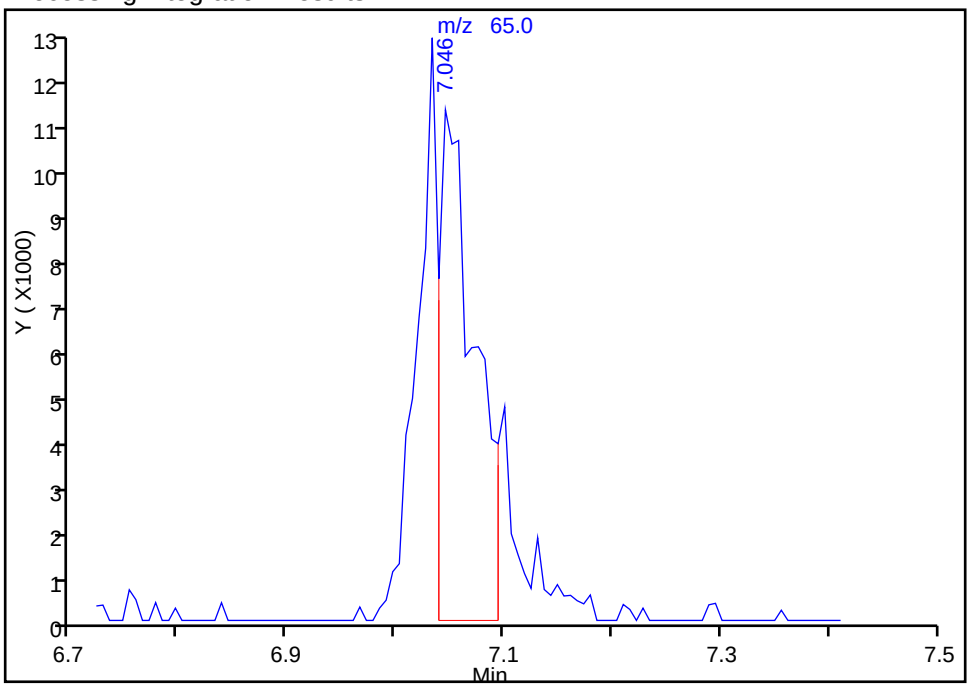
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

$ 6 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

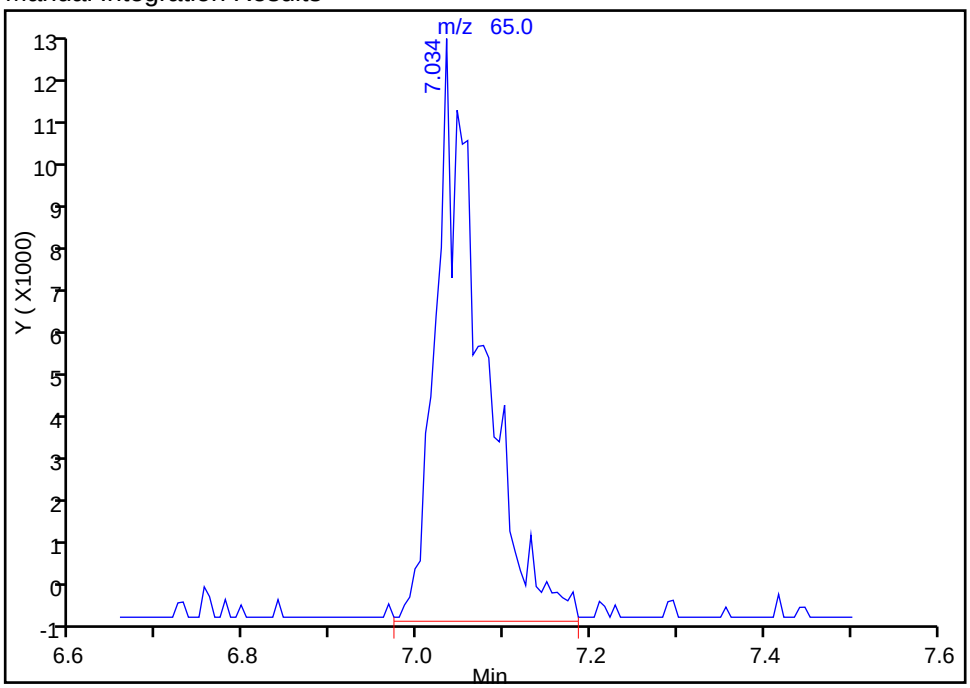
Processing Integration Results

RT: 7.05
Response: 24904
Amount: 123.9206



Manual Integration Results

RT: 7.03
Response: 45514
Amount: 226.4746



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

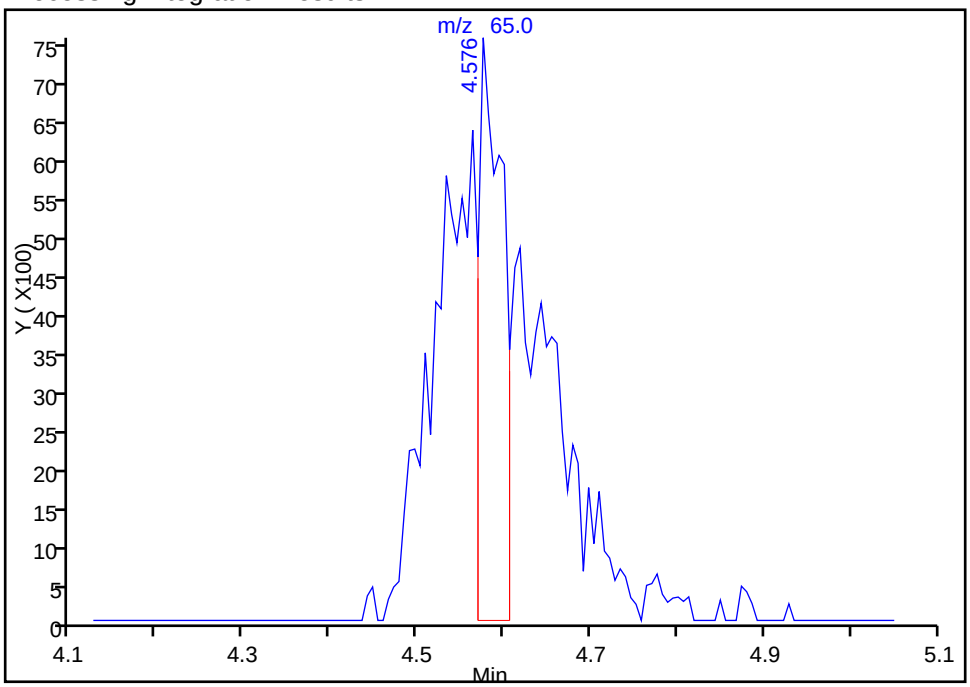
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20141208-4755.b\7120811.D				
Injection Date:	08-Dec-2014 17:17:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

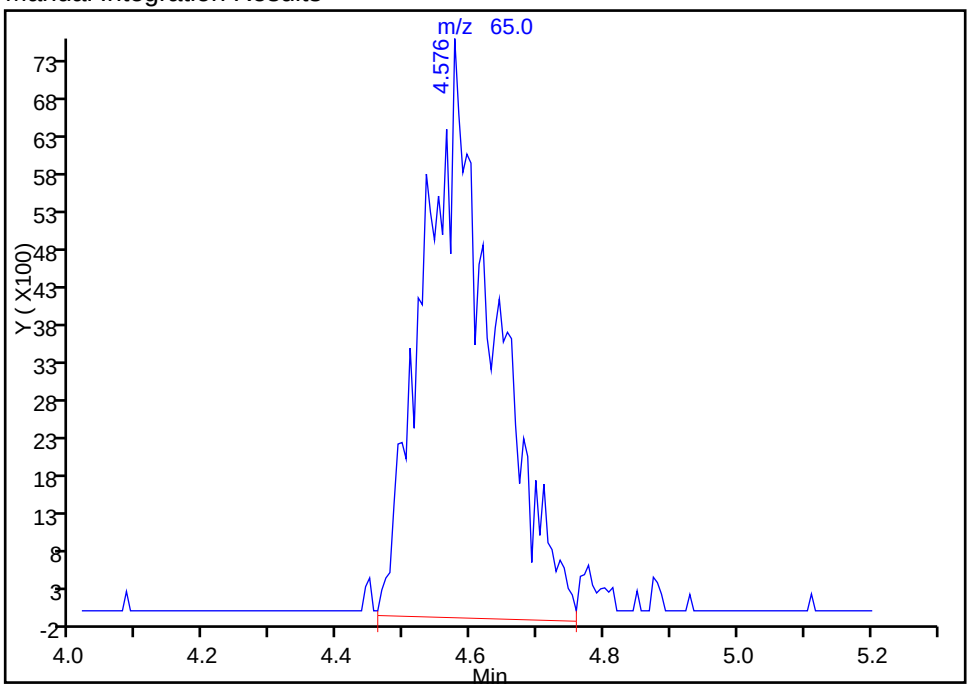
Processing Integration Results

RT: 4.58
Response: 14538
Amount: 5000.0000



Manual Integration Results

RT: 4.58
Response: 55585
Amount: 5000.0000



Reviewer: journetp, 08-Dec-2014 17:51:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Start Date: 10/20/2014 11:48

Analysis Batch Number: 122015 End Date: 10/20/2014 17:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-122015/1		10/20/2014 11:48	1	7102001.D	DB-624 0.18(mm)
IC 180-122015/3		10/20/2014 12:49	1	7102003.D	DB-624 0.18(mm)
IC 180-122015/4		10/20/2014 13:15	1	7102004.D	DB-624 0.18(mm)
IC 180-122015/5		10/20/2014 13:42	1	7102005.D	DB-624 0.18(mm)
IC 180-122015/6		10/20/2014 14:12	1	7102006.D	DB-624 0.18(mm)
CCVIS 180-122015/1006		10/20/2014 14:12	1		DB-624 0.18(mm)
IC 180-122015/7		10/20/2014 14:42	1	7102007.D	DB-624 0.18(mm)
IC 180-122015/8		10/20/2014 15:08	1	7102008.D	DB-624 0.18(mm)
IC 180-122015/9		10/20/2014 15:38	1	7102009.D	DB-624 0.18(mm)
ZZZZZ		10/20/2014 16:31	1		DB-624 0.18(mm)
ZZZZZ		10/20/2014 17:06	1		DB-624 0.18(mm)
ICV 180-122015/13		10/20/2014 17:33	1		DB-624 0.18(mm)
ZZZZZ		10/20/2014 17:33	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Start Date: 10/21/2014 08:37

Analysis Batch Number: 122150 End Date: 10/22/2014 11:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-122150/1		10/21/2014 08:37	1	7102101.D	DB-624 0.18(mm)
IC 180-122150/4		10/21/2014 10:13	1	7102104.D	DB-624 0.18(mm)
IC 180-122150/5		10/21/2014 10:40	1	7102105.D	DB-624 0.18(mm)
IC 180-122150/7		10/21/2014 11:36	1	7102107.D	DB-624 0.18(mm)
IC 180-122150/8		10/21/2014 12:35	1	7102108.D	DB-624 0.18(mm)
IC 180-122150/9		10/21/2014 13:50	1	7102109.D	DB-624 0.18(mm)
IC 180-122150/13		10/21/2014 17:35	1	7102113.D	DB-624 0.18(mm)
ICIS 180-122150/15		10/21/2014 18:28	1	7102115.D	DB-624 0.18(mm)
ICV 180-122150/16		10/22/2014 11:21	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHHP7 Start Date: 12/08/2014 10:12

Analysis Batch Number: 127589 End Date: 12/08/2014 20:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-127589/1		12/08/2014 10:12	1	7120801.D	DB-624 0.18(mm)
CCVIS 180-127589/3		12/08/2014 12:33	1	7120803.D	DB-624 0.18(mm)
CCV 180-127589/5		12/08/2014 14:36	1	7120805.D	DB-624 0.18(mm)
MB 180-127589/6		12/08/2014 15:06	1	7120806.D	DB-624 0.18(mm)
ZZZZZ		12/08/2014 15:33	1		DB-624 0.18(mm)
ZZZZZ		12/08/2014 16:24	1		DB-624 0.18(mm)
ZZZZZ		12/08/2014 16:51	1		DB-624 0.18(mm)
LCS 180-127589/11		12/08/2014 17:17	1	7120811.D	DB-624 0.18(mm)
ZZZZZ		12/08/2014 17:44	1		DB-624 0.18(mm)
ZZZZZ		12/08/2014 18:37	1		DB-624 0.18(mm)
180-39432-5	TRIP BLANK	12/08/2014 19:03	1	7120815.D	DB-624 0.18(mm)
180-39432-1	ST-071-120114	12/08/2014 19:29	1	7120816.D	DB-624 0.18(mm)
180-39432-2	ST-UNNAMED-120114	12/08/2014 19:56	1	7120817.D	DB-624 0.18(mm)
180-39432-3	ST-018-120114	12/08/2014 20:22	1	7120818.D	DB-624 0.18(mm)
180-39432-4	ST-014-120114	12/08/2014 20:49	1	7120819.D	DB-624 0.18(mm)

Method 8270D Low Level

Semivolatile Organic Compounds (GC/MS) Low Level by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
ST-071-120114	180-39432-1	35	50	61	63	71	58
ST-UNNAMED-120114	180-39432-2	30	35	68	67	51	73
ST-018-120114	180-39432-3	44	58	61	68	72	79
ST-014-120114	180-39432-4	47	53	64	61	70	73
	MB 180-127168/1-A	69	67	69	68	58	67
	LCS 180-127168/2-A	41	50	56	60	63	58
	LCSD 180-127168/3-A	44	57	59	59	63	61

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	30-150
PHL = Phenol-d5 (Surr)	30-150
NBZ = Nitrobenzene-d5 (Surr)	30-150
FBP = 2-Fluorobiphenyl	30-150
TBP = 2,4,6-Tribromophenol (Surr)	30-150
TPH = Terphenyl-d14 (Surr)	10-150

Column to be used to flag recovery values

FORM II 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: V1208008.D

Lab ID: LCS 180-127168/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	12.0	60	30-150	
Acenaphthylene	20.0	12.1	61	30-150	
Anthracene	20.0	12.9	64	30-150	
Benzidine	20.0	ND	11	10-150	
Benzo[a]anthracene	20.0	13.4	67	30-150	
Benzo[b]fluoranthene	20.0	12.6	63	30-150	
Benzo[k]fluoranthene	20.0	12.8	64	30-150	
Benzoic acid	20.0	2.22 J	11	10-150	
Benzo[g,h,i]perylene	20.0	14.0	70	30-150	
Benzo[a]pyrene	20.0	13.1	66	30-150	
Bis(2-chloroethoxy)methane	20.0	10.9	55	30-150	
Bis(2-chloroethyl)ether	20.0	8.80	44	30-150	
Bis(2-ethylhexyl) phthalate	20.0	12.2	61	30-150	
2,2'-oxybis[1-chloropropane]	20.0	8.93	45	30-150	
4-Bromophenyl phenyl ether	20.0	13.5	67	30-150	
4-Chlorophenyl phenyl ether	20.0	13.3	66	30-150	
2-Chloronaphthalene	20.0	10.9	55	30-150	
Butyl benzyl phthalate	20.0	12.0	60	30-150	
Chrysene	20.0	13.1	65	30-150	
Dibenz(a,h)anthracene	20.0	13.8	69	30-150	
Di-n-butyl phthalate	20.0	13.1	65	30-150	
Di-n-octyl phthalate	20.0	11.4	57	10-150	
Diethyl phthalate	20.0	13.3	67	30-150	
Dimethyl phthalate	20.0	13.3	67	30-150	
3,3'-Dichlorobenzidine	20.0	11.1	56	10-150	
2,4-Dinitrotoluene	20.0	13.6	68	30-150	
2,6-Dinitrotoluene	20.0	13.3	66	30-150	
2-Chlorophenol	20.0	9.54	48	30-150	
2,4-Dichlorophenol	20.0	11.1	56	30-150	
2,4-Dimethylphenol	20.0	11.8	59	30-150	
2,4-Dinitrophenol	40.0	17.1	43	10-150	
2-Nitrophenol	20.0	11.0	55	30-150	
2,4,6-Trichlorophenol	20.0	12.1	61	30-150	
1,2-Diphenylhydrazine(as Azobenzene)	20.0	12.5	63	30-150	
1,2,4-Trichlorobenzene	20.0	11.4	57	30-150	
4-Chloro-3-methylphenol	20.0	12.3	62	30-150	
4-Nitrophenol	40.0	30.9	77	30-150	
4,6-Dinitro-2-methylphenol	40.0	23.7	59	30-150	
Fluoranthene	20.0	13.9	69	30-150	
Fluorene	20.0	13.9	69	30-150	
Hexachlorobenzene	20.0	12.5	62	30-150	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: V1208008.D

Lab ID: LCS 180-127168/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorobutadiene	20.0	12.0	60	30-150	
Hexachlorocyclopentadiene	20.0	11.3	56	30-150	
Hexachloroethane	20.0	9.22	46	30-150	
Indeno[1,2,3-cd]pyrene	20.0	13.8	69	30-150	
Isophorone	20.0	11.7	59	30-150	
Naphthalene	20.0	11.2	56	30-150	
Nitrobenzene	20.0	11.1	56	30-150	
N-Nitrosodi-n-propylamine	20.0	10.6	53	30-150	
N-Nitrosodimethylamine	20.0	9.55	48	30-150	
N-Nitrosodiphenylamine	20.0	12.4	62	30-150	
Phenanthrene	20.0	12.6	63	30-150	
Pyrene	20.0	11.7	58	30-150	
Pentachlorophenol	40.0	17.8	44	10-150	
Phenol	20.0	9.51	48	30-150	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: V1208009.D

Lab ID: LCSD 180-127168/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	20.0	12.1	60	1	35	30-150	
Acenaphthylene	20.0	12.4	62	2	35	30-150	
Anthracene	20.0	12.5	63	3	35	30-150	
Benzidine	20.0	ND	11	2	35	10-150	
Benzo[a]anthracene	20.0	14.0	70	5	35	30-150	
Benzo[b]fluoranthene	20.0	13.1	66	4	35	30-150	
Benzo[k]fluoranthene	20.0	13.3	67	4	35	30-150	
Benzoic acid	20.0	2.69 J	13	19	35	10-150	
Benzo[g,h,i]perylene	20.0	14.4	72	3	35	30-150	
Benzo[a]pyrene	20.0	13.6	68	4	35	30-150	
Bis(2-chloroethoxy)methane	20.0	11.1	56	2	35	30-150	
Bis(2-chloroethyl)ether	20.0	10.6	53	19	35	30-150	
Bis(2-ethylhexyl) phthalate	20.0	12.7	64	4	35	30-150	
2,2'-oxybis[1-chloropropane]	20.0	9.73	49	9	35	30-150	
4-Bromophenyl phenyl ether	20.0	13.2	66	2	35	30-150	
4-Chlorophenyl phenyl ether	20.0	13.3	67	0	35	30-150	
2-Chloronaphthalene	20.0	11.0	55	1	35	30-150	
Butyl benzyl phthalate	20.0	12.5	63	4	35	30-150	
Chrysene	20.0	13.5	68	3	35	30-150	
Dibenz(a,h)anthracene	20.0	14.2	71	3	35	30-150	
Di-n-butyl phthalate	20.0	12.5	63	4	35	30-150	
Di-n-octyl phthalate	20.0	11.7	58	3	35	10-150	
Diethyl phthalate	20.0	13.2	66	1	35	30-150	
Dimethyl phthalate	20.0	13.3	66	0	35	30-150	
3,3'-Dichlorobenzidine	20.0	11.2	56	1	35	10-150	
2,4-Dinitrotoluene	20.0	13.7	68	1	35	30-150	
2,6-Dinitrotoluene	20.0	13.6	68	3	35	30-150	
2-Chlorophenol	20.0	10.8	54	12	35	30-150	
2,4-Dichlorophenol	20.0	12.1	60	8	35	30-150	
2,4-Dimethylphenol	20.0	11.8	59	0	35	30-150	
2,4-Dinitrophenol	40.0	17.8	45	4	35	10-150	
2-Nitrophenol	20.0	12.2	61	11	35	30-150	
2,4,6-Trichlorophenol	20.0	12.1	61	0	35	30-150	
1,2-Diphenylhydrazine(as Azobenzene)	20.0	12.8	64	2	35	30-150	
1,2,4-Trichlorobenzene	20.0	11.7	59	2	35	30-150	
4-Chloro-3-methylphenol	20.0	12.6	63	2	35	30-150	
4-Nitrophenol	40.0	29.6	74	5	35	30-150	
4,6-Dinitro-2-methylphenol	40.0	24.8	62	5	35	30-150	
Fluoranthene	20.0	13.2	66	5	35	30-150	
Fluorene	20.0	13.5	68	3	35	30-150	
Hexachlorobenzene	20.0	11.9	59	5	35	30-150	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: V1208009.D

Lab ID: LCSD 180-127168/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Hexachlorobutadiene	20.0	12.0	60	1	35	30-150	
Hexachlorocyclopentadiene	20.0	11.7	59	4	35	30-150	
Hexachloroethane	20.0	10.3	51	11	35	30-150	
Indeno[1,2,3-cd]pyrene	20.0	14.4	72	4	35	30-150	
Isophorone	20.0	12.2	61	4	35	30-150	
Naphthalene	20.0	11.9	59	6	35	30-150	
Nitrobenzene	20.0	12.2	61	9	35	30-150	
N-Nitrosodi-n-propylamine	20.0	12.6	63	17	35	30-150	
N-Nitrosodimethylamine	20.0	10.9	55	14	35	30-150	
N-Nitrosodiphenylamine	20.0	12.6	63	2	35	30-150	
Phenanthrene	20.0	12.4	62	2	35	30-150	
Pyrene	20.0	12.4	62	6	35	30-150	
Pentachlorophenol	40.0	17.6	44	1	35	10-150	
Phenol	20.0	10.9	54	13	35	30-150	

Column to be used to flag recovery and RPD values

FORM III 8270D LL

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: V1208007.D Lab Sample ID: MB 180-127168/1-A

Matrix: Water Date Extracted: 12/04/2014 07:15

Instrument ID: CH731 Date Analyzed: 12/08/2014 11:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-127168/2-A	V1208008.D	12/08/2014 12:26
	LCSD 180-127168/3-A	V1208009.D	12/08/2014 12:54
ST-071-120114	180-39432-1	V1208015.D	12/08/2014 15:44
ST-018-120114	180-39432-3	V1208017.D	12/08/2014 16:41
ST-014-120114	180-39432-4	V1208018.D	12/08/2014 17:09
ST-UNNAMED-120114	180-39432-2	V1209016.D	12/09/2014 16:49

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: V1118002.D DFTPP Injection Date: 11/18/2014

Instrument ID: CH731 DFTPP Injection Time: 04:03

Analysis Batch No.: 125450

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	32.4	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.8	
70	Less than 2.0 % of mass 69	0.2	(0.4)1
127	40.0 - 60.0 % of mass 198	40.7	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.3	
275	10.0 - 30.0 % of mass 198	21.5	
365	Greater than 1.0 % of mass 198	2.4	
441	Present but less than mass 443	5.5	(71.8)3
442	Greater than 40.0 % of mass 198	40.5	
443	17.0 - 23.0 % of mass 442	7.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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 180-125450/3	V1118003.D	11/18/2014	04:22
	IC 180-125450/4	V1118004.D	11/18/2014	04:50
	IC 180-125450/5	V1118005.D	11/18/2014	05:19
	ICIS 180-125450/6	V1118006.D	11/18/2014	05:47
	IC 180-125450/7	V1118007.D	11/18/2014	06:17
	IC 180-125450/8	V1118008.D	11/18/2014	06:45
	IC 180-125450/9	V1118009.D	11/18/2014	07:14
	IC 180-125450/10	V1118010.D	11/18/2014	07:43

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: V1208002.D DFTPP Injection Date: 12/08/2014

Instrument ID: CH731 DFTPP Injection Time: 09:45

Analysis Batch No.: 127527

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	39.6	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	54.9	
70	Less than 2.0 % of mass 69	0.5	(0.8)1
127	40.0 - 60.0 % of mass 198	47.5	
197	Less than 1.0 % of mass 198	0.4	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.4	
275	10.0 - 30.0 % of mass 198	24.9	
365	Greater than 1.0 % of mass 198	2.4	
441	Present but less than mass 443	5.6	(59.1)3
442	Greater than 40.0 % of mass 198	41.9	
443	17.0 - 23.0 % of mass 442	9.6	(22.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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 180-127527/3	V1208003.D	12/08/2014	10:03
	MB 180-127168/1-A	V1208007.D	12/08/2014	11:58
	LCS 180-127168/2-A	V1208008.D	12/08/2014	12:26
	LCSD 180-127168/3-A	V1208009.D	12/08/2014	12:54
ST-071-120114	180-39432-1	V1208015.D	12/08/2014	15:44
ST-018-120114	180-39432-3	V1208017.D	12/08/2014	16:41
ST-014-120114	180-39432-4	V1208018.D	12/08/2014	17:09

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab File ID: V1209002.D DFTPP Injection Date: 12/09/2014

Instrument ID: CH731 DFTPP Injection Time: 10:21

Analysis Batch No.: 127670

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	38.6	
68	Less than 2.0 % of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	48.7	
70	Less than 2.0 % of mass 69	0.3	(0.6)1
127	40.0 - 60.0 % of mass 198	42.2	
197	Less than 1.0 % of mass 198	0.9	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.0	
275	10.0 - 30.0 % of mass 198	25.4	
365	Greater than 1.0 % of mass 198	3.1	
441	Present but less than mass 443	5.0	(61.9)3
442	Greater than 40.0 % of mass 198	46.2	
443	17.0 - 23.0 % of mass 442	8.1	(17.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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 180-127670/3	V1209003.D	12/09/2014	10:39
ST-UNNAMED-120114	180-39432-2	V1209016.D	12/09/2014	16:49

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVIS 180-127527/3 Date Analyzed: 12/08/2014 10:03

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): V1208003.D Heated Purge: (Y/N) N

Calibration ID: 19203

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		91292	6.28	304585	7.48	223742	9.10
UPPER LIMIT		182584	6.78	609170	7.98	447484	9.60
LOWER LIMIT		45646	5.78	152293	6.98	111871	8.60
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-127168/1-A		85797	6.29	292490	7.49	225033	9.11
LCS 180-127168/2-A		85961	6.28	263456	7.48	197515	9.10
LCSD 180-127168/3-A		82003	6.28	274212	7.48	212433	9.10
180-39432-1	ST-071-120114	81793	6.28	252877	7.47	183080	9.09
180-39432-3	ST-018-120114	80781	6.27	274115	7.48	189491	9.10
180-39432-4	ST-014-120114	84952	6.28	271242	7.48	191695	9.10

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

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

Column used to flag values outside QC limits

FORM VIII 8270D LL

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVIS 180-127527/3 Date Analyzed: 12/08/2014 10:03

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): V1208003.D Heated Purge: (Y/N) N

Calibration ID: 19203

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		477743	10.47	545925	13.96	411586	16.88
UPPER LIMIT		955486	10.97	1091850	14.46	823172	17.38
LOWER LIMIT		238872	9.97	272963	13.46	205793	16.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-127168/1-A		490545	10.47	552207	13.98	435793	16.91
LCS 180-127168/2-A		439514	10.47	524774	13.98	422708	16.90
LCSD 180-127168/3-A		477878	10.46	515876	13.97	411193	16.89
180-39432-1	ST-071-120114	359121	10.47	416225	13.96	347197	16.89
180-39432-3	ST-018-120114	393297	10.46	399915	13.97	362707	16.89
180-39432-4	ST-014-120114	351351	10.46	386581	13.97	336948	16.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

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

Column used to flag values outside QC limits

FORM VIII 8270D LL

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVIS 180-127670/3 Date Analyzed: 12/09/2014 10:39

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): V1209003.D Heated Purge: (Y/N) N

Calibration ID: 19203

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		78882	6.31	256165	7.52	174969	9.13
UPPER LIMIT		157764	6.81	512330	8.02	349938	9.63
LOWER LIMIT		39441	5.81	128083	7.02	87485	8.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-39432-2	ST-UNNAMED-120114	67271	6.31	198581	7.51	137354	9.13

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

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

Column used to flag values outside QC limits

FORM VIII 8270D LL

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVIS 180-127670/3 Date Analyzed: 12/09/2014 10:39

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm)

Lab File ID (Standard): V1209003.D Heated Purge: (Y/N) N

Calibration ID: 19203

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		379438	10.51	426226	14.02	332126	16.94
UPPER LIMIT		758876	11.01	852452	14.52	664252	17.44
LOWER LIMIT		189719	10.01	213113	13.52	166063	16.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-39432-2	ST-UNNAMED-120114	278647	10.50	320144	14.02	302206	16.94

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

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

Column used to flag values outside QC limits

FORM VIII 8270D LL

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-071-120114 | Lab Sample ID: 180-39432-1

Matrix: Water | Lab File ID: V1208015.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 17:35

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 12/08/2014 15:44

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.19	0.028
208-96-8	Acenaphthylene	ND		0.19	0.021
120-12-7	Anthracene	ND		0.19	0.018
92-87-5	Benzidine	ND		19	4.6
56-55-3	Benzo[a]anthracene	ND		0.19	0.035
205-99-2	Benzo[b]fluoranthene	ND		0.19	0.047
207-08-9	Benzo[k]fluoranthene	ND		0.19	0.029
65-85-0	Benzoic acid	ND		4.8	1.6
191-24-2	Benzo[g,h,i]perylene	ND		0.19	0.028
50-32-8	Benzo[a]pyrene	ND		0.19	0.027
111-91-1	Bis(2-chloroethoxy)methane	ND		0.96	0.13
111-44-4	Bis(2-chloroethyl)ether	ND		0.96	0.030
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1.9	0.42
108-60-1	2,2'-oxybis[1-chloropropane]	ND		0.96	0.023
101-55-3	4-Bromophenyl phenyl ether	ND		0.96	0.11
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.96	0.077
91-58-7	2-Chloronaphthalene	ND		0.19	0.030
85-68-7	Butyl benzyl phthalate	ND		0.96	0.21
218-01-9	Chrysene	ND		0.19	0.030
53-70-3	Dibenz(a,h)anthracene	ND		0.19	0.026
84-74-2	Di-n-butyl phthalate	ND		0.96	0.23
117-84-0	Di-n-octyl phthalate	ND		0.96	0.20
84-66-2	Diethyl phthalate	ND		0.96	0.29
131-11-3	Dimethyl phthalate	ND		0.96	0.18
91-94-1	3,3'-Dichlorobenzidine	ND		0.96	0.14
121-14-2	2,4-Dinitrotoluene	ND		0.96	0.21
606-20-2	2,6-Dinitrotoluene	ND		0.96	0.13
95-57-8	2-Chlorophenol	ND		0.96	0.22
120-83-2	2,4-Dichlorophenol	ND		0.96	0.065
105-67-9	2,4-Dimethylphenol	ND		0.96	0.16
51-28-5	2,4-Dinitrophenol	ND		4.8	2.4
88-75-5	2-Nitrophenol	ND		0.96	0.11
88-06-2	2,4,6-Trichlorophenol	ND		0.96	0.29
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	ND		0.96	0.11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-071-120114 | Lab Sample ID: 180-39432-1

Matrix: Water | Lab File ID: V1208015.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 17:35

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 12/08/2014 15:44

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		0.96	0.082
59-50-7	4-Chloro-3-methylphenol	ND		0.96	0.16
100-02-7	4-Nitrophenol	ND		4.8	0.77
534-52-1	4,6-Dinitro-2-methylphenol	ND		4.8	1.5
206-44-0	Fluoranthene	ND		0.19	0.020
86-73-7	Fluorene	ND		0.19	0.023
118-74-1	Hexachlorobenzene	ND		0.96	0.059
87-68-3	Hexachlorobutadiene	ND		0.96	0.090
77-47-4	Hexachlorocyclopentadiene	ND		0.96	0.13
67-72-1	Hexachloroethane	ND		0.96	0.13
193-39-5	Indeno[1,2,3-cd]pyrene	ND		0.19	0.042
78-59-1	Isophorone	ND		0.96	0.071
91-20-3	Naphthalene	ND		0.19	0.022
98-95-3	Nitrobenzene	ND		1.9	0.14
621-64-7	N-Nitrosodi-n-propylamine	ND		0.96	0.048
62-75-9	N-Nitrosodimethylamine	ND		0.96	0.11
86-30-6	N-Nitrosodiphenylamine	ND		0.96	0.12
85-01-8	Phenanthrene	ND		0.19	0.040
129-00-0	Pyrene	ND		0.19	0.022
87-86-5	Pentachlorophenol	ND		0.96	0.48
108-95-2	Phenol	ND		0.96	0.053

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	71		30-150
321-60-8	2-Fluorobiphenyl	63		30-150
367-12-4	2-Fluorophenol (Surr)	35		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	61		30-150
4165-62-2	Phenol-d5 (Surr)	50		30-150
1718-51-0	Terphenyl-d14 (Surr)	58		10-150

Report Date: 09-Dec-2014 05:58:45 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208015.D
Lims ID: 180-39432-E-1-A Lab Sample ID: 180-39432-1
Client ID: ST-071-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 15:44:30 ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-015
Misc. Info.: 180-39432-E-1-A
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 09-Dec-2014 05:55:14

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 1,4-Dichlorobenzene-d4	152	6.277	6.277	0.000	89	81793	8.00	
*	2 Naphthalene-d8	136	7.473	7.479	-0.006	97	252877	8.00	
*	3 Acenaphthene-d10	164	9.092	9.097	-0.005	91	183080	8.00	
*	4 Phenanthrene-d10	188	10.465	10.465	0.000	96	359121	8.00	
*	5 Chrysene-d12	240	13.964	13.964	0.000	94	416225	8.00	
*	6 Perylene-d12	264	16.892	16.881	0.011	97	347197	8.00	
$	7 2-Fluorophenol	112	4.947	4.946	0.001	89	183235	13.9	
$	8 Phenol-d5	99	5.924	5.924	0.000	86	319201	19.8	
$	9 Nitrobenzene-d5	82	6.795	6.800	-0.005	91	438157	24.5	
$	10 2-Fluorobiphenyl	172	8.456	8.456	0.000	99	887583	25.1	
$	11 2,4,6-Tribromophenol	330	9.813	9.818	-0.005	79	123260	28.6	
$	12 Terphenyl-d14	244	12.223	12.217	0.006	98	1149952	23.2	
	14 N-Nitrosodimethylamine	74		2.537				ND	
	27 Phenol	94		5.940				ND	
	29 Bis(2-chloroethyl)ether	93		6.015				ND	
	31 2-Chlorophenol	128		6.074				ND	
	40 2,2'-oxybis[1-chloropropan	45		6.538				ND	
	44 N-Nitrosodi-n-propylamine	70		6.651				ND	
	47 Hexachloroethane	117		6.768				ND	
	48 Nitrobenzene	77		6.816				ND	
	50 Isophorone	82		7.035				ND	
	51 2-Nitrophenol	139		7.121				ND	
	52 2,4-Dimethylphenol	107		7.147				ND	
	56 Benzoic acid	122		7.201				ND	
	55 Bis(2-chloroethoxy)methane	93		7.227				ND	
	57 2,4-Dichlorophenol	162		7.345				ND	
	59 1,2,4-Trichlorobenzene	180		7.425				ND	
	60 Naphthalene	128		7.500				ND	
	64 Hexachlorobutadiene	225		7.612				ND	
	70 4-Chloro-3-methylphenol	107		7.965				ND	
	76 Hexachlorocyclopentadiene	237		8.285				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
78 2,4,6-Trichlorophenol	196		8.387				ND	
81 2-Chloronaphthalene	162		8.584				ND	
86 Dimethyl phthalate	163		8.809				ND	
88 2,6-Dinitrotoluene	165		8.868				ND	
89 Acenaphthylene	152		8.969				ND	
92 2,4-Dinitrophenol	184		9.124				ND	
91 Acenaphthene	153		9.124				ND	
93 4-Nitrophenol	109		9.161				ND	
94 2,4-Dinitrotoluene	165		9.241				ND	
101 Diethyl phthalate	149		9.444				ND	
104 4-Chlorophenyl phenyl ethe	204		9.573				ND	
106 Fluorene	166		9.594				ND	
108 4,6-Dinitro-2-methylphenol	198		9.621				ND	
109 N-Nitrosodiphenylamine	169		9.680				ND	
111 1,2-Diphenylhydrazine	77		9.722				ND	
116 4-Bromophenyl phenyl ether	248		10.027				ND	
118 Hexachlorobenzene	284		10.112				ND	
122 Pentachlorophenol	266		10.278				ND	
126 Phenanthrene	178		10.486				ND	
128 Anthracene	178		10.534				ND	
132 Di-n-butyl phthalate	149		10.962				ND	
137 Fluoranthene	202		11.768				ND	
138 Benzidine	184		11.891				ND	
139 Pyrene	202		12.067				ND	
144 Butyl benzyl phthalate	149		12.906				ND	
149 3,3'-Dichlorobenzidine	252		13.862				ND	
151 Bis(2-ethylhexyl) phthalat	149		13.894				ND	
152 Benzo[a]anthracene	228		13.943				ND	
153 Chrysene	228		14.012				ND	
156 Di-n-octyl phthalate	149		15.193				ND	
158 Benzo[b]fluoranthene	252		16.085				ND	
159 Benzo[k]fluoranthene	252		16.133				ND	
160 Benzo[a]pyrene	252		16.769				ND	
163 Indeno[1,2,3-cd]pyrene	276		19.092				ND	
164 Dibenz(a,h)anthracene	278		19.130				ND	
165 Benzo[g,h,i]perylene	276		19.696				ND	

Reagents:

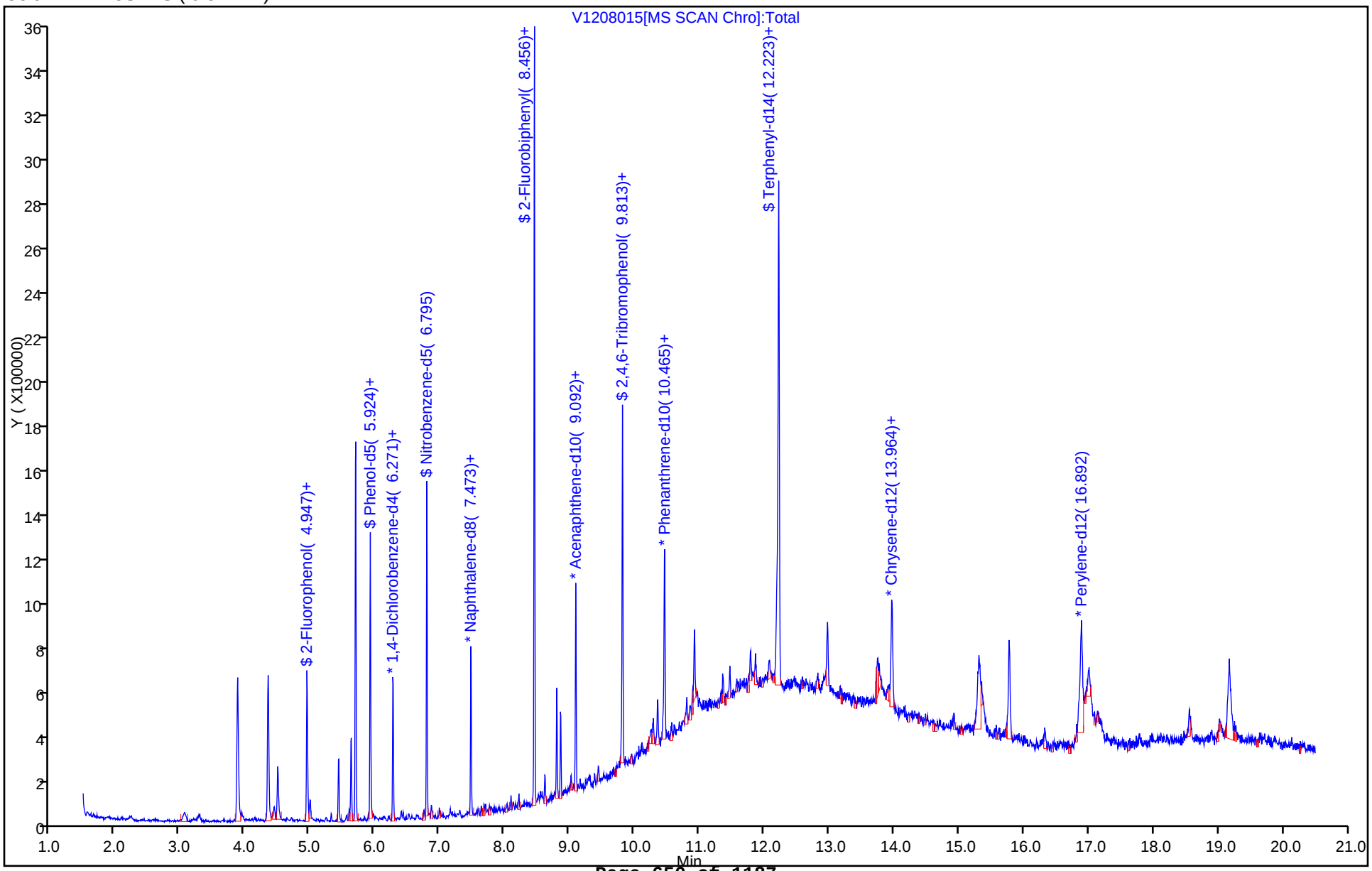
SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 09-Dec-2014 05:58:45 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141208-4758.b\V1208015.D				
Injection Date:	08-Dec-2014 15:44:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	180-39432-E-1-A	Lab Sample ID:	180-39432-1	Worklist Smp#:	15
Client ID:	ST-071-120114				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-UNNAMED-120114 | Lab Sample ID: 180-39432-2

Matrix: Water | Lab File ID: V1209016.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 18:25

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 12/09/2014 16:49

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127670 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.19	0.028
208-96-8	Acenaphthylene	ND		0.19	0.021
120-12-7	Anthracene	ND		0.19	0.018
92-87-5	Benzidine	ND		19	4.6
56-55-3	Benzo[a]anthracene	ND		0.19	0.035
205-99-2	Benzo[b]fluoranthene	ND		0.19	0.047
207-08-9	Benzo[k]fluoranthene	ND		0.19	0.029
65-85-0	Benzoic acid	ND		4.8	1.6
191-24-2	Benzo[g,h,i]perylene	ND		0.19	0.028
50-32-8	Benzo[a]pyrene	ND		0.19	0.027
111-91-1	Bis(2-chloroethoxy)methane	ND		0.96	0.13
111-44-4	Bis(2-chloroethyl)ether	ND		0.96	0.030
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1.9	0.42
108-60-1	2,2'-oxybis[1-chloropropane]	ND		0.96	0.023
101-55-3	4-Bromophenyl phenyl ether	ND		0.96	0.11
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.96	0.077
91-58-7	2-Chloronaphthalene	ND		0.19	0.030
85-68-7	Butyl benzyl phthalate	ND		0.96	0.21
218-01-9	Chrysene	ND		0.19	0.030
53-70-3	Dibenz(a,h)anthracene	ND		0.19	0.026
84-74-2	Di-n-butyl phthalate	ND		0.96	0.23
117-84-0	Di-n-octyl phthalate	ND		0.96	0.20
84-66-2	Diethyl phthalate	ND		0.96	0.29
131-11-3	Dimethyl phthalate	ND		0.96	0.18
91-94-1	3,3'-Dichlorobenzidine	ND		0.96	0.14
121-14-2	2,4-Dinitrotoluene	ND		0.96	0.21
606-20-2	2,6-Dinitrotoluene	ND		0.96	0.13
95-57-8	2-Chlorophenol	ND		0.96	0.22
120-83-2	2,4-Dichlorophenol	ND		0.96	0.065
105-67-9	2,4-Dimethylphenol	ND		0.96	0.16
51-28-5	2,4-Dinitrophenol	ND		4.8	2.4
88-75-5	2-Nitrophenol	ND		0.96	0.11
88-06-2	2,4,6-Trichlorophenol	ND		0.96	0.29
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	ND		0.96	0.11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-UNNAMED-120114 | Lab Sample ID: 180-39432-2

Matrix: Water | Lab File ID: V1209016.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 18:25

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 12/09/2014 16:49

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127670 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		0.96	0.082
59-50-7	4-Chloro-3-methylphenol	ND		0.96	0.16
100-02-7	4-Nitrophenol	ND		4.8	0.77
534-52-1	4,6-Dinitro-2-methylphenol	ND		4.8	1.5
206-44-0	Fluoranthene	ND		0.19	0.020
86-73-7	Fluorene	ND		0.19	0.023
118-74-1	Hexachlorobenzene	ND		0.96	0.059
87-68-3	Hexachlorobutadiene	ND		0.96	0.090
77-47-4	Hexachlorocyclopentadiene	ND		0.96	0.13
67-72-1	Hexachloroethane	ND		0.96	0.13
193-39-5	Indeno[1,2,3-cd]pyrene	ND		0.19	0.042
78-59-1	Isophorone	ND		0.96	0.071
91-20-3	Naphthalene	ND		0.19	0.022
98-95-3	Nitrobenzene	ND		1.9	0.14
621-64-7	N-Nitrosodi-n-propylamine	ND		0.96	0.048
62-75-9	N-Nitrosodimethylamine	ND		0.96	0.11
86-30-6	N-Nitrosodiphenylamine	ND		0.96	0.12
85-01-8	Phenanthrene	ND		0.19	0.040
129-00-0	Pyrene	ND		0.19	0.022
87-86-5	Pentachlorophenol	ND		0.96	0.48
108-95-2	Phenol	ND		0.96	0.053

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	51		30-150
321-60-8	2-Fluorobiphenyl	67		30-150
367-12-4	2-Fluorophenol (Surr)	30		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	68		30-150
4165-62-2	Phenol-d5 (Surr)	35		30-150
1718-51-0	Terphenyl-d14 (Surr)	73		10-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209016.D
Lims ID: 180-39432-E-2-A Lab Sample ID: 180-39432-2
Client ID: ST-UNNAMED-120114
Sample Type: Client
Inject. Date: 09-Dec-2014 16:49:30 ALS Bottle#: 15 Worklist Smp#: 16
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004779-016
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141209-4779.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 10-Dec-2014 07:12:36 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: piccolinov Date: 10-Dec-2014 07:11:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.305	6.313	-0.008	86	67271	8.00	
* 2 Naphthalene-d8	136	7.507	7.520	-0.013	97	198581	8.00	
* 3 Acenaphthene-d10	164	9.131	9.133	-0.002	91	137354	8.00	
* 4 Phenanthrene-d10	188	10.498	10.506	-0.008	96	278647	8.00	
* 5 Chrysene-d12	240	14.019	14.021	-0.002	96	320144	8.00	
* 6 Perylene-d12	264	16.935	16.943	-0.008	96	302206	8.00	
$ 7 2-Fluorophenol	112	4.969	4.977	-0.008	88	131976	12.1	
$ 8 Phenol-d5	99	5.952	5.960	-0.008	82	182962	13.8	
$ 9 Nitrobenzene-d5	82	6.828	6.836	-0.008	91	381379	27.2	
$ 10 2-Fluorobiphenyl	172	8.490	8.498	-0.008	98	711372	26.8	
$ 11 2,4,6-Tribromophenol	330	9.852	9.854	-0.002	78	68123	20.4	
$ 12 Terphenyl-d14	244	12.266	12.269	-0.003	98	1115721	29.3	
14 N-Nitrosodimethylamine	74		2.562				ND	
27 Phenol	94		5.971				ND	
29 Bis(2-chloroethyl)ether	93		6.051				ND	
31 2-Chlorophenol	128		6.104				ND	
40 2,2'-oxybis[1-chloropropan	45		6.569				ND	
44 N-Nitrosodi-n-propylamine	70		6.687				ND	
47 Hexachloroethane	117		6.804				ND	
48 Nitrobenzene	77		6.852				ND	
50 Isophorone	82		7.077				ND	
51 2-Nitrophenol	139		7.157				ND	
52 2,4-Dimethylphenol	107		7.189				ND	
56 Benzoic acid	122		7.232				ND	
55 Bis(2-chloroethoxy)methane	93		7.269				ND	
57 2,4-Dichlorophenol	162		7.381				ND	
59 1,2,4-Trichlorobenzene	180		7.461				ND	
60 Naphthalene	128		7.541				ND	
64 Hexachlorobutadiene	225		7.654				ND	
70 4-Chloro-3-methylphenol	107		8.006				ND	
76 Hexachlorocyclopentadiene	237		8.321				ND	
78 2,4,6-Trichlorophenol	196		8.423				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
81 2-Chloronaphthalene	162		8.620				ND	
86 Dimethyl phthalate	163		8.845				ND	
88 2,6-Dinitrotoluene	165		8.909				ND	
89 Acenaphthylene	152		9.005				ND	
92 2,4-Dinitrophenol	184		9.165				ND	
91 Acenaphthene	153		9.165				ND	
93 4-Nitrophenol	109		9.203				ND	
94 2,4-Dinitrotoluene	165		9.283				ND	
101 Diethyl phthalate	149	9.478	9.481	-0.003	60	4744	0.1854	
104 4-Chlorophenyl phenyl ethe	204		9.614				ND	
106 Fluorene	166		9.635				ND	
108 4,6-Dinitro-2-methylphenol	198		9.657				ND	
109 N-Nitrosodiphenylamine	169		9.721				ND	
111 1,2-Diphenylhydrazine	77		9.758				ND	
116 4-Bromophenyl phenyl ether	248		10.068				ND	
118 Hexachlorobenzene	284		10.154				ND	
122 Pentachlorophenol	266		10.325				ND	
126 Phenanthrene	178		10.528				ND	
128 Anthracene	178		10.576				ND	
132 Di-n-butyl phthalate	149		11.008				ND	
137 Fluoranthene	202		11.815				ND	
138 Benzidine	184		11.938				ND	
139 Pyrene	202		12.114				ND	
144 Butyl benzyl phthalate	149		12.958				ND	
149 3,3'-Dichlorobenzidine	252		13.920				ND	
151 Bis(2-ethylhexyl) phthalat	149	13.949	13.952	-0.003	31	14534	0.6103	
152 Benzo[a]anthracene	228		14.000				ND	
153 Chrysene	228		14.064				ND	
156 Di-n-octyl phthalate	149		15.250				ND	
158 Benzo[b]fluoranthene	252		16.148				ND	
159 Benzo[k]fluoranthene	252		16.196				ND	
160 Benzo[a]pyrene	252		16.831				ND	
163 Indeno[1,2,3-cd]pyrene	276		19.166				ND	
164 Dibenz(a,h)anthracene	278		19.193				ND	
165 Benzo[g,h,i]perylene	276		19.759				ND	

Reagents:

SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

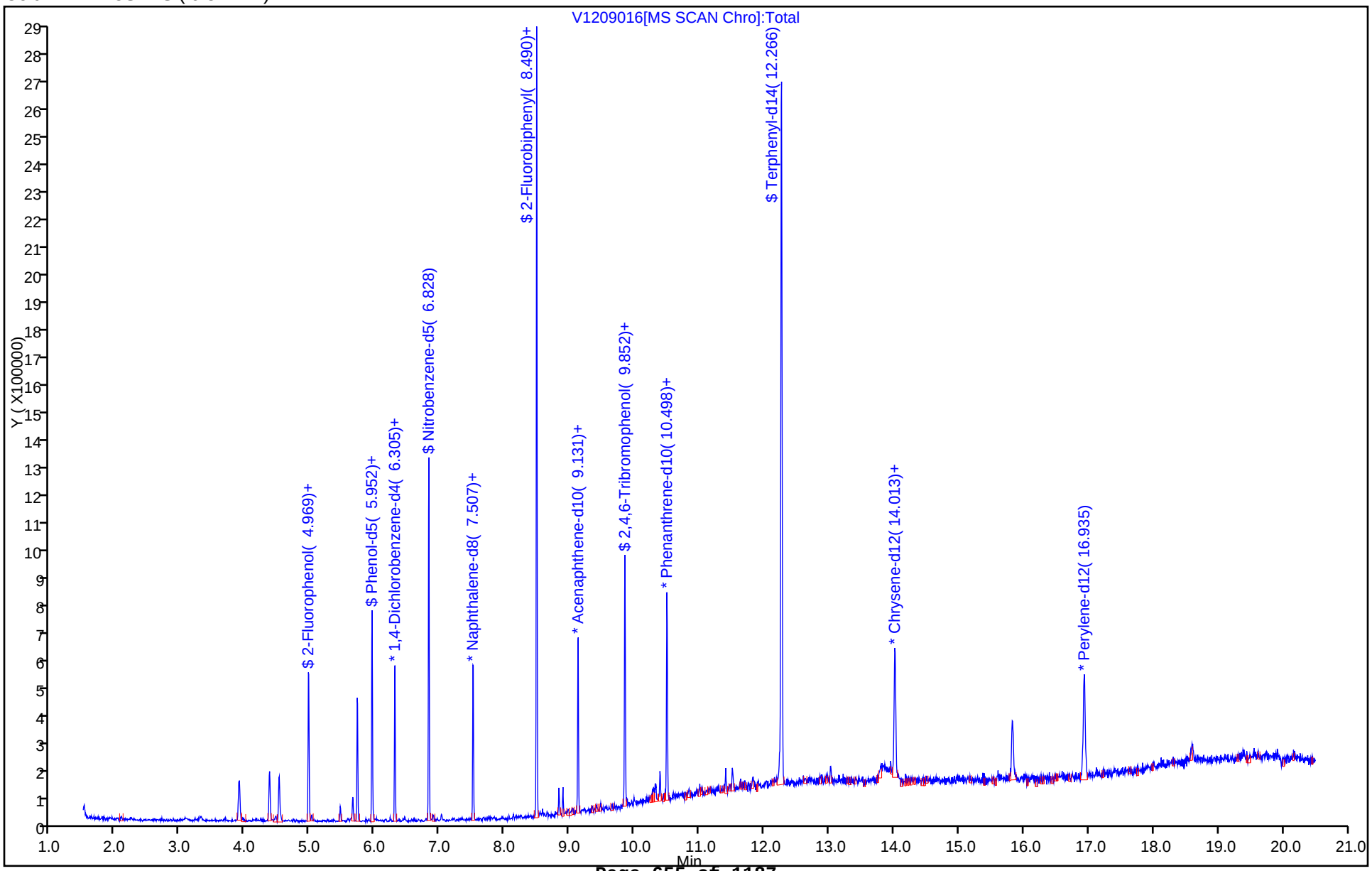
Report Date: 10-Dec-2014 07:12:48 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209016.D

Injection Date:	09-Dec-2014 16:49:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	180-39432-E-2-A	Lab Sample ID:	180-39432-2	Worklist Smp#:	16
Client ID:	ST-UNNAMED-120114				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-018-120114 | Lab Sample ID: 180-39432-3

Matrix: Water | Lab File ID: V1208017.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 18:50

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 12/08/2014 16:41

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.19	0.028
208-96-8	Acenaphthylene	ND		0.19	0.021
120-12-7	Anthracene	ND		0.19	0.018
92-87-5	Benzidine	ND		19	4.6
56-55-3	Benzo[a]anthracene	ND		0.19	0.035
205-99-2	Benzo[b]fluoranthene	ND		0.19	0.047
207-08-9	Benzo[k]fluoranthene	ND		0.19	0.029
65-85-0	Benzoic acid	ND		4.8	1.6
191-24-2	Benzo[g,h,i]perylene	ND		0.19	0.028
50-32-8	Benzo[a]pyrene	ND		0.19	0.027
111-91-1	Bis(2-chloroethoxy)methane	ND		0.96	0.13
111-44-4	Bis(2-chloroethyl)ether	ND		0.96	0.030
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1.9	0.42
108-60-1	2,2'-oxybis[1-chloropropane]	ND		0.96	0.023
101-55-3	4-Bromophenyl phenyl ether	ND		0.96	0.11
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.96	0.077
91-58-7	2-Chloronaphthalene	ND		0.19	0.030
85-68-7	Butyl benzyl phthalate	ND		0.96	0.21
218-01-9	Chrysene	ND		0.19	0.030
53-70-3	Dibenz(a,h)anthracene	ND		0.19	0.026
84-74-2	Di-n-butyl phthalate	ND		0.96	0.23
117-84-0	Di-n-octyl phthalate	ND		0.96	0.20
84-66-2	Diethyl phthalate	ND		0.96	0.29
131-11-3	Dimethyl phthalate	ND		0.96	0.18
91-94-1	3,3'-Dichlorobenzidine	ND		0.96	0.14
121-14-2	2,4-Dinitrotoluene	ND		0.96	0.21
606-20-2	2,6-Dinitrotoluene	ND		0.96	0.13
95-57-8	2-Chlorophenol	ND		0.96	0.22
120-83-2	2,4-Dichlorophenol	ND		0.96	0.065
105-67-9	2,4-Dimethylphenol	1.8		0.96	0.16
51-28-5	2,4-Dinitrophenol	ND		4.8	2.4
88-75-5	2-Nitrophenol	ND		0.96	0.11
88-06-2	2,4,6-Trichlorophenol	ND		0.96	0.29
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	ND		0.96	0.11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-018-120114 | Lab Sample ID: 180-39432-3

Matrix: Water | Lab File ID: V1208017.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 18:50

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 12/08/2014 16:41

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		0.96	0.082
59-50-7	4-Chloro-3-methylphenol	ND		0.96	0.16
100-02-7	4-Nitrophenol	ND		4.8	0.77
534-52-1	4,6-Dinitro-2-methylphenol	ND		4.8	1.5
206-44-0	Fluoranthene	ND		0.19	0.020
86-73-7	Fluorene	ND		0.19	0.023
118-74-1	Hexachlorobenzene	ND		0.96	0.059
87-68-3	Hexachlorobutadiene	ND		0.96	0.090
77-47-4	Hexachlorocyclopentadiene	ND		0.96	0.13
67-72-1	Hexachloroethane	ND		0.96	0.13
193-39-5	Indeno[1,2,3-cd]pyrene	ND		0.19	0.042
78-59-1	Isophorone	ND		0.96	0.071
91-20-3	Naphthalene	0.13	J	0.19	0.022
98-95-3	Nitrobenzene	ND		1.9	0.14
621-64-7	N-Nitrosodi-n-propylamine	ND		0.96	0.048
62-75-9	N-Nitrosodimethylamine	ND		0.96	0.11
86-30-6	N-Nitrosodiphenylamine	ND		0.96	0.12
85-01-8	Phenanthrene	ND		0.19	0.040
129-00-0	Pyrene	ND		0.19	0.022
87-86-5	Pentachlorophenol	ND		0.96	0.48
108-95-2	Phenol	3.3		0.96	0.053

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	72		30-150
321-60-8	2-Fluorobiphenyl	68		30-150
367-12-4	2-Fluorophenol (Surr)	44		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	61		30-150
4165-62-2	Phenol-d5 (Surr)	58		30-150
1718-51-0	Terphenyl-d14 (Surr)	79		10-150

Report Date: 09-Dec-2014 05:58:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208017.D
Lims ID: 180-39432-E-3-A Lab Sample ID: 180-39432-3
Client ID: ST-018-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 16:41:30 ALS Bottle#: 16 Worklist Smp#: 17
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-017
Misc. Info.: 180-39432-E-3-A
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 09-Dec-2014 05:56:55

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 1,4-Dichlorobenzene-d4	152	6.274	6.277	-0.003	88	80781	8.00	
*	2 Naphthalene-d8	136	7.476	7.479	-0.003	97	274115	8.00	
*	3 Acenaphthene-d10	164	9.095	9.097	-0.002	92	189491	8.00	
*	4 Phenanthrene-d10	188	10.463	10.465	-0.002	96	393297	8.00	
*	5 Chrysene-d12	240	13.967	13.964	0.003	95	399915	8.00	
*	6 Perylene-d12	264	16.889	16.881	0.008	97	362707	8.00	
$	7 2-Fluorophenol	112	4.955	4.946	0.009	90	230249	17.6	
$	8 Phenol-d5	99	5.927	5.924	0.003	83	366957	23.1	
$	9 Nitrobenzene-d5	82	6.798	6.800	-0.002	90	473462	24.4	
$	10 2-Fluorobiphenyl	172	8.454	8.456	-0.002	99	989993	27.1	
$	11 2,4,6-Tribromophenol	330	9.816	9.818	-0.002	79	135319	28.7	
$	12 Terphenyl-d14	244	12.220	12.217	0.003	99	1510173	31.7	
	14 N-Nitrosodimethylamine	74		2.537				ND	
	27 Phenol	94	5.943	5.940	0.003	87	121298	6.90	
	29 Bis(2-chloroethyl)ether	93		6.015				ND	
	31 2-Chlorophenol	128		6.074				ND	
	40 2,2'-oxybis[1-chloropropan	45		6.538				ND	
	44 N-Nitrosodi-n-propylamine	70		6.651				ND	
	47 Hexachloroethane	117		6.768				ND	
	48 Nitrobenzene	77		6.816				ND	
	50 Isophorone	82		7.035				ND	
	51 2-Nitrophenol	139		7.121				ND	
	52 2,4-Dimethylphenol	107	7.161	7.147	0.014	89	61493	3.80	
	56 Benzoic acid	122		7.201				ND	
	55 Bis(2-chloroethoxy)methane	93		7.227				ND	
	57 2,4-Dichlorophenol	162		7.345				ND	
	59 1,2,4-Trichlorobenzene	180		7.425				ND	
	60 Naphthalene	128	7.498	7.500	-0.002	93	10935	0.2805	
	64 Hexachlorobutadiene	225		7.612				ND	
	70 4-Chloro-3-methylphenol	107		7.965				ND	
	76 Hexachlorocyclopentadiene	237		8.285				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
78 2,4,6-Trichlorophenol	196		8.387				ND	
81 2-Chloronaphthalene	162		8.584				ND	
86 Dimethyl phthalate	163		8.809				ND	
88 2,6-Dinitrotoluene	165		8.868				ND	
89 Acenaphthylene	152		8.969				ND	
92 2,4-Dinitrophenol	184		9.124				ND	
91 Acenaphthene	153		9.124				ND	
93 4-Nitrophenol	109		9.161				ND	
94 2,4-Dinitrotoluene	165		9.241				ND	
101 Diethyl phthalate	149	9.442	9.444	-0.002	92	9654	0.2735	
104 4-Chlorophenyl phenyl ethe	204		9.573				ND	
106 Fluorene	166		9.594				ND	
108 4,6-Dinitro-2-methylphenol	198		9.621				ND	
109 N-Nitrosodiphenylamine	169		9.680				ND	
111 1,2-Diphenylhydrazine	77		9.722				ND	
116 4-Bromophenyl phenyl ether	248		10.027				ND	
118 Hexachlorobenzene	284		10.112				ND	
122 Pentachlorophenol	266		10.278				ND	
126 Phenanthrene	178		10.486				ND	
128 Anthracene	178		10.534				ND	
132 Di-n-butyl phthalate	149		10.962				ND	
137 Fluoranthene	202		11.768				ND	
138 Benzidine	184		11.891				ND	
139 Pyrene	202		12.067				ND	
144 Butyl benzyl phthalate	149		12.906				ND	
149 3,3'-Dichlorobenzidine	252		13.862				ND	
151 Bis(2-ethylhexyl) phthalat	149	13.898	13.894	0.004	53	20326	0.6833	
152 Benzo[a]anthracene	228		13.943				ND	
153 Chrysene	228		14.012				ND	
156 Di-n-octyl phthalate	149		15.193				ND	
158 Benzo[b]fluoranthene	252		16.085				ND	
159 Benzo[k]fluoranthene	252		16.133				ND	
160 Benzo[a]pyrene	252		16.769				ND	
163 Indeno[1,2,3-cd]pyrene	276		19.092				ND	
164 Dibenz(a,h)anthracene	278		19.130				ND	
165 Benzo[g,h,i]perylene	276		19.696				ND	

Reagents:

SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

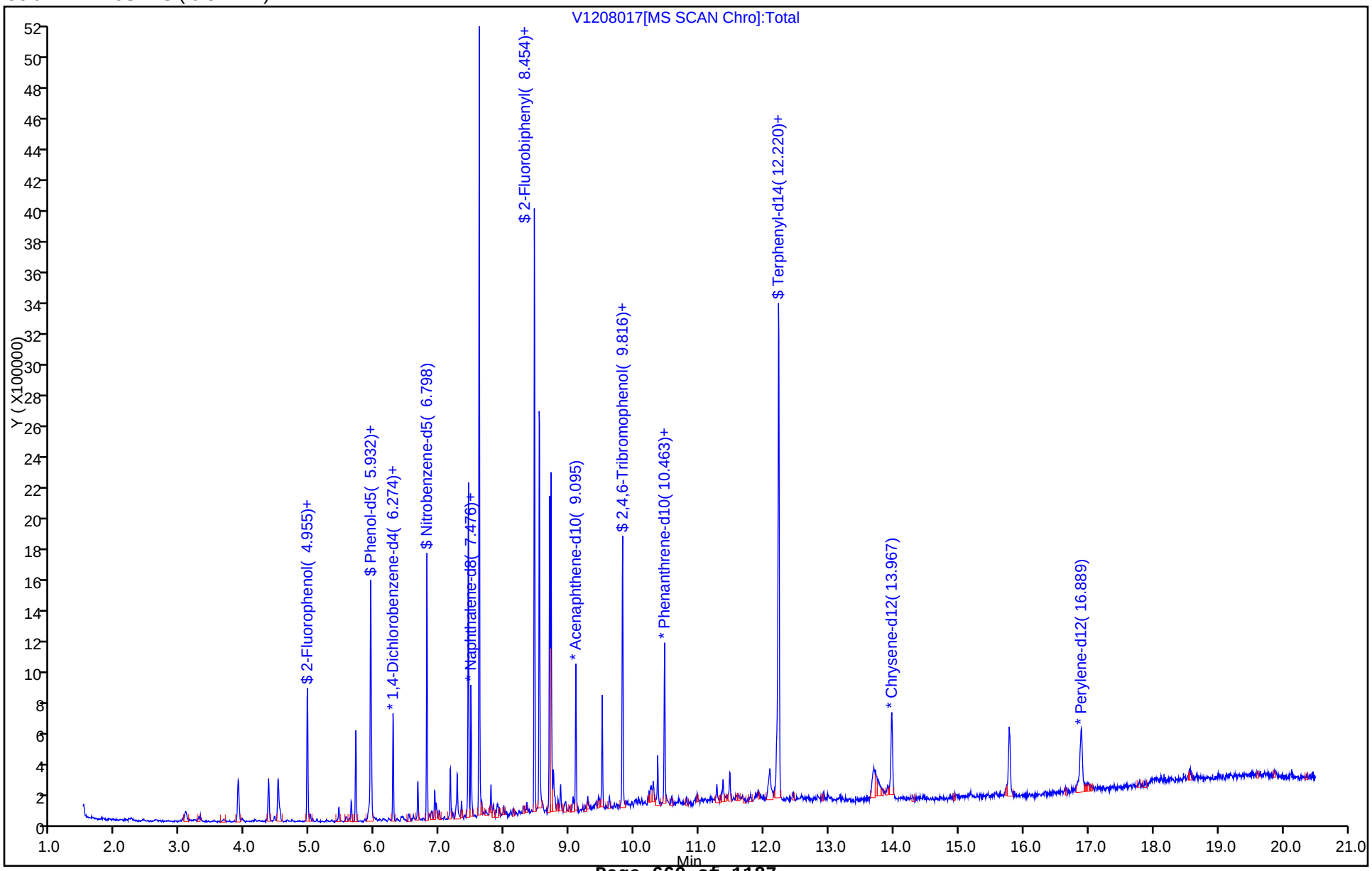
Report Date: 09-Dec-2014 05:58:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208017.D

Injection Date:	08-Dec-2014 16:41:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	180-39432-E-3-A	Lab Sample ID:	180-39432-3	Worklist Smp#:	17
Client ID:	ST-018-120114				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)

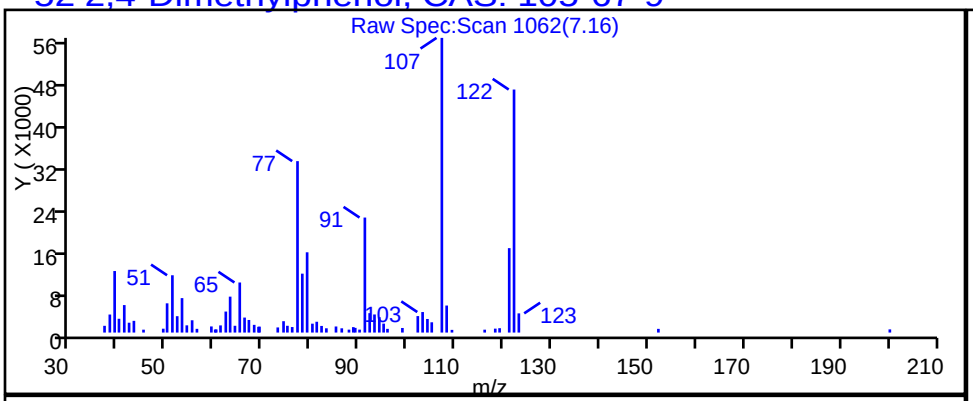


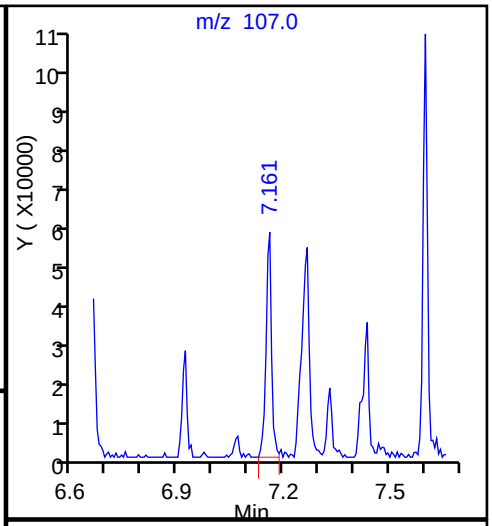
Report Date: 09-Dec-2014 05:58:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

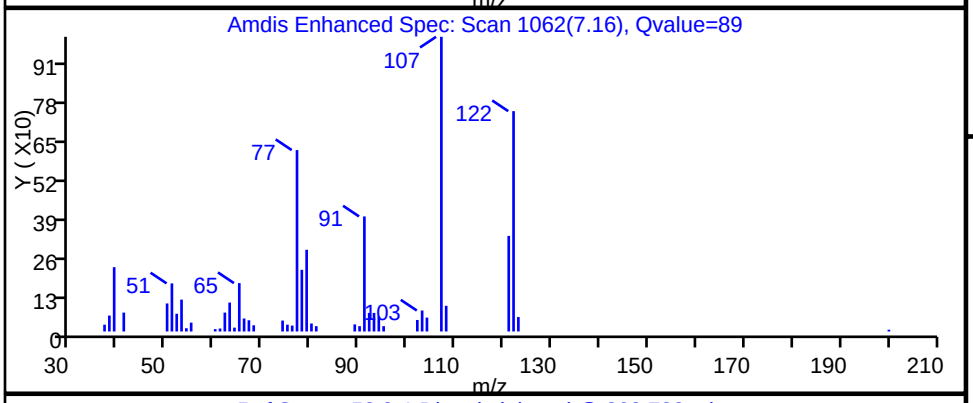
TestAmerica Pittsburgh

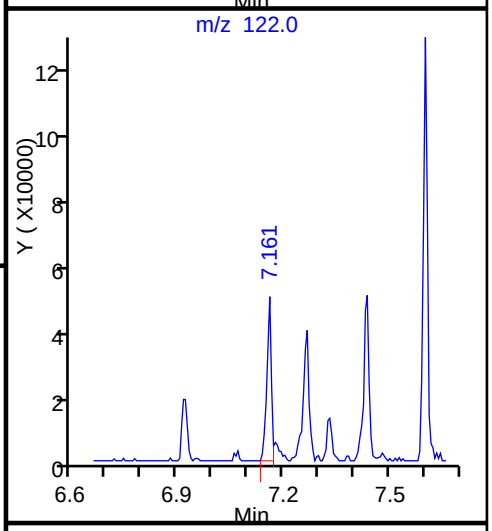
Data File:	\\PITCHROM\ChromData\CH731\20141208-4758.b\V1208017.D				
Injection Date:	08-Dec-2014 16:41:30	Instrument ID:	CH731		
Lims ID:	180-39432-E-3-A	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	003200	ALS Bottle#:	16	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

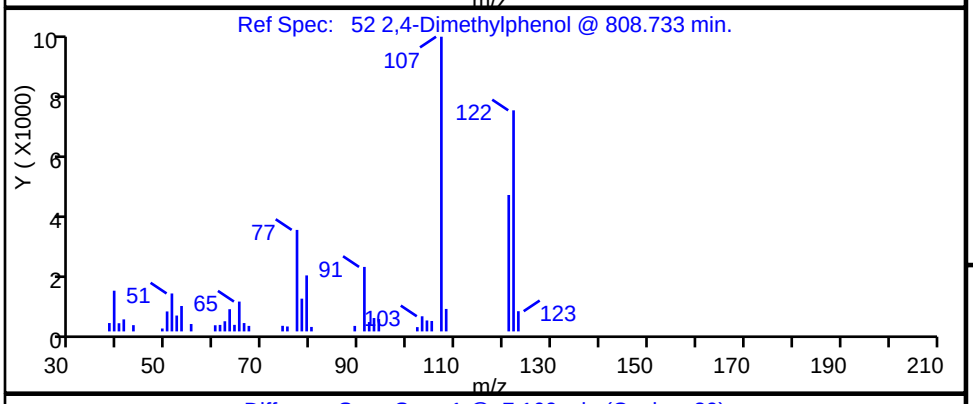
52 2,4-Dimethylphenol, CAS: 105-67-9

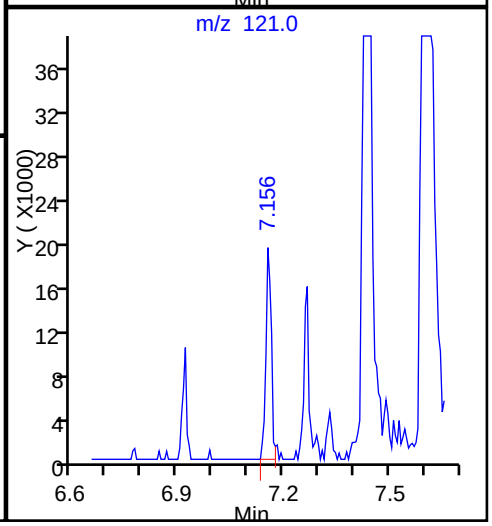


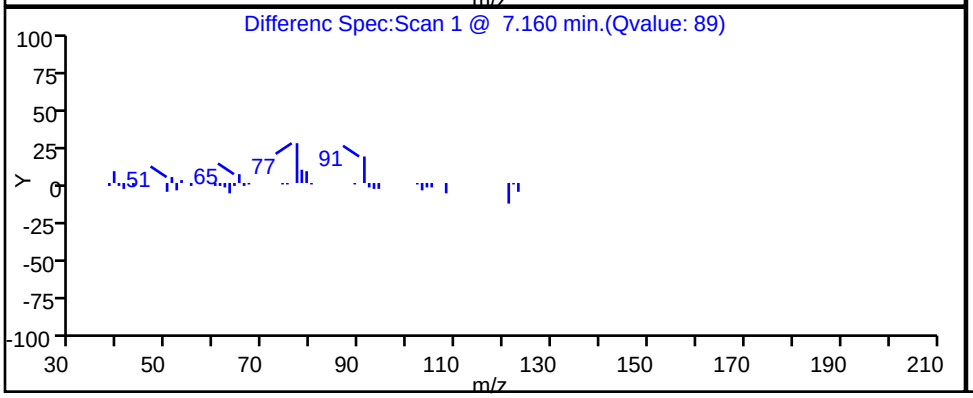












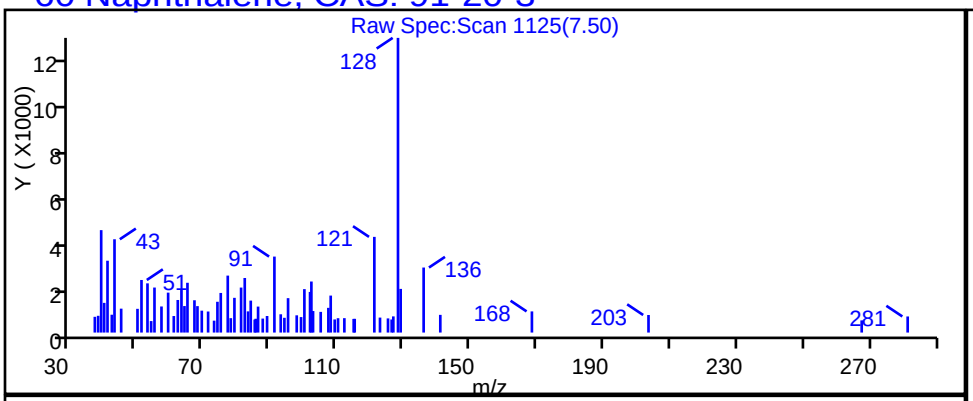
Report Date: 09-Dec-2014 05:58:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

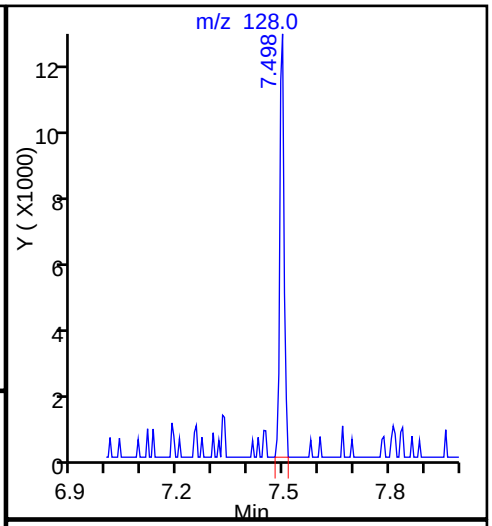
TestAmerica Pittsburgh

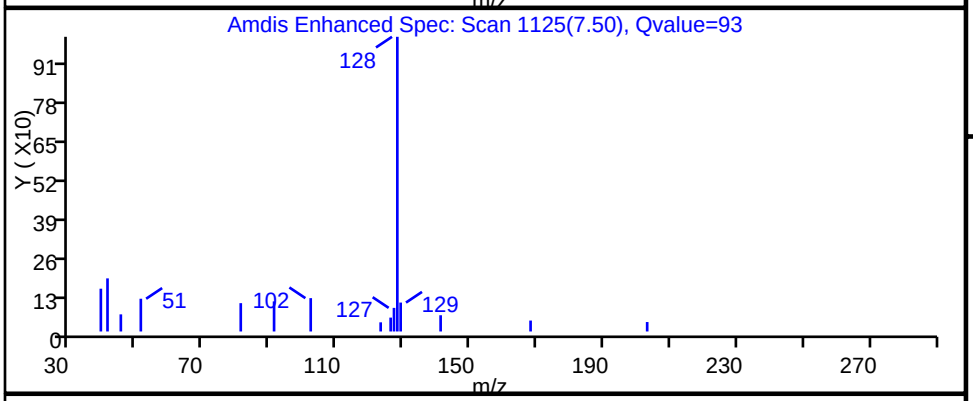
Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208017.D

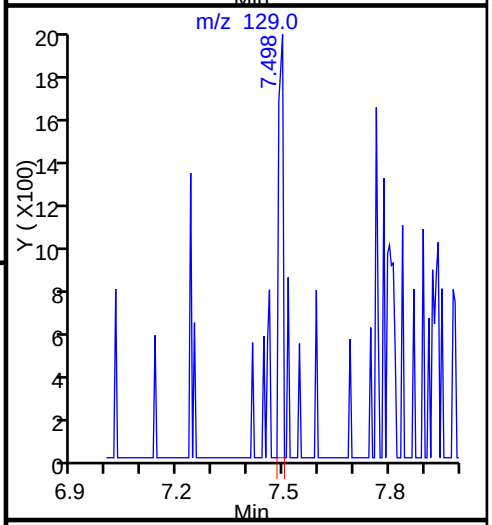
Injection Date:	08-Dec-2014 16:41:30	Instrument ID:	CH731		
Lims ID:	180-39432-E-3-A	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	003200	ALS Bottle#:	16	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

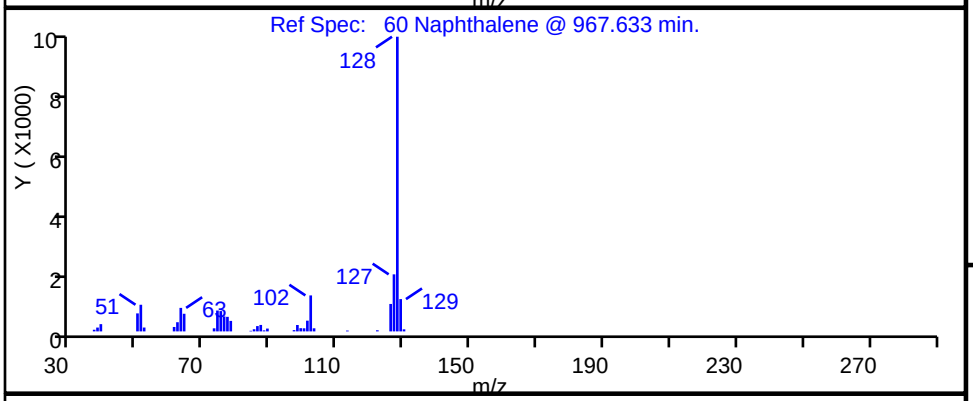
60 Naphthalene, CAS: 91-20-3

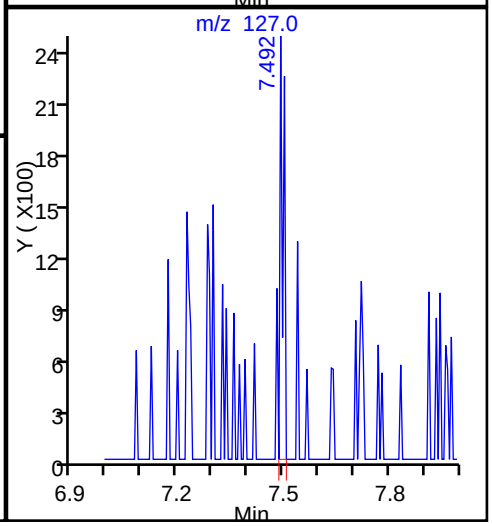


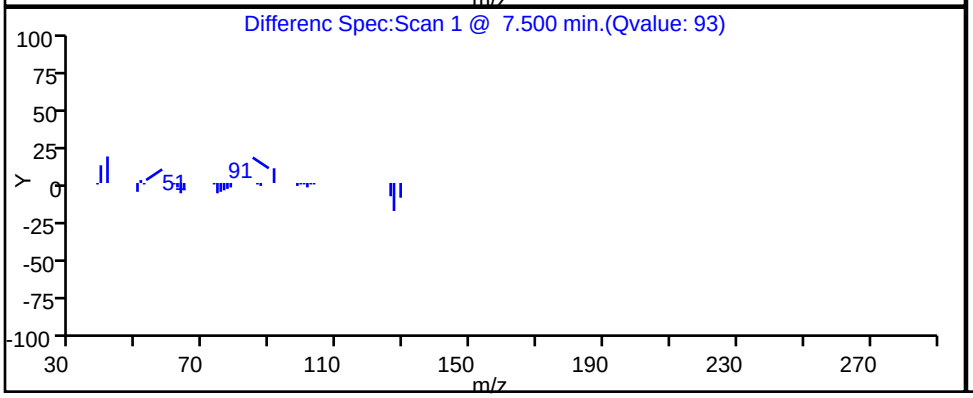












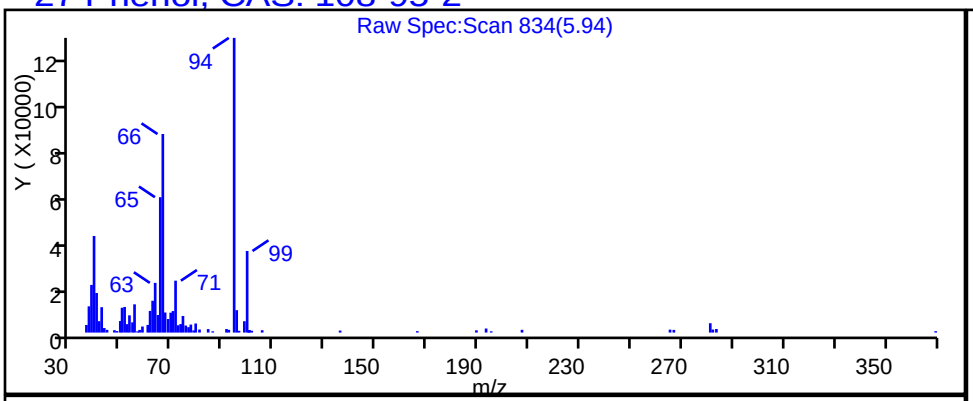
Report Date: 09-Dec-2014 05:58:47 Chrom Revision: 2.2 06-Nov-2014 14:50:32

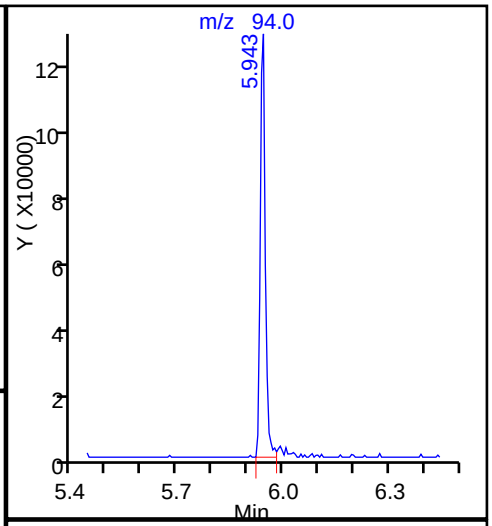
TestAmerica Pittsburgh

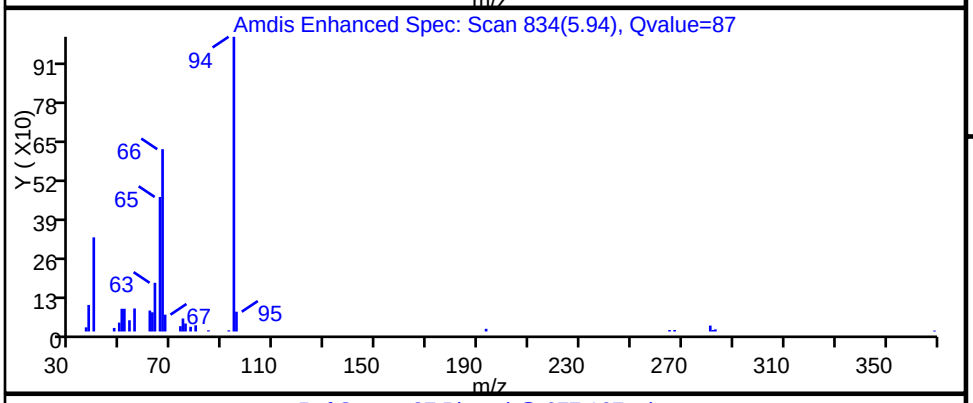
Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208017.D

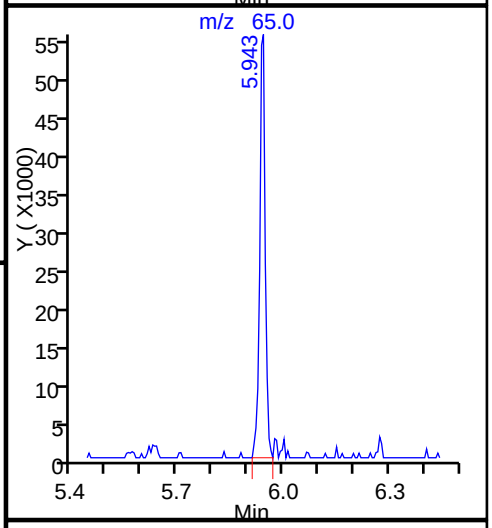
Injection Date:	08-Dec-2014 16:41:30	Instrument ID:	CH731		
Lims ID:	180-39432-E-3-A	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	003200	ALS Bottle#:	16	Worklist Smp#:	17
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

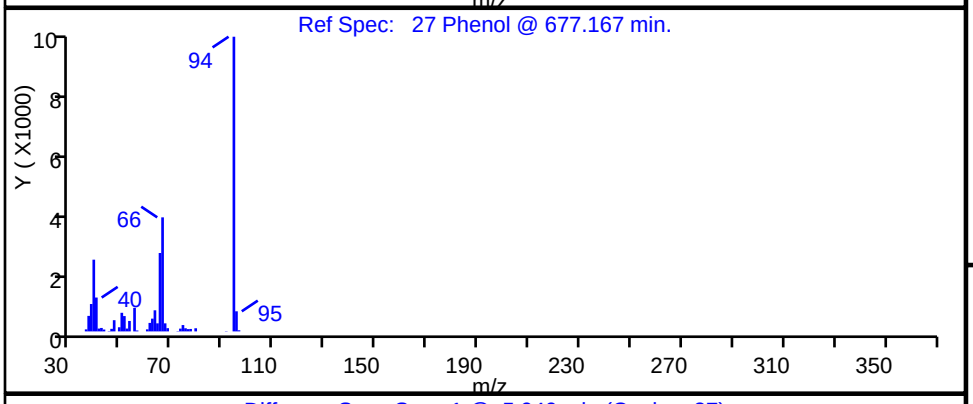
27 Phenol, CAS: 108-95-2

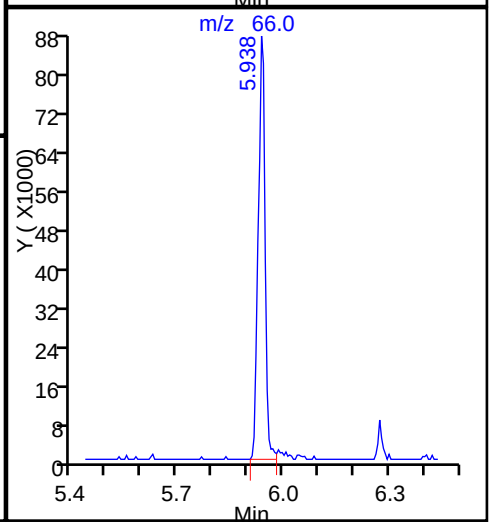


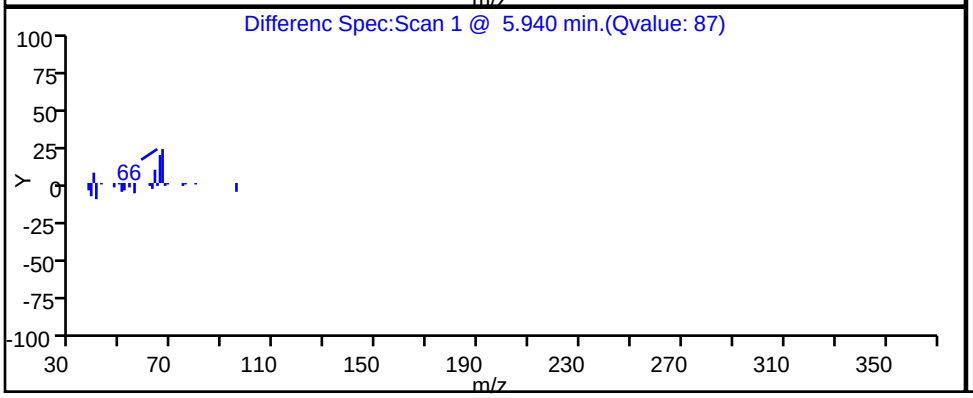












FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-014-120114 | Lab Sample ID: 180-39432-4

Matrix: Water | Lab File ID: V1208018.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 19:20

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:17

Sample wt/vol: 260(mL) | Date Analyzed: 12/08/2014 17:09

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.19	0.028
208-96-8	Acenaphthylene	ND		0.19	0.021
120-12-7	Anthracene	ND		0.19	0.018
92-87-5	Benzidine	ND		19	4.6
56-55-3	Benzo[a]anthracene	ND		0.19	0.035
205-99-2	Benzo[b]fluoranthene	ND		0.19	0.047
207-08-9	Benzo[k]fluoranthene	ND		0.19	0.029
65-85-0	Benzoic acid	ND		4.8	1.6
191-24-2	Benzo[g,h,i]perylene	ND		0.19	0.028
50-32-8	Benzo[a]pyrene	ND		0.19	0.027
111-91-1	Bis(2-chloroethoxy)methane	ND		0.96	0.13
111-44-4	Bis(2-chloroethyl)ether	ND		0.96	0.030
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1.9	0.42
108-60-1	2,2'-oxybis[1-chloropropane]	ND		0.96	0.023
101-55-3	4-Bromophenyl phenyl ether	ND		0.96	0.11
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.96	0.077
91-58-7	2-Chloronaphthalene	ND		0.19	0.030
85-68-7	Butyl benzyl phthalate	ND		0.96	0.21
218-01-9	Chrysene	ND		0.19	0.030
53-70-3	Dibenz(a,h)anthracene	ND		0.19	0.026
84-74-2	Di-n-butyl phthalate	0.49	J	0.96	0.23
117-84-0	Di-n-octyl phthalate	ND		0.96	0.20
84-66-2	Diethyl phthalate	ND		0.96	0.29
131-11-3	Dimethyl phthalate	ND		0.96	0.18
91-94-1	3,3'-Dichlorobenzidine	ND		0.96	0.14
121-14-2	2,4-Dinitrotoluene	ND		0.96	0.21
606-20-2	2,6-Dinitrotoluene	ND		0.96	0.13
95-57-8	2-Chlorophenol	ND		0.96	0.22
120-83-2	2,4-Dichlorophenol	ND		0.96	0.065
105-67-9	2,4-Dimethylphenol	ND		0.96	0.16
51-28-5	2,4-Dinitrophenol	ND		4.8	2.4
88-75-5	2-Nitrophenol	ND		0.96	0.11
88-06-2	2,4,6-Trichlorophenol	ND		0.96	0.29
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	ND		0.96	0.11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-014-120114 | Lab Sample ID: 180-39432-4

Matrix: Water | Lab File ID: V1208018.D

Analysis Method: 8270D LL | Date Collected: 12/01/2014 19:20

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:17

Sample wt/vol: 260(mL) | Date Analyzed: 12/08/2014 17:09

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		0.96	0.082
59-50-7	4-Chloro-3-methylphenol	ND		0.96	0.16
100-02-7	4-Nitrophenol	ND		4.8	0.77
534-52-1	4,6-Dinitro-2-methylphenol	ND		4.8	1.5
206-44-0	Fluoranthene	ND		0.19	0.020
86-73-7	Fluorene	ND		0.19	0.023
118-74-1	Hexachlorobenzene	ND		0.96	0.059
87-68-3	Hexachlorobutadiene	ND		0.96	0.090
77-47-4	Hexachlorocyclopentadiene	ND		0.96	0.13
67-72-1	Hexachloroethane	ND		0.96	0.13
193-39-5	Indeno[1,2,3-cd]pyrene	ND		0.19	0.042
78-59-1	Isophorone	ND		0.96	0.071
91-20-3	Naphthalene	ND		0.19	0.022
98-95-3	Nitrobenzene	ND		1.9	0.14
621-64-7	N-Nitrosodi-n-propylamine	ND		0.96	0.048
62-75-9	N-Nitrosodimethylamine	ND		0.96	0.11
86-30-6	N-Nitrosodiphenylamine	ND		0.96	0.12
85-01-8	Phenanthrene	ND		0.19	0.040
129-00-0	Pyrene	ND		0.19	0.022
87-86-5	Pentachlorophenol	ND		0.96	0.48
108-95-2	Phenol	ND		0.96	0.053

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	70		30-150
321-60-8	2-Fluorobiphenyl	61		30-150
367-12-4	2-Fluorophenol (Surr)	47		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	64		30-150
4165-62-2	Phenol-d5 (Surr)	53		30-150
1718-51-0	Terphenyl-d14 (Surr)	73		10-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208018.D
Lims ID: 180-39432-E-4-A Lab Sample ID: 180-39432-4
Client ID: ST-014-120114
Sample Type: Client
Inject. Date: 08-Dec-2014 17:09:30 ALS Bottle#: 17 Worklist Smp#: 18
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-018
Misc. Info.: 180-39432-E-4-A
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 09-Dec-2014 05:57:52

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 1,4-Dichlorobenzene-d4	152	6.275	6.277	-0.002	88	84952	8.00	
*	2 Naphthalene-d8	136	7.477	7.479	-0.002	97	271242	8.00	
*	3 Acenaphthene-d10	164	9.096	9.097	-0.001	91	191695	8.00	
*	4 Phenanthrene-d10	188	10.463	10.465	-0.002	96	351351	8.00	
*	5 Chrysene-d12	240	13.968	13.964	0.004	95	386581	8.00	
*	6 Perylene-d12	264	16.895	16.881	0.014	97	336948	8.00	
$	7 2-Fluorophenol	112	4.956	4.946	0.010	89	256504	18.7	
$	8 Phenol-d5	99	5.928	5.924	0.004	85	356181	21.3	
$	9 Nitrobenzene-d5	82	6.799	6.800	-0.001	91	494052	25.8	
$	10 2-Fluorobiphenyl	172	8.455	8.456	-0.001	99	908124	24.5	
$	11 2,4,6-Tribromophenol	330	9.817	9.818	-0.001	80	117865	27.9	
$	12 Terphenyl-d14	244	12.221	12.217	0.004	99	1335950	29.0	
	14 N-Nitrosodimethylamine	74		2.537				ND	
	27 Phenol	94		5.940				ND	
	29 Bis(2-chloroethyl)ether	93		6.015				ND	
	31 2-Chlorophenol	128		6.074				ND	
	40 2,2'-oxybis[1-chloropropan	45		6.538				ND	
	44 N-Nitrosodi-n-propylamine	70		6.651				ND	
	47 Hexachloroethane	117		6.768				ND	
	48 Nitrobenzene	77		6.816				ND	
	50 Isophorone	82		7.035				ND	
	51 2-Nitrophenol	139		7.121				ND	
	52 2,4-Dimethylphenol	107		7.147				ND	
	56 Benzoic acid	122		7.201				ND	
	55 Bis(2-chloroethoxy)methane	93		7.227				ND	
	57 2,4-Dichlorophenol	162		7.345				ND	
	59 1,2,4-Trichlorobenzene	180		7.425				ND	
	60 Naphthalene	128		7.500				ND	
	64 Hexachlorobutadiene	225		7.612				ND	
	70 4-Chloro-3-methylphenol	107		7.965				ND	
	76 Hexachlorocyclopentadiene	237		8.285				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
78 2,4,6-Trichlorophenol	196		8.387				ND	
81 2-Chloronaphthalene	162		8.584				ND	
86 Dimethyl phthalate	163		8.809				ND	
88 2,6-Dinitrotoluene	165		8.868				ND	
89 Acenaphthylene	152		8.969				ND	
92 2,4-Dinitrophenol	184		9.124				ND	
91 Acenaphthene	153		9.124				ND	
93 4-Nitrophenol	109		9.161				ND	
94 2,4-Dinitrotoluene	165		9.241				ND	
101 Diethyl phthalate	149		9.444				ND	
104 4-Chlorophenyl phenyl ethe	204		9.573				ND	
106 Fluorene	166		9.594				ND	
108 4,6-Dinitro-2-methylphenol	198		9.621				ND	
109 N-Nitrosodiphenylamine	169		9.680				ND	
111 1,2-Diphenylhydrazine	77		9.722				ND	
116 4-Bromophenyl phenyl ether	248		10.027				ND	
118 Hexachlorobenzene	284		10.112				ND	
122 Pentachlorophenol	266		10.278				ND	
126 Phenanthrene	178		10.486				ND	
128 Anthracene	178		10.534				ND	
132 Di-n-butyl phthalate	149	10.966	10.962	0.004	97	48343	1.01	
137 Fluoranthene	202		11.768				ND	
138 Benzidine	184		11.891				ND	
139 Pyrene	202		12.067				ND	
144 Butyl benzyl phthalate	149		12.906				ND	
149 3,3'-Dichlorobenzidine	252		13.862				ND	
151 Bis(2-ethylhexyl) phthalat	149		13.894				ND	
152 Benzo[a]anthracene	228		13.943				ND	
153 Chrysene	228		14.012				ND	
156 Di-n-octyl phthalate	149		15.193				ND	
158 Benzo[b]fluoranthene	252		16.085				ND	
159 Benzo[k]fluoranthene	252		16.133				ND	
160 Benzo[a]pyrene	252		16.769				ND	
163 Indeno[1,2,3-cd]pyrene	276		19.092				ND	
164 Dibenz(a,h)anthracene	278		19.130				ND	
165 Benzo[g,h,i]perylene	276		19.696				ND	

Reagents:

SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

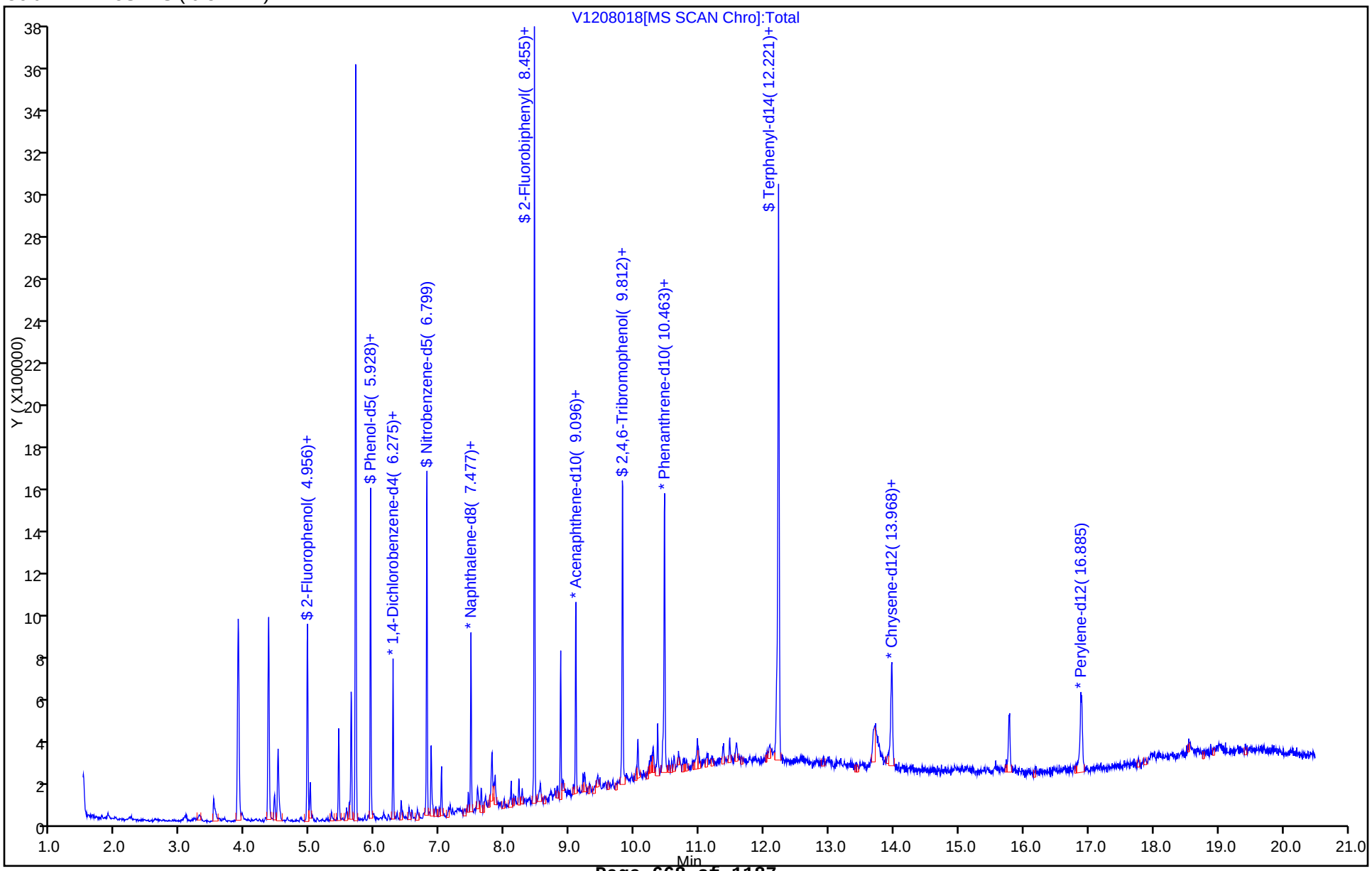
Report Date: 09-Dec-2014 05:58:49 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208018.D

Injection Date:	08-Dec-2014 17:09:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	180-39432-E-4-A	Lab Sample ID:	180-39432-4	Worklist Smp#:	18
Client ID:	ST-014-120114				
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



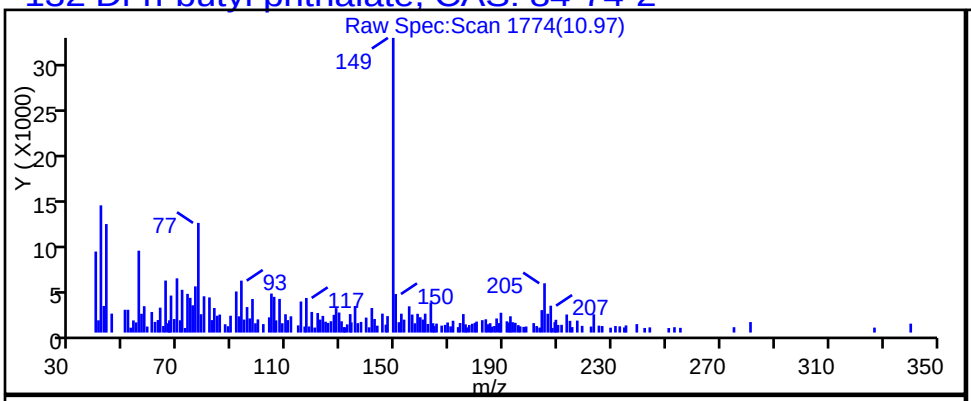
Report Date: 09-Dec-2014 05:58:49 Chrom Revision: 2.2 06-Nov-2014 14:50:32

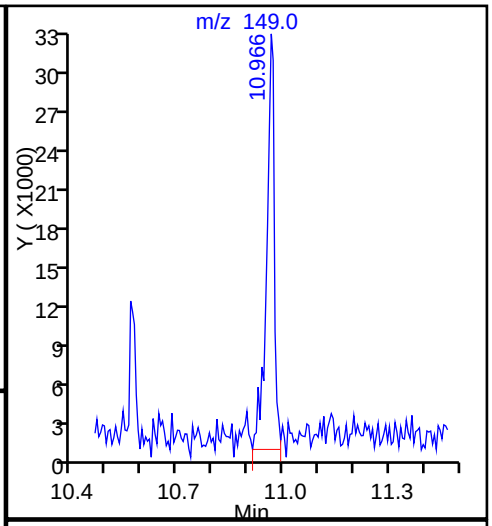
TestAmerica Pittsburgh

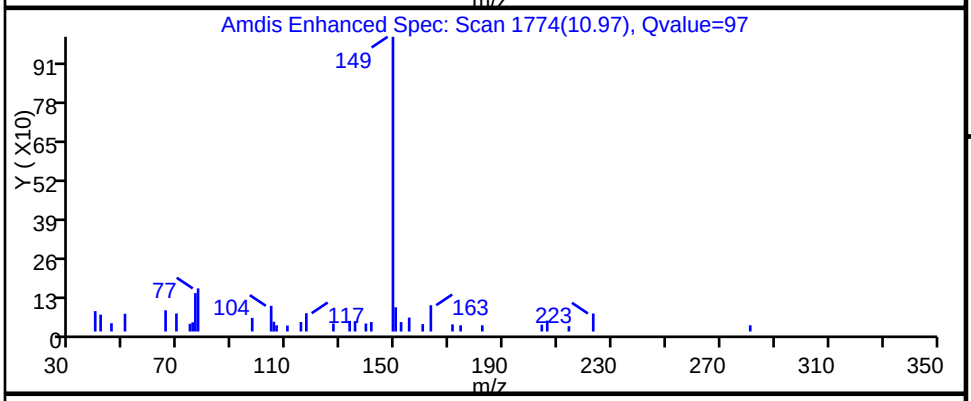
Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208018.D

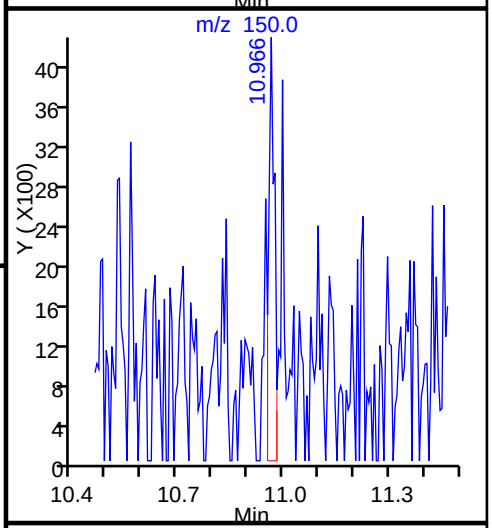
Injection Date:	08-Dec-2014 17:09:30	Instrument ID:	CH731		
Lims ID:	180-39432-E-4-A	Lab Sample ID:	180-39432-4		
Client ID:	ST-014-120114				
Operator ID:	003200	ALS Bottle#:	17	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

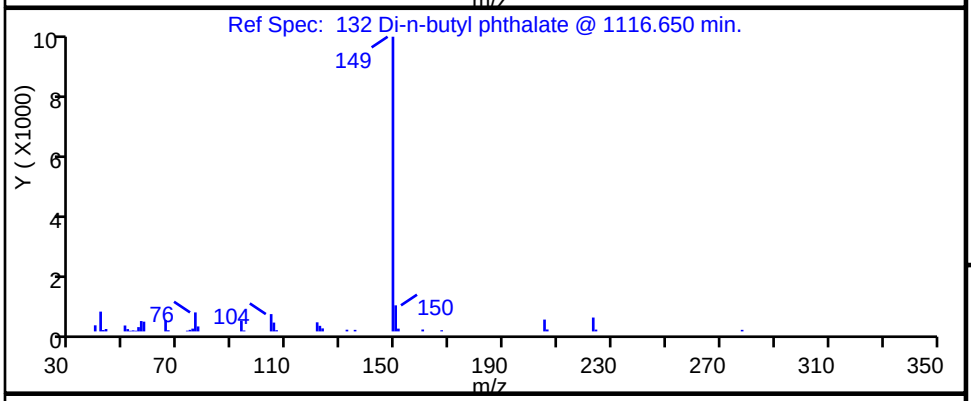
132 Di-n-butyl phthalate, CAS: 84-74-2

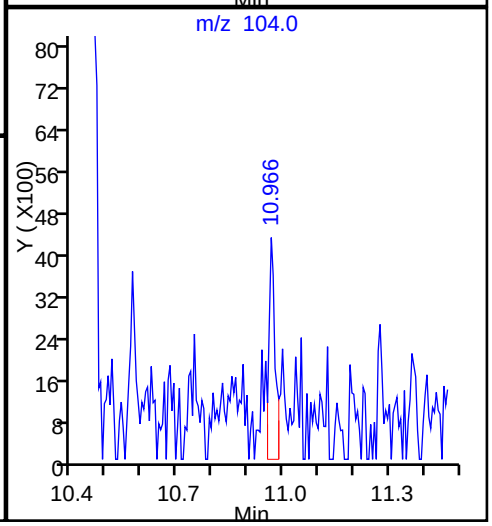


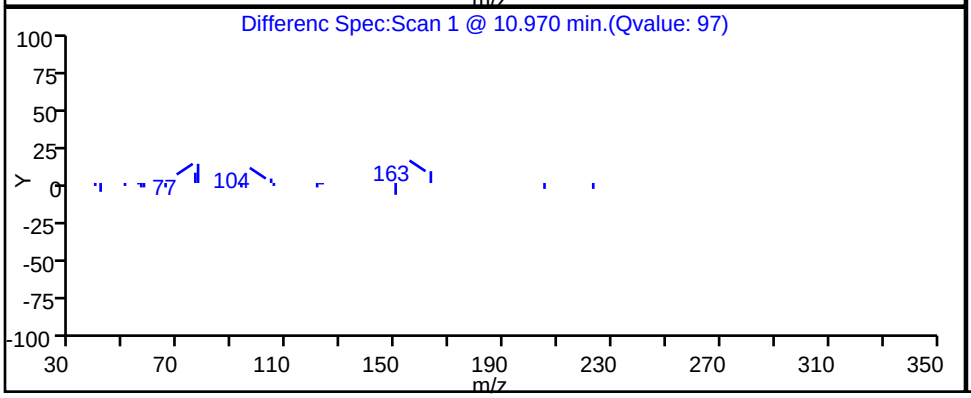












FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-125450/3	V1118003.D
Level 2	IC 180-125450/4	V1118004.D
Level 3	IC 180-125450/5	V1118005.D
Level 4	ICIS 180-125450/6	V1118006.D
Level 5	IC 180-125450/7	V1118007.D
Level 6	IC 180-125450/8	V1118008.D
Level 7	IC 180-125450/9	V1118009.D
Level 8	IC 180-125450/10	V1118010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	+++++ 0.5819	0.5761 0.5794	0.5353 0.5695	0.5748	0.5347	Ave		0.5645			0.0100	3.6		20.0			
N-Nitrosodimethylamine	0.9337 0.8502	0.8272 0.8788	0.8041 0.8306	0.8343	0.7788	Ave		0.8422			0.0100	5.6		20.0			
Pyridine	1.5024 1.5604	1.5197 1.5640	1.5584 1.5086	1.5514	1.4297	Ave		1.5243			0.0100	3.0		20.0			
Methyl methanesulfonate	1.1319 1.1184	1.2381 1.0849	1.0789 1.0245	1.1255	1.0239	Ave		1.1033			0.0100	6.2		20.0			
Benzaldehyde	1.5005 1.2232	1.1484 1.1419	1.0368 1.0281	1.1840	1.1218	Ave		1.1731			0.0100	13.0		20.0			
Phenol	1.5814 1.8871	1.5405 2.0147	1.5851 2.0448	1.6707	1.6058	Ave		1.7413			0.8000	12.0		20.0			
Aniline	2.1210 2.0348	1.8537 2.1623	1.7829 2.1537	1.9557	1.7981	Ave		1.9828			0.0100	8.0		20.0			
Bis(2-chloroethyl)ether	1.3412 1.1919	1.0775 1.1859	1.0682 1.1742	1.1191	1.0105	Ave		1.1461			0.7000	8.9		20.0			
2-Chlorophenol	1.4821 1.3659	1.2573 1.3561	1.1967 1.3479	1.2805	1.1547	Ave		1.3052			0.8000	8.0		20.0			
n-Decane	1.0244 1.0012	0.9515 1.1190	0.8972 1.0996	0.9066	0.8394	Ave		0.9799				10.0		20.0			
1,3-Dichlorobenzene	1.4888 1.5931	1.4091 1.6619	1.4269 1.6919	1.5225	1.4061	Ave		1.5250			0.0100	7.4		20.0			
1,4-Dichlorobenzene	1.4764 1.6312	1.5474 1.6952	1.4971 1.7017	1.5494	1.4259	Ave		1.5656			0.0100	6.5		20.0			
Benzyl alcohol	0.7531 0.8091	0.6763 0.8416	0.7089 0.8257	0.7611	0.6905	Ave		0.7583			0.0100	8.3		20.0			
1,2-Dichlorobenzene	1.4282 1.4840	1.4770 1.5742	1.3723 1.5619	1.4329	1.2899	Ave		1.4525			0.0100	6.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Methylphenol	1.0695 1.3198	1.0200 1.4126	1.0780 1.4686	1.1899	1.0377	Ave		1.1995			0.7000	15.0		20.0			
Indene	1.9613 2.3998	2.0678 2.7319	1.8812 +++++	2.0644	1.9211	Ave		2.1468			0.0100	14.0		20.0			
2,2'-oxybis[1-chloropropane]	1.0951 1.0035	0.8269 1.0945	0.8420 1.1402	0.9202	0.8475	Ave		0.9712			0.0100	13.0		20.0			
N-Nitrosopyrrolidine	0.4524 0.4991	0.4757 0.5167	0.4736 0.5085	0.4930	0.4862	Ave		0.4882			0.0100	4.3		20.0			
Methylphenol, 3 & 4	+++++ 1.5087	1.1159 1.6393	1.0663 1.7426	1.2051	1.1741	Ave		1.3503			0.6000	20.0		20.0			
N-Nitrosodi-n-propylamine	1.1856 1.3158	0.9936 1.3313	0.9980 1.3336	1.1032	1.0987	Ave		1.1699			0.5000	12.0		20.0			
Acetophenone	+++++ 2.3108	1.8524 2.4239	1.7157 2.4431	1.9358	1.8604	Ave		2.0774			0.0100	15.0		20.0			
Hexachloroethane	0.7451 0.7633	0.8062 0.7778	0.7228 0.7652	0.7165	0.6501	Ave		0.7434			0.3000	6.4		20.0			
Nitrobenzene	0.5937 0.5396	0.5819 0.5501	0.5202 0.5820	0.5369	0.5142	Ave		0.5523			0.2000	5.5		20.0			
Isophorone	0.9161 0.8296	0.8220 0.8488	0.8083 0.9026	0.8212	0.7784	Ave		0.8409			0.4000	5.6		20.0			
2-Nitrophenol	0.2111 0.1957	0.1916 0.1999	0.1957 0.2138	0.1992	0.1925	Ave		0.1999			0.1000	4.1		20.0			
2,4-Dimethylphenol	0.4693 0.4750	0.4516 0.4783	0.4911 0.5127	0.4579	0.4460	Ave		0.4727			0.2000	4.6		20.0			
Benzoic acid	0.1382 0.2009	0.1593 0.2016	0.1653 0.2189	0.1585	0.1823	Ave		0.1781			0.0100	15.0		20.0			
Bis(2-chloroethoxy)methane	0.4792 0.4222	0.4146 0.4377	0.3887 0.4821	0.3920	0.3733	Ave		0.4237			0.3000	9.6		20.0			
2,4-Dichlorophenol	0.4361 0.3752	0.3677 0.3839	0.3773 0.4106	0.3701	0.3597	Ave		0.3851			0.2000	6.6		20.0			
1,2,4-Trichlorobenzene	0.5402 0.4826	0.4697 0.5013	0.4888 0.5394	0.4636	0.4599	Ave		0.4932			0.0100	6.4		20.0			
Naphthalene	1.1130 1.1693	1.0648 1.2012	1.0879 1.3528	1.0599	1.0545	Ave		1.1379			0.7000	9.0		20.0			
4-Chloroaniline	0.4349 0.4852	0.4470 0.4853	0.4514 0.5433	0.4542	0.4404	Ave		0.4677			0.0100	7.7		20.0			
2,6-Dichlorophenol	0.3908 0.3715	0.3602 0.3792	0.3581 0.4202	0.3732	0.3555	Ave		0.3761			0.0100	5.7		20.0			
Hexachlorobutadiene	0.4970 0.4137	0.3735 0.4188	0.4071 0.4406	0.3897	0.3911	Ave		0.4164			0.0100	9.2		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	0.1074 0.0875	0.0935 0.0898	0.0921 0.0945	0.0923	0.0885	Ave		0.0932			0.0100	6.7		20.0			
4-Chloro-3-methylphenol	0.3870 0.3931	0.3744 0.3916	0.3755 0.4265	0.3758	0.3812	Ave		0.3882			0.2000	4.4		20.0			
2-Methylnaphthalene	0.8298 0.8452	0.7450 0.8630	0.7845 0.9630	0.7864	0.7680	Ave		0.8231			0.4000	8.4		20.0			
1-Methylnaphthalene	0.7780 0.7602	0.7017 0.7862	0.7256 0.8763	0.7262	0.7105	Ave		0.7581			0.0100	7.5		20.0			
Hexachlorocyclopentadiene	0.5916 0.6863	0.5348 0.6992	0.5532 0.7529	0.6350	0.6573	Ave		0.6388			0.0500	12.0		20.0			
1,2,4,5-Tetrachlorobenzene	0.8534 0.8871	0.8033 0.8964	0.8642 0.9614	0.8763	0.8306	Ave		0.8716			0.0100	5.4		20.0			
2,4,6-Trichlorophenol	0.5240 0.4771	0.5010 0.4839	0.4972 0.5292	0.5080	0.4980	Ave		0.5023			0.2000	3.6		20.0			
2,4,5-Trichlorophenol	0.5506 0.5257	0.5159 0.5180	0.4845 0.5356	0.5249	0.4946	Ave		0.5187			0.2000	4.1		20.0			
1,1'-Biphenyl	1.4547 1.4658	1.3919 1.5248	1.3847 1.6709	1.3781	1.3414	Ave		1.4515			0.0100	7.3		20.0			
2-Chloronaphthalene	1.4268 1.2638	1.2953 1.2912	1.1850 1.4323	1.2870	1.1658	Ave		1.2934			0.8000	7.5		20.0			
2-Nitroaniline	0.3512 0.3845	0.3702 0.3833	0.3871 0.4065	0.3904	0.3790	Ave		0.3815			0.0100	4.2		20.0			
Dimethyl phthalate	1.4909 1.3014	1.3367 1.3025	1.3326 1.3929	1.3422	1.2717	Ave		1.3463			0.0100	5.1		20.0			
1,3-Dinitrobenzene	0.1863 0.2173	0.1936 0.2158	0.1991 0.2149	0.2247	0.2139	Ave		0.2082			0.0100	6.5		20.0			
2,6-Dinitrotoluene	0.2779 0.2903	0.3003 0.2900	0.3011 0.2976	0.2914	0.2923	Ave		0.2926			0.2000	2.5		20.0			
Acenaphthylene	1.9320 1.8110	1.7065 1.8311	1.6456 1.9943	1.7375	1.6656	Ave		1.7905			0.9000	7.0		20.0			
3-Nitroaniline	0.2000 0.2502	0.2023 0.2471	0.2452 0.2606	0.2528	0.2529	Ave		0.2389			0.0100	9.9		20.0			
2,4-Dinitrophenol	+++++ 0.2532	0.1491 0.2684	0.1501 0.3055	0.2393	0.2177	Lin1	-0.843	0.2836			0.0100				0.9900		0.9900
Acenaphthene	1.3886 1.2169	1.1157 1.2662	1.0777 1.4178	1.1606	1.1260	Ave		1.2212			0.9000	10.0		20.0			
4-Nitrophenol	0.2675 0.3280	0.2602 0.3156	0.2788 0.3391	0.3012	0.3167	Ave		0.3009			0.0100	9.7		20.0			
2,4-Dinitrotoluene	0.3522 0.4221	0.3615 0.4245	0.3814 0.4537	0.4051	0.3991	Ave		0.4000			0.2000	8.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	2.0583 1.8627	1.8011 1.9018	1.7306 2.0392	1.8343	1.7504	Ave		1.8723			0.8000	6.5		20.0			
2,3,5,6-Tetrachlorophenol	0.6386 0.5593	0.4703 0.5531	0.5093 0.5956	0.5341	0.5137	Ave		0.5467			0.0100	9.7		20.0			
2,3,4,6-Tetrachlorophenol	0.5249 0.5195	0.4881 0.5270	0.4810 0.5385	0.5337	0.4926	Ave		0.5132			0.0100	4.4		20.0			
2-Naphthylamine	1.0820 0.9855	0.9904 0.9656	0.9886 1.0077	1.0722	0.9830	Ave		1.0094			0.0100	4.3		20.0			
Diethyl phthalate	1.7652 1.5011	1.3761 1.5650	1.3182 1.6257	1.4024	1.3693	Ave		1.4904			0.0100	10.0		20.0			
Hexadecane	0.4085 0.4273	0.3440 0.4763	0.3275 +++++	0.3542	0.3604	Ave		0.3855				14.0		20.0			
4-Chlorophenyl phenyl ether	1.0294 0.9125	0.9427 0.9058	0.9057 0.9684	0.9304	0.8664	Ave		0.9327			0.4000	5.3		20.0			
4-Nitroaniline	+++++ 0.2769	0.2352 0.2763	0.2441 0.3165	0.2514	0.2536	Ave		0.2649			0.0100	10.0		20.0			
Fluorene	1.4329 1.3923	1.2979 1.3713	1.2812 1.5264	1.3361	1.2328	Ave		1.3589			0.9000	6.9		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1589	0.1176 0.1640	0.1296 0.1632	0.1400	0.1454	Ave		0.1455			0.0100	12.0		20.0			
N-Nitrosodiphenylamine	0.5033 0.5344	0.4743 0.5264	0.5092 0.5413	0.4982	0.4880	Ave		0.5094			0.0100	4.6		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8020 0.8164	0.7775 0.8042	0.7421 0.8182	0.8015	0.7346	Ave		0.7870			0.0100	4.1		20.0			
4-Bromophenyl phenyl ether	0.2725 0.2771	0.2390 0.2812	0.2443 0.2805	0.2549	0.2619	Ave		0.2639			0.1000	6.3		20.0			
Hexachlorobenzene	0.3135 0.2622	0.2450 0.2687	0.2321 0.2716	0.2434	0.2357	Ave		0.2590			0.1000	10.0		20.0			
Atrazine	0.2519 0.2434	0.2616 0.2325	0.2279 0.2034	0.2454	0.2421	Ave		0.2385			0.0100	7.4		20.0			
Pentachlorophenol	0.2575 0.1975	0.1282 0.2059	0.1488 0.2085	0.1680	0.1770	Lin1	-0.065	0.2004			0.0500				0.9940		0.9900
n-Octadecane	1.3800 1.5228	1.2625 1.6958	1.1947 +++++	1.2939	1.2560	Ave		1.3723				13.0		20.0			
Phenanthrene	1.2672 1.1251	1.0964 1.1308	1.0455 1.1210	1.0680	1.0238	Ave		1.1097			0.7000	6.7		20.0			
Anthracene	1.1911 1.1106	1.1485 1.1139	1.0858 1.1366	1.0941	1.0597	Ave		1.1175			0.7000	3.7		20.0			
Carbazole	0.9780 0.9084	0.8947 0.9071	0.8695 0.8846	0.8919	0.8653	Ave		0.8999			0.0100	3.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.2096 1.0706	1.0869 1.0680	1.0998 1.0515	1.0765	1.0596	Ave		1.0903			0.0100	4.6		20.0			
Fluoranthene	1.5083 1.3526	1.3258 1.3576	1.3791 1.3326	1.3956	1.3221	Ave		1.3717			0.6000	4.4		20.0			
Benzidine	0.5294 0.4782	0.3395 0.4728	0.4338 0.4305	0.4548	0.4629	Ave		0.4502			0.0100	12.0		20.0			
Pyrene	1.5094 1.3100	1.3280 1.2890	1.3495 1.3061	1.4007	1.3387	Ave		1.3539			0.6000	5.3		20.0			
Butyl benzyl phthalate	0.5427 0.4170	0.4343 0.4218	0.4600 0.4100	0.4598	0.4350	Ave		0.4476			0.0100	9.5		20.0			
3,3'-Dichlorobenzidine	0.4179 0.4207	0.3631 0.4260	0.3940 0.4142	0.4133	0.4127	Ave		0.4077			0.0100	5.0		20.0			
Bis(2-ethylhexyl) phthalate	0.6865 0.5663	0.5607 0.5817	0.5991 0.5769	0.5986	0.5907	Ave		0.5951			0.0100	6.6		20.0			
Benzo[a]anthracene	1.3871 1.1594	1.1777 1.2104	1.1708 1.1810	1.1984	1.1617	Ave		1.2058			0.8000	6.2		20.0			
Chrysene	1.1418 1.0788	1.1243 1.1049	1.1005 1.0967	1.1555	1.0735	Ave		1.1095			0.7000	2.6		20.0			
Di-n-octyl phthalate	1.6241 1.2440	1.3650 1.2299	1.3378 1.1839	1.3676	1.3157	Ave		1.3335			0.0100	10.0		20.0			
7,12-Dimethylbenz(a)anthracene	0.4776 0.5716	0.5381 0.5752	0.5432 0.5741	0.5836	0.5637	Ave		0.5534			0.0100	6.2		20.0			
Benzo[b]fluoranthene	1.6407 1.3949	1.3541 1.4343	1.4610 1.4219	1.4263	1.4469	Ave		1.4475			0.7000	5.9		20.0			
Benzo[k]fluoranthene	1.6288 1.3750	1.3392 1.3882	1.3234 1.3358	1.4015	1.3246	Ave		1.3896			0.7000	7.3		20.0			
Benzo[e]pyrene	1.6367 1.2407	1.1786 1.2939	1.2358 1.2558	1.2704	1.2385	Ave		1.2938			0.0100	11.0		20.0			
Benzo[a]pyrene	1.3939 1.2345	1.1738 1.2859	1.2103 1.2587	1.2879	1.2471	Ave		1.2615			0.7000	5.2		20.0			
Indeno[1,2,3-cd]pyrene	1.4043 1.1462	1.0690 1.1795	1.0575 1.1792	1.0873	1.0859	Ave		1.1511			0.5000	9.8		20.0			
Dibenz(a,h)anthracene	1.0702 0.9569	0.9744 1.0232	0.9547 1.0278	0.9371	0.9215	Ave		0.9832			0.4000	5.3		20.0			
Benzo[g,h,i]perylene	1.1461 0.9366	0.8809 0.9740	0.9387 0.9790	0.9018	0.8852	Ave		0.9553			0.5000	9.0		20.0			
2-Fluorophenol (Surr)	1.4744 1.3322	1.1877 1.3847	1.1583 1.3721	1.2917	1.1474	Ave		1.2936				9.2		20.0			
Phenol-d5 (Surr)	1.6917 1.6341	1.5148 1.6724	1.4556 1.6907	1.5045	1.4330	Ave		1.5746				6.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.6362 0.5453	0.5403 0.5478	0.5720 0.5718	0.5709	0.5376	Ave		0.5653				5.7		20.0			
2-Fluorobiphenyl	1.7532 1.5329	1.4910 1.5809	1.4424 1.6738	1.4584	1.4176	Ave		1.5438				7.7		20.0			
2,4,6-Tribromophenol (Surr)	0.0875 0.1018	0.0823 0.1110	0.0853 0.1143	0.0947	0.0916	Ave		0.0961			0.0100	12.0		20.0			
Terphenyl-d14 (Surr)	1.0662 0.9319	0.9320 0.9512	0.9044 0.9207	1.0027	0.9087	Ave		0.9522				5.8		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-125450/3	V1118003.D
Level 2	IC 180-125450/4	V1118004.D
Level 3	IC 180-125450/5	V1118005.D
Level 4	ICIS 180-125450/6	V1118006.D
Level 5	IC 180-125450/7	V1118007.D
Level 6	IC 180-125450/8	V1118008.D
Level 7	IC 180-125450/9	V1118009.D
Level 8	IC 180-125450/10	V1118010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	+++++ 373605	18968 526176	34679 735759	97869	182753	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosodimethylamine	DCB	Ave	6540 545919	27232 798039	52094 1073202	142053	266189	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pyridine	DCB	Ave	10523 1001912	50031 1420217	100959 1949127	264169	488644	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Methyl methanesulfonate	DCB	Ave	7928 718107	40761 985121	69897 1323709	191648	349968	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzaldehyde	DCB	Ave	10510 785425	37807 1036907	67165 1328292	201611	383425	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenol	DCB	Ave	11076 1211667	50717 1829502	102692 2641879	284476	548829	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Aniline	DCB	Ave	14856 1306535	61026 1963509	115505 2782576	333002	614543	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-chloroethyl)ether	DCB	Ave	9394 765332	35472 1076889	69203 1517094	190548	345368	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Chlorophenol	DCB	Ave	10381 877051	41393 1231452	77525 1741577	218031	394658	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
n-Decane	DCB	Ave	7175 642852	31325 1016096	58121 1420761	154366	286884	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	10428 1022913	46389 1509122	92441 2185950	259246	480572	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	10341 1047395	50943 1539352	96985 2198668	263828	487362	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzyl alcohol	DCB	Ave	5275 519504	22264 764232	45924 1066828	129592	235998	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	10003 952841	48625 1429452	88902 2018021	243987	440880	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Methylphenol	DCB	Ave	7491 847419	33582 1282757	69834 1897456	202609	354678	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Indene	DCB	Ave	13737 1540883	68077 2480774	121869 +++++	351512	656611	0.400 40.0	2.00 60.0	4.00 +++++	10.0	20.0
2,2'-oxybis[1-chloropropane]	DCB	Ave	7670 644360	27222 993887	54548 1473217	156682	289652	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosopyrrolidine	DCB	Ave	3169 320449	15661 469237	30680 656965	83950	166165	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Methylphenol, 3 & 4	DCB	Ave	+++++ 968687	36737 1488546	69079 2251462	205199	401271	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosodi-n-propylamine	DCB	Ave	8304 844835	32710 1208879	64652 1723018	187838	375515	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acetophenone	DCB	Ave	+++++ 1483698	60986 2201050	111147 3156588	329614	635864	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachloroethane	DCB	Ave	5219 490121	26543 706298	46828 988688	122005	222196	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Nitrobenzene	NPT	Ave	13918 1153007	61716 1674499	103708 2304653	299752	543833	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Isophorone	NPT	Ave	21477 1772669	87188 2583747	161147 3574493	458475	823344	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Nitrophenol	NPT	Ave	4950 418265	20320 608485	39012 846773	111223	203559	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dimethylphenol	NPT	Ave	11002 1015086	47894 1455916	97907 2030177	255660	471706	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzoic acid	NPT	Ave	3239 429264	16892 613573	32966 866733	88484	192819	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-chloroethoxy)methane	NPT	Ave	11234 902145	43970 1332221	77491 1909286	218858	394876	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dichlorophenol	NPT	Ave	10224 801770	38998 1168702	75233 1626222	206607	380458	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2,4-Trichlorobenzene	NPT	Ave	12665 1031147	49818 1526067	97454 2136187	258852	486486	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Naphthalene	NPT	Ave	26094 2498582	112937 3656344	216903 5357157	591753	1115355	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chloroaniline	NPT	Ave	10195 1036759	47408 1477278	90005 2151456	253613	465770	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,6-Dichlorophenol	NPT	Ave	9161 793914	38200 1154411	71398 1664114	208341	376039	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorobutadiene	NPT	Ave	11652 883979	39617 1274788	81175 1744778	217576	413694	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Caprolactam	NPT	Ave	2519 186888	9913 273456	18354 374248	51527	93652	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chloro-3-methylphenol	NPT	Ave	9073 840080	39714 1192148	74872 1688868	209809	403220	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Methylnaphthalene	NPT	Ave	19455 1806089	79017 2626901	156418 3813703	439069	812326	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1-Methylnaphthalene	NPT	Ave	18240 1624420	74427 2393030	144674 3470482	405471	751537	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorocyclopentadiene	ANT	Ave	9757 1043957	40891 1509538	82057 2130530	253630	502267	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	14075 1349385	61418 1935308	128178 2720713	349998	634642	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,6-Trichlorophenol	ANT	Ave	8642 725706	38306 1044790	73749 1497629	202893	380486	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,5-Trichlorophenol	ANT	Ave	9081 799662	39446 1118392	71855 1515791	209674	377887	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,1'-Biphenyl	ANT	Ave	23992 2229594	106424 3292066	205381 4728455	550444	1024977	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Chloronaphthalene	ANT	Ave	23532 1922334	99039 2787663	175769 4053340	514041	890737	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Nitroaniline	ANT	Ave	5792 584820	28305 827467	57423 1150441	155927	289616	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dimethyl phthalate	ANT	Ave	24590 1979482	102198 2812096	197650 3941691	536097	971700	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,3-Dinitrobenzene	ANT	Ave	3073 330559	14805 465907	29527 608073	89770	163401	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,6-Dinitrotoluene	ANT	Ave	4584 441537	22958 626078	44654 842173	116377	223376	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acenaphthylene	ANT	Ave	31865 2754694	130473 3953446	244082 5643820	694007	1272700	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
3-Nitroaniline	ANT	Ave	3298 380544	15471 533446	36371 737436	100956	193274	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dinitrophenol	ANT	Lin1	+++++ 770181	22797 1159046	44534 1728975	191199	332620	+++++ 80.0	4.00 120	8.00 160	20.0	40.0
Acenaphthene	ANT	Ave	22902 1851007	85305 2733760	159842 4012276	463574	860348	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Nitrophenol	ANT	Ave	8824 997770	39793 1362878	82707 1919376	240588	483962	0.800 80.0	4.00 120	8.00 160	20.0	40.0
2,4-Dinitrotoluene	ANT	Ave	5808 642081	27639 916599	56567 1283922	161826	304925	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dibenzofuran	ANT	Ave	33948 2833225	137708 4106059	256691 5770642	732675	1337432	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,3,5,6-Tetrachlorophenol	ANT	Ave	10532 850742	35959 1194104	75538 1685637	213313	392481	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	8657 790123	37320 1137809	71343 1524048	213180	376394	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Naphthylamine	ANT	Ave	17846 1499021	75721 2084841	146628 2851765	428274	751079	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Diethyl phthalate	ANT	Ave	29114 2283319	105212 3378854	195520 4600669	560170	1046284	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexadecane	NPT	Ave	9577 913150	36489 1449948	65288 +++++	197783	381231	0.400 40.0	2.00 60.0	4.00 +++++	10.0	20.0
4-Chlorophenyl phenyl ether	ANT	Ave	16978 1388014	72077 1955583	134329 2740471	371638	662042	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Nitroaniline	ANT	Ave	+++++ 421237	17981 596441	36210 895717	100425	193767	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Fluorene	ANT	Ave	23632 2117757	99231 2960630	190024 4319721	533690	942005	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4,6-Dinitro-2-methylphenol	PHN	Ave	+++++ 979206	37871 1421383	79649 1915802	236754	464708	+++++ 80.0	4.00 120	8.00 160	20.0	40.0
N-Nitrosodiphenylamine	PHN	Ave	17394 1646741	76387 2281662	156540 3178144	421325	780039	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	27714 2515413	125230 3485723	228117 4803655	677854	1174132	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Bromophenyl phenyl ether	PHN	Ave	9418 853756	38490 1218695	75101 1646735	215595	418665	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorobenzene	PHN	Ave	10835 807757	39454 1164727	71337 1594567	205834	376726	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Atrazine	PHN	Ave	8704 749856	42136 1007602	70047 1194422	207574	387036	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pentachlorophenol	PHN	Lin1	17798 1217207	41306 1784877	91481 2448792	284142	565952	0.800 80.0	4.00 120	8.00 160	20.0	40.0
n-Octadecane	DCB	Ave	9666 977739	41565 1539927	77398 +++++	220319	429277	0.400 40.0	2.00 60.0	4.00 +++++	10.0	20.0
Phenanthrene	PHN	Ave	43791 3466802	176597 4901458	321378 6581685	903263	1636441	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Anthracene	PHN	Ave	41163 3421926	184986 4828422	333789 6673192	925267	1693761	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Carbazole	PHN	Ave	33796 2799028	144107 3931874	267299 5193384	754288	1383074	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Di-n-butyl phthalate	PHN	Ave	41800 3298696	175067 4629155	338075 6173662	910420	1693677	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Fluoranthene	PHN	Ave	52124 4167643	213534 5884725	423953 7823717	1180293	2113145	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzidine	CRY	Ave	17466 1543192	55961 2109070	135664 2586744	376464	733177	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pyrene	CRY	Ave	49799 4227100	218875 5750247	422019 7847498	1159528	2120582	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Butyl benzyl phthalate	CRY	Ave	17905 1345747	71576 1881880	143852 2463595	380621	688998	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
3,3'-Dichlorobenzidine	CRY	Ave	13789 1357667	59842 1900388	123207 2488531	342153	653680	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	22648 1827250	92416 2594900	187357 3465934	495553	935672	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[a]anthracene	CRY	Ave	45763 3741067	194106 5399707	366137 7095604	992089	1840151	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Chrysene	CRY	Ave	37670 3481151	185309 4929012	344143 6589112	956530	1700525	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Di-n-octyl phthalate	PRY	Ave	36829 2998049	153932 4314095	296465 5699986	799395	1497418	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
7,12-Dimethylbenz(a)anthracene	PRY	Ave	10830 1377544	60681 2017795	120367 2764009	341147	641586	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[b]fluoranthene	PRY	Ave	37205 3361602	152698 5031268	323766 6846161	833690	1646715	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[k]fluoranthene	PRY	Ave	36934 3313578	151023 4869485	293262 6431667	819222	1507521	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[e]pyrene	PRY	Ave	37113 2990026	132908 4538659	273853 6046182	742566	1409475	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[a]pyrene	PRY	Ave	31607 2975051	132369 4510772	268213 6060350	752802	1419258	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	31844 2762338	120551 4137336	234343 5677410	635574	1235857	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dibenz(a,h)anthracene	PRY	Ave	24267 2306142	109877 3589082	211567 4948414	547775	1048765	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[g,h,i]perylene	PRY	Ave	25990 2257140	99336 3416645	208017 4713525	527106	1007457	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Fluorophenol (Surr)	DCB	Ave	10327 855384	39100 1257384	75042 1772770	219935	392178	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenol-d5 (Surr)	DCB	Ave	11849 1049231	49869 1518626	94298 2184453	256173	489782	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Nitrobenzene-d5 (Surr)	NPT	Ave	14915 1165255	57312 1667491	114044 2264359	318764	568668	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Fluorobiphenyl	ANT	Ave	28916 2331566	113996 3413221	213944 4736680	582540	1083169	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,6-Tribromophenol (Surr)	PHN	Ave	3025 313595	13249 481269	26207 671055	80128	146405	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Terphenyl-d14 (Surr)	CRY	Ave	35177 3007126	153612 4243416	282829 5531806	830068	1439351	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 125450

SDG No.:

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/18/2014 04:22 Calibration End Date: 11/18/2014 07:43 Calibration ID: 19203

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

TestAmerica Laboratories
Initial Calibration %Drift Report

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Instrument: CH731 Lims Location: 180
Lock State: Unlocked Cpnd Order: Compound Type
Integrator: RTE Last Modified: 18-Nov-2014 08:40:04
No.Compounds:209

Initial Calibration Batches

Ical Batch: \\PITCHROM\ChromData\CH731\20141111-4314.b
Inj Date : 11-Nov-2014 03:50:30, Sublist: chrom-BNA_CH731*sub3

Ical Batch: \\PITCHROM\ChromData\CH731\20141118-4448.b
Inj Date : 18-Nov-2014 04:22:30, Sublist: chrom-BNA_CH731*sub4

Limit Group: BNA 8270D ICAL

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
* 1 1,4-Dichlorobenzene-d4	180592	165364	159846	175730	144492	148850	112823	131726
* 2 Naphthalene-d8	605744	547929	514431	557286	445228	435913	353470	409281
* 3 Acenaphthene-d10	442552	368509	336309	387145	310215	304946	239588	271068
* 4 Phenanthrene-d10	802943	735436	670708	761912	607133	588691	480027	518666
* 5 Chrysene-d12	743578	680215	621744	724526	557323	559298	439398	478459
* 6 Perylene-d12	494639	480801	425560	496565	378668	368087	274905	287883
$ 7 2-Fluorophenol	14.0	-8.2	-10.5	-0.1	-11.3	3.0	7.0	6.1
$ 8 Phenol-d5	7.4	-3.8	-7.6	-4.5	-9.0	3.8	6.2	7.4
$ 9 Nitrobenzene-d5	12.5	-4.4	1.2	1.0	-4.9	-3.5	-3.1	1.2
$ 10 2-Fluorobiphenyl	13.6	-3.4	-6.6	-5.5	-8.2	-0.7	2.4	8.4
$ 11 2,4,6-Tribromophenol	-8.9	-14.4	-11.3	-1.4	-4.6	5.9	15.6	19.0
$ 12 Terphenyl-d14	12.0	-2.1	-5.0	5.3	-4.6	-2.1	-0.1	-3.3
13 1,4-Dioxane	Disabled	2.1	-5.2	1.8	-5.3	3.1	2.6	0.9
14 N-Nitrosodimethylamine	10.9	-1.8	-4.5	-0.9	-7.5	1.0	4.3	-1.4
15 Pyridine	-1.4	-0.3	2.2	1.8	-6.2	2.4	2.6	-1.0
22 Methyl methanesulfonat	2.6	12.2	-2.2	2.0	-7.2	1.4	-1.7	-7.1
26 Benzaldehyde	27.9	-2.1	-11.6	0.9	-4.4	4.3	-2.7	-12.4
27 Phenol	-9.2	-11.5	-9.0	-4.1	-7.8	8.4	15.7	17.4
28 Aniline	7.0	-6.5	-10.1	-1.4	-9.3	2.6	9.1	8.6
29 Bis(2-chloroethyl)ethe	17.0	-6.0	-6.8	-2.4	-11.8	4.0	3.5	2.5
31 2-Chlorophenol	13.6	-3.7	-8.3	-1.9	-11.5	4.7	3.9	3.3
32 n-Decane	4.5	-2.9	-8.4	-7.5	-14.3	2.2	14.2	12.2
33 1,3-Dichlorobenzene	-2.4	-7.6	-6.4	-0.2	-7.8	4.5	9.0	10.9
34 1,4-Dichlorobenzene	-5.7	-1.2	-4.4	-1.0	-8.9	4.2	8.3	8.7
36 Benzyl alcohol	-0.7	-10.8	-6.5	0.4	-8.9	6.7	11.0	8.9
37 1,2-Dichlorobenzene	-1.7	1.7	-5.5	-1.4	-11.2	2.2	8.4	7.5
38 2-Methylphenol	-10.8	-15.0	-10.1	-0.8	-13.5	10.0	17.8	22.4
39 Indene	-8.6	-3.7	-12.4	-3.8	-10.5	11.8	27.3	Disabled
40 2,2'-oxybis[1-chloropr	12.8	-14.9	-13.3	-5.3	-12.7	3.3	12.7	17.4
41 N-Nitrosopyrrolidine	-7.3	-2.6	-3.0	1.0	-0.4	2.2	5.9	4.2
44 N-Nitrosodi-n-propylam	1.3	-15.1	-14.7	-5.7	-6.1	12.5	13.8	14.0
43 Acetophenone	Disabled	-10.8	-17.4	-6.8	-10.4	11.2	16.7	17.6
45 4-Methylphenol	Disabled	-17.4	-21.0	-10.7	-13.1	11.7	21.4	29.1
47 Hexachloroethane	0.2	8.5	-2.8	-3.6	-12.5	2.7	4.6	2.9
48 Nitrobenzene	7.5	5.4	-5.8	-2.8	-6.9	-2.3	-0.4	5.4
50 Isophorone	8.9	-2.2	-3.9	-2.3	-7.4	-1.3	0.9	7.3
51 2-Nitrophenol	5.6	-4.2	-2.1	-0.4	-3.7	-2.1	0.0	6.9
52 2,4-Dimethylphenol	-0.7	-4.5	3.9	-3.1	-5.7	0.5	1.2	8.4
56 Benzoic acid	-22.4	-10.6	-7.2	-11.0	2.4	12.8	13.2	22.9
55 Bis(2-chloroethoxy)met	13.1	-2.2	-8.3	-7.5	-11.9	-0.4	3.3	13.8

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
57 2,4-Dichlorophenol	13.2	-4.5	-2.0	-3.9	-6.6	-2.6	-0.3	6.6
59 1,2,4-Trichlorobenzene	9.5	-4.8	-0.9	-6.0	-6.7	-2.2	1.7	9.4
60 Naphthalene	-2.2	-6.4	-4.4	-6.9	-7.3	2.8	5.6	18.9
62 4-Chloroaniline	-7.0	-4.4	-3.5	-2.9	-5.8	3.7	3.8	16.2
63 2,6-Dichlorophenol	3.9	-4.2	-4.8	-0.8	-5.5	-1.2	0.8	11.7
64 Hexachlorobutadiene	19.3	-10.3	-2.2	-6.4	-6.1	-0.7	0.6	5.8
67 Caprolactam	15.3	0.3	-1.2	-1.0	-5.0	-6.2	-3.6	1.4
70 4-Chloro-3-methylpheno	-0.3	-3.5	-3.3	-3.2	-1.8	1.3	0.9	9.9
72 2-Methylnaphthalene	0.8	-9.5	-4.7	-4.5	-6.7	2.7	4.8	17.0
75 1-Methylnaphthalene	2.6	-7.4	-4.3	-4.2	-6.3	0.3	3.7	15.6
76 Hexachlorocyclopentadi	-7.4	-16.3	-13.4	-0.6	2.9	7.4	9.5	17.9
77 1,2,4,5-Tetrachloroben	-2.1	-7.8	-0.8	0.5	-4.7	1.8	2.8	10.3
78 2,4,6-Trichlorophenol	4.3	-0.3	-1.0	1.1	-0.9	-5.0	-3.7	5.4
79 2,4,5-Trichlorophenol	6.1	-0.5	-6.6	1.2	-4.7	1.3	-0.1	3.3
80 1,1'-Biphenyl	0.2	-4.1	-4.6	-5.1	-7.6	1.0	5.0	15.1
81 2-Chloronaphthalene	10.3	0.2	-8.4	-0.5	-9.9	-2.3	-0.2	10.7
82 2-Nitroaniline	-8.0	-3.0	1.5	2.3	-0.7	0.8	0.5	6.6
86 Dimethyl phthalate	10.7	-0.7	-1.0	-0.3	-5.5	-3.3	-3.3	3.5
87 1,3-Dinitrobenzene	-10.5	-7.0	-4.4	7.9	2.7	4.4	3.6	3.2
88 2,6-Dinitrotoluene	-5.0	2.6	2.9	-0.4	-0.1	-0.8	-0.9	1.7
89 Acenaphthylene	7.9	-4.7	-8.1	-3.0	-7.0	1.1	2.3	11.4
90 3-Nitroaniline	-16.3	-15.3	2.7	5.8	5.9	4.7	3.4	9.1
92 2,4-Dinitrophenol	Disabled	26.9	-9.9	-0.8	-15.8	-7.0	-2.9	9.6
91 Acenaphthene	13.7	-8.6	-11.8	-5.0	-7.8	-0.3	3.7	16.1
93 4-Nitrophenol	-11.1	-13.5	-7.3	0.1	5.3	9.0	4.9	12.7
94 2,4-Dinitrotoluene	-12.0	-9.6	-4.6	1.3	-0.2	5.5	6.1	13.4
95 Dibenzofuran	9.9	-3.8	-7.6	-2.0	-6.5	-0.5	1.6	8.9
97 2,3,5,6-Tetrachlorophe	16.8	-14.0	-6.9	-2.3	-6.1	2.3	1.2	8.9
99 2,3,4,6-Tetrachlorophe	2.3	-4.9	-6.3	4.0	-4.0	1.2	2.7	4.9
100 2-Naphthylamine	7.2	-1.9	-2.1	6.2	-2.6	-2.4	-4.3	-0.2
101 Diethyl phthalate	18.4	-7.7	-11.6	-5.9	-8.1	0.7	5.0	9.1
102 Hexadecane	6.0	-10.8	-15.0	-8.1	-6.5	10.9	23.6	Disabled
104 4-Chlorophenyl phenyl	10.4	1.1	-2.9	-0.2	-7.1	-2.2	-2.9	3.8
105 4-Nitroaniline	Disabled	-11.2	-7.8	-5.1	-4.3	4.6	4.3	19.5
106 Fluorene	5.4	-4.5	-5.7	-1.7	-9.3	2.5	0.9	12.3
108 4,6-Dinitro-2-methylph	Disabled	-19.2	-11.0	-3.8	-0.1	9.2	12.7	12.1
109 N-Nitrosodiphenylamine	-1.2	-6.9	0.0	-2.2	-4.2	4.9	3.3	6.3
111 1,2-Diphenylhydrazine	1.9	-1.2	-5.7	1.8	-6.7	3.7	2.2	4.0
116 4-Bromophenyl phenyl e	3.3	-9.5	-7.4	-3.4	-0.8	5.0	6.5	6.3
118 Hexachlorobenzene	21.1	-5.4	-10.4	-6.0	-9.0	1.2	3.7	4.9
119 Atrazine	5.6	9.7	-4.5	2.9	1.5	2.0	-2.5	-14.7
122 Pentachlorophenol RB	* 68.9	-27.9	-21.7	-14.6	-10.9	-1.0	3.0	4.3
121 n-Octadecane	0.6	-8.0	-12.9	-5.7	-8.5	11.0	23.6	Disabled
126 Phenanthrene	14.2	-1.2	-5.8	-3.8	-7.7	1.4	1.9	1.0
128 Anthracene	6.6	2.8	-2.8	-2.1	-5.2	-0.6	-0.3	1.7
130 Carbazole	8.7	-0.6	-3.4	-0.9	-3.8	0.9	0.8	-1.7
132 Di-n-butyl phthalate	10.9	-0.3	0.9	-1.3	-2.8	-1.8	-2.0	-3.6
137 Fluoranthene	10.0	-3.3	0.5	1.7	-3.6	-1.4	-1.0	-2.9
138 Benzidine	17.6	-24.6	-3.6	1.0	2.8	6.2	5.0	-4.4
139 Pyrene	11.5	-1.9	-0.3	3.5	-1.1	-3.2	-4.8	-3.5
144 Butyl benzyl phthalate	21.3	-3.0	2.8	2.7	-2.8	-6.8	-5.8	-8.4
149 3,3'-Dichlorobenzidine	2.5	-11.0	-3.4	1.4	1.2	3.2	4.5	1.6
151 Bis(2-ethylhexyl) phth	15.4	-5.8	0.7	0.6	-0.7	-4.8	-2.2	-3.1
152 Benzo[a]anthracene	15.0	-2.3	-2.9	-0.6	-3.7	-3.9	0.4	-2.1
153 Chrysene	2.9	1.3	-0.8	4.1	-3.2	-2.8	-0.4	-1.2
156 Di-n-octyl phthalate	21.8	2.4	0.3	2.6	-1.3	-6.7	-7.8	-11.2
157 7,12-Dimethylbenz(a)an	-13.7	-2.8	-1.8	5.5	1.9	3.3	3.9	3.7
158 Benzo[b]fluoranthene	13.3	-6.5	0.9	-1.5	0.0	-3.6	-0.9	-1.8
159 Benzo[k]fluoranthene	17.2	-3.6	-4.8	0.9	-4.7	-1.1	-0.1	-3.9

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
176 Benzo[e]pyrene	26.5	-8.9	-4.5	-1.8	-4.3	-4.1	0.0	-2.9
160 Benzo[a]pyrene	10.5	-7.0	-4.1	2.1	-1.1	-2.1	1.9	-0.2
163 Indeno[1,2,3-cd]pyrene	22.0	-7.1	-8.1	-5.5	-5.7	-0.4	2.5	2.4
164 Dibenz(a,h)anthracene	8.8	-0.9	-2.9	-4.7	-6.3	-2.7	4.1	4.5
165 Benzo[g,h,i]perylene	20.0	-7.8	-1.7	-5.6	-7.3	-2.0	2.0	2.5

ICalib Error Legend

RB, Low Point Test Fails

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Nov-2014 04:22:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-003
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:45:53 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:21:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.286	6.284	0.002	90	140082	8.00	8.00	
* 2 Naphthalene-d8	136	7.499	7.497	0.002	98	468893	8.00	8.00	
* 3 Acenaphthene-d10	164	9.118	9.115	0.003	93	329858	8.00	8.00	
* 4 Phenanthrene-d10	188	10.496	10.488	0.008	96	691150	8.00	8.00	
* 5 Chrysene-d12	240	14.032	14.019	0.013	95	659858	8.00	8.00	
* 6 Perylene-d12	264	16.981	16.963	0.018	98	453519	8.00	8.00	
$ 7 2-Fluorophenol	112	4.940	4.938	0.002	91	10327	0.4000	0.4559	
$ 8 Phenol-d5	99	5.928	5.926	0.002	82	11849	0.4000	0.4298	
$ 9 Nitrobenzene-d5	82	6.810	6.813	-0.003	84	14915	0.4000	0.4502	
$ 10 2-Fluorobiphenyl	172	8.476	8.474	0.002	98	28916	0.4000	0.4543	
$ 11 2,4,6-Tribromophenol	330	9.839	9.836	0.003	81	3025	0.4000	0.3645	
$ 12 Terphenyl-d14	244	12.269	12.262	0.007	98	35177	0.4000	0.4479	
13 1,4-Dioxane	88	1.852	1.850	0.002	46	5984	0.4000	0.6054	M
14 N-Nitrosodimethylamine	74	2.520	2.507	0.013	50	6540	0.4000	0.4435	M
15 Pyridine	79	2.616	2.576	0.040	67	10523	0.4000	0.3942	M
22 Methyl methanesulfonate	80	4.705	4.708	-0.003	85	7928	0.4000	0.4104	
26 Benzaldehyde	77	5.848	5.846	0.002	81	10510	0.4000	0.5117	
27 Phenol	94	5.944	5.942	0.002	85	11076	0.4000	0.3633	
28 Aniline	93	5.960	5.958	0.002	95	14856	0.4000	0.4279	
29 Bis(2-chloroethyl)ether	93	6.030	6.022	0.008	94	9394	0.4000	0.4681	
31 2-Chlorophenol	128	6.078	6.081	-0.003	85	10381	0.4000	0.4542	
32 n-Decane	43	6.142	6.140	0.002	81	7175	0.4000	0.4182	
33 1,3-Dichlorobenzene	146	6.233	6.231	0.003	90	10428	0.4000	0.3905	
34 1,4-Dichlorobenzene	146	6.302	6.305	-0.003	86	10341	0.4000	0.3772	
36 Benzyl alcohol	108	6.414	6.412	0.002	82	5275	0.4000	0.3973	
37 1,2-Dichlorobenzene	146	6.452	6.455	-0.003	84	10003	0.4000	0.3933	
38 2-Methylphenol	108	6.521	6.524	-0.003	85	7491	0.4000	0.3566	
39 Indene	116	6.537	6.535	0.002	83	13737	0.4000	0.3654	
40 2,2'-oxybis[1-chloropropan	45	6.553	6.551	0.002	69	7670	0.4000	0.4510	
41 N-Nitrosopyrrolidine	100	6.633	6.637	-0.003	51	3169	0.4000	0.3707	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.660	6.663	-0.003	51	10500	0.4000	0.4441	
44 N-Nitrosodi-n-propylamine	70	6.660	6.663	-0.003	59	8304	0.4000	0.4053	
43 Acetophenone	105	6.665	6.663	0.002	75	18574	0.4000	0.5106	
47 Hexachloroethane	117	6.783	6.781	0.002	79	5219	0.4000	0.4009	
48 Nitrobenzene	77	6.831	6.829	0.002	84	13918	0.4000	0.4300	
50 Isophorone	82	7.050	7.048	0.002	97	21477	0.4000	0.4358	
51 2-Nitrophenol	139	7.136	7.133	0.003	78	4950	0.4000	0.4224	
52 2,4-Dimethylphenol	107	7.157	7.160	-0.003	90	11002	0.4000	0.3971	
56 Benzoic acid	122	7.184	7.208	-0.024	84	3239	0.4000	0.3103	
55 Bis(2-chloroethoxy)methane	93	7.248	7.240	0.008	93	11234	0.4000	0.4524	
57 2,4-Dichlorophenol	162	7.355	7.352	0.003	91	10224	0.4000	0.4530	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.440	7.438	0.002	89	12665	0.4000	0.4381	
60 Naphthalene	128	7.515	7.513	0.002	96	26094	0.4000	0.3912	
62 4-Chloroaniline	127	7.552	7.550	0.002	93	10195	0.4000	0.3719	
63 2,6-Dichlorophenol	162	7.568	7.566	0.002	86	9161	0.4000	0.4156	
64 Hexachlorobutadiene	225	7.627	7.630	-0.003	88	11652	0.4000	0.4774	
67 Caprolactam	113	7.825	7.833	-0.008	67	2519	0.4000	0.4611	
70 4-Chloro-3-methylphenol	107	7.974	7.977	-0.003	83	9073	0.4000	0.3988	
72 2-Methylnaphthalene	142	8.151	8.148	0.003	84	19455	0.4000	0.4033	
75 1-Methylnaphthalene	142	8.247	8.239	0.008	90	18240	0.4000	0.4105	
76 Hexachlorocyclopentadiene	237	8.306	8.298	0.008	77	9757	0.4000	0.3704	
77 1,2,4,5-Tetrachlorobenzene	216	8.306	8.303	0.003	94	14075	0.4000	0.3917	
78 2,4,6-Trichlorophenol	196	8.407	8.399	0.008	89	8642	0.4000	0.4173	
79 2,4,5-Trichlorophenol	196	8.434	8.431	0.003	85	9081	0.4000	0.4246	
80 1,1'-Biphenyl	154	8.573	8.570	0.003	95	23992	0.4000	0.4009	
81 2-Chloronaphthalene	162	8.605	8.597	0.008	94	23532	0.4000	0.4413	
82 2-Nitroaniline	65	8.679	8.672	0.007	73	5792	0.4000	0.3682	
86 Dimethyl phthalate	163	8.824	8.821	0.003	94	24590	0.4000	0.4430	
87 1,3-Dinitrobenzene	168	8.861	8.859	0.002	72	3073	0.4000	0.3580	
88 2,6-Dinitrotoluene	165	8.888	8.886	0.002	78	4584	0.4000	0.3800	
89 Acenaphthylene	152	8.989	8.982	0.007	96	31865	0.4000	0.4316	
90 3-Nitroaniline	138	9.053	9.046	0.007	53	3298	0.4000	0.3348	
92 2,4-Dinitrophenol	184	9.155	9.142	0.013	60	2755	0.8000	3.21	M
91 Acenaphthene	153	9.150	9.142	0.008	90	22902	0.4000	0.4548	
93 4-Nitrophenol	109	9.176	9.174	0.002	83	8824	0.8000	0.7112	
94 2,4-Dinitrotoluene	165	9.262	9.259	0.003	47	5808	0.4000	0.3522	
95 Dibenzofuran	168	9.304	9.297	0.007	93	33948	0.4000	0.4397	
97 2,3,5,6-Tetrachlorophenol	232	9.374	9.366	0.008	82	10532	0.4000	0.4672	
99 2,3,4,6-Tetrachlorophenol	232	9.411	9.404	0.007	69	8657	0.4000	0.4091	
100 2-Naphthylamine	143	9.438	9.436	0.002	89	17846	0.4000	0.4288	
101 Diethyl phthalate	149	9.470	9.462	0.008	97	29114	0.4000	0.4738	
102 Hexadecane	57	9.475	9.468	0.007	64	9577	0.4000	0.4239	
104 4-Chlorophenyl phenyl ethe	204	9.604	9.596	0.008	89	16978	0.4000	0.4415	
105 4-Nitroaniline	138	9.609	9.607	0.002	46	2754	0.4000	0.2522	
106 Fluorene	166	9.620	9.617	0.003	89	23632	0.4000	0.4218	
108 4,6-Dinitro-2-methylphenol	198	9.641	9.639	0.002	84	5757	0.8000	0.4580	
109 N-Nitrosodiphenylamine	169	9.700	9.698	0.002	65	17394	0.4000	0.3952	
111 1,2-Diphenylhydrazine	77	9.748	9.740	0.008	97	27714	0.4000	0.4076	
116 4-Bromophenyl phenyl ether	248	10.058	10.050	0.008	65	9418	0.4000	0.4130	
118 Hexachlorobenzene	284	10.143	10.136	0.007	90	10835	0.4000	0.4842	
119 Atrazine	200	10.165	10.162	0.003	86	8704	0.4000	0.4224	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.309	10.301	0.008	84	17798	0.8000	1.35	
121 n-Octadecane	57	10.314	10.307	0.007	76	9666	0.4000	0.4023	
126 Phenanthrene	178	10.512	10.510	0.002	96	43791	0.4000	0.4568	
128 Anthracene	178	10.565	10.563	0.002	95	41163	0.4000	0.4263	
130 Carbazole	167	10.704	10.702	0.002	95	33796	0.4000	0.4347	
132 Di-n-butyl phthalate	149	11.003	10.996	0.007	98	41800	0.4000	0.4438	
137 Fluoranthene	202	11.815	11.808	0.007	93	52124	0.4000	0.4398	
138 Benzidine	184	11.933	11.931	0.002	96	17466	0.4000	0.4703	
139 Pyrene	202	12.120	12.107	0.013	96	49799	0.4000	0.4459	
144 Butyl benzyl phthalate	149	12.969	12.956	0.013	90	17905	0.4000	0.4850	
149 3,3'-Dichlorobenzidine	252	13.931	13.923	0.008	68	13789	0.4000	0.4100	
151 Bis(2-ethylhexyl) phthalat	149	13.968	13.961	0.007	89	22648	0.4000	0.4614	
152 Benzo[a]anthracene	228	14.011	14.003	0.008	96	45763	0.4000	0.4601	
153 Chrysene	228	14.086	14.073	0.013	94	37670	0.4000	0.4116	
156 Di-n-octyl phthalate	149	15.293	15.269	0.024	96	36829	0.4000	0.4872	M
157 7,12-Dimethylbenz(a)anthra	256	16.153	16.146	0.008	61	10830	0.4000	0.3452	M
158 Benzo[b]fluoranthene	252	16.169	16.156	0.013	73	37205	0.4000	0.4534	M
159 Benzo[k]fluoranthene	252	16.228	16.210	0.018	93	36934	0.4000	0.4689	
176 Benzo[e]pyrene	252	16.757	16.738	0.019	0	37113	0.4000	0.5060	M
160 Benzo[a]pyrene	252	16.858	16.845	0.013	65	31607	0.4000	0.4420	M
163 Indeno[1,2,3-cd]pyrene	276	19.214	19.196	0.018	40	31844	0.4000	0.4880	
164 Dibenz(a,h)anthracene	278	19.241	19.228	0.013	1	24267	0.4000	0.4354	M
165 Benzo[g,h,i]perylene	276	19.812	19.800	0.012	83	25990	0.4000	0.4799	M
S 206 Total Cresols	108				0		0.8000	0.8007	
S 208 Methyl Phenols,Total	108				0		0.8000	0.8007	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPSTD0.4i_00007 Amount Added: 1.00 Units: mL

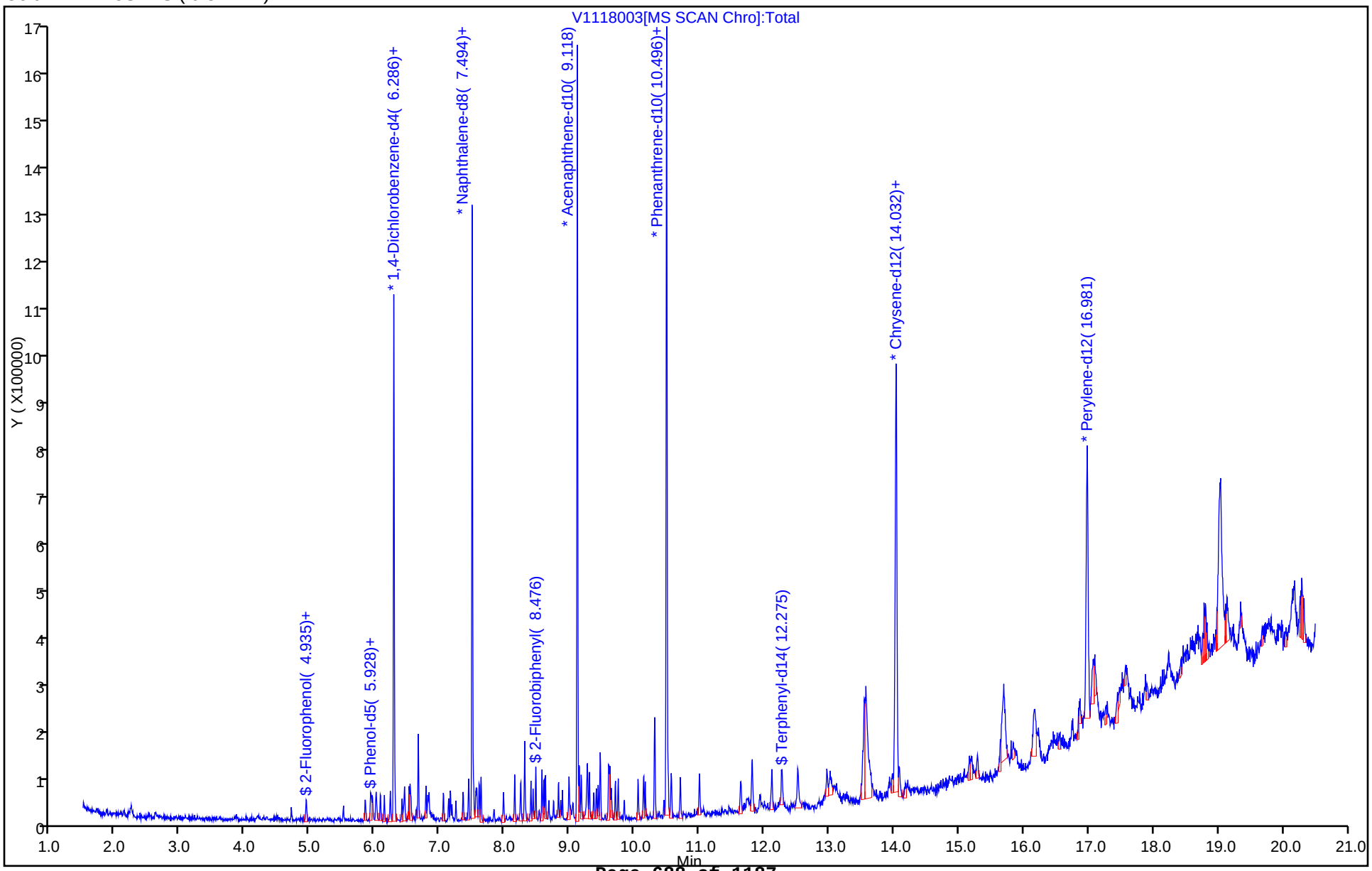
Report Date: 18-Nov-2014 08:45:53 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D

Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	3
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



Manual Integration/User Assign Peak Report

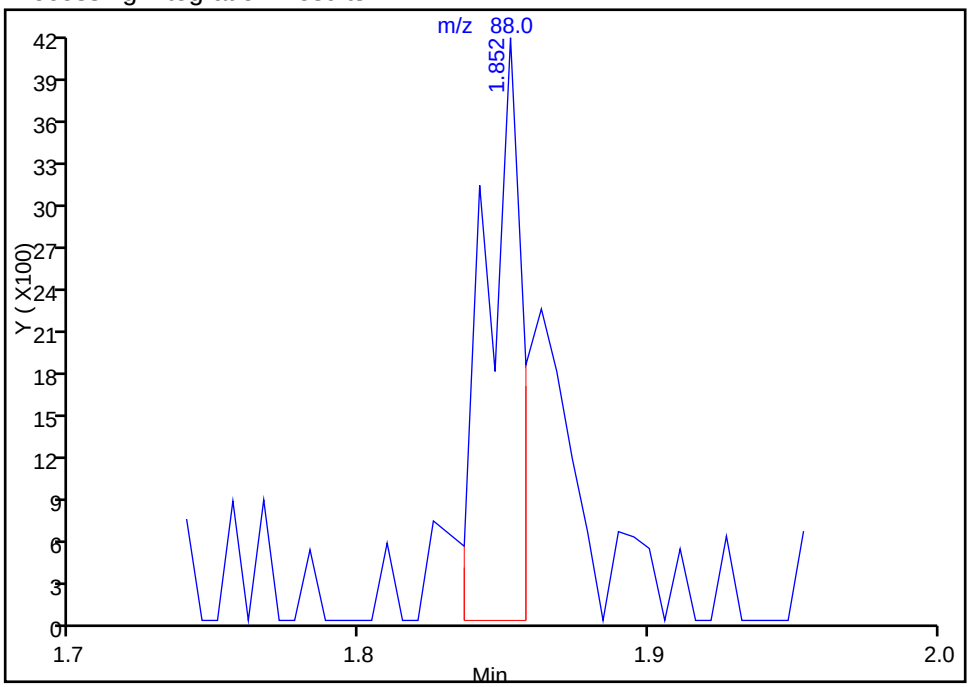
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

13 1,4-Dioxane, CAS: 123-91-1

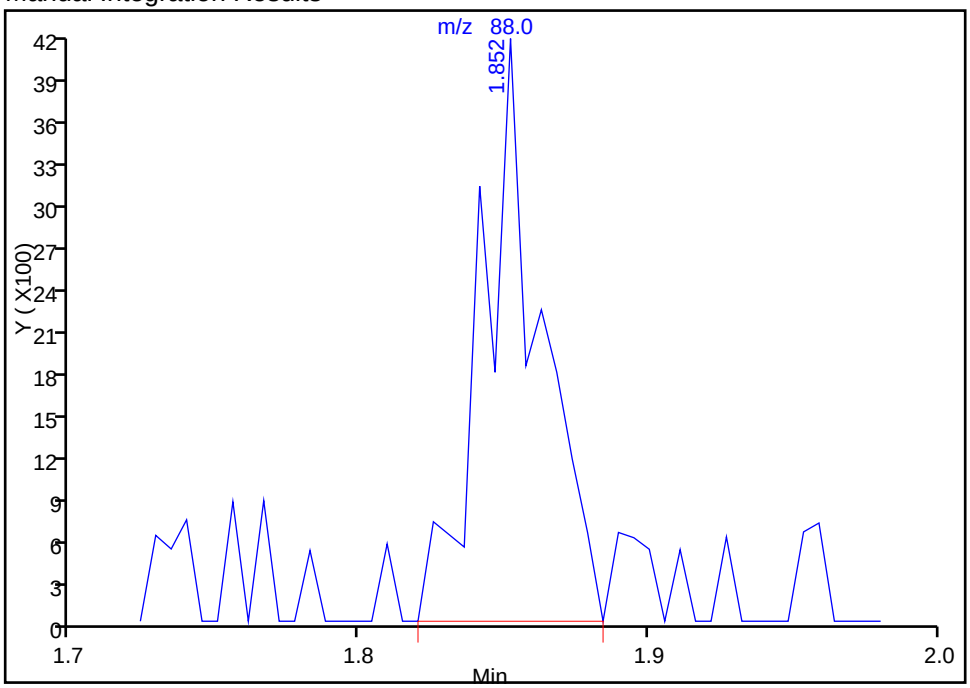
Processing Integration Results

RT: 1.85
Response: 3683
Amount: 0.387001



Manual Integration Results

RT: 1.85
Response: 5984
Amount: 0.605358



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

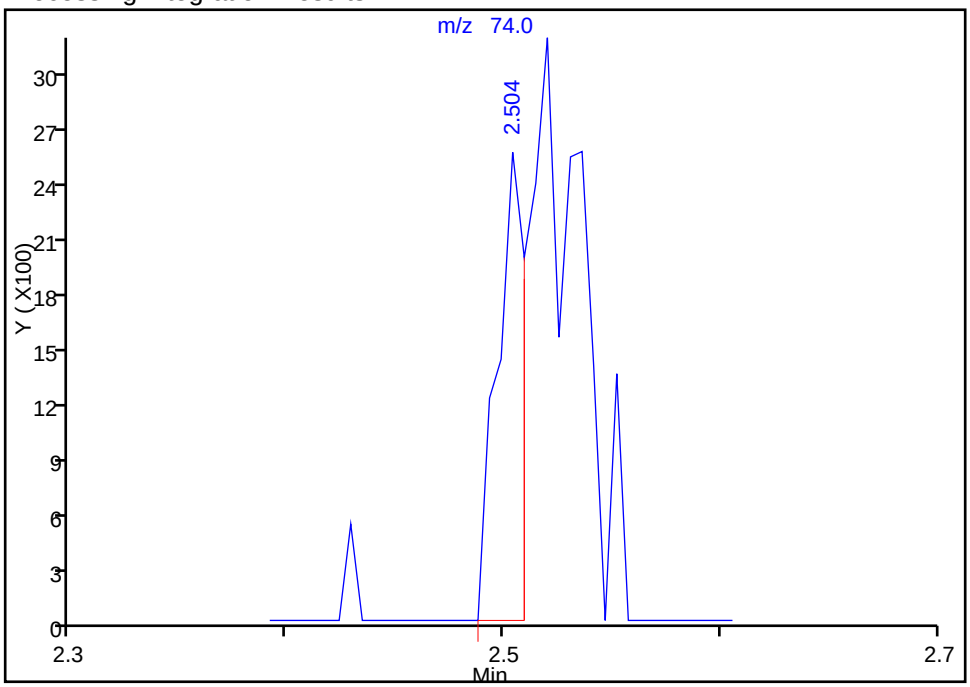
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

14 N-Nitrosodimethylamine, CAS: 62-75-9

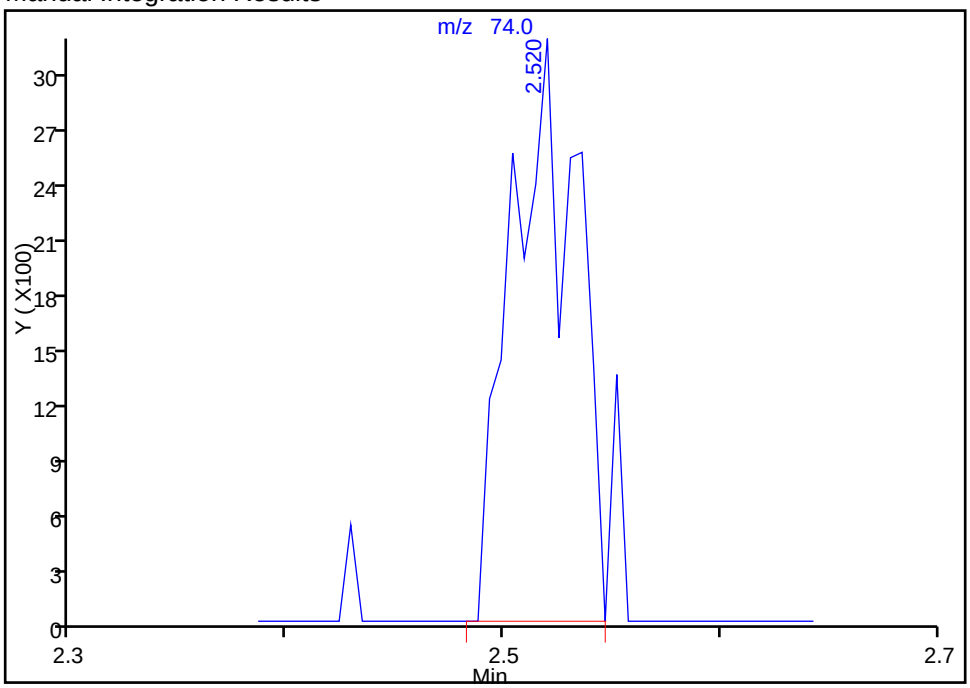
Processing Integration Results

RT: 2.50
Response: 2260
Amount: 0.394202



Manual Integration Results

RT: 2.52
Response: 6540
Amount: 0.443462



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

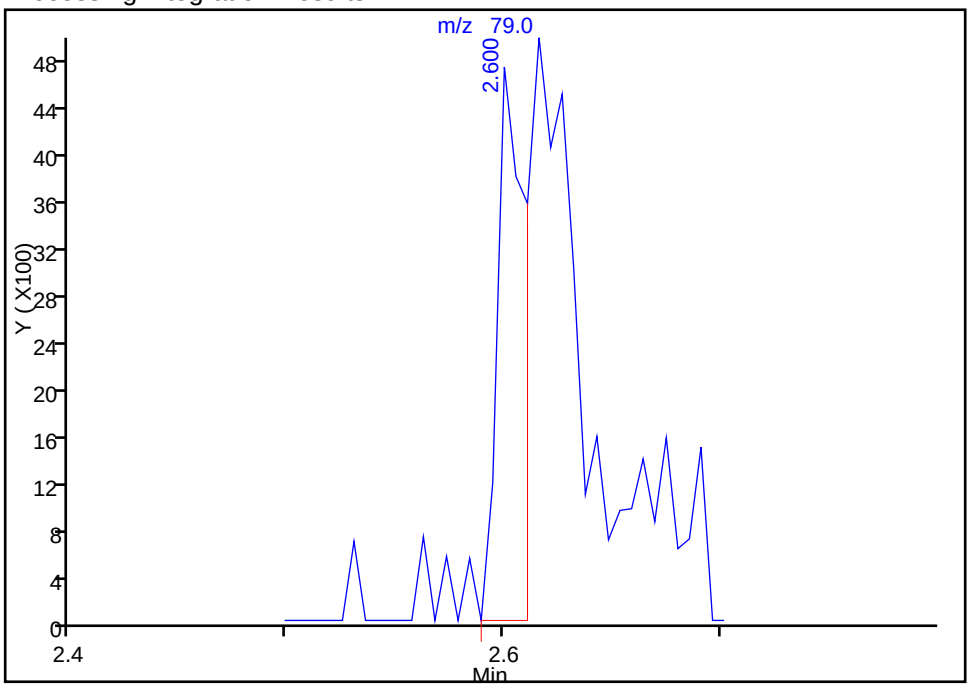
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

15 Pyridine, CAS: 110-86-1

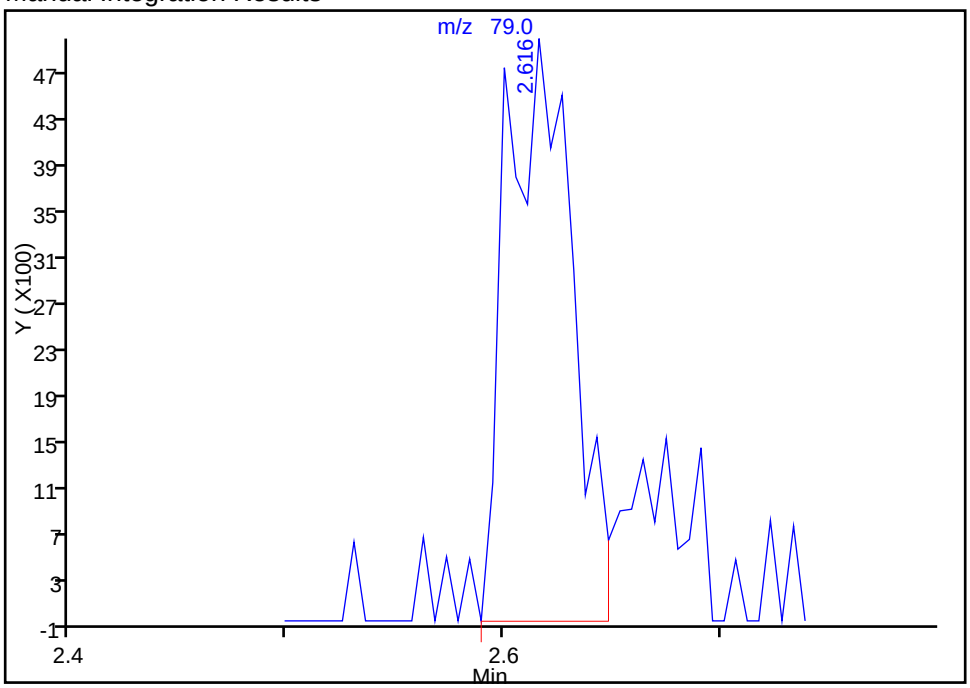
Processing Integration Results

RT: 2.60
Response: 4213
Amount: 0.244613



Manual Integration Results

RT: 2.62
Response: 10523
Amount: 0.394248



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

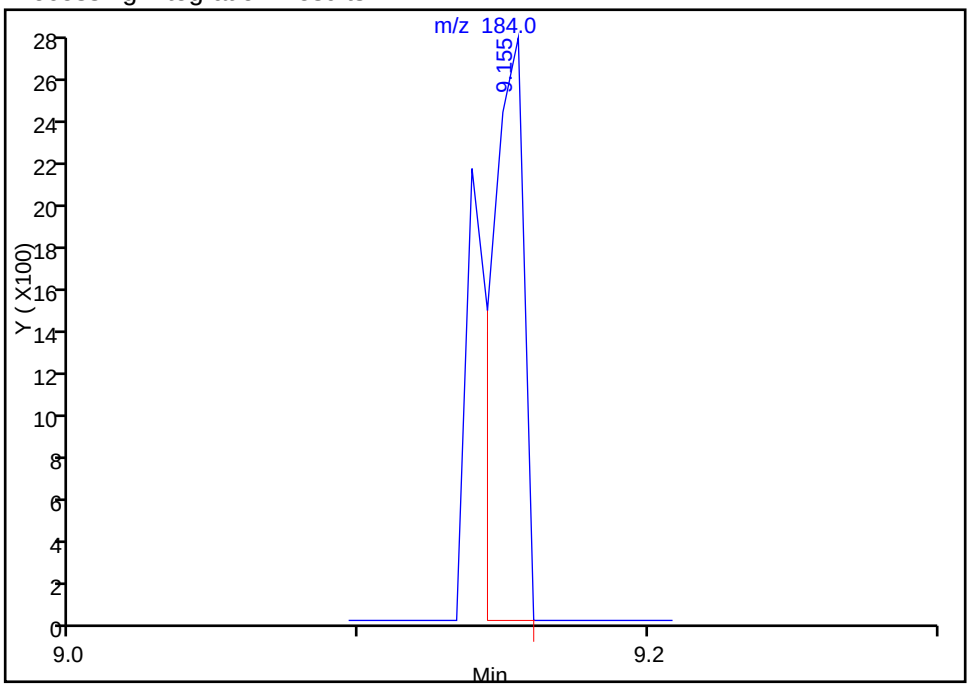
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

92 2,4-Dinitrophenol, CAS: 51-28-5

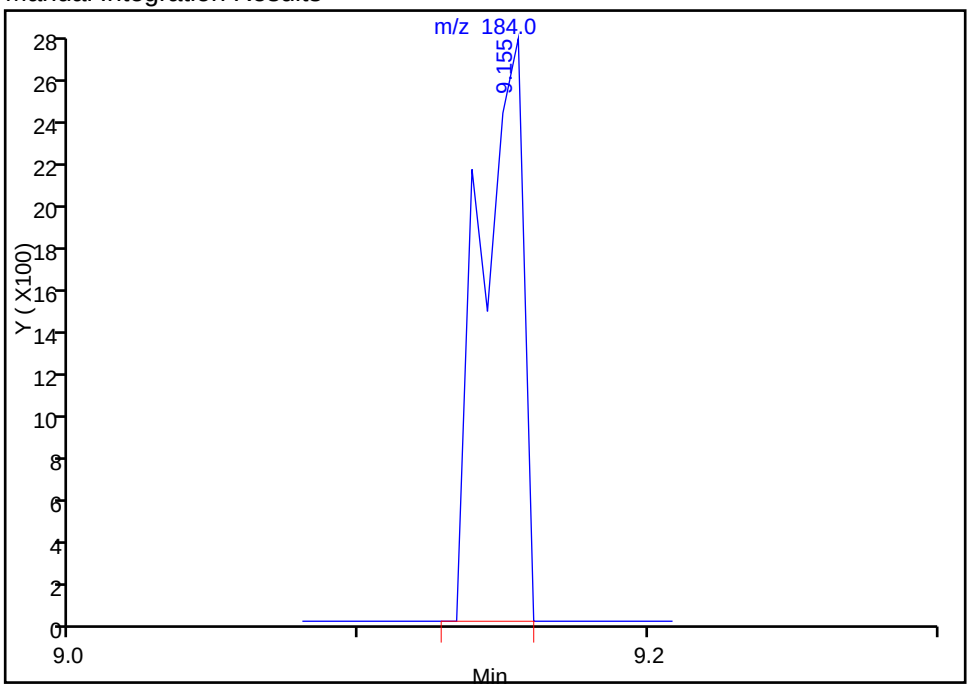
Processing Integration Results

RT: 9.15
Response: 2082
Amount: 0.267092



Manual Integration Results

RT: 9.15
Response: 2755
Amount: 3.207816



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

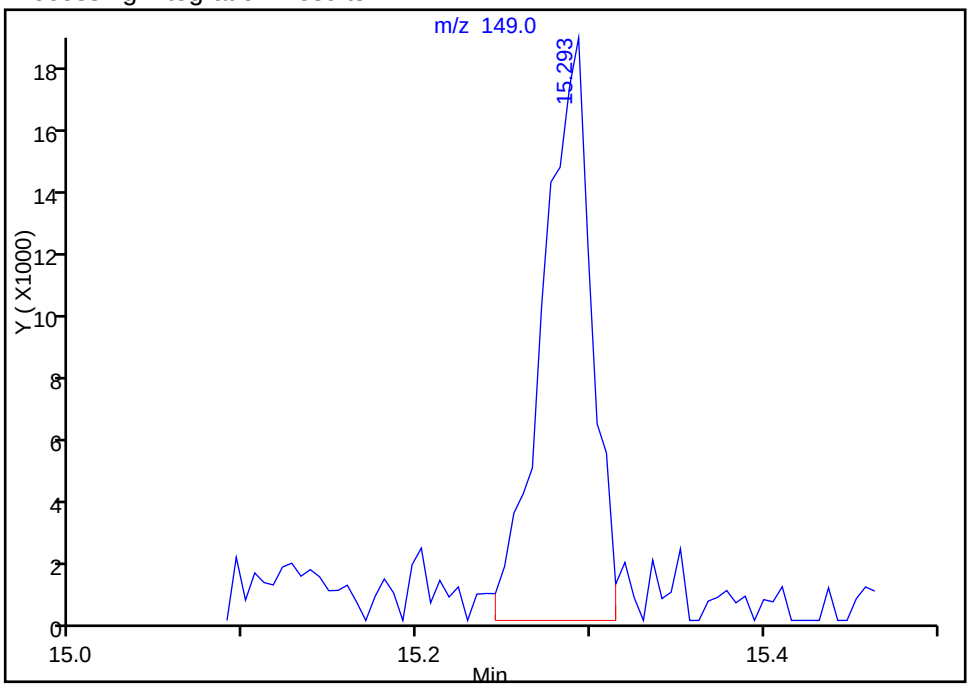
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

156 Di-n-octyl phthalate, CAS: 117-84-0

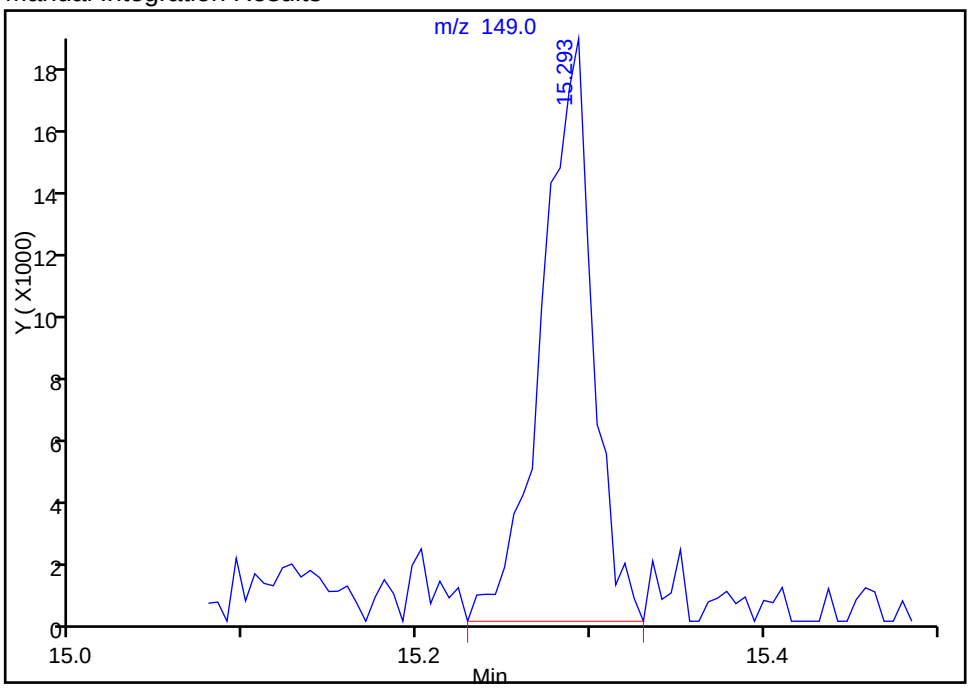
Processing Integration Results

RT: 15.29
Response: 35496
Amount: 0.465001



Manual Integration Results

RT: 15.29
Response: 36829
Amount: 0.487179



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

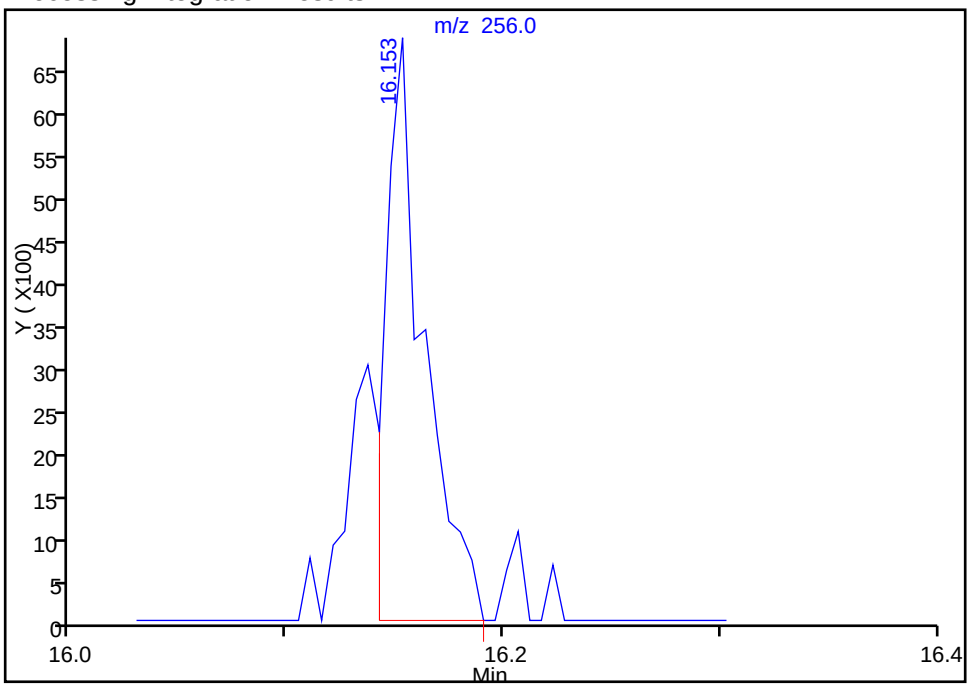
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

157 7,12-Dimethylbenz(a)anthracene, CAS: 57-97-6

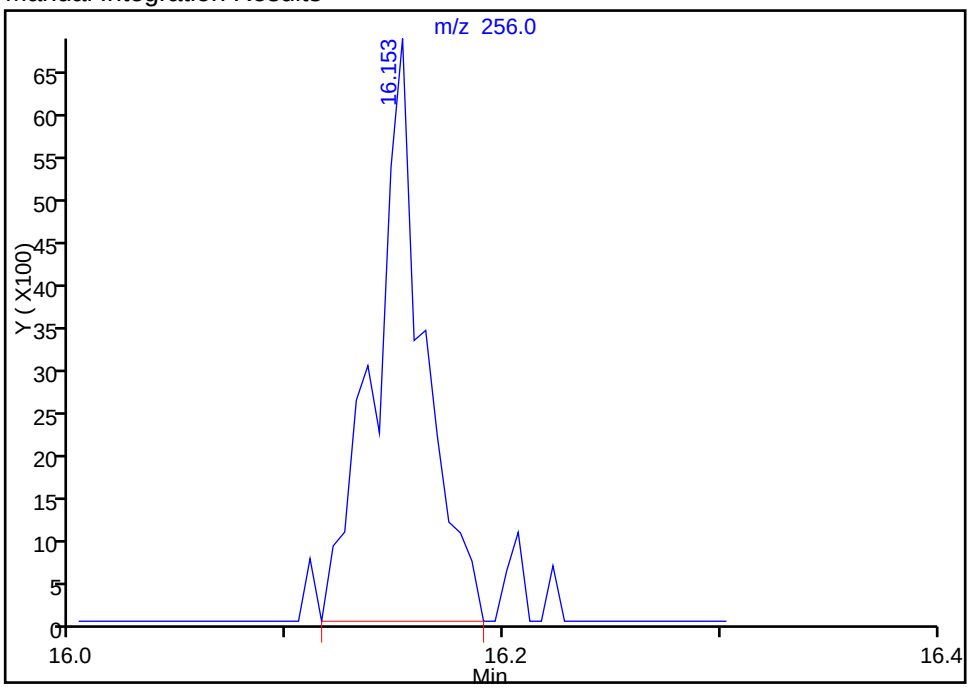
Processing Integration Results

RT: 16.15
Response: 8413
Amount: 0.270175



Manual Integration Results

RT: 16.15
Response: 10830
Amount: 0.345214



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

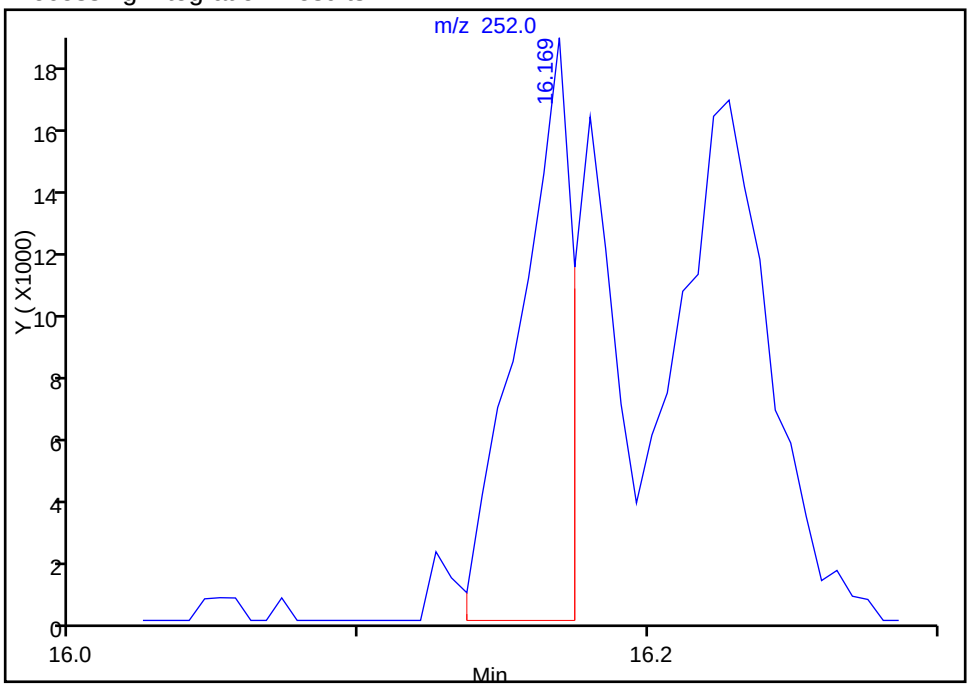
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

158 Benzo[b]fluoranthene, CAS: 205-99-2

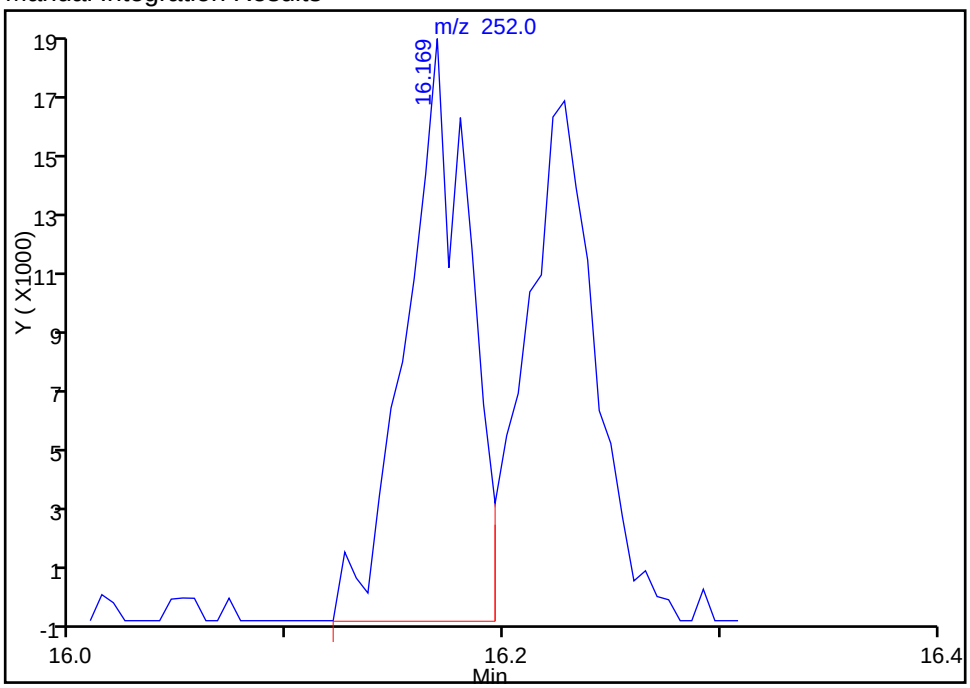
Processing Integration Results

RT: 16.17
Response: 23761
Amount: 0.311114



Manual Integration Results

RT: 16.17
Response: 37205
Amount: 0.453390



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

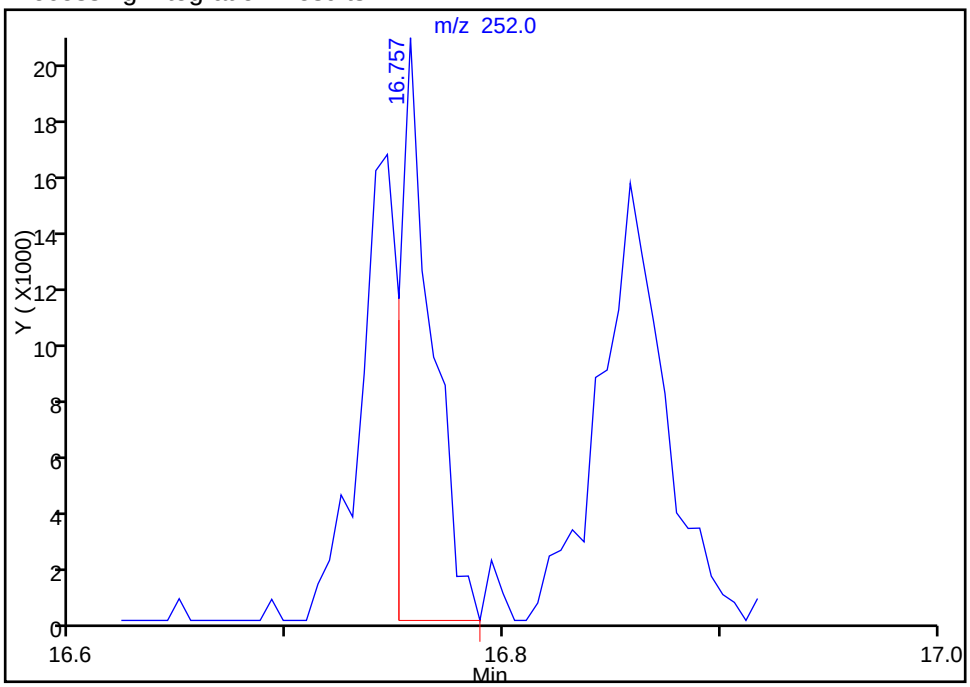
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

176 Benzo[e]pyrene, CAS: 192-97-2

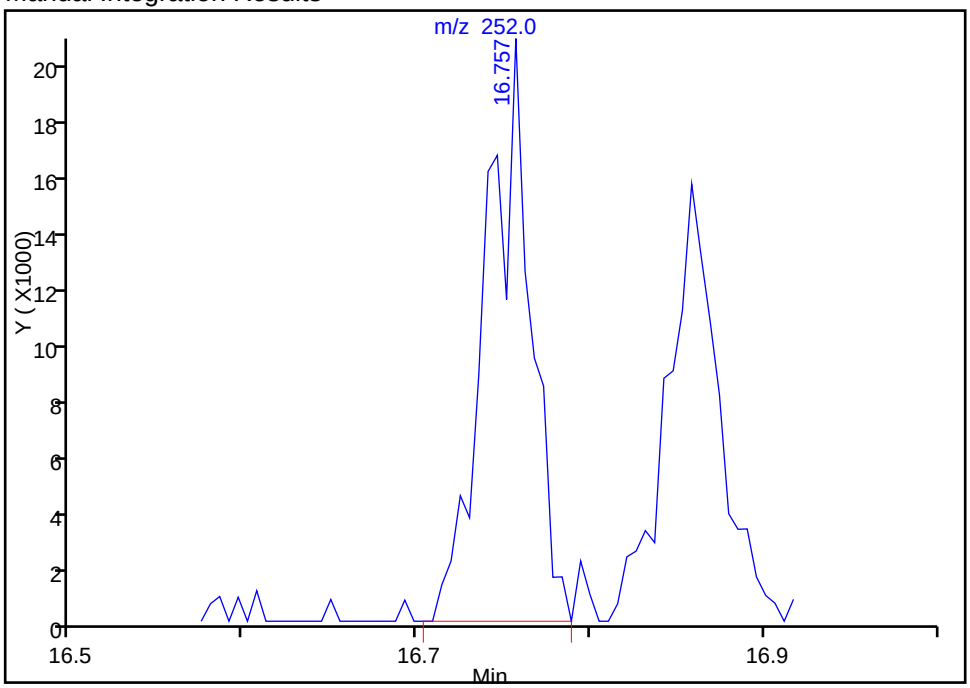
Processing Integration Results

RT: 16.76
Response: 20526
Amount: 0.310614



Manual Integration Results

RT: 16.76
Response: 37113
Amount: 0.506012



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

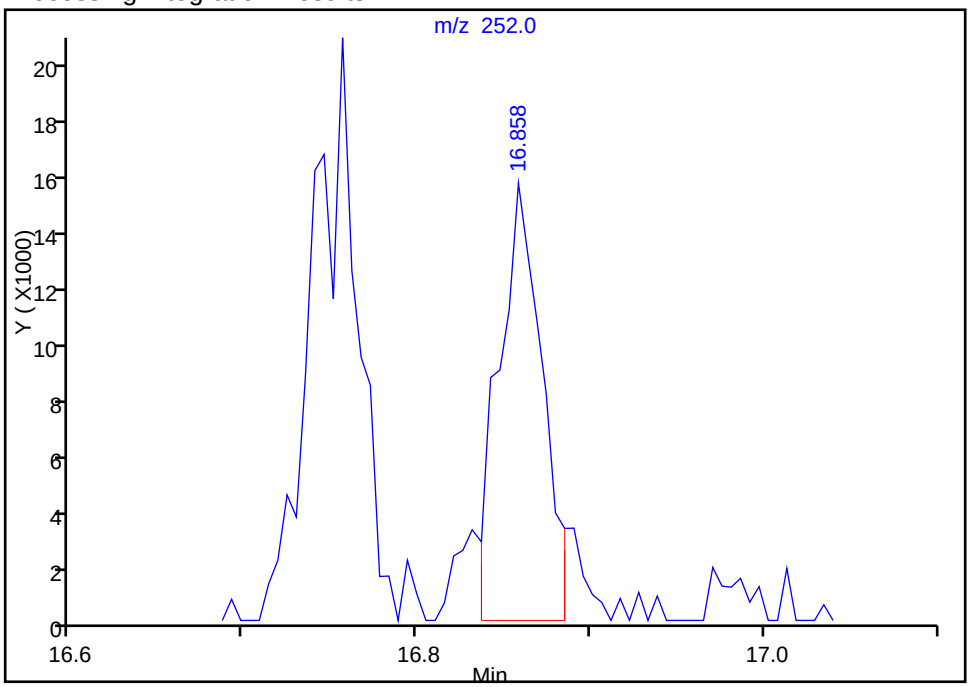
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

160 Benzo[a]pyrene, CAS: 50-32-8

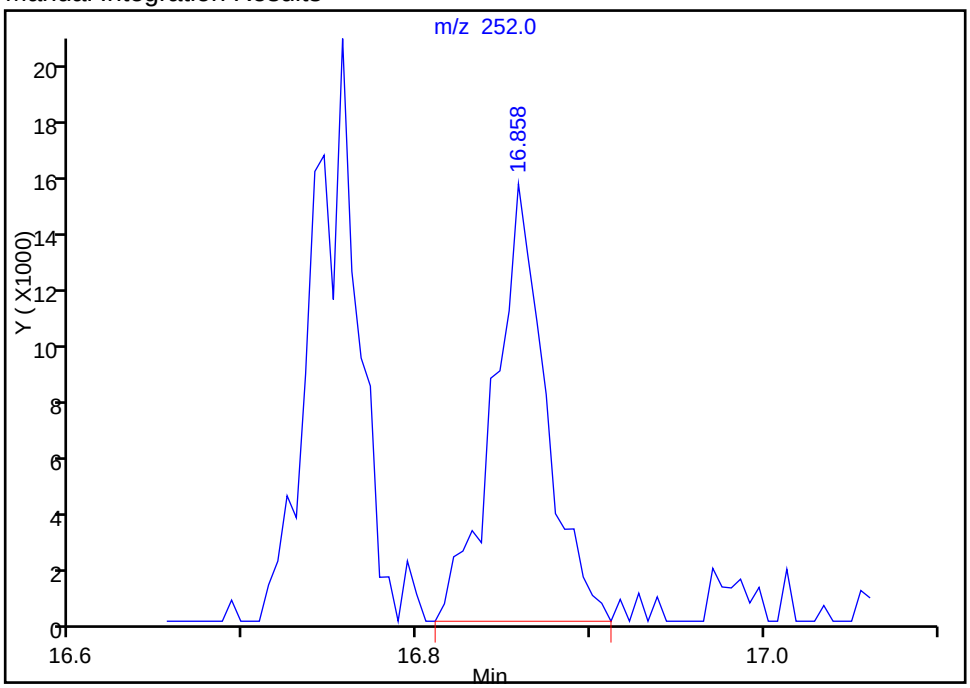
Processing Integration Results

RT: 16.86
Response: 26894
Amount: 0.388533



Manual Integration Results

RT: 16.86
Response: 31607
Amount: 0.441965



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

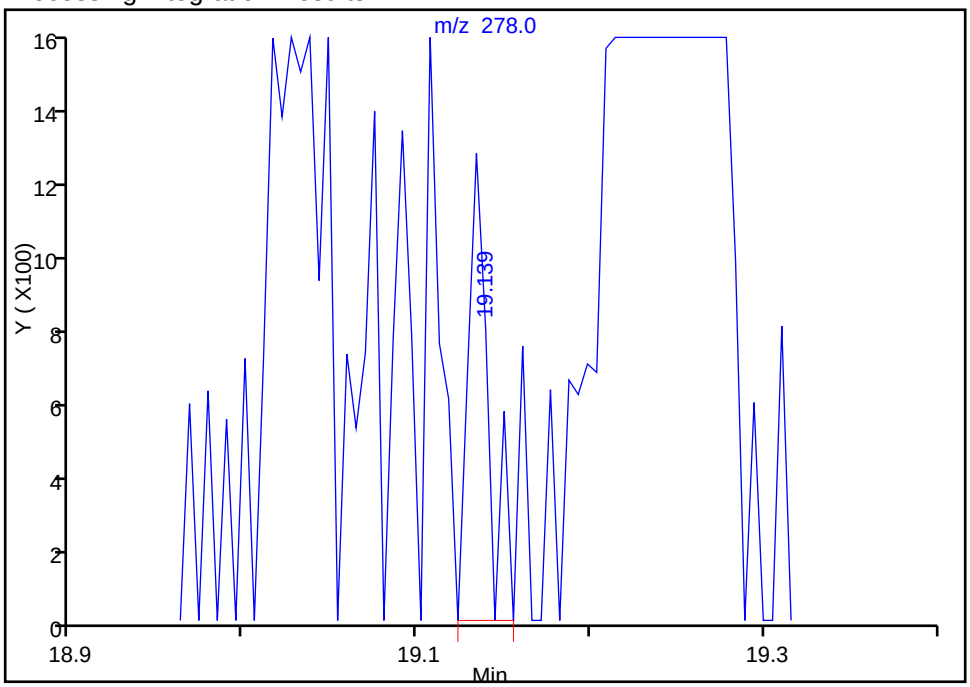
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

164 Dibenz(a,h)anthracene, CAS: 53-70-3

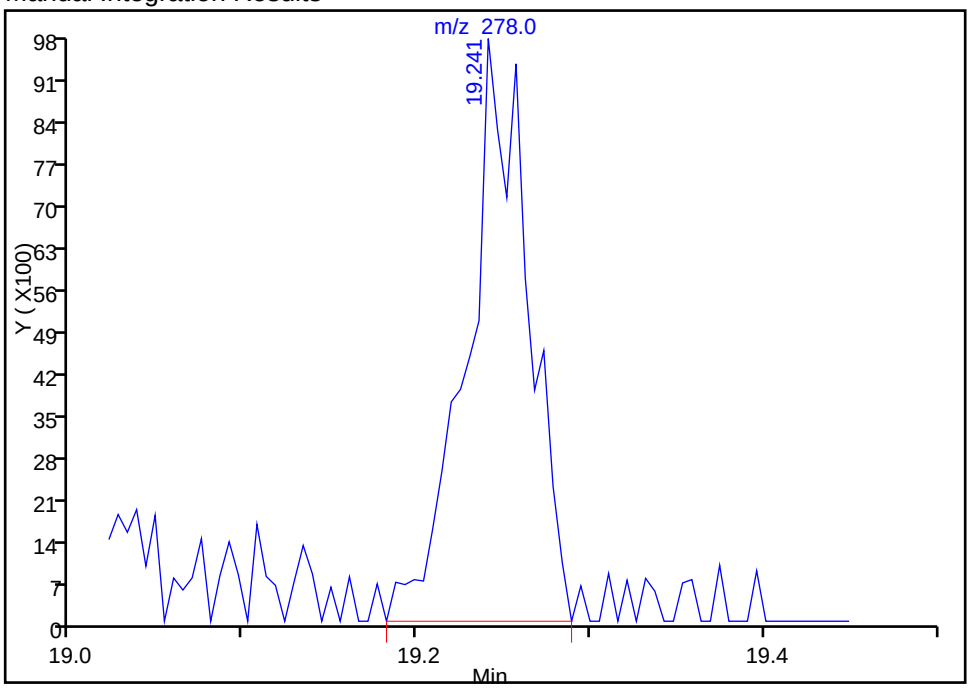
Processing Integration Results

RT: 19.14
Response: 1053
Amount: 0.025803



Manual Integration Results

RT: 19.24
Response: 24267
Amount: 0.435372



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

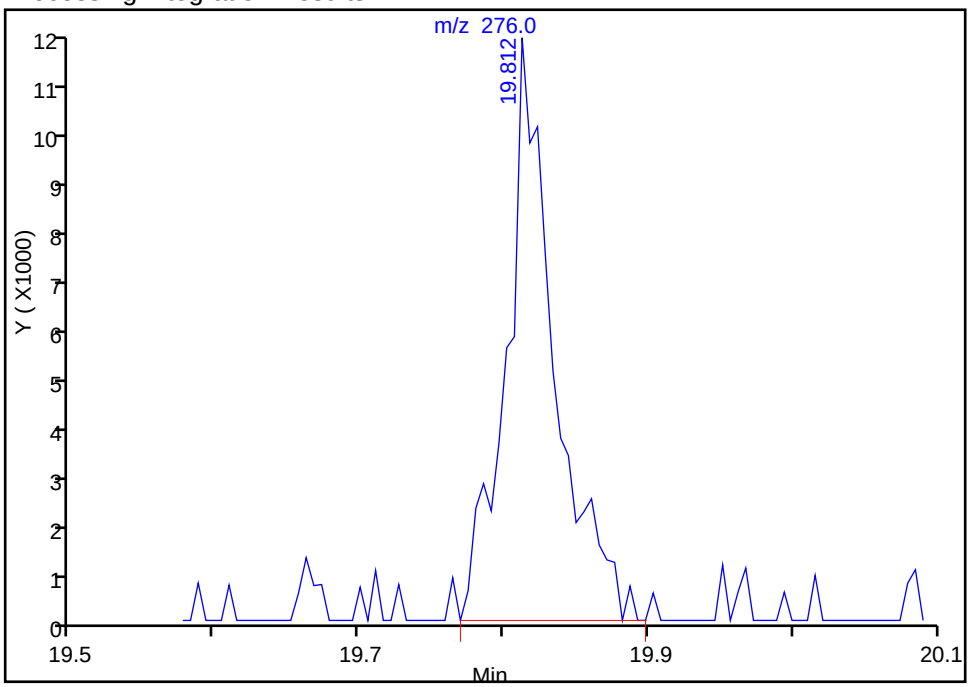
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118003.D				
Injection Date:	18-Nov-2014 04:22:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

165 Benzo[g,h,i]perylene, CAS: 191-24-2

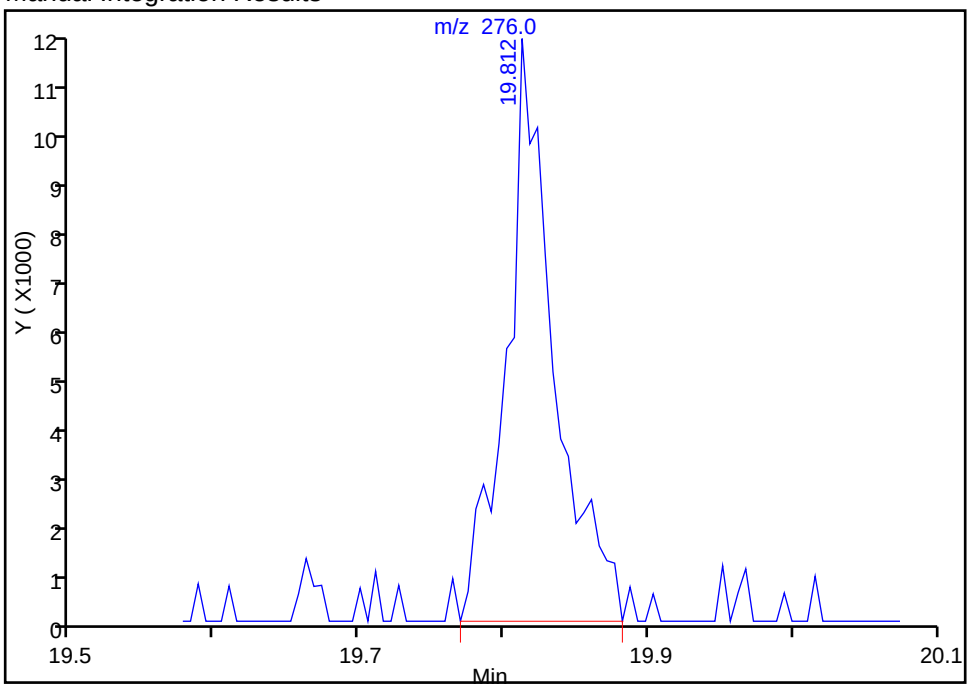
Processing Integration Results

RT: 19.81
Response: 26202
Amount: 0.485294



Manual Integration Results

RT: 19.81
Response: 25990
Amount: 0.479918



Reviewer: piccolinov, 18-Nov-2014 07:26:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118004.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Nov-2014 04:50:30 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-004
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:45:55 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:27:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.286	6.284	0.002	89	131688	8.00	8.00	
* 2 Naphthalene-d8	136	7.493	7.497	-0.004	97	424263	8.00	8.00	
* 3 Acenaphthene-d10	164	9.117	9.115	0.002	92	305830	8.00	8.00	
* 4 Phenanthrene-d10	188	10.495	10.488	0.007	96	644260	8.00	8.00	
* 5 Chrysene-d12	240	14.032	14.019	0.013	95	659286	8.00	8.00	
* 6 Perylene-d12	264	16.975	16.963	0.012	98	451076	8.00	8.00	
$ 7 2-Fluorophenol	112	4.940	4.938	0.002	91	39100	2.00	1.84	
$ 8 Phenol-d5	99	5.928	5.926	0.002	84	49869	2.00	1.92	
$ 9 Nitrobenzene-d5	82	6.809	6.813	-0.004	92	57312	2.00	1.91	
$ 10 2-Fluorobiphenyl	172	8.476	8.474	0.002	98	113996	2.00	1.93	
$ 11 2,4,6-Tribromophenol	330	9.844	9.836	0.008	80	13249	2.00	1.71	
$ 12 Terphenyl-d14	244	12.269	12.262	0.007	98	153612	2.00	1.96	
13 1,4-Dioxane	88	1.862	1.850	0.012	87	18968	2.00	2.04	M
14 N-Nitrosodimethylamine	74	2.520	2.507	0.013	84	27232	2.00	1.96	M
15 Pyridine	79	2.589	2.576	0.013	76	50031	2.00	1.99	M
22 Methyl methanesulfonate	80	4.710	4.708	0.002	90	40761	2.00	2.24	
26 Benzaldehyde	77	5.848	5.846	0.002	89	37807	2.00	1.96	
27 Phenol	94	5.939	5.942	-0.003	97	50717	2.00	1.77	
28 Aniline	93	5.955	5.958	-0.003	95	61026	2.00	1.87	
29 Bis(2-chloroethyl)ether	93	6.024	6.022	0.002	94	35472	2.00	1.88	
31 2-Chlorophenol	128	6.077	6.081	-0.004	93	41393	2.00	1.93	
32 n-Decane	43	6.142	6.140	0.002	79	31325	2.00	1.94	
33 1,3-Dichlorobenzene	146	6.232	6.231	0.002	86	46389	2.00	1.85	
34 1,4-Dichlorobenzene	146	6.302	6.305	-0.003	87	50943	2.00	1.98	
36 Benzyl alcohol	108	6.414	6.412	0.002	82	22264	2.00	1.78	
37 1,2-Dichlorobenzene	146	6.451	6.455	-0.004	89	48625	2.00	2.03	
38 2-Methylphenol	108	6.521	6.524	-0.003	86	33582	2.00	1.70	
39 Indene	116	6.537	6.535	0.002	90	68077	2.00	1.93	
40 2,2'-oxybis[1-chloropropan	45	6.548	6.551	-0.003	64	27222	2.00	1.70	
41 N-Nitrosopyrrolidine	100	6.633	6.637	-0.003	70	15661	2.00	1.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
43 Acetophenone	105	6.665	6.663	0.002	74	60986	2.00	1.78	
45 4-Methylphenol	108	6.665	6.663	0.002	51	36737	2.00	1.65	
44 N-Nitrosodi-n-propylamine	70	6.665	6.663	0.002	62	32710	2.00	1.70	
47 Hexachloroethane	117	6.783	6.781	0.002	83	26543	2.00	2.17	
48 Nitrobenzene	77	6.831	6.829	0.002	84	61716	2.00	2.11	
50 Isophorone	82	7.050	7.048	0.002	97	87188	2.00	1.96	
51 2-Nitrophenol	139	7.130	7.133	-0.003	75	20320	2.00	1.92	
52 2,4-Dimethylphenol	107	7.162	7.160	0.002	93	47894	2.00	1.91	
56 Benzoic acid	122	7.189	7.208	-0.019	85	16892	2.00	1.79	
55 Bis(2-chloroethoxy)methane	93	7.242	7.240	0.002	96	43970	2.00	1.96	
57 2,4-Dichlorophenol	162	7.354	7.352	0.002	92	38998	2.00	1.91	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.440	7.438	0.002	90	49818	2.00	1.90	
60 Naphthalene	128	7.514	7.513	0.001	97	112937	2.00	1.87	
62 4-Chloroaniline	127	7.552	7.550	0.002	90	47408	2.00	1.91	
63 2,6-Dichlorophenol	162	7.568	7.566	0.002	90	38200	2.00	1.92	
64 Hexachlorobutadiene	225	7.632	7.630	0.002	94	39617	2.00	1.79	
67 Caprolactam	113	7.830	7.833	-0.003	80	9913	2.00	2.01	
70 4-Chloro-3-methylphenol	107	7.979	7.977	0.002	89	39714	2.00	1.93	
72 2-Methylnaphthalene	142	8.150	8.148	0.002	89	79017	2.00	1.81	
75 1-Methylnaphthalene	142	8.246	8.239	0.007	88	74427	2.00	1.85	
76 Hexachlorocyclopentadiene	237	8.305	8.298	0.007	91	40891	2.00	1.67	
77 1,2,4,5-Tetrachlorobenzene	216	8.310	8.303	0.007	95	61418	2.00	1.84	
78 2,4,6-Trichlorophenol	196	8.401	8.399	0.002	93	38306	2.00	1.99	
79 2,4,5-Trichlorophenol	196	8.433	8.431	0.002	86	39446	2.00	1.99	
80 1,1'-Biphenyl	154	8.572	8.570	0.002	97	106424	2.00	1.92	
81 2-Chloronaphthalene	162	8.604	8.597	0.007	97	99039	2.00	2.00	
82 2-Nitroaniline	65	8.679	8.672	0.007	70	28305	2.00	1.94	
86 Dimethyl phthalate	163	8.829	8.821	0.008	94	102198	2.00	1.99	
87 1,3-Dinitrobenzene	168	8.861	8.859	0.002	79	14805	2.00	1.86	
88 2,6-Dinitrotoluene	165	8.887	8.886	0.001	88	22958	2.00	2.05	
89 Acenaphthylene	152	8.989	8.982	0.007	97	130473	2.00	1.91	
90 3-Nitroaniline	138	9.053	9.046	0.007	80	15471	2.00	1.69	
92 2,4-Dinitrophenol	184	9.144	9.142	0.002	64	22797	4.00	5.07	
91 Acenaphthene	153	9.149	9.142	0.007	89	85305	2.00	1.83	
93 4-Nitrophenol	109	9.181	9.174	0.007	79	39793	4.00	3.46	
94 2,4-Dinitrotoluene	165	9.261	9.259	0.002	81	27639	2.00	1.81	
95 Dibenzofuran	168	9.304	9.297	0.007	95	137708	2.00	1.92	
97 2,3,5,6-Tetrachlorophenol	232	9.374	9.366	0.008	90	35959	2.00	1.72	
99 2,3,4,6-Tetrachlorophenol	232	9.411	9.404	0.007	70	37320	2.00	1.90	
100 2-Naphthylamine	143	9.443	9.436	0.007	91	75721	2.00	1.96	
101 Diethyl phthalate	149	9.470	9.462	0.008	97	105212	2.00	1.85	
102 Hexadecane	57	9.475	9.468	0.007	83	36489	2.00	1.78	
104 4-Chlorophenyl phenyl ethe	204	9.603	9.596	0.007	91	72077	2.00	2.02	
105 4-Nitroaniline	138	9.614	9.607	0.007	70	17981	2.00	1.78	
106 Fluorene	166	9.619	9.617	0.002	94	99231	2.00	1.91	
108 4,6-Dinitro-2-methylphenol	198	9.641	9.639	0.002	86	37871	4.00	3.23	
109 N-Nitrosodiphenylamine	169	9.705	9.698	0.007	67	76387	2.00	1.86	
111 1,2-Diphenylhydrazine	77	9.747	9.740	0.007	99	125230	2.00	1.98	
116 4-Bromophenyl phenyl ether	248	10.052	10.050	0.002	68	38490	2.00	1.81	
118 Hexachlorobenzene	284	10.137	10.136	0.001	89	39454	2.00	1.89	
119 Atrazine	200	10.164	10.162	0.002	90	42136	2.00	2.19	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.308	10.301	0.007	85	41306	4.00	2.88	
121 n-Octadecane	57	10.314	10.307	0.007	82	41565	2.00	1.84	
126 Phenanthrene	178	10.517	10.510	0.007	94	176597	2.00	1.98	
128 Anthracene	178	10.565	10.563	0.002	96	184986	2.00	2.06	
130 Carbazole	167	10.709	10.702	0.007	97	144107	2.00	1.99	
132 Di-n-butyl phthalate	149	11.003	10.996	0.007	99	175067	2.00	1.99	
137 Fluoranthene	202	11.815	11.808	0.007	95	213534	2.00	1.93	
138 Benzidine	184	11.938	11.931	0.007	97	55961	2.00	1.51	
139 Pyrene	202	12.114	12.107	0.007	98	218875	2.00	1.96	
144 Butyl benzyl phthalate	149	12.963	12.956	0.007	93	71576	2.00	1.94	
149 3,3'-Dichlorobenzidine	252	13.930	13.923	0.007	72	59842	2.00	1.78	
151 Bis(2-ethylhexyl) phthalat	149	13.968	13.961	0.007	95	92416	2.00	1.88	
152 Benzo[a]anthracene	228	14.011	14.003	0.007	96	194106	2.00	1.95	
153 Chrysene	228	14.085	14.073	0.012	95	185309	2.00	2.03	
156 Di-n-octyl phthalate	149	15.282	15.269	0.013	100	153932	2.00	2.05	
157 7,12-Dimethylbenz(a)anthra	256	16.153	16.146	0.008	73	60681	2.00	1.94	M
158 Benzo[b]fluoranthene	252	16.163	16.156	0.007	92	152698	2.00	1.87	
159 Benzo[k]fluoranthene	252	16.222	16.210	0.012	96	151023	2.00	1.93	
176 Benzo[e]pyrene	252	16.746	16.738	0.008	0	132908	2.00	1.82	
160 Benzo[a]pyrene	252	16.863	16.845	0.018	73	132369	2.00	1.86	
163 Indeno[1,2,3-cd]pyrene	276	19.214	19.196	0.018	96	120551	2.00	1.86	
164 Dibenz(a,h)anthracene	278	19.246	19.228	0.018	90	109877	2.00	1.98	
165 Benzo[g,h,i]perylene	276	19.823	19.800	0.023	94	99336	2.00	1.84	
S 206 Total Cresols	108				0		4.00	3.35	
S 208 Methyl Phenols,Total	108				0		4.00	3.35	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPSTD2.0i_00005 Amount Added: 1.00 Units: mL

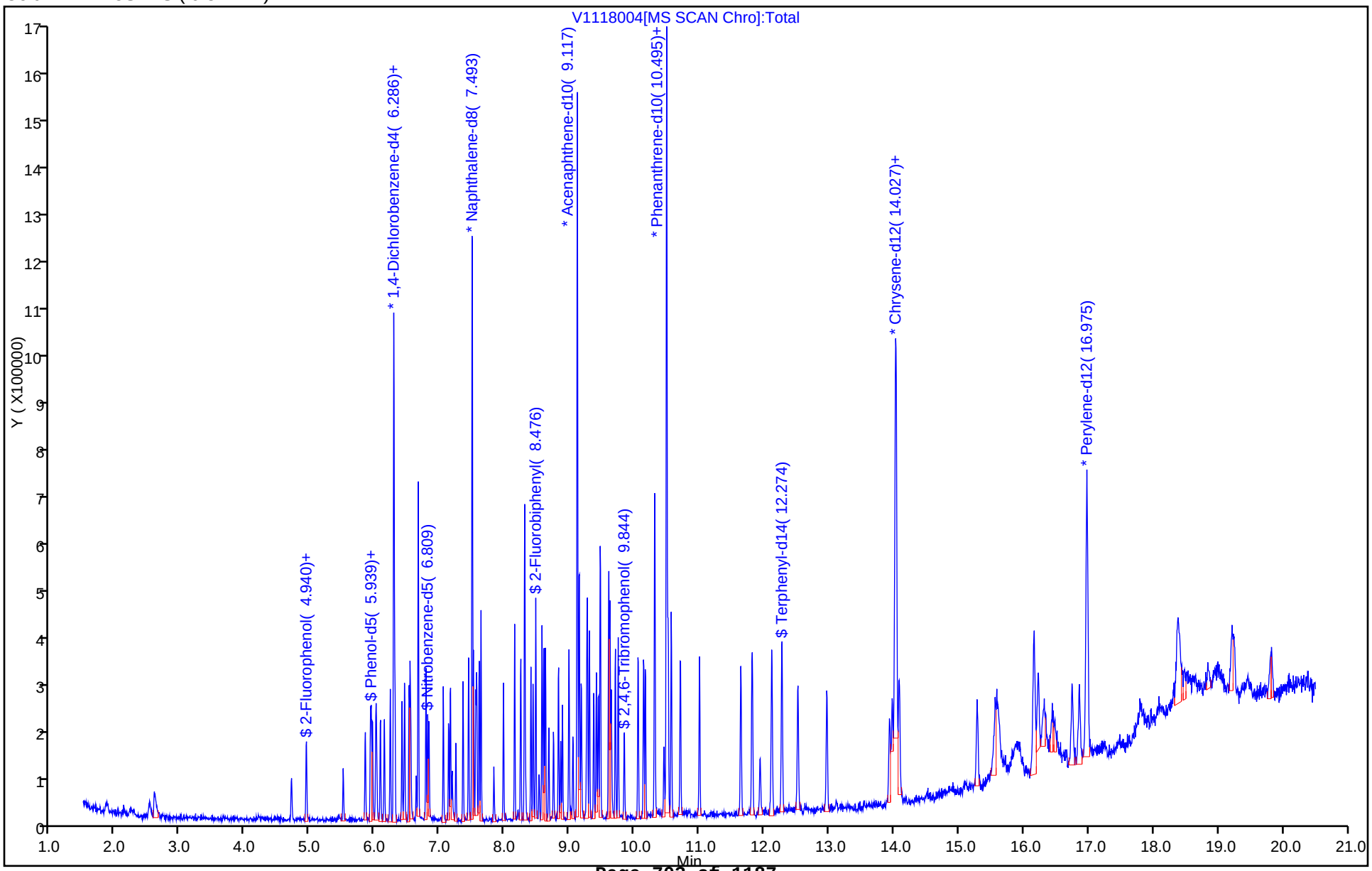
Report Date: 18-Nov-2014 08:45:56 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118004.D

Injection Date:	18-Nov-2014 04:50:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



Manual Integration/User Assign Peak Report

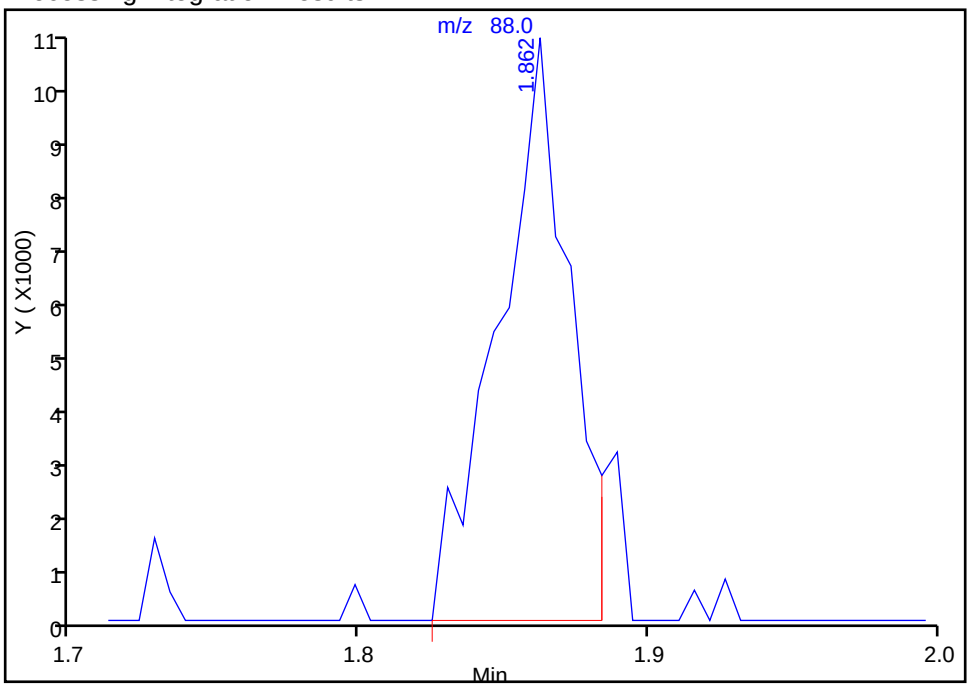
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118004.D				
Injection Date:	18-Nov-2014 04:50:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	3	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

13 1,4-Dioxane, CAS: 123-91-1

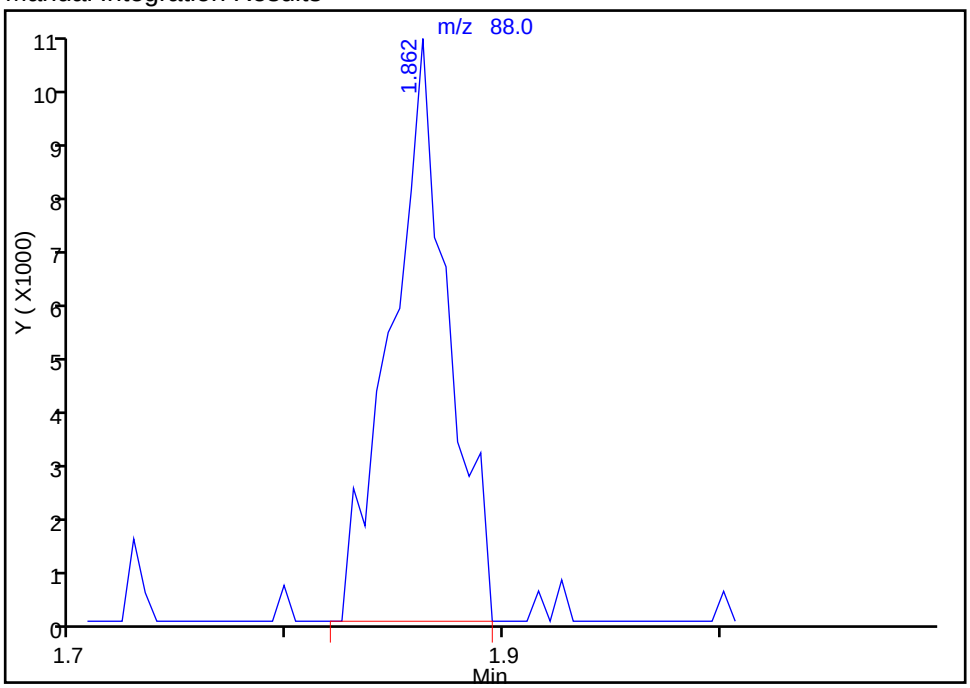
Processing Integration Results

RT: 1.86
Response: 18004
Amount: 1.850708



Manual Integration Results

RT: 1.86
Response: 18968
Amount: 2.041167



Reviewer: piccolinov, 18-Nov-2014 07:27:20
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

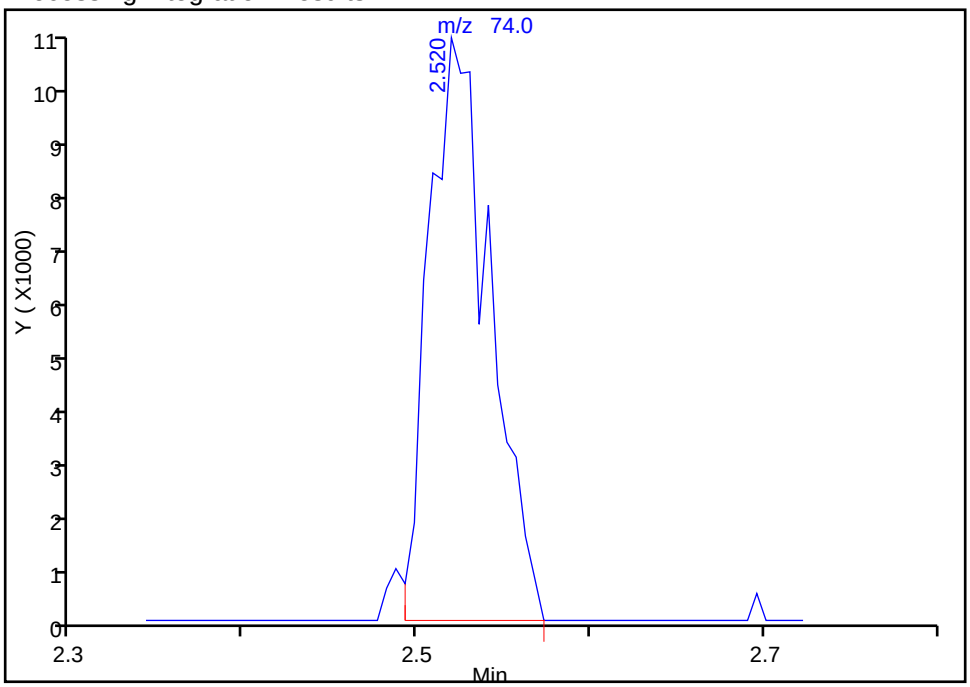
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118004.D				
Injection Date:	18-Nov-2014 04:50:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	3	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

14 N-Nitrosodimethylamine, CAS: 62-75-9

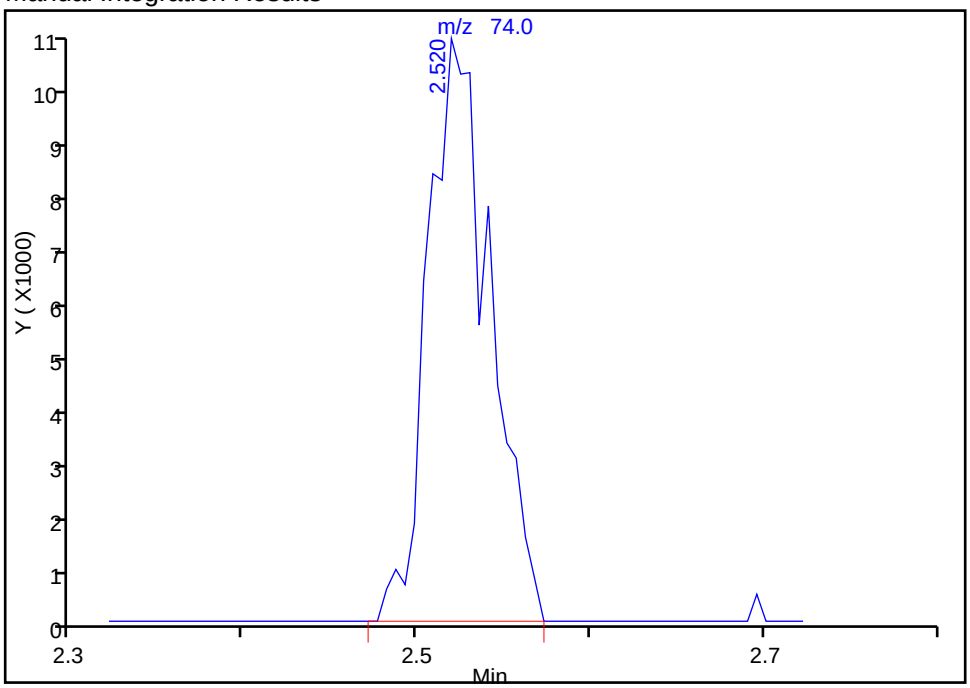
Processing Integration Results

RT: 2.52
Response: 26728
Amount: 1.950268



Manual Integration Results

RT: 2.52
Response: 27232
Amount: 1.964238



Reviewer: piccolinov, 18-Nov-2014 07:27:20
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

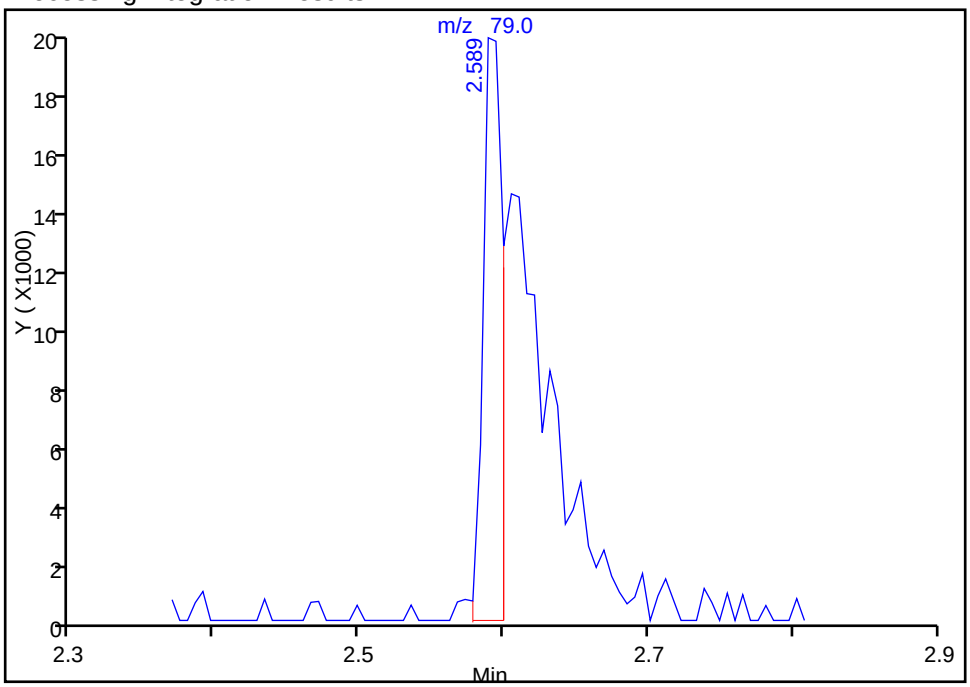
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118004.D				
Injection Date:	18-Nov-2014 04:50:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	3	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

15 Pyridine, CAS: 110-86-1

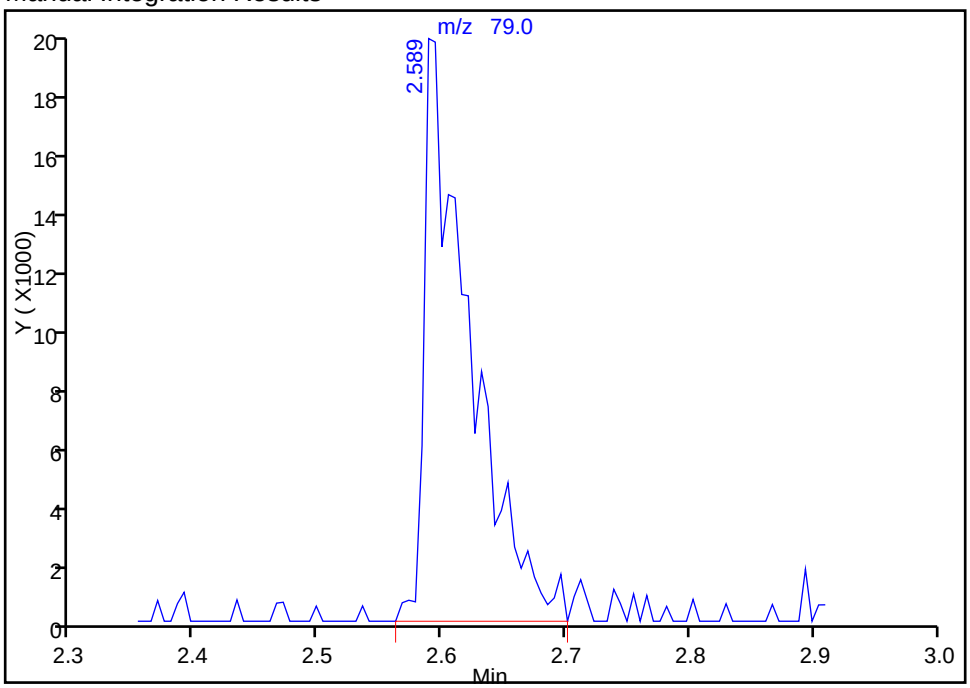
Processing Integration Results

RT: 2.59
Response: 18715
Amount: 0.976925



Manual Integration Results

RT: 2.59
Response: 50031
Amount: 1.993907



Reviewer: piccolinov, 18-Nov-2014 07:27:20
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

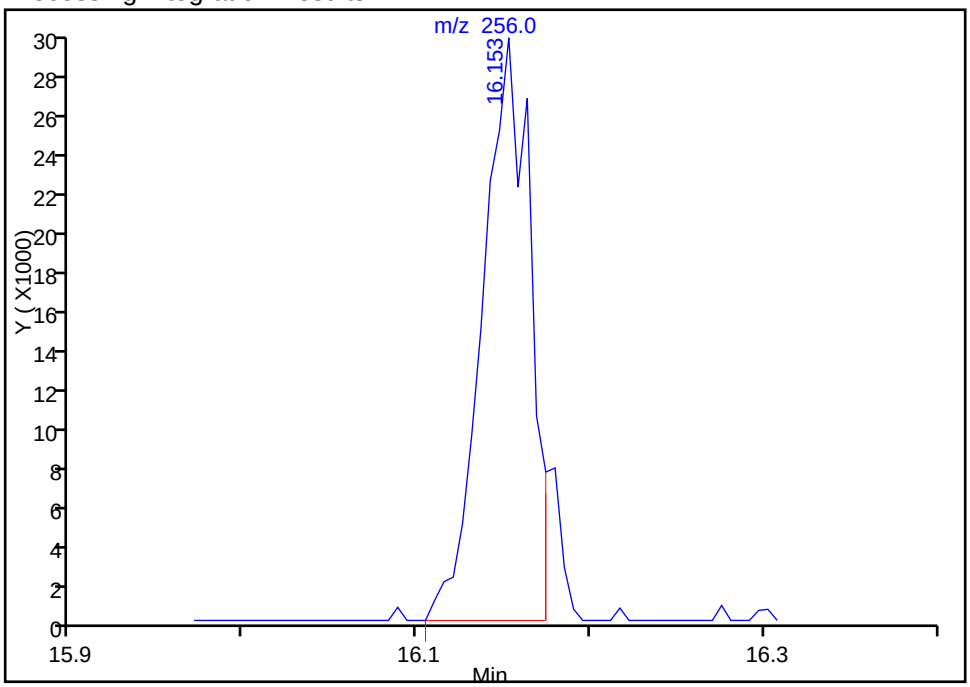
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118004.D				
Injection Date:	18-Nov-2014 04:50:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	3	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

157 7,12-Dimethylbenz(a)anthracene, CAS: 57-97-6

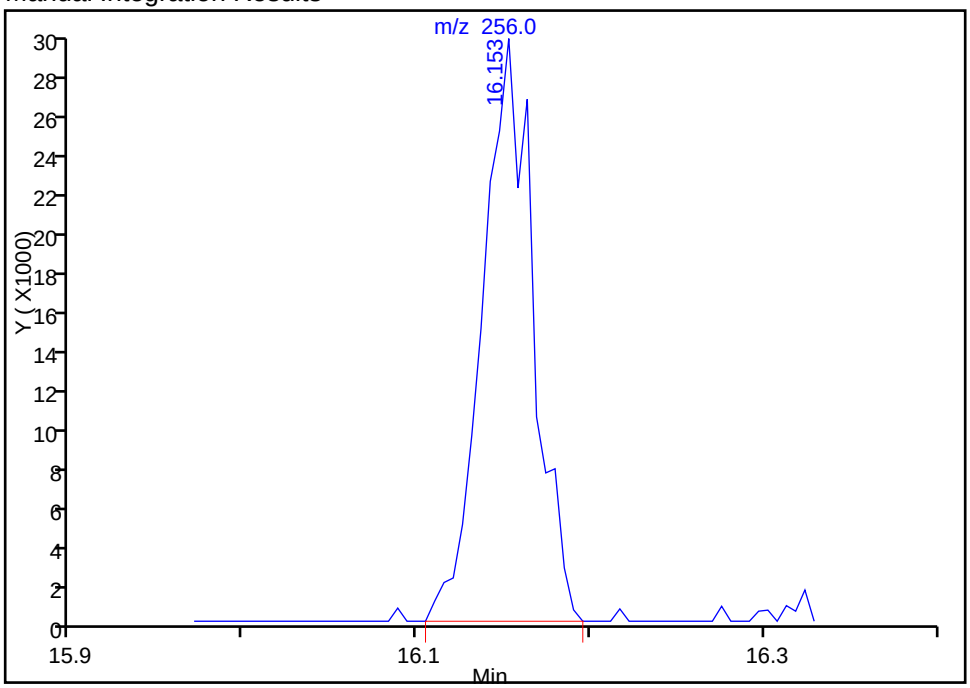
Processing Integration Results

RT: 16.15
Response: 57131
Amount: 1.844640



Manual Integration Results

RT: 16.15
Response: 60681
Amount: 1.944727



Reviewer: piccolinov, 18-Nov-2014 07:27:20
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 18-Nov-2014 08:45:58 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118005.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Nov-2014 05:19:30 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-005
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:45:57 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:28:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.287	6.284	0.003	89	129568	8.00	8.00	
* 2 Naphthalene-d8	136	7.495	7.497	-0.002	97	398750	8.00	8.00	
* 3 Acenaphthene-d10	164	9.113	9.115	-0.002	91	296645	8.00	8.00	
* 4 Phenanthrene-d10	188	10.492	10.488	0.004	96	614812	8.00	8.00	
* 5 Chrysene-d12	240	14.023	14.019	0.004	95	625437	8.00	8.00	
* 6 Perylene-d12	264	16.966	16.963	0.003	97	443207	8.00	8.00	
$ 7 2-Fluorophenol	112	4.936	4.938	-0.002	90	75042	4.00	3.58	
$ 8 Phenol-d5	99	5.924	5.926	-0.002	87	94298	4.00	3.70	
$ 9 Nitrobenzene-d5	82	6.806	6.813	-0.007	90	114044	4.00	4.05	
$ 10 2-Fluorobiphenyl	172	8.472	8.474	-0.002	98	213944	4.00	3.74	
$ 11 2,4,6-Tribromophenol	330	9.840	9.836	0.004	82	26207	4.00	3.55	
$ 12 Terphenyl-d14	244	12.265	12.262	0.003	98	282829	4.00	3.80	
13 1,4-Dioxane	88	1.859	1.850	0.009	92	34679	4.00	3.79	
14 N-Nitrosodimethylamine	74	2.521	2.507	0.014	86	52094	4.00	3.82	
15 Pyridine	79	2.591	2.576	0.015	88	100959	4.00	4.09	M
22 Methyl methanesulfonate	80	4.706	4.708	-0.002	92	69897	4.00	3.91	
26 Benzaldehyde	77	5.844	5.846	-0.002	86	67165	4.00	3.54	
27 Phenol	94	5.940	5.942	-0.002	96	102692	4.00	3.64	
28 Aniline	93	5.956	5.958	-0.002	97	115505	4.00	3.60	
29 Bis(2-chloroethyl)ether	93	6.020	6.022	-0.002	97	69203	4.00	3.73	
31 2-Chlorophenol	128	6.079	6.081	-0.002	92	77525	4.00	3.67	
32 n-Decane	43	6.138	6.140	-0.002	75	58121	4.00	3.66	
33 1,3-Dichlorobenzene	146	6.229	6.231	-0.001	88	92441	4.00	3.74	
34 1,4-Dichlorobenzene	146	6.298	6.305	-0.007	85	96985	4.00	3.82	
36 Benzyl alcohol	108	6.410	6.412	-0.002	82	45924	4.00	3.74	
37 1,2-Dichlorobenzene	146	6.453	6.455	-0.002	87	88902	4.00	3.78	
38 2-Methylphenol	108	6.517	6.524	-0.007	90	69834	4.00	3.59	
39 Indene	116	6.533	6.535	-0.002	86	121869	4.00	3.51	
40 2,2'-oxybis[1-chloropropan	45	6.544	6.551	-0.007	65	54548	4.00	3.47	
41 N-Nitrosopyrrolidine	100	6.629	6.637	-0.007	72	30680	4.00	3.88	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 N-Nitrosodi-n-propylamine	70	6.661	6.663	-0.002	64	64652	4.00	3.41	
43 Acetophenone	105	6.661	6.663	-0.002	70	111147	4.00	3.30	
45 4-Methylphenol	108	6.661	6.663	-0.002	52	69079	4.00	3.16	
47 Hexachloroethane	117	6.779	6.781	-0.002	83	46828	4.00	3.89	
48 Nitrobenzene	77	6.827	6.829	-0.002	90	103708	4.00	3.77	
50 Isophorone	82	7.051	7.048	0.003	97	161147	4.00	3.84	
51 2-Nitrophenol	139	7.132	7.133	-0.001	78	39012	4.00	3.91	
52 2,4-Dimethylphenol	107	7.158	7.160	-0.002	93	97907	4.00	4.16	
56 Benzoic acid	122	7.190	7.208	-0.018	85	32966	4.00	3.71	
55 Bis(2-chloroethoxy)methane	93	7.238	7.240	-0.002	97	77491	4.00	3.67	
57 2,4-Dichlorophenol	162	7.351	7.352	-0.001	93	75233	4.00	3.92	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.436	7.438	-0.002	90	97454	4.00	3.96	
60 Naphthalene	128	7.511	7.513	-0.002	97	216903	4.00	3.82	
62 4-Chloroaniline	127	7.548	7.550	-0.002	92	90005	4.00	3.86	
63 2,6-Dichlorophenol	162	7.564	7.566	-0.002	88	71398	4.00	3.81	
64 Hexachlorobutadiene	225	7.628	7.630	-0.002	95	81175	4.00	3.91	
67 Caprolactam	113	7.826	7.833	-0.007	78	18354	4.00	3.95	
70 4-Chloro-3-methylphenol	107	7.976	7.977	-0.001	89	74872	4.00	3.87	
72 2-Methylnaphthalene	142	8.147	8.148	-0.001	88	156418	4.00	3.81	
75 1-Methylnaphthalene	142	8.243	8.239	0.004	87	144674	4.00	3.83	
76 Hexachlorocyclopentadiene	237	8.301	8.298	0.003	96	82057	4.00	3.46	
77 1,2,4,5-Tetrachlorobenzene	216	8.307	8.303	0.004	96	128178	4.00	3.97	
78 2,4,6-Trichlorophenol	196	8.398	8.399	-0.001	92	73749	4.00	3.96	
79 2,4,5-Trichlorophenol	196	8.430	8.431	-0.001	89	71855	4.00	3.74	
80 1,1'-Biphenyl	154	8.569	8.570	-0.001	97	205381	4.00	3.82	
81 2-Chloronaphthalene	162	8.601	8.597	0.004	98	175769	4.00	3.66	
82 2-Nitroaniline	65	8.670	8.672	-0.002	71	57423	4.00	4.06	
86 Dimethyl phthalate	163	8.825	8.821	0.004	95	197650	4.00	3.96	
87 1,3-Dinitrobenzene	168	8.857	8.859	-0.002	83	29527	4.00	3.82	
88 2,6-Dinitrotoluene	165	8.884	8.886	-0.002	85	44654	4.00	4.12	
89 Acenaphthylene	152	8.985	8.982	0.003	96	244082	4.00	3.68	
90 3-Nitroaniline	138	9.044	9.046	-0.002	82	36371	4.00	4.11	
92 2,4-Dinitrophenol	184	9.140	9.142	-0.002	80	44534	8.00	7.21	
91 Acenaphthene	153	9.146	9.142	0.004	92	159842	4.00	3.53	
93 4-Nitrophenol	109	9.172	9.174	-0.002	79	82707	8.00	7.41	
94 2,4-Dinitrotoluene	165	9.258	9.259	-0.001	83	56567	4.00	3.81	
95 Dibenzofuran	168	9.300	9.297	0.003	95	256691	4.00	3.70	
97 2,3,5,6-Tetrachlorophenol	232	9.370	9.366	0.004	90	75538	4.00	3.73	
99 2,3,4,6-Tetrachlorophenol	232	9.407	9.404	0.003	73	71343	4.00	3.75	
100 2-Naphthylamine	143	9.434	9.436	-0.002	92	146628	4.00	3.92	
101 Diethyl phthalate	149	9.461	9.462	-0.001	96	195520	4.00	3.54	
102 Hexadecane	57	9.471	9.468	0.003	87	65288	4.00	3.40	
104 4-Chlorophenyl phenyl ethe	204	9.594	9.596	-0.002	91	134329	4.00	3.88	
105 4-Nitroaniline	138	9.610	9.607	0.003	72	36210	4.00	3.69	
106 Fluorene	166	9.616	9.617	-0.001	94	190024	4.00	3.77	
108 4,6-Dinitro-2-methylphenol	198	9.637	9.639	-0.002	87	79649	8.00	7.12	
109 N-Nitrosodiphenylamine	169	9.701	9.698	0.003	64	156540	4.00	4.00	
111 1,2-Diphenylhydrazine	77	9.744	9.740	0.004	99	228117	4.00	3.77	
116 4-Bromophenyl phenyl ether	248	10.048	10.050	-0.002	65	75101	4.00	3.70	
118 Hexachlorobenzene	284	10.139	10.136	0.003	87	71337	4.00	3.58	
119 Atrazine	200	10.161	10.162	-0.002	92	70047	4.00	3.82	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.305	10.301	0.004	87	91481	8.00	6.26	
121 n-Octadecane	57	10.310	10.307	0.003	87	77398	4.00	3.48	
126 Phenanthrene	178	10.513	10.510	0.003	97	321378	4.00	3.77	
128 Anthracene	178	10.561	10.563	-0.002	97	333789	4.00	3.89	
130 Carbazole	167	10.700	10.702	-0.002	96	267299	4.00	3.86	
132 Di-n-butyl phthalate	149	10.994	10.996	-0.002	99	338075	4.00	4.03	
137 Fluoranthene	202	11.806	11.808	-0.002	96	423953	4.00	4.02	
138 Benzidine	184	11.929	11.931	-0.002	98	135664	4.00	3.85	
139 Pyrene	202	12.105	12.107	-0.002	98	422019	4.00	3.99	
144 Butyl benzyl phthalate	149	12.960	12.956	0.004	96	143852	4.00	4.11	
149 3,3'-Dichlorobenzidine	252	13.927	13.923	0.004	73	123207	4.00	3.87	
151 Bis(2-ethylhexyl) phthalat	149	13.964	13.961	0.003	94	187357	4.00	4.03	
152 Benzo[a]anthracene	228	14.002	14.003	-0.001	95	366137	4.00	3.88	
153 Chrysene	228	14.071	14.073	-0.002	95	344143	4.00	3.97	
156 Di-n-octyl phthalate	149	15.278	15.269	0.009	99	296465	4.00	4.01	
157 7,12-Dimethylbenz(a)anthra	256	16.138	16.146	-0.007	89	120367	4.00	3.93	
158 Benzo[b]fluoranthene	252	16.160	16.156	0.004	94	323766	4.00	4.04	
159 Benzo[k]fluoranthene	252	16.213	16.210	0.003	96	293262	4.00	3.81	
176 Benzo[e]pyrene	252	16.742	16.738	0.004	0	273853	4.00	3.82	
160 Benzo[a]pyrene	252	16.844	16.845	-0.001	73	268213	4.00	3.84	
163 Indeno[1,2,3-cd]pyrene	276	19.199	19.196	0.003	96	234343	4.00	3.67	
164 Dibenz(a,h)anthracene	278	19.226	19.228	-0.002	0	211567	4.00	3.88	M
165 Benzo[g,h,i]perylene	276	19.798	19.800	-0.002	96	208017	4.00	3.93	
S 206 Total Cresols	108				0		8.00	6.75	
S 208 Methyl Phenols,Total	108				0		8.00	6.75	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPSTD4.0i_00006 Amount Added: 1.00 Units: mL

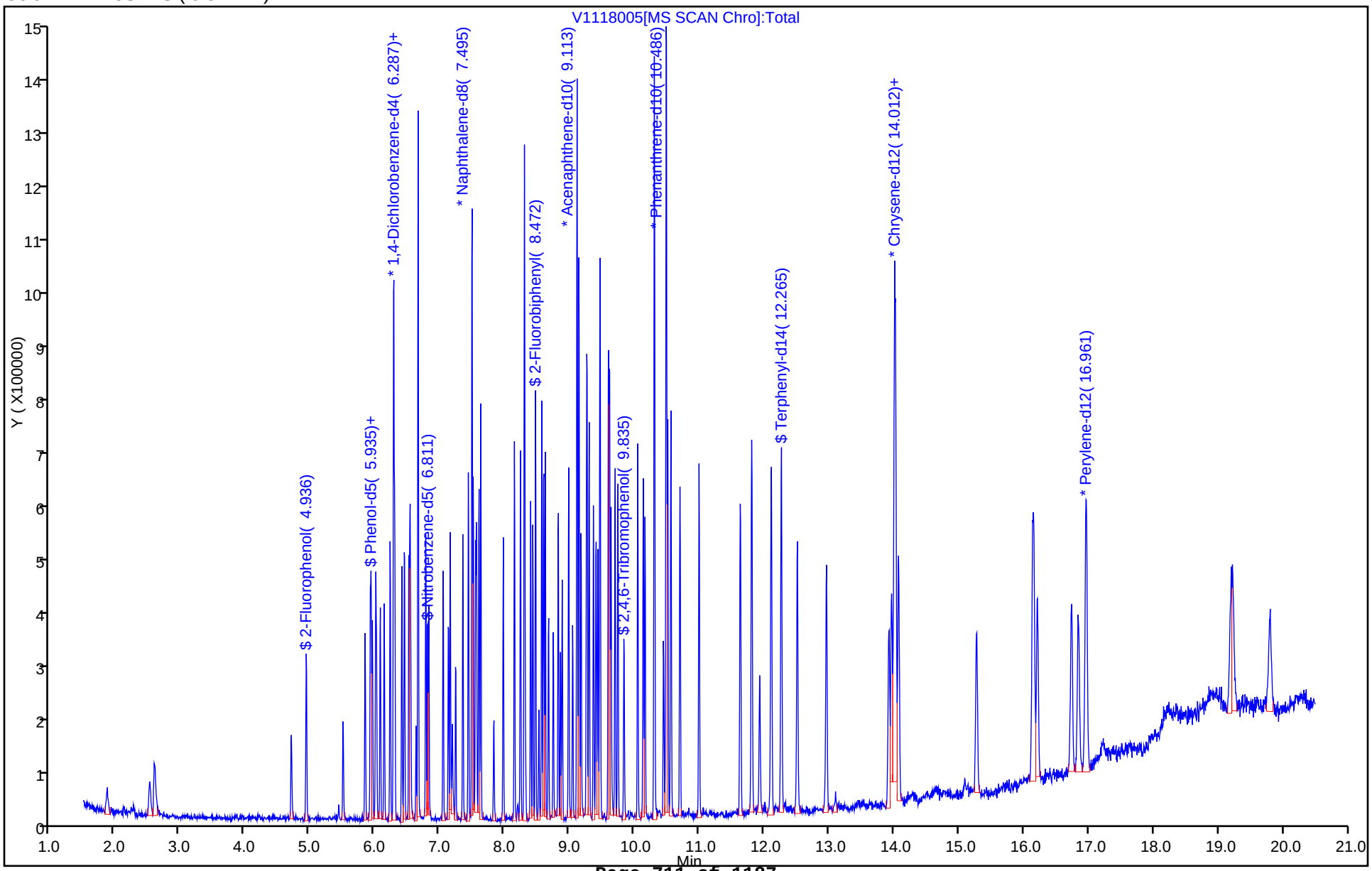
Report Date: 18-Nov-2014 08:45:58 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118005.D

Injection Date:	18-Nov-2014 05:19:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



Manual Integration/User Assign Peak Report

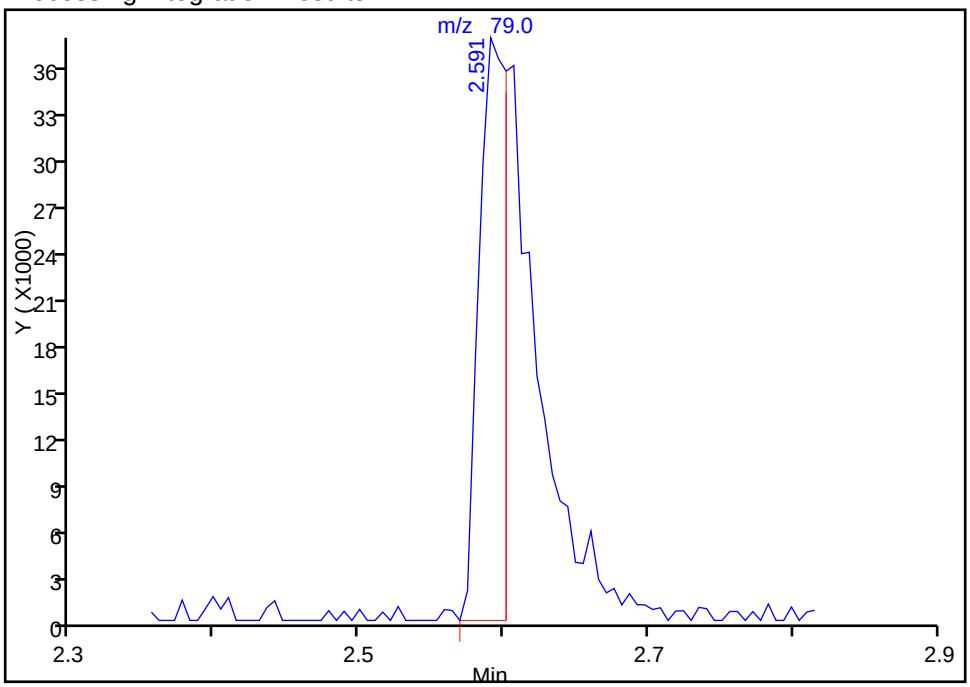
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118005.D				
Injection Date:	18-Nov-2014 05:19:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	4	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

15 Pyridine, CAS: 110-86-1

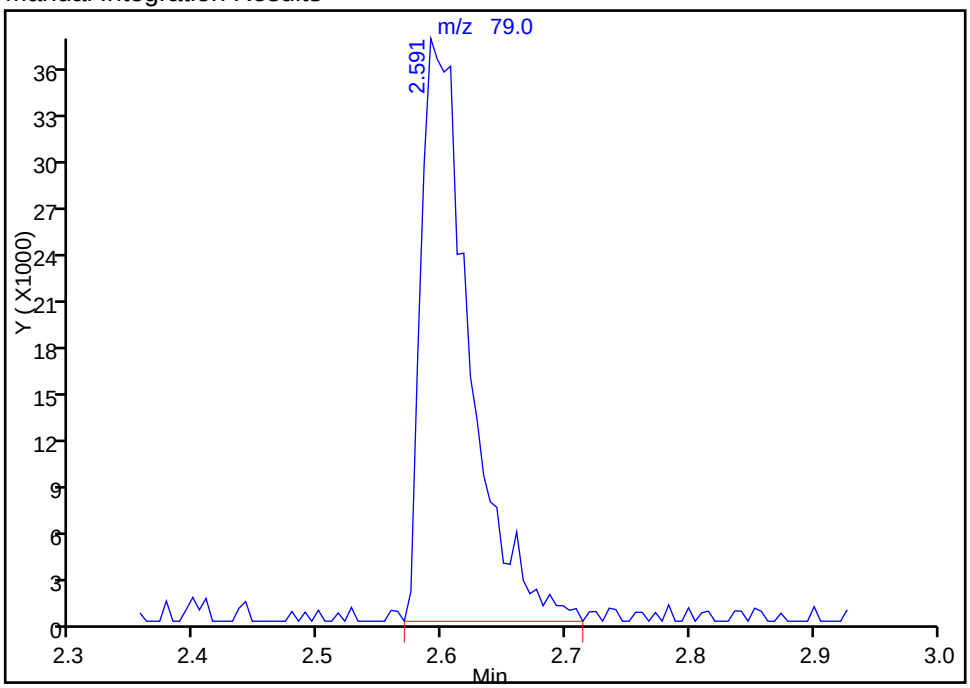
Processing Integration Results

RT: 2.59
Response: 49684
Amount: 2.265590



Manual Integration Results

RT: 2.59
Response: 100959
Amount: 4.089397



Reviewer: piccolinov, 18-Nov-2014 07:28:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

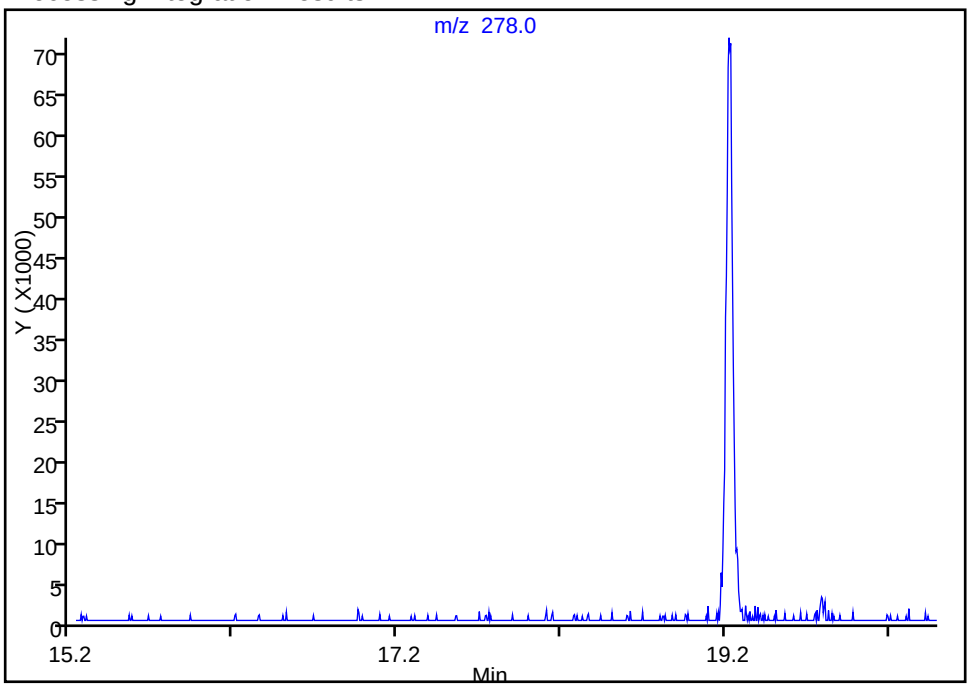
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118005.D				
Injection Date:	18-Nov-2014 05:19:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	4	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

164 Dibenz(a,h)anthracene, CAS: 53-70-3

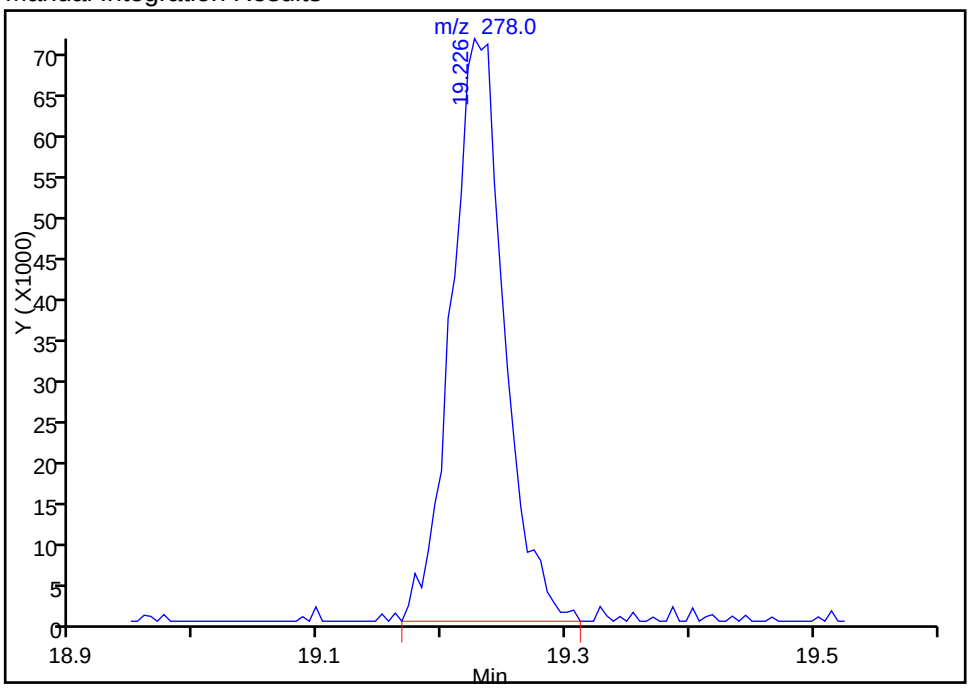
Not Detected
Expected RT: 19.23

Processing Integration Results



Manual Integration Results

RT: 19.23
Response: 211567
Amount: 3.884019



Reviewer: piccolinov, 18-Nov-2014 07:28:32
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118006.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 18-Nov-2014 05:47:30 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-006
Misc. Info.: ICIS
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:46:00 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:22:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.284	6.284	0.000	88	136219	8.00	8.00	
* 2 Naphthalene-d8	136	7.497	7.497	0.000	98	446656	8.00	8.00	
* 3 Acenaphthene-d10	164	9.115	9.115	0.000	92	319540	8.00	8.00	
* 4 Phenanthrene-d10	188	10.488	10.488	0.000	96	676576	8.00	8.00	
* 5 Chrysene-d12	240	14.019	14.019	0.000	95	662251	8.00	8.00	
* 6 Perylene-d12	264	16.963	16.963	0.000	97	467626	8.00	8.00	
$ 7 2-Fluorophenol	112	4.938	4.938	0.000	91	219935	10.0	9.99	
$ 8 Phenol-d5	99	5.926	5.926	0.000	87	256173	10.0	9.55	
$ 9 Nitrobenzene-d5	82	6.813	6.813	0.000	89	318764	10.0	10.1	
$ 10 2-Fluorobiphenyl	172	8.474	8.474	0.000	99	582540	10.0	9.45	
$ 11 2,4,6-Tribromophenol	330	9.836	9.836	0.000	82	80128	10.0	9.86	
$ 12 Terphenyl-d14	244	12.262	12.262	0.000	98	830068	10.0	10.5	
13 1,4-Dioxane	88	1.850	1.850	0.000	88	97869	10.0	10.2	
14 N-Nitrosodimethylamine	74	2.507	2.507	0.000	85	142053	10.0	9.91	
15 Pyridine	79	2.576	2.576	0.000	93	264169	10.0	10.2	
22 Methyl methanesulfonate	80	4.708	4.708	0.000	92	191648	10.0	10.2	
26 Benzaldehyde	77	5.846	5.846	0.000	86	201611	10.0	10.1	
27 Phenol	94	5.942	5.942	0.000	97	284476	10.0	9.59	
28 Aniline	93	5.958	5.958	0.000	97	333002	10.0	9.86	
29 Bis(2-chloroethyl)ether	93	6.022	6.022	0.000	97	190548	10.0	9.76	
31 2-Chlorophenol	128	6.081	6.081	0.000	91	218031	10.0	9.81	
32 n-Decane	43	6.140	6.140	0.000	75	154366	10.0	9.25	
33 1,3-Dichlorobenzene	146	6.231	6.231	0.000	89	259246	10.0	9.98	
34 1,4-Dichlorobenzene	146	6.305	6.305	0.000	87	263828	10.0	9.90	
36 Benzyl alcohol	108	6.412	6.412	0.000	83	129592	10.0	10.0	
37 1,2-Dichlorobenzene	146	6.455	6.455	0.000	87	243987	10.0	9.86	
38 2-Methylphenol	108	6.524	6.524	0.000	92	202609	10.0	9.92	
39 Indene	116	6.535	6.535	0.000	89	351512	10.0	9.62	
40 2,2'-oxybis[1-chloropropan	45	6.551	6.551	0.000	68	156682	10.0	9.47	
41 N-Nitrosopyrrolidine	100	6.637	6.637	0.000	73	83950	10.0	10.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.663	6.663	0.000	54	205199	10.0	8.93	
44 N-Nitrosodi-n-propylamine	70	6.663	6.663	0.000	64	187838	10.0	9.43	
43 Acetophenone	105	6.663	6.663	0.000	74	329614	10.0	9.32	
47 Hexachloroethane	117	6.781	6.781	0.000	80	122005	10.0	9.64	
48 Nitrobenzene	77	6.829	6.829	0.000	87	299752	10.0	9.72	
50 Isophorone	82	7.048	7.048	0.000	97	458475	10.0	9.77	
51 2-Nitrophenol	139	7.133	7.133	0.000	78	111223	10.0	9.96	
52 2,4-Dimethylphenol	107	7.160	7.160	0.000	93	255660	10.0	9.69	
56 Benzoic acid	122	7.208	7.208	0.000	87	88484	10.0	8.90	
55 Bis(2-chloroethoxy)methane	93	7.240	7.240	0.000	96	218858	10.0	9.25	
57 2,4-Dichlorophenol	162	7.352	7.352	0.000	93	206607	10.0	9.61	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.438	7.438	0.000	91	258852	10.0	9.40	
60 Naphthalene	128	7.513	7.513	0.000	97	591753	10.0	9.31	
62 4-Chloroaniline	127	7.550	7.550	0.000	92	253613	10.0	9.71	
63 2,6-Dichlorophenol	162	7.566	7.566	0.000	91	208341	10.0	9.92	
64 Hexachlorobutadiene	225	7.630	7.630	0.000	94	217576	10.0	9.36	
67 Caprolactam	113	7.833	7.833	0.000	79	51527	10.0	9.90	
70 4-Chloro-3-methylphenol	107	7.977	7.977	0.000	89	209809	10.0	9.68	
72 2-Methylnaphthalene	142	8.148	8.148	0.000	89	439069	10.0	9.55	
75 1-Methylnaphthalene	142	8.239	8.239	0.000	88	405471	10.0	9.58	
76 Hexachlorocyclopentadiene	237	8.298	8.298	0.000	96	253630	10.0	9.94	
77 1,2,4,5-Tetrachlorobenzene	216	8.303	8.303	0.000	98	349998	10.0	10.1	
78 2,4,6-Trichlorophenol	196	8.399	8.399	0.000	93	202893	10.0	10.1	
79 2,4,5-Trichlorophenol	196	8.431	8.431	0.000	91	209674	10.0	10.1	
80 1,1'-Biphenyl	154	8.570	8.570	0.000	96	550444	10.0	9.49	
81 2-Chloronaphthalene	162	8.597	8.597	0.000	97	514041	10.0	9.95	
82 2-Nitroaniline	65	8.672	8.672	0.000	72	155927	10.0	10.2	
86 Dimethyl phthalate	163	8.821	8.821	0.000	95	536097	10.0	9.97	
87 1,3-Dinitrobenzene	168	8.859	8.859	0.000	84	89770	10.0	10.8	
88 2,6-Dinitrotoluene	165	8.886	8.886	0.000	83	116377	10.0	9.96	
89 Acenaphthylene	152	8.982	8.982	0.000	97	694007	10.0	9.70	
90 3-Nitroaniline	138	9.046	9.046	0.000	84	100956	10.0	10.6	
92 2,4-Dinitrophenol	184	9.142	9.142	0.000	74	191199	20.0	19.8	
91 Acenaphthene	153	9.142	9.142	0.000	85	463574	10.0	9.50	
93 4-Nitrophenol	109	9.174	9.174	0.000	82	240588	20.0	20.0	
94 2,4-Dinitrotoluene	165	9.259	9.259	0.000	83	161826	10.0	10.1	
95 Dibenzofuran	168	9.297	9.297	0.000	94	732675	10.0	9.80	
97 2,3,5,6-Tetrachlorophenol	232	9.366	9.366	0.000	92	213313	10.0	9.77	
99 2,3,4,6-Tetrachlorophenol	232	9.404	9.404	0.000	71	213180	10.0	10.4	
100 2-Naphthylamine	143	9.436	9.436	0.000	92	428274	10.0	10.6	
101 Diethyl phthalate	149	9.462	9.462	0.000	95	560170	10.0	9.41	
102 Hexadecane	57	9.468	9.468	0.000	83	197783	10.0	9.19	
104 4-Chlorophenyl phenyl ethe	204	9.596	9.596	0.000	91	371638	10.0	9.98	
105 4-Nitroaniline	138	9.607	9.607	0.000	72	100425	10.0	9.49	
106 Fluorene	166	9.617	9.617	0.000	96	533690	10.0	9.83	
108 4,6-Dinitro-2-methylphenol	198	9.639	9.639	0.000	85	236754	20.0	19.2	
109 N-Nitrosodiphenylamine	169	9.698	9.698	0.000	64	421325	10.0	9.78	
111 1,2-Diphenylhydrazine	77	9.740	9.740	0.000	99	677854	10.0	10.2	
116 4-Bromophenyl phenyl ether	248	10.050	10.050	0.000	68	215595	10.0	9.66	
118 Hexachlorobenzene	284	10.136	10.136	0.000	92	205834	10.0	9.40	
119 Atrazine	200	10.162	10.162	0.000	92	207574	10.0	10.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.301	10.301	0.000	88	284142	20.0	17.1	
121 n-Octadecane	57	10.307	10.307	0.000	86	220319	10.0	9.43	
126 Phenanthrene	178	10.510	10.510	0.000	97	903263	10.0	9.62	
128 Anthracene	178	10.563	10.563	0.000	97	925267	10.0	9.79	
130 Carbazole	167	10.702	10.702	0.000	97	754288	10.0	9.91	
132 Di-n-butyl phthalate	149	10.996	10.996	0.000	99	910420	10.0	9.87	
137 Fluoranthene	202	11.808	11.808	0.000	95	1180293	10.0	10.2	
138 Benzidine	184	11.931	11.931	0.000	98	376464	10.0	10.1	
139 Pyrene	202	12.107	12.107	0.000	98	1159528	10.0	10.3	
144 Butyl benzyl phthalate	149	12.956	12.956	0.000	95	380621	10.0	10.3	
149 3,3'-Dichlorobenzidine	252	13.923	13.923	0.000	73	342153	10.0	10.1	
151 Bis(2-ethylhexyl) phthalat	149	13.961	13.961	0.000	94	495553	10.0	10.1	
152 Benzo[a]anthracene	228	14.003	14.003	0.000	94	992089	10.0	9.94	
153 Chrysene	228	14.073	14.073	0.000	94	956530	10.0	10.4	
156 Di-n-octyl phthalate	149	15.269	15.269	0.000	99	799395	10.0	10.3	
157 7,12-Dimethylbenz(a)anthra	256	16.146	16.146	0.000	90	341147	10.0	10.5	
158 Benzo[b]fluoranthene	252	16.156	16.156	0.000	94	833690	10.0	9.85	
159 Benzo[k]fluoranthene	252	16.210	16.210	0.000	95	819222	10.0	10.1	
176 Benzo[e]pyrene	252	16.738	16.738	0.000	0	742566	10.0	9.82	
160 Benzo[a]pyrene	252	16.845	16.845	0.000	73	752802	10.0	10.2	
163 Indeno[1,2,3-cd]pyrene	276	19.196	19.196	0.000	97	635574	10.0	9.45	
164 Dibenz(a,h)anthracene	278	19.228	19.228	0.000	86	547775	10.0	9.53	
165 Benzo[g,h,i]perylene	276	19.800	19.800	0.000	96	527106	10.0	9.44	
S 206 Total Cresols	108				0		20.0	18.8	
S 208 Methyl Phenols,Total	108				0		20.0	18.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

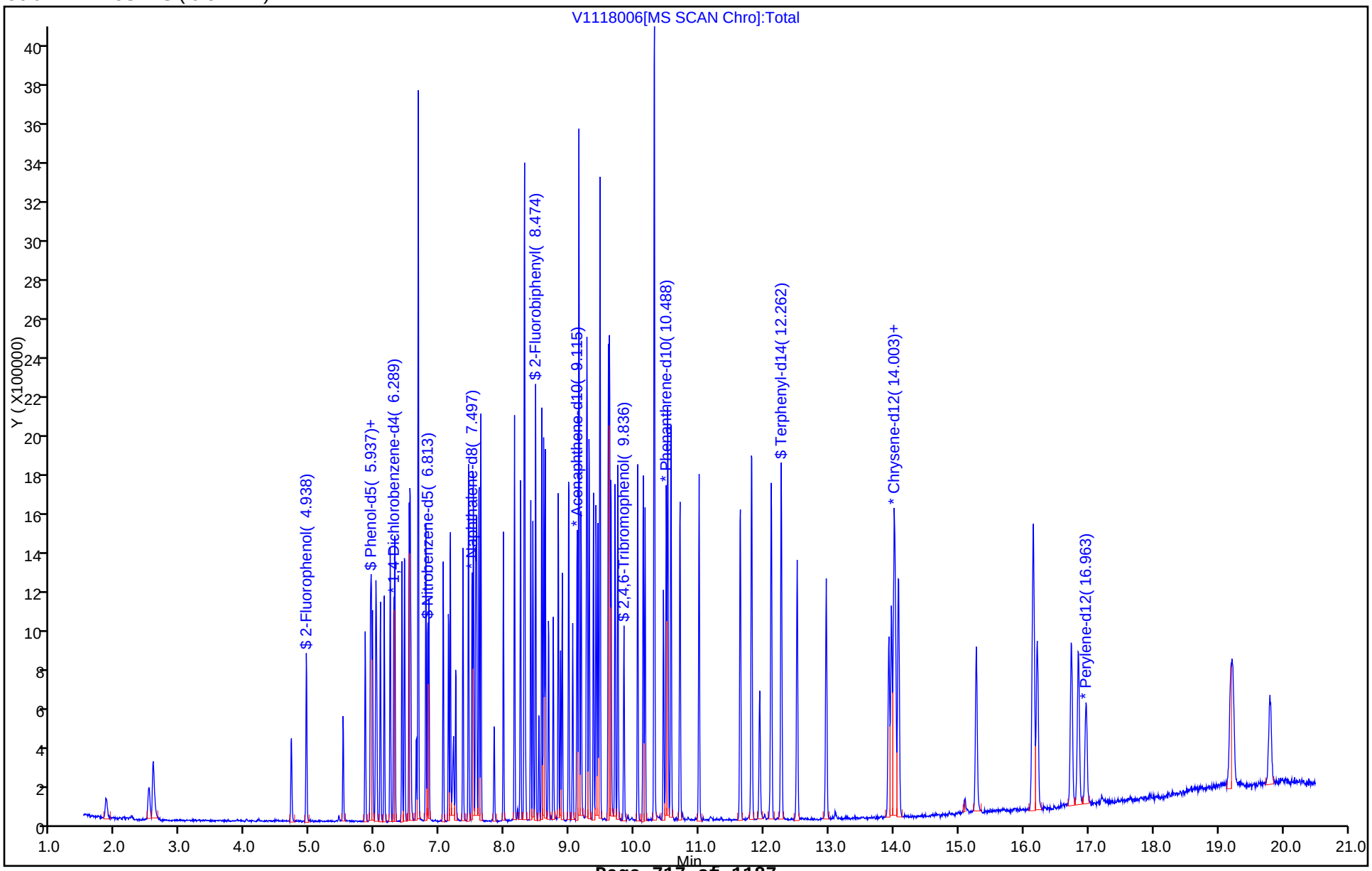
SVTAPSTD10i_00079 Amount Added: 1.00 Units: mL

Report Date: 18-Nov-2014 08:46:02 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118006.D				
Injection Date:	18-Nov-2014 05:47:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	ICIS			Worklist Smp#:	6
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118007.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Nov-2014 06:17:30 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-007
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:46:03 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:29:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.281	6.284	-0.003	90	136713	8.00	8.00	
* 2 Naphthalene-d8	136	7.494	7.497	-0.003	97	423087	8.00	8.00	
* 3 Acenaphthene-d10	164	9.112	9.115	-0.003	90	305635	8.00	8.00	
* 4 Phenanthrene-d10	188	10.485	10.488	-0.003	97	639352	8.00	8.00	
* 5 Chrysene-d12	240	14.016	14.019	-0.003	95	633614	8.00	8.00	
* 6 Perylene-d12	264	16.955	16.963	-0.008	97	455230	8.00	8.00	
$ 7 2-Fluorophenol	112	4.935	4.938	-0.003	91	392178	20.0	17.7	
$ 8 Phenol-d5	99	5.928	5.926	0.002	88	489782	20.0	18.2	
$ 9 Nitrobenzene-d5	82	6.810	6.813	-0.003	90	568668	20.0	19.0	
$ 10 2-Fluorobiphenyl	172	8.471	8.474	-0.003	99	1083169	20.0	18.4	
$ 11 2,4,6-Tribromophenol	330	9.839	9.836	0.003	89	146405	20.0	19.1	
$ 12 Terphenyl-d14	244	12.259	12.262	-0.003	98	1439351	20.0	19.1	
13 1,4-Dioxane	88	1.842	1.850	-0.008	87	182753	20.0	18.9	
14 N-Nitrosodimethylamine	74	2.493	2.507	-0.014	86	266189	20.0	18.5	
15 Pyridine	79	2.558	2.576	-0.018	92	488644	20.0	18.8	
22 Methyl methanesulfonate	80	4.700	4.708	-0.008	91	349968	20.0	18.6	
26 Benzaldehyde	77	5.843	5.846	-0.003	87	383425	20.0	19.1	
27 Phenol	94	5.939	5.942	-0.003	98	548829	20.0	18.4	
28 Aniline	93	5.955	5.958	-0.003	95	614543	20.0	18.1	
29 Bis(2-chloroethyl)ether	93	6.019	6.022	-0.003	94	345368	20.0	17.6	
31 2-Chlorophenol	128	6.078	6.081	-0.003	91	394658	20.0	17.7	
32 n-Decane	43	6.137	6.140	-0.003	74	286884	20.0	17.1	
33 1,3-Dichlorobenzene	146	6.228	6.231	-0.002	89	480572	20.0	18.4	
34 1,4-Dichlorobenzene	146	6.302	6.305	-0.003	87	487362	20.0	18.2	
36 Benzyl alcohol	108	6.409	6.412	-0.003	82	235998	20.0	18.2	
37 1,2-Dichlorobenzene	146	6.452	6.455	-0.003	86	440880	20.0	17.8	
38 2-Methylphenol	108	6.521	6.524	-0.003	92	354678	20.0	17.3	
39 Indene	116	6.532	6.535	-0.003	87	656611	20.0	17.9	
40 2,2'-oxybis[1-chloropropan	45	6.548	6.551	-0.003	66	289652	20.0	17.5	
41 N-Nitrosopyrrolidine	100	6.634	6.637	-0.002	74	166165	20.0	19.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
43 Acetophenone	105	6.666	6.663	0.003	79	635864	20.0	17.9	
45 4-Methylphenol	108	6.660	6.663	-0.003	58	401271	20.0	17.4	
44 N-Nitrosodi-n-propylamine	70	6.660	6.663	-0.003	64	375515	20.0	18.8	
47 Hexachloroethane	117	6.778	6.781	-0.003	83	222196	20.0	17.5	
48 Nitrobenzene	77	6.826	6.829	-0.003	86	543833	20.0	18.6	
50 Isophorone	82	7.045	7.048	-0.003	97	823344	20.0	18.5	
51 2-Nitrophenol	139	7.130	7.133	-0.003	76	203559	20.0	19.3	
52 2,4-Dimethylphenol	107	7.157	7.160	-0.003	95	471706	20.0	18.9	
56 Benzoic acid	122	7.216	7.208	0.008	87	192819	20.0	20.5	
55 Bis(2-chloroethoxy)methane	93	7.243	7.240	0.003	96	394876	20.0	17.6	
57 2,4-Dichlorophenol	162	7.355	7.352	0.003	95	380458	20.0	18.7	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.435	7.438	-0.003	91	486486	20.0	18.7	
60 Naphthalene	128	7.510	7.513	-0.003	97	1115355	20.0	18.5	
62 4-Chloroaniline	127	7.547	7.550	-0.003	91	465770	20.0	18.8	
63 2,6-Dichlorophenol	162	7.563	7.566	-0.003	91	376039	20.0	18.9	
64 Hexachlorobutadiene	225	7.627	7.630	-0.003	94	413694	20.0	18.8	
67 Caprolactam	113	7.841	7.833	0.008	77	93652	20.0	19.0	
70 4-Chloro-3-methylphenol	107	7.974	7.977	-0.003	88	403220	20.0	19.6	
72 2-Methylnaphthalene	142	8.145	8.148	-0.003	88	812326	20.0	18.7	
75 1-Methylnaphthalene	142	8.242	8.239	0.003	89	751537	20.0	18.7	
76 Hexachlorocyclopentadiene	237	8.300	8.298	0.002	95	502267	20.0	20.6	
77 1,2,4,5-Tetrachlorobenzene	216	8.306	8.303	0.003	98	634642	20.0	19.1	
78 2,4,6-Trichlorophenol	196	8.396	8.399	-0.003	93	380486	20.0	19.8	
79 2,4,5-Trichlorophenol	196	8.434	8.431	0.003	91	377887	20.0	19.1	
80 1,1'-Biphenyl	154	8.567	8.570	-0.003	96	1024977	20.0	18.5	
81 2-Chloronaphthalene	162	8.599	8.597	0.002	98	890737	20.0	18.0	
82 2-Nitroaniline	65	8.674	8.672	0.002	70	289616	20.0	19.9	
86 Dimethyl phthalate	163	8.824	8.821	0.003	95	971700	20.0	18.9	
87 1,3-Dinitrobenzene	168	8.856	8.859	-0.003	82	163401	20.0	20.5	
88 2,6-Dinitrotoluene	165	8.888	8.886	0.002	83	223376	20.0	20.0	
89 Acenaphthylene	152	8.984	8.982	0.002	97	1272700	20.0	18.6	
90 3-Nitroaniline	138	9.048	9.046	0.002	85	193274	20.0	21.2	
92 2,4-Dinitrophenol	184	9.139	9.142	-0.003	77	332620	40.0	33.7	
91 Acenaphthene	153	9.144	9.142	0.002	94	860348	20.0	18.4	
93 4-Nitrophenol	109	9.176	9.174	0.002	80	483962	40.0	42.1	
94 2,4-Dinitrotoluene	165	9.262	9.259	0.003	84	304925	20.0	20.0	
95 Dibenzofuran	168	9.299	9.297	0.002	94	1337432	20.0	18.7	
97 2,3,5,6-Tetrachlorophenol	232	9.363	9.366	-0.003	90	392481	20.0	18.8	
99 2,3,4,6-Tetrachlorophenol	232	9.406	9.404	0.002	72	376394	20.0	19.2	
100 2-Naphthylamine	143	9.433	9.436	-0.003	91	751079	20.0	19.5	
101 Diethyl phthalate	149	9.465	9.462	0.003	96	1046284	20.0	18.4	
102 Hexadecane	57	9.470	9.468	0.002	84	381231	20.0	18.7	
104 4-Chlorophenyl phenyl ethe	204	9.593	9.596	-0.003	93	662042	20.0	18.6	
105 4-Nitroaniline	138	9.609	9.607	0.002	74	193767	20.0	19.1	
106 Fluorene	166	9.614	9.617	-0.003	93	942005	20.0	18.1	
108 4,6-Dinitro-2-methylphenol	198	9.636	9.639	-0.003	85	464708	40.0	40.0	
109 N-Nitrosodiphenylamine	169	9.700	9.698	0.002	65	780039	20.0	19.2	
111 1,2-Diphenylhydrazine	77	9.743	9.740	0.003	99	1174132	20.0	18.7	
116 4-Bromophenyl phenyl ether	248	10.047	10.050	-0.003	67	418665	20.0	19.8	
118 Hexachlorobenzene	284	10.133	10.136	-0.003	91	376726	20.0	18.2	
119 Atrazine	200	10.159	10.162	-0.003	92	387036	20.0	20.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.304	10.301	0.003	87	565952	40.0	35.7	
121 n-Octadecane	57	10.304	10.307	-0.003	89	429277	20.0	18.3	
126 Phenanthrene	178	10.512	10.510	0.002	97	1636441	20.0	18.5	
128 Anthracene	178	10.560	10.563	-0.003	96	1693761	20.0	19.0	
130 Carbazole	167	10.699	10.702	-0.003	97	1383074	20.0	19.2	
132 Di-n-butyl phthalate	149	10.993	10.996	-0.003	99	1693677	20.0	19.4	
137 Fluoranthene	202	11.805	11.808	-0.003	95	2113145	20.0	19.3	
138 Benzidine	184	11.928	11.931	-0.003	98	733177	20.0	20.6	
139 Pyrene	202	12.104	12.107	-0.003	98	2120582	20.0	19.8	
144 Butyl benzyl phthalate	149	12.948	12.956	-0.008	95	688998	20.0	19.4	
149 3,3'-Dichlorobenzidine	252	13.915	13.923	-0.008	73	653680	20.0	20.2	
151 Bis(2-ethylhexyl) phthalat	149	13.958	13.961	-0.003	95	935672	20.0	19.9	
152 Benzo[a]anthracene	228	13.995	14.003	-0.008	95	1840151	20.0	19.3	
153 Chrysene	228	14.064	14.073	-0.009	95	1700525	20.0	19.4	
156 Di-n-octyl phthalate	149	15.266	15.269	-0.003	99	1497418	20.0	19.7	
157 7,12-Dimethylbenz(a)anthra	256	16.137	16.146	-0.008	89	641586	20.0	20.4	
158 Benzo[b]fluoranthene	252	16.148	16.156	-0.008	94	1646715	20.0	20.0	
159 Benzo[k]fluoranthene	252	16.207	16.210	-0.003	96	1507521	20.0	19.1	
176 Benzo[e]pyrene	252	16.730	16.738	-0.008	0	1409475	20.0	19.1	
160 Benzo[a]pyrene	252	16.837	16.845	-0.008	74	1419258	20.0	19.8	
163 Indeno[1,2,3-cd]pyrene	276	19.188	19.196	-0.008	97	1235857	20.0	18.9	
164 Dibenz(a,h)anthracene	278	19.225	19.228	-0.003	89	1048765	20.0	18.7	
165 Benzo[g,h,i]perylene	276	19.786	19.800	-0.014	96	1007457	20.0	18.5	
S 206 Total Cresols	108				0		40.0	34.7	
S 208 Methyl Phenols,Total	108				0		40.0	34.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

SVTAPSTD20i_00005 Amount Added: 1.00 Units: mL

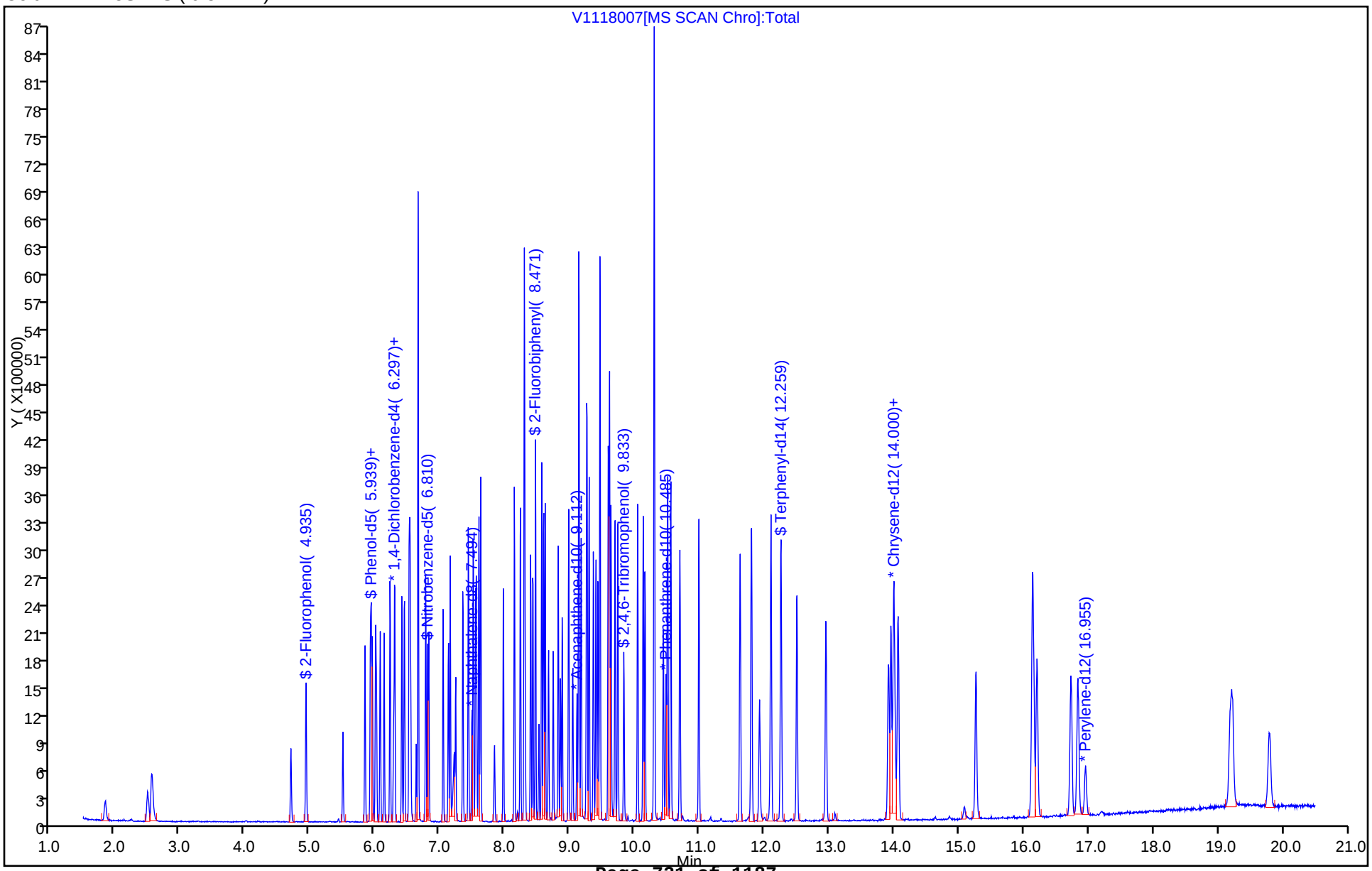
Report Date: 18-Nov-2014 08:46:04 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118007.D

Injection Date:	18-Nov-2014 06:17:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118008.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Nov-2014 06:45:30 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-008
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:46:05 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:30:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.286	6.284	0.002	88	128417	8.00	8.00	
* 2 Naphthalene-d8	136	7.493	7.497	-0.004	97	427366	8.00	8.00	
* 3 Acenaphthene-d10	164	9.112	9.115	-0.003	92	304213	8.00	8.00	
* 4 Phenanthrene-d10	188	10.485	10.488	-0.003	96	616239	8.00	8.00	
* 5 Chrysene-d12	240	14.010	14.019	-0.009	95	645371	8.00	8.00	
* 6 Perylene-d12	264	16.949	16.963	-0.015	97	481990	8.00	8.00	
$ 7 2-Fluorophenol	112	4.939	4.938	0.001	92	855384	40.0	41.2	
$ 8 Phenol-d5	99	5.928	5.926	0.002	88	1049231	40.0	41.5	
$ 9 Nitrobenzene-d5	82	6.809	6.813	-0.004	89	1165255	40.0	38.6	
$ 10 2-Fluorobiphenyl	172	8.471	8.474	-0.003	99	2331566	40.0	39.7	
$ 11 2,4,6-Tribromophenol	330	9.833	9.836	-0.003	84	313595	40.0	42.4	
$ 12 Terphenyl-d14	244	12.258	12.262	-0.004	98	3007126	40.0	39.1	
13 1,4-Dioxane	88	1.857	1.850	0.007	88	373605	40.0	41.2	
14 N-Nitrosodimethylamine	74	2.519	2.507	0.012	88	545919	40.0	40.4	
15 Pyridine	79	2.578	2.576	0.002	93	1001912	40.0	40.9	
22 Methyl methanesulfonate	80	4.710	4.708	0.002	91	718107	40.0	40.5	
26 Benzaldehyde	77	5.842	5.846	-0.004	88	785425	40.0	41.7	
27 Phenol	94	5.944	5.942	0.002	97	1211667	40.0	43.3	
28 Aniline	93	5.960	5.958	0.002	96	1306535	40.0	41.1	
29 Bis(2-chloroethyl)ether	93	6.024	6.022	0.002	97	765332	40.0	41.6	
31 2-Chlorophenol	128	6.077	6.081	-0.004	92	877051	40.0	41.9	
32 n-Decane	43	6.136	6.140	-0.004	75	642852	40.0	40.9	
33 1,3-Dichlorobenzene	146	6.232	6.231	0.002	90	1022913	40.0	41.8	
34 1,4-Dichlorobenzene	146	6.302	6.305	-0.003	86	1047395	40.0	41.7	
36 Benzyl alcohol	108	6.414	6.412	0.002	84	519504	40.0	42.7	
37 1,2-Dichlorobenzene	146	6.451	6.455	-0.004	88	952841	40.0	40.9	
38 2-Methylphenol	108	6.526	6.524	0.002	93	847419	40.0	44.0	
39 Indene	116	6.537	6.535	0.002	89	1540883	40.0	44.7	
40 2,2'-oxybis[1-chloropropan	45	6.547	6.551	-0.004	69	644360	40.0	41.3	
41 N-Nitrosopyrrolidine	100	6.638	6.637	0.002	73	320449	40.0	40.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 N-Nitrosodi-n-propylamine	70	6.665	6.663	0.002	64	844835	40.0	45.0	
43 Acetophenone	105	6.665	6.663	0.002	78	1483698	40.0	44.5	
45 4-Methylphenol	108	6.665	6.663	0.002	60	968687	40.0	44.7	
47 Hexachloroethane	117	6.777	6.781	-0.004	83	490121	40.0	41.1	
48 Nitrobenzene	77	6.825	6.829	-0.004	86	1153007	40.0	39.1	
50 Isophorone	82	7.050	7.048	0.002	97	1772669	40.0	39.5	
51 2-Nitrophenol	139	7.130	7.133	-0.003	73	418265	40.0	39.2	
52 2,4-Dimethylphenol	107	7.156	7.160	-0.004	95	1015086	40.0	40.2	
56 Benzoic acid	122	7.242	7.208	0.034	44	429264	40.0	45.1	
55 Bis(2-chloroethoxy)methane	93	7.242	7.240	0.002	97	902145	40.0	39.9	
57 2,4-Dichlorophenol	162	7.354	7.352	0.002	95	801770	40.0	39.0	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.434	7.438	-0.004	91	1031147	40.0	39.1	
60 Naphthalene	128	7.509	7.513	-0.004	98	2498582	40.0	41.1	
62 4-Chloroaniline	127	7.546	7.550	-0.004	92	1036759	40.0	41.5	
63 2,6-Dichlorophenol	162	7.562	7.566	-0.004	91	793914	40.0	39.5	
64 Hexachlorobutadiene	225	7.626	7.630	-0.004	94	883979	40.0	39.7	
67 Caprolactam	113	7.851	7.833	0.018	77	186888	40.0	37.5	
70 4-Chloro-3-methylphenol	107	7.979	7.977	0.002	89	840080	40.0	40.5	
72 2-Methylnaphthalene	142	8.145	8.148	-0.003	90	1806089	40.0	41.1	
75 1-Methylnaphthalene	142	8.241	8.239	0.002	90	1624420	40.0	40.1	
76 Hexachlorocyclopentadiene	237	8.294	8.298	-0.004	97	1043957	40.0	43.0	
77 1,2,4,5-Tetrachlorobenzene	216	8.300	8.303	-0.003	98	1349385	40.0	40.7	
78 2,4,6-Trichlorophenol	196	8.396	8.399	-0.003	94	725706	40.0	38.0	
79 2,4,5-Trichlorophenol	196	8.433	8.431	0.002	91	799662	40.0	40.5	
80 1,1'-Biphenyl	154	8.567	8.570	-0.003	96	2229594	40.0	40.4	
81 2-Chloronaphthalene	162	8.593	8.597	-0.004	98	1922334	40.0	39.1	
82 2-Nitroaniline	65	8.674	8.672	0.002	71	584820	40.0	40.3	
86 Dimethyl phthalate	163	8.823	8.821	0.002	94	1979482	40.0	38.7	
87 1,3-Dinitrobenzene	168	8.855	8.859	-0.004	82	330559	40.0	41.8	
88 2,6-Dinitrotoluene	165	8.882	8.886	-0.004	81	441537	40.0	39.7	
89 Acenaphthylene	152	8.983	8.982	0.001	97	2754694	40.0	40.5	
90 3-Nitroaniline	138	9.047	9.046	0.001	86	380544	40.0	41.9	
92 2,4-Dinitrophenol	184	9.138	9.142	-0.004	74	770181	80.0	74.4	
91 Acenaphthene	153	9.138	9.142	-0.004	84	1851007	40.0	39.9	
93 4-Nitrophenol	109	9.176	9.174	0.002	81	997770	80.0	87.2	
94 2,4-Dinitrotoluene	165	9.256	9.259	-0.003	86	642081	40.0	42.2	
95 Dibenzofuran	168	9.299	9.297	0.002	95	2833225	40.0	39.8	
97 2,3,5,6-Tetrachlorophenol	232	9.363	9.366	-0.003	91	850742	40.0	40.9	
99 2,3,4,6-Tetrachlorophenol	232	9.405	9.404	0.001	72	790123	40.0	40.5	
100 2-Naphthylamine	143	9.432	9.436	-0.004	92	1499021	40.0	39.1	
101 Diethyl phthalate	149	9.464	9.462	0.002	96	2283319	40.0	40.3	
102 Hexadecane	57	9.464	9.468	-0.004	86	913150	40.0	44.3	
104 4-Chlorophenyl phenyl ethe	204	9.592	9.596	-0.004	91	1388014	40.0	39.1	
105 4-Nitroaniline	138	9.608	9.607	0.001	74	421237	40.0	41.8	
106 Fluorene	166	9.614	9.617	-0.003	96	2117757	40.0	41.0	
108 4,6-Dinitro-2-methylphenol	198	9.635	9.639	-0.004	84	979206	80.0	87.4	
109 N-Nitrosodiphenylamine	169	9.694	9.698	-0.004	63	1646741	40.0	42.0	
111 1,2-Diphenylhydrazine	77	9.737	9.740	-0.003	99	2515413	40.0	41.5	
116 4-Bromophenyl phenyl ether	248	10.046	10.050	-0.004	66	853756	40.0	42.0	
118 Hexachlorobenzene	284	10.132	10.136	-0.004	93	807757	40.0	40.5	
119 Atrazine	200	10.159	10.162	-0.003	92	749856	40.0	40.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.298	10.301	-0.003	88	1217207	80.0	79.2	
121 n-Octadecane	57	10.303	10.307	-0.004	87	977739	40.0	44.4	
126 Phenanthrene	178	10.506	10.510	-0.004	97	3466802	40.0	40.6	
128 Anthracene	178	10.559	10.563	-0.004	97	3421926	40.0	39.8	
130 Carbazole	167	10.698	10.702	-0.004	97	2799028	40.0	40.4	
132 Di-n-butyl phthalate	149	10.987	10.996	-0.009	99	3298696	40.0	39.3	
137 Fluoranthene	202	11.799	11.808	-0.009	95	4167643	40.0	39.4	
138 Benzidine	184	11.922	11.931	-0.009	98	1543192	40.0	42.5	
139 Pyrene	202	12.103	12.107	-0.004	98	4227100	40.0	38.7	
144 Butyl benzyl phthalate	149	12.947	12.956	-0.009	95	1345747	40.0	37.3	
149 3,3'-Dichlorobenzidine	252	13.914	13.923	-0.009	73	1357667	40.0	41.3	
151 Bis(2-ethylhexyl) phthalat	149	13.946	13.961	-0.015	94	1827250	40.0	38.1	
152 Benzo[a]anthracene	228	13.989	14.003	-0.014	95	3741067	40.0	38.5	
153 Chrysene	228	14.064	14.073	-0.009	95	3481151	40.0	38.9	
156 Di-n-octyl phthalate	149	15.260	15.269	-0.009	99	2998049	40.0	37.3	
157 7,12-Dimethylbenz(a)anthra	256	16.131	16.146	-0.014	86	1377544	40.0	41.3	
158 Benzo[b]fluoranthene	252	16.147	16.156	-0.009	94	3361602	40.0	38.5	
159 Benzo[k]fluoranthene	252	16.206	16.210	-0.004	95	3313578	40.0	39.6	
176 Benzo[e]pyrene	252	16.724	16.738	-0.014	0	2990026	40.0	38.4	
160 Benzo[a]pyrene	252	16.836	16.845	-0.009	73	2975051	40.0	39.1	
163 Indeno[1,2,3-cd]pyrene	276	19.187	19.196	-0.009	96	2762338	40.0	39.8	
164 Dibenz(a,h)anthracene	278	19.214	19.228	-0.014	88	2306142	40.0	38.9	
165 Benzo[g,h,i]perylene	276	19.791	19.800	-0.009	95	2257140	40.0	39.2	
S 206 Total Cresols	108				0		80.0	88.7	
S 208 Methyl Phenols,Total	108				0		80.0	88.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

SVTAPSTD40i_00005 Amount Added: 1.00 Units: mL

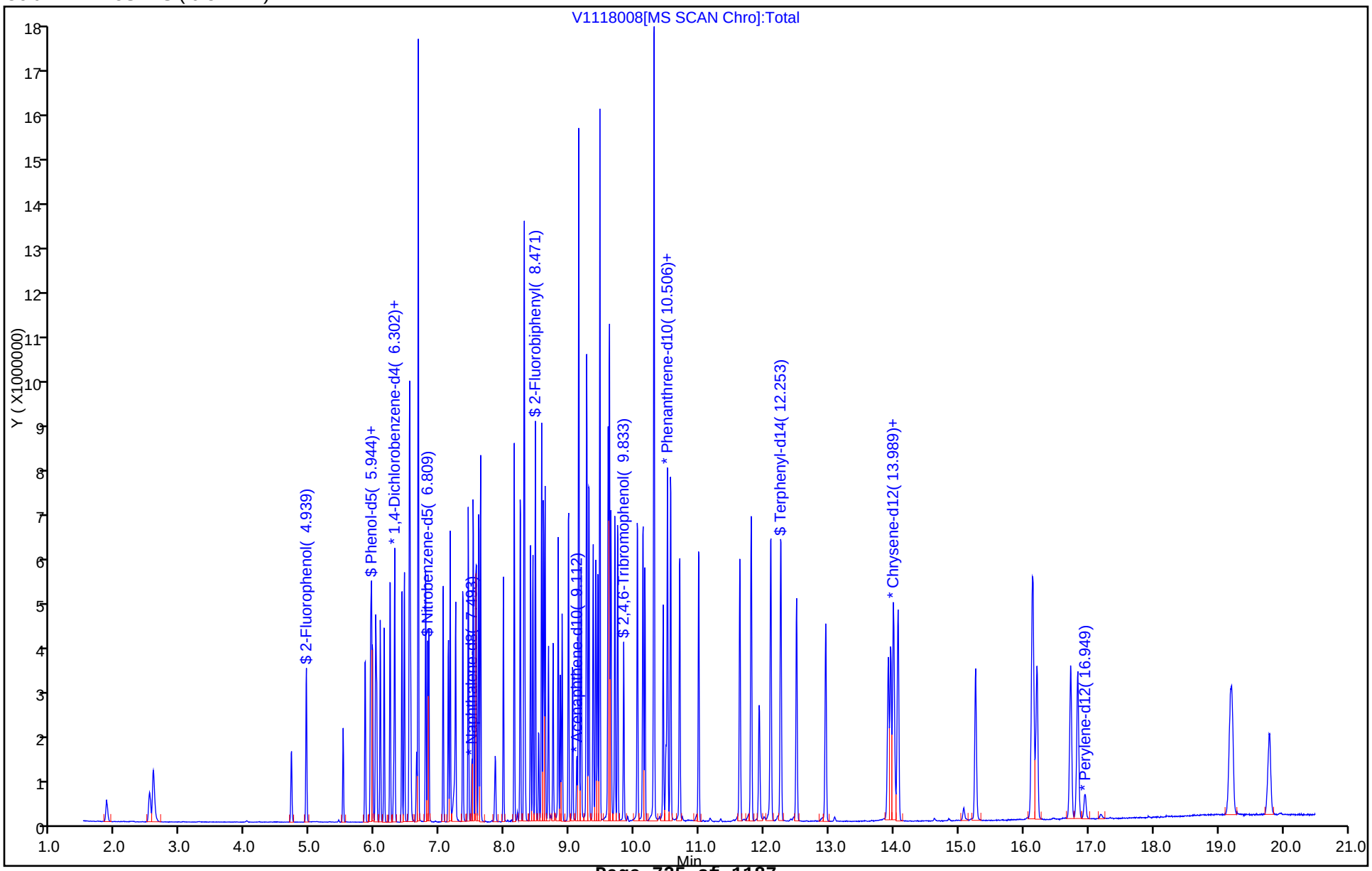
Report Date: 18-Nov-2014 08:46:06 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118008.D

Injection Date:	18-Nov-2014 06:45:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118009.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Nov-2014 07:14:30 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-009
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:46:07 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 07:58:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.285	6.284	0.001	90	121075	8.00	8.00	
* 2 Naphthalene-d8	136	7.492	7.497	-0.005	98	405859	8.00	8.00	
* 3 Acenaphthene-d10	164	9.105	9.115	-0.010	90	287869	8.00	8.00	
* 4 Phenanthrene-d10	188	10.484	10.488	-0.004	96	577936	8.00	8.00	
* 5 Chrysene-d12	240	14.010	14.019	-0.009	95	594813	8.00	8.00	
* 6 Perylene-d12	264	16.942	16.963	-0.021	97	467704	8.00	8.00	
$ 7 2-Fluorophenol	112	4.939	4.938	0.001	91	1257384	60.0	64.2	
$ 8 Phenol-d5	99	5.932	5.926	0.006	89	1518626	60.0	63.7	
$ 9 Nitrobenzene-d5	82	6.808	6.813	-0.005	90	1667491	60.0	58.1	
$ 10 2-Fluorobiphenyl	172	8.470	8.474	-0.004	100	3413221	60.0	61.4	
$ 11 2,4,6-Tribromophenol	330	9.832	9.836	-0.004	86	481269	60.0	69.4	
$ 12 Terphenyl-d14	244	12.252	12.262	-0.010	98	4243416	60.0	59.9	
13 1,4-Dioxane	88	1.856	1.850	0.006	87	526176	60.0	61.6	
14 N-Nitrosodimethylamine	74	2.524	2.507	0.017	89	798039	60.0	62.6	
15 Pyridine	79	2.572	2.576	-0.004	94	1420217	60.0	61.6	
22 Methyl methanesulfonate	80	4.709	4.708	0.001	92	985121	60.0	59.0	
26 Benzaldehyde	77	5.847	5.846	0.001	88	1036907	60.0	58.4	
27 Phenol	94	5.943	5.942	0.001	98	1829502	60.0	69.4	
28 Aniline	93	5.959	5.958	0.001	97	1963509	60.0	65.4	
29 Bis(2-chloroethyl)ether	93	6.023	6.022	0.001	95	1076889	60.0	62.1	
31 2-Chlorophenol	128	6.082	6.081	0.001	93	1231452	60.0	62.3	
32 n-Decane	43	6.141	6.140	0.001	77	1016096	60.0	68.5	
33 1,3-Dichlorobenzene	146	6.231	6.231	0.001	90	1509122	60.0	65.4	
34 1,4-Dichlorobenzene	146	6.301	6.305	-0.004	86	1539352	60.0	65.0	
36 Benzyl alcohol	108	6.413	6.412	0.001	84	764232	60.0	66.6	
37 1,2-Dichlorobenzene	146	6.450	6.455	-0.005	89	1429452	60.0	65.0	
38 2-Methylphenol	108	6.531	6.524	0.007	92	1282757	60.0	70.7	
39 Indene	116	6.536	6.535	0.001	89	2480774	60.0	76.4	
40 2,2'-oxybis[1-chloropropan	45	6.547	6.551	-0.004	73	993887	60.0	67.6	
41 N-Nitrosopyrrolidine	100	6.643	6.637	0.007	73	469237	60.0	63.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.664	6.663	0.001	84	1488546	60.0	72.8	
44 N-Nitrosodi-n-propylamine	70	6.664	6.663	0.001	73	1208879	60.0	68.3	
43 Acetophenone	105	6.664	6.663	0.001	87	2201050	60.0	70.0	
47 Hexachloroethane	117	6.776	6.781	-0.005	86	706298	60.0	62.8	
48 Nitrobenzene	77	6.830	6.829	0.001	86	1674499	60.0	59.8	
50 Isophorone	82	7.049	7.048	0.001	98	2583747	60.0	60.6	
51 2-Nitrophenol	139	7.129	7.133	-0.004	79	608485	60.0	60.0	
52 2,4-Dimethylphenol	107	7.156	7.160	-0.004	96	1455916	60.0	60.7	
56 Benzoic acid	122	7.246	7.208	0.038	87	613573	60.0	67.9	
55 Bis(2-chloroethoxy)methane	93	7.241	7.240	0.001	98	1332221	60.0	62.0	
57 2,4-Dichlorophenol	162	7.353	7.352	0.001	96	1168702	60.0	59.8	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.433	7.438	-0.005	91	1526067	60.0	61.0	
60 Naphthalene	128	7.513	7.513	0.000	98	3656344	60.0	63.3	
62 4-Chloroaniline	127	7.546	7.550	-0.004	92	1477278	60.0	62.3	
63 2,6-Dichlorophenol	162	7.562	7.566	-0.004	94	1154411	60.0	60.5	
64 Hexachlorobutadiene	225	7.626	7.630	-0.004	94	1274788	60.0	60.3	
67 Caprolactam	113	7.861	7.833	0.028	80	273456	60.0	57.8	
70 4-Chloro-3-methylphenol	107	7.978	7.977	0.001	90	1192148	60.0	60.5	
72 2-Methylnaphthalene	142	8.144	8.148	-0.004	89	2626901	60.0	62.9	
75 1-Methylnaphthalene	142	8.235	8.239	-0.004	90	2393030	60.0	62.2	
76 Hexachlorocyclopentadiene	237	8.293	8.298	-0.005	97	1509538	60.0	65.7	
77 1,2,4,5-Tetrachlorobenzene	216	8.299	8.303	-0.004	98	1935308	60.0	61.7	
78 2,4,6-Trichlorophenol	196	8.395	8.399	-0.004	94	1044790	60.0	57.8	
79 2,4,5-Trichlorophenol	196	8.432	8.431	0.001	92	1118392	60.0	59.9	
80 1,1'-Biphenyl	154	8.566	8.570	-0.004	95	3292066	60.0	63.0	
81 2-Chloronaphthalene	162	8.598	8.597	0.001	98	2787663	60.0	59.9	
82 2-Nitroaniline	65	8.673	8.672	0.001	72	827467	60.0	60.3	
86 Dimethyl phthalate	163	8.822	8.821	0.001	95	2812096	60.0	58.0	
87 1,3-Dinitrobenzene	168	8.854	8.859	-0.005	82	465907	60.0	62.2	
88 2,6-Dinitrotoluene	165	8.886	8.886	0.000	85	626078	60.0	59.5	
89 Acenaphthylene	152	8.983	8.982	0.001	97	3953446	60.0	61.4	
90 3-Nitroaniline	138	9.047	9.046	0.001	86	533446	60.0	62.1	
92 2,4-Dinitrophenol	184	9.137	9.142	-0.005	73	1159046	120.0	116.5	
91 Acenaphthene	153	9.137	9.142	-0.005	84	2733760	60.0	62.2	
93 4-Nitrophenol	109	9.180	9.174	0.006	81	1362878	120.0	125.9	
94 2,4-Dinitrotoluene	165	9.260	9.259	0.001	83	916599	60.0	63.7	
95 Dibenzofuran	168	9.298	9.297	0.001	95	4106059	60.0	60.9	
97 2,3,5,6-Tetrachlorophenol	232	9.362	9.366	-0.004	91	1194104	60.0	60.7	
99 2,3,4,6-Tetrachlorophenol	232	9.399	9.404	-0.005	72	1137809	60.0	61.6	
100 2-Naphthylamine	143	9.431	9.436	-0.005	93	2084841	60.0	57.4	
101 Diethyl phthalate	149	9.463	9.462	0.001	96	3378854	60.0	63.0	
102 Hexadecane	57	9.463	9.468	-0.005	75	1449948	60.0	74.1	
104 4-Chlorophenyl phenyl ethe	204	9.592	9.596	-0.004	91	1955583	60.0	58.3	
105 4-Nitroaniline	138	9.613	9.607	0.006	70	596441	60.0	62.6	
106 Fluorene	166	9.613	9.617	-0.004	94	2960630	60.0	60.5	
108 4,6-Dinitro-2-methylphenol	198	9.640	9.639	0.001	90	1421383	120.0	135.2	
109 N-Nitrosodiphenylamine	169	9.693	9.698	-0.005	64	2281662	60.0	62.0	
111 1,2-Diphenylhydrazine	77	9.736	9.740	-0.004	99	3485723	60.0	61.3	
116 4-Bromophenyl phenyl ether	248	10.046	10.050	-0.004	67	1218695	60.0	63.9	
118 Hexachlorobenzene	284	10.131	10.136	-0.005	93	1164727	60.0	62.2	
119 Atrazine	200	10.163	10.162	0.001	93	1007602	60.0	58.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.297	10.301	-0.004	90	1784877	120.0	123.6	
121 n-Octadecane	57	10.302	10.307	-0.005	89	1539927	60.0	74.1	
126 Phenanthrene	178	10.505	10.510	-0.005	97	4901458	60.0	61.1	
128 Anthracene	178	10.553	10.563	-0.010	97	4828422	60.0	59.8	
130 Carbazole	167	10.692	10.702	-0.010	97	3931874	60.0	60.5	
132 Di-n-butyl phthalate	149	10.986	10.996	-0.010	99	4629155	60.0	58.8	
137 Fluoranthene	202	11.798	11.808	-0.010	95	5884725	60.0	59.4	
138 Benzidine	184	11.921	11.931	-0.010	98	2109070	60.0	63.0	
139 Pyrene	202	12.097	12.107	-0.010	98	5750247	60.0	57.1	
144 Butyl benzyl phthalate	149	12.941	12.956	-0.015	92	1881880	60.0	56.5	
149 3,3'-Dichlorobenzidine	252	13.913	13.923	-0.010	67	1900388	60.0	62.7	
151 Bis(2-ethylhexyl) phthalat	149	13.945	13.961	-0.016	92	2594900	60.0	58.7	
152 Benzo[a]anthracene	228	13.993	14.003	-0.010	92	5399707	60.0	60.2	
153 Chrysene	228	14.058	14.073	-0.015	93	4929012	60.0	59.8	
156 Di-n-octyl phthalate	149	15.249	15.269	-0.020	99	4314095	60.0	55.3	
157 7,12-Dimethylbenz(a)anthra	256	16.130	16.146	-0.015	69	2017795	60.0	62.4	
158 Benzo[b]fluoranthene	252	16.146	16.156	-0.010	92	5031268	60.0	59.5	
159 Benzo[k]fluoranthene	252	16.200	16.210	-0.010	87	4869485	60.0	59.9	
176 Benzo[e]pyrene	252	16.723	16.738	-0.015	0	4538659	60.0	60.0	
160 Benzo[a]pyrene	252	16.836	16.845	-0.009	67	4510772	60.0	61.2	
163 Indeno[1,2,3-cd]pyrene	276	19.181	19.196	-0.015	92	4137336	60.0	61.5	
164 Dibenz(a,h)anthracene	278	19.213	19.228	-0.015	64	3589082	60.0	62.4	
165 Benzo[g,h,i]perylene	276	19.790	19.800	-0.010	89	3416645	60.0	61.2	
S 206 Total Cresols	108				0		120.0	143.5	
S 208 Methyl Phenols,Total	108				0		120.0	143.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

SVTAPSTD60i_00005 Amount Added: 1.00 Units: mL

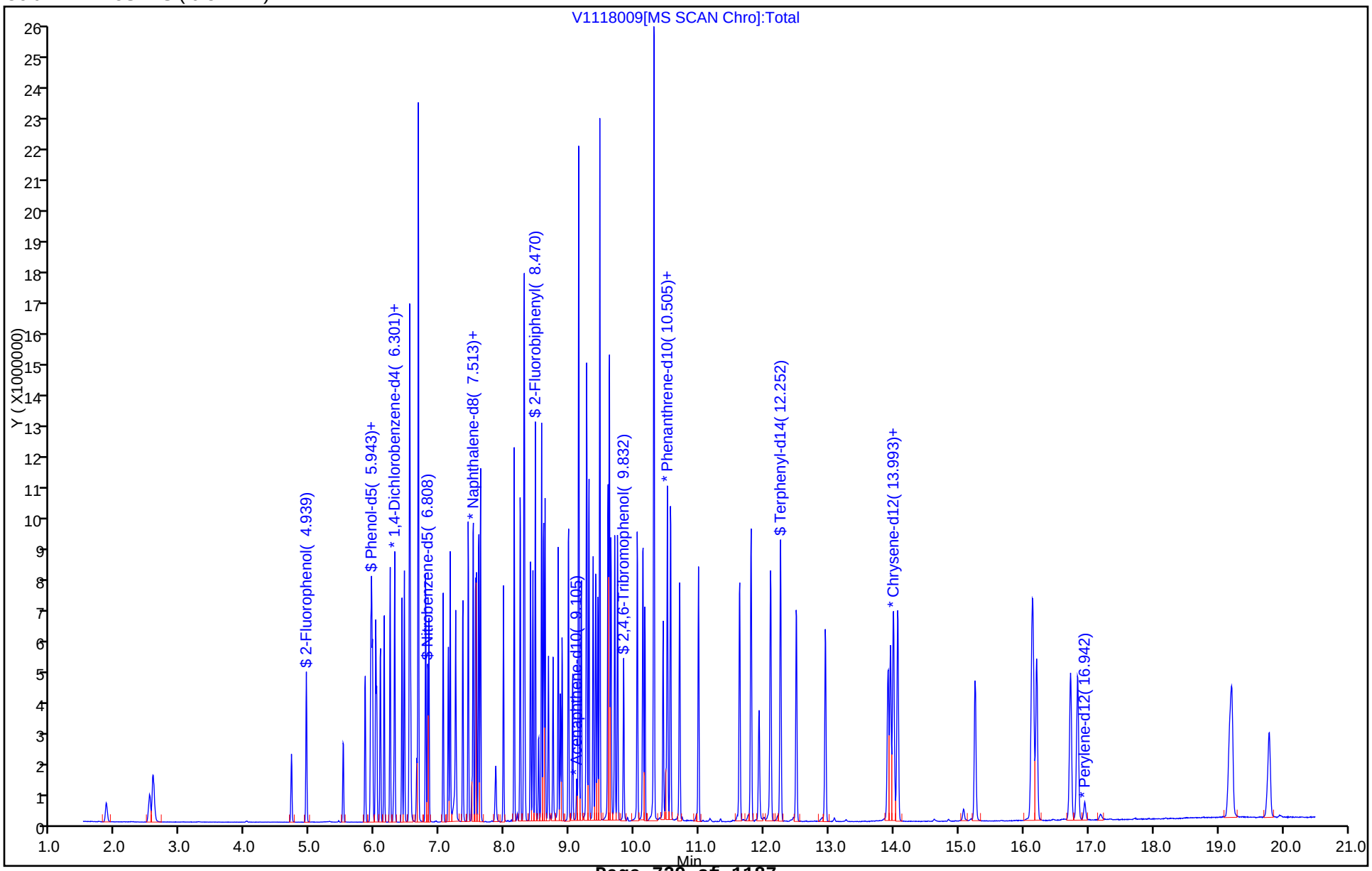
Report Date: 18-Nov-2014 08:46:09 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118009.D

Injection Date:	18-Nov-2014 07:14:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Nov-2014 07:43:30 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-010
Misc. Info.: IC
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:46:09 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 08:25:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.286	6.284	0.002	89	129202	8.00	8.00	
* 2 Naphthalene-d8	136	7.493	7.497	-0.004	98	396016	8.00	8.00	
* 3 Acenaphthene-d10	164	9.106	9.115	-0.009	91	282992	8.00	8.00	
* 4 Phenanthrene-d10	188	10.479	10.488	-0.009	96	587121	8.00	8.00	
* 5 Chrysene-d12	240	14.010	14.019	-0.009	95	600816	8.00	8.00	
* 6 Perylene-d12	264	16.938	16.963	-0.025	98	481470	8.00	8.00	
$ 7 2-Fluorophenol	112	4.939	4.938	0.001	91	1772770	80.0	84.9	
$ 8 Phenol-d5	99	5.933	5.926	0.007	91	2184453	80.0	85.9	
$ 9 Nitrobenzene-d5	82	6.814	6.813	0.001	90	2264359	80.0	80.9	
$ 10 2-Fluorobiphenyl	172	8.470	8.474	-0.004	99	4736680	80.0	86.7	
$ 11 2,4,6-Tribromophenol	330	9.833	9.836	-0.003	87	671055	80.0	95.2	
$ 12 Terphenyl-d14	244	12.247	12.262	-0.015	98	5531806	80.0	77.4	
13 1,4-Dioxane	88	1.862	1.850	0.012	88	735759	80.0	80.7	
14 N-Nitrosodimethylamine	74	2.541	2.507	0.034	89	1073202	80.0	78.9	
15 Pyridine	79	2.583	2.576	0.007	93	1949127	80.0	79.2	
22 Methyl methanesulfonate	80	4.715	4.708	0.007	91	1323709	80.0	74.3	
26 Benzaldehyde	77	5.847	5.846	0.001	88	1328292	80.0	70.1	
27 Phenol	94	5.949	5.942	0.007	97	2641879	80.0	93.9	
28 Aniline	93	5.960	5.958	0.002	98	2782576	80.0	86.9	
29 Bis(2-chloroethyl)ether	93	6.029	6.022	0.007	96	1517094	80.0	82.0	
31 2-Chlorophenol	128	6.083	6.081	0.001	94	1741577	80.0	82.6	
32 n-Decane	43	6.136	6.140	-0.004	79	1420761	80.0	89.8	
33 1,3-Dichlorobenzene	146	6.232	6.231	0.002	93	2185950	80.0	88.8	
34 1,4-Dichlorobenzene	146	6.302	6.305	-0.003	89	2198668	80.0	87.0	
36 Benzyl alcohol	108	6.414	6.412	0.002	85	1066828	80.0	87.1	
37 1,2-Dichlorobenzene	146	6.451	6.455	-0.004	90	2018021	80.0	86.0	
38 2-Methylphenol	108	6.531	6.524	0.007	95	1897456	80.0	97.9	
39 Indene	116	6.537	6.535	0.002	91	3773828	80.0	108.8	
40 2,2'-oxybis[1-chloropropan	45	6.547	6.551	-0.004	73	1473217	80.0	93.9	
41 N-Nitrosopyrrolidine	100	6.649	6.637	0.013	79	656965	80.0	83.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
43 Acetophenone	105	6.670	6.663	0.007	80	3156588	80.0	94.1	
45 4-Methylphenol	108	6.665	6.663	0.002	68	2251462	80.0	103.2	
44 N-Nitrosodi-n-propylamine	70	6.670	6.663	0.007	66	1723018	80.0	91.2	
47 Hexachloroethane	117	6.777	6.781	-0.004	86	988688	80.0	82.3	
48 Nitrobenzene	77	6.830	6.829	0.001	86	2304653	80.0	84.3	
50 Isophorone	82	7.049	7.048	0.001	98	3574493	80.0	85.9	
51 2-Nitrophenol	139	7.130	7.133	-0.003	83	846773	80.0	85.6	
52 2,4-Dimethylphenol	107	7.156	7.160	-0.004	97	2030177	80.0	86.8	
56 Benzoic acid	122	7.263	7.208	0.055	54	866733	80.0	98.3	M
55 Bis(2-chloroethoxy)methane	93	7.242	7.240	0.002	98	1909286	80.0	91.0	
57 2,4-Dichlorophenol	162	7.354	7.352	0.002	96	1626222	80.0	85.3	
61 Azobenzene	77		7.410				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.434	7.438	-0.004	92	2136187	80.0	87.5	
60 Naphthalene	128	7.509	7.513	-0.004	98	5357157	80.0	95.1	
62 4-Chloroaniline	127	7.546	7.550	-0.004	92	2151456	80.0	92.9	
63 2,6-Dichlorophenol	162	7.562	7.566	-0.004	93	1664114	80.0	89.4	
64 Hexachlorobutadiene	225	7.626	7.630	-0.004	93	1744778	80.0	84.6	
67 Caprolactam	113	7.872	7.833	0.039	79	374248	80.0	81.1	
70 4-Chloro-3-methylphenol	107	7.979	7.977	0.002	89	1688868	80.0	87.9	
72 2-Methylnaphthalene	142	8.145	8.148	-0.003	90	3813703	80.0	93.6	
75 1-Methylnaphthalene	142	8.235	8.239	-0.004	91	3470482	80.0	92.5	
76 Hexachlorocyclopentadiene	237	8.294	8.298	-0.004	96	2130530	80.0	94.3	
77 1,2,4,5-Tetrachlorobenzene	216	8.299	8.303	-0.004	98	2720713	80.0	88.2	
78 2,4,6-Trichlorophenol	196	8.396	8.399	-0.003	94	1497629	80.0	84.3	
79 2,4,5-Trichlorophenol	196	8.433	8.431	0.002	91	1515791	80.0	82.6	
80 1,1'-Biphenyl	154	8.567	8.570	-0.003	95	4728455	80.0	92.1	
81 2-Chloronaphthalene	162	8.599	8.597	0.002	98	4053340	80.0	88.6	
82 2-Nitroaniline	65	8.673	8.672	0.001	72	1150441	80.0	85.2	
86 Dimethyl phthalate	163	8.823	8.821	0.002	95	3941691	80.0	82.8	
87 1,3-Dinitrobenzene	168	8.860	8.859	0.001	83	608073	80.0	82.6	
88 2,6-Dinitrotoluene	165	8.887	8.886	0.001	83	842173	80.0	81.4	
89 Acenaphthylene	152	8.978	8.982	-0.004	97	5643820	80.0	89.1	
90 3-Nitroaniline	138	9.047	9.046	0.001	85	737436	80.0	87.3	
92 2,4-Dinitrophenol	184	9.138	9.142	-0.004	72	1728975	160.0	175.3	
91 Acenaphthene	153	9.138	9.142	-0.004	85	4012276	80.0	92.9	
93 4-Nitrophenol	109	9.181	9.174	0.007	82	1919376	160.0	180.3	
94 2,4-Dinitrotoluene	165	9.261	9.259	0.002	84	1283922	80.0	90.8	
95 Dibenzofuran	168	9.298	9.297	0.001	95	5770642	80.0	87.1	
97 2,3,5,6-Tetrachlorophenol	232	9.363	9.366	-0.003	91	1685637	80.0	87.2	
99 2,3,4,6-Tetrachlorophenol	232	9.405	9.404	0.001	71	1524048	80.0	84.0	
100 2-Naphthylamine	143	9.437	9.436	0.001	93	2851765	80.0	79.9	
101 Diethyl phthalate	149	9.464	9.462	0.002	97	4600669	80.0	87.3	
102 Hexadecane	57	9.464	9.468	-0.004	75	2149507	80.0	112.6	
104 4-Chlorophenyl phenyl ethe	204	9.592	9.596	-0.004	90	2740471	80.0	83.1	
105 4-Nitroaniline	138	9.614	9.607	0.007	59	895717	80.0	95.6	
106 Fluorene	166	9.614	9.617	-0.003	94	4319721	80.0	89.9	
108 4,6-Dinitro-2-methylphenol	198	9.640	9.639	0.001	86	1915802	160.0	179.4	
109 N-Nitrosodiphenylamine	169	9.699	9.698	0.001	63	3178144	80.0	85.0	
111 1,2-Diphenylhydrazine	77	9.737	9.740	-0.003	100	4803655	80.0	83.2	
116 4-Bromophenyl phenyl ether	248	10.041	10.050	-0.009	67	1646735	80.0	85.0	
118 Hexachlorobenzene	284	10.132	10.136	-0.004	94	1594567	80.0	83.9	
119 Atrazine	200	10.164	10.162	0.002	92	1194422	80.0	68.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.297	10.301	-0.004	90	2448792	160.0	166.8	
121 n-Octadecane	57	10.297	10.307	-0.010	92	2341089	80.0	105.6	
126 Phenanthrene	178	10.506	10.510	-0.004	97	6581685	80.0	80.8	
128 Anthracene	178	10.554	10.563	-0.009	97	6673192	80.0	81.4	
130 Carbazole	167	10.693	10.702	-0.009	96	5193384	80.0	78.6	
132 Di-n-butyl phthalate	149	10.987	10.996	-0.009	99	6173662	80.0	77.2	
137 Fluoranthene	202	11.799	11.808	-0.009	95	7823717	80.0	77.7	
138 Benzidine	184	11.921	11.931	-0.010	98	2586744	80.0	76.5	
139 Pyrene	202	12.098	12.107	-0.009	98	7847498	80.0	77.2	
144 Butyl benzyl phthalate	149	12.942	12.956	-0.014	95	2463595	80.0	73.3	
149 3,3'-Dichlorobenzidine	252	13.903	13.923	-0.020	72	2488531	80.0	81.3	
151 Bis(2-ethylhexyl) phthalat	149	13.941	13.961	-0.020	92	3465934	80.0	77.6	
152 Benzo[a]anthracene	228	13.989	14.003	-0.014	81	7095604	80.0	78.4	
153 Chrysene	228	14.058	14.073	-0.015	92	6589112	80.0	79.1	
156 Di-n-octyl phthalate	149	15.250	15.269	-0.019	99	5699986	80.0	71.0	
157 7,12-Dimethylbenz(a)anthra	256	16.131	16.146	-0.014	73	2764009	80.0	83.0	
158 Benzo[b]fluoranthene	252	16.152	16.156	-0.004	92	6846161	80.0	78.6	
159 Benzo[k]fluoranthene	252	16.201	16.210	-0.009	96	6431667	80.0	76.9	
176 Benzo[e]pyrene	252	16.724	16.738	-0.014	0	6046182	80.0	77.7	
160 Benzo[a]pyrene	252	16.831	16.845	-0.014	71	6060350	80.0	79.8	
163 Indeno[1,2,3-cd]pyrene	276	19.181	19.196	-0.015	95	5677410	80.0	82.0	
164 Dibenz(a,h)anthracene	278	19.208	19.228	-0.020	64	4948414	80.0	83.6	
165 Benzo[g,h,i]perylene	276	19.785	19.800	-0.015	89	4713525	80.0	82.0	
S 206 Total Cresols	108				0		160.0	201.2	
S 208 Methyl Phenols,Total	108				0		160.0	201.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPSTD80i_00005 Amount Added: 1.00 Units: mL

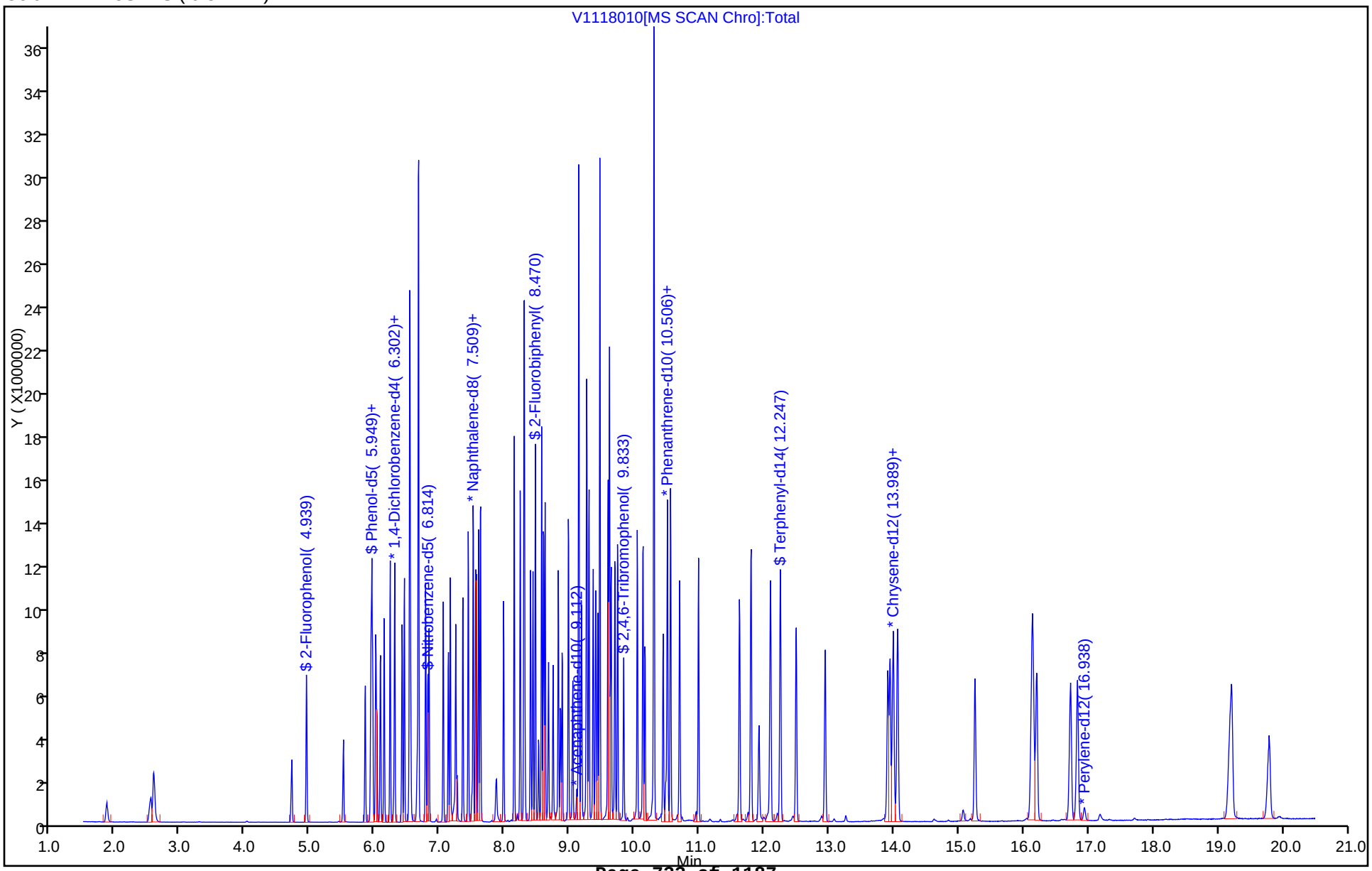
Report Date: 18-Nov-2014 08:46:10 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Injection Date:	18-Nov-2014 07:43:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	IC			Worklist Smp#:	10
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



Manual Integration/User Assign Peak Report

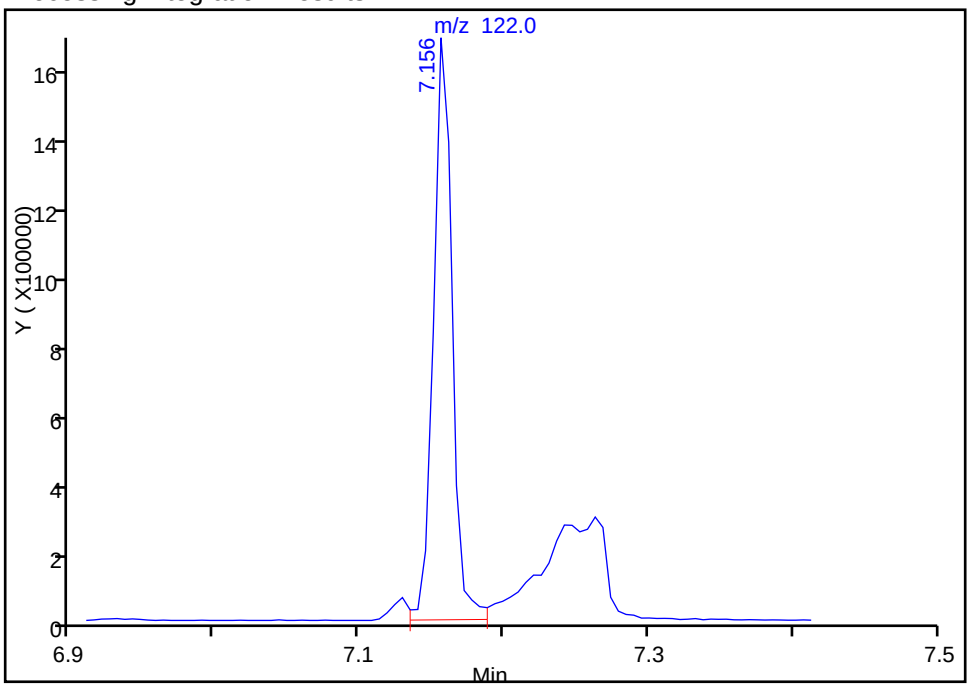
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D				
Injection Date:	18-Nov-2014 07:43:30	Instrument ID:	CH731		
Lims ID:	IC				
Client ID:					
Operator ID:	003200	ALS Bottle#:	9	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

56 Benzoic acid, CAS: 65-85-0

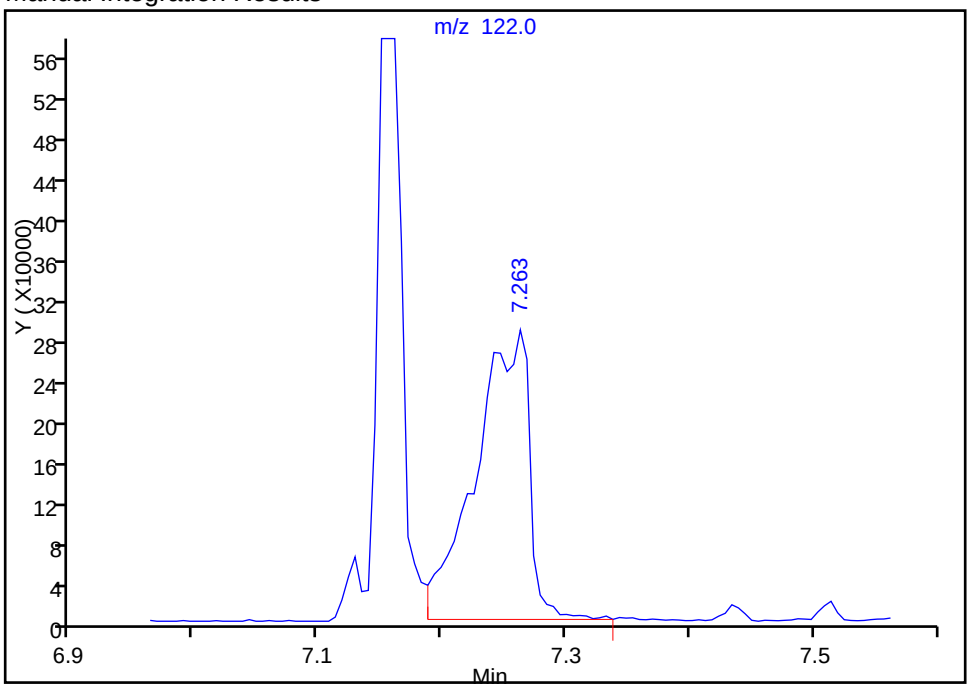
Processing Integration Results

RT: 7.16
Response: 1466417
Amount: 138.9814



Manual Integration Results

RT: 7.26
Response: 866733
Amount: 98.305761



Reviewer: piccolinov, 18-Nov-2014 08:25:54
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127527/3 Calibration Date: 12/08/2014 10:03

Instrument ID: CH731 Calib Start Date: 11/18/2014 04:22

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 11/18/2014 07:43

Lab File ID: V1208003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5645	0.6488	0.0100	5.75	5.00	14.9	20.0
N-Nitrosodimethylamine	Ave	0.8422	0.8917	0.0100	5.29	5.00	5.9	20.0
Pyridine	Ave	1.524	1.466	0.0100	4.81	5.00	-3.8	20.0
Methyl methanesulfonate	Ave	1.103	1.237	0.0100	5.61	5.00	12.1	20.0
Benzaldehyde	Ave	1.173	1.173	0.0100	5.00	5.00	0.0	20.0
Phenol	Ave	1.741	1.557	0.8000	4.47	5.00	-10.6	20.0
Aniline	Ave	1.983	1.773	0.0100	4.47	5.00	-10.6	20.0
Bis(2-chloroethyl)ether	Ave	1.146	1.106	0.7000	4.83	5.00	-3.5	20.0
2-Chlorophenol	Ave	1.305	1.198	0.8000	4.59	5.00	-8.2	20.0
n-Decane	Ave	0.9799	0.8450		4.31	5.00	-13.8	20.0
1,3-Dichlorobenzene	Ave	1.525	1.449	0.0100	4.75	5.00	-5.0	20.0
1,4-Dichlorobenzene	Ave	1.566	1.436	0.0100	4.58	5.00	-8.3	20.0
Benzyl alcohol	Ave	0.7583	0.5948	0.0100	3.92	5.00	-21.6*	20.0
1,2-Dichlorobenzene	Ave	1.453	1.377	0.0100	4.74	5.00	-5.2	20.0
2-Methylphenol	Ave	1.200	1.115	0.7000	4.65	5.00	-7.1	20.0
Indene	Ave	2.147	2.044	0.0100	4.76	5.00	-4.8	20.0
2,2'-oxybis[1-chloropropane]	Ave	0.9712	0.8524	0.0100	4.39	5.00	-12.2	20.0
N-Nitrosopyrrolidine	Ave	0.4882	0.5057	0.0100	5.18	5.00	3.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.170	1.070	0.5000	4.57	5.00	-8.6	20.0
Acetophenone	Ave	2.077	1.933	0.0100	4.65	5.00	-7.0	20.0
Methylphenol, 3 & 4	Ave	1.350	1.096	0.6000	4.06	5.00	-18.8	20.0
Hexachloroethane	Ave	0.7434	0.6953	0.3000	4.68	5.00	-6.5	20.0
Nitrobenzene	Ave	0.5523	0.5382	0.2000	4.87	5.00	-2.5	20.0
Isophorone	Ave	0.8409	0.7591	0.4000	4.51	5.00	-9.7	20.0
2-Nitrophenol	Ave	0.1999	0.1902	0.1000	4.76	5.00	-4.9	20.0
2,4-Dimethylphenol	Ave	0.4727	0.4228	0.2000	4.47	5.00	-10.6	20.0
Benzoic acid	Ave	0.1781	0.2097	0.0100	5.89	5.00	17.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.4237	0.3649	0.3000	4.31	5.00	-13.9	20.0
2,4-Dichlorophenol	Ave	0.3851	0.3480	0.2000	4.52	5.00	-9.6	20.0
1,2,4-Trichlorobenzene	Ave	0.4932	0.4638	0.0100	4.70	5.00	-6.0	20.0
Naphthalene	Ave	1.138	1.057	0.7000	4.64	5.00	-7.1	20.0
4-Chloroaniline	Ave	0.4677	0.4137	0.0100	4.42	5.00	-11.5	20.0
2,6-Dichlorophenol	Ave	0.3761	0.3360	0.0100	4.47	5.00	-10.7	20.0
Hexachlorobutadiene	Ave	0.4164	0.4083	0.0100	4.90	5.00	-2.0	20.0
Caprolactam	Ave	0.0932	0.0835	0.0100	4.48	5.00	-10.4	20.0
4-Chloro-3-methylphenol	Ave	0.3882	0.3566	0.2000	4.59	5.00	-8.1	20.0
2-Methylnaphthalene	Ave	0.8231	0.7660	0.4000	4.65	5.00	-6.9	20.0
1-Methylnaphthalene	Ave	0.7581	0.7280	0.0100	4.80	5.00	-4.0	20.0
Hexachlorocyclopentadiene	Ave	0.6388	0.6512	0.0500	5.10	5.00	1.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.8716	0.8494	0.0100	4.87	5.00	-2.5	20.0
2,4,6-Trichlorophenol	Ave	0.5023	0.4639	0.2000	4.62	5.00	-7.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127527/3 Calibration Date: 12/08/2014 10:03

Instrument ID: CH731 Calib Start Date: 11/18/2014 04:22

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 11/18/2014 07:43

Lab File ID: V1208003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.5187	0.4875	0.2000	4.70	5.00	-6.0	20.0
1,1'-Biphenyl	Ave	1.452	1.413	0.0100	4.87	5.00	-2.6	20.0
2-Chloronaphthalene	Ave	1.293	1.181	0.8000	4.56	5.00	-8.7	20.0
2-Nitroaniline	Ave	0.3815	0.4158	0.0100	5.45	5.00	9.0	20.0
Dimethyl phthalate	Ave	1.346	1.329	0.0100	4.93	5.00	-1.3	20.0
1,3-Dinitrobenzene	Ave	0.2082	0.2147	0.0100	5.16	5.00	3.1	20.0
2,6-Dinitrotoluene	Ave	0.2926	0.2870	0.2000	4.90	5.00	-1.9	20.0
Acenaphthylene	Ave	1.790	1.709	0.9000	4.77	5.00	-4.5	20.0
3-Nitroaniline	Ave	0.2389	0.2603	0.0100	5.45	5.00	9.0	20.0
2,4-Dinitrophenol	Lin1		0.2131	0.0100	9.00	10.0	-10.0	20.0
Acenaphthene	Ave	1.221	1.136	0.9000	4.65	5.00	-6.9	20.0
4-Nitrophenol	Ave	0.3009	0.3131	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrotoluene	Ave	0.4000	0.4118	0.2000	5.15	5.00	3.0	20.0
Dibenzofuran	Ave	1.872	1.801	0.8000	4.81	5.00	-3.8	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.5467	0.5128	0.0100	4.69	5.00	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.5132	0.5019	0.0100	4.89	5.00	-2.2	20.0
2-Naphthylamine	Ave	1.009	0.9722	0.0100	4.82	5.00	-3.7	20.0
Diethyl phthalate	Ave	1.490	1.435	0.0100	4.81	5.00	-3.7	20.0
Hexadecane	Ave	0.3855	0.3531		4.58	5.00	-8.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.9327	0.8898	0.4000	4.77	5.00	-4.6	20.0
4-Nitroaniline	Ave	0.2649	0.2746	0.0100	5.18	5.00	3.7	20.0
Fluorene	Ave	1.359	1.293	0.9000	4.76	5.00	-4.8	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1455	0.1381	0.0100	9.49	10.0	-5.1	20.0
N-Nitrosodiphenylamine	Ave	0.5094	0.4827	0.0100	4.74	5.00	-5.3	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.7870	0.7821	0.0100	4.97	5.00	-0.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2639	0.2571	0.1000	4.87	5.00	-2.6	20.0
Hexachlorobenzene	Ave	0.2590	0.2476	0.1000	4.78	5.00	-4.4	20.0
Atrazine	Ave	0.2385	0.2461	0.0100	5.16	5.00	3.2	20.0
n-Octadecane	Ave	1.372	1.329		4.84	5.00	-3.2	20.0
Pentachlorophenol	Lin1		0.1823	0.0500	9.26	10.0	-7.4	20.0
Phenanthrene	Ave	1.110	1.061	0.7000	4.78	5.00	-4.4	20.0
Anthracene	Ave	1.118	1.091	0.7000	4.88	5.00	-2.4	20.0
Carbazole	Ave	0.8999	0.8827	0.0100	4.90	5.00	-1.9	20.0
Di-n-butyl phthalate	Ave	1.090	1.057	0.0100	4.85	5.00	-3.0	20.0
Fluoranthene	Ave	1.372	1.409	0.6000	5.13	5.00	2.7	20.0
Benzidine	Ave	0.4502	0.3943	0.0100		5.00	-12.4	20.0
Pyrene	Ave	1.354	1.223	0.6000	4.52	5.00	-9.6	20.0
Butyl benzyl phthalate	Ave	0.4476	0.3973	0.0100	4.44	5.00	-11.2	20.0
3,3'-Dichlorobenzidine	Ave	0.4077	0.3917	0.0100	4.80	5.00	-3.9	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.5951	0.5151	0.0100	4.33	5.00	-13.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127527/3 Calibration Date: 12/08/2014 10:03

Instrument ID: CH731 Calib Start Date: 11/18/2014 04:22

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 11/18/2014 07:43

Lab File ID: V1208003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.206	1.148	0.8000	4.76	5.00	-4.8	20.0
Chrysene	Ave	1.109	1.092	0.7000	4.92	5.00	-1.6	20.0
Di-n-octyl phthalate	Ave	1.334	1.218	0.0100	4.57	5.00	-8.7	20.0
7,12-Dimethylbenz(a)anthracene	Ave	0.5534	0.5239	0.0100	4.73	5.00	-5.3	20.0
Benzo[b]fluoranthene	Ave	1.448	1.349	0.7000	4.66	5.00	-6.8	20.0
Benzo[k]fluoranthene	Ave	1.390	1.452	0.7000	5.22	5.00	4.5	20.0
Benzo[e]pyrene	Ave	1.294	1.255	0.0100	4.85	5.00	-3.0	20.0
Benzo[a]pyrene	Ave	1.262	1.134	0.7000	4.50	5.00	-10.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.151	1.127	0.5000	4.90	5.00	-2.1	20.0
Dibenz(a,h)anthracene	Ave	0.9832	0.9831	0.4000	5.00	5.00	-0.0	20.0
Benzo[g,h,i]perylene	Ave	0.9553	0.9797	0.5000	5.13	5.00	2.6	20.0
2-Fluorophenol (Surr)	Ave	1.294	1.183		4.57	5.00	-8.6	20.0
Phenol-d5 (Surr)	Ave	1.575	1.467		4.66	5.00	-6.8	20.0
Nitrobenzene-d5 (Surr)	Ave	0.5653	0.5317		4.70	5.00	-5.9	20.0
2-Fluorobiphenyl	Ave	1.544	1.436		4.65	5.00	-7.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0961	0.0919	0.0100	4.79	5.00	-4.3	20.0
Terphenyl-d14 (Surr)	Ave	0.9522	0.9143		4.80	5.00	-4.0	20.0

Report Date: 09-Dec-2014 05:58:25 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208003.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Dec-2014 10:03:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-003
Misc. Info.: CCVIS
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 08-Dec-2014 10:44:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.277	6.277	0.000	88	91292	8.00	8.00	
* 2 Naphthalene-d8	136	7.479	7.479	0.000	97	304585	8.00	8.00	
* 3 Acenaphthene-d10	164	9.097	9.097	0.000	92	223742	8.00	8.00	
* 4 Phenanthrene-d10	188	10.465	10.465	0.000	96	477743	8.00	8.00	
* 5 Chrysene-d12	240	13.964	13.964	0.000	95	545925	8.00	8.00	
* 6 Perylene-d12	264	16.881	16.881	0.000	97	411586	8.00	8.00	
$ 7 2-Fluorophenol	112	4.946	4.946	0.000	90	134993	10.0	9.14	
$ 8 Phenol-d5	99	5.924	5.924	0.000	85	167412	10.0	9.32	
$ 9 Nitrobenzene-d5	82	6.800	6.800	0.000	91	202437	10.0	9.41	
$ 10 2-Fluorobiphenyl	172	8.456	8.456	0.000	98	401725	10.0	9.30	
$ 11 2,4,6-Tribromophenol	330	9.818	9.818	0.000	81	54904	10.0	9.57	
$ 12 Terphenyl-d14	244	12.217	12.217	0.000	98	623915	10.0	9.60	
13 1,4-Dioxane	88	1.848	1.848	0.000	89	74038	10.0	11.5	
14 N-Nitrosodimethylamine	74	2.537	2.537	0.000	85	101751	10.0	10.6	
15 Pyridine	79	2.596	2.596	0.000	93	167348	10.0	9.62	M
22 Methyl methanesulfonate	80	4.711	4.711	0.000	92	141189	10.0	11.2	
26 Benzaldehyde	77	5.844	5.844	0.000	83	133910	10.0	10.0	
27 Phenol	94	5.940	5.940	0.000	97	177637	10.0	8.94	
28 Aniline	93	5.951	5.951	0.000	97	202354	10.0	8.94	
29 Bis(2-chloroethyl)ether	93	6.015	6.015	0.000	95	126210	10.0	9.65	
31 2-Chlorophenol	128	6.074	6.074	0.000	89	136720	10.0	9.18	
32 n-Decane	43	6.132	6.132	0.000	78	96429	10.0	8.62	
33 1,3-Dichlorobenzene	146	6.223	6.223	0.000	85	165321	10.0	9.50	
34 1,4-Dichlorobenzene	146	6.298	6.298	0.000	83	163823	10.0	9.17	
36 Benzyl alcohol	108	6.405	6.405	0.000	80	67877	10.0	7.84	M
37 1,2-Dichlorobenzene	146	6.442	6.442	0.000	85	157081	10.0	9.48	
38 2-Methylphenol	108	6.517	6.517	0.000	89	127224	10.0	9.29	
39 Indene	116	6.528	6.528	0.000	88	233290	10.0	9.52	
40 2,2'-oxybis[1-chloropropan	45	6.538	6.538	0.000	63	97271	10.0	8.78	
41 N-Nitrosopyrrolidine	100	6.624	6.624	0.000	72	57706	10.0	10.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 N-Nitrosodi-n-propylamine	70	6.651	6.651	0.000	63	122082	10.0	9.14	
43 Acetophenone	105	6.656	6.656	0.000	74	220582	10.0	9.30	
45 4-Methylphenol	108	6.656	6.656	0.000	50	125099	10.0	8.12	
47 Hexachloroethane	117	6.768	6.768	0.000	81	79348	10.0	9.35	
48 Nitrobenzene	77	6.816	6.816	0.000	88	204918	10.0	9.75	
50 Isophorone	82	7.035	7.035	0.000	96	289003	10.0	9.03	
51 2-Nitrophenol	139	7.121	7.121	0.000	74	72403	10.0	9.51	
52 2,4-Dimethylphenol	107	7.147	7.147	0.000	93	160974	10.0	8.94	
56 Benzoic acid	122	7.201	7.201	0.000	84	79834	10.0	11.8	
55 Bis(2-chloroethoxy)methane	93	7.227	7.227	0.000	95	138925	10.0	8.61	
57 2,4-Dichlorophenol	162	7.345	7.345	0.000	93	132488	10.0	9.04	
61 Azobenzene	77		7.420				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.425	7.425	0.000	90	176576	10.0	9.40	
60 Naphthalene	128	7.500	7.500	0.000	97	402352	10.0	9.29	
62 4-Chloroaniline	127	7.537	7.537	0.000	90	157519	10.0	8.85	
63 2,6-Dichlorophenol	162	7.553	7.553	0.000	89	127906	10.0	8.93	
64 Hexachlorobutadiene	225	7.612	7.612	0.000	93	155452	10.0	9.80	
67 Caprolactam	113	7.826	7.826	0.000	74	31799	10.0	8.96	
70 4-Chloro-3-methylphenol	107	7.965	7.965	0.000	88	135761	10.0	9.19	
72 2-Methylnaphthalene	142	8.136	8.136	0.000	87	291653	10.0	9.31	
75 1-Methylnaphthalene	142	8.226	8.226	0.000	87	277173	10.0	9.60	
76 Hexachlorocyclopentadiene	237	8.285	8.285	0.000	96	182137	10.0	10.2	
77 1,2,4,5-Tetrachlorobenzene	216	8.291	8.291	0.000	97	237555	10.0	9.75	
78 2,4,6-Trichlorophenol	196	8.387	8.387	0.000	93	129751	10.0	9.24	
79 2,4,5-Trichlorophenol	196	8.419	8.419	0.000	92	136331	10.0	9.40	
80 1,1'-Biphenyl	154	8.552	8.552	0.000	96	395285	10.0	9.74	
81 2-Chloronaphthalene	162	8.584	8.584	0.000	97	330180	10.0	9.13	
82 2-Nitroaniline	65	8.659	8.659	0.000	70	116281	10.0	10.9	
86 Dimethyl phthalate	163	8.809	8.809	0.000	94	371551	10.0	9.87	
87 1,3-Dinitrobenzene	168	8.841	8.841	0.000	82	60057	10.0	10.3	
88 2,6-Dinitrotoluene	165	8.868	8.868	0.000	81	80267	10.0	9.81	
89 Acenaphthylene	152	8.969	8.969	0.000	97	478055	10.0	9.55	
90 3-Nitroaniline	138	9.028	9.028	0.000	85	72798	10.0	10.9	
92 2,4-Dinitrophenol	184	9.124	9.124	0.000	74	119213	20.0	18.0	
91 Acenaphthene	153	9.124	9.124	0.000	84	317808	10.0	9.31	
93 4-Nitrophenol	109	9.161	9.161	0.000	80	175133	20.0	20.8	
94 2,4-Dinitrotoluene	165	9.241	9.241	0.000	82	115163	10.0	10.3	
95 Dibenzofuran	168	9.279	9.279	0.000	94	503819	10.0	9.62	
97 2,3,5,6-Tetrachlorophenol	232	9.348	9.348	0.000	90	143431	10.0	9.38	
99 2,3,4,6-Tetrachlorophenol	232	9.386	9.386	0.000	73	140378	10.0	9.78	
100 2-Naphthylamine	143	9.418	9.418	0.000	91	271913	10.0	9.63	
101 Diethyl phthalate	149	9.444	9.444	0.000	95	401266	10.0	9.63	
102 Hexadecane	57	9.450	9.450	0.000	83	134441	10.0	9.16	
104 4-Chlorophenyl phenyl ethe	204	9.573	9.573	0.000	94	248863	10.0	9.54	
105 4-Nitroaniline	138	9.589	9.589	0.000	73	76800	10.0	10.4	
106 Fluorene	166	9.594	9.594	0.000	94	361620	10.0	9.52	
108 4,6-Dinitro-2-methylphenol	198	9.621	9.621	0.000	86	164901	20.0	19.0	
109 N-Nitrosodiphenylamine	169	9.680	9.680	0.000	68	288230	10.0	9.47	
111 1,2-Diphenylhydrazine	77	9.722	9.722	0.000	98	467078	10.0	9.94	
116 4-Bromophenyl phenyl ether	248	10.027	10.027	0.000	69	153522	10.0	9.74	
118 Hexachlorobenzene	284	10.112	10.112	0.000	91	147875	10.0	9.56	
119 Atrazine	200	10.139	10.139	0.000	91	146985	10.0	10.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.278	10.278	0.000	85	217683	20.0	18.5	
121 n-Octadecane	57	10.278	10.278	0.000	86	151604	10.0	9.68	
126 Phenanthrene	178	10.486	10.486	0.000	97	633757	10.0	9.56	
128 Anthracene	178	10.534	10.534	0.000	95	651549	10.0	9.76	
130 Carbazole	167	10.673	10.673	0.000	97	527155	10.0	9.81	
132 Di-n-butyl phthalate	149	10.962	10.962	0.000	99	631421	10.0	9.70	
137 Fluoranthene	202	11.768	11.768	0.000	95	841202	10.0	10.3	
138 Benzidine	184	11.891	11.891	0.000	98	269062	10.0	8.76	
139 Pyrene	202	12.067	12.067	0.000	98	834806	10.0	9.04	
144 Butyl benzyl phthalate	149	12.906	12.906	0.000	93	271149	10.0	8.88	
149 3,3'-Dichlorobenzidine	252	13.862	13.862	0.000	74	267329	10.0	9.61	
151 Bis(2-ethylhexyl) phthalat	149	13.894	13.894	0.000	95	351527	10.0	8.66	
152 Benzo[a]anthracene	228	13.943	13.943	0.000	95	783156	10.0	9.52	
153 Chrysene	228	14.012	14.012	0.000	94	745116	10.0	9.84	
156 Di-n-octyl phthalate	149	15.193	15.193	0.000	99	626550	10.0	9.13	
157 7,12-Dimethylbenz(a)anthra	256	16.063	16.063	0.000	90	269533	10.0	9.47	
158 Benzo[b]fluoranthene	252	16.085	16.085	0.000	95	694103	10.0	9.32	
159 Benzo[k]fluoranthene	252	16.133	16.133	0.000	95	747041	10.0	10.4	
176 Benzo[e]pyrene	252	16.656	16.656	0.000	0	645646	10.0	9.70	
160 Benzo[a]pyrene	252	16.769	16.769	0.000	74	583605	10.0	8.99	
163 Indeno[1,2,3-cd]pyrene	276	19.092	19.092	0.000	96	580034	10.0	9.79	
164 Dibenz(a,h)anthracene	278	19.130	19.130	0.000	86	505793	10.0	10.0	
165 Benzo[g,h,i]perylene	276	19.696	19.696	0.000	95	504049	10.0	10.3	
S 208 Methyl Phenols,Total	108				0		20.0	17.4	
S 206 Total Cresols	108				0		20.0	17.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPSTD10i_00081 Amount Added: 1.00 Units: mL

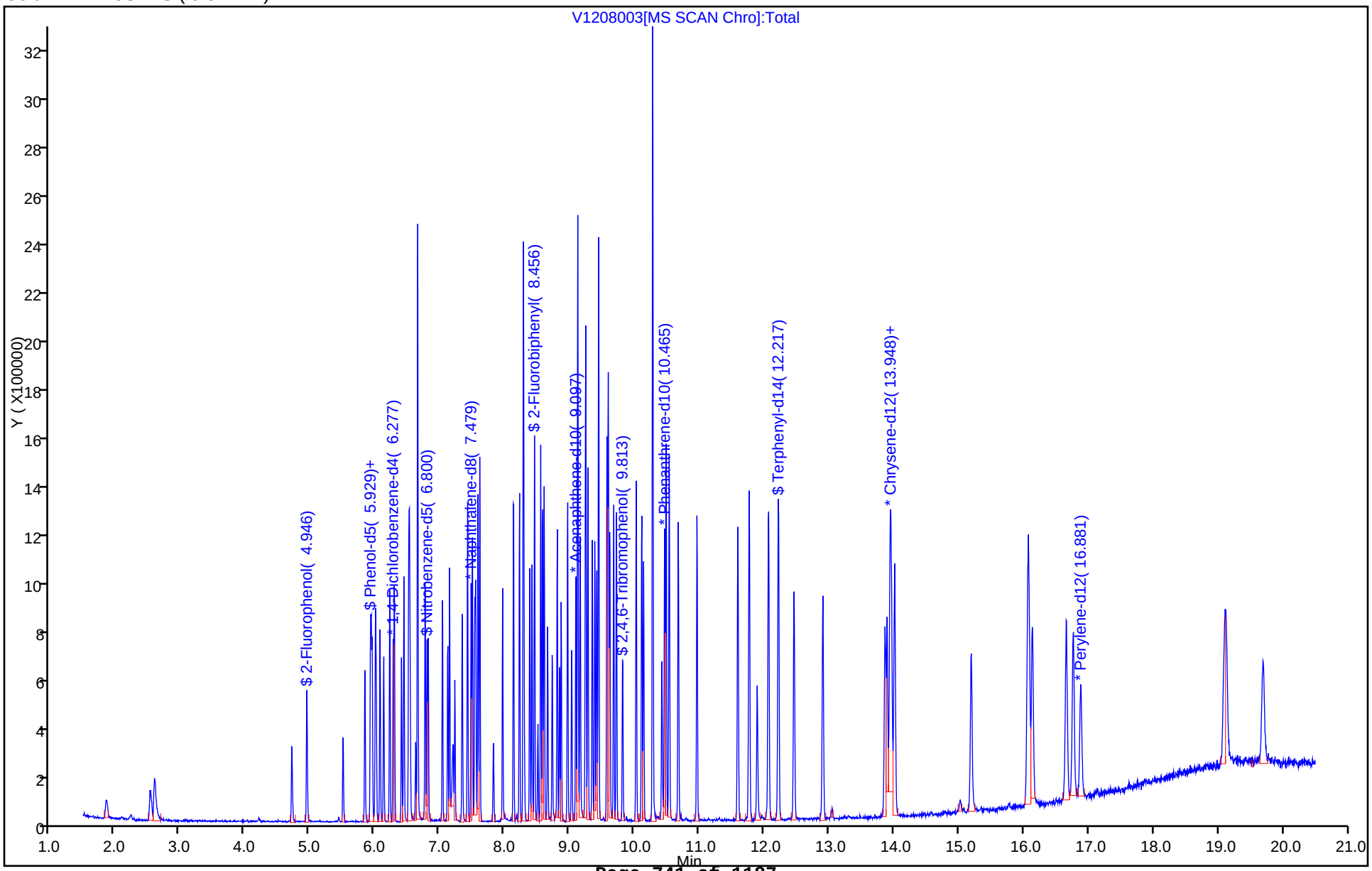
Report Date: 09-Dec-2014 05:58:25 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208003.D

Injection Date:	08-Dec-2014 10:03:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



Manual Integration/User Assign Peak Report

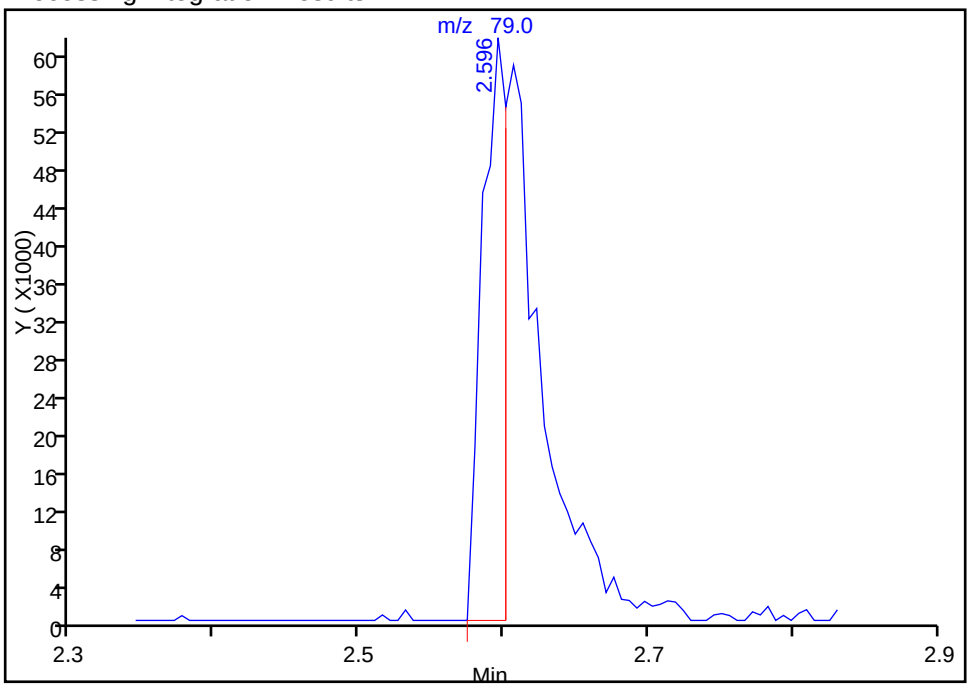
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141208-4758.b\V1208003.D				
Injection Date:	08-Dec-2014 10:03:30	Instrument ID:	CH731		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

15 Pyridine, CAS: 110-86-1

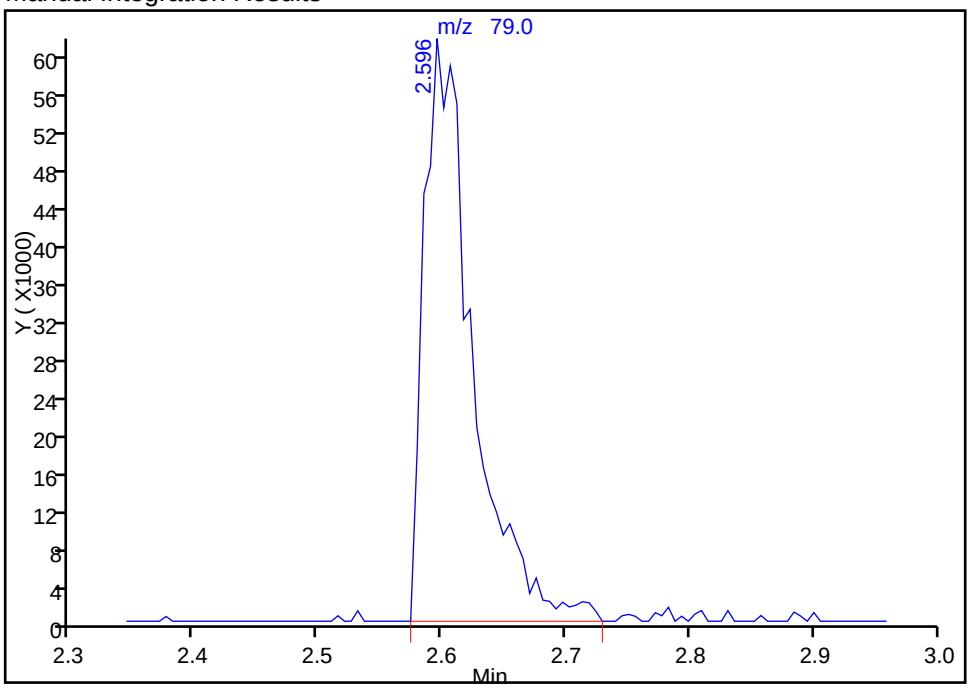
Processing Integration Results

RT: 2.60
Response: 72449
Amount: 4.164967



Manual Integration Results

RT: 2.60
Response: 167348
Amount: 9.620546



Reviewer: piccolinov, 08-Dec-2014 10:44:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

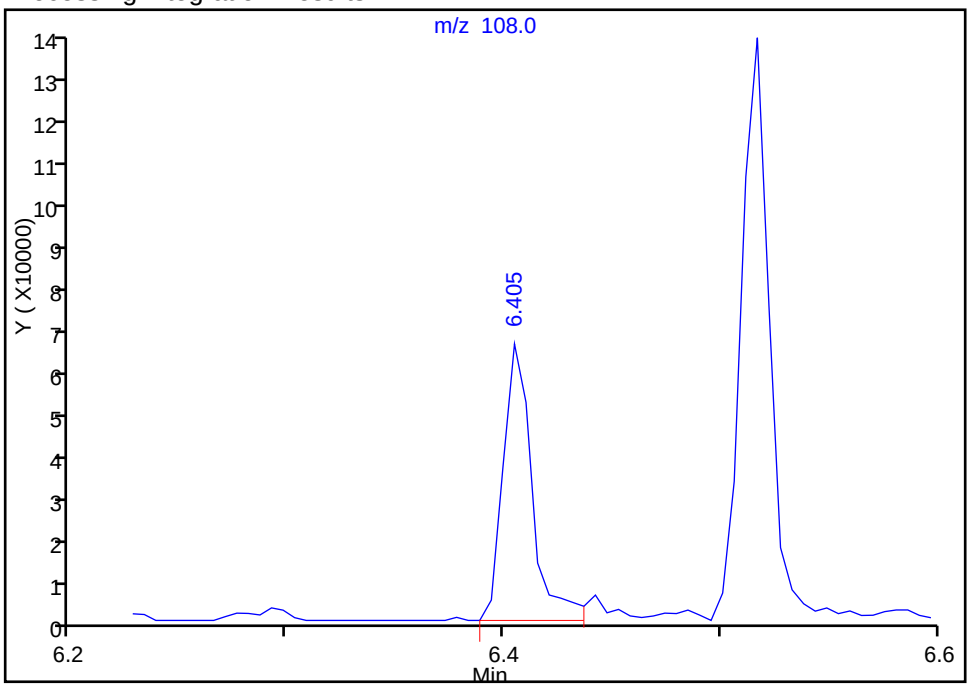
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141208-4758.b\V1208003.D				
Injection Date:	08-Dec-2014 10:03:30	Instrument ID:	CH731		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

36 Benzyl alcohol, CAS: 100-51-6

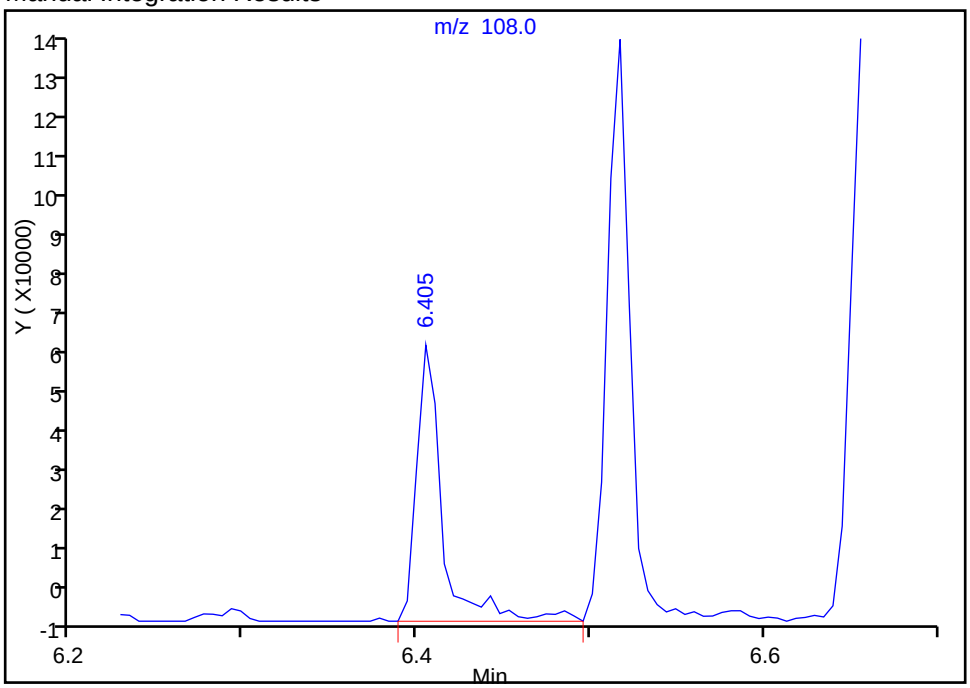
Processing Integration Results

RT: 6.40
Response: 61307
Amount: 7.084956



Manual Integration Results

RT: 6.40
Response: 67877
Amount: 7.844219



Reviewer: piccolinov, 08-Dec-2014 10:44:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127670/3 Calibration Date: 12/09/2014 10:39

Instrument ID: CH731 Calib Start Date: 11/18/2014 04:22

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 11/18/2014 07:43

Lab File ID: V1209003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5645	0.5516	0.0100	4.89	5.00	-2.3	20.0
N-Nitrosodimethylamine	Ave	0.8422	0.8309	0.0100	4.93	5.00	-1.3	20.0
Pyridine	Ave	1.524	1.376	0.0100	4.51	5.00	-9.7	20.0
Methyl methanesulfonate	Ave	1.103	1.109	0.0100	5.03	5.00	0.5	20.0
Benzaldehyde	Ave	1.173	1.128	0.0100	4.81	5.00	-3.9	20.0
Phenol	Ave	1.741	1.410	0.8000	4.05	5.00	-19.0	20.0
Aniline	Ave	1.983	1.799	0.0100	4.54	5.00	-9.3	20.0
Bis(2-chloroethyl)ether	Ave	1.146	1.041	0.7000	4.54	5.00	-9.2	20.0
2-Chlorophenol	Ave	1.305	1.276	0.8000	4.89	5.00	-2.3	20.0
n-Decane	Ave	0.9799	0.8490		4.33	5.00	-13.4	20.0
1,3-Dichlorobenzene	Ave	1.525	1.474	0.0100	4.83	5.00	-3.3	20.0
1,4-Dichlorobenzene	Ave	1.566	1.523	0.0100	4.86	5.00	-2.7	20.0
Benzyl alcohol	Ave	0.7583	0.5802	0.0100	3.83	5.00	-23.5*	20.0
1,2-Dichlorobenzene	Ave	1.453	1.383	0.0100	4.76	5.00	-4.8	20.0
2-Methylphenol	Ave	1.200	1.024	0.7000	4.27	5.00	-14.6	20.0
Indene	Ave	2.147	1.955	0.0100	4.55	5.00	-8.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	0.9712	0.8687	0.0100	4.47	5.00	-10.6	20.0
N-Nitrosopyrrolidine	Ave	0.4882	0.4842	0.0100	4.96	5.00	-0.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.170	1.018	0.5000	4.35	5.00	-13.0	20.0
Acetophenone	Ave	2.077	1.835	0.0100	4.42	5.00	-11.7	20.0
Methylphenol, 3 & 4	Ave	1.350	1.137	0.6000	4.21	5.00	-15.8	20.0
Hexachloroethane	Ave	0.7434	0.7326	0.3000	4.93	5.00	-1.5	20.0
Nitrobenzene	Ave	0.5523	0.5330	0.2000	4.83	5.00	-3.5	20.0
Isophorone	Ave	0.8409	0.7577	0.4000	4.51	5.00	-9.9	20.0
2-Nitrophenol	Ave	0.1999	0.1999	0.1000	5.00	5.00	-0.0	20.0
2,4-Dimethylphenol	Ave	0.4727	0.4167	0.2000	4.41	5.00	-11.8	20.0
Benzoic acid	Ave	0.1781	0.1919	0.0100	5.39	5.00	7.8	20.0
Bis(2-chloroethoxy)methane	Ave	0.4237	0.3832	0.3000	4.52	5.00	-9.6	20.0
2,4-Dichlorophenol	Ave	0.3851	0.3578	0.2000	4.65	5.00	-7.1	20.0
1,2,4-Trichlorobenzene	Ave	0.4932	0.4782	0.0100	4.85	5.00	-3.0	20.0
Naphthalene	Ave	1.138	1.060	0.7000	4.66	5.00	-6.9	20.0
4-Chloroaniline	Ave	0.4677	0.4079	0.0100	4.36	5.00	-12.8	20.0
2,6-Dichlorophenol	Ave	0.3761	0.3389	0.0100	4.51	5.00	-9.9	20.0
Hexachlorobutadiene	Ave	0.4164	0.4287	0.0100	5.15	5.00	2.9	20.0
Caprolactam	Ave	0.0932	0.0850	0.0100	4.56	5.00	-8.8	20.0
4-Chloro-3-methylphenol	Ave	0.3882	0.3312	0.2000	4.27	5.00	-14.7	20.0
2-Methylnaphthalene	Ave	0.8231	0.7635	0.4000	4.64	5.00	-7.2	20.0
1-Methylnaphthalene	Ave	0.7581	0.6980	0.0100	4.60	5.00	-7.9	20.0
Hexachlorocyclopentadiene	Ave	0.6388	0.6911	0.0500	5.41	5.00	8.2	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.8716	0.9187	0.0100	5.27	5.00	5.4	20.0
2,4,6-Trichlorophenol	Ave	0.5023	0.4938	0.2000	4.92	5.00	-1.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127670/3 Calibration Date: 12/09/2014 10:39

Instrument ID: CH731 Calib Start Date: 11/18/2014 04:22

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 11/18/2014 07:43

Lab File ID: V1209003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.5187	0.5211	0.2000	5.02	5.00	0.5	20.0
1,1'-Biphenyl	Ave	1.452	1.457	0.0100	5.02	5.00	0.3	20.0
2-Chloronaphthalene	Ave	1.293	1.242	0.8000	4.80	5.00	-4.0	20.0
2-Nitroaniline	Ave	0.3815	0.3781	0.0100	4.95	5.00	-0.9	20.0
Dimethyl phthalate	Ave	1.346	1.357	0.0100	5.04	5.00	0.8	20.0
1,3-Dinitrobenzene	Ave	0.2082	0.2292	0.0100	5.50	5.00	10.1	20.0
2,6-Dinitrotoluene	Ave	0.2926	0.3025	0.2000	5.17	5.00	3.4	20.0
Acenaphthylene	Ave	1.790	1.696	0.9000	4.74	5.00	-5.3	20.0
3-Nitroaniline	Ave	0.2389	0.2462	0.0100	5.15	5.00	3.1	20.0
2,4-Dinitrophenol	Lin1		0.1964	0.0100	8.41	10.0	-15.9	20.0
Acenaphthene	Ave	1.221	1.112	0.9000	4.55	5.00	-8.9	20.0
4-Nitrophenol	Ave	0.3009	0.3319	0.0100	11.0	10.0	10.3	20.0
2,4-Dinitrotoluene	Ave	0.4000	0.4141	0.2000	5.18	5.00	3.5	20.0
Dibenzofuran	Ave	1.872	1.779	0.8000	4.75	5.00	-5.0	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.5467	0.4781	0.0100	4.37	5.00	-12.6	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.5132	0.5027	0.0100	4.90	5.00	-2.0	20.0
2-Naphthylamine	Ave	1.009	1.005	0.0100	4.98	5.00	-0.4	20.0
Diethyl phthalate	Ave	1.490	1.442	0.0100	4.84	5.00	-3.2	20.0
Hexadecane	Ave	0.3855	0.3470		4.50	5.00	-10.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.9327	0.9508	0.4000	5.10	5.00	1.9	20.0
4-Nitroaniline	Ave	0.2649	0.2593	0.0100	4.90	5.00	-2.1	20.0
Fluorene	Ave	1.359	1.347	0.9000	4.95	5.00	-0.9	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1455	0.1316	0.0100	9.04	10.0	-9.6	20.0
N-Nitrosodiphenylamine	Ave	0.5094	0.4721	0.0100	4.63	5.00	-7.3	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.7870	0.8001	0.0100	5.08	5.00	1.7	20.0
4-Bromophenyl phenyl ether	Ave	0.2639	0.2771	0.1000	5.25	5.00	5.0	20.0
Hexachlorobenzene	Ave	0.2590	0.2519	0.1000	4.86	5.00	-2.8	20.0
Atrazine	Ave	0.2385	0.2307	0.0100	4.84	5.00	-3.3	20.0
n-Octadecane	Ave	1.372	1.179		4.30	5.00	-14.1	20.0
Pentachlorophenol	Lin1		0.1647	0.0500	8.38	10.0	-16.2	20.0
Phenanthrene	Ave	1.110	1.015	0.7000	4.57	5.00	-8.5	20.0
Anthracene	Ave	1.118	1.069	0.7000	4.78	5.00	-4.3	20.0
Carbazole	Ave	0.8999	0.8815	0.0100	4.90	5.00	-2.1	20.0
Di-n-butyl phthalate	Ave	1.090	1.041	0.0100	4.78	5.00	-4.5	20.0
Fluoranthene	Ave	1.372	1.353	0.6000	4.93	5.00	-1.4	20.0
Benzidine	Ave	0.4502	0.3782	0.0100		5.00	-16.0	20.0
Pyrene	Ave	1.354	1.225	0.6000	4.52	5.00	-9.5	20.0
Butyl benzyl phthalate	Ave	0.4476	0.4049	0.0100	4.52	5.00	-9.5	20.0
3,3'-Dichlorobenzidine	Ave	0.4077	0.4094	0.0100	5.02	5.00	0.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.5951	0.5471	0.0100	4.60	5.00	-8.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVIS 180-127670/3 Calibration Date: 12/09/2014 10:39

Instrument ID: CH731 Calib Start Date: 11/18/2014 04:22

GC Column: Rxi-5SilMS ID: 0.32(mm) Calib End Date: 11/18/2014 07:43

Lab File ID: V1209003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.206	1.190	0.8000	4.93	5.00	-1.3	20.0
Chrysene	Ave	1.109	1.120	0.7000	5.05	5.00	1.0	20.0
Di-n-octyl phthalate	Ave	1.334	1.261	0.0100	4.73	5.00	-5.4	20.0
7,12-Dimethylbenz(a)anthrace ne	Ave	0.5534	0.5248	0.0100	4.74	5.00	-5.2	20.0
Benzo[b]fluoranthene	Ave	1.448	1.444	0.7000	4.99	5.00	-0.3	20.0
Benzo[k]fluoranthene	Ave	1.390	1.306	0.7000	4.70	5.00	-6.0	20.0
Benzo[e]pyrene	Ave	1.294	1.297	0.0100	5.01	5.00	0.3	20.0
Benzo[a]pyrene	Ave	1.262	1.269	0.7000	5.03	5.00	0.6	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.151	1.200	0.5000	5.21	5.00	4.3	20.0
Dibenz(a,h)anthracene	Ave	0.9832	1.025	0.4000	5.21	5.00	4.3	20.0
Benzo[g,h,i]perylene	Ave	0.9553	1.004	0.5000	5.26	5.00	5.1	20.0
2-Fluorophenol (Surr)	Ave	1.294	1.127		4.35	5.00	-12.9	20.0
Phenol-d5 (Surr)	Ave	1.575	1.376		4.37	5.00	-12.6	20.0
Nitrobenzene-d5 (Surr)	Ave	0.5653	0.5072		4.49	5.00	-10.3	20.0
2-Fluorobiphenyl	Ave	1.544	1.497		4.85	5.00	-3.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0961	0.0943	0.0100	4.91	5.00	-1.8	20.0
Terphenyl-d14 (Surr)	Ave	0.9522	0.8957		4.70	5.00	-5.9	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209003.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Dec-2014 10:39:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004779-003
Misc. Info.: CCVIS
Operator ID: 003200 Instrument ID: CH731
Sublist: chrom-BNA_CH731*sub4

Method: \\PITCHROM\ChromData\CH731\20141209-4779.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 10-Dec-2014 07:12:36 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: piccolinov Date: 09-Dec-2014 11:49:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.313	6.313	0.000	89	78882	8.00	8.00	
* 2 Naphthalene-d8	136	7.520	7.520	0.000	97	256165	8.00	8.00	
* 3 Acenaphthene-d10	164	9.133	9.133	0.000	92	174969	8.00	8.00	
* 4 Phenanthrene-d10	188	10.506	10.506	0.000	96	379438	8.00	8.00	
* 5 Chrysene-d12	240	14.021	14.021	0.000	95	426226	8.00	8.00	
* 6 Perylene-d12	264	16.943	16.943	0.000	97	332126	8.00	8.00	
$ 7 2-Fluorophenol	112	4.977	4.977	0.000	88	111089	10.0	8.71	
$ 8 Phenol-d5	99	5.960	5.960	0.000	83	135663	10.0	8.74	
$ 9 Nitrobenzene-d5	82	6.836	6.836	0.000	93	162412	10.0	8.97	
$ 10 2-Fluorobiphenyl	172	8.498	8.498	0.000	99	327489	10.0	9.70	
$ 11 2,4,6-Tribromophenol	330	9.854	9.854	0.000	83	44719	10.0	9.82	
$ 12 Terphenyl-d14	244	12.269	12.269	0.000	98	477186	10.0	9.41	
13 1,4-Dioxane	88	1.879	1.879	0.000	83	54389	10.0	9.77	
14 N-Nitrosodimethylamine	74	2.562	2.562	0.000	81	81929	10.0	9.87	
15 Pyridine	79	2.632	2.632	0.000	92	135701	10.0	9.03	
22 Methyl methanesulfonate	80	4.742	4.742	0.000	92	109350	10.0	10.1	
26 Benzaldehyde	77	5.875	5.875	0.000	85	111211	10.0	9.61	
27 Phenol	94	5.971	5.971	0.000	91	139040	10.0	8.10	
28 Aniline	93	5.987	5.987	0.000	95	177352	10.0	9.07	
29 Bis(2-chloroethyl)ether	93	6.051	6.051	0.000	95	102662	10.0	9.08	
31 2-Chlorophenol	128	6.104	6.104	0.000	89	125785	10.0	9.77	
32 n-Decane	43	6.163	6.163	0.000	78	83715	10.0	8.66	
33 1,3-Dichlorobenzene	146	6.259	6.259	0.000	86	145351	10.0	9.67	
34 1,4-Dichlorobenzene	146	6.329	6.329	0.000	84	150132	10.0	9.73	
36 Benzyl alcohol	108	6.441	6.441	0.000	82	57211	10.0	7.65	M
37 1,2-Dichlorobenzene	146	6.478	6.478	0.000	85	136329	10.0	9.52	
38 2-Methylphenol	108	6.553	6.553	0.000	88	101008	10.0	8.54	
39 Indene	116	6.564	6.564	0.000	86	192798	10.0	9.11	
40 2,2'-oxybis[1-chloropropan	45	6.569	6.569	0.000	62	85659	10.0	8.94	
41 N-Nitrosopyrrolidine	100	6.660	6.660	0.000	73	47746	10.0	9.92	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 N-Nitrosodi-n-propylamine	70	6.687	6.687	0.000	90	100372	10.0	8.70	
43 Acetophenone	105	6.692	6.692	0.000	75	180959	10.0	8.83	
45 4-Methylphenol	108	6.692	6.692	0.000	55	112084	10.0	8.42	
47 Hexachloroethane	117	6.804	6.804	0.000	82	72237	10.0	9.85	
48 Nitrobenzene	77	6.852	6.852	0.000	89	170669	10.0	9.65	
50 Isophorone	82	7.077	7.077	0.000	96	242605	10.0	9.01	
51 2-Nitrophenol	139	7.157	7.157	0.000	75	63998	10.0	10.0	
52 2,4-Dimethylphenol	107	7.189	7.189	0.000	92	133444	10.0	8.82	
56 Benzoic acid	122	7.232	7.232	0.000	85	61452	10.0	10.8	
55 Bis(2-chloroethoxy)methane	93	7.269	7.269	0.000	95	122707	10.0	9.04	
57 2,4-Dichlorophenol	162	7.381	7.381	0.000	91	114560	10.0	9.29	
61 Azobenzene	77		7.420				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.461	7.461	0.000	89	153128	10.0	9.70	
60 Naphthalene	128	7.541	7.541	0.000	97	339400	10.0	9.31	
62 4-Chloroaniline	127	7.573	7.573	0.000	89	130625	10.0	8.72	
63 2,6-Dichlorophenol	162	7.589	7.589	0.000	91	108505	10.0	9.01	
64 Hexachlorobutadiene	225	7.654	7.654	0.000	93	137271	10.0	10.3	
67 Caprolactam	113	7.862	7.862	0.000	83	27218	10.0	9.12	
70 4-Chloro-3-methylphenol	107	8.006	8.006	0.000	88	106057	10.0	8.53	
72 2-Methylnaphthalene	142	8.172	8.172	0.000	86	244481	10.0	9.28	
75 1-Methylnaphthalene	142	8.268	8.268	0.000	88	223496	10.0	9.21	
76 Hexachlorocyclopentadiene	237	8.321	8.321	0.000	95	151157	10.0	10.8	
77 1,2,4,5-Tetrachlorobenzene	216	8.327	8.327	0.000	95	200939	10.0	10.5	
78 2,4,6-Trichlorophenol	196	8.423	8.423	0.000	94	107996	10.0	9.83	
79 2,4,5-Trichlorophenol	196	8.460	8.460	0.000	91	113969	10.0	10.0	
80 1,1'-Biphenyl	154	8.594	8.594	0.000	95	318574	10.0	10.0	
81 2-Chloronaphthalene	162	8.620	8.620	0.000	98	271574	10.0	9.60	
82 2-Nitroaniline	65	8.701	8.701	0.000	70	82690	10.0	9.91	
86 Dimethyl phthalate	163	8.845	8.845	0.000	94	296694	10.0	10.1	
87 1,3-Dinitrobenzene	168	8.882	8.882	0.000	82	50118	10.0	11.0	
88 2,6-Dinitrotoluene	165	8.909	8.909	0.000	82	66154	10.0	10.3	
89 Acenaphthylene	152	9.005	9.005	0.000	96	370925	10.0	9.47	
90 3-Nitroaniline	138	9.069	9.069	0.000	84	53853	10.0	10.3	
92 2,4-Dinitrophenol	184	9.165	9.165	0.000	72	85896	20.0	16.8	
91 Acenaphthene	153	9.165	9.165	0.000	83	243211	10.0	9.11	
93 4-Nitrophenol	109	9.203	9.203	0.000	79	145184	20.0	22.1	
94 2,4-Dinitrotoluene	165	9.283	9.283	0.000	83	90574	10.0	10.4	
95 Dibenzofuran	168	9.320	9.320	0.000	93	389125	10.0	9.50	
97 2,3,5,6-Tetrachlorophenol	232	9.390	9.390	0.000	90	104556	10.0	8.74	
99 2,3,4,6-Tetrachlorophenol	232	9.427	9.427	0.000	71	109951	10.0	9.80	
100 2-Naphthylamine	143	9.459	9.459	0.000	93	219829	10.0	9.96	
101 Diethyl phthalate	149	9.481	9.481	0.000	96	315376	10.0	9.68	
102 Hexadecane	57	9.486	9.486	0.000	84	111111	10.0	9.00	
104 4-Chlorophenyl phenyl ethe	204	9.614	9.614	0.000	93	207950	10.0	10.2	
105 4-Nitroaniline	138	9.630	9.630	0.000	73	56717	10.0	9.79	
106 Fluorene	166	9.635	9.635	0.000	94	294504	10.0	9.91	
108 4,6-Dinitro-2-methylphenol	198	9.657	9.657	0.000	86	124786	20.0	18.1	
109 N-Nitrosodiphenylamine	169	9.721	9.721	0.000	64	223932	10.0	9.27	
111 1,2-Diphenylhydrazine	77	9.758	9.758	0.000	97	379484	10.0	10.2	
116 4-Bromophenyl phenyl ether	248	10.068	10.068	0.000	68	131439	10.0	10.5	
118 Hexachlorobenzene	284	10.154	10.154	0.000	91	119463	10.0	9.72	
119 Atrazine	200	10.180	10.180	0.000	91	109415	10.0	9.67	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
121 n-Octadecane	57	10.319	10.319	0.000	79	116294	10.0	8.59	
122 Pentachlorophenol	266	10.325	10.325	0.000	84	156223	20.0	16.8	
126 Phenanthrene	178	10.528	10.528	0.000	97	481423	10.0	9.15	
128 Anthracene	178	10.576	10.576	0.000	97	507207	10.0	9.57	
130 Carbazole	167	10.715	10.715	0.000	97	418080	10.0	9.79	
132 Di-n-butyl phthalate	149	11.008	11.008	0.000	99	493877	10.0	9.55	
137 Fluoranthene	202	11.815	11.815	0.000	95	641726	10.0	9.86	
138 Benzidine	184	11.938	11.938	0.000	98	201473	10.0	8.40	
139 Pyrene	202	12.114	12.114	0.000	98	652646	10.0	9.05	
144 Butyl benzyl phthalate	149	12.958	12.958	0.000	94	215696	10.0	9.05	
149 3,3'-Dichlorobenzidine	252	13.920	13.920	0.000	73	218127	10.0	10.0	
151 Bis(2-ethylhexyl) phthalat	149	13.952	13.952	0.000	94	291494	10.0	9.19	
152 Benzo[a]anthracene	228	14.000	14.000	0.000	94	633865	10.0	9.87	
153 Chrysene	228	14.064	14.064	0.000	94	596755	10.0	10.1	
156 Di-n-octyl phthalate	149	15.250	15.250	0.000	99	523468	10.0	9.46	
157 7,12-Dimethylbenz(a)anthra	256	16.126	16.126	0.000	87	217876	10.0	9.48	
158 Benzo[b]fluoranthene	252	16.148	16.148	0.000	95	599419	10.0	9.97	
159 Benzo[k]fluoranthene	252	16.196	16.196	0.000	96	542087	10.0	9.40	
176 Benzo[e]pyrene	252	16.724	16.724	0.000	0	538574	10.0	10.0	
160 Benzo[a]pyrene	252	16.831	16.831	0.000	73	526966	10.0	10.1	
163 Indeno[1,2,3-cd]pyrene	276	19.166	19.166	0.000	96	498295	10.0	10.4	
164 Dibenz(a,h)anthracene	278	19.193	19.193	0.000	86	425637	10.0	10.4	
165 Benzo[g,h,i]perylene	276	19.759	19.759	0.000	94	416964	10.0	10.5	
S 208 Methyl Phenols,Total	108				0		20.0	17.0	
S 206 Total Cresols	108				0		20.0	17.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPSTD10i_00081 Amount Added: 1.00 Units: mL

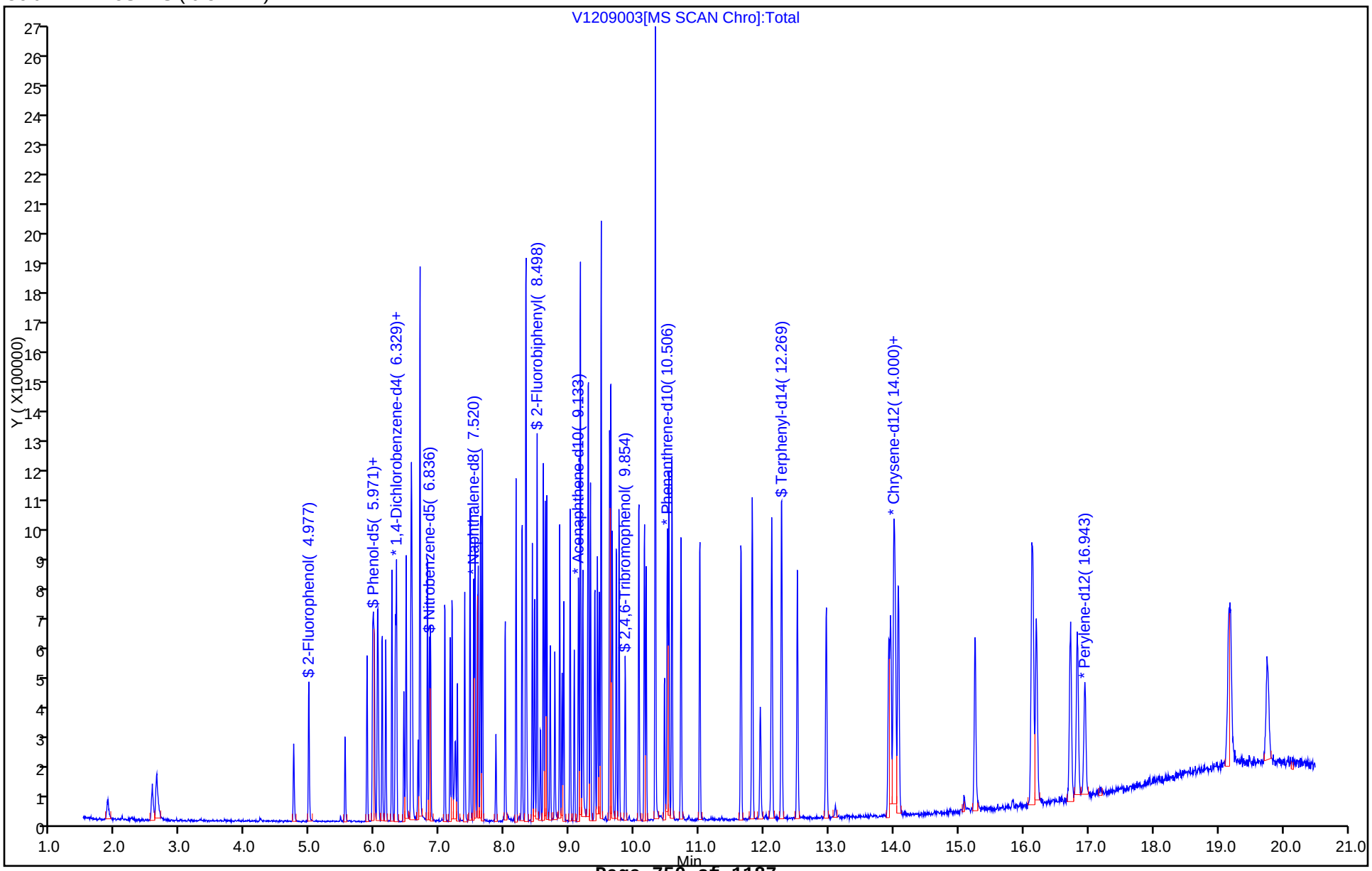
Report Date: 10-Dec-2014 07:12:37 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209003.D

Injection Date:	09-Dec-2014 10:39:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



Manual Integration/User Assign Peak Report

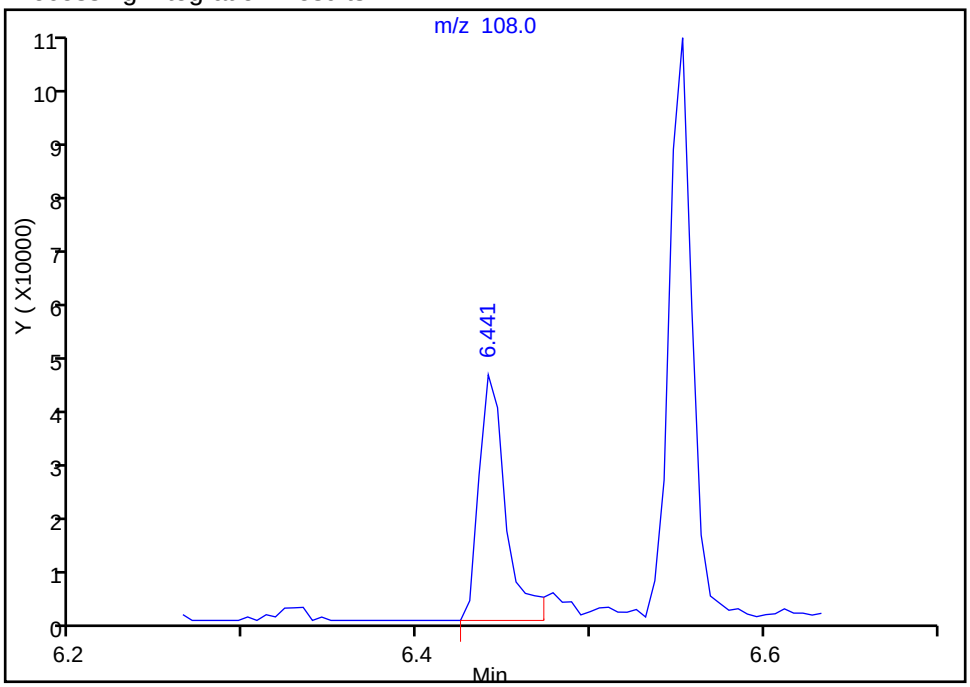
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141209-4779.b\V1209003.D				
Injection Date:	09-Dec-2014 10:39:30	Instrument ID:	CH731		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	003200	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		
Column:	Rxi-5SilMS (0.32 mm)	Detector	MS SCAN		

36 Benzyl alcohol, CAS: 100-51-6

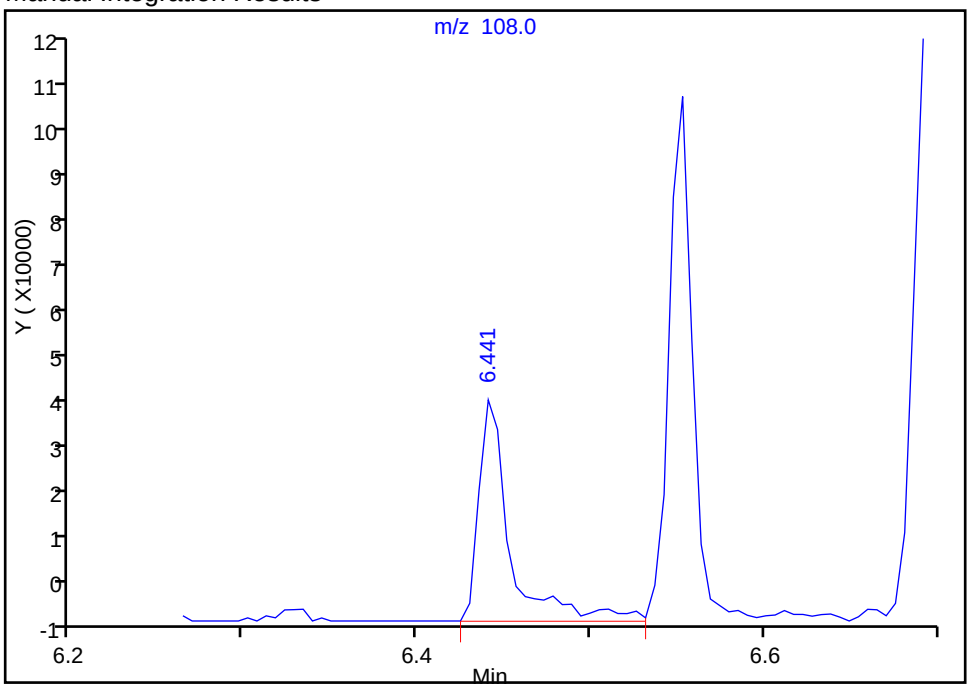
Processing Integration Results

RT: 6.44
Response: 48876
Amount: 6.536986



Manual Integration Results

RT: 6.44
Response: 57211
Amount: 7.651762



Reviewer: piccolinov, 09-Dec-2014 11:49:22
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 18-Nov-2014 04:03:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004448-002
Misc. Info.: ,dftpp
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141118-4448.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 18-Nov-2014 08:45:51 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: piccolinov Date: 18-Nov-2014 04:32:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
198 Pentachlorophenol_T	266	5.412	5.412	0.000	87	417339	NR	NR	
199 DFTPP									
200 Benzidine_T	184	8.014	8.014	0.000	98	2264422	NR	NR	
201 4,4'-DDE	246		8.346					ND	
202 4,4'-DDD	235	9.018	8.993	0.025	95	18243		NR	
203 4,4'-DDT	235	9.547	9.547	0.000	96	1298894	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

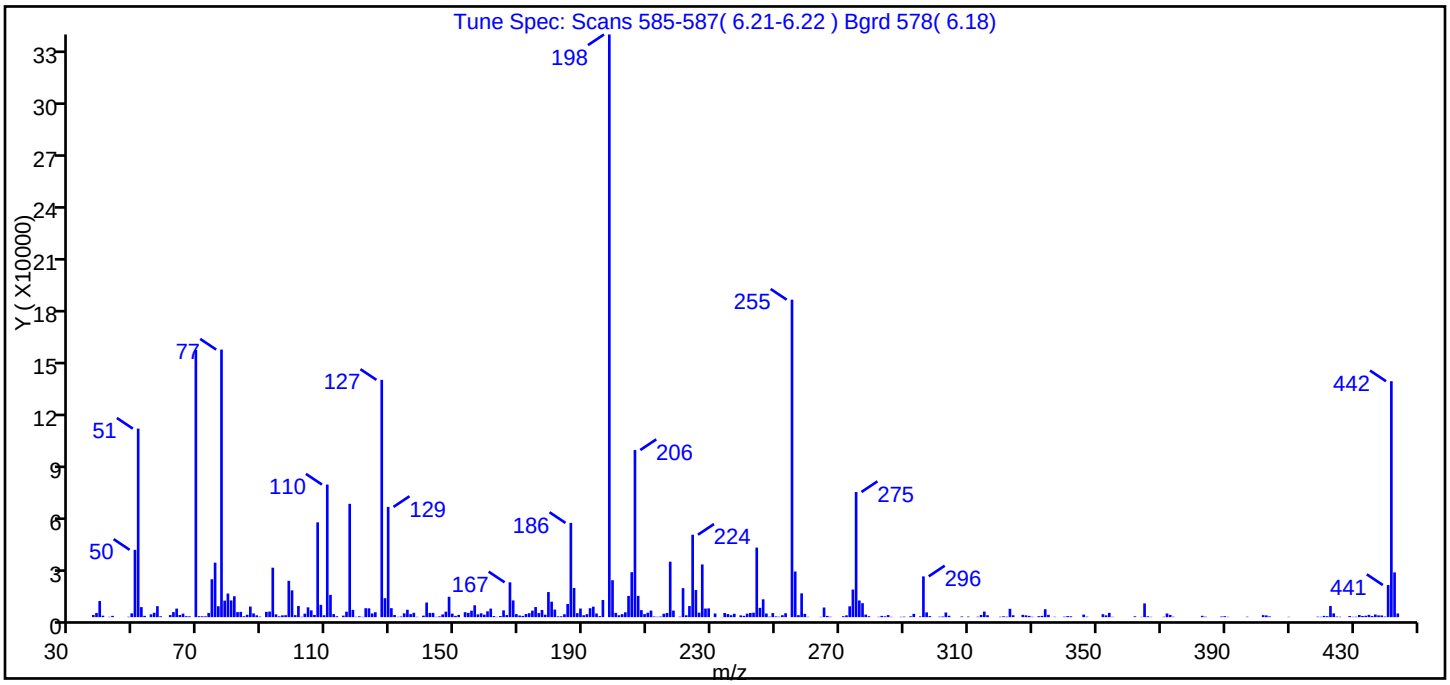
SVDFTPP50i_00020 Amount Added: 1.00 Units: mL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D
Injection Date: 18-Nov-2014 04:03:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL
Tune Method: DFTPP Method 8270

199 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	32.4
68	<2% of mass 69	0.0 (0.0)
69	Present	45.8
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	40.7
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.3
275	10-30% of mass 198	21.5
365	>1% of mass 198	2.4
441	Present but less than mass 443	5.5 (71.8)
442	>40% of mass 198	40.5
443	17-23% of mass 442	7.7 (19.0)

Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D\BNA_CH731.rslt\spectra.d
Injection Date: 18-Nov-2014 04:03:30
Spectrum: Tune Spec: Scans 585-587(6.21-6.22) Bgrd 578(6.18)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1239	125.00	2800	206.00	94976	302.00	355
38.00	2369	127.00	134848	207.00	12087	303.00	2652
39.00	9146	128.00	10770	208.00	4000	304.00	777
40.00	826	129.00	62648	209.00	1731	308.00	382
42.00	188	130.00	5122	210.00	2520	310.00	339
43.00	737	131.00	1221	211.00	3737	313.00	261
48.00	237	132.00	179	212.00	363	314.00	1205
49.00	2157	133.00	372	213.00	226	315.00	3154
50.00	38256	134.00	2155	214.00	331	316.00	1090
51.00	107144	135.00	4182	215.00	1924	320.00	243
52.00	5707	136.00	1728	216.00	2349	321.00	471
53.00	724	137.00	2448	217.00	31512	322.00	254
55.00	1597	138.00	188	218.00	3720	323.00	4738
56.00	2495	140.00	856	220.00	273	324.00	1072
57.00	6233	141.00	8301	221.00	16488	327.00	1298
58.00	479	142.00	2396	222.00	1044	328.00	1022
61.00	1187	143.00	2416	223.00	6312	329.00	705
62.00	2873	144.00	187	224.00	46840	330.00	211
63.00	4862	145.00	449	225.00	15398	332.00	552
64.00	1205	146.00	1545	226.00	2544	333.00	721
65.00	1993	147.00	3102	227.00	29952	334.00	4517
66.00	520	148.00	11575	228.00	4875	335.00	1312
67.00	456	149.00	1987	229.00	4988	337.00	202
69.00	151808	150.00	729	231.00	2077	340.00	269
70.00	537	151.00	1278	233.00	112	341.00	586
71.00	484	153.00	2828	234.00	2363	342.00	466
72.00	479	154.00	2413	235.00	1763	346.00	1446
73.00	2388	155.00	3662	236.00	1101	347.00	266
74.00	21544	156.00	6736	237.00	1933	352.00	1668
75.00	30960	157.00	1557	239.00	1013	353.00	1019
76.00	6208	158.00	2209	240.00	748	354.00	2425
77.00	152064	159.00	1401	241.00	1972	355.00	198
78.00	9380	160.00	3300	242.00	2382	362.00	485

Report Date: 18-Nov-2014 08:45:51 Chrom Revision: 2.2 06-Nov-2014 14:50:32
Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D\BNA_CH731.rslt\spectra.d
Injection Date: 18-Nov-2014 04:03:30
Spectrum: Tune Spec: Scans 585-587(6.21-6.22) Bgrd 578(6.18)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	13438	161.00	4844	243.00	2531	364.00	179
80.00	9511	162.00	592	244.00	39528	365.00	7807
81.00	11866	163.00	167	245.00	5275	366.00	494
82.00	2870	164.00	602	246.00	10136	367.00	180
83.00	3007	165.00	3840	247.00	2072	371.00	220
84.00	510	166.00	1178	248.00	284	372.00	2097
85.00	1353	167.00	19792	249.00	2330	373.00	1271
86.00	6015	168.00	9497	250.00	397	374.00	232
87.00	2123	169.00	1743	251.00	260	383.00	762
88.00	1034	170.00	944	252.00	1096	384.00	255
89.00	322	171.00	720	253.00	2226	389.00	372
91.00	3006	172.00	1750	255.00	180416	390.00	534
92.00	3186	173.00	2241	256.00	25920	391.00	175
93.00	28096	174.00	3689	257.00	1134	397.00	248
94.00	1580	175.00	5741	258.00	13531	402.00	1142
95.00	481	176.00	2312	259.00	1870	403.00	986
96.00	1009	177.00	4082	260.00	196	404.00	440
97.00	1105	178.00	1380	264.00	176	410.00	184
98.00	20632	179.00	14260	265.00	5471	419.00	257
99.00	15216	180.00	8796	266.00	699	420.00	199
100.00	1118	181.00	4300	267.00	218	421.00	725
101.00	6342	182.00	452	271.00	530	422.00	518
102.00	205	183.00	492	272.00	1015	423.00	6308
103.00	1958	184.00	1645	273.00	6164	424.00	2142
104.00	5573	185.00	7481	274.00	15661	425.00	319
105.00	3853	186.00	53552	275.00	71112	426.00	210
106.00	1216	187.00	16560	276.00	9474	429.00	602
107.00	53872	188.00	2259	277.00	7935	430.00	190
108.00	6979	189.00	4893	278.00	1444	431.00	246
109.00	1078	190.00	1079	279.00	518	432.00	1216
110.00	75352	191.00	1680	282.00	197	433.00	660
111.00	12658	192.00	5072	283.00	728	434.00	791
112.00	1710	193.00	5946	284.00	446	435.00	1298
113.00	518	194.00	2078	285.00	1185	436.00	637

Report Date: 18-Nov-2014 08:45:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32
Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D\BNA_CH731.rslt\spectra.d
Injection Date: 18-Nov-2014 04:03:30
Spectrum: Tune Spec: Scans 585-587(6.21-6.22) Bgrd 578(6.18)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 306

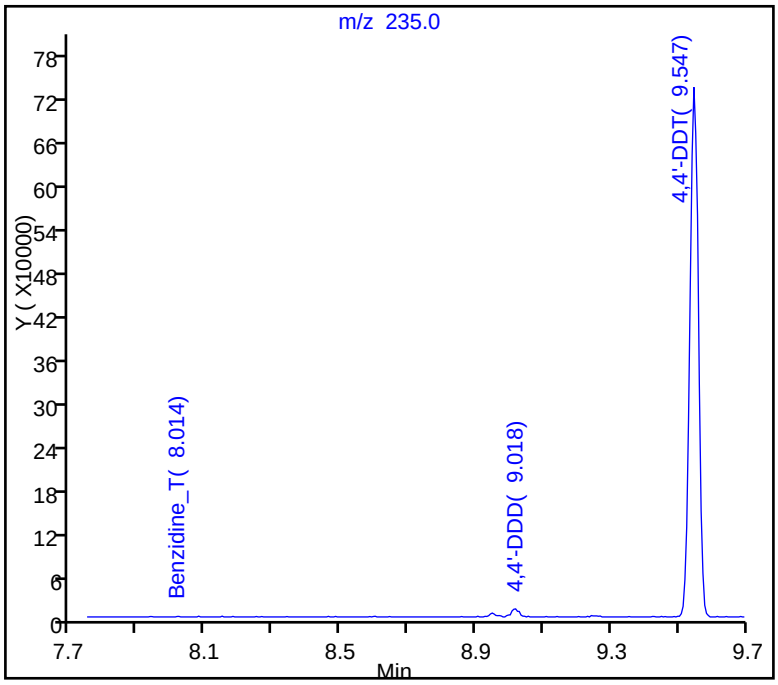
m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	863	195.00	563	286.00	176	437.00	1509
116.00	3088	196.00	9725	289.00	198	438.00	1001
117.00	64400	198.00	331136	290.00	276	439.00	974
118.00	4147	199.00	20984	292.00	478	440.00	324
119.00	186	200.00	2450	293.00	1870	441.00	18256
120.00	474	201.00	1083	295.00	394	442.00	134080
121.00	168	202.00	1706	296.00	23176	443.00	25432
122.00	5073	203.00	2754	297.00	2710	444.00	2095
123.00	5005	204.00	12060	298.00	593		
124.00	2099	205.00	25552	301.00	232		

Breakdown Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D				
Injection Date:	18-Nov-2014 04:03:30	Instrument ID:	CH731		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	003200	ALS Bottle#:	1	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

203 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

203 4,4'-DDT, Area = 1298894
201 4,4'-DDE, Area = 0
202 4,4'-DDD, Area = 18243

%Breakdown: 1.39%, Max Limit: 20.00%
Passed

Report Date: 18-Nov-2014 08:45:51 Chrom Revision: 2.2 06-Nov-2014 14:50:32

Peak Tailing Report

TestAmerica Pittsburgh

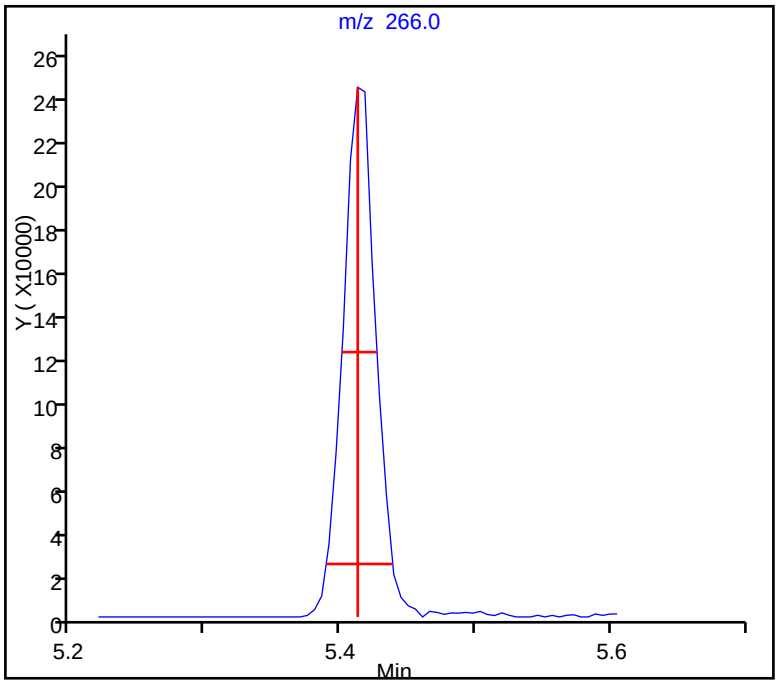
Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D
Injection Date: 18-Nov-2014 04:03:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

198 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.026 (min.)
Front Width = 0.023 (min.)

Tailing Factor = 1.1, Max. Tailing < 2.00
Passed



Report Date: 18-Nov-2014 08:45:51 Chrom Revision: 2.2 06-Nov-2014 14:50:32

Peak Tailing Report

TestAmerica Pittsburgh

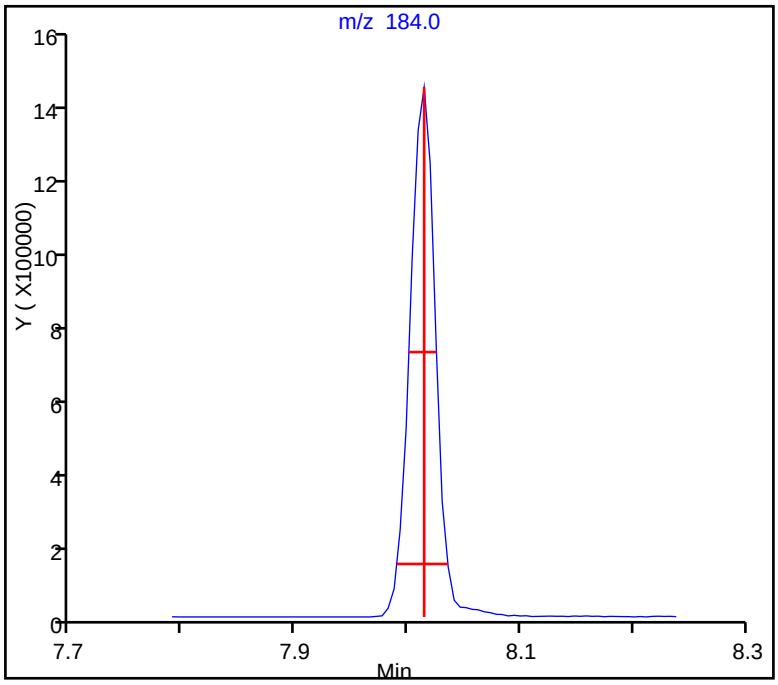
Data File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118002.D
Injection Date: 18-Nov-2014 04:03:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

200 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.021 (min.)
Front Width = 0.024 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 08-Dec-2014 09:45:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-002
Misc. Info.: DFTPP
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:23 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 08-Dec-2014 10:28:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
198 Pentachlorophenol_T	266	5.396	5.396	0.000	88	120273	NR	NR	
199 DFTPP									
200 Benzidine_T	184	7.982	7.982	0.000	98	775004	NR	NR	
201 4,4'-DDE	246		8.319					ND	
202 4,4'-DDD	235	8.975	8.975	0.000	1	4950		NR	
203 4,4'-DDT	235	9.499	9.499	0.000	96	496004	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

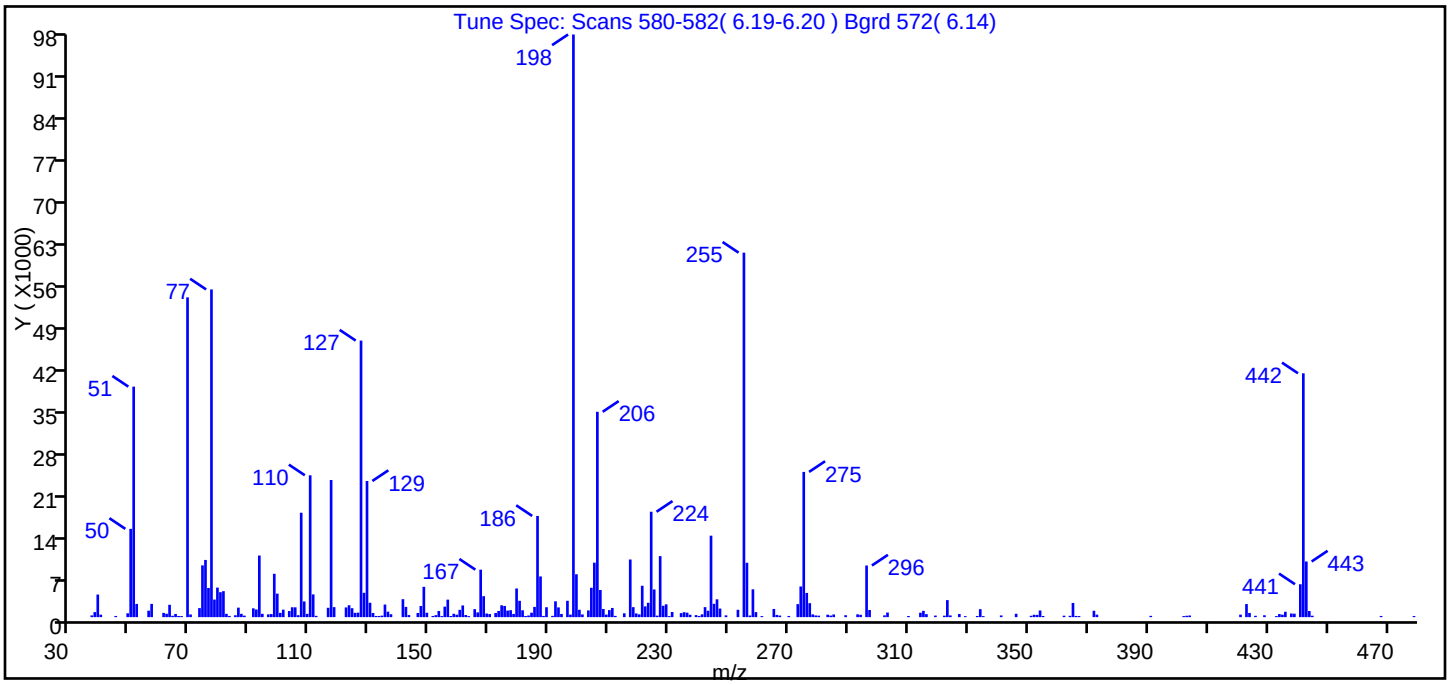
SVDFTPP50i_00021 Amount Added: 1.00 Units: mL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D
Injection Date: 08-Dec-2014 09:45:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL
Tune Method: DFTPP Method 8270

199 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	39.6
68	<2% of mass 69	0.0 (0.0)
69	Present	54.9
70	<2% of mass 69	0.5 (0.8)
127	40-60% of mass 198	47.5
197	<1% of mass 198	0.4
199	5-9% of mass 198	7.4
275	10-30% of mass 198	24.9
365	>1% of mass 198	2.4
441	Present but less than mass 443	5.6 (59.1)
442	>40% of mass 198	41.9
443	17-23% of mass 442	9.6 (22.8)

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D\BNA_CH731.rslt\spectra.d
Injection Date: 08-Dec-2014 09:45:30
Spectrum: Tune Spec: Scans 580-582(6.19-6.20) Bgrd 572(6.14)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 246

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	292	126.00	748	198.00	97464	280.00	248
38.00	843	127.00	46264	199.00	7171	283.00	410
39.00	3780	128.00	4070	200.00	1230	284.00	262
40.00	412	129.00	22776	201.00	453	285.00	448
45.00	200	130.00	2406	203.00	1123	289.00	319
49.00	643	131.00	697	204.00	4918	293.00	469
50.00	14766	132.00	193	205.00	9110	294.00	391
51.00	38560	133.00	201	206.00	34352	296.00	8636
52.00	2210	134.00	255	207.00	4543	297.00	1194
56.00	1080	135.00	2108	208.00	1365	302.00	302
57.00	2221	136.00	915	209.00	430	303.00	772
61.00	713	137.00	487	210.00	1180	310.00	190
62.00	564	141.00	3005	211.00	1537	314.00	741
63.00	2065	142.00	1713	212.00	210	315.00	1054
64.00	231	143.00	348	215.00	644	316.00	505
65.00	529	146.00	697	217.00	9642	319.00	262
66.00	192	147.00	1868	218.00	1672	322.00	248
67.00	176	148.00	5074	219.00	621	323.00	2849
69.00	53496	149.00	735	220.00	466	324.00	285
70.00	448	151.00	197	221.00	5251	327.00	530
73.00	1511	152.00	331	222.00	1801	329.00	170
74.00	8658	153.00	1031	223.00	2405	333.00	193
75.00	9568	154.00	177	224.00	17632	334.00	1339
76.00	4884	155.00	1753	225.00	4630	335.00	170
77.00	54816	156.00	2928	226.00	257	341.00	285
78.00	2942	157.00	191	227.00	10210	346.00	565
79.00	4944	158.00	561	228.00	1902	351.00	229
80.00	4176	159.00	412	229.00	2147	352.00	399
81.00	4346	160.00	1219	230.00	171	353.00	377
82.00	555	161.00	1957	231.00	856	354.00	1114
83.00	200	162.00	357	234.00	671	355.00	195
85.00	315	163.00	173	235.00	826	362.00	241
86.00	1588	165.00	1337	236.00	746	364.00	222

Report Date: 09-Dec-2014 05:58:24 Chrom Revision: 2.2 06-Nov-2014 14:50:32
Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D\BNA_CH731.rslt\spectra.d
Injection Date: 08-Dec-2014 09:45:30
Spectrum: Tune Spec: Scans 580-582(6.19-6.20) Bgrd 572(6.14)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 246

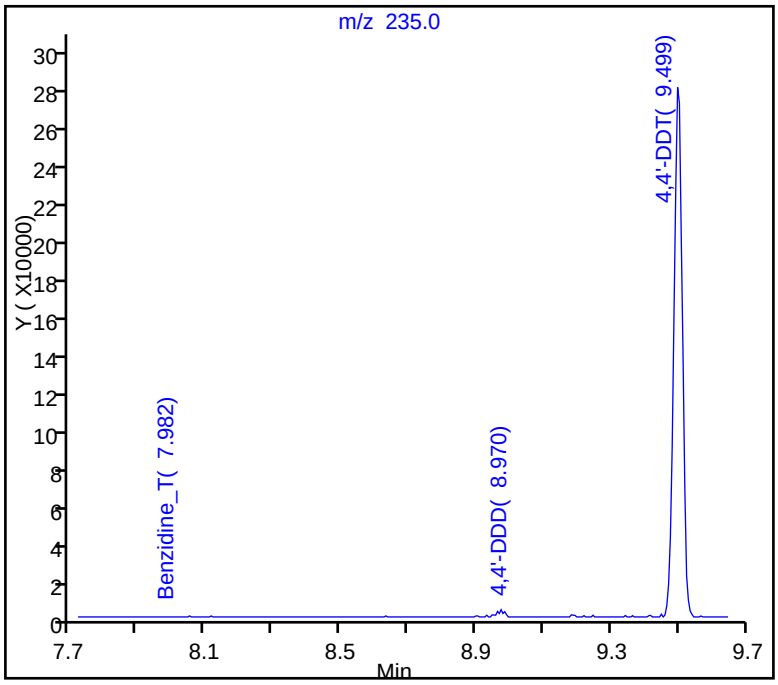
m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	553	166.00	793	237.00	403	365.00	2372
88.00	251	167.00	7943	239.00	339	366.00	202
91.00	1473	168.00	3507	240.00	198	367.00	181
92.00	1278	169.00	602	241.00	469	372.00	1070
93.00	10305	170.00	518	242.00	1673	373.00	415
94.00	559	172.00	698	243.00	1071	391.00	217
96.00	465	173.00	1033	244.00	13626	402.00	173
97.00	514	174.00	1981	245.00	2234	403.00	232
98.00	7249	175.00	1870	246.00	2982	404.00	275
99.00	3934	176.00	1096	247.00	1433	421.00	419
100.00	718	177.00	1163	249.00	299	423.00	2188
101.00	1256	178.00	535	253.00	1231	424.00	697
103.00	1019	179.00	4795	255.00	60968	426.00	228
104.00	1651	180.00	2736	256.00	9094	429.00	315
105.00	1644	181.00	1146	257.00	275	433.00	178
106.00	325	182.00	193	258.00	4657	434.00	515
107.00	17464	183.00	275	259.00	845	435.00	410
108.00	2624	184.00	741	261.00	177	436.00	900
109.00	545	185.00	1712	265.00	1373	438.00	610
110.00	23728	186.00	16928	266.00	373	439.00	577
111.00	3803	187.00	6806	267.00	264	441.00	5504
112.00	217	188.00	205	270.00	199	442.00	40792
116.00	1565	189.00	1660	273.00	2175	443.00	9310
117.00	22936	191.00	215	274.00	5131	444.00	1024
118.00	1677	192.00	2651	275.00	24296	445.00	237
122.00	1625	193.00	1628	276.00	4053	468.00	199
123.00	1994	194.00	530	277.00	2335	479.00	186
124.00	1496	196.00	2735	278.00	457		
125.00	723	197.00	423	279.00	286		

Breakdown Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D				
Injection Date:	08-Dec-2014 09:45:30	Instrument ID:	CH731		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	003200	ALS Bottle#:	1	Worklist Smp#:	2
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

203 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

203 4,4'-DDT, Area = 496004
201 4,4'-DDE, Area = 0
202 4,4'-DDD, Area = 4950

%Breakdown: 0.99%, Max Limit: 20.00%
Passed

Report Date: 09-Dec-2014 05:58:24 Chrom Revision: 2.2 06-Nov-2014 14:50:32

Peak Tailing Report

TestAmerica Pittsburgh

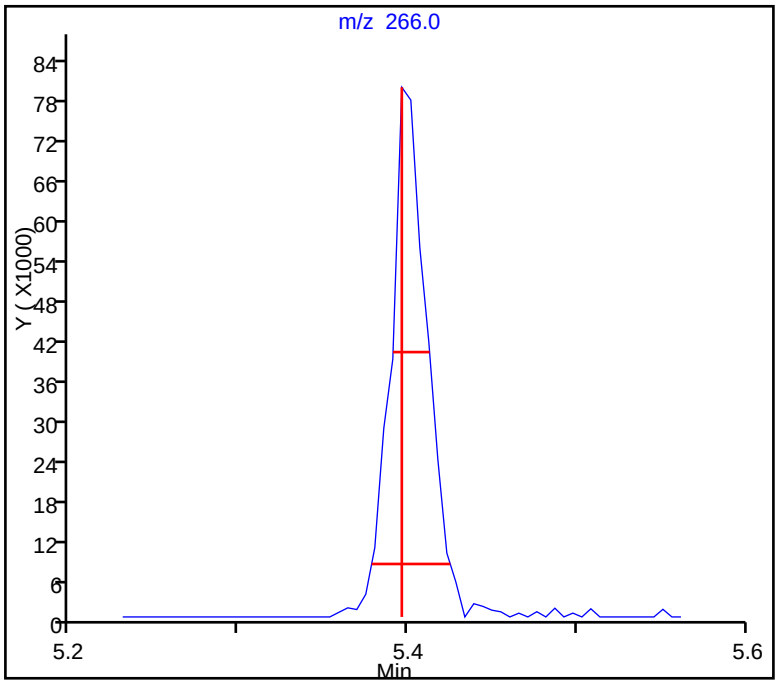
Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D
Injection Date: 08-Dec-2014 09:45:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

198 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.029 (min.)
Front Width = 0.018 (min.)

Tailing Factor = 1.6, Max. Tailing < 2.00
Passed



Peak Tailing Report

TestAmerica Pittsburgh

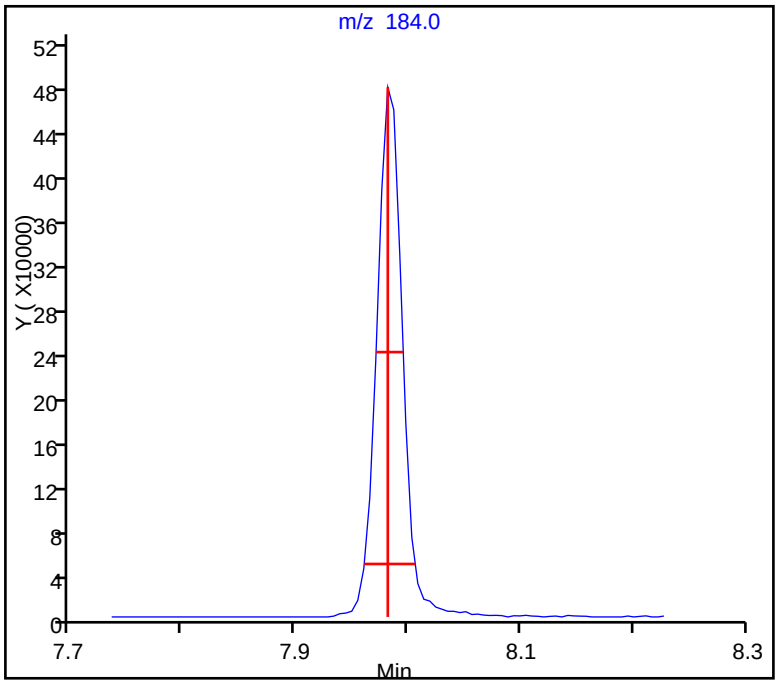
Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208002.D
Injection Date: 08-Dec-2014 09:45:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

200 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.024 (min.)
Front Width = 0.021 (min.)

Tailing Factor = 1.2, Max. Tailing < 2.00
Passed



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 09-Dec-2014 10:21:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004779-002
Misc. Info.: DFTPP
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141209-4779.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 10-Dec-2014 07:12:35 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: piccolinov Date: 09-Dec-2014 10:51:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
198 Pentachlorophenol_T	266	5.391	5.391	0.000	88	128528	NR	NR	
199 DFTPP									
200 Benzidine_T	184	7.993	7.993	0.000	98	845765	NR	NR	
201 4,4'-DDE	246		8.319					ND	
202 4,4'-DDD	235	8.992	8.992	0.000	1	3282		NR	
203 4,4'-DDT	235	9.515	9.515	0.000	96	522790	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

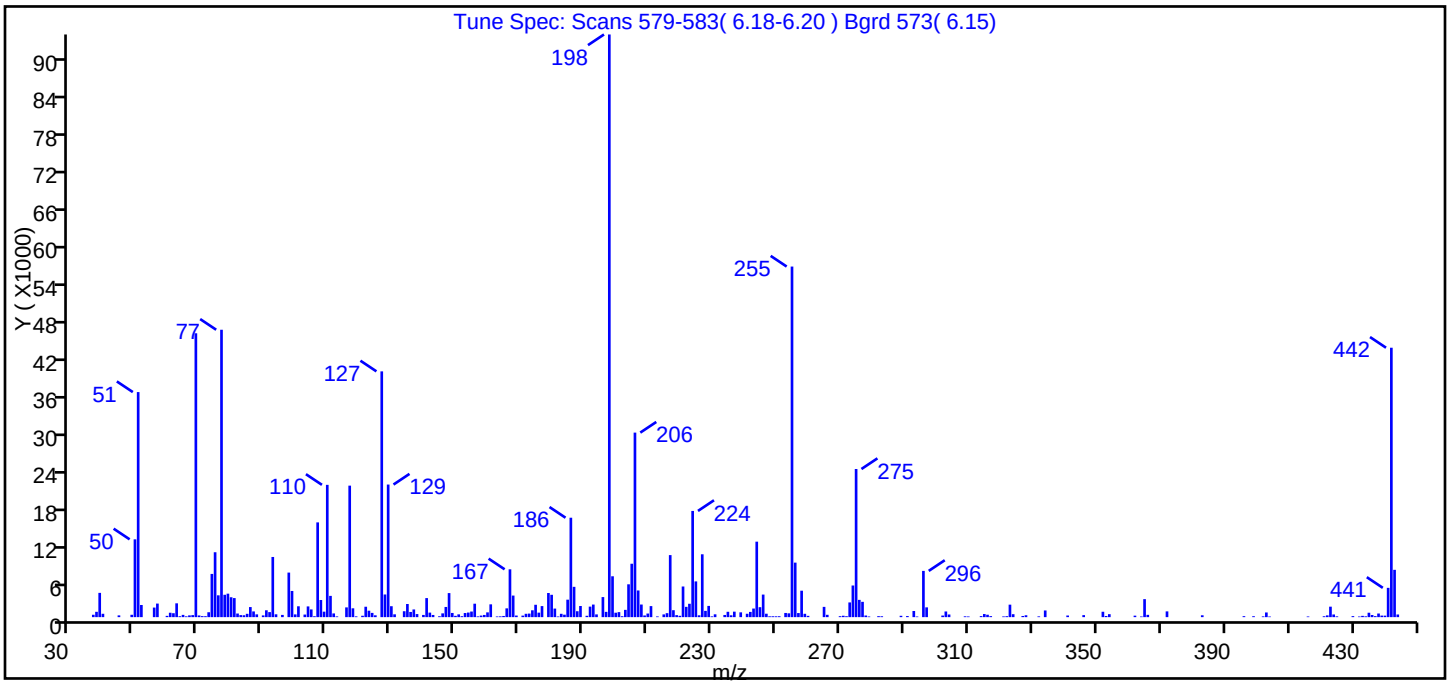
SVDFTPP50i_00021 Amount Added: 1.00 Units: mL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D
Injection Date: 09-Dec-2014 10:21:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL
Tune Method: DFTPP Method 8270

199 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	38.6
68	<2% of mass 69	0.3 (0.7)
69	Present	48.7
70	<2% of mass 69	0.3 (0.6)
127	40-60% of mass 198	42.2
197	<1% of mass 198	0.9
199	5-9% of mass 198	7.0
275	10-30% of mass 198	25.4
365	>1% of mass 198	3.1
441	Present but less than mass 443	5.0 (61.9)
442	>40% of mass 198	46.2
443	17-23% of mass 442	8.1 (17.6)

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D\BNA_CH731.rslt\spectra.d
Injection Date: 09-Dec-2014 10:21:30
Spectrum: Tune Spec: Scans 579-583(6.18-6.20) Bgrd 573(6.15)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 261

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	384	122.00	1672	198.00	93616	278.00	262
38.00	856	123.00	1033	199.00	6566	279.00	106
39.00	3900	124.00	683	200.00	712	282.00	156
40.00	540	125.00	293	201.00	806	283.00	139
45.00	283	127.00	39488	202.00	147	289.00	216
49.00	379	128.00	3641	203.00	1170	291.00	174
50.00	12500	129.00	21304	204.00	5276	293.00	988
51.00	36160	130.00	1756	205.00	8580	294.00	100
52.00	1952	131.00	454	206.00	29648	296.00	7430
56.00	1538	134.00	950	207.00	4287	297.00	1572
57.00	2181	135.00	2111	208.00	2027	302.00	254
60.00	205	136.00	833	209.00	269	303.00	910
61.00	706	137.00	1235	210.00	579	304.00	424
62.00	631	138.00	494	211.00	1774	309.00	131
63.00	2220	140.00	355	213.00	116	310.00	107
64.00	145	141.00	3061	215.00	441	314.00	166
65.00	364	142.00	727	216.00	639	315.00	501
66.00	127	143.00	351	217.00	9967	316.00	388
67.00	283	145.00	143	218.00	1115	317.00	163
68.00	325	146.00	607	219.00	323	321.00	114
69.00	45608	147.00	1637	220.00	215	322.00	152
70.00	270	148.00	3865	221.00	4924	323.00	2006
71.00	163	149.00	673	222.00	1654	324.00	475
72.00	150	150.00	211	223.00	2148	327.00	187
73.00	786	151.00	445	224.00	17064	328.00	302
74.00	6944	152.00	151	225.00	5742	332.00	123
75.00	10428	153.00	663	226.00	296	334.00	1072
76.00	3506	154.00	736	227.00	10100	341.00	261
77.00	46176	155.00	901	228.00	1006	346.00	323
78.00	3594	156.00	2159	229.00	1804	352.00	867
79.00	3771	157.00	121	230.00	121	353.00	184
80.00	3196	158.00	254	231.00	454	354.00	477
81.00	3062	159.00	353	234.00	350	362.00	238

Report Date: 10-Dec-2014 07:12:36 Chrom Revision: 2.2 06-Nov-2014 14:50:32
Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D\BNA_CH731.rslt\spectra.d
Injection Date: 09-Dec-2014 10:21:30
Spectrum: Tune Spec: Scans 579-583(6.18-6.20) Bgrd 573(6.15)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 261

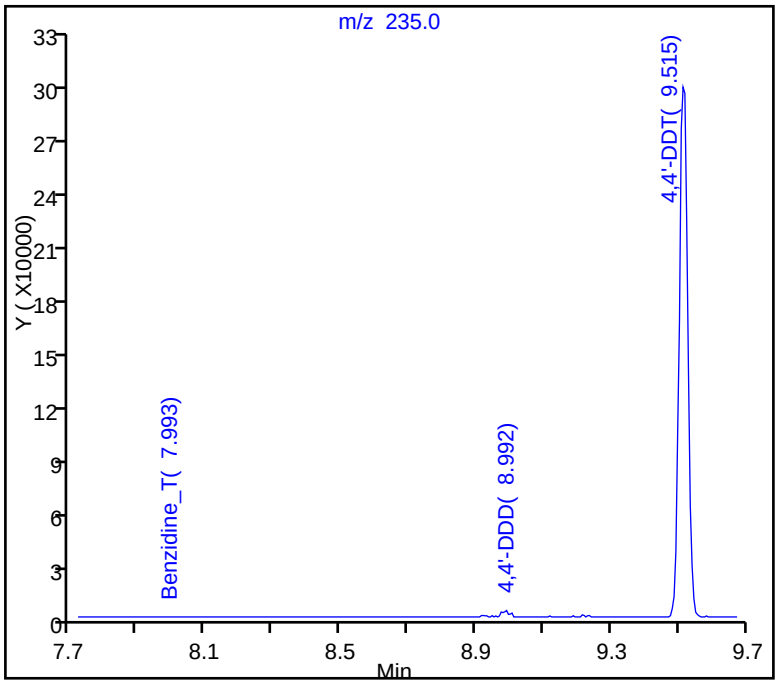
m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	581	160.00	766	235.00	861	364.00	102
83.00	328	161.00	2058	236.00	296	365.00	2892
84.00	304	163.00	108	237.00	882	366.00	369
85.00	534	164.00	126	239.00	771	372.00	926
86.00	1620	165.00	189	241.00	543	383.00	299
87.00	920	166.00	1411	242.00	841	396.00	157
88.00	446	167.00	7684	243.00	1381	399.00	147
90.00	278	168.00	3466	244.00	12127	402.00	120
91.00	1104	169.00	257	245.00	1601	403.00	752
92.00	809	171.00	246	246.00	3627	404.00	100
93.00	9667	172.00	539	247.00	550	416.00	107
94.00	457	173.00	571	248.00	135	421.00	143
96.00	358	174.00	1101	249.00	139	422.00	283
98.00	7159	175.00	1987	250.00	132	423.00	1682
99.00	4205	176.00	723	251.00	146	424.00	429
100.00	442	177.00	1776	253.00	672	425.00	126
101.00	1746	179.00	3878	254.00	613	430.00	163
103.00	415	180.00	3589	255.00	56328	432.00	102
104.00	1724	181.00	1376	256.00	8759	433.00	207
105.00	1239	182.00	106	257.00	656	434.00	129
106.00	144	183.00	536	258.00	4248	435.00	709
107.00	15224	184.00	395	259.00	537	436.00	343
108.00	2753	185.00	2807	260.00	208	437.00	161
109.00	880	186.00	15975	265.00	1650	438.00	582
110.00	21256	187.00	4870	266.00	376	439.00	249
111.00	3416	188.00	949	270.00	154	440.00	240
112.00	596	189.00	1790	271.00	225	441.00	4707
113.00	117	191.00	216	272.00	146	442.00	43288
116.00	1567	192.00	1692	273.00	2363	443.00	7603
117.00	21128	193.00	2021	274.00	5084	444.00	426
118.00	1420	194.00	441	275.00	23800		
119.00	124	196.00	3223	276.00	2775		
121.00	223	197.00	848	277.00	2460		

Breakdown Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D
Injection Date: 09-Dec-2014 10:21:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

203 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

203 4,4'-DDT, Area = 522790
201 4,4'-DDE, Area = 0
202 4,4'-DDD, Area = 3282

%Breakdown: 0.62%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Pittsburgh

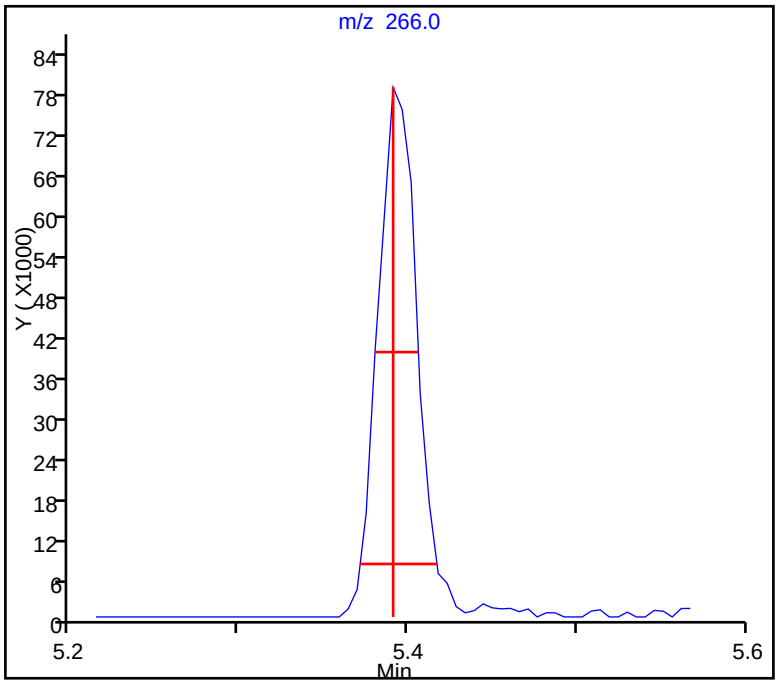
Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D
Injection Date: 09-Dec-2014 10:21:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

198 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.026 (min.)
Front Width = 0.020 (min.)

Tailing Factor = 1.3, Max. Tailing < 2.00
Passed



Peak Tailing Report

TestAmerica Pittsburgh

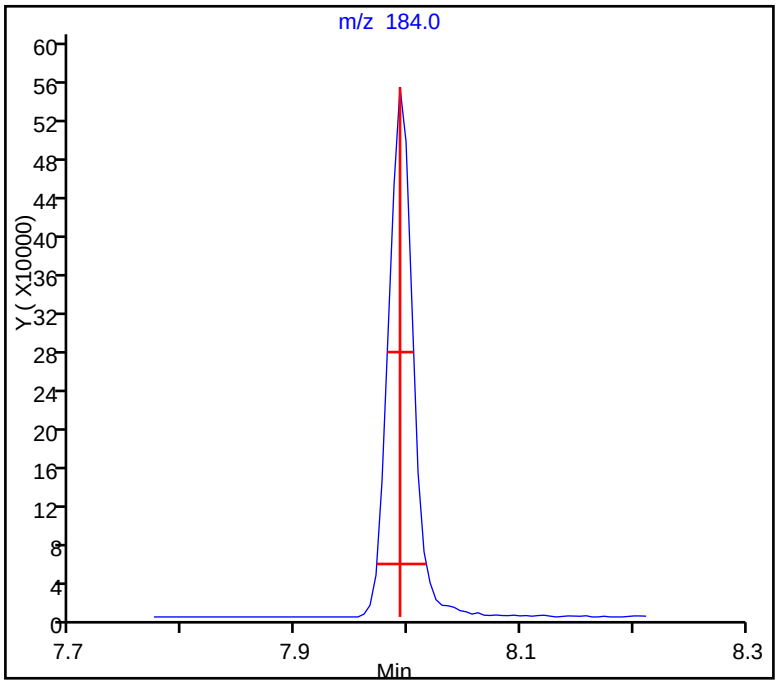
Data File: \\PITCHROM\ChromData\CH731\20141209-4779.b\V1209002.D
Injection Date: 09-Dec-2014 10:21:30 Instrument ID: CH731
Lims ID: DFTPP
Client ID:
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: BNA_CH731 Limit Group: BNA 8270D ICAL

200 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.023 (min.)
Front Width = 0.021 (min.)

Tailing Factor = 1.1, Max. Tailing < 2.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-127168/1-A

Matrix: Water | Lab File ID: V1208007.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 12/08/2014 11:58

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.20	0.029
208-96-8	Acenaphthylene	ND		0.20	0.022
120-12-7	Anthracene	ND		0.20	0.019
92-87-5	Benzidine	ND		20	4.7
56-55-3	Benzo[a]anthracene	ND		0.20	0.037
205-99-2	Benzo[b]fluoranthene	ND		0.20	0.049
207-08-9	Benzo[k]fluoranthene	ND		0.20	0.030
65-85-0	Benzoic acid	ND		5.0	1.6
191-24-2	Benzo[g,h,i]perylene	ND		0.20	0.029
50-32-8	Benzo[a]pyrene	ND		0.20	0.028
111-91-1	Bis(2-chloroethoxy)methane	ND		1.0	0.13
111-44-4	Bis(2-chloroethyl)ether	ND		1.0	0.032
117-81-7	Bis(2-ethylhexyl) phthalate	ND		2.0	0.44
108-60-1	2,2'-oxybis[1-chloropropane]	ND		1.0	0.024
101-55-3	4-Bromophenyl phenyl ether	ND		1.0	0.12
7005-72-3	4-Chlorophenyl phenyl ether	ND		1.0	0.080
91-58-7	2-Chloronaphthalene	ND		0.20	0.031
85-68-7	Butyl benzyl phthalate	ND		1.0	0.21
218-01-9	Chrysene	ND		0.20	0.031
53-70-3	Dibenz(a,h)anthracene	ND		0.20	0.027
84-74-2	Di-n-butyl phthalate	ND		1.0	0.24
117-84-0	Di-n-octyl phthalate	ND		1.0	0.20
84-66-2	Diethyl phthalate	ND		1.0	0.30
131-11-3	Dimethyl phthalate	ND		1.0	0.18
91-94-1	3,3'-Dichlorobenzidine	ND		1.0	0.15
121-14-2	2,4-Dinitrotoluene	ND		1.0	0.21
606-20-2	2,6-Dinitrotoluene	ND		1.0	0.14
95-57-8	2-Chlorophenol	ND		1.0	0.23
120-83-2	2,4-Dichlorophenol	ND		1.0	0.067
105-67-9	2,4-Dimethylphenol	ND		1.0	0.17
51-28-5	2,4-Dinitrophenol	ND		5.0	2.5
88-75-5	2-Nitrophenol	ND		1.0	0.11
88-06-2	2,4,6-Trichlorophenol	ND		1.0	0.30
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	ND		1.0	0.12

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-127168/1-A

Matrix: Water | Lab File ID: V1208007.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 12/08/2014 11:58

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.085
59-50-7	4-Chloro-3-methylphenol	ND		1.0	0.17
100-02-7	4-Nitrophenol	ND		5.0	0.80
534-52-1	4,6-Dinitro-2-methylphenol	ND		5.0	1.6
206-44-0	Fluoranthene	ND		0.20	0.021
86-73-7	Fluorene	ND		0.20	0.024
118-74-1	Hexachlorobenzene	ND		1.0	0.061
87-68-3	Hexachlorobutadiene	ND		1.0	0.094
77-47-4	Hexachlorocyclopentadiene	ND		1.0	0.14
67-72-1	Hexachloroethane	ND		1.0	0.14
193-39-5	Indeno[1,2,3-cd]pyrene	ND		0.20	0.043
78-59-1	Isophorone	ND		1.0	0.074
91-20-3	Naphthalene	ND		0.20	0.023
98-95-3	Nitrobenzene	ND		2.0	0.15
621-64-7	N-Nitrosodi-n-propylamine	ND		1.0	0.050
62-75-9	N-Nitrosodimethylamine	ND		1.0	0.12
86-30-6	N-Nitrosodiphenylamine	ND		1.0	0.12
85-01-8	Phenanthrene	ND		0.20	0.042
129-00-0	Pyrene	ND		0.20	0.023
87-86-5	Pentachlorophenol	ND		1.0	0.50
108-95-2	Phenol	ND		1.0	0.055

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	58		30-150
321-60-8	2-Fluorobiphenyl	68		30-150
367-12-4	2-Fluorophenol (Surr)	69		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	69		30-150
4165-62-2	Phenol-d5 (Surr)	67		30-150
1718-51-0	Terphenyl-d14 (Surr)	67		10-150

Report Date: 09-Dec-2014 05:58:38 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208007.D
Lims ID: MB 180-127168/1-A
Client ID:
Sample Type: MB
Inject. Date: 08-Dec-2014 11:58:30 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-007
Misc. Info.: MB 180-127168/1-A
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 09-Dec-2014 05:51:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.286	6.277	0.009	87	85797	8.00	8.00	
* 2 Naphthalene-d8	136	7.488	7.479	0.009	97	292490	8.00	8.00	
* 3 Acenaphthene-d10	164	9.106	9.097	0.009	91	225033	8.00	8.00	
* 4 Phenanthrene-d10	188	10.474	10.465	0.009	96	490545	8.00	8.00	
* 5 Chrysene-d12	240	13.984	13.964	0.020	95	552207	8.00	8.00	
* 6 Perylene-d12	264	16.906	16.881	0.025	97	435793	8.00	8.00	
$ 7 2-Fluorophenol	112	4.955	4.946	0.009	89	381147	40.0	27.5	
$ 8 Phenol-d5	99	5.933	5.924	0.009	84	454017	40.0	26.9	
$ 9 Nitrobenzene-d5	82	6.809	6.800	0.009	92	573163	40.0	27.7	
$ 10 2-Fluorobiphenyl	172	8.465	8.456	0.009	99	1187722	40.0	27.4	
$ 11 2,4,6-Tribromophenol	330	9.828	9.818	0.010	83	137071	40.0	23.3	
$ 12 Terphenyl-d14	244	12.231	12.217	0.014	98	1752800	40.0	26.7	
13 1,4-Dioxane	88		1.848					ND	
14 N-Nitrosodimethylamine	74		2.537					ND	
15 Pyridine	79		2.596					ND	
17 2-Butoxyethanol	57		3.450					ND	
16 Dimethylformamide	73		3.486					ND	
18 Dibromoacetonitrile	120		3.590					ND	
19 2-Picoline	93		4.030					ND	
20 N-Nitrosomethylethylamine	88		4.233					ND	
21 Acrylamide	71	4.955	4.597	0.359	26	2916			NC
22 Methyl methanesulfonate	80		4.711					ND	
23 Phenylmercaptan	110	4.961	5.000	-0.039	43	3038			NC
24 N-Nitrosodiethylamine	102		5.115					ND	
25 Ethyl methanesulfonate	79		5.517					ND	
26 Benzaldehyde	77		5.844					ND	
27 Phenol	94		5.940					ND	
28 Aniline	93		5.951					ND	
29 Bis(2-chloroethyl)ether	93		6.015					ND	
30 Pentachloroethane	167		6.025					ND	
31 2-Chlorophenol	128		6.074					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
32 n-Decane	43		6.132					ND	
33 1,3-Dichlorobenzene	146		6.223					ND	
34 1,4-Dichlorobenzene	146		6.298					ND	
35 1,2,3-Trimethylbenzene	105		6.345					ND	
36 Benzyl alcohol	108		6.405					ND	
37 1,2-Dichlorobenzene	146		6.442					ND	
38 2-Methylphenol	108		6.517					ND	
39 Indene	116		6.528					ND	
40 2,2'-oxybis[1-chloropropan	45		6.538					ND	
41 N-Nitrosopyrrolidine	100		6.624					ND	
42 N-Nitrosomorpholine	116		6.632					ND	
44 N-Nitrosodi-n-propylamine	70		6.651					ND	
43 Acetophenone	105		6.656					ND	
45 4-Methylphenol	108		6.656					ND	
46 2-Toluidine	106		6.664					ND	
194 Benzotrichloride TIC	159	10.474	6.750	3.724	0	11205			0
47 Hexachloroethane	117		6.768					ND	
48 Nitrobenzene	77		6.816					ND	
49 N-Nitrosopiperidine	114		6.926					ND	
50 Isophorone	82		7.035					ND	
51 2-Nitrophenol	139		7.121					ND	
52 2,4-Dimethylphenol	107		7.147					ND	
54 o,o',o''-Triethylphosphoro	198		7.182					ND	
53 4-Chloro-3-nitro-alpha,alp	179		7.199					ND	
56 Benzoic acid	122		7.201					ND	
55 Bis(2-chloroethoxy)methane	93		7.227					ND	
57 2,4-Dichlorophenol	162		7.345					ND	
58 alpha,alpha-Dimethyl phene	58		7.353					ND	
61 Azobenzene	77		7.420					ND	
59 1,2,4-Trichlorobenzene	180		7.425					ND	
60 Naphthalene	128		7.500					ND	
62 4-Chloroaniline	127		7.537					ND	
63 2,6-Dichlorophenol	162		7.553					ND	
64 Hexachlorobutadiene	225		7.612					ND	
65 Hexachloropropene	213		7.627					ND	
66 Quinoline	129		7.786					ND	
68 N-Nitrosodi-n-butylamine	84		7.818					ND	
67 Caprolactam	113		7.826					ND	
69 p-Phenylene diamine	108	7.488	7.834	-0.346	53	57851			NC
70 4-Chloro-3-methylphenol	107		7.965					ND	
71 Safrole, Total	162		8.026					ND	
72 2-Methylnaphthalene	142		8.136					ND	
73 Phthalic anhydride	104	8.471	8.172	0.299	35	2391			NC
74 Diphenamid	168	8.465	8.200	0.265	40	18107			NC
75 1-Methylnaphthalene	142		8.226					ND	
76 Hexachlorocyclopentadiene	237		8.285					ND	
77 1,2,4,5-Tetrachlorobenzene	216		8.291					ND	
78 2,4,6-Trichlorophenol	196		8.387					ND	
79 2,4,5-Trichlorophenol	196		8.419					ND	
80 1,1'-Biphenyl	154		8.552					ND	
81 2-Chloronaphthalene	162		8.584					ND	
83 1-Chloronaphthalene	162		8.648					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
82 2-Nitroaniline	65		8.659					ND	
84 1,4-Dinitrobenzene	168	8.465	8.769	-0.304	32	18107			NC
85 1,4-Naphthoquinone	158	8.465	8.771	-0.306	45	2340			NC
86 Dimethyl phthalate	163		8.809					ND	
87 1,3-Dinitrobenzene	168		8.841					ND	
88 2,6-Dinitrotoluene	165		8.868					ND	
89 Acenaphthylene	152		8.969					ND	
90 3-Nitroaniline	138		9.028					ND	
92 2,4-Dinitrophenol	184		9.124					ND	
91 Acenaphthene	153		9.124					ND	
93 4-Nitrophenol	109		9.161					ND	
94 2,4-Dinitrotoluene	165		9.241					ND	
95 Dibenzofuran	168		9.279					ND	
96 Pentachlorobenzene	250		9.299					ND	
98 1-Naphthylamine	143	9.822	9.340	0.482	59	79124			NC
97 2,3,5,6-Tetrachlorophenol	232		9.348					ND	
99 2,3,4,6-Tetrachlorophenol	232		9.386					ND	
100 2-Naphthylamine	143		9.418					ND	
101 Diethyl phthalate	149		9.444					ND	
102 Hexadecane	57		9.450					ND	
103 4-tert-Octylphenol	135	9.106	9.555	-0.449	1	1706			NC
104 4-Chlorophenyl phenyl ethe	204		9.573					ND	
107 N-Nitro-o-toluidine	152	9.822	9.586	0.236	18	1987			NC
105 4-Nitroaniline	138		9.589					ND	
106 Fluorene	166		9.594					ND	
108 4,6-Dinitro-2-methylphenol	198		9.621					ND	
110 Diphenylamine	169	9.822	9.677	0.145	44	8040			NC
109 N-Nitrosodiphenylamine	169		9.680					ND	
111 1,2-Diphenylhydrazine	77		9.722					ND	
112 1,3,5-Trinitrobenzene	213		9.896					ND	
113 Phenacetin	108		9.939					ND	
114 Phorate	121		9.944					ND	
115 2,3,7,8-TCDD TIC	322	9.828	10.000	-0.172	0	534		0.0190	
116 4-Bromophenyl phenyl ether	248		10.027					ND	
117 Dimethoate	87		10.099					ND	
118 Hexachlorobenzene	284		10.112					ND	
119 Atrazine	200		10.139					ND	
120 4-Aminobiphenyl	169	9.822	10.265	-0.442	55	8040			NC
122 Pentachlorophenol	266		10.278					ND	
121 n-Octadecane	57		10.278					ND	
123 Pronamide	173	9.828	10.297	-0.469	56	3897			NC
124 Pentachloronitrobenzene	237		10.302					ND	
125 Disulfoton	88		10.419					ND	
127 Dinoseb	211		10.475					ND	
126 Phenanthrene	178		10.486					ND	
128 Anthracene	178		10.534					ND	
129 Hexachlorophene TIC	198		10.600					ND	
130 Carbazole	167		10.673					ND	
131 Methyl parathion	109		10.793					ND	
132 Di-n-butyl phthalate	149		10.962					ND	
133 Ethyl Parathion	109		11.189					ND	
134 4-Nitroquinoline-1-oxide	190		11.263					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
135 Methapyrilene	58		11.317					ND	
136 Isodrin	193		11.661					ND	
137 Fluoranthene	202		11.768					ND	
138 Benzidine	184		11.891					ND	
139 Pyrene	202		12.067					ND	
140 1,2,3,4 -Tetrachlorobenzen	216	12.237	12.215	0.022	50	4884			NC
141 p-Dimethylamino azobenzene	225	12.237	12.428	-0.191	46	15059			NC
142 Chlorobenzilate	139		12.542					ND	
143 Famphur	218		12.850					ND	
144 Butyl benzyl phthalate	149		12.906					ND	
145 3,3'-Dimethylbenzidine	212		12.936					ND	
146 Kepone	272		13.030					ND	
147 2-Acetylaminofluorene	181		13.363					ND	
148 Thionazin	97		13.789					ND	
149 3,3'-Dichlorobenzidine	252		13.862					ND	
150 4,4'-Methylene bis(2-chlor	231		13.881					ND	
151 Bis(2-ethylhexyl) phthalat	149		13.894					ND	
152 Benzo[a]anthracene	228		13.943					ND	
153 Chrysene	228		14.012					ND	
154 Sulfotepp	97		14.530					ND	
155 6-Methylchrysene	242		14.907					ND	
156 Di-n-octyl phthalate	149		15.193					ND	
157 7,12-Dimethylbenz(a)anthra	256		16.063					ND	
158 Benzo[b]fluoranthene	252		16.085					ND	
159 Benzo[k]fluoranthene	252		16.133					ND	
176 Benzo[e]pyrene	252		16.656					ND	
160 Benzo[a]pyrene	252		16.769					ND	
161 3-Methylcholanthrene	268		17.524					ND	
162 Dibenz[a,h]acridine	279		18.636					ND	
163 Indeno[1,2,3-cd]pyrene	276		19.092					ND	
164 Dibenz(a,h)anthracene	278		19.130					ND	
165 Benzo[g,h,i]perylene	276		19.696					ND	
175 Dibenz[a,j]acridine	279		0.000					ND	
170 2-Chlorobenzoic Acid	139		0.000					ND	
182 Aramite Peak 2	185		0.000					ND	
181 Isosafrole	162		0.000					ND	
166 2,5-Dichlorophenol	162		0.000					ND	
185 4-Methyl-1-cyclohexanemeth	97		0.000					ND	
169 Diallate Peak 1	86		0.000					ND	
168 4-Methyl-1-cyclohexanemeth	97		0.000					ND	
183 Octachlorocyclopentene	307		0.000					ND	
197 1-Phenyl-1-(4-methylphenyl	1		0.000					ND	
195 1-Phenyl-1-(2,4-dimethylph	1		0.000					ND	
196 Trifluralin	306		0.000					ND	
167 o-Phenylphenol	1		0.000					ND	
190 Octachlorostyrene	308		0.000					ND	
186 n,n'-Dimethylaniline	120		0.000					ND	
188 Carbaryl	144		0.000					ND	
172 4-Chlorophenol	128		0.000					ND	
184 3-Chlorobenzoic Acid	139		0.000					ND	
187 1,2-Dibromo-3-Chloropropan	157		0.000					ND	
191 2,3-Dichlorophenol	162		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
193 1,2,3,4-Tetrahydronaphthal	104		0.000					ND	
192 4-Chlorobenzoic Acid	139		0.000					ND	
189 Benzotrichloride	159		0.000					ND	
174 2-Bromonaphthalene	127		0.000					ND	
180 Aramite Peak 1	185		0.000					ND	
173 3-Methylphenol	1		0.000					ND	
171 Diallate Peak 2	86		0.000					ND	
178 1-Phenyl-1-(2,4-dimethylph	1		0.000					ND	
179 4-Nitrobiphenyl	199		0.000					ND	
177 1-Phenyl-1-(4-methylphenyl	1		0.000					ND	
198 Pentachlorophenol_T	266		5.396					ND	
200 Benzidine_T	184		7.982					ND	
201 4,4'-DDE	246		8.319					ND	
202 4,4'-DDD	235		8.975					ND	
203 4,4'-DDT	235		9.499					ND	
S 204 Aramite, Total	185		1.000					ND	
S 207 4-Methyl-1-cyclohexanemeth	97		0.000					ND	
S 208 Methyl Phenols,Total	108		0.000					ND	
S 205 Diallate	86		0.000					ND	
S 206 Total Cresols	108		0.000					ND	
T 209 Quinoline TIC	129		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

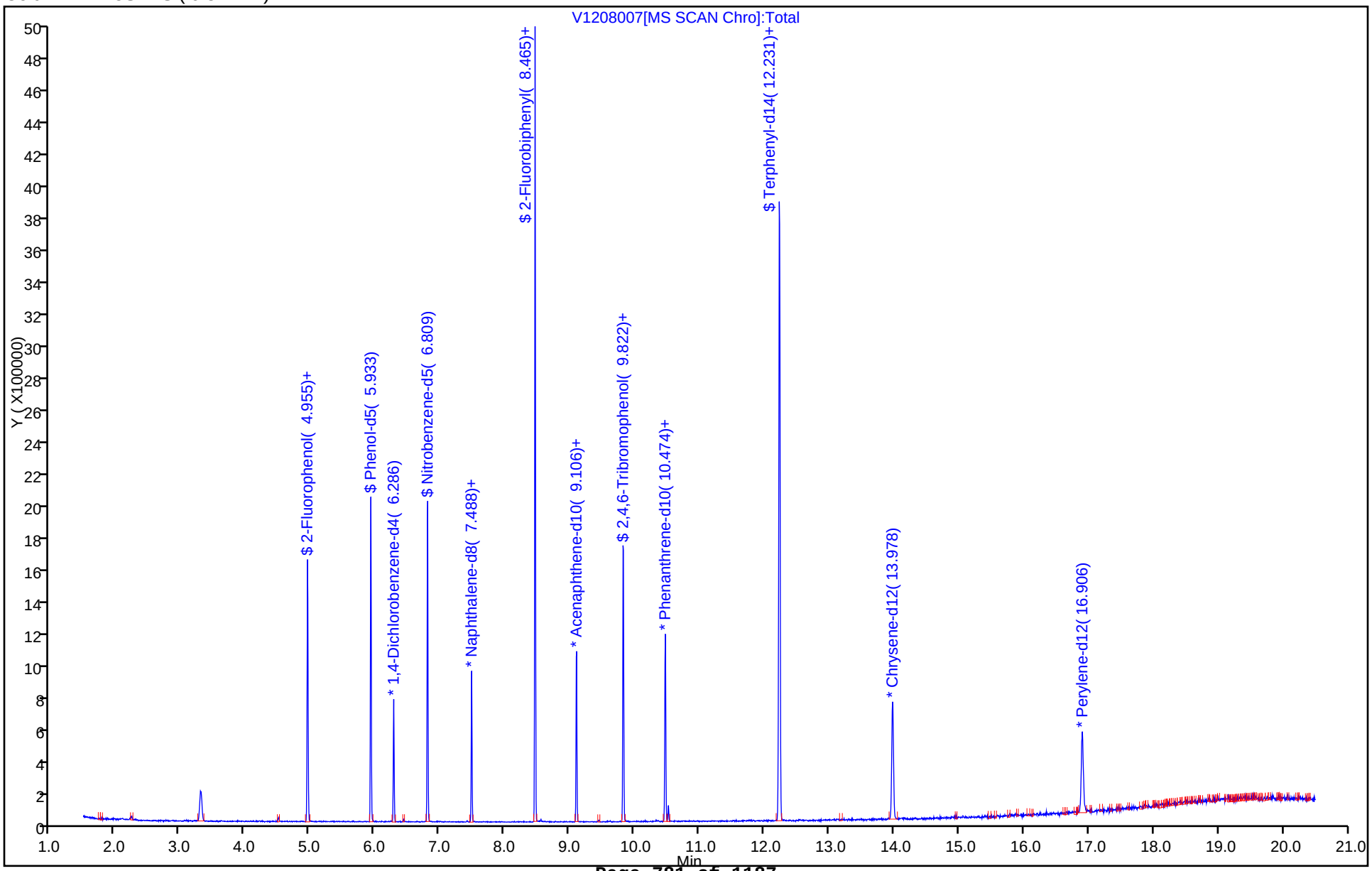
Report Date: 09-Dec-2014 05:58:38 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208007.D

Injection Date:	08-Dec-2014 11:58:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	MB 180-127168/1-A			Worklist Smp#:	7
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-127168/2-A

Matrix: Water | Lab File ID: V1208008.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 12/08/2014 12:26

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	12.0		0.20	0.029
208-96-8	Acenaphthylene	12.1		0.20	0.022
120-12-7	Anthracene	12.9		0.20	0.019
92-87-5	Benzidine	ND		20	4.7
56-55-3	Benzo[a]anthracene	13.4		0.20	0.037
205-99-2	Benzo[b]fluoranthene	12.6		0.20	0.049
207-08-9	Benzo[k]fluoranthene	12.8		0.20	0.030
65-85-0	Benzoic acid	2.22	J	5.0	1.6
191-24-2	Benzo[g,h,i]perylene	14.0		0.20	0.029
50-32-8	Benzo[a]pyrene	13.1		0.20	0.028
111-91-1	Bis(2-chloroethoxy)methane	10.9		1.0	0.13
111-44-4	Bis(2-chloroethyl)ether	8.80		1.0	0.032
117-81-7	Bis(2-ethylhexyl) phthalate	12.2		2.0	0.44
108-60-1	2,2'-oxybis[1-chloropropane]	8.93		1.0	0.024
101-55-3	4-Bromophenyl phenyl ether	13.5		1.0	0.12
7005-72-3	4-Chlorophenyl phenyl ether	13.3		1.0	0.080
91-58-7	2-Chloronaphthalene	10.9		0.20	0.031
85-68-7	Butyl benzyl phthalate	12.0		1.0	0.21
218-01-9	Chrysene	13.1		0.20	0.031
53-70-3	Dibenz(a,h)anthracene	13.8		0.20	0.027
84-74-2	Di-n-butyl phthalate	13.1		1.0	0.24
117-84-0	Di-n-octyl phthalate	11.4		1.0	0.20
84-66-2	Diethyl phthalate	13.3		1.0	0.30
131-11-3	Dimethyl phthalate	13.3		1.0	0.18
91-94-1	3,3'-Dichlorobenzidine	11.1		1.0	0.15
121-14-2	2,4-Dinitrotoluene	13.6		1.0	0.21
606-20-2	2,6-Dinitrotoluene	13.3		1.0	0.14
95-57-8	2-Chlorophenol	9.54		1.0	0.23
120-83-2	2,4-Dichlorophenol	11.1		1.0	0.067
105-67-9	2,4-Dimethylphenol	11.8		1.0	0.17
51-28-5	2,4-Dinitrophenol	17.1		5.0	2.5
88-75-5	2-Nitrophenol	11.0		1.0	0.11
88-06-2	2,4,6-Trichlorophenol	12.1		1.0	0.30
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	12.5		1.0	0.12

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-127168/2-A

Matrix: Water | Lab File ID: V1208008.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 12/08/2014 12:26

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	11.4		1.0	0.085
59-50-7	4-Chloro-3-methylphenol	12.3		1.0	0.17
100-02-7	4-Nitrophenol	30.9		5.0	0.80
534-52-1	4,6-Dinitro-2-methylphenol	23.7		5.0	1.6
206-44-0	Fluoranthene	13.9		0.20	0.021
86-73-7	Fluorene	13.9		0.20	0.024
118-74-1	Hexachlorobenzene	12.5		1.0	0.061
87-68-3	Hexachlorobutadiene	12.0		1.0	0.094
77-47-4	Hexachlorocyclopentadiene	11.3		1.0	0.14
67-72-1	Hexachloroethane	9.22		1.0	0.14
193-39-5	Indeno[1,2,3-cd]pyrene	13.8		0.20	0.043
78-59-1	Isophorone	11.7		1.0	0.074
91-20-3	Naphthalene	11.2		0.20	0.023
98-95-3	Nitrobenzene	11.1		2.0	0.15
621-64-7	N-Nitrosodi-n-propylamine	10.6		1.0	0.050
62-75-9	N-Nitrosodimethylamine	9.55		1.0	0.12
86-30-6	N-Nitrosodiphenylamine	12.4		1.0	0.12
85-01-8	Phenanthrene	12.6		0.20	0.042
129-00-0	Pyrene	11.7		0.20	0.023
87-86-5	Pentachlorophenol	17.8		1.0	0.50
108-95-2	Phenol	9.51		1.0	0.055

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	63		30-150
321-60-8	2-Fluorobiphenyl	60		30-150
367-12-4	2-Fluorophenol (Surr)	41		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	56		30-150
4165-62-2	Phenol-d5 (Surr)	50		30-150
1718-51-0	Terphenyl-d14 (Surr)	58		10-150

Report Date: 09-Dec-2014 05:58:39 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208008.D
Lims ID: LCS 180-127168/2-A
Client ID:
Sample Type: LCS
Inject. Date: 08-Dec-2014 12:26:30 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-008
Misc. Info.: LCS 180-127168/2-A
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 09-Dec-2014 05:52:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.282	6.277	0.005	91	85961	8.00	8.00	
* 2 Naphthalene-d8	136	7.484	7.479	0.005	96	263456	8.00	8.00	
* 3 Acenaphthene-d10	164	9.098	9.097	0.001	93	197515	8.00	8.00	
* 4 Phenanthrene-d10	188	10.465	10.465	0.000	96	439514	8.00	8.00	
* 5 Chrysene-d12	240	13.975	13.964	0.011	95	524774	8.00	8.00	
* 6 Perylene-d12	264	16.897	16.881	0.016	98	422708	8.00	8.00	
$ 7 2-Fluorophenol	112	4.952	4.946	0.006	90	225900	40.0	16.3	
$ 8 Phenol-d5	99	5.930	5.924	0.006	86	339243	40.0	20.1	
$ 9 Nitrobenzene-d5	82	6.801	6.800	0.001	92	416257	40.0	22.4	
$ 10 2-Fluorobiphenyl	172	8.462	8.456	0.006	99	916066	40.0	24.0	
$ 11 2,4,6-Tribromophenol	330	9.819	9.818	0.001	79	132835	40.0	25.2	
$ 12 Terphenyl-d14	244	12.228	12.217	0.011	99	1454417	40.0	23.3	
13 1,4-Dioxane	88	1.864	1.848	0.016	84	88205	40.0	14.5	M
14 N-Nitrosodimethylamine	74	2.548	2.537	0.011	83	172842	40.0	19.1	
15 Pyridine	79	2.612	2.596	0.016	92	267806	40.0	16.4	
26 Benzaldehyde	77	5.844	5.844	0.000	84	215739	40.0	17.1	
27 Phenol	94	5.941	5.940	0.000	94	355783	40.0	19.0	
28 Aniline	93	5.957	5.951	0.006	94	386692	40.0	18.2	
29 Bis(2-chloroethyl)ether	93	6.021	6.015	0.006	93	216844	40.0	17.6	
31 2-Chlorophenol	128	6.074	6.074	0.000	89	267543	40.0	19.1	
32 n-Decane	43	6.133	6.132	0.001	75	137562	40.0	13.1	
33 1,3-Dichlorobenzene	146	6.224	6.223	0.001	86	292107	40.0	17.8	
34 1,4-Dichlorobenzene	146	6.298	6.298	0.000	84	298299	40.0	17.7	
36 Benzyl alcohol	108	6.405	6.405	0.000	81	172522	40.0	21.2	
37 1,2-Dichlorobenzene	146	6.443	6.442	0.001	82	280180	40.0	18.0	
38 2-Methylphenol	108	6.517	6.517	0.000	88	268199	40.0	20.8	
39 Indene	116	6.528	6.528	0.000	88	456301	40.0	19.8	
40 2,2'-oxybis[1-chloropropan	45	6.539	6.538	0.001	65	186434	40.0	17.9	
44 N-Nitrosodi-n-propylamine	70	6.656	6.651	0.005	88	267335	40.0	21.3	
43 Acetophenone	105	6.656	6.656	0.000	74	453870	40.0	20.3	
45 4-Methylphenol	108	6.656	6.656	0.000	54	298225	40.0	20.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
47 Hexachloroethane	117	6.774	6.768	0.006	81	147353	40.0	18.4	
48 Nitrobenzene	77	6.822	6.816	0.006	87	404987	40.0	22.3	
50 Isophorone	82	7.041	7.035	0.006	96	649458	40.0	23.5	
51 2-Nitrophenol	139	7.121	7.121	0.000	74	144386	40.0	21.9	
52 2,4-Dimethylphenol	107	7.148	7.147	0.001	92	367094	40.0	23.6	
56 Benzoic acid	122	7.196	7.201	-0.005	83	26091	40.0	4.45	
55 Bis(2-chloroethoxy)methane	93	7.233	7.227	0.006	96	304644	40.0	21.8	
57 2,4-Dichlorophenol	162	7.345	7.345	0.000	92	281755	40.0	22.2	
61 Azobenzene	77		7.420				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.426	7.425	0.001	89	371911	40.0	22.9	
60 Naphthalene	128	7.500	7.500	0.000	97	839378	40.0	22.4	
62 4-Chloroaniline	127	7.538	7.537	0.001	89	334457	40.0	21.7	
64 Hexachlorobutadiene	225	7.618	7.612	0.006	93	330044	40.0	24.1	
67 Caprolactam	113	7.832	7.826	0.006	74	76569	40.0	24.9	
70 4-Chloro-3-methylphenol	107	7.971	7.965	0.006	88	314729	40.0	24.6	
72 2-Methylnaphthalene	142	8.136	8.136	0.000	87	638406	40.0	23.6	
75 1-Methylnaphthalene	142	8.227	8.226	0.001	88	600946	40.0	24.1	
76 Hexachlorocyclopentadiene	237	8.286	8.285	0.001	96	355945	40.0	22.6	
77 1,2,4,5-Tetrachlorobenzene	216	8.291	8.291	0.000	98	543123	40.0	25.2	
78 2,4,6-Trichlorophenol	196	8.387	8.387	0.000	93	300601	40.0	24.2	
79 2,4,5-Trichlorophenol	196	8.425	8.419	0.006	91	324514	40.0	25.3	
80 1,1'-Biphenyl	154	8.553	8.552	0.001	97	852880	40.0	23.8	
81 2-Chloronaphthalene	162	8.585	8.584	0.001	98	696397	40.0	21.8	
82 2-Nitroaniline	65	8.660	8.659	0.001	69	261650	40.0	27.8	
86 Dimethyl phthalate	163	8.809	8.809	0.000	94	886818	40.0	26.7	
87 1,3-Dinitrobenzene	168	8.847	8.841	0.006	80	137690	40.0	26.8	
88 2,6-Dinitrotoluene	165	8.873	8.868	0.005	80	191522	40.0	26.5	
89 Acenaphthylene	152	8.969	8.969	0.000	97	1070977	40.0	24.2	
90 3-Nitroaniline	138	9.034	9.028	0.006	83	160726	40.0	27.3	
92 2,4-Dinitrophenol	184	9.130	9.124	0.006	72	218878	80.0	34.2	
91 Acenaphthene	153	9.130	9.124	0.006	86	723194	40.0	24.0	
93 4-Nitrophenol	109	9.167	9.161	0.006	77	459722	80.0	61.9	
94 2,4-Dinitrotoluene	165	9.242	9.241	0.001	81	267649	40.0	27.1	
95 Dibenzofuran	168	9.285	9.279	0.006	94	1119783	40.0	24.2	
99 2,3,4,6-Tetrachlorophenol	232	9.392	9.386	0.006	73	319988	40.0	25.3	
101 Diethyl phthalate	149	9.450	9.444	0.006	95	981886	40.0	26.7	
102 Hexadecane	57	9.450	9.450	0.000	83	307500	40.0	24.2	
104 4-Chlorophenyl phenyl ethe	204	9.578	9.573	0.005	92	610236	40.0	26.5	
105 4-Nitroaniline	138	9.595	9.589	0.006	73	176453	40.0	27.0	
106 Fluorene	166	9.600	9.594	0.006	93	931142	40.0	27.8	
108 4,6-Dinitro-2-methylphenol	198	9.621	9.621	0.000	81	378148	80.0	47.3	
109 N-Nitrosodiphenylamine	169	9.685	9.680	0.005	65	694779	40.0	24.8	
111 1,2-Diphenylhydrazine	77	9.723	9.722	0.001	97	1083874	40.0	25.1	
116 4-Bromophenyl phenyl ether	248	10.033	10.027	0.006	68	390892	40.0	27.0	
118 Hexachlorobenzene	284	10.118	10.112	0.006	91	355745	40.0	25.0	
119 Atrazine	200	10.145	10.139	0.006	91	336768	40.0	25.7	
122 Pentachlorophenol	266	10.284	10.278	0.006	84	388434	80.0	35.6	
121 n-Octadecane	57	10.284	10.278	0.006	80	356449	40.0	24.2	
126 Phenanthrene	178	10.492	10.486	0.006	97	1533710	40.0	25.2	
128 Anthracene	178	10.540	10.534	0.006	96	1578530	40.0	25.7	
130 Carbazole	167	10.679	10.673	0.006	96	1346285	40.0	27.2	
132 Di-n-butyl phthalate	149	10.967	10.962	0.005	99	1565837	40.0	26.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
137 Fluoranthene	202	11.774	11.768	0.006	95	2092879	40.0	27.8	
138 Benzidine	184	11.897	11.891	0.006	98	129064	40.0	4.37	
139 Pyrene	202	12.073	12.067	0.006	98	2077747	40.0	23.4	
144 Butyl benzyl phthalate	149	12.912	12.906	0.006	94	706717	40.0	24.1	
149 3,3'-Dichlorobenzidine	252	13.874	13.862	0.012	73	594921	40.0	22.2	
151 Bis(2-ethylhexyl) phthalat	149	13.906	13.894	0.012	94	954580	40.0	24.5	
152 Benzo[a]anthracene	228	13.954	13.943	0.011	94	2120730	40.0	26.8	
153 Chrysene	228	14.023	14.012	0.011	94	1904168	40.0	26.2	
156 Di-n-octyl phthalate	149	15.204	15.193	0.011	99	1601884	40.0	22.7	
158 Benzo[b]fluoranthene	252	16.091	16.085	0.006	93	1934519	40.0	25.3	
159 Benzo[k]fluoranthene	252	16.149	16.133	0.016	96	1883485	40.0	25.7	
160 Benzo[a]pyrene	252	16.780	16.769	0.011	73	1747073	40.0	26.2	
163 Indeno[1,2,3-cd]pyrene	276	19.120	19.092	0.028	95	1684310	40.0	27.7	
164 Dibenz(a,h)anthracene	278	19.146	19.130	0.016	87	1430162	40.0	27.5	
165 Benzo[g,h,i]perylene	276	19.713	19.696	0.017	94	1416054	40.0	28.1	
S 208 Methyl Phenols,Total	108				0		80.0	41.4	
S 206 Total Cresols	108				0		80.0	41.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

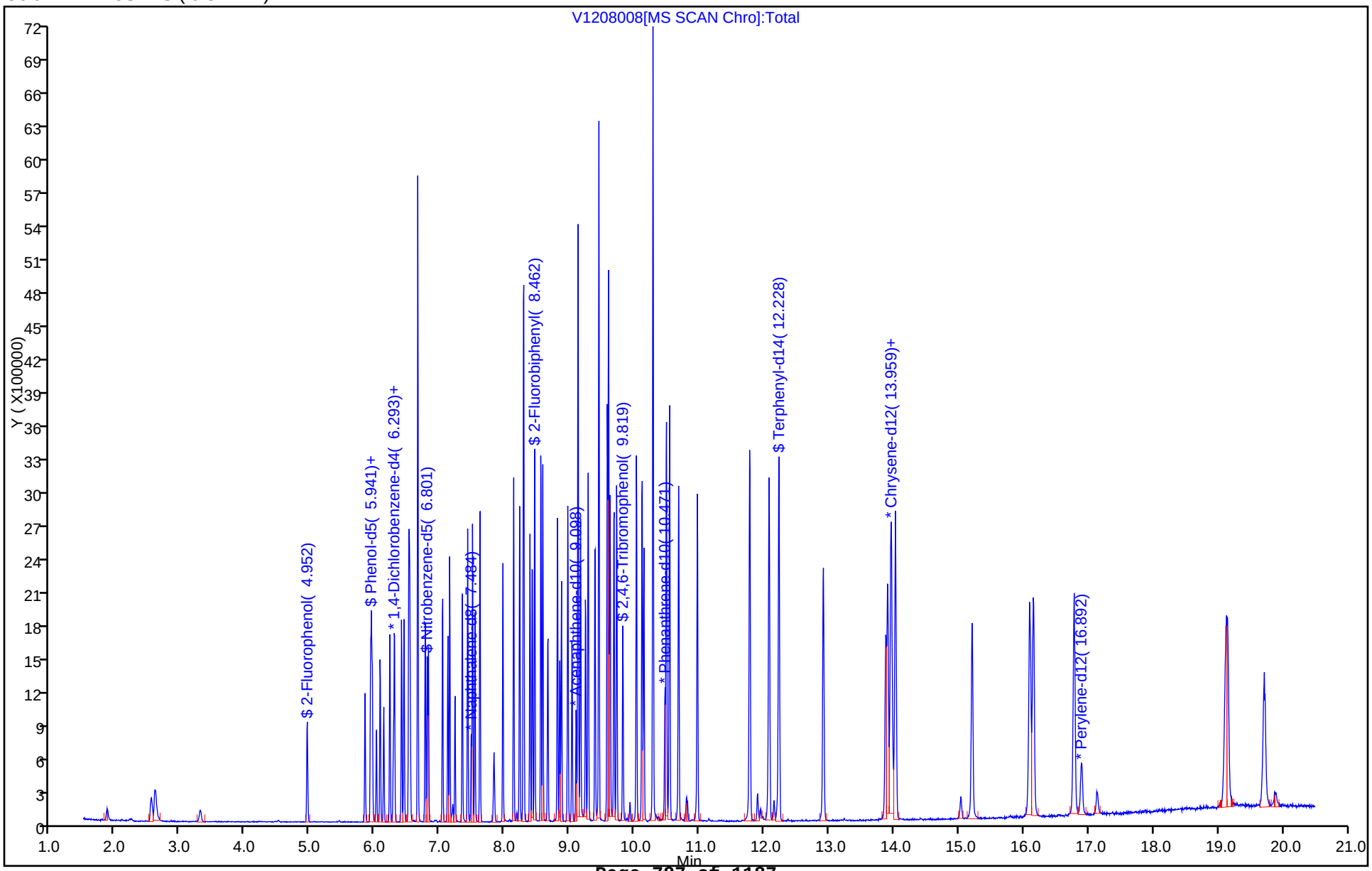
Report Date: 09-Dec-2014 05:58:39 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208008.D

Injection Date:	08-Dec-2014 12:26:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	LCS 180-127168/2-A			Worklist Smp#:	8
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-127168/3-A

Matrix: Water | Lab File ID: V1208009.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 12/08/2014 12:54

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	12.1		0.20	0.029
208-96-8	Acenaphthylene	12.4		0.20	0.022
120-12-7	Anthracene	12.5		0.20	0.019
92-87-5	Benzidine	ND		20	4.7
56-55-3	Benzo[a]anthracene	14.0		0.20	0.037
205-99-2	Benzo[b]fluoranthene	13.1		0.20	0.049
207-08-9	Benzo[k]fluoranthene	13.3		0.20	0.030
65-85-0	Benzoic acid	2.69	J	5.0	1.6
191-24-2	Benzo[g,h,i]perylene	14.4		0.20	0.029
50-32-8	Benzo[a]pyrene	13.6		0.20	0.028
111-91-1	Bis(2-chloroethoxy)methane	11.1		1.0	0.13
111-44-4	Bis(2-chloroethyl)ether	10.6		1.0	0.032
117-81-7	Bis(2-ethylhexyl) phthalate	12.7		2.0	0.44
108-60-1	2,2'-oxybis[1-chloropropane]	9.73		1.0	0.024
101-55-3	4-Bromophenyl phenyl ether	13.2		1.0	0.12
7005-72-3	4-Chlorophenyl phenyl ether	13.3		1.0	0.080
91-58-7	2-Chloronaphthalene	11.0		0.20	0.031
85-68-7	Butyl benzyl phthalate	12.5		1.0	0.21
218-01-9	Chrysene	13.5		0.20	0.031
53-70-3	Dibenz(a,h)anthracene	14.2		0.20	0.027
84-74-2	Di-n-butyl phthalate	12.5		1.0	0.24
117-84-0	Di-n-octyl phthalate	11.7		1.0	0.20
84-66-2	Diethyl phthalate	13.2		1.0	0.30
131-11-3	Dimethyl phthalate	13.3		1.0	0.18
91-94-1	3,3'-Dichlorobenzidine	11.2		1.0	0.15
121-14-2	2,4-Dinitrotoluene	13.7		1.0	0.21
606-20-2	2,6-Dinitrotoluene	13.6		1.0	0.14
95-57-8	2-Chlorophenol	10.8		1.0	0.23
120-83-2	2,4-Dichlorophenol	12.1		1.0	0.067
105-67-9	2,4-Dimethylphenol	11.8		1.0	0.17
51-28-5	2,4-Dinitrophenol	17.8		5.0	2.5
88-75-5	2-Nitrophenol	12.2		1.0	0.11
88-06-2	2,4,6-Trichlorophenol	12.1		1.0	0.30
122-66-7	1,2-Diphenylhydrazine(as Azobenzene)	12.8		1.0	0.12

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-127168/3-A

Matrix: Water | Lab File ID: V1208009.D

Analysis Method: 8270D LL | Date Collected:

Extract. Method: 3520C | Date Extracted: 12/04/2014 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 12/08/2014 12:54

Con. Extract Vol.: 0.25(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	11.7		1.0	0.085
59-50-7	4-Chloro-3-methylphenol	12.6		1.0	0.17
100-02-7	4-Nitrophenol	29.6		5.0	0.80
534-52-1	4,6-Dinitro-2-methylphenol	24.8		5.0	1.6
206-44-0	Fluoranthene	13.2		0.20	0.021
86-73-7	Fluorene	13.5		0.20	0.024
118-74-1	Hexachlorobenzene	11.9		1.0	0.061
87-68-3	Hexachlorobutadiene	12.0		1.0	0.094
77-47-4	Hexachlorocyclopentadiene	11.7		1.0	0.14
67-72-1	Hexachloroethane	10.3		1.0	0.14
193-39-5	Indeno[1,2,3-cd]pyrene	14.4		0.20	0.043
78-59-1	Isophorone	12.2		1.0	0.074
91-20-3	Naphthalene	11.9		0.20	0.023
98-95-3	Nitrobenzene	12.2		2.0	0.15
621-64-7	N-Nitrosodi-n-propylamine	12.6		1.0	0.050
62-75-9	N-Nitrosodimethylamine	10.9		1.0	0.12
86-30-6	N-Nitrosodiphenylamine	12.6		1.0	0.12
85-01-8	Phenanthrene	12.4		0.20	0.042
129-00-0	Pyrene	12.4		0.20	0.023
87-86-5	Pentachlorophenol	17.6		1.0	0.50
108-95-2	Phenol	10.9		1.0	0.055

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	63		30-150
321-60-8	2-Fluorobiphenyl	59		30-150
367-12-4	2-Fluorophenol (Surr)	44		30-150
4165-60-0	Nitrobenzene-d5 (Surr)	59		30-150
4165-62-2	Phenol-d5 (Surr)	57		30-150
1718-51-0	Terphenyl-d14 (Surr)	61		10-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208009.D
Lims ID: LCSD 180-127168/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 08-Dec-2014 12:54:30 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004758-009
Misc. Info.: LCSD 180-127168/3-A
Operator ID: 003200 Instrument ID: CH731

Method: \\PITCHROM\ChromData\CH731\20141208-4758.b\BNA_CH731.m
Limit Group: BNA 8270D ICAL
Last Update: 09-Dec-2014 05:58:24 Calib Date: 18-Nov-2014 07:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CH731\20141118-4448.b\V1118010.D

Column 1 : Rxi-5SilMS (0.32 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: piccolinov Date: 09-Dec-2014 05:53:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.275	6.277	-0.002	88	82003	8.00	8.00	
* 2 Naphthalene-d8	136	7.477	7.479	-0.002	97	274212	8.00	8.00	
* 3 Acenaphthene-d10	164	9.096	9.097	-0.001	91	212433	8.00	8.00	
* 4 Phenanthrene-d10	188	10.464	10.465	-0.001	94	477878	8.00	8.00	
* 5 Chrysene-d12	240	13.968	13.964	0.004	95	515876	8.00	8.00	
* 6 Perylene-d12	264	16.885	16.881	0.004	97	411193	8.00	8.00	
$ 7 2-Fluorophenol	112	4.945	4.946	-0.001	88	235116	40.0	17.7	
$ 8 Phenol-d5	99	5.928	5.924	0.004	85	365844	40.0	22.7	
$ 9 Nitrobenzene-d5	82	6.799	6.800	-0.001	91	457093	40.0	23.6	
$ 10 2-Fluorobiphenyl	172	8.455	8.456	-0.001	98	973989	40.0	23.8	
$ 11 2,4,6-Tribromophenol	330	9.817	9.818	-0.001	81	145564	40.0	25.4	
$ 12 Terphenyl-d14	244	12.221	12.217	0.004	98	1491537	40.0	24.3	
13 1,4-Dioxane	88	1.857	1.848	0.009	86	96512	40.0	16.7	
14 N-Nitrosodimethylamine	74	2.531	2.537	-0.006	87	188953	40.0	21.9	
15 Pyridine	79	2.600	2.596	0.004	93	293377	40.0	18.8	
26 Benzaldehyde	77	5.843	5.844	-0.001	84	234750	40.0	19.5	
27 Phenol	94	5.939	5.940	-0.001	97	388151	40.0	21.7	
28 Aniline	93	5.955	5.951	0.004	96	446586	40.0	22.0	
29 Bis(2-chloroethyl)ether	93	6.014	6.015	-0.001	93	249795	40.0	21.3	
31 2-Chlorophenol	128	6.072	6.074	-0.002	91	289012	40.0	21.6	
32 n-Decane	43	6.131	6.132	-0.001	76	151131	40.0	15.0	
33 1,3-Dichlorobenzene	146	6.222	6.223	-0.001	86	318574	40.0	20.4	
34 1,4-Dichlorobenzene	146	6.291	6.298	-0.007	85	317944	40.0	19.8	
36 Benzyl alcohol	108	6.404	6.405	-0.001	82	193220	40.0	24.9	
37 1,2-Dichlorobenzene	146	6.441	6.442	-0.001	85	318414	40.0	21.4	
38 2-Methylphenol	108	6.516	6.517	-0.001	89	286116	40.0	23.3	
39 Indene	116	6.526	6.528	-0.002	88	520473	40.0	23.7	
40 2,2'-oxybis[1-chloropropan	45	6.537	6.538	-0.001	61	193819	40.0	19.5	
44 N-Nitrosodi-n-propylamine	70	6.655	6.651	0.004	64	301039	40.0	25.1	
43 Acetophenone	105	6.655	6.656	-0.001	72	511220	40.0	24.0	
45 4-Methylphenol	108	6.655	6.656	-0.001	55	331023	40.0	23.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
47 Hexachloroethane	117	6.767	6.768	-0.001	81	156607	40.0	20.6	
48 Nitrobenzene	77	6.815	6.816	-0.001	87	462680	40.0	24.4	
50 Isophorone	82	7.034	7.035	-0.001	96	705174	40.0	24.5	
51 2-Nitrophenol	139	7.119	7.121	-0.002	75	167167	40.0	24.4	
52 2,4-Dimethylphenol	107	7.146	7.147	-0.001	93	383395	40.0	23.7	
56 Benzoic acid	122	7.194	7.201	-0.007	85	32853	40.0	5.38	
55 Bis(2-chloroethoxy)methane	93	7.226	7.227	-0.001	95	323482	40.0	22.3	
57 2,4-Dichlorophenol	162	7.338	7.345	-0.007	92	318299	40.0	24.1	
61 Azobenzene	77		7.420				ND	ND	
59 1,2,4-Trichlorobenzene	180	7.424	7.425	-0.001	91	396065	40.0	23.4	
60 Naphthalene	128	7.499	7.500	-0.001	97	925202	40.0	23.7	
62 4-Chloroaniline	127	7.536	7.537	-0.001	88	369408	40.0	23.0	
64 Hexachlorobutadiene	225	7.611	7.612	-0.001	94	341750	40.0	23.9	
67 Caprolactam	113	7.835	7.826	0.009	78	86339	40.0	27.0	
70 4-Chloro-3-methylphenol	107	7.969	7.965	0.004	87	334398	40.0	25.1	
72 2-Methylnaphthalene	142	8.134	8.136	-0.002	86	689928	40.0	24.5	
75 1-Methylnaphthalene	142	8.225	8.226	-0.001	88	657992	40.0	25.3	
76 Hexachlorocyclopentadiene	237	8.284	8.285	-0.001	96	397818	40.0	23.5	
77 1,2,4,5-Tetrachlorobenzene	216	8.289	8.291	-0.002	98	577279	40.0	24.9	
78 2,4,6-Trichlorophenol	196	8.386	8.387	-0.001	94	322991	40.0	24.2	
79 2,4,5-Trichlorophenol	196	8.423	8.419	0.004	92	352441	40.0	25.6	
80 1,1'-Biphenyl	154	8.551	8.552	-0.001	96	943826	40.0	24.5	
81 2-Chloronaphthalene	162	8.583	8.584	-0.001	98	753894	40.0	22.0	
82 2-Nitroaniline	65	8.658	8.659	-0.001	69	274826	40.0	27.1	
86 Dimethyl phthalate	163	8.808	8.809	-0.001	94	950444	40.0	26.6	
87 1,3-Dinitrobenzene	168	8.845	8.841	0.004	82	144928	40.0	26.2	
88 2,6-Dinitrotoluene	165	8.872	8.868	0.004	82	211802	40.0	27.3	
89 Acenaphthylene	152	8.968	8.969	-0.001	97	1177416	40.0	24.8	
90 3-Nitroaniline	138	9.032	9.028	0.004	84	168496	40.0	26.6	
92 2,4-Dinitrophenol	184	9.123	9.124	-0.001	70	246118	80.0	35.6	
91 Acenaphthene	153	9.128	9.124	0.004	85	784095	40.0	24.2	
93 4-Nitrophenol	109	9.165	9.161	0.004	78	472265	80.0	59.1	
94 2,4-Dinitrotoluene	165	9.240	9.241	-0.001	81	289936	40.0	27.3	
95 Dibenzofuran	168	9.283	9.279	0.004	94	1239342	40.0	24.9	
99 2,3,4,6-Tetrachlorophenol	232	9.390	9.386	0.004	72	344995	40.0	25.3	
101 Diethyl phthalate	149	9.449	9.444	0.005	95	1043457	40.0	26.4	
102 Hexadecane	57	9.449	9.450	-0.001	69	332218	40.0	25.1	
104 4-Chlorophenyl phenyl ethe	204	9.577	9.573	0.004	92	659351	40.0	26.6	
105 4-Nitroaniline	138	9.593	9.589	0.004	74	186420	40.0	26.5	
106 Fluorene	166	9.598	9.594	0.004	93	976113	40.0	27.1	
108 4,6-Dinitro-2-methylphenol	198	9.620	9.621	-0.001	85	430406	80.0	49.5	
109 N-Nitrosodiphenylamine	169	9.684	9.680	0.004	64	768746	40.0	25.3	
111 1,2-Diphenylhydrazine	77	9.721	9.722	-0.001	98	1203199	40.0	25.6	
116 4-Bromophenyl phenyl ether	248	10.026	10.027	-0.001	69	416733	40.0	26.4	
118 Hexachlorobenzene	284	10.116	10.112	0.004	91	368197	40.0	23.8	
119 Atrazine	200	10.143	10.139	0.004	91	368374	40.0	25.9	
122 Pentachlorophenol	266	10.282	10.278	0.004	84	417907	80.0	35.2	
121 n-Octadecane	57	10.282	10.278	0.004	80	377863	40.0	26.9	
126 Phenanthrene	178	10.490	10.486	0.004	97	1642142	40.0	24.8	
128 Anthracene	178	10.538	10.534	0.004	96	1673076	40.0	25.1	
130 Carbazole	167	10.677	10.673	0.004	97	1382200	40.0	25.7	
132 Di-n-butyl phthalate	149	10.966	10.962	0.004	99	1632426	40.0	25.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
137 Fluoranthene	202	11.772	11.768	0.004	95	2157032	40.0	26.3	
138 Benzidine	184	11.895	11.891	0.004	98	124430	40.0	4.29	
139 Pyrene	202	12.072	12.067	0.005	98	2160703	40.0	24.7	
144 Butyl benzyl phthalate	149	12.910	12.906	0.004	94	721645	40.0	25.0	
149 3,3'-Dichlorobenzidine	252	13.872	13.862	0.010	74	590017	40.0	22.4	
151 Bis(2-ethylhexyl) phthalat	149	13.899	13.894	0.005	94	975303	40.0	25.4	
152 Benzo[a]anthracene	228	13.952	13.943	0.009	95	2181852	40.0	28.1	
153 Chrysene	228	14.016	14.012	0.004	94	1934642	40.0	27.0	
156 Di-n-octyl phthalate	149	15.202	15.193	0.009	99	1599840	40.0	23.3	
158 Benzo[b]fluoranthene	252	16.089	16.085	0.004	93	1949810	40.0	26.2	
159 Benzo[k]fluoranthene	252	16.142	16.133	0.009	96	1902364	40.0	26.6	
160 Benzo[a]pyrene	252	16.773	16.769	0.004	73	1769873	40.0	27.3	
163 Indeno[1,2,3-cd]pyrene	276	19.107	19.092	0.015	95	1704913	40.0	28.8	
164 Dibenz(a,h)anthracene	278	19.134	19.130	0.004	88	1434602	40.0	28.4	
165 Benzo[g,h,i]perylene	276	19.711	19.696	0.015	95	1414732	40.0	28.8	
S 208 Methyl Phenols,Total	108				0		80.0	47.2	
S 206 Total Cresols	108				0		80.0	47.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

SVTAPITINTRNi_00007 Amount Added: 1.00 Units: uL Run Reagent

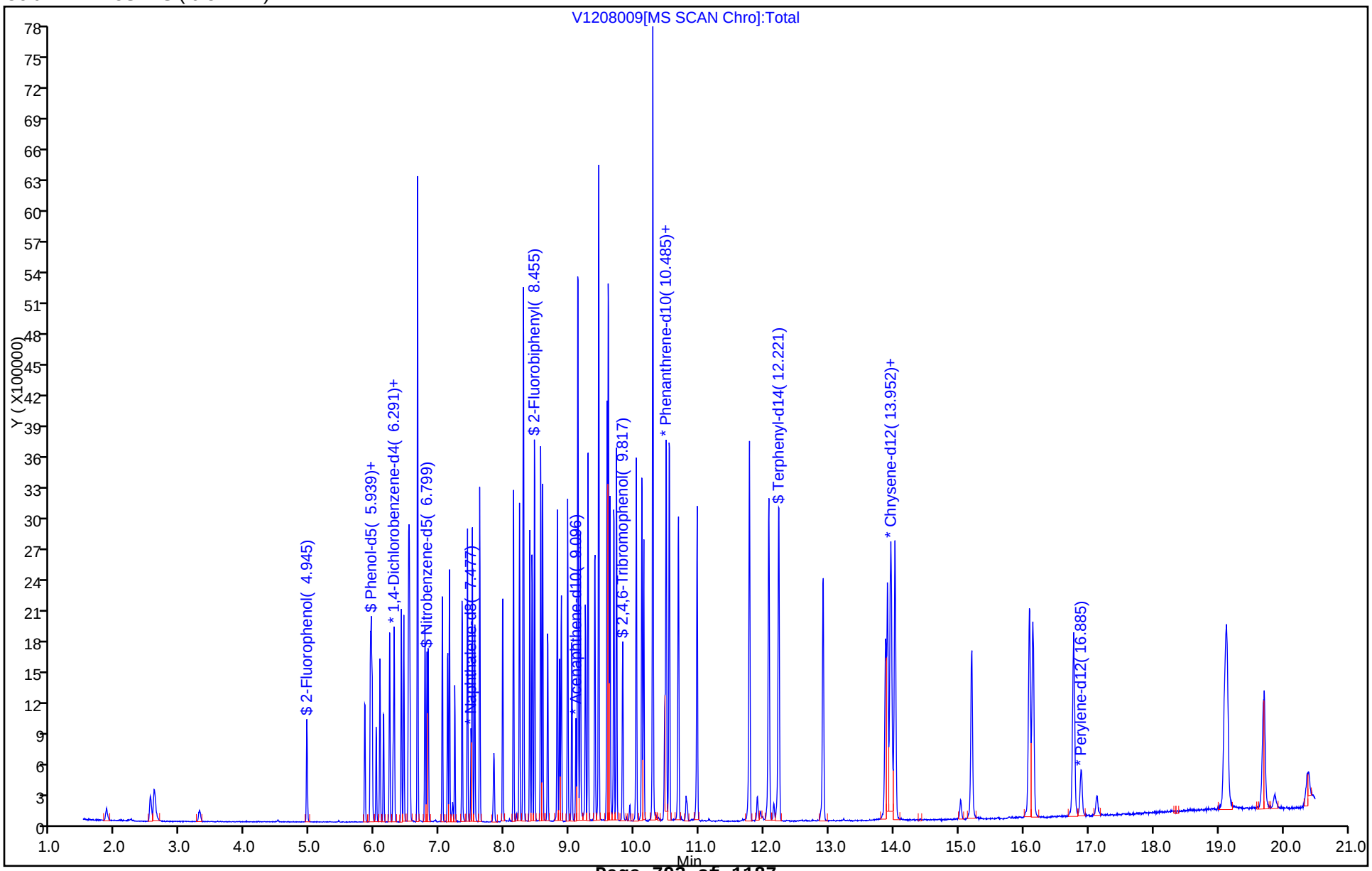
Report Date: 09-Dec-2014 05:58:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141208-4758.b\V1208009.D

Injection Date:	08-Dec-2014 12:54:30	Instrument ID:	CH731	Operator ID:	003200
Lims ID:	LCSD 180-127168/3-A			Worklist Smp#:	9
Client ID:					
Injection Vol:	2.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL		

Column: Rxi-5SilMS (0.32 mm)



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Start Date: 11/18/2014 04:03

Analysis Batch Number: 125450 End Date: 11/18/2014 09:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-125450/2		11/18/2014 04:03	1	V1118002.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/3		11/18/2014 04:22	1	V1118003.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/4		11/18/2014 04:50	1	V1118004.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/5		11/18/2014 05:19	1	V1118005.D	Rxi-5SilMS 0.32(mm)
ICIS 180-125450/6		11/18/2014 05:47	1	V1118006.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/7		11/18/2014 06:17	1	V1118007.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/8		11/18/2014 06:45	1	V1118008.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/9		11/18/2014 07:14	1	V1118009.D	Rxi-5SilMS 0.32(mm)
IC 180-125450/10		11/18/2014 07:43	1	V1118010.D	Rxi-5SilMS 0.32(mm)
ICV 180-125450/11		11/18/2014 08:11	1		Rxi-5SilMS 0.32(mm)
ICV 180-125450/12		11/18/2014 08:40	1		Rxi-5SilMS 0.32(mm)
ICV 180-125450/13		11/18/2014 09:09	1		Rxi-5SilMS 0.32(mm)
ICV 180-125450/14		11/18/2014 09:37	1		Rxi-5SilMS 0.32(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Start Date: 12/08/2014 09:45

Analysis Batch Number: 127527 End Date: 12/08/2014 17:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-127527/2		12/08/2014 09:45	1	V1208002.D	Rxi-5SilMS 0.32(mm)
CCVIS 180-127527/3		12/08/2014 10:03	1	V1208003.D	Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 10:31	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 10:31	1		Rxi-5SilMS 0.32(mm)
MDLV 180-126913/7-A		12/08/2014 10:59	1		Rxi-5SilMS 0.32(mm)
MDLV 180-126913/17-A		12/08/2014 11:29	1		Rxi-5SilMS 0.32(mm)
MB 180-127168/1-A		12/08/2014 11:58	1	V1208007.D	Rxi-5SilMS 0.32(mm)
LCS 180-127168/2-A		12/08/2014 12:26	1	V1208008.D	Rxi-5SilMS 0.32(mm)
LCSD 180-127168/3-A		12/08/2014 12:54	1	V1208009.D	Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 13:23	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 13:51	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 14:19	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 14:47	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 15:16	1		Rxi-5SilMS 0.32(mm)
180-39432-1	ST-071-120114	12/08/2014 15:44	1	V1208015.D	Rxi-5SilMS 0.32(mm)
ZZZZZ		12/08/2014 16:13	1		Rxi-5SilMS 0.32(mm)
180-39432-3	ST-018-120114	12/08/2014 16:41	1	V1208017.D	Rxi-5SilMS 0.32(mm)
180-39432-4	ST-014-120114	12/08/2014 17:09	1	V1208018.D	Rxi-5SilMS 0.32(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CH731 Start Date: 12/09/2014 10:21

Analysis Batch Number: 127670 End Date: 12/09/2014 16:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-127670/2		12/09/2014 10:21	1	V1209002.D	Rxi-5SilMS 0.32(mm)
CCVIS 180-127670/3		12/09/2014 10:39	1	V1209003.D	Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 11:10	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 11:38	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 12:06	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 12:34	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 13:02	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 13:30	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 13:59	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 14:55	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 15:24	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 15:52	1		Rxi-5SilMS 0.32(mm)
ZZZZZ		12/09/2014 16:20	1		Rxi-5SilMS 0.32(mm)
180-39432-2	ST-UNNAMED-120114	12/09/2014 16:49	1	V1209016.D	Rxi-5SilMS 0.32(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127168 Batch Start Date: 12/04/14 11:05 Batch Analyst: Trout, Bill

Batch Method: 3520C Batch End Date: 12/06/14 03:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	SecondAdjustpH
MB 180-127168/1		3520C, 8270D LL		5 SU	250 mL	0.25 mL	5	2	11
LCS 180-127168/2		3520C, 8270D LL		5 SU	250 mL	0.25 mL	5	2	11
LCSD 180-127168/3		3520C, 8270D LL		5 SU	250 mL	0.25 mL	5	2	11
180-39432-E-1	ST-071-120114	3520C, 8270D LL	T	7 SU	260 mL	0.25 mL	7	2	11
180-39432-E-2	ST-UNNAMED-120114	3520C, 8270D LL	T	7 SU	260 mL	0.25 mL	7	2	11
180-39432-E-3	ST-018-120114	3520C, 8270D LL	T	10 SU	260 mL	0.25 mL	10	2	11
180-39432-E-4	ST-014-120114	3520C, 8270D LL	T	7 SU	260 mL	0.25 mL	7	2	11

Lab Sample ID	Client Sample ID	Method Chain	Basis	OPLVISPKMIX1i 00032	OPQL8270SURi 00025				
MB 180-127168/1		3520C, 8270D LL			25 uL				
LCS 180-127168/2		3520C, 8270D LL		25 uL	25 uL				
LCSD 180-127168/3		3520C, 8270D LL		25 uL	25 uL				
180-39432-E-1	ST-071-120114	3520C, 8270D LL	T		25 uL				
180-39432-E-2	ST-UNNAMED-120114	3520C, 8270D LL	T		25 uL				
180-39432-E-3	ST-018-120114	3520C, 8270D LL	T		25 uL				
180-39432-E-4	ST-014-120114	3520C, 8270D LL	T		25 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127168 Batch Start Date: 12/04/14 11:05 Batch Analyst: Trout, Bill

Batch Method: 3520C Batch End Date: 12/06/14 03:20

Batch Notes	
Acid used for pH adjustment	1:1 Sulfuric acid
Acid used for pH adjust Lot #	1329979
Base used for pH adjustment	10N sodium hydroxide
Base used for pH adjust Lot #	1405770
Person's name who did the concentration	cdm
Time the first extraction ended 24hr	0530
Time the first extraction started 24 hr	1105
N-evap #	1
Na2SO4 Lot Number	1420632
pH Paper Lot Number	Ph paper HC419379
Prep Solvent Lot #	1417620
Prep Solvent Name	Methylene chloride
Prep Solvent Volume Used	100 mL
Person's name who did the prep	BT
Time the second extraction ended 24hr	0320
Time the second extraction started 24hr	0855
Uncorrected N-evap Temperature	26 Degrees C
Uncorrected Temperature	75 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8082A Low Level

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A Low Level

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-CLP1 ID: 0.53 (mm) GC Column (2): RTX-CLP2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1	#	TCX2	#	DCB1	#	DCB2	#
ST-071-120114	180-39432-1	88		87		150	X	142	X
ST-UNNAMED-120114	180-39432-2	98		101		142	X	147	X
ST-018-120114	180-39432-3	103		105		118		131	
ST-014-120114	180-39432-4	92		88		142	X	142	X
	MB 180-127269/1-A	91		88		109		107	
	LCS 180-127269/3-A	88		93		99		109	
	LCSD 180-127269/4-A	94		97		119		112	

	QC LIMITS
TCX = Tetrachloro-m-xylene (Surr)	25-150
DCB = DCB Decachlorobiphenyl (Surr)	60-135

Column to be used to flag recovery values

FORM II 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: O1240222.D

Lab ID: LCS 180-127269/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
PCB-1016	1.00	0.860	86	55-120	
PCB-1260	1.00	1.13	113	55-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Level: Low Lab File ID: O1240223.D

Lab ID: LCSD 180-127269/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
PCB-1016	1.00	0.909	91	5	25	55-120	
PCB-1260	1.00	1.18	118	4	25	55-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: MB 180-127269/1-A

Matrix: Water Date Extracted: 12/04/2014 11:50

Lab File ID:(1) O1240216.D Lab File ID:(2) O1240216.D

Date Analyzed:(1) 12/13/2014 15:30 Date Analyzed:(2) 12/13/2014 15:30

Instrument ID:(1) CHGC8 Instrument ID:(2) CHGC8

GC Column:(1) RTX-CLP1 ID: 0.53(mm) GC Column:(2) RTX-CLP2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
ST-071-120114	180-39432-1	12/13/2014 15:50	12/13/2014 15:50
ST-UNNAMED-120114	180-39432-2	12/13/2014 16:09	12/13/2014 16:09
ST-018-120114	180-39432-3	12/13/2014 16:29	12/13/2014 16:29
ST-014-120114	180-39432-4	12/13/2014 16:48	12/13/2014 16:48
	LCS 180-127269/3-A	12/13/2014 17:28	12/13/2014 17:28
	LCSD 180-127269/4-A	12/13/2014 17:47	12/13/2014 17:47

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVRT 180-128212/1 Date Analyzed: 12/13/2014 10:16

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm)

Lab File ID (Standard): O1240200.D Heated Purge: (Y/N) N

Calibration ID: 20300

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				3.02	11.08	
UPPER LIMIT				3.07	11.13	
LOWER LIMIT				2.97	11.03	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-128212/1		12/13/2014 10:16	O1240200.D	3.02	11.08	
CCV 180-128212/12		12/13/2014 13:52	O1240211.D	3.02	11.08	
MB 180-127269/1-A		12/13/2014 15:30	O1240216.D	3.02	11.08	
180-39432-1	ST-071-120114	12/13/2014 15:50	O1240217.D	3.02	11.08	
180-39432-2	ST-UNNAMED-120114	12/13/2014 16:09	O1240218.D	3.02	11.08	
180-39432-3	ST-018-120114	12/13/2014 16:29	O1240219.D	3.02	11.09	
180-39432-4	ST-014-120114	12/13/2014 16:48	O1240220.D	3.02	11.08	
LCS 180-127269/3-A		12/13/2014 17:28	O1240222.D	3.02	11.09	
LCSD 180-127269/4-A		12/13/2014 17:47	O1240223.D	3.02	11.08	
CCV 180-128212/33		12/13/2014 20:44	O1240232.D	3.02	11.08	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0 minutes of surrogate RT
DCB RT Limit = ± 0 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Sample No.: CCVRT 180-128212/1 Date Analyzed: 12/13/2014 10:16

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm)

Lab File ID (Standard): O1240200.D Heated Purge: (Y/N) N

Calibration ID: 20301

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				3.58	12.77	
UPPER LIMIT				3.63	12.82	
LOWER LIMIT				3.53	12.72	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-128212/1		12/13/2014 10:16	O1240200.D	3.58	12.77	
CCV 180-128212/12		12/13/2014 13:52	O1240211.D	3.58	12.77	
MB 180-127269/1-A		12/13/2014 15:30	O1240216.D	3.58	12.77	
180-39432-1	ST-071-120114	12/13/2014 15:50	O1240217.D	3.58	12.78	
180-39432-2	ST-UNNAMED-120114	12/13/2014 16:09	O1240218.D	3.58	12.77	
180-39432-3	ST-018-120114	12/13/2014 16:29	O1240219.D	3.58	12.78	
180-39432-4	ST-014-120114	12/13/2014 16:48	O1240220.D	3.58	12.77	
LCS 180-127269/3-A		12/13/2014 17:28	O1240222.D	3.58	12.77	
LCSD 180-127269/4-A		12/13/2014 17:47	O1240223.D	3.58	12.77	
CCV 180-128212/33		12/13/2014 20:44	O1240232.D	3.58	12.77	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit = ± 0 minutes of surrogate RT
DCB RT Limit = ± 0 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-127269/3-A

Instrument ID (1): CHGC8 Instrument ID (2): CHGC8

Date Analyzed (1): 12/13/2014 17:28 Date Analyzed (2): 12/13/2014 17:28

GC Column (1): RTX-CLP1 ID: 0.53(mm) GC Column (2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	3.32	3.27	3.37	0.853	0.892	3.6
		2	3.65	3.60	3.70	0.830		
		3	4.12	4.06	4.16	1.05		
		4	4.26	4.21	4.31	0.863		
		5	4.74	4.69	4.79	0.864		
	2	1	4.11	4.06	4.16	0.849	0.860	
		2	4.60	4.55	4.65	0.843		
		3	5.23	5.18	5.28	0.880		
		4	5.43	5.38	5.48	0.857		
		5	6.18	6.13	6.23	0.871		
PCB-1260	1	1	7.03	6.98	7.08	1.07	1.17	4.1
		2	7.55	7.50	7.60	1.13		
		3	8.28	8.23	8.33	1.17		
		4	8.88	8.83	8.93	1.25		
		5	9.37	9.32	9.42	1.25		
	2	1	9.64	9.59	9.69	1.09	1.13	
		2	9.79	9.74	9.84	1.08		
		3	10.27	10.22	10.32	1.12		
		4	10.66	10.61	10.71	1.17		
		5	11.20	11.15	11.25	1.17		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-127269/4-A

Instrument ID (1): CHGC8 Instrument ID (2): CHGC8

Date Analyzed (1): 12/13/2014 17:47 Date Analyzed (2): 12/13/2014 17:47

GC Column (1): RTX-CLP1 ID: 0.53(mm) GC Column (2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	3.32	3.27	3.37	0.905	0.935	2.9
		2	3.65	3.60	3.70	0.879		
		3	4.12	4.06	4.16	1.10		
		4	4.26	4.21	4.31	0.896		
		5	4.74	4.69	4.79	0.901		
	2	1	4.11	4.06	4.16	0.906	0.909	
		2	4.60	4.55	4.65	0.881		
		3	5.23	5.18	5.28	0.931		
		4	5.43	5.38	5.48	0.905		
		5	6.18	6.13	6.23	0.920		
PCB-1260	1	1	7.03	6.98	7.08	1.10	1.21	2.7
		2	7.55	7.50	7.60	1.17		
		3	8.28	8.23	8.33	1.22		
		4	8.88	8.83	8.93	1.27		
		5	9.37	9.32	9.42	1.29		
	2	1	9.64	9.59	9.69	1.13	1.18	
		2	9.79	9.74	9.84	1.10		
		3	10.27	10.22	10.32	1.17		
		4	10.66	10.61	10.71	1.25		
		5	11.20	11.15	11.25	1.23		

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Matrix: Water Lab File ID: O1240217.D

Analysis Method: 8082A Date Collected: 12/01/2014 17:35

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 15:50

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0094	0.0024
11104-28-2	PCB-1221	ND		0.0094	0.0039
11141-16-5	PCB-1232	ND		0.0094	0.0037
53469-21-9	PCB-1242	ND		0.0094	0.0018
12672-29-6	PCB-1248	ND		0.0094	0.0025
11097-69-1	PCB-1254	ND		0.0094	0.0028
11096-82-5	PCB-1260	ND		0.0094	0.0016

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	150	X	60-135
877-09-8	Tetrachloro-m-xylene (Surr)	88		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240217.D
Lims ID: 180-39432-A-1-A Lab Sample ID: 180-39432-1
Client ID: ST-071-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 15:50:03 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-018
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:55:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.022	3.022	0.000	38813965	H 0.0176	
2	3.581	3.581	0.000	49411614	H 0.0174	
					RPD = 1.27	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

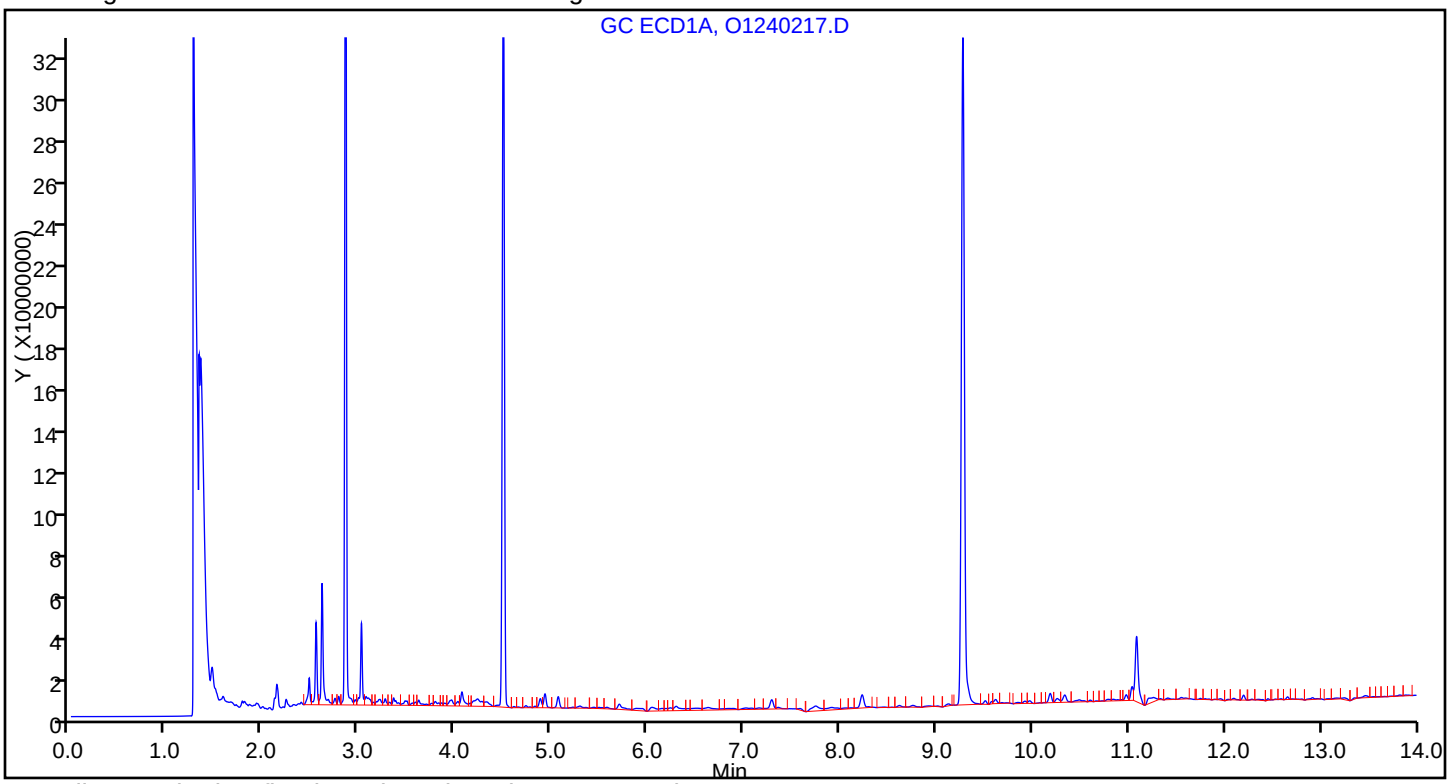
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.084	11.084	0.000	30977423H	0.0300	
2	12.775	12.773	0.002	35138047H	0.0283	
					RPD = 5.85	

Report Date: 15-Dec-2014 11:19:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

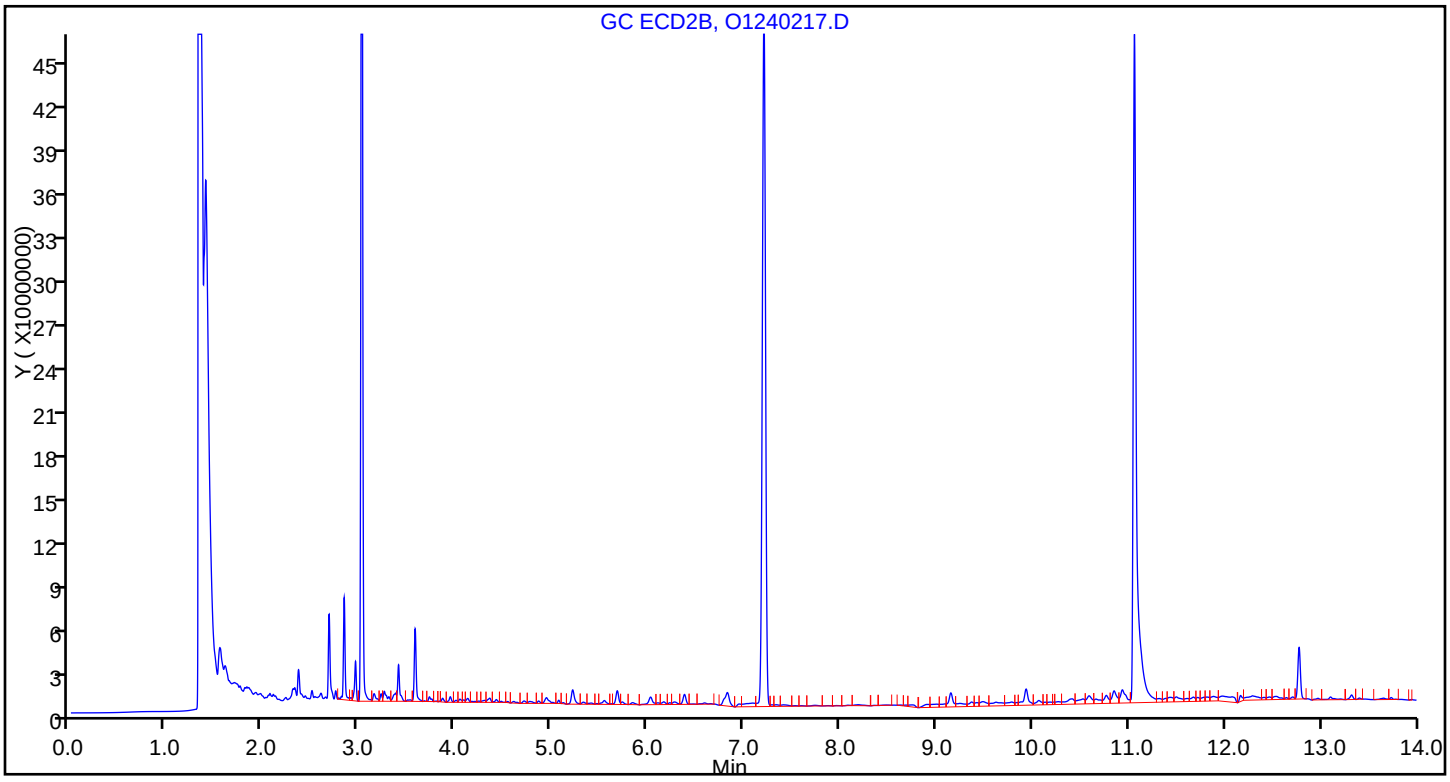
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240217.D				
Injection Date:	13-Dec-2014 15:50:03	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-1-A	Lab Sample ID:	180-39432-1		
Client ID:	ST-071-120114				
Operator ID:	402331	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Matrix: Water Lab File ID: O1240217.D

Analysis Method: 8082A Date Collected: 12/01/2014 17:35

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 15:50

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	142	X	60-135
877-09-8	Tetrachloro-m-xylene (Surr)	87		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240217.D
Lims ID: 180-39432-A-1-A Lab Sample ID: 180-39432-1
Client ID: ST-071-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 15:50:03 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-018
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:55:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.022	3.022	0.000	38813965	H 0.0176	
2	3.581	3.581	0.000	49411614	H 0.0174	
					RPD = 1.27	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

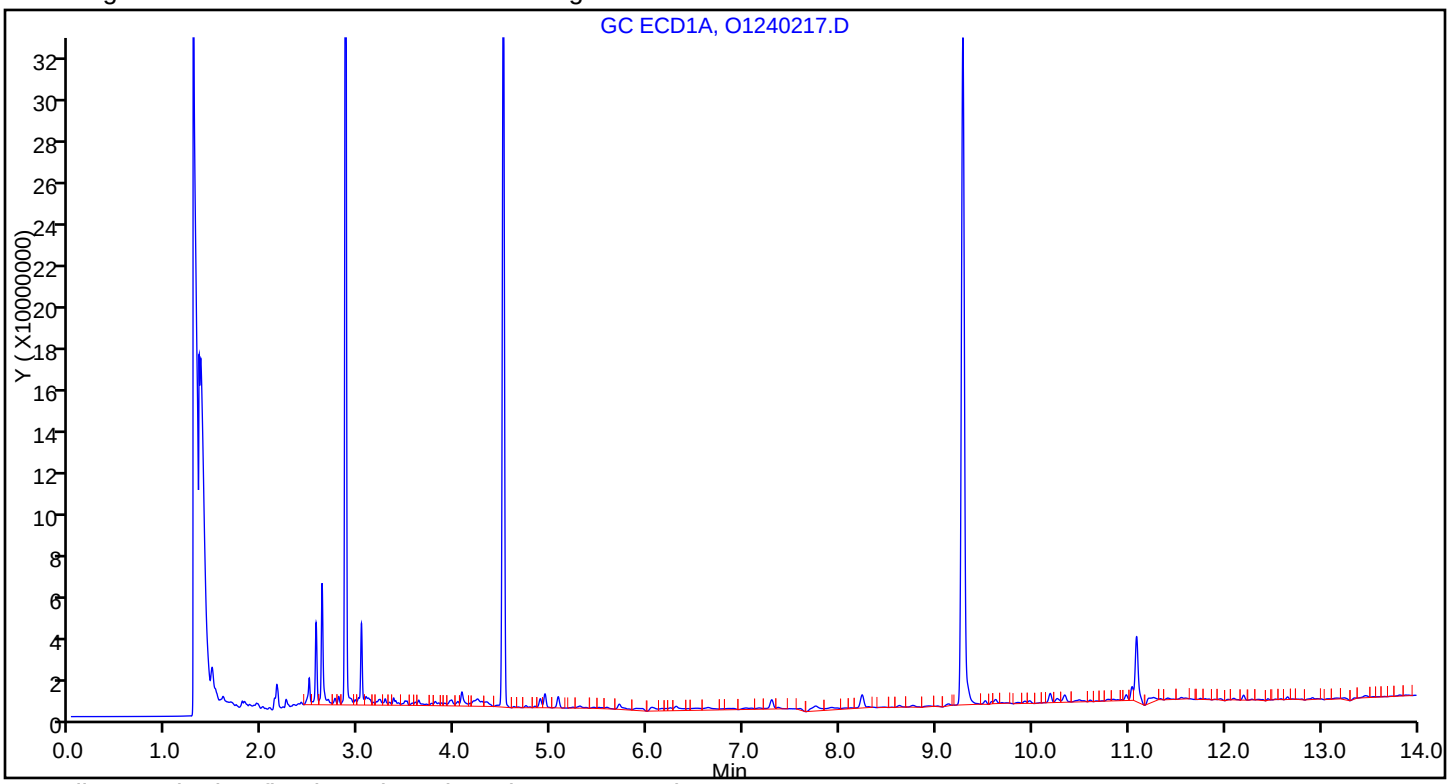
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.084	11.084	0.000	30977423H	0.0300	
2	12.775	12.773	0.002	35138047H	0.0283	
					RPD = 5.85	

Report Date: 15-Dec-2014 11:19:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

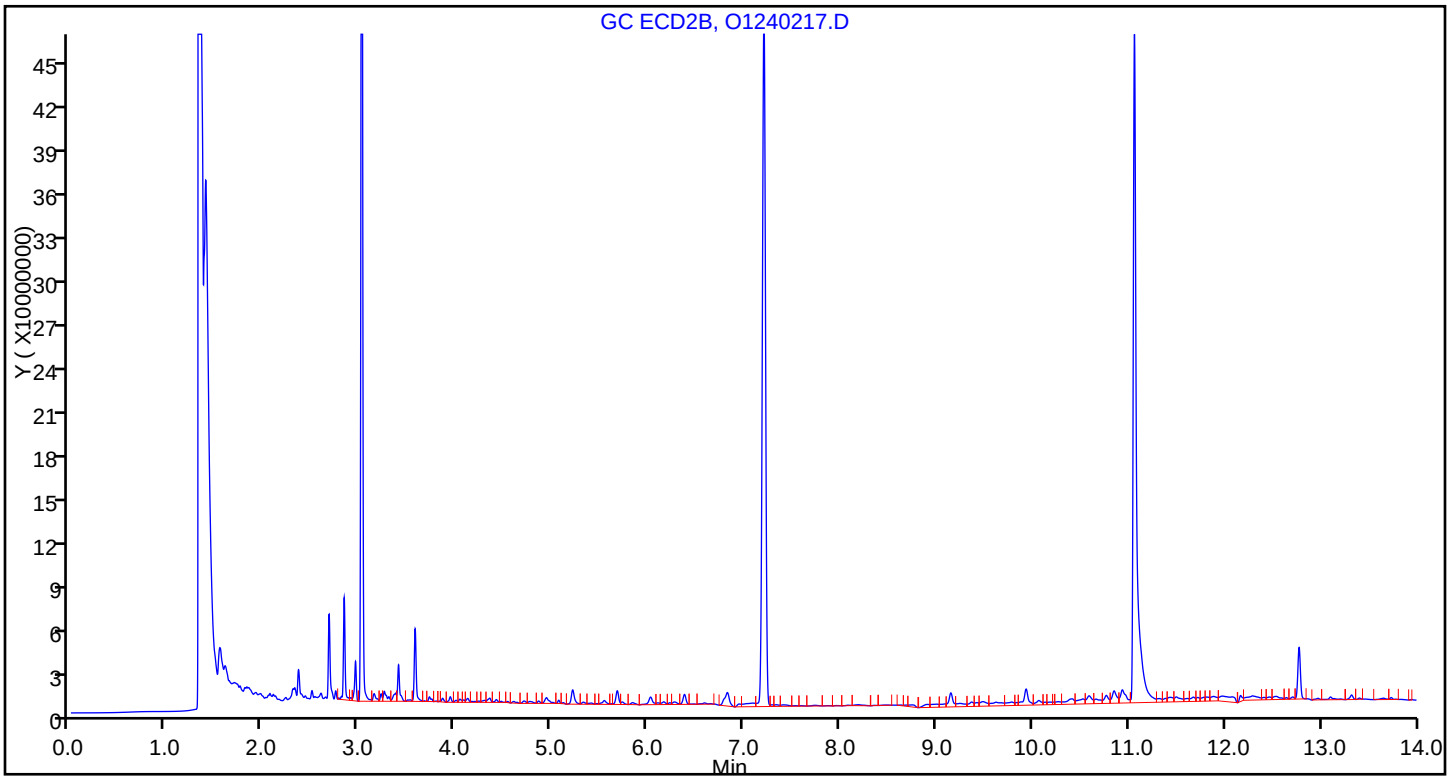
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240217.D				
Injection Date:	13-Dec-2014 15:50:03	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-1-A	Lab Sample ID:	180-39432-1		
Client ID:	ST-071-120114				
Operator ID:	402331	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Matrix: Water Lab File ID: O1240218.D

Analysis Method: 8082A Date Collected: 12/01/2014 18:25

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 16:09

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0094	0.0024
11104-28-2	PCB-1221	ND		0.0094	0.0039
11141-16-5	PCB-1232	ND		0.0094	0.0037
53469-21-9	PCB-1242	ND		0.0094	0.0018
12672-29-6	PCB-1248	ND		0.0094	0.0025
11097-69-1	PCB-1254	ND		0.0094	0.0028
11096-82-5	PCB-1260	ND		0.0094	0.0016

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	142	*X*	60-135
877-09-8	Tetrachloro-m-xylene (Surr)	98		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240218.D
Lims ID: 180-39432-A-2-A Lab Sample ID: 180-39432-2
Client ID: ST-UNNAMED-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 16:09:39 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-019
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:56:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.023	3.022	0.001	43232280	H 0.0196	
2	3.582	3.581	0.001	57213391	H 0.0202	
					RPD = 2.61	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

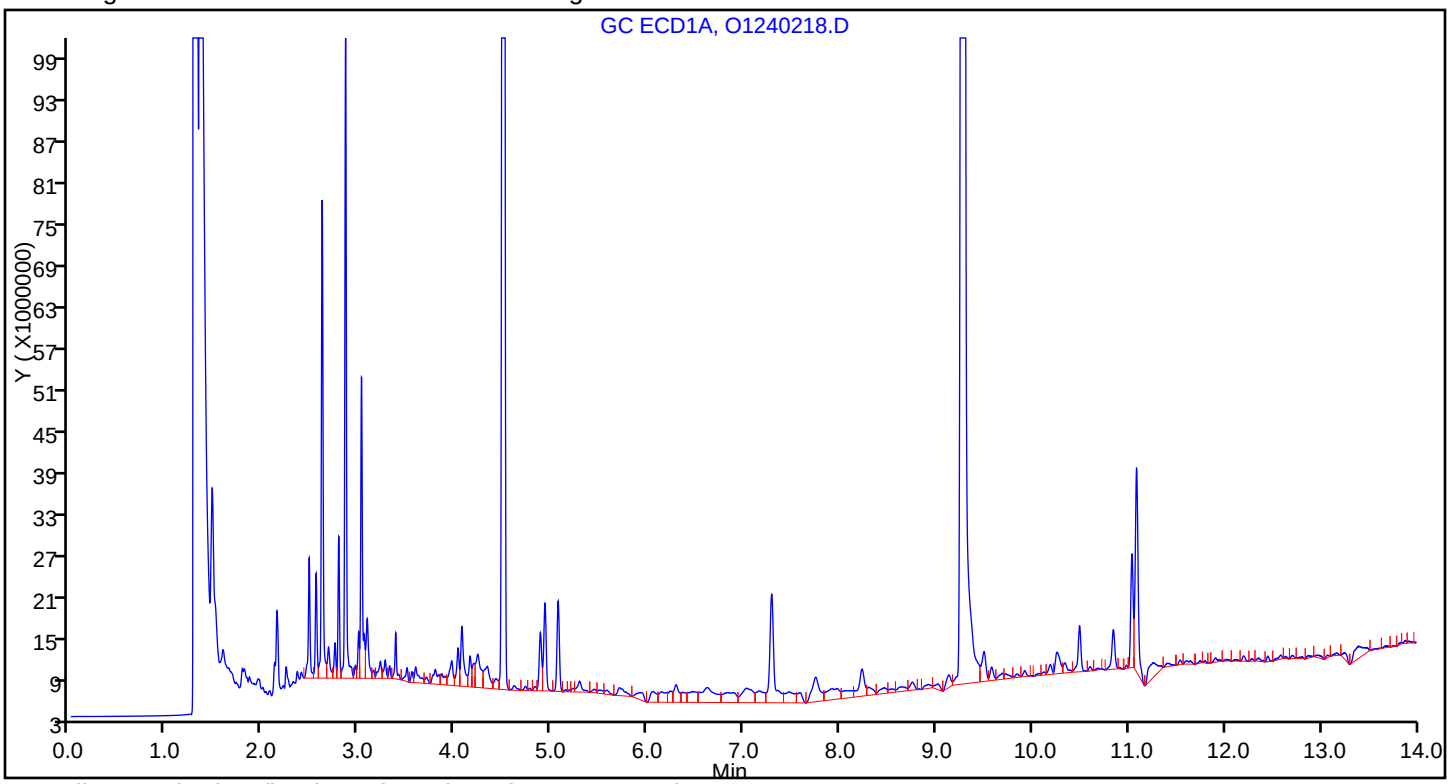
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.083	11.084	-0.001	29243261	H 0.0284	
2	12.774	12.773	0.001	36424922	H 0.0294	
					RPD = 3.51	

Report Date: 15-Dec-2014 11:19:41 Chrom Revision: 2.2 06-Nov-2014 14:50:32

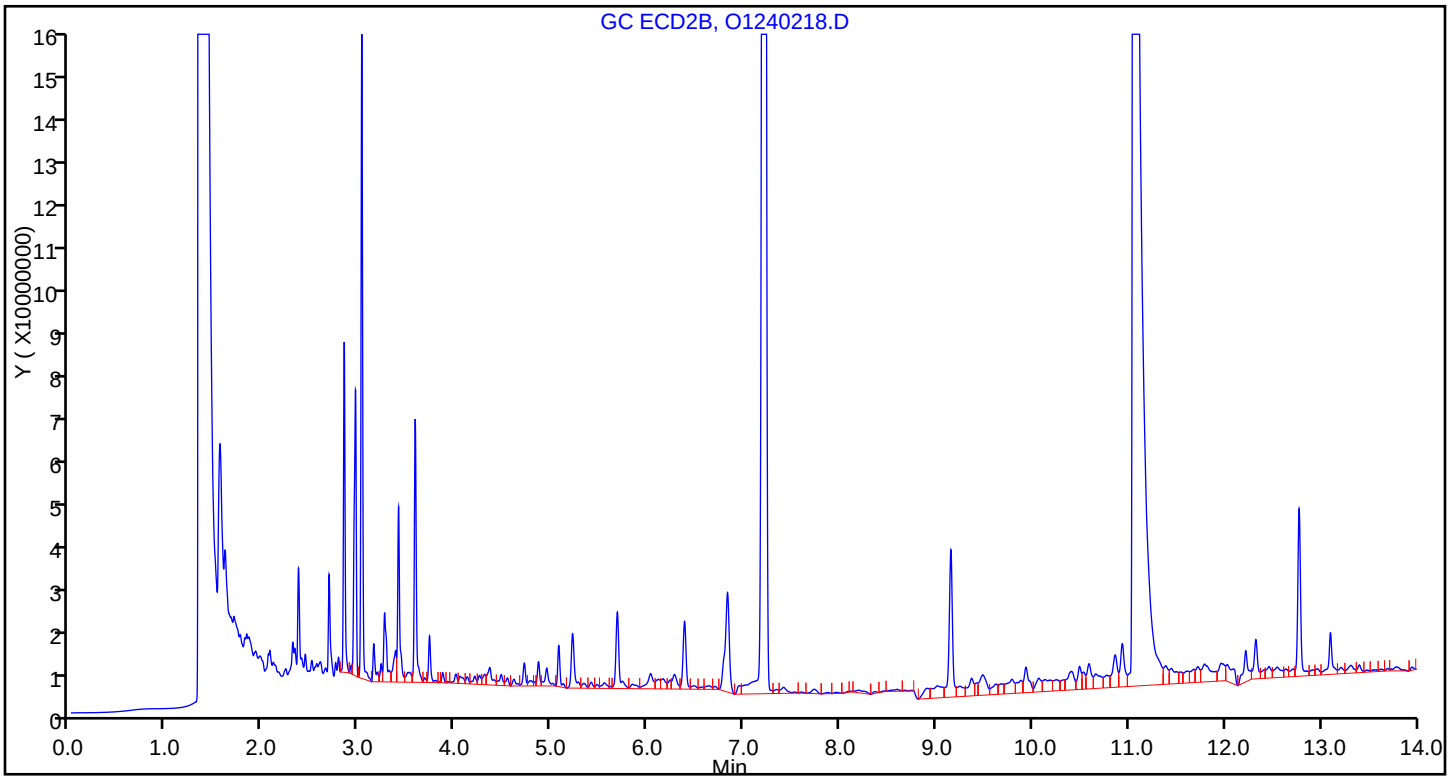
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240218.D				
Injection Date:	13-Dec-2014 16:09:39	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-2-A	Lab Sample ID:	180-39432-2		
Client ID:	ST-UNNAMED-120114				
Operator ID:	402331	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Matrix: Water Lab File ID: O1240218.D

Analysis Method: 8082A Date Collected: 12/01/2014 18:25

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 16:09

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	147	X	60-135
877-09-8	Tetrachloro-m-xylene (Surr)	101		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240218.D
Lims ID: 180-39432-A-2-A Lab Sample ID: 180-39432-2
Client ID: ST-UNNAMED-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 16:09:39 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-019
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:56:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.023	3.022	0.001	43232280	H 0.0196	
2	3.582	3.581	0.001	57213391	H 0.0202	
					RPD = 2.61	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

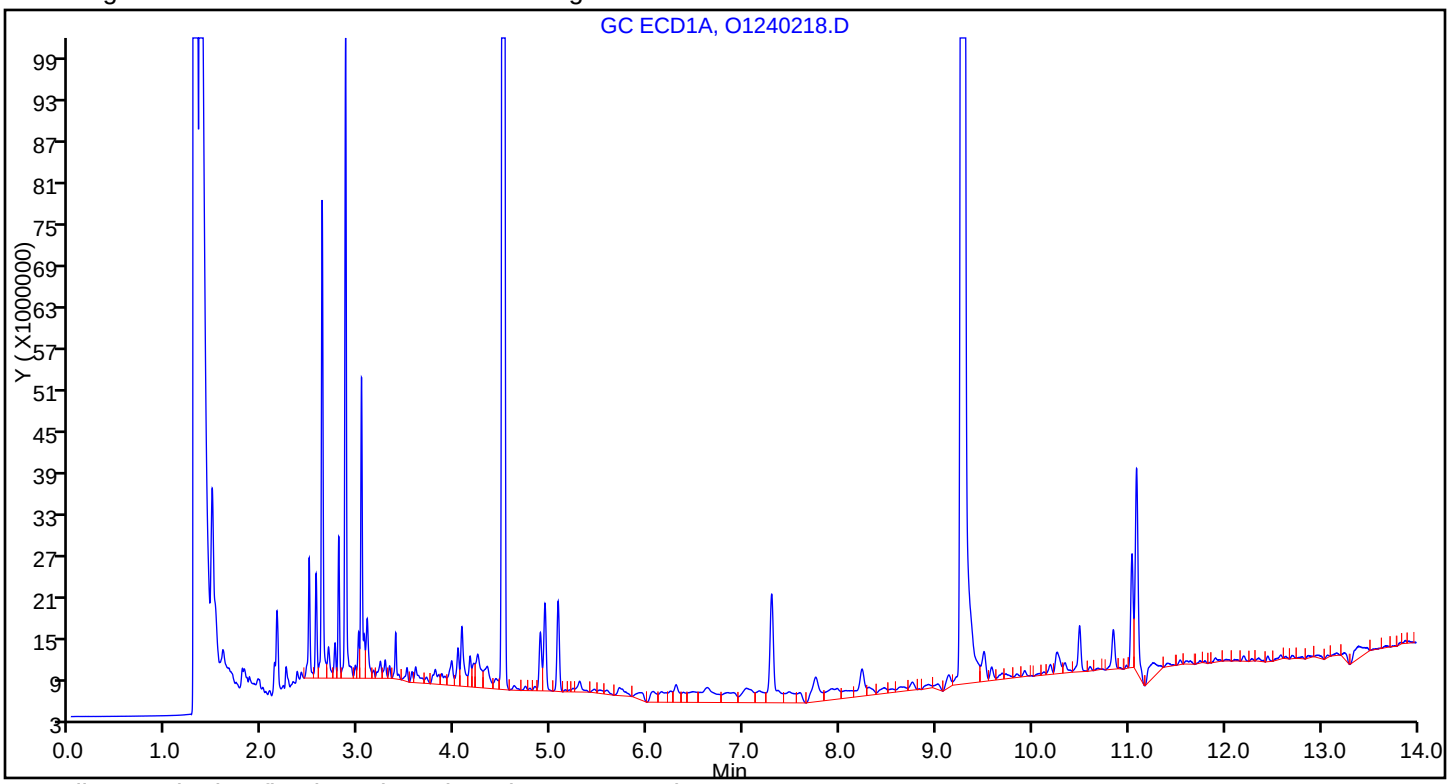
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.083	11.084	-0.001	29243261	H 0.0284	
2	12.774	12.773	0.001	36424922	H 0.0294	
					RPD = 3.51	

Report Date: 15-Dec-2014 11:19:42 Chrom Revision: 2.2 06-Nov-2014 14:50:32

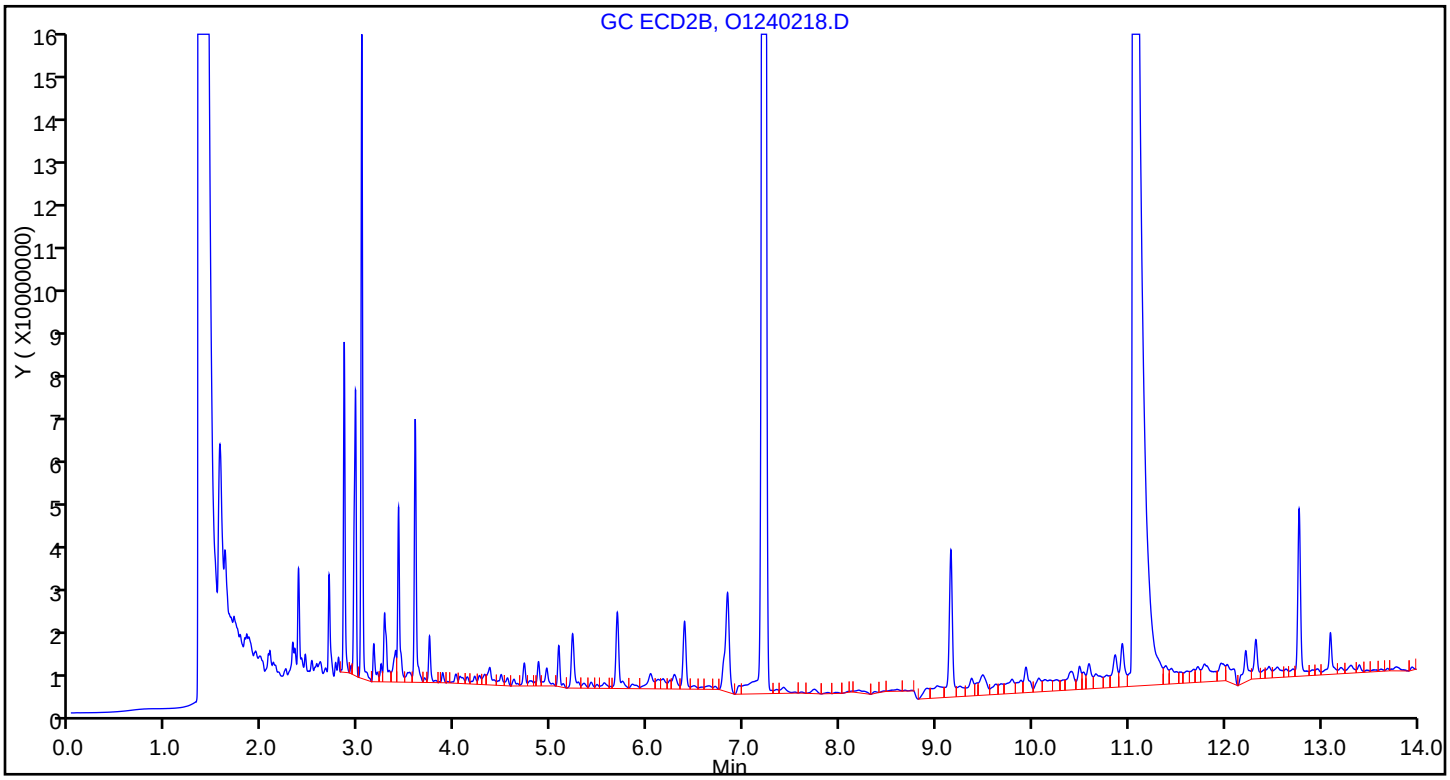
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240218.D				
Injection Date:	13-Dec-2014 16:09:39	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-2-A	Lab Sample ID:	180-39432-2		
Client ID:	ST-UNNAMED-120114				
Operator ID:	402331	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Matrix: Water Lab File ID: O1240219.D

Analysis Method: 8082A Date Collected: 12/01/2014 18:50

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 16:29

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0094	0.0024
11104-28-2	PCB-1221	ND		0.0094	0.0039
11141-16-5	PCB-1232	ND		0.0094	0.0037
53469-21-9	PCB-1242	ND		0.0094	0.0018
12672-29-6	PCB-1248	ND		0.0094	0.0025
11097-69-1	PCB-1254	ND		0.0094	0.0028
11096-82-5	PCB-1260	ND		0.0094	0.0016

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	118		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	103		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240219.D
Lims ID: 180-39432-A-3-A Lab Sample ID: 180-39432-3
Client ID: ST-018-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 16:29:17 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-020
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:56:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.023	3.022	0.001	45222036	H 0.0206	
2	3.582	3.581	0.001	59712191	H 0.0210	
					RPD = 2.38	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

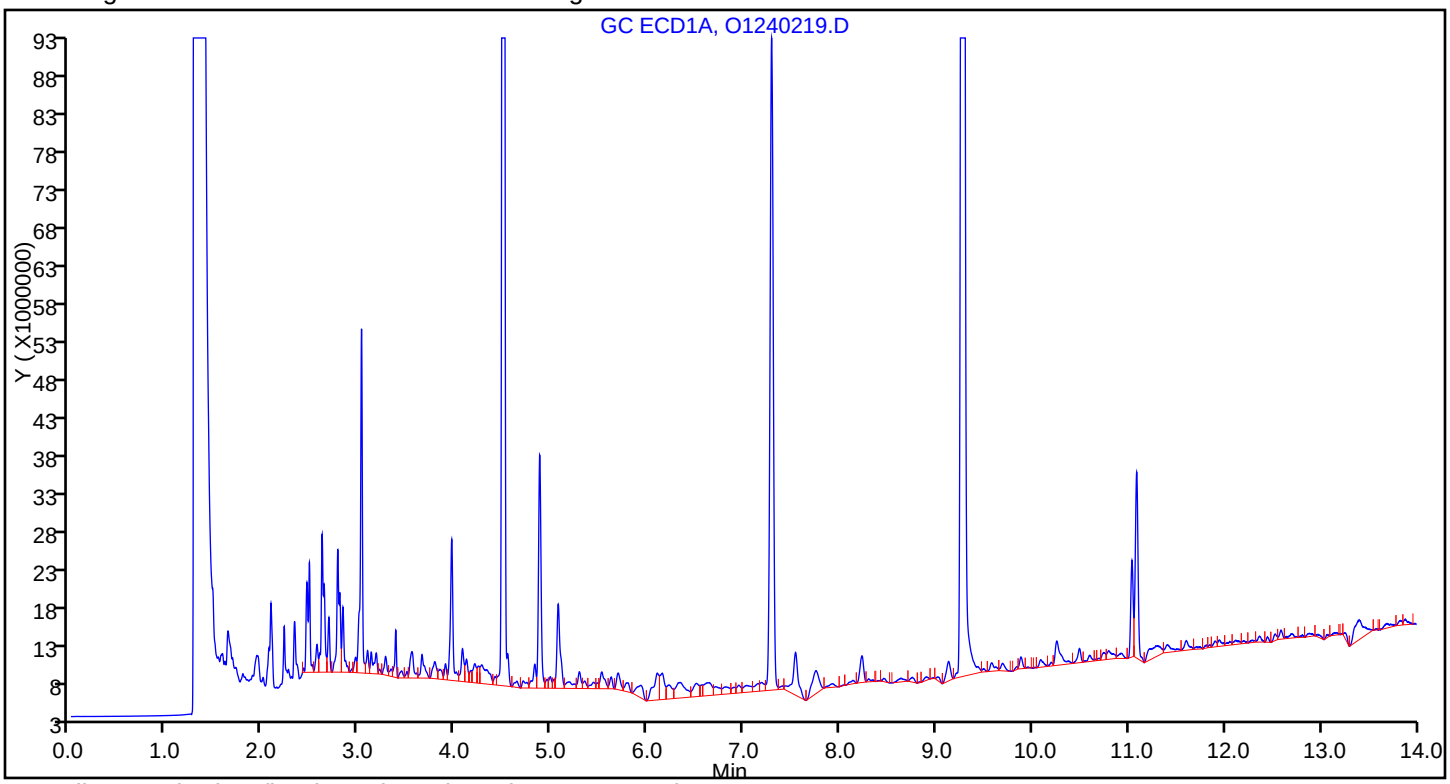
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.085	11.084	0.001	24434832	H 0.0237	
2	12.776	12.773	0.003	32516409	H 0.0262	
					RPD = 10.11	

Report Date: 15-Dec-2014 11:19:39 Chrom Revision: 2.2 06-Nov-2014 14:50:32

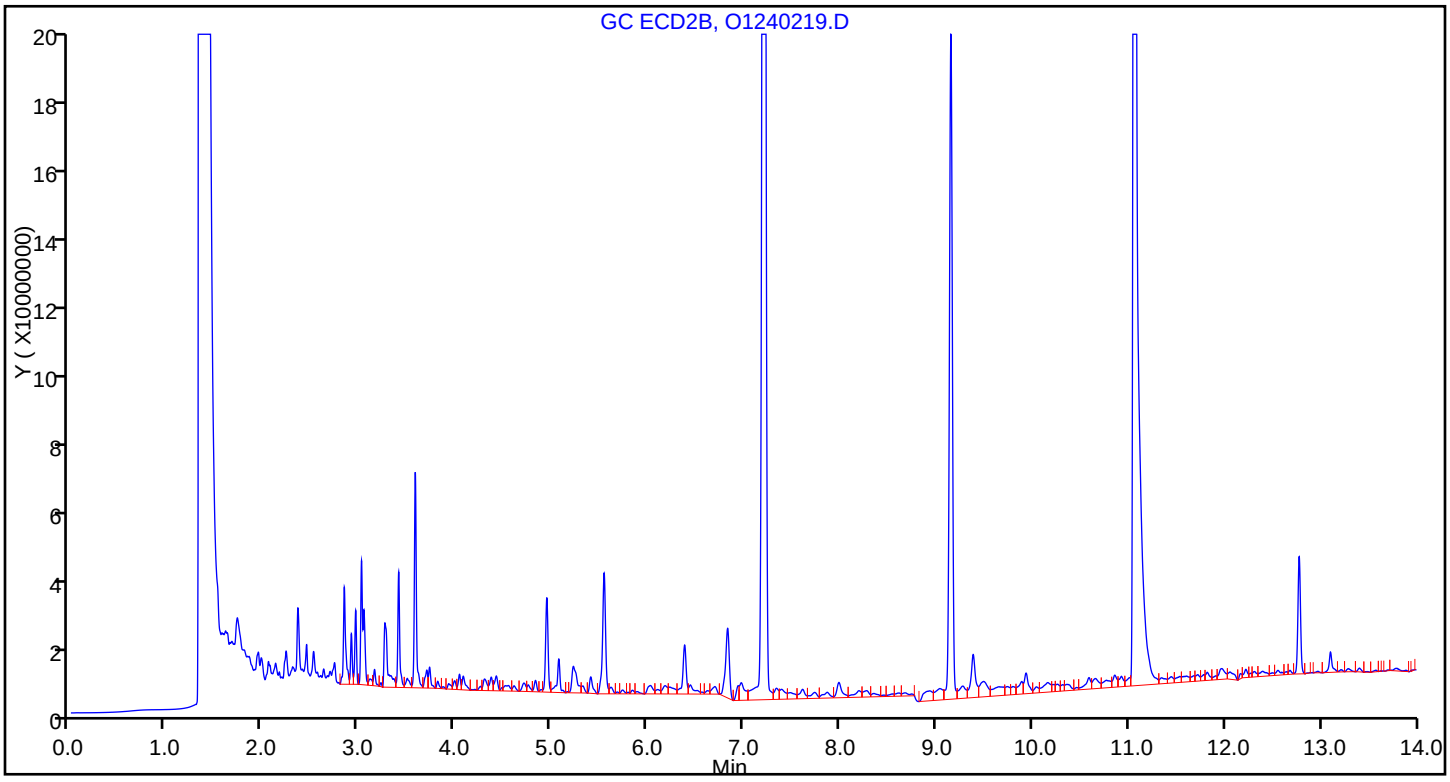
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240219.D				
Injection Date:	13-Dec-2014 16:29:17	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-3-A	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	402331	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Matrix: Water Lab File ID: O1240219.D

Analysis Method: 8082A Date Collected: 12/01/2014 18:50

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 16:29

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	131		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	105		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240219.D
Lims ID: 180-39432-A-3-A Lab Sample ID: 180-39432-3
Client ID: ST-018-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 16:29:17 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-020
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:56:44

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.023	3.022	0.001	45222036	H 0.0206	
2	3.582	3.581	0.001	59712191	H 0.0210	
					RPD = 2.38	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

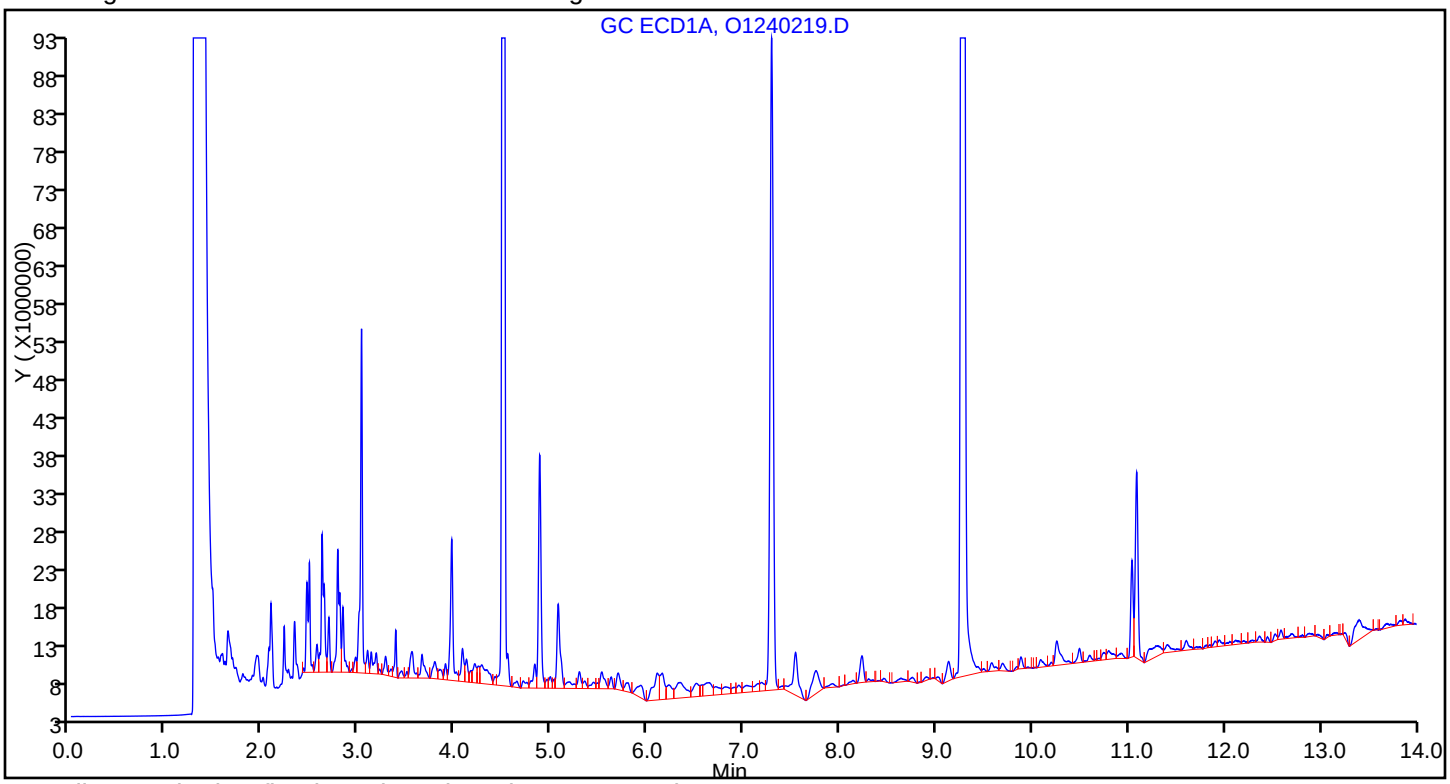
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.085	11.084	0.001	24434832	H 0.0237	
2	12.776	12.773	0.003	32516409	H 0.0262	
					RPD = 10.11	

Report Date: 15-Dec-2014 11:19:40 Chrom Revision: 2.2 06-Nov-2014 14:50:32

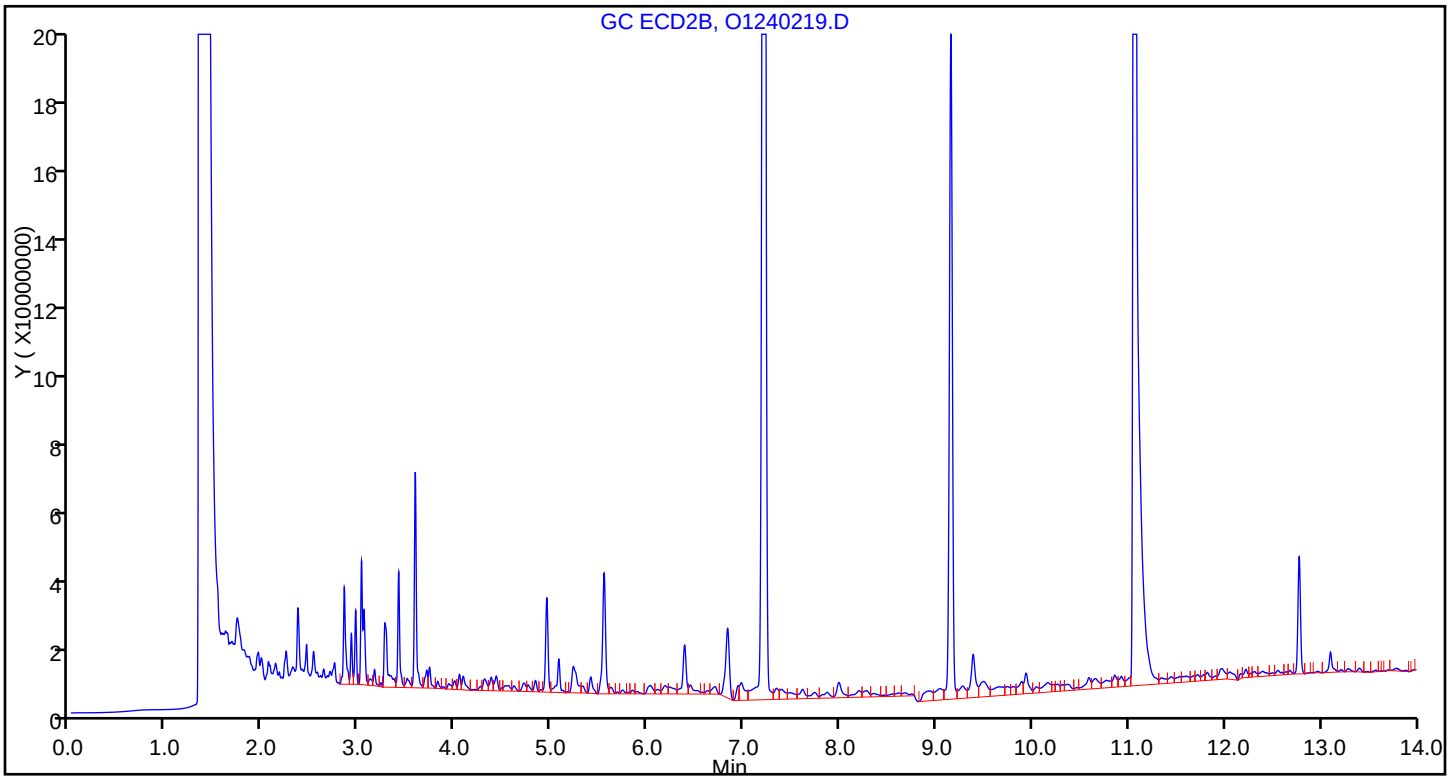
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240219.D				
Injection Date:	13-Dec-2014 16:29:17	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-3-A	Lab Sample ID:	180-39432-3		
Client ID:	ST-018-120114				
Operator ID:	402331	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Matrix: Water Lab File ID: O1240220.D

Analysis Method: 8082A Date Collected: 12/01/2014 19:20

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 16:48

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.0094	0.0024
11104-28-2	PCB-1221	ND		0.0094	0.0039
11141-16-5	PCB-1232	ND		0.0094	0.0037
53469-21-9	PCB-1242	ND		0.0094	0.0018
12672-29-6	PCB-1248	ND		0.0094	0.0025
11097-69-1	PCB-1254	ND		0.0094	0.0028
11096-82-5	PCB-1260	ND		0.0094	0.0016

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	142	X	60-135
877-09-8	Tetrachloro-m-xylene (Surr)	92		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240220.D
Lims ID: 180-39432-A-4-A Lab Sample ID: 180-39432-4
Client ID: ST-014-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 16:48:53 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-021
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:57:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.022	3.022	0.000	40652084	H 0.0185	
2	3.581	3.581	0.000	49827592	H 0.0176	
					RPD = 5.06	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

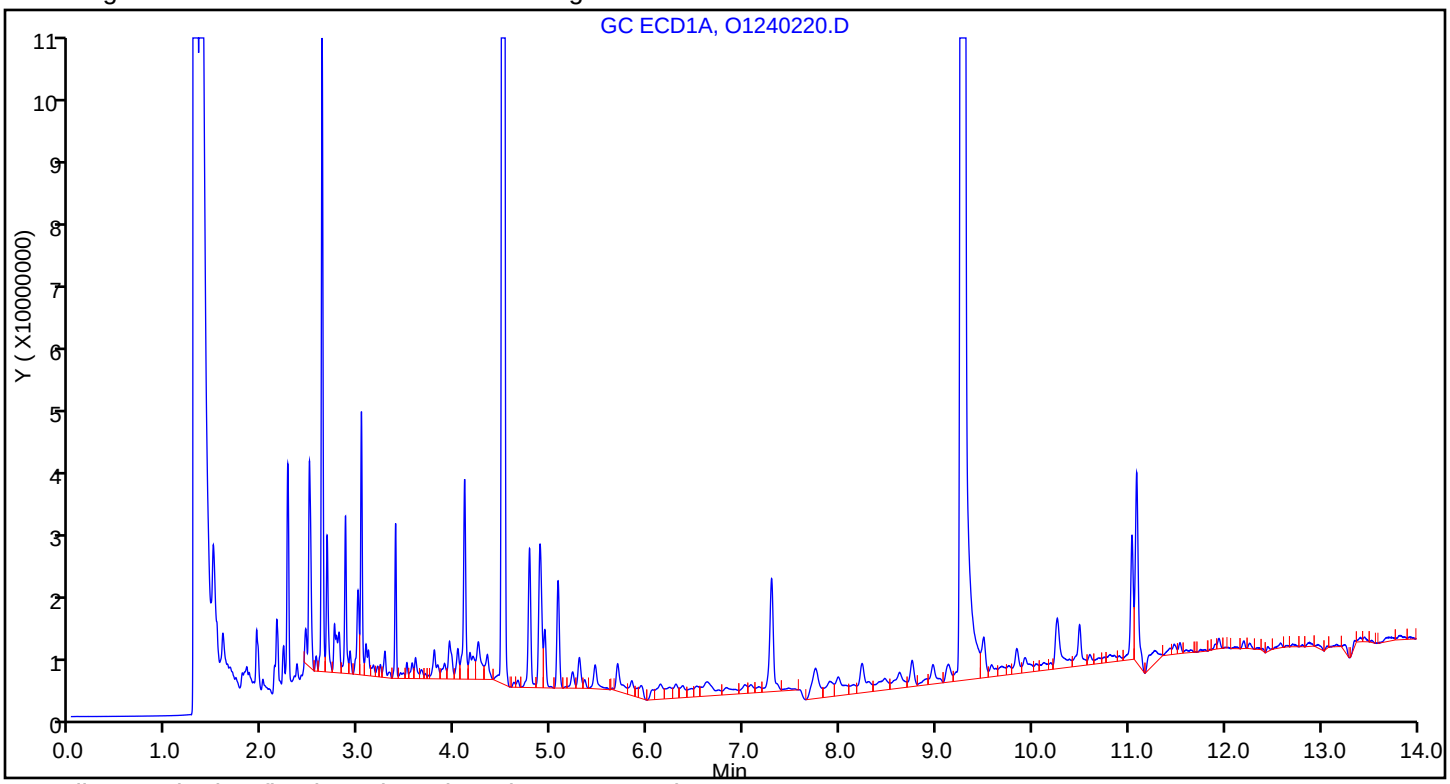
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.084	11.084	0.000	29352868	H 0.0285	
2	12.774	12.773	0.001	35158993	H 0.0283	
					RPD = 0.41	

Report Date: 15-Dec-2014 11:19:37 Chrom Revision: 2.2 06-Nov-2014 14:50:32

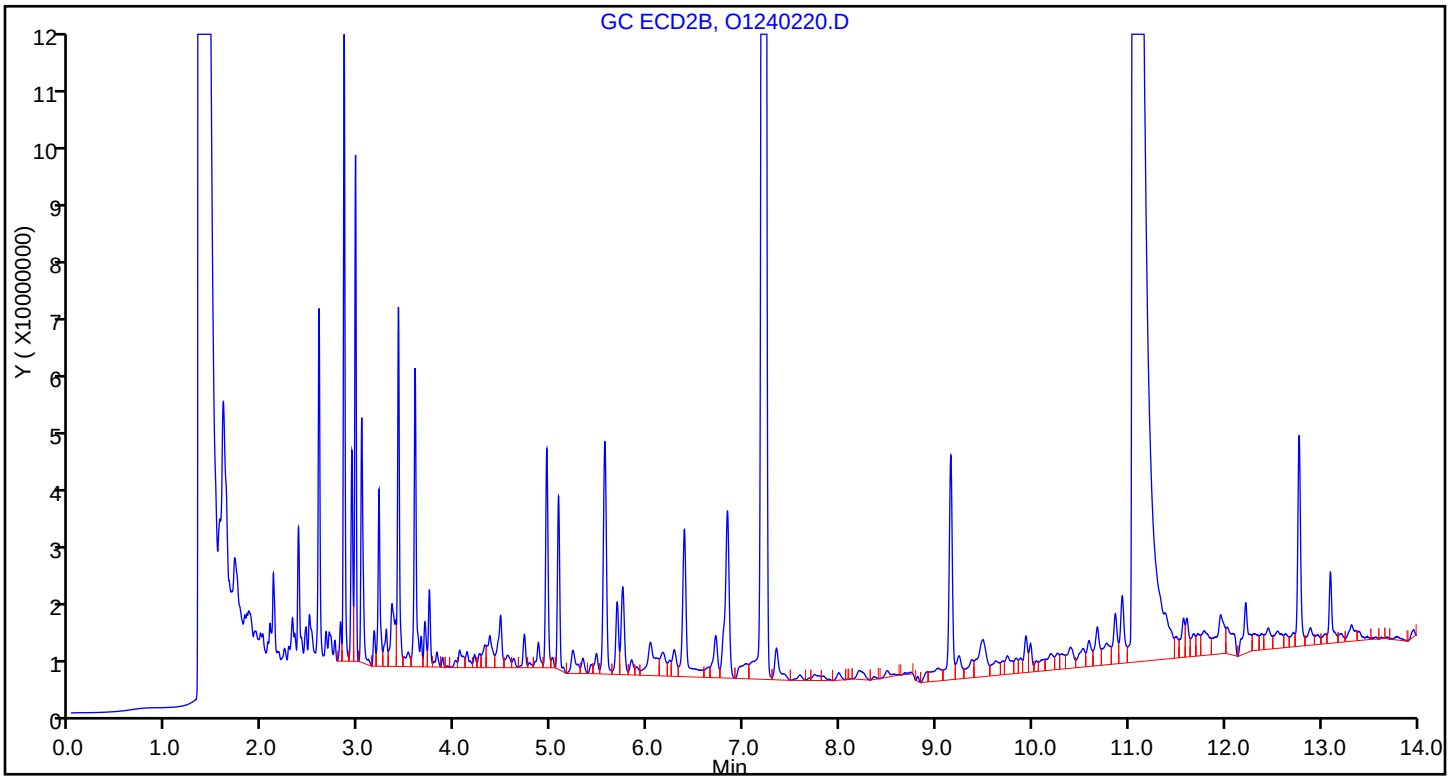
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240220.D				
Injection Date:	13-Dec-2014 16:48:53	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-4-A	Lab Sample ID:	180-39432-4		
Client ID:	ST-014-120114				
Operator ID:	402331	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Matrix: Water Lab File ID: O1240220.D

Analysis Method: 8082A Date Collected: 12/01/2014 19:20

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1060(mL) Date Analyzed: 12/13/2014 16:48

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	142	X	60-135
877-09-8	Tetrachloro-m-xylene (Surr)	88		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240220.D
Lims ID: 180-39432-A-4-A Lab Sample ID: 180-39432-4
Client ID: ST-014-120114
Sample Type: Client
Inject. Date: 13-Dec-2014 16:48:53 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-021
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:57:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene						
1	3.022	3.022	0.000	40652084	H 0.0185	
2	3.581	3.581	0.000	49827592	H 0.0176	
					RPD = 5.06	
2 PCB-1221						
1		3.160			ND	
1		3.266				
1		3.356				
2		3.129				
2		3.870				
2		4.108				
5 PCB-1232						
1		3.161			ND	
1		3.356				
1		3.660				
1		4.256				
1		4.533				
2		3.129				
2		4.108				
2		4.614				
2		5.435				
2		6.169				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
4 PCB-1016						
1		3.322			ND	
1		3.645				
1		4.109				
1		4.261				
1		4.740				
2		4.107				
2		4.600				
2		5.232				
2		5.431				
2		6.177				
3 PCB-1242						
1		3.356			ND	
1		4.069				
1		4.744				
1		5.300				
1		5.614				
2		4.108				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
6 PCB-1248						
1		3.660			ND	
1		4.069				
1		4.744				
1		5.614				
1		6.231				
2		4.614				
2		5.221				
2		6.169				
2		6.927				
2		7.363				
7 PCB-1254						
1		5.245			ND	
1		5.614				
1		6.231				
1		6.699				
1		7.553				
2		6.927				
2		7.289				
2		8.231				
2		8.672				
2		9.643				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
8 PCB-1260						
1		7.027			ND	
1		7.547				
1		8.280				
1		8.875				
1		9.367				
2		9.641				
2		9.794				
2		10.272				
2		10.662				
2		11.202				
9 PCB-1262						
1		7.032			ND	
1		7.791				
1		8.287				
1		8.880				
1		10.391				
2		9.797				
2		10.275				
2		10.663				
2		11.198				
2		12.007				
10 PCB-1268						
1		9.443			ND	
1		9.826				
1		10.391				
1		10.819				
2		11.194				
2		11.618				
2		12.006				
2		12.441				
$ 11 DCB Decachlorobiphenyl (Surr)						
1	11.084	11.084	0.000	29352868	H 0.0285	
2	12.774	12.773	0.001	35158993	H 0.0283	
					RPD = 0.41	

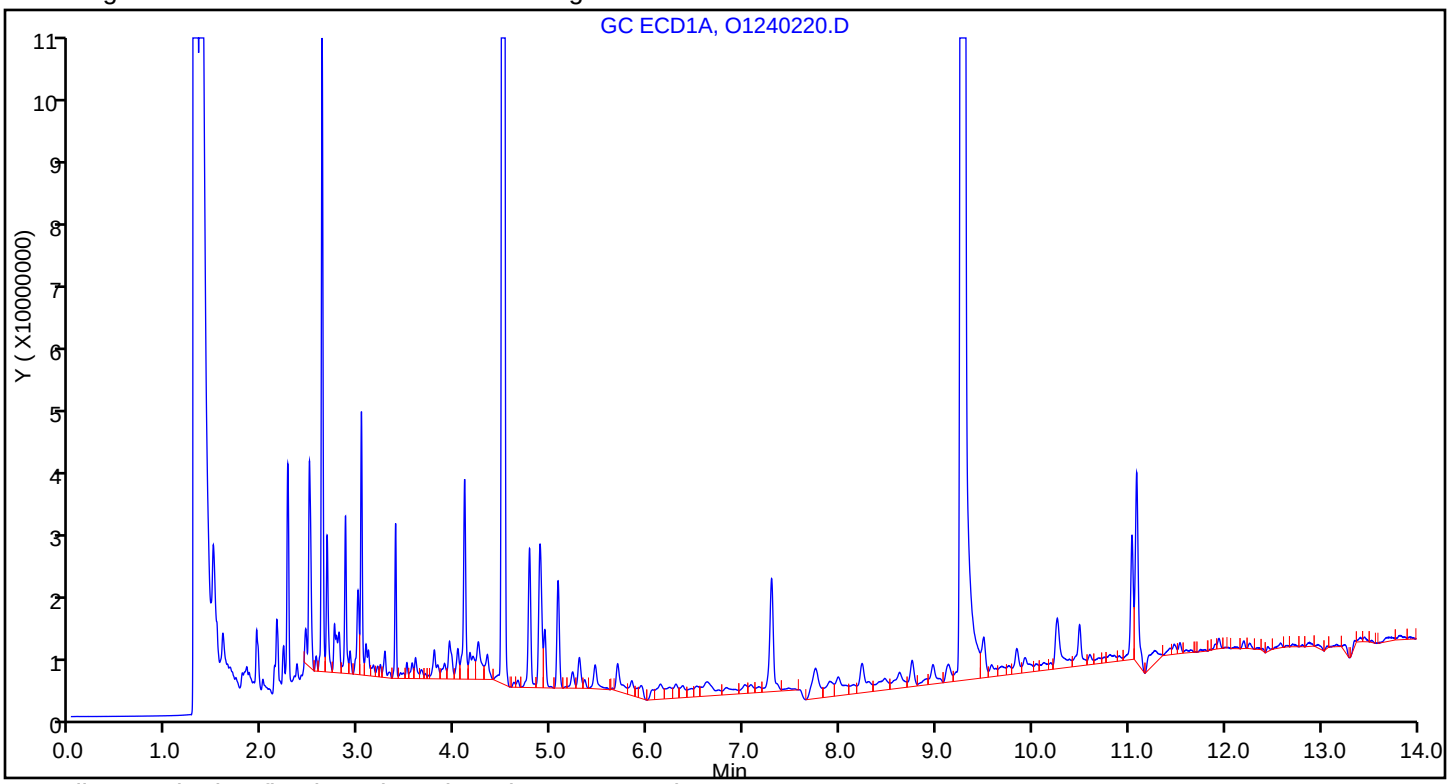
Report Date: 15-Dec-2014 11:19:38 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

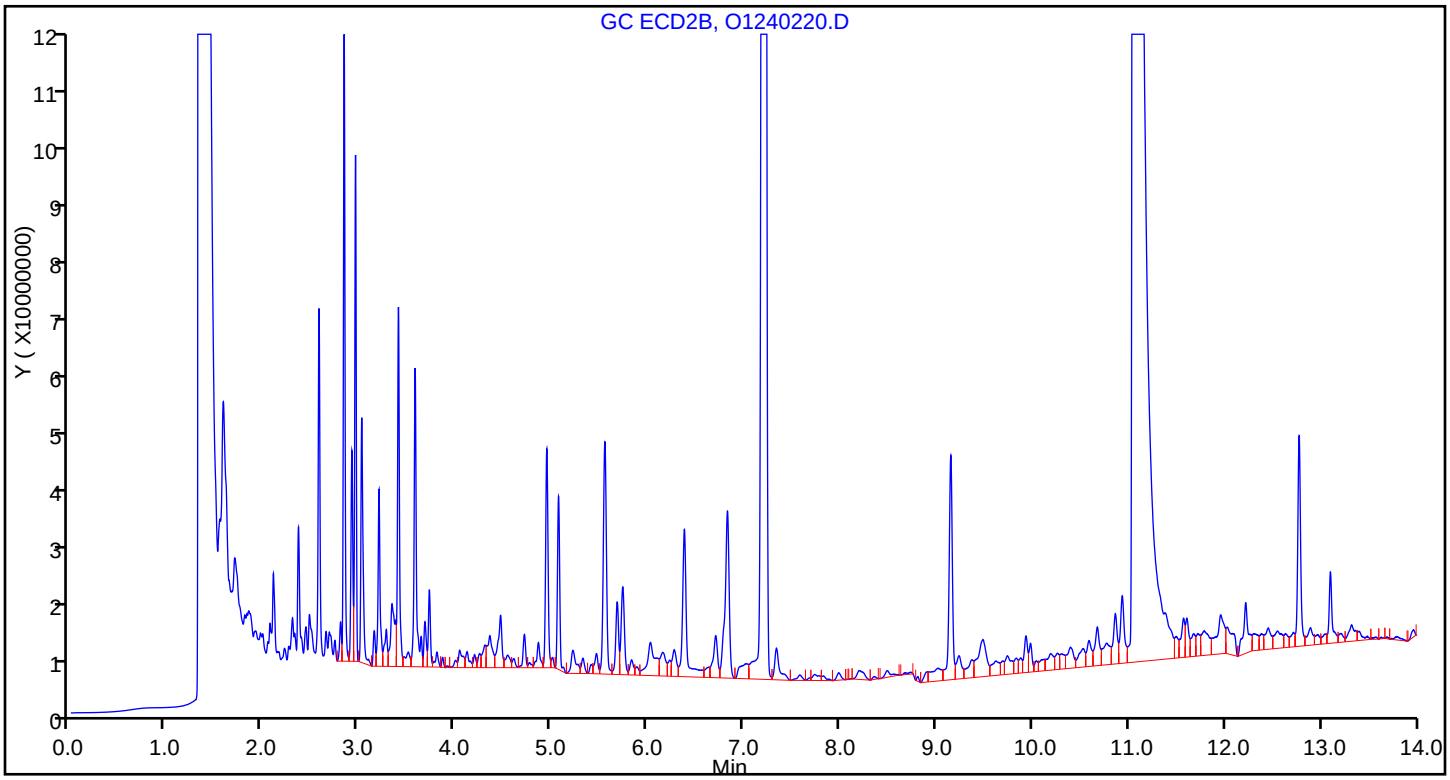
Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240220.D

Injection Date:	13-Dec-2014 16:48:53	Instrument ID:	CHGC8		
Lims ID:	180-39432-A-4-A	Lab Sample ID:	180-39432-4		
Client ID:	ST-014-120114				
Operator ID:	402331	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 09:31 Calibration End Date: 12/11/2014 10:50 Calibration ID: 20288

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/1	O1240205.D
Level 2	IC 180-127929/2	O1240206.D
Level 3	IC 180-127929/3	O1240207.D
Level 4	IC 180-127929/4	O1240208.D
Level 5	IC 180-127929/5	O1240209.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
PCB-1221 Peak 1	3.158	3.158	3.160	3.160	3.161						3.110 - 3.210	3.159
PCB-1221 Peak 2	3.285	3.285	3.287	3.287	3.287						3.237 - 3.337	3.286
PCB-1221 Peak 3	3.321	3.321	3.324	3.323	3.324						3.273 - 3.373	3.323
PCB-1254 Peak 1	5.237	5.238	5.241	5.240	5.242						5.170 - 5.310	5.240
PCB-1254 Peak 2	5.611	5.611	5.614	5.612	5.615						5.542 - 5.682	5.613
PCB-1254 Peak 3	6.227	6.228	6.232	6.232	6.232						6.162 - 6.302	6.230
PCB-1254 Peak 4	6.698	6.698	6.702	6.701	6.703						6.631 - 6.771	6.700
PCB-1254 Peak 5	7.544	7.548	7.551	7.551	7.553						7.481 - 7.621	7.549

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 09:31 Calibration End Date: 12/11/2014 10:50 Calibration ID: 20288

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/1	O1240205.D
Level 2	IC 180-127929/2	O1240206.D
Level 3	IC 180-127929/3	O1240207.D
Level 4	IC 180-127929/4	O1240208.D
Level 5	IC 180-127929/5	O1240209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	24157600 21799877	23489270	23183104	23035290	Ave		23133028.2				3.7		20.0			
PCB-1221 Peak 2	14657100 13570010	13198610	14679212	14529724	Ave		14126931.2				4.9		20.0			
PCB-1221 Peak 3	55571700 48232828	53216320	53455744	52473900	Ave		52590098.4				5.1		20.0			
PCB-1254 Peak 1	44629900 40370539	43239680	42634156	43655244	Ave		42905903.8				3.7		20.0			
PCB-1254 Peak 2	51347200 49717894	54091360	53014300	54304368	Ave		52495024.4				3.7		20.0			
PCB-1254 Peak 3	68430600 63537412	67830070	66574712	68886590	Ave		67051876.8				3.2		20.0			
PCB-1254 Peak 4	48168600 44194765	46257500	45509276	47372660	Ave		46300560.2				3.4		20.0			
PCB-1254 Peak 5	50055400 41561714	44036120	42612952	44236640	Ave		44500565.2				7.4		20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 09:31 Calibration End Date: 12/11/2014 10:50 Calibration ID: 20288

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/1	O1240205.D
Level 2	IC 180-127929/2	O1240206.D
Level 3	IC 180-127929/3	O1240207.D
Level 4	IC 180-127929/4	O1240208.D
Level 5	IC 180-127929/5	O1240209.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	241576	2348927	5795776	11517645	21799877	0.0100	0.100	0.250	0.500	1.00
PCB-1221 Peak 2	Ave	146571	1319861	3669803	7264862	13570010	0.0100	0.100	0.250	0.500	1.00
PCB-1221 Peak 3	Ave	555717	5321632	13363936	26236950	48232828	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 1	Ave	446299	4323968	10658539	21827622	40370539	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 2	Ave	513472	5409136	13253575	27152184	49717894	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 3	Ave	684306	6783007	16643678	34443295	63537412	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 4	Ave	481686	4625750	11377319	23686330	44194765	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 5	Ave	500554	4403612	10653238	22118320	41561714	0.0100	0.100	0.250	0.500	1.00

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240205.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Dec-2014 09:31:31 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-001
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:12:41 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 11-Dec-2014 10:17:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.158	3.160	-0.002	241576H	0.0100	0.0104	
1	3.285	3.287	-0.002	146571H	0.0100	0.0104	
1	3.321	3.323	-0.002	555717H	0.0100	0.0106	
		Average of Peak Amounts =				0.0105	
2	3.121	3.124	-0.003	241307H	0.0100	0.0108	
2	3.874	3.876	-0.002	285970H	0.0100	0.0104	
2	4.105	4.106	-0.001	632828H	0.0100	0.0111	
		Average of Peak Amounts =				0.0108	
						RPD = 2.96	
7 PCB-1254							
1	5.237	5.240	-0.003	446299H	0.0100	0.0104	
1	5.611	5.612	-0.001	513472H	0.0100	0.009781	
1	6.227	6.232	-0.005	684306H	0.0100	0.0102	
1	6.698	6.701	-0.003	481686H	0.0100	0.0104	
1	7.544	7.551	-0.007	500554H	0.0100	0.0112	
		Average of Peak Amounts =				0.0104	
2	6.916	6.919	-0.003	554648H	0.0100	0.0105	
2	7.273	7.273	0.000	842478H	0.0100	0.0135	
2	8.222	8.225	-0.003	800801H	0.0100	0.0105	
2	8.669	8.672	-0.003	576869H	0.0100	0.0106	
2	9.637	9.642	-0.005	712000H	0.0100	0.0118	
		Average of Peak Amounts =				0.0114	
						RPD = 8.87	

Reagents:

GCAR2154CALL1_00009 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:12:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240205.D

Injection Date: 11-Dec-2014 09:31:31 Instrument ID: CHGC8

Lims ID: IC

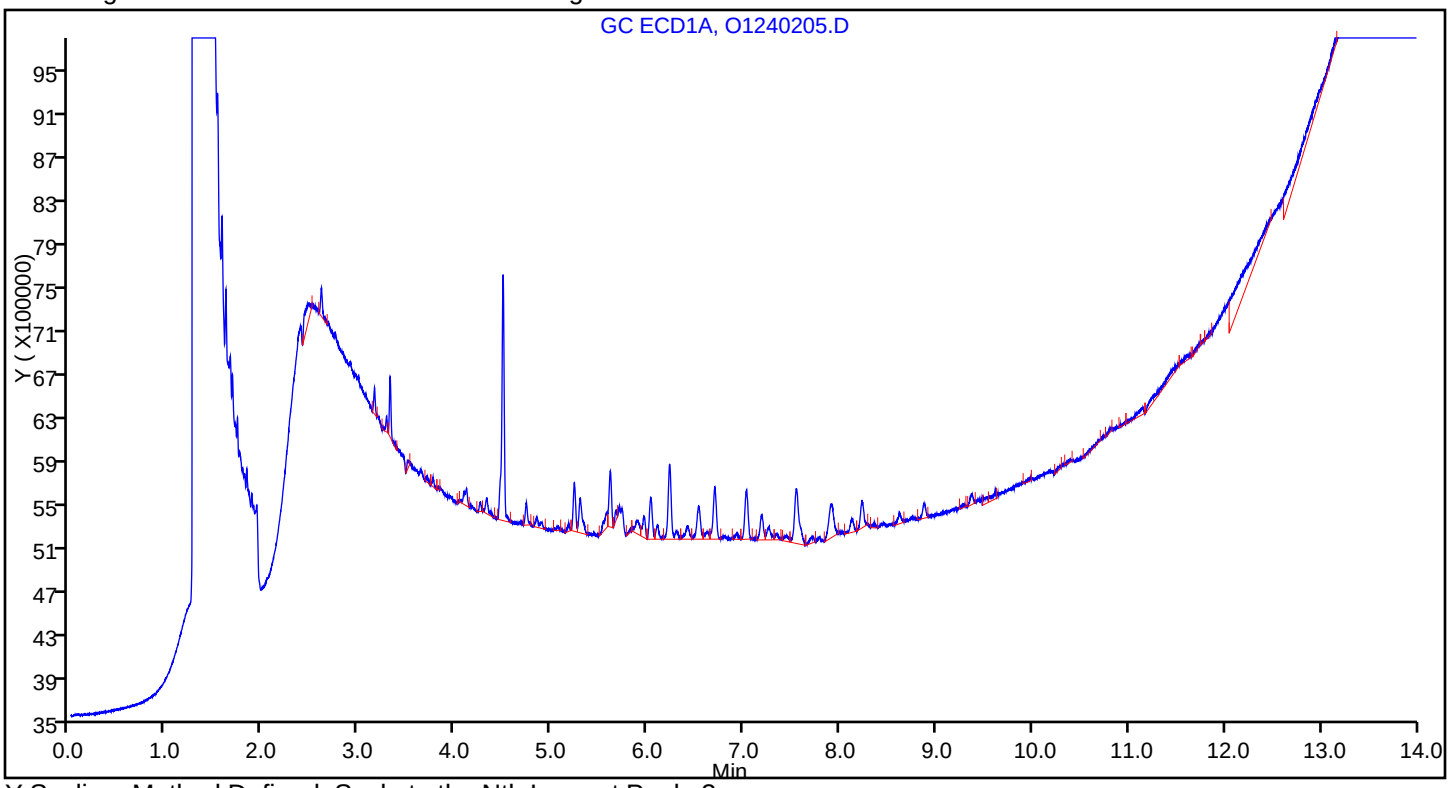
Client ID:

Operator ID: 402331 ALS Bottle#: 1 Worklist Smp#: 1

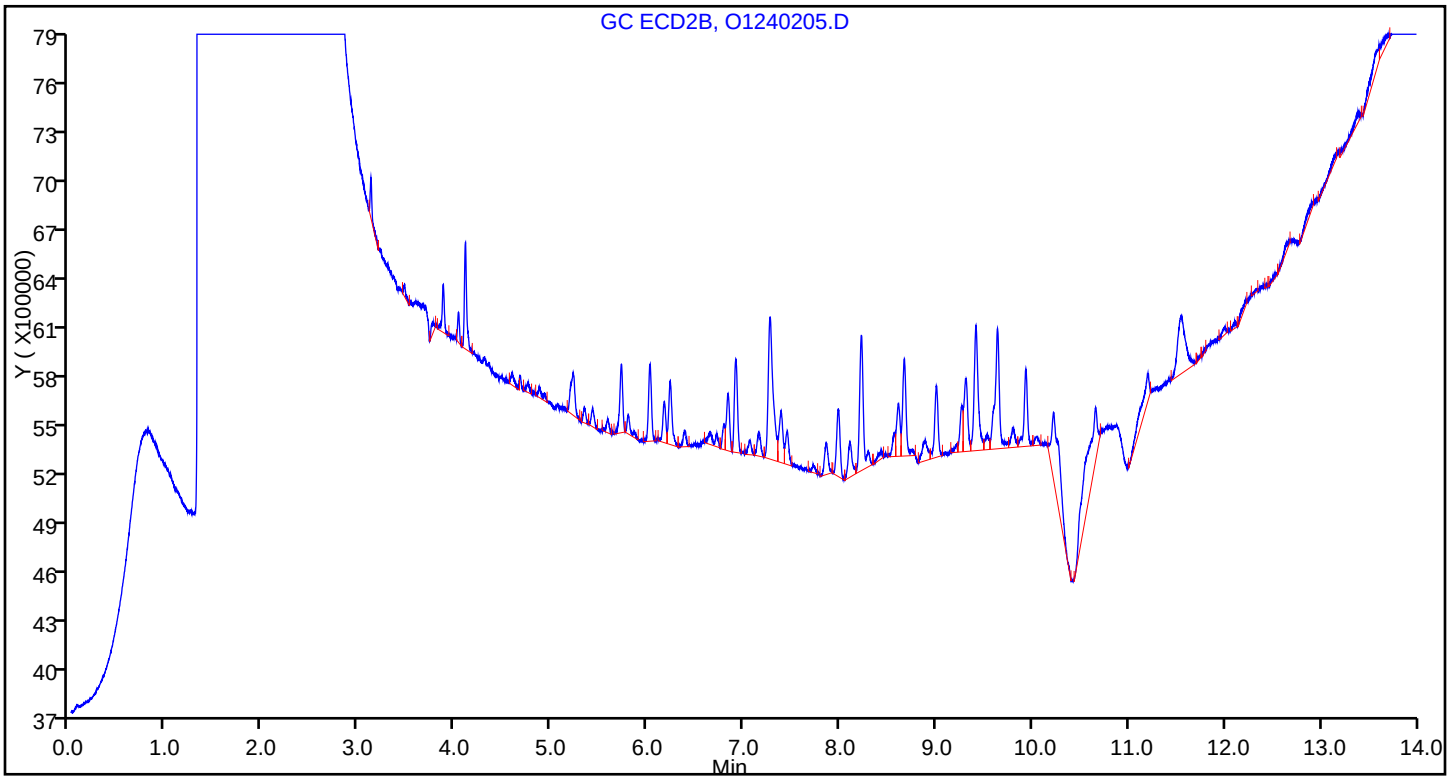
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240206.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Dec-2014 09:51:08 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-002
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:34:29 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: eppinged Date: 12-Dec-2014 12:34:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.158	3.160	-0.002	2348927H	0.1000	0.1015	
1	3.285	3.287	-0.002	1319861H	0.1000	0.0934	
1	3.321	3.323	-0.002	5321632H	0.1000	0.1012	
		Average of Peak Amounts =				0.0987	
2	3.122	3.124	-0.002	2385423H	0.1000	0.1064	
2	3.874	3.876	-0.002	2831443H	0.1000	0.1034	
2	4.104	4.106	-0.002	5935195H	0.1000	0.1043	
		Average of Peak Amounts =				0.1047	
						RPD = 5.88	
7 PCB-1254							
1	5.238	5.240	-0.002	4323968H	0.1000	0.1008	
1	5.611	5.612	-0.001	5409136H	0.1000	0.1030	
1	6.228	6.232	-0.004	6783007H	0.1000	0.1012	
1	6.698	6.701	-0.003	4625750H	0.1000	0.0999	
1	7.548	7.551	-0.003	4403612H	0.1000	0.0990	
		Average of Peak Amounts =				0.1008	
2	6.915	6.919	-0.004	5461337H	0.1000	0.1036	
2	7.270	7.273	-0.003	6176828H	0.1000	0.0987	
2	8.222	8.225	-0.003	7864824H	0.1000	0.1028	
2	8.668	8.672	-0.004	5603936H	0.1000	0.1031	
2	9.638	9.642	-0.004	6027138H	0.1000	0.0999	
		Average of Peak Amounts =				0.1016	
						RPD = 0.85	

Reagents:

GCAR2154CALL2_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:34:30 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240206.D

Injection Date: 11-Dec-2014 09:51:08 Instrument ID: CHGC8

Lims ID: IC

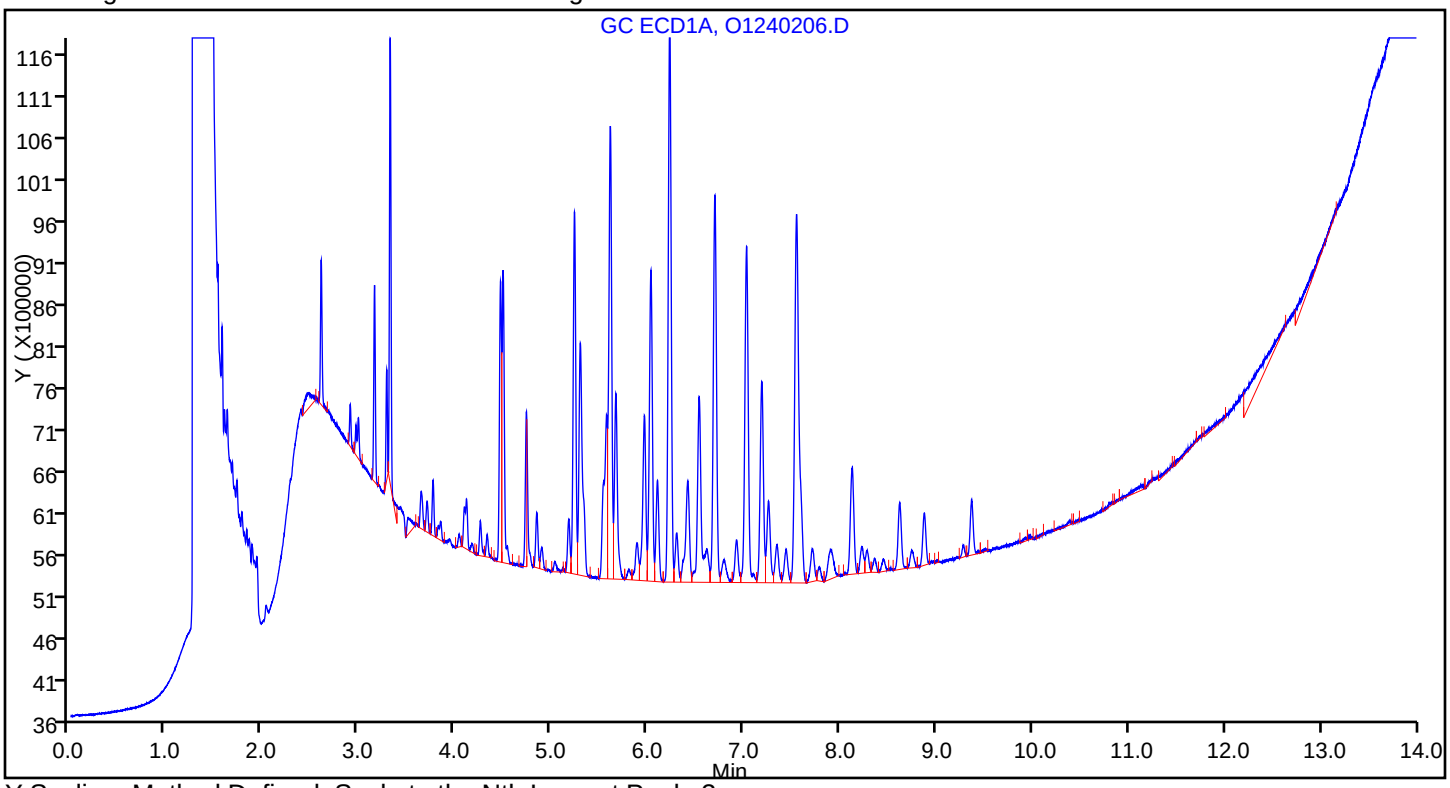
Client ID:

Operator ID: 402331 ALS Bottle#: 2 Worklist Smp#: 2

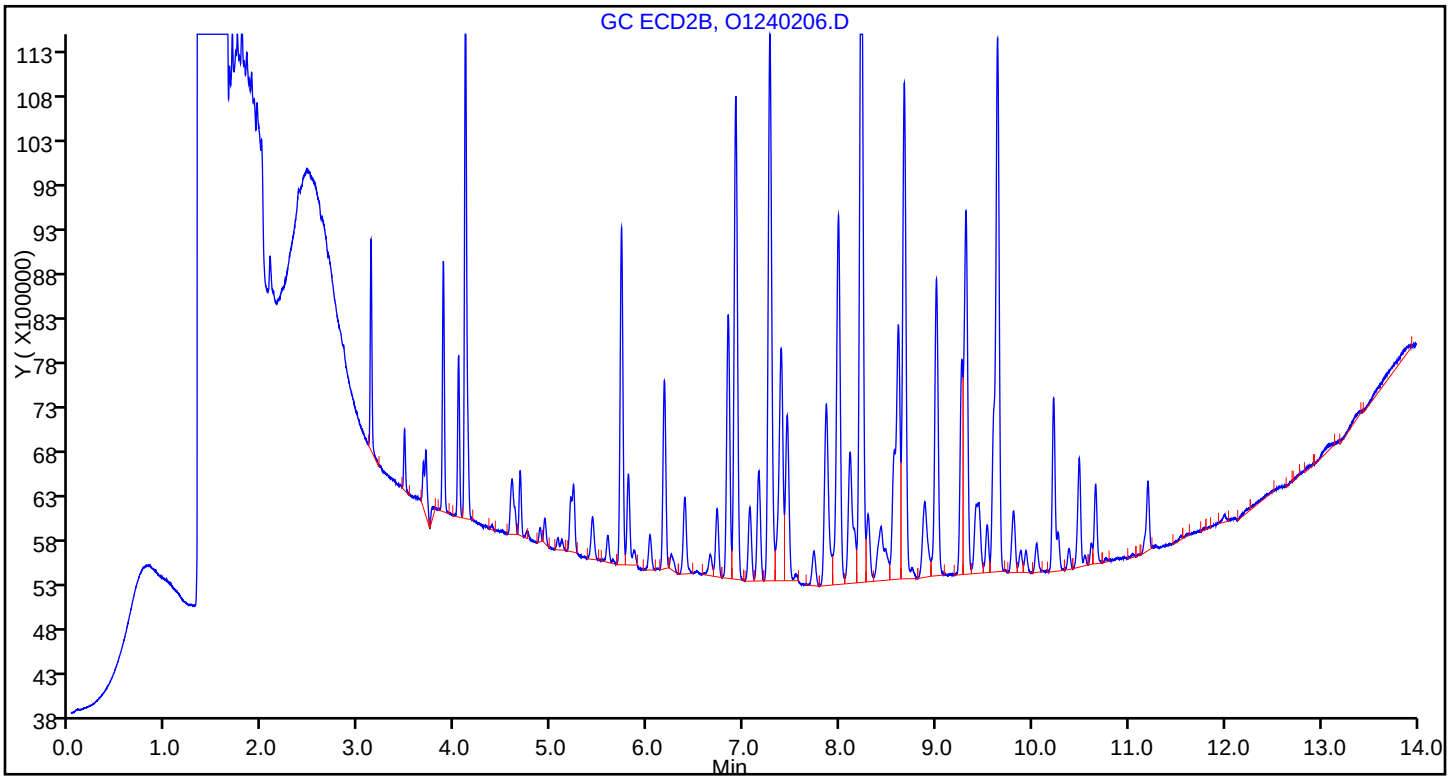
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240207.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Dec-2014 10:10:54 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-003
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:12:50 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.160	3.160	0.000	5795776H	0.2500	0.2505	
1	3.287	3.287	0.000	3669803H	0.2500	0.2598	
1	3.324	3.323	0.001	13363936H	0.2500	0.2541	
		Average of Peak Amounts =				0.2548	
2	3.124	3.124	0.000	5671957H	0.2500	0.2529	
2	3.877	3.876	0.001	6891309H	0.2500	0.2518	
2	4.107	4.106	0.001	14153338H	0.2500	0.2487	
		Average of Peak Amounts =				0.2511	
						RPD = 1.45	
7 PCB-1254							
1	5.241	5.240	0.001	10658539H	0.2500	0.2484	
1	5.614	5.612	0.002	13253575H	0.2500	0.2525	
1	6.232	6.232	0.000	16643678H	0.2500	0.2482	
1	6.702	6.701	0.001	11377319H	0.2500	0.2457	
1	7.551	7.551	0.000	10653238H	0.2500	0.2394	
		Average of Peak Amounts =				0.2468	
2	6.919	6.919	0.000	13121591H	0.2500	0.2489	
2	7.274	7.273	0.001	14288835H	0.2500	0.2283	
2	8.225	8.225	0.000	18942279H	0.2500	0.2476	
2	8.671	8.672	-0.001	13185109H	0.2500	0.2426	
2	9.642	9.642	0.000	14452872H	0.2500	0.2397	
		Average of Peak Amounts =				0.2414	
						RPD = 2.22	

Reagents:

GCAR2154CALL3_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:12:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240207.D

Injection Date: 11-Dec-2014 10:10:54 Instrument ID: CHGC8

Lims ID: IC

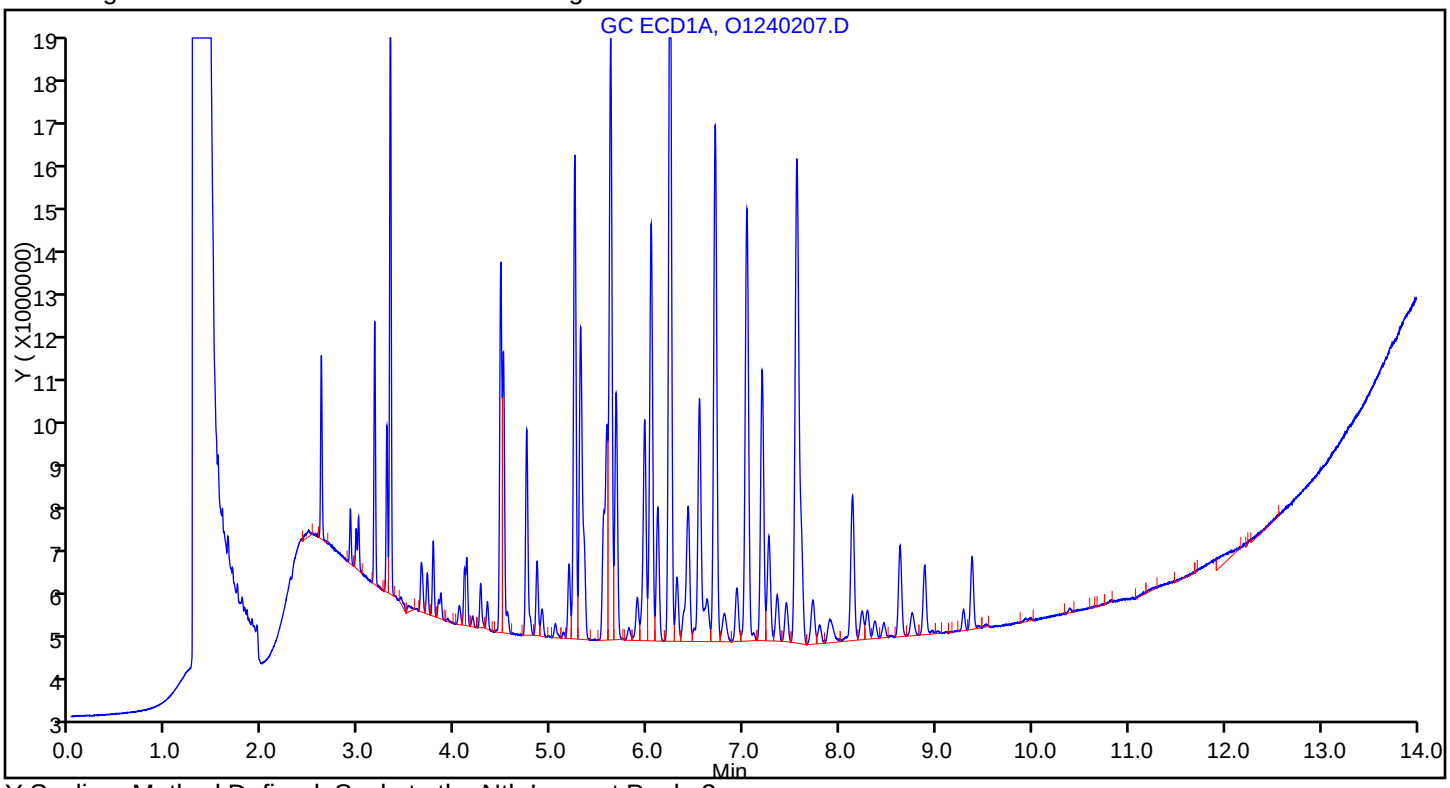
Client ID:

Operator ID: 402331 ALS Bottle#: 3 Worklist Smp#: 3

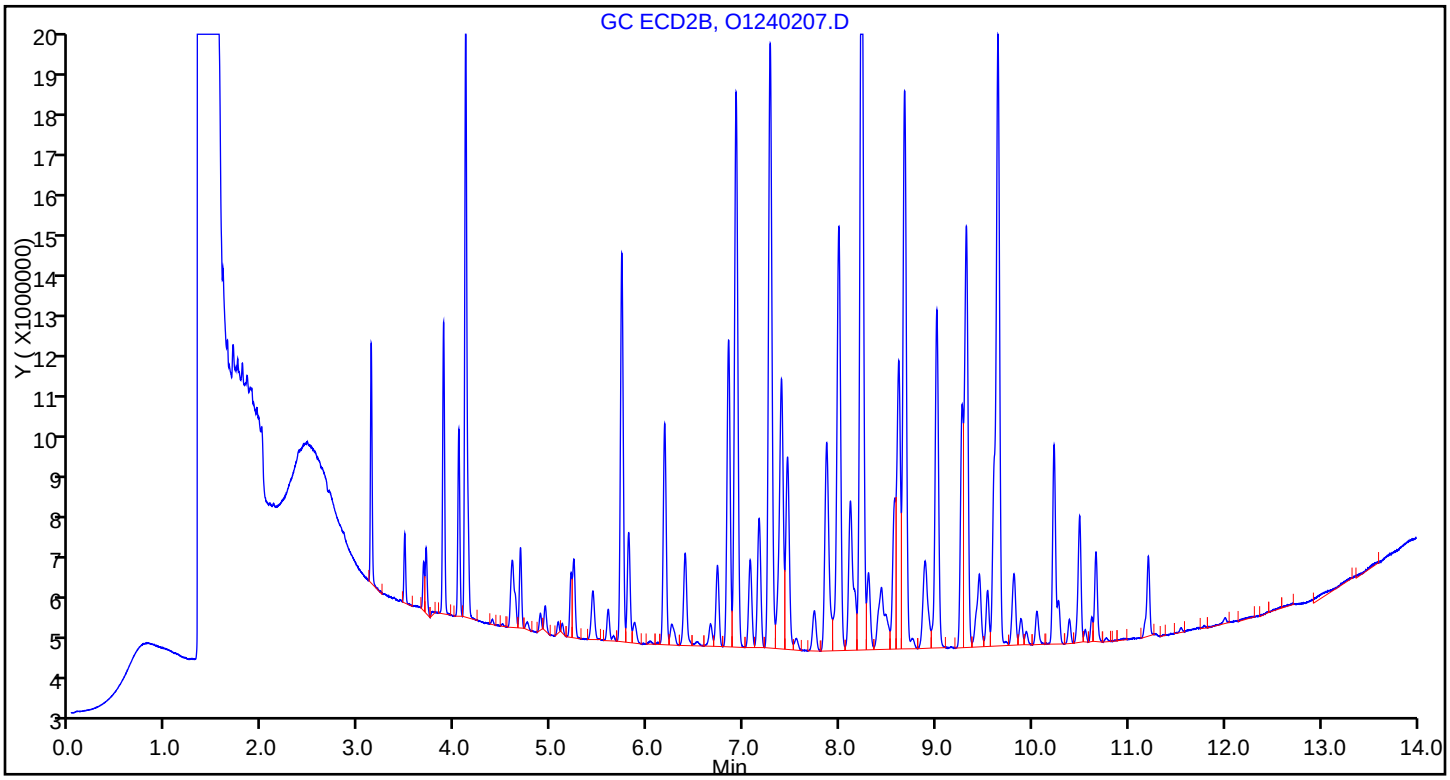
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240208.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 10:30:32 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-004
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:12:55 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:42:32

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.160	3.160	0.000	11517645H	0.5000	0.4979	
1	3.287	3.287	0.000	7264862H	0.5000	0.5143	
1	3.323	3.323	0.000	26236950H	0.5000	0.4989	
		Average of Peak Amounts =				0.5037	
2	3.124	3.124	0.000	10758949H	0.5000	0.4798	
2	3.876	3.876	0.000	13558908H	0.5000	0.4954	
2	4.106	4.106	0.000	27358682H	0.5000	0.4807	
		Average of Peak Amounts =				0.4853	
						RPD = 3.72	
7 PCB-1254							
1	5.240	5.240	0.000	21827622H	0.5000	0.5087	
1	5.612	5.612	0.000	27152184H	0.5000	0.5172	
1	6.232	6.232	0.000	34443295H	0.5000	0.5137	
1	6.701	6.701	0.000	23686330H	0.5000	0.5116	
1	7.551	7.551	0.000	22118320H	0.5000	0.4970	
		Average of Peak Amounts =				0.5097	
2	6.919	6.919	0.000	26375825H	0.5000	0.5004	
2	7.273	7.273	0.000	28602128H	0.5000	0.4571	
2	8.225	8.225	0.000	38550657H	0.5000	0.5039	
2	8.672	8.672	0.000	27213393H	0.5000	0.5007	
2	9.642	9.642	0.000	29158180H	0.5000	0.4835	
		Average of Peak Amounts =				0.4891	
						RPD = 4.11	

Reagents:

GCAR2154CALL4_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:12:57 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240208.D

Injection Date: 11-Dec-2014 10:30:32 Instrument ID: CHGC8

Lims ID: IC

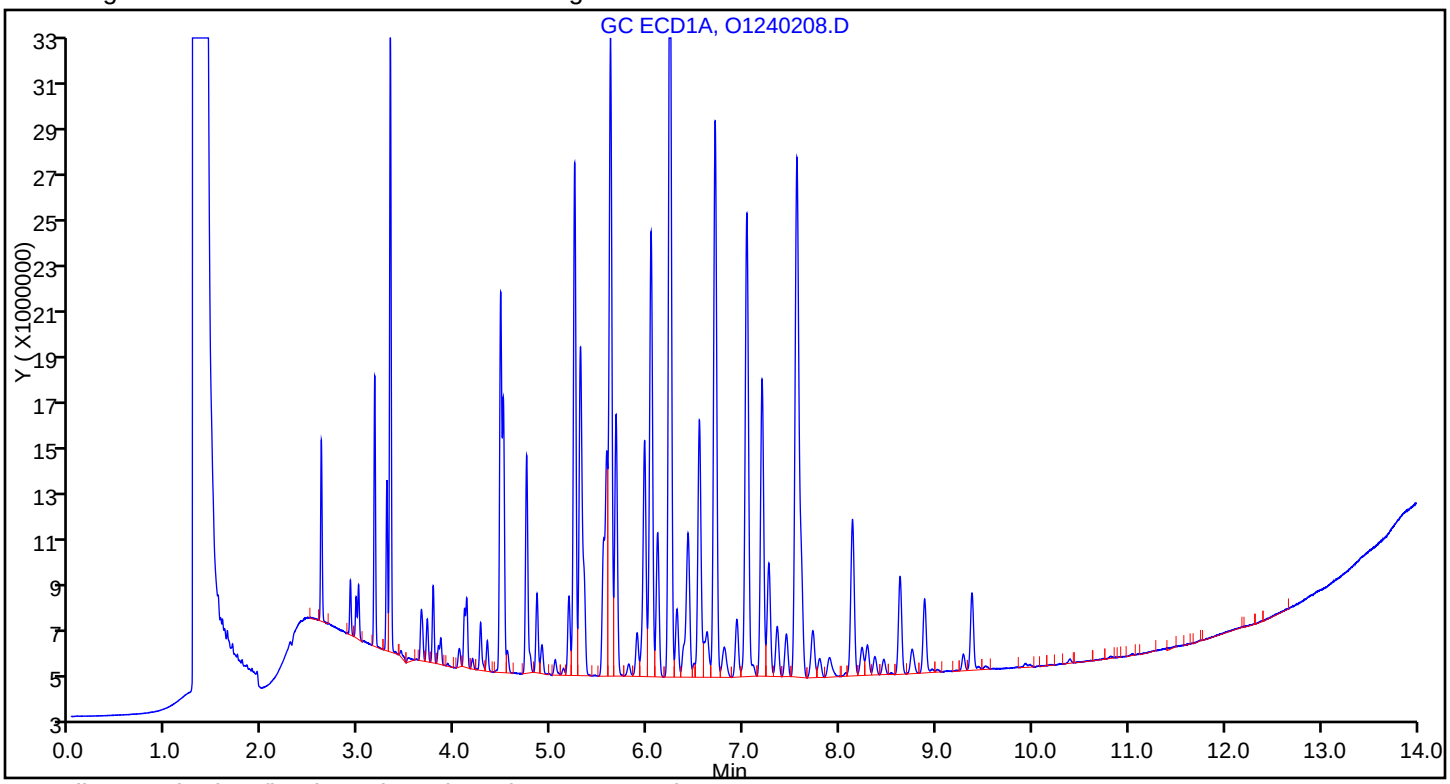
Client ID:

Operator ID: 402331 ALS Bottle#: 4 Worklist Smp#: 4

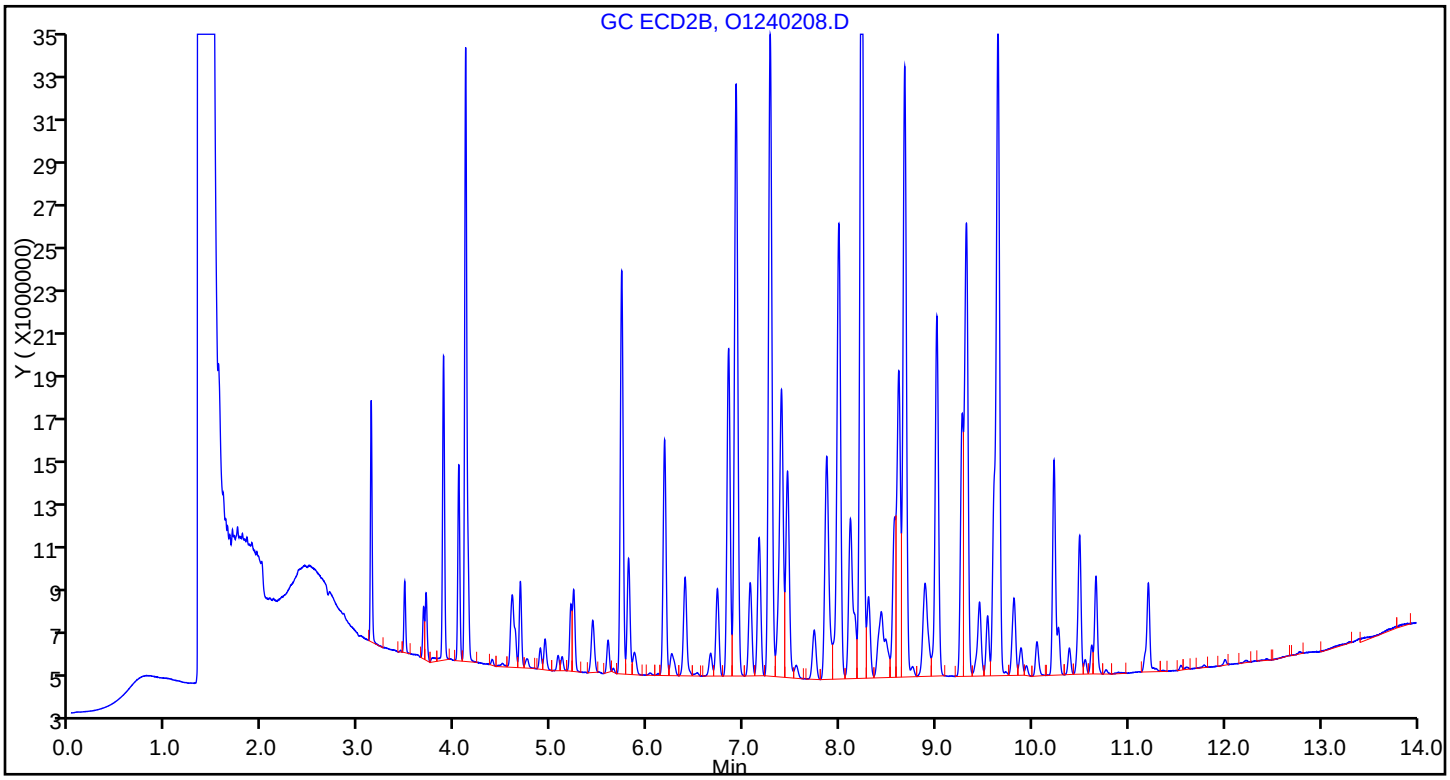
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240209.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Dec-2014 10:50:10 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-005
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:03 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:38:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.161	3.160	0.001	21799877H	1.00	0.9424	
1	3.287	3.287	0.000	13570010H	1.00	0.9606	
1	3.324	3.323	0.001	48232828H	1.00	0.9171	
		Average of Peak Amounts =				0.9400	
2	3.125	3.124	0.001	19936476H	1.00	0.8890	
2	3.878	3.876	0.002	25260765H	1.00	0.9229	
2	4.108	4.106	0.002	50592651H	1.00	0.8890	
		Average of Peak Amounts =				0.9003	
						RPD = 4.32	
7 PCB-1254							
1	5.242	5.240	0.002	40370539H	1.00	0.9409	
1	5.615	5.612	0.003	49717894H	1.00	0.9471	
1	6.232	6.232	0.000	63537412H	1.00	0.9476	
1	6.703	6.701	0.002	44194765H	1.00	0.9545	
1	7.553	7.551	0.002	41561714H	1.00	0.9340	
		Average of Peak Amounts =				0.9448	
2	6.922	6.919	0.003	48236384H	1.00	0.9151	
2	7.276	7.273	0.003	52504893H	1.00	0.8391	
2	8.228	8.225	0.003	70951379H	1.00	0.9273	
2	8.674	8.672	0.002	50858251H	1.00	0.9357	
2	9.645	9.642	0.003	53918869H	1.00	0.8941	
		Average of Peak Amounts =				0.9023	
						RPD = 4.61	

Reagents:

GCAR2154CALL5_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240209.D

Injection Date: 11-Dec-2014 10:50:10 Instrument ID: CHGC8

Lims ID: IC

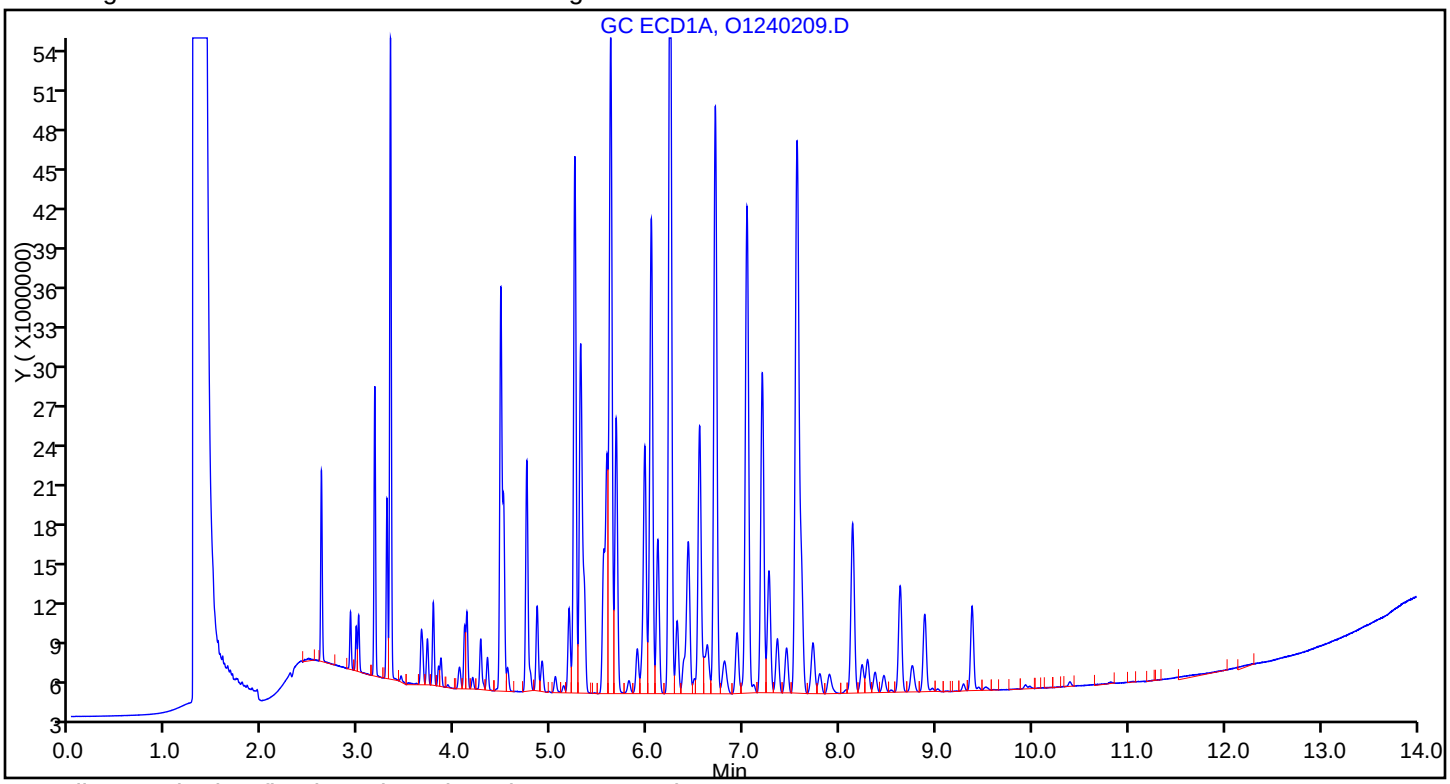
Client ID:

Operator ID: 402331 ALS Bottle#: 5 Worklist Smp#: 5

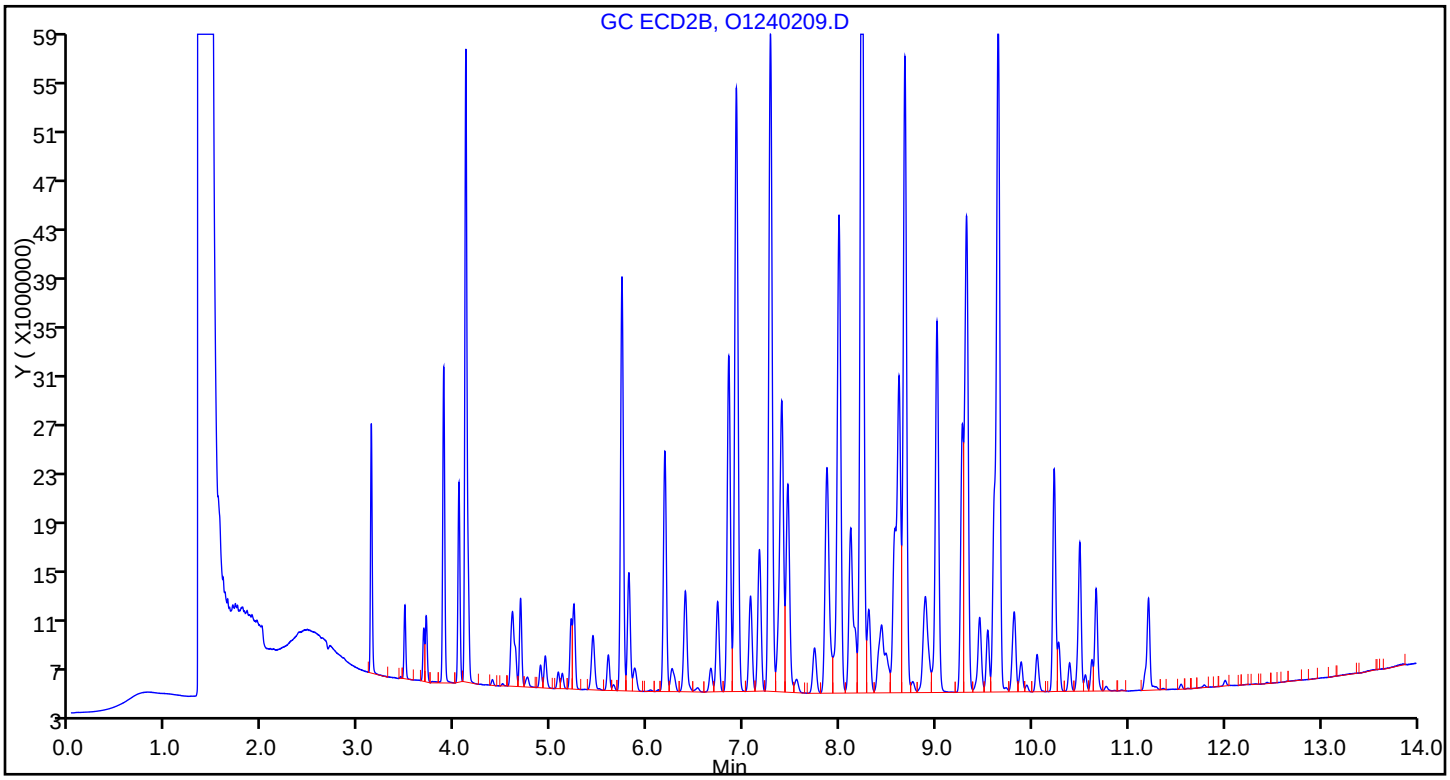
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 09:31 Calibration End Date: 12/11/2014 10:50 Calibration ID: 20289

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/1	O1240205.D
Level 2	IC 180-127929/2	O1240206.D
Level 3	IC 180-127929/3	O1240207.D
Level 4	IC 180-127929/4	O1240208.D
Level 5	IC 180-127929/5	O1240209.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
PCB-1221 Peak 1	3.121	3.122	3.124	3.124	3.125						3.074 - 3.174	3.123
PCB-1221 Peak 2	3.874	3.874	3.877	3.876	3.878						3.826 - 3.926	3.876
PCB-1221 Peak 3	4.105	4.104	4.107	4.106	4.108						4.056 - 4.156	4.106
PCB-1254 Peak 1	6.916	6.915	6.919	6.919	6.922						6.849 - 6.989	6.918
PCB-1254 Peak 2	7.273	7.270	7.274	7.273	7.276						7.203 - 7.343	7.273
PCB-1254 Peak 3	8.222	8.222	8.225	8.225	8.228						8.155 - 8.295	8.224
PCB-1254 Peak 4	8.669	8.668	8.671	8.672	8.674						8.602 - 8.742	8.671
PCB-1254 Peak 5	9.637	9.638	9.642	9.642	9.645						9.572 - 9.712	9.641

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 09:31 Calibration End Date: 12/11/2014 10:50 Calibration ID: 20289

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/1	O1240205.D
Level 2	IC 180-127929/2	O1240206.D
Level 3	IC 180-127929/3	O1240207.D
Level 4	IC 180-127929/4	O1240208.D
Level 5	IC 180-127929/5	O1240209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	24130700 19936476	23854230	22687828	21517898	Ave		22425426.4				7.7		20.0			
PCB-1221 Peak 2	28597000 25260765	28314430	27565236	27117816	Ave		27371049.4				4.8		20.0			
PCB-1221 Peak 3	63282800 50592651	59351950	56613352	54717364	Ave		56911623.4				8.4		20.0			
PCB-1254 Peak 1	55464800 48236384	54613370	52486364	52751650	Ave		52710513.6				5.3		20.0			
PCB-1254 Peak 2	84247800 52504893	61768280	57155340	57204256	Ave		62576113.8				20.0		20.0			
PCB-1254 Peak 3	80080100 70951379	78648240	75769116	77101314	Ave		76510029.8				4.6		20.0			
PCB-1254 Peak 4	57686900 50858251	56039360	52740436	54426786	Ave		54350346.6				4.9		20.0			
PCB-1254 Peak 5	71200000 53918869	60271380	57811488	58316360	Ave		60303619.4				11.0		20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 09:31 Calibration End Date: 12/11/2014 10:50 Calibration ID: 20289

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/1	O1240205.D
Level 2	IC 180-127929/2	O1240206.D
Level 3	IC 180-127929/3	O1240207.D
Level 4	IC 180-127929/4	O1240208.D
Level 5	IC 180-127929/5	O1240209.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	241307	2385423	5671957	10758949	19936476	0.0100	0.100	0.250	0.500	1.00
PCB-1221 Peak 2	Ave	285970	2831443	6891309	13558908	25260765	0.0100	0.100	0.250	0.500	1.00
PCB-1221 Peak 3	Ave	632828	5935195	14153338	27358682	50592651	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 1	Ave	554648	5461337	13121591	26375825	48236384	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 2	Ave	842478	6176828	14288835	28602128	52504893	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 3	Ave	800801	7864824	18942279	38550657	70951379	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 4	Ave	576869	5603936	13185109	27213393	50858251	0.0100	0.100	0.250	0.500	1.00
PCB-1254 Peak 5	Ave	712000	6027138	14452872	29158180	53918869	0.0100	0.100	0.250	0.500	1.00

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240205.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Dec-2014 09:31:31 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-001
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:12:41 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 11-Dec-2014 10:17:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.158	3.160	-0.002	241576H	0.0100	0.0104	
1	3.285	3.287	-0.002	146571H	0.0100	0.0104	
1	3.321	3.323	-0.002	555717H	0.0100	0.0106	
		Average of Peak Amounts =				0.0105	
2	3.121	3.124	-0.003	241307H	0.0100	0.0108	
2	3.874	3.876	-0.002	285970H	0.0100	0.0104	
2	4.105	4.106	-0.001	632828H	0.0100	0.0111	
		Average of Peak Amounts =				0.0108	
						RPD = 2.96	
7 PCB-1254							
1	5.237	5.240	-0.003	446299H	0.0100	0.0104	
1	5.611	5.612	-0.001	513472H	0.0100	0.009781	
1	6.227	6.232	-0.005	684306H	0.0100	0.0102	
1	6.698	6.701	-0.003	481686H	0.0100	0.0104	
1	7.544	7.551	-0.007	500554H	0.0100	0.0112	
		Average of Peak Amounts =				0.0104	
2	6.916	6.919	-0.003	554648H	0.0100	0.0105	
2	7.273	7.273	0.000	842478H	0.0100	0.0135	
2	8.222	8.225	-0.003	800801H	0.0100	0.0105	
2	8.669	8.672	-0.003	576869H	0.0100	0.0106	
2	9.637	9.642	-0.005	712000H	0.0100	0.0118	
		Average of Peak Amounts =				0.0114	
						RPD = 8.87	

Reagents:

GCAR2154CALL1_00009 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:12:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240205.D

Injection Date: 11-Dec-2014 09:31:31 Instrument ID: CHGC8

Lims ID: IC

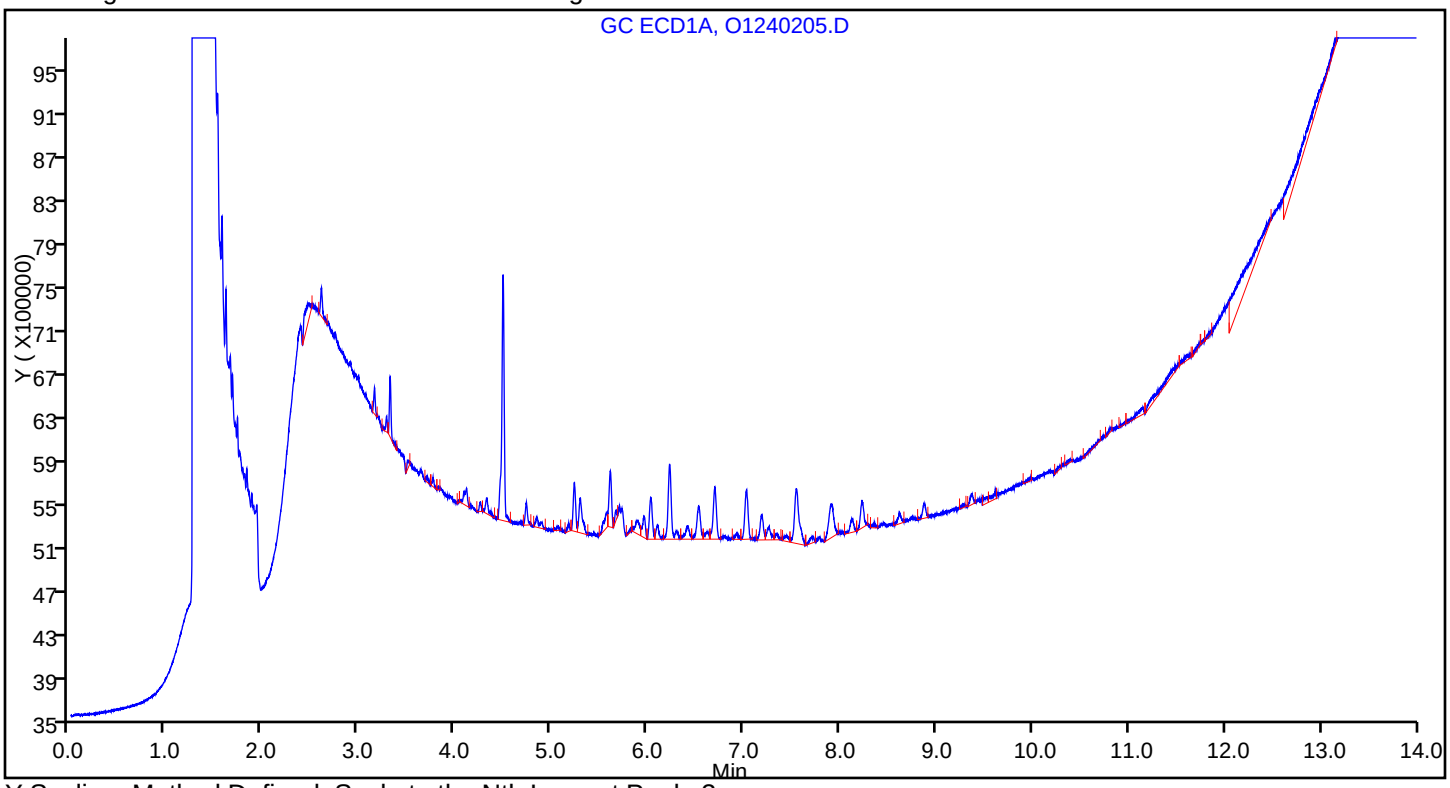
Client ID:

Operator ID: 402331 ALS Bottle#: 1 Worklist Smp#: 1

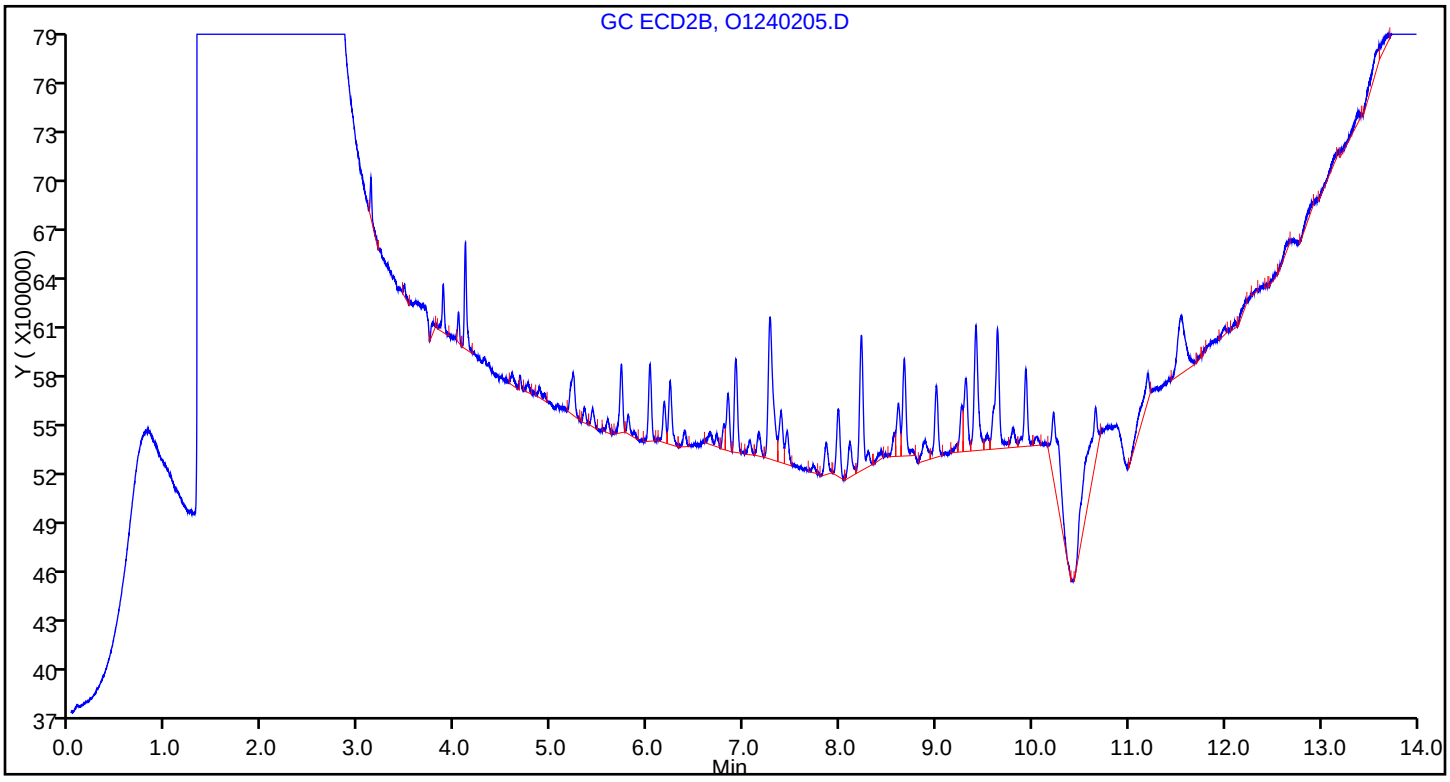
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240206.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Dec-2014 09:51:08 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-002
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:34:29 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: eppinged Date: 12-Dec-2014 12:34:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.158	3.160	-0.002	2348927H	0.1000	0.1015	
1	3.285	3.287	-0.002	1319861H	0.1000	0.0934	
1	3.321	3.323	-0.002	5321632H	0.1000	0.1012	
		Average of Peak Amounts =				0.0987	
2	3.122	3.124	-0.002	2385423H	0.1000	0.1064	
2	3.874	3.876	-0.002	2831443H	0.1000	0.1034	
2	4.104	4.106	-0.002	5935195H	0.1000	0.1043	
		Average of Peak Amounts =				0.1047	
						RPD = 5.88	
7 PCB-1254							
1	5.238	5.240	-0.002	4323968H	0.1000	0.1008	
1	5.611	5.612	-0.001	5409136H	0.1000	0.1030	
1	6.228	6.232	-0.004	6783007H	0.1000	0.1012	
1	6.698	6.701	-0.003	4625750H	0.1000	0.0999	
1	7.548	7.551	-0.003	4403612H	0.1000	0.0990	
		Average of Peak Amounts =				0.1008	
2	6.915	6.919	-0.004	5461337H	0.1000	0.1036	
2	7.270	7.273	-0.003	6176828H	0.1000	0.0987	
2	8.222	8.225	-0.003	7864824H	0.1000	0.1028	
2	8.668	8.672	-0.004	5603936H	0.1000	0.1031	
2	9.638	9.642	-0.004	6027138H	0.1000	0.0999	
		Average of Peak Amounts =				0.1016	
						RPD = 0.85	

Reagents:

GCAR2154CALL2_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:34:30 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240206.D

Injection Date: 11-Dec-2014 09:51:08 Instrument ID: CHGC8

Lims ID: IC

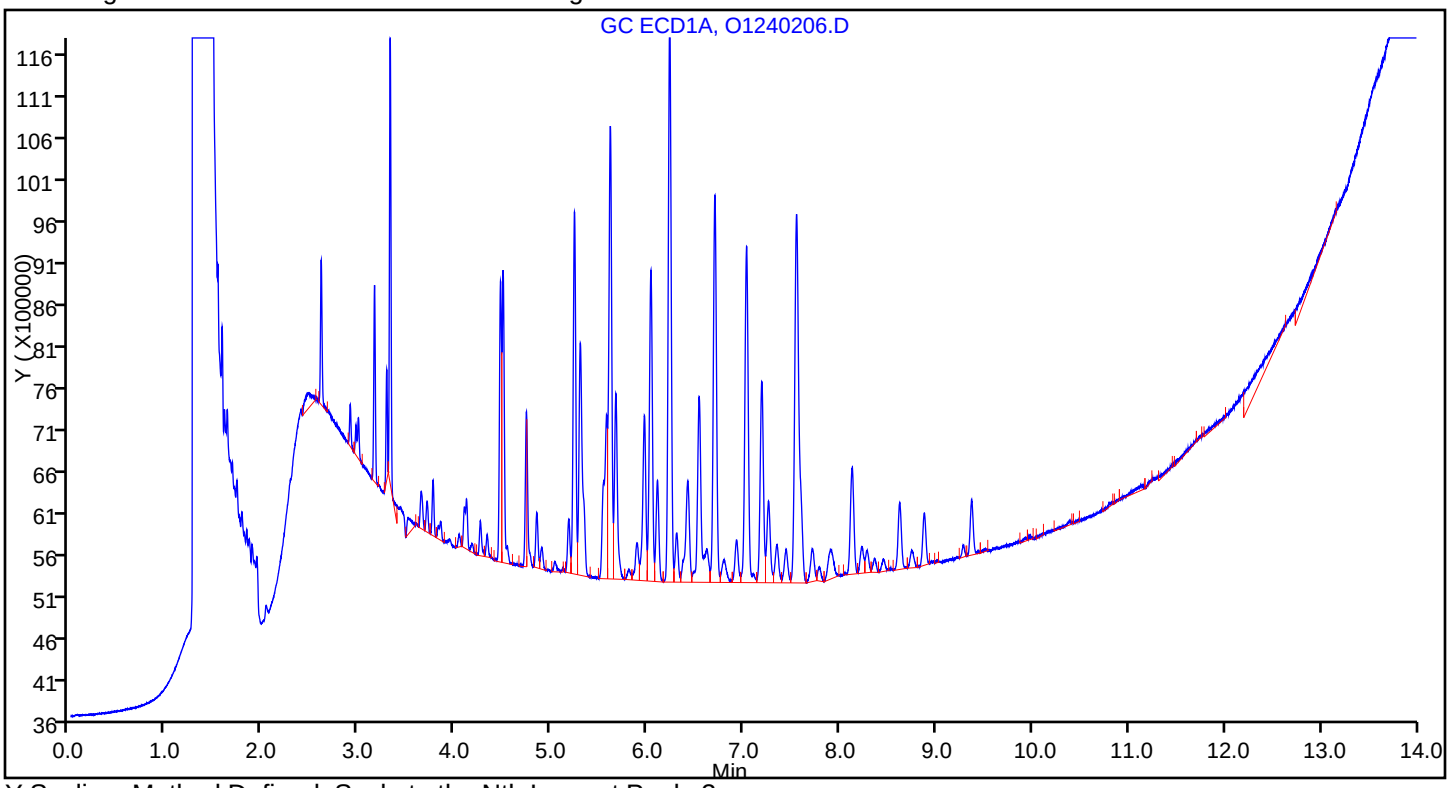
Client ID:

Operator ID: 402331 ALS Bottle#: 2 Worklist Smp#: 2

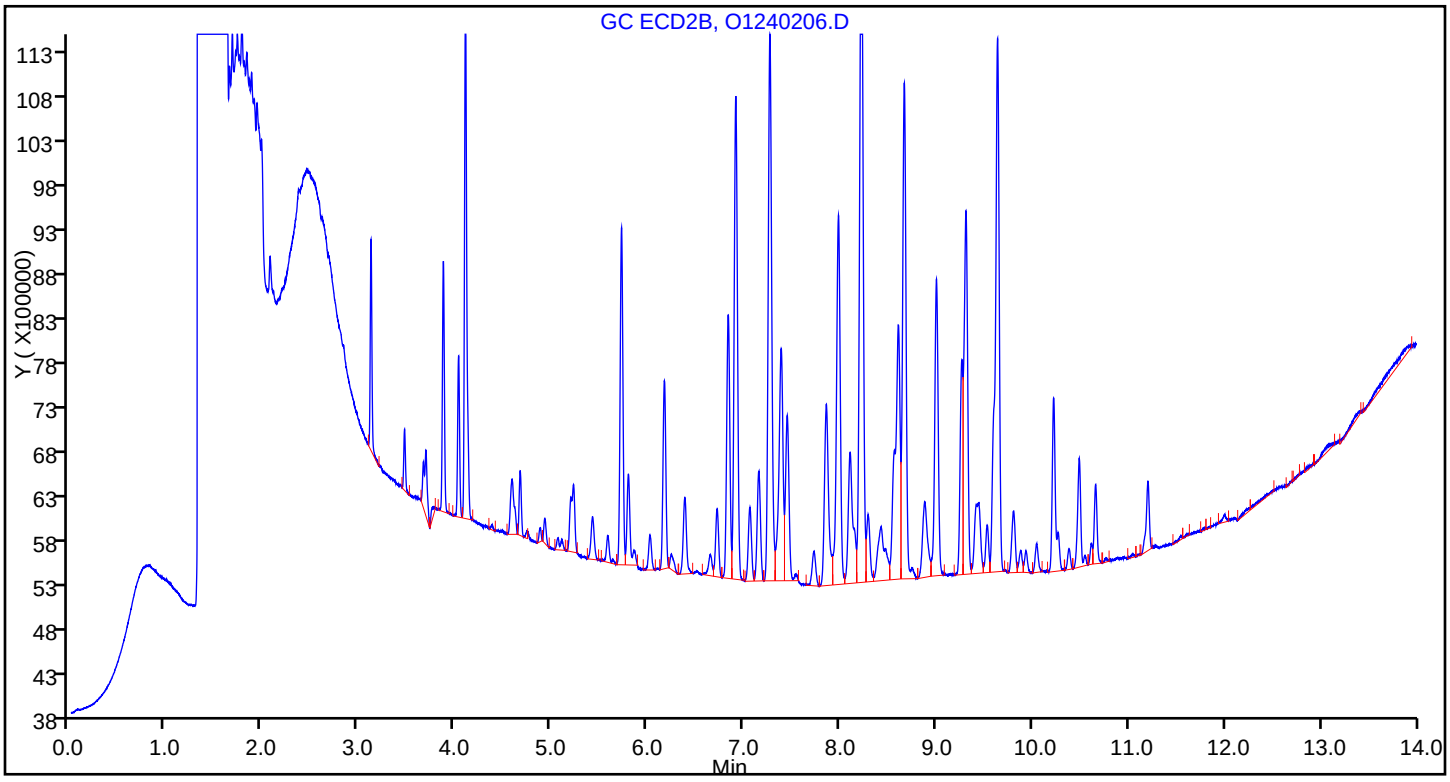
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240207.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Dec-2014 10:10:54 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-003
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:12:50 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.160	3.160	0.000	5795776H	0.2500	0.2505	
1	3.287	3.287	0.000	3669803H	0.2500	0.2598	
1	3.324	3.323	0.001	13363936H	0.2500	0.2541	
		Average of Peak Amounts =				0.2548	
2	3.124	3.124	0.000	5671957H	0.2500	0.2529	
2	3.877	3.876	0.001	6891309H	0.2500	0.2518	
2	4.107	4.106	0.001	14153338H	0.2500	0.2487	
		Average of Peak Amounts =				0.2511	
						RPD = 1.45	
7 PCB-1254							
1	5.241	5.240	0.001	10658539H	0.2500	0.2484	
1	5.614	5.612	0.002	13253575H	0.2500	0.2525	
1	6.232	6.232	0.000	16643678H	0.2500	0.2482	
1	6.702	6.701	0.001	11377319H	0.2500	0.2457	
1	7.551	7.551	0.000	10653238H	0.2500	0.2394	
		Average of Peak Amounts =				0.2468	
2	6.919	6.919	0.000	13121591H	0.2500	0.2489	
2	7.274	7.273	0.001	14288835H	0.2500	0.2283	
2	8.225	8.225	0.000	18942279H	0.2500	0.2476	
2	8.671	8.672	-0.001	13185109H	0.2500	0.2426	
2	9.642	9.642	0.000	14452872H	0.2500	0.2397	
		Average of Peak Amounts =				0.2414	
						RPD = 2.22	

Reagents:

GCAR2154CALL3_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:12:52 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240207.D

Injection Date: 11-Dec-2014 10:10:54 Instrument ID: CHGC8

Lims ID: IC

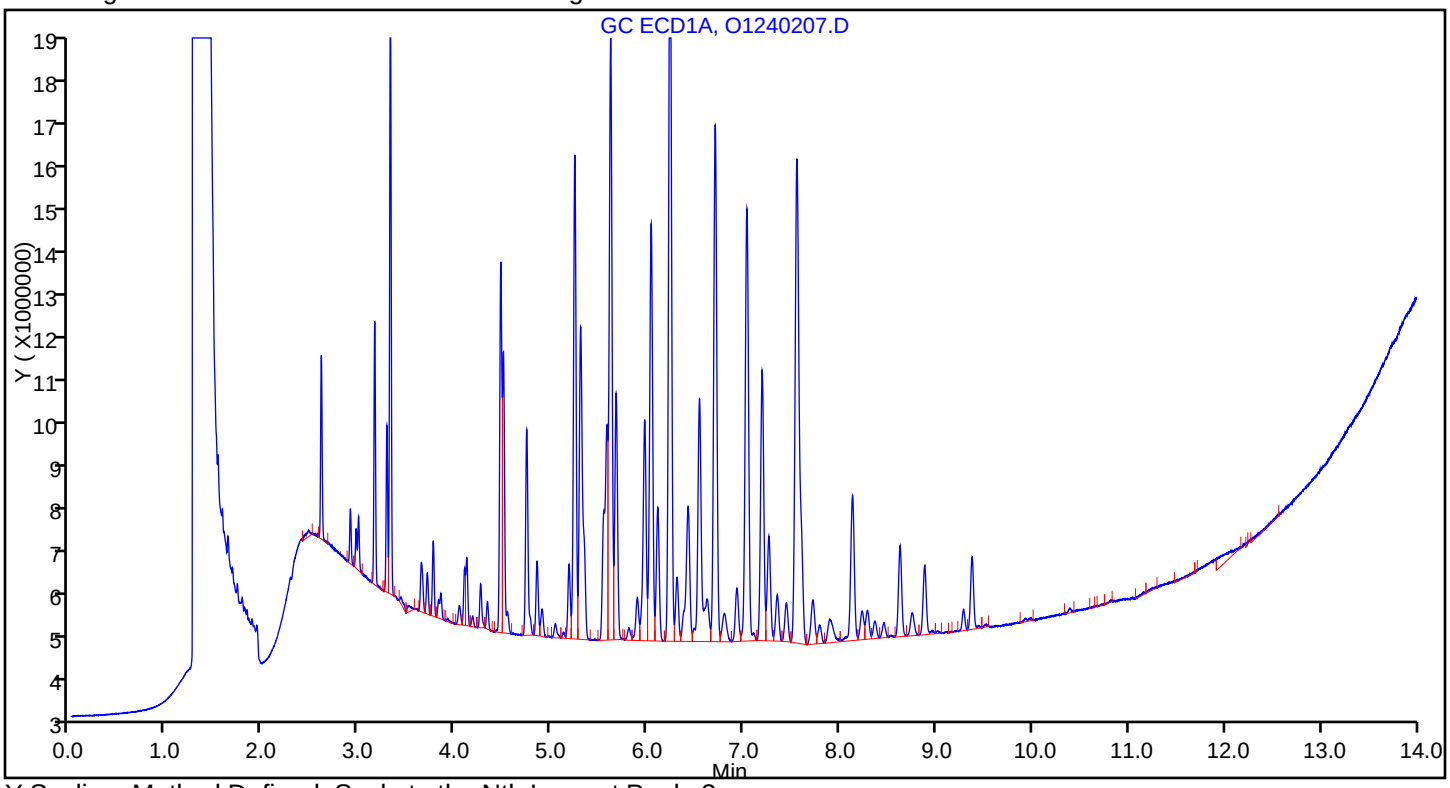
Client ID:

Operator ID: 402331 ALS Bottle#: 3 Worklist Smp#: 3

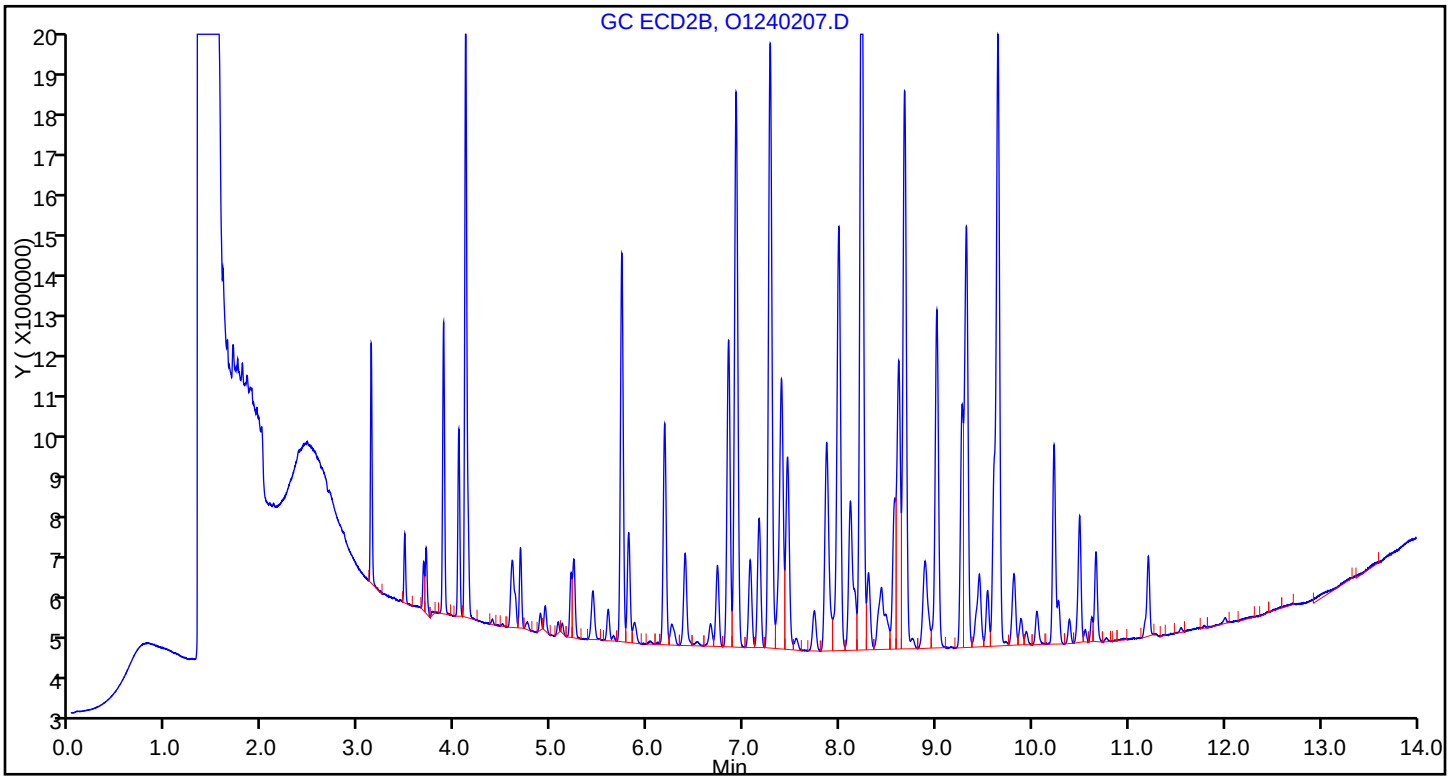
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240208.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 10:30:32 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-004
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:12:55 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:42:32

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.160	3.160	0.000	11517645H	0.5000	0.4979	
1	3.287	3.287	0.000	7264862H	0.5000	0.5143	
1	3.323	3.323	0.000	26236950H	0.5000	0.4989	
		Average of Peak Amounts =				0.5037	
2	3.124	3.124	0.000	10758949H	0.5000	0.4798	
2	3.876	3.876	0.000	13558908H	0.5000	0.4954	
2	4.106	4.106	0.000	27358682H	0.5000	0.4807	
		Average of Peak Amounts =				0.4853	
						RPD = 3.72	
7 PCB-1254							
1	5.240	5.240	0.000	21827622H	0.5000	0.5087	
1	5.612	5.612	0.000	27152184H	0.5000	0.5172	
1	6.232	6.232	0.000	34443295H	0.5000	0.5137	
1	6.701	6.701	0.000	23686330H	0.5000	0.5116	
1	7.551	7.551	0.000	22118320H	0.5000	0.4970	
		Average of Peak Amounts =				0.5097	
2	6.919	6.919	0.000	26375825H	0.5000	0.5004	
2	7.273	7.273	0.000	28602128H	0.5000	0.4571	
2	8.225	8.225	0.000	38550657H	0.5000	0.5039	
2	8.672	8.672	0.000	27213393H	0.5000	0.5007	
2	9.642	9.642	0.000	29158180H	0.5000	0.4835	
		Average of Peak Amounts =				0.4891	
						RPD = 4.11	

Reagents:

GCAR2154CALL4_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:12:57 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240208.D

Injection Date: 11-Dec-2014 10:30:32 Instrument ID: CHGC8

Lims ID: IC

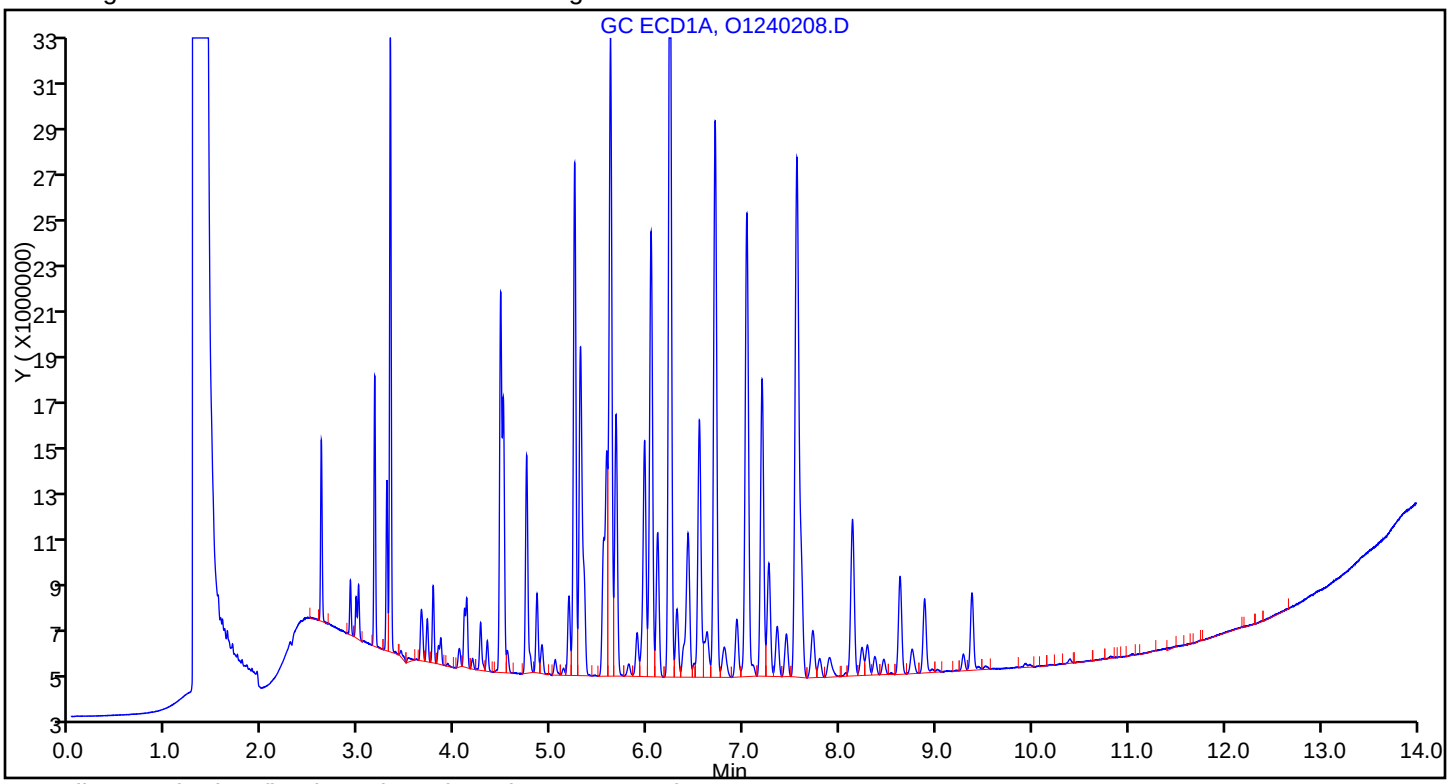
Client ID:

Operator ID: 402331 ALS Bottle#: 4 Worklist Smp#: 4

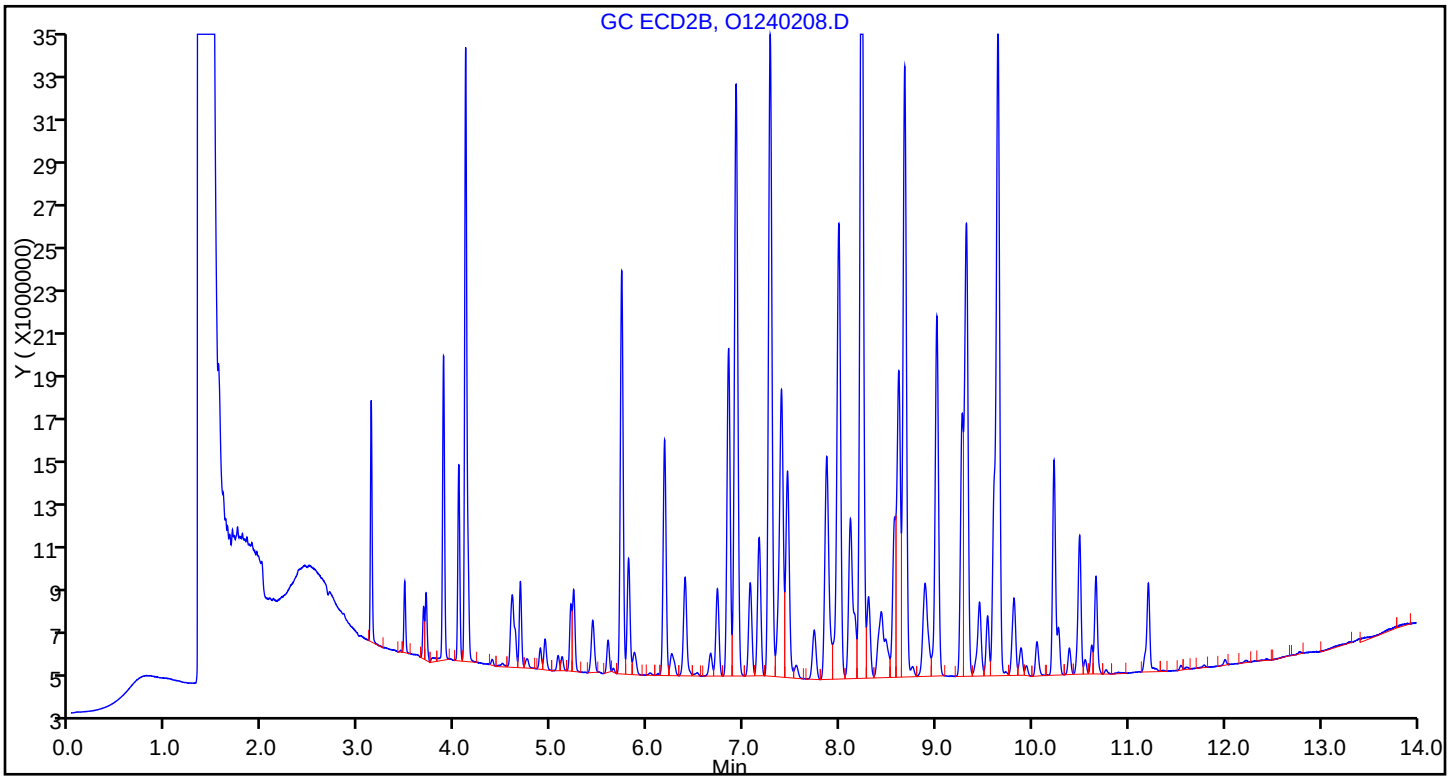
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240209.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Dec-2014 10:50:10 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-005
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub2

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:03 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:38:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
2 PCB-1221							
1	3.161	3.160	0.001	21799877H	1.00	0.9424	
1	3.287	3.287	0.000	13570010H	1.00	0.9606	
1	3.324	3.323	0.001	48232828H	1.00	0.9171	
		Average of Peak Amounts =				0.9400	
2	3.125	3.124	0.001	19936476H	1.00	0.8890	
2	3.878	3.876	0.002	25260765H	1.00	0.9229	
2	4.108	4.106	0.002	50592651H	1.00	0.8890	
		Average of Peak Amounts =				0.9003	
						RPD = 4.32	
7 PCB-1254							
1	5.242	5.240	0.002	40370539H	1.00	0.9409	
1	5.615	5.612	0.003	49717894H	1.00	0.9471	
1	6.232	6.232	0.000	63537412H	1.00	0.9476	
1	6.703	6.701	0.002	44194765H	1.00	0.9545	
1	7.553	7.551	0.002	41561714H	1.00	0.9340	
		Average of Peak Amounts =				0.9448	
2	6.922	6.919	0.003	48236384H	1.00	0.9151	
2	7.276	7.273	0.003	52504893H	1.00	0.8391	
2	8.228	8.225	0.003	70951379H	1.00	0.9273	
2	8.674	8.672	0.002	50858251H	1.00	0.9357	
2	9.645	9.642	0.003	53918869H	1.00	0.8941	
		Average of Peak Amounts =				0.9023	
						RPD = 4.61	

Reagents:

GCAR2154CALL5_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:05 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240209.D

Injection Date: 11-Dec-2014 10:50:10 Instrument ID: CHGC8

Lims ID: IC

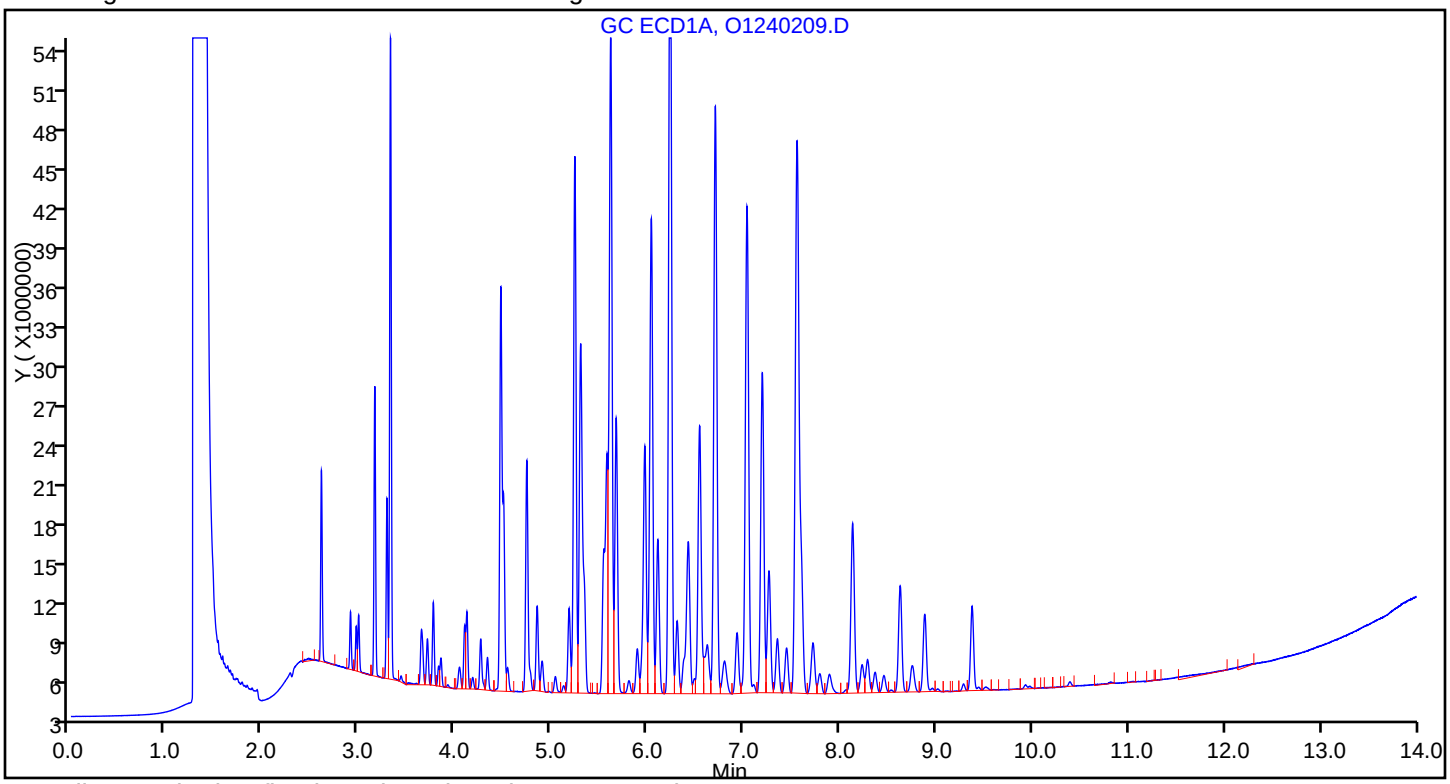
Client ID:

Operator ID: 402331 ALS Bottle#: 5 Worklist Smp#: 5

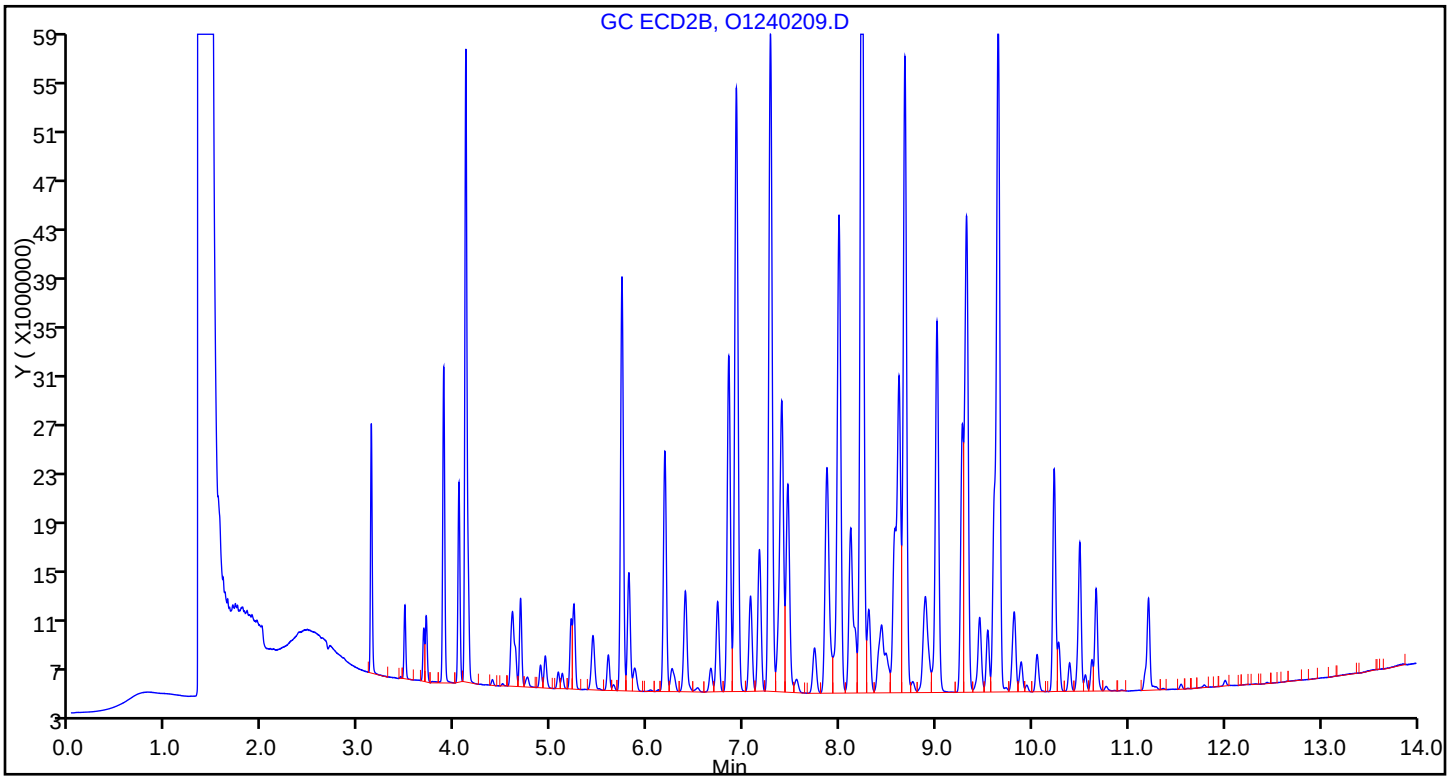
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:09 Calibration End Date: 12/11/2014 11:09 Calibration ID: 20432

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/6	O1240210.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1232 Peak 1	3.161										3.111 - 3.211	3.161
PCB-1232 Peak 2	3.325										3.275 - 3.375	3.325
PCB-1232 Peak 3	3.647										3.597 - 3.697	3.647
PCB-1232 Peak 4	4.263										4.213 - 4.313	4.263
PCB-1232 Peak 5	4.501										4.451 - 4.551	4.501

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:09 Calibration End Date: 12/11/2014 11:09 Calibration ID: 20432

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/6	O1240210.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	16498358				Ave		16498358.0						20.0			
PCB-1232 Peak 2	45636948				Ave		45636948.0						20.0			
PCB-1232 Peak 3	24939018				Ave		24939018.0						20.0			
PCB-1232 Peak 4	21280914				Ave		21280914.0						20.0			
PCB-1232 Peak 5	21720724				Ave		21720724.0						20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:09 Calibration End Date: 12/11/2014 11:09 Calibration ID: 20432

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/6	O1240210.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1232 Peak 1	Ave	8249179					0.500				
PCB-1232 Peak 2	Ave	22818474					0.500				
PCB-1232 Peak 3	Ave	12469509					0.500				
PCB-1232 Peak 4	Ave	10640457					0.500				
PCB-1232 Peak 5	Ave	10860362					0.500				

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240210.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 11:09:49 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-006
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub3

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:09 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:46:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
5 PCB-1232							
1	3.161	3.161	0.000	8249179H	0.5000	0.5000	
1	3.325	3.325	0.000	22818474H	0.5000	0.5000	
1	3.647	3.647	0.000	12469509H	0.5000	0.5000	
1	4.263	4.263	0.000	10640457H	0.5000	0.5000	
1	4.501	4.501	0.000	10860362H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
2	3.126	3.126	0.000	6659700H	0.5000	0.5000	
2	4.107	4.107	0.000	24522492H	0.5000	0.5000	
2	4.600	4.600	0.000	12965958H	0.5000	0.5000	
2	5.431	5.431	0.000	11557054H	0.5000	0.5000	
2	6.177	6.177	0.000	8543751H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
						RPD = 0.00	

Reagents:

GCAR1232CALL4_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240210.D

Injection Date: 11-Dec-2014 11:09:49 Instrument ID: CHGC8

Lims ID: IC

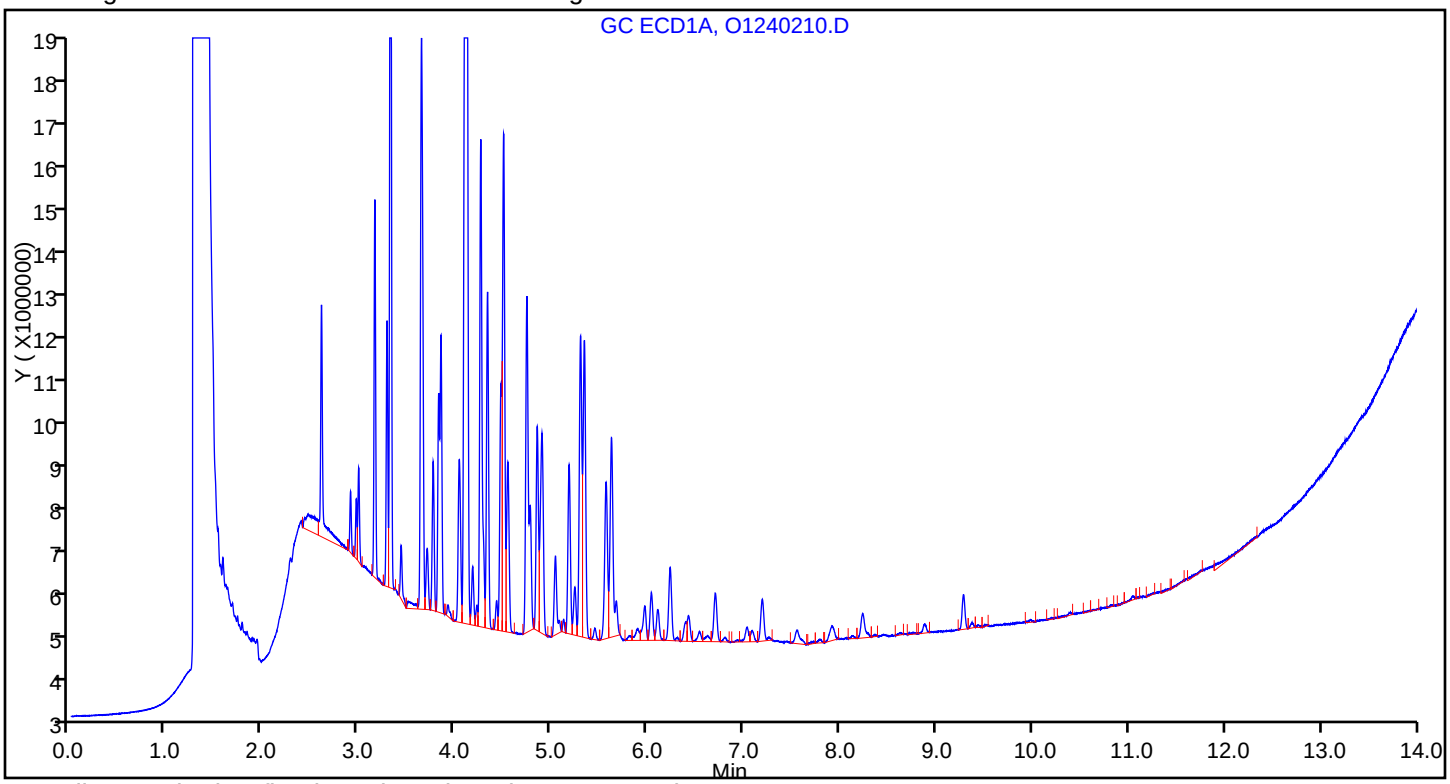
Client ID:

Operator ID: 402331 ALS Bottle#: 6 Worklist Smp#: 6

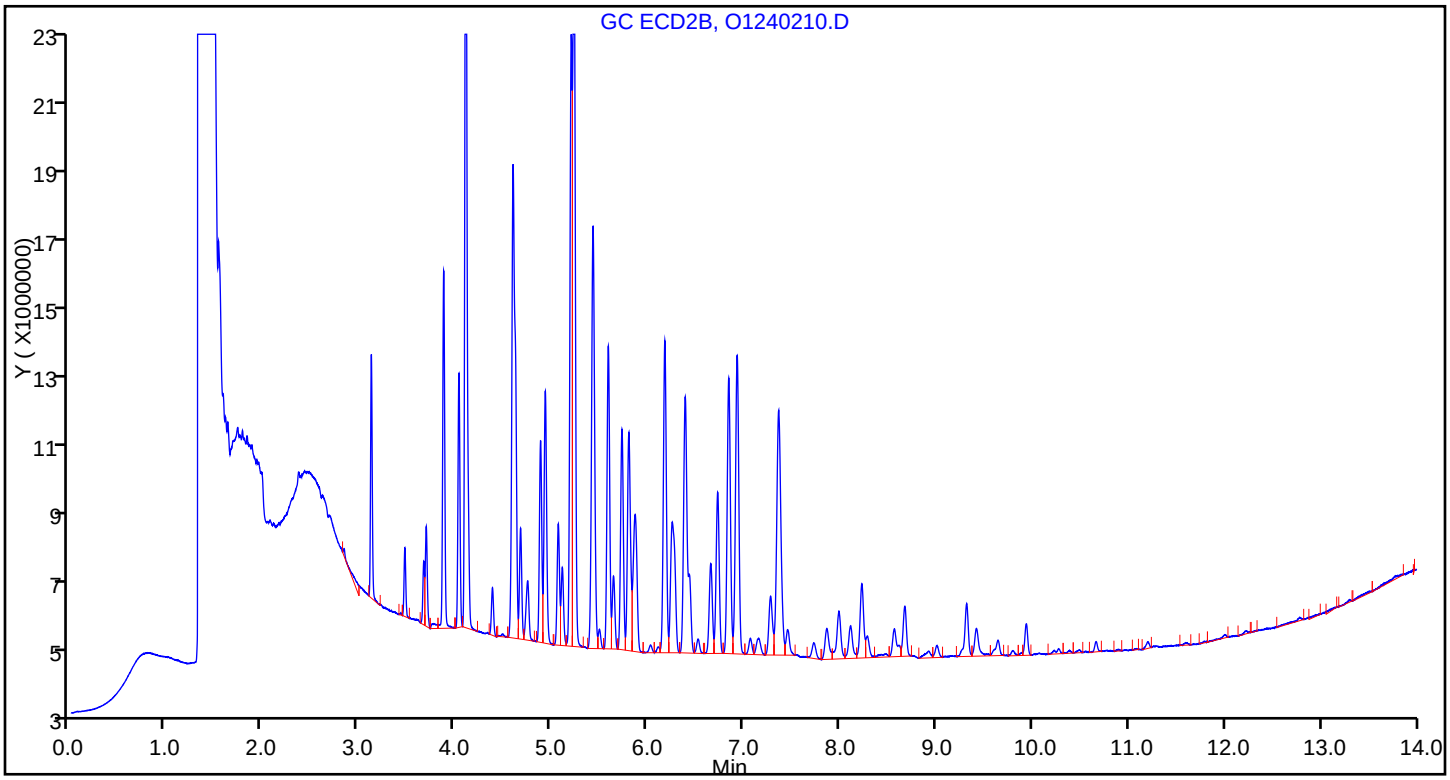
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:09 Calibration End Date: 12/11/2014 11:09 Calibration ID: 20433

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/6	O1240210.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1232 Peak 1	3.126										3.076 - 3.176	3.126
PCB-1232 Peak 2	4.107										4.057 - 4.157	4.107
PCB-1232 Peak 3	4.600										4.550 - 4.650	4.600
PCB-1232 Peak 4	5.431										5.381 - 5.481	5.431
PCB-1232 Peak 5	6.177										6.127 - 6.227	6.177

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:09 Calibration End Date: 12/11/2014 11:09 Calibration ID: 20433

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/6	O1240210.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	13319400				Ave		13319400.0						20.0			
PCB-1232 Peak 2	49044984				Ave		49044984.0						20.0			
PCB-1232 Peak 3	25931916				Ave		25931916.0						20.0			
PCB-1232 Peak 4	23114108				Ave		23114108.0						20.0			
PCB-1232 Peak 5	17087502				Ave		17087502.0						20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:09 Calibration End Date: 12/11/2014 11:09 Calibration ID: 20433

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/6	O1240210.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1232 Peak 1	Ave	6659700					0.500				
PCB-1232 Peak 2	Ave	24522492					0.500				
PCB-1232 Peak 3	Ave	12965958					0.500				
PCB-1232 Peak 4	Ave	11557054					0.500				
PCB-1232 Peak 5	Ave	8543751					0.500				

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240210.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 11:09:49 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-006
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub3

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:09 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:46:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
5 PCB-1232							
1	3.161	3.161	0.000	8249179H	0.5000	0.5000	
1	3.325	3.325	0.000	22818474H	0.5000	0.5000	
1	3.647	3.647	0.000	12469509H	0.5000	0.5000	
1	4.263	4.263	0.000	10640457H	0.5000	0.5000	
1	4.501	4.501	0.000	10860362H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
2	3.126	3.126	0.000	6659700H	0.5000	0.5000	
2	4.107	4.107	0.000	24522492H	0.5000	0.5000	
2	4.600	4.600	0.000	12965958H	0.5000	0.5000	
2	5.431	5.431	0.000	11557054H	0.5000	0.5000	
2	6.177	6.177	0.000	8543751H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
						RPD = 0.00	

Reagents:

GCAR1232CALL4_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240210.D

Injection Date: 11-Dec-2014 11:09:49 Instrument ID: CHGC8

Lims ID: IC

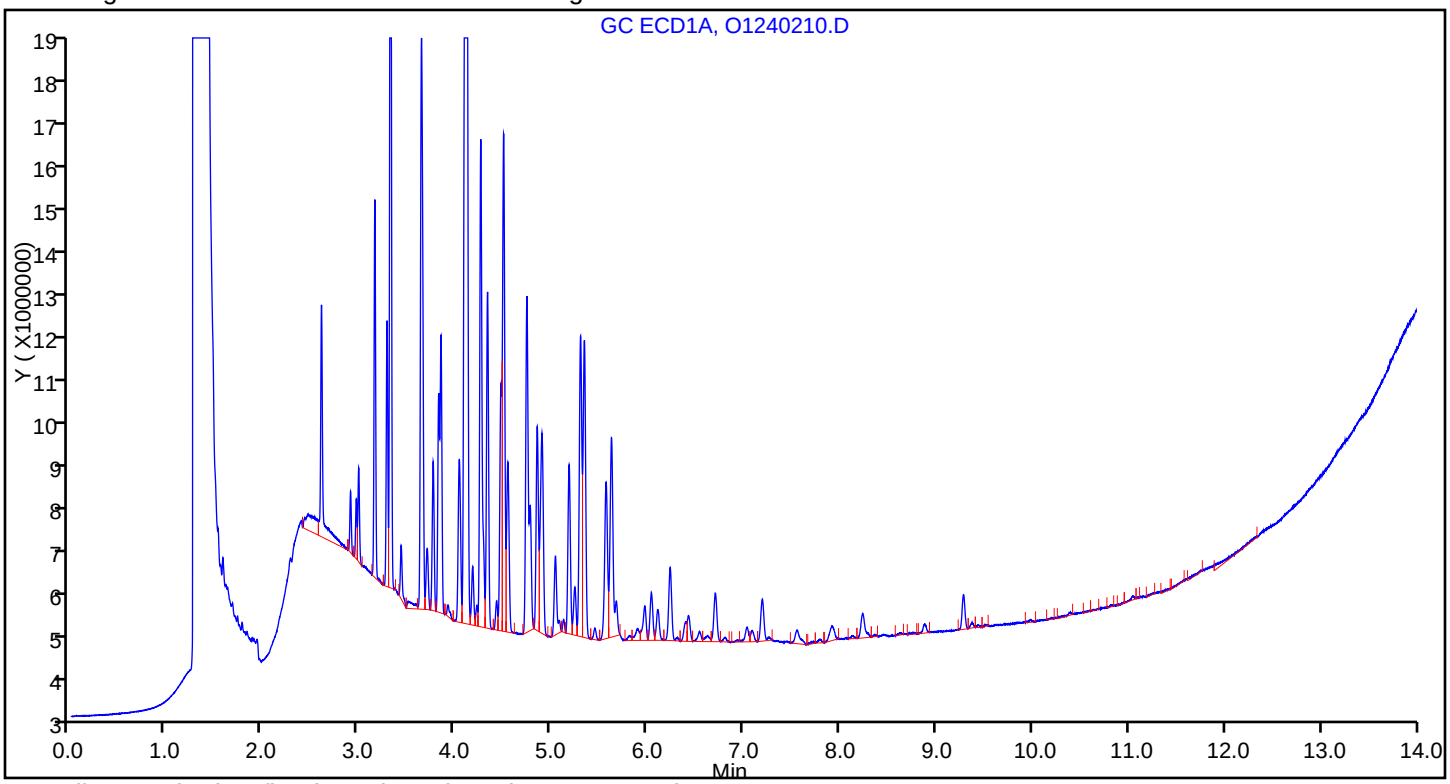
Client ID:

Operator ID: 402331 ALS Bottle#: 6 Worklist Smp#: 6

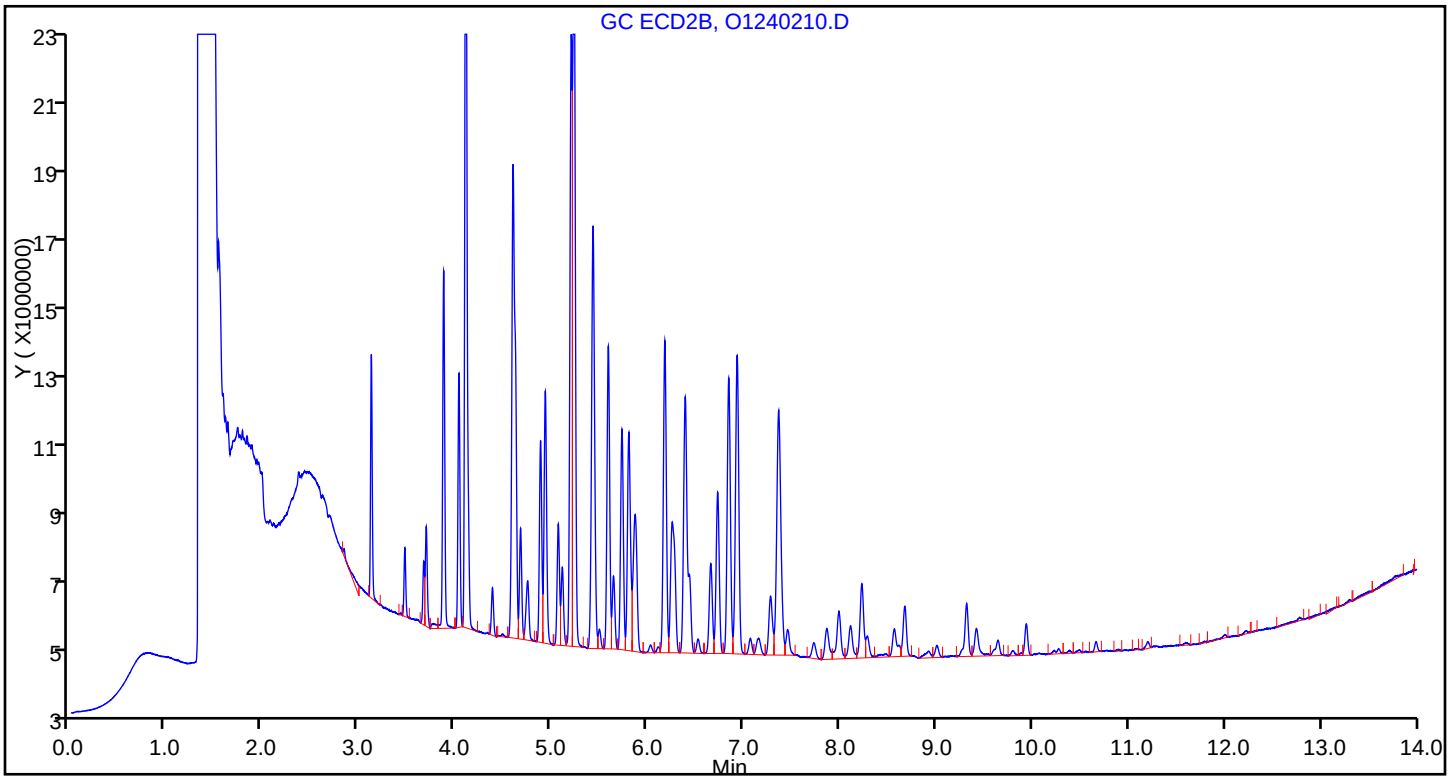
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:29 Calibration End Date: 12/11/2014 11:29 Calibration ID: 20444

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/7	O1240211.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1242 Peak 1	3.326										3.276 - 3.376	3.326
PCB-1242 Peak 2	4.120										4.070 - 4.170	4.120
PCB-1242 Peak 3	4.744										4.694 - 4.794	4.744
PCB-1242 Peak 4	5.302										5.252 - 5.352	5.302
PCB-1242 Peak 5	5.624										5.574 - 5.674	5.624

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:29 Calibration End Date: 12/11/2014 11:29 Calibration ID: 20444

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/7	O1240211.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1242 Peak 1	29561020				Ave		29561020.0						20.0			
PCB-1242 Peak 2	61442672				Ave		61442672.0						20.0			
PCB-1242 Peak 3	28261678				Ave		28261678.0						20.0			
PCB-1242 Peak 4	25823454				Ave		25823454.0						20.0			
PCB-1242 Peak 5	17145848				Ave		17145848.0						20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:29 Calibration End Date: 12/11/2014 11:29 Calibration ID: 20444

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/7	O1240211.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1242 Peak 1	Ave	14780510					0.500				
PCB-1242 Peak 2	Ave	30721336					0.500				
PCB-1242 Peak 3	Ave	14130839					0.500				
PCB-1242 Peak 4	Ave	12911727					0.500				
PCB-1242 Peak 5	Ave	8572924					0.500				

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240211.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 11:29:25 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-007
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub4

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:16 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:50:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
3 PCB-1242							M
1	3.326	3.326	0.000	14780510H	0.5000	0.5000	
1	4.120	4.120	0.000	30721336H	0.5000	0.5000	M
1	4.744	4.744	0.000	14130839H	0.5000	0.5000	
1	5.302	5.302	0.000	12911727H	0.5000	0.5000	
1	5.624	5.624	0.000	8572924H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
2	4.108	4.108	0.000	16927248H	0.5000	0.5000	
2	5.233	5.233	0.000	35362525H	0.5000	0.5000	
2	6.179	6.179	0.000	16107828H	0.5000	0.5000	
2	6.931	6.931	0.000	15688463H	0.5000	0.5000	
2	7.363	7.363	0.000	12704913H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
						RPD = 0.00	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

GCAR1242CALL4_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240211.D

Injection Date: 11-Dec-2014 11:29:25 Instrument ID: CHGC8

Lims ID: IC

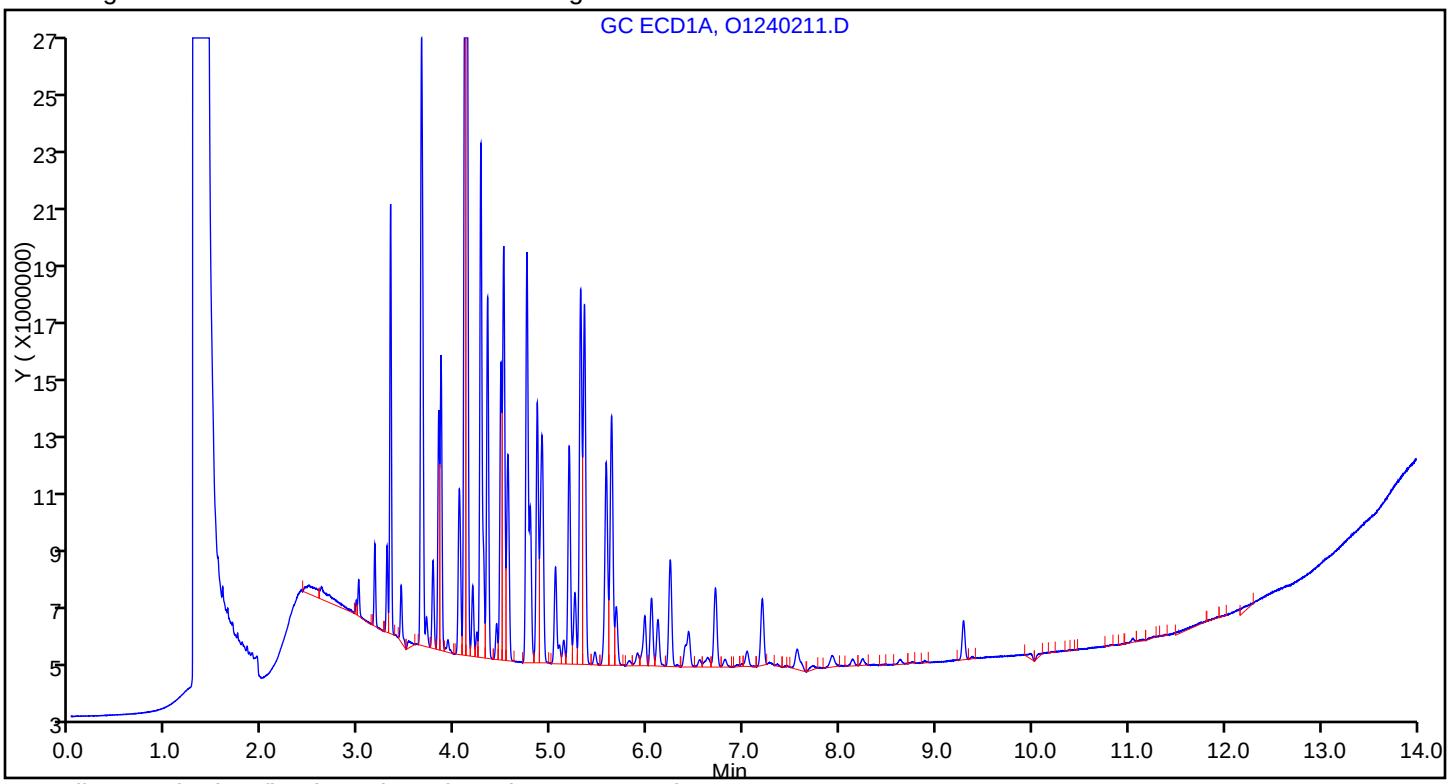
Client ID:

Operator ID: 402331 ALS Bottle#: 7 Worklist Smp#: 7

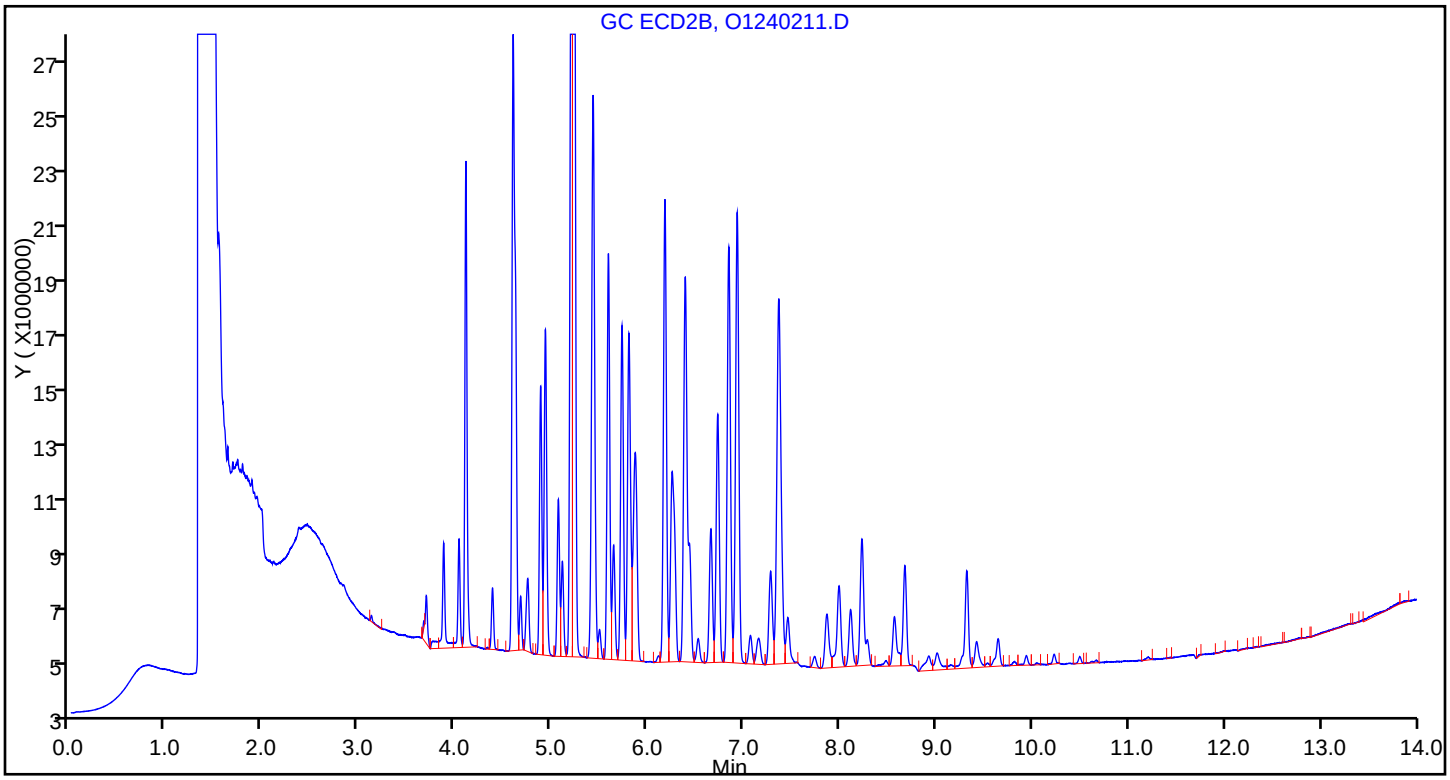
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3

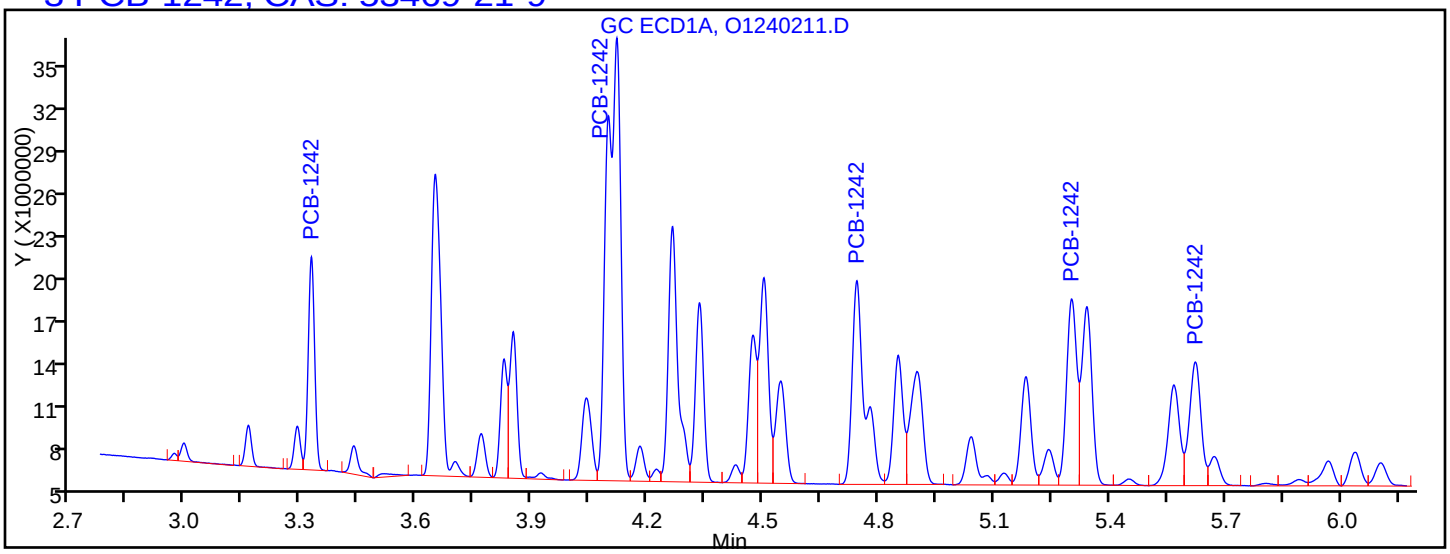


Report Date: 12-Dec-2014 12:13:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

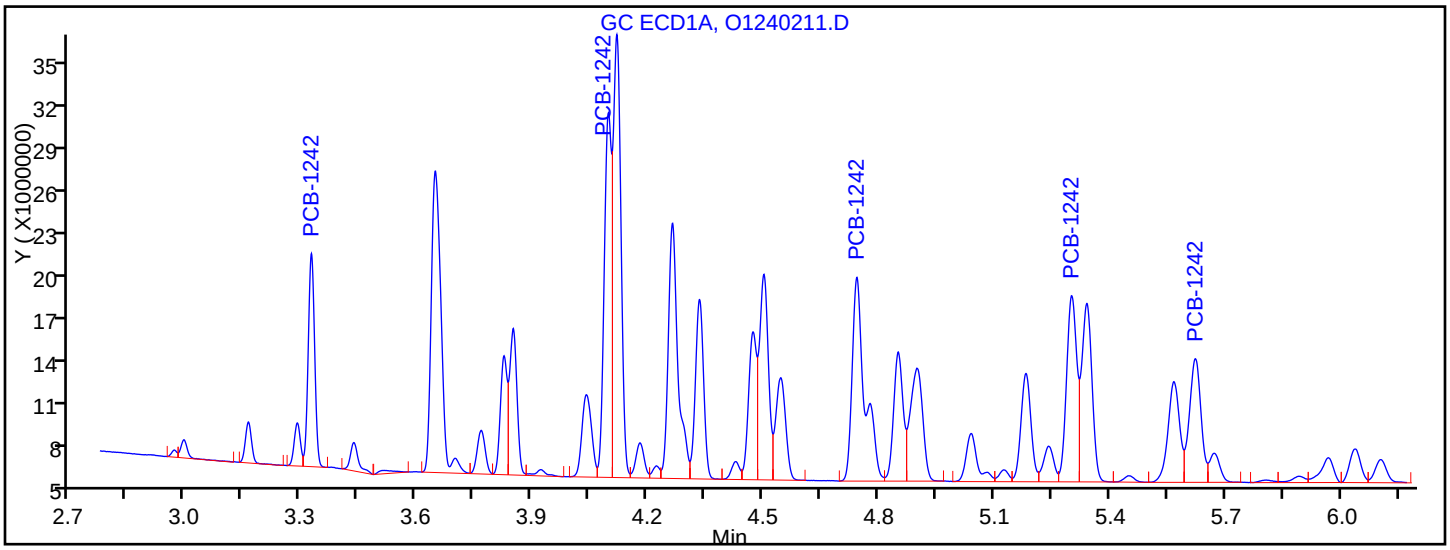
Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240211.D
Injection Date: 11-Dec-2014 11:29:25 Instrument ID: CHGC8
Lims ID: IC
Client ID:
Operator ID: 402331 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL
Column: Detector GC ECD1A

3 PCB-1242, CAS: 53469-21-9



Processing Integration Results

RT = 3.326 Response = 14780510
RT = 4.112 Response = 25415935 M
RT = 4.744 Response = 14130839
RT = 5.302 Response = 12911727
RT = 5.624 Response = 8572924



Manual Integration Results

RT = 3.326 Response = 14780510
RT = 4.120 Response = 30721336 M
RT = 4.744 Response = 14130839
RT = 5.302 Response = 12911727
RT = 5.624 Response = 8572924

Reviewer: eppinged, 12-Dec-2014 12:03:42
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:29 Calibration End Date: 12/11/2014 11:29 Calibration ID: 20445

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/7	O1240211.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1242 Peak 1	4.108										4.058 - 4.158	4.108
PCB-1242 Peak 2	5.233										5.183 - 5.283	5.233
PCB-1242 Peak 3	6.179										6.129 - 6.229	6.179
PCB-1242 Peak 4	6.931										6.881 - 6.981	6.931
PCB-1242 Peak 5	7.363										7.313 - 7.413	7.363

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:29 Calibration End Date: 12/11/2014 11:29 Calibration ID: 20445

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/7	O1240211.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1242 Peak 1	33854496				Ave		33854496.0						20.0			
PCB-1242 Peak 2	70725050				Ave		70725050.0						20.0			
PCB-1242 Peak 3	32215656				Ave		32215656.0						20.0			
PCB-1242 Peak 4	31376926				Ave		31376926.0						20.0			
PCB-1242 Peak 5	25409826				Ave		25409826.0						20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:29 Calibration End Date: 12/11/2014 11:29 Calibration ID: 20445

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/7	O1240211.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1242 Peak 1	Ave	16927248					0.500				
PCB-1242 Peak 2	Ave	35362525					0.500				
PCB-1242 Peak 3	Ave	16107828					0.500				
PCB-1242 Peak 4	Ave	15688463					0.500				
PCB-1242 Peak 5	Ave	12704913					0.500				

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240211.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 11:29:25 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-007
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub4

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:16 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 06:50:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
3 PCB-1242							M
1	3.326	3.326	0.000	14780510H	0.5000	0.5000	
1	4.120	4.120	0.000	30721336H	0.5000	0.5000	M
1	4.744	4.744	0.000	14130839H	0.5000	0.5000	
1	5.302	5.302	0.000	12911727H	0.5000	0.5000	
1	5.624	5.624	0.000	8572924H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
2	4.108	4.108	0.000	16927248H	0.5000	0.5000	
2	5.233	5.233	0.000	35362525H	0.5000	0.5000	
2	6.179	6.179	0.000	16107828H	0.5000	0.5000	
2	6.931	6.931	0.000	15688463H	0.5000	0.5000	
2	7.363	7.363	0.000	12704913H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
						RPD = 0.00	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

GCAR1242CALL4_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:18 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240211.D

Injection Date: 11-Dec-2014 11:29:25 Instrument ID: CHGC8

Lims ID: IC

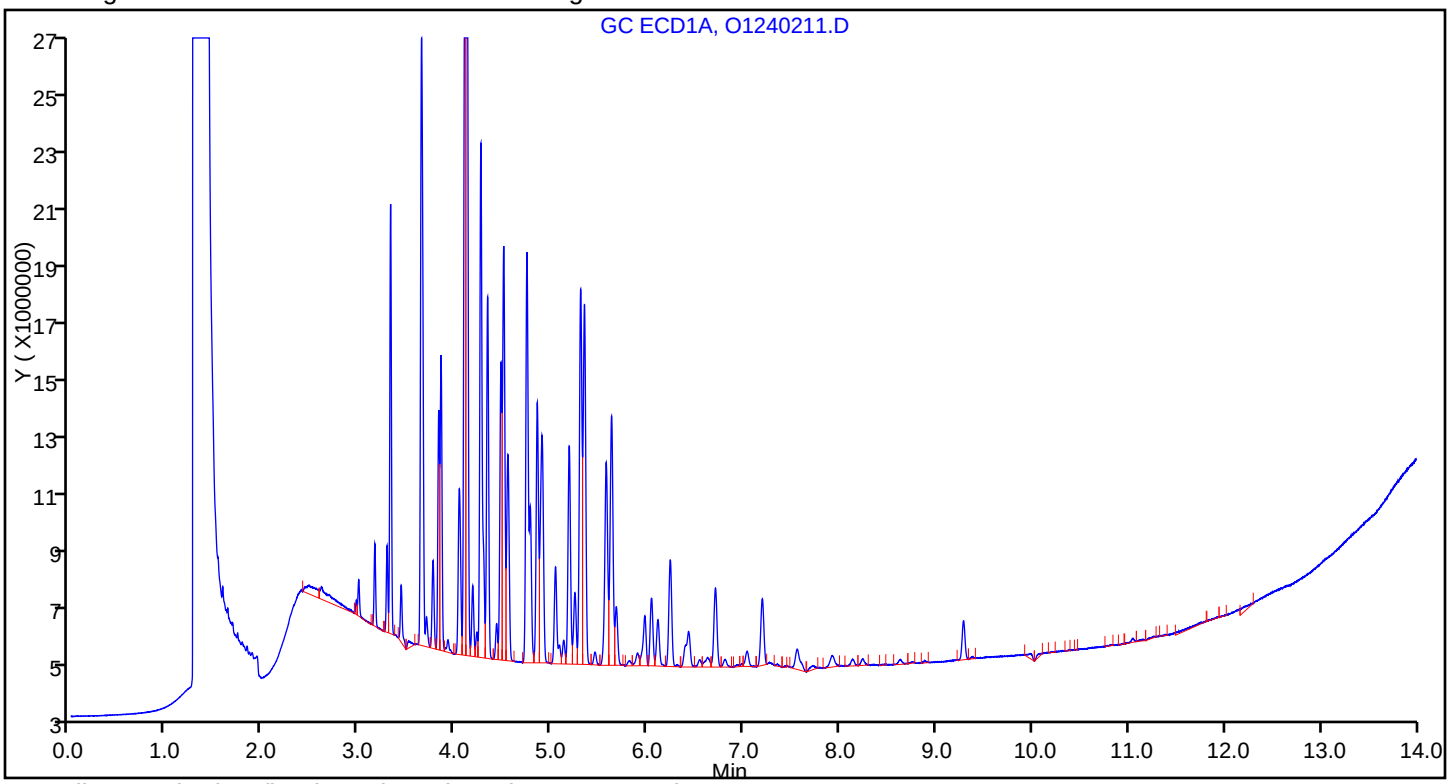
Client ID:

Operator ID: 402331 ALS Bottle#: 7 Worklist Smp#: 7

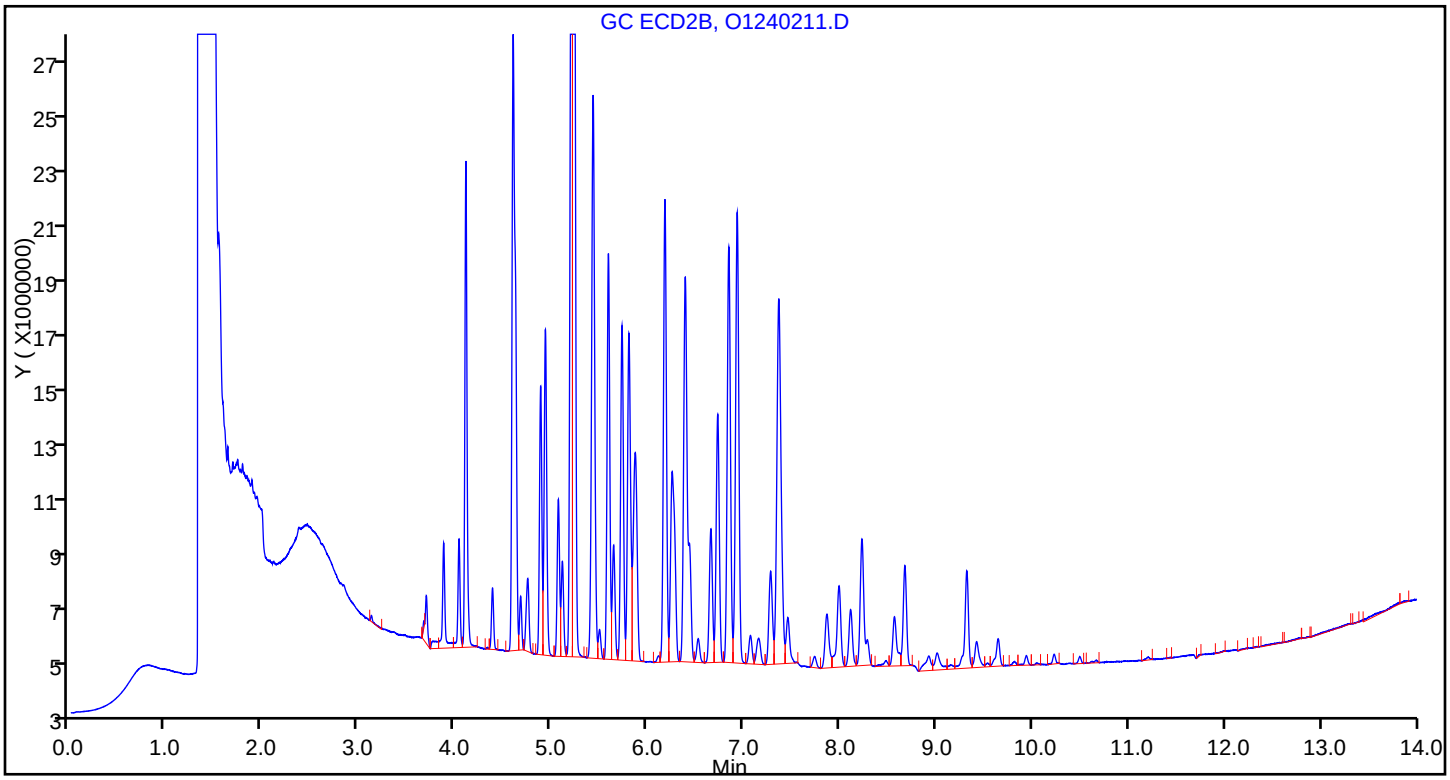
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:49 Calibration End Date: 12/11/2014 11:49 Calibration ID: 20456

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/8	O1240212.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1248 Peak 1	3.645										3.595 - 3.695	3.645
PCB-1248 Peak 2	4.096										4.046 - 4.146	4.096
PCB-1248 Peak 3	4.743										4.693 - 4.793	4.743
PCB-1248 Peak 4	5.621										5.571 - 5.671	5.621
PCB-1248 Peak 5	6.233										6.183 - 6.283	6.233

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:49 Calibration End Date: 12/11/2014 11:49 Calibration ID: 20456

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/8	O1240212.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	25498788				Ave		25498788.0						20.0			
PCB-1248 Peak 2	40088400				Ave		40088400.0						20.0			
PCB-1248 Peak 3	49099722				Ave		49099722.0						20.0			
PCB-1248 Peak 4	34447092				Ave		34447092.0						20.0			
PCB-1248 Peak 5	22485200				Ave		22485200.0						20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:49 Calibration End Date: 12/11/2014 11:49 Calibration ID: 20456

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/8	O1240212.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1248 Peak 1	Ave	12749394					0.500				
PCB-1248 Peak 2	Ave	20044200					0.500				
PCB-1248 Peak 3	Ave	24549861					0.500				
PCB-1248 Peak 4	Ave	17223546					0.500				
PCB-1248 Peak 5	Ave	11242600					0.500				

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240212.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 11:49:00 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-008
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub5

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:22 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 11-Dec-2014 12:27:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
6 PCB-1248							
1	3.645	3.645	0.000	12749394H	0.5000	0.5000	
1	4.096	4.096	0.000	20044200H	0.5000	0.5000	
1	4.743	4.743	0.000	24549861H	0.5000	0.5000	
1	5.621	5.621	0.000	17223546H	0.5000	0.5000	
1	6.233	6.233	0.000	11242600H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
2	4.599	4.599	0.000	13463486H	0.5000	0.5000	
2	5.203	5.203	0.000	22398121H	0.5000	0.5000	
2	6.177	6.177	0.000	27144424H	0.5000	0.5000	
2	6.928	6.928	0.000	28852502H	0.5000	0.5000	
2	7.363	7.363	0.000	20800894H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
						RPD = 0.00	

Reagents:

GCAR1248CALL4_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:24 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240212.D

Injection Date: 11-Dec-2014 11:49:00 Instrument ID: CHGC8

Lims ID: IC

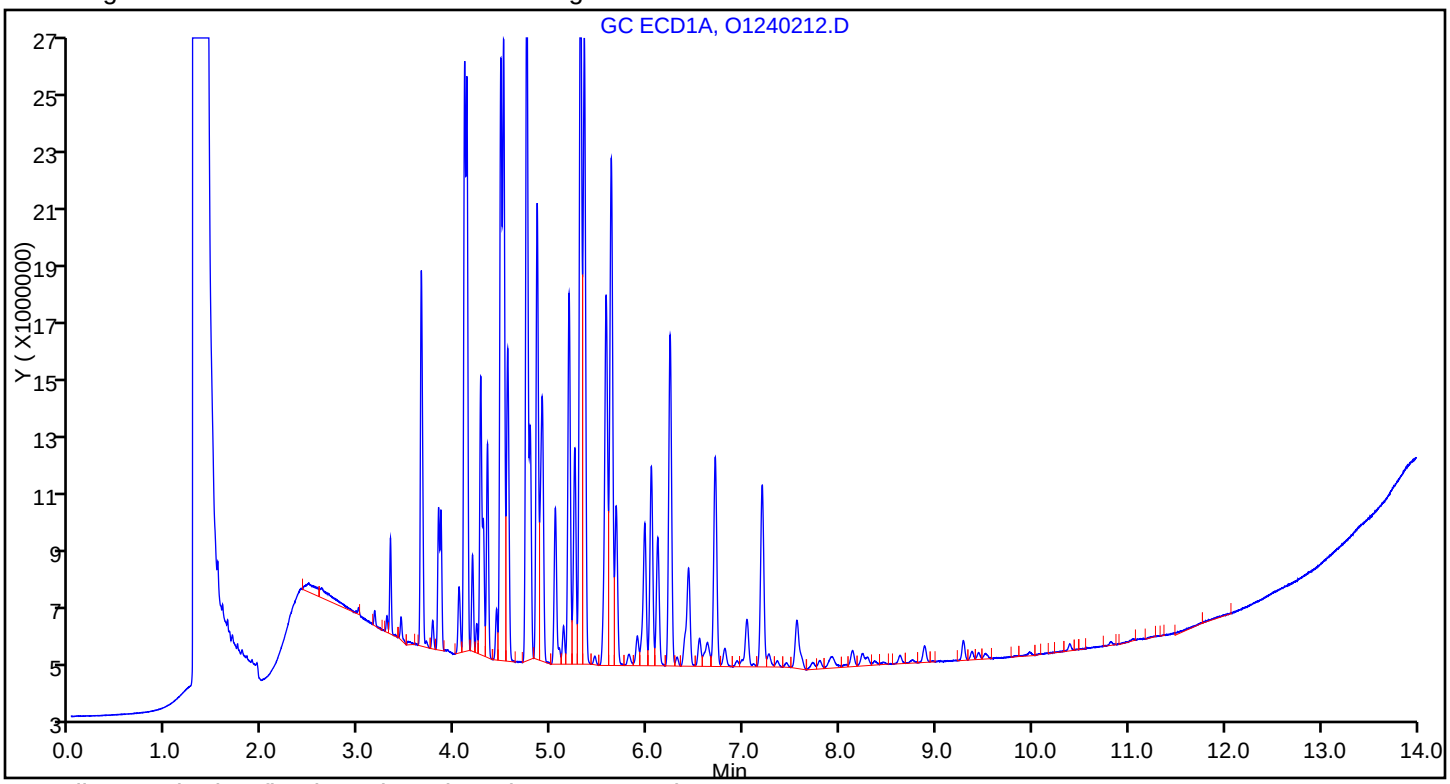
Client ID:

Operator ID: 402331 ALS Bottle#: 8 Worklist Smp#: 8

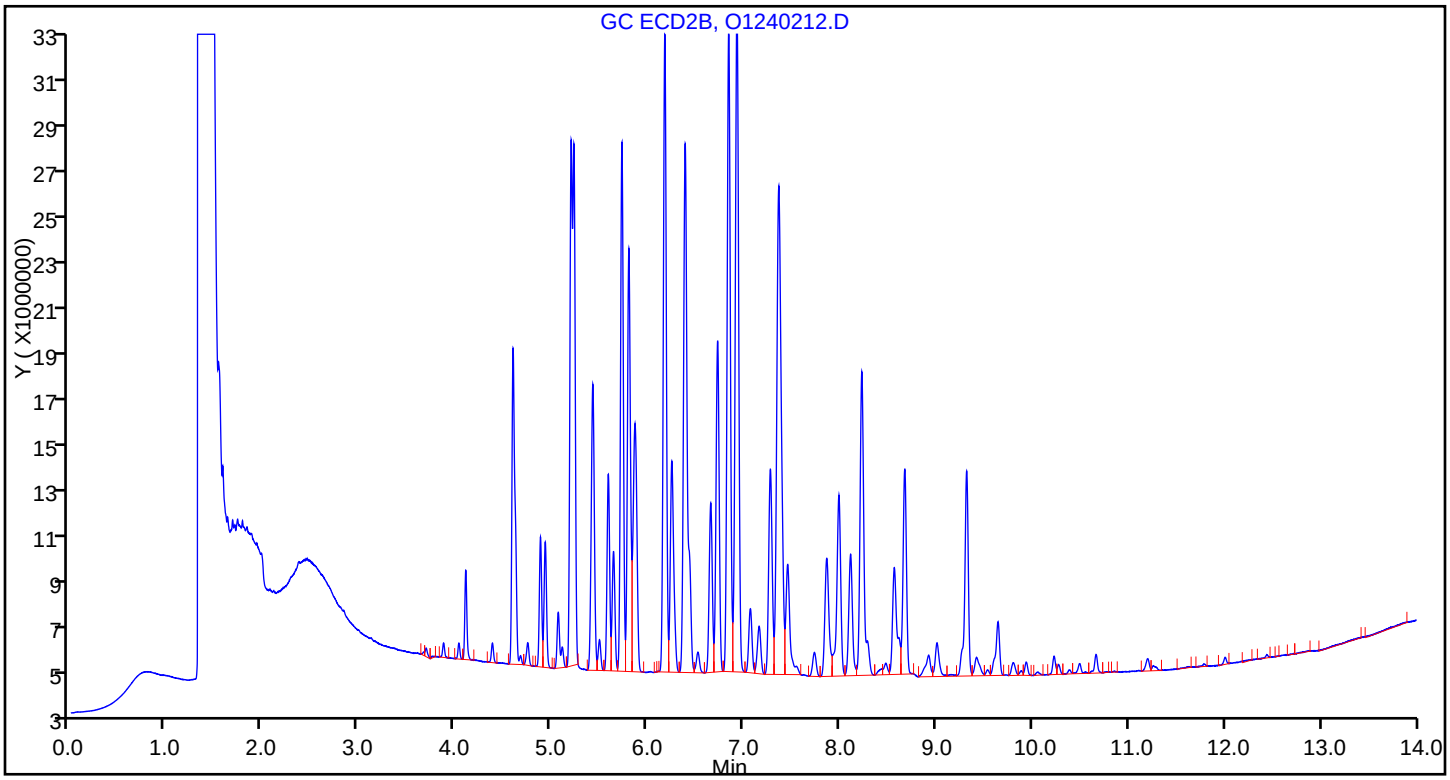
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:49 Calibration End Date: 12/11/2014 11:49 Calibration ID: 20457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/8	O1240212.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1248 Peak 1	4.599										4.549 - 4.649	4.599
PCB-1248 Peak 2	5.203										5.153 - 5.253	5.203
PCB-1248 Peak 3	6.177										6.127 - 6.227	6.177
PCB-1248 Peak 4	6.928										6.878 - 6.978	6.928
PCB-1248 Peak 5	7.363										7.313 - 7.413	7.363

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:49 Calibration End Date: 12/11/2014 11:49 Calibration ID: 20457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/8	O1240212.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	26926972				Ave		26926972.0						20.0			
PCB-1248 Peak 2	44796242				Ave		44796242.0						20.0			
PCB-1248 Peak 3	54288848				Ave		54288848.0						20.0			
PCB-1248 Peak 4	57705004				Ave		57705004.0						20.0			
PCB-1248 Peak 5	41601788				Ave		41601788.0						20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 11:49 Calibration End Date: 12/11/2014 11:49 Calibration ID: 20457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/8	O1240212.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1248 Peak 1	Ave	13463486					0.500				
PCB-1248 Peak 2	Ave	22398121					0.500				
PCB-1248 Peak 3	Ave	27144424					0.500				
PCB-1248 Peak 4	Ave	28852502					0.500				
PCB-1248 Peak 5	Ave	20800894					0.500				

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240212.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Dec-2014 11:49:00 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-008
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub5

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:22 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 11-Dec-2014 12:27:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
6 PCB-1248							
1	3.645	3.645	0.000	12749394H	0.5000	0.5000	
1	4.096	4.096	0.000	20044200H	0.5000	0.5000	
1	4.743	4.743	0.000	24549861H	0.5000	0.5000	
1	5.621	5.621	0.000	17223546H	0.5000	0.5000	
1	6.233	6.233	0.000	11242600H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
2	4.599	4.599	0.000	13463486H	0.5000	0.5000	
2	5.203	5.203	0.000	22398121H	0.5000	0.5000	
2	6.177	6.177	0.000	27144424H	0.5000	0.5000	
2	6.928	6.928	0.000	28852502H	0.5000	0.5000	
2	7.363	7.363	0.000	20800894H	0.5000	0.5000	
		Average of Peak Amounts =				0.5000	
						RPD = 0.00	

Reagents:

GCAR1248CALL4_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:25 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240212.D

Injection Date: 11-Dec-2014 11:49:00 Instrument ID: CHGC8

Lims ID: IC

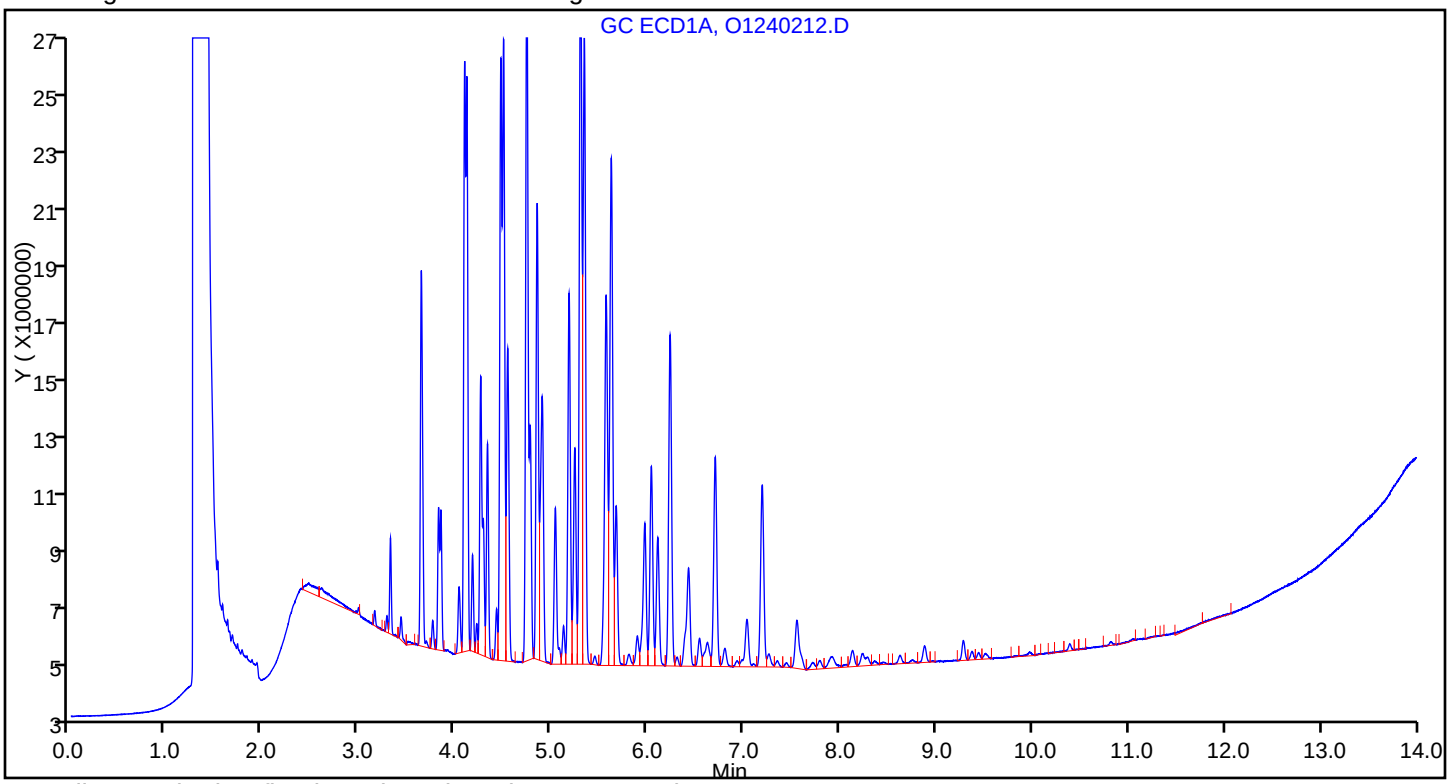
Client ID:

Operator ID: 402331 ALS Bottle#: 8 Worklist Smp#: 8

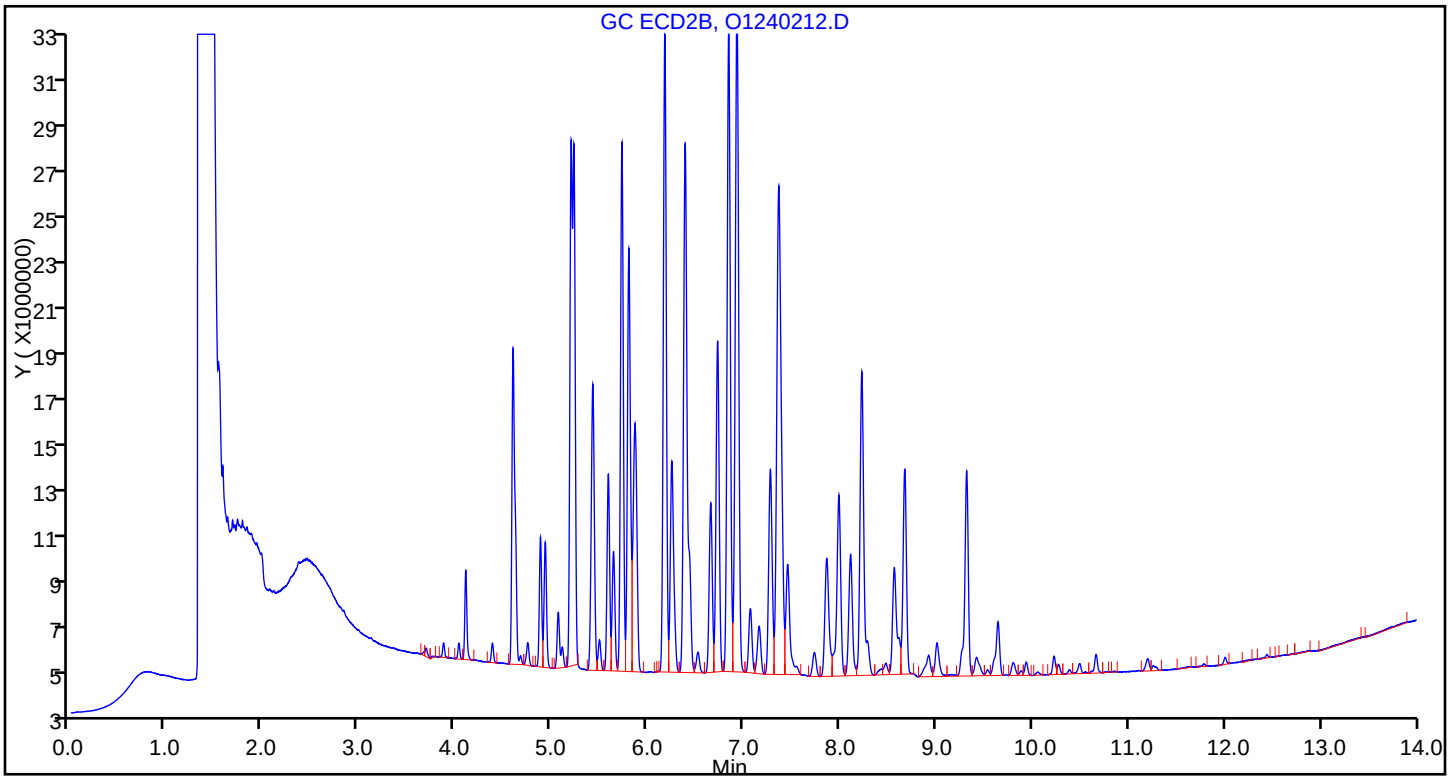
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 12:47 Calibration End Date: 12/11/2014 14:45 Calibration ID: 20300

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/11	O1240215.D
Level 2	IC 180-127929/12	O1240216.D
Level 3	IC 180-127929/13	O1240217.D
Level 4	ICRT 180-127929/14	O1240218.D
Level 5	IC 180-127929/15	O1240219.D
Level 6	IC 180-127929/16	O1240220.D
Level 7	IC 180-127929/17	O1240221.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
PCB-1016 Peak 1	3.327	3.326	3.326	3.326	3.327	3.327	3.330				3.276 - 3.376	3.327
PCB-1016 Peak 2	3.647	3.647	3.648	3.649	3.649	3.649	3.652				3.599 - 3.699	3.649
PCB-1016 Peak 3	4.097	4.098	4.099	4.099	4.099	4.099	4.102				4.049 - 4.149	4.099
PCB-1016 Peak 4	4.266	4.264	4.264	4.266	4.266	4.266	4.268				4.216 - 4.316	4.266
PCB-1016 Peak 5	4.744	4.744	4.744	4.745	4.745	4.746	4.747				4.695 - 4.795	4.745
PCB-1260 Peak 1	7.032	7.034	7.034	7.034	7.034	7.033	7.035				6.984 - 7.084	7.034
PCB-1260 Peak 2	7.553	7.554	7.554	7.555	7.555	7.555	7.556				7.505 - 7.605	7.555
PCB-1260 Peak 3	8.284	8.288	8.289	8.288	8.289	8.288	8.290				8.238 - 8.338	8.288
PCB-1260 Peak 4	8.880	8.883	8.883	8.883	8.884	8.883	8.886				8.833 - 8.933	8.883
PCB-1260 Peak 5	9.371	9.377	9.375	9.376	9.375	9.375	9.377				9.326 - 9.426	9.375
Tetrachloro-m-xylene (Surr)	3.023	3.024	3.024	3.025	3.025	3.027	3.030				2.975 - 3.075	3.025
DCB Decachlorobiphenyl (Surr)	11.089	11.092	11.092	11.091	11.093	11.092	11.094				11.021 - 11.161	11.092

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 12:47 Calibration End Date: 12/11/2014 14:45 Calibration ID: 20300

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/11	O1240215.D
Level 2	IC 180-127929/12	O1240216.D
Level 3	IC 180-127929/13	O1240217.D
Level 4	ICRT 180-127929/14	O1240218.D
Level 5	IC 180-127929/15	O1240219.D
Level 6	IC 180-127929/16	O1240220.D
Level 7	IC 180-127929/17	O1240221.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	33905800 36337831	41317280 35865733	37204955 33361181	38325500	Ave		36616897.1				7.4		20.0			
PCB-1016 Peak 2	51005100 51935363	60746100 50448897	53293595 46793705	55039804	Ave		52751794.8				8.3		20.0			
PCB-1016 Peak 3	56211900 63353668	68808600 62542880	63157565 57529028	67287044	Ave		62698669.2				7.4		20.0			
PCB-1016 Peak 4	38930500 44330814	49494460 44330641	44379250 40913243	46884256	Ave		44180452.0				7.9		20.0			
PCB-1016 Peak 5	32958000 35068688	39512260 34605388	34912060 32035648	36748448	Ave		35120070.3				7.0		20.0			
PCB-1260 Peak 1	64306700 66268089	78901020 65047505	67674710 59744812	69449984	Ave		67341831.5				8.8		20.0			
PCB-1260 Peak 2	47453100 51237196	57728180 50194096	51518220 45780851	52716266	Ave		50946844.1				7.6		20.0			
PCB-1260 Peak 3	38329800 38690178	45066800 38844628	39682415 34779530	40055378	Ave		39349818.4				7.8		20.0			
PCB-1260 Peak 4	84890300 92945216	104524060 88960210	93971810 81074099	95642866	Ave		91715508.6				8.4		20.0			
PCB-1260 Peak 5	46585300 52208139	58594680 50156774	52641795 46684022	53716670	Ave		51512482.8				8.2		20.0			
Tetrachloro-m-xylene (Surr)	1913216000 2242956680	2434353200 2183729700	2254467400 1975635390	2399220920	Ave		2200511327				8.9		20.0			
DCB Decachlorobiphenyl (Surr)	1019124000 1000413740	1225216400 960142130	1071014400 888498130	1056132360	Ave		1031505880				10.0		20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 12:47 Calibration End Date: 12/11/2014 14:45 Calibration ID: 20300

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/11	O1240215.D
Level 2	IC 180-127929/12	O1240216.D
Level 3	IC 180-127929/13	O1240217.D
Level 4	ICRT 180-127929/14	O1240218.D
Level 5	IC 180-127929/15	O1240219.D
Level 6	IC 180-127929/16	O1240220.D
Level 7	IC 180-127929/17	O1240221.D

ANALYTE	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
PCB-1016 Peak 1	Ave	339058 71731466	2065864 133444723	7440991	19162750	36337831	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	510051 100897793	3037305 187174821	10658719	27519902	51935363	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	562119 125085760	3440430 230116110	12631513	33643522	63353668	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	389305 88661282	2474723 163652972	8875850	23442128	44330814	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	329580 69210776	1975613 128142591	6982412	18374224	35068688	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	643067 130095010	3945051 238979249	13534942	34724992	66268089	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	474531 100388192	2886409 183123404	10303644	26358133	51237196	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	383298 77689255	2253340 139118121	7936483	20027689	38690178	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	848903 177920419	5226203 324296394	18794362	47821433	92945216	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	465853 100313548	2929734 186736086	10528359	26858335	52208139	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
Tetrachloro-m-xylene (Surr)	Ave	956608 218372970	6085883 395127078	22544674	59980523	112147834	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl (Surr)	Ave	509562 96014213	3063041 177699626	10710144	26403309	50020687	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240215.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Dec-2014 12:47:55 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-011
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:41 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: eppinged Date: 12-Dec-2014 12:06:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.023	3.025	-0.002	956608H	0.000500	0.000435	
2	3.582	3.584	-0.002	1271948H	0.000500	0.000448	
						RPD = 3.08	
4 PCB-1016							M
1	3.327	3.326	0.001	339058H	0.0100	0.009260	
1	3.647	3.649	-0.002	510051H	0.0100	0.009669	
1	4.097	4.099	-0.002	562119H	0.0100	0.008965	M
1	4.266	4.266	0.000	389305H	0.0100	0.008812	
1	4.744	4.745	-0.001	329580H	0.0100	0.009384	
		Average of Peak Amounts =				0.009218	
2	4.109	4.111	-0.002	409719H	0.0100	0.009643	
2	4.600	4.603	-0.003	520858H	0.0100	0.009580	
2	5.233	5.236	-0.003	816664H	0.0100	0.009212	M
2	5.432	5.435	-0.003	474595H	0.0100	0.009532	
2	6.179	6.182	-0.003	375524H	0.0100	0.009400	
		Average of Peak Amounts =				0.009473	
						RPD = 2.73	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.032	7.034	-0.002	643067H	0.0100	0.009549	
1	7.553	7.555	-0.002	474531H	0.0100	0.009314	
1	8.284	8.288	-0.004	383298H	0.0100	0.009741	
1	8.880	8.883	-0.003	848903H	0.0100	0.009256	
1	9.371	9.376	-0.005	465853H	0.0100	0.009043	
		Average of Peak Amounts =				0.009381	
2	9.643	9.645	-0.002	593756H	0.0100	0.009628	
2	9.796	9.799	-0.003	525303H	0.0100	0.0099	
2	10.273	10.278	-0.005	555127H	0.0100	0.009874	
2	10.663	10.666	-0.003	1218650H	0.0100	0.009706	
2	11.204	11.206	-0.002	722833H	0.0100	0.0100	
		Average of Peak Amounts =				0.009829	
						RPD = 4.67	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.089	11.091	-0.002	509562H	0.000500	0.000494	
2	12.777	12.777	0.000	633846H	0.000500	0.000511	
						RPD = 3.37	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

GCAR1660CALL1_00011 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:43 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240215.D

Injection Date: 11-Dec-2014 12:47:55 Instrument ID: CHGC8

Lims ID: IC

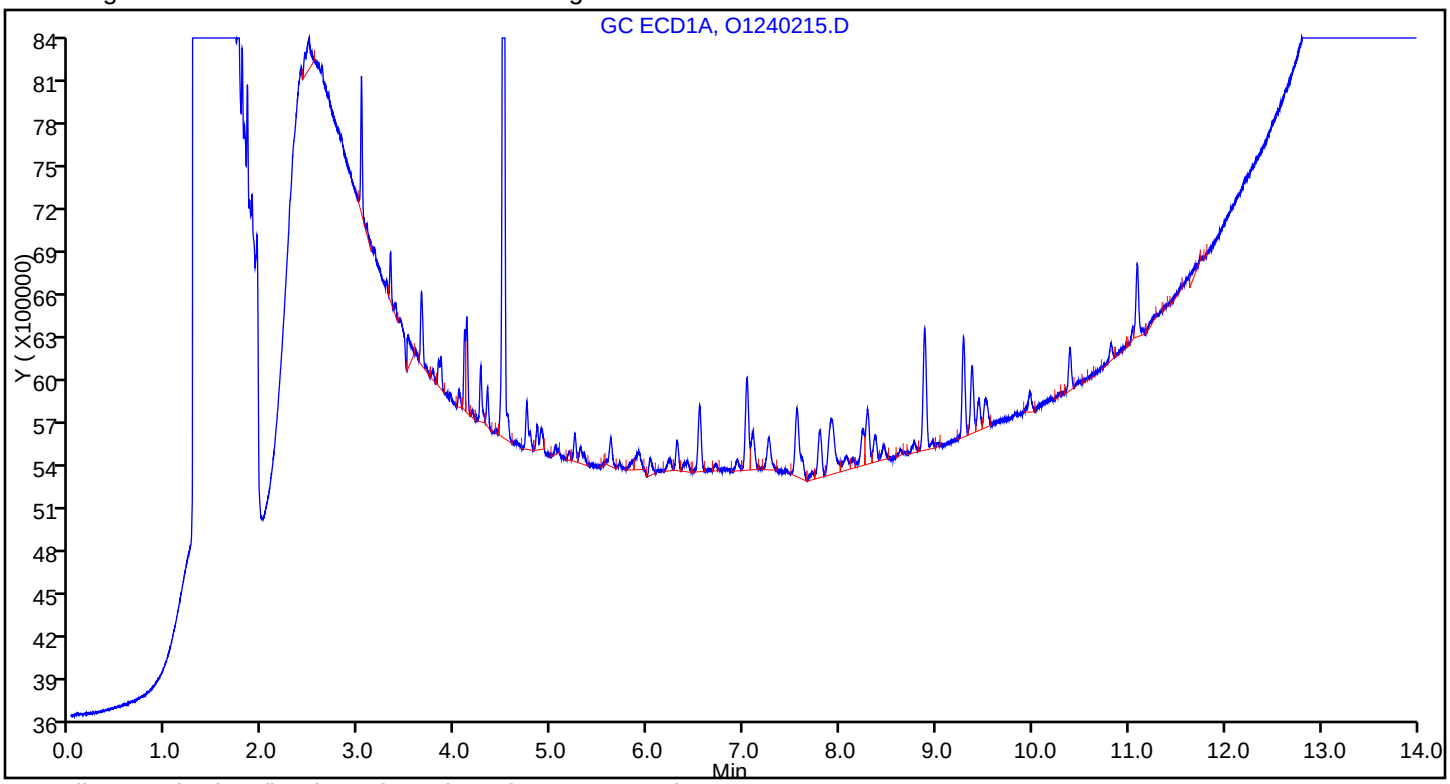
Client ID:

Operator ID: 402331 ALS Bottle#: 11 Worklist Smp#: 11

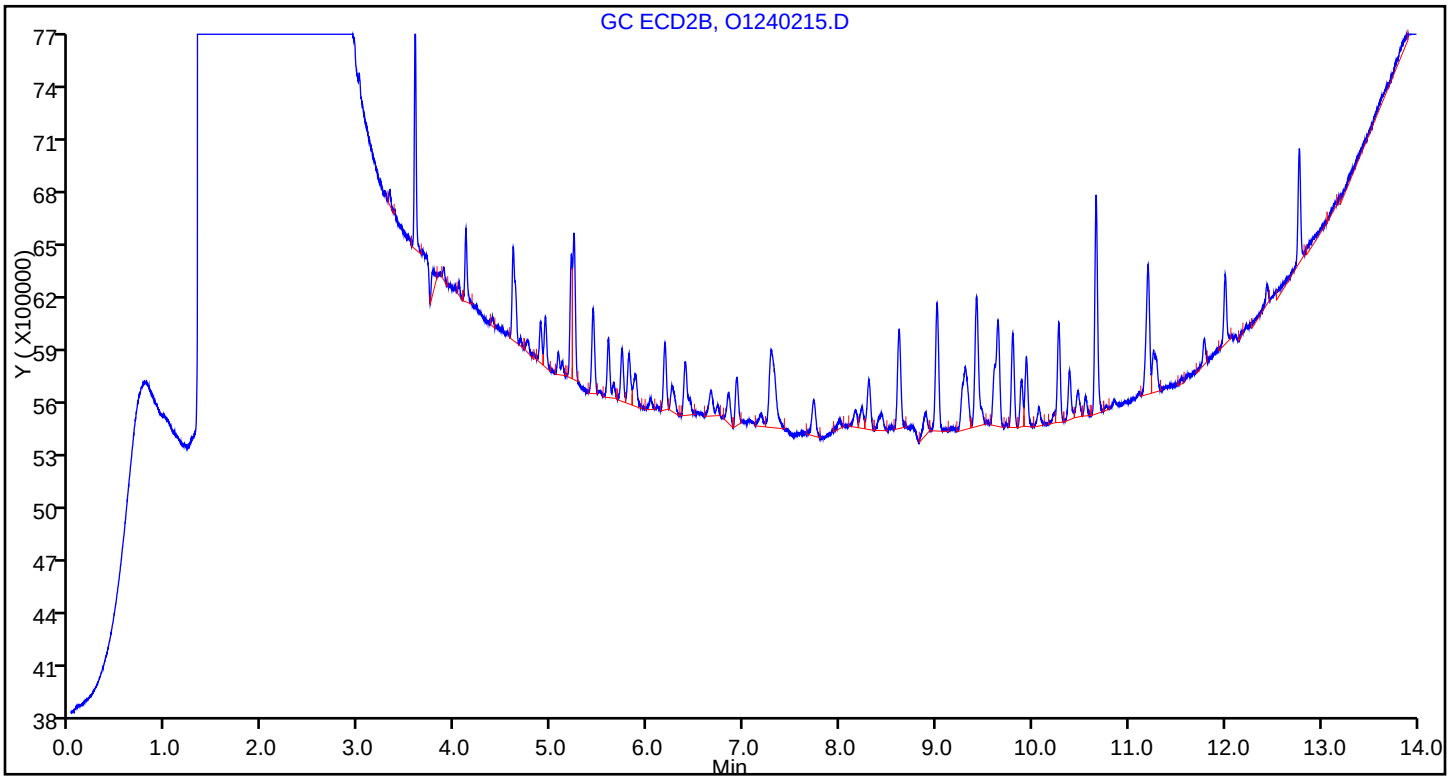
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3

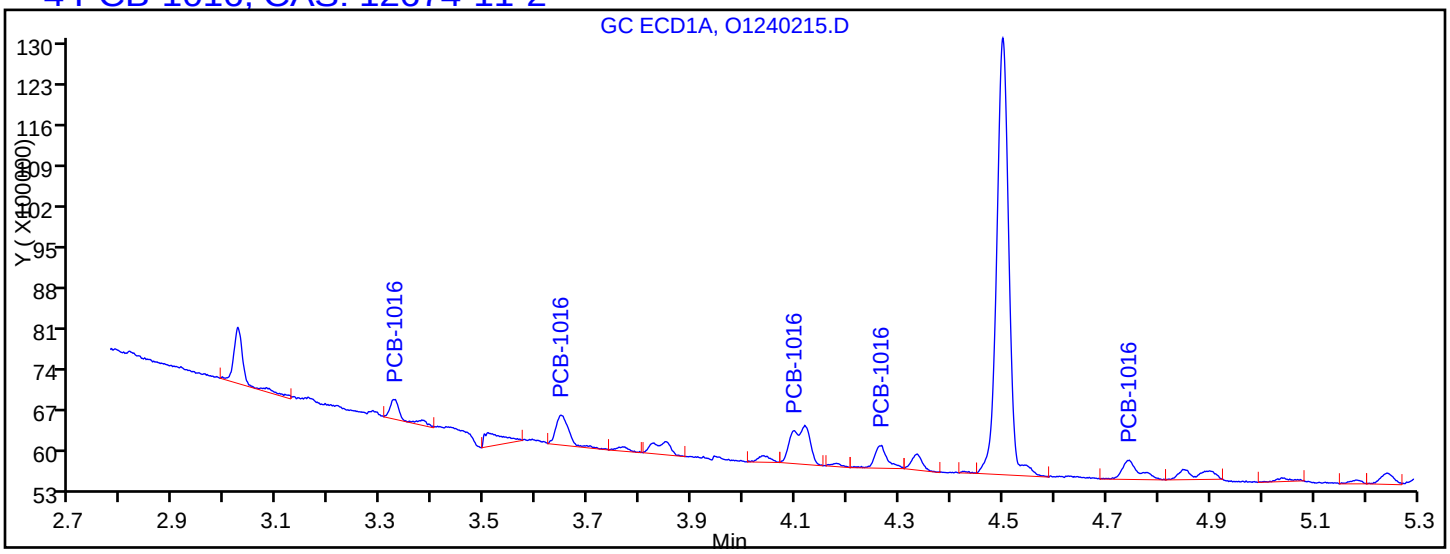


Report Date: 12-Dec-2014 12:13:44 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

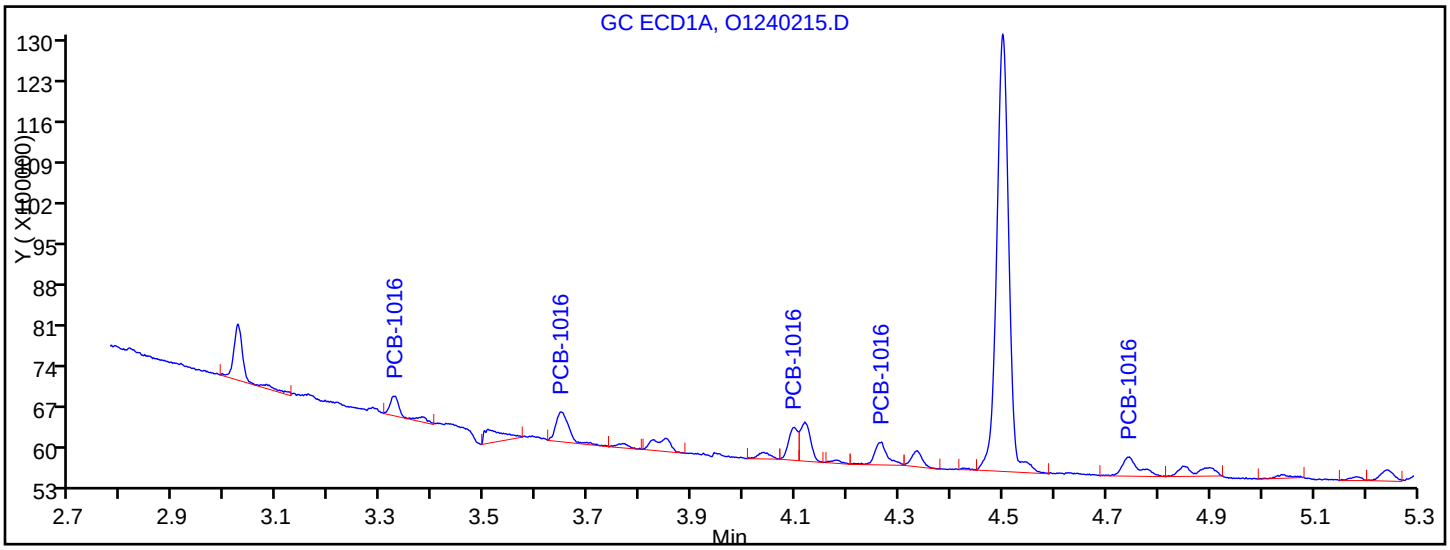
Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240215.D
Injection Date: 11-Dec-2014 12:47:55 Instrument ID: CHGC8
Lims ID: IC
Client ID:
Operator ID: 402331 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL
Column: Detector GC ECD1A

4 PCB-1016, CAS: 12674-11-2



Processing Integration Results

RT = 3.327 Response = 339058
RT = 3.647 Response = 510051
RT = 4.098 Response = 562621 M
RT = 4.266 Response = 389305
RT = 4.744 Response = 329580



Manual Integration Results

RT = 3.327 Response = 339058
RT = 3.647 Response = 510051
RT = 4.097 Response = 562119 M
RT = 4.266 Response = 389305
RT = 4.744 Response = 329580

Reviewer: eppinged, 12-Dec-2014 12:06:20
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240216.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Dec-2014 13:07:29 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-012
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:48 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: eppinged Date: 12-Dec-2014 12:06:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.024	3.025	-0.001	6085883H	0.002500	0.002766	
2	3.582	3.584	-0.002	7794828H	0.002500	0.002747	
						RPD = 0.66	
4 PCB-1016							
1	3.326	3.326	0.000	2065864H	0.0500	0.0564	
1	3.647	3.649	-0.002	3037305H	0.0500	0.0576	
1	4.098	4.099	-0.001	3440430H	0.0500	0.0549	
1	4.264	4.266	-0.002	2474723H	0.0500	0.0560	
1	4.744	4.745	-0.001	1975613H	0.0500	0.0563	
		Average of Peak Amounts =				0.0562	
2	4.110	4.111	-0.001	2455616H	0.0500	0.0578	
2	4.602	4.603	-0.001	3216705H	0.0500	0.0592	
2	5.235	5.236	-0.001	5034785H	0.0500	0.0568	
2	5.432	5.435	-0.003	2899548H	0.0500	0.0582	
2	6.180	6.182	-0.002	2336435H	0.0500	0.0585	
		Average of Peak Amounts =				0.0581	
						RPD = 3.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	3945051H	0.0500	0.0586	
1	7.554	7.555	-0.001	2886409H	0.0500	0.0567	
1	8.288	8.288	0.000	2253340H	0.0500	0.0573	
1	8.883	8.883	0.000	5226203H	0.0500	0.0570	
1	9.377	9.376	0.001	2929734H	0.0500	0.0569	
		Average of Peak Amounts =				0.0573	
2	9.645	9.645	0.000	3570515H	0.0500	0.0579	
2	9.799	9.799	0.000	3116560H	0.0500	0.0590	
2	10.277	10.278	-0.001	3280228H	0.0500	0.0583	
2	10.665	10.666	-0.001	7137380H	0.0500	0.0568	
2	11.206	11.206	0.000	4205204H	0.0500	0.0582	
		Average of Peak Amounts =				0.0580	
						RPD = 1.34	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.092	11.091	0.001	3063041H	0.002500	0.002969	
2	12.778	12.777	0.001	3639040H	0.002500	0.002933	
						RPD = 1.22	

Reagents:

GCAR1660CALL2_00009 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:50 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240216.D

Injection Date: 11-Dec-2014 13:07:29 Instrument ID: CHGC8

Lims ID: IC

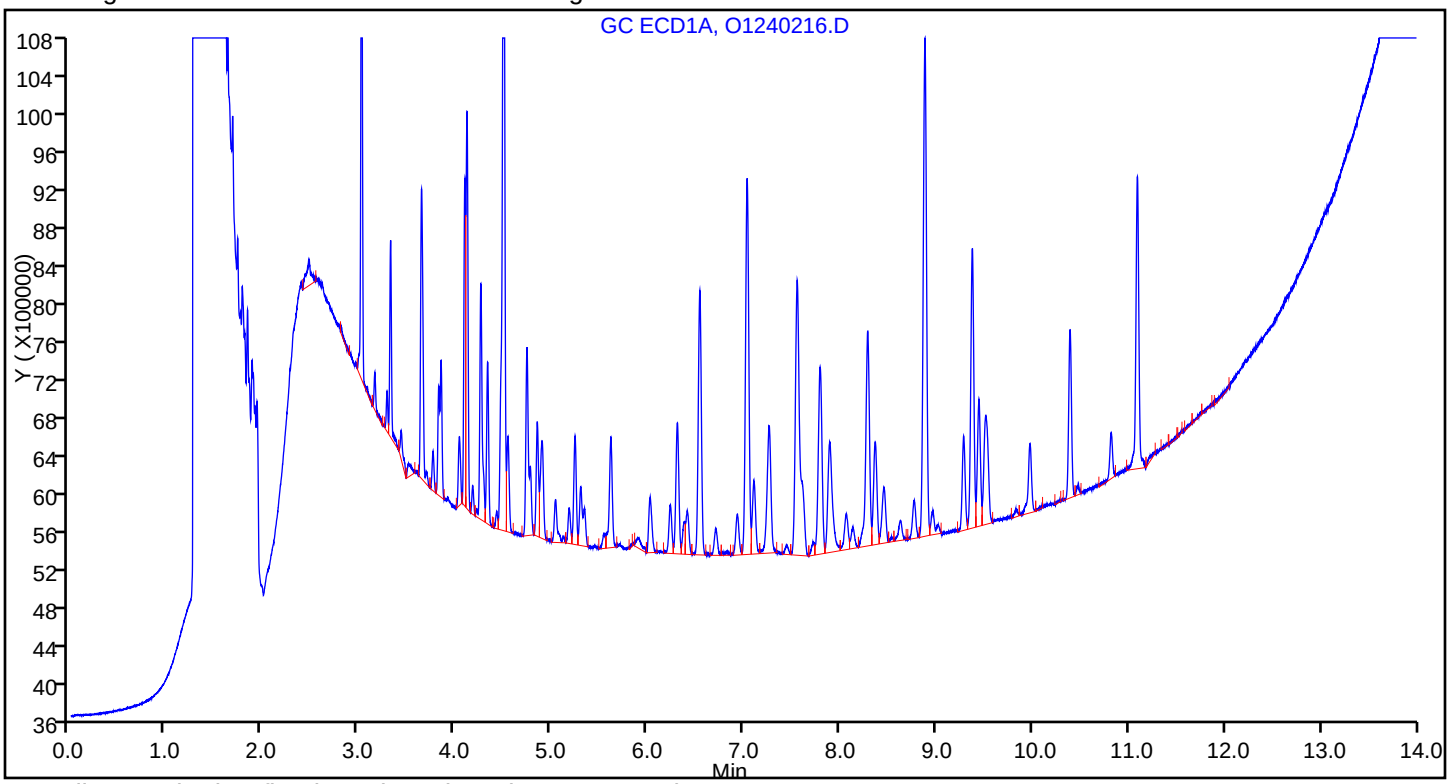
Client ID:

Operator ID: 402331 ALS Bottle#: 12 Worklist Smp#: 12

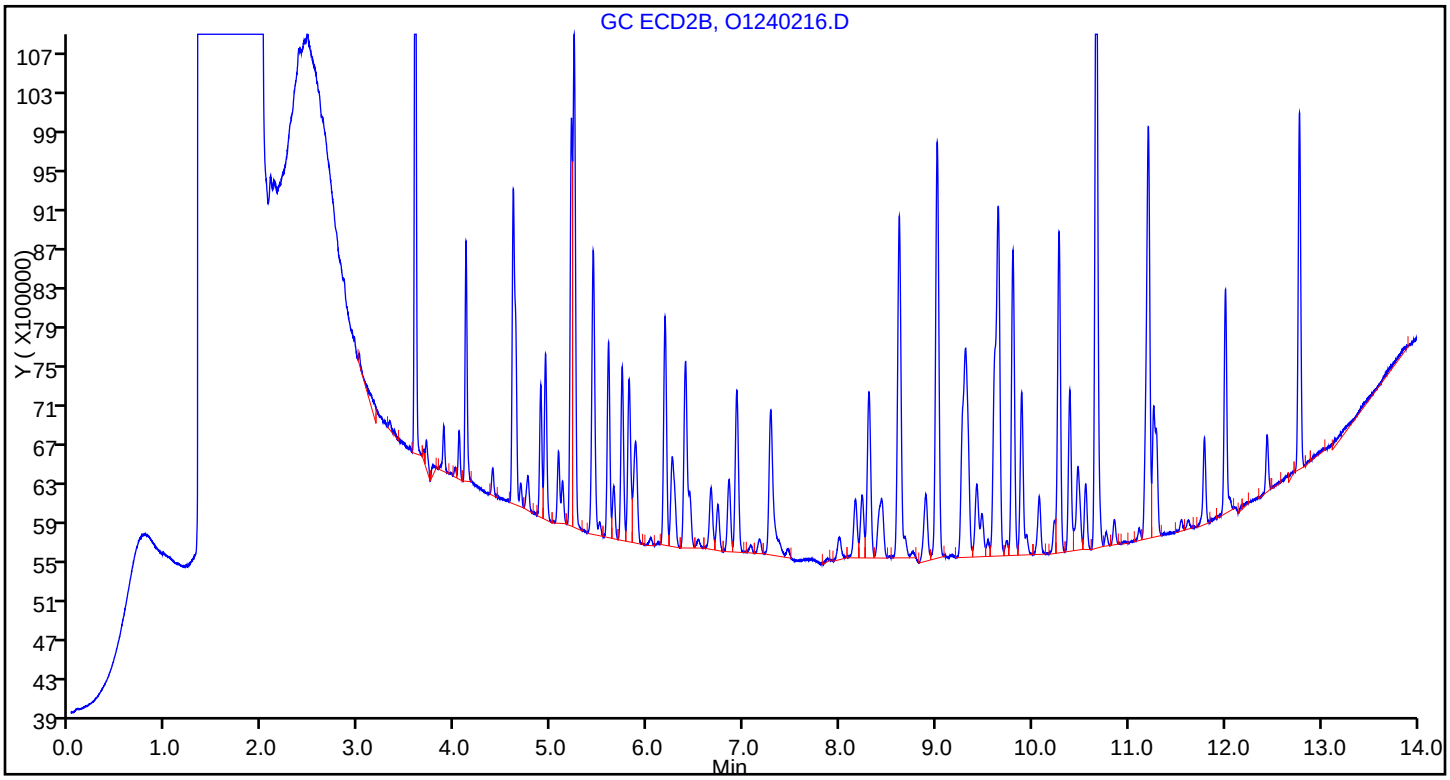
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240217.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Dec-2014 13:27:04 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-013
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:55 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.024	3.025	-0.001	22544674H	0.0100	0.0102	
2	3.584	3.584	0.000	28267184H	0.0100	0.0100	
						RPD = 2.79	
4 PCB-1016							
1	3.326	3.326	0.000	7440991H	0.2000	0.2032	
1	3.648	3.649	-0.001	10658719H	0.2000	0.2021	
1	4.099	4.099	0.000	12631513H	0.2000	0.2015	
1	4.264	4.266	-0.002	8875850H	0.2000	0.2009	
1	4.744	4.745	-0.001	6982412H	0.2000	0.1988	
		Average of Peak Amounts =				0.2013	
2	4.111	4.111	0.000	8640719H	0.2000	0.2034	
2	4.603	4.603	0.000	10991998H	0.2000	0.2022	
2	5.235	5.236	-0.001	17636995H	0.2000	0.1990	
2	5.434	5.435	-0.001	9943650H	0.2000	0.1997	
2	6.181	6.182	-0.001	8009025H	0.2000	0.2005	
		Average of Peak Amounts =				0.2009	
						RPD = 0.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	13534942H	0.2000	0.2010	
1	7.554	7.555	-0.001	10303644H	0.2000	0.2022	
1	8.289	8.288	0.001	7936483H	0.2000	0.2017	
1	8.883	8.883	0.000	18794362H	0.2000	0.2049	
1	9.375	9.376	-0.001	10528359H	0.2000	0.2044	
		Average of Peak Amounts =				0.2028	
2	9.644	9.645	-0.001	12331384H	0.2000	0.2000	
2	9.798	9.799	-0.001	10633864H	0.2000	0.2012	
2	10.277	10.278	-0.001	11217545H	0.2000	0.1995	
2	10.665	10.666	-0.001	24798001H	0.2000	0.1975	
2	11.205	11.206	-0.001	14448043H	0.2000	0.1999	
		Average of Peak Amounts =				0.1996	
						RPD = 1.61	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.092	11.091	0.001	10710144H	0.0100	0.0104	
2	12.778	12.777	0.001	12692028H	0.0100	0.0102	
						RPD = 1.48	

Reagents:

GCAR1660CALL3_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:57 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240217.D

Injection Date: 11-Dec-2014 13:27:04 Instrument ID: CHGC8

Lims ID: IC

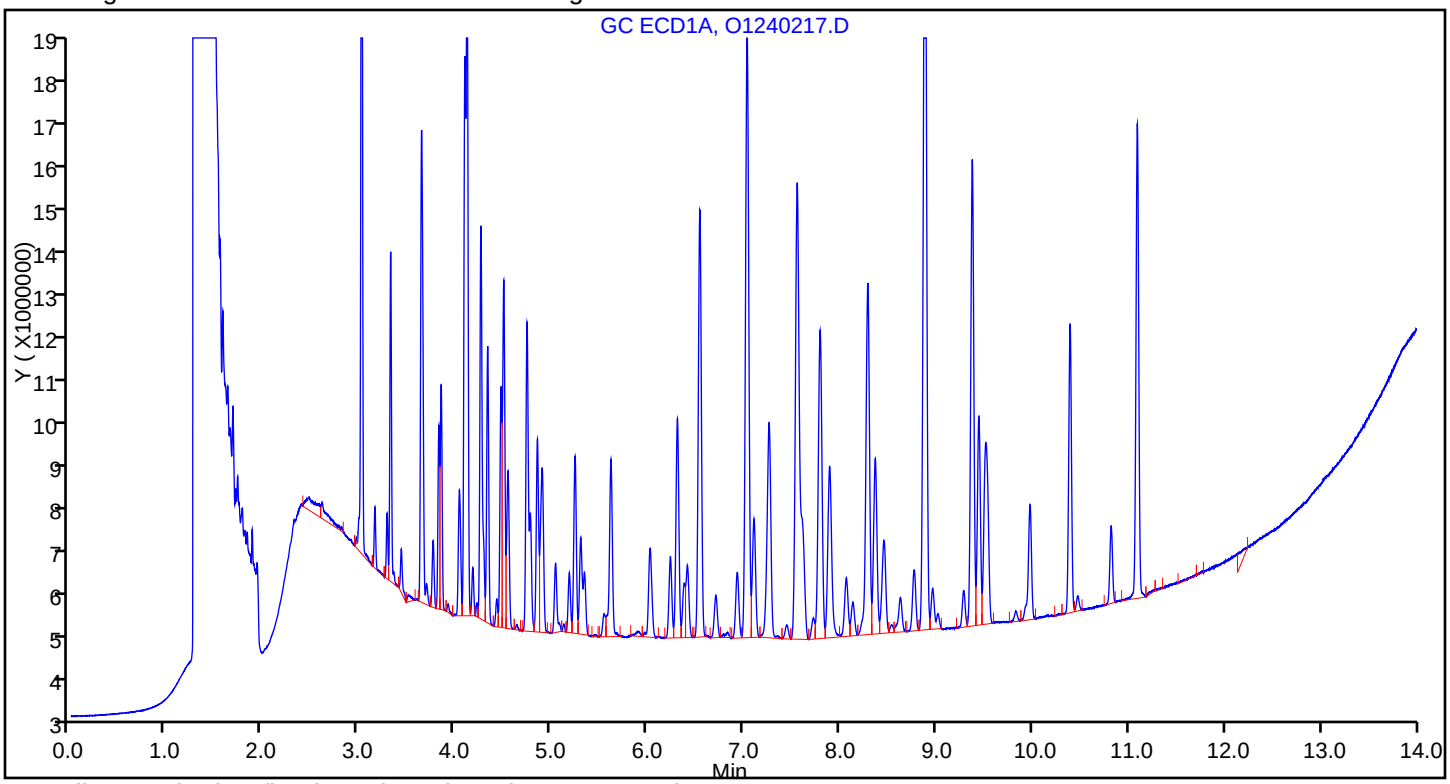
Client ID:

Operator ID: 402331 ALS Bottle#: 13 Worklist Smp#: 13

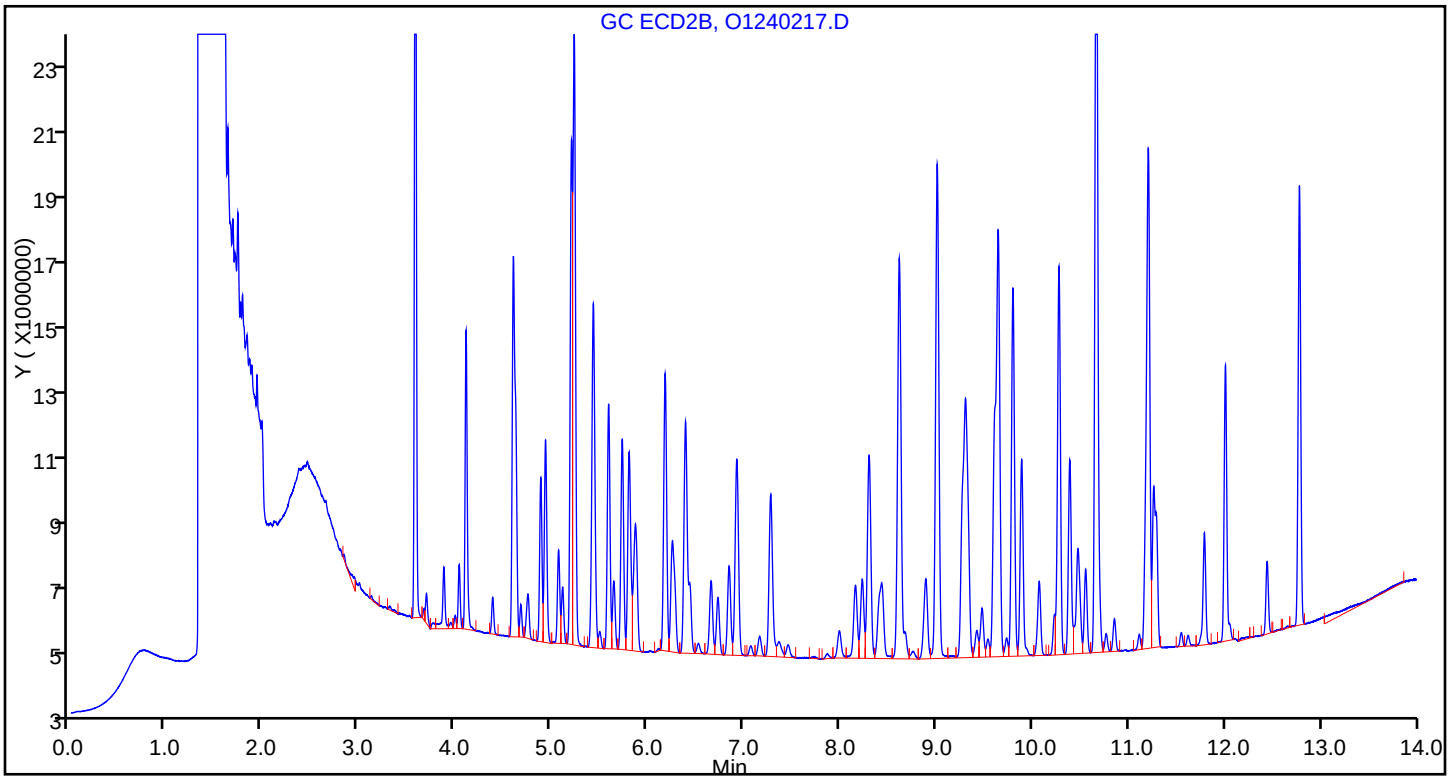
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240218.D
Lims ID: ICRT
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 11-Dec-2014 13:46:37 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-014
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:04 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 11-Dec-2014 13:36:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.025	3.025	0.000	59980523H	0.0250	0.0273	
2	3.584	3.584	0.000	75170729H	0.0250	0.0265	
						RPD = 2.84	
4 PCB-1016							
1	3.326	3.326	0.000	19162750H	0.5000	0.5233	
1	3.649	3.649	0.000	27519902H	0.5000	0.5217	
1	4.099	4.099	0.000	33643522H	0.5000	0.5366	
1	4.266	4.266	0.000	23442128H	0.5000	0.5306	
1	4.745	4.745	0.000	18374224H	0.5000	0.5232	
		Average of Peak Amounts =				0.5271	
2	4.111	4.111	0.000	21700158H	0.5000	0.5107	
2	4.603	4.603	0.000	27796590H	0.5000	0.5112	
2	5.236	5.236	0.000	45809445H	0.5000	0.5167	
2	5.435	5.435	0.000	25567154H	0.5000	0.5135	
2	6.182	6.182	0.000	20506502H	0.5000	0.5133	
		Average of Peak Amounts =				0.5131	
						RPD = 2.69	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	34724992H	0.5000	0.5157	
1	7.555	7.555	0.000	26358133H	0.5000	0.5174	
1	8.288	8.288	0.000	20027689H	0.5000	0.5090	
1	8.883	8.883	0.000	47821433H	0.5000	0.5214	
1	9.376	9.376	0.000	26858335H	0.5000	0.5214	
		Average of Peak Amounts =				0.5170	
2	9.645	9.645	0.000	31014271H	0.5000	0.5029	
2	9.799	9.799	0.000	26498763H	0.5000	0.5013	
2	10.278	10.278	0.000	28371816H	0.5000	0.5047	
2	10.666	10.666	0.000	62345260H	0.5000	0.4965	
2	11.206	11.206	0.000	36065760H	0.5000	0.4990	
		Average of Peak Amounts =				0.5009	
						RPD = 3.16	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.091	11.091	0.000	26403309H	0.0250	0.0256	
2	12.777	12.777	0.000	31783751H	0.0250	0.0256	
						RPD = 0.09	

Reagents:

GCAR1660CALL4_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:06 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240218.D

Injection Date: 11-Dec-2014 13:46:37 Instrument ID: CHGC8

Lims ID: ICRT

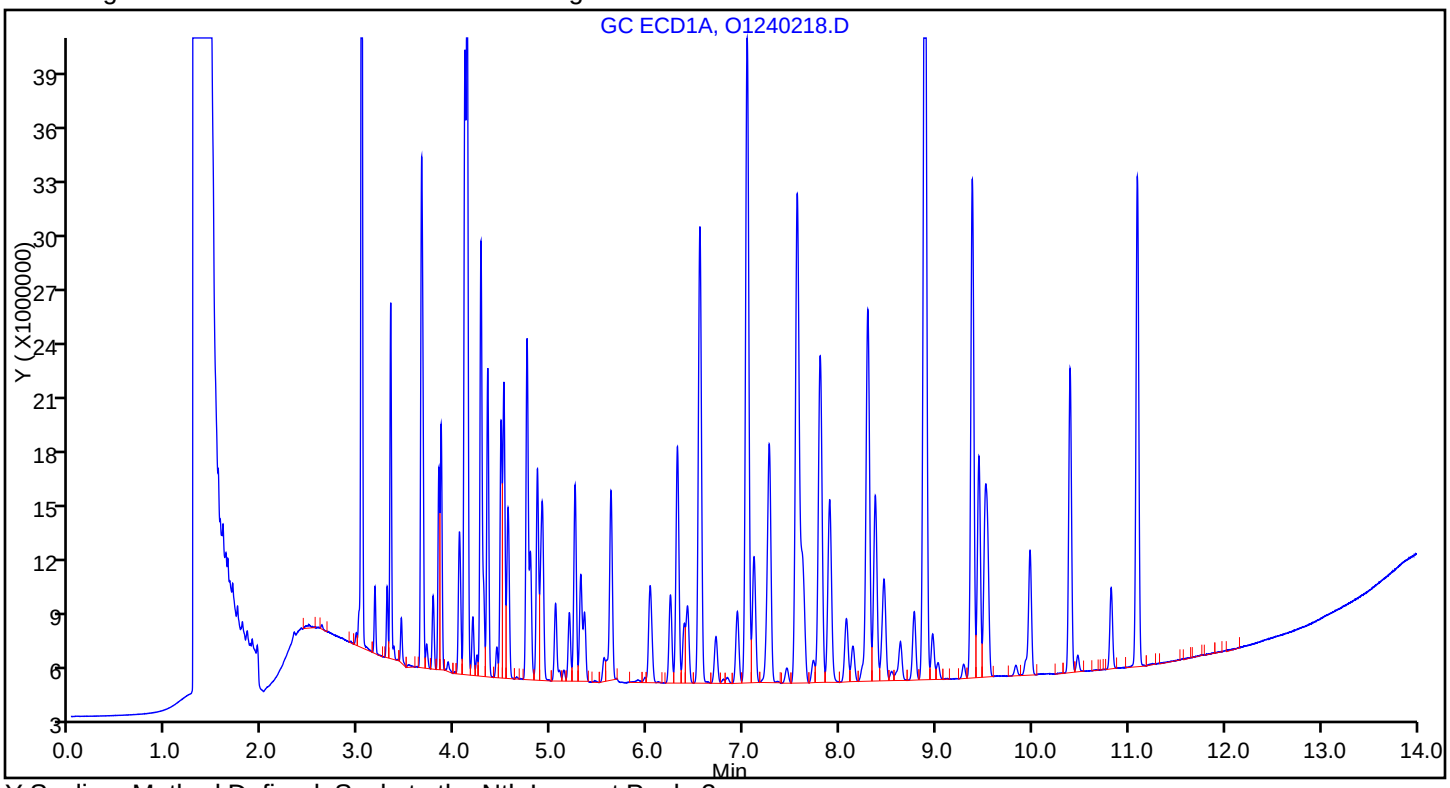
Client ID:

Operator ID: 402331 ALS Bottle#: 14 Worklist Smp#: 14

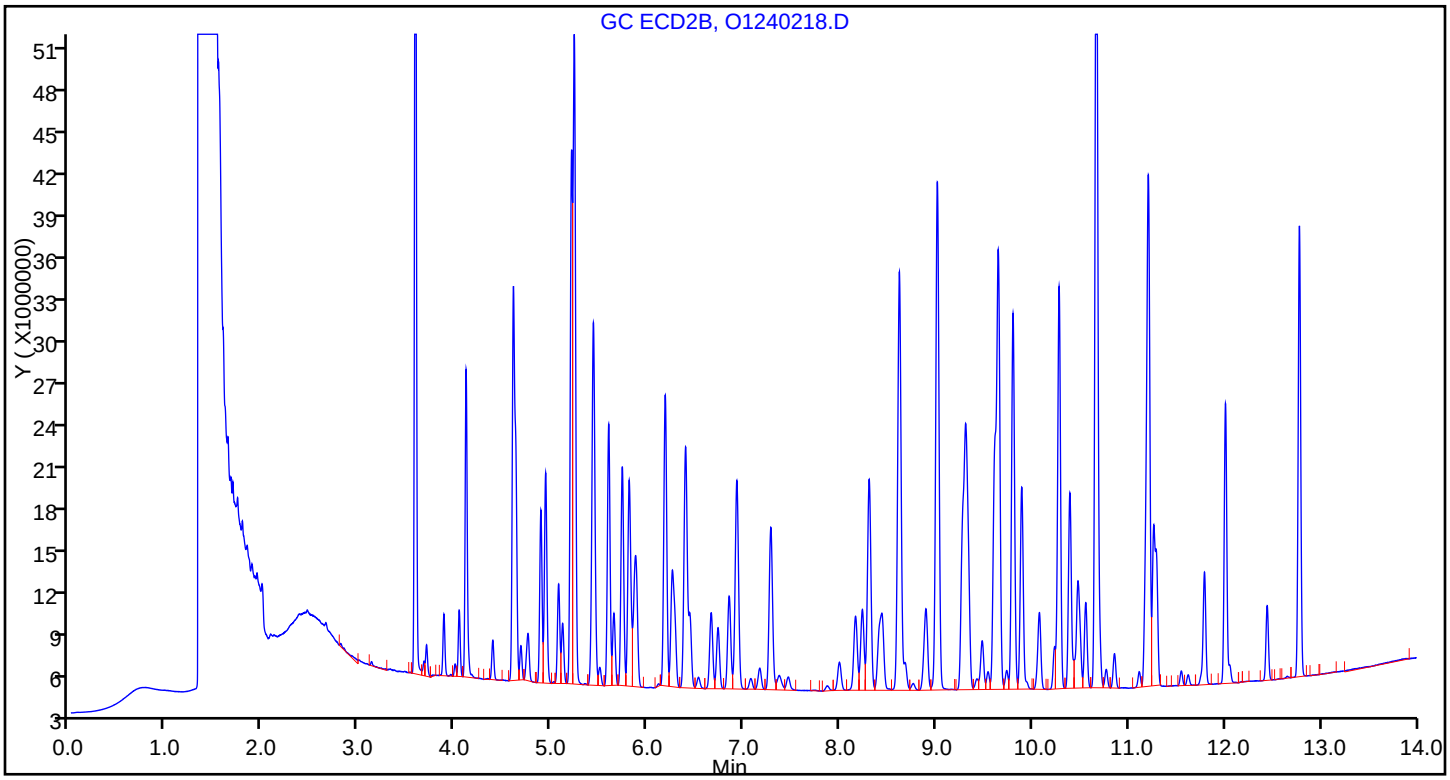
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240219.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Dec-2014 14:06:12 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-015
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:12 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.025	3.025	0.000	112147834H	0.0500	0.0510	
2	3.584	3.584	0.000	141973216H	0.0500	0.0500	
						RPD = 1.83	
4 PCB-1016							
1	3.327	3.326	0.001	36337831H	1.00	0.99	
1	3.649	3.649	0.000	51935363H	1.00	0.9845	
1	4.099	4.099	0.000	63353668H	1.00	1.01	
1	4.266	4.266	0.000	44330814H	1.00	1.00	
1	4.745	4.745	0.000	35068688H	1.00	1.00	
		Average of Peak Amounts =				1.00	
2	4.110	4.111	-0.001	41281927H	1.00	0.9716	
2	4.603	4.603	0.000	52748813H	1.00	0.9702	
2	5.236	5.236	0.000	87660854H	1.00	0.9888	
2	5.434	5.435	-0.001	48444428H	1.00	0.9730	
2	6.181	6.182	-0.001	39020344H	1.00	0.9768	
		Average of Peak Amounts =				0.9761	
						RPD = 2.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	66268089H	1.00	0.9841	
1	7.555	7.555	0.000	51237196H	1.00	1.01	
1	8.289	8.288	0.001	38690178H	1.00	0.9832	
1	8.884	8.883	0.001	92945216H	1.00	1.01	
1	9.375	9.376	-0.001	52208139H	1.00	1.01	
		Average of Peak Amounts =				1.00	
2	9.645	9.645	0.000	59681905H	1.00	0.9678	
2	9.799	9.799	0.000	50390864H	1.00	0.9532	
2	10.277	10.278	-0.001	53783040H	1.00	0.9566	
2	10.665	10.666	-0.001	123299561H	1.00	0.9820	
2	11.206	11.206	0.000	69117352H	1.00	0.9563	
		Average of Peak Amounts =				0.9632	
						RPD = 3.75	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.093	11.091	0.002	50020687H	0.0500	0.0485	
2	12.778	12.777	0.001	58573256H	0.0500	0.0472	
						RPD = 2.67	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:14 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240219.D

Injection Date: 11-Dec-2014 14:06:12 Instrument ID: CHGC8

Lims ID: IC

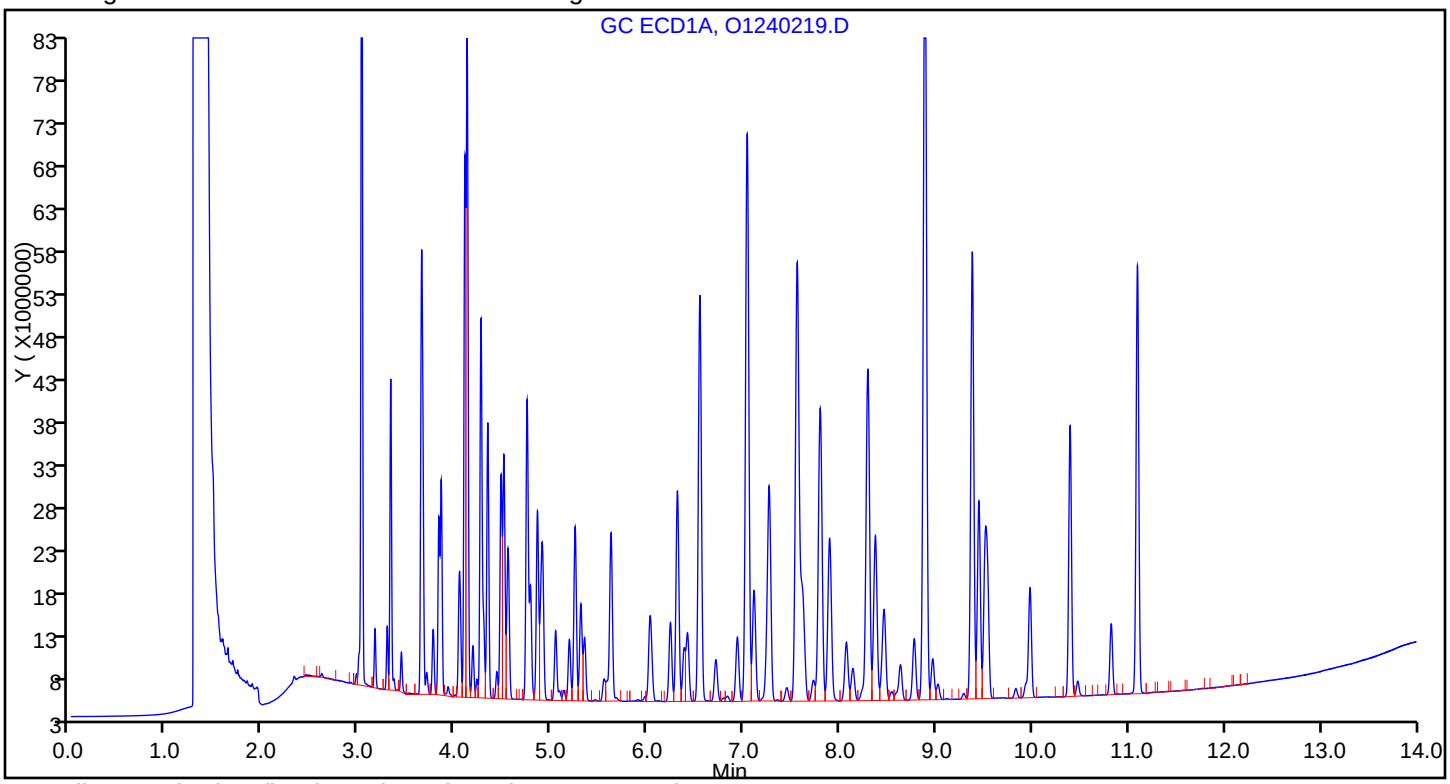
Client ID:

Operator ID: 402331 ALS Bottle#: 15 Worklist Smp#: 15

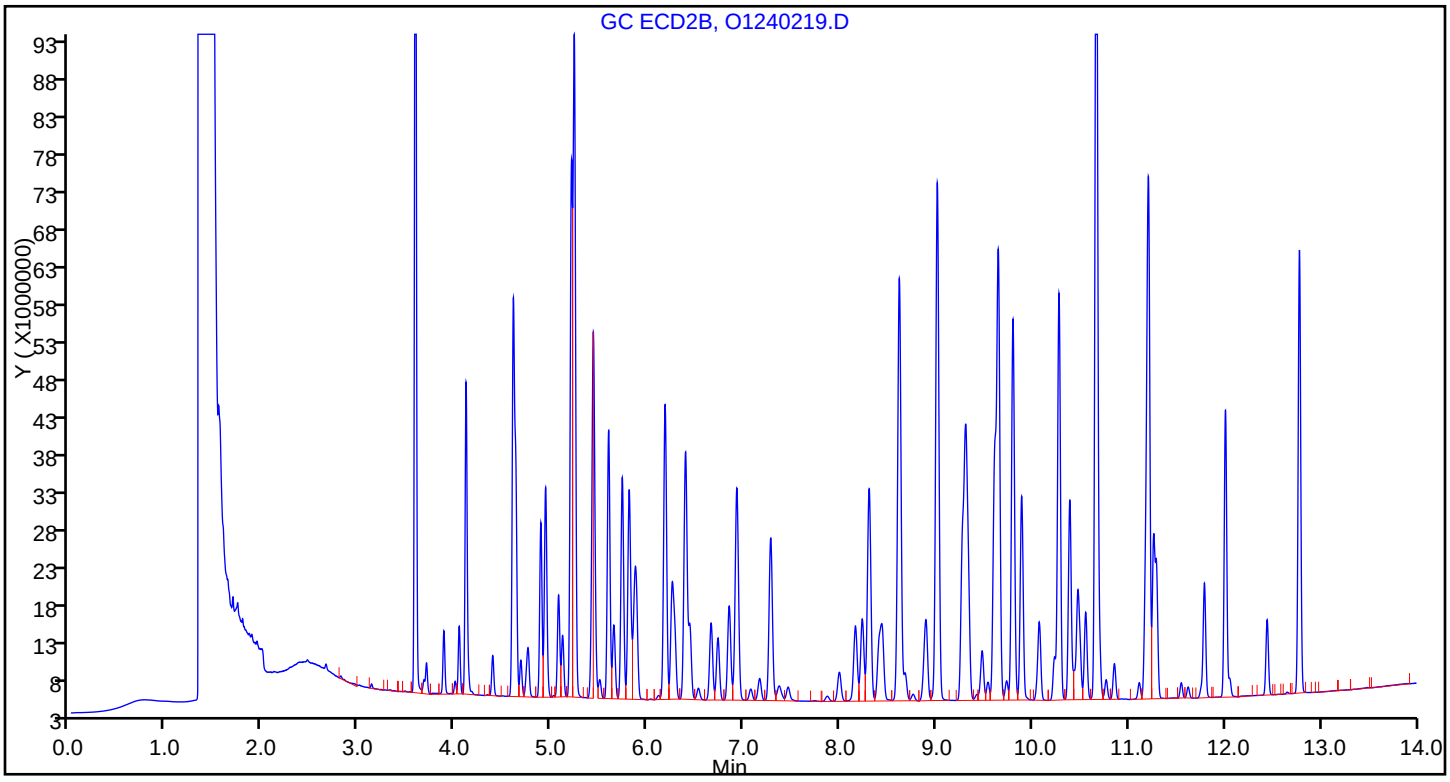
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240220.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 11-Dec-2014 14:25:47 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-016
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:20 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.027	3.025	0.002	218372970H	0.1000	0.0992	
2	3.584	3.584	0.000	283250803H	0.1000	0.0998	
						RPD = 0.60	
4 PCB-1016							
1	3.327	3.326	0.001	71731466H	2.00	1.96	
1	3.649	3.649	0.000	100897793H	2.00	1.91	
1	4.099	4.099	0.000	125085760H	2.00	2.00	
1	4.266	4.266	0.000	88661282H	2.00	2.01	
1	4.746	4.745	0.001	69210776H	2.00	1.97	
		Average of Peak Amounts =				1.97	
2	4.111	4.111	0.000	81676835H	2.00	1.92	
2	4.603	4.603	0.000	103724940H	2.00	1.91	
2	5.237	5.236	0.001	175245159H	2.00	1.98	
2	5.436	5.435	0.001	96099745H	2.00	1.93	
2	6.182	6.182	0.000	77687908H	2.00	1.94	
		Average of Peak Amounts =				1.94	
						RPD = 1.67	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.033	7.034	-0.001	130095010H	2.00	1.93	
1	7.555	7.555	0.000	100388192H	2.00	1.97	
1	8.288	8.288	0.000	77689255H	2.00	1.97	
1	8.883	8.883	0.000	177920419H	2.00	1.94	
1	9.375	9.376	-0.001	100313548H	2.00	1.95	
		Average of Peak Amounts =				1.95	
2	9.645	9.645	0.000	120243684H	2.00	1.95	
2	9.797	9.799	-0.002	101530649H	2.00	1.92	
2	10.277	10.278	-0.001	109287284H	2.00	1.94	
2	10.666	10.666	0.000	245511359H	2.00	1.96	
2	11.207	11.206	0.001	139403102H	2.00	1.93	
		Average of Peak Amounts =				1.94	
						RPD = 0.67	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.092	11.091	0.001	96014213H	0.1000	0.0931	
2	12.777	12.777	0.000	114859382H	0.1000	0.0926	
						RPD = 0.53	

Reagents:

GCAR1660CALL6_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:23 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240220.D

Injection Date: 11-Dec-2014 14:25:47 Instrument ID: CHGC8

Lims ID: IC

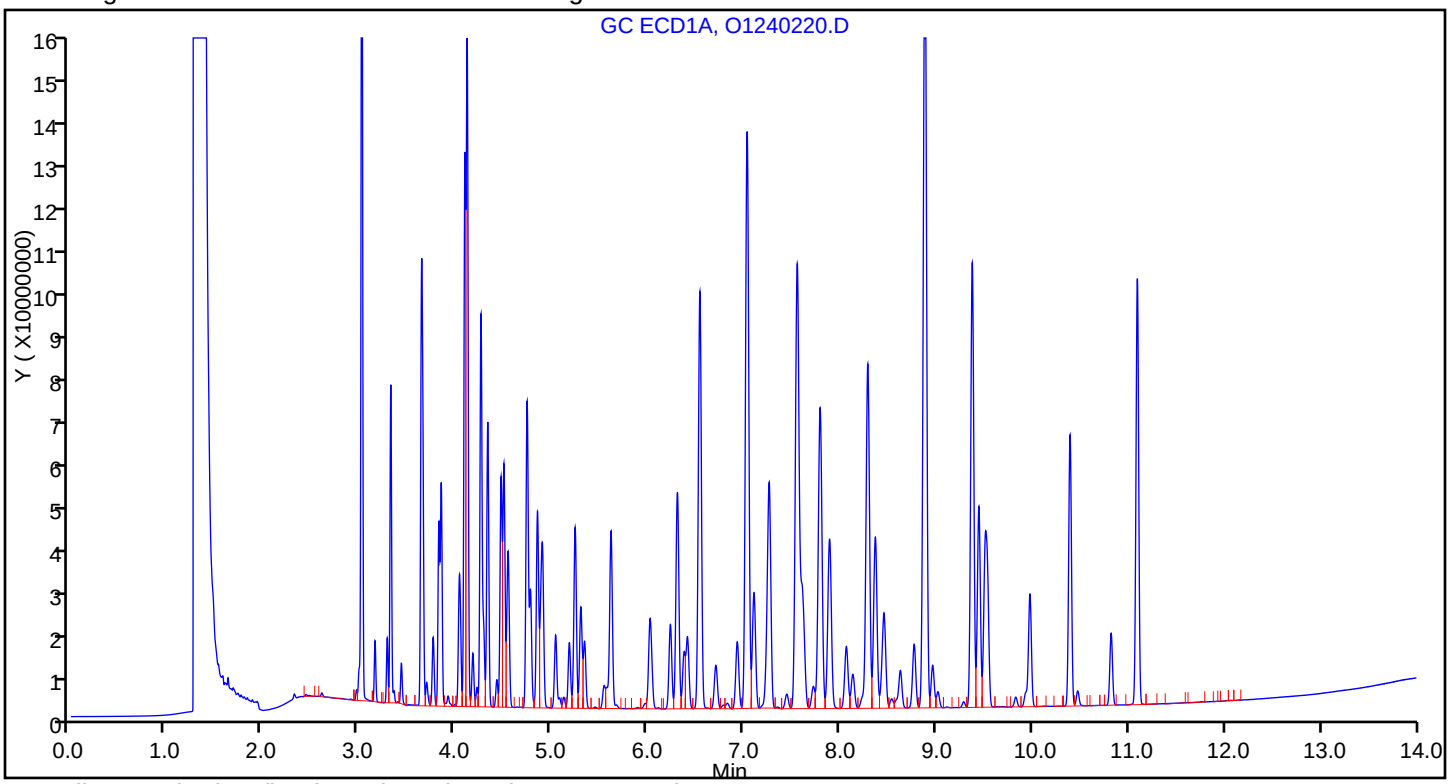
Client ID:

Operator ID: 402331 ALS Bottle#: 16 Worklist Smp#: 16

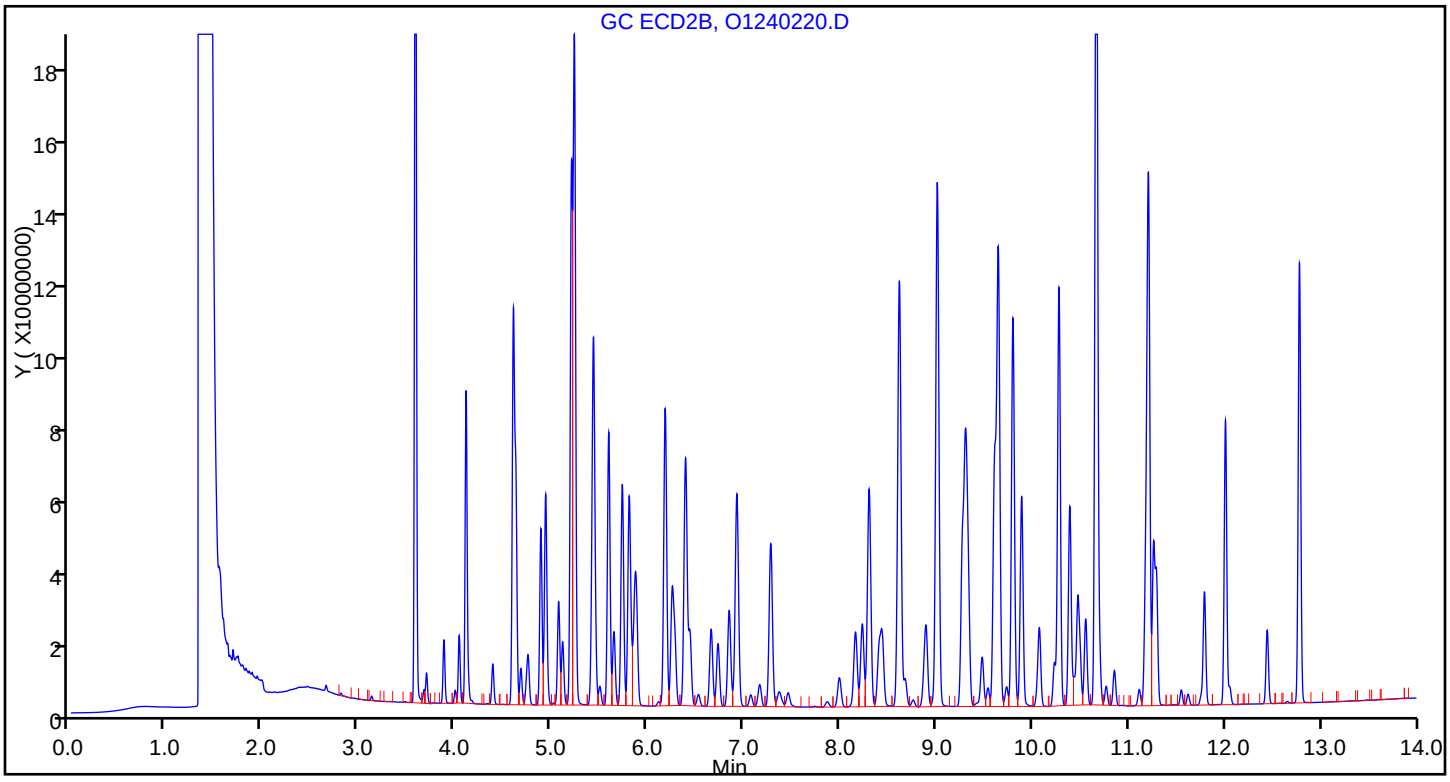
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 11-Dec-2014 14:45:29 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-017
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:28 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 10:54:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.030	3.025	0.005	395127078H	0.2000	0.1796	
2	3.587	3.584	0.003	538615141H	0.2000	0.1898	
						RPD = 5.57	
4 PCB-1016							
1	3.330	3.326	0.004	133444723H	4.00	3.64	
1	3.652	3.649	0.003	187174821H	4.00	3.55	
1	4.102	4.099	0.003	230116110H	4.00	3.67	
1	4.268	4.266	0.002	163652972H	4.00	3.70	
1	4.747	4.745	0.002	128142591H	4.00	3.65	
		Average of Peak Amounts =				3.64	
2	4.113	4.111	0.002	154494669H	4.00	3.64	
2	4.605	4.603	0.002	196047014H	4.00	3.61	
2	5.238	5.236	0.002	332386216H	4.00	3.75	
2	5.437	5.435	0.002	182958388H	4.00	3.67	
2	6.183	6.182	0.001	145713390H	4.00	3.65	
		Average of Peak Amounts =				3.66	
						RPD = 0.53	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.035	7.034	0.001	238979249H	4.00	3.55	
1	7.556	7.555	0.001	183123404H	4.00	3.59	
1	8.290	8.288	0.002	139118121H	4.00	3.54	
1	8.886	8.883	0.003	324296394H	4.00	3.54	
1	9.377	9.376	0.001	186736086H	4.00	3.63	
		Average of Peak Amounts =				3.57	
2	9.647	9.645	0.002	229673257H	4.00	3.72	
2	9.799	9.799	0.000	191447043H	4.00	3.62	
2	10.278	10.278	0.000	204666527H	4.00	3.64	
2	10.666	10.666	0.000	478355767H	4.00	3.81	
2	11.207	11.206	0.001	265333807H	4.00	3.67	
		Average of Peak Amounts =				3.69	
						RPD = 3.46	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.094	11.091	0.003	177699626H	0.2000	0.1723	
2	12.779	12.777	0.002	220010819H	0.2000	0.1773	
						RPD = 2.90	

Reagents:

GCAR1660CALL7_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:31 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Injection Date: 11-Dec-2014 14:45:29 Instrument ID: CHGC8

Lims ID: IC

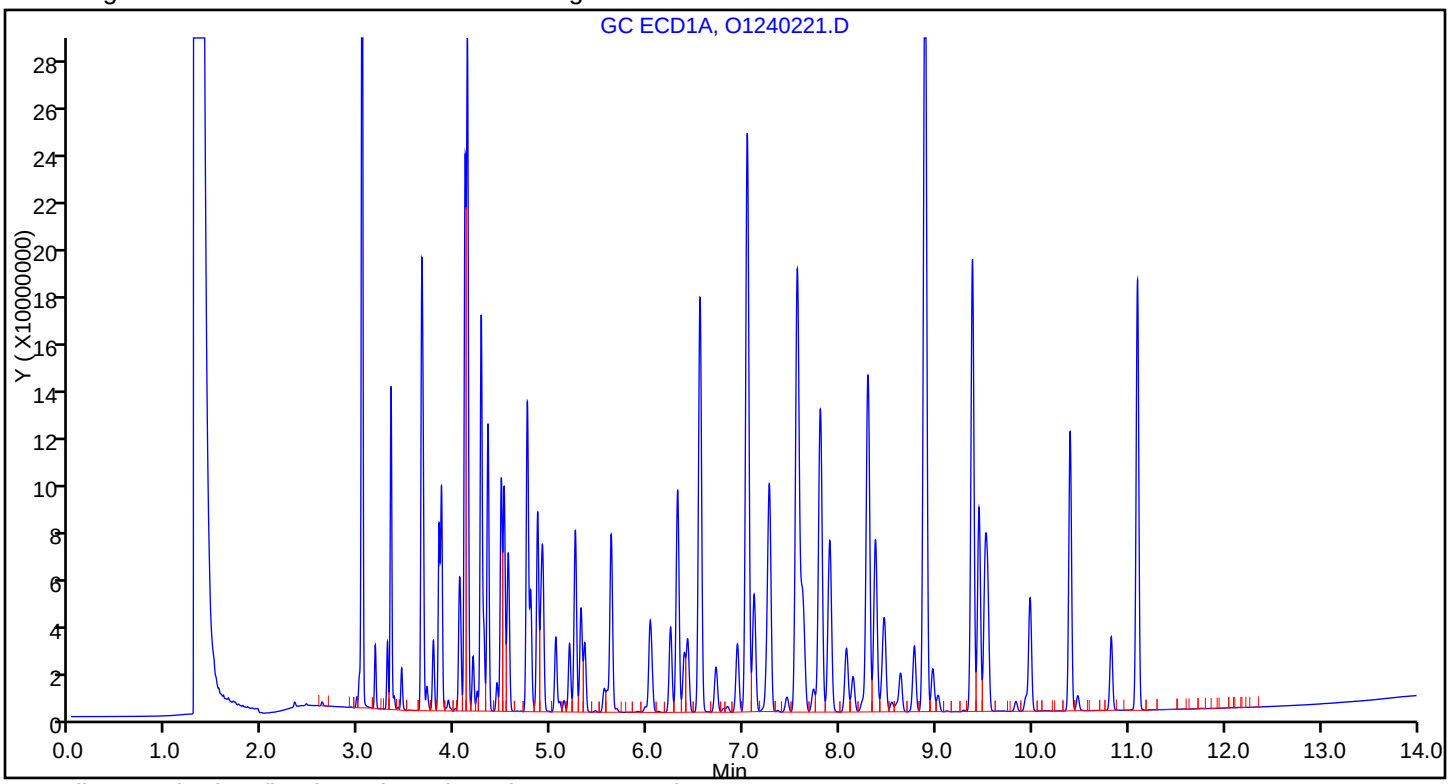
Client ID:

Operator ID: 402331 ALS Bottle#: 17 Worklist Smp#: 17

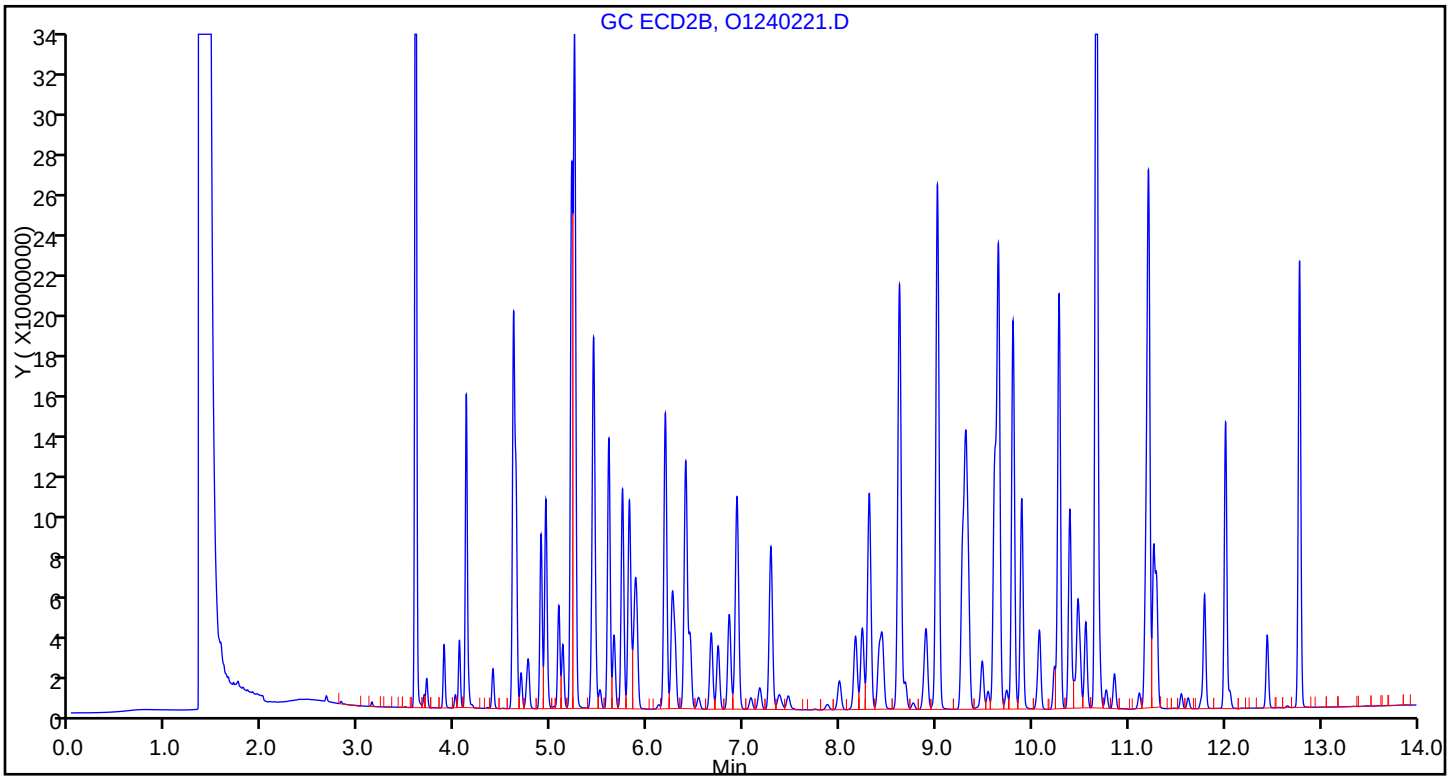
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 12:47 Calibration End Date: 12/11/2014 14:45 Calibration ID: 20301

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/11	O1240215.D
Level 2	IC 180-127929/12	O1240216.D
Level 3	IC 180-127929/13	O1240217.D
Level 4	ICRT 180-127929/14	O1240218.D
Level 5	IC 180-127929/15	O1240219.D
Level 6	IC 180-127929/16	O1240220.D
Level 7	IC 180-127929/17	O1240221.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
PCB-1016 Peak 1	4.109	4.110	4.111	4.111	4.110	4.111	4.113				4.061 - 4.161	4.111
PCB-1016 Peak 2	4.600	4.602	4.603	4.603	4.603	4.603	4.605				4.553 - 4.653	4.603
PCB-1016 Peak 3	5.233	5.235	5.235	5.236	5.236	5.237	5.238				5.186 - 5.286	5.236
PCB-1016 Peak 4	5.432	5.432	5.434	5.435	5.434	5.436	5.437				5.385 - 5.485	5.434
PCB-1016 Peak 5	6.179	6.180	6.181	6.182	6.181	6.182	6.183				6.132 - 6.232	6.181
PCB-1260 Peak 1	9.643	9.645	9.644	9.645	9.645	9.645	9.647				9.595 - 9.695	9.645
PCB-1260 Peak 2	9.796	9.799	9.798	9.799	9.799	9.797	9.799				9.749 - 9.849	9.798
PCB-1260 Peak 3	10.273	10.277	10.277	10.278	10.277	10.277	10.278				10.228 - 10.328	10.277
PCB-1260 Peak 4	10.663	10.665	10.665	10.666	10.665	10.666	10.666				10.616 - 10.716	10.665
PCB-1260 Peak 5	11.204	11.206	11.205	11.206	11.206	11.207	11.207				11.156 - 11.256	11.206
Tetrachloro-m-xylene (Surr)	3.582	3.582	3.584	3.584	3.584	3.584	3.587				3.534 - 3.634	3.584
DCB Decachlorobiphenyl (Surr)	12.777	12.778	12.778	12.777	12.778	12.777	12.779				12.707 - 12.847	12.778

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 12:47 Calibration End Date: 12/11/2014 14:45 Calibration ID: 20301

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/11	O1240215.D
Level 2	IC 180-127929/12	O1240216.D
Level 3	IC 180-127929/13	O1240217.D
Level 4	ICRT 180-127929/14	O1240218.D
Level 5	IC 180-127929/15	O1240219.D
Level 6	IC 180-127929/16	O1240220.D
Level 7	IC 180-127929/17	O1240221.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	40971900 41281927	49112320 40838418	43203595 38623667	43400316	Ave		42490306.1				7.8		20.0			
PCB-1016 Peak 2	52085800 52748813	64334100 51862470	54959990 49011754	55593180	Ave		54370872.4				9.0		20.0			
PCB-1016 Peak 3	81666400 87660854	100695700 87622580	88184975 83096554	91618890	Ave		88649421.8				7.1		20.0			
PCB-1016 Peak 4	47459500 48444428	57990960 48049873	49718250 45739597	51134308	Ave		49790987.9				8.0		20.0			
PCB-1016 Peak 5	37552400 39020344	46728700 38843954	40045125 36428348	41013004	Ave		39947410.6				8.4		20.0			
PCB-1260 Peak 1	59375600 59681905	71410300 60121842	61656920 57418314	62028542	Ave		61670489.0				7.4		20.0			
PCB-1260 Peak 2	52530300 50390864	62331200 50765325	53169320 47861761	52997526	Ave		52863756.5				8.6		20.0			
PCB-1260 Peak 3	55512700 53783040	65604560 54643642	56087725 51166632	56743632	Ave		56220275.8				8.0		20.0			
PCB-1260 Peak 4	121865000 123299561	142747600 122755680	123990005 119588942	124690520	Ave		125562472				6.2		20.0			
PCB-1260 Peak 5	72283300 69117352	84104080 69701551	72240215 66333452	72131520	Ave		72273067.1				7.8		20.0			
Tetrachloro-m-xylene (Surr)	2543896000 2839464320	3117931200 2832508030	2826718400 2693075705	3006829160	Ave		2837203259				6.7		20.0			
DCB Decachlorobiphenyl (Surr)	1267692000 1171465120	1455616000 1148593820	1269202800 1100054095	1271350040	Ave		1240567696				9.4		20.0			

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

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1 Analy Batch No.: 127929

SDG No.:

Instrument ID: CHGC8 GC Column: RTX-CLP2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2014 12:47 Calibration End Date: 12/11/2014 14:45 Calibration ID: 20301

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-127929/11	O1240215.D
Level 2	IC 180-127929/12	O1240216.D
Level 3	IC 180-127929/13	O1240217.D
Level 4	ICRT 180-127929/14	O1240218.D
Level 5	IC 180-127929/15	O1240219.D
Level 6	IC 180-127929/16	O1240220.D
Level 7	IC 180-127929/17	O1240221.D

ANALYTE	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
PCB-1016 Peak 1	Ave	409719 81676835	2455616 154494669	8640719	21700158	41281927	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	520858 103724940	3216705 196047014	10991998	27796590	52748813	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	816664 175245159	5034785 332386216	17636995	45809445	87660854	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	474595 96099745	2899548 182958388	9943650	25567154	48444428	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	375524 77687908	2336435 145713390	8009025	20506502	39020344	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	593756 120243684	3570515 229673257	12331384	31014271	59681905	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	525303 101530649	3116560 191447043	10633864	26498763	50390864	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	555127 109287284	3280228 204666527	11217545	28371816	53783040	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	1218650 245511359	7137380 478355767	24798001	62345260	123299561	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	722833 139403102	4205204 265333807	14448043	36065760	69117352	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
Tetrachloro-m-xylene (Surr)	Ave	1271948 283250803	7794828 538615141	28267184	75170729	141973216	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl (Surr)	Ave	633846 114859382	3639040 220010819	12692028	31783751	58573256	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240215.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Dec-2014 12:47:55 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-011
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:41 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: eppinged Date: 12-Dec-2014 12:06:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.023	3.025	-0.002	956608H	0.000500	0.000435	
2	3.582	3.584	-0.002	1271948H	0.000500	0.000448	
						RPD = 3.08	
4 PCB-1016							M
1	3.327	3.326	0.001	339058H	0.0100	0.009260	
1	3.647	3.649	-0.002	510051H	0.0100	0.009669	
1	4.097	4.099	-0.002	562119H	0.0100	0.008965	M
1	4.266	4.266	0.000	389305H	0.0100	0.008812	
1	4.744	4.745	-0.001	329580H	0.0100	0.009384	
		Average of Peak Amounts =				0.009218	
2	4.109	4.111	-0.002	409719H	0.0100	0.009643	
2	4.600	4.603	-0.003	520858H	0.0100	0.009580	
2	5.233	5.236	-0.003	816664H	0.0100	0.009212	M
2	5.432	5.435	-0.003	474595H	0.0100	0.009532	
2	6.179	6.182	-0.003	375524H	0.0100	0.009400	
		Average of Peak Amounts =				0.009473	
						RPD = 2.73	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.032	7.034	-0.002	643067H	0.0100	0.009549	
1	7.553	7.555	-0.002	474531H	0.0100	0.009314	
1	8.284	8.288	-0.004	383298H	0.0100	0.009741	
1	8.880	8.883	-0.003	848903H	0.0100	0.009256	
1	9.371	9.376	-0.005	465853H	0.0100	0.009043	
		Average of Peak Amounts =				0.009381	
2	9.643	9.645	-0.002	593756H	0.0100	0.009628	
2	9.796	9.799	-0.003	525303H	0.0100	0.0099	
2	10.273	10.278	-0.005	555127H	0.0100	0.009874	
2	10.663	10.666	-0.003	1218650H	0.0100	0.009706	
2	11.204	11.206	-0.002	722833H	0.0100	0.0100	
		Average of Peak Amounts =				0.009829	
						RPD = 4.67	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.089	11.091	-0.002	509562H	0.000500	0.000494	
2	12.777	12.777	0.000	633846H	0.000500	0.000511	
						RPD = 3.37	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

GCAR1660CALL1_00011 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:44 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240215.D

Injection Date: 11-Dec-2014 12:47:55 Instrument ID: CHGC8

Lims ID: IC

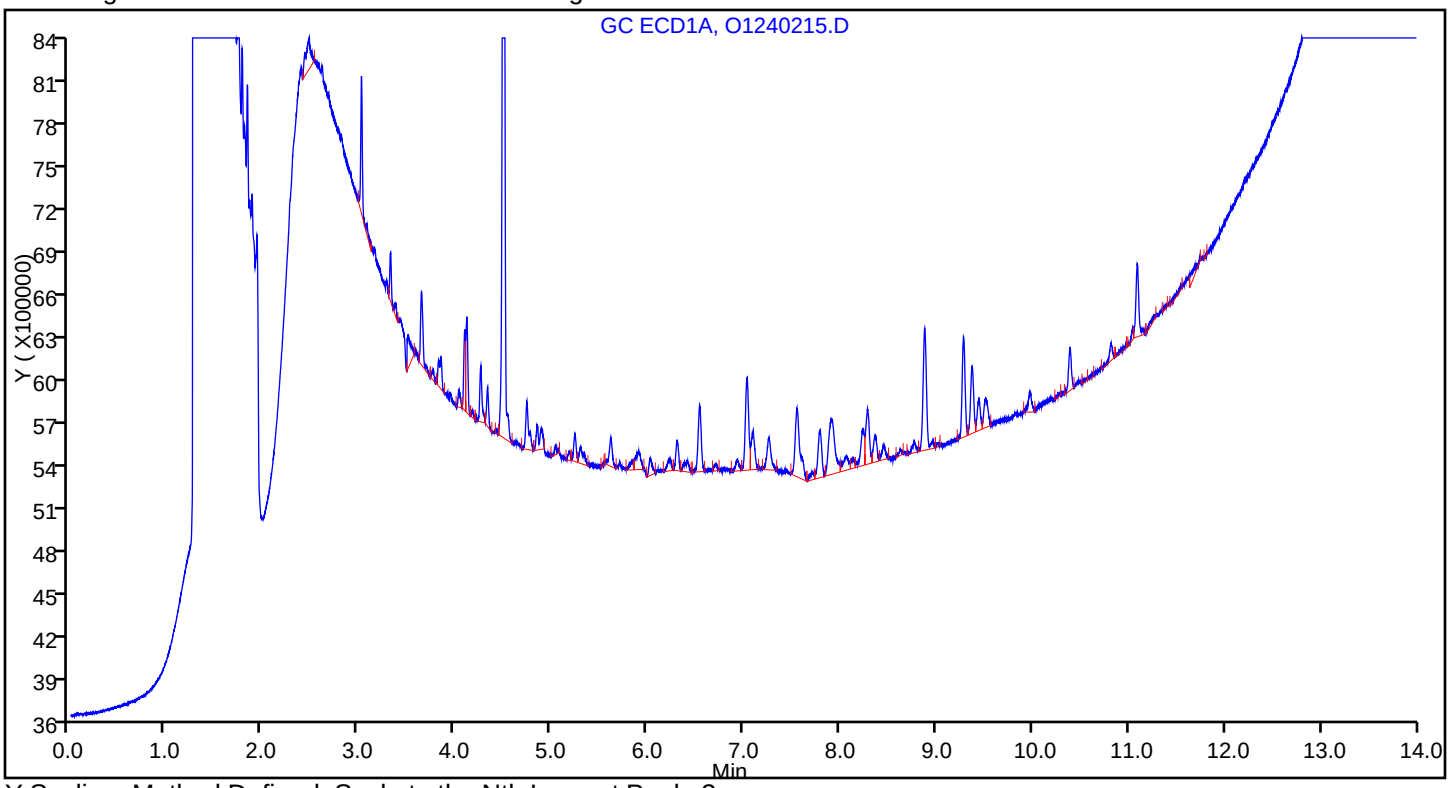
Client ID:

Operator ID: 402331 ALS Bottle#: 11 Worklist Smp#: 11

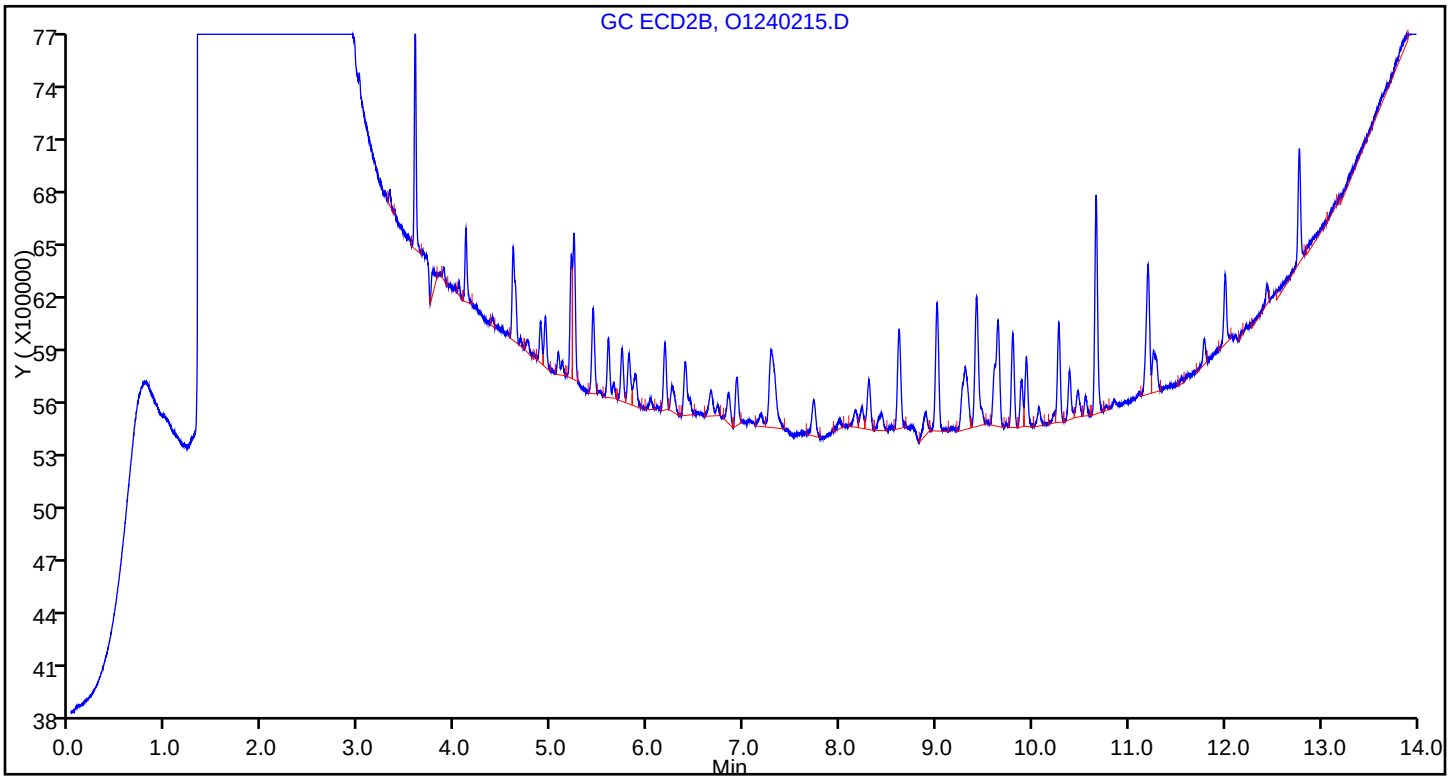
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3

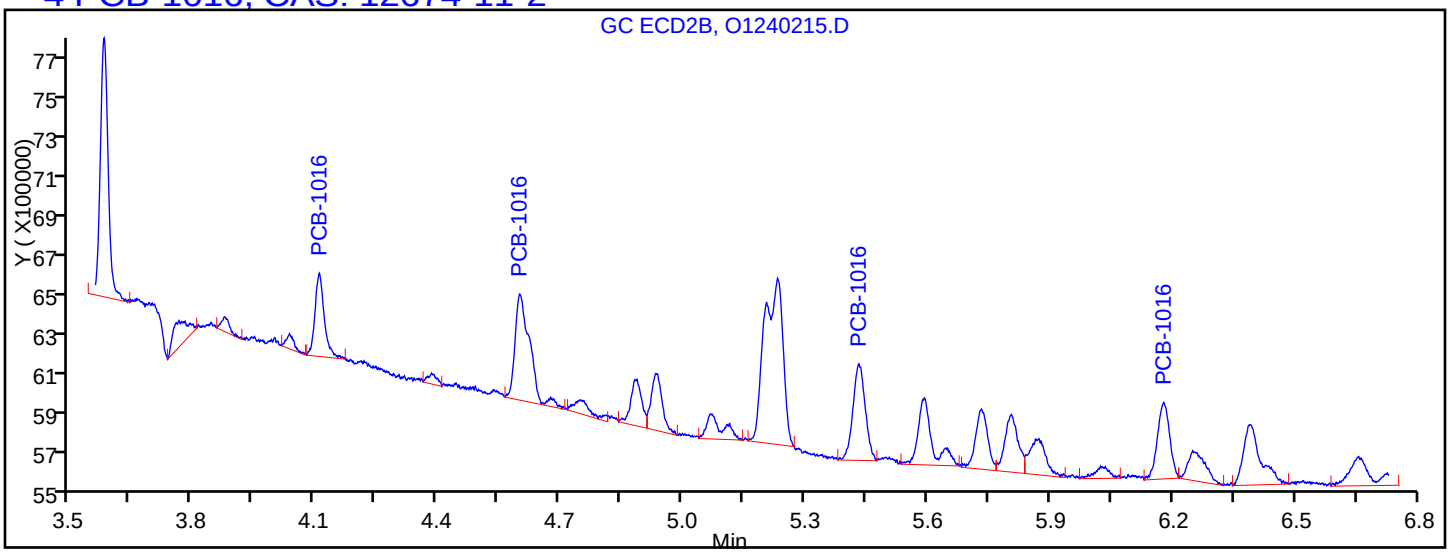


Report Date: 12-Dec-2014 12:13:44 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

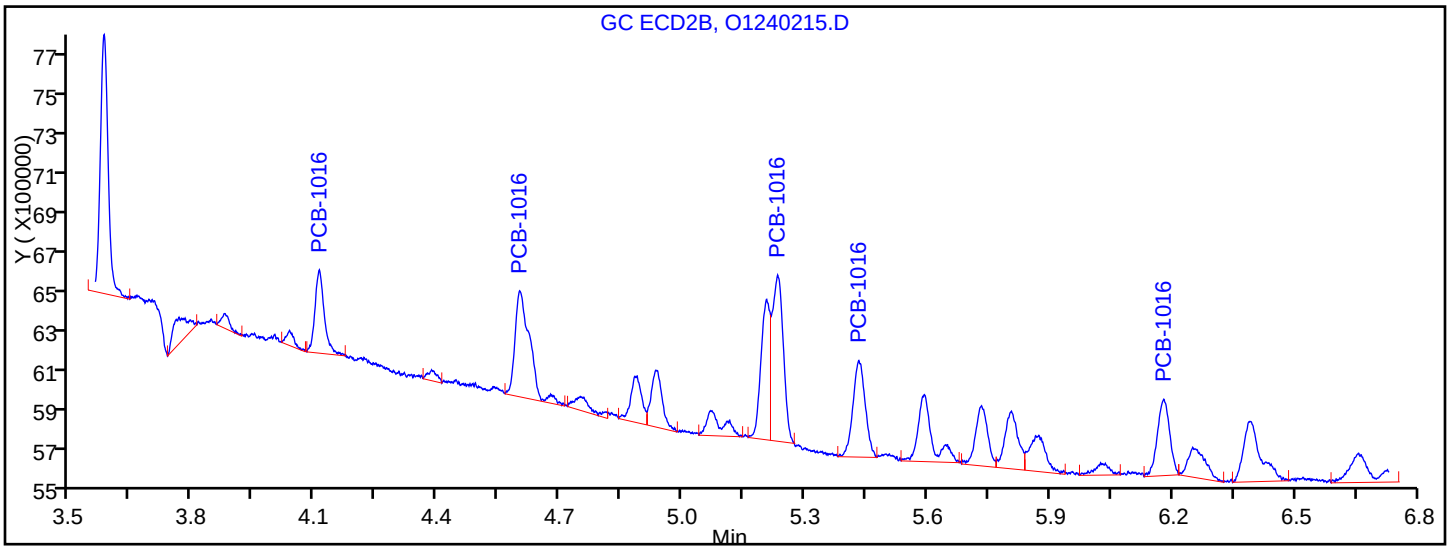
Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240215.D
Injection Date: 11-Dec-2014 12:47:55 Instrument ID: CHGC8
Lims ID: IC
Client ID:
Operator ID: 402331 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL
Column: Detector GC ECD2B

4 PCB-1016, CAS: 12674-11-2



Processing Integration Results

RT = 4.109	Response = 409719	
RT = 4.600	Response = 520858	
RT = 5.206	Response = 690485	M
RT = 5.432	Response = 474595	
RT = 6.179	Response = 375524	



Manual Integration Results

RT = 4.109	Response = 409719	
RT = 4.600	Response = 520858	
RT = 5.233	Response = 816664	M
RT = 5.432	Response = 474595	
RT = 6.179	Response = 375524	

Reviewer: eppinged, 12-Dec-2014 12:06:20
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240216.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Dec-2014 13:07:29 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-012
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:48 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: eppinged Date: 12-Dec-2014 12:06:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.024	3.025	-0.001	6085883H	0.002500	0.002766	
2	3.582	3.584	-0.002	7794828H	0.002500	0.002747	
						RPD = 0.66	
4 PCB-1016							
1	3.326	3.326	0.000	2065864H	0.0500	0.0564	
1	3.647	3.649	-0.002	3037305H	0.0500	0.0576	
1	4.098	4.099	-0.001	3440430H	0.0500	0.0549	
1	4.264	4.266	-0.002	2474723H	0.0500	0.0560	
1	4.744	4.745	-0.001	1975613H	0.0500	0.0563	
		Average of Peak Amounts =				0.0562	
2	4.110	4.111	-0.001	2455616H	0.0500	0.0578	
2	4.602	4.603	-0.001	3216705H	0.0500	0.0592	
2	5.235	5.236	-0.001	5034785H	0.0500	0.0568	
2	5.432	5.435	-0.003	2899548H	0.0500	0.0582	
2	6.180	6.182	-0.002	2336435H	0.0500	0.0585	
		Average of Peak Amounts =				0.0581	
						RPD = 3.27	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	3945051H	0.0500	0.0586	
1	7.554	7.555	-0.001	2886409H	0.0500	0.0567	
1	8.288	8.288	0.000	2253340H	0.0500	0.0573	
1	8.883	8.883	0.000	5226203H	0.0500	0.0570	
1	9.377	9.376	0.001	2929734H	0.0500	0.0569	
		Average of Peak Amounts =				0.0573	
2	9.645	9.645	0.000	3570515H	0.0500	0.0579	
2	9.799	9.799	0.000	3116560H	0.0500	0.0590	
2	10.277	10.278	-0.001	3280228H	0.0500	0.0583	
2	10.665	10.666	-0.001	7137380H	0.0500	0.0568	
2	11.206	11.206	0.000	4205204H	0.0500	0.0582	
		Average of Peak Amounts =				0.0580	
						RPD = 1.34	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.092	11.091	0.001	3063041H	0.002500	0.002969	
2	12.778	12.777	0.001	3639040H	0.002500	0.002933	
						RPD = 1.22	

Reagents:

GCAR1660CALL2_00009 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:51 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240216.D

Injection Date: 11-Dec-2014 13:07:29 Instrument ID: CHGC8

Lims ID: IC

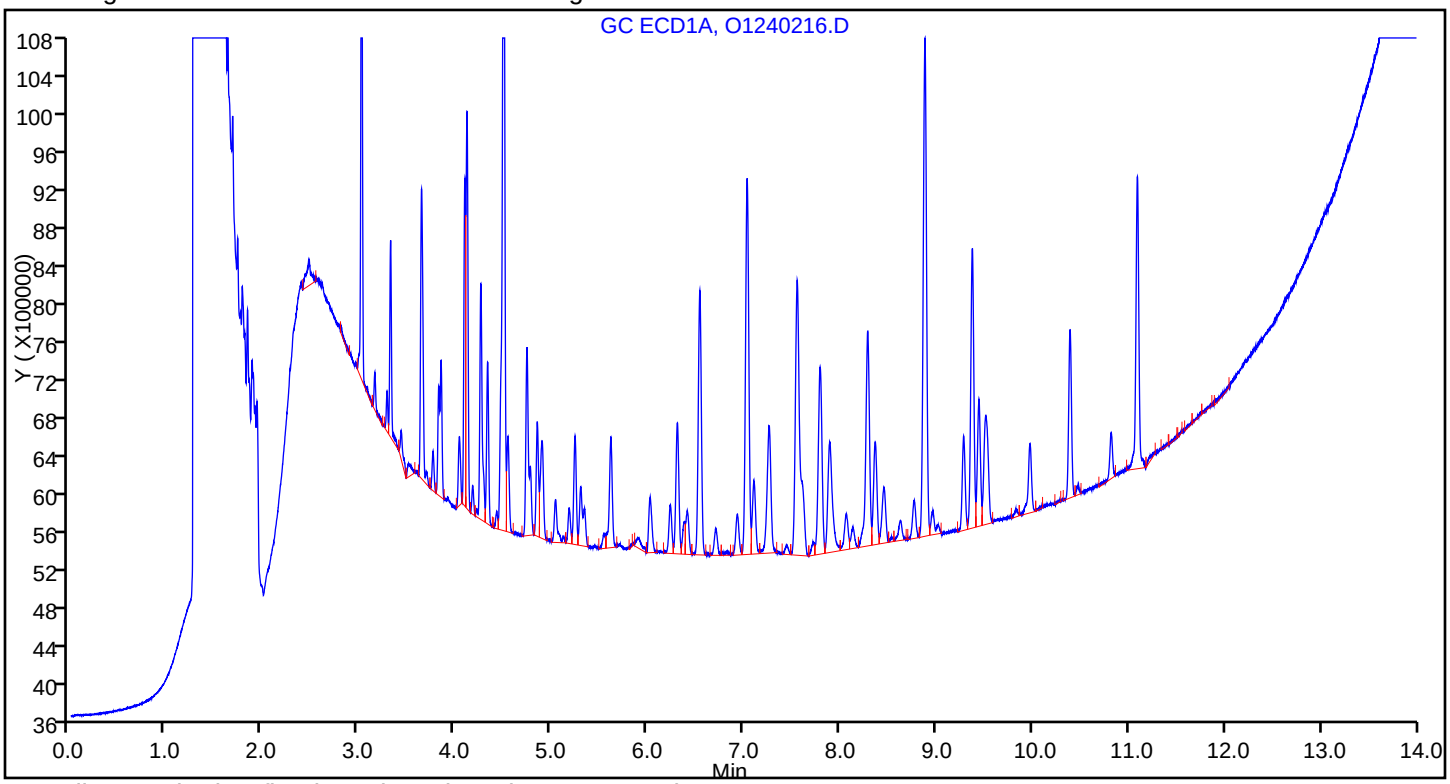
Client ID:

Operator ID: 402331 ALS Bottle#: 12 Worklist Smp#: 12

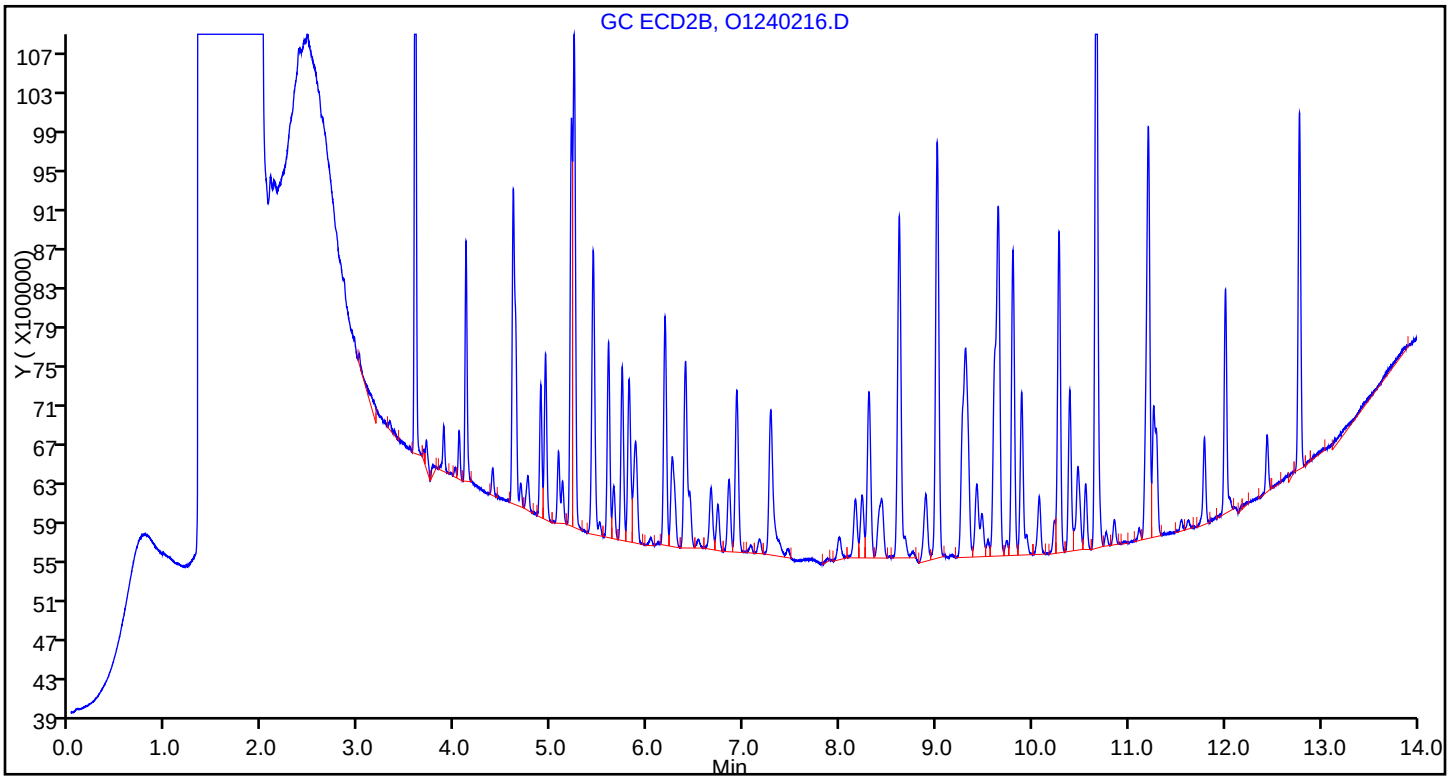
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240217.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Dec-2014 13:27:04 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-013
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:13:55 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.024	3.025	-0.001	22544674H	0.0100	0.0102	
2	3.584	3.584	0.000	28267184H	0.0100	0.0100	
						RPD = 2.79	
4 PCB-1016							
1	3.326	3.326	0.000	7440991H	0.2000	0.2032	
1	3.648	3.649	-0.001	10658719H	0.2000	0.2021	
1	4.099	4.099	0.000	12631513H	0.2000	0.2015	
1	4.264	4.266	-0.002	8875850H	0.2000	0.2009	
1	4.744	4.745	-0.001	6982412H	0.2000	0.1988	
		Average of Peak Amounts =				0.2013	
2	4.111	4.111	0.000	8640719H	0.2000	0.2034	
2	4.603	4.603	0.000	10991998H	0.2000	0.2022	
2	5.235	5.236	-0.001	17636995H	0.2000	0.1990	
2	5.434	5.435	-0.001	9943650H	0.2000	0.1997	
2	6.181	6.182	-0.001	8009025H	0.2000	0.2005	
		Average of Peak Amounts =				0.2009	
						RPD = 0.18	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	13534942H	0.2000	0.2010	
1	7.554	7.555	-0.001	10303644H	0.2000	0.2022	
1	8.289	8.288	0.001	7936483H	0.2000	0.2017	
1	8.883	8.883	0.000	18794362H	0.2000	0.2049	
1	9.375	9.376	-0.001	10528359H	0.2000	0.2044	
		Average of Peak Amounts =				0.2028	
2	9.644	9.645	-0.001	12331384H	0.2000	0.2000	
2	9.798	9.799	-0.001	10633864H	0.2000	0.2012	
2	10.277	10.278	-0.001	11217545H	0.2000	0.1995	
2	10.665	10.666	-0.001	24798001H	0.2000	0.1975	
2	11.205	11.206	-0.001	14448043H	0.2000	0.1999	
		Average of Peak Amounts =				0.1996	
						RPD = 1.61	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.092	11.091	0.001	10710144H	0.0100	0.0104	
2	12.778	12.777	0.001	12692028H	0.0100	0.0102	
						RPD = 1.48	

Reagents:

GCAR1660CALL3_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:13:57 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240217.D

Injection Date: 11-Dec-2014 13:27:04 Instrument ID: CHGC8

Lims ID: IC

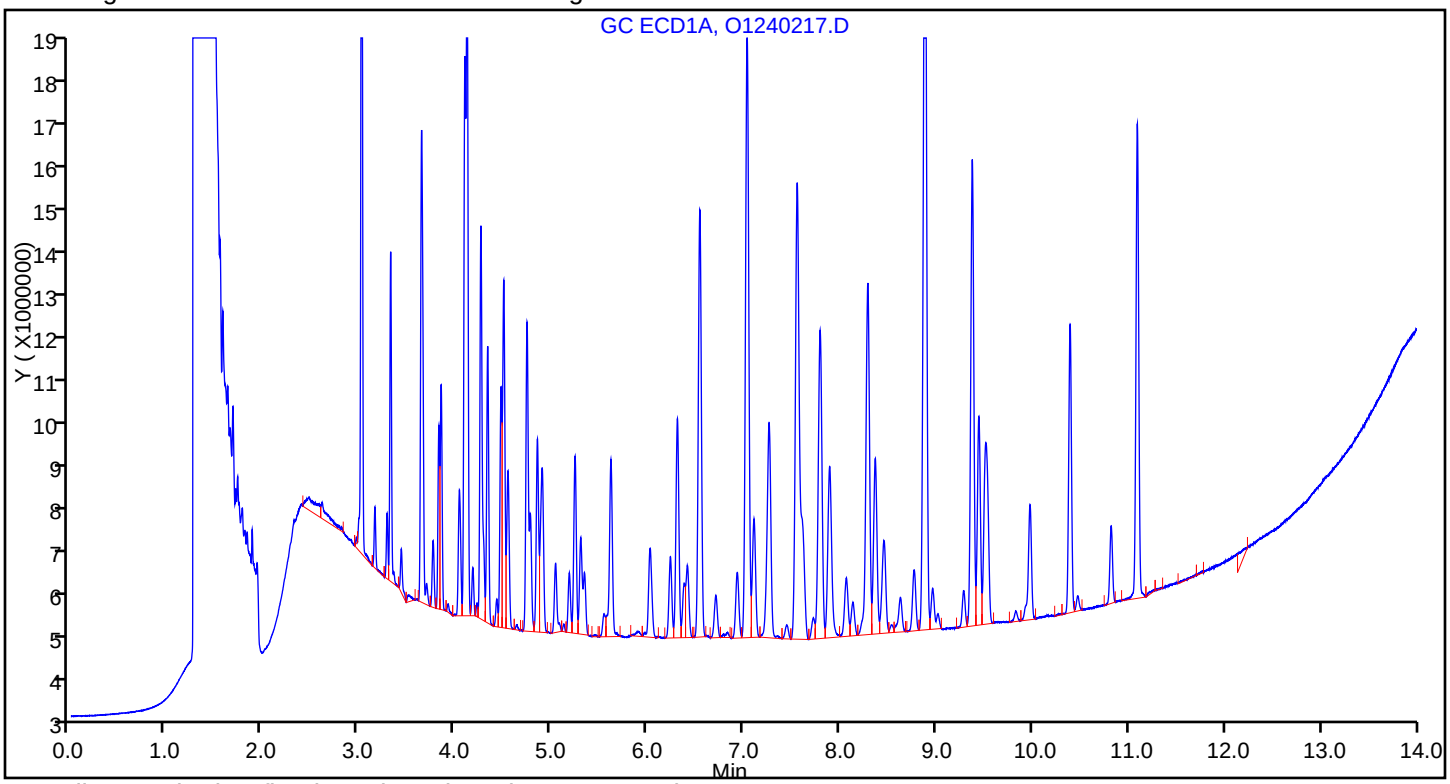
Client ID:

Operator ID: 402331 ALS Bottle#: 13 Worklist Smp#: 13

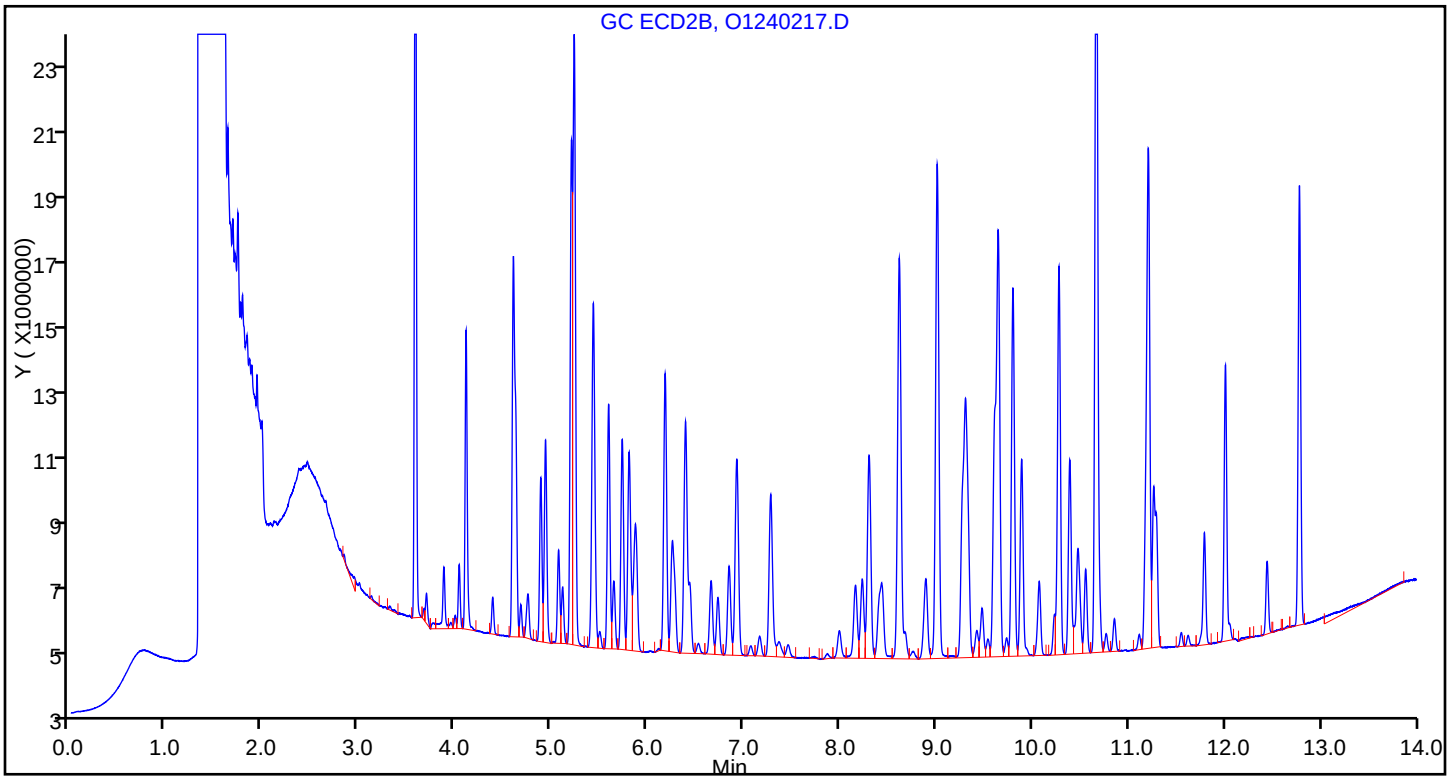
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240218.D
Lims ID: ICRT
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 11-Dec-2014 13:46:37 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-014
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:04 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 11-Dec-2014 13:36:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.025	3.025	0.000	59980523H	0.0250	0.0273	
2	3.584	3.584	0.000	75170729H	0.0250	0.0265	
						RPD = 2.84	
4 PCB-1016							
1	3.326	3.326	0.000	19162750H	0.5000	0.5233	
1	3.649	3.649	0.000	27519902H	0.5000	0.5217	
1	4.099	4.099	0.000	33643522H	0.5000	0.5366	
1	4.266	4.266	0.000	23442128H	0.5000	0.5306	
1	4.745	4.745	0.000	18374224H	0.5000	0.5232	
		Average of Peak Amounts =				0.5271	
2	4.111	4.111	0.000	21700158H	0.5000	0.5107	
2	4.603	4.603	0.000	27796590H	0.5000	0.5112	
2	5.236	5.236	0.000	45809445H	0.5000	0.5167	
2	5.435	5.435	0.000	25567154H	0.5000	0.5135	
2	6.182	6.182	0.000	20506502H	0.5000	0.5133	
		Average of Peak Amounts =				0.5131	
						RPD = 2.69	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	34724992H	0.5000	0.5157	
1	7.555	7.555	0.000	26358133H	0.5000	0.5174	
1	8.288	8.288	0.000	20027689H	0.5000	0.5090	
1	8.883	8.883	0.000	47821433H	0.5000	0.5214	
1	9.376	9.376	0.000	26858335H	0.5000	0.5214	
		Average of Peak Amounts =				0.5170	
2	9.645	9.645	0.000	31014271H	0.5000	0.5029	
2	9.799	9.799	0.000	26498763H	0.5000	0.5013	
2	10.278	10.278	0.000	28371816H	0.5000	0.5047	
2	10.666	10.666	0.000	62345260H	0.5000	0.4965	
2	11.206	11.206	0.000	36065760H	0.5000	0.4990	
		Average of Peak Amounts =				0.5009	
						RPD = 3.16	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.091	11.091	0.000	26403309H	0.0250	0.0256	
2	12.777	12.777	0.000	31783751H	0.0250	0.0256	
						RPD = 0.09	

Reagents:

GCAR1660CALL4_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:07 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240218.D

Injection Date: 11-Dec-2014 13:46:37 Instrument ID: CHGC8

Lims ID: ICRT

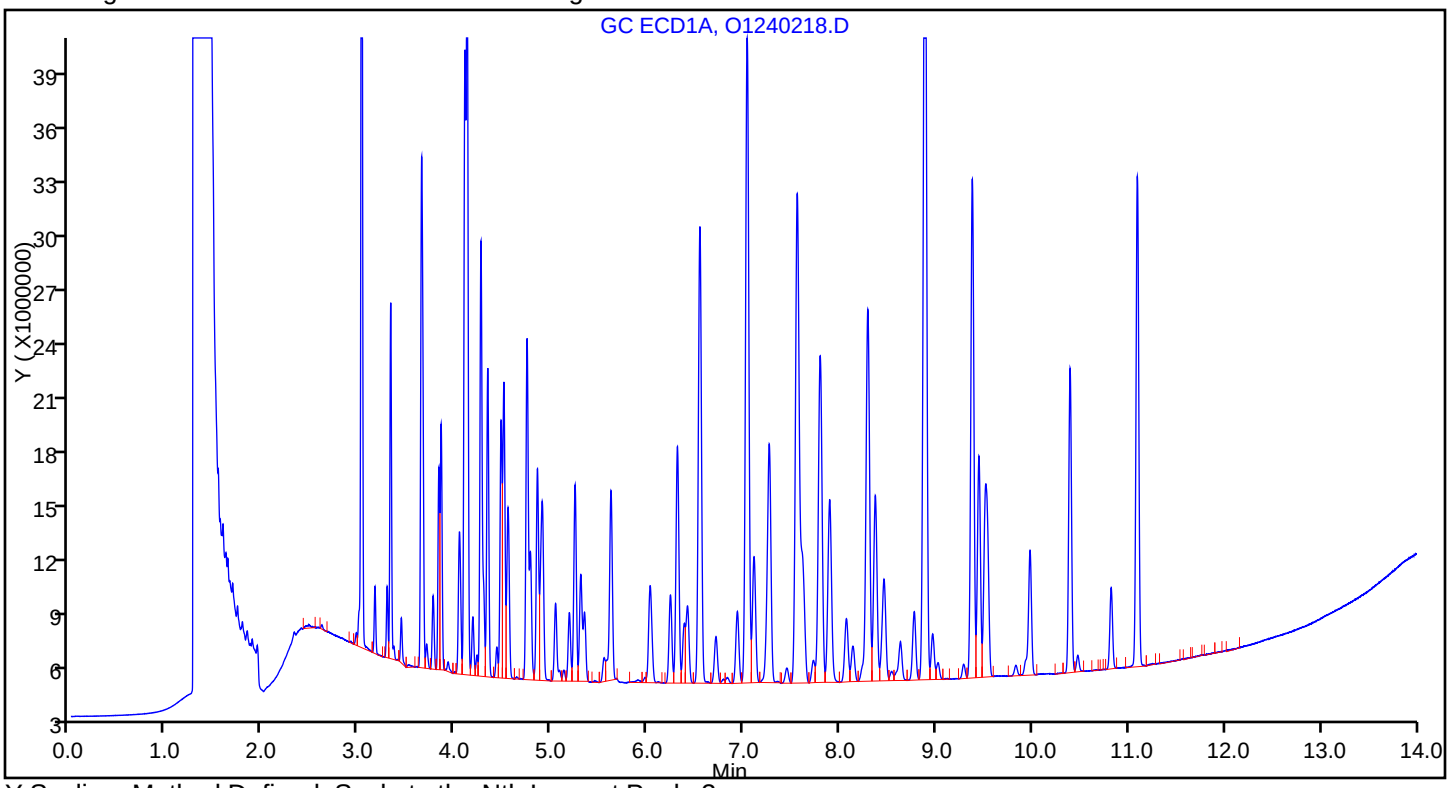
Client ID:

Operator ID: 402331 ALS Bottle#: 14 Worklist Smp#: 14

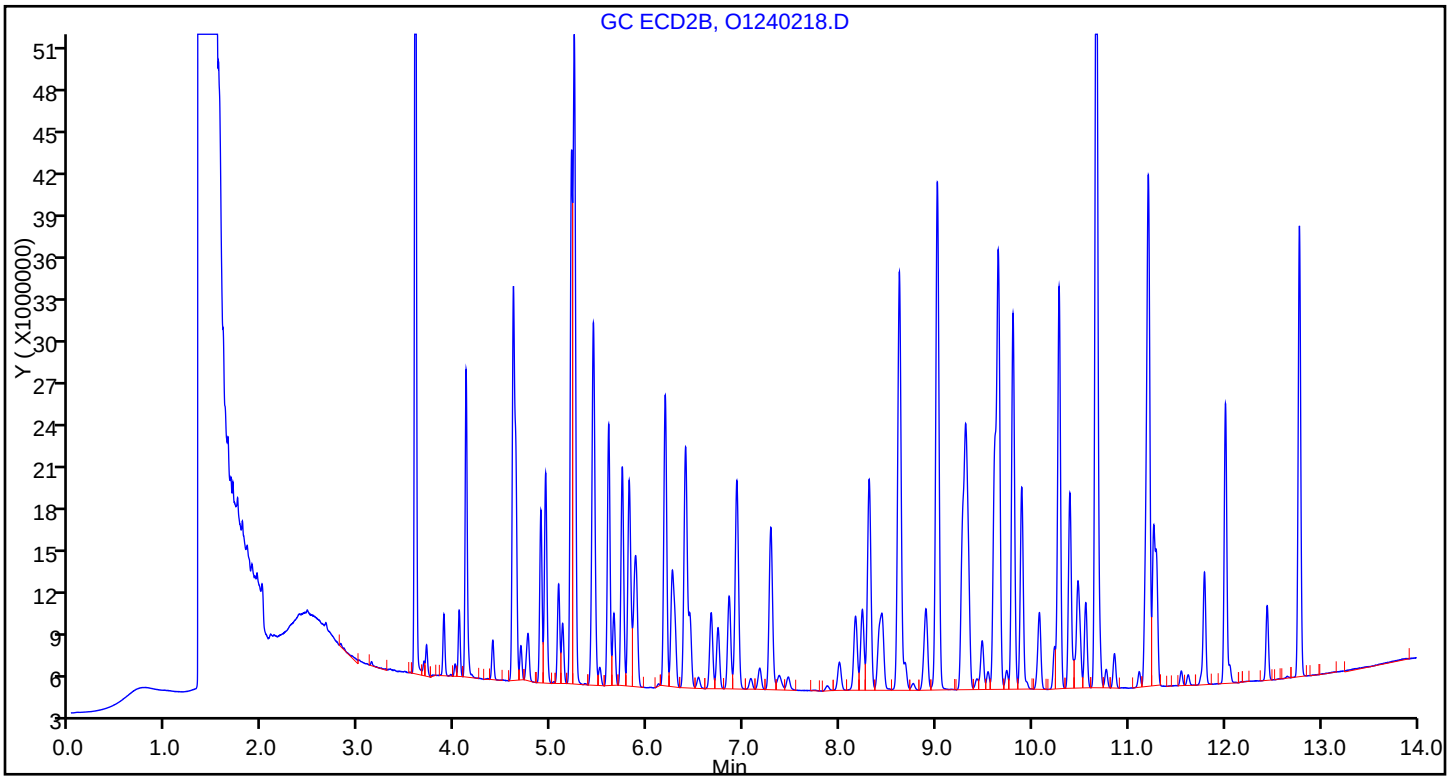
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240219.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Dec-2014 14:06:12 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-015
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:12 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.025	3.025	0.000	112147834H	0.0500	0.0510	
2	3.584	3.584	0.000	141973216H	0.0500	0.0500	
						RPD = 1.83	
4 PCB-1016							
1	3.327	3.326	0.001	36337831H	1.00	0.99	
1	3.649	3.649	0.000	51935363H	1.00	0.9845	
1	4.099	4.099	0.000	63353668H	1.00	1.01	
1	4.266	4.266	0.000	44330814H	1.00	1.00	
1	4.745	4.745	0.000	35068688H	1.00	1.00	
		Average of Peak Amounts =				1.00	
2	4.110	4.111	-0.001	41281927H	1.00	0.9716	
2	4.603	4.603	0.000	52748813H	1.00	0.9702	
2	5.236	5.236	0.000	87660854H	1.00	0.9888	
2	5.434	5.435	-0.001	48444428H	1.00	0.9730	
2	6.181	6.182	-0.001	39020344H	1.00	0.9768	
		Average of Peak Amounts =				0.9761	
						RPD = 2.21	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.034	7.034	0.000	66268089H	1.00	0.9841	
1	7.555	7.555	0.000	51237196H	1.00	1.01	
1	8.289	8.288	0.001	38690178H	1.00	0.9832	
1	8.884	8.883	0.001	92945216H	1.00	1.01	
1	9.375	9.376	-0.001	52208139H	1.00	1.01	
		Average of Peak Amounts =				1.00	
2	9.645	9.645	0.000	59681905H	1.00	0.9678	
2	9.799	9.799	0.000	50390864H	1.00	0.9532	
2	10.277	10.278	-0.001	53783040H	1.00	0.9566	
2	10.665	10.666	-0.001	123299561H	1.00	0.9820	
2	11.206	11.206	0.000	69117352H	1.00	0.9563	
		Average of Peak Amounts =				0.9632	
						RPD = 3.75	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.093	11.091	0.002	50020687H	0.0500	0.0485	
2	12.778	12.777	0.001	58573256H	0.0500	0.0472	
						RPD = 2.67	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:15 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240219.D

Injection Date: 11-Dec-2014 14:06:12 Instrument ID: CHGC8

Lims ID: IC

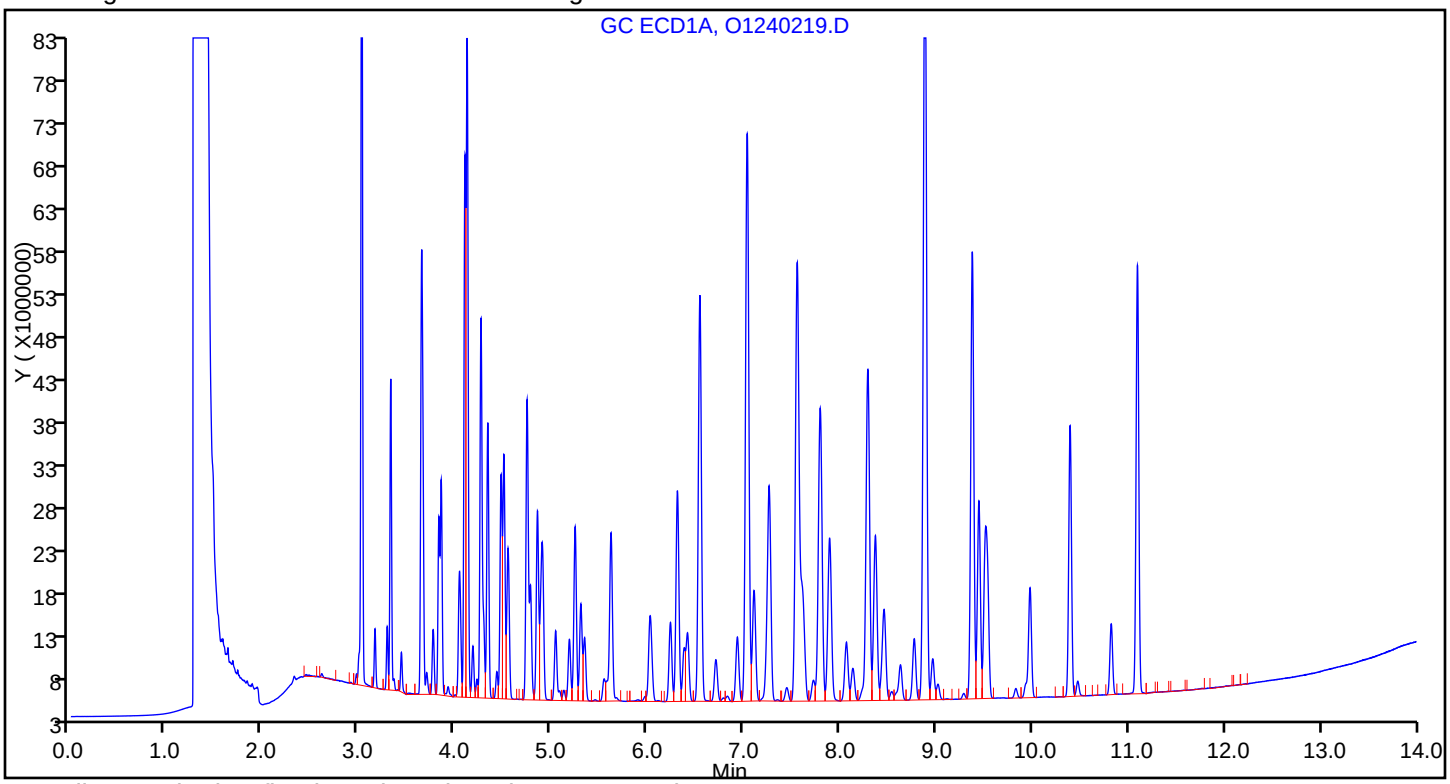
Client ID:

Operator ID: 402331 ALS Bottle#: 15 Worklist Smp#: 15

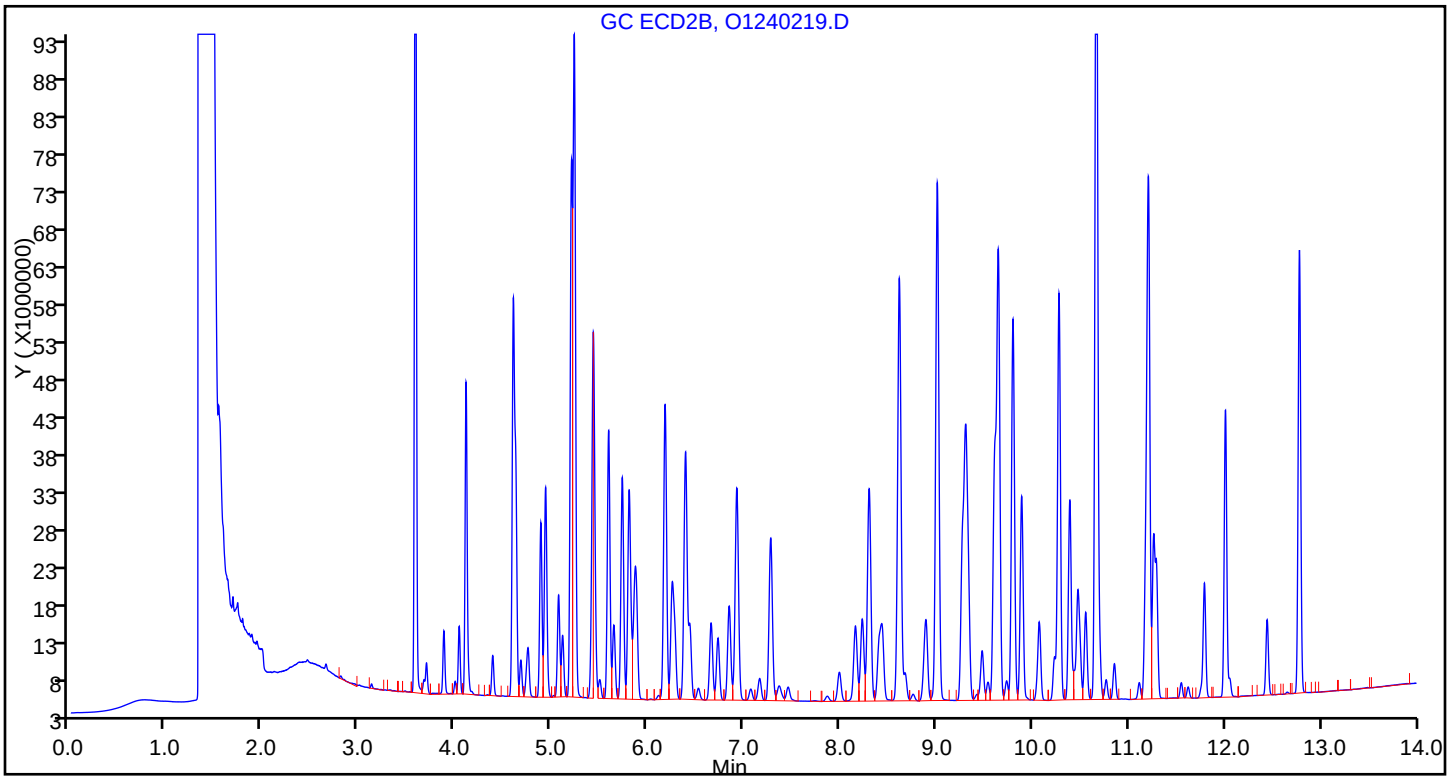
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240220.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 11-Dec-2014 14:25:47 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-016
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:20 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.027	3.025	0.002	218372970H	0.1000	0.0992	
2	3.584	3.584	0.000	283250803H	0.1000	0.0998	
						RPD = 0.60	
4 PCB-1016							
1	3.327	3.326	0.001	71731466H	2.00	1.96	
1	3.649	3.649	0.000	100897793H	2.00	1.91	
1	4.099	4.099	0.000	125085760H	2.00	2.00	
1	4.266	4.266	0.000	88661282H	2.00	2.01	
1	4.746	4.745	0.001	69210776H	2.00	1.97	
		Average of Peak Amounts =				1.97	
2	4.111	4.111	0.000	81676835H	2.00	1.92	
2	4.603	4.603	0.000	103724940H	2.00	1.91	
2	5.237	5.236	0.001	175245159H	2.00	1.98	
2	5.436	5.435	0.001	96099745H	2.00	1.93	
2	6.182	6.182	0.000	77687908H	2.00	1.94	
		Average of Peak Amounts =				1.94	
						RPD = 1.67	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.033	7.034	-0.001	130095010H	2.00	1.93	
1	7.555	7.555	0.000	100388192H	2.00	1.97	
1	8.288	8.288	0.000	77689255H	2.00	1.97	
1	8.883	8.883	0.000	177920419H	2.00	1.94	
1	9.375	9.376	-0.001	100313548H	2.00	1.95	
		Average of Peak Amounts =				1.95	
2	9.645	9.645	0.000	120243684H	2.00	1.95	
2	9.797	9.799	-0.002	101530649H	2.00	1.92	
2	10.277	10.278	-0.001	109287284H	2.00	1.94	
2	10.666	10.666	0.000	245511359H	2.00	1.96	
2	11.207	11.206	0.001	139403102H	2.00	1.93	
		Average of Peak Amounts =				1.94	
						RPD = 0.67	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.092	11.091	0.001	96014213H	0.1000	0.0931	
2	12.777	12.777	0.000	114859382H	0.1000	0.0926	
						RPD = 0.53	

Reagents:

GCAR1660CALL6_00007 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:24 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240220.D

Injection Date: 11-Dec-2014 14:25:47 Instrument ID: CHGC8

Lims ID: IC

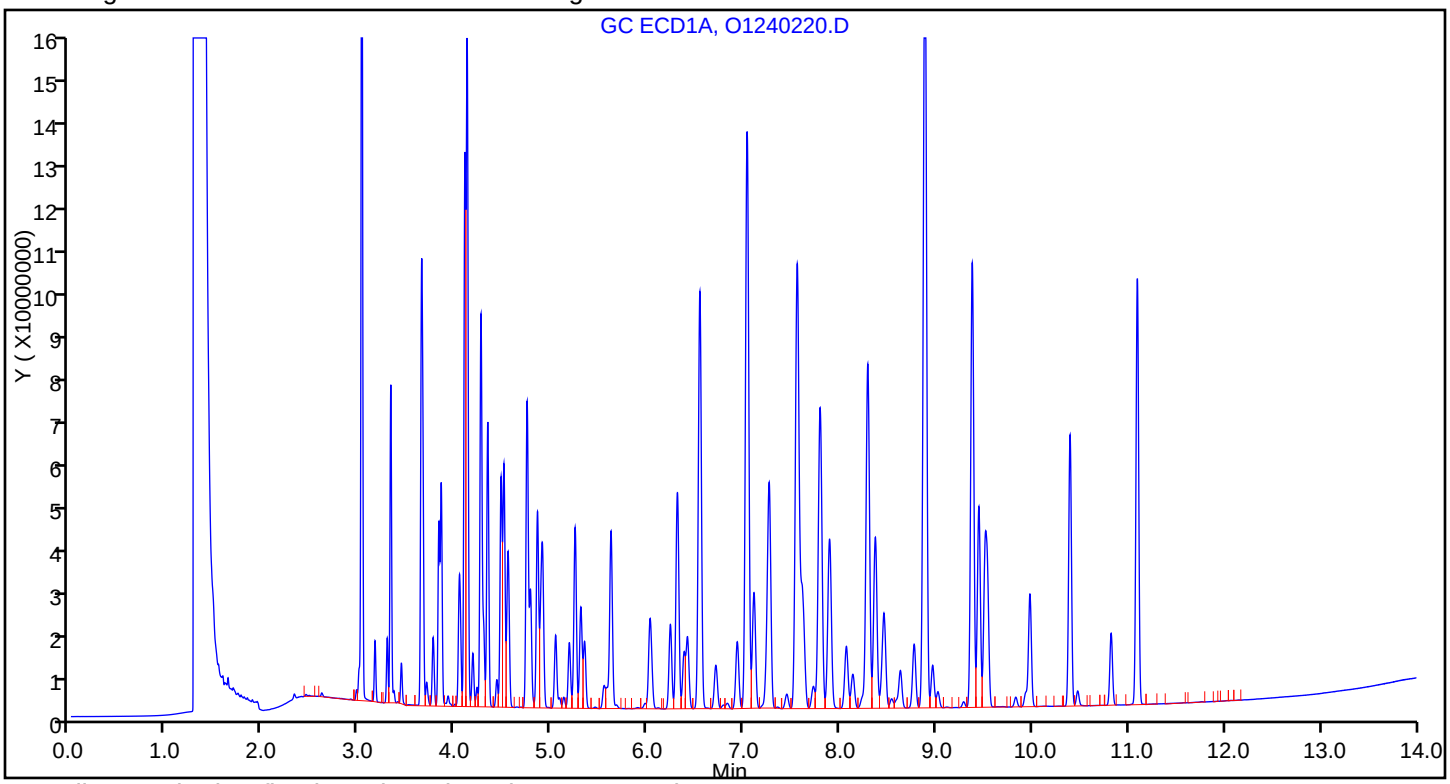
Client ID:

Operator ID: 402331 ALS Bottle#: 16 Worklist Smp#: 16

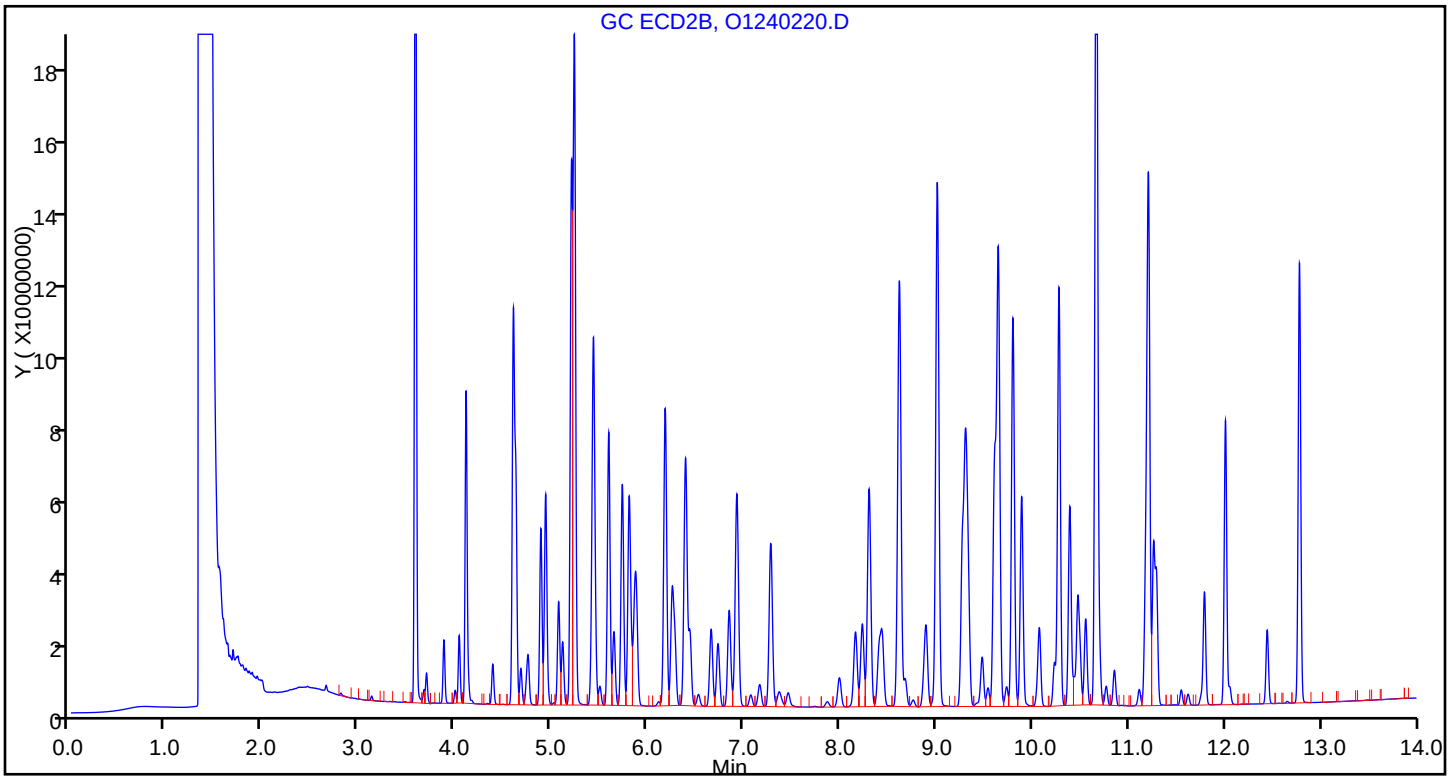
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 11-Dec-2014 14:45:29 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004810-017
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 12-Dec-2014 12:14:28 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK026

First Level Reviewer: oravecj Date: 12-Dec-2014 10:54:59

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.030	3.025	0.005	395127078H	0.2000	0.1796	
2	3.587	3.584	0.003	538615141H	0.2000	0.1898	
						RPD = 5.57	
4 PCB-1016							
1	3.330	3.326	0.004	133444723H	4.00	3.64	
1	3.652	3.649	0.003	187174821H	4.00	3.55	
1	4.102	4.099	0.003	230116110H	4.00	3.67	
1	4.268	4.266	0.002	163652972H	4.00	3.70	
1	4.747	4.745	0.002	128142591H	4.00	3.65	
		Average of Peak Amounts =				3.64	
2	4.113	4.111	0.002	154494669H	4.00	3.64	
2	4.605	4.603	0.002	196047014H	4.00	3.61	
2	5.238	5.236	0.002	332386216H	4.00	3.75	
2	5.437	5.435	0.002	182958388H	4.00	3.67	
2	6.183	6.182	0.001	145713390H	4.00	3.65	
		Average of Peak Amounts =				3.66	
						RPD = 0.53	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.035	7.034	0.001	238979249H	4.00	3.55	
1	7.556	7.555	0.001	183123404H	4.00	3.59	
1	8.290	8.288	0.002	139118121H	4.00	3.54	
1	8.886	8.883	0.003	324296394H	4.00	3.54	
1	9.377	9.376	0.001	186736086H	4.00	3.63	
		Average of Peak Amounts =				3.57	
2	9.647	9.645	0.002	229673257H	4.00	3.72	
2	9.799	9.799	0.000	191447043H	4.00	3.62	
2	10.278	10.278	0.000	204666527H	4.00	3.64	
2	10.666	10.666	0.000	478355767H	4.00	3.81	
2	11.207	11.206	0.001	265333807H	4.00	3.67	
		Average of Peak Amounts =				3.69	
						RPD = 3.46	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.094	11.091	0.003	177699626H	0.2000	0.1723	
2	12.779	12.777	0.002	220010819H	0.2000	0.1773	
						RPD = 2.90	

Reagents:

GCAR1660CALL7_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Dec-2014 12:14:32 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Injection Date: 11-Dec-2014 14:45:29 Instrument ID: CHGC8

Lims ID: IC

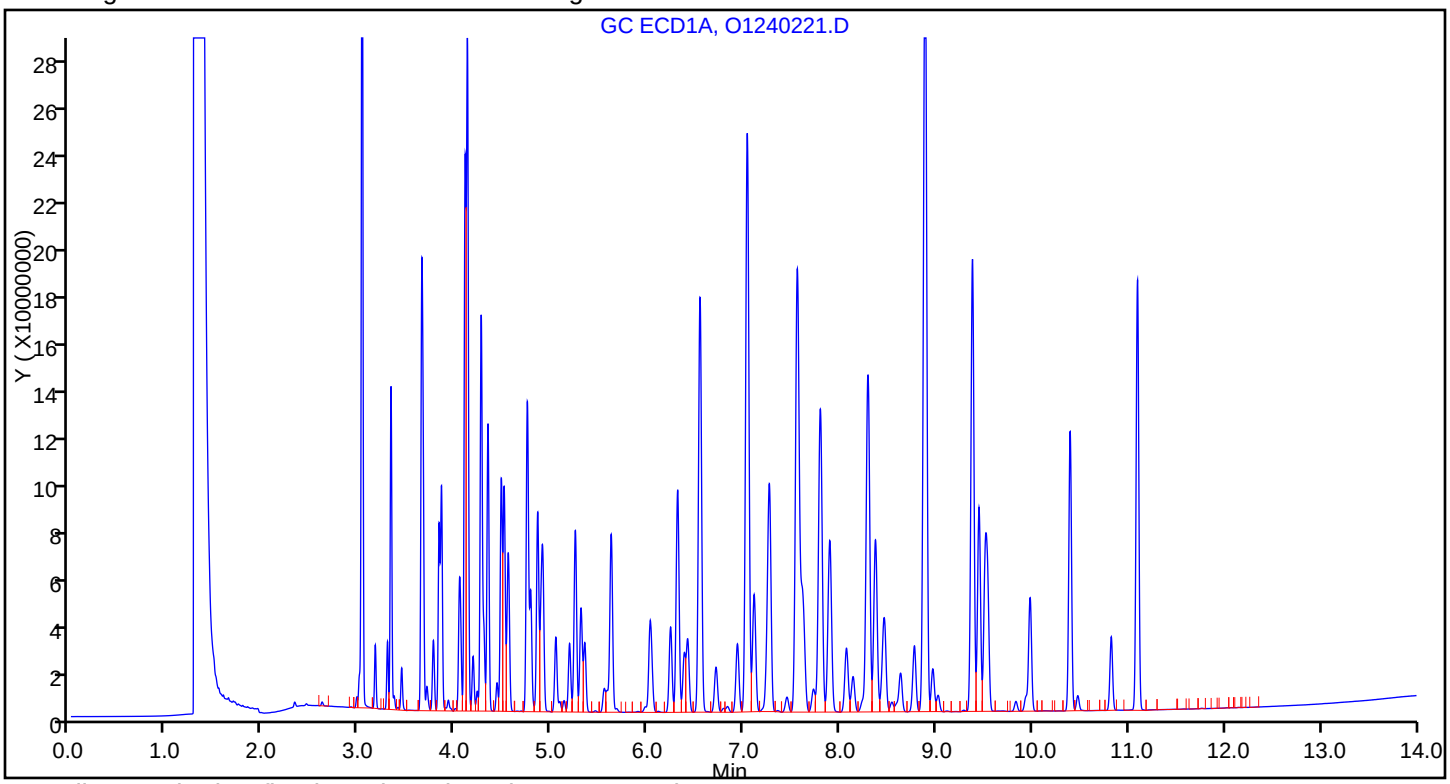
Client ID:

Operator ID: 402331 ALS Bottle#: 17 Worklist Smp#: 17

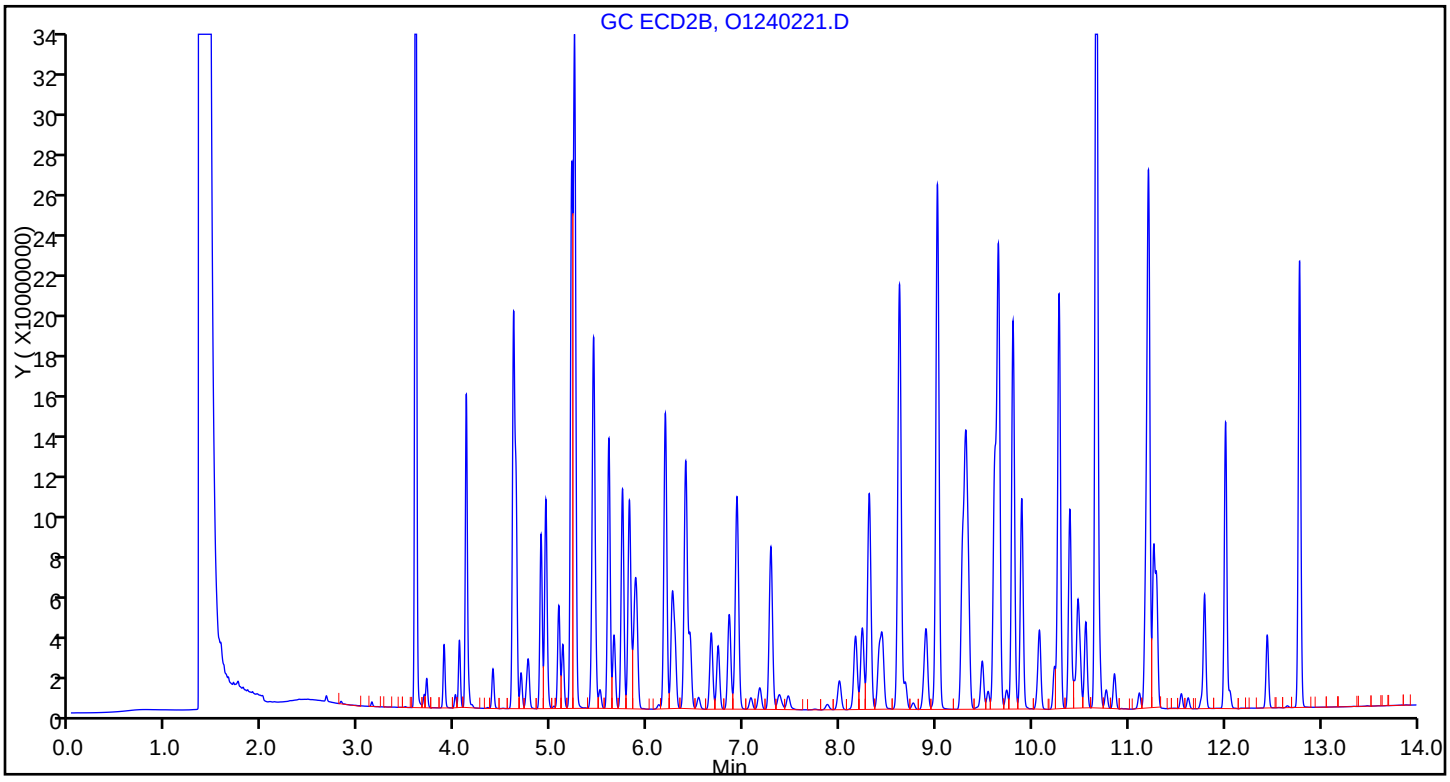
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVRT 180-128212/1 Calibration Date: 12/13/2014 10:16

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP1 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240200.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	36616897	32123973		0.877	1.00	-12.3	20.0
PCB-1016 Peak 2	Ave	52751795	48540877		0.920	1.00	-8.0	20.0
PCB-1016 Peak 3	Ave	62698669	53654937		0.856	1.00	-14.4	20.0
PCB-1016 Peak 4	Ave	44180452	37736877		0.854	1.00	-14.6	20.0
PCB-1016 Peak 5	Ave	35120070	29463998		0.839	1.00	-16.1	20.0
PCB-1260 Peak 1	Ave	67341831	67604640		1.00	1.00	0.4	20.0
PCB-1260 Peak 2	Ave	50946844	54797029		1.08	1.00	7.6	20.0
PCB-1260 Peak 3	Ave	39349818	44519368		1.13	1.00	13.1	20.0
PCB-1260 Peak 4	Ave	91715509	108844969		1.19	1.00	18.7	20.0
PCB-1260 Peak 5	Ave	51512483	62150821		1.21	1.00	20.7*	20.0
Tetrachloro-m-xylene (Surr)	Ave	2200511327	1960292660		0.0445	0.0500	-10.9	20.0
DCB Decachlorobiphenyl (Surr)	Ave	1031505880	1138146780		0.0552	0.0500	10.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVRT 180-128212/1 Calibration Date: 12/13/2014 10:16

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP1 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240200.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.32	3.27	3.37
PCB-1016 Peak 2	3.65	3.60	3.70
PCB-1016 Peak 3	4.10	4.05	4.15
PCB-1016 Peak 4	4.26	4.21	4.31
PCB-1016 Peak 5	4.74	4.69	4.79
PCB-1260 Peak 1	7.03	6.98	7.08
PCB-1260 Peak 2	7.55	7.50	7.60
PCB-1260 Peak 3	8.28	8.23	8.33
PCB-1260 Peak 4	8.88	8.83	8.93
PCB-1260 Peak 5	9.37	9.32	9.42
Tetrachloro-m-xylene (Surr)	3.02	2.97	3.07
DCB Decachlorobiphenyl (Surr)	11.08	11.01	11.15

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240200.D
Lims ID: CCVRT
Client ID:
Sample Type: CCVRT
Inject. Date: 13-Dec-2014 10:16:40 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-001
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:20:16 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.022	3.022	0.000	98014633H	0.0500	0.0445	
2	3.576	3.576	0.000	130515758H	0.0500	0.0460	
						RPD = 3.22	
4 PCB-1016							
1	3.323	3.323	0.000	32123973H	1.00	0.8773	
1	3.645	3.645	0.000	48540877H	1.00	0.9202	
1	4.096	4.096	0.000	53654937H	1.00	0.8557	
1	4.262	4.262	0.000	37736877H	1.00	0.8542	
1	4.742	4.742	0.000	29463998H	1.00	0.8390	
		Average of Peak Amounts =				0.8692	
2	4.103	4.103	0.000	37322100H	1.00	0.8784	
2	4.594	4.594	0.000	48372056H	1.00	0.8897	
2	5.227	5.227	0.000	75510233H	1.00	0.8695	
2	5.425	5.425	0.000	42689981H	1.00	0.8574	
2	6.171	6.171	0.000	34350239H	1.00	0.8599	
		Average of Peak Amounts =				0.8710	
						RPD = 0.20	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.028	7.028	0.000	67604640H	1.00	1.00	
1	7.548	7.548	0.000	54797029H	1.00	1.08	
1	8.283	8.283	0.000	44519368H	1.00	1.13	
1	8.876	8.876	0.000	108844969H	1.00	1.19	
1	9.368	9.368	0.000	62150821H	1.00	1.21	
		Average of Peak Amounts =				1.12	
2	9.634	9.634	0.000	66451311H	1.00	1.08	
2	9.787	9.787	0.000	56809934H	1.00	1.07	
2	10.267	10.267	0.000	62142363H	1.00	1.11	
2	10.655	10.655	0.000	143893544H	1.00	1.15	
2	11.196	11.196	0.000	82459932H	1.00	1.14	
		Average of Peak Amounts =				1.11	
						RPD = 1.07	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	56907339H	0.0500	0.0552	
2	12.768	12.768	0.000	62866840H	0.0500	0.0507	
						RPD = 8.49	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 15-Dec-2014 11:20:16 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240200.D

Injection Date: 13-Dec-2014 10:16:40 Instrument ID: CHGC8

Lims ID: CCVRT

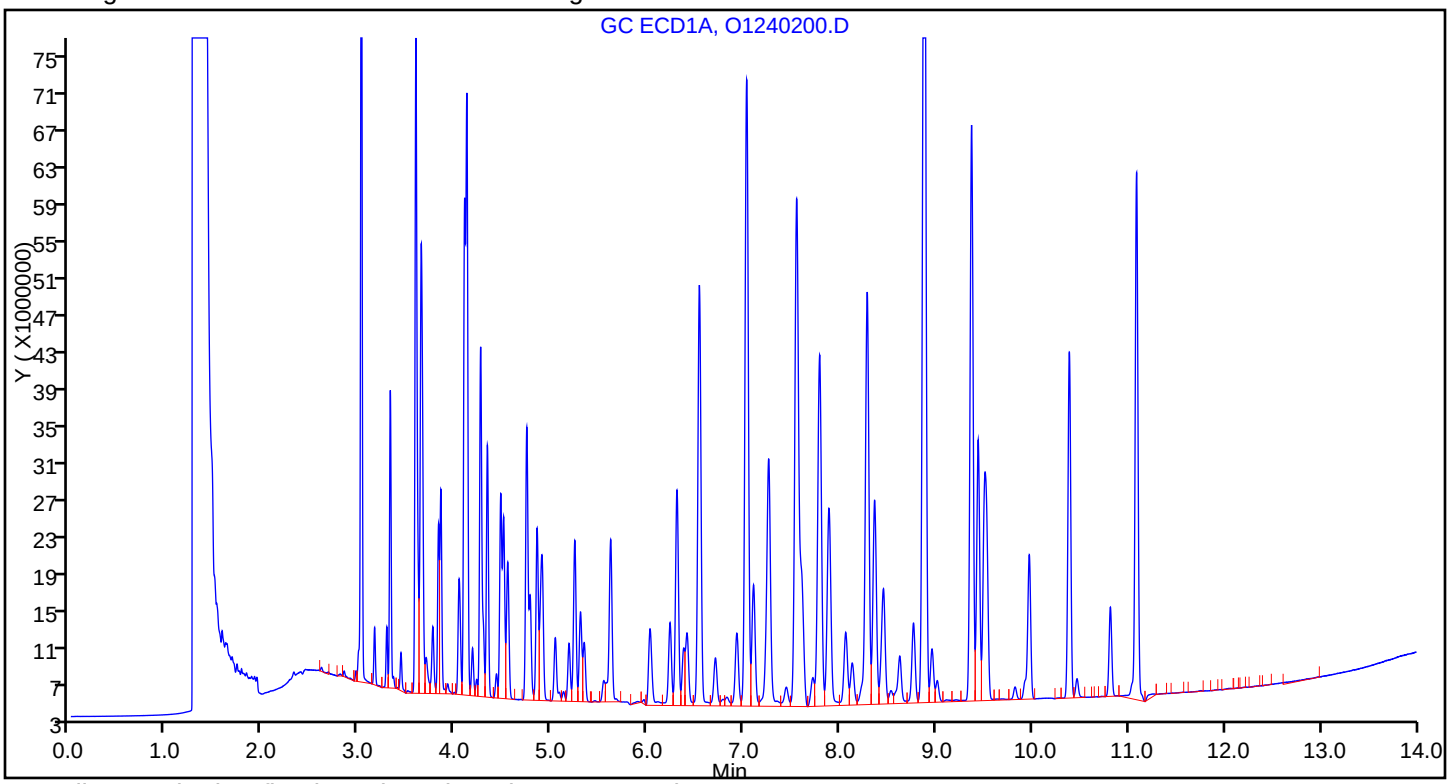
Client ID:

Operator ID: 402331 ALS Bottle#: 1 Worklist Smp#: 1

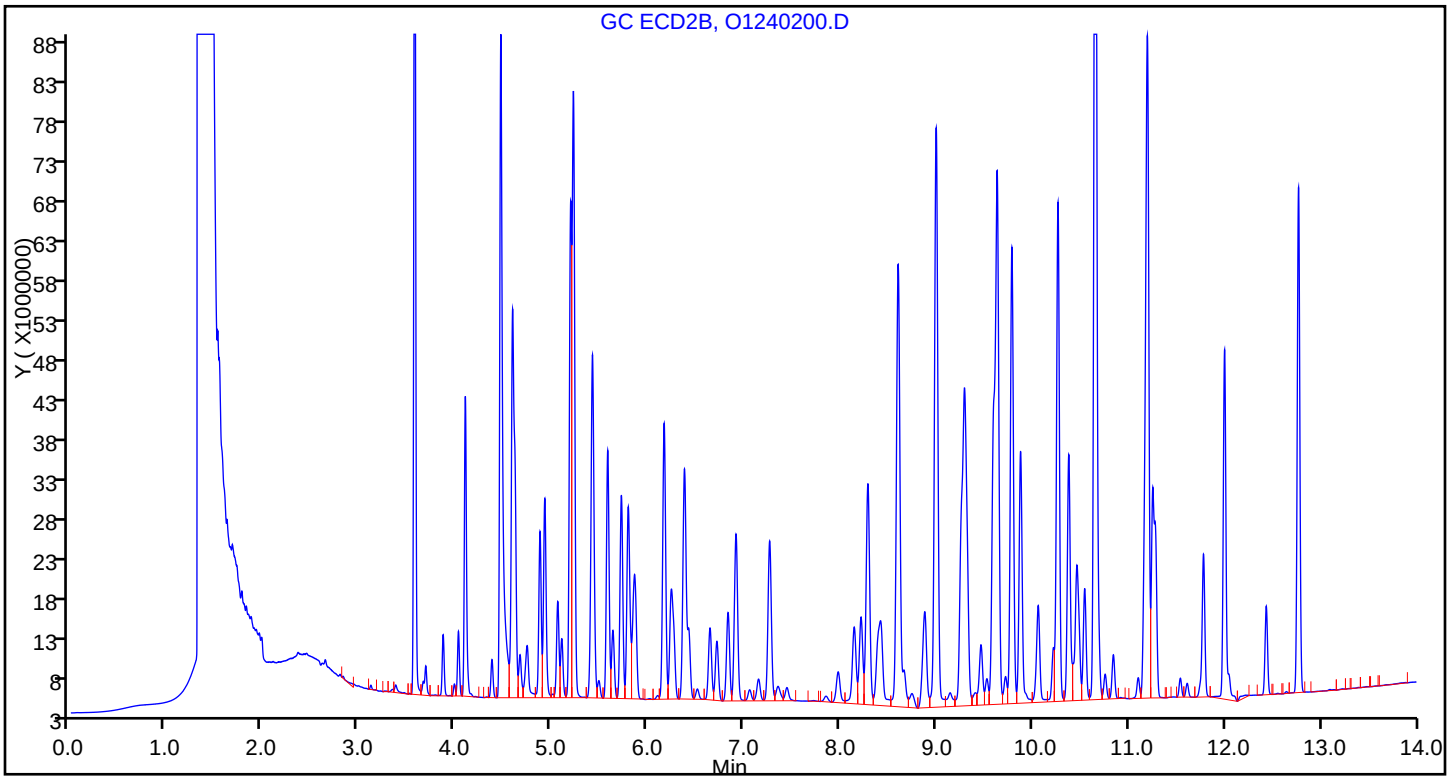
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVRT 180-128212/1 Calibration Date: 12/13/2014 10:16

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP2 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240200.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	42490306	37322100		0.878	1.00	-12.2	20.0
PCB-1016 Peak 2	Ave	54370872	48372056		0.890	1.00	-11.0	20.0
PCB-1016 Peak 3	Ave	88649422	75510233		0.869	1.00	-14.8	20.0
PCB-1016 Peak 4	Ave	49790988	42689981		0.857	1.00	-14.3	20.0
PCB-1016 Peak 5	Ave	39947411	34350239		0.860	1.00	-14.0	20.0
PCB-1260 Peak 1	Ave	61670489	66451311		1.08	1.00	7.8	20.0
PCB-1260 Peak 2	Ave	52863756	56809934		1.07	1.00	7.5	20.0
PCB-1260 Peak 3	Ave	56220276	62142363		1.11	1.00	10.5	20.0
PCB-1260 Peak 4	Ave	125562472	143893544		1.15	1.00	14.6	20.0
PCB-1260 Peak 5	Ave	72273067	82459932		1.14	1.00	14.1	20.0
Tetrachloro-m-xylene (Surr)	Ave	2837203259	2610315160		0.0460	0.0500	-8.0	20.0
DCB Decachlorobiphenyl (Surr)	Ave	1240567696	1257336800		0.0507	0.0500	1.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCVRT 180-128212/1 Calibration Date: 12/13/2014 10:16

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP2 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240200.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.10	4.05	4.15
PCB-1016 Peak 2	4.59	4.54	4.64
PCB-1016 Peak 3	5.23	5.18	5.28
PCB-1016 Peak 4	5.43	5.38	5.48
PCB-1016 Peak 5	6.17	6.12	6.22
PCB-1260 Peak 1	9.63	9.58	9.68
PCB-1260 Peak 2	9.79	9.74	9.84
PCB-1260 Peak 3	10.27	10.22	10.32
PCB-1260 Peak 4	10.66	10.61	10.71
PCB-1260 Peak 5	11.20	11.15	11.25
Tetrachloro-m-xylene (Surr)	3.58	3.53	3.63
DCB Decachlorobiphenyl (Surr)	12.77	12.70	12.84

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240200.D
Lims ID: CCVRT
Client ID:
Sample Type: CCVRT
Inject. Date: 13-Dec-2014 10:16:40 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-001
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:20:16 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.022	3.022	0.000	98014633H	0.0500	0.0445	
2	3.576	3.576	0.000	130515758H	0.0500	0.0460	
						RPD = 3.22	
4 PCB-1016							
1	3.323	3.323	0.000	32123973H	1.00	0.8773	
1	3.645	3.645	0.000	48540877H	1.00	0.9202	
1	4.096	4.096	0.000	53654937H	1.00	0.8557	
1	4.262	4.262	0.000	37736877H	1.00	0.8542	
1	4.742	4.742	0.000	29463998H	1.00	0.8390	
		Average of Peak Amounts =				0.8692	
2	4.103	4.103	0.000	37322100H	1.00	0.8784	
2	4.594	4.594	0.000	48372056H	1.00	0.8897	
2	5.227	5.227	0.000	75510233H	1.00	0.8695	
2	5.425	5.425	0.000	42689981H	1.00	0.8574	
2	6.171	6.171	0.000	34350239H	1.00	0.8599	
		Average of Peak Amounts =				0.8710	
						RPD = 0.20	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.028	7.028	0.000	67604640H	1.00	1.00	
1	7.548	7.548	0.000	54797029H	1.00	1.08	
1	8.283	8.283	0.000	44519368H	1.00	1.13	
1	8.876	8.876	0.000	108844969H	1.00	1.19	
1	9.368	9.368	0.000	62150821H	1.00	1.21	
		Average of Peak Amounts =				1.12	
2	9.634	9.634	0.000	66451311H	1.00	1.08	
2	9.787	9.787	0.000	56809934H	1.00	1.07	
2	10.267	10.267	0.000	62142363H	1.00	1.11	
2	10.655	10.655	0.000	143893544H	1.00	1.15	
2	11.196	11.196	0.000	82459932H	1.00	1.14	
		Average of Peak Amounts =				1.11	
						RPD = 1.07	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	56907339H	0.0500	0.0552	
2	12.768	12.768	0.000	62866840H	0.0500	0.0507	
						RPD = 8.49	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 15-Dec-2014 11:20:17 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240200.D

Injection Date: 13-Dec-2014 10:16:40 Instrument ID: CHGC8

Lims ID: CCVRT

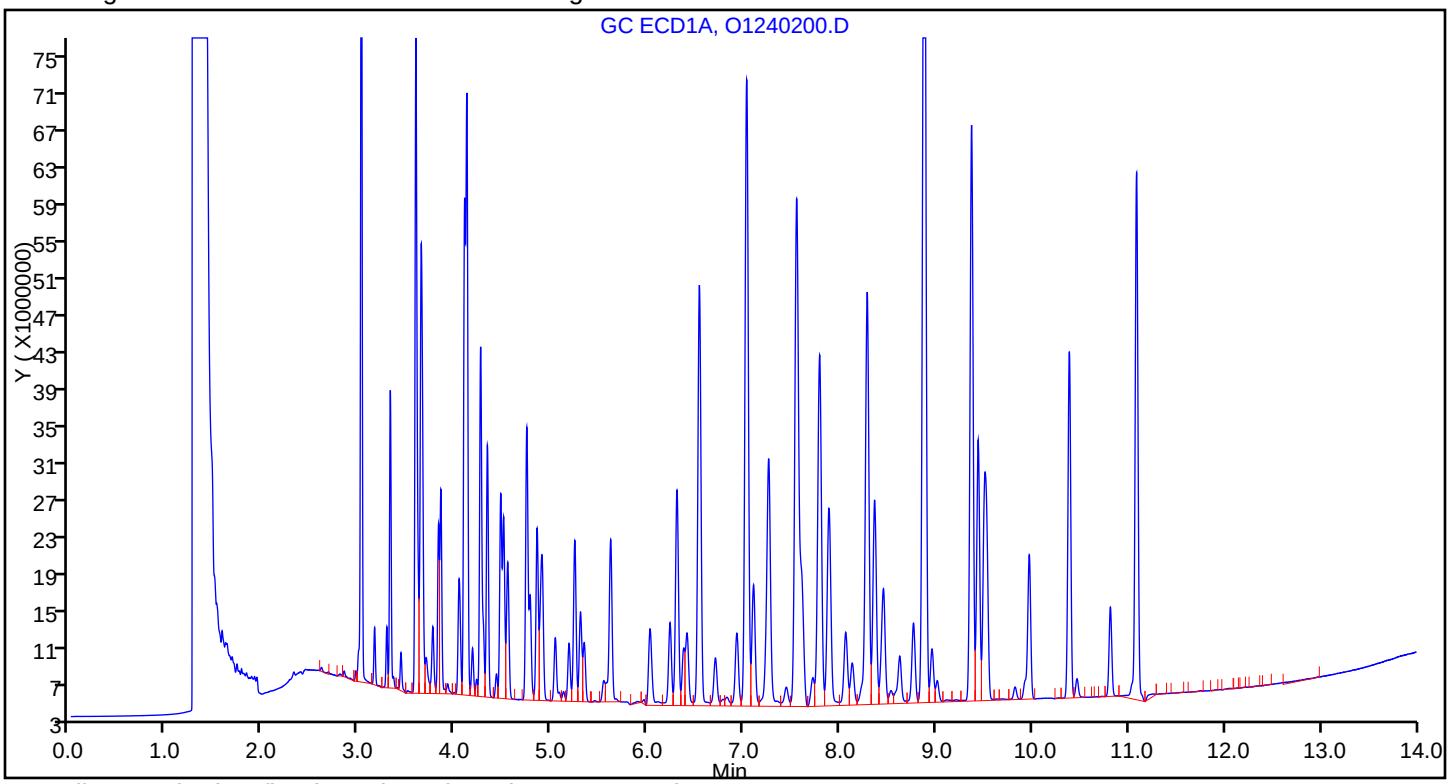
Client ID:

Operator ID: 402331 ALS Bottle#: 1 Worklist Smp#: 1

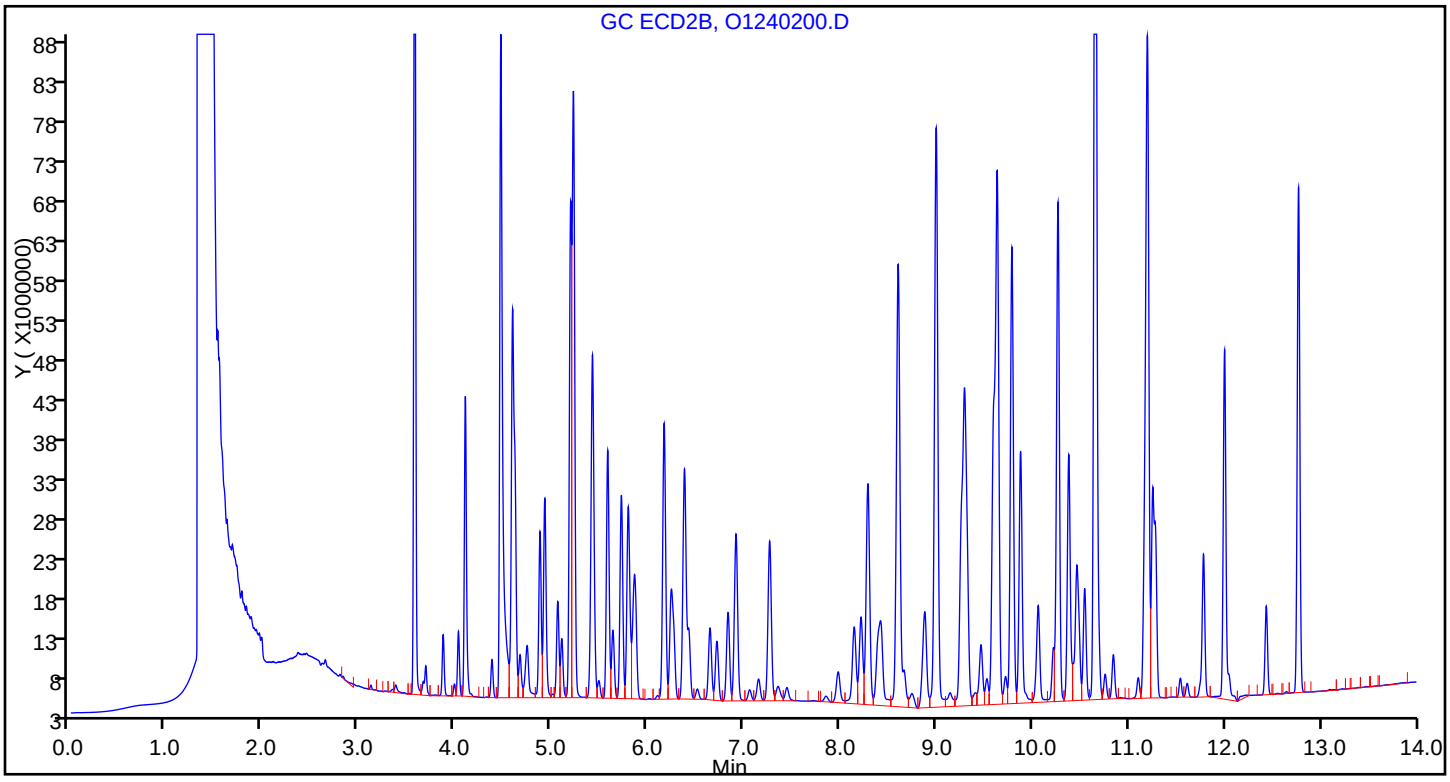
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/12 Calibration Date: 12/13/2014 13:52

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP1 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240211.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	36616897	32527063		0.888	1.00	-11.2	20.0
PCB-1016 Peak 2	Ave	52751795	48592112		0.921	1.00	-7.9	20.0
PCB-1016 Peak 3	Ave	62698669	55030489		0.878	1.00	-12.2	20.0
PCB-1016 Peak 4	Ave	44180452	38512867		0.872	1.00	-12.8	20.0
PCB-1016 Peak 5	Ave	35120070	29782162		0.848	1.00	-15.2	20.0
PCB-1260 Peak 1	Ave	67341831	68245521		1.01	1.00	1.3	20.0
PCB-1260 Peak 2	Ave	50946844	54079918		1.06	1.00	6.1	20.0
PCB-1260 Peak 3	Ave	39349818	42649821		1.08	1.00	8.4	20.0
PCB-1260 Peak 4	Ave	91715509	105076342		1.15	1.00	14.6	20.0
PCB-1260 Peak 5	Ave	51512483	59114693		1.15	1.00	14.8	20.0
Tetrachloro-m-xylene (Surr)	Ave	2200511327	1983977840		0.0451	0.0500	-9.8	20.0
DCB Decachlorobiphenyl (Surr)	Ave	1031505880	1086483840		0.0527	0.0500	5.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/12 Calibration Date: 12/13/2014 13:52

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP1 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240211.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.32	3.27	3.37
PCB-1016 Peak 2	3.65	3.60	3.70
PCB-1016 Peak 3	4.11	4.06	4.16
PCB-1016 Peak 4	4.26	4.21	4.31
PCB-1016 Peak 5	4.74	4.69	4.79
PCB-1260 Peak 1	7.03	6.98	7.08
PCB-1260 Peak 2	7.55	7.50	7.60
PCB-1260 Peak 3	8.28	8.23	8.33
PCB-1260 Peak 4	8.88	8.83	8.93
PCB-1260 Peak 5	9.37	9.32	9.42
Tetrachloro-m-xylene (Surr)	3.02	2.97	3.07
DCB Decachlorobiphenyl (Surr)	11.08	11.01	11.15

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240211.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-Dec-2014 13:52:20 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-012
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:58 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:44:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.022	3.022	0.000	99198892H	0.0500	0.0451	
2	3.581	3.581	0.000	128613168H	0.0500	0.0453	
						RPD = 0.56	
4 PCB-1016							
1	3.322	3.322	0.000	32527063H	1.00	0.8883	
1	3.645	3.645	0.000	48592112H	1.00	0.9211	
1	4.109	4.109	0.000	55030489H	1.00	0.8776	
1	4.261	4.261	0.000	38512867H	1.00	0.8717	
1	4.740	4.740	0.000	29782162H	1.00	0.8480	
		Average of Peak Amounts =				0.8814	
2	4.107	4.107	0.000	37284123H	1.00	0.8775	
2	4.600	4.600	0.000	48510157H	1.00	0.8922	
2	5.232	5.232	0.000	75803600H	1.00	0.8728	
2	5.431	5.431	0.000	41789633H	1.00	0.8393	
2	6.177	6.177	0.000	33812451H	1.00	0.8464	
		Average of Peak Amounts =				0.8656	
						RPD = 1.80	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.027	7.027	0.000	68245521H	1.00	1.01	
1	7.547	7.547	0.000	54079918H	1.00	1.06	
1	8.280	8.280	0.000	42649821H	1.00	1.08	
1	8.875	8.875	0.000	105076342H	1.00	1.15	
1	9.367	9.367	0.000	59114693H	1.00	1.15	
		Average of Peak Amounts =				1.09	
2	9.641	9.641	0.000	62171746H	1.00	1.01	
2	9.794	9.794	0.000	52237566H	1.00	0.9882	
2	10.272	10.272	0.000	57593512H	1.00	1.02	
2	10.662	10.662	0.000	136449394H	1.00	1.09	
2	11.202	11.202	0.000	78680555H	1.00	1.09	
		Average of Peak Amounts =				1.04	
						RPD = 4.81	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	54324192H	0.0500	0.0527	
2	12.773	12.773	0.000	62579868H	0.0500	0.0504	
						RPD = 4.31	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 15-Dec-2014 11:19:58 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240211.D

Injection Date: 13-Dec-2014 13:52:20 Instrument ID: CHGC8

Lims ID: CCV

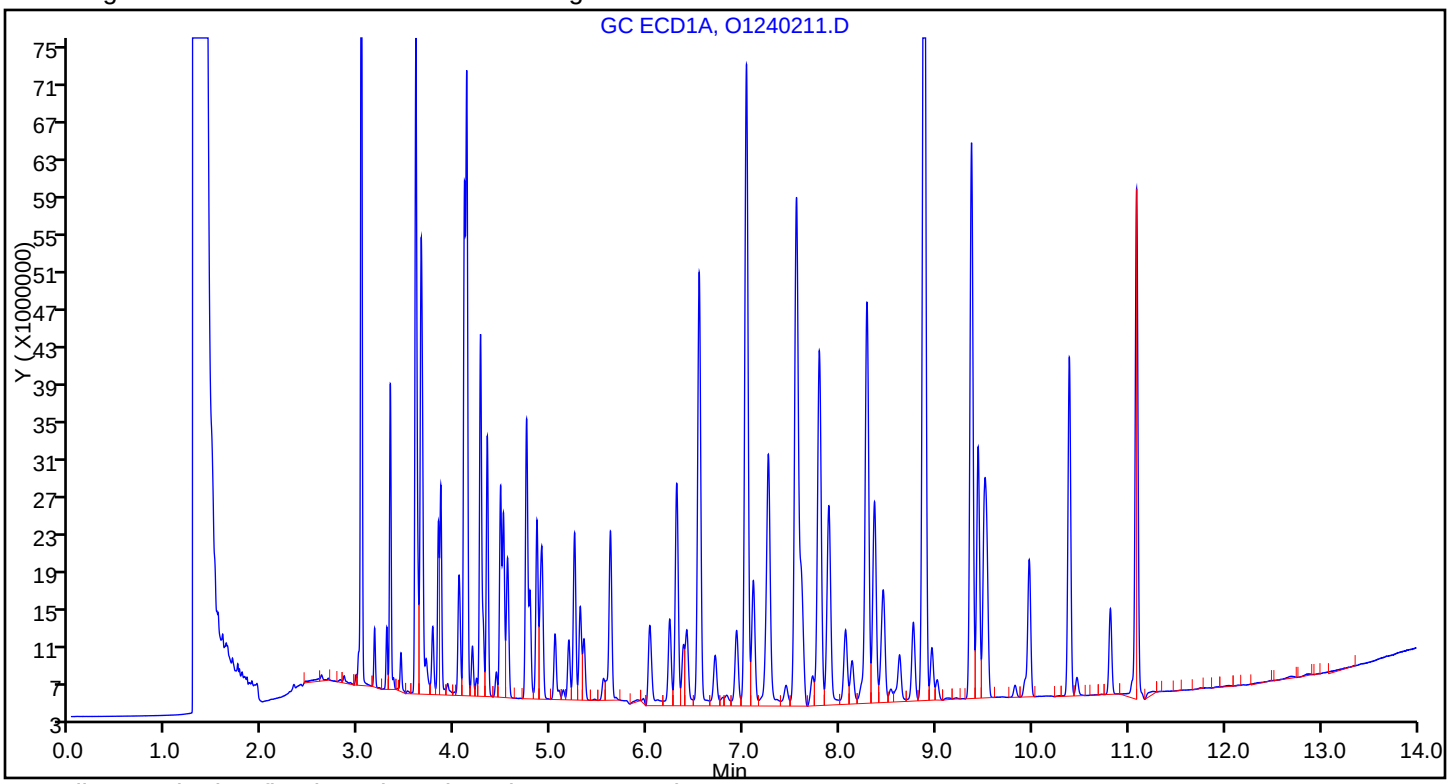
Client ID:

Operator ID: 402331 ALS Bottle#: 12 Worklist Smp#: 12

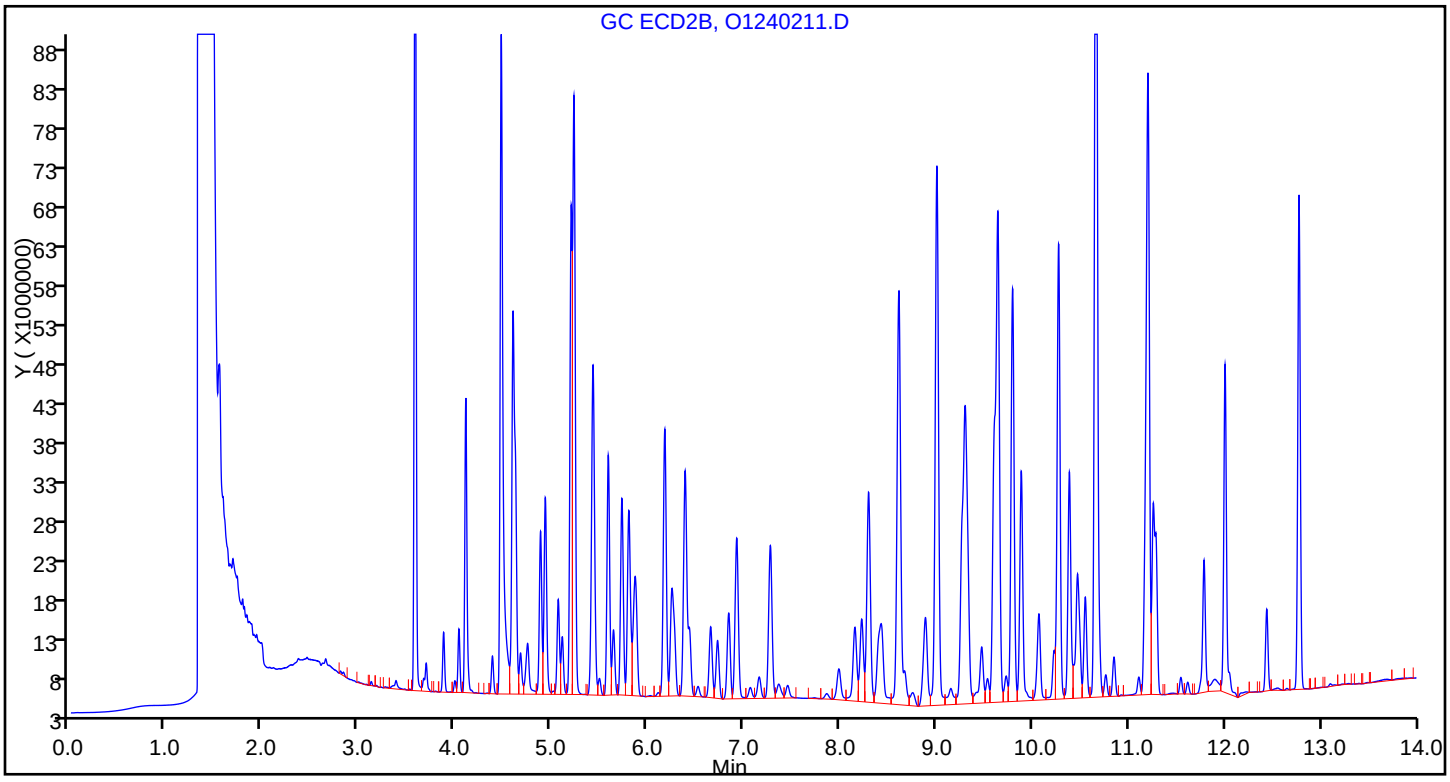
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/12 Calibration Date: 12/13/2014 13:52

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP2 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240211.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	42490306	37284123		0.877	1.00	-12.3	20.0
PCB-1016 Peak 2	Ave	54370872	48510157		0.892	1.00	-10.8	20.0
PCB-1016 Peak 3	Ave	88649422	75803600		0.873	1.00	-14.5	20.0
PCB-1016 Peak 4	Ave	49790988	41789633		0.839	1.00	-16.1	20.0
PCB-1016 Peak 5	Ave	39947411	33812451		0.846	1.00	-15.4	20.0
PCB-1260 Peak 1	Ave	61670489	62171746		1.01	1.00	0.8	20.0
PCB-1260 Peak 2	Ave	52863756	52237566		0.988	1.00	-1.2	20.0
PCB-1260 Peak 3	Ave	56220276	57593512		1.02	1.00	2.4	20.0
PCB-1260 Peak 4	Ave	125562472	136449394		1.09	1.00	8.7	20.0
PCB-1260 Peak 5	Ave	72273067	78680555		1.09	1.00	8.9	20.0
Tetrachloro-m-xylene (Surr)	Ave	2837203259	2572263360		0.0453	0.0500	-9.3	20.0
DCB Decachlorobiphenyl (Surr)	Ave	1240567696	1251597360		0.0504	0.0500	0.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/12 Calibration Date: 12/13/2014 13:52

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP2 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240211.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.11	4.06	4.16
PCB-1016 Peak 2	4.60	4.55	4.65
PCB-1016 Peak 3	5.23	5.18	5.28
PCB-1016 Peak 4	5.43	5.38	5.48
PCB-1016 Peak 5	6.18	6.13	6.23
PCB-1260 Peak 1	9.64	9.59	9.69
PCB-1260 Peak 2	9.79	9.74	9.84
PCB-1260 Peak 3	10.27	10.22	10.32
PCB-1260 Peak 4	10.66	10.61	10.71
PCB-1260 Peak 5	11.20	11.15	11.25
Tetrachloro-m-xylene (Surr)	3.58	3.53	3.63
DCB Decachlorobiphenyl (Surr)	12.77	12.70	12.84

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240211.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-Dec-2014 13:52:20 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-012
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:58 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:44:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.022	3.022	0.000	99198892H	0.0500	0.0451	
2	3.581	3.581	0.000	128613168H	0.0500	0.0453	
						RPD = 0.56	
4 PCB-1016							
1	3.322	3.322	0.000	32527063H	1.00	0.8883	
1	3.645	3.645	0.000	48592112H	1.00	0.9211	
1	4.109	4.109	0.000	55030489H	1.00	0.8776	
1	4.261	4.261	0.000	38512867H	1.00	0.8717	
1	4.740	4.740	0.000	29782162H	1.00	0.8480	
		Average of Peak Amounts =				0.8814	
2	4.107	4.107	0.000	37284123H	1.00	0.8775	
2	4.600	4.600	0.000	48510157H	1.00	0.8922	
2	5.232	5.232	0.000	75803600H	1.00	0.8728	
2	5.431	5.431	0.000	41789633H	1.00	0.8393	
2	6.177	6.177	0.000	33812451H	1.00	0.8464	
		Average of Peak Amounts =				0.8656	
						RPD = 1.80	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.027	7.027	0.000	68245521H	1.00	1.01	
1	7.547	7.547	0.000	54079918H	1.00	1.06	
1	8.280	8.280	0.000	42649821H	1.00	1.08	
1	8.875	8.875	0.000	105076342H	1.00	1.15	
1	9.367	9.367	0.000	59114693H	1.00	1.15	
		Average of Peak Amounts =				1.09	
2	9.641	9.641	0.000	62171746H	1.00	1.01	
2	9.794	9.794	0.000	52237566H	1.00	0.9882	
2	10.272	10.272	0.000	57593512H	1.00	1.02	
2	10.662	10.662	0.000	136449394H	1.00	1.09	
2	11.202	11.202	0.000	78680555H	1.00	1.09	
		Average of Peak Amounts =				1.04	
						RPD = 4.81	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	54324192H	0.0500	0.0527	
2	12.773	12.773	0.000	62579868H	0.0500	0.0504	
						RPD = 4.31	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 15-Dec-2014 11:19:59 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240211.D

Injection Date: 13-Dec-2014 13:52:20 Instrument ID: CHGC8

Lims ID: CCV

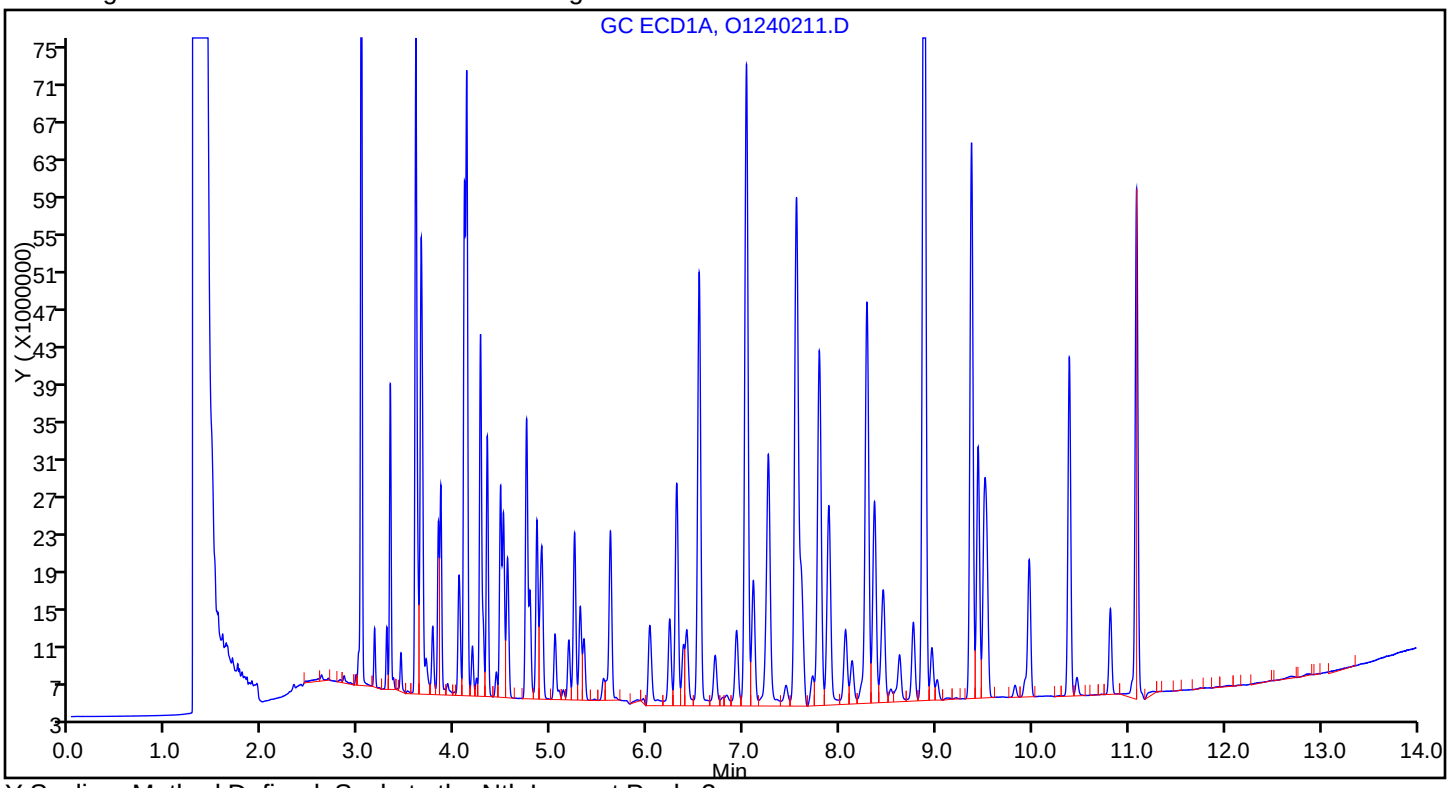
Client ID:

Operator ID: 402331 ALS Bottle#: 12 Worklist Smp#: 12

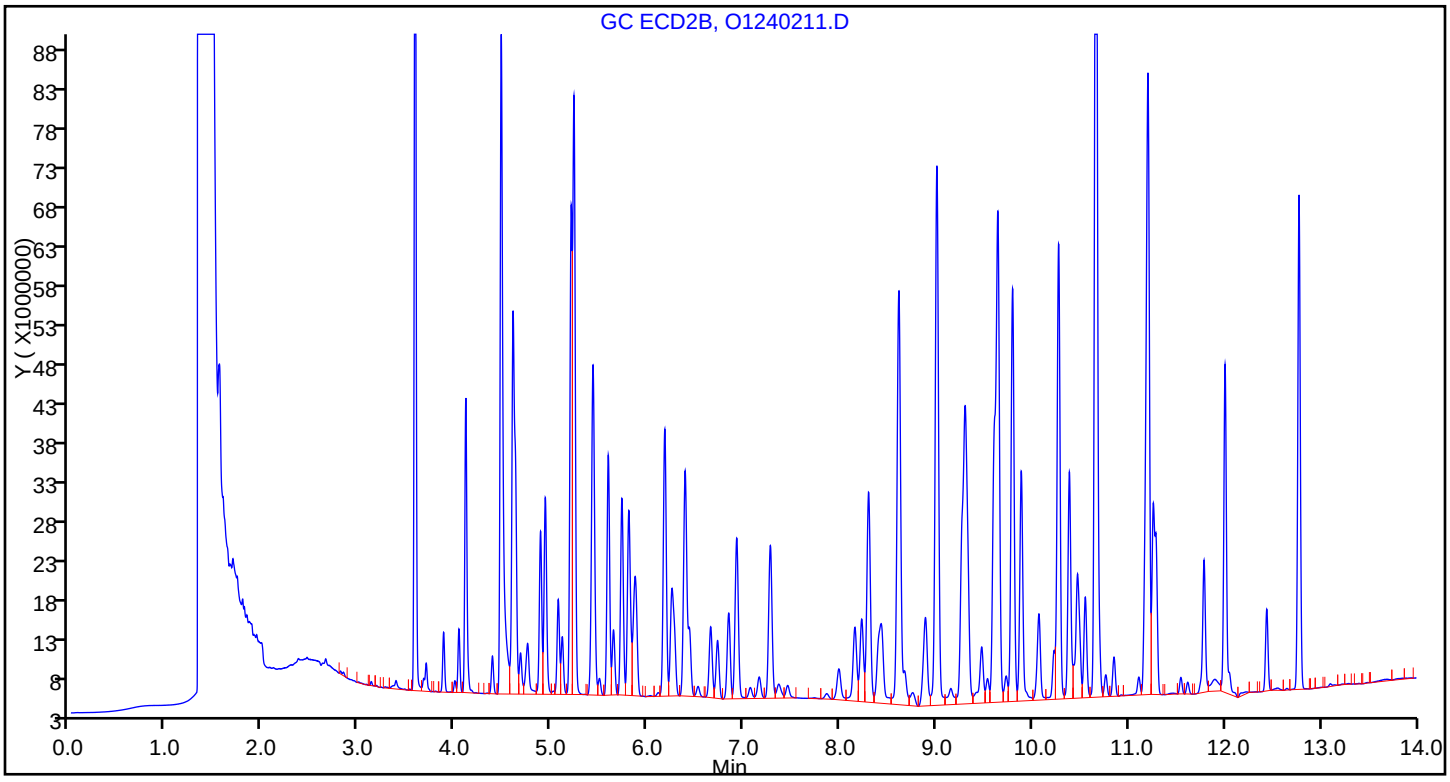
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/33 Calibration Date: 12/13/2014 20:44

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP1 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240232.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	36616897	32034137		0.875	1.00	-12.5	20.0
PCB-1016 Peak 2	Ave	52751795	45280855		0.858	1.00	-14.2	20.0
PCB-1016 Peak 3	Ave	62698669	65740329		1.05	1.00	4.9	20.0
PCB-1016 Peak 4	Ave	44180452	38173723		0.864	1.00	-13.6	20.0
PCB-1016 Peak 5	Ave	35120070	30040913		0.855	1.00	-14.5	20.0
PCB-1260 Peak 1	Ave	67341831	71160219		1.06	1.00	5.7	20.0
PCB-1260 Peak 2	Ave	50946844	57155795		1.12	1.00	12.2	20.0
PCB-1260 Peak 3	Ave	39349818	45798914		1.16	1.00	16.4	20.0
PCB-1260 Peak 4	Ave	91715509	111401942		1.21	1.00	21.5*	20.0
PCB-1260 Peak 5	Ave	51512483	62787044		1.22	1.00	21.9*	20.0
Tetrachloro-m-xylene (Surr)	Ave	2200511327	1953277020		0.0444	0.0500	-11.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	1031505880	1136393060		0.0551	0.0500	10.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/33 Calibration Date: 12/13/2014 20:44

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP1 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240232.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.32	3.27	3.37
PCB-1016 Peak 2	3.64	3.59	3.69
PCB-1016 Peak 3	4.12	4.07	4.17
PCB-1016 Peak 4	4.26	4.21	4.31
PCB-1016 Peak 5	4.74	4.69	4.79
PCB-1260 Peak 1	7.03	6.98	7.08
PCB-1260 Peak 2	7.54	7.49	7.59
PCB-1260 Peak 3	8.28	8.23	8.33
PCB-1260 Peak 4	8.87	8.82	8.92
PCB-1260 Peak 5	9.37	9.32	9.42
Tetrachloro-m-xylene (Surr)	3.02	2.97	3.07
DCB Decachlorobiphenyl (Surr)	11.08	11.01	11.15

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240232.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-Dec-2014 20:44:08 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-033
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.022	3.022	0.000	97663851H	0.0500	0.0444	
2	3.580	3.580	0.000	129831110H	0.0500	0.0458	
						RPD = 3.06	
4 PCB-1016							
1	3.322	3.322	0.000	32034137H	1.00	0.8748	
1	3.643	3.643	0.000	45280855H	1.00	0.8584	
1	4.116	4.116	0.000	65740329H	1.00	1.05	
1	4.259	4.259	0.000	38173723H	1.00	0.8640	
1	4.738	4.738	0.000	30040913H	1.00	0.8554	
		Average of Peak Amounts =				0.9002	
2	4.107	4.107	0.000	36996174H	1.00	0.8707	
2	4.598	4.598	0.000	46065409H	1.00	0.8472	
2	5.231	5.231	0.000	76446288H	1.00	0.8802	
2	5.429	5.429	0.000	42914581H	1.00	0.8619	
2	6.176	6.176	0.000	35046856H	1.00	0.8773	
		Average of Peak Amounts =				0.8675	
						RPD = 3.70	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.025	7.025	0.000	71160219H	1.00	1.06	
1	7.544	7.544	0.000	57155795H	1.00	1.12	
1	8.278	8.278	0.000	45798914H	1.00	1.16	
1	8.874	8.874	0.000	111401942H	1.00	1.21	
1	9.367	9.367	0.000	62787044H	1.00	1.22	
		Average of Peak Amounts =				1.16	
2	9.639	9.639	0.000	68064876H	1.00	1.10	
2	9.793	9.793	0.000	58991262H	1.00	1.12	
2	10.272	10.272	0.000	63788646H	1.00	1.13	
2	10.660	10.660	0.000	150335955H	1.00	1.20	
2	11.201	11.201	0.000	86244887H	1.00	1.19	
		Average of Peak Amounts =				1.15	
						RPD = 0.54	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	56819653H	0.0500	0.0551	
2	12.773	12.773	0.000	65191871H	0.0500	0.0526	
						RPD = 4.71	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 15-Dec-2014 11:19:11 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240232.D

Injection Date: 13-Dec-2014 20:44:08 Instrument ID: CHGC8

Lims ID: CCV

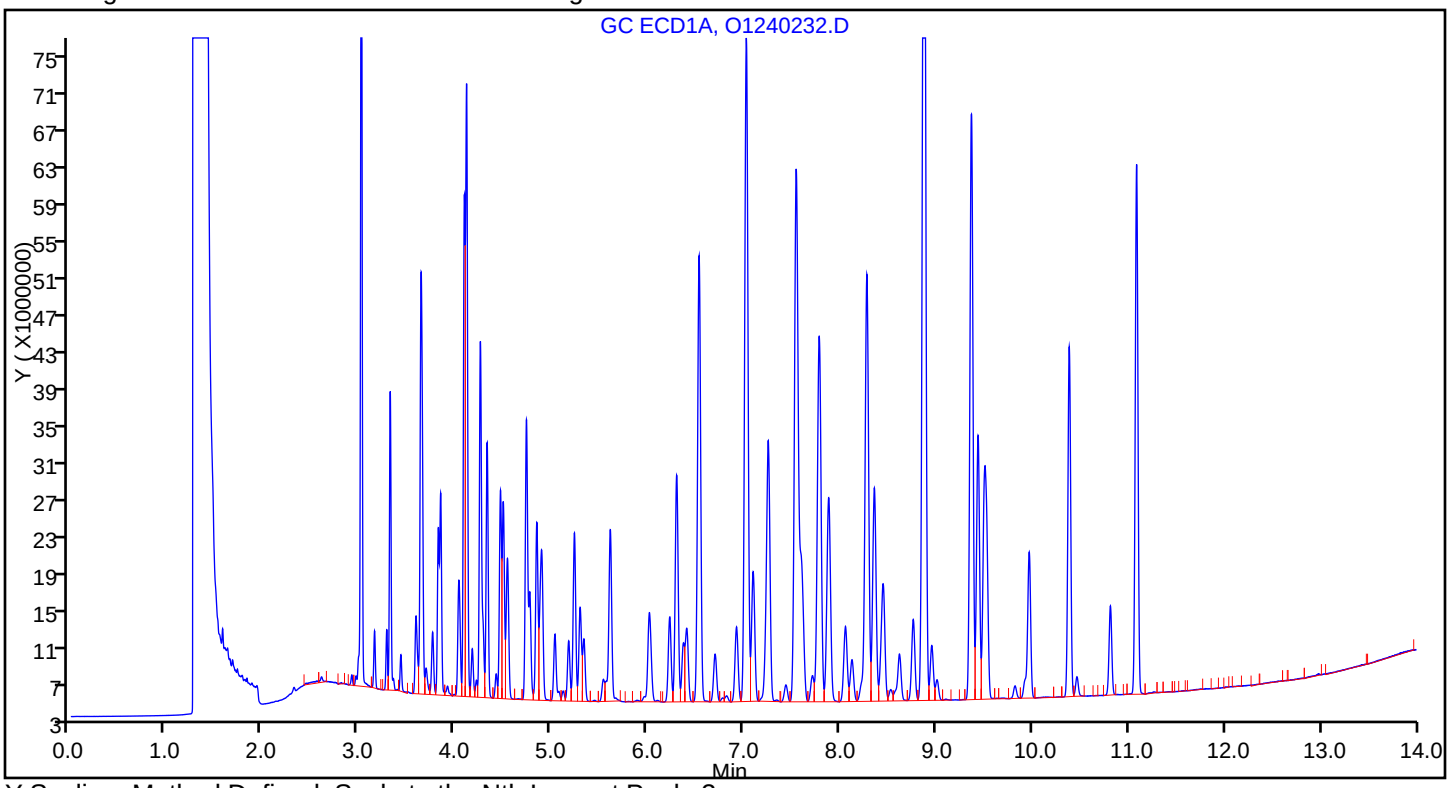
Client ID:

Operator ID: 402331 ALS Bottle#: 33 Worklist Smp#: 33

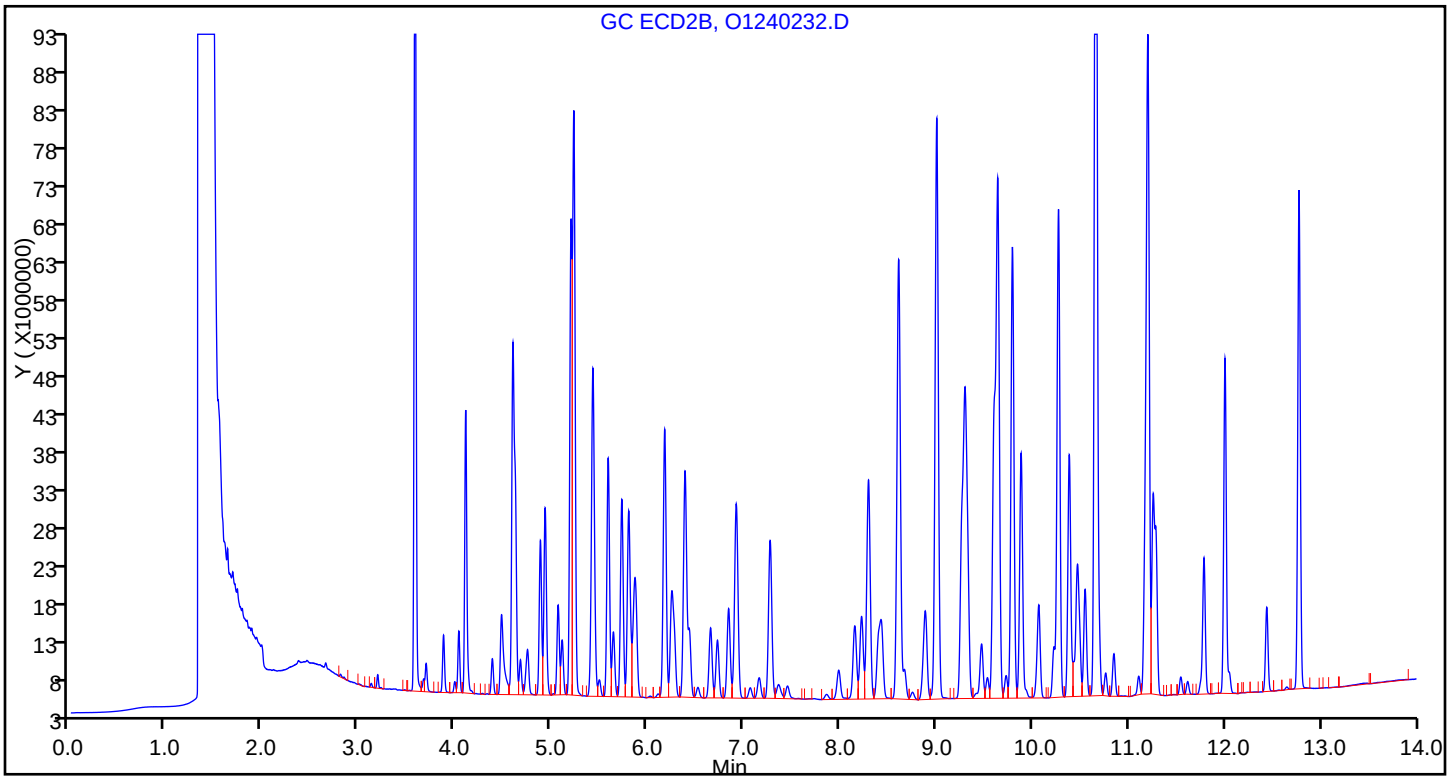
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/33 Calibration Date: 12/13/2014 20:44

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP2 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240232.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	42490306	36996174		0.871	1.00	-12.9	20.0
PCB-1016 Peak 2	Ave	54370872	46065409		0.847	1.00	-15.3	20.0
PCB-1016 Peak 3	Ave	88649422	76446288		0.880	1.00	-13.8	20.0
PCB-1016 Peak 4	Ave	49790988	42914581		0.862	1.00	-13.8	20.0
PCB-1016 Peak 5	Ave	39947411	35046856		0.877	1.00	-12.3	20.0
PCB-1260 Peak 1	Ave	61670489	68064876		1.10	1.00	10.4	20.0
PCB-1260 Peak 2	Ave	52863756	58991262		1.12	1.00	11.6	20.0
PCB-1260 Peak 3	Ave	56220276	63788646		1.13	1.00	13.5	20.0
PCB-1260 Peak 4	Ave	125562472	150335955		1.20	1.00	19.7	20.0
PCB-1260 Peak 5	Ave	72273067	86244887		1.19	1.00	19.3	20.0
Tetrachloro-m-xylene (Surr)	Ave	2837203259	2596622200		0.0458	0.0500	-8.5	20.0
DCB Decachlorobiphenyl (Surr)	Ave	1240567696	1303837420		0.0526	0.0500	5.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: CCV 180-128212/33 Calibration Date: 12/13/2014 20:44

Instrument ID: CHGC8 Calib Start Date: 12/11/2014 12:47

GC Column: RTX-CLP2 ID: 0.53(mm) Calib End Date: 12/11/2014 14:45

Lab File ID: O1240232.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.11	4.06	4.16
PCB-1016 Peak 2	4.60	4.55	4.65
PCB-1016 Peak 3	5.23	5.18	5.28
PCB-1016 Peak 4	5.43	5.38	5.48
PCB-1016 Peak 5	6.18	6.13	6.23
PCB-1260 Peak 1	9.64	9.59	9.69
PCB-1260 Peak 2	9.79	9.74	9.84
PCB-1260 Peak 3	10.27	10.22	10.32
PCB-1260 Peak 4	10.66	10.61	10.71
PCB-1260 Peak 5	11.20	11.15	11.25
Tetrachloro-m-xylene (Surr)	3.58	3.53	3.63
DCB Decachlorobiphenyl (Surr)	12.77	12.70	12.84

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240232.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-Dec-2014 20:44:08 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-033
Operator ID: 402331 Instrument ID: CHGC8
Sublist: chrom-PCB_CHGC8DUAL*sub1

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.022	3.022	0.000	97663851H	0.0500	0.0444	
2	3.580	3.580	0.000	129831110H	0.0500	0.0458	
						RPD = 3.06	
4 PCB-1016							
1	3.322	3.322	0.000	32034137H	1.00	0.8748	
1	3.643	3.643	0.000	45280855H	1.00	0.8584	
1	4.116	4.116	0.000	65740329H	1.00	1.05	
1	4.259	4.259	0.000	38173723H	1.00	0.8640	
1	4.738	4.738	0.000	30040913H	1.00	0.8554	
		Average of Peak Amounts =				0.9002	
2	4.107	4.107	0.000	36996174H	1.00	0.8707	
2	4.598	4.598	0.000	46065409H	1.00	0.8472	
2	5.231	5.231	0.000	76446288H	1.00	0.8802	
2	5.429	5.429	0.000	42914581H	1.00	0.8619	
2	6.176	6.176	0.000	35046856H	1.00	0.8773	
		Average of Peak Amounts =				0.8675	
						RPD = 3.70	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.025	7.025	0.000	71160219H	1.00	1.06	
1	7.544	7.544	0.000	57155795H	1.00	1.12	
1	8.278	8.278	0.000	45798914H	1.00	1.16	
1	8.874	8.874	0.000	111401942H	1.00	1.21	
1	9.367	9.367	0.000	62787044H	1.00	1.22	
		Average of Peak Amounts =				1.16	
2	9.639	9.639	0.000	68064876H	1.00	1.10	
2	9.793	9.793	0.000	58991262H	1.00	1.12	
2	10.272	10.272	0.000	63788646H	1.00	1.13	
2	10.660	10.660	0.000	150335955H	1.00	1.20	
2	11.201	11.201	0.000	86244887H	1.00	1.19	
		Average of Peak Amounts =				1.15	
						RPD = 0.54	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	56819653H	0.0500	0.0551	
2	12.773	12.773	0.000	65191871H	0.0500	0.0526	
						RPD = 4.71	

Reagents:

GCAR1660CALL5_00009 Amount Added: 1.00 Units: mL

Report Date: 15-Dec-2014 11:19:12 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240232.D

Injection Date: 13-Dec-2014 20:44:08 Instrument ID: CHGC8

Lims ID: CCV

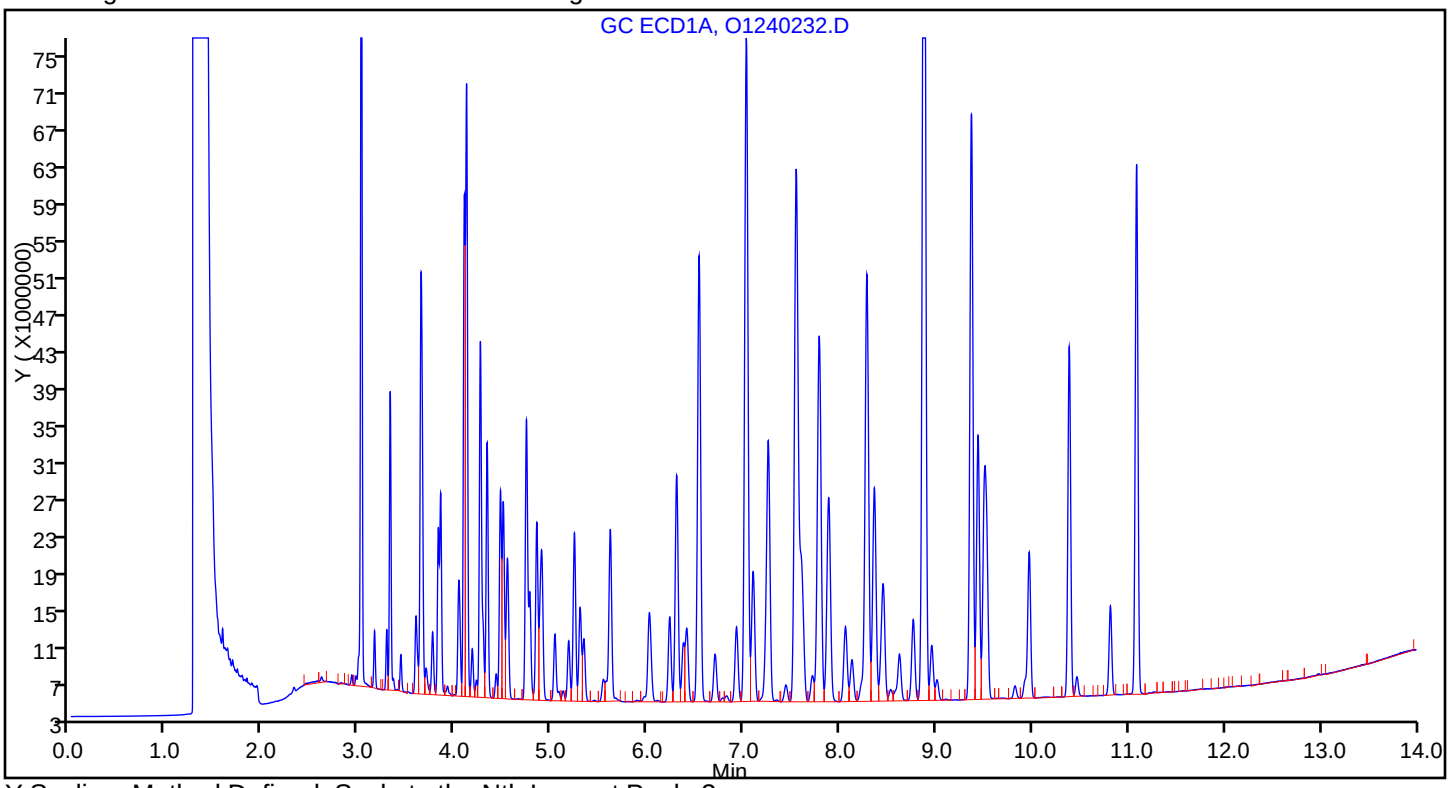
Client ID:

Operator ID: 402331 ALS Bottle#: 33 Worklist Smp#: 33

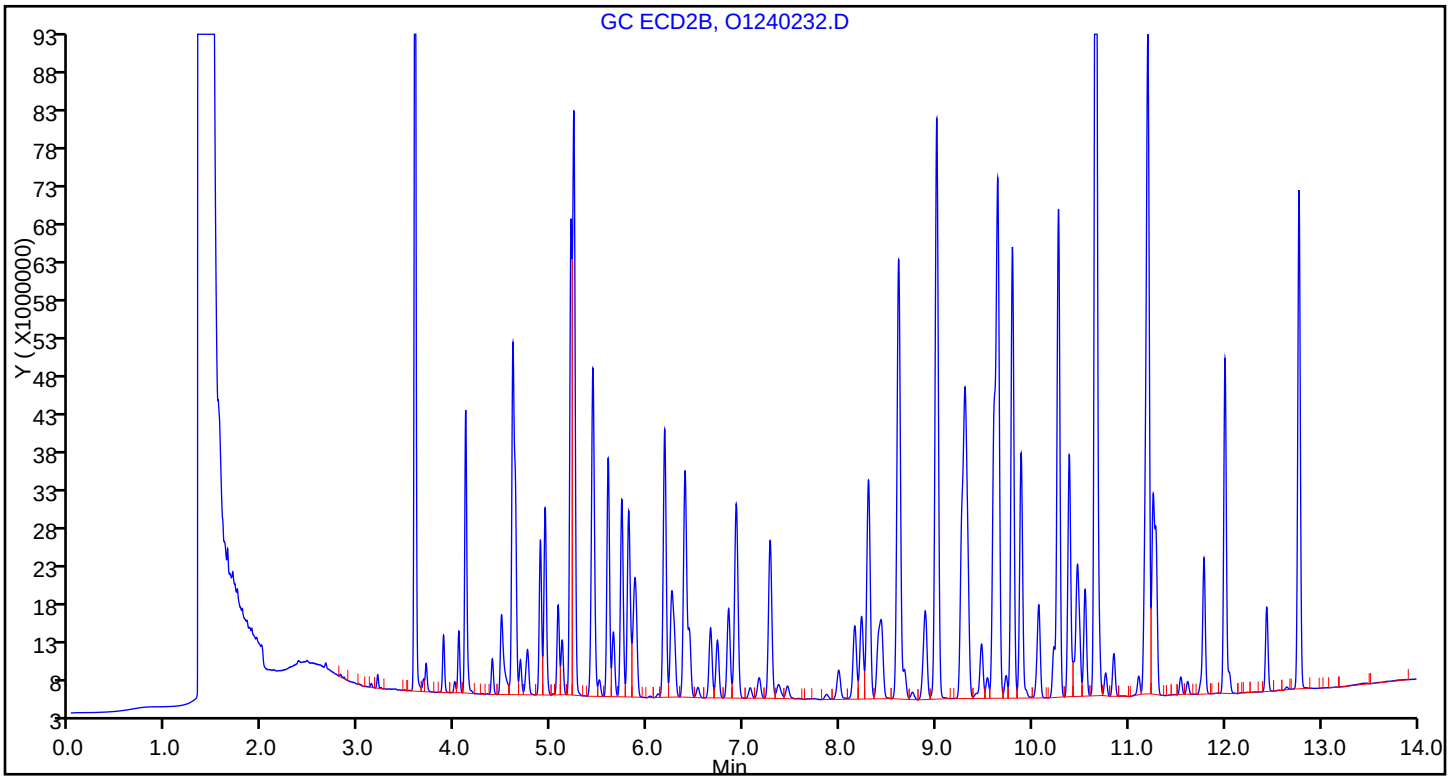
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-127269/1-A

Matrix: Water | Lab File ID: O1240216.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3510C | Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1000(mL) | Date Analyzed: 12/13/2014 15:30

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.010	0.0025
11104-28-2	PCB-1221	ND		0.010	0.0041
11141-16-5	PCB-1232	ND		0.010	0.0039
53469-21-9	PCB-1242	ND		0.010	0.0019
12672-29-6	PCB-1248	ND		0.010	0.0027
11097-69-1	PCB-1254	ND		0.010	0.0030
11096-82-5	PCB-1260	ND		0.010	0.0017

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	109		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	91		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240216.D
Lims ID: MB 180-127269/1-A
Client ID:
Sample Type: MB
Inject. Date: 13-Dec-2014 15:30:21 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-017
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:55:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.021	3.022	-0.001	40148813H	0.0200	0.0182	
2	3.581	3.581	0.000	49790004H	0.0200	0.0175	
						RPD = 3.89	
2 PCB-1221							
1		3.160				ND	
1		3.266					
1		3.356					
2		3.129					
2		3.870					
2		4.108					
5 PCB-1232							
1		3.161				ND	
1		3.356					
1		3.660					
1		4.256					
1		4.533					
2		3.129					
2		4.108					
2		4.614					
2		5.435					
2		6.169					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
4 PCB-1016							
1		3.322				ND	
1		3.645					
1		4.109					
1		4.261					
1		4.740					
2		4.107					
2		4.600					
2		5.232					
2		5.431					
2		6.177					
3 PCB-1242							
1		3.356				ND	
1		4.069					
1		4.744					
1		5.300					
1		5.614					
2		4.108					
2		5.221					
2		6.169					
2		6.927					
2		7.363					
6 PCB-1248							
1		3.660				ND	
1		4.069					
1		4.744					
1		5.614					
1		6.231					
2		4.614					
2		5.221					
2		6.169					
2		6.927					
2		7.363					
7 PCB-1254							
1		5.245				ND	
1		5.614					
1		6.231					
1		6.699					
1		7.553					
2		6.927					
2		7.289					
2		8.231					
2		8.672					
2		9.643					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1		7.027				ND	
1		7.547					
1		8.280					
1		8.875					
1		9.367					
2		9.641					
2		9.794					
2		10.272					
2		10.662					
2		11.202					
9 PCB-1262							
1		7.032				ND	
1		7.791					
1		8.287					
1		8.880					
1		10.391					
2		9.797					
2		10.275					
2		10.663					
2		11.198					
2		12.007					
10 PCB-1268							
1		9.443				ND	
1		9.826					
1		10.391					
1		10.819					
2		11.194					
2		11.618					
2		12.006					
2		12.441					
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	22515942H	0.0200	0.0218	
2	12.773	12.773	0.000	26539021H	0.0200	0.0214	
						RPD = 2.02	

Report Date: 15-Dec-2014 11:19:45 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240216.D

Injection Date: 13-Dec-2014 15:30:21 Instrument ID: CHGC8

Lims ID: MB 180-127269/1-A

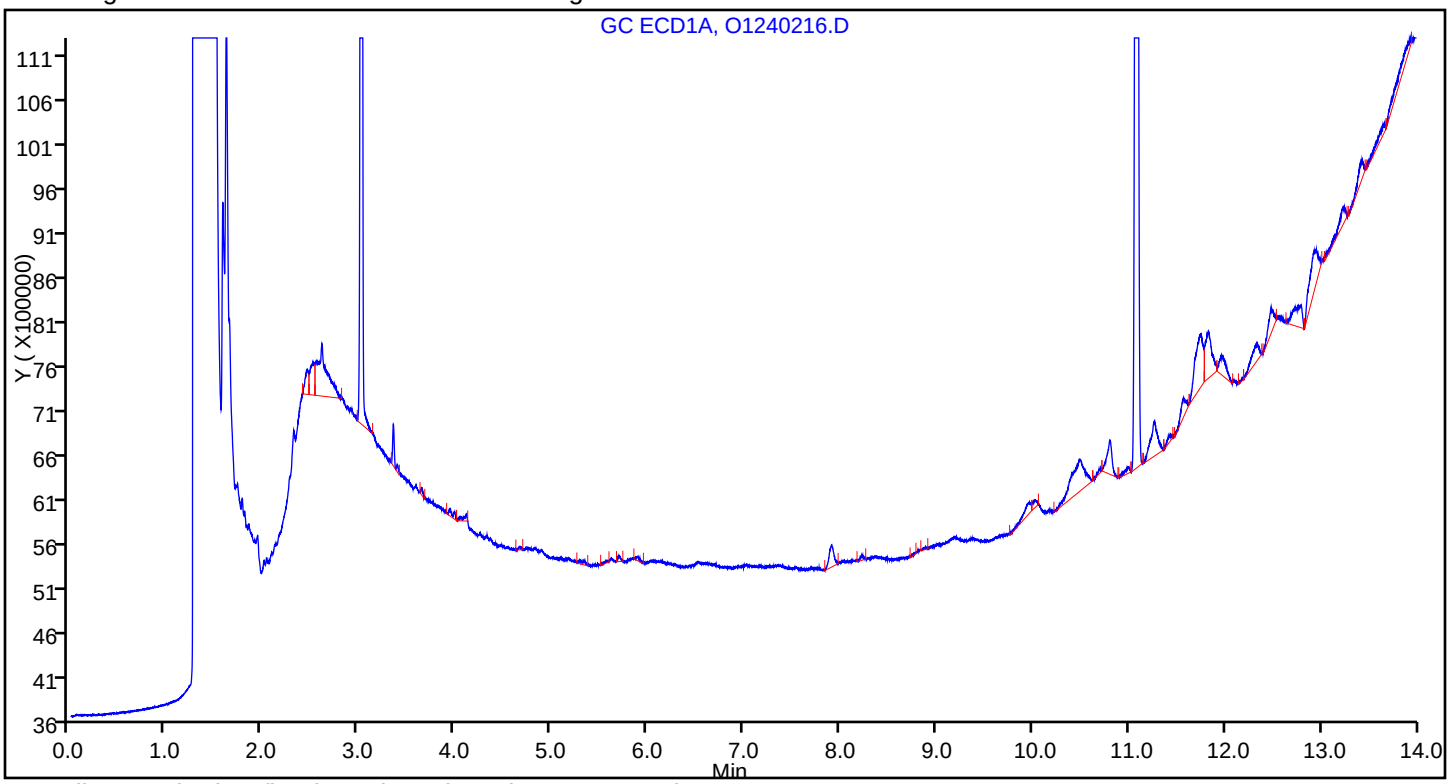
Client ID:

Operator ID: 402331 ALS Bottle#: 17 Worklist Smp#: 17

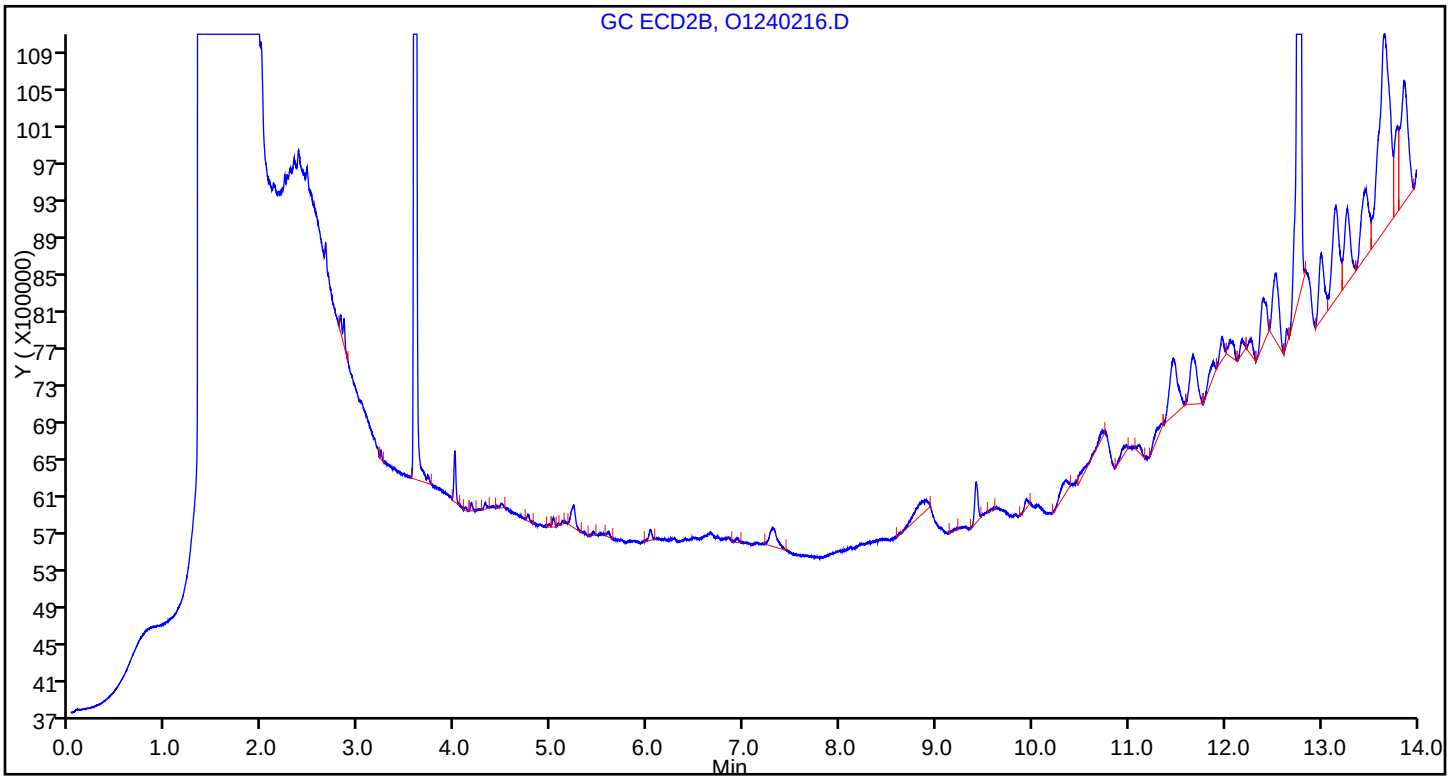
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-127269/1-A

Matrix: Water Lab File ID: O1240216.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1000(mL) Date Analyzed: 12/13/2014 15:30

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	107		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	88		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240216.D
Lims ID: MB 180-127269/1-A
Client ID:
Sample Type: MB
Inject. Date: 13-Dec-2014 15:30:21 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-017
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

First Level Reviewer: oravecj Date: 15-Dec-2014 10:55:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.021	3.022	-0.001	40148813H	0.0200	0.0182	
2	3.581	3.581	0.000	49790004H	0.0200	0.0175	
						RPD = 3.89	
2 PCB-1221							
1		3.160				ND	
1		3.266					
1		3.356					
2		3.129					
2		3.870					
2		4.108					
5 PCB-1232							
1		3.161				ND	
1		3.356					
1		3.660					
1		4.256					
1		4.533					
2		3.129					
2		4.108					
2		4.614					
2		5.435					
2		6.169					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
4 PCB-1016							
1		3.322				ND	
1		3.645					
1		4.109					
1		4.261					
1		4.740					
2		4.107					
2		4.600					
2		5.232					
2		5.431					
2		6.177					
3 PCB-1242							
1		3.356				ND	
1		4.069					
1		4.744					
1		5.300					
1		5.614					
2		4.108					
2		5.221					
2		6.169					
2		6.927					
2		7.363					
6 PCB-1248							
1		3.660				ND	
1		4.069					
1		4.744					
1		5.614					
1		6.231					
2		4.614					
2		5.221					
2		6.169					
2		6.927					
2		7.363					
7 PCB-1254							
1		5.245				ND	
1		5.614					
1		6.231					
1		6.699					
1		7.553					
2		6.927					
2		7.289					
2		8.231					
2		8.672					
2		9.643					

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1		7.027				ND	
1		7.547					
1		8.280					
1		8.875					
1		9.367					
2		9.641					
2		9.794					
2		10.272					
2		10.662					
2		11.202					
9 PCB-1262							
1		7.032				ND	
1		7.791					
1		8.287					
1		8.880					
1		10.391					
2		9.797					
2		10.275					
2		10.663					
2		11.198					
2		12.007					
10 PCB-1268							
1		9.443				ND	
1		9.826					
1		10.391					
1		10.819					
2		11.194					
2		11.618					
2		12.006					
2		12.441					
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	22515942H	0.0200	0.0218	
2	12.773	12.773	0.000	26539021H	0.0200	0.0214	
						RPD = 2.02	

Report Date: 15-Dec-2014 11:19:45 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240216.D

Injection Date: 13-Dec-2014 15:30:21 Instrument ID: CHGC8

Lims ID: MB 180-127269/1-A

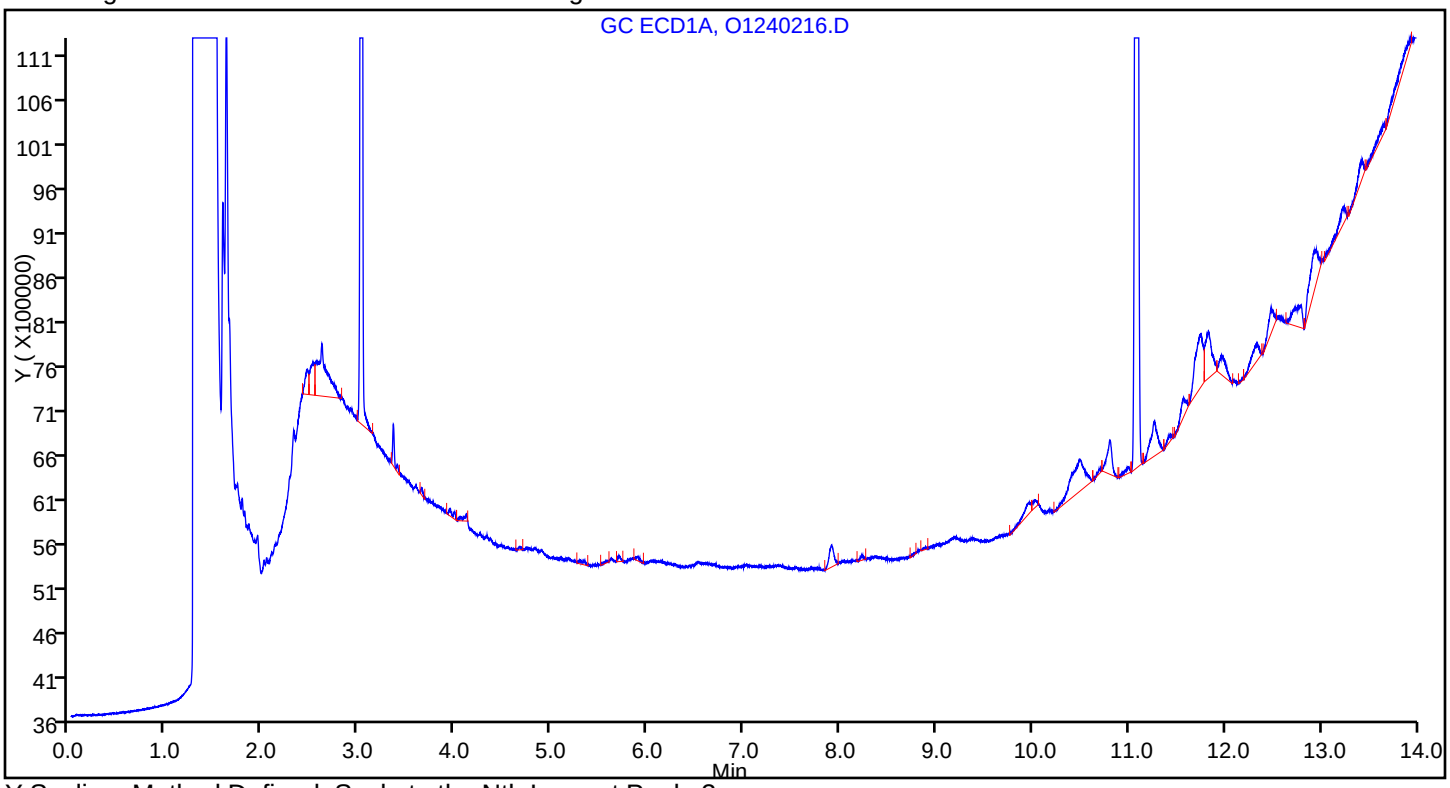
Client ID:

Operator ID: 402331 ALS Bottle#: 17 Worklist Smp#: 17

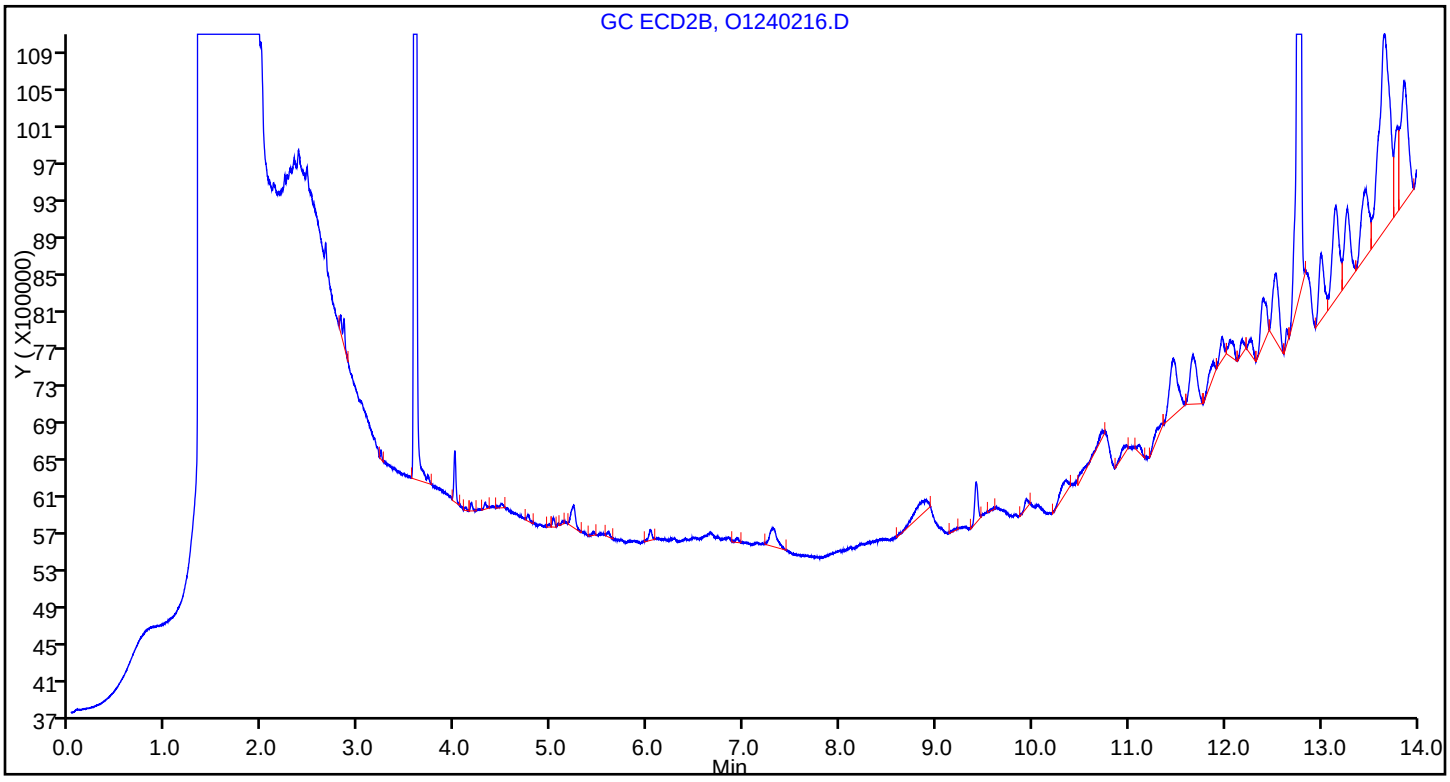
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-127269/3-A

Matrix: Water Lab File ID: O1240222.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1000(mL) Date Analyzed: 12/13/2014 17:28

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	99		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	88		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D
Lims ID: LCS 180-127269/3-A
Client ID:
Sample Type: LCS
Inject. Date: 13-Dec-2014 17:28:04 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-023
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.021	3.022	-0.001	38898969H	0.0200	0.0177	
2	3.581	3.581	0.000	52927305H	0.0200	0.0187	
						RPD = 5.38	
4 PCB-1016							
1	3.324	3.322	0.002	31221253H	1.00	0.8526	
1	3.645	3.645	0.000	43796432H	1.00	0.8302	
1	4.116	4.109	0.007	65752214H	1.00	1.05	
1	4.261	4.261	0.000	38115762H	1.00	0.8627	
1	4.740	4.740	0.000	30351227H	1.00	0.8642	
		Average of Peak Amounts =				0.8917	
2	4.108	4.107	0.001	36067607H	1.00	0.8488	
2	4.600	4.600	0.000	45859506H	1.00	0.8435	
2	5.233	5.232	0.001	76434943H	1.00	0.8801	
2	5.431	5.431	0.000	42674057H	1.00	0.8571	
2	6.178	6.177	0.001	34780346H	1.00	0.8707	
		Average of Peak Amounts =				0.8600	
						RPD = 3.61	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.028	7.027	0.001	72054651H	1.00	1.07	
1	7.547	7.547	0.000	57516256H	1.00	1.13	
1	8.280	8.280	0.000	46173684H	1.00	1.17	
1	8.876	8.875	0.001	114193895H	1.00	1.25	
1	9.367	9.367	0.000	64334627H	1.00	1.25	
		Average of Peak Amounts =				1.17	
2	9.640	9.641	-0.001	67309997H	1.00	1.09	
2	9.793	9.794	-0.001	56873681H	1.00	1.08	
2	10.273	10.272	0.001	63007828H	1.00	1.12	
2	10.661	10.662	-0.001	147040232H	1.00	1.17	
2	11.201	11.202	-0.001	84865036H	1.00	1.17	
		Average of Peak Amounts =				1.13	
						RPD = 4.05	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.085	11.084	0.001	20413806H	0.0200	0.0198	
2	12.773	12.773	0.000	27131335H	0.0200	0.0219	
						RPD = 9.98	

Report Date: 15-Dec-2014 11:19:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D

Injection Date: 13-Dec-2014 17:28:04 Instrument ID: CHGC8

Lims ID: LCS 180-127269/3-A

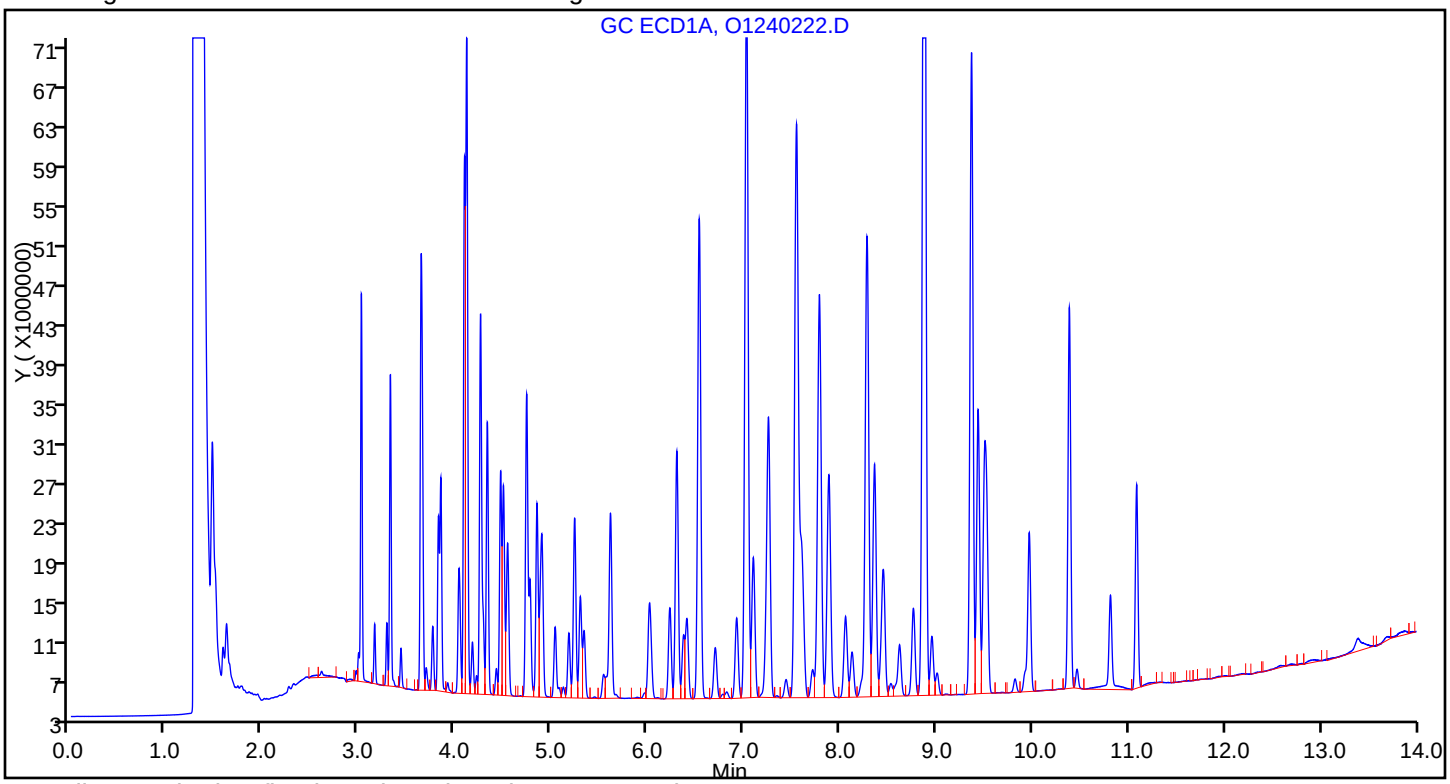
Client ID:

Operator ID: 402331 ALS Bottle#: 23 Worklist Smp#: 23

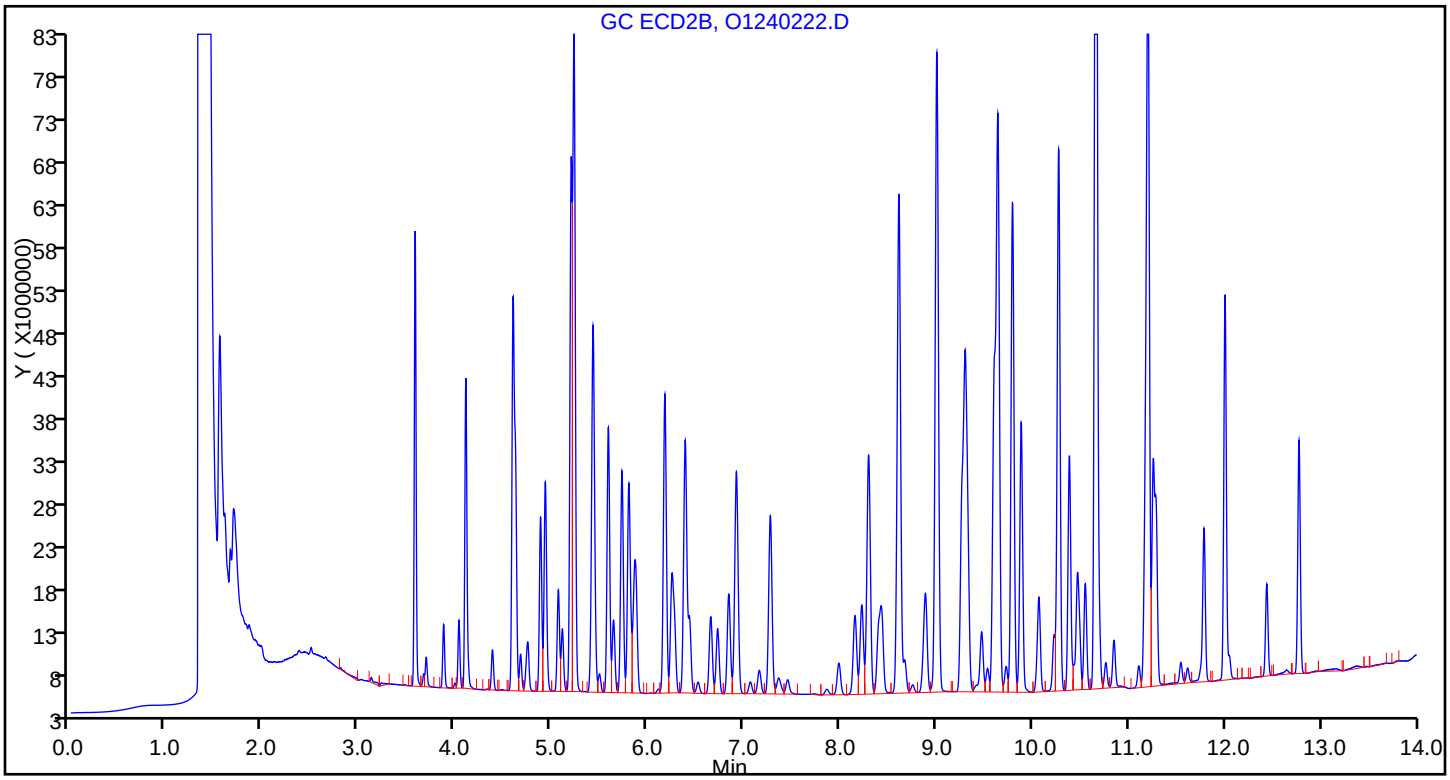
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Report Date: 15-Dec-2014 11:19:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D

Injection Date: 13-Dec-2014 17:28:04 Instrument ID: CHGC8

Lims ID: LCS 180-127269/3-A

Client ID:

Operator ID: 402331 ALS Bottle#: 23 Worklist Smp#: 23

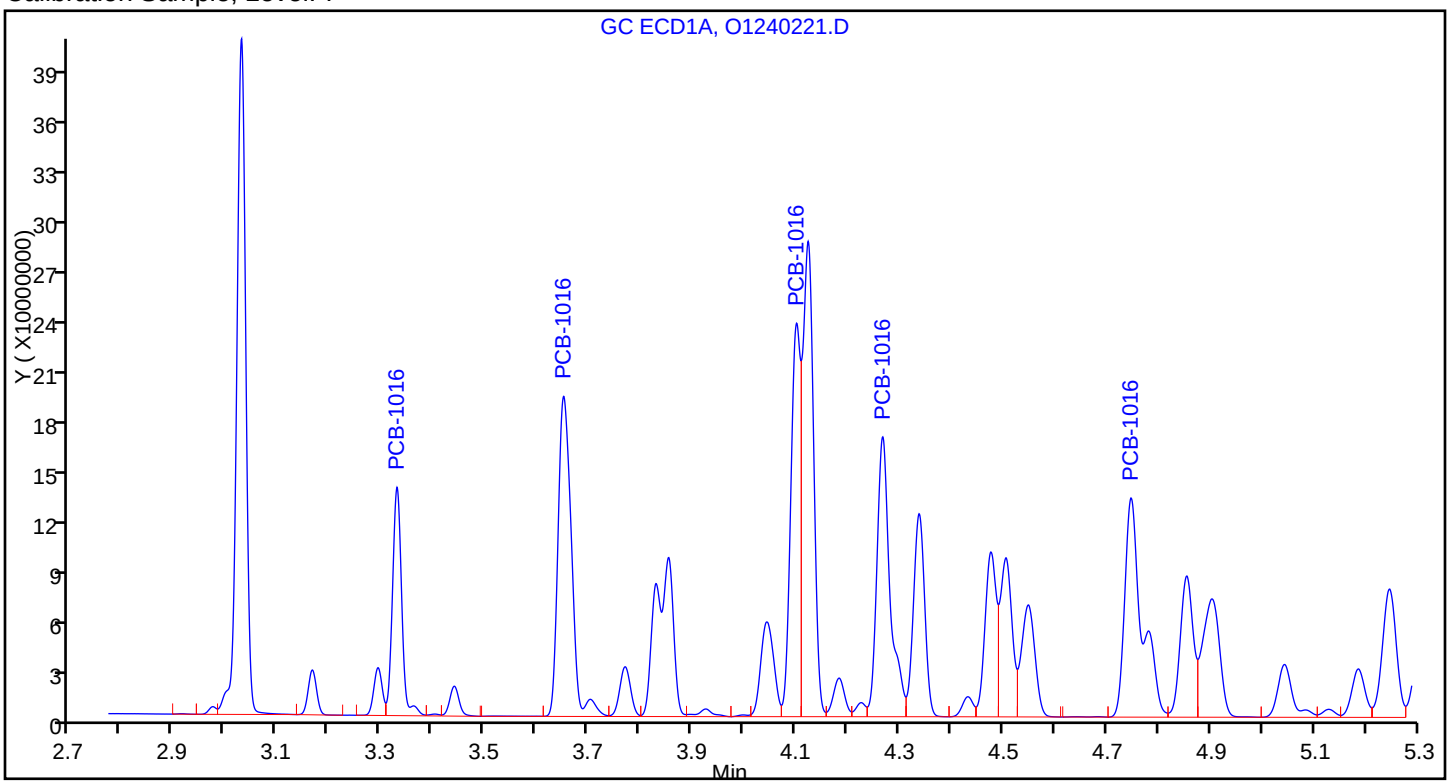
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

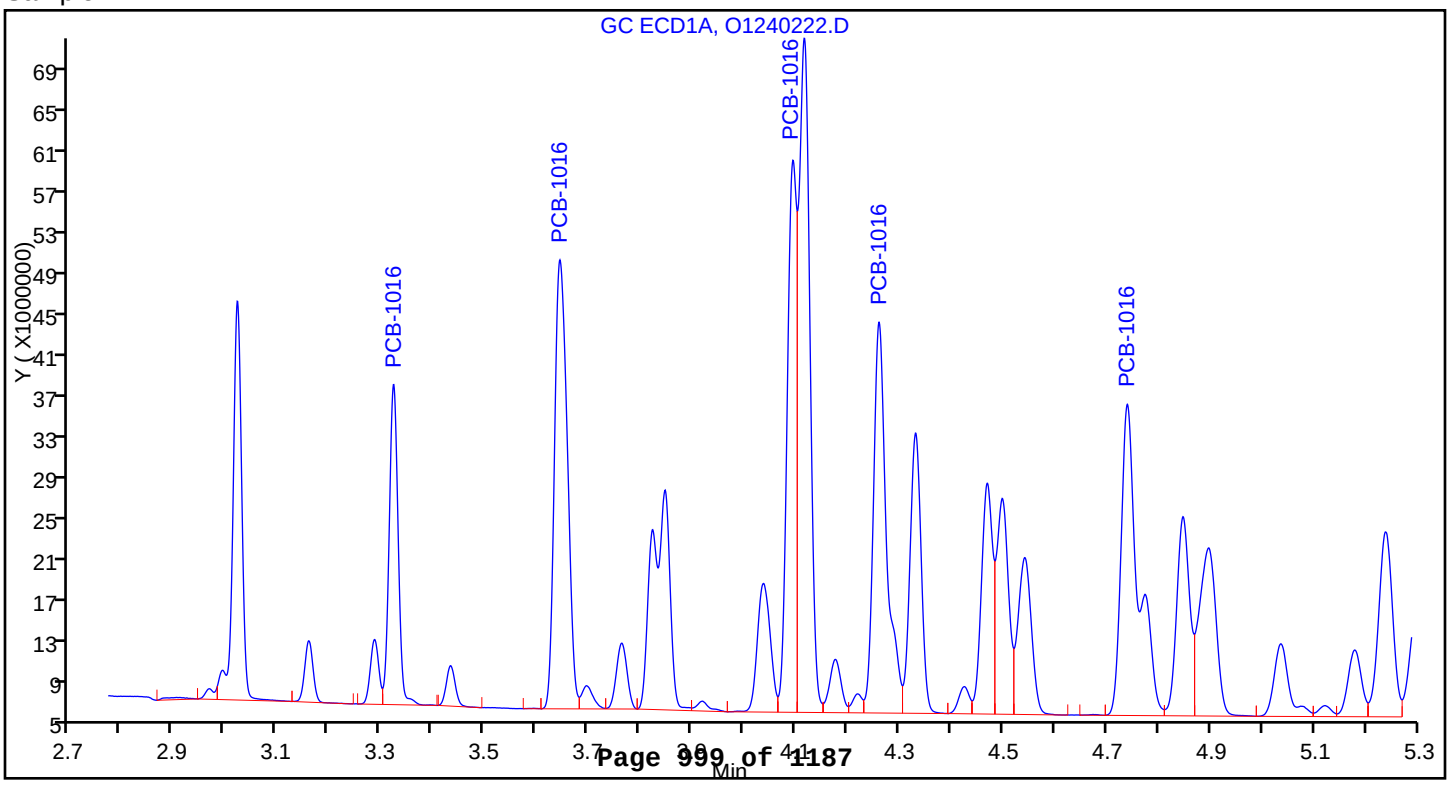
Column: Detector GC ECD1A

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 15-Dec-2014 11:19:34 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D

Injection Date: 13-Dec-2014 17:28:04 Instrument ID: CHGC8

Lims ID: LCS 180-127269/3-A

Client ID:

Operator ID: 402331 ALS Bottle#: 23 Worklist Smp#: 23

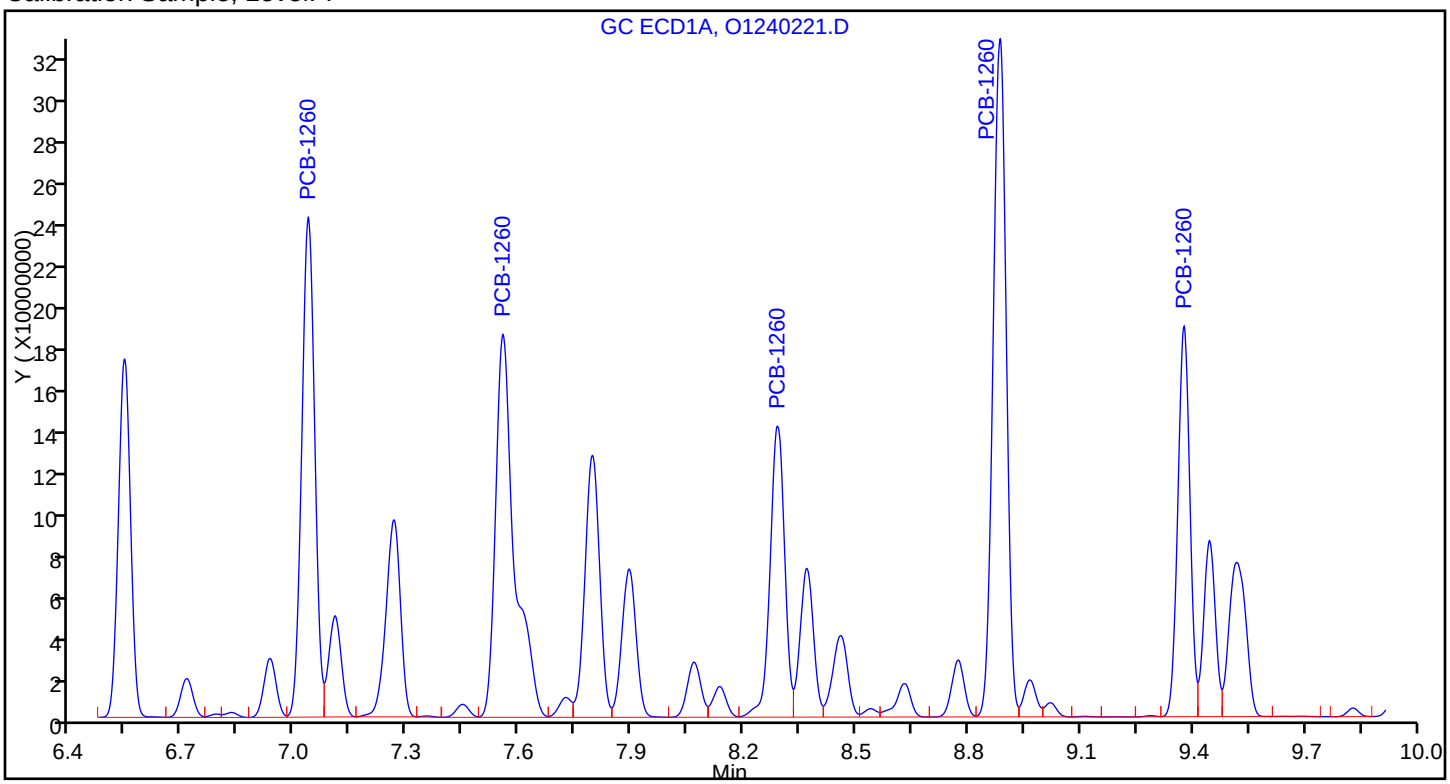
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

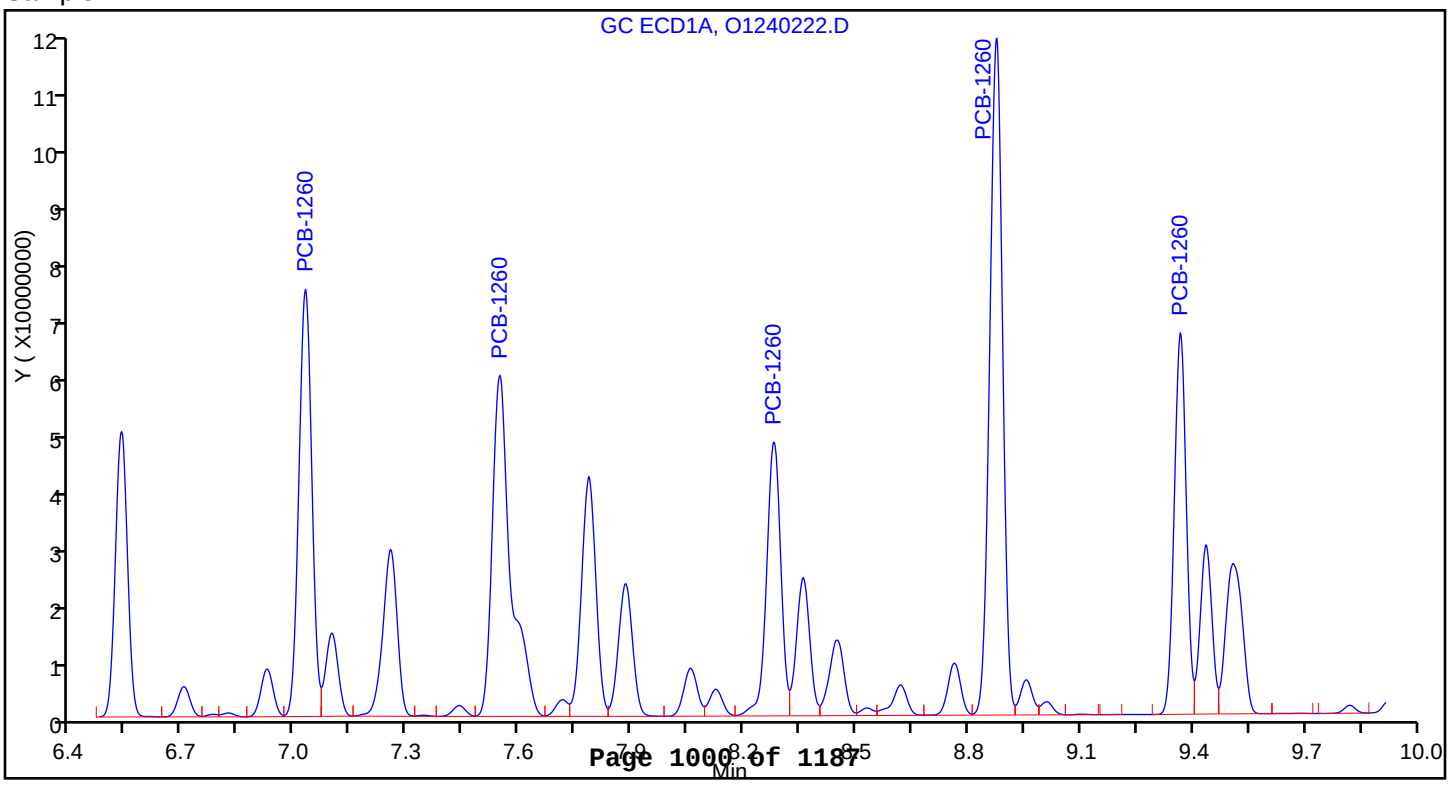
Column: Detector GC ECD1A

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-127269/3-A

Matrix: Water Lab File ID: O1240222.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1000(mL) Date Analyzed: 12/13/2014 17:28

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	0.860		0.010	0.0025
11096-82-5	PCB-1260	1.13		0.010	0.0017

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	109		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	93		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D
Lims ID: LCS 180-127269/3-A
Client ID:
Sample Type: LCS
Inject. Date: 13-Dec-2014 17:28:04 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-023
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.021	3.022	-0.001	38898969H	0.0200	0.0177	
2	3.581	3.581	0.000	52927305H	0.0200	0.0187	
						RPD = 5.38	
4 PCB-1016							
1	3.324	3.322	0.002	31221253H	1.00	0.8526	
1	3.645	3.645	0.000	43796432H	1.00	0.8302	
1	4.116	4.109	0.007	65752214H	1.00	1.05	
1	4.261	4.261	0.000	38115762H	1.00	0.8627	
1	4.740	4.740	0.000	30351227H	1.00	0.8642	
		Average of Peak Amounts =				0.8917	
2	4.108	4.107	0.001	36067607H	1.00	0.8488	
2	4.600	4.600	0.000	45859506H	1.00	0.8435	
2	5.233	5.232	0.001	76434943H	1.00	0.8801	
2	5.431	5.431	0.000	42674057H	1.00	0.8571	
2	6.178	6.177	0.001	34780346H	1.00	0.8707	
		Average of Peak Amounts =				0.8600	
						RPD = 3.61	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.028	7.027	0.001	72054651H	1.00	1.07	
1	7.547	7.547	0.000	57516256H	1.00	1.13	
1	8.280	8.280	0.000	46173684H	1.00	1.17	
1	8.876	8.875	0.001	114193895H	1.00	1.25	
1	9.367	9.367	0.000	64334627H	1.00	1.25	
		Average of Peak Amounts =				1.17	
2	9.640	9.641	-0.001	67309997H	1.00	1.09	
2	9.793	9.794	-0.001	56873681H	1.00	1.08	
2	10.273	10.272	0.001	63007828H	1.00	1.12	
2	10.661	10.662	-0.001	147040232H	1.00	1.17	
2	11.201	11.202	-0.001	84865036H	1.00	1.17	
		Average of Peak Amounts =				1.13	
						RPD = 4.05	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.085	11.084	0.001	20413806H	0.0200	0.0198	
2	12.773	12.773	0.000	27131335H	0.0200	0.0219	
						RPD = 9.98	

Report Date: 15-Dec-2014 11:19:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D

Injection Date: 13-Dec-2014 17:28:04 Instrument ID: CHGC8

Lims ID: LCS 180-127269/3-A

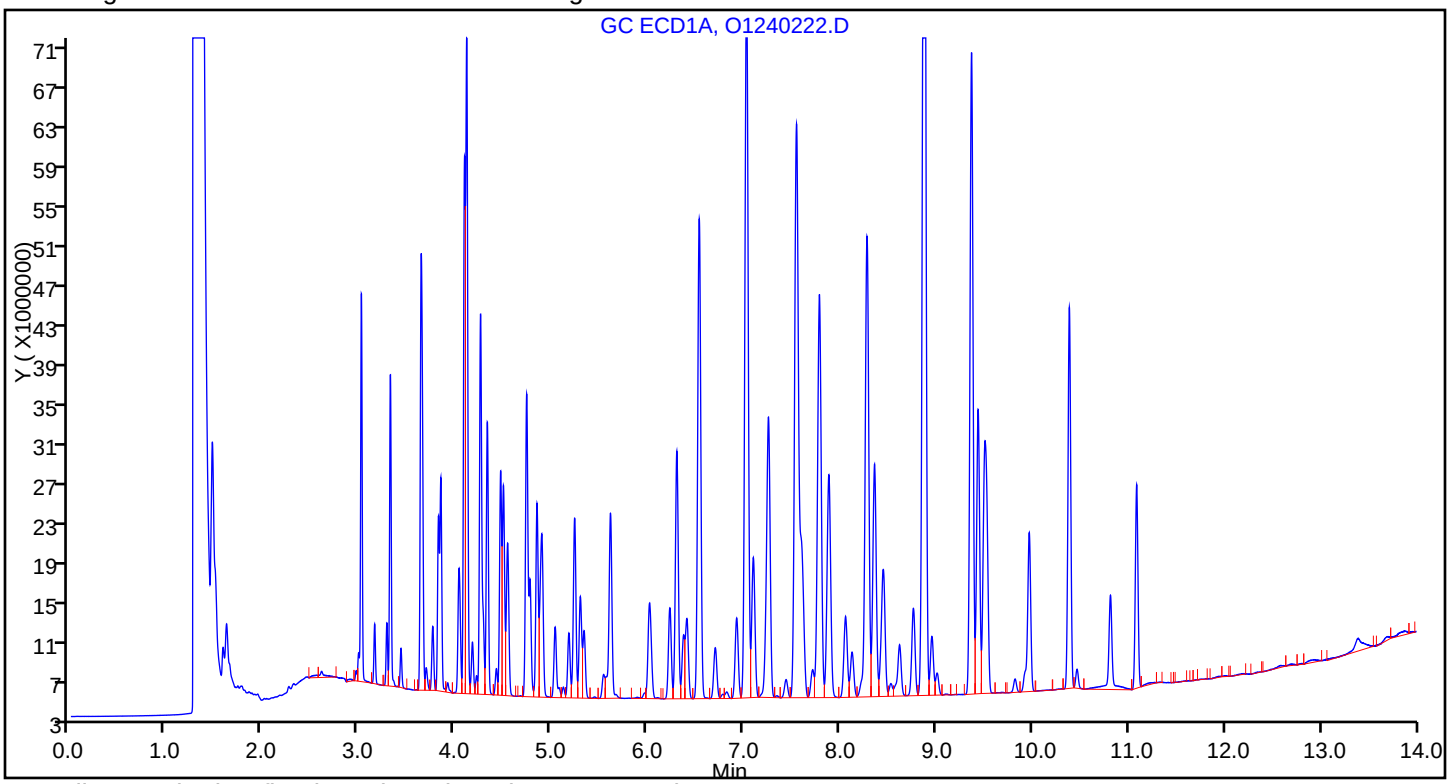
Client ID:

Operator ID: 402331 ALS Bottle#: 23 Worklist Smp#: 23

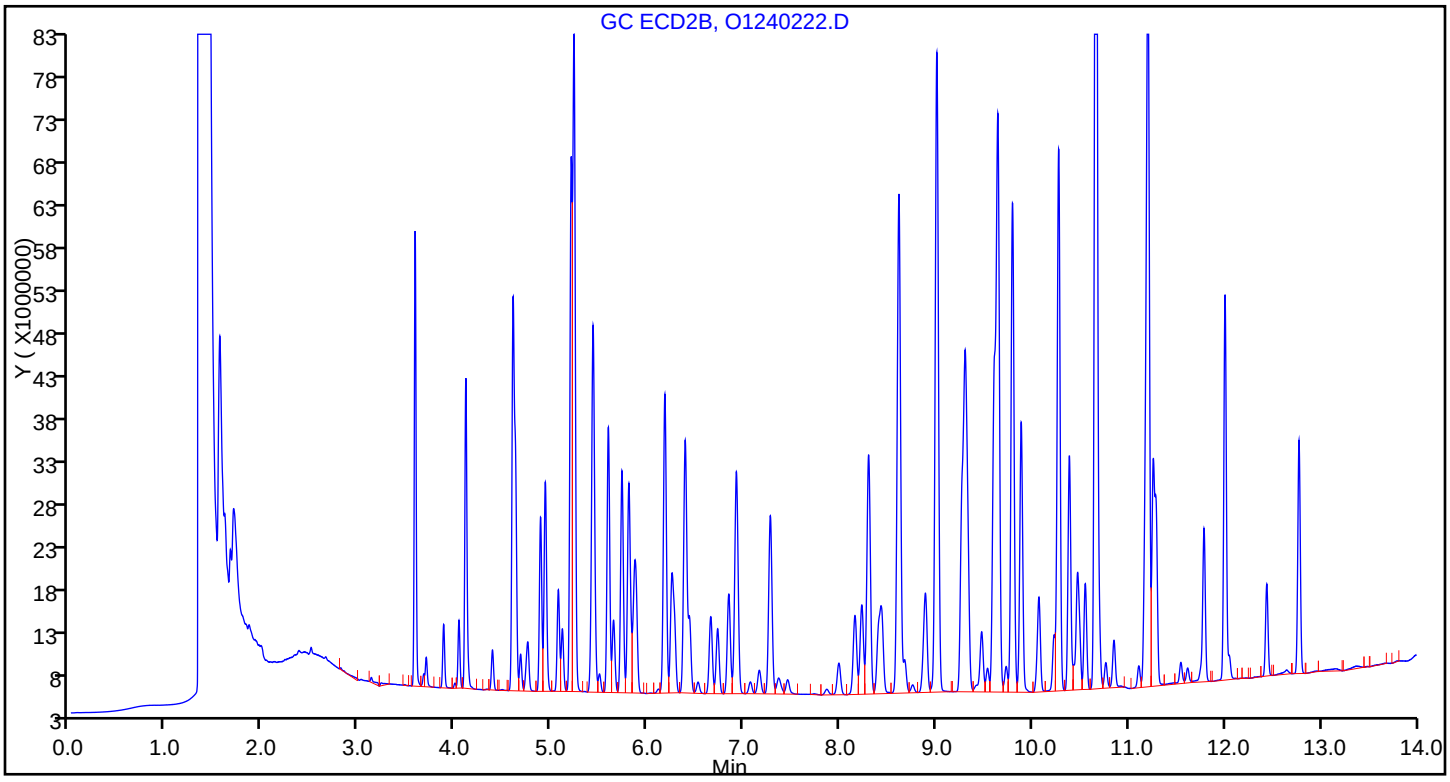
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Report Date: 15-Dec-2014 11:19:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D

Injection Date: 13-Dec-2014 17:28:04 Instrument ID: CHGC8

Lims ID: LCS 180-127269/3-A

Client ID:

Operator ID: 402331 ALS Bottle#: 23 Worklist Smp#: 23

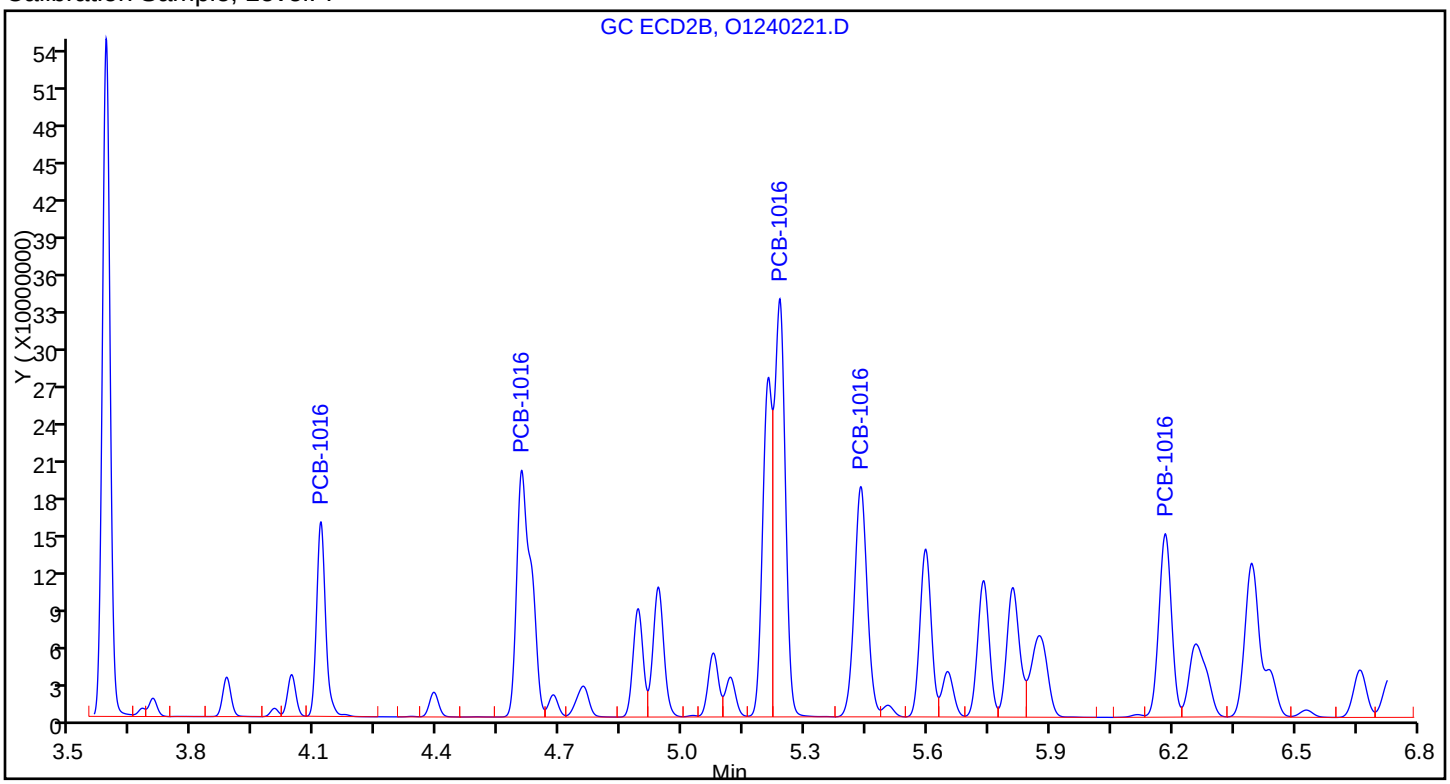
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

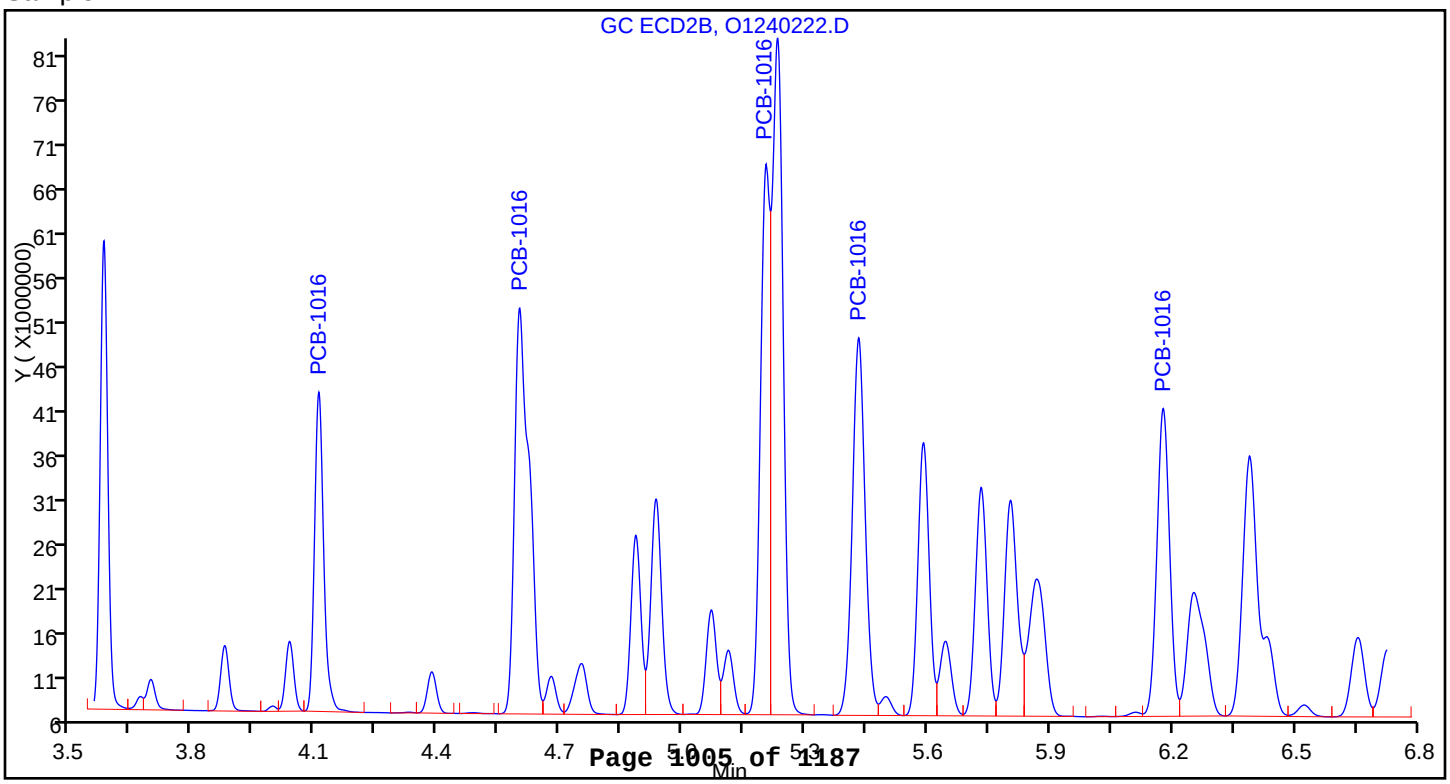
Column: Detector GC ECD2B

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 15-Dec-2014 11:19:35 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240222.D

Injection Date: 13-Dec-2014 17:28:04 Instrument ID: CHGC8

Lims ID: LCS 180-127269/3-A

Client ID:

Operator ID: 402331 ALS Bottle#: 23 Worklist Smp#: 23

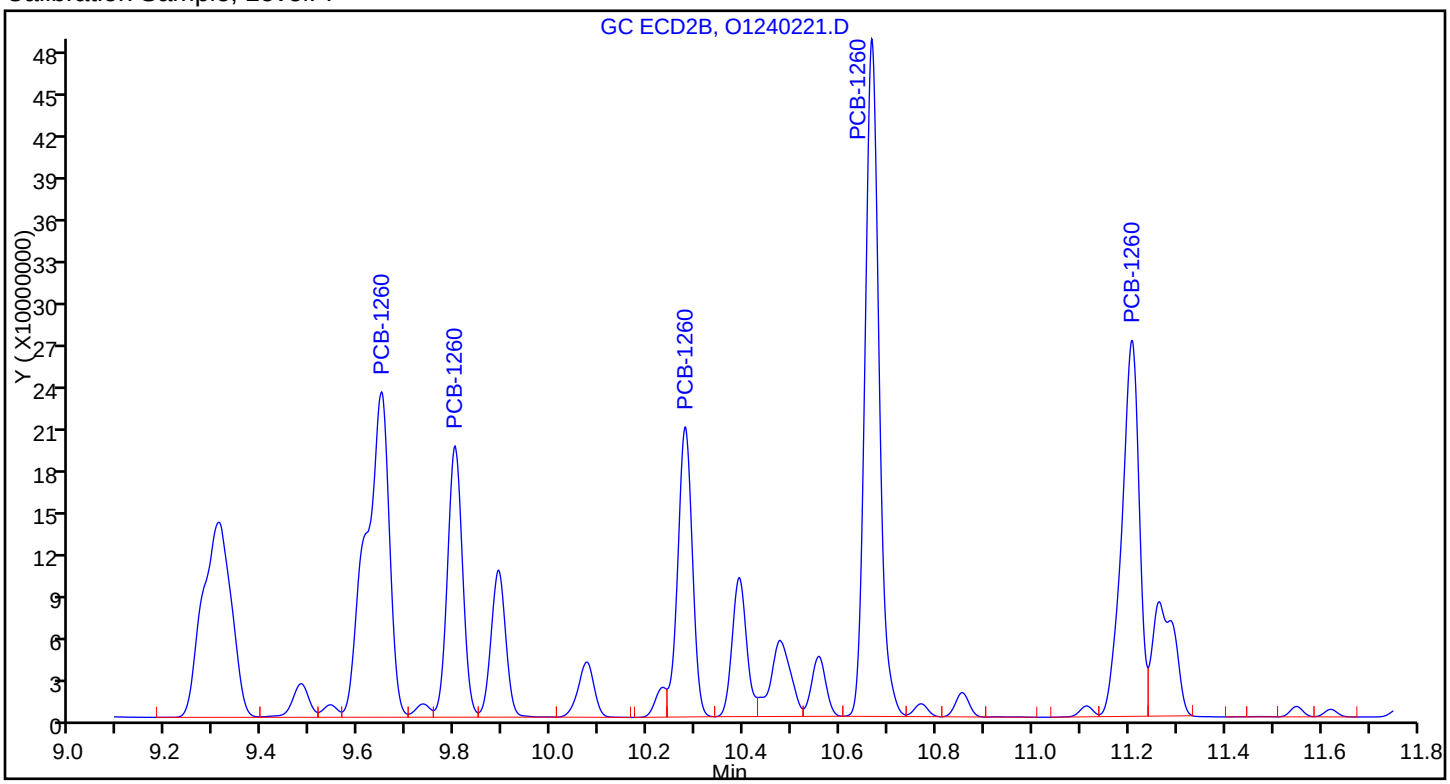
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

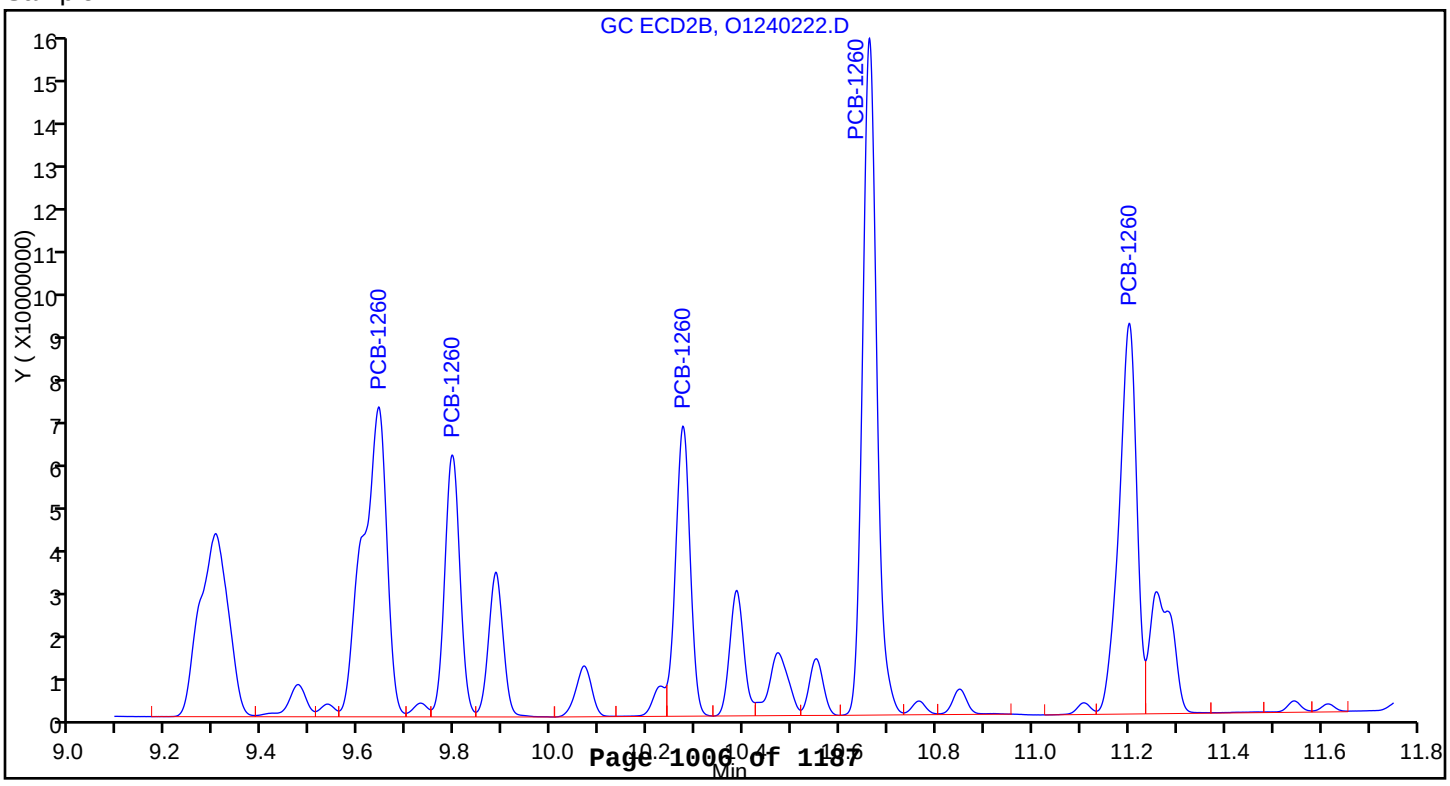
Column: Detector GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 180-127269/4-A

Matrix: Water Lab File ID: O1240223.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3510C Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1000(mL) Date Analyzed: 12/13/2014 17:47

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	119		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	94		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D
Lims ID: LCSD 180-127269/4-A
Client ID:
Sample Type: LCSD
Inject. Date: 13-Dec-2014 17:47:40 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-024
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.023	3.022	0.001	41506092H	0.0200	0.0189	
2	3.582	3.581	0.001	55182113H	0.0200	0.0194	
						RPD = 3.07	
4 PCB-1016							
1	3.323	3.322	0.001	33155005H	1.00	0.9055	
1	3.645	3.645	0.000	46351696H	1.00	0.8787	
1	4.117	4.109	0.008	68767417H	1.00	1.10	
1	4.261	4.261	0.000	39577675H	1.00	0.8958	
1	4.741	4.740	0.001	31630899H	1.00	0.9007	
		Average of Peak Amounts =				0.9355	
2	4.108	4.107	0.001	38486428H	1.00	0.9058	
2	4.600	4.600	0.000	47910236H	1.00	0.8812	
2	5.233	5.232	0.001	80836021H	1.00	0.9308	
2	5.432	5.431	0.001	45059998H	1.00	0.9050	
2	6.178	6.177	0.001	36746488H	1.00	0.9199	
		Average of Peak Amounts =				0.9085	
						RPD = 2.92	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.027	7.027	0.000	74176370H	1.00	1.10	
1	7.548	7.547	0.001	59569812H	1.00	1.17	
1	8.282	8.280	0.002	47847211H	1.00	1.22	
1	8.875	8.875	0.000	116242534H	1.00	1.27	
1	9.368	9.367	0.001	66418461H	1.00	1.29	
		Average of Peak Amounts =				1.21	
2	9.641	9.641	0.000	69494710H	1.00	1.13	
2	9.794	9.794	0.000	58083655H	1.00	1.10	
2	10.273	10.272	0.001	65892236H	1.00	1.17	
2	10.662	10.662	0.000	157461322H	1.00	1.25	
2	11.202	11.202	0.000	88759532H	1.00	1.23	
		Average of Peak Amounts =				1.18	
						RPD = 2.75	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	24537708H	0.0200	0.0238	
2	12.774	12.773	0.001	27731566H	0.0200	0.0224	
						RPD = 6.22	

Report Date: 15-Dec-2014 11:19:32 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D

Injection Date: 13-Dec-2014 17:47:40 Instrument ID: CHGC8

Lims ID: LCSD 180-127269/4-A

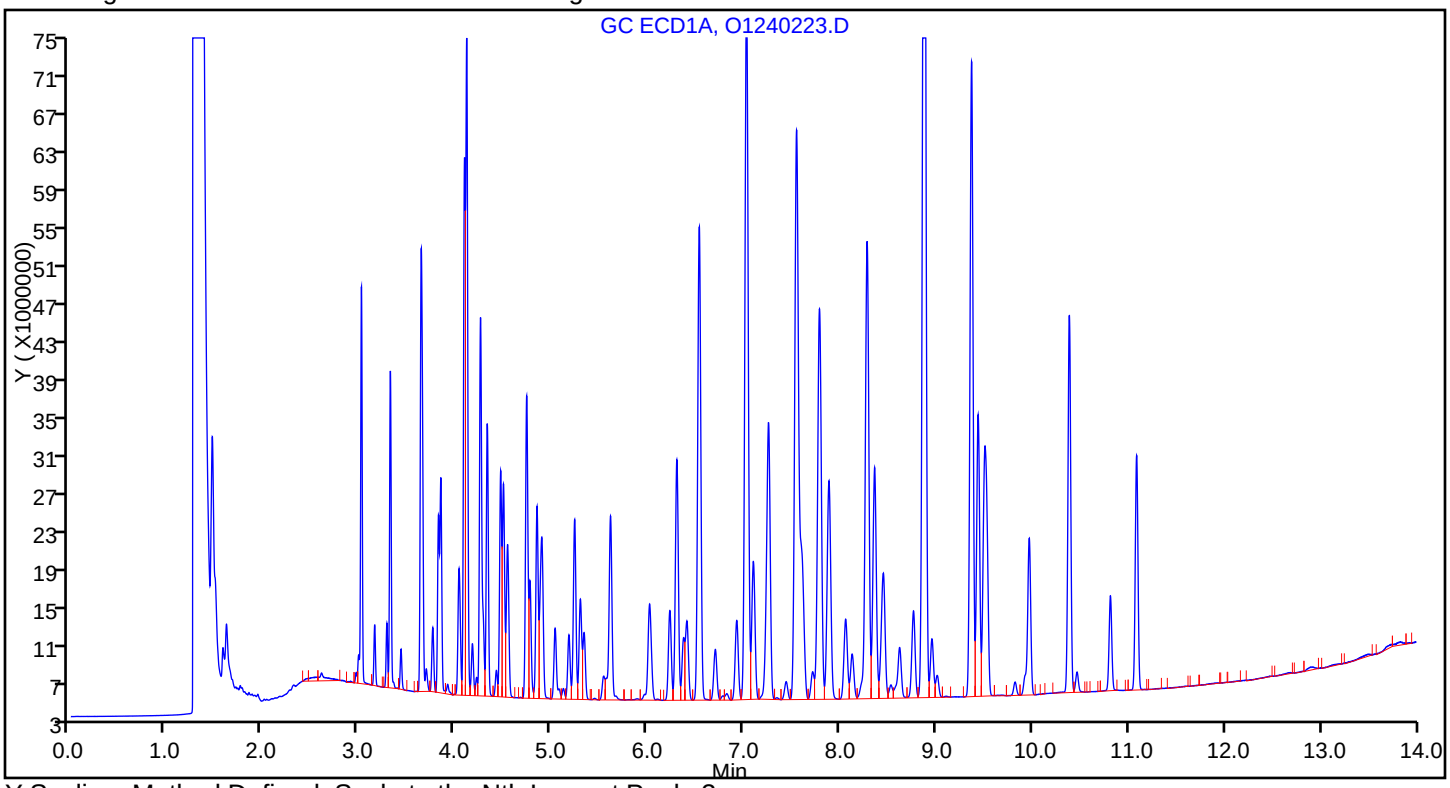
Client ID:

Operator ID: 402331 ALS Bottle#: 24 Worklist Smp#: 24

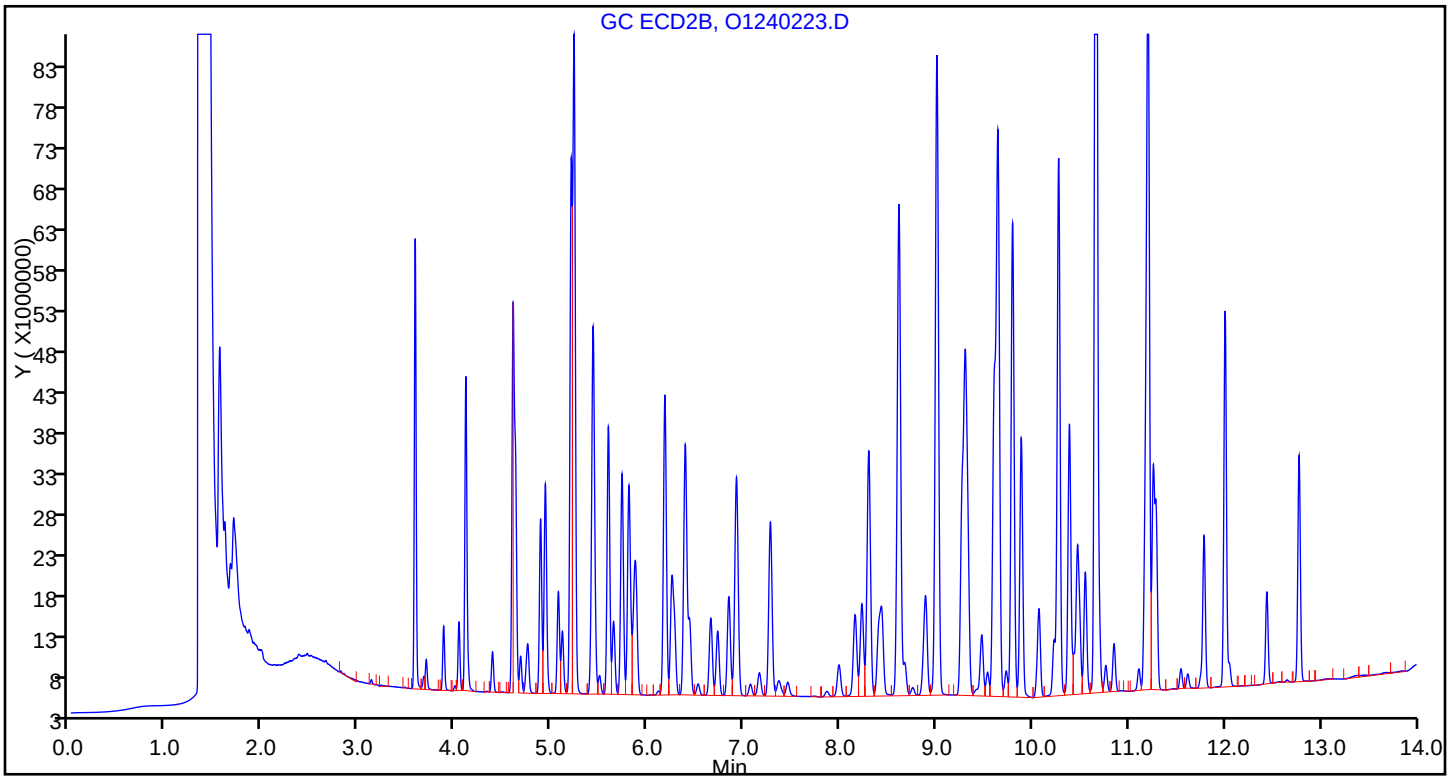
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Report Date: 15-Dec-2014 11:19:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D

Injection Date: 13-Dec-2014 17:47:40 Instrument ID: CHGC8

Lims ID: LCSD 180-127269/4-A

Client ID:

Operator ID: 402331 ALS Bottle#: 24 Worklist Smp#: 24

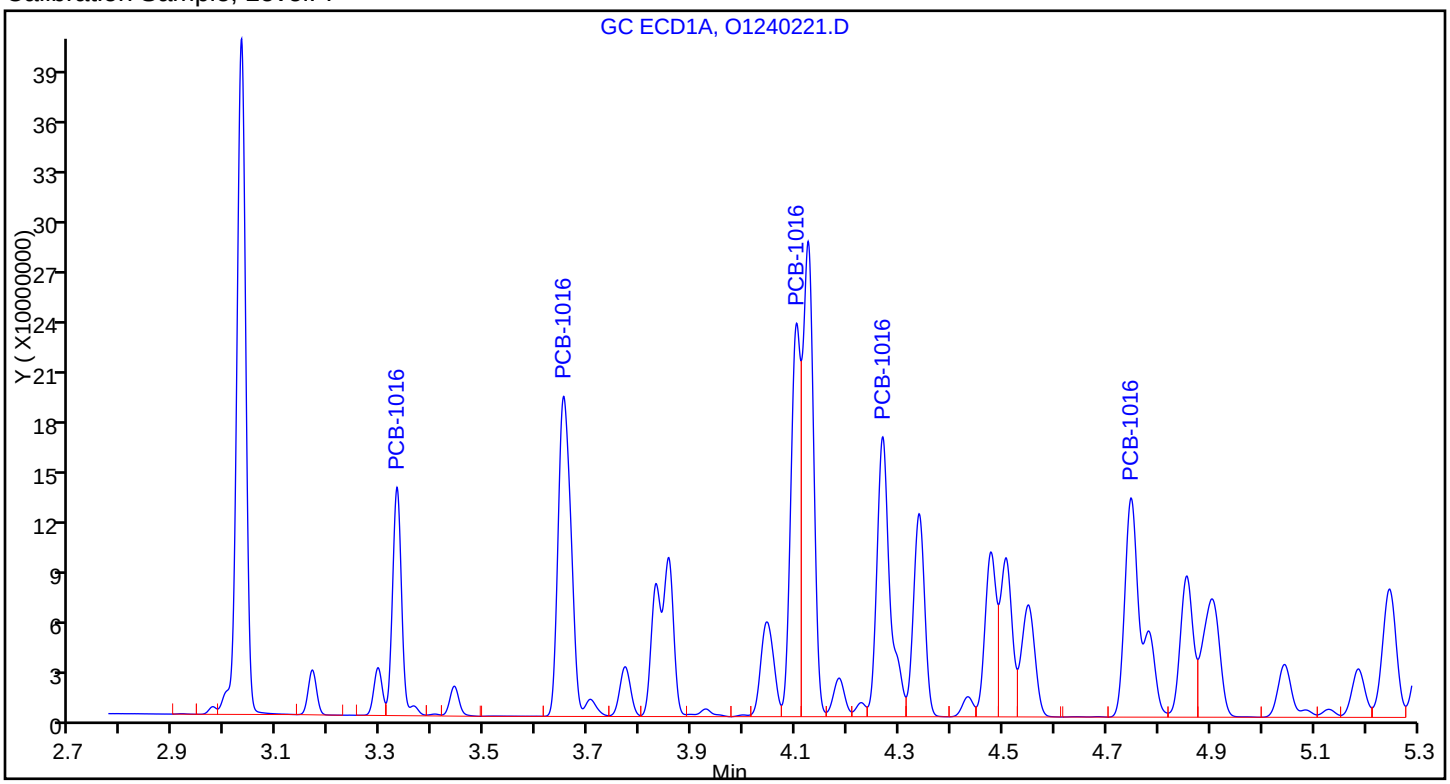
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

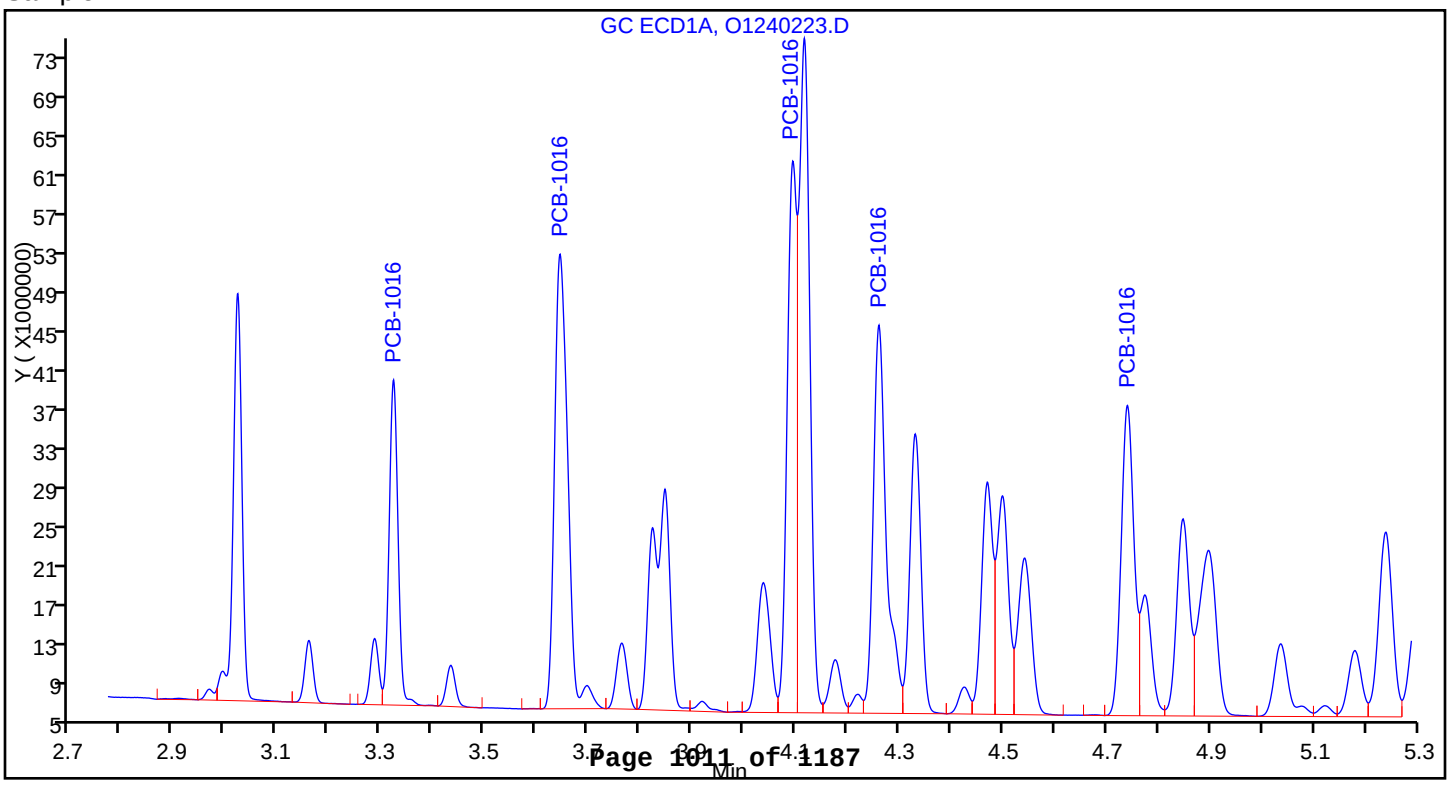
Column: Detector GC ECD1A

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 15-Dec-2014 11:19:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D

Injection Date: 13-Dec-2014 17:47:40 Instrument ID: CHGC8

Lims ID: LCSD 180-127269/4-A

Client ID:

Operator ID: 402331 ALS Bottle#: 24 Worklist Smp#: 24

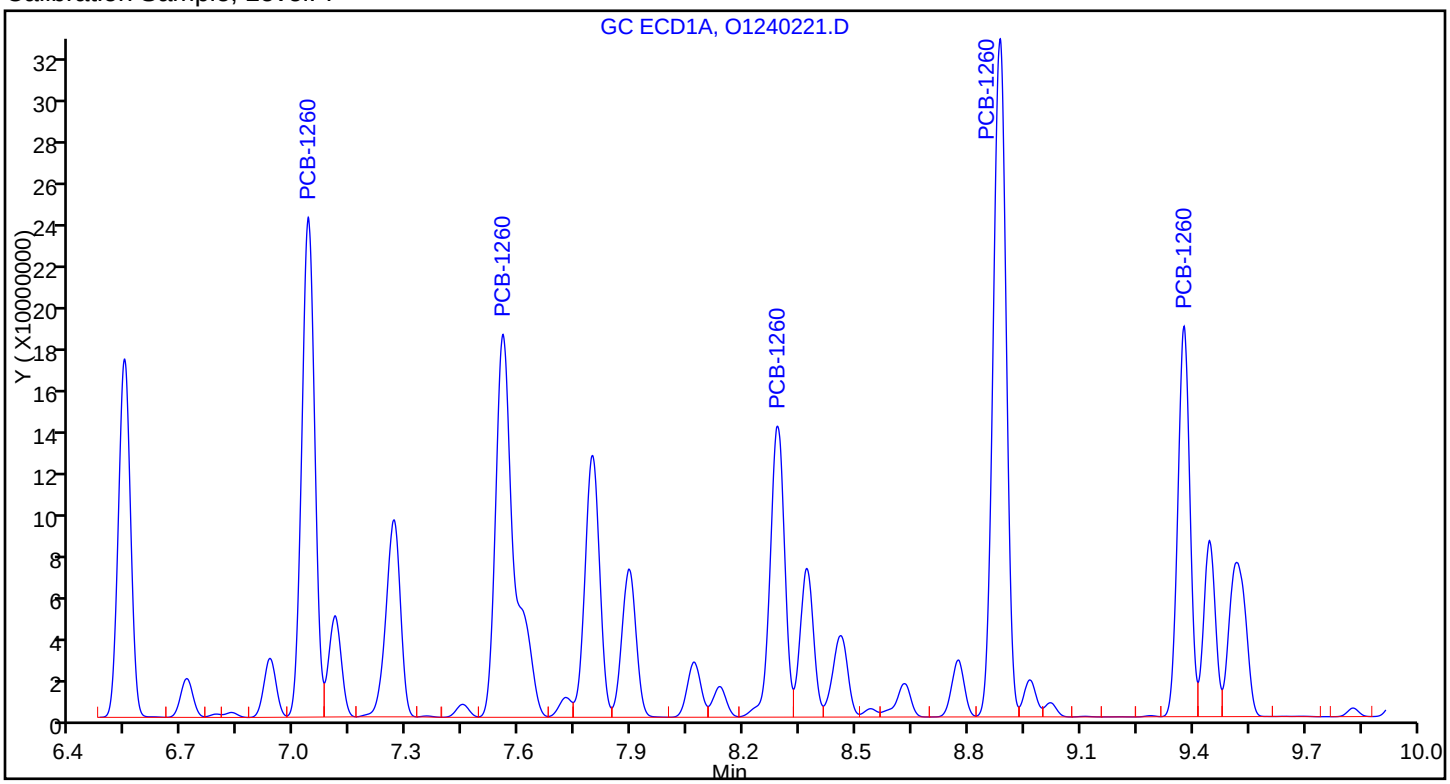
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

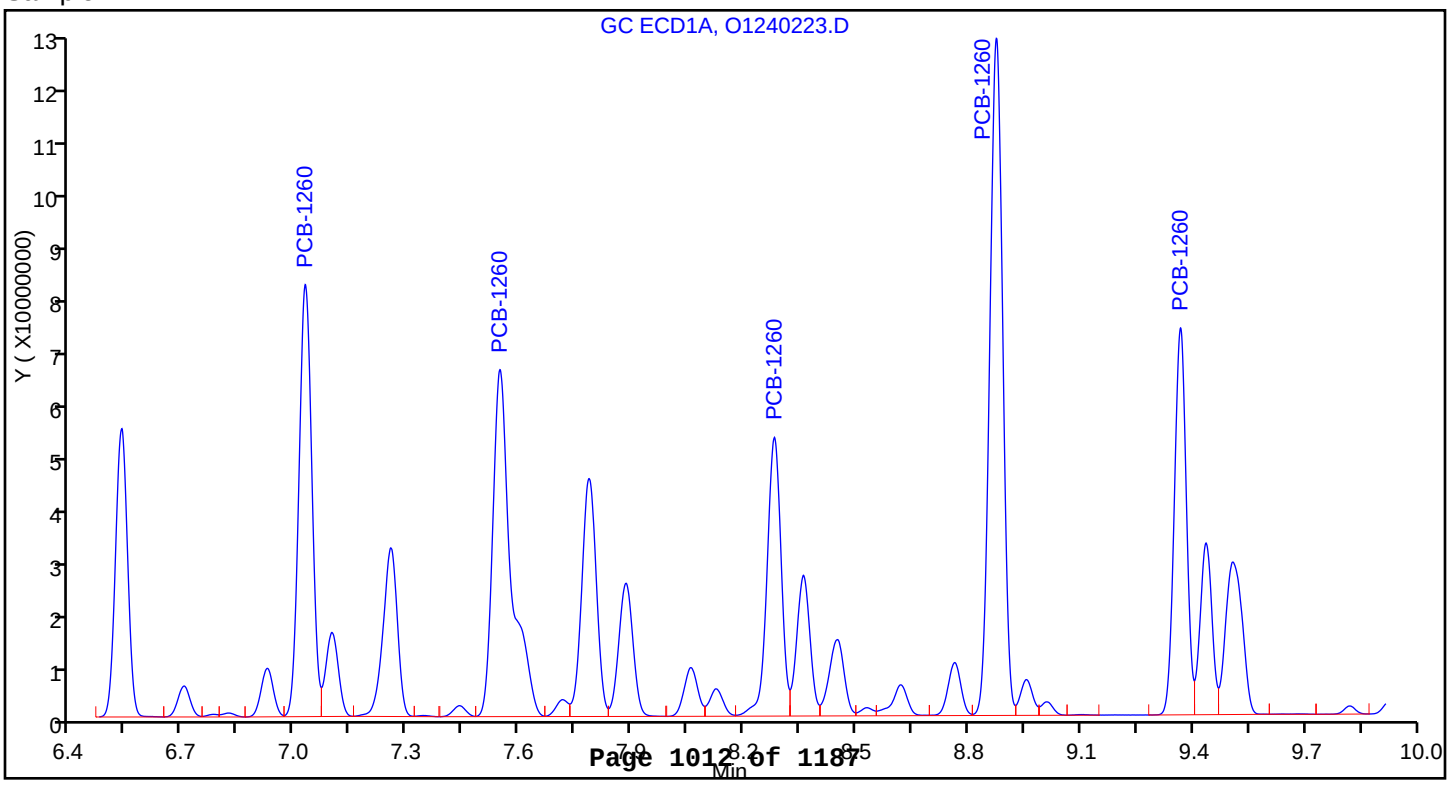
Column: Detector GC ECD1A

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-39432-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 180-127269/4-A

Matrix: Water | Lab File ID: O1240223.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3510C | Date Extracted: 12/04/2014 11:50

Sample wt/vol: 1000(mL) | Date Analyzed: 12/13/2014 17:47

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128212 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	0.909		0.010	0.0025
11096-82-5	PCB-1260	1.18		0.010	0.0017

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	112		60-135
877-09-8	Tetrachloro-m-xylene (Surr)	97		25-150

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D
Lims ID: LCSD 180-127269/4-A
Client ID:
Sample Type: LCSD
Inject. Date: 13-Dec-2014 17:47:40 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 180-0004852-024
Operator ID: 402331 Instrument ID: CHGC8

Method: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\PCB_CHGC8DUAL.m
Limit Group: GCS 8082A ICAL
Last Update: 15-Dec-2014 11:19:11 Calib Date: 11-Dec-2014 14:45:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHGC8\20141211-4810.b\O1240221.D

Column 1 : Det: GC ECD1A
Column 2 : Det: GC ECD2B
Process Host: XAWRK050

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 1 Tetrachloro-m-xylene							
1	3.023	3.022	0.001	41506092H	0.0200	0.0189	
2	3.582	3.581	0.001	55182113H	0.0200	0.0194	
						RPD = 3.07	
4 PCB-1016							
1	3.323	3.322	0.001	33155005H	1.00	0.9055	
1	3.645	3.645	0.000	46351696H	1.00	0.8787	
1	4.117	4.109	0.008	68767417H	1.00	1.10	
1	4.261	4.261	0.000	39577675H	1.00	0.8958	
1	4.741	4.740	0.001	31630899H	1.00	0.9007	
		Average of Peak Amounts =				0.9355	
2	4.108	4.107	0.001	38486428H	1.00	0.9058	
2	4.600	4.600	0.000	47910236H	1.00	0.8812	
2	5.233	5.232	0.001	80836021H	1.00	0.9308	
2	5.432	5.431	0.001	45059998H	1.00	0.9050	
2	6.178	6.177	0.001	36746488H	1.00	0.9199	
		Average of Peak Amounts =				0.9085	
						RPD = 2.92	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
8 PCB-1260							
1	7.027	7.027	0.000	74176370H	1.00	1.10	
1	7.548	7.547	0.001	59569812H	1.00	1.17	
1	8.282	8.280	0.002	47847211H	1.00	1.22	
1	8.875	8.875	0.000	116242534H	1.00	1.27	
1	9.368	9.367	0.001	66418461H	1.00	1.29	
		Average of Peak Amounts =				1.21	
2	9.641	9.641	0.000	69494710H	1.00	1.13	
2	9.794	9.794	0.000	58083655H	1.00	1.10	
2	10.273	10.272	0.001	65892236H	1.00	1.17	
2	10.662	10.662	0.000	157461322H	1.00	1.25	
2	11.202	11.202	0.000	88759532H	1.00	1.23	
		Average of Peak Amounts =				1.18	
						RPD = 2.75	
$ 11 DCB Decachlorobiphenyl (Surr)							
1	11.084	11.084	0.000	24537708H	0.0200	0.0238	
2	12.774	12.773	0.001	27731566H	0.0200	0.0224	
						RPD = 6.22	

Report Date: 15-Dec-2014 11:19:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D

Injection Date: 13-Dec-2014 17:47:40 Instrument ID: CHGC8

Lims ID: LCSD 180-127269/4-A

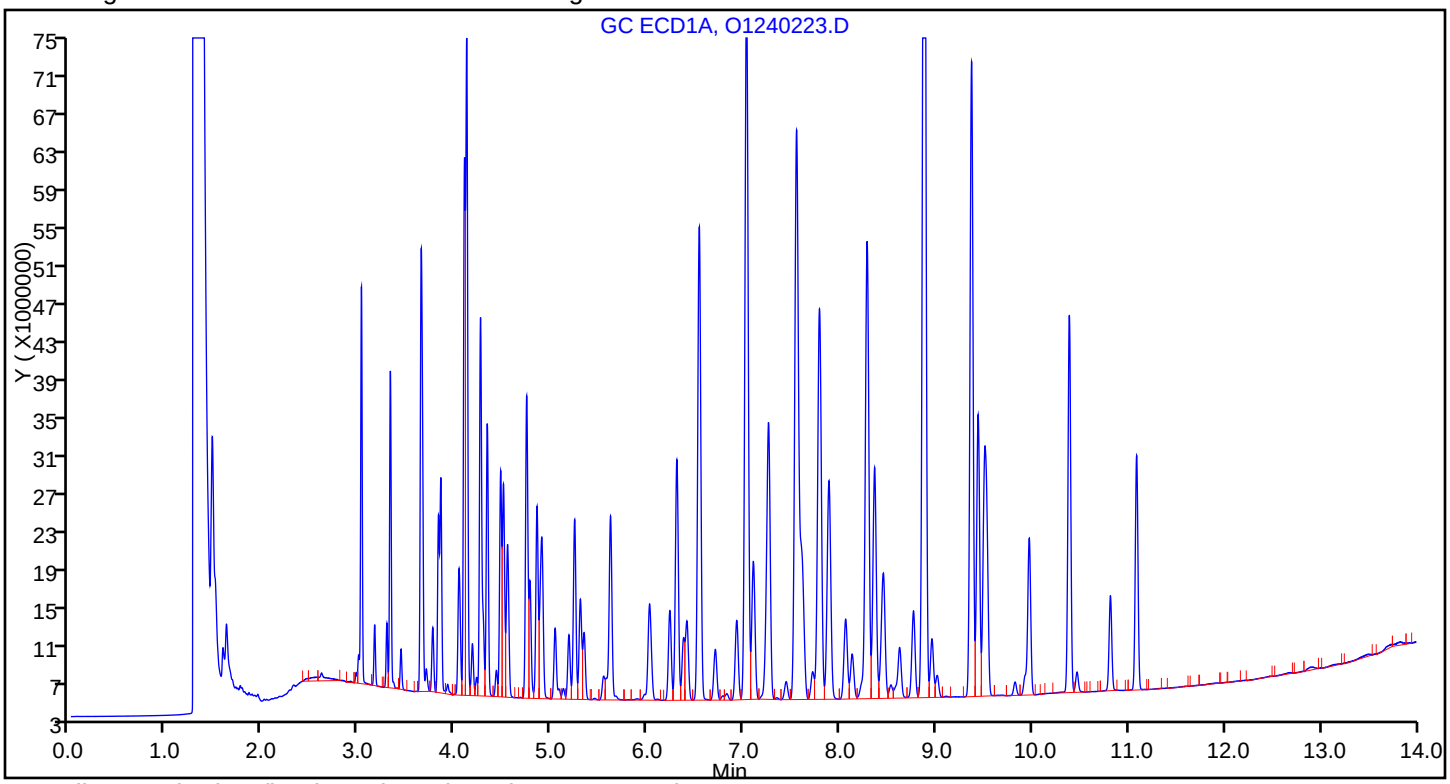
Client ID:

Operator ID: 402331 ALS Bottle#: 24 Worklist Smp#: 24

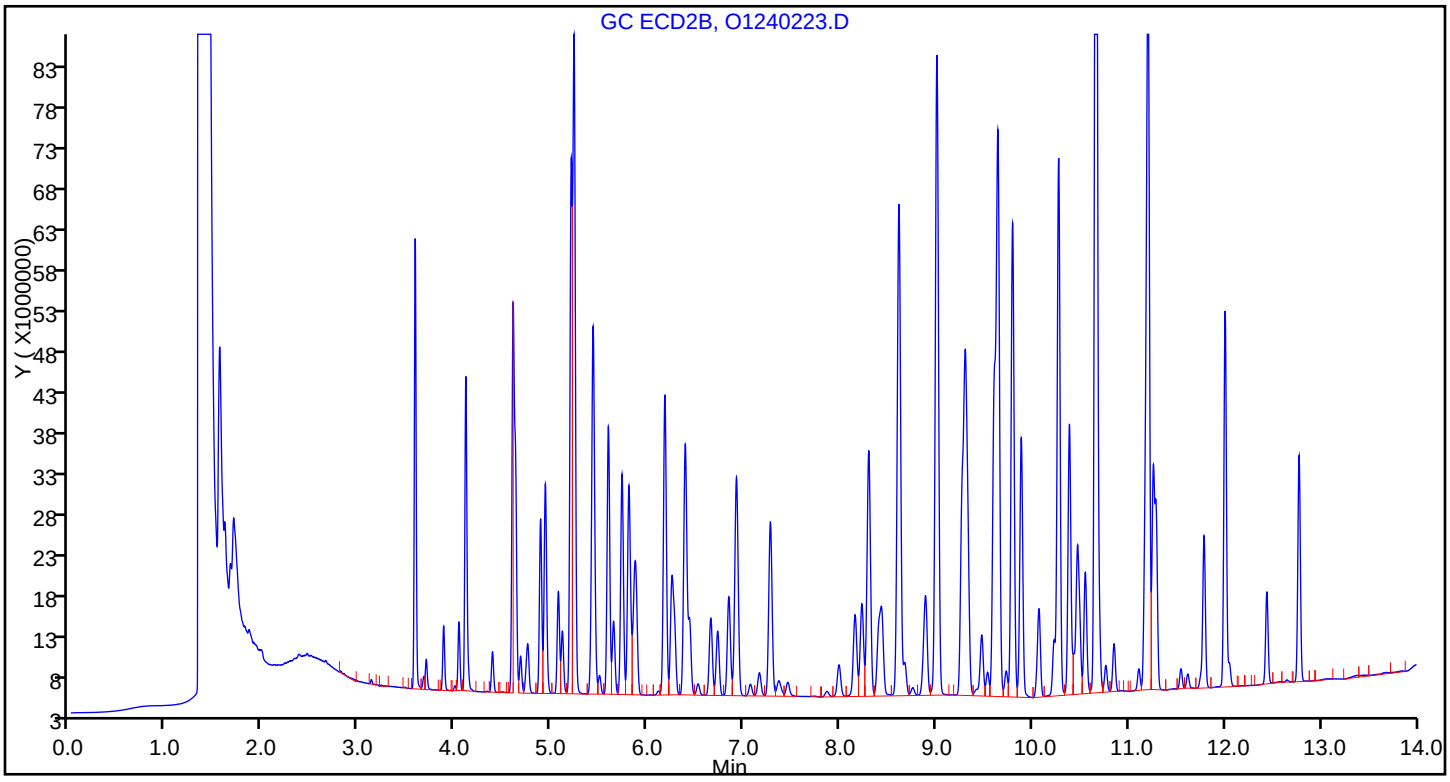
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 3



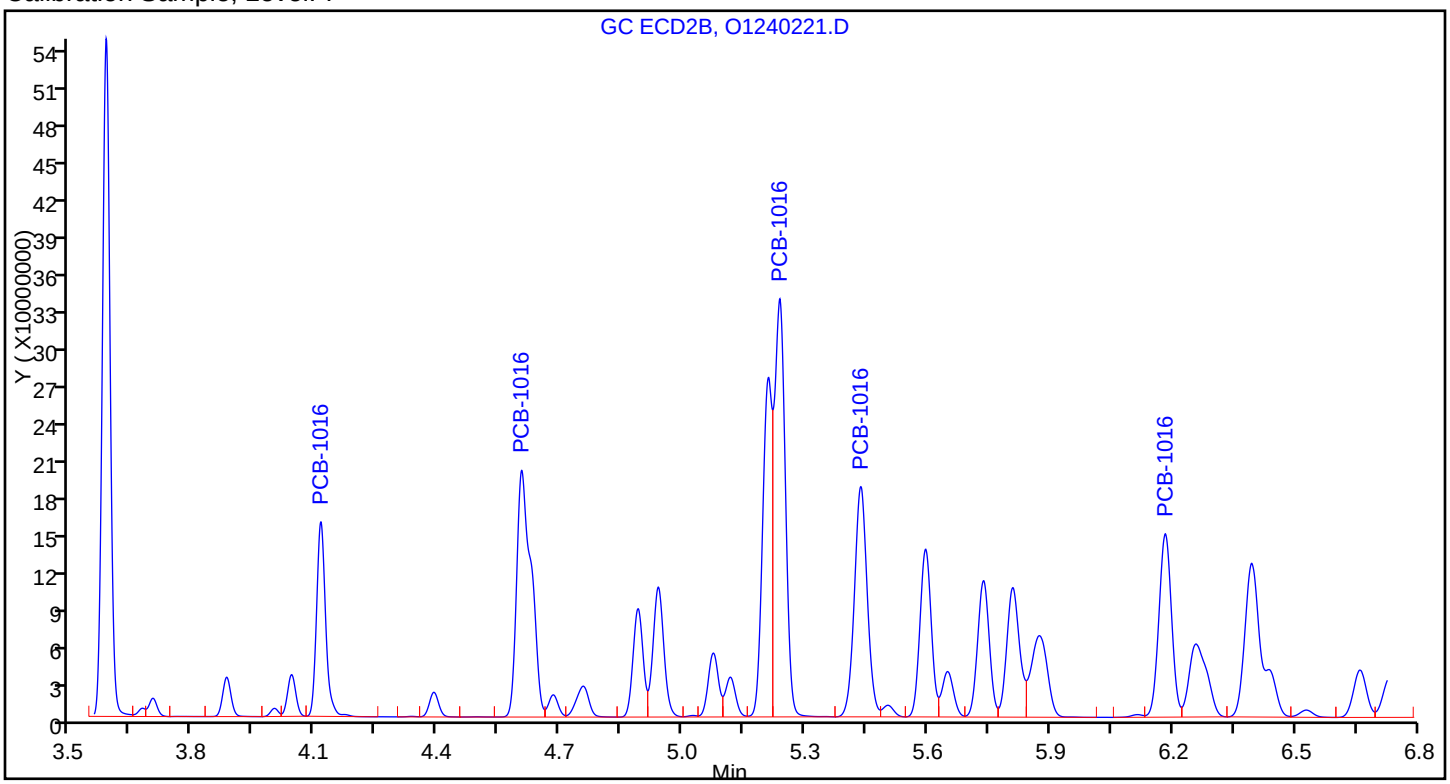
Report Date: 15-Dec-2014 11:19:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

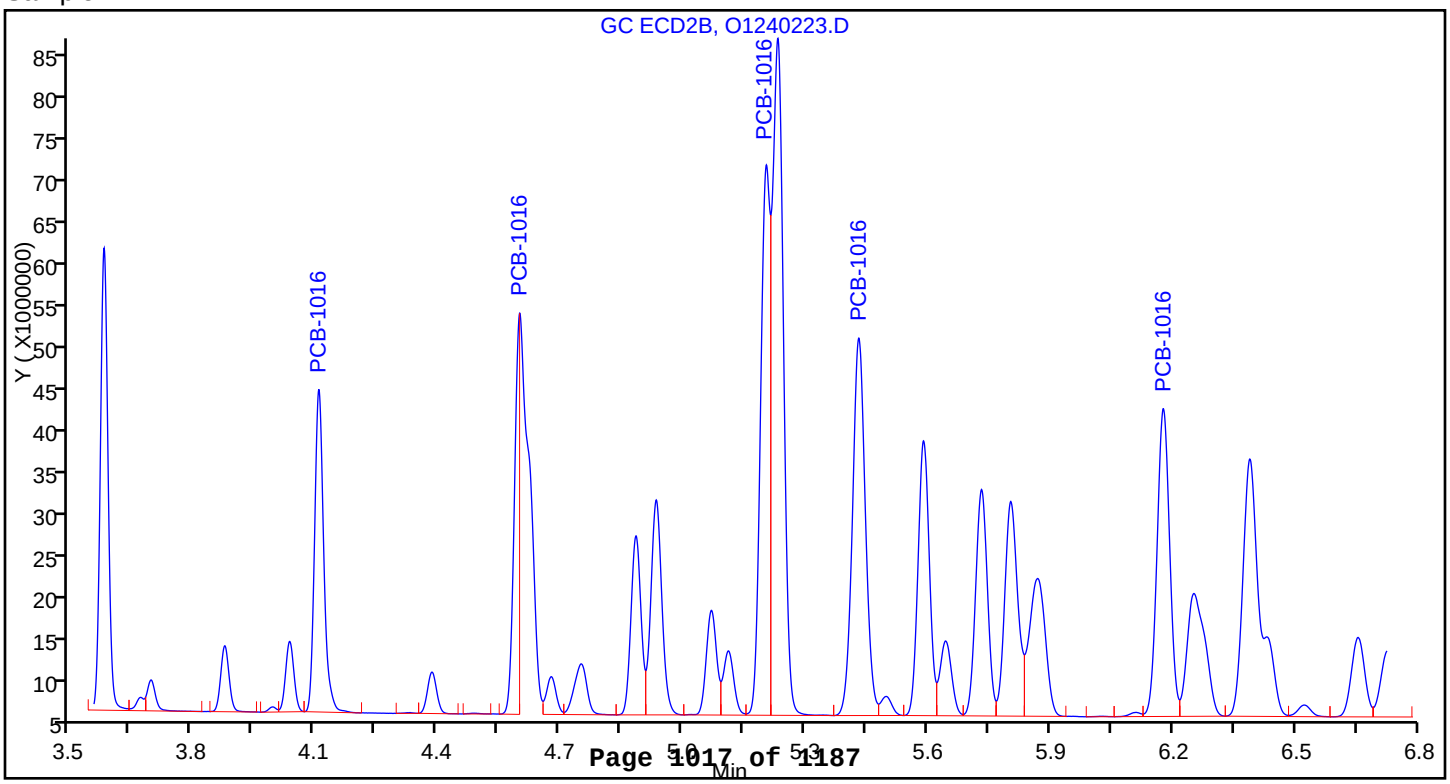
Data File:	\\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D				
Injection Date:	13-Dec-2014 17:47:40	Instrument ID:	CHGC8		
Lims ID:	LCSD 180-127269/4-A				
Client ID:					
Operator ID:	402331	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	PCB_CHGC8DUAL	Limit Group:	GCS 8082A ICAL		
Column:		Detector	GC ECD2B		

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 15-Dec-2014 11:19:33 Chrom Revision: 2.2 06-Nov-2014 14:50:32

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC8\20141213-4852.b\O1240223.D

Injection Date: 13-Dec-2014 17:47:40 Instrument ID: CHGC8

Lims ID: LCSD 180-127269/4-A

Client ID:

Operator ID: 402331 ALS Bottle#: 24 Worklist Smp#: 24

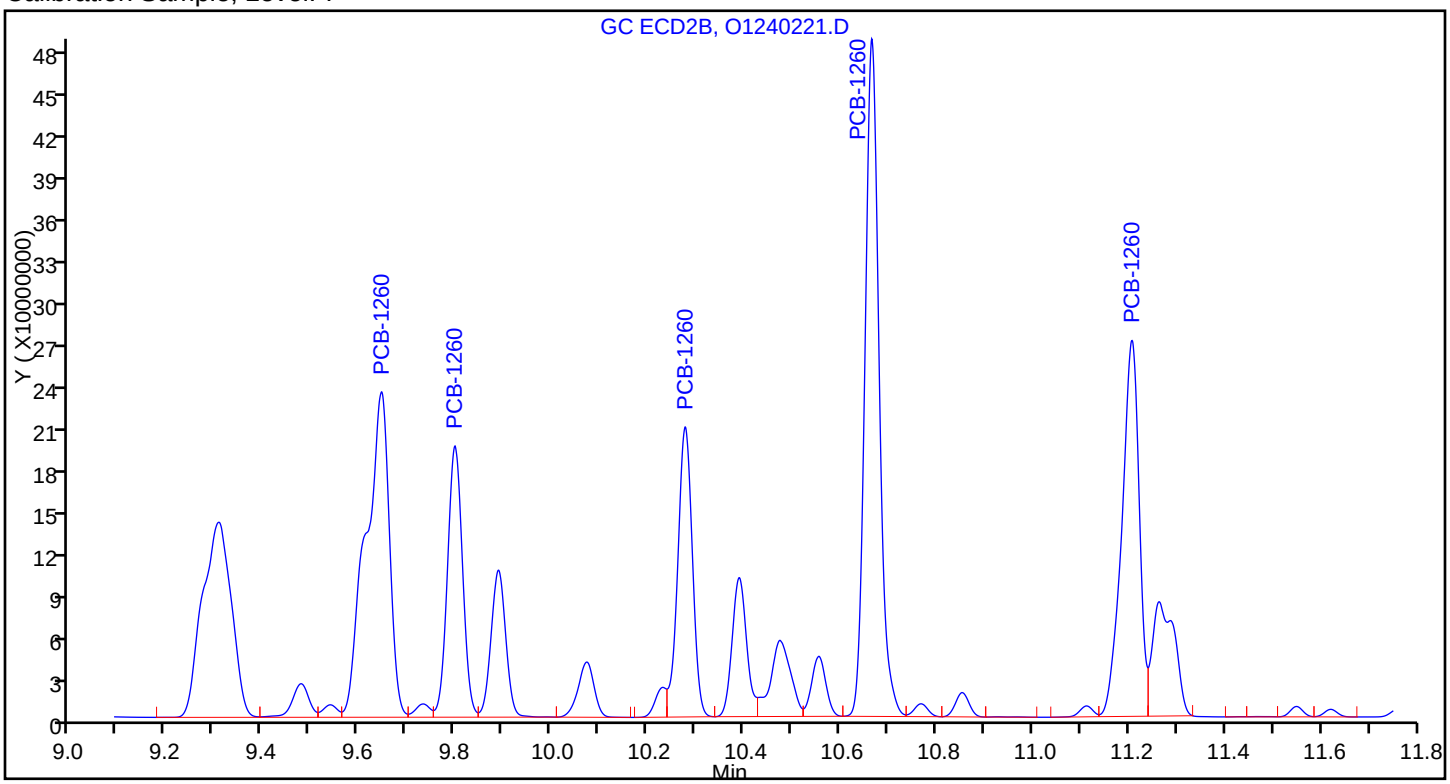
Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: PCB_CHGC8DUAL Limit Group: GCS 8082A ICAL

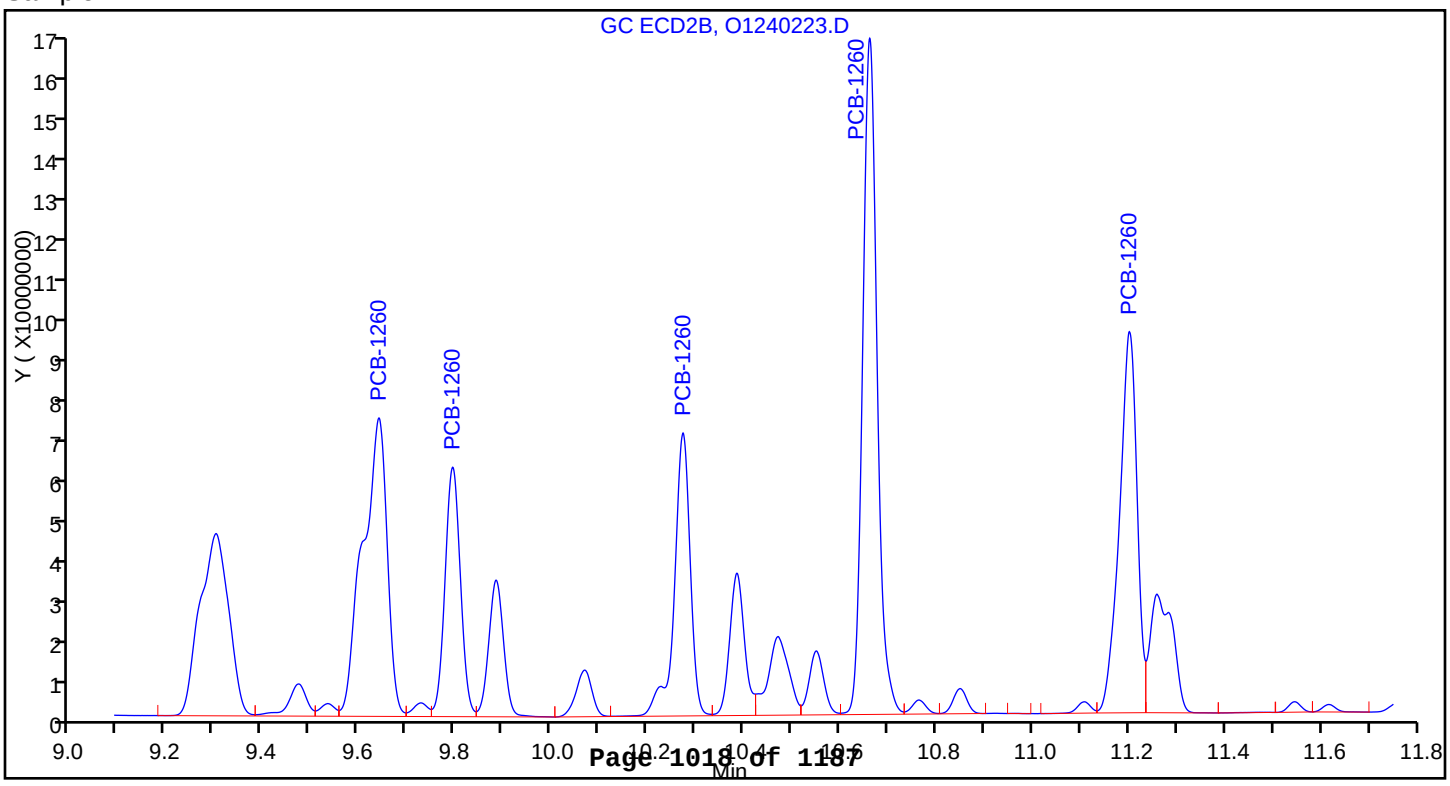
Column: Detector GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Start Date: 12/11/2014 09:31

Analysis Batch Number: 127929 End Date: 12/12/2014 12:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-127929/1		12/11/2014 09:31	1	O1240205.D	RTX-CLP1 0.53(mm)
IC 180-127929/1		12/11/2014 09:31	1	O1240205.D	RTX-CLP2 0.53(mm)
IC 180-127929/2		12/11/2014 09:51	1	O1240206.D	RTX-CLP1 0.53(mm)
IC 180-127929/2		12/11/2014 09:51	1	O1240206.D	RTX-CLP2 0.53(mm)
IC 180-127929/3		12/11/2014 10:10	1	O1240207.D	RTX-CLP1 0.53(mm)
IC 180-127929/3		12/11/2014 10:10	1	O1240207.D	RTX-CLP2 0.53(mm)
IC 180-127929/4		12/11/2014 10:30	1	O1240208.D	RTX-CLP1 0.53(mm)
IC 180-127929/4		12/11/2014 10:30	1	O1240208.D	RTX-CLP2 0.53(mm)
IC 180-127929/5		12/11/2014 10:50	1	O1240209.D	RTX-CLP1 0.53(mm)
IC 180-127929/5		12/11/2014 10:50	1	O1240209.D	RTX-CLP2 0.53(mm)
IC 180-127929/6		12/11/2014 11:09	1	O1240210.D	RTX-CLP1 0.53(mm)
IC 180-127929/6		12/11/2014 11:09	1	O1240210.D	RTX-CLP2 0.53(mm)
IC 180-127929/7		12/11/2014 11:29	1	O1240211.D	RTX-CLP1 0.53(mm)
IC 180-127929/7		12/11/2014 11:29	1	O1240211.D	RTX-CLP2 0.53(mm)
IC 180-127929/8		12/11/2014 11:49	1	O1240212.D	RTX-CLP1 0.53(mm)
IC 180-127929/8		12/11/2014 11:49	1	O1240212.D	RTX-CLP2 0.53(mm)
IC 180-127929/9		12/11/2014 12:08	1		RTX-CLP1 0.53(mm)
IC 180-127929/9		12/11/2014 12:08	1		RTX-CLP2 0.53(mm)
IC 180-127929/10		12/11/2014 12:28	1		RTX-CLP1 0.53(mm)
IC 180-127929/10		12/11/2014 12:28	1		RTX-CLP2 0.53(mm)
IC 180-127929/11		12/11/2014 12:47	1	O1240215.D	RTX-CLP1 0.53(mm)
IC 180-127929/11		12/11/2014 12:47	1	O1240215.D	RTX-CLP2 0.53(mm)
IC 180-127929/12		12/11/2014 13:07	1	O1240216.D	RTX-CLP1 0.53(mm)
IC 180-127929/12		12/11/2014 13:07	1	O1240216.D	RTX-CLP2 0.53(mm)
IC 180-127929/13		12/11/2014 13:27	1	O1240217.D	RTX-CLP1 0.53(mm)
IC 180-127929/13		12/11/2014 13:27	1	O1240217.D	RTX-CLP2 0.53(mm)
ICRT 180-127929/14		12/11/2014 13:46	1	O1240218.D	RTX-CLP1 0.53(mm)
ICRT 180-127929/14		12/11/2014 13:46	1	O1240218.D	RTX-CLP2 0.53(mm)
IC 180-127929/15		12/11/2014 14:06	1	O1240219.D	RTX-CLP1 0.53(mm)
IC 180-127929/15		12/11/2014 14:06	1	O1240219.D	RTX-CLP2 0.53(mm)
IC 180-127929/16		12/11/2014 14:25	1	O1240220.D	RTX-CLP1 0.53(mm)
IC 180-127929/16		12/11/2014 14:25	1	O1240220.D	RTX-CLP2 0.53(mm)
IC 180-127929/17		12/11/2014 14:45	1	O1240221.D	RTX-CLP1 0.53(mm)
IC 180-127929/17		12/11/2014 14:45	1	O1240221.D	RTX-CLP2 0.53(mm)
ICV 180-127929/18		12/11/2014 15:05	1		RTX-CLP1 0.53(mm)
ICV 180-127929/18		12/11/2014 15:05	1		RTX-CLP2 0.53(mm)
ICV 180-127929/19		12/11/2014 15:24	1		RTX-CLP1 0.53(mm)
ICV 180-127929/19		12/11/2014 15:24	1		RTX-CLP2 0.53(mm)
ICV 180-127929/20		12/11/2014 15:44	1		RTX-CLP1 0.53(mm)
ICV 180-127929/20		12/11/2014 15:44	1		RTX-CLP2 0.53(mm)
ICV 180-127929/21		12/11/2014 16:03	1		RTX-CLP1 0.53(mm)
ICV 180-127929/21		12/11/2014 16:03	1		RTX-CLP2 0.53(mm)
ICV 180-127929/22		12/11/2014 16:23	1		RTX-CLP1 0.53(mm)
ICV 180-127929/22		12/11/2014 16:23	1		RTX-CLP2 0.53(mm)
ICV 180-127929/23		12/11/2014 16:43	1		RTX-CLP1 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Start Date: 12/11/2014 09:31

Analysis Batch Number: 127929 End Date: 12/12/2014 12:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 180-127929/23		12/11/2014 16:43	1		RTX-CLP2 0.53(mm)
ICV 180-127929/24		12/11/2014 17:02	1		RTX-CLP1 0.53(mm)
ICV 180-127929/24		12/11/2014 17:02	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 17:22	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 17:22	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 17:42	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 17:42	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 18:01	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 18:01	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 18:21	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 18:21	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 18:40	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 18:40	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 19:00	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 19:00	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 19:20	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 19:20	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 19:39	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 19:39	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 19:59	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 19:59	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 20:18	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 20:18	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 20:38	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 20:38	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 20:58	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 20:58	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 21:17	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 21:17	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 21:37	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 21:37	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 21:56	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 21:56	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 22:16	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 22:16	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 22:36	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 22:36	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 22:55	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 22:55	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 23:15	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 23:15	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/11/2014 23:34	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/11/2014 23:34	1		RTX-CLP2 0.53(mm)
CCV 180-127929/45		12/11/2014 23:54	1		RTX-CLP1 0.53(mm)
CCV 180-127929/45		12/11/2014 23:54	1		RTX-CLP2 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Start Date: 12/11/2014 09:31

Analysis Batch Number: 127929 End Date: 12/12/2014 12:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		12/12/2014 00:14	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 00:14	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 00:33	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 00:33	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 00:53	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 00:53	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 01:12	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 01:12	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 01:32	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 01:32	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 01:52	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 01:52	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 02:11	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 02:11	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 02:31	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 02:31	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 02:50	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 02:50	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 03:10	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 03:10	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 03:30	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 03:30	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 03:49	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 03:49	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 04:09	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 04:09	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 04:29	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 04:29	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 04:48	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 04:48	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 05:08	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 05:08	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 05:27	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 05:27	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 05:47	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 05:47	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 06:06	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 06:06	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 06:26	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 06:26	1		RTX-CLP2 0.53(mm)
CCV 180-127929/66		12/12/2014 06:46	1		RTX-CLP1 0.53(mm)
CCV 180-127929/66		12/12/2014 06:46	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 07:05	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 07:05	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 07:25	1		RTX-CLP1 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Start Date: 12/11/2014 09:31

Analysis Batch Number: 127929 End Date: 12/12/2014 12:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		12/12/2014 07:25	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 07:45	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 07:45	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 08:04	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 08:04	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/12/2014 08:24	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/12/2014 08:24	1		RTX-CLP2 0.53(mm)
CCV 180-127929/82		12/12/2014 12:00	1		RTX-CLP1 0.53(mm)
CCV 180-127929/82		12/12/2014 12:00	1		RTX-CLP2 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Start Date: 12/13/2014 10:16

Analysis Batch Number: 128212 End Date: 12/14/2014 03:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 180-128212/1		12/13/2014 10:16	1	O1240200.D	RTX-CLP1 0.53(mm)
CCVRT 180-128212/1		12/13/2014 10:16	1	O1240200.D	RTX-CLP2 0.53(mm)
CCV 180-128212/12		12/13/2014 13:52	1	O1240211.D	RTX-CLP1 0.53(mm)
CCV 180-128212/12		12/13/2014 13:52	1	O1240211.D	RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 14:11	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 14:11	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 14:31	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 14:31	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 14:51	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 14:51	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 15:10	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 15:10	5		RTX-CLP2 0.53(mm)
MB 180-127269/1-A		12/13/2014 15:30	1	O1240216.D	RTX-CLP1 0.53(mm)
MB 180-127269/1-A		12/13/2014 15:30	1	O1240216.D	RTX-CLP2 0.53(mm)
180-39432-1	ST-071-120114	12/13/2014 15:50	1	O1240217.D	RTX-CLP1 0.53(mm)
180-39432-1	ST-071-120114	12/13/2014 15:50	1	O1240217.D	RTX-CLP2 0.53(mm)
180-39432-2	ST-UNNAMED-120114	12/13/2014 16:09	1	O1240218.D	RTX-CLP1 0.53(mm)
180-39432-2	ST-UNNAMED-120114	12/13/2014 16:09	1	O1240218.D	RTX-CLP2 0.53(mm)
180-39432-3	ST-018-120114	12/13/2014 16:29	1	O1240219.D	RTX-CLP1 0.53(mm)
180-39432-3	ST-018-120114	12/13/2014 16:29	1	O1240219.D	RTX-CLP2 0.53(mm)
180-39432-4	ST-014-120114	12/13/2014 16:48	1	O1240220.D	RTX-CLP1 0.53(mm)
180-39432-4	ST-014-120114	12/13/2014 16:48	1	O1240220.D	RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 17:08	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 17:08	1		RTX-CLP2 0.53(mm)
LCS 180-127269/3-A		12/13/2014 17:28	1	O1240222.D	RTX-CLP1 0.53(mm)
LCS 180-127269/3-A		12/13/2014 17:28	1	O1240222.D	RTX-CLP2 0.53(mm)
LCSD 180-127269/4-A		12/13/2014 17:47	1	O1240223.D	RTX-CLP1 0.53(mm)
LCSD 180-127269/4-A		12/13/2014 17:47	1	O1240223.D	RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 18:07	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 18:07	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 18:26	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 18:26	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 18:46	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 18:46	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 19:06	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 19:06	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 19:25	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 19:25	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 19:45	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 19:45	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 20:04	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 20:04	1		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 20:24	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 20:24	1		RTX-CLP2 0.53(mm)
CCV 180-128212/33		12/13/2014 20:44	1	O1240232.D	RTX-CLP1 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: CHGC8 Start Date: 12/13/2014 10:16

Analysis Batch Number: 128212 End Date: 12/14/2014 03:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 180-128212/33		12/13/2014 20:44	1	O1240232.D	RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 21:03	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 21:03	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 21:23	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 21:23	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 21:42	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 21:42	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 22:02	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 22:02	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 22:22	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 22:22	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 22:41	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 22:41	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 23:01	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 23:01	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 23:20	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 23:20	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/13/2014 23:40	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/13/2014 23:40	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 00:00	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 00:00	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 00:19	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 00:19	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 00:39	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 00:39	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 00:59	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 00:59	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 01:18	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 01:18	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 01:38	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 01:38	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 01:57	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 01:57	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 02:17	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 02:17	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 02:37	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 02:37	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 02:56	5		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 02:56	5		RTX-CLP2 0.53(mm)
ZZZZZ		12/14/2014 03:16	1		RTX-CLP1 0.53(mm)
ZZZZZ		12/14/2014 03:16	1		RTX-CLP2 0.53(mm)
CCV 180-128212/54		12/14/2014 03:35	1		RTX-CLP1 0.53(mm)
CCV 180-128212/54		12/14/2014 03:35	1		RTX-CLP2 0.53(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127269 Batch Start Date: 12/04/14 11:50 Batch Analyst: Yushinski, Charles

Batch Method: 3510C Batch End Date: 12/04/14 20:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	FirstAdjustpH	GCMATRIXWORKS 00011	OP/PESTPCBRTS 00002
MB 180-127269/1		3510C, 8082A		6	1000 mL	1.0 mL			0.1 mL
LCS 180-127269/3		3510C, 8082A		6	1000 mL	1.0 mL		25 uL	0.1 mL
LCSD 180-127269/4		3510C, 8082A		6	1000 mL	1.0 mL		25 uL	0.1 mL
180-39432-A-1	ST-071-120114	3510C, 8082A	T	7	1060 mL	1.0 mL			0.1 mL
180-39432-A-2	ST-UNNAMED-120114	3510C, 8082A	T	7	1060 mL	1.0 mL			0.1 mL
180-39432-A-3	ST-018-120114	3510C, 8082A	T	11	1060 mL	1.0 mL	7		0.1 mL
180-39432-A-4	ST-014-120114	3510C, 8082A	T	7	1060 mL	1.0 mL			0.1 mL

Batch Notes	
Acid used for pH adjustment	1:1 Sulfuric acid
Acid used for pH adjust Lot #	1329979
Base used for pH adjustment	10N sodium hydroxide
Base used for pH adjust Lot #	1405770
Person's name who did the concentration	CBY
Exchange Solvent Lot #	1345111
Exchange Solvent Name	Hexane
N-evap #	1
N-evap temperature	21 Celsius
Na2SO4 Lot Number	1420632
Oven, Bath or Block Temperature 1	79 Celsius
pH Paper Lot Number	Ph paper HC425511
Prep Solvent Lot #	1417620
Prep Solvent Name	Methylene chloride
Prep Solvent Volume Used	180 mL
Person's name who did the prep	CBY
Sufficient volume for MS/MSD?	yes(Pesticide)(Not for PCB)
Uncorrected N-evap Temperature	21 Celsius
Uncorrected Temperature	79 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127269 Batch Start Date: 12/04/14 11:50 Batch Analyst: Yushinski, Charles

Batch Method: 3510C Batch End Date: 12/04/14 20:20

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG No.:

Project: Sparrows Point Trust Offshore Investigat

Client Sample ID	Lab Sample ID
ST-071-120114	180-39432-1
ST-UNNAMED-120114	180-39432-2
ST-018-120114	180-39432-3
ST-014-120114	180-39432-4

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 17:35

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.051	0.20	0.038	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 17:35

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	2.4	1.0	0.29	ug/L			1	6020A
7440-43-9	Cadmium	ND	1.0	0.11	ug/L			1	6020A
7440-47-3	Chromium	1.7	2.0	0.54	ug/L	J		1	6020A
7439-92-1	Lead	3.6	1.0	0.019	ug/L		B	1	6020A
7782-49-2	Selenium	0.42	5.0	0.42	ug/L	J		1	6020A
7440-22-4	Silver	ND	1.0	0.036	ug/L			1	6020A
7440-41-7	Beryllium	ND	1.0	0.037	ug/L			1	6020A
7440-28-0	Thallium	0.042	1.0	0.015	ug/L	J	B	1	6020A
7440-36-0	Antimony	0.63	2.0	0.019	ug/L	J	B	1	6020A
7440-02-0	Nickel	4.1	1.0	0.17	ug/L			1	6020A
7440-66-6	Zinc	75	5.0	0.96	ug/L			1	6020A
7440-50-8	Copper	3.0	2.0	0.24	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 18:25

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.083	0.20	0.038	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 18:25

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	ND	1.0	0.29	ug/L			1	6020A
7440-43-9	Cadmium	ND	1.0	0.11	ug/L			1	6020A
7440-47-3	Chromium	0.89	2.0	0.54	ug/L	J		1	6020A
7439-92-1	Lead	0.67	1.0	0.019	ug/L	J	B	1	6020A
7782-49-2	Selenium	ND	5.0	0.42	ug/L			1	6020A
7440-22-4	Silver	ND	1.0	0.036	ug/L			1	6020A
7440-41-7	Beryllium	ND	1.0	0.037	ug/L			1	6020A
7440-28-0	Thallium	0.024	1.0	0.015	ug/L	J	B	1	6020A
7440-36-0	Antimony	1.2	2.0	0.019	ug/L	J	B	1	6020A
7440-02-0	Nickel	2.8	1.0	0.17	ug/L			1	6020A
7440-66-6	Zinc	12	5.0	0.96	ug/L			1	6020A
7440-50-8	Copper	3.1	2.0	0.24	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 18:50

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	ND	0.20	0.038	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 18:50

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	2.2	1.0	0.29	ug/L			1	6020A
7440-43-9	Cadmium	ND	1.0	0.11	ug/L			1	6020A
7440-47-3	Chromium	6.8	2.0	0.54	ug/L			1	6020A
7439-92-1	Lead	3.2	1.0	0.019	ug/L		B	1	6020A
7782-49-2	Selenium	0.90	5.0	0.42	ug/L	J		1	6020A
7440-22-4	Silver	ND	1.0	0.036	ug/L			1	6020A
7440-41-7	Beryllium	ND	1.0	0.037	ug/L			1	6020A
7440-28-0	Thallium	ND	1.0	0.015	ug/L			1	6020A
7440-36-0	Antimony	0.88	2.0	0.019	ug/L	J	B	1	6020A
7440-02-0	Nickel	1.2	1.0	0.17	ug/L			1	6020A
7440-66-6	Zinc	9.4	5.0	0.96	ug/L			1	6020A
7440-50-8	Copper	2.7	2.0	0.24	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 19:20

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	ND	0.20	0.038	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 19:20

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	1.1	1.0	0.29	ug/L			1	6020A
7440-43-9	Cadmium	ND	1.0	0.11	ug/L			1	6020A
7440-47-3	Chromium	1.4	2.0	0.54	ug/L	J		1	6020A
7439-92-1	Lead	1.2	1.0	0.019	ug/L		B	1	6020A
7782-49-2	Selenium	ND	5.0	0.42	ug/L			1	6020A
7440-22-4	Silver	ND	1.0	0.036	ug/L			1	6020A
7440-41-7	Beryllium	ND	1.0	0.037	ug/L			1	6020A
7440-28-0	Thallium	ND	1.0	0.015	ug/L			1	6020A
7440-36-0	Antimony	1.1	2.0	0.019	ug/L	J	B	1	6020A
7440-02-0	Nickel	6.3	1.0	0.17	ug/L			1	6020A
7440-66-6	Zinc	20	5.0	0.96	ug/L			1	6020A
7440-50-8	Copper	2.4	2.0	0.24	ug/L		B	1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

ICV Source: MICVX_00026 Concentration Units: ug/L

CCV Source: MCCV1X_00069

Analyte	ICV 180-128044/5 12/11/2014 09:20				CCV 180-128044/10 12/11/2014 09:42				CCV 180-128044/22 12/11/2014 10:27			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	77.2		80.0	97	97.7		100	98	90.1		100	90
Arsenic	79.0		80.0	99	103		100	103	102		100	102
Beryllium	83.6		80.0	105	97.0		100	97	90.7		100	91
Cadmium	78.4		80.0	98	102		100	102	93.7		100	94
Chromium	81.1		80.0	101	103		100	103	92.1		100	92
Copper	82.0		80.0	102	104		100	104	104		100	104
Lead	76.8		80.0	96	103		100	103	98.9		100	99
Nickel	85.6		80.0	107	106		100	106	102		100	102
Selenium	82.2		80.0	103	103		100	103	108		100	108
Silver	78.5		80.0	98	102		100	102	92.8		100	93
Thallium	79.1		80.0	99	102		100	102	99.4		100	99
Zinc	81.8		80.0	102	108		100	108	106		100	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

ICV Source: MICVX_00026 Concentration Units: ug/L

CCV Source: MCCV1X_00069

Analyte	CCV 180-128044/33 12/11/2014 11:14											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	90.6		100	91								
Arsenic	102		100	102								
Beryllium	92.9		100	93								
Cadmium	94.2		100	94								
Chromium	93.3		100	93								
Copper	103		100	103								
Lead	93.0		100	93								
Nickel	101		100	101								
Selenium	107		100	107								
Silver	94.4		100	94								
Thallium	92.7		100	93								
Zinc	105		100	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

ICV Source: MHgWorkingicv_00915 Concentration Units: ug/L

CCV Source: MHgworkingCal_00938

Analyte	ICV 180-127961/7-A 12/11/2014 12:19				CCV 180-127961/10-A 12/11/2014 12:25				CCV 180-127961/10-A 12/11/2014 12:46			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.42		2.50	97	4.91		5.00	98	5.00		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

ICV Source: MHgWorkingicv_00915 Concentration Units: ug/L

CCV Source: MHgworkingCal_00938

Analyte	CCV 180-127961/10-A 12/11/2014 13:08											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.94		5.00	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-128044/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00058

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	1.00	1.03		103	70-130
Cadmium	1.00	1.01		101	70-130
Chromium	2.00	1.70	J	85	70-130
Lead	1.00	0.949	J	95	70-130
Selenium	5.00	5.11		102	70-130
Silver	1.00	0.987	J	99	70-130
Beryllium	1.00	0.979	J	98	70-130
Thallium	1.00	0.945	J	94	70-130
Antimony	2.00	1.65	J	82	70-130
Nickel	1.00	1.00		100	70-130
Zinc	5.00	5.17		103	70-130
Copper	2.00	2.11		106	70-130

Lab Sample ID: CRI 180-128044/28 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00058

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	1.00	0.767	J	77	70-130
Cadmium	1.00	0.927	J	93	70-130
Chromium	2.00	1.60	J	80	70-130
Lead	1.00	1.29		129	70-130
Selenium	5.00	4.19	J	84	70-130
Silver	1.00	0.888	J	89	70-130
Beryllium	1.00	0.914	J	91	70-130
Thallium	1.00	0.912	J	91	70-130
Antimony	2.00	1.66	J	83	70-130
Nickel	1.00	0.991	J	99	70-130
Zinc	5.00	5.55		111	70-130
Copper	2.00	2.17		109	70-130

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

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Method: 7470A Instrument ID: K

Lab Sample ID: CRA 180-127961/9-A Concentration Units: ug/L

CRQL Check Standard Source: MHgworkingCal_00938

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.191	J	95	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-128044/6 12/11/2014 09:26		CCB1 180-128044/11 12/11/2014 09:48		CCB2 180-128044/23 12/11/2014 10:33		CCB3 180-128044/34 12/11/2014 11:20	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	ND		0.0610	J	0.0320	J	0.0410	J
Arsenic	1.0	ND		ND		ND		ND	
Beryllium	1.0	ND		ND		ND		ND	
Cadmium	1.0	ND		ND		ND		ND	
Chromium	2.0	ND		ND		ND		ND	
Copper	2.0	ND		ND		ND		ND	
Lead	1.0	ND		ND		0.323	J	0.156	J
Nickel	1.0	ND		ND		ND		ND	
Selenium	5.0	ND		ND		ND		ND	
Silver	1.0	ND		ND		ND		ND	
Thallium	1.0	ND		ND		0.0160	J	ND	
Zinc	5.0	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-127961/8-A 12/11/2014 12:21		CCB 180-127961/11-A 12/11/2014 12:27		CCB 180-127961/11-A 12/11/2014 12:48		CCB 180-127961/11-A 12/11/2014 13:10	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-127321/1-A

Instrument Code: M Batch No.: 128044

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	ND			6020A
7440-43-9	Cadmium	ND			6020A
7440-47-3	Chromium	ND			6020A
7439-92-1	Lead	0.595	J		6020A
7782-49-2	Selenium	ND			6020A
7440-22-4	Silver	ND			6020A
7440-41-7	Beryllium	ND			6020A
7440-28-0	Thallium	0.0530	J		6020A
7440-36-0	Antimony	0.0400	J		6020A
7440-02-0	Nickel	ND			6020A
7440-66-6	Zinc	ND			6020A
7440-50-8	Copper	0.274	J		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-127920/1-A

Instrument Code: K Batch No.: 128046

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7470A

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: ICSA 180-128044/8 Instrument ID: M

Lab File ID: M41211A.xml ICS Source: MICSAX_00060

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0910**	
Arsenic		**0.0460**	
Beryllium		**0.0030**	
Cadmium		**0.136**	
Chromium		**-1.27**	
Copper		**2.29**	
Lead		**0.932**	
Nickel		**0.534**	
Selenium		**0.404**	
Silver		**0.335**	
Thallium		**0.0720**	
Zinc		**3.73**	
Aluminum	*100000*	*111200*	*111*
Barium		*0.138*	
Boron		*1.10*	
Calcium	*100000*	*108200*	*108*
Cobalt		*0.213*	
Iron	*100000*	*111800*	*112*
Magnesium	*100000*	*114200*	*114*
Manganese		*0.646*	
Molybdenum	*2000*	*2369*	*118*
Potassium	*100000*	*107600*	*108*
Silicon		*33.8*	
Sodium	*100000*	*106200*	*106*
Strontium		*1.14*	
Tin		*0.285*	
Titanium	*2000*	*2167*	*108*
Vanadium		*-0.779*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Lab Sample ID: ICSAB 180-128044/9 Instrument ID: M

Lab File ID: M41211A.xml ICS Source: MICSABX_00064

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**20.0**	**20.4**	**102**
Arsenic	**20.0**	**20.2**	**101**
Beryllium	**20.0**	**19.3**	**97**
Cadmium	**20.0**	**19.8**	**99**
Chromium	**20.0**	**20.5**	**102**
Copper	**20.0**	**22.8**	**114**
Lead	**20.0**	**24.0**	**120**
Nickel	**20.0**	**21.5**	**108**
Selenium	**50.0**	**48.8**	**98**
Silver	**20.0**	**19.5**	**98**
Thallium	**20.0**	**23.1**	**116**
Zinc	**25.0**	**24.2**	**97**
Aluminum	*100000*	*112533*	*113*
Barium	*20.0*	*20.9*	*104*
Boron	*50.0*	*51.5*	*103*
Calcium	*100000*	*111333*	*111*
Cobalt	*20.0*	*21.9*	*109*
Iron	*100000*	*114567*	*115*
Magnesium	*100000*	*115767*	*116*
Manganese	*22.5*	*22.0*	*98*
Molybdenum	*2000*	*2349*	*117*
Potassium	*100000*	*111733*	*112*
Silicon	*500*	*539*	*108*
Sodium	*100000*	*105750*	*106*
Strontium	*25.0*	*22.3*	*89*
Tin	*100*	*105*	*105*
Titanium	*2000*	*2188*	*109*
Vanadium	*20.0*	*20.7*	*103*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: ST-071-120114 MS
Lab ID: 180-39432-1 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-39432-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	37.9		2.4		40.0	89	75-125		6020A
Cadmium	47.4		ND		50.0	95	75-125		6020A
Chromium	187		1.7	J	200	93	75-125		6020A
Lead	24.9		3.6		20.0	106	75-125		6020A
Selenium	9.79		0.42	J	10.0	98	75-125		6020A
Silver	46.8		ND		50.0	94	75-125		6020A
Beryllium	40.6		ND		50.0	81	75-125		6020A
Thallium	52.9		0.042	J	50.0	106	75-125		6020A
Antimony	464		0.63	J	500	93	75-125		6020A
Nickel	466		4.1		500	92	75-125		6020A
Zinc	531		75		500	91	75-125		6020A
Copper	237		3.0		250	94	75-125		6020A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: ST-071-120114 MSD
Lab ID: 180-39432-1 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-39432-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	37.1		40.0	87	75-125	2	20		6020A
Cadmium	46.5		50.0	93	75-125	2	20		6020A
Chromium	183		200	91	75-125	2	20		6020A
Lead	24.8		20.0	106	75-125	1	20		6020A
Selenium	9.66		10.0	97	75-125	1	20		6020A
Silver	46.1		50.0	92	75-125	1	20		6020A
Beryllium	39.6		50.0	79	75-125	3	20		6020A
Thallium	53.0		50.0	106	75-125	0	20		6020A
Antimony	459		500	92	75-125	1	20		6020A
Nickel	470		500	93	75-125	1	20		6020A
Zinc	520		500	89	75-125	2	20		6020A
Copper	238		250	94	75-125	1	20		6020A

SDR = Sample Duplicate Result

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

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: ST-071-120114 PDS Lab ID: 180-39432-1 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	38.5		2.4		40.0	90	75-125		6020A
Cadmium	46.9		ND		50.0	94	75-125		6020A
Chromium	189		1.7	J	200	94	75-125		6020A
Lead	25.1		3.6		20.0	108	75-125		6020A
Selenium	9.81		0.42	J	10.0	98	75-125		6020A
Silver	47.5		ND		50.0	95	75-125		6020A
Beryllium	41.6		ND		50.0	83	75-125		6020A
Thallium	53.3		0.042	J	50.0	106	75-125		6020A
Antimony	475		0.63	J	500	95	75-125		6020A
Nickel	473		4.1		500	94	75-125		6020A
Zinc	526		75		500	90	75-125		6020A
Copper	239		3.0		250	94	75-125		6020A

SSR = Spiked Sample Result

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

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-127321/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

Sample Matrix: Water LCS Source: MTAPITTICPMS_00018

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	40.0	37.0		92	80	120		6020A
Cadmium	50.0	46.6		93	80	120		6020A
Chromium	200	191		96	80	120		6020A
Lead	20.0	21.7		108	80	120		6020A
Selenium	10.0	9.26		93	80	120		6020A
Silver	50.0	46.8		94	80	120		6020A
Beryllium	50.0	43.1		86	80	120		6020A
Thallium	50.0	51.7		103	80	120		6020A
Antimony	500	470		94	80	120		6020A
Nickel	500	499		100	80	120		6020A
Zinc	500	491		98	80	120		6020A
Copper	250	247		99	80	120		6020A

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-127920/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

Sample Matrix: Water LCS Source: MHgworkingCal_00938

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	2.50	2.49		100	80	120		7470A

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 180-39432-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-39432-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	2.4		ND		NC		6020A
Cadmium	ND		ND		NC		6020A
Chromium	1.7	J	ND		NC		6020A
Lead	3.6		3.78	J	4.2		6020A
Selenium	0.42	J	ND		NC		6020A
Silver	ND		ND		NC		6020A
Beryllium	ND		ND		NC		6020A
Thallium	0.042	J	ND		NC		6020A
Antimony	0.63	J	0.315	J	NC		6020A
Nickel	4.1		4.45	J	NC		6020A
Zinc	75		82.3		10		6020A
Copper	3.0		3.29	J	NC		6020A

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

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121	2	0.0187
Arsenic	75	1	0.2908
Beryllium	9	1	0.0367
Cadmium	111	1	0.1144
Chromium	52	2	0.5433
Copper	65	2	0.2443
Lead	208	1	0.0192
Nickel	60	1	0.1749
Selenium	82	5	0.4216
Silver	107	1	0.0362
Thallium	205	1	0.0152
Zinc	66	5	0.9609

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121	2	0.0187
Arsenic	75	1	0.2908
Beryllium	9	1	0.0367
Cadmium	111	1	0.1144
Chromium	52	2	0.5433
Copper	65	2	0.2443
Lead	208	1	0.0192
Nickel	60	1	0.1749
Selenium	82	5	0.4216
Silver	107	1	0.0362
Thallium	205	1	0.0152
Zinc	66	5	0.9609

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: K

Method: 7470A MDL Date: 01/23/2010 12:29

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.0384

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: K

Method: 7470A XMDL Date: 01/23/2010 12:30

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.0384

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-39432-1

SDG No.:

Instrument ID: M Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		4500	6020A
Cadmium		13500	6020A
Chromium		13500	6020A
Lead		20000	6020A
Selenium		4500	6020A
Silver		2500	6020A
Beryllium		9000	6020A
Thallium		13500	6020A
Antimony		13500	6020A
Nickel		13500	6020A
Zinc		25000	6020A
Copper		20000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-127321/1-A	12/05/2014 06:45	127321		50	50
LCS 180-127321/2-A	12/05/2014 06:45	127321		50	50
180-39432-1	12/05/2014 06:45	127321		50	50
180-39432-1 MS	12/05/2014 06:45	127321		50	50
180-39432-1 MSD	12/05/2014 06:45	127321		50	50
180-39432-2	12/05/2014 06:45	127321		50	50
180-39432-3	12/05/2014 06:45	127321		50	50
180-39432-4	12/05/2014 06:45	127321		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-127920/1-A	12/11/2014 06:05	127920		50	50
LCS 180-127920/2-A	12/11/2014 06:05	127920		50	50
180-39432-1	12/11/2014 06:05	127920		50	50
180-39432-2	12/11/2014 06:05	127920		50	50
180-39432-3	12/11/2014 06:05	127920		50	50
180-39432-4	12/11/2014 06:05	127920		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: M Method: 6020A

Start Date: 12/11/2014 07:13 End Date: 12/11/2014 13:40

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Be	Cd	Cr	Cu	Ni	Pb	Sb	Se	Tl	Zn								
ITUNE 180-128044/1			07:13																				
STD1 180-128044/2 IC	1		09:10	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 180-128044/3 IC	1		09:13	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 180-128044/4 IC	1		09:16	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 180-128044/5	1		09:20	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 180-128044/6	1		09:26	X	X	X	X	X	X	X	X	X	X	X	X								
CRI 180-128044/7	1		09:29	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 180-128044/8	1		09:33	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 180-128044/9	1		09:36	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 180-128044/10	1		09:42	X	X	X	X	X	X	X	X	X	X	X	X								
CCB1 180-128044/11	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X								
MB 180-127321/1-A	1	R	09:52	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 180-127321/2-A	1	R	09:55	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			09:59																				
ZZZZZZ			10:02																				
ZZZZZZ			10:06																				
ZZZZZZ			10:09																				
180-39432-1	1	R	10:13	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-1 SD	5	R	10:16	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-1 MS	1	R	10:20	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-1 MSD	1	R	10:24	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 180-128044/22	1		10:27	X	X	X	X	X	X	X	X	X	X	X	X								
CCB2 180-128044/23	1		10:33	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-1 PDS	1	R	10:37	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-2	1	R	10:40	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-3	1	R	10:44	X	X	X	X	X	X	X	X	X	X	X	X								
180-39432-4	1	R	10:47	X	X	X	X	X	X	X	X	X	X	X	X								
CRI 180-128044/28	1		10:54	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			10:57																				
ZZZZZZ			11:01																				
ZZZZZZ			11:04																				
ZZZZZZ			11:08																				
CCV 180-128044/33	1		11:14	X	X	X	X	X	X	X	X	X	X	X	X								
CCB3 180-128044/34	1		11:20	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			11:24																				
ZZZZZZ			11:27																				
ZZZZZZ			11:31																				
ZZZZZZ			11:37																				
ZZZZZZ			11:41																				
ZZZZZZ			11:44																				
ZZZZZZ			11:48																				
ZZZZZZ			11:51																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: M Method: 6020A

Start Date: 12/11/2014 07:13 End Date: 12/11/2014 13:40

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Be	Cd	Cr	Cu	Ni	Pb	Sb	Se	Tl	Zn								
ZZZZZZ			11:55																				
ZZZZZZ			11:58																				
CCV 180-128044/45			12:05																				
CCB4 180-128044/46			12:11																				
ZZZZZZ			12:14																				
ZZZZZZ			12:18																				
ZZZZZZ			12:21																				
ZZZZZZ			12:25																				
ZZZZZZ			12:28																				
ZZZZZZ			12:32																				
ZZZZZZ			12:36																				
ZZZZZZ			12:39																				
ZZZZZZ			12:43																				
ZZZZZZ			12:46																				
CCV 180-128044/57			12:50																				
CCB5 180-128044/58			12:56																				
ZZZZZZ			12:59																				
ZZZZZZ			13:03																				
ZZZZZZ			13:06																				
ZZZZZZ			13:10																				
ZZZZZZ			13:14																				
ZZZZZZ			13:17																				
CCV 180-128044/65			13:21																				
CCB6 180-128044/66			13:27																				
ZZZZZZ			13:30																				
CCV 180-128044/68			13:34																				
CCB7 180-128044/69			13:40																				

Prep Types

R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: K Method: 7470A

Start Date: 12/11/2014 12:08 End Date: 12/11/2014 14:25

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
IC 180-127961/1-A			12:08	X																			
IC 180-127961/2-A			12:10	X																			
IC 180-127961/3-A			12:12	X																			
IC 180-127961/4-A			12:14	X																			
IC 180-127961/5-A			12:15	X																			
IC 180-127961/6-A			12:17	X																			
ICV 180-127961/7-A	1		12:19	X																			
ICB 180-127961/8-A	1		12:21	X																			
CRA 180-127961/9-A	1		12:23	X																			
CCV 180-127961/10-A	1		12:25	X																			
CCB 180-127961/11-A	1		12:27	X																			
MB 180-127920/1-A	1	T	12:29	X																			
LCS 180-127920/2-A	1	T	12:31	X																			
ZZZZZZ			12:32																				
ZZZZZZ			12:34																				
ZZZZZZ			12:36																				
ZZZZZZ			12:38																				
ZZZZZZ			12:39																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:44																				
CCV 180-127961/10-A	1		12:46	X																			
CCB 180-127961/11-A	1		12:48	X																			
ZZZZZZ			12:50																				
ZZZZZZ			12:52																				
ZZZZZZ			12:54																				
180-39432-1	1	T	12:56	X																			
180-39432-2	1	T	12:57	X																			
180-39432-3	1	T	12:59	X																			
180-39432-4	1	T	13:01	X																			
ZZZZZZ			13:03																				
ZZZZZZ			13:04																				
ZZZZZZ			13:06																				
CCV 180-127961/10-A	1		13:08	X																			
CCB 180-127961/11-A	1		13:10	X																			
ZZZZZZ			13:12																				
ZZZZZZ			13:14																				
ZZZZZZ			13:15																				
ZZZZZZ			13:17																				
ZZZZZZ			13:19																				
ZZZZZZ			13:20																				
ZZZZZZ			13:22																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: K Method: 7470A

Start Date: 12/11/2014 12:08 End Date: 12/11/2014 14:25

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			13:24																				
ZZZZZZ			13:26																				
ZZZZZZ			13:28																				
CCV 180-127961/10-A			13:29																				
CCB 180-127961/11-A			13:31																				
ZZZZZZ			13:33																				
ZZZZZZ			13:35																				
ZZZZZZ			13:37																				
ZZZZZZ			13:39																				
ZZZZZZ			13:41																				
ZZZZZZ			13:43																				
ZZZZZZ			13:45																				
ZZZZZZ			13:46																				
ZZZZZZ			13:48																				
ZZZZZZ			13:50																				
CCV 180-127961/10-A			13:52																				
CCB 180-127961/11-A			13:53																				
ZZZZZZ			13:55																				
ZZZZZZ			13:57																				
ZZZZZZ			13:59																				
ZZZZZZ			14:01																				
ZZZZZZ			14:02																				
ZZZZZZ			14:04																				
ZZZZZZ			14:06																				
ZZZZZZ			14:08																				
ZZZZZZ			14:10																				
ZZZZZZ			14:12																				
CCV 180-127961/10-A			14:13																				
CCB 180-127961/11-A			14:15																				
ZZZZZZ			14:18																				
ZZZZZZ			14:19																				
ZZZZZZ			14:21																				
CCV 180-127961/10-A			14:23																				
CCB 180-127961/11-A			14:25																				

Prep Types

T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 12/11/2014 End Date: 12/11/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Y-89	Q	Element Rh-103	Q	Element In	Q
STD1 180-128044/2 IC	09:10	100		100		100		100		100	
STD2 180-128044/3 IC	09:13	81		89		87		81		82	
STD3 180-128044/4 IC	09:16	84		97		94		97		91	
ICV 180-128044/5	09:20	87		89		92		88		84	
ICB 180-128044/6	09:26	94		99		97		95		92	
CRI 180-128044/7	09:29	90		101		94		96		90	
ICSA 180-128044/8	09:33	73		76		77		78		80	
ICSAB 180-128044/9	09:36	68	*	75		75		78		78	
CCV 180-128044/10	09:42	92		94		91		89		90	
CCB1 180-128044/11	09:48	90		94		96		97		96	
MB 180-127321/1-A	09:52	86		99		93		96		100	
LCS 180-127321/2-A	09:55	73		82		81		86		87	
180-39432-1	10:13	73		83		82		84		89	
180-39432-1 SD	10:16	79		88		88		92		94	
180-39432-1 MS	10:20	69	*	80		81		80		84	
180-39432-1 MSD	10:24	70		81		80		81		83	
CCV 180-128044/22	10:27	75		82		75		85		82	
CCB2 180-128044/23	10:33	86		92		90		95		92	
180-39432-1 PDS	10:37	66	*	77		77		78		80	
180-39432-2	10:40	67	*	80		81		84		83	
180-39432-3	10:44	76		83		86		82		87	
180-39432-4	10:47	69	*	79		78		82		82	
CRI 180-128044/28	10:54	78		90		85		91		89	
CCV 180-128044/33	11:14	75		81		75		79		79	
CCB3 180-128044/34	11:20	96		95		88		91		93	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 12/11/2014 End Date: 12/11/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-128044/2 IC	09:10	100		100		100					
STD2 180-128044/3 IC	09:13	79		78		79					
STD3 180-128044/4 IC	09:16	91		90		90					
ICV 180-128044/5	09:20	84		83		84					
ICB 180-128044/6	09:26	87		86		86					
CRI 180-128044/7	09:29	87		88		88					
ICSA 180-128044/8	09:33	84		83		86					
ICSAB 180-128044/9	09:36	85		84		81					
CCV 180-128044/10	09:42	95		94		94					
CCB1 180-128044/11	09:48	96		96		97					
MB 180-127321/1-A	09:52	103		105		107					
LCS 180-127321/2-A	09:55	100		101		91					
180-39432-1	10:13	102		102		95					
180-39432-1 SD	10:16	108		108		107					
180-39432-1 MS	10:20	99		101		92					
180-39432-1 MSD	10:24	97		98		87					
CCV 180-128044/22	10:27	90		89		84					
CCB2 180-128044/23	10:33	97		98		99					
180-39432-1 PDS	10:37	96		98		89					
180-39432-2	10:40	102		102		96					
180-39432-3	10:44	99		100		95					
180-39432-4	10:47	99		101		95					
CRI 180-128044/28	10:54	100		99		109					
CCV 180-128044/33	11:14	85		86		87					
CCB3 180-128044/34	11:20	94		94		103					

Dilution Corrected Concentrations

STD1 1424827 INT STD 12/11/2014 9:10:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:30	101.263%	-0.010	-0.255	-0.106	0.000	-0.267	0.091	-0.041
2	09:10:49	106.262%	-0.008	0.143	0.090	0.000	0.229	-0.034	0.129
3	09:11:08	92.475%	0.017	0.111	0.016	0.000	0.039	-0.057	-0.088
x		100.000%	-0.000	-0.000	0.000	0.000	0.000	0.000	-0.000
σ		6.980%	0.015	0.221	0.099	0.000	0.250	0.080	0.114
%RSD		6.980	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:30	-0.048	-0.174	0.000	-0.036	0.255	0.121	102.246%	0.039
2	09:10:49	-0.068	-0.464	0.000	-0.465	0.352	-0.258	97.542%	0.004
3	09:11:08	0.116	0.638	0.000	0.501	-0.607	0.136	100.213%	-0.043
x		0.000	0.000	0.000	-0.000	0.000	0.000	100.000%	-0.000
σ		0.101	0.571	0.000	0.484	0.528	0.223	2.359%	0.041
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	2.359	0.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:30	-0.005	0.017	-0.006	-12.650	-3.333	0.004	0.003	-0.002
2	09:10:49	0.020	0.046	0.007	22.050	4.620	-0.002	-0.005	-0.014
3	09:11:08	-0.015	-0.063	-0.001	-9.400	-1.287	-0.001	0.002	0.015
x		-0.000	-0.000	0.000	-0.000	0.000	0.000	0.000	-0.000
σ		0.018	0.057	0.006	19.160	4.130	0.003	0.004	0.015
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:30	-0.007	0.007	0.021	0.170	0.061	0.874	0.000	-0.001
2	09:10:49	0.015	-0.039	0.048	-0.123	-0.322	-0.859	0.000	0.000
3	09:11:08	-0.008	0.032	-0.070	-0.047	0.261	-0.015	0.000	0.001
x		0.000	-0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000
σ		0.013	0.036	0.062	0.152	0.296	0.867	0.000	0.001
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:30	95.529%	0.005	-0.009	95.765%	-0.015	-0.015	-0.092	-0.070
2	09:10:49	103.674%	0.001	-0.008	102.116%	-0.004	-0.006	-0.069	-0.056
3	09:11:08	100.797%	-0.005	0.017	102.119%	0.019	0.021	0.162	0.126
x		100.000%	0.000	-0.000	100.000%	0.000	-0.000	-0.000	0.000
σ		4.130%	0.005	0.015	3.667%	0.017	0.019	0.141	0.110
%RSD		4.130	0.000	0.000	3.667	0.000	0.000	0.000	0.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:10:30	98.573%	-0.026	-0.009	0.008	0.004	-0.005	97.446%	98.267%
2	09:10:49	101.590%	0.010	-0.010	0.003	0.004	-0.002	100.791%	100.116%
3	09:11:08	99.837%	0.016	0.020	-0.012	-0.008	0.008	101.763%	101.617%
x		100.000%	-0.000	-0.000	0.000	-0.000	0.000	100.000%	100.000%
σ		1.515%	0.023	0.017	0.010	0.007	0.007	2.265%	1.678%
%RSD		1.515	0.000	0.000	0.000	0.000	0.000	2.265	1.678
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:10:30	0.000	-0.003	-0.002	-0.015	-0.007	101.031%		
2	09:10:49	0.002	-0.000	-0.008	0.020	0.004	99.247%		
3	09:11:08	-0.003	0.003	0.010	-0.005	0.003	99.722%		
x		0.000	0.000	-0.000	-0.000	0.000	100.000%		
σ		0.003	0.003	0.009	0.018	0.006	0.924%		
%RSD		0.000	0.000	0.000	0.000	0.000	0.924		

STD2 1408390 12/11/2014 9:13:30 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	82.876%	206.200	0.235	0.118	0.000	103300.000	100800.000	99790.000
2	09:13:50	73.286%	198.500	-0.223	0.081	0.000	101700.000	104300.000	105700.000
3	09:14:09	87.592%	195.400	-0.050	0.041	0.000	94980.000	94930.000	94550.000
x		81.251%	200.000	-0.012	0.080	0.000	100000.000	100000.000	100000.000
σ		7.290%	5.568	0.231	0.038	0.000	4417.000	4720.000	5557.000
%RSD		8.972	2.784	1876.000	47.850	0.000	4.417	4.720	5.557

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	986.100	4.634	0.000	95020.000	96210.000	96210.000	88.930%	0.200
2	09:13:50	1076.000	6.103	0.000	105500.000	104300.000	102500.000	89.071%	0.303
3	09:14:09	938.200	4.393	0.000	99450.000	99440.000	101300.000	87.460%	0.370
x		1000.000	5.043	0.000	100000.000	100000.000	100000.000	88.487%	0.291
σ		69.730	0.926	0.000	5273.000	4099.000	3339.000	0.892%	0.086
%RSD		6.973	18.350	0.000	5.273	4.099	3.339	1.008	29.480

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	196.500	199.900	1016.000	50640.000	50620.000	203.100	198.600	193.800
2	09:13:50	196.700	191.100	954.800	48520.000	49200.000	197.700	204.200	208.300
3	09:14:09	206.800	208.900	1029.000	50850.000	50170.000	199.200	197.200	197.900
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		5.910	8.906	39.690	1288.000	723.800	2.768	3.698	7.469
%RSD		2.955	4.453	3.969	2.575	1.448	1.384	1.849	3.735

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	190.100	194.700	193.800	194.200	200.000	193.600	0.000	200.400
2	09:13:50	209.600	204.800	202.400	199.900	200.300	208.700	0.000	197.000
3	09:14:09	200.200	200.500	203.800	205.900	199.700	197.700	0.000	202.600
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		9.750	5.064	5.407	5.890	0.316	7.830	0.000	2.807
%RSD		4.875	2.532	2.703	2.945	0.158	3.915	0.000	1.403

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	88.129%	0.147	0.070	81.536%	196.700	195.400	197.900	199.300
2	09:13:50	85.540%	0.147	0.083	82.525%	204.000	203.000	202.800	200.600
3	09:14:09	86.489%	0.138	0.102	79.167%	199.400	201.600	199.300	200.100
x		86.719%	0.144	0.085	81.076%	200.000	200.000	200.000	200.000
σ		1.310%	0.005	0.016	1.726%	3.680	4.046	2.501	0.677
%RSD		1.510	3.639	19.300	2.128	1.840	2.023	1.251	0.338

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	82.100%	0.063	0.158	0.160	204.000	201.800	79.854%	78.028%
2	09:13:50	80.158%	0.069	0.127	0.124	196.800	198.800	80.394%	79.309%
3	09:14:09	83.150%	0.005	0.121	0.172	199.200	199.400	78.045%	77.735%
x		81.803%	0.046	0.135	0.152	200.000	200.000	79.431%	78.357%
σ		1.518%	0.035	0.020	0.025	3.672	1.564	1.230%	0.837%
%RSD		1.856	76.890	14.650	16.390	1.836	0.782	1.549	1.069

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:13:30	191.100	190.000	189.600	190.200	189.900	81.784%
2	09:13:50	204.400	205.100	203.900	202.200	202.300	78.129%
3	09:14:09	204.500	204.900	206.500	207.600	207.700	76.484%
x		200.000	200.000	200.000	200.000	200.000	78.799%
σ		7.736	8.679	9.086	8.931	9.124	2.713%
%RSD		3.868	4.340	4.543	4.466	4.562	3.442

STD3 1408391 12/11/2014 9:16:52 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	86.732%	0.084	182.800	183.600	0.000	46.750	34.450	37.510
2	09:17:11	82.310%	0.079	206.200	209.200	0.000	51.210	38.100	39.190
3	09:17:30	81.869%	0.067	210.900	207.200	0.000	49.010	35.680	38.780
x		83.637%	0.077	200.000	200.000	0.000	48.990	36.080	38.500
σ		2.689%	0.009	15.030	14.280	0.000	2.232	1.857	0.875
%RSD		3.215	11.200	7.517	7.139	0.000	4.557	5.146	2.274

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	10.180	9576.000	0.000	38.200	42.610	143.000	99.130%	199.900
2	09:17:11	10.960	10230.000	0.000	33.330	34.150	135.000	95.655%	198.000
3	09:17:30	11.240	10190.000	0.000	38.520	49.340	135.900	96.153%	202.000
x		10.790	10000.000	0.000	36.680	42.030	137.900	96.979%	200.000
σ		0.551	367.600	0.000	2.908	7.608	4.398	1.879%	2.001
%RSD		5.103	3.676	0.000	7.928	18.100	3.189	1.938	1.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	0.115	0.013	0.387	45.300	71.760	0.086	0.128	0.266
2	09:17:11	0.038	-0.045	0.392	59.960	58.300	0.080	0.139	0.229
3	09:17:30	0.044	-0.038	0.398	31.970	42.640	0.088	0.139	0.228
x		0.066	-0.023	0.392	45.740	57.570	0.085	0.135	0.241
σ		0.043	0.032	0.005	14.000	14.580	0.004	0.006	0.021
%RSD		65.300	136.900	1.348	30.610	25.320	4.607	4.713	8.821

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	0.341	2.731	2.952	-0.052	-0.068	-0.265	0.000	0.099
2	09:17:11	0.380	2.941	2.848	-0.010	-0.163	-0.400	0.000	0.092
3	09:17:30	0.297	2.570	2.911	-0.097	0.204	-0.768	0.000	0.086
x		0.339	2.747	2.904	-0.053	-0.009	-0.477	0.000	0.092
σ		0.042	0.186	0.052	0.044	0.191	0.260	0.000	0.007
%RSD		12.290	6.778	1.795	81.910	2125.000	54.510	0.000	7.281

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	90.683%	193.000	194.300	93.666%	0.103	0.097	0.097	0.021
2	09:17:11	95.204%	202.700	201.300	97.863%	0.128	0.132	0.141	0.062
3	09:17:30	96.760%	204.400	204.400	99.482%	0.113	0.165	0.088	-0.175
x		94.216%	200.000	200.000	97.004%	0.115	0.131	0.109	-0.031
σ		3.157%	6.164	5.166	3.002%	0.013	0.034	0.028	0.126
%RSD		3.351	3.082	2.583	3.095	11.160	25.790	25.890	413.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	89.893%	197.500	195.800	196.200	0.174	0.344	84.812%	85.377%
2	09:17:11	90.058%	201.100	201.600	202.000	0.192	0.294	91.649%	91.456%
3	09:17:30	92.635%	201.300	202.600	201.900	0.168	0.260	94.908%	92.915%
x		90.862%	200.000	200.000	200.000	0.178	0.299	90.456%	89.916%
σ		1.537%	2.142	3.671	3.333	0.013	0.042	5.153%	3.998%
%RSD		1.692	1.071	1.835	1.666	7.126	14.040	5.696	4.446

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:52	0.113	0.103	0.100	0.109	0.107	87.758%
2	09:17:11	0.130	0.114	0.118	0.122	0.110	89.552%
3	09:17:30	0.105	0.102	0.127	0.109	0.135	92.285%
x		0.116	0.106	0.115	0.114	0.117	89.865%
σ		0.013	0.006	0.014	0.007	0.015	2.280%
%RSD		11.100	6.124	12.250	6.510	12.990	2.537

ICV 1423408 12/11/2014 9:20:13 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	93.645%	82.650	83.540	82.380	0.000	39760.000	38280.000	37560.000
2	09:20:32	83.101%	85.090	84.750	88.590	0.000	43820.000	43310.000	42780.000
3	09:20:51	85.004%	83.160	85.070	86.660	0.000	43740.000	42200.000	42080.000
x		87.250%	104.542%	105.566%	107.349%	0.000	106.100%	103.158%	102.012%
σ		5.620%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.441	1.538	0.956	3.699	0.000	5.471	6.401	6.947

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	380.300	3408.000	0.000	39010.000	37960.000	38490.000	90.628%	78.340
2	09:20:32	448.000	3968.000	0.000	41990.000	40950.000	39440.000	87.308%	78.900
3	09:20:51	438.300	3952.000	0.000	41220.000	40630.000	39590.000	90.036%	77.130
x		105.549%	94.398%	0.000	101.850%	99.619%	97.936%	89.324%	97.656%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.771%	n/a
%RSD		8.674	8.441	0.000	3.804	4.113	1.529	1.982	1.159

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	80.560	82.010	401.500	20360.000	20280.000	79.300	79.180	79.050
2	09:20:32	78.130	80.860	406.900	20730.000	21310.000	86.910	88.490	86.770
3	09:20:51	77.480	80.490	404.300	20470.000	21020.000	86.230	89.070	86.590
x		98.404%	101.399%	101.054%	102.588%	104.354%	105.186%	106.973%	105.174%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.067	0.977	0.667	0.939	2.541	5.008	6.488	5.235

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	78.180	79.180	79.900	79.740	82.700	80.220	0.000	78.370
2	09:20:32	83.950	83.700	81.770	79.520	84.060	85.010	0.000	76.380
3	09:20:51	83.730	82.390	82.170	77.710	83.670	81.430	0.000	76.760
x		102.440%	102.196%	101.597%	98.740%	104.344%	102.774%	0.000	96.467%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.988	2.850	1.493	1.407	0.838	3.024	0.000	1.368

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	90.581%	79.610	79.720	83.304%	78.390	77.800	78.880	79.720
2	09:20:32	92.177%	80.520	80.720	90.189%	79.080	76.740	77.300	79.440
3	09:20:51	92.023%	81.630	82.930	91.248%	78.110	77.480	78.960	79.500
x		91.594%	100.737%	101.406%	88.247%	98.158%	96.674%	97.975%	99.440%
σ		0.881%	n/a	n/a	4.314%	n/a	n/a	n/a	n/a
%RSD		0.961	1.256	2.028	4.888	0.634	0.702	1.199	0.185

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	83.989%	78.230	76.110	75.900	76.580	76.400	80.587%	79.159%
2	09:20:32	83.994%	77.920	77.180	76.650	77.670	79.010	84.253%	84.050%
3	09:20:51	84.536%	77.500	78.400	77.360	78.990	78.000	87.018%	86.762%
x		84.173%	97.353%	96.532%	95.798%	97.184%	97.254%	83.953%	83.324%
σ		0.314%	n/a	n/a	n/a	n/a	n/a	3.226%	3.853%
%RSD		0.373	0.472	1.485	0.954	1.556	1.698	3.842	4.624

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:13	75.850	74.690	73.920	71.260	73.580	84.592%
2	09:20:32	81.310	80.140	78.790	76.700	77.590	82.863%
3	09:20:51	84.140	82.520	81.990	77.210	79.240	83.019%
x		100.541%	98.895%	97.796%	93.819%	96.008%	83.492%
σ		n/a	n/a	n/a	n/a	n/a	0.956%
%RSD		5.244	5.074	5.194	4.396	3.789	1.146

ICB 12/11/2014 9:26:19 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	99.258%	-0.009	1.138	1.360	0.000	0.268	0.325	0.058
2	09:26:38	92.566%	-0.018	1.012	1.148	0.000	0.800	0.269	0.250
3	09:26:57	90.689%	0.000	0.352	0.697	0.000	0.053	0.006	-0.007
x		94.171%	-0.009	0.834	1.068	0.000	0.374	0.200	0.100
σ		4.504%	0.009	0.422	0.339	0.000	0.384	0.170	0.134
%RSD		4.783	101.700	50.640	31.710	0.000	102.800	85.180	133.700

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	-0.242	0.480	0.000	2.578	-0.167	1.029	100.859%	0.118
2	09:26:38	-0.038	1.782	0.000	6.701	-1.009	0.229	94.153%	-0.052
3	09:26:57	-0.083	1.314	0.000	3.425	2.068	0.520	102.257%	0.029
x		-0.121	1.192	0.000	4.235	0.297	0.593	99.090%	0.032
σ		0.107	0.659	0.000	2.178	1.590	0.405	4.332%	0.085
%RSD		88.430	55.320	0.000	51.430	535.100	68.260	4.372	267.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	0.026	0.093	0.002	20.150	2.663	-0.006	-0.007	-0.049
2	09:26:38	-0.004	0.010	-0.000	43.970	7.586	0.003	-0.006	-0.024
3	09:26:57	0.018	-0.018	-0.007	-5.282	0.758	-0.001	0.001	-0.014
x		0.013	0.028	-0.002	19.610	3.669	-0.001	-0.004	-0.029
σ		0.015	0.058	0.005	24.630	3.524	0.004	0.004	0.018
%RSD		113.900	203.800	276.600	125.600	96.040	476.300	101.200	62.680

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	-0.013	-0.057	-0.012	-0.495	-0.755	-2.074	0.000	0.006
2	09:26:38	0.017	-0.005	0.018	-0.207	0.051	-1.004	0.000	-0.001
3	09:26:57	0.020	-0.034	-0.013	0.155	-0.071	1.117	0.000	0.001
x		0.008	-0.032	-0.002	-0.183	-0.258	-0.654	0.000	0.002
σ		0.018	0.026	0.018	0.325	0.435	1.624	0.000	0.004
%RSD		225.700	80.850	755.200	178.300	168.200	248.500	0.000	202.700

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	95.653%	0.171	0.146	89.243%	-0.004	-0.001	-0.033	-0.022
2	09:26:38	98.814%	0.149	0.159	97.871%	-0.000	-0.003	-0.030	-0.008
3	09:26:57	94.963%	0.173	0.173	97.590%	0.027	0.014	0.045	0.045
x		96.477%	0.165	0.159	94.901%	0.008	0.004	-0.006	0.005
σ		2.053%	0.014	0.013	4.902%	0.017	0.009	0.044	0.035
%RSD		2.128	8.258	8.329	5.166	216.800	260.900	741.900	712.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	90.871%	-0.084	-0.016	-0.028	-0.000	0.002	82.237%	81.508%
2	09:26:38	91.019%	-0.030	-0.009	-0.003	0.006	0.002	88.801%	87.326%
3	09:26:57	92.619%	-0.044	-0.020	-0.006	-0.001	0.027	89.700%	89.120%
x		91.503%	-0.053	-0.015	-0.013	0.002	0.010	86.913%	85.985%
σ		0.970%	0.028	0.005	0.014	0.004	0.014	4.074%	3.980%
%RSD		1.060	53.910	34.850	108.200	231.600	139.200	4.688	4.628

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:19	0.004	0.004	-0.026	-0.014	-0.021	84.645%
2	09:26:38	0.008	0.005	-0.011	0.000	-0.014	84.388%
3	09:26:57	0.009	0.003	-0.008	-0.016	-0.010	88.873%
x		0.007	0.004	-0.015	-0.010	-0.015	85.969%
σ		0.003	0.001	0.010	0.009	0.005	2.518%
%RSD		37.160	21.580	66.520	88.640	36.360	2.929

CRI 1411047 12/11/2014 9:29:43 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	85.133%	1.093	5.852	5.391	0.000	102.600	105.300	109.000
2	09:30:02	90.511%	0.886	3.456	4.272	0.000	86.840	92.610	97.210
3	09:30:21	93.521%	0.959	3.995	4.049	0.000	79.720	84.590	91.710
x		89.722%	97.932%	88.685%	91.407%	0.000	89.735%	94.164%	99.308%
σ		4.250%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.737	10.730	28.350	15.730	0.000	13.080	11.080	8.897

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	32.350	485.500	0.000	102.300	93.210	104.000	96.194%	4.563
2	09:30:02	30.000	448.400	0.000	96.860	103.700	97.670	102.334%	4.587
3	09:30:21	27.610	430.800	0.000	100.500	105.000	108.000	103.581%	4.831
x		99.957%	90.984%	0.000	99.867%	100.621%	103.225%	100.703%	93.204%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.954%	n/a
%RSD		7.902	6.135	0.000	2.759	6.409	5.036	3.927	3.180

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	0.810	1.656	4.696	81.120	52.330	0.522	1.012	2.145
2	09:30:02	0.847	1.573	4.227	25.830	40.730	0.470	0.986	2.047
3	09:30:21	0.920	1.858	4.398	21.120	41.300	0.444	1.013	1.965
x		85.914%	84.797%	88.804%	85.386%	89.575%	95.734%	100.344%	102.615%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.529	8.651	5.350	78.150	14.590	8.332	1.529	4.405

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	2.185	4.871	5.221	0.903	5.106	4.429	0.000	4.323
2	09:30:02	2.069	5.264	5.071	1.139	4.701	5.626	0.000	4.474
3	09:30:21	2.089	5.361	5.492	1.048	4.545	5.282	0.000	4.561
x		105.720%	103.311%	105.223%	102.984%	95.675%	102.248%	0.000	89.052%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.941	5.021	4.054	11.540	6.052	12.060	0.000	2.708

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	94.552%	4.672	4.568	96.211%	0.926	0.926	0.986	1.092
2	09:30:02	92.692%	4.532	4.670	95.083%	0.997	1.010	1.050	1.148
3	09:30:21	95.311%	4.717	4.658	96.416%	1.039	1.050	1.008	0.968
x		94.185%	92.800%	92.642%	95.903%	98.726%	99.546%	101.467%	106.930%
σ		1.347%	n/a	n/a	0.718%	n/a	n/a	n/a	n/a
%RSD		1.430	2.081	1.201	0.748	5.778	6.344	3.205	8.615

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	85.179%	4.523	1.661	1.655	9.469	9.138	85.933%	85.996%
2	09:30:02	90.566%	4.617	1.657	1.773	8.707	8.998	88.248%	87.971%
3	09:30:21	95.222%	4.776	1.620	1.676	8.743	8.732	88.092%	89.078%
x		90.322%	92.772%	82.290%	85.082%	89.729%	89.560%	87.424%	87.682%
σ		5.026%	n/a	n/a	n/a	n/a	n/a	1.294%	1.561%
%RSD		5.564	2.758	1.361	3.703	4.795	2.304	1.480	1.780

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:29:43	0.996	0.944	0.956	0.900	0.935	83.974%
2	09:30:02	1.003	0.954	0.937	0.907	0.936	88.839%
3	09:30:21	0.981	0.936	1.029	0.959	0.976	92.134%
x		99.366%	94.486%	97.409%	92.214%	94.883%	88.316%
σ		n/a	n/a	n/a	n/a	n/a	4.105%
%RSD		1.138	0.959	4.972	3.459	2.468	4.649

ICSA 1429620 12/11/2014 9:33:06 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:33:06	78.908%	0.002	1.226	0.955	0.000	104200.000	107600.000	107500.000
2	09:33:25	65.828%	-0.006	0.980	1.125	0.000	108600.000	116600.000	121200.000
3	09:33:45	74.967%	0.013	0.706	1.213	0.000	105700.000	112000.000	114000.000
x		73.234%	0.003	0.971	1.097	0.000	106200.000	112100.000	114200.000
σ		6.710%	0.009	0.260	0.131	0.000	2224.000	4499.000	6885.000
%RSD		9.163	329.000	26.780	11.940	0.000	2.095	4.015	6.028
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:33:06	103900.000	31.000	0.000	100800.000	103200.000	105100.000	76.499%	2192.000
2	09:33:25	121100.000	39.090	0.000	113500.000	109400.000	111500.000	76.710%	2133.000
3	09:33:45	108600.000	31.260	0.000	108400.000	106900.000	107900.000	73.302%	2177.000
x		111200.000	33.780	0.000	107600.000	106500.000	108200.000	75.504%	2167.000
σ		8895.000	4.597	0.000	6359.000	3124.000	3165.000	1.910%	30.580
%RSD		8.001	13.610	0.000	5.912	2.933	2.925	2.529	1.411
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:33:06	-0.738	-1.149	0.627	111300.000	112600.000	0.220	0.542	3.839
2	09:33:25	-0.649	-1.366	0.629	107800.000	110200.000	0.219	0.388	4.379
3	09:33:45	-0.948	-1.279	0.680	116400.000	118200.000	0.199	0.671	4.303
x		-0.779	-1.265	0.646	111800.000	113700.000	0.213	0.534	4.174
σ		0.154	0.110	0.030	4319.000	4115.000	0.012	0.142	0.292
%RSD		19.740	8.658	4.669	3.862	3.619	5.496	26.560	6.998
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:33:06	2.157	3.488	1.562	-0.016	0.636	-0.110	0.000	1.192
2	09:33:25	2.409	3.795	1.472	0.300	0.488	1.343	0.000	1.163
3	09:33:45	2.307	3.914	1.333	-0.147	1.008	-0.022	0.000	1.054
x		2.291	3.732	1.456	0.046	0.711	0.404	0.000	1.136
σ		0.127	0.220	0.115	0.230	0.268	0.814	0.000	0.072
%RSD		5.525	5.886	7.927	503.300	37.700	201.800	0.000	6.373
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:33:06	76.912%	2337.000	2319.000	76.451%	0.337	0.378	0.005	0.168
2	09:33:25	75.753%	2379.000	2392.000	79.064%	0.367	0.362	0.212	0.148
3	09:33:45	77.105%	2418.000	2397.000	77.474%	0.302	0.361	0.189	0.093
x		76.590%	2378.000	2369.000	77.663%	0.335	0.367	0.136	0.136
σ		0.731%	40.460	43.780	1.317%	0.033	0.010	0.114	0.039
%RSD		0.955	1.702	1.848	1.695	9.722	2.733	83.990	28.340
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:33:06	79.912%	0.255	0.071	0.057	0.198	0.121	80.425%	79.608%
2	09:33:25	78.307%	0.269	0.100	0.106	0.168	0.111	85.079%	83.321%
3	09:33:45	81.587%	0.332	0.103	0.116	0.188	0.181	87.086%	86.167%
x		79.935%	0.285	0.091	0.093	0.185	0.138	84.196%	83.032%
σ		1.640%	0.041	0.018	0.032	0.016	0.038	3.417%	3.289%
%RSD		2.052	14.320	19.480	34.180	8.486	27.500	4.058	3.961
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:33:06	0.125	0.073	0.988	0.856	0.869	91.261%		
2	09:33:25	0.055	0.073	1.030	0.953	0.959	83.825%		
3	09:33:45	0.084	0.070	1.043	0.918	0.967	82.149%		
x		0.088	0.072	1.020	0.909	0.932	85.745%		
σ		0.035	0.002	0.029	0.049	0.055	4.850%		
%RSD		39.750	2.371	2.830	5.416	5.863	5.657		

ICSAB 1429619 12/11/2014 9:36:30 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	63.364%	19.290	47.980	53.800	0.000	114100.000	123200.000	127200.000
2	09:36:49	70.469%	19.270	53.700	52.690	0.000	104500.000	112900.000	110900.000
3	09:37:08	70.147%	19.350	47.700	48.130	0.000	98650.000	108000.000	109200.000
x		67.994%	96.514%	99.584%	103.084%	0.000	105.749%	114.711%	115.754%
σ		4.012%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.901	0.238	6.795	5.824	0.000	7.398	6.773	8.589

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	128000.000	626.800	0.000	121500.000	115000.000	114600.000	73.199%	2111.000
2	09:36:49	107100.000	498.200	0.000	106500.000	107500.000	109800.000	75.786%	2224.000
3	09:37:08	102500.000	493.200	0.000	107200.000	107900.000	109600.000	75.945%	2230.000
x		112.531%	107.883%	0.000	111.731%	110.116%	111.333%	74.977%	109.406%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.541%	n/a
%RSD		12.050	14.040	0.000	7.549	3.827	2.535	2.056	3.050

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	18.990	19.540	21.640	114300.000	117400.000	22.750	23.850	26.330
2	09:36:49	21.380	20.580	22.040	115000.000	114400.000	21.390	20.600	23.480
3	09:37:08	21.710	21.300	22.240	114400.000	114000.000	21.410	20.180	23.820
x		103.467%	102.360%	95.542%	114.565%	115.266%	109.241%	107.719%	122.729%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		7.184	4.329	1.382	0.368	1.617	3.573	9.325	6.341

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	24.300	25.200	22.150	20.500	52.050	51.270	0.000	21.840
2	09:36:49	22.190	23.560	21.520	20.040	50.290	48.070	0.000	22.250
3	09:37:08	21.990	23.910	22.010	20.070	48.760	47.070	0.000	22.870
x		114.131%	96.901%	87.592%	101.023%	100.735%	97.604%	0.000	111.601%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.604	3.559	1.510	1.289	3.272	4.495	0.000	2.323

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	74.043%	2342.000	2308.000	79.382%	19.850	19.290	19.920	20.260
2	09:36:49	75.066%	2403.000	2367.000	78.008%	19.320	19.450	19.780	19.810
3	09:37:08	76.539%	2408.000	2372.000	77.706%	19.460	19.900	19.760	20.110
x		75.216%	119.209%	117.461%	78.365%	97.721%	97.724%	99.108%	100.301%
σ		1.255%	n/a	n/a	0.893%	n/a	n/a	n/a	n/a
%RSD		1.669	1.547	1.522	1.140	1.408	1.621	0.452	1.138

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	75.693%	103.700	20.490	20.710	21.570	20.860	83.395%	81.765%
2	09:36:49	80.139%	103.900	20.310	20.040	21.120	20.830	84.923%	84.635%
3	09:37:08	79.485%	106.500	20.360	20.110	21.080	20.970	86.560%	86.115%
x		78.439%	104.688%	101.930%	101.445%	106.286%	104.441%	84.960%	84.172%
σ		2.400%	n/a	n/a	n/a	n/a	n/a	1.583%	2.211%
%RSD		3.060	1.513	0.450	1.819	1.288	0.346	1.863	2.627

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:30	22.520	22.360	23.110	23.150	22.930	81.667%
2	09:36:49	23.160	23.470	24.480	23.740	24.210	80.005%
3	09:37:08	23.960	23.530	24.790	24.450	24.730	80.959%
x		116.064%	115.588%	120.626%	118.907%	119.786%	80.877%
σ		n/a	n/a	n/a	n/a	n/a	0.834%
%RSD		3.106	2.848	3.695	2.726	3.882	1.031

CCV 1408349 12/11/2014 9:42:35 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	98.382%	100.300	91.440	94.530	0.000	51120.000	52060.000	50940.000
2	09:42:54	89.514%	99.180	95.880	104.300	0.000	53930.000	56160.000	55780.000
3	09:43:13	89.091%	91.550	77.840	79.100	0.000	45470.000	50530.000	52230.000
x		92.329%	97.001%	88.386%	92.629%	0.000	100.348%	105.831%	105.967%
σ		5.246%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.682	4.900	10.630	13.690	0.000	8.581	5.509	4.723

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	513.200	4393.000	0.000	49920.000	49710.000	50770.000	92.307%	100.300
2	09:42:54	565.000	4876.000	0.000	52490.000	50300.000	51230.000	90.263%	101.800
3	09:43:13	538.100	4757.000	0.000	53110.000	51700.000	52610.000	98.578%	98.990
x		107.757%	93.502%	0.000	103.677%	101.142%	103.079%	93.716%	100.377%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.333%	n/a
%RSD		4.806	5.378	0.000	3.264	2.021	1.860	4.623	1.425

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	101.400	105.100	545.100	27200.000	26910.000	103.000	100.500	99.920
2	09:42:54	102.000	106.100	558.300	28290.000	29110.000	112.100	111.900	107.300
3	09:43:13	98.180	96.820	488.200	24770.000	25230.000	100.000	104.100	106.900
x		100.533%	102.668%	106.109%	107.002%	108.333%	105.043%	105.478%	104.687%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.053	4.955	7.028	6.742	7.196	6.010	5.539	3.949

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	99.410	103.700	105.300	101.300	103.800	97.110	0.000	101.800
2	09:42:54	105.300	106.100	104.600	101.300	107.300	99.980	0.000	101.200
3	09:43:13	108.000	113.200	114.100	106.600	104.200	111.200	0.000	100.500
x		104.226%	107.674%	107.988%	103.038%	105.100%	102.779%	0.000	101.143%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.200	4.603	4.876	2.956	1.820	7.268	0.000	0.635

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	92.112%	99.430	98.630	86.617%	99.810	99.590	101.400	103.400
2	09:42:54	93.338%	102.800	104.500	91.543%	100.600	97.360	99.340	103.200
3	09:43:13	87.370%	106.300	105.100	89.855%	104.500	105.600	106.000	106.000
x		90.940%	102.853%	102.752%	89.338%	101.650%	100.846%	102.234%	104.188%
σ		3.152%	n/a	n/a	2.503%	n/a	n/a	n/a	n/a
%RSD		3.466	3.350	3.489	2.802	2.469	4.223	3.337	1.512

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	89.091%	100.600	96.960	96.180	102.800	100.500	92.099%	90.800%
2	09:42:54	90.098%	99.390	97.710	98.500	103.200	101.500	96.193%	94.556%
3	09:43:13	91.373%	100.400	98.500	97.980	98.880	98.750	95.317%	96.085%
x		90.187%	100.138%	97.722%	97.557%	101.646%	100.234%	94.536%	93.813%
σ		1.144%	n/a	n/a	n/a	n/a	n/a	2.156%	2.720%
%RSD		1.268	0.654	0.787	1.249	2.360	1.373	2.280	2.899

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:35	98.910	98.170	98.840	99.000	99.220	94.025%
2	09:42:54	103.500	103.000	103.300	103.400	103.000	94.166%
3	09:43:13	105.400	105.700	106.700	106.500	106.800	94.747%
x		102.618%	102.269%	102.956%	102.964%	102.990%	94.313%
σ		n/a	n/a	n/a	n/a	n/a	0.383%
%RSD		3.265	3.712	3.840	3.671	3.672	0.406

CCB1 12/11/2014 9:48:32 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:51	97.865%	-0.005	0.268	0.130	0.000	-0.751	-0.032	-0.002
2	09:49:10	85.222%	-0.028	0.559	0.644	0.000	0.449	0.389	0.403
3	09:49:29	87.814%	-0.028	0.524	0.585	0.000	0.048	0.407	0.290
x		90.301%	-0.020	0.451	0.453	0.000	-0.085	0.254	0.230
σ		6.678%	0.013	0.159	0.282	0.000	0.611	0.248	0.209
%RSD		7.396	63.470	35.260	62.120	0.000	723.000	97.630	90.940
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:51	-0.169	-0.547	0.000	0.843	2.121	0.785	100.416%	0.075
2	09:49:10	0.003	0.885	0.000	0.860	2.078	0.223	90.363%	0.018
3	09:49:29	0.041	0.482	0.000	-0.620	0.519	0.414	91.599%	-0.030
x		-0.042	0.273	0.000	0.361	1.573	0.474	94.126%	0.021
σ		0.112	0.738	0.000	0.850	0.913	0.286	5.482%	0.052
%RSD		265.900	270.300	0.000	235.600	58.020	60.300	5.824	253.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:51	0.010	0.056	0.001	1.223	1.909	-0.002	0.007	-0.052
2	09:49:10	0.010	0.054	0.018	68.950	12.050	0.003	-0.003	-0.001
3	09:49:29	0.049	0.054	0.010	66.240	11.430	0.002	0.000	-0.026
x		0.023	0.054	0.010	45.470	8.463	0.001	0.001	-0.026
σ		0.022	0.001	0.009	38.340	5.684	0.003	0.005	0.026
%RSD		98.710	2.011	89.640	84.330	67.160	282.700	424.600	96.850
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:51	-0.001	-0.049	-0.052	-0.274	-0.674	-0.927	0.000	0.000
2	09:49:10	-0.006	0.040	0.064	-0.272	0.143	-1.265	0.000	-0.001
3	09:49:29	0.010	-0.007	-0.033	-0.385	0.564	-1.991	0.000	0.001
x		0.001	-0.005	-0.007	-0.310	0.011	-1.394	0.000	-0.000
σ		0.008	0.045	0.062	0.065	0.629	0.544	0.000	0.001
%RSD		670.400	855.000	876.800	20.890	5675.000	38.990	0.000	2903.000
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:51	93.267%	0.536	0.579	92.957%	-0.035	-0.011	-0.069	-0.061
2	09:49:10	95.390%	0.640	0.647	98.788%	-0.031	-0.006	-0.085	-0.066
3	09:49:29	98.328%	0.582	0.609	100.097%	-0.012	-0.013	-0.135	-0.084
x		95.661%	0.586	0.612	97.281%	-0.026	-0.010	-0.097	-0.071
σ		2.541%	0.052	0.034	3.801%	0.012	0.003	0.034	0.012
%RSD		2.657	8.879	5.550	3.907	47.170	33.070	35.500	16.910
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:51	95.770%	-0.084	0.040	0.060	0.005	0.009	90.351%	90.350%
2	09:49:10	95.490%	-0.024	0.066	0.081	-0.007	-0.005	97.409%	97.183%
3	09:49:29	95.353%	-0.061	0.076	0.054	-0.013	0.011	99.966%	99.164%
x		95.538%	-0.056	0.061	0.065	-0.005	0.005	95.909%	95.566%
σ		0.212%	0.030	0.019	0.014	0.009	0.009	4.980%	4.625%
%RSD		0.222	53.560	30.460	21.800	178.500	184.800	5.192	4.839
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:48:51	0.008	0.009	0.003	0.002	-0.005	96.751%		
2	09:49:10	0.020	0.008	0.023	0.002	0.004	96.201%		
3	09:49:29	0.006	0.009	0.008	-0.002	0.002	98.578%		
x		0.011	0.009	0.011	0.001	0.001	97.177%		
σ		0.008	0.000	0.011	0.002	0.005	1.244%		
%RSD		68.380	5.507	93.780	381.800	766.600	1.280		

MB 180-127321/1-A 12/11/2014 9:52:06 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:25	94.594%	-0.015	-0.060	-0.192	0.000	7.439	-0.125	-0.037
2	09:52:45	73.304%	-0.022	-0.251	0.238	0.000	10.480	0.208	0.194
3	09:53:04	90.877%	-0.025	0.043	-0.063	0.000	6.858	0.051	-0.080
x		86.258%	-0.021	-0.089	-0.006	0.000	8.258	0.044	0.026
σ		11.372%	0.005	0.149	0.221	0.000	1.943	0.167	0.148
%RSD		13.183	25.170	166.900	3862.000	0.000	23.530	374.600	569.600
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:25	0.248	0.973	0.000	1.153	3.126	3.244	98.663%	0.111
2	09:52:45	0.772	3.393	0.000	-0.629	4.220	2.872	97.431%	0.084
3	09:53:04	0.215	0.399	0.000	-6.572	0.777	2.698	99.933%	0.152
x		0.412	1.588	0.000	-2.016	2.708	2.938	98.676%	0.116
σ		0.312	1.589	0.000	4.045	1.759	0.279	1.251%	0.034
%RSD		75.900	100.000	0.000	200.600	64.970	9.486	1.268	29.730
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:25	0.241	0.259	0.023	7.507	4.372	-0.004	-0.002	0.220
2	09:52:45	0.392	0.087	0.030	1.207	5.073	-0.006	0.004	0.216
3	09:53:04	0.181	0.316	0.031	11.690	0.847	-0.006	0.011	0.171
x		0.271	0.221	0.028	6.802	3.430	-0.006	0.004	0.202
σ		0.109	0.119	0.004	5.279	2.265	0.001	0.006	0.027
%RSD		40.070	54.060	14.670	77.610	66.020	22.060	161.800	13.500
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:25	0.304	0.356	0.459	0.327	-0.400	-0.619	0.000	0.006
2	09:52:45	0.289	0.362	0.312	-0.129	0.369	-0.490	0.000	0.005
3	09:53:04	0.229	0.356	0.424	-0.238	-0.237	-1.081	0.000	0.006
x		0.274	0.358	0.399	-0.013	-0.089	-0.730	0.000	0.006
σ		0.040	0.004	0.077	0.300	0.405	0.311	0.000	0.000
%RSD		14.530	1.070	19.260	2283.000	452.700	42.560	0.000	5.902
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:25	90.436%	0.384	0.445	93.739%	-0.001	0.014	-0.102	-0.079
2	09:52:45	92.630%	0.413	0.430	99.640%	0.012	0.017	-0.101	-0.068
3	09:53:04	94.839%	0.363	0.393	94.554%	-0.013	0.015	-0.091	-0.068
x		92.635%	0.387	0.423	95.978%	-0.001	0.015	-0.098	-0.072
σ		2.201%	0.025	0.027	3.198%	0.013	0.002	0.006	0.006
%RSD		2.376	6.590	6.363	3.332	1210.000	13.160	5.976	8.905
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:25	101.041%	0.194	0.035	0.024	-0.002	0.004	99.099%	101.494%
2	09:52:45	95.962%	0.161	0.051	0.031	0.021	0.001	105.735%	107.464%
3	09:53:04	101.509%	0.158	0.032	0.024	-0.002	0.001	104.844%	105.374%
x		99.504%	0.171	0.040	0.027	0.005	0.002	103.226%	104.777%
σ		3.076%	0.020	0.010	0.004	0.013	0.002	3.601%	3.029%
%RSD		3.092	11.800	25.870	16.000	239.100	91.140	3.489	2.891
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:52:25	0.065	0.052	0.693	0.615	0.680	107.995%		
2	09:52:45	0.039	0.064	0.607	0.583	0.601	105.806%		
3	09:53:04	0.041	0.043	0.486	0.453	0.503	108.197%		
x		0.048	0.053	0.595	0.551	0.595	107.333%		
σ		0.014	0.010	0.104	0.086	0.089	1.326%		
%RSD		29.490	19.070	17.430	15.590	14.970	1.235		

LCS 180-127321/2-A 12/11/2014 9:55:38 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	65.874%	43.330	851.600	962.400	0.000	48920.000	56720.000	58170.000
2	09:56:17	76.922%	44.090	832.200	930.400	0.000	46680.000	52450.000	51440.000
3	09:56:36	76.977%	41.860	822.700	957.900	0.000	47390.000	52300.000	51040.000
x		73.258%	43.090	835.500	950.200	0.000	47660.000	53820.000	53550.000
σ		6.395%	1.134	14.690	17.320	0.000	1143.000	2507.000	4005.000
%RSD		8.729	2.630	1.758	1.823	0.000	2.398	4.658	7.479

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	2261.000	9598.000	0.000	53630.000	51280.000	50750.000	83.277%	890.800
2	09:56:17	1945.000	8264.000	0.000	49680.000	47830.000	48020.000	81.497%	931.100
3	09:56:36	1993.000	8470.000	0.000	49700.000	48680.000	49010.000	80.754%	933.500
x		2066.000	8777.000	0.000	51000.000	49260.000	49260.000	81.843%	918.500
σ		170.200	718.300	0.000	2276.000	1798.000	1384.000	1.297%	23.990
%RSD		8.239	8.183	0.000	4.463	3.651	2.809	1.584	2.612

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	481.600	179.700	490.700	1042.000	1254.000	529.400	505.200	252.200
2	09:56:17	512.400	194.000	521.700	1155.000	1277.000	526.800	493.300	245.200
3	09:56:36	508.400	199.700	539.200	1181.000	1303.000	538.500	498.000	243.400
x		500.800	191.100	517.200	1126.000	1278.000	531.600	498.800	246.900
σ		16.750	10.310	24.550	73.670	24.730	6.132	5.992	4.673
%RSD		3.344	5.396	4.746	6.541	1.935	1.154	1.201	1.892

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	256.200	503.100	499.500	38.450	9.502	10.570	0.000	1011.000
2	09:56:17	244.800	482.200	479.200	35.970	9.714	8.305	0.000	1034.000
3	09:56:36	239.900	487.600	478.300	36.560	9.726	8.891	0.000	1015.000
x		247.000	491.000	485.700	36.990	9.647	9.255	0.000	1020.000
σ		8.382	10.830	11.960	1.297	0.126	1.175	0.000	12.070
%RSD		3.394	2.206	2.463	3.505	1.310	12.690	0.000	1.183

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	78.382%	1018.000	1054.000	85.821%	47.980	46.940	46.610	41.860
2	09:56:17	81.859%	1024.000	1017.000	87.101%	45.830	45.360	45.880	40.190
3	09:56:36	83.032%	1027.000	1086.000	85.543%	46.460	46.530	47.340	39.580
x		81.091%	1023.000	1052.000	86.155%	46.760	46.280	46.610	40.540
σ		2.419%	4.511	34.760	0.831%	1.106	0.821	0.731	1.182
%RSD		2.983	0.441	3.303	0.965	2.365	1.775	1.569	2.916

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	84.537%	1978.000	468.100	471.700	1860.000	1853.000	97.268%	99.068%
2	09:56:17	87.546%	2033.000	470.100	470.200	1865.000	1890.000	99.856%	101.145%
3	09:56:36	89.084%	2017.000	471.600	467.900	1871.000	1863.000	101.505%	102.018%
x		87.056%	2009.000	469.900	469.900	1866.000	1869.000	99.543%	100.743%
σ		2.313%	28.330	1.766	1.931	5.658	18.800	2.136%	1.515%
%RSD		2.657	1.410	0.376	0.411	0.303	1.006	2.146	1.504

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:55:57	52.440	52.190	22.440	21.460	21.910	88.228%
2	09:56:17	51.500	51.790	21.820	21.230	21.600	90.700%
3	09:56:36	52.240	51.120	21.820	21.200	21.490	92.770%
x		52.060	51.700	22.020	21.300	21.670	90.566%
σ		0.495	0.542	0.357	0.143	0.220	2.274%
%RSD		0.950	1.048	1.623	0.672	1.014	2.511

180-39362-C-1-A 12/11/2014 9:59:10 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:30	55.820%	0.022	53.020	64.770	0.000	284700.000	136400.000	133800.000
2	09:59:49	62.955%	0.005	45.560	50.440	0.000	232500.000	114300.000	113200.000
3	10:00:08	59.820%	0.056	49.800	60.420	0.000	275700.000	129600.000	124900.000
x		59.532%	0.028	49.460	58.540	0.000	264300.000	126700.000	124000.000
σ		3.576%	0.026	3.742	7.349	0.000	27920.000	11320.000	10350.000
%RSD		6.007	92.630	7.566	12.550	0.000	10.560	8.933	8.351
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:30	79.790	11030.000	0.000	4978.000	128700.000	131000.000	71.563%	2.021
2	09:59:49	66.350	9502.000	0.000	4652.000	123400.000	129300.000	79.708%	2.514
3	10:00:08	84.250	10110.000	0.000	4831.000	126900.000	129700.000	74.528%	2.293
x		76.800	10210.000	0.000	4820.000	126300.000	130000.000	75.266%	2.276
σ		9.320	767.500	0.000	163.100	2673.000	918.600	4.122%	0.247
%RSD		12.140	7.515	0.000	3.383	2.116	0.707	5.477	10.850
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:30	-1.515	18.510	9.627	169.600	772.200	0.441	7.330	20.280
2	09:59:49	8.252	17.790	8.749	89.690	757.200	0.333	6.691	18.540
3	10:00:08	10.960	18.160	9.264	147.500	906.200	0.388	7.355	19.340
x		5.898	18.150	9.214	135.600	811.900	0.387	7.125	19.390
σ		6.561	0.359	0.441	41.250	82.070	0.054	0.376	0.870
%RSD		111.200	1.980	4.790	30.420	10.110	13.980	5.283	4.486
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:30	10.970	4.704	3.545	-0.167	-0.226	0.990	0.000	759.200
2	09:59:49	10.930	5.271	3.582	3.824	-0.323	1.749	0.000	771.000
3	10:00:08	10.780	4.702	3.506	-0.847	-0.181	-0.340	0.000	762.000
x		10.900	4.893	3.544	0.936	-0.243	0.800	0.000	764.100
σ		0.101	0.328	0.038	2.524	0.073	1.058	0.000	6.169
%RSD		0.922	6.702	1.063	269.500	29.940	132.300	0.000	0.807
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:30	80.759%	5.255	5.487	79.320%	0.146	0.159	-0.180	-0.073
2	09:59:49	76.332%	4.391	4.452	75.997%	0.267	0.273	-0.299	-0.142
3	10:00:08	82.500%	3.439	3.457	78.650%	0.275	0.287	-0.102	-0.026
x		79.864%	4.362	4.465	77.989%	0.229	0.240	-0.194	-0.081
σ		3.180%	0.908	1.015	1.757%	0.072	0.070	0.099	0.058
%RSD		3.982	20.820	22.730	2.253	31.580	29.420	51.000	72.240
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:30	79.029%	3.601	0.244	0.305	21.810	21.150	95.366%	96.483%
2	09:59:49	81.453%	2.926	0.201	0.218	20.240	20.510	94.277%	95.608%
3	10:00:08	81.133%	2.315	0.241	0.251	21.140	20.940	99.666%	100.054%
x		80.538%	2.947	0.229	0.258	21.070	20.860	96.436%	97.382%
σ		1.317%	0.643	0.024	0.044	0.788	0.326	2.850%	2.355%
%RSD		1.635	21.830	10.580	17.160	3.741	1.563	2.955	2.418
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:59:30	0.158	0.126	0.332	0.394	0.362	82.950%		
2	09:59:49	0.109	0.099	0.367	0.338	0.348	86.516%		
3	10:00:08	0.125	0.102	0.326	0.306	0.313	87.911%		
x		0.131	0.109	0.342	0.346	0.341	85.792%		
σ		0.025	0.015	0.022	0.045	0.025	2.559%		
%RSD		19.150	13.410	6.569	12.880	7.305	2.982		

180-39362-A-2-A 12/11/2014 10:02:43 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	71.332%	-0.017	30.680	36.940	0.000	69920.000	29930.000	30210.000
2	10:03:21	70.238%	-0.012	28.140	36.700	0.000	68930.000	29820.000	29360.000
3	10:03:40	89.414%	-0.025	21.990	25.920	0.000	47670.000	21410.000	21360.000
x		76.995%	-0.018	26.940	33.190	0.000	62170.000	27060.000	26980.000
σ		10.769%	0.006	4.465	6.295	0.000	12570.000	4887.000	4882.000
%RSD		13.987	33.450	16.580	18.970	0.000	20.220	18.060	18.100

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	2.034	11070.000	0.000	6757.000	28220.000	28810.000	85.439%	1.004
2	10:03:21	2.262	10680.000	0.000	6821.000	28260.000	28430.000	82.656%	1.050
3	10:03:40	1.253	8317.000	0.000	6169.000	26880.000	28040.000	91.136%	1.199
x		1.850	10020.000	0.000	6582.000	27790.000	28420.000	86.410%	1.084
σ		0.529	1492.000	0.000	359.400	786.600	384.000	4.323%	0.102
%RSD		28.590	14.880	0.000	5.459	2.831	1.351	5.003	9.438

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	7.110	5.763	0.318	23.070	146.900	0.063	3.026	2.718
2	10:03:21	17.040	6.220	0.345	44.970	166.800	0.062	3.326	2.698
3	10:03:40	24.460	6.330	0.310	-8.979	118.500	0.050	2.408	2.400
x		16.210	6.104	0.324	19.690	144.000	0.058	2.920	2.605
σ		8.706	0.301	0.019	27.130	24.280	0.007	0.468	0.178
%RSD		53.730	4.928	5.767	137.800	16.860	12.610	16.020	6.828

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	0.868	3.507	3.583	1.289	-1.671	-0.564	0.000	402.200
2	10:03:21	0.814	3.736	3.558	0.323	-0.697	-0.438	0.000	404.000
3	10:03:40	0.698	3.795	3.625	3.484	-1.329	0.135	0.000	407.900
x		0.793	3.679	3.589	1.698	-1.232	-0.289	0.000	404.700
σ		0.087	0.152	0.034	1.620	0.494	0.372	0.000	2.906
%RSD		10.980	4.137	0.948	95.370	40.090	128.800	0.000	0.718

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	84.674%	1.313	1.337	91.557%	0.024	0.039	-0.096	-0.051
2	10:03:21	84.849%	1.158	1.309	90.207%	0.107	0.109	-0.075	-0.001
3	10:03:40	83.234%	1.118	1.100	85.016%	0.090	0.155	-0.157	-0.060
x		84.253%	1.196	1.249	88.927%	0.074	0.101	-0.109	-0.038
σ		0.887%	0.103	0.130	3.453%	0.044	0.059	0.042	0.032
%RSD		1.052	8.607	10.370	3.883	58.990	58.100	38.870	84.680

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	85.284%	1.579	0.187	0.217	229.200	229.200	105.537%	105.189%
2	10:03:21	86.940%	1.608	0.240	0.232	229.000	227.800	106.131%	106.504%
3	10:03:40	93.110%	1.768	0.213	0.254	214.500	214.100	103.011%	103.150%
x		88.445%	1.652	0.213	0.234	224.200	223.700	104.893%	104.948%
σ		4.124%	0.102	0.027	0.018	8.419	8.329	1.657%	1.690%
%RSD		4.663	6.170	12.570	7.843	3.755	3.723	1.580	1.610

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:03:02	0.039	0.027	0.263	0.209	0.239	94.847%
2	10:03:21	0.034	0.043	0.243	0.204	0.217	96.904%
3	10:03:40	0.023	0.025	0.197	0.184	0.185	100.331%
x		0.032	0.032	0.234	0.199	0.214	97.361%
σ		0.008	0.010	0.034	0.013	0.027	2.771%
%RSD		24.400	30.200	14.310	6.734	12.750	2.846

180-39362-D-3-A 12/11/2014 10:06:15 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:34	90.400%	-0.025	11.060	14.130	0.000	24.280	3.818	3.841
2	10:06:53	87.158%	-0.024	10.980	13.170	0.000	22.510	2.964	2.921
3	10:07:13	85.132%	-0.020	11.500	13.460	0.000	21.040	1.985	2.155
x		87.564%	-0.023	11.180	13.590	0.000	22.610	2.922	2.972
σ		2.657%	0.002	0.279	0.489	0.000	1.624	0.917	0.844
%RSD		3.035	10.710	2.492	3.602	0.000	7.180	31.380	28.390
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:34	1.340	13.020	0.000	1.545	5.383	10.690	86.716%	0.391
2	10:06:53	1.351	12.570	0.000	-3.556	4.982	9.742	85.233%	0.336
3	10:07:13	1.293	12.570	0.000	-4.502	4.277	7.723	87.786%	0.412
x		1.328	12.720	0.000	-2.171	4.881	9.386	86.578%	0.380
σ		0.031	0.262	0.000	3.252	0.560	1.516	1.282%	0.039
%RSD		2.318	2.061	0.000	149.800	11.470	16.160	1.481	10.330
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:34	7.079	0.614	0.043	44.890	9.155	-0.003	0.031	0.259
2	10:06:53	8.671	0.756	0.033	51.180	6.947	-0.007	-0.000	0.272
3	10:07:13	9.668	0.647	0.043	48.700	7.235	-0.006	0.020	0.281
x		8.473	0.672	0.040	48.260	7.779	-0.005	0.017	0.270
σ		1.305	0.074	0.006	3.170	1.200	0.002	0.016	0.011
%RSD		15.410	11.040	14.190	6.568	15.430	41.300	93.900	4.056
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:34	0.313	1.028	1.078	-1.054	-1.457	-3.228	0.000	0.047
2	10:06:53	0.266	1.017	1.159	-0.776	-1.519	-2.148	0.000	0.025
3	10:07:13	0.261	0.934	1.062	-0.996	-1.586	-2.952	0.000	0.023
x		0.280	0.993	1.100	-0.942	-1.521	-2.776	0.000	0.032
σ		0.029	0.052	0.052	0.147	0.064	0.561	0.000	0.013
%RSD		10.240	5.192	4.720	15.590	4.227	20.200	0.000	41.650
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:34	91.382%	0.345	0.314	95.091%	-0.033	-0.025	-0.084	-0.056
2	10:06:53	92.105%	0.364	0.387	93.283%	-0.022	-0.006	-0.079	-0.044
3	10:07:13	93.523%	0.283	0.271	94.690%	-0.024	0.000	-0.198	-0.120
x		92.336%	0.331	0.324	94.355%	-0.026	-0.011	-0.121	-0.074
σ		1.089%	0.042	0.059	0.950%	0.006	0.013	0.067	0.041
%RSD		1.180	12.830	18.120	1.007	23.500	126.600	55.580	55.770
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:06:34	94.484%	0.812	0.104	0.063	0.038	0.034	104.624%	105.491%
2	10:06:53	94.909%	0.830	0.101	0.096	0.032	0.050	108.002%	106.989%
3	10:07:13	97.896%	0.731	0.083	0.091	0.042	0.036	109.377%	108.836%
x		95.763%	0.791	0.096	0.083	0.037	0.040	107.334%	107.105%
σ		1.860%	0.053	0.011	0.017	0.005	0.009	2.446%	1.675%
%RSD		1.942	6.675	11.870	20.820	13.560	21.390	2.279	1.564
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:06:34	0.022	0.007	0.177	0.116	0.152	100.412%		
2	10:06:53	0.019	0.011	0.155	0.112	0.142	104.369%		
3	10:07:13	0.015	0.009	0.146	0.129	0.127	107.930%		
x		0.019	0.009	0.159	0.119	0.140	104.237%		
σ		0.003	0.002	0.016	0.009	0.012	3.761%		
%RSD		17.480	18.240	10.160	7.676	8.814	3.608		

180-39407-L-1-A 12/11/2014 10:09:48 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:07	81.663%	1.354	45.890	44.850	0.000	26060.000	14940.000	15140.000
2	10:10:26	80.152%	1.438	45.380	49.650	0.000	26720.000	15450.000	15450.000
3	10:10:45	77.811%	1.463	41.500	44.930	0.000	24800.000	14460.000	15000.000
x		79.875%	1.418	44.260	46.480	0.000	25860.000	14950.000	15200.000
σ		1.941%	0.057	2.401	2.749	0.000	977.400	495.500	232.500
%RSD		2.429	4.036	5.425	5.916	0.000	3.779	3.315	1.530
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:07	28080.000	40190.000	0.000	9037.000	25580.000	27410.000	86.939%	904.000
2	10:10:26	28130.000	39120.000	0.000	9080.000	25880.000	26920.000	81.539%	946.600
3	10:10:45	28400.000	39990.000	0.000	9083.000	25640.000	27100.000	87.234%	909.500
x		28200.000	39770.000	0.000	9067.000	25700.000	27140.000	85.237%	920.000
σ		173.500	565.000	0.000	25.790	161.100	248.500	3.206%	23.150
%RSD		0.615	1.421	0.000	0.285	0.627	0.915	3.762	2.516
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:07	66.480	61.970	1486.000	28990.000	28390.000	10.150	27.700	15.750
2	10:10:26	64.910	64.360	1602.000	31190.000	30390.000	10.750	29.320	16.440
3	10:10:45	66.100	60.540	1458.000	28820.000	28130.000	10.070	27.990	16.330
x		65.830	62.290	1515.000	29670.000	28970.000	10.330	28.340	16.170
σ		0.820	1.930	76.470	1324.000	1237.000	0.372	0.863	0.373
%RSD		1.245	3.098	5.046	4.463	4.271	3.606	3.045	2.305
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:07	15.810	96.270	97.900	4.791	-2.181	-3.252	0.000	127.000
2	10:10:26	15.970	96.510	99.900	3.497	-1.855	-2.382	0.000	127.400
3	10:10:45	15.730	98.890	100.600	5.290	-1.842	-2.846	0.000	126.900
x		15.840	97.220	99.450	4.526	-1.959	-2.827	0.000	127.100
σ		0.126	1.451	1.382	0.926	0.192	0.435	0.000	0.285
%RSD		0.793	1.492	1.389	20.450	9.794	15.400	0.000	0.224
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:07	95.613%	2.598	2.527	80.076%	0.041	0.055	0.069	0.142
2	10:10:26	99.593%	2.602	2.484	82.231%	0.043	0.062	0.085	0.120
3	10:10:45	95.187%	2.508	2.760	81.658%	0.072	0.081	0.041	0.126
x		96.798%	2.569	2.590	81.321%	0.052	0.066	0.065	0.129
σ		2.430%	0.053	0.148	1.116%	0.017	0.013	0.022	0.012
%RSD		2.511	2.055	5.722	1.373	33.650	20.150	33.890	8.974
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:07	88.712%	1.945	0.449	0.495	287.100	286.200	99.535%	99.846%
2	10:10:26	89.498%	2.139	0.513	0.523	300.200	296.700	100.920%	101.662%
3	10:10:45	89.838%	2.064	0.474	0.514	293.000	291.100	102.233%	103.395%
x		89.349%	2.049	0.479	0.511	293.400	291.300	100.896%	101.634%
σ		0.577%	0.098	0.032	0.014	6.549	5.267	1.349%	1.775%
%RSD		0.646	4.768	6.776	2.812	2.232	1.808	1.337	1.746
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:10:07	0.255	0.268	22.990	20.760	21.910	94.050%		
2	10:10:26	0.234	0.234	23.290	20.820	22.210	95.405%		
3	10:10:45	0.248	0.244	23.040	20.880	22.080	98.844%		
x		0.246	0.249	23.100	20.820	22.070	96.100%		
σ		0.011	0.017	0.159	0.062	0.154	2.471%		
%RSD		4.342	7.009	0.687	0.300	0.699	2.572		

180-39432-I-1-A 12/11/2014 10:13:21 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	73.485%	0.013	151.100	170.700	0.000	37700.000	55780.000	54070.000
2	10:13:59	68.939%	-0.007	126.300	146.200	0.000	31850.000	49360.000	50910.000
3	10:14:19	77.888%	-0.006	117.400	133.300	0.000	28430.000	42810.000	42700.000
x		73.438%	-0.000	131.600	150.100	0.000	32660.000	49320.000	49230.000
σ		4.475%	0.012	17.440	18.970	0.000	4688.000	6483.000	5871.000
%RSD		6.094	7781.000	13.250	12.640	0.000	14.350	13.150	11.930

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	288.300	3570.000	0.000	25120.000	58510.000	59530.000	77.051%	5.725
2	10:13:59	291.800	3587.000	0.000	27080.000	61320.000	61810.000	85.593%	5.748
3	10:14:19	240.300	3101.000	0.000	24150.000	57670.000	58880.000	86.222%	6.632
x		273.500	3419.000	0.000	25450.000	59170.000	60080.000	82.955%	6.035
σ		28.800	275.900	0.000	1493.000	1910.000	1540.000	5.123%	0.517
%RSD		10.530	8.068	0.000	5.868	3.229	2.563	6.175	8.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	5.870	1.675	143.900	1622.000	1733.000	0.684	4.398	3.596
2	10:13:59	10.420	1.601	128.800	1379.000	1580.000	0.617	4.195	3.595
3	10:14:19	15.760	1.697	130.700	1380.000	1515.000	0.536	3.840	3.308
x		10.680	1.658	134.400	1461.000	1609.000	0.612	4.144	3.500
σ		4.951	0.050	8.220	140.100	112.100	0.074	0.282	0.166
%RSD		46.340	3.019	6.114	9.591	6.967	12.150	6.810	4.732

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	2.926	73.160	70.970	1.122	0.186	-1.215	0.000	190.900
2	10:13:59	3.113	77.610	75.330	2.607	0.329	2.228	0.000	187.700
3	10:14:19	2.894	73.480	75.780	3.347	0.138	0.244	0.000	189.800
x		2.977	74.750	74.030	2.359	0.218	0.419	0.000	189.500
σ		0.119	2.479	2.655	1.133	0.100	1.728	0.000	1.602
%RSD		3.983	3.316	3.587	48.040	45.820	412.600	0.000	0.845

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	85.479%	24.220	23.260	83.887%	-0.025	-0.024	0.110	0.118
2	10:13:59	80.282%	22.840	23.270	85.141%	-0.002	-0.014	-0.041	0.026
3	10:14:19	81.166%	23.030	22.950	82.597%	-0.022	-0.011	-0.031	-0.026
x		82.309%	23.360	23.160	83.875%	-0.016	-0.016	0.013	0.039
σ		2.781%	0.747	0.186	1.272%	0.013	0.007	0.084	0.073
%RSD		3.379	3.199	0.804	1.516	78.990	41.680	662.100	185.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	86.247%	1.495	0.609	0.681	34.320	34.510	101.662%	102.043%
2	10:13:59	87.021%	1.584	0.636	0.679	33.670	33.130	102.032%	101.717%
3	10:14:19	92.217%	1.630	0.634	0.699	32.090	32.350	103.219%	103.146%
x		88.495%	1.570	0.627	0.686	33.360	33.330	102.304%	102.302%
σ		3.246%	0.069	0.015	0.011	1.147	1.092	0.813%	0.749%
%RSD		3.668	4.367	2.366	1.597	3.437	3.277	0.795	0.732

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:40	0.051	0.047	3.817	3.390	3.616	91.758%
2	10:13:59	0.045	0.046	3.931	3.489	3.640	95.333%
3	10:14:19	0.039	0.034	3.783	3.491	3.625	97.868%
x		0.045	0.042	3.843	3.456	3.627	94.986%
σ		0.006	0.007	0.078	0.057	0.012	3.070%
%RSD		12.910	16.970	2.027	1.658	0.342	3.232

180-39432-I-1-A SD@5 12/11/2014 10:16:55 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:14	82.523%	-0.016	28.980	34.450	0.000	6238.000	9661.000	9737.000
2	10:17:33	86.190%	-0.013	28.540	30.830	0.000	5949.000	8914.000	8724.000
3	10:17:52	67.413%	-0.016	29.130	35.230	0.000	7279.000	11220.000	11100.000
x		78.709%	-0.015	28.880	33.500	0.000	6488.000	9932.000	9852.000
σ		9.953%	0.002	0.304	2.349	0.000	699.300	1177.000	1190.000
%RSD		12.645	12.920	1.053	7.012	0.000	10.780	11.850	12.080
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:14	52.000	669.300	0.000	4833.000	11340.000	11460.000	87.056%	1.365
2	10:17:33	46.760	577.700	0.000	4764.000	11080.000	11510.000	89.317%	1.081
3	10:17:52	64.490	759.400	0.000	5513.000	12060.000	11920.000	86.910%	0.928
x		54.420	668.800	0.000	5037.000	11490.000	11630.000	87.761%	1.125
σ		9.110	90.890	0.000	414.100	511.700	251.800	1.350%	0.222
%RSD		16.740	13.590	0.000	8.223	4.451	2.165	1.538	19.690
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:14	-0.335	0.334	28.260	339.200	349.600	0.126	0.807	0.756
2	10:17:33	0.465	0.405	27.470	309.200	317.400	0.113	0.820	0.726
3	10:17:52	1.101	0.243	26.420	312.300	339.700	0.132	1.041	0.809
x		0.411	0.327	27.380	320.200	335.600	0.124	0.889	0.763
σ		0.720	0.081	0.926	16.450	16.520	0.010	0.132	0.042
%RSD		175.200	24.860	3.382	5.138	4.924	7.702	14.810	5.491
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:14	0.724	16.090	15.930	-0.318	-0.186	-2.073	0.000	38.560
2	10:17:33	0.523	16.150	16.610	-0.491	-0.197	-2.853	0.000	38.110
3	10:17:52	0.724	17.150	15.940	0.214	-0.559	-0.134	0.000	37.360
x		0.657	16.460	16.160	-0.198	-0.314	-1.687	0.000	38.010
σ		0.116	0.597	0.386	0.368	0.213	1.400	0.000	0.604
%RSD		17.600	3.625	2.386	185.500	67.720	83.030	0.000	1.589
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:14	87.781%	4.576	4.342	90.399%	-0.045	-0.035	-0.091	-0.029
2	10:17:33	88.517%	4.588	4.431	89.918%	-0.050	-0.041	-0.147	-0.105
3	10:17:52	88.437%	4.388	4.343	95.633%	-0.047	-0.037	-0.154	-0.092
x		88.245%	4.518	4.372	91.983%	-0.047	-0.037	-0.131	-0.075
σ		0.404%	0.112	0.051	3.170%	0.002	0.003	0.035	0.041
%RSD		0.458	2.488	1.164	3.446	4.889	9.004	26.420	53.930
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:14	93.484%	-0.078	0.032	0.057	6.214	6.502	105.676%	105.190%
2	10:17:33	97.282%	-0.072	0.068	0.045	6.556	6.601	106.061%	107.694%
3	10:17:52	92.366%	-0.086	0.089	0.063	6.554	6.722	111.709%	112.172%
x		94.377%	-0.079	0.063	0.055	6.442	6.608	107.815%	108.352%
σ		2.577%	0.007	0.029	0.009	0.197	0.110	3.377%	3.537%
%RSD		2.730	8.838	46.130	16.980	3.057	1.671	3.132	3.265
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:17:14	0.010	0.012	0.778	0.740	0.756	104.468%		
2	10:17:33	0.009	-0.005	0.844	0.718	0.744	107.542%		
3	10:17:52	0.021	-0.005	0.845	0.701	0.768	109.242%		
x		0.013	0.001	0.822	0.720	0.756	107.084%		
σ		0.007	0.010	0.038	0.020	0.012	2.420%		
%RSD		50.100	1859.000	4.621	2.759	1.626	2.260		

180-39432-I-1-B MS 12/11/2014 10:20:28 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	60.030%	43.130	1037.000	1188.000	0.000	86540.000	109100.000	111800.000
2	10:21:06	76.219%	40.140	925.300	980.000	0.000	71000.000	90330.000	87300.000
3	10:21:26	72.035%	38.550	819.200	904.900	0.000	66720.000	88690.000	87840.000
x		69.428%	40.610	927.300	1024.000	0.000	74750.000	96050.000	95640.000
σ		8.403%	2.324	109.100	146.800	0.000	10430.000	11360.000	13980.000
%RSD		12.104	5.723	11.770	14.330	0.000	13.950	11.830	14.620

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	3011.000	13890.000	0.000	79590.000	111300.000	113500.000	77.252%	880.800
2	10:21:06	2308.000	10730.000	0.000	69330.000	101500.000	105600.000	79.619%	903.500
3	10:21:26	2354.000	11100.000	0.000	71550.000	102900.000	106600.000	84.212%	913.300
x		2558.000	11910.000	0.000	73490.000	105200.000	108600.000	80.361%	899.200
σ		393.300	1730.000	0.000	5398.000	5294.000	4318.000	3.538%	16.690
%RSD		15.380	14.520	0.000	7.345	5.032	3.977	4.403	1.856

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	488.900	179.600	644.300	2486.000	3224.000	537.500	499.400	248.100
2	10:21:06	524.800	196.500	655.700	2490.000	3001.000	488.000	438.600	218.000
3	10:21:26	509.300	185.800	609.800	2266.000	2697.000	472.800	460.700	236.000
x		507.700	187.300	636.600	2414.000	2974.000	499.400	466.300	234.000
σ		18.000	8.553	23.890	128.000	264.500	33.820	30.770	15.150
%RSD		3.546	4.566	3.753	5.302	8.896	6.772	6.599	6.472

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	246.600	542.100	536.200	36.200	8.279	9.830	0.000	1176.000
2	10:21:06	226.400	517.800	517.100	36.960	8.402	8.496	0.000	1202.000
3	10:21:26	237.800	532.700	541.400	40.600	9.071	11.040	0.000	1210.000
x		236.900	530.900	531.600	37.920	8.584	9.789	0.000	1196.000
σ		10.110	12.250	12.810	2.353	0.426	1.272	0.000	17.960
%RSD		4.266	2.308	2.409	6.204	4.965	12.990	0.000	1.502

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	81.254%	993.700	996.900	82.480%	47.260	46.070	46.830	41.230
2	10:21:06	81.996%	1014.000	1000.000	79.296%	45.850	46.550	47.040	39.130
3	10:21:26	79.162%	988.600	1008.000	79.232%	47.230	48.680	48.310	40.620
x		80.804%	998.800	1002.000	80.336%	46.780	47.100	47.390	40.330
σ		1.469%	13.410	5.858	1.857%	0.804	1.391	0.802	1.080
%RSD		1.818	1.342	0.585	2.312	1.720	2.953	1.693	2.677

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	79.644%	2044.000	478.400	476.600	1942.000	1947.000	98.753%	101.382%
2	10:21:06	86.774%	2015.000	454.600	451.400	1898.000	1867.000	99.475%	100.327%
3	10:21:26	85.694%	2034.000	459.100	458.400	1871.000	1854.000	99.445%	102.286%
x		84.037%	2031.000	464.000	462.100	1904.000	1889.000	99.224%	101.332%
σ		3.843%	14.690	12.640	13.050	36.000	50.680	0.408%	0.980%
%RSD		4.573	0.723	2.725	2.823	1.891	2.683	0.411	0.967

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:20:47	53.480	53.070	25.140	24.650	24.960	89.106%
2	10:21:06	52.390	52.410	24.630	24.780	24.870	91.731%
3	10:21:26	52.540	53.170	24.770	24.710	24.930	93.609%
x		52.800	52.880	24.850	24.710	24.920	91.482%
σ		0.592	0.411	0.265	0.065	0.046	2.262%
%RSD		1.120	0.778	1.065	0.263	0.184	2.473

180-39432-I-1-C MSD 12/11/2014 10:24:02 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	66.111%	39.540	911.200	1082.000	0.000	81640.000	107900.000	108400.000
2	10:24:40	73.608%	35.970	809.400	867.500	0.000	67140.000	90530.000	91920.000
3	10:25:00	71.094%	43.180	1073.000	1245.000	0.000	84810.000	109600.000	107100.000
x		70.271%	39.560	931.200	1065.000	0.000	77860.000	102700.000	102500.000
σ		3.816%	3.605	132.800	189.500	0.000	9420.000	10570.000	9163.000
%RSD		5.430	9.112	14.260	17.800	0.000	12.100	10.290	8.942

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	2893.000	13740.000	0.000	80900.000	114300.000	113000.000	80.532%	886.700
2	10:24:40	2444.000	11730.000	0.000	72450.000	102400.000	104900.000	85.477%	892.400
3	10:25:00	2740.000	12560.000	0.000	76310.000	106900.000	108000.000	75.928%	911.100
x		2692.000	12680.000	0.000	76550.000	107900.000	108600.000	80.646%	896.700
σ		228.200	1008.000	0.000	4229.000	6017.000	4068.000	4.776%	12.760
%RSD		8.476	7.948	0.000	5.524	5.578	3.745	5.922	1.423

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	487.000	177.100	590.900	2310.000	2700.000	503.700	482.200	242.800
2	10:24:40	486.600	175.300	588.100	2137.000	2696.000	456.200	433.800	227.000
3	10:25:00	509.200	196.400	684.000	2601.000	3223.000	535.000	494.200	236.000
x		494.200	183.000	621.000	2349.000	2873.000	498.300	470.100	235.200
σ		12.930	11.700	54.600	234.700	303.200	39.660	31.950	7.963
%RSD		2.615	6.395	8.792	9.990	10.550	7.959	6.797	3.385

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	246.500	531.200	524.700	36.510	8.458	9.170	0.000	1149.000
2	10:24:40	234.300	516.000	523.400	38.930	7.595	11.290	0.000	1185.000
3	10:25:00	234.000	512.700	507.800	35.710	8.631	8.524	0.000	1190.000
x		238.300	520.000	518.600	37.050	8.228	9.661	0.000	1175.000
σ		7.123	9.833	9.428	1.676	0.555	1.445	0.000	22.210
%RSD		2.989	1.891	1.818	4.524	6.742	14.960	0.000	1.891

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	78.465%	1007.000	1016.000	81.026%	46.920	46.720	46.750	42.020
2	10:24:40	77.730%	1002.000	1022.000	79.091%	46.970	47.470	46.270	39.530
3	10:25:00	82.389%	1041.000	1049.000	81.917%	44.500	45.240	46.560	39.100
x		79.528%	1017.000	1029.000	80.678%	46.130	46.480	46.530	40.220
σ		2.505%	21.440	17.390	1.445%	1.411	1.137	0.244	1.576
%RSD		3.150	2.108	1.690	1.791	3.058	2.445	0.524	3.920

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	81.620%	1997.000	455.200	453.100	1860.000	1862.000	95.536%	96.692%
2	10:24:40	84.523%	2016.000	450.800	451.200	1835.000	1819.000	95.816%	97.051%
3	10:25:00	81.558%	2088.000	469.900	470.300	1921.000	1929.000	100.664%	100.484%
x		82.567%	2034.000	458.600	458.200	1872.000	1870.000	97.339%	98.076%
σ		1.695%	48.120	9.995	10.520	44.440	55.510	2.883%	2.093%
%RSD		2.052	2.366	2.180	2.296	2.374	2.968	2.962	2.134

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:21	53.230	53.210	24.850	24.630	24.640	83.772%
2	10:24:40	52.770	53.440	25.060	24.660	25.020	86.945%
3	10:25:00	52.650	52.440	25.180	23.860	24.610	88.640%
x		52.880	53.030	25.030	24.380	24.750	86.452%
σ		0.307	0.523	0.165	0.456	0.229	2.471%
%RSD		0.581	0.987	0.660	1.868	0.926	2.858

CCV 1408349 12/11/2014 10:27:44 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	69.516%	89.350	103.000	113.600	0.000	48900.000	54770.000	56960.000
2	10:28:03	83.696%	94.190	103.600	111.200	0.000	47080.000	51230.000	50280.000
3	10:28:23	71.406%	88.430	102.000	112.400	0.000	49220.000	54630.000	57310.000
x		74.873%	90.657%	102.880%	112.409%	0.000	96.804%	107.086%	109.704%
σ		7.699%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		10.283	3.416	0.822	1.095	0.000	2.393	3.739	7.225

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	571.900	5129.000	0.000	53460.000	48980.000	49850.000	81.897%	88.990
2	10:28:03	494.400	4353.000	0.000	46260.000	44630.000	48030.000	79.808%	91.400
3	10:28:23	580.000	5021.000	0.000	52340.000	48150.000	50120.000	82.808%	86.510
x		109.756%	96.687%	0.000	101.377%	94.509%	98.667%	81.504%	88.966%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.538%	n/a
%RSD		8.614	8.696	0.000	7.652	4.895	2.298	1.887	2.744

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	86.980	88.190	483.900	25090.000	25720.000	100.200	104.600	106.300
2	10:28:03	95.180	98.600	527.000	27110.000	26980.000	101.900	99.290	98.100
3	10:28:23	88.440	89.550	489.300	25700.000	25980.000	99.940	102.900	105.800
x		90.199%	92.114%	100.011%	103.858%	104.908%	100.676%	102.282%	103.412%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.853	6.147	4.704	3.997	2.529	1.075	2.665	4.453

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	107.500	108.800	106.700	101.600	106.600	112.500	0.000	98.190
2	10:28:03	97.600	102.900	100.900	101.500	107.800	102.100	0.000	102.100
3	10:28:23	105.900	105.500	104.600	102.400	107.600	110.000	0.000	98.530
x		103.677%	105.701%	104.040%	101.819%	107.355%	108.180%	0.000	99.611%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.130	2.782	2.843	0.511	0.606	5.027	0.000	2.188

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	72.615%	92.400	89.650	84.067%	95.340	93.730	96.000	95.790
2	10:28:03	76.788%	97.340	94.920	84.014%	90.360	89.090	91.000	93.460
3	10:28:23	75.075%	101.700	99.520	86.350%	92.610	91.420	94.060	93.830
x		74.826%	97.132%	94.694%	84.810%	92.770%	91.412%	93.686%	94.363%
σ		2.098%	n/a	n/a	1.333%	n/a	n/a	n/a	n/a
%RSD		2.804	4.772	5.217	1.572	2.691	2.537	2.691	1.327

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	79.118%	91.480	90.020	90.590	91.870	94.520	86.257%	86.975%
2	10:28:03	83.941%	92.930	89.440	89.050	95.610	92.920	89.525%	88.268%
3	10:28:23	82.270%	92.180	90.800	91.510	90.310	92.120	92.900%	91.967%
x		81.777%	92.197%	90.087%	90.383%	92.598%	93.188%	89.560%	89.070%
σ		2.449%	n/a	n/a	n/a	n/a	n/a	3.322%	2.591%
%RSD		2.995	0.785	0.755	1.371	2.942	1.310	3.709	2.909

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:27:44	99.770	99.700	98.440	97.230	97.470	82.249%
2	10:28:03	98.300	97.320	98.220	97.490	98.050	84.245%
3	10:28:23	102.100	101.100	101.400	100.400	101.100	84.710%
x		100.067%	99.369%	99.361%	98.368%	98.856%	83.735%
σ		n/a	n/a	n/a	n/a	n/a	1.307%
%RSD		1.927	1.922	1.802	1.779	1.947	1.561

CCB2 12/11/2014 10:33:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:01	85.086%	-0.016	5.433	5.698	0.000	2.121	2.343	1.815
2	10:34:20	90.234%	-0.014	3.713	4.228	0.000	1.911	1.703	2.223
3	10:34:39	82.445%	-0.008	3.220	3.542	0.000	0.566	1.452	1.666
x		85.922%	-0.013	4.122	4.489	0.000	1.533	1.833	1.902
σ		3.961%	0.004	1.162	1.102	0.000	0.844	0.460	0.288
%RSD		4.610	33.000	28.180	24.540	0.000	55.050	25.080	15.160
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:01	0.605	0.911	0.000	-2.027	3.295	2.389	86.706%	0.040
2	10:34:20	0.870	1.414	0.000	-1.369	2.120	2.015	89.097%	-0.007
3	10:34:39	0.712	0.972	0.000	2.996	1.243	2.780	100.329%	0.025
x		0.729	1.099	0.000	-0.133	2.220	2.395	92.044%	0.019
σ		0.134	0.275	0.000	2.730	1.030	0.383	7.274%	0.024
%RSD		18.310	25.000	0.000	2052.000	46.390	15.970	7.903	123.500
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:01	-0.000	0.023	0.074	72.640	10.230	0.013	0.004	-0.015
2	10:34:20	0.013	-0.045	0.051	50.050	13.270	0.006	-0.003	-0.015
3	10:34:39	0.026	-0.058	0.038	-18.090	-2.880	0.001	-0.002	-0.004
x		0.013	-0.027	0.054	34.870	6.874	0.007	-0.000	-0.011
σ		0.013	0.044	0.018	47.230	8.583	0.006	0.004	0.006
%RSD		102.200	164.500	33.510	135.500	124.900	88.740	871.500	53.910
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:01	0.052	0.014	0.025	-0.616	0.109	-3.036	0.000	0.009
2	10:34:20	0.042	-0.002	0.011	-0.291	0.162	-1.341	0.000	0.004
3	10:34:39	-0.015	0.030	0.043	-0.118	0.519	0.036	0.000	0.007
x		0.026	0.014	0.026	-0.342	0.263	-1.447	0.000	0.007
σ		0.036	0.016	0.016	0.253	0.223	1.539	0.000	0.002
%RSD		136.900	114.800	59.780	74.070	84.830	106.400	0.000	33.080
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:01	91.489%	0.586	0.616	93.194%	-0.040	-0.014	-0.105	-0.082
2	10:34:20	91.431%	0.663	0.584	96.947%	-0.033	-0.013	-0.147	-0.108
3	10:34:39	86.948%	0.553	0.556	93.740%	-0.027	-0.018	-0.073	-0.047
x		89.956%	0.601	0.585	94.627%	-0.033	-0.015	-0.108	-0.079
σ		2.605%	0.056	0.030	2.028%	0.007	0.003	0.038	0.031
%RSD		2.896	9.381	5.170	2.143	19.610	20.290	34.660	39.210
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:01	90.933%	0.142	0.022	0.048	0.005	0.026	94.464%	94.877%
2	10:34:20	91.047%	0.105	0.052	0.050	-0.001	0.001	98.956%	99.106%
3	10:34:39	95.348%	0.011	0.023	0.039	0.010	0.018	98.369%	99.019%
x		92.442%	0.086	0.032	0.046	0.005	0.015	97.263%	97.667%
σ		2.517%	0.068	0.017	0.006	0.006	0.013	2.442%	2.417%
%RSD		2.723	78.530	52.930	12.450	122.400	82.530	2.510	2.475
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:34:01	0.021	0.010	0.326	0.287	0.324	96.355%		
2	10:34:20	0.014	0.019	0.379	0.277	0.311	97.844%		
3	10:34:39	0.029	0.018	0.353	0.328	0.333	103.472%		
x		0.022	0.016	0.353	0.297	0.323	99.224%		
σ		0.008	0.004	0.027	0.027	0.011	3.754%		
%RSD		34.740	28.630	7.589	9.135	3.379	3.783		

180-39432-I-1-A PDS 12/11/2014 10:37:17 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	67.252%	43.870	1009.000	1177.000	0.000	81860.000	103000.000	97990.000
2	10:37:55	61.270%	39.370	919.300	1096.000	0.000	81830.000	104300.000	106100.000
3	10:38:14	67.871%	41.480	911.200	976.800	0.000	67620.000	87280.000	87510.000
x		65.464%	41.580	946.400	1083.000	0.000	77100.000	98170.000	97190.000
σ		3.646%	2.251	53.990	100.900	0.000	8213.000	9461.000	9307.000
%RSD		5.569	5.413	5.705	9.312	0.000	10.650	9.637	9.576

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	2287.000	11750.000	0.000	72190.000	99210.000	103700.000	74.166%	948.200
2	10:37:55	2579.000	13580.000	0.000	80120.000	108200.000	108400.000	76.936%	910.700
3	10:38:14	2039.000	11160.000	0.000	72040.000	99910.000	105500.000	78.782%	952.700
x		2302.000	12170.000	0.000	74780.000	102400.000	105900.000	76.628%	937.200
σ		270.300	1262.000	0.000	4621.000	5003.000	2354.000	2.324%	23.060
%RSD		11.740	10.370	0.000	6.180	4.884	2.223	3.032	2.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	519.100	195.100	690.400	2635.000	3171.000	531.500	478.200	235.300
2	10:37:55	501.500	182.100	632.500	2460.000	2774.000	532.200	490.900	248.600
3	10:38:14	532.100	189.300	628.900	2350.000	2544.000	481.700	449.900	234.000
x		517.600	188.900	650.600	2482.000	2830.000	515.100	473.000	239.300
σ		15.380	6.522	34.510	144.000	317.200	28.980	20.980	8.079
%RSD		2.971	3.453	5.304	5.803	11.210	5.626	4.435	3.376

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	231.800	515.000	504.400	36.910	8.947	8.366	0.000	1195.000
2	10:37:55	248.400	536.300	529.800	39.100	8.906	11.280	0.000	1183.000
3	10:38:14	236.500	527.800	530.100	39.530	8.985	9.783	0.000	1220.000
x		238.900	526.300	521.500	38.510	8.946	9.811	0.000	1199.000
σ		8.543	10.720	14.730	1.407	0.040	1.459	0.000	19.160
%RSD		3.576	2.036	2.825	3.655	0.443	14.870	0.000	1.598

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	79.108%	1060.000	1062.000	76.946%	46.150	45.880	45.260	38.360
2	10:37:55	77.013%	1066.000	1064.000	80.250%	48.360	48.000	47.540	39.790
3	10:38:14	75.399%	1060.000	1054.000	76.525%	47.880	48.080	47.910	39.270
x		77.173%	1062.000	1060.000	77.907%	47.460	47.320	46.900	39.140
σ		1.860%	3.547	4.975	2.040%	1.164	1.250	1.436	0.727
%RSD		2.410	0.334	0.469	2.618	2.453	2.642	3.061	1.857

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	78.623%	2158.000	479.700	473.600	1954.000	1951.000	94.346%	95.627%
2	10:37:55	79.780%	2125.000	472.200	478.000	1911.000	1894.000	96.885%	98.334%
3	10:38:14	82.591%	2157.000	472.300	469.400	1891.000	1855.000	96.078%	98.763%
x		80.331%	2147.000	474.700	473.700	1918.000	1900.000	95.770%	97.575%
σ		2.041%	18.520	4.291	4.273	32.190	48.140	1.297%	1.700%
%RSD		2.540	0.863	0.904	0.902	1.678	2.534	1.355	1.743

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:36	51.830	52.140	24.620	24.600	24.810	86.616%
2	10:37:55	53.970	53.820	25.050	25.030	25.210	88.734%
3	10:38:14	53.040	53.790	25.800	25.560	25.400	90.271%
x		52.950	53.250	25.160	25.060	25.140	88.540%
σ		1.071	0.959	0.595	0.480	0.304	1.835%
%RSD		2.023	1.802	2.364	1.916	1.209	2.073

180-39432-I-2-A 12/11/2014 10:40:49 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	66.917%	-0.021	145.600	170.800	0.000	135100.000	14930.000	14170.000
2	10:41:28	70.995%	0.001	142.800	159.800	0.000	127600.000	13730.000	13560.000
3	10:41:47	62.715%	-0.005	131.500	163.100	0.000	132100.000	14310.000	14150.000
x		66.876%	-0.008	140.000	164.600	0.000	131600.000	14330.000	13960.000
σ		4.140%	0.011	7.446	5.650	0.000	3757.000	601.400	344.600
%RSD		6.191	139.600	5.319	3.433	0.000	2.854	4.198	2.469

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	121.900	4047.000	0.000	19760.000	51450.000	52070.000	79.360%	2.539
2	10:41:28	112.000	3916.000	0.000	19400.000	49060.000	52050.000	77.428%	2.618
3	10:41:47	132.300	4353.000	0.000	21700.000	55070.000	55460.000	82.223%	2.220
x		122.100	4106.000	0.000	20280.000	51860.000	53190.000	79.670%	2.459
σ		10.190	224.400	0.000	1237.000	3027.000	1965.000	2.412%	0.211
%RSD		8.346	5.466	0.000	6.097	5.836	3.694	3.028	8.580

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	12.530	0.912	57.170	285.100	516.100	0.344	2.691	7.654
2	10:41:28	7.495	0.951	59.470	314.100	534.000	0.341	2.869	7.256
3	10:41:47	9.064	0.816	53.880	246.500	475.200	0.298	2.709	7.611
x		9.696	0.893	56.840	281.900	508.400	0.328	2.756	7.507
σ		2.575	0.069	2.806	33.910	30.150	0.026	0.098	0.219
%RSD		26.560	7.775	4.936	12.030	5.929	7.873	3.548	2.912

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	2.997	11.270	11.160	-1.248	0.196	-1.536	0.000	192.700
2	10:41:28	3.060	11.370	11.460	0.218	-0.333	-0.778	0.000	188.600
3	10:41:47	3.183	12.200	11.990	1.858	0.095	1.071	0.000	186.700
x		3.080	11.620	11.540	0.276	-0.014	-0.414	0.000	189.300
σ		0.094	0.513	0.423	1.554	0.281	1.341	0.000	3.100
%RSD		3.068	4.417	3.663	562.800	2012.000	323.700	0.000	1.637

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	79.663%	16.180	16.130	83.079%	-0.039	-0.034	-0.165	-0.038
2	10:41:28	84.286%	15.200	15.390	84.925%	-0.027	-0.021	-0.144	-0.080
3	10:41:47	78.295%	14.420	14.400	84.015%	-0.030	-0.032	-0.235	-0.124
x		80.748%	15.270	15.310	84.006%	-0.032	-0.029	-0.181	-0.081
σ		3.139%	0.881	0.864	0.923%	0.006	0.007	0.047	0.043
%RSD		3.888	5.772	5.646	1.099	18.890	24.810	26.050	53.540

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	81.088%	2.472	1.344	1.422	31.610	31.920	99.609%	99.546%
2	10:41:28	84.456%	2.081	1.091	1.221	32.430	31.280	102.357%	103.138%
3	10:41:47	83.763%	1.513	1.056	1.002	31.200	30.300	103.368%	104.326%
x		83.102%	2.022	1.164	1.215	31.750	31.170	101.778%	102.337%
σ		1.779%	0.482	0.157	0.210	0.622	0.815	1.945%	2.488%
%RSD		2.140	23.840	13.520	17.300	1.960	2.616	1.911	2.432

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:09	0.031	0.029	0.736	0.629	0.680	92.297%
2	10:41:28	0.026	0.023	0.687	0.620	0.660	96.446%
3	10:41:47	0.022	0.019	0.746	0.621	0.673	98.590%
x		0.027	0.024	0.723	0.623	0.671	95.778%
σ		0.005	0.005	0.032	0.005	0.010	3.199%
%RSD		17.060	20.560	4.379	0.792	1.487	3.340

180-39432-I-3-A 12/11/2014 10:44:21 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	73.817%	-0.009	123.000	140.000	0.000	24400.000	3308.000	3378.000
2	10:44:59	78.521%	-0.007	126.200	134.000	0.000	23060.000	3251.000	3238.000
3	10:45:18	75.106%	0.004	150.100	172.200	0.000	27810.000	3805.000	3652.000
x		75.815%	-0.004	133.100	148.700	0.000	25090.000	3455.000	3422.000
σ		2.431%	0.007	14.830	20.530	0.000	2450.000	304.800	210.600
%RSD		3.206	168.900	11.140	13.800	0.000	9.766	8.823	6.154

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	98.150	4863.000	0.000	20990.000	97900.000	102300.000	88.865%	3.570
2	10:44:59	86.160	4505.000	0.000	20590.000	98570.000	104000.000	84.996%	3.952
3	10:45:18	93.980	4816.000	0.000	21280.000	97580.000	101300.000	76.223%	3.806
x		92.760	4728.000	0.000	20960.000	98020.000	102500.000	83.361%	3.776
σ		6.088	194.800	0.000	346.200	504.700	1357.000	6.478%	0.193
%RSD		6.563	4.121	0.000	1.652	0.515	1.324	7.771	5.104

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	275.400	6.565	18.420	205.100	685.000	0.233	1.350	3.040
2	10:44:59	293.300	6.854	19.240	239.000	700.300	0.236	0.923	3.228
3	10:45:18	304.700	7.072	22.700	342.300	785.100	0.256	1.277	3.442
x		291.100	6.830	20.120	262.100	723.500	0.242	1.183	3.237
σ		14.790	0.254	2.272	71.500	53.900	0.013	0.229	0.202
%RSD		5.080	3.719	11.290	27.270	7.450	5.321	19.340	6.224

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	2.617	9.207	9.787	3.103	1.463	0.752	0.000	336.800
2	10:44:59	2.741	9.369	9.774	3.383	1.035	0.233	0.000	333.300
3	10:45:18	2.754	9.543	10.030	0.214	3.315	1.717	0.000	376.600
x		2.704	9.373	9.862	2.233	1.938	0.901	0.000	348.900
σ		0.075	0.168	0.142	1.754	1.212	0.753	0.000	24.040
%RSD		2.787	1.789	1.436	78.550	62.550	83.610	0.000	6.891

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	85.924%	6.151	6.663	82.798%	-0.049	-0.027	-0.084	-0.024
2	10:44:59	88.072%	6.493	6.302	79.754%	-0.040	-0.022	-0.089	-0.074
3	10:45:18	83.399%	6.687	6.797	83.277%	-0.040	-0.020	-0.206	-0.171
x		85.799%	6.444	6.587	81.943%	-0.043	-0.023	-0.127	-0.090
σ		2.339%	0.271	0.256	1.911%	0.005	0.003	0.069	0.075
%RSD		2.726	4.211	3.882	2.332	11.040	14.280	54.490	83.030

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	85.354%	1.333	0.902	0.856	54.150	53.470	96.977%	97.720%
2	10:44:59	86.570%	1.216	0.873	0.918	53.490	54.780	97.427%	99.182%
3	10:45:18	87.725%	1.153	0.877	0.918	56.440	55.370	102.089%	102.175%
x		86.549%	1.234	0.884	0.897	54.690	54.540	98.831%	99.692%
σ		1.186%	0.091	0.016	0.036	1.550	0.972	2.831%	2.271%
%RSD		1.370	7.392	1.762	3.980	2.833	1.781	2.864	2.278

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:44:40	0.006	0.005	3.421	3.120	3.281	92.372%
2	10:44:59	0.022	0.008	3.234	3.226	3.224	94.993%
3	10:45:18	0.016	0.006	3.256	2.911	3.185	98.118%
x		0.015	0.006	3.304	3.086	3.230	95.161%
σ		0.008	0.002	0.102	0.160	0.048	2.877%
%RSD		52.320	26.860	3.084	5.183	1.496	3.023

180-39432-I-4-A 12/11/2014 10:47:52 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	69.315%	-0.003	138.100	155.800	0.000	70760.000	12040.000	12280.000
2	10:48:31	70.579%	-0.013	119.900	127.200	0.000	58550.000	10390.000	10780.000
3	10:48:50	68.370%	-0.002	139.700	162.400	0.000	70590.000	11990.000	11560.000
x		69.421%	-0.006	132.600	148.500	0.000	66630.000	11470.000	11540.000
σ		1.109%	0.006	11.020	18.690	0.000	7001.000	941.700	747.300
%RSD		1.597	99.920	8.311	12.590	0.000	10.510	8.207	6.476

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	81.160	4765.000	0.000	19720.000	44360.000	44470.000	78.047%	1.094
2	10:48:31	72.870	4493.000	0.000	18900.000	43670.000	44910.000	82.856%	1.023
3	10:48:50	74.940	4652.000	0.000	19270.000	43560.000	44950.000	74.646%	1.050
x		76.320	4637.000	0.000	19290.000	43860.000	44770.000	78.516%	1.056
σ		4.315	136.300	0.000	410.700	432.600	266.800	4.125%	0.036
%RSD		5.654	2.940	0.000	2.129	0.986	0.596	5.254	3.389

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	16.020	1.377	13.230	1208.000	1349.000	1.251	6.732	4.252
2	10:48:31	19.200	1.401	12.540	1049.000	1131.000	1.078	5.652	4.425
3	10:48:50	20.910	1.474	14.190	1242.000	1368.000	1.270	6.486	4.489
x		18.710	1.418	13.320	1166.000	1283.000	1.200	6.290	4.389
σ		2.484	0.050	0.827	102.800	131.600	0.106	0.566	0.123
%RSD		13.280	3.544	6.211	8.815	10.260	8.805	9.004	2.796

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	2.310	19.180	19.760	0.655	0.006	-1.471	0.000	226.700
2	10:48:31	2.566	20.860	20.690	2.174	-0.890	2.682	0.000	231.900
3	10:48:50	2.449	20.950	21.260	0.485	0.840	-0.070	0.000	247.100
x		2.442	20.330	20.570	1.105	-0.015	0.380	0.000	235.200
σ		0.129	0.997	0.762	0.930	0.865	2.113	0.000	10.600
%RSD		5.265	4.906	3.703	84.160	5858.000	555.500	0.000	4.508

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	79.567%	8.285	8.033	82.297%	-0.044	-0.036	0.030	0.041
2	10:48:31	75.678%	7.994	8.080	81.688%	-0.046	-0.035	0.009	0.139
3	10:48:50	79.371%	8.285	8.163	80.811%	-0.032	-0.031	-0.009	0.061
x		78.205%	8.188	8.092	81.599%	-0.041	-0.034	0.010	0.080
σ		2.191%	0.168	0.066	0.747%	0.007	0.003	0.019	0.052
%RSD		2.801	2.055	0.812	0.916	18.180	8.531	195.600	64.680

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	80.917%	1.421	1.096	1.144	10.570	10.640	98.161%	99.982%
2	10:48:31	84.568%	1.399	1.074	1.042	9.610	9.723	97.137%	99.790%
3	10:48:50	81.252%	1.297	1.061	1.165	10.810	10.780	102.673%	104.436%
x		82.246%	1.372	1.077	1.117	10.330	10.380	99.324%	101.403%
σ		2.018%	0.066	0.018	0.066	0.635	0.575	2.946%	2.629%
%RSD		2.454	4.842	1.642	5.908	6.146	5.538	2.966	2.592

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:48:11	-0.004	0.001	1.314	1.133	1.273	91.427%
2	10:48:31	0.013	0.003	1.266	1.182	1.188	95.921%
3	10:48:50	0.001	-0.001	1.260	1.207	1.219	96.950%
x		0.003	0.001	1.280	1.174	1.227	94.766%
σ		0.009	0.002	0.030	0.037	0.043	2.937%
%RSD		278.400	167.300	2.323	3.179	3.500	3.099

CRI 1411047 12/11/2014 10:54:07 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:26	74.341%	0.884	5.908	7.091	0.000	88.100	96.520	103.600
2	10:54:46	77.771%	0.908	5.803	6.025	0.000	78.060	86.410	95.800
3	10:55:05	80.884%	0.950	6.417	7.254	0.000	88.940	95.640	97.430
x		77.665%	91.393%	120.850%	135.796%	0.000	85.035%	92.856%	98.951%
σ		3.273%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.214	3.666	5.430	9.834	0.000	7.118	6.028	4.172
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:26	30.660	451.000	0.000	102.600	103.000	100.600	93.062%	4.221
2	10:54:46	29.560	430.400	0.000	96.920	101.600	107.500	94.155%	4.510
3	10:55:05	27.530	389.000	0.000	95.870	112.100	99.770	83.489%	5.071
x		97.497%	84.690%	0.000	98.459%	105.549%	102.621%	90.235%	92.011%
σ		n/a	n/a	0.000	n/a	n/a	n/a	5.868%	n/a
%RSD		5.427	7.456	0.000	3.672	5.408	4.128	6.503	9.399
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:26	0.755	1.503	4.254	27.450	38.880	0.489	0.955	2.064
2	10:54:46	0.748	1.507	4.285	17.690	37.650	0.466	1.049	2.117
3	10:55:05	0.832	1.795	5.023	93.500	45.570	0.491	0.969	2.052
x		77.816%	80.073%	90.416%	92.421%	81.403%	96.390%	99.130%	103.882%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.988	10.470	9.636	89.240	10.470	2.823	5.124	1.656
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:26	2.100	5.741	5.445	0.611	4.446	3.637	0.000	4.421
2	10:54:46	2.297	5.621	5.386	0.971	4.582	5.632	0.000	4.466
3	10:55:05	2.119	5.279	5.312	0.718	4.747	3.288	0.000	4.624
x		108.617%	110.944%	107.617%	76.675%	91.834%	83.708%	0.000	90.071%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.995	4.324	1.234	24.120	3.282	30.210	0.000	2.362
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:26	82.817%	4.373	4.505	91.503%	0.861	0.952	0.871	0.876
2	10:54:46	82.525%	4.435	4.554	91.203%	0.956	0.925	1.085	1.043
3	10:55:05	89.865%	4.510	4.485	91.474%	0.846	0.907	0.826	0.823
x		85.069%	88.782%	90.290%	91.393%	88.756%	92.813%	92.733%	91.381%
σ		4.156%	n/a	n/a	0.165%	n/a	n/a	n/a	n/a
%RSD		4.885	1.540	0.789	0.181	6.741	2.386	14.910	12.550
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:54:26	87.125%	4.361	1.579	1.588	8.750	9.277	96.597%	97.422%
2	10:54:46	88.996%	4.165	1.688	1.779	9.006	8.680	99.497%	99.529%
3	10:55:05	91.901%	4.637	1.718	1.787	9.282	9.238	102.314%	101.243%
x		89.341%	87.752%	83.071%	85.907%	90.128%	90.653%	99.469%	99.398%
σ		2.407%	n/a	n/a	n/a	n/a	n/a	2.859%	1.914%
%RSD		2.694	5.404	4.412	6.547	2.954	3.686	2.874	1.925
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:54:26	0.930	0.906	1.306	1.236	1.232	105.498%		
2	10:54:46	0.919	0.906	1.376	1.274	1.337	110.183%		
3	10:55:05	0.918	0.925	1.328	1.257	1.286	110.554%		
x		92.207%	91.266%	133.634%	125.550%	128.504%	108.745%		
σ		n/a	n/a	n/a	n/a	n/a	2.818%		
%RSD		0.711	1.179	2.667	1.506	4.055	2.592		

MB 180-127916/1-A 12/11/2014 10:57:41 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	76.637%	-0.010	1.156	1.253	0.000	2.513	-0.212	0.108
2	10:58:19	71.917%	-0.013	1.040	1.076	0.000	3.095	0.119	0.375
3	10:58:38	82.324%	-0.020	0.564	1.072	0.000	1.760	0.073	-0.080
x		76.959%	-0.014	0.920	1.134	0.000	2.456	-0.007	0.134
σ		5.211%	0.005	0.314	0.103	0.000	0.669	0.179	0.228
%RSD		6.771	33.970	34.100	9.118	0.000	27.260	2717.000	170.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	-0.001	0.759	0.000	-7.106	9.211	5.962	90.689%	0.053
2	10:58:19	0.282	1.894	0.000	-4.077	3.317	7.864	87.213%	0.063
3	10:58:38	-0.090	-0.308	0.000	-1.754	7.007	6.362	86.683%	-0.006
x		0.064	0.782	0.000	-4.313	6.512	6.729	88.195%	0.037
σ		0.194	1.101	0.000	2.684	2.978	1.002	2.176%	0.037
%RSD		305.400	140.800	0.000	62.230	45.740	14.900	2.468	101.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	0.305	-0.002	0.031	-14.160	-5.114	0.020	-0.002	0.007
2	10:58:19	0.261	-0.008	0.050	14.000	-1.136	0.024	-0.013	0.020
3	10:58:38	0.099	0.062	0.037	3.281	-5.259	0.022	-0.000	0.016
x		0.222	0.017	0.039	1.041	-3.836	0.022	-0.005	0.014
σ		0.108	0.039	0.010	14.210	2.340	0.002	0.007	0.007
%RSD		48.850	226.700	24.450	1365.000	60.990	9.415	132.300	46.750

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	0.080	0.932	1.020	-0.395	-0.190	-1.429	0.000	0.011
2	10:58:19	0.067	0.957	1.045	-0.096	-0.081	-0.179	0.000	0.007
3	10:58:38	0.038	0.977	0.890	-0.076	-0.567	-0.548	0.000	0.007
x		0.062	0.956	0.985	-0.189	-0.279	-0.719	0.000	0.008
σ		0.022	0.022	0.083	0.179	0.255	0.642	0.000	0.002
%RSD		34.870	2.348	8.434	94.820	91.340	89.310	0.000	26.880

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	81.319%	0.075	0.049	86.921%	-0.049	-0.045	-0.124	-0.085
2	10:58:19	83.913%	0.059	0.058	91.958%	-0.054	-0.040	-0.158	-0.107
3	10:58:38	87.157%	0.031	0.041	89.126%	-0.050	-0.036	-0.162	-0.120
x		84.130%	0.055	0.049	89.335%	-0.051	-0.040	-0.148	-0.104
σ		2.925%	0.022	0.008	2.525%	0.003	0.005	0.021	0.018
%RSD		3.477	40.160	16.560	2.826	5.289	12.060	14.240	17.380

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	92.030%	-0.154	-0.045	-0.062	-0.001	0.015	98.952%	100.513%
2	10:58:19	88.716%	-0.158	-0.062	-0.045	-0.001	0.005	103.501%	104.290%
3	10:58:38	95.985%	-0.178	-0.046	-0.045	-0.013	0.011	103.873%	103.833%
x		92.244%	-0.163	-0.051	-0.051	-0.005	0.010	102.109%	102.879%
σ		3.639%	0.013	0.010	0.010	0.007	0.005	2.740%	2.061%
%RSD		3.945	7.857	18.610	19.360	130.100	50.120	2.684	2.004

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:00	0.001	-0.006	0.246	0.242	0.251	120.007%
2	10:58:19	0.004	-0.005	0.337	0.241	0.253	118.139%
3	10:58:38	-0.001	-0.006	0.189	0.240	0.206	119.693%
x		0.001	-0.006	0.257	0.241	0.237	119.280%
σ		0.002	0.001	0.074	0.001	0.026	1.000%
%RSD		176.000	17.100	28.920	0.401	11.150	0.839

PB 180-127880/1-B 12/11/2014 11:01:13 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:33	85.005%	-0.024	0.295	0.649	0.000	2.677	0.070	0.398
2	11:01:52	82.861%	-0.036	0.899	1.110	0.000	3.429	0.532	0.418
3	11:02:11	77.003%	-0.014	0.853	1.142	0.000	3.620	0.569	0.386
x		81.623%	-0.025	0.683	0.967	0.000	3.242	0.390	0.401
σ		4.142%	0.011	0.336	0.276	0.000	0.498	0.278	0.016
%RSD		5.074	42.740	49.250	28.510	0.000	15.360	71.330	4.052
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:33	0.741	1.826	0.000	-3.623	9.819	5.670	89.323%	-0.007
2	11:01:52	0.533	1.119	0.000	3.873	6.702	5.873	84.299%	0.108
3	11:02:11	0.617	0.922	0.000	-5.921	5.864	6.581	88.034%	0.071
x		0.630	1.289	0.000	-1.890	7.461	6.041	87.219%	0.057
σ		0.105	0.476	0.000	5.122	2.084	0.478	2.609%	0.059
%RSD		16.580	36.900	0.000	270.900	27.930	7.920	2.992	102.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:33	-0.032	-0.041	0.037	10.310	2.472	0.000	-0.005	-0.005
2	11:01:52	0.205	-0.008	0.058	48.390	2.475	-0.001	-0.000	0.006
3	11:02:11	-0.285	-0.002	0.038	30.910	-0.043	-0.001	-0.003	0.031
x		-0.038	-0.017	0.044	29.870	1.635	-0.000	-0.003	0.011
σ		0.245	0.021	0.011	19.060	1.453	0.000	0.002	0.019
%RSD		651.200	120.800	25.690	63.810	88.870	102.600	93.410	171.800
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:33	0.040	0.846	0.904	-0.211	-0.423	-0.982	0.000	0.014
2	11:01:52	0.025	0.889	0.825	-0.459	-0.277	-2.314	0.000	0.009
3	11:02:11	0.051	0.866	0.857	-0.511	-0.411	-2.447	0.000	0.013
x		0.038	0.867	0.862	-0.394	-0.370	-1.914	0.000	0.012
σ		0.013	0.021	0.040	0.160	0.081	0.810	0.000	0.002
%RSD		33.780	2.473	4.583	40.740	21.880	42.310	0.000	19.310
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:33	87.050%	0.038	0.031	92.833%	-0.062	-0.045	-0.024	-0.007
2	11:01:52	91.586%	0.019	0.006	95.024%	-0.054	-0.045	-0.170	-0.122
3	11:02:11	91.442%	0.058	0.058	97.614%	-0.047	-0.046	-0.135	-0.089
x		90.026%	0.038	0.032	95.157%	-0.054	-0.045	-0.110	-0.073
σ		2.578%	0.020	0.026	2.393%	0.007	0.001	0.077	0.059
%RSD		2.864	51.080	83.090	2.515	13.540	1.169	69.840	81.530
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:33	89.122%	-0.269	-0.059	-0.071	0.058	0.036	102.843%	103.044%
2	11:01:52	92.529%	-0.218	-0.059	-0.061	0.032	0.031	108.453%	106.838%
3	11:02:11	93.143%	-0.249	-0.057	-0.052	0.055	0.024	109.587%	109.356%
x		91.598%	-0.245	-0.058	-0.061	0.048	0.030	106.961%	106.413%
σ		2.166%	0.026	0.002	0.010	0.014	0.006	3.611%	3.177%
%RSD		2.365	10.470	2.627	16.220	28.930	19.820	3.376	2.986
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:01:33	-0.002	-0.009	0.226	0.207	0.227	114.552%		
2	11:01:52	-0.005	-0.009	0.198	0.207	0.210	113.717%		
3	11:02:11	-0.002	-0.006	0.203	0.195	0.196	114.206%		
x		-0.003	-0.008	0.209	0.203	0.211	114.158%		
σ		0.002	0.002	0.015	0.007	0.015	0.419%		
%RSD		59.040	25.270	7.118	3.537	7.294	0.367		

LCS 180-127916/3-A 12/11/2014 11:04:46 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	79.294%	42.960	722.800	790.000	0.000	38930.000	44900.000	45450.000
2	11:05:24	69.016%	49.100	947.700	1020.000	0.000	50210.000	55400.000	55880.000
3	11:05:44	78.444%	42.570	747.600	796.900	0.000	39700.000	44340.000	44590.000
x		75.585%	44.880	806.000	869.000	0.000	42950.000	48210.000	48640.000
σ		5.704%	3.659	123.300	130.900	0.000	6302.000	6230.000	6289.000
%RSD		7.547	8.152	15.300	15.060	0.000	14.670	12.920	12.930

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	1871.000	8405.000	0.000	49590.000	47930.000	50610.000	86.847%	908.100
2	11:05:24	2127.000	9106.000	0.000	50990.000	48160.000	50750.000	77.542%	910.300
3	11:05:44	1746.000	8122.000	0.000	50150.000	46900.000	49750.000	82.297%	933.400
x		1915.000	8544.000	0.000	50240.000	47660.000	50370.000	82.228%	917.300
σ		194.300	506.700	0.000	703.700	672.300	541.700	4.653%	14.000
%RSD		10.150	5.930	0.000	1.401	1.410	1.075	5.658	1.526

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	498.100	178.400	473.800	936.500	1067.000	483.900	465.500	240.100
2	11:05:24	518.200	193.900	556.600	1207.000	1374.000	565.500	520.500	258.300
3	11:05:44	531.900	194.600	514.900	1057.000	1194.000	504.900	469.700	239.200
x		516.100	189.000	515.100	1067.000	1212.000	518.100	485.200	245.800
σ		16.960	9.141	41.390	135.700	154.400	42.340	30.600	10.770
%RSD		3.286	4.837	8.035	12.720	12.740	8.172	6.307	4.380

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	245.800	523.700	529.300	39.910	8.865	9.168	0.000	1039.000
2	11:05:24	255.900	525.200	523.900	37.780	9.220	7.181	0.000	1039.000
3	11:05:44	249.900	527.100	539.500	40.850	8.982	8.946	0.000	1033.000
x		250.500	525.300	530.900	39.520	9.022	8.432	0.000	1037.000
σ		5.097	1.660	7.939	1.573	0.181	1.089	0.000	3.668
%RSD		2.034	0.316	1.495	3.980	2.001	12.910	0.000	0.354

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	76.138%	940.400	940.800	78.576%	49.790	49.590	49.610	41.710
2	11:05:24	82.121%	969.200	1050.000	83.056%	47.240	47.300	47.620	39.450
3	11:05:44	79.524%	969.300	975.100	79.423%	47.090	49.300	50.210	40.760
x		79.261%	959.600	988.800	80.352%	48.040	48.730	49.150	40.640
σ		3.000%	16.660	56.090	2.380%	1.518	1.245	1.353	1.138
%RSD		3.785	1.736	5.673	2.962	3.160	2.555	2.752	2.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	82.169%	2103.000	478.400	479.000	1858.000	1838.000	92.243%	92.665%
2	11:05:24	80.353%	2138.000	497.200	501.600	1989.000	1971.000	97.109%	98.150%
3	11:05:44	85.356%	2102.000	482.000	479.500	1871.000	1856.000	96.694%	95.805%
x		82.626%	2115.000	485.900	486.700	1906.000	1888.000	95.349%	95.540%
σ		2.533%	20.490	9.949	12.910	72.030	72.020	2.698%	2.752%
%RSD		3.065	0.969	2.048	2.653	3.780	3.814	2.829	2.881

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:05:05	50.440	50.650	21.160	20.720	20.830	92.218%
2	11:05:24	52.180	52.010	21.470	21.280	21.220	91.381%
3	11:05:44	51.210	51.440	21.420	21.120	21.440	94.165%
x		51.280	51.370	21.350	21.040	21.160	92.588%
σ		0.873	0.682	0.167	0.290	0.308	1.429%
%RSD		1.702	1.327	0.784	1.377	1.457	1.543

LCSD 180-127916/4-A 12/11/2014 11:08:19 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	78.395%	47.240	901.400	920.300	0.000	42600.000	49220.000	48140.000
2	11:08:57	67.174%	46.830	829.500	949.700	0.000	47880.000	55050.000	56120.000
3	11:09:16	63.857%	45.190	872.400	970.200	0.000	47180.000	54520.000	55200.000
x		69.809%	46.420	867.800	946.700	0.000	45890.000	52930.000	53150.000
σ		7.619%	1.081	36.170	25.100	0.000	2873.000	3224.000	4361.000
%RSD		10.914	2.329	4.168	2.651	0.000	6.261	6.091	8.205

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	1915.000	8187.000	0.000	48320.000	47250.000	50670.000	78.485%	974.700
2	11:08:57	2301.000	9768.000	0.000	53120.000	51900.000	54130.000	81.954%	931.100
3	11:09:16	2243.000	9733.000	0.000	54130.000	50710.000	52980.000	80.032%	911.600
x		2153.000	9229.000	0.000	51860.000	49950.000	52590.000	80.157%	939.100
σ		208.300	902.900	0.000	3105.000	2418.000	1765.000	1.738%	32.290
%RSD		9.675	9.783	0.000	5.988	4.841	3.356	2.168	3.439

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	549.800	207.500	556.800	1172.000	1280.000	535.000	503.100	246.000
2	11:08:57	513.600	187.800	500.700	1056.000	1243.000	537.100	514.400	266.100
3	11:09:16	503.500	185.300	509.400	1065.000	1224.000	539.500	516.100	267.500
x		522.300	193.500	522.300	1098.000	1249.000	537.200	511.200	259.900
σ		24.340	12.200	30.180	64.210	28.090	2.266	7.090	12.040
%RSD		4.660	6.305	5.778	5.849	2.249	0.422	1.387	4.635

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	247.200	518.100	525.200	39.940	9.300	8.122	0.000	1075.000
2	11:08:57	273.900	560.100	561.100	41.020	10.300	10.190	0.000	1053.000
3	11:09:16	269.100	550.900	544.000	41.720	10.130	12.120	0.000	1044.000
x		263.400	543.100	543.400	40.900	9.908	10.140	0.000	1057.000
σ		14.250	22.090	17.920	0.894	0.534	1.999	0.000	15.570
%RSD		5.410	4.068	3.298	2.186	5.387	19.710	0.000	1.472

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	78.325%	994.200	992.200	77.697%	48.100	49.770	51.340	42.230
2	11:08:57	76.948%	1011.000	1004.000	82.141%	50.240	51.170	51.440	44.660
3	11:09:16	76.372%	1024.000	1025.000	82.443%	50.620	50.090	49.990	42.040
x		77.215%	1010.000	1007.000	80.760%	49.650	50.340	50.930	42.980
σ		1.003%	14.810	16.420	2.657%	1.358	0.731	0.810	1.464
%RSD		1.299	1.467	1.631	3.290	2.735	1.452	1.590	3.406

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	80.917%	2189.000	501.300	498.800	1983.000	1945.000	93.953%	91.958%
2	11:08:57	82.011%	2130.000	498.500	497.400	1928.000	1936.000	95.134%	96.589%
3	11:09:16	81.036%	2150.000	501.900	504.400	1947.000	1975.000	97.286%	97.644%
x		81.321%	2156.000	500.600	500.200	1953.000	1952.000	95.458%	95.397%
σ		0.600%	29.990	1.818	3.687	28.120	20.360	1.690%	3.025%
%RSD		0.738	1.391	0.363	0.737	1.440	1.043	1.770	3.171

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:38	52.310	52.560	21.590	21.310	21.460	88.806%
2	11:08:57	53.820	54.670	22.270	22.300	22.050	89.998%
3	11:09:16	54.240	55.070	22.300	21.990	22.120	91.604%
x		53.460	54.100	22.050	21.870	21.880	90.136%
σ		1.016	1.346	0.402	0.503	0.362	1.404%
%RSD		1.901	2.488	1.824	2.299	1.652	1.558

CCV 1408349 12/11/2014 11:14:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	79.426%	99.340	102.000	101.200	0.000	46830.000	49780.000	50810.000
2	11:15:00	69.468%	95.290	99.940	104.200	0.000	50220.000	53950.000	55180.000
3	11:15:21	75.673%	84.190	79.640	86.950	0.000	43550.000	48610.000	49530.000
x		74.856%	92.940%	93.844%	97.443%	0.000	93.730%	101.559%	103.680%
σ		5.029%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.719	8.440	13.160	9.454	0.000	7.111	5.524	5.715

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	500.500	4411.000	0.000	48630.000	46480.000	48530.000	80.101%	92.730
2	11:15:00	569.600	5093.000	0.000	53370.000	48860.000	51010.000	79.619%	89.710
3	11:15:21	507.700	4691.000	0.000	51660.000	48750.000	50720.000	82.057%	91.190
x		105.186%	94.628%	0.000	102.441%	96.062%	100.175%	80.592%	91.212%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.291%	n/a
%RSD		7.220	7.249	0.000	4.681	2.799	2.708	1.602	1.654

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	95.770	97.000	524.100	26230.000	26030.000	96.150	96.000	94.030
2	11:15:00	90.360	93.010	519.100	26540.000	27040.000	104.300	105.000	106.000
3	11:15:21	92.030	89.870	480.200	24460.000	24780.000	97.610	101.000	105.100
x		92.719%	93.292%	101.560%	102.971%	103.811%	99.369%	100.673%	101.715%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.989	3.832	4.730	4.355	4.363	4.400	4.475	6.561

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	94.960	96.780	96.980	97.520	103.500	99.410	0.000	96.540
2	11:15:00	107.400	107.500	105.000	101.300	105.400	107.800	0.000	96.450
3	11:15:21	107.200	110.200	109.100	106.900	104.500	113.600	0.000	99.420
x		103.177%	104.822%	103.669%	101.891%	104.455%	106.934%	0.000	97.469%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		6.902	6.766	5.926	4.640	0.937	6.658	0.000	1.734

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	77.465%	87.040	86.780	77.282%	92.350	90.690	93.310	95.100
2	11:15:00	75.364%	94.950	93.010	80.480%	95.340	94.170	94.660	96.630
3	11:15:21	72.715%	97.370	96.330	80.208%	95.550	95.080	94.590	95.770
x		75.181%	93.120%	92.042%	79.323%	94.414%	93.315%	94.187%	95.834%
σ		2.381%	n/a	n/a	1.773%	n/a	n/a	n/a	n/a
%RSD		3.167	5.801	5.266	2.235	1.901	2.485	0.807	0.796

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	78.719%	92.280	90.100	90.220	94.560	92.250	82.320%	82.448%
2	11:15:00	77.218%	92.550	91.960	92.670	93.900	95.030	86.328%	86.606%
3	11:15:21	80.947%	91.860	89.660	89.490	91.360	91.680	86.551%	87.926%
x		78.961%	92.229%	90.570%	90.792%	93.275%	92.987%	85.066%	85.660%
σ		1.876%	n/a	n/a	n/a	n/a	n/a	2.381%	2.859%
%RSD		2.376	0.379	1.347	1.837	1.812	1.924	2.799	3.337

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:41	90.320	88.200	88.930	88.770	89.480	86.185%
2	11:15:00	96.000	94.910	93.750	92.670	93.900	86.472%
3	11:15:21	96.500	95.070	96.400	95.770	95.620	88.127%
x		94.271%	92.727%	93.029%	92.405%	93.001%	86.928%
σ		n/a	n/a	n/a	n/a	n/a	1.048%
%RSD		3.638	4.233	4.073	3.795	3.405	1.206

CCB3 12/11/2014 11:20:40 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:59	90.273%	-0.014	2.401	2.202	0.000	-0.083	1.257	1.136
2	11:21:18	108.030%	-0.023	2.142	2.212	0.000	-0.434	0.810	1.164
3	11:21:37	90.934%	-0.018	2.311	2.491	0.000	-0.601	1.256	1.107
x		96.412%	-0.018	2.284	2.302	0.000	-0.373	1.108	1.136
σ		10.067%	0.005	0.131	0.164	0.000	0.264	0.258	0.028
%RSD		10.441	25.880	5.742	7.124	0.000	70.950	23.260	2.482
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:59	-0.204	0.246	0.000	-2.249	1.325	2.147	97.135%	0.091
2	11:21:18	-0.317	-0.680	0.000	-0.840	2.894	2.328	93.083%	0.011
3	11:21:37	-0.254	-0.264	0.000	-5.176	3.310	1.079	95.258%	0.065
x		-0.258	-0.233	0.000	-2.755	2.510	1.852	95.159%	0.056
σ		0.057	0.464	0.000	2.212	1.046	0.675	2.028%	0.041
%RSD		22.060	199.500	0.000	80.300	41.700	36.450	2.131	73.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:59	0.043	0.090	0.075	-1.282	2.439	0.003	0.015	-0.020
2	11:21:18	0.035	0.053	0.056	40.260	4.443	0.006	-0.005	-0.041
3	11:21:37	0.017	0.072	0.065	20.780	3.075	0.009	-0.006	-0.032
x		0.032	0.072	0.065	19.920	3.319	0.006	0.001	-0.031
σ		0.013	0.018	0.010	20.790	1.024	0.003	0.012	0.010
%RSD		41.360	25.520	14.870	104.300	30.860	44.300	968.400	33.980
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:59	-0.008	0.030	0.073	-0.454	0.125	-1.469	0.000	0.007
2	11:21:18	0.003	-0.060	-0.025	-0.655	-0.039	-2.758	0.000	0.009
3	11:21:37	-0.015	0.021	0.086	-0.477	0.479	-2.043	0.000	0.004
x		-0.007	-0.003	0.045	-0.529	0.188	-2.090	0.000	0.007
σ		0.009	0.049	0.060	0.110	0.265	0.646	0.000	0.003
%RSD		131.200	1793.000	134.900	20.870	140.700	30.920	0.000	42.580
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:59	84.505%	0.687	0.702	90.131%	-0.039	-0.032	-0.125	-0.071
2	11:21:18	90.471%	0.898	0.707	88.524%	-0.026	-0.031	-0.144	-0.110
3	11:21:37	88.436%	0.737	0.689	92.974%	-0.040	-0.021	-0.149	-0.106
x		87.804%	0.774	0.699	90.543%	-0.035	-0.028	-0.139	-0.096
σ		3.033%	0.110	0.009	2.253%	0.008	0.006	0.013	0.021
%RSD		3.454	14.200	1.275	2.489	21.790	22.630	9.099	22.380
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:20:59	92.154%	0.218	0.062	0.049	0.024	-0.005	91.809%	92.082%
2	11:21:18	93.273%	0.186	0.026	0.043	-0.001	0.022	94.642%	93.467%
3	11:21:37	94.561%	0.216	0.033	0.052	0.005	0.029	96.709%	95.931%
x		93.329%	0.207	0.041	0.048	0.009	0.015	94.386%	93.827%
σ		1.204%	0.018	0.019	0.005	0.013	0.018	2.460%	1.950%
%RSD		1.291	8.601	47.150	9.993	144.500	119.100	2.606	2.078
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:20:59	0.022	0.012	0.186	0.164	0.163	101.312%		
2	11:21:18	0.023	0.011	0.202	0.139	0.160	102.624%		
3	11:21:37	0.019	0.005	0.170	0.127	0.145	104.540%		
x		0.022	0.009	0.186	0.143	0.156	102.825%		
σ		0.002	0.004	0.016	0.019	0.010	1.623%		
%RSD		8.973	42.340	8.573	13.130	6.129	1.579		

180-39690-L-1-B 12/11/2014 11:24:15 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	65.887%	-0.016	195.300	229.200	0.000	291500.000	21140.000	21630.000
2	11:24:53	57.694%	-0.008	210.400	234.400	0.000	312900.000	22350.000	21640.000
3	11:25:12	66.240%	-0.026	146.700	163.300	0.000	223200.000	16170.000	16670.000
x		63.274%	-0.016	184.100	209.000	0.000	275900.000	19890.000	19980.000
σ		4.835%	0.009	33.250	39.650	0.000	46890.000	3272.000	2872.000
%RSD		7.642	55.880	18.060	18.970	0.000	17.000	16.450	14.370

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	14.060	8507.000	0.000	9125.000	78600.000	81020.000	71.874%	1.031
2	11:24:53	12.840	8563.000	0.000	9372.000	78160.000	81710.000	68.895%	1.040
3	11:25:12	9.735	7250.000	0.000	8630.000	74960.000	78960.000	75.653%	0.948
x		12.210	8107.000	0.000	9042.000	77240.000	80560.000	72.141%	1.006
σ		2.230	742.600	0.000	377.700	1985.000	1429.000	3.387%	0.051
%RSD		18.260	9.161	0.000	4.178	2.570	1.774	4.695	5.057

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	-1.795	0.233	1034.000	129.300	516.100	0.755	2.380	11.610
2	11:24:53	-3.340	0.330	1063.000	111.500	499.300	0.783	2.408	11.630
3	11:25:12	2.711	0.251	940.300	17.940	369.500	0.600	1.644	11.140
x		-0.808	0.271	1012.000	86.250	461.700	0.713	2.144	11.460
σ		3.144	0.052	63.930	59.820	80.230	0.098	0.433	0.278
%RSD		388.900	19.040	6.316	69.360	17.380	13.790	20.190	2.427

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	1.199	11.590	12.590	5.274	-0.149	-1.581	0.000	479.900
2	11:24:53	1.102	11.670	11.250	5.647	0.382	0.398	0.000	469.400
3	11:25:12	1.133	12.330	12.280	8.711	-0.259	2.620	0.000	484.500
x		1.145	11.870	12.040	6.544	-0.009	0.479	0.000	477.900
σ		0.049	0.407	0.701	1.885	0.343	2.101	0.000	7.723
%RSD		4.290	3.431	5.823	28.810	3909.000	438.700	0.000	1.616

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	73.743%	21.390	21.220	75.897%	-0.035	-0.030	-0.198	-0.140
2	11:24:53	72.965%	22.060	21.310	73.617%	-0.012	0.000	-0.212	-0.135
3	11:25:12	68.389%	21.370	21.040	70.169%	-0.000	-0.001	-0.231	-0.146
x		71.699%	21.610	21.190	73.228%	-0.016	-0.010	-0.214	-0.140
σ		2.893%	0.395	0.138	2.884%	0.018	0.017	0.017	0.006
%RSD		4.035	1.828	0.651	3.938	112.900	170.400	7.961	3.982

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	73.806%	0.902	0.771	0.913	60.520	60.920	89.307%	90.433%
2	11:24:53	73.506%	0.988	0.819	0.890	61.370	59.770	92.216%	92.481%
3	11:25:12	77.254%	0.787	0.714	0.743	59.290	58.290	90.017%	91.187%
x		74.855%	0.892	0.768	0.849	60.390	59.660	90.513%	91.367%
σ		2.083%	0.101	0.053	0.092	1.044	1.319	1.517%	1.036%
%RSD		2.782	11.300	6.845	10.860	1.729	2.211	1.676	1.134

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:24:34	0.022	0.037	0.364	0.400	0.382	82.127%
2	11:24:53	0.036	0.030	0.273	0.261	0.273	85.278%
3	11:25:12	0.011	0.024	0.313	0.277	0.281	87.345%
x		0.023	0.030	0.316	0.312	0.312	84.917%
σ		0.013	0.007	0.046	0.076	0.061	2.628%
%RSD		54.680	21.860	14.400	24.300	19.390	3.095

180-39690-M-1-A 12/11/2014 11:27:48 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	69.349%	-0.007	140.000	150.000	0.000	205500.000	14420.000	14420.000
2	11:28:26	57.381%	-0.013	174.800	203.900	0.000	267000.000	19170.000	19450.000
3	11:28:45	65.240%	0.019	167.400	193.700	0.000	246100.000	17040.000	16310.000
x		63.990%	-0.000	160.700	182.500	0.000	239500.000	16880.000	16720.000
σ		6.081%	0.017	18.360	28.590	0.000	31290.000	2377.000	2540.000
%RSD		9.503	4310.000	11.420	15.660	0.000	13.060	14.090	15.190

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	185.000	6532.000	0.000	7636.000	66440.000	72890.000	79.784%	5.283
2	11:28:26	234.300	7940.000	0.000	8252.000	70090.000	72780.000	70.608%	5.353
3	11:28:45	193.100	6837.000	0.000	7623.000	65900.000	71180.000	71.713%	3.364
x		204.200	7103.000	0.000	7837.000	67480.000	72280.000	74.035%	4.667
σ		26.400	740.700	0.000	359.700	2281.000	957.800	5.009%	1.129
%RSD		12.930	10.430	0.000	4.590	3.381	1.325	6.766	24.190

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	0.181	0.464	824.100	451.200	704.400	0.605	1.488	9.487
2	11:28:26	-0.455	0.347	918.400	552.300	948.000	0.721	2.180	11.030
3	11:28:45	0.968	0.428	943.200	603.400	850.600	0.700	1.769	10.140
x		0.232	0.413	895.200	535.700	834.400	0.675	1.812	10.220
σ		0.713	0.060	62.840	77.470	122.600	0.061	0.348	0.777
%RSD		307.800	14.440	7.019	14.460	14.690	9.099	19.190	7.607

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	1.344	12.170	12.730	8.867	-0.508	2.678	0.000	442.400
2	11:28:26	1.567	12.380	12.850	6.687	-0.209	0.604	0.000	421.200
3	11:28:45	1.402	12.180	12.420	7.236	-0.109	-0.859	0.000	434.000
x		1.438	12.240	12.670	7.597	-0.275	0.808	0.000	432.500
σ		0.116	0.119	0.223	1.134	0.208	1.777	0.000	10.670
%RSD		8.051	0.973	1.761	14.930	75.400	220.100	0.000	2.466

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	69.591%	18.390	18.290	70.487%	-0.032	-0.019	-0.254	-0.173
2	11:28:26	73.252%	18.570	18.720	75.009%	-0.036	-0.013	-0.257	-0.171
3	11:28:45	73.591%	18.900	19.380	72.247%	-0.037	-0.025	-0.303	-0.242
x		72.144%	18.620	18.800	72.581%	-0.035	-0.019	-0.271	-0.195
σ		2.218%	0.262	0.545	2.279%	0.003	0.006	0.028	0.041
%RSD		3.074	1.407	2.902	3.140	7.802	30.500	10.170	20.830

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	75.170%	0.297	0.489	0.555	55.250	54.480	84.810%	86.738%
2	11:28:26	72.239%	0.282	0.560	0.497	56.870	58.000	91.561%	92.500%
3	11:28:45	75.611%	0.293	0.554	0.589	58.620	55.560	93.106%	93.487%
x		74.340%	0.291	0.534	0.547	56.910	56.010	89.826%	90.909%
σ		1.833%	0.008	0.039	0.047	1.685	1.802	4.412%	3.645%
%RSD		2.465	2.619	7.364	8.527	2.961	3.217	4.911	4.010

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:07	0.016	-0.001	0.683	0.521	0.615	83.480%
2	11:28:26	0.015	0.002	0.625	0.576	0.608	84.911%
3	11:28:45	0.020	0.016	0.686	0.570	0.649	87.782%
x		0.017	0.006	0.665	0.556	0.624	85.391%
σ		0.003	0.009	0.034	0.030	0.022	2.191%
%RSD		15.660	160.100	5.132	5.414	3.530	2.566

180-39690-M-1-A SD@5 12/11/2014 11:31:21 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:40	71.722%	-0.017	39.320	42.460	0.000	55270.000	3604.000	3699.000
2	11:31:59	75.259%	-0.010	30.960	33.010	0.000	42950.000	2911.000	3050.000
3	11:32:19	74.832%	-0.009	36.900	39.510	0.000	49640.000	3283.000	3393.000
x		73.937%	-0.012	35.730	38.330	0.000	49290.000	3266.000	3380.000
σ		1.931%	0.005	4.300	4.834	0.000	6167.000	347.200	324.600
%RSD		2.611	37.160	12.040	12.610	0.000	12.510	10.630	9.603
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:40	43.050	1564.000	0.000	1631.000	13910.000	14100.000	77.439%	0.710
2	11:31:59	37.050	1408.000	0.000	1655.000	14090.000	14270.000	88.544%	0.587
3	11:32:19	38.900	1420.000	0.000	1542.000	13630.000	14060.000	79.096%	0.670
x		39.660	1464.000	0.000	1610.000	13880.000	14150.000	81.693%	0.656
σ		3.073	86.670	0.000	59.600	234.800	112.700	5.990%	0.063
%RSD		7.747	5.920	0.000	3.703	1.692	0.797	7.333	9.568
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:40	-0.065	-0.068	167.600	173.500	192.500	0.144	0.498	2.099
2	11:31:59	0.303	0.023	148.200	61.290	137.400	0.124	0.301	2.032
3	11:32:19	0.155	0.113	175.200	157.800	182.800	0.137	0.408	2.004
x		0.131	0.023	163.700	130.900	170.900	0.135	0.402	2.045
σ		0.185	0.091	13.920	60.760	29.390	0.010	0.099	0.049
%RSD		140.900	399.600	8.507	46.430	17.200	7.434	24.550	2.390
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:40	0.349	3.822	3.723	1.028	-0.289	-1.219	0.000	75.600
2	11:31:59	0.379	4.040	3.761	1.385	-0.216	-0.972	0.000	79.820
3	11:32:19	0.315	3.402	3.456	1.360	-0.309	-1.682	0.000	76.970
x		0.348	3.755	3.647	1.258	-0.272	-1.291	0.000	77.460
σ		0.032	0.325	0.166	0.199	0.049	0.360	0.000	2.157
%RSD		9.092	8.641	4.550	15.850	18.030	27.920	0.000	2.784
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:40	80.286%	3.600	3.664	84.901%	-0.055	-0.043	-0.162	-0.112
2	11:31:59	75.538%	3.578	3.729	82.659%	-0.045	-0.035	-0.176	-0.114
3	11:32:19	82.825%	3.696	3.731	83.640%	-0.058	-0.038	-0.167	-0.120
x		79.550%	3.625	3.708	83.733%	-0.053	-0.039	-0.168	-0.115
σ		3.699%	0.063	0.038	1.124%	0.007	0.004	0.007	0.004
%RSD		4.649	1.732	1.031	1.342	13.590	10.260	4.308	3.824
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:40	79.547%	-0.126	0.078	0.053	11.430	11.490	95.885%	95.773%
2	11:31:59	83.491%	-0.085	0.055	0.083	10.550	10.660	95.151%	95.905%
3	11:32:19	83.739%	-0.123	0.061	0.075	11.470	11.370	100.822%	99.738%
x		82.259%	-0.111	0.065	0.070	11.150	11.170	97.286%	97.139%
σ		2.352%	0.023	0.012	0.016	0.523	0.452	3.084%	2.252%
%RSD		2.859	20.640	18.540	22.420	4.693	4.047	3.170	2.318
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:31:40	0.009	0.001	0.160	0.139	0.139	99.890%		
2	11:31:59	0.009	0.009	0.162	0.154	0.138	102.163%		
3	11:32:19	0.010	0.007	0.110	0.166	0.150	102.254%		
x		0.009	0.006	0.144	0.153	0.142	101.436%		
σ		0.001	0.004	0.029	0.013	0.006	1.340%		
%RSD		8.685	68.820	20.350	8.679	4.492	1.321		

MB 180-127320/1-A 12/11/2014 11:37:37 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	88.457%	-0.032	0.720	0.773	0.000	9.148	0.132	0.188
2	11:38:16	81.346%	-0.016	0.840	0.938	0.000	10.410	0.361	0.330
3	11:38:35	75.440%	-0.023	0.980	1.054	0.000	10.130	0.184	0.267
x		81.747%	-0.023	0.847	0.922	0.000	9.894	0.225	0.262
σ		6.518%	0.008	0.130	0.142	0.000	0.661	0.120	0.071
%RSD		7.973	35.110	15.400	15.360	0.000	6.676	53.170	27.140

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	2.050	1.402	0.000	-6.806	5.712	7.763	89.154%	-0.005
2	11:38:16	2.581	2.916	0.000	-5.919	11.690	9.274	87.231%	0.011
3	11:38:35	1.894	1.403	0.000	-7.374	8.911	8.771	84.438%	0.025
x		2.175	1.907	0.000	-6.700	8.772	8.603	86.941%	0.010
σ		0.360	0.874	0.000	0.733	2.993	0.769	2.371%	0.015
%RSD		16.570	45.810	0.000	10.940	34.120	8.940	2.727	147.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	0.536	-0.003	0.034	-17.510	-3.969	-0.004	0.007	0.013
2	11:38:16	0.310	0.001	0.043	-2.568	-0.363	0.001	0.002	0.015
3	11:38:35	0.054	0.070	0.037	24.740	-3.379	-0.002	0.005	0.028
x		0.300	0.023	0.038	1.552	-2.570	-0.002	0.005	0.019
σ		0.241	0.041	0.005	21.420	1.934	0.002	0.002	0.008
%RSD		80.430	181.100	12.070	1381.000	75.240	121.400	46.630	42.540

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	0.069	1.062	1.204	0.160	0.079	0.007	0.000	0.012
2	11:38:16	0.070	1.209	1.190	0.047	-0.242	-0.596	0.000	0.009
3	11:38:35	0.064	1.135	1.044	-0.018	0.356	0.639	0.000	0.011
x		0.068	1.135	1.146	0.063	0.064	0.017	0.000	0.011
σ		0.003	0.073	0.089	0.090	0.299	0.618	0.000	0.001
%RSD		4.366	6.454	7.754	142.800	467.300	3725.000	0.000	12.030

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	78.152%	0.029	0.036	87.261%	-0.052	-0.044	-0.071	-0.048
2	11:38:16	81.494%	0.060	0.042	88.766%	-0.042	-0.032	-0.089	-0.057
3	11:38:35	81.715%	0.097	0.050	87.006%	-0.046	-0.040	-0.211	-0.154
x		80.454%	0.062	0.043	87.678%	-0.047	-0.039	-0.124	-0.086
σ		1.996%	0.034	0.007	0.951%	0.005	0.006	0.076	0.059
%RSD		2.481	54.820	17.020	1.085	10.780	15.330	61.650	68.130

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	88.132%	-0.211	-0.076	-0.067	-0.013	0.012	97.966%	98.537%
2	11:38:16	85.419%	-0.238	-0.074	-0.077	0.005	0.009	103.136%	102.839%
3	11:38:35	91.585%	-0.243	-0.071	-0.070	-0.013	0.008	104.076%	103.199%
x		88.379%	-0.231	-0.073	-0.071	-0.007	0.010	101.726%	101.525%
σ		3.090%	0.017	0.003	0.005	0.011	0.002	3.290%	2.594%
%RSD		3.497	7.571	3.500	7.061	148.400	23.670	3.234	2.555

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:56	-0.001	-0.002	0.235	0.149	0.204	120.528%
2	11:38:16	-0.001	-0.004	0.196	0.153	0.168	119.192%
3	11:38:35	-0.001	-0.008	0.151	0.113	0.133	119.544%
x		-0.001	-0.005	0.194	0.138	0.169	119.755%
σ		0.000	0.003	0.042	0.022	0.035	0.692%
%RSD		1.800	58.580	21.550	15.790	20.930	0.578

LCS 180-127320/2-A 12/11/2014 11:41:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	78.805%	46.390	843.000	865.400	0.000	41220.000	45790.000	47260.000
2	11:41:50	66.500%	44.790	834.600	930.300	0.000	47670.000	53960.000	56890.000
3	11:42:09	66.348%	44.120	794.300	894.200	0.000	45710.000	52940.000	55300.000
x		70.551%	45.100	824.000	896.600	0.000	44870.000	50900.000	53150.000
σ		7.149%	1.169	26.020	32.520	0.000	3309.000	4454.000	5167.000
%RSD		10.132	2.593	3.158	3.627	0.000	7.375	8.751	9.721

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	1831.000	8059.000	0.000	48160.000	47770.000	49870.000	80.032%	907.200
2	11:41:50	2336.000	9855.000	0.000	54150.000	50820.000	51900.000	79.119%	893.800
3	11:42:09	2265.000	9549.000	0.000	53150.000	50090.000	52990.000	82.011%	898.300
x		2144.000	9154.000	0.000	51820.000	49560.000	51590.000	80.387%	899.800
σ		273.500	961.100	0.000	3205.000	1588.000	1584.000	1.478%	6.832
%RSD		12.760	10.500	0.000	6.185	3.204	3.071	1.839	0.759

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	520.800	192.400	525.600	1106.000	1197.000	522.800	479.100	244.800
2	11:41:50	509.000	186.100	514.300	1122.000	1262.000	566.400	529.900	269.900
3	11:42:09	497.200	180.800	496.900	1053.000	1200.000	547.900	510.200	259.700
x		509.000	186.400	512.300	1094.000	1220.000	545.700	506.400	258.100
σ		11.770	5.797	14.470	35.700	36.760	21.850	25.620	12.620
%RSD		2.313	3.110	2.824	3.265	3.014	4.004	5.059	4.891

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	244.300	515.400	533.700	40.510	9.749	8.780	0.000	1111.000
2	11:41:50	275.900	562.200	553.600	41.800	11.330	12.630	0.000	1073.000
3	11:42:09	271.300	566.300	557.200	40.910	11.360	12.210	0.000	1066.000
x		263.800	548.000	548.200	41.070	10.810	11.210	0.000	1084.000
σ		17.070	28.250	12.660	0.662	0.922	2.111	0.000	24.270
%RSD		6.469	5.156	2.309	1.612	8.525	18.840	0.000	2.239

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	75.916%	938.300	908.900	79.697%	46.520	47.300	48.020	40.070
2	11:41:50	73.018%	960.900	961.800	83.723%	47.640	48.330	48.700	42.470
3	11:42:09	71.740%	1007.000	982.600	81.794%	49.550	47.630	50.230	42.770
x		73.558%	968.800	951.100	81.738%	47.900	47.760	48.980	41.770
σ		2.140%	35.140	38.010	2.013%	1.534	0.525	1.131	1.482
%RSD		2.909	3.627	3.996	2.463	3.202	1.099	2.309	3.548

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	81.555%	2112.000	483.800	478.200	1900.000	1886.000	93.001%	92.275%
2	11:41:50	79.168%	2102.000	489.600	490.200	1922.000	1929.000	96.337%	97.522%
3	11:42:09	80.145%	2113.000	486.300	486.800	1905.000	1907.000	97.751%	98.796%
x		80.289%	2109.000	486.600	485.000	1909.000	1907.000	95.696%	96.198%
σ		1.200%	6.090	2.933	6.173	11.520	21.630	2.439%	3.456%
%RSD		1.494	0.289	0.603	1.273	0.604	1.134	2.549	3.593

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:31	46.940	46.570	18.830	18.980	19.150	99.317%
2	11:41:50	50.290	50.310	20.030	20.420	20.200	97.158%
3	11:42:09	50.520	50.660	20.810	20.580	20.770	97.165%
x		49.250	49.180	19.890	19.990	20.040	97.880%
σ		2.007	2.263	0.997	0.884	0.822	1.244%
%RSD		4.074	4.603	5.015	4.422	4.101	1.271

LCSD 180-127320/3-A 12/11/2014 11:44:44 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:03	71.237%	45.540	830.200	840.800	0.000	40200.000	46620.000	48970.000
2	11:45:22	78.684%	46.470	811.100	804.100	0.000	40280.000	44840.000	45770.000
3	11:45:42	67.245%	50.440	952.500	1000.000	0.000	50470.000	56400.000	55280.000
x		72.389%	47.480	864.600	881.700	0.000	43650.000	49290.000	50010.000
σ		5.806%	2.603	76.750	104.300	0.000	5908.000	6228.000	4840.000
%RSD		8.020	5.482	8.876	11.830	0.000	13.530	12.640	9.679
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:03	1983.000	9066.000	0.000	51110.000	49000.000	50570.000	81.218%	933.700
2	11:45:22	1875.000	7963.000	0.000	48750.000	47200.000	50580.000	77.835%	931.900
3	11:45:42	2161.000	8991.000	0.000	51740.000	49810.000	49990.000	70.905%	922.700
x		2006.000	8673.000	0.000	50530.000	48670.000	50380.000	76.653%	929.400
σ		144.700	615.900	0.000	1577.000	1336.000	337.400	5.257%	5.874
%RSD		7.211	7.101	0.000	3.120	2.745	0.670	6.858	0.632
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:03	516.200	185.100	493.700	1028.000	1151.000	501.900	490.600	250.600
2	11:45:22	532.500	197.000	524.500	1077.000	1167.000	506.300	469.900	240.000
3	11:45:42	540.200	209.300	572.100	1290.000	1545.000	577.900	526.700	262.000
x		529.600	197.100	530.100	1131.000	1288.000	528.700	495.800	250.900
σ		12.250	12.080	39.520	139.300	223.300	42.670	28.720	10.970
%RSD		2.312	6.126	7.456	12.310	17.340	8.070	5.793	4.371
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:03	263.400	541.300	542.700	42.580	11.320	13.210	0.000	1101.000
2	11:45:22	252.900	523.000	535.300	41.400	9.729	9.707	0.000	1058.000
3	11:45:42	257.000	526.600	520.800	40.440	11.600	10.460	0.000	1082.000
x		257.700	530.300	533.000	41.470	10.880	11.130	0.000	1080.000
σ		5.309	9.710	11.150	1.070	1.011	1.844	0.000	21.760
%RSD		2.060	1.831	2.091	2.579	9.287	16.570	0.000	2.014
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:03	68.095%	945.400	945.800	76.222%	47.850	48.480	47.590	42.550
2	11:45:22	73.209%	988.200	956.900	75.693%	47.040	48.190	49.830	41.580
3	11:45:42	75.571%	1023.000	998.400	78.474%	46.740	47.460	48.070	39.960
x		72.292%	985.500	967.100	76.796%	47.210	48.040	48.500	41.360
σ		3.822%	38.770	27.750	1.477%	0.574	0.527	1.179	1.307
%RSD		5.286	3.934	2.869	1.923	1.217	1.096	2.432	3.160
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:03	78.348%	2073.000	469.900	466.700	1824.000	1827.000	88.367%	88.794%
2	11:45:22	81.048%	2076.000	466.700	466.400	1845.000	1846.000	90.135%	91.325%
3	11:45:42	77.197%	2122.000	490.900	494.500	1991.000	1961.000	94.093%	93.382%
x		78.864%	2091.000	475.800	475.900	1887.000	1878.000	90.865%	91.167%
σ		1.977%	27.690	13.130	16.160	90.790	72.180	2.932%	2.298%
%RSD		2.506	1.324	2.760	3.395	4.812	3.844	3.227	2.521
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:45:03	48.850	49.400	19.970	19.830	19.830	90.448%		
2	11:45:22	48.980	49.210	20.210	19.880	20.020	91.564%		
3	11:45:42	51.840	51.560	21.230	20.880	20.800	89.885%		
x		49.890	50.060	20.470	20.200	20.210	90.632%		
σ		1.690	1.306	0.673	0.596	0.515	0.854%		
%RSD		3.388	2.608	3.289	2.950	2.548	0.943		

180-39479-H-1-A 12/11/2014 11:48:15 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	71.144%	-0.003	66.150	71.280	0.000	24850.000	28250.000	28020.000
2	11:48:54	72.106%	-0.018	49.470	54.190	0.000	20750.000	24340.000	24950.000
3	11:49:13	68.732%	-0.002	50.840	63.180	0.000	23500.000	27310.000	27360.000
x		70.661%	-0.008	55.490	62.880	0.000	23030.000	26640.000	26780.000
σ		1.738%	0.008	9.257	8.545	0.000	2091.000	2041.000	1617.000
%RSD		2.460	108.200	16.680	13.590	0.000	9.078	7.661	6.038

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	163.000	4291.000	0.000	2730.000	71190.000	74070.000	75.997%	3.268
2	11:48:54	148.500	4293.000	0.000	2826.000	75520.000	78260.000	80.637%	2.967
3	11:49:13	161.100	4564.000	0.000	2899.000	75010.000	76600.000	75.301%	2.884
x		157.500	4383.000	0.000	2819.000	73910.000	76310.000	77.312%	3.040
σ		7.850	157.200	0.000	84.790	2362.000	2109.000	2.901%	0.202
%RSD		4.984	3.587	0.000	3.008	3.196	2.764	3.752	6.647

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	-0.644	0.411	20.740	366.700	727.800	0.394	1.316	1.519
2	11:48:54	0.678	0.466	18.810	260.400	586.400	0.329	1.636	1.616
3	11:49:13	0.201	0.400	20.220	335.400	680.400	0.367	1.403	1.631
x		0.078	0.426	19.920	320.800	664.900	0.363	1.452	1.589
σ		0.670	0.035	0.999	54.640	71.920	0.033	0.165	0.061
%RSD		857.000	8.316	5.013	17.030	10.820	9.051	11.390	3.823

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	1.044	4.386	3.833	-0.352	-0.702	-1.520	0.000	346.000
2	11:48:54	1.102	5.245	4.488	1.358	-0.543	1.808	0.000	347.400
3	11:49:13	1.119	4.631	4.648	0.849	-0.297	0.611	0.000	337.300
x		1.088	4.754	4.323	0.618	-0.514	0.300	0.000	343.600
σ		0.039	0.443	0.432	0.878	0.204	1.685	0.000	5.476
%RSD		3.615	9.309	9.994	142.000	39.690	562.600	0.000	1.594

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	77.765%	9.637	9.135	79.586%	-0.047	-0.035	-0.127	-0.055
2	11:48:54	71.944%	7.398	7.234	79.307%	-0.045	-0.038	-0.007	-0.016
3	11:49:13	76.154%	5.516	5.807	81.969%	-0.050	-0.035	-0.099	-0.054
x		75.288%	7.517	7.392	80.287%	-0.047	-0.036	-0.078	-0.042
σ		3.006%	2.063	1.670	1.463%	0.003	0.002	0.063	0.022
%RSD		3.993	27.450	22.590	1.823	5.724	4.365	80.770	53.350

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	79.412%	4.550	0.034	0.044	87.590	87.830	95.538%	96.030%
2	11:48:54	79.845%	3.852	0.037	0.044	87.680	84.490	94.473%	96.844%
3	11:49:13	78.131%	3.209	0.020	0.047	87.150	88.210	100.305%	101.274%
x		79.129%	3.870	0.031	0.045	87.470	86.840	96.772%	98.050%
σ		0.891%	0.671	0.009	0.002	0.281	2.047	3.105%	2.822%
%RSD		1.126	17.330	29.810	4.259	0.322	2.357	3.209	2.878

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:34	0.075	0.070	0.390	0.465	0.434	92.729%
2	11:48:54	0.049	0.062	0.450	0.410	0.422	96.556%
3	11:49:13	0.046	0.045	0.457	0.417	0.431	98.633%
x		0.057	0.059	0.432	0.430	0.429	95.973%
σ		0.016	0.013	0.037	0.030	0.006	2.995%
%RSD		29.070	21.390	8.463	6.938	1.407	3.121

180-39471-C-1-A 12/11/2014 11:51:47 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:06	67.657%	0.003	8.952	11.450	0.000	4692.000	2447.000	2484.000
2	11:52:25	67.165%	0.013	9.916	11.220	0.000	4970.000	2505.000	2657.000
3	11:52:44	67.976%	-0.002	9.849	12.160	0.000	5183.000	2558.000	2475.000
x		67.599%	0.005	9.573	11.610	0.000	4949.000	2504.000	2539.000
σ		0.409%	0.008	0.538	0.493	0.000	246.400	55.440	102.300
%RSD		0.605	165.200	5.625	4.249	0.000	4.978	2.214	4.029
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:06	242.400	4481.000	0.000	596.900	90860.000	92320.000	77.462%	6.400
2	11:52:25	223.600	4527.000	0.000	582.900	87230.000	90570.000	75.940%	2.603
3	11:52:44	202.600	4094.000	0.000	571.000	84930.000	87560.000	71.946%	3.501
x		222.800	4368.000	0.000	583.600	87680.000	90150.000	75.116%	4.168
σ		19.900	237.600	0.000	12.960	2989.000	2408.000	2.849%	1.985
%RSD		8.930	5.441	0.000	2.221	3.409	2.672	3.792	47.610
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:06	2.097	0.910	1256.000	961.600	1584.000	2.451	2.585	0.589
2	11:52:25	1.179	0.794	1278.000	986.900	1592.000	2.472	2.830	0.635
3	11:52:44	-0.693	1.078	1433.000	1141.000	1485.000	2.513	2.568	0.597
x		0.861	0.927	1322.000	1030.000	1554.000	2.479	2.661	0.607
σ		1.422	0.143	96.330	97.020	59.750	0.032	0.146	0.025
%RSD		165.100	15.370	7.284	9.421	3.846	1.271	5.496	4.070
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:06	0.742	8.360	8.552	1.850	-0.236	0.098	0.000	114.300
2	11:52:25	0.630	8.040	8.474	1.884	-0.688	0.444	0.000	117.200
3	11:52:44	0.638	7.701	8.148	1.347	-0.313	-1.411	0.000	117.500
x		0.670	8.033	8.391	1.694	-0.413	-0.290	0.000	116.300
σ		0.062	0.329	0.214	0.300	0.242	0.987	0.000	1.771
%RSD		9.260	4.100	2.552	17.740	58.590	340.700	0.000	1.523
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:06	74.826%	1.829	1.844	81.001%	-0.057	-0.031	0.173	0.182
2	11:52:25	77.300%	2.030	1.795	83.498%	-0.051	-0.027	0.262	0.224
3	11:52:44	80.330%	1.924	1.911	78.359%	-0.047	-0.039	0.129	0.214
x		77.485%	1.928	1.850	80.952%	-0.052	-0.032	0.188	0.207
σ		2.757%	0.100	0.058	2.570%	0.005	0.006	0.068	0.022
%RSD		3.558	5.200	3.145	3.174	10.010	19.060	35.890	10.630
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:06	80.284%	1.190	0.003	0.005	63.380	64.600	96.514%	97.151%
2	11:52:25	80.210%	1.055	-0.024	-0.002	65.820	65.250	99.926%	100.274%
3	11:52:44	81.635%	0.997	-0.020	-0.001	67.350	65.680	100.042%	100.655%
x		80.710%	1.081	-0.014	0.001	65.520	65.180	98.827%	99.360%
σ		0.802%	0.099	0.015	0.004	2.006	0.543	2.004%	1.923%
%RSD		0.994	9.194	106.000	379.100	3.062	0.834	2.028	1.935
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:52:06	0.086	0.074	0.299	0.314	0.294	97.206%		
2	11:52:25	0.075	0.078	0.300	0.276	0.272	99.602%		
3	11:52:44	0.062	0.068	0.306	0.254	0.272	102.187%		
x		0.074	0.074	0.302	0.281	0.279	99.665%		
σ		0.012	0.005	0.004	0.031	0.013	2.491%		
%RSD		16.060	7.097	1.276	10.850	4.609	2.499		

180-39471-C-2-A 12/11/2014 11:55:18 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	70.023%	-0.012	7.895	8.666	0.000	2180.000	1473.000	1507.000
2	11:55:56	68.185%	-0.007	5.911	7.368	0.000	1865.000	1292.000	1391.000
3	11:56:16	66.156%	-0.006	7.148	7.987	0.000	2111.000	1487.000	1587.000
x		68.122%	-0.008	6.985	8.007	0.000	2052.000	1417.000	1495.000
σ		1.934%	0.003	1.002	0.649	0.000	165.600	108.400	98.400
%RSD		2.840	39.170	14.340	8.110	0.000	8.072	7.650	6.582

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	91.180	3942.000	0.000	434.600	36380.000	37840.000	74.256%	1.848
2	11:55:56	83.190	3962.000	0.000	443.900	36270.000	37890.000	80.813%	2.334
3	11:56:16	100.600	4255.000	0.000	477.900	38340.000	39100.000	74.417%	2.179
x		91.670	4053.000	0.000	452.200	37000.000	38280.000	76.495%	2.120
σ		8.738	175.000	0.000	22.770	1167.000	710.600	3.740%	0.248
%RSD		9.531	4.317	0.000	5.037	3.153	1.857	4.889	11.710

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	-0.889	0.449	77.620	224.500	362.500	0.341	1.271	0.229
2	11:55:56	1.221	0.281	66.920	143.400	310.600	0.280	1.129	0.227
3	11:56:16	0.341	0.233	74.140	198.900	350.600	0.277	1.145	0.272
x		0.224	0.321	72.890	188.900	341.300	0.299	1.182	0.243
σ		1.060	0.114	5.458	41.470	27.200	0.036	0.078	0.025
%RSD		472.800	35.380	7.487	21.950	7.970	12.010	6.588	10.370

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	0.297	4.021	4.138	-0.156	-0.617	-3.148	0.000	54.960
2	11:55:56	0.263	4.014	4.120	0.518	-0.135	0.064	0.000	54.230
3	11:56:16	0.221	4.267	3.829	0.959	-0.425	0.299	0.000	56.040
x		0.261	4.101	4.029	0.440	-0.392	-0.928	0.000	55.080
σ		0.038	0.144	0.174	0.561	0.243	1.926	0.000	0.912
%RSD		14.670	3.511	4.313	127.500	61.850	207.500	0.000	1.656

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	79.798%	0.744	0.651	81.238%	-0.054	-0.044	-0.081	-0.039
2	11:55:56	75.788%	0.704	0.586	82.953%	-0.050	-0.039	-0.154	-0.057
3	11:56:16	78.826%	0.662	0.689	84.328%	-0.058	-0.037	-0.129	-0.055
x		78.137%	0.703	0.642	82.840%	-0.054	-0.040	-0.121	-0.050
σ		2.092%	0.041	0.052	1.548%	0.004	0.004	0.037	0.010
%RSD		2.677	5.838	8.076	1.869	8.115	8.919	30.350	19.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	82.532%	0.321	-0.052	-0.036	1.697	1.748	98.654%	98.760%
2	11:55:56	82.816%	0.287	-0.044	-0.051	1.585	1.729	99.734%	102.296%
3	11:56:16	81.163%	0.319	-0.061	-0.035	1.657	1.754	102.296%	104.918%
x		82.170%	0.309	-0.052	-0.041	1.646	1.743	100.228%	101.991%
σ		0.884%	0.019	0.009	0.009	0.057	0.013	1.870%	3.090%
%RSD		1.076	6.201	16.580	21.950	3.442	0.749	1.866	3.030

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:37	0.008	0.001	0.152	0.142	0.133	105.065%
2	11:55:56	0.017	0.007	0.110	0.138	0.115	107.156%
3	11:56:16	0.017	0.015	0.105	0.119	0.125	109.127%
x		0.014	0.008	0.122	0.133	0.124	107.116%
σ		0.005	0.007	0.026	0.012	0.009	2.031%
%RSD		36.130	89.910	21.510	9.245	7.159	1.897

180-39471-C-3-A 12/11/2014 11:58:50 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	74.779%	-0.027	4.589	6.228	0.000	8316.000	1630.000	1559.000
2	11:59:28	73.801%	-0.022	3.806	4.697	0.000	7376.000	1370.000	1484.000
3	11:59:47	75.209%	0.008	4.550	5.541	0.000	8155.000	1460.000	1451.000
x		74.596%	-0.014	4.315	5.489	0.000	7949.000	1487.000	1498.000
σ		0.721%	0.019	0.441	0.767	0.000	502.800	132.200	55.590
%RSD		0.967	137.400	10.230	13.970	0.000	6.325	8.887	3.710

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	89.480	4188.000	0.000	426.400	71100.000	73620.000	79.110%	2.174
2	11:59:28	83.650	4278.000	0.000	470.700	75940.000	75770.000	80.274%	1.961
3	11:59:47	79.670	3918.000	0.000	422.200	72130.000	74550.000	77.815%	2.067
x		84.270	4128.000	0.000	439.800	73060.000	74650.000	79.067%	2.067
σ		4.930	187.200	0.000	26.870	2550.000	1082.000	1.230%	0.107
%RSD		5.850	4.534	0.000	6.111	3.490	1.449	1.556	5.153

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	-0.379	0.553	250.200	10330.000	10510.000	1.786	4.266	1.095
2	11:59:28	0.967	0.531	230.500	9555.000	9222.000	1.725	4.169	1.086
3	11:59:47	0.447	0.597	255.500	10510.000	10710.000	1.706	4.078	1.077
x		0.345	0.561	245.400	10130.000	10150.000	1.739	4.171	1.086
σ		0.679	0.034	13.170	506.500	807.500	0.042	0.094	0.009
%RSD		196.900	6.012	5.369	4.999	7.958	2.424	2.256	0.808

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	0.957	15.870	15.820	4.658	-0.682	-2.558	0.000	120.700
2	11:59:28	0.930	16.930	17.550	5.696	-0.646	-0.027	0.000	118.500
3	11:59:47	0.966	15.420	15.750	4.664	-0.305	-1.974	0.000	122.300
x		0.951	16.070	16.370	5.006	-0.544	-1.519	0.000	120.500
σ		0.018	0.773	1.021	0.598	0.208	1.325	0.000	1.890
%RSD		1.938	4.808	6.237	11.940	38.170	87.230	0.000	1.569

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	80.846%	1.065	1.080	83.338%	-0.053	-0.040	0.005	0.065
2	11:59:28	77.669%	1.072	1.044	84.161%	-0.039	-0.041	0.006	0.078
3	11:59:47	81.755%	1.143	1.092	82.058%	-0.054	-0.038	-0.112	-0.016
x		80.090%	1.093	1.072	83.186%	-0.049	-0.040	-0.034	0.042
σ		2.145%	0.043	0.025	1.060%	0.008	0.002	0.068	0.051
%RSD		2.678	3.923	2.334	1.274	17.240	3.826	200.800	121.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	81.138%	0.071	0.025	0.020	101.600	102.700	96.552%	96.613%
2	11:59:28	83.513%	0.100	0.045	0.091	99.670	99.530	98.117%	100.785%
3	11:59:47	85.192%	0.062	0.031	0.008	103.500	100.600	100.126%	100.323%
x		83.281%	0.078	0.033	0.040	101.600	101.000	98.265%	99.241%
σ		2.037%	0.020	0.010	0.045	1.936	1.630	1.791%	2.287%
%RSD		2.446	25.260	29.730	112.700	1.905	1.614	1.823	2.305

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:59:09	0.000	0.002	0.429	0.386	0.369	106.252%
2	11:59:28	0.014	0.002	0.437	0.396	0.387	105.839%
3	11:59:47	0.005	0.000	0.387	0.368	0.369	106.609%
x		0.006	0.001	0.418	0.383	0.375	106.233%
σ		0.007	0.001	0.027	0.014	0.011	0.385%
%RSD		112.200	71.420	6.435	3.723	2.826	0.363

CCV 1408349 12/11/2014 12:05:11 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	75.103%	92.490	79.870	81.630	0.000	42610.000	46510.000	49730.000
2	12:05:31	78.291%	96.000	85.870	84.870	0.000	42060.000	45590.000	47250.000
3	12:05:50	67.523%	103.400	98.270	105.600	0.000	53660.000	56430.000	59630.000
x		73.639%	97.302%	88.005%	90.692%	0.000	92.222%	99.020%	104.403%
σ		5.531%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		7.512	5.737	10.660	14.320	0.000	14.200	12.140	12.550

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	507.300	4686.000	0.000	50890.000	48590.000	51740.000	81.328%	92.200
2	12:05:31	472.900	4447.000	0.000	51250.000	47820.000	51240.000	80.666%	91.340
3	12:05:50	588.000	5276.000	0.000	54410.000	50140.000	53080.000	74.714%	92.020
x		104.551%	96.061%	0.000	104.367%	97.704%	104.040%	78.903%	91.853%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.643%	n/a
%RSD		11.300	8.875	0.000	3.710	2.412	1.835	4.617	0.495

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	94.280	94.980	484.700	23960.000	23910.000	92.850	95.430	98.910
2	12:05:31	95.580	94.690	493.700	24510.000	24280.000	90.680	95.380	94.480
3	12:05:50	90.880	93.940	522.100	26800.000	26750.000	103.200	105.400	103.900
x		93.581%	94.538%	100.028%	100.363%	99.909%	95.586%	98.734%	99.084%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.593	0.566	3.906	6.010	6.176	7.013	5.847	4.738

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	100.400	103.100	105.000	101.100	97.540	107.300	0.000	93.430
2	12:05:31	96.660	100.900	102.400	100.800	97.950	99.420	0.000	93.700
3	12:05:50	103.400	103.400	99.840	95.540	102.600	100.500	0.000	92.210
x		100.162%	102.458%	102.445%	99.141%	99.353%	102.404%	0.000	93.114%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.371	1.285	2.541	3.153	2.808	4.138	0.000	0.857

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	72.797%	84.320	86.610	71.893%	101.600	101.100	99.480	100.100
2	12:05:31	75.670%	90.190	92.720	70.283%	98.390	102.100	99.700	101.400
3	12:05:50	79.414%	94.030	95.740	76.297%	97.750	95.250	97.590	100.700
x		75.960%	89.513%	91.693%	72.824%	99.239%	99.485%	98.924%	100.713%
σ		3.318%	n/a	n/a	3.114%	n/a	n/a	n/a	n/a
%RSD		4.368	5.459	5.075	4.276	2.064	3.720	1.172	0.613

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	72.493%	94.400	92.270	92.360	92.660	93.190	79.268%	79.326%
2	12:05:31	75.503%	95.350	91.610	91.680	94.440	91.660	81.396%	82.234%
3	12:05:50	72.204%	95.550	95.700	96.500	98.020	96.280	86.491%	86.472%
x		73.400%	95.101%	93.194%	93.512%	95.040%	93.709%	82.385%	82.677%
σ		1.827%	n/a	n/a	n/a	n/a	n/a	3.712%	3.594%
%RSD		2.489	0.645	2.354	2.790	2.870	2.512	4.505	4.347

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:11	89.640	90.260	89.460	90.270	88.940	84.966%
2	12:05:31	91.100	90.210	90.790	91.230	91.490	86.854%
3	12:05:50	95.740	94.010	94.070	93.140	93.400	85.444%
x		92.161%	91.493%	91.439%	91.549%	91.276%	85.755%
σ		n/a	n/a	n/a	n/a	n/a	0.981%
%RSD		3.454	2.385	2.592	1.594	2.448	1.144

CCB4 12/11/2014 12:11:09 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	89.773%	-0.025	1.369	1.251	0.000	0.496	1.895	1.931
2	12:11:47	88.499%	-0.021	1.261	1.217	0.000	0.622	2.177	2.187
3	12:12:07	84.494%	-0.020	1.251	1.602	0.000	0.664	2.404	2.066
x		87.589%	-0.022	1.294	1.357	0.000	0.594	2.159	2.061
σ		2.755%	0.002	0.065	0.213	0.000	0.087	0.255	0.128
%RSD		3.145	11.220	5.051	15.690	0.000	14.700	11.800	6.195

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	-0.234	-0.156	0.000	-3.592	5.499	2.593	91.759%	-0.002
2	12:11:47	0.029	0.288	0.000	-1.459	4.235	2.346	88.217%	0.059
3	12:12:07	-0.075	0.294	0.000	2.755	0.605	3.078	88.598%	-0.051
x		-0.093	0.142	0.000	-0.765	3.446	2.673	89.525%	0.002
σ		0.132	0.258	0.000	3.230	2.541	0.372	1.945%	0.055
%RSD		142.000	181.400	0.000	422.000	73.720	13.930	2.172	3026.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	0.035	-0.027	0.057	31.640	7.886	0.008	-0.003	-0.052
2	12:11:47	-0.024	-0.003	0.067	37.110	7.099	0.005	0.008	-0.032
3	12:12:07	0.027	0.071	0.078	38.080	5.327	0.007	0.006	-0.043
x		0.013	0.014	0.068	35.610	6.771	0.007	0.003	-0.042
σ		0.032	0.051	0.010	3.469	1.311	0.002	0.006	0.010
%RSD		249.500	372.500	15.500	9.741	19.360	26.370	173.900	23.060

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	-0.006	-0.064	-0.047	-0.919	-0.999	-3.619	0.000	0.009
2	12:11:47	-0.011	-0.052	0.130	-0.568	-0.531	-2.589	0.000	0.005
3	12:12:07	0.009	0.002	0.019	-0.625	-0.209	-2.870	0.000	0.009
x		-0.003	-0.038	0.034	-0.704	-0.580	-3.026	0.000	0.008
σ		0.011	0.035	0.089	0.188	0.397	0.532	0.000	0.002
%RSD		409.300	93.470	260.900	26.770	68.520	17.590	0.000	28.790

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	89.759%	0.265	0.302	84.687%	-0.041	-0.030	-0.117	-0.091
2	12:11:47	90.296%	0.290	0.282	88.597%	-0.019	-0.020	-0.161	-0.108
3	12:12:07	91.603%	0.317	0.284	90.622%	-0.041	-0.021	-0.149	-0.098
x		90.553%	0.291	0.289	87.968%	-0.034	-0.024	-0.143	-0.099
σ		0.948%	0.026	0.011	3.017%	0.012	0.005	0.023	0.009
%RSD		1.047	8.879	3.702	3.430	36.560	22.820	16.060	8.869

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	85.238%	-0.043	0.047	0.040	-0.013	0.036	88.911%	88.239%
2	12:11:47	85.590%	0.009	0.014	0.013	0.019	0.024	92.810%	92.724%
3	12:12:07	86.031%	-0.018	0.033	0.025	0.012	0.005	95.531%	94.326%
x		85.620%	-0.017	0.031	0.026	0.006	0.022	92.417%	91.763%
σ		0.397%	0.026	0.017	0.013	0.017	0.015	3.327%	3.155%
%RSD		0.464	148.200	52.910	51.020	291.200	70.550	3.600	3.439

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	0.020	0.005	0.102	0.090	0.103	97.089%
2	12:11:47	0.029	0.013	0.107	0.141	0.126	99.129%
3	12:12:07	0.022	0.008	0.133	0.095	0.123	100.451%
x		0.024	0.009	0.114	0.108	0.117	98.890%
σ		0.005	0.004	0.017	0.028	0.013	1.694%
%RSD		20.660	42.440	14.790	26.040	10.720	1.713

180-39471-C-4-A 12/11/2014 12:14:44 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	69.958%	0.182	2.828	3.256	0.000	1953.000	365.900	400.000
2	12:15:22	68.314%	0.236	3.866	4.239	0.000	2184.000	405.400	435.700
3	12:15:42	62.120%	0.172	3.649	4.345	0.000	2190.000	418.500	440.200
x		66.797%	0.197	3.448	3.947	0.000	2109.000	396.600	425.300
σ		4.133%	0.035	0.547	0.600	0.000	135.100	27.360	22.050
%RSD		6.188	17.600	15.870	15.210	0.000	6.404	6.898	5.185

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	31.960	4131.000	0.000	394.400	1488.000	1482.000	83.360%	0.942
2	12:15:22	31.500	4241.000	0.000	424.300	1561.000	1567.000	73.284%	0.830
3	12:15:42	33.360	4341.000	0.000	430.000	1587.000	1520.000	77.704%	0.825
x		32.270	4238.000	0.000	416.200	1545.000	1523.000	78.116%	0.866
σ		0.973	104.900	0.000	19.100	51.530	42.420	5.051%	0.066
%RSD		3.014	2.477	0.000	4.589	3.334	2.786	6.465	7.621

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	-0.138	0.856	23.040	43.130	57.720	0.044	3.166	0.218
2	12:15:22	0.168	0.998	26.420	121.800	79.600	0.075	3.299	0.267
3	12:15:42	-0.391	0.821	25.280	84.810	63.700	0.058	3.389	0.228
x		-0.120	0.892	24.910	83.260	67.010	0.059	3.285	0.237
σ		0.280	0.094	1.717	39.380	11.310	0.015	0.112	0.026
%RSD		232.800	10.550	6.892	47.290	16.880	26.250	3.411	10.840

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	0.182	24.530	23.880	-0.268	-0.237	-0.645	0.000	3.321
2	12:15:22	0.218	24.960	24.920	0.046	0.320	-0.724	0.000	3.250
3	12:15:42	0.227	24.680	24.010	-0.199	-0.376	-0.863	0.000	3.323
x		0.209	24.720	24.270	-0.140	-0.098	-0.744	0.000	3.298
σ		0.024	0.218	0.568	0.165	0.368	0.110	0.000	0.041
%RSD		11.480	0.881	2.341	117.600	377.000	14.820	0.000	1.257

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	76.095%	0.103	0.112	83.509%	-0.054	-0.043	0.144	0.149
2	12:15:22	80.668%	0.123	0.163	84.382%	-0.056	-0.041	-0.040	0.073
3	12:15:42	79.730%	0.127	0.093	84.783%	-0.051	-0.038	-0.025	0.084
x		78.831%	0.118	0.122	84.224%	-0.054	-0.041	0.026	0.102
σ		2.415%	0.013	0.036	0.651%	0.003	0.003	0.102	0.041
%RSD		3.064	10.730	29.670	0.773	5.355	6.203	387.500	39.960

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	82.645%	-0.033	-0.006	-0.007	2.574	2.463	94.726%	95.378%
2	12:15:22	80.292%	-0.060	-0.013	-0.008	2.795	2.546	100.784%	100.165%
3	12:15:42	81.310%	-0.086	-0.010	-0.003	2.800	2.646	101.894%	102.311%
x		81.416%	-0.060	-0.010	-0.006	2.723	2.551	99.135%	99.285%
σ		1.180%	0.027	0.003	0.003	0.129	0.092	3.858%	3.549%
%RSD		1.449	44.780	35.430	46.710	4.735	3.602	3.891	3.575

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:03	0.027	0.029	0.343	0.243	0.289	113.436%
2	12:15:22	0.034	0.025	0.230	0.237	0.226	111.240%
3	12:15:42	0.012	0.015	0.207	0.222	0.204	112.671%
x		0.024	0.023	0.260	0.234	0.240	112.449%
σ		0.012	0.007	0.073	0.011	0.044	1.115%
%RSD		47.950	30.730	27.900	4.573	18.440	0.992

180-39471-C-5-A 12/11/2014 12:18:17 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	68.150%	0.136	3.217	4.511	0.000	4187.000	5149.000	5486.000
2	12:18:56	67.836%	0.180	2.657	3.785	0.000	3966.000	4942.000	5177.000
3	12:19:16	75.240%	0.082	3.399	3.584	0.000	3793.000	4747.000	4696.000
x		70.409%	0.133	3.091	3.960	0.000	3982.000	4946.000	5120.000
σ		4.187%	0.049	0.386	0.488	0.000	197.800	201.100	398.400
%RSD		5.947	37.000	12.500	12.320	0.000	4.967	4.065	7.782

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	397.500	4155.000	0.000	567.400	62470.000	64090.000	76.841%	4.611
2	12:18:56	374.000	4190.000	0.000	598.600	66070.000	67160.000	76.356%	4.747
3	12:19:16	337.200	3607.000	0.000	520.200	61190.000	63350.000	75.770%	5.335
x		369.600	3984.000	0.000	562.100	63240.000	64870.000	76.322%	4.898
σ		30.390	326.900	0.000	39.460	2530.000	2022.000	0.537%	0.385
%RSD		8.224	8.206	0.000	7.020	4.000	3.117	0.703	7.862

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	1.166	1.152	232.700	2141.000	2311.000	1.455	4.448	1.778
2	12:18:56	1.486	1.145	248.500	2109.000	2494.000	1.509	4.251	1.877
3	12:19:16	1.511	1.291	258.700	2236.000	2299.000	1.427	4.296	1.745
x		1.387	1.196	246.700	2162.000	2368.000	1.463	4.332	1.800
σ		0.192	0.082	13.090	66.240	109.200	0.041	0.103	0.069
%RSD		13.860	6.896	5.308	3.064	4.613	2.835	2.385	3.807

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	1.795	32.610	31.680	3.723	-0.599	-1.691	0.000	86.010
2	12:18:56	1.858	33.490	33.420	4.147	-1.065	-0.869	0.000	84.520
3	12:19:16	1.673	31.980	31.890	3.160	-0.588	-3.267	0.000	87.880
x		1.776	32.690	32.330	3.677	-0.751	-1.942	0.000	86.140
σ		0.094	0.757	0.949	0.495	0.273	1.219	0.000	1.683
%RSD		5.300	2.317	2.935	13.460	36.290	62.740	0.000	1.954

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	81.284%	0.980	0.973	82.534%	-0.035	-0.036	0.310	0.334
2	12:18:56	81.084%	0.953	1.010	83.544%	-0.045	-0.036	0.282	0.409
3	12:19:16	84.932%	1.073	1.000	81.469%	-0.037	-0.035	0.238	0.260
x		82.433%	1.002	0.995	82.516%	-0.039	-0.036	0.277	0.334
σ		2.166%	0.063	0.019	1.038%	0.005	0.000	0.036	0.074
%RSD		2.628	6.267	1.904	1.258	13.600	1.396	13.040	22.170

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	78.637%	-0.052	0.066	0.091	39.800	39.380	98.387%	99.238%
2	12:18:56	79.451%	-0.035	0.042	0.096	39.010	38.860	101.236%	101.718%
3	12:19:16	82.077%	0.003	0.069	0.075	39.620	38.480	103.125%	103.370%
x		80.055%	-0.028	0.059	0.087	39.470	38.910	100.916%	101.442%
σ		1.798%	0.028	0.015	0.011	0.414	0.451	2.385%	2.080%
%RSD		2.246	100.100	24.940	12.440	1.050	1.158	2.363	2.050

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	0.069	0.076	0.995	0.744	0.850	103.993%
2	12:18:56	0.066	0.071	0.985	0.809	0.865	105.110%
3	12:19:16	0.076	0.078	0.998	0.866	0.842	107.590%
x		0.070	0.075	0.993	0.806	0.852	105.564%
σ		0.005	0.004	0.007	0.061	0.011	1.841%
%RSD		6.726	5.439	0.693	7.618	1.336	1.744

180-39471-C-6-A 12/11/2014 12:21:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	85.981%	0.125	2.654	2.692	0.000	3405.000	4456.000	4463.000
2	12:22:29	75.211%	0.134	3.218	3.470	0.000	4370.000	5458.000	5577.000
3	12:22:48	82.566%	0.104	2.599	3.058	0.000	3591.000	4443.000	4490.000
x		81.252%	0.121	2.824	3.073	0.000	3789.000	4786.000	4843.000
σ		5.504%	0.016	0.342	0.389	0.000	511.700	582.400	635.500
%RSD		6.774	13.010	12.130	12.660	0.000	13.510	12.170	13.120

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	344.700	3470.000	0.000	542.900	62590.000	64620.000	83.268%	4.273
2	12:22:29	440.400	4299.000	0.000	576.500	63800.000	67860.000	74.900%	4.785
3	12:22:48	355.000	3559.000	0.000	540.400	61850.000	67060.000	80.210%	4.968
x		380.000	3776.000	0.000	553.200	62750.000	66510.000	79.459%	4.675
σ		52.580	454.700	0.000	20.170	984.400	1689.000	4.234%	0.361
%RSD		13.840	12.040	0.000	3.645	1.569	2.540	5.328	7.710

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	1.840	1.293	249.500	2056.000	2228.000	1.368	3.497	1.537
2	12:22:29	0.727	1.238	268.200	2345.000	2741.000	1.678	4.971	1.804
3	12:22:48	1.305	1.298	264.800	2228.000	2246.000	1.404	3.785	1.600
x		1.290	1.276	260.800	2210.000	2405.000	1.483	4.084	1.647
σ		0.557	0.033	9.947	145.600	290.700	0.170	0.781	0.139
%RSD		43.140	2.612	3.813	6.588	12.090	11.430	19.120	8.463

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	1.744	29.740	30.750	3.234	-1.236	-2.799	0.000	90.870
2	12:22:29	1.815	31.340	31.380	3.353	-0.376	-1.665	0.000	88.170
3	12:22:48	1.567	30.250	29.910	3.188	-0.523	-3.171	0.000	91.330
x		1.708	30.440	30.680	3.258	-0.712	-2.545	0.000	90.120
σ		0.128	0.817	0.738	0.085	0.460	0.784	0.000	1.706
%RSD		7.474	2.685	2.404	2.611	64.620	30.820	0.000	1.893

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	82.994%	1.202	1.075	77.619%	-0.048	-0.017	0.221	0.249
2	12:22:29	83.904%	1.222	1.075	84.856%	-0.043	-0.027	0.355	0.416
3	12:22:48	83.269%	1.140	1.077	79.260%	-0.043	-0.029	0.290	0.296
x		83.389%	1.188	1.076	80.579%	-0.044	-0.024	0.289	0.321
σ		0.467%	0.043	0.001	3.794%	0.003	0.006	0.067	0.086
%RSD		0.560	3.641	0.107	4.709	6.305	25.670	23.200	26.940

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	84.371%	0.021	0.068	0.082	39.220	38.890	94.194%	92.438%
2	12:22:29	79.379%	0.011	0.064	0.101	40.560	41.470	99.173%	98.890%
3	12:22:48	83.249%	0.033	0.100	0.091	41.270	39.580	98.362%	99.095%
x		82.333%	0.021	0.077	0.091	40.350	39.980	97.243%	96.807%
σ		2.619%	0.011	0.020	0.009	1.039	1.336	2.671%	3.786%
%RSD		3.181	50.730	25.250	10.270	2.575	3.342	2.747	3.910

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:10	0.071	0.068	1.047	0.794	0.838	99.695%
2	12:22:29	0.077	0.090	0.895	0.836	0.843	97.305%
3	12:22:48	0.068	0.076	0.954	0.698	0.817	100.451%
x		0.072	0.078	0.965	0.776	0.833	99.150%
σ		0.005	0.011	0.077	0.071	0.013	1.642%
%RSD		6.307	14.390	7.948	9.122	1.612	1.657

180-39471-C-7-A 12/11/2014 12:25:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	76.482%	-0.027	0.141	0.659	0.000	6.530	1.728	1.961
2	12:26:02	75.661%	-0.027	0.313	0.315	0.000	5.349	1.464	1.705
3	12:26:21	72.515%	-0.022	0.332	0.696	0.000	6.826	2.062	1.795
x		74.886%	-0.025	0.262	0.557	0.000	6.235	1.751	1.820
σ		2.094%	0.003	0.106	0.211	0.000	0.781	0.300	0.130
%RSD		2.797	11.300	40.330	37.810	0.000	12.530	17.120	7.130

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	1.943	3.851	0.000	-1.599	14.900	13.540	78.630%	0.082
2	12:26:02	2.002	3.368	0.000	-5.417	16.940	11.220	85.098%	-0.018
3	12:26:21	2.026	2.340	0.000	4.036	12.740	8.873	74.614%	-0.017
x		1.990	3.186	0.000	-0.993	14.860	11.210	79.448%	0.016
σ		0.043	0.772	0.000	4.756	2.098	2.332	5.290%	0.058
%RSD		2.159	24.220	0.000	478.900	14.120	20.800	6.658	366.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	-0.495	0.131	0.095	69.160	13.800	-0.005	0.052	0.072
2	12:26:02	1.041	0.073	0.049	-20.880	0.552	-0.004	0.040	0.068
3	12:26:21	-0.693	0.171	0.054	62.470	13.430	-0.005	0.054	0.070
x		-0.049	0.125	0.066	36.920	9.259	-0.005	0.048	0.070
σ		0.949	0.049	0.025	50.160	7.542	0.000	0.007	0.002
%RSD		1935.000	39.480	38.060	135.900	81.460	5.442	15.460	2.717

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	0.092	1.348	1.320	-0.734	-0.435	-2.479	0.000	0.030
2	12:26:02	0.066	1.500	1.700	0.200	-0.269	-0.437	0.000	0.024
3	12:26:21	0.083	1.708	1.685	-0.384	-0.411	-2.513	0.000	0.029
x		0.080	1.519	1.569	-0.306	-0.372	-1.810	0.000	0.028
σ		0.013	0.181	0.215	0.472	0.090	1.189	0.000	0.003
%RSD		16.210	11.880	13.710	154.100	24.170	65.680	0.000	11.020

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	81.137%	0.051	0.037	84.044%	-0.048	-0.034	-0.188	-0.137
2	12:26:02	77.202%	0.072	0.033	83.797%	-0.052	-0.041	-0.101	-0.073
3	12:26:21	82.932%	0.030	0.062	84.589%	-0.052	-0.034	-0.185	-0.136
x		80.424%	0.051	0.044	84.143%	-0.050	-0.036	-0.158	-0.115
σ		2.931%	0.021	0.016	0.405%	0.002	0.004	0.049	0.037
%RSD		3.644	41.110	36.390	0.482	4.667	10.450	31.200	32.040

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	82.442%	-0.099	-0.045	-0.059	0.019	0.039	97.525%	97.962%
2	12:26:02	85.238%	-0.180	-0.051	-0.056	0.005	0.048	98.917%	101.189%
3	12:26:21	85.560%	-0.143	-0.044	-0.056	0.017	0.030	102.692%	102.686%
x		84.413%	-0.141	-0.047	-0.057	0.014	0.039	99.711%	100.612%
σ		1.715%	0.041	0.004	0.002	0.007	0.009	2.673%	2.414%
%RSD		2.031	29.050	8.602	3.014	52.770	23.910	2.681	2.399

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:43	-0.004	-0.001	0.111	0.049	0.075	101.916%
2	12:26:02	0.005	-0.004	0.076	0.080	0.078	106.216%
3	12:26:21	0.003	-0.007	0.073	0.070	0.072	104.791%
x		0.001	-0.004	0.087	0.066	0.075	104.308%
σ		0.005	0.003	0.021	0.016	0.003	2.190%
%RSD		402.600	74.150	24.320	23.450	4.022	2.100

180-39479-I-1-A 12/11/2014 12:28:57 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	62.795%	-0.020	35.350	41.190	0.000	21410.000	25580.000	26000.000
2	12:29:35	59.990%	-0.025	38.630	47.620	0.000	23870.000	27410.000	28430.000
3	12:29:54	72.160%	-0.022	33.400	35.660	0.000	18500.000	21110.000	21540.000
x		64.982%	-0.022	35.790	41.490	0.000	21260.000	24700.000	25320.000
σ		6.373%	0.002	2.642	5.982	0.000	2686.000	3240.000	3493.000
%RSD		9.807	10.530	7.382	14.420	0.000	12.630	13.120	13.790

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	3.480	4280.000	0.000	2657.000	68980.000	69720.000	76.952%	0.397
2	12:29:35	3.446	4420.000	0.000	2738.000	69440.000	72750.000	73.595%	0.581
3	12:29:54	2.348	3465.000	0.000	2436.000	67590.000	71860.000	75.914%	0.484
x		3.092	4055.000	0.000	2610.000	68670.000	71440.000	75.487%	0.487
σ		0.644	515.600	0.000	156.100	960.800	1558.000	1.719%	0.092
%RSD		20.830	12.720	0.000	5.981	1.399	2.181	2.277	18.950

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	0.377	0.065	1.184	-2.939	352.100	0.122	0.779	1.517
2	12:29:35	0.263	0.076	1.310	37.360	458.900	0.152	0.956	1.513
3	12:29:54	0.354	0.295	1.264	10.500	311.700	0.105	0.732	1.427
x		0.331	0.145	1.253	14.970	374.200	0.126	0.822	1.486
σ		0.060	0.130	0.064	20.520	76.100	0.024	0.118	0.051
%RSD		18.090	89.240	5.103	137.000	20.340	18.820	14.390	3.444

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	0.922	3.756	3.500	0.597	-0.332	2.019	0.000	329.200
2	12:29:35	1.091	3.602	3.594	0.602	0.001	0.082	0.000	296.700
3	12:29:54	1.102	3.592	3.808	0.458	-0.292	0.047	0.000	328.100
x		1.038	3.650	3.634	0.552	-0.208	0.716	0.000	318.000
σ		0.101	0.092	0.158	0.082	0.182	1.129	0.000	18.420
%RSD		9.717	2.516	4.343	14.810	87.580	157.600	0.000	5.792

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	70.053%	0.218	0.186	76.070%	-0.048	-0.036	-0.065	-0.048
2	12:29:35	74.366%	0.158	0.156	79.789%	-0.045	-0.029	-0.076	-0.056
3	12:29:54	73.346%	0.175	0.159	74.357%	-0.045	-0.045	-0.133	-0.080
x		72.588%	0.184	0.167	76.739%	-0.046	-0.036	-0.091	-0.061
σ		2.254%	0.031	0.016	2.777%	0.002	0.008	0.036	0.017
%RSD		3.105	16.960	9.773	3.618	3.453	22.340	39.650	27.370

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	76.456%	-0.177	-0.041	-0.047	77.710	78.300	93.517%	94.765%
2	12:29:35	75.964%	-0.180	-0.027	-0.020	79.250	80.680	97.256%	99.222%
3	12:29:54	81.965%	-0.145	-0.048	-0.037	79.010	77.560	95.988%	97.955%
x		78.128%	-0.168	-0.039	-0.035	78.660	78.850	95.587%	97.314%
σ		3.332%	0.019	0.011	0.014	0.827	1.629	1.902%	2.297%
%RSD		4.265	11.530	27.270	40.030	1.051	2.066	1.990	2.360

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:16	0.004	0.001	0.130	0.055	0.087	98.264%
2	12:29:35	0.004	-0.001	0.103	0.050	0.084	98.345%
3	12:29:54	0.010	-0.005	0.046	0.034	0.065	103.393%
x		0.006	-0.002	0.093	0.046	0.078	100.001%
σ		0.003	0.003	0.043	0.011	0.012	2.938%
%RSD		56.550	178.700	46.440	24.240	15.250	2.938

180-39471-D-1-A 12/11/2014 12:32:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	77.139%	-0.010	3.480	4.050	0.000	4292.000	2218.000	2252.000
2	12:33:08	66.180%	-0.016	3.236	3.698	0.000	4305.000	2219.000	2245.000
3	12:33:28	71.794%	-0.013	2.650	3.499	0.000	3796.000	1822.000	1961.000
x		71.704%	-0.013	3.122	3.749	0.000	4131.000	2087.000	2153.000
σ		5.480%	0.003	0.427	0.279	0.000	290.100	229.000	165.800
%RSD		7.643	23.360	13.670	7.442	0.000	7.022	10.970	7.702

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	2.049	3631.000	0.000	498.500	78790.000	80930.000	72.110%	0.378
2	12:33:08	2.163	3843.000	0.000	522.800	81600.000	85120.000	76.729%	0.377
3	12:33:28	1.698	3445.000	0.000	488.100	80670.000	83960.000	76.638%	0.457
x		1.970	3639.000	0.000	503.200	80350.000	83340.000	75.159%	0.404
σ		0.243	199.100	0.000	17.800	1430.000	2162.000	2.641%	0.046
%RSD		12.320	5.469	0.000	3.538	1.780	2.594	3.514	11.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	0.043	0.040	1272.000	505.600	884.100	2.024	1.546	0.252
2	12:33:08	0.559	0.030	1162.000	378.000	779.200	1.926	1.601	0.253
3	12:33:28	0.852	0.101	1197.000	408.000	753.500	1.825	1.244	0.247
x		0.485	0.057	1210.000	430.500	805.600	1.925	1.464	0.251
σ		0.410	0.038	56.480	66.710	69.180	0.100	0.192	0.004
%RSD		84.510	67.720	4.666	15.490	8.587	5.185	13.130	1.400

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	0.258	3.035	3.158	0.811	0.067	-1.510	0.000	109.600
2	12:33:08	0.303	3.165	3.269	1.246	-0.030	0.359	0.000	110.000
3	12:33:28	0.290	2.846	3.011	1.321	-0.339	0.144	0.000	111.200
x		0.284	3.015	3.146	1.126	-0.101	-0.336	0.000	110.300
σ		0.023	0.160	0.129	0.276	0.212	1.023	0.000	0.816
%RSD		8.001	5.314	4.112	24.490	210.700	304.700	0.000	0.740

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	76.277%	0.641	0.547	78.214%	-0.049	-0.047	0.026	0.016
2	12:33:08	73.726%	0.687	0.583	78.810%	-0.055	-0.038	-0.074	-0.040
3	12:33:28	74.417%	0.620	0.576	76.568%	-0.046	-0.043	-0.070	-0.017
x		74.807%	0.649	0.569	77.864%	-0.050	-0.042	-0.039	-0.014
σ		1.319%	0.034	0.019	1.161%	0.004	0.005	0.057	0.029
%RSD		1.763	5.266	3.357	1.492	8.412	11.140	144.700	209.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	78.934%	-0.226	-0.026	-0.022	61.980	61.800	97.501%	97.224%
2	12:33:08	79.915%	-0.176	-0.029	-0.047	59.170	60.090	97.939%	99.875%
3	12:33:28	82.328%	-0.194	-0.037	-0.033	60.150	58.360	97.815%	98.246%
x		80.393%	-0.199	-0.031	-0.034	60.430	60.080	97.752%	98.449%
σ		1.747%	0.025	0.006	0.013	1.428	1.717	0.226%	1.337%
%RSD		2.173	12.600	18.360	36.550	2.363	2.857	0.231	1.358

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:49	0.057	0.049	0.088	0.064	0.084	101.947%
2	12:33:08	0.047	0.046	0.059	0.080	0.068	102.439%
3	12:33:28	0.051	0.040	0.075	0.058	0.078	105.631%
x		0.052	0.045	0.074	0.067	0.077	103.339%
σ		0.005	0.005	0.014	0.011	0.008	2.000%
%RSD		10.030	10.600	19.320	17.040	10.190	1.935

180-39471-D-2-A 12/11/2014 12:36:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:23	68.294%	-0.026	4.685	5.133	0.000	2157.000	1456.000	1502.000
2	12:36:42	66.141%	-0.031	3.351	4.416	0.000	2020.000	1360.000	1463.000
3	12:37:02	71.336%	-0.022	4.014	4.741	0.000	2042.000	1387.000	1459.000
x		68.591%	-0.026	4.017	4.763	0.000	2073.000	1401.000	1474.000
σ		2.610%	0.004	0.667	0.359	0.000	73.770	49.360	23.600
%RSD		3.806	16.940	16.600	7.534	0.000	3.558	3.524	1.601
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:23	1.988	3856.000	0.000	415.000	36920.000	38470.000	74.266%	0.504
2	12:36:42	2.213	4174.000	0.000	442.300	38260.000	40290.000	77.199%	0.631
3	12:37:02	1.739	3818.000	0.000	429.700	37330.000	38810.000	72.977%	0.558
x		1.980	3949.000	0.000	429.000	37500.000	39190.000	74.814%	0.564
σ		0.237	195.400	0.000	13.670	688.400	966.600	2.164%	0.063
%RSD		11.980	4.948	0.000	3.187	1.836	2.467	2.892	11.250
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:23	-0.316	0.238	74.610	65.320	228.500	0.206	0.868	0.100
2	12:36:42	0.606	0.170	68.680	9.028	187.400	0.198	0.782	0.152
3	12:37:02	-0.509	0.221	75.200	43.790	200.700	0.239	0.886	0.124
x		-0.073	0.210	72.830	39.380	205.500	0.215	0.845	0.125
σ		0.596	0.036	3.604	28.400	21.010	0.022	0.056	0.026
%RSD		812.800	16.950	4.949	72.130	10.220	10.080	6.598	20.790
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:23	0.151	2.335	2.713	-0.621	-0.376	-1.699	0.000	57.530
2	12:36:42	0.166	2.580	2.536	1.152	-0.125	0.701	0.000	57.300
3	12:37:02	0.127	2.397	2.293	0.097	0.489	-1.355	0.000	57.340
x		0.148	2.437	2.514	0.209	-0.004	-0.785	0.000	57.390
σ		0.020	0.127	0.211	0.892	0.445	1.298	0.000	0.124
%RSD		13.600	5.225	8.385	426.100	11800.000	165.400	0.000	0.217
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:23	78.100%	0.183	0.175	80.677%	-0.050	-0.042	-0.095	-0.041
2	12:36:42	73.902%	0.248	0.251	81.647%	-0.048	-0.031	-0.084	-0.025
3	12:37:02	77.820%	0.213	0.195	81.243%	-0.053	-0.042	-0.088	-0.050
x		76.608%	0.215	0.207	81.189%	-0.050	-0.038	-0.089	-0.039
σ		2.347%	0.032	0.039	0.487%	0.002	0.006	0.006	0.013
%RSD		3.063	15.070	18.830	0.600	4.952	16.920	6.283	32.320
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:23	80.049%	-0.254	-0.064	-0.069	1.428	1.713	100.244%	100.105%
2	12:36:42	81.570%	-0.297	-0.056	-0.072	1.468	1.560	100.402%	101.420%
3	12:37:02	82.376%	-0.232	-0.065	-0.062	1.469	1.749	105.236%	105.197%
x		81.332%	-0.261	-0.062	-0.068	1.455	1.674	101.961%	102.241%
σ		1.182%	0.034	0.005	0.005	0.023	0.101	2.838%	2.643%
%RSD		1.453	12.850	7.666	7.917	1.603	6.020	2.783	2.585
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:36:23	-0.002	-0.002	0.054	0.041	0.053	108.424%		
2	12:36:42	0.003	-0.005	0.050	0.049	0.052	110.513%		
3	12:37:02	0.003	-0.001	0.075	0.074	0.066	110.859%		
x		0.001	-0.003	0.059	0.055	0.057	109.932%		
σ		0.003	0.002	0.013	0.017	0.008	1.317%		
%RSD		184.300	63.330	22.720	31.800	13.660	1.198		

180-39471-D-3-A 12/11/2014 12:39:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	71.342%	-0.031	2.645	2.805	0.000	7075.000	1296.000	1398.000
2	12:40:15	76.530%	-0.027	2.113	2.399	0.000	6459.000	1224.000	1336.000
3	12:40:34	79.308%	-0.031	3.157	3.170	0.000	7453.000	1354.000	1408.000
x		75.727%	-0.030	2.638	2.791	0.000	6996.000	1291.000	1381.000
σ		4.043%	0.002	0.522	0.386	0.000	501.600	65.200	38.820
%RSD		5.339	8.084	19.780	13.810	0.000	7.170	5.049	2.811

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	2.672	4176.000	0.000	429.300	69390.000	69460.000	86.268%	0.893
2	12:40:15	2.106	3694.000	0.000	423.400	69710.000	72290.000	84.686%	0.787
3	12:40:34	2.217	3713.000	0.000	424.100	68060.000	71470.000	76.428%	0.767
x		2.332	3861.000	0.000	425.600	69050.000	71070.000	82.461%	0.816
σ		0.300	272.600	0.000	3.209	876.600	1452.000	5.284%	0.068
%RSD		12.850	7.062	0.000	0.754	1.269	2.043	6.408	8.323

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	0.070	0.037	192.600	8361.000	8807.000	1.377	2.900	0.381
2	12:40:15	0.380	0.140	210.900	8495.000	8162.000	1.419	2.750	0.346
3	12:40:34	0.381	0.136	243.400	9814.000	9862.000	1.575	3.407	0.405
x		0.277	0.104	215.600	8890.000	8944.000	1.457	3.019	0.377
σ		0.179	0.058	25.770	803.100	858.300	0.105	0.344	0.030
%RSD		64.570	55.610	11.950	9.034	9.597	7.170	11.410	7.839

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	0.245	2.416	2.430	5.220	-0.562	-0.277	0.000	120.200
2	12:40:15	0.264	2.531	3.090	5.860	-0.765	0.345	0.000	120.100
3	12:40:34	0.278	2.536	2.970	4.404	-0.319	-1.966	0.000	119.100
x		0.263	2.494	2.830	5.161	-0.549	-0.633	0.000	119.800
σ		0.017	0.068	0.351	0.730	0.223	1.196	0.000	0.601
%RSD		6.321	2.715	12.410	14.140	40.640	189.000	0.000	0.501

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	74.299%	0.773	0.669	79.367%	-0.066	-0.042	-0.228	-0.174
2	12:40:15	74.276%	0.579	0.714	78.737%	-0.052	-0.041	-0.049	-0.036
3	12:40:34	82.330%	0.707	0.732	81.116%	-0.051	-0.040	-0.209	-0.150
x		76.968%	0.686	0.705	79.740%	-0.056	-0.041	-0.162	-0.120
σ		4.644%	0.099	0.032	1.233%	0.008	0.001	0.098	0.074
%RSD		6.033	14.420	4.606	1.546	14.660	2.093	60.850	61.670

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	81.302%	-0.291	-0.048	-0.032	94.180	94.700	93.307%	93.974%
2	12:40:15	83.731%	-0.245	-0.052	-0.044	95.120	95.520	94.319%	95.829%
3	12:40:34	83.469%	-0.302	-0.041	-0.047	100.000	97.710	97.336%	98.276%
x		82.834%	-0.280	-0.047	-0.041	96.430	95.980	94.987%	96.027%
σ		1.333%	0.030	0.006	0.008	3.128	1.556	2.096%	2.158%
%RSD		1.609	10.740	12.090	18.940	3.244	1.621	2.206	2.247

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:56	-0.003	-0.010	0.031	0.041	0.047	104.086%
2	12:40:15	-0.003	-0.012	0.072	0.019	0.033	104.484%
3	12:40:34	0.000	-0.009	0.029	0.050	0.043	103.573%
x		-0.002	-0.011	0.044	0.037	0.041	104.048%
σ		0.002	0.001	0.025	0.016	0.008	0.457%
%RSD		101.800	13.370	55.990	43.520	18.590	0.439

180-39471-D-4-A 12/11/2014 12:43:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:27	82.022%	0.119	2.126	2.288	0.000	1807.000	334.100	373.100
2	12:43:46	82.896%	0.140	2.174	2.959	0.000	2184.000	390.300	406.900
3	12:44:06	81.284%	0.186	2.023	2.205	0.000	1839.000	340.000	355.200
x		82.068%	0.148	2.108	2.484	0.000	1943.000	354.800	378.400
σ		0.807%	0.034	0.077	0.414	0.000	209.000	30.900	26.230
%RSD		0.983	22.840	3.677	16.660	0.000	10.750	8.709	6.931
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:27	5.634	3790.000	0.000	387.100	1408.000	1480.000	89.204%	0.450
2	12:43:46	6.376	3880.000	0.000	401.600	1486.000	1488.000	72.479%	0.577
3	12:44:06	5.316	3572.000	0.000	383.700	1512.000	1542.000	83.975%	0.429
x		5.775	3747.000	0.000	390.800	1468.000	1503.000	81.886%	0.485
σ		0.544	158.800	0.000	9.522	54.040	33.710	8.556%	0.080
%RSD		9.425	4.237	0.000	2.436	3.680	2.242	10.449	16.490
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:27	0.616	0.817	16.780	-10.820	23.850	0.019	3.258	0.471
2	12:43:46	-0.467	0.924	20.640	67.550	31.260	0.031	3.845	0.481
3	12:44:06	0.739	0.790	18.230	-8.299	9.995	0.021	3.200	0.476
x		0.296	0.843	18.550	16.150	21.700	0.024	3.434	0.476
σ		0.663	0.071	1.948	44.540	10.790	0.007	0.357	0.005
%RSD		224.000	8.448	10.500	275.900	49.730	28.950	10.390	1.019
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:27	0.412	21.760	23.050	0.272	-0.735	0.246	0.000	3.407
2	12:43:46	0.466	21.780	22.550	-0.115	-0.222	-2.342	0.000	3.392
3	12:44:06	0.455	23.480	22.670	0.376	-0.417	-0.808	0.000	3.482
x		0.444	22.340	22.760	0.178	-0.458	-0.968	0.000	3.427
σ		0.028	0.988	0.260	0.259	0.259	1.301	0.000	0.048
%RSD		6.334	4.421	1.145	145.800	56.500	134.400	0.000	1.408
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:27	73.884%	0.037	0.047	81.495%	-0.058	-0.043	0.079	0.161
2	12:43:46	79.830%	0.030	0.060	82.874%	-0.054	-0.039	-0.012	0.084
3	12:44:06	75.280%	0.046	0.036	80.091%	-0.049	-0.037	-0.011	0.044
x		76.331%	0.038	0.048	81.487%	-0.054	-0.040	0.019	0.096
σ		3.110%	0.008	0.012	1.392%	0.004	0.003	0.052	0.060
%RSD		4.074	21.600	24.850	1.708	8.251	7.679	279.400	62.230
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:27	82.101%	-0.203	-0.059	-0.061	2.648	2.269	93.162%	93.274%
2	12:43:46	81.867%	-0.170	-0.053	-0.053	2.817	2.605	99.856%	99.376%
3	12:44:06	84.896%	-0.208	-0.058	-0.033	2.480	2.578	97.878%	98.833%
x		82.955%	-0.194	-0.057	-0.049	2.648	2.484	96.965%	97.161%
σ		1.686%	0.020	0.003	0.014	0.168	0.187	3.439%	3.377%
%RSD		2.032	10.570	5.733	29.630	6.359	7.517	3.546	3.476
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:43:27	0.017	-0.003	0.265	0.273	0.277	103.209%		
2	12:43:46	0.004	0.001	0.283	0.254	0.278	102.192%		
3	12:44:06	0.000	-0.000	0.352	0.267	0.279	107.372%		
x		0.007	-0.001	0.300	0.265	0.278	104.257%		
σ		0.009	0.002	0.046	0.010	0.001	2.745%		
%RSD		128.500	249.300	15.320	3.752	0.399	2.632		

180-39471-D-5-A 12/11/2014 12:46:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	77.717%	-0.010	2.053	2.321	0.000	3581.000	4230.000	4234.000
2	12:47:18	77.009%	-0.019	1.647	1.665	0.000	3212.000	4103.000	4200.000
3	12:47:37	65.502%	-0.026	2.002	2.532	0.000	4125.000	5256.000	5414.000
x		73.409%	-0.018	1.901	2.173	0.000	3640.000	4530.000	4616.000
σ		6.857%	0.008	0.221	0.452	0.000	459.400	631.800	691.200
%RSD		9.340	42.270	11.620	20.790	0.000	12.620	13.950	14.970

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	2.516	3093.000	0.000	447.800	59610.000	61140.000	79.011%	0.347
2	12:47:18	3.218	3069.000	0.000	461.200	60960.000	64300.000	79.454%	0.299
3	12:47:37	4.489	3702.000	0.000	520.600	66020.000	66650.000	72.397%	0.454
x		3.408	3288.000	0.000	476.500	62190.000	64030.000	76.954%	0.367
σ		1.000	358.900	0.000	38.780	3379.000	2768.000	3.953%	0.079
%RSD		29.350	10.920	0.000	8.138	5.433	4.322	5.137	21.550

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	-0.387	0.082	238.200	1194.000	1348.000	0.908	1.007	0.171
2	12:47:18	0.828	0.050	223.900	1102.000	1318.000	0.879	0.880	0.213
3	12:47:37	-0.183	-0.034	244.900	1272.000	1516.000	1.038	1.223	0.209
x		0.086	0.033	235.700	1190.000	1394.000	0.942	1.037	0.198
σ		0.651	0.060	10.730	85.130	106.700	0.085	0.174	0.023
%RSD		755.300	185.000	4.555	7.157	7.654	9.032	16.760	11.590

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	0.187	5.370	5.755	3.308	-0.337	-1.809	0.000	91.300
2	12:47:18	0.145	5.675	6.058	3.928	-0.667	-0.078	0.000	91.400
3	12:47:37	0.239	5.511	6.251	4.050	-0.372	0.188	0.000	89.390
x		0.190	5.519	6.022	3.762	-0.458	-0.567	0.000	90.700
σ		0.047	0.153	0.250	0.398	0.181	1.085	0.000	1.130
%RSD		24.920	2.773	4.153	10.570	39.540	191.400	0.000	1.246

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	74.461%	1.000	1.021	75.432%	-0.056	-0.037	-0.148	-0.106
2	12:47:18	72.053%	0.910	0.941	75.710%	-0.056	-0.047	-0.159	-0.102
3	12:47:37	74.905%	1.008	0.906	81.111%	-0.052	-0.038	-0.113	-0.070
x		73.806%	0.973	0.956	77.417%	-0.055	-0.041	-0.140	-0.093
σ		1.535%	0.054	0.059	3.202%	0.003	0.005	0.024	0.020
%RSD		2.080	5.576	6.168	4.136	4.709	13.500	16.890	21.240

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	80.611%	-0.254	-0.046	-0.049	36.290	35.400	93.043%	92.844%
2	12:47:18	80.403%	-0.256	-0.025	-0.040	35.980	34.980	93.739%	95.278%
3	12:47:37	78.631%	-0.289	-0.038	-0.049	36.610	36.330	98.435%	100.008%
x		79.881%	-0.266	-0.036	-0.046	36.290	35.570	95.072%	96.043%
σ		1.088%	0.019	0.010	0.005	0.314	0.691	2.933%	3.643%
%RSD		1.362	7.313	28.110	10.740	0.864	1.944	3.085	3.793

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:59	0.042	0.026	0.053	0.068	0.054	100.703%
2	12:47:18	0.043	0.024	0.107	0.054	0.066	101.710%
3	12:47:37	0.025	0.035	0.073	0.042	0.042	101.388%
x		0.037	0.028	0.078	0.055	0.054	101.267%
σ		0.010	0.006	0.028	0.013	0.012	0.514%
%RSD		27.800	20.950	35.560	22.950	21.430	0.508

CCV 1408349 12/11/2014 12:50:19 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	69.593%	108.900	98.460	93.980	0.000	47000.000	51540.000	51350.000
2	12:50:38	65.758%	101.500	87.040	92.750	0.000	48370.000	52930.000	55590.000
3	12:50:58	67.667%	99.960	83.630	84.520	0.000	42580.000	49130.000	51330.000
x		67.673%	103.447%	89.709%	90.418%	0.000	91.967%	102.398%	105.520%
σ		1.918%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.834	4.636	8.657	5.688	0.000	6.575	3.755	4.650

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	511.800	4670.000	0.000	51930.000	49760.000	52710.000	72.209%	98.150
2	12:50:38	561.300	5123.000	0.000	55970.000	53050.000	55650.000	74.075%	94.290
3	12:50:58	533.000	4924.000	0.000	54750.000	50960.000	54090.000	75.537%	96.440
x		107.080%	98.112%	0.000	108.432%	102.512%	108.301%	73.940%	96.295%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.668%	n/a
%RSD		4.639	4.632	0.000	3.827	3.251	2.714	2.256	2.010

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	99.520	102.600	526.200	26650.000	25940.000	97.680	99.180	100.100
2	12:50:38	94.320	93.930	495.100	25550.000	26060.000	101.300	102.500	104.500
3	12:50:58	94.710	94.080	496.200	25210.000	25420.000	95.020	100.000	100.700
x		96.184%	96.859%	101.168%	103.217%	103.219%	98.010%	100.568%	101.770%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.009	5.104	3.482	2.925	1.313	3.233	1.714	2.354

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	99.720	103.900	107.400	100.900	100.400	100.100	0.000	95.420
2	12:50:38	104.700	107.300	106.400	102.300	100.700	106.900	0.000	93.560
3	12:50:58	103.300	106.600	106.400	100.600	98.820	104.000	0.000	92.050
x		102.554%	105.917%	106.720%	101.265%	99.966%	103.654%	0.000	93.675%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.486	1.676	0.572	0.886	1.000	3.311	0.000	1.803

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	73.588%	84.450	85.880	68.944%	100.400	100.900	101.600	103.700
2	12:50:38	73.430%	89.730	91.620	71.963%	104.300	105.300	105.700	105.800
3	12:50:58	75.533%	92.440	95.060	70.799%	102.700	104.100	104.900	104.800
x		74.184%	88.875%	90.852%	70.569%	102.463%	103.421%	104.101%	104.774%
σ		1.171%	n/a	n/a	1.523%	n/a	n/a	n/a	n/a
%RSD		1.579	4.573	5.107	2.158	1.916	2.202	2.076	0.984

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	70.002%	99.130	96.730	94.610	97.200	95.590	79.294%	79.363%
2	12:50:38	68.989%	98.360	97.890	97.520	97.380	94.930	82.488%	83.927%
3	12:50:58	70.967%	98.570	97.090	97.130	97.090	95.720	83.412%	84.242%
x		69.986%	98.687%	97.236%	96.421%	97.225%	95.412%	81.731%	82.511%
σ		0.989%	n/a	n/a	n/a	n/a	n/a	2.161%	2.730%
%RSD		1.413	0.408	0.613	1.642	0.147	0.439	2.644	3.309

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:19	94.130	93.010	93.610	93.820	94.000	81.643%
2	12:50:38	97.950	96.270	96.990	95.620	96.440	82.751%
3	12:50:58	98.130	97.630	96.700	98.510	97.550	83.688%
x		96.736%	95.635%	95.767%	95.983%	95.994%	82.694%
σ		n/a	n/a	n/a	n/a	n/a	1.024%
%RSD		2.336	2.479	1.954	2.461	1.892	1.238

CCB5 12/11/2014 12:56:20 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:39	87.611%	-0.009	8.471	9.286	0.000	4.678	6.623	6.544
2	12:56:58	77.110%	-0.002	7.807	7.388	0.000	3.725	6.210	5.796
3	12:57:17	84.686%	-0.020	6.285	7.369	0.000	3.052	4.737	4.718
x		83.136%	-0.010	7.521	8.014	0.000	3.819	5.857	5.686
σ		5.419%	0.009	1.121	1.101	0.000	0.817	0.991	0.918
%RSD		6.519	86.800	14.900	13.730	0.000	21.400	16.920	16.150
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:39	-0.128	0.539	0.000	-6.208	7.704	6.297	89.776%	0.055
2	12:56:58	-0.043	1.811	0.000	-3.138	6.079	5.509	91.603%	0.084
3	12:57:17	-0.161	0.392	0.000	0.357	2.856	5.094	85.064%	0.118
x		-0.111	0.914	0.000	-2.996	5.546	5.633	88.814%	0.086
σ		0.061	0.780	0.000	3.285	2.468	0.611	3.374%	0.032
%RSD		54.900	85.390	0.000	109.600	44.490	10.850	3.799	37.020
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:39	0.014	-0.000	0.119	26.890	1.075	0.030	0.023	-0.021
2	12:56:58	-0.032	-0.126	0.114	-8.369	0.303	0.021	0.030	-0.024
3	12:57:17	0.002	0.006	0.132	47.620	4.574	0.018	0.023	-0.034
x		-0.006	-0.040	0.121	22.050	1.984	0.023	0.025	-0.026
σ		0.024	0.074	0.009	28.310	2.276	0.006	0.004	0.007
%RSD		429.900	185.800	7.799	128.400	114.700	25.970	15.840	25.790
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:39	0.028	0.058	0.025	-0.480	-0.242	-1.381	0.000	0.063
2	12:56:58	0.026	0.115	0.062	0.001	0.303	0.538	0.000	0.047
3	12:57:17	0.001	0.068	0.139	-0.546	-0.090	-2.069	0.000	0.045
x		0.018	0.080	0.075	-0.342	-0.010	-0.971	0.000	0.052
σ		0.015	0.030	0.058	0.298	0.281	1.351	0.000	0.010
%RSD		82.250	37.500	76.850	87.330	2887.000	139.100	0.000	19.170
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:39	83.372%	3.541	3.440	83.496%	-0.033	-0.022	-0.128	-0.083
2	12:56:58	79.807%	2.943	2.995	86.777%	-0.043	-0.020	-0.049	-0.026
3	12:57:17	84.032%	2.414	2.326	85.700%	-0.019	-0.014	-0.116	-0.075
x		82.404%	2.966	2.920	85.324%	-0.031	-0.019	-0.098	-0.061
σ		2.273%	0.564	0.561	1.672%	0.012	0.004	0.042	0.031
%RSD		2.758	19.000	19.220	1.960	38.560	22.470	43.140	50.830
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:39	85.245%	1.120	0.012	0.024	0.082	0.115	94.390%	93.030%
2	12:56:58	85.144%	0.914	-0.007	0.003	0.081	0.074	96.382%	96.554%
3	12:57:17	87.625%	0.737	0.003	0.009	0.092	0.073	97.045%	97.376%
x		86.005%	0.924	0.003	0.012	0.085	0.087	95.939%	95.653%
σ		1.404%	0.192	0.010	0.011	0.006	0.024	1.382%	2.309%
%RSD		1.633	20.740	322.200	93.140	6.909	27.530	1.440	2.414
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:56:39	0.058	0.061	0.261	0.184	0.213	98.566%		
2	12:56:58	0.050	0.053	0.241	0.190	0.213	101.278%		
3	12:57:17	0.039	0.034	0.280	0.224	0.228	102.859%		
x		0.049	0.049	0.261	0.199	0.218	100.901%		
σ		0.009	0.014	0.019	0.022	0.008	2.171%		
%RSD		19.370	27.490	7.312	10.880	3.892	2.152		

180-39471-D-6-A 12/11/2014 12:59:55 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	69.406%	-0.003	4.920	5.799	0.000	4247.000	5338.000	5392.000
2	13:00:33	83.780%	-0.012	4.012	4.122	0.000	3366.000	4198.000	4341.000
3	13:00:52	82.086%	-0.007	5.328	5.436	0.000	4032.000	4855.000	4820.000
x		78.424%	-0.007	4.753	5.119	0.000	3882.000	4797.000	4851.000
σ		7.855%	0.005	0.673	0.882	0.000	459.000	572.400	526.600
%RSD		10.016	62.060	14.170	17.240	0.000	11.830	11.930	10.850

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	3.747	3908.000	0.000	532.000	66100.000	68690.000	79.291%	0.660
2	13:00:33	2.259	3307.000	0.000	470.900	62360.000	65570.000	80.346%	0.649
3	13:00:52	2.597	3317.000	0.000	468.800	62700.000	65470.000	74.374%	0.782
x		2.868	3511.000	0.000	490.600	63720.000	66570.000	78.004%	0.697
σ		0.780	343.800	0.000	35.910	2067.000	1834.000	3.187%	0.074
%RSD		27.210	9.793	0.000	7.319	3.244	2.754	4.086	10.560

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	0.443	0.008	238.100	1225.000	1608.000	1.008	1.157	0.274
2	13:00:33	0.095	0.112	225.600	1187.000	1383.000	0.970	1.004	0.262
3	13:00:52	0.251	0.081	271.200	1419.000	1590.000	1.055	1.285	0.273
x		0.263	0.067	245.000	1277.000	1527.000	1.011	1.149	0.270
σ		0.174	0.053	23.560	124.300	125.100	0.042	0.141	0.007
%RSD		66.300	79.140	9.615	9.730	8.193	4.178	12.230	2.498

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	0.340	4.735	5.259	3.710	-0.254	0.516	0.000	91.150
2	13:00:33	0.275	4.855	5.211	5.294	-0.272	-0.172	0.000	94.260
3	13:00:52	0.171	4.586	4.497	3.472	-0.608	-2.011	0.000	94.680
x		0.262	4.725	4.989	4.158	-0.378	-0.555	0.000	93.360
σ		0.085	0.135	0.427	0.990	0.200	1.306	0.000	1.927
%RSD		32.530	2.846	8.552	23.810	52.810	235.200	0.000	2.064

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	74.952%	1.606	1.629	80.997%	-0.057	-0.030	-0.015	-0.003
2	13:00:33	73.407%	1.649	1.608	79.491%	-0.055	-0.036	-0.177	-0.126
3	13:00:52	80.118%	1.457	1.489	80.821%	-0.057	-0.035	-0.122	-0.078
x		76.159%	1.571	1.576	80.436%	-0.056	-0.034	-0.105	-0.069
σ		3.515%	0.101	0.076	0.823%	0.001	0.003	0.082	0.062
%RSD		4.615	6.425	4.812	1.024	1.964	9.044	78.680	89.850

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	78.278%	0.245	0.022	0.024	37.090	37.360	95.044%	96.099%
2	13:00:33	83.960%	0.189	-0.014	0.013	36.290	36.280	94.471%	95.606%
3	13:00:52	81.010%	0.168	0.005	0.022	38.550	39.200	99.348%	98.071%
x		81.083%	0.201	0.005	0.019	37.310	37.610	96.288%	96.592%
σ		2.841%	0.040	0.018	0.006	1.147	1.478	2.666%	1.305%
%RSD		3.504	19.670	383.300	29.920	3.074	3.931	2.768	1.351

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:14	0.072	0.063	0.097	0.077	0.080	104.791%
2	13:00:33	0.049	0.048	0.166	0.081	0.098	105.772%
3	13:00:52	0.051	0.051	0.064	0.096	0.067	104.367%
x		0.057	0.054	0.109	0.085	0.082	104.977%
σ		0.013	0.008	0.052	0.010	0.016	0.721%
%RSD		21.860	14.880	47.960	11.980	19.190	0.687

180-39471-D-7-A 12/11/2014 1:03:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:46	86.434%	-0.020	0.931	1.123	0.000	4.076	1.576	1.362
2	13:04:05	81.014%	-0.023	1.033	1.451	0.000	5.660	2.358	1.773
3	13:04:24	79.042%	-0.027	0.906	0.660	0.000	3.809	1.568	1.365
x		82.164%	-0.024	0.957	1.078	0.000	4.515	1.834	1.500
σ		3.828%	0.003	0.068	0.398	0.000	1.001	0.454	0.237
%RSD		4.659	14.780	7.055	36.880	0.000	22.170	24.750	15.770
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:46	3.309	1.023	0.000	-4.815	17.630	20.050	81.345%	0.079
2	13:04:05	3.742	2.098	0.000	-2.529	23.420	18.800	75.304%	0.042
3	13:04:24	3.323	1.266	0.000	1.619	12.470	18.360	82.441%	0.063
x		3.458	1.463	0.000	-1.908	17.840	19.070	79.696%	0.061
σ		0.246	0.564	0.000	3.262	5.480	0.879	3.844%	0.018
%RSD		7.125	38.540	0.000	170.900	30.720	4.606	4.823	30.100
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:46	-0.048	0.146	0.054	32.380	8.746	-0.007	0.027	0.078
2	13:04:05	-1.028	0.078	0.043	74.070	10.050	-0.007	0.203	0.050
3	13:04:24	0.543	0.053	0.022	-1.405	-1.215	-0.002	0.025	0.089
x		-0.178	0.092	0.039	35.010	5.859	-0.005	0.085	0.073
σ		0.794	0.048	0.016	37.810	6.161	0.003	0.102	0.020
%RSD		447.100	52.430	41.620	108.000	105.100	60.160	119.900	27.780
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:46	0.100	1.971	1.987	-0.264	-1.155	-1.316	0.000	0.024
2	13:04:05	0.141	1.899	1.909	-0.166	0.010	-1.747	0.000	0.019
3	13:04:24	0.135	1.988	1.992	0.231	0.025	0.022	0.000	0.025
x		0.126	1.953	1.962	-0.066	-0.373	-1.014	0.000	0.023
σ		0.022	0.047	0.046	0.262	0.677	0.922	0.000	0.003
%RSD		17.750	2.426	2.362	394.500	181.400	91.000	0.000	14.550
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:46	78.542%	0.239	0.241	78.856%	-0.050	-0.040	-0.162	-0.116
2	13:04:05	81.947%	0.229	0.192	82.326%	-0.041	-0.039	-0.130	-0.089
3	13:04:24	75.791%	0.220	0.215	81.050%	-0.059	-0.040	-0.162	-0.111
x		78.760%	0.229	0.216	80.744%	-0.050	-0.040	-0.152	-0.105
σ		3.083%	0.009	0.024	1.755%	0.009	0.001	0.019	0.014
%RSD		3.915	4.014	11.270	2.174	18.640	1.479	12.240	13.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:46	82.711%	-0.109	-0.051	-0.031	0.013	0.040	91.614%	91.795%
2	13:04:05	81.659%	-0.094	-0.061	-0.050	0.057	0.009	98.855%	98.864%
3	13:04:24	84.372%	-0.052	-0.057	-0.051	0.037	0.034	97.992%	97.911%
x		82.914%	-0.085	-0.057	-0.044	0.036	0.028	96.154%	96.190%
σ		1.368%	0.030	0.005	0.012	0.022	0.016	3.955%	3.836%
%RSD		1.650	35.060	8.674	26.270	61.880	58.650	4.113	3.988
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:03:46	0.006	0.001	0.090	0.112	0.071	107.036%		
2	13:04:05	0.002	0.000	0.071	0.078	0.060	105.683%		
3	13:04:24	0.000	-0.003	0.052	0.046	0.053	108.000%		
x		0.003	-0.001	0.071	0.079	0.062	106.906%		
σ		0.003	0.002	0.019	0.033	0.009	1.164%		
%RSD		120.900	430.000	26.980	41.450	14.990	1.089		

180-39471-D-7-A SD@5 12/11/2014 1:06:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	82.710%	-0.028	0.560	0.454	0.000	0.510	0.263	0.107
2	13:07:37	71.722%	-0.017	0.244	0.740	0.000	1.680	0.487	0.626
3	13:07:56	72.937%	-0.022	0.420	0.678	0.000	2.303	0.879	0.940
x		75.790%	-0.022	0.408	0.624	0.000	1.498	0.543	0.558
σ		6.024%	0.005	0.159	0.150	0.000	0.911	0.312	0.421
%RSD		7.948	22.810	38.890	24.100	0.000	60.800	57.420	75.450

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	2.410	0.222	0.000	0.152	3.603	4.695	90.465%	0.060
2	13:07:37	3.289	2.730	0.000	0.241	8.045	3.859	82.705%	-0.043
3	13:07:56	3.432	2.577	0.000	7.378	4.557	5.706	77.130%	-0.030
x		3.044	1.843	0.000	2.590	5.401	4.753	83.433%	-0.004
σ		0.553	1.406	0.000	4.146	2.338	0.925	6.697%	0.056
%RSD		18.170	76.280	0.000	160.100	43.290	19.450	8.027	1253.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	0.221	0.075	0.037	11.160	6.917	-0.002	0.000	-0.029
2	13:07:37	0.187	-0.081	0.031	11.470	2.089	0.001	-0.008	0.020
3	13:07:56	-0.040	-0.026	0.040	42.330	10.440	0.002	0.010	0.010
x		0.123	-0.010	0.036	21.650	6.483	0.000	0.001	0.000
σ		0.142	0.079	0.004	17.910	4.193	0.002	0.009	0.026
%RSD		115.900	764.700	11.980	82.710	64.680	1347.000	1136.000	6912.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	0.024	1.107	1.517	-0.560	-0.455	-1.869	0.000	0.004
2	13:07:37	0.025	1.065	1.015	0.012	0.178	0.589	0.000	0.005
3	13:07:56	0.031	1.096	1.052	-0.281	0.461	-0.754	0.000	0.005
x		0.027	1.089	1.195	-0.276	0.061	-0.678	0.000	0.005
σ		0.004	0.022	0.280	0.286	0.469	1.231	0.000	0.001
%RSD		15.290	2.021	23.430	103.700	765.100	181.600	0.000	17.170

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	76.226%	0.076	0.056	79.076%	-0.058	-0.042	-0.202	-0.146
2	13:07:37	77.693%	0.061	0.082	87.400%	-0.055	-0.041	-0.052	-0.024
3	13:07:56	82.053%	0.029	0.101	88.838%	-0.049	-0.045	-0.075	-0.040
x		78.657%	0.055	0.080	85.104%	-0.054	-0.042	-0.109	-0.070
σ		3.031%	0.024	0.023	5.270%	0.004	0.002	0.081	0.066
%RSD		3.853	43.620	28.540	6.193	7.950	4.849	73.710	94.790

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	84.895%	-0.152	-0.072	-0.072	-0.013	0.006	89.460%	89.920%
2	13:07:37	81.861%	-0.224	-0.064	-0.050	0.006	0.013	95.220%	95.917%
3	13:07:56	82.277%	-0.203	-0.066	-0.072	-0.001	0.016	99.305%	100.078%
x		83.011%	-0.193	-0.067	-0.065	-0.003	0.012	94.662%	95.305%
σ		1.645%	0.037	0.004	0.013	0.010	0.005	4.946%	5.107%
%RSD		1.981	19.150	5.502	19.600	389.000	45.740	5.225	5.358

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:18	0.004	-0.002	0.158	0.139	0.132	100.530%
2	13:07:37	0.002	-0.000	0.152	0.120	0.133	100.928%
3	13:07:56	0.007	0.003	0.145	0.115	0.124	100.784%
x		0.004	0.000	0.152	0.125	0.129	100.747%
σ		0.002	0.003	0.006	0.012	0.005	0.202%
%RSD		56.010	1488.000	4.248	9.766	3.795	0.200

180-39544-C-1-A @10 12/11/2014 1:10:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:54	61.722%	-0.036	178.500	197.300	0.000	49590.000	14140.000	14730.000
2	13:11:13	66.325%	-0.016	189.800	207.900	0.000	51160.000	14630.000	15280.000
3	13:11:33	64.489%	-0.031	169.300	188.300	0.000	49360.000	14130.000	14790.000
x		64.179%	-0.027	179.200	197.800	0.000	50030.000	14300.000	14930.000
σ		2.317%	0.010	10.260	9.811	0.000	980.400	287.000	300.600
%RSD		3.610	37.230	5.724	4.959	0.000	1.959	2.007	2.013
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:54	0.571	531.900	0.000	858.700	36020.000	36600.000	80.206%	0.040
2	13:11:13	0.762	503.100	0.000	822.800	34630.000	36580.000	74.466%	0.060
3	13:11:33	0.582	489.500	0.000	819.100	35430.000	37250.000	77.276%	0.142
x		0.638	508.200	0.000	833.500	35360.000	36810.000	77.316%	0.081
σ		0.107	21.680	0.000	21.860	698.100	379.100	2.870%	0.054
%RSD		16.840	4.267	0.000	2.622	1.974	1.030	3.712	67.100
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:54	-0.050	-0.096	362.200	4.431	175.500	0.139	2.246	1.955
2	13:11:13	-0.036	-0.140	404.700	47.650	194.500	0.156	2.411	1.980
3	13:11:33	0.038	-0.104	374.300	4.116	175.300	0.128	2.206	2.122
x		-0.016	-0.113	380.400	18.730	181.700	0.141	2.287	2.019
σ		0.048	0.023	21.900	25.050	11.030	0.014	0.109	0.090
%RSD		299.100	20.710	5.756	133.700	6.068	10.280	4.747	4.459
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:54	0.397	1.360	1.074	0.232	0.420	1.052	0.000	78.620
2	13:11:13	0.337	1.157	0.869	0.038	0.111	-0.361	0.000	77.460
3	13:11:33	0.479	1.372	1.093	-0.008	-0.325	0.475	0.000	78.000
x		0.404	1.296	1.012	0.087	0.068	0.389	0.000	78.020
σ		0.071	0.121	0.125	0.127	0.374	0.711	0.000	0.585
%RSD		17.520	9.328	12.300	145.600	547.000	182.900	0.000	0.750
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:54	70.459%	0.083	0.072	78.174%	-0.054	-0.041	-0.024	0.004
2	13:11:13	75.639%	0.074	0.096	79.655%	-0.053	-0.032	-0.003	0.024
3	13:11:33	72.811%	0.065	0.051	77.772%	-0.043	-0.039	-0.052	-0.029
x		72.970%	0.074	0.073	78.534%	-0.050	-0.037	-0.026	-0.000
σ		2.594%	0.009	0.022	0.992%	0.006	0.005	0.024	0.027
%RSD		3.555	12.220	30.920	1.263	12.660	13.310	93.550	6309.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:54	74.873%	-0.222	-0.065	-0.067	3.329	3.504	91.015%	91.733%
2	13:11:13	76.026%	-0.242	-0.054	-0.068	3.686	3.476	95.097%	96.055%
3	13:11:33	76.412%	-0.226	-0.078	-0.064	3.587	3.383	95.985%	97.929%
x		75.770%	-0.230	-0.066	-0.066	3.534	3.454	94.032%	95.239%
σ		0.801%	0.011	0.012	0.002	0.184	0.063	2.651%	3.178%
%RSD		1.057	4.683	18.820	3.662	5.219	1.833	2.819	3.337
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:10:54	-0.003	-0.003	0.207	0.205	0.198	97.993%		
2	13:11:13	0.001	-0.004	0.191	0.191	0.197	99.590%		
3	13:11:33	0.004	-0.008	0.178	0.206	0.199	102.614%		
x		0.001	-0.005	0.192	0.201	0.198	100.066%		
σ		0.003	0.003	0.014	0.008	0.001	2.347%		
%RSD		569.500	53.630	7.522	4.124	0.405	2.345		

180-39482-H-3-A @1000 12/11/2014 1:14:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	73.374%	-0.031	22.020	25.250	0.000	9427.000	1412.000	1459.000
2	13:14:48	67.175%	-0.021	20.830	23.550	0.000	9275.000	1456.000	1587.000
3	13:15:07	75.759%	-0.036	21.680	23.040	0.000	9127.000	1392.000	1506.000
x		72.103%	-0.029	21.510	23.950	0.000	9276.000	1420.000	1518.000
σ		4.431%	0.007	0.616	1.156	0.000	150.200	32.640	64.670
%RSD		6.145	25.330	2.863	4.827	0.000	1.619	2.298	4.262

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	0.756	8.757	0.000	384.300	14680.000	14730.000	79.134%	-0.042
2	13:14:48	0.957	11.490	0.000	442.300	16120.000	15630.000	79.101%	-0.073
3	13:15:07	0.679	8.982	0.000	407.400	15590.000	15380.000	78.155%	0.129
x		0.798	9.742	0.000	411.300	15460.000	15240.000	78.797%	0.005
σ		0.144	1.516	0.000	29.230	726.300	466.000	0.556%	0.109
%RSD		17.990	15.560	0.000	7.108	4.697	3.057	0.705	2286.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	-0.028	0.074	8.034	147.600	164.500	0.027	0.164	0.371
2	13:14:48	0.002	-0.067	7.587	113.000	155.700	0.032	0.125	0.438
3	13:15:07	-0.017	0.015	8.122	153.500	163.000	0.020	0.027	0.364
x		-0.014	0.007	7.914	138.000	161.100	0.026	0.105	0.391
σ		0.015	0.071	0.287	21.870	4.717	0.006	0.071	0.041
%RSD		103.700	979.800	3.620	15.850	2.928	23.800	67.230	10.360

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	0.122	1.978	1.213	-1.210	-0.025	-5.382	0.000	1998.000
2	13:14:48	0.141	2.259	2.800	-0.973	0.698	-4.461	0.000	1949.000
3	13:15:07	0.120	2.125	2.083	-1.141	0.508	-5.724	0.000	1977.000
x		0.128	2.120	2.032	-1.108	0.393	-5.189	0.000	1975.000
σ		0.012	0.141	0.795	0.122	0.375	0.653	0.000	24.830
%RSD		9.156	6.637	39.130	10.990	95.310	12.590	0.000	1.258

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	81.107%	0.015	0.043	82.651%	-0.047	-0.041	-0.076	-0.049
2	13:14:48	78.520%	0.032	-0.001	86.352%	-0.052	-0.036	-0.126	-0.081
3	13:15:07	83.848%	0.032	0.035	84.774%	-0.044	-0.044	-0.088	-0.064
x		81.158%	0.026	0.026	84.593%	-0.048	-0.040	-0.097	-0.065
σ		2.665%	0.010	0.024	1.857%	0.004	0.004	0.026	0.016
%RSD		3.283	38.000	92.880	2.195	7.967	9.086	27.410	24.570

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	81.576%	-0.258	-0.063	-0.065	175.000	175.900	92.885%	92.015%
2	13:14:48	80.312%	-0.283	-0.082	-0.065	177.500	178.900	96.036%	96.641%
3	13:15:07	83.492%	-0.254	-0.063	-0.076	179.200	175.800	97.920%	97.280%
x		81.793%	-0.265	-0.069	-0.069	177.300	176.800	95.614%	95.312%
σ		1.601%	0.015	0.011	0.007	2.111	1.751	2.544%	2.873%
%RSD		1.957	5.831	16.060	9.649	1.191	0.990	2.661	3.015

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:14:28	-0.003	0.004	0.197	0.200	0.196	100.209%
2	13:14:48	0.017	-0.003	0.171	0.157	0.178	103.022%
3	13:15:07	0.010	0.003	0.210	0.152	0.175	104.453%
x		0.008	0.001	0.193	0.170	0.183	102.561%
σ		0.010	0.004	0.020	0.026	0.011	2.159%
%RSD		123.800	256.800	10.290	15.410	6.281	2.106

180-39482-H-4-A @1000 12/11/2014 1:17:43 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	69.640%	-0.022	16.180	17.900	0.000	9201.000	1119.000	1237.000
2	13:18:22	88.792%	-0.032	15.490	14.820	0.000	7433.000	941.100	992.600
3	13:18:41	98.078%	-0.025	12.750	13.800	0.000	7044.000	886.700	954.600
x		85.503%	-0.026	14.810	15.510	0.000	7892.000	982.200	1062.000
σ		14.502%	0.005	1.813	2.137	0.000	1150.000	121.400	153.500
%RSD		16.960	19.620	12.250	13.780	0.000	14.560	12.360	14.460

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	0.525	8.081	0.000	408.100	13660.000	13280.000	86.826%	0.089
2	13:18:22	0.048	5.519	0.000	385.500	13210.000	12990.000	89.467%	0.068
3	13:18:41	-0.091	4.676	0.000	382.600	13370.000	13240.000	88.431%	0.083
x		0.161	6.092	0.000	392.100	13410.000	13170.000	88.241%	0.080
σ		0.323	1.773	0.000	13.950	232.400	156.700	1.331%	0.011
%RSD		201.300	29.100	0.000	3.559	1.733	1.190	1.508	13.720

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	0.019	-0.040	5.769	60.200	112.400	0.014	0.036	0.389
2	13:18:22	-0.017	0.038	5.996	65.910	117.600	0.012	0.027	0.329
3	13:18:41	-0.002	-0.013	5.972	56.530	115.400	0.023	-0.041	0.389
x		0.000	-0.005	5.912	60.880	115.100	0.017	0.007	0.369
σ		0.018	0.039	0.125	4.729	2.639	0.006	0.042	0.035
%RSD		8152.000	810.500	2.109	7.767	2.292	34.690	581.000	9.430

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	0.156	0.496	0.500	-0.335	0.234	-1.116	0.000	1877.000
2	13:18:22	0.116	0.396	-0.007	-0.704	0.243	-2.888	0.000	1907.000
3	13:18:41	0.118	0.483	0.464	-0.560	0.037	-2.175	0.000	1900.000
x		0.130	0.458	0.319	-0.533	0.171	-2.060	0.000	1894.000
σ		0.023	0.054	0.283	0.186	0.116	0.892	0.000	15.820
%RSD		17.360	11.860	88.600	34.880	68.140	43.290	0.000	0.835

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	78.383%	0.036	0.035	84.950%	-0.055	-0.041	-0.071	-0.046
2	13:18:22	81.612%	0.029	0.059	83.053%	-0.048	-0.035	-0.015	-0.022
3	13:18:41	80.939%	0.043	0.031	84.739%	-0.047	-0.043	-0.142	-0.110
x		80.312%	0.036	0.042	84.247%	-0.050	-0.039	-0.076	-0.059
σ		1.703%	0.007	0.015	1.040%	0.004	0.004	0.064	0.045
%RSD		2.121	19.510	36.060	1.234	8.071	10.310	83.890	76.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	84.700%	-0.271	-0.068	-0.062	214.800	212.900	93.262%	94.561%
2	13:18:22	88.786%	-0.319	-0.079	-0.061	215.400	214.100	95.331%	94.587%
3	13:18:41	87.828%	-0.295	-0.083	-0.073	213.600	213.000	96.861%	96.502%
x		87.105%	-0.295	-0.077	-0.065	214.600	213.300	95.151%	95.217%
σ		2.137%	0.024	0.008	0.007	0.899	0.635	1.807%	1.114%
%RSD		2.454	8.150	9.919	10.330	0.419	0.298	1.899	1.169

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:03	-0.001	-0.002	0.153	0.121	0.129	106.444%
2	13:18:22	0.017	-0.002	0.128	0.112	0.128	107.899%
3	13:18:41	0.009	-0.004	0.181	0.091	0.123	108.312%
x		0.008	-0.003	0.154	0.108	0.127	107.552%
σ		0.009	0.001	0.027	0.015	0.004	0.981%
%RSD		111.500	51.060	17.480	14.240	2.770	0.912

CCV 1408349 12/11/2014 1:21:24 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	68.350%	95.110	89.600	93.990	0.000	46060.000	50660.000	53690.000
2	13:21:43	78.821%	100.800	92.180	91.820	0.000	43850.000	47750.000	48810.000
3	13:22:03	64.887%	93.720	76.520	87.650	0.000	46340.000	51010.000	54290.000
x		70.686%	96.548%	86.101%	91.152%	0.000	90.832%	99.613%	104.530%
σ		7.255%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		10.263	3.893	9.748	3.536	0.000	3.007	3.586	5.750

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	550.400	5042.000	0.000	52910.000	48980.000	50500.000	80.426%	86.360
2	13:21:43	488.800	4387.000	0.000	48570.000	46920.000	50010.000	73.512%	94.260
3	13:22:03	546.400	5057.000	0.000	53270.000	49920.000	52130.000	78.760%	89.660
x		105.710%	96.578%	0.000	103.173%	97.215%	101.762%	77.566%	90.093%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.609%	n/a
%RSD		6.516	7.919	0.000	5.070	3.155	2.184	4.652	4.406

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	86.830	84.900	463.600	23980.000	24610.000	95.380	98.440	100.500
2	13:21:43	95.570	98.060	533.300	27190.000	26970.000	98.320	97.810	97.440
3	13:22:03	88.400	87.810	475.800	23950.000	24560.000	95.520	97.640	100.600
x		90.265%	90.257%	98.185%	100.163%	101.521%	96.405%	97.965%	99.520%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.167	7.662	7.581	7.424	5.422	1.719	0.429	1.811

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	102.100	102.100	103.000	97.400	98.580	108.000	0.000	91.390
2	13:21:43	96.380	101.400	98.960	96.900	101.000	92.510	0.000	92.740
3	13:22:03	102.500	107.100	104.500	100.900	101.200	102.900	0.000	92.050
x		100.329%	103.515%	102.164%	98.407%	100.246%	101.166%	0.000	92.058%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.416	2.981	2.810	2.218	1.446	7.823	0.000	0.737

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	72.621%	85.110	87.120	72.733%	100.100	97.710	97.270	96.760
2	13:21:43	78.816%	90.300	91.730	72.738%	93.220	91.650	94.300	94.810
3	13:22:03	74.538%	94.880	95.210	74.283%	98.590	97.030	95.580	96.060
x		75.325%	90.097%	91.351%	73.251%	97.295%	95.463%	95.718%	95.875%
σ		3.171%	n/a	n/a	0.894%	n/a	n/a	n/a	n/a
%RSD		4.210	5.430	4.443	1.220	3.705	3.479	1.559	1.030

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	73.033%	90.540	90.790	90.370	91.500	93.210	80.903%	81.356%
2	13:21:43	77.443%	89.990	89.770	90.820	92.840	91.850	84.430%	83.433%
3	13:22:03	76.626%	90.880	91.500	90.850	93.000	93.300	84.686%	85.705%
x		75.700%	90.469%	90.687%	90.680%	92.444%	92.786%	83.339%	83.498%
σ		2.346%	n/a	n/a	n/a	n/a	n/a	2.114%	2.175%
%RSD		3.099	0.498	0.959	0.296	0.890	0.878	2.537	2.605

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:21:24	91.720	92.260	91.260	89.350	90.610	86.269%
2	13:21:43	92.770	92.600	92.230	92.050	91.970	86.367%
3	13:22:03	96.410	96.420	97.230	96.180	96.590	85.961%
x		93.629%	93.760%	93.574%	92.527%	93.054%	86.199%
σ		n/a	n/a	n/a	n/a	n/a	0.212%
%RSD		2.630	2.460	3.425	3.721	3.370	0.246

CCB6 12/11/2014 1:27:23 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:42	72.431%	-0.027	0.589	0.935	0.000	4.914	7.286	8.187
2	13:28:01	81.735%	-0.012	0.414	0.414	0.000	2.444	5.685	6.023
3	13:28:20	72.148%	-0.013	0.335	0.733	0.000	3.787	6.919	7.042
x		75.438%	-0.017	0.446	0.694	0.000	3.715	6.630	7.084
σ		5.455%	0.008	0.130	0.263	0.000	1.236	0.839	1.082
%RSD		7.231	48.160	29.090	37.890	0.000	33.280	12.650	15.280
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:42	0.374	3.586	0.000	5.522	9.913	8.138	85.315%	0.088
2	13:28:01	-0.031	1.645	0.000	10.900	13.850	7.954	89.970%	0.050
3	13:28:20	0.322	2.695	0.000	13.590	4.578	8.148	84.348%	0.103
x		0.222	2.642	0.000	10.000	9.447	8.080	86.544%	0.080
σ		0.220	0.971	0.000	4.106	4.653	0.109	3.006%	0.028
%RSD		99.450	36.770	0.000	41.050	49.260	1.351	3.473	34.310
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:42	-0.005	-0.100	0.070	43.330	9.008	0.027	0.021	-0.020
2	13:28:01	-0.001	-0.013	0.051	-1.439	-0.102	0.029	0.020	-0.025
3	13:28:20	0.020	-0.080	0.069	26.500	5.675	0.025	0.032	-0.003
x		0.005	-0.065	0.063	22.800	4.861	0.027	0.024	-0.016
σ		0.013	0.046	0.010	22.610	4.609	0.002	0.007	0.012
%RSD		278.300	70.480	16.410	99.190	94.830	7.203	28.170	74.010
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:42	-0.031	0.089	-0.034	-0.507	0.420	-1.876	0.000	0.059
2	13:28:01	0.040	0.081	0.155	-0.280	0.513	-0.713	0.000	0.056
3	13:28:20	0.011	0.037	0.205	-0.327	-0.257	-1.299	0.000	0.066
x		0.007	0.069	0.109	-0.371	0.225	-1.296	0.000	0.060
σ		0.036	0.028	0.126	0.120	0.420	0.582	0.000	0.005
%RSD		543.300	40.940	115.600	32.180	186.300	44.870	0.000	8.909
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:42	81.697%	0.209	0.245	87.435%	-0.023	-0.024	-0.136	-0.083
2	13:28:01	77.430%	0.192	0.214	84.151%	-0.026	-0.015	-0.029	-0.025
3	13:28:20	82.462%	0.209	0.188	90.328%	-0.033	-0.008	-0.028	-0.004
x		80.529%	0.203	0.216	87.305%	-0.027	-0.016	-0.064	-0.037
σ		2.711%	0.010	0.028	3.091%	0.005	0.008	0.062	0.041
%RSD		3.367	4.791	13.150	3.540	18.300	49.190	96.060	109.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:27:42	81.087%	-0.099	0.091	0.036	0.093	0.079	90.730%	89.425%
2	13:28:01	84.941%	-0.159	0.010	0.055	0.052	0.081	89.041%	90.068%
3	13:28:20	84.212%	-0.127	0.054	0.087	0.102	0.080	93.566%	94.362%
x		83.414%	-0.128	0.052	0.059	0.082	0.080	91.113%	91.285%
σ		2.047%	0.030	0.041	0.025	0.027	0.001	2.287%	2.684%
%RSD		2.454	23.460	78.090	42.870	32.450	1.595	2.510	2.941
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:27:42	0.024	0.019	0.062	0.086	0.055	95.851%		
2	13:28:01	0.009	0.012	0.055	0.017	0.044	100.501%		
3	13:28:20	0.022	0.012	0.047	0.058	0.057	100.216%		
x		0.018	0.014	0.055	0.054	0.052	98.856%		
σ		0.008	0.004	0.008	0.035	0.007	2.606%		
%RSD		44.180	28.760	14.470	64.720	13.430	2.636		

180-39479-I-1-A 1 12/11/2014 1:30:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	63.400%	-0.030	40.070	45.660	0.000	23950.000	27400.000	28640.000
2	13:31:36	65.955%	-0.036	39.160	44.890	0.000	23350.000	26770.000	26790.000
3	13:31:55	71.519%	-0.036	34.810	38.510	0.000	18870.000	21660.000	22040.000
x		66.958%	-0.034	38.020	43.020	0.000	22060.000	25280.000	25820.000
σ		4.151%	0.003	2.812	3.929	0.000	2777.000	3147.000	3402.000
%RSD		6.200	8.768	7.397	9.132	0.000	12.590	12.450	13.180

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	3.594	4324.000	0.000	2680.000	71170.000	72510.000	68.503%	0.418
2	13:31:36	3.151	4057.000	0.000	2647.000	68320.000	70950.000	67.358%	0.413
3	13:31:55	2.578	3549.000	0.000	2475.000	66430.000	72000.000	70.924%	0.440
x		3.108	3977.000	0.000	2601.000	68640.000	71820.000	68.928%	0.424
σ		0.509	393.400	0.000	110.300	2384.000	793.800	1.821%	0.014
%RSD		16.390	9.894	0.000	4.243	3.474	1.105	2.641	3.334

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	-0.232	0.155	1.412	61.140	393.600	0.148	1.072	1.577
2	13:31:36	-0.315	0.209	1.406	64.170	396.900	0.120	0.786	1.485
3	13:31:55	0.194	0.353	1.454	49.820	341.600	0.123	0.667	1.428
x		-0.118	0.239	1.424	58.380	377.400	0.130	0.842	1.497
σ		0.273	0.102	0.026	7.561	31.030	0.015	0.209	0.075
%RSD		231.300	42.840	1.831	12.950	8.223	11.860	24.770	5.024

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	1.088	3.664	3.842	0.047	-0.018	-1.389	0.000	322.200
2	13:31:36	0.881	3.662	3.406	0.289	0.144	-0.956	0.000	323.700
3	13:31:55	0.944	3.500	3.629	0.078	-0.152	-0.754	0.000	332.300
x		0.971	3.608	3.626	0.138	-0.009	-1.033	0.000	326.000
σ		0.106	0.094	0.218	0.132	0.148	0.324	0.000	5.470
%RSD		10.930	2.602	6.007	95.540	1732.000	31.400	0.000	1.678

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	73.071%	0.200	0.201	75.551%	-0.053	-0.034	-0.084	-0.033
2	13:31:36	75.238%	0.231	0.194	74.790%	-0.053	-0.034	-0.118	-0.086
3	13:31:55	72.908%	0.201	0.197	72.850%	-0.046	-0.033	-0.175	-0.124
x		73.739%	0.210	0.197	74.397%	-0.051	-0.034	-0.126	-0.081
σ		1.301%	0.018	0.004	1.393%	0.004	0.001	0.046	0.046
%RSD		1.764	8.450	1.787	1.872	7.422	1.538	36.660	56.570

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	73.700%	-0.188	0.007	-0.006	81.670	82.230	95.072%	95.288%
2	13:31:36	75.877%	-0.189	-0.008	0.019	81.230	80.660	97.426%	98.614%
3	13:31:55	78.905%	-0.157	-0.009	-0.011	78.370	78.600	97.321%	96.901%
x		76.161%	-0.178	-0.003	0.001	80.420	80.500	96.606%	96.935%
σ		2.614%	0.018	0.009	0.016	1.790	1.818	1.330%	1.663%
%RSD		3.432	10.350	280.000	1984.000	2.226	2.258	1.377	1.716

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:17	0.026	0.038	0.320	0.284	0.287	104.302%
2	13:31:36	0.021	0.028	0.245	0.231	0.230	102.899%
3	13:31:55	0.026	0.019	0.239	0.161	0.200	104.566%
x		0.024	0.028	0.268	0.225	0.239	103.922%
σ		0.003	0.010	0.045	0.061	0.044	0.896%
%RSD		10.760	33.740	16.770	27.260	18.610	0.862

CCV 1408349 12/11/2014 1:34:38 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:38	60.611%	103.600	98.090	100.600	0.000	48640.000	54110.000	56120.000
2	13:34:58	60.973%	96.470	83.840	86.350	0.000	42230.000	50140.000	52280.000
3	13:35:17	65.905%	97.680	93.570	97.060	0.000	46390.000	50470.000	52100.000
x		62.496%	99.249%	91.836%	94.656%	0.000	91.508%	103.147%	107.003%
σ		2.957%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.732	3.841	7.928	7.821	0.000	7.108	4.275	4.247
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:38	553.900	4914.000	0.000	49300.000	45220.000	46760.000	76.923%	84.250
2	13:34:58	513.000	4628.000	0.000	48910.000	45020.000	47410.000	83.523%	80.540
3	13:35:17	505.700	4370.000	0.000	48500.000	45330.000	46440.000	75.255%	87.700
x		104.842%	92.752%	0.000	97.814%	90.383%	93.738%	78.567%	84.165%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.372%	n/a
%RSD		4.959	5.868	0.000	0.817	0.345	1.061	5.565	4.252
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:38	85.690	88.930	498.200	25840.000	25900.000	97.430	97.810	100.100
2	13:34:58	81.170	81.440	446.800	23040.000	23550.000	89.210	93.300	96.070
3	13:35:17	90.010	94.870	516.400	26580.000	26410.000	98.650	98.830	98.000
x		85.625%	88.415%	97.424%	100.619%	101.141%	95.098%	96.645%	98.052%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.163	7.609	7.410	7.417	6.035	5.396	3.045	2.047
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:38	98.920	100.200	101.100	94.910	103.000	98.770	0.000	93.180
2	13:34:58	99.020	103.000	103.900	98.780	97.740	102.600	0.000	92.150
3	13:35:17	96.840	101.700	101.500	95.140	99.880	94.720	0.000	91.990
x		98.260%	101.632%	102.170%	96.278%	100.217%	98.696%	0.000	92.440%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.250	1.370	1.508	2.256	2.658	3.995	0.000	0.698
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:38	73.825%	84.290	85.210	71.455%	100.400	99.170	100.500	104.100
2	13:34:58	72.608%	88.760	90.850	70.509%	104.000	105.000	105.600	105.800
3	13:35:17	78.007%	94.380	96.160	71.204%	98.480	97.420	100.900	103.600
x		74.813%	89.142%	90.740%	71.056%	100.952%	100.543%	102.350%	104.523%
σ		2.832%	n/a	n/a	0.490%	n/a	n/a	n/a	n/a
%RSD		3.785	5.673	6.033	0.689	2.790	3.970	2.799	1.101
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:38	67.762%	100.100	99.960	100.200	101.400	99.610	88.030%	87.870%
2	13:34:58	69.000%	98.110	98.870	97.250	96.300	96.850	86.687%	88.468%
3	13:35:17	70.003%	100.600	101.500	99.770	102.400	99.120	88.680%	89.509%
x		68.922%	99.597%	100.109%	99.090%	100.040%	98.530%	87.799%	88.616%
σ		1.123%	n/a	n/a	n/a	n/a	n/a	1.017%	0.830%
%RSD		1.629	1.316	1.321	1.625	3.272	1.493	1.158	0.936
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:34:38	100.600	100.300	99.570	99.260	100.200	83.599%		
2	13:34:58	102.000	101.800	102.600	103.600	103.100	85.534%		
3	13:35:17	102.300	101.900	102.200	102.000	102.700	85.899%		
x		101.638%	101.330%	101.467%	101.644%	101.986%	85.011%		
σ		n/a	n/a	n/a	n/a	n/a	1.236%		
%RSD		0.888	0.869	1.638	2.183	1.545	1.454		

CCB7 12/11/2014 1:40:35 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	79.887%	0.005	0.368	0.766	0.000	3.967	6.531	7.755
2	13:41:13	77.766%	-0.027	0.214	0.374	0.000	4.132	7.133	7.515
3	13:41:32	117.325%	-0.033	0.007	-0.201	0.000	1.415	4.351	4.914
x		91.659%	-0.018	0.196	0.313	0.000	3.171	6.005	6.728
σ		22.253%	0.020	0.182	0.486	0.000	1.523	1.464	1.575
%RSD		24.278	112.200	92.480	155.400	0.000	48.030	24.370	23.420

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	0.364	3.009	0.000	6.766	7.942	7.491	87.973%	0.055
2	13:41:13	0.306	2.603	0.000	5.197	7.452	8.124	92.983%	0.073
3	13:41:32	-0.337	-0.692	0.000	-5.391	9.686	6.639	93.026%	0.171
x		0.111	1.640	0.000	2.191	8.360	7.418	91.328%	0.100
σ		0.389	2.030	0.000	6.613	1.174	0.745	2.905%	0.063
%RSD		350.200	123.800	0.000	301.800	14.040	10.040	3.181	62.590

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	-0.012	-0.055	0.107	56.990	12.660	0.034	0.039	-0.005
2	13:41:13	0.018	-0.093	0.105	15.920	9.542	0.023	0.010	-0.019
3	13:41:32	0.073	0.137	0.107	26.520	3.863	0.027	0.018	-0.032
x		0.027	-0.004	0.107	33.140	8.690	0.028	0.022	-0.019
σ		0.043	0.123	0.001	21.320	4.462	0.005	0.015	0.014
%RSD		161.400	3260.000	1.011	64.330	51.350	19.530	68.080	71.220

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	0.029	0.053	0.092	-0.373	0.374	-1.029	0.000	0.061
2	13:41:13	0.013	0.041	0.135	-0.270	0.498	-0.764	0.000	0.054
3	13:41:32	0.005	0.107	0.179	-0.663	0.289	-2.325	0.000	0.066
x		0.016	0.067	0.135	-0.435	0.387	-1.372	0.000	0.060
σ		0.012	0.035	0.044	0.204	0.105	0.835	0.000	0.006
%RSD		77.240	52.790	32.320	46.830	27.110	60.850	0.000	9.364

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	82.217%	0.214	0.283	88.696%	-0.043	-0.030	-0.026	-0.013
2	13:41:13	81.425%	0.247	0.266	88.403%	-0.027	-0.010	-0.070	-0.051
3	13:41:32	84.110%	0.236	0.255	84.696%	-0.032	-0.008	-0.103	-0.070
x		82.584%	0.232	0.268	87.265%	-0.034	-0.016	-0.066	-0.045
σ		1.379%	0.017	0.014	2.230%	0.008	0.012	0.038	0.029
%RSD		1.670	7.114	5.336	2.555	23.390	75.040	57.820	65.940

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	80.090%	-0.117	0.068	0.053	0.060	0.064	91.444%	91.091%
2	13:41:13	81.828%	-0.171	0.078	0.085	0.105	0.081	92.267%	93.419%
3	13:41:32	88.410%	-0.149	0.045	0.051	0.086	0.117	94.060%	92.042%
x		83.443%	-0.145	0.063	0.063	0.084	0.087	92.590%	92.184%
σ		4.389%	0.027	0.017	0.019	0.022	0.027	1.338%	1.170%
%RSD		5.259	18.730	26.960	30.270	26.840	30.980	1.445	1.269

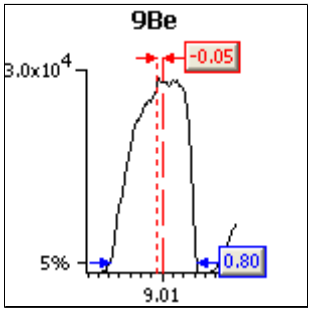
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:54	0.022	0.014	0.124	0.051	0.076	95.448%
2	13:41:13	0.021	0.015	0.122	0.098	0.092	97.844%
3	13:41:32	0.025	0.017	0.060	0.063	0.073	102.446%
x		0.023	0.015	0.102	0.071	0.080	98.580%
σ		0.002	0.001	0.037	0.025	0.010	3.556%
%RSD		9.035	7.869	35.940	34.650	12.960	3.608

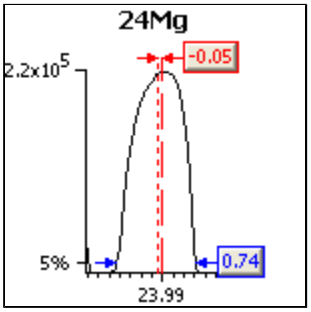
Performance Report

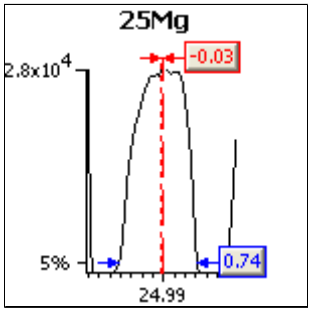
Sample details
Sample name : ITUNE
Acquired at : 12/11/2014 7:13:30 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

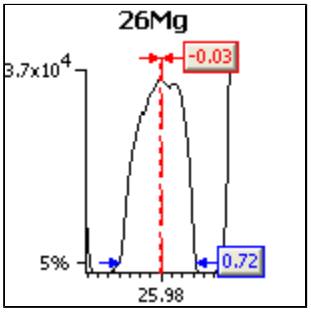
Mass Calibration verification

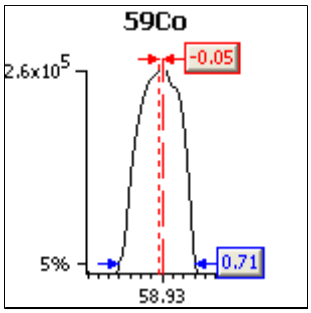
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

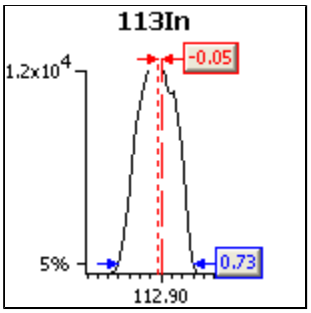


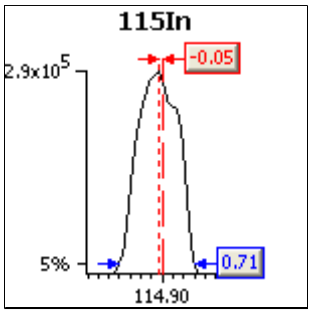


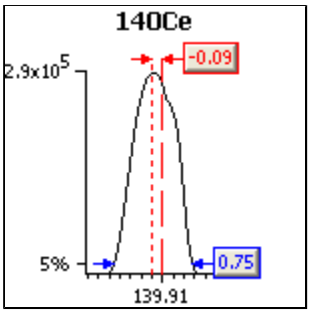


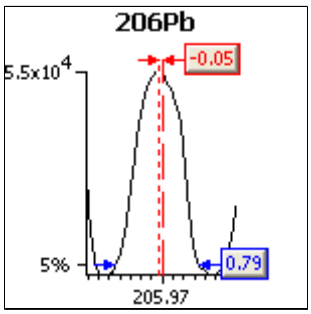


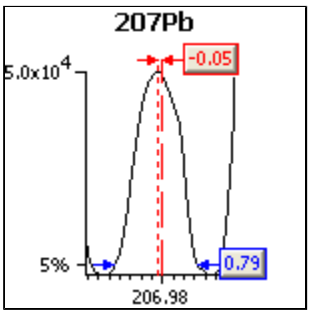


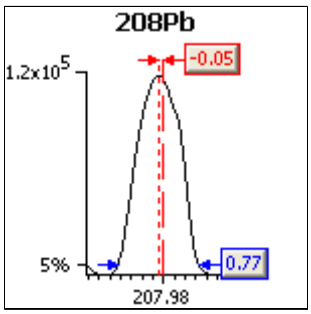












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.80	-0.05
24Mg	0.90	0.45	0.10	0.74	-0.05
25Mg	0.90	0.45	0.10	0.74	-0.03
26Mg	0.90	0.45	0.10	0.72	-0.03
59Co	0.90	0.45	0.10	0.71	-0.05
113In	0.90	0.45	0.10	0.73	-0.05
115In	0.90	0.45	0.10	0.71	-0.05
140Ce	0.90	0.45	0.10	0.75	-0.09
206Pb	0.90	0.45	0.10	0.79	-0.05
207Pb	0.90	0.45	0.10	0.79	-0.05
208Pb	0.90	0.45	0.10	0.77	-0.05

Sample details
Sample name : ITUNE
Acquired at : 12/11/2014 7:13:30 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-110
Lens 1	3.8
Focus	26.7
D1	-40.0
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.77
Sampling Depth	200

Minor	
Lens 2	-57.3
Lens 3	-200.0
Forward power	1302
Horizontal	76
Vertical	527
D2	-160
DA	-80.0
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
He/H2	0.00
He/NH3	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	7:14:18 AM	0	30858	204286	28182	34052	6358058	269177	5
2	7:15:43 AM	0	30374	201399	27907	33836	5534058	273179	4
3	7:17:08 AM	0	29358	199282	27341	32681	5245333	272476	5
4	7:18:33 AM	0	29326	196922	27502	32937	5086119	271132	3
5	7:19:58 AM	0	28949	198942	27655	33101	5001316	272233	3
x		0	29773	200166	27717	33321	5444977	271639	4
σ		0.06	804.45	2797.03	333.09	592.67	549345.86	1560.84	1.05
%RSD		46.481	2.702	1.397	1.202	1.779	10.089	0.575	26.352

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	7:14:18 AM	176	0	12598	290618	1167	271294	5132	57184
2	7:15:43 AM	127	0	12710	292480	1173	275613	5155	58539
3	7:17:08 AM	97	0	12903	299763	1190	277980	5119	59381
4	7:18:33 AM	82	0	13161	305044	1160	281753	5323	59980
5	7:19:58 AM	73	0	13232	301667	1081	281305	5123	60260
x		111	0	12921	297914	1154	277589	5170	59069
σ		41.64	0.08	275.34	6146.22	42.27	4325.44	86.46	1242.98
%RSD		37.597	30.619	2.131	2.063	3.662	1.558	1.672	2.104

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:14:18 AM	50707	121629	0
2	7:15:43 AM	51689	125199	0
3	7:17:08 AM	52394	126260	0
4	7:18:33 AM	52950	127683	0
5	7:19:58 AM	52543	126689	0
x		52056	125492	0
σ		881.23	2336.41	0.04
%RSD		1.693	1.862	136.931

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:14:18 AM	0
2	7:15:43 AM	0

3	7:17:08 AM	0
4	7:18:33 AM	0
5	7:19:58 AM	0
x		0.0186
σ		0.00
%RSD		1.6506

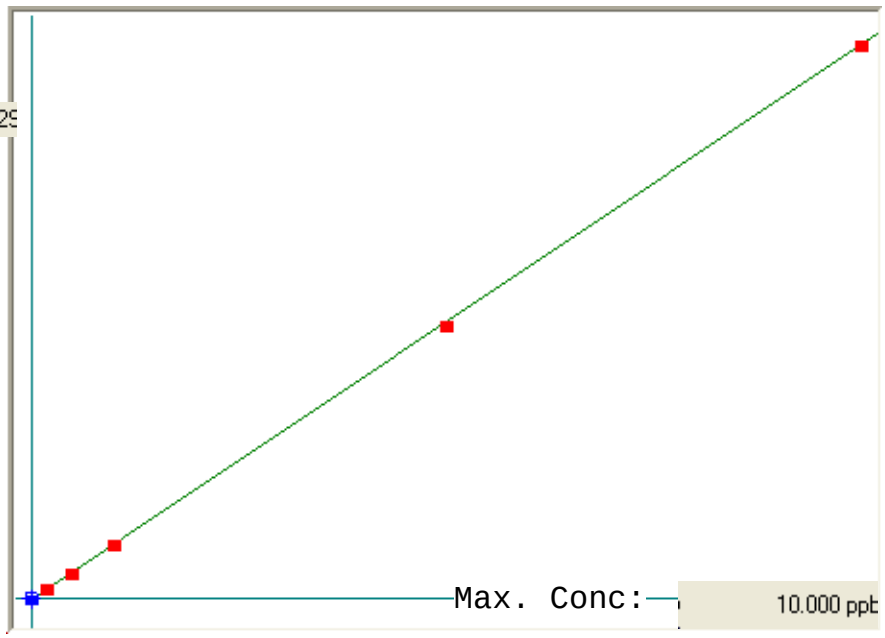
Result : The performance report passed.

METHG

Linear

μ Abs.:

60429



A= 0.0000e+000

B= 1.6544e-004

C= 2.6826e-002

Rho= 0.9999772

Accept= Accepted

Accepted Date=

12/11/14 12:19

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
blank	0.000	0.025	0.025	-14	0.000	-14				
.2ppb	0.200	0.204	0.004	1070	0.0 %	1070				
.5ppb	0.500	0.497	-0.003	2839	0.0 %	2839				
1.0ppb	1.000	1.000	-0.000	5882	0.0 %	5882				
5.0ppb	5.000	4.951	-0.049	29763	0.0 %	29763				
10.0ppb	10.000	10.024	0.024	60429	0.0 %	60429				

R41211A

Method: METHG Operator: Admin Date of Analysis: 11 Dec 2014 10:33:46

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Stnd Conc	µ Abs.	Method	Chapter
16403	Std	blank - 1		11 Dec 2014 12:08:52	-	ppb	0.0000	-14	METHG	R41211A
16404	Std	.2ppb - 1		11 Dec 2014 12:10:36	-	ppb	0.2000	1070	METHG	R41211A
16405	Std	.5ppb - 1		11 Dec 2014 12:12:18	-	ppb	0.5000	2839	METHG	R41211A
16406	Std	1.0ppb - 1		11 Dec 2014 12:14:02	-	ppb	1.0000	5882	METHG	R41211A
16407	Std	5.0ppb - 1		11 Dec 2014 12:15:47	-	ppb	5.0000	29763	METHG	R41211A
16408	Std	10.0ppb - 1		11 Dec 2014 12:17:35	-	ppb	10.0000	60429	METHG	R41211A
16409	CK STND	ICV - 1		11 Dec 2014 12:19:39	96.6% 2.4151	ppb	-	14436	METHG	R41211A
16410	CK STND	ICB - 1		11 Dec 2014 12:21:54	-0.0597	ppb	-	-523	METHG	R41211A
16411	CK STND	CRA - 1		11 Dec 2014 12:23:53	95.3% 0.1906	ppb	-	990	METHG	R41211A
16412	CK STND	CCV - 1		11 Dec 2014 12:25:34	98.2% 4.9090	ppb	-	29510	METHG	R41211A
16413	CK STND	CCB - 1		11 Dec 2014 12:27:18	-0.0463	ppb	-	-442	METHG	R41211A
16414	SMPL	MB 180-127920/1-A - 1		11 Dec 2014 12:29:24	0.0202	ppb	-	-40	METHG	R41211A
16415	SMPL	LCS 180-127920/2-A - 1		11 Dec 2014 12:31:07	2.4899	ppb	-	14888	METHG	R41211A
16416	SMPL	180-39249-C-19-C - 1		11 Dec 2014 12:32:48	-0.0251	ppb	-	-314	METHG	R41211A
16417	SMPL	180-39249-C-20-C - 1		11 Dec 2014 12:34:44	0.0308	ppb	-	24	METHG	R41211A
16418	SMPL	180-38933-C-2-B - 1		11 Dec 2014 12:36:26	0.0505	ppb	-	143	METHG	R41211A
16419	SMPL	180-38933-C-3-B - 1		11 Dec 2014 12:38:07	0.0313	ppb	-	27	METHG	R41211A
16420	SMPL	180-39255-G-16-C - 1		11 Dec 2014 12:39:48	0.0288	ppb	-	12	METHG	R41211A
16421	SMPL	180-39255-I-54-C - 1		11 Dec 2014 12:41:30	0.0339	ppb	-	43	METHG	R41211A
16422	SMPL	180-39362-C-1-B - 1		11 Dec 2014 12:43:12	1.3396	ppb	-	7935	METHG	R41211A
16423	SMPL	180-39362-C-1-C MS - 1		11 Dec 2014 12:44:54	2.2406	ppb	-	13381	METHG	R41211A
16424	CK STND	CCV - 1		11 Dec 2014 12:46:46	100.0% 5.0010	ppb	-	30066	METHG	R41211A
16425	CK STND	CCB - 1		11 Dec 2014 12:48:44	-0.0518	ppb	-	-475	METHG	R41211A
16426	SMPL	180-39362-C-1-D MSD - 1		11 Dec 2014 12:50:51	2.2755	ppb	-	13592	METHG	R41211A
16427	SMPL	180-39362-A-2-B - 1		11 Dec 2014 12:52:34	-0.0314	ppb	-	-352	METHG	R41211A
16428	SMPL	180-39362-C-3-A - 1		11 Dec 2014 12:54:34	0.0291	ppb	-	14	METHG	R41211A
16429	SMPL	180-39432-I-1-D - 1		11 Dec 2014 12:56:15	0.0511	ppb	-	147	METHG	R41211A
16430	SMPL	180-39432-I-2-B - 1		11 Dec 2014 12:57:56	0.0826	ppb	-	337	METHG	R41211A
16431	SMPL	180-39432-I-3-B - 1		11 Dec 2014 12:59:38	0.0247	ppb	-	-13	METHG	R41211A
16432	SMPL	180-39432-I-4-B - 1		11 Dec 2014 13:01:19	0.0351	ppb	-	50	METHG	R41211A
16433	SMPL	MB 180-127921/1-A - 1		11 Dec 2014 13:03:00	0.0237	ppb	-	-19	METHG	R41211A
16434	SMPL	LCS 180-127921/2-A - 1		11 Dec 2014 13:04:42	2.6287	ppb	-	15727	METHG	R41211A
16435	SMPL	LCSD 180-127921/3-A - 1		11 Dec 2014 13:06:24	2.5710	ppb	-	15378	METHG	R41211A
16436	CK STND	CCV - 1		11 Dec 2014 13:08:24	98.8% 4.9406	ppb	-	29701	METHG	R41211A
16437	CK STND	CCB - 1		11 Dec 2014 13:10:22	-0.0592	ppb	-	-520	METHG	R41211A
16438	SMPL	LB 180-126312/4-D - 1		11 Dec 2014 13:12:28	0.0200	ppb	-	-41	METHG	R41211A
16439	SMPL	180-38934-A-1-J - 1		11 Dec 2014 13:14:10	0.0240	ppb	-	-17	METHG	R41211A
16440	SMPL	180-38934-A-2-H - 1		11 Dec 2014 13:15:53	0.0301	ppb	-	20	METHG	R41211A
16441	SMPL	180-38934-A-3-J - 1		11 Dec 2014 13:17:35	0.0273	ppb	-	3	METHG	R41211A
16442	SMPL	MB 180-127924/1-A - 1		11 Dec 2014 13:19:18	0.0272	ppb	-	2	METHG	R41211A
16443	SMPL	LCS 180-127924/2-A - 1		11 Dec 2014 13:20:59	2.6157	ppb	-	15648	METHG	R41211A
16444	SMPL	LB 180-127707/9-E - 1		11 Dec 2014 13:22:41	-0.0344	ppb	-	-370	METHG	R41211A
16445	SMPL	180-39516-I-12-F - 1		11 Dec 2014 13:24:39	0.0308	ppb	-	24	METHG	R41211A
16446	SMPL	180-39516-I-13-F - 1		11 Dec 2014 13:26:20	0.0258	ppb	-	-6	METHG	R41211A
16447	SMPL	180-39555-B-1-I - 1		11 Dec 2014 13:28:02	0.0277	ppb	-	5	METHG	R41211A
16448	CK STND	CCV - 1		11 Dec 2014 13:29:43	99.4% 4.9724	ppb	-	29893	METHG	R41211A
16449	CK STND	CCB - 1		11 Dec 2014 13:31:25	-0.0397	ppb	-	-402	METHG	R41211A
16450	SMPL	180-39555-B-1-J MS - 1		11 Dec 2014 13:33:32	5.8175	ppb	-	35001	METHG	R41211A
16451	SMPL	180-39555-B-1-K MSD - 1		11 Dec 2014 13:35:14	5.8547	ppb	-	35226	METHG	R41211A
16452	SMPL	MB 180-127925/1-A - 1		11 Dec 2014 13:37:18	-0.0453	ppb	-	-436	METHG	R41211A
16453	SMPL	LCS 180-127925/2-A - 1		11 Dec 2014 13:39:26	2.6292	ppb	-	15730	METHG	R41211A
16454	SMPL	LCSD 180-127925/3-A - 1		11 Dec 2014 13:41:08	2.5951	ppb	-	15524	METHG	R41211A
16455	SMPL	LB 180-127708/2-B - 1		11 Dec 2014 13:43:06	-0.0334	ppb	-	-364	METHG	R41211A
16456	SMPL	180-39576-A-1-B - 1		11 Dec 2014 13:45:06	0.0543	ppb	-	166	METHG	R41211A
16457	SMPL	MB 180-127993/1-A - 1		11 Dec 2014 13:46:48	0.0219	ppb	-	-30	METHG	R41211A
16458	SMPL	LCS 180-127993/2-A - 1		11 Dec 2014 13:48:30	2.8292	ppb	-	16939	METHG	R41211A
16459	SMPL	LB 180-127841/5-C - 1		11 Dec 2014 13:50:12	-0.0347	ppb	-	-372	METHG	R41211A

R41211A

Method: METHG Operator: Admin Date of Analysis: 11 Dec 2014 10:33:46

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Stnd Conc	µ Abs.	Method	Chapter
16460	CK STND	CCV - 1		11 Dec 2014 13:52:07	99.7% 4.9874	ppb	-	29984	METHG	R41211A
16461	CK STND	CCB - 1		11 Dec 2014 13:53:50	-0.0463	ppb	-	-442	METHG	R41211A
16462	SMPL	180-39647-B-1-E - 1		11 Dec 2014 13:55:57	0.0505	ppb	-	143	METHG	R41211A
16463	SMPL	180-39647-A-2-E - 1		11 Dec 2014 13:57:38	0.0318	ppb	-	30	METHG	R41211A
16464	SMPL	180-39647-A-3-K - 1		11 Dec 2014 13:59:20	0.0677	ppb	-	247	METHG	R41211A
16465	SMPL	180-39647-A-3-L MS - 1		11 Dec 2014 14:01:02	5.9768	ppb	-	35964	METHG	R41211A
16466	SMPL	180-39647-A-3-M MSD - 1		11 Dec 2014 14:02:44	5.9429	ppb	-	35759	METHG	R41211A
16467	SMPL	180-39647-B-4-E - 1		11 Dec 2014 14:04:52	0.0022	ppb	-	-149	METHG	R41211A
16468	SMPL	LB 180-127847/5-C - 1		11 Dec 2014 14:06:59	0.0123	ppb	-	-88	METHG	R41211A
16469	SMPL	180-39669-A-1-C - 1		11 Dec 2014 14:08:41	0.0275	ppb	-	4	METHG	R41211A
16470	SMPL	180-39669-B-2-M - 1		11 Dec 2014 14:10:24	0.0230	ppb	-	-23	METHG	R41211A
16471	SMPL	180-39669-B-2-N MS - 1		11 Dec 2014 14:12:06	6.3455	ppb	-	38193	METHG	R41211A
16472	CK STND	CCV - 1		11 Dec 2014 14:13:49	99.4% 4.9691	ppb	-	29873	METHG	R41211A
16473	CK STND	CCB - 1		11 Dec 2014 14:15:53	-0.0503	ppb	-	-466	METHG	R41211A
16474	SMPL	180-39669-B-2-O MSD - 1		11 Dec 2014 14:18:01	6.4223	ppb	-	38657	METHG	R41211A
16475	SMPL	180-39669-B-3-C - 1		11 Dec 2014 14:19:42	-0.0355	ppb	-	-377	METHG	R41211A
16476	SMPL	180-39669-B-4-C - 1		11 Dec 2014 14:21:47	0.0174	ppb	-	-57	METHG	R41211A
16477	CK STND	CCV - 1		11 Dec 2014 14:23:29	99.6% 4.9780	ppb	-	29927	METHG	R41211A
16478	CK STND	CCB - 1		11 Dec 2014 14:25:11	-0.0485	ppb	-	-455	METHG	R41211A

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	1	MB 180-127920/1-A		1.0000	1.0000
1	2	LCS 180-127920/2-A		1.0000	1.0000
1	3	180-39249-C-19-C		1.0000	1.0000
1	4	180-39249-C-20-C		1.0000	1.0000
1	5	180-38933-C-2-B		1.0000	1.0000
1	6	180-38933-C-3-B		1.0000	1.0000
1	7	180-39255-G-16-C		1.0000	1.0000
1	8	180-39255-I-54-C		1.0000	1.0000
1	9	180-39362-C-1-B		1.0000	1.0000
1	10	180-39362-C-1-C MS		1.0000	1.0000
1	11	180-39362-C-1-D MSD		1.0000	1.0000
1	12	180-39362-A-2-B		1.0000	1.0000
1	13	180-39362-C-3-A		1.0000	1.0000
1	14	180-39432-I-1-D		1.0000	1.0000
1	15	180-39432-I-2-B		1.0000	1.0000
1	16	180-39432-I-3-B		1.0000	1.0000
1	17	180-39432-I-4-B		1.0000	1.0000
1	18	MB 180-127921/1-A		1.0000	1.0000
1	19	LCS 180-127921/2-A		1.0000	1.0000
1	20	LCSD 180-127921/3-A		1.0000	1.0000
1	21	LB 180-126312/4-D		1.0000	1.0000
1	22	180-38934-A-1-J		1.0000	1.0000
1	23	180-38934-A-2-H		1.0000	1.0000
1	24	180-38934-A-3-J		1.0000	1.0000
1	25	MB 180-127924/1-A		1.0000	1.0000
1	26	LCS 180-127924/2-A		1.0000	1.0000
1	27	LB 180-127707/9-E		1.0000	1.0000
1	28	180-39516-I-12-F		1.0000	1.0000
1	29	180-39516-I-13-F		1.0000	1.0000
1	30	180-39555-B-1-I		1.0000	1.0000
1	31	180-39555-B-1-J MS		1.0000	1.0000
1	32	180-39555-B-1-K MSD		1.0000	1.0000
1	33	MB 180-127925/1-A		1.0000	1.0000
1	34	LCS 180-127925/2-A		1.0000	1.0000
1	35	LCSD 180-127925/3-A		1.0000	1.0000
1	36	LB 180-127708/2-B		1.0000	1.0000
1	37	180-39576-A-1-B		1.0000	1.0000
1	38	MB 180-127993/1-A		1.0000	1.0000
1	39	LCS 180-127993/2-A		1.0000	1.0000
1	40	LB 180-127841/5-C		1.0000	1.0000
1	41	180-39647-B-1-E		1.0000	1.0000

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	42	180-39647-A-2-E		1.0000	1.0000
1	43	180-39647-A-3-K		1.0000	1.0000
1	44	180-39647-A-3-L MS		1.0000	1.0000
1	45	180-39647-A-3-M MSD		1.0000	1.0000
1	46	180-39647-B-4-E		1.0000	1.0000
1	47	LB 180-127847/5-C		1.0000	1.0000
1	48	180-39669-A-1-C		1.0000	1.0000
1	49	180-39669-B-2-M		1.0000	1.0000
1	50	180-39669-B-2-N MS		1.0000	1.0000
1	51	180-39669-B-2-O MSD		1.0000	1.0000
1	52	180-39669-B-3-C		1.0000	1.0000
1	53	180-39669-B-4-C		1.0000	1.0000
1	54			1.0000	1.0000
1	55			1.0000	1.0000
1	56			1.0000	1.0000
1	57			1.0000	1.0000
1	58			1.0000	1.0000
1	59			1.0000	1.0000
1	60			1.0000	1.0000
2	1			1.0000	1.0000
2	2			1.0000	1.0000
2	3			1.0000	1.0000
2	4			1.0000	1.0000
2	5			1.0000	1.0000
2	6			1.0000	1.0000
2	7			1.0000	1.0000
2	8			1.0000	1.0000
2	9			1.0000	1.0000
2	10			1.0000	1.0000
2	11			1.0000	1.0000
2	12			1.0000	1.0000
2	13			1.0000	1.0000
2	14			1.0000	1.0000
2	15			1.0000	1.0000
2	16			1.0000	1.0000
2	17			1.0000	1.0000
2	18			1.0000	1.0000
2	19			1.0000	1.0000
2	20			1.0000	1.0000
2	21			1.0000	1.0000
2	22			1.0000	1.0000

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127321 Batch Start Date: 12/05/14 07:50 Batch Analyst: Rosenbaum, Ron

Batch Method: 3005A Batch End Date: 12/05/14 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00018	MTAPITTMSA 00022	MTAPITTMSC 00028	
MB 180-127321/1		3005A, 6020A		50 mL	50 mL				
LCS 180-127321/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-39432-I-1	ST-071-120114	3005A, 6020A	R	50 mL	50 mL				
180-39432-I-1 MS	ST-071-120114	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-39432-I-1 MSD	ST-071-120114	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-39432-I-2	ST-UNNAMED-120114	3005A, 6020A	R	50 mL	50 mL				
180-39432-I-3	ST-018-120114	3005A, 6020A	R	50 mL	50 mL				
180-39432-I-4	ST-014-120114	3005A, 6020A	R	50 mL	50 mL				

Batch Notes	
Batch Comment	D1 Metals
Lot # of hydrochloric acid	2.5ml 1294517
Lot # of Nitric Acid	1ml 1322048
Hot Block ID number	HB5
Oven, Bath or Block Temperature 1	95C
Pipette ID	L1201611U
Person who witnessed spiking	RJR
ID number of the thermometer	IP4-14 (CF:+1.0) A6
Digestion Tube/Cup Lot #	ENV.EXPRESS 1404094

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127920 Batch Start Date: 12/11/14 07:25 Batch Analyst: Rosenbaum, Ron

Batch Method: 7470A Batch End Date: 12/11/14 09:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00938			
MB 180-127920/1		7470A, 7470A		50 mL	50 mL				
LCS 180-127920/2		7470A, 7470A		50 mL	50 mL	1.25 mL			
180-39432-I-1	ST-071-120114	7470A, 7470A	T	50 mL	50 mL				
180-39432-I-2	ST-UNNAMED-120114	7470A, 7470A	T	50 mL	50 mL				
180-39432-I-3	ST-018-120114	7470A, 7470A	T	50 mL	50 mL				
180-39432-I-4	ST-014-120114	7470A, 7470A	T	50 mL	50 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	3ml 1435955
Sulfuric Acid Lot Number	2.5ml 1285209
Lot # of Nitric Acid	1.25ml 1285208
Hot Block ID number	HB1
Potassium Persulfate Lot Number	4ml 1435851
Potassium Permanganate Lot Number	7.5ml 1435065
Pipette ID	L1201611U
Stannous Chloride Lot Number	1398359
Person who witnessed spiking	RJR
Temperature	95
ID number of the thermometer	IP29 0.0 B2
Digestion Tube/Cup Lot #	ENV.EXPRESS 404096

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127961 Batch Start Date: 12/11/14 07:25 Batch Analyst: Rosenbaum, Ron

Batch Method: 7470A Batch End Date: 12/11/14 09:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00938	MHgWorkingicv 00915		
ICV 180-127961/7		7470A, 7470A		50 mL	50 mL		1.25 mL		
ICB 180-127961/8		7470A, 7470A		50 mL	50 mL				
CRA 180-127961/9		7470A, 7470A		50 mL	50 mL	0.1 mL			
CCV 180-127961/10		7470A, 7470A		50 mL	50 mL	2.5 mL			
CCB 180-127961/11		7470A, 7470A		50 mL	50 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	3ml 1435955
Sulfuric Acid Lot Number	2.5ml 1285209
Lot # of Nitric Acid	1.25ml 1285208
Hot Block ID number	HB3
Potassium Persulfate Lot Number	4ml 1435851
Potassium Permanganate Lot Number	7.5ml 1435065
Pipette ID	L1201611U
Stannous Chloride Lot Number	1398359
Person who witnessed spiking	RJR
Temperature	95
ID number of the thermometer	IP32 0.0 A2
Digestion Tube/Cup Lot #	ENV.EXPRESS 1404096

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG No.:

Project: Sparrows Point Trust Offshore Investigat

Client Sample ID	Lab Sample ID
ST-071-120114	180-39432-1
ST-UNNAMED-120114	180-39432-2
ST-018-120114	180-39432-3
ST-014-120114	180-39432-4

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: ST-071-120114 Lab Sample ID: 180-39432-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 17:35

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	10	2.5	ug/L			1	9014
	HEM (Oil & Grease)	3.4	5.2	1.6	mg/L	J		1	1664B
	Total Suspended Solids	20	2.0	2.0	mg/L			1	SM 2540D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: ST-UNNAMED-120114 Lab Sample ID: 180-39432-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 18:25

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	10	2.5	ug/L			1	9014
	HEM (Oil & Grease)	2.7	5.2	1.6	mg/L	J		1	1664B
	Total Suspended Solids	ND	2.0	2.0	mg/L			1	SM 2540D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: ST-018-120114 Lab Sample ID: 180-39432-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 18:50

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	14	10	2.5	ug/L			1	9014
	HEM (Oil & Grease)	2.7	5.2	1.6	mg/L	J		1	1664B
	Total Suspended Solids	30	2.0	2.0	mg/L			1	SM 2540D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: ST-014-120114 Lab Sample ID: 180-39432-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG ID.:

Matrix: Water Date Sampled: 12/01/2014 19:20

Reporting Basis: WET Date Received: 12/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	10	2.5	ug/L			1	9014
	HEM (Oil & Grease)	3.0	5.2	1.6	mg/L	J		1	1664B
	Total Suspended Solids	6.4	2.0	2.0	mg/L			1	SM 2540D

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Analyst: PGJ Batch Start Date: 12/09/2014

Reporting Units: ug/L Analytical Batch No.: 127728

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	12:59	Cyanide, Total	202	200	101	90-110		WCN0.2ICV_00295
2	ICB	13:01	Cyanide, Total	ND					
3	CCV	13:03	Cyanide, Total	101	100	101	90-110		WCN0.1L3_00010
4	CCB	13:05	Cyanide, Total	ND					
15	CCV	13:29	Cyanide, Total	103	100	103	90-110		WCN0.1L3_00010
16	CCB	13:31	Cyanide, Total	ND					
27	CCV	13:54	Cyanide, Total	99.5	100	100	90-110		WCN0.1L3_00010
28	CCB	13:57	Cyanide, Total	ND					
35	CCV	14:10	Cyanide, Total	104	100	104	90-110		WCN0.1L3_00010
36	CCB	14:11	Cyanide, Total	ND					

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 127859	Date: 12/10/2014 12:07	Prep Batch: 127729	Date: 12/09/2014 15:31				
1664B	MB 180-127729/1-A	HEM (Oil & Grease)	ND		mg/L	5.0	1
Batch ID: 127728	Date: 12/09/2014 13:14	Prep Batch: 127665	Date: 12/09/2014 08:45				
9014	MB 180-127665/4-A	Cyanide, Total	ND		ug/L	10	1
Batch ID: 127233	Date: 12/04/2014 11:35						
SM 2540D	MB 180-127233/2	Total Suspended Solids	ND		mg/L	2.0	1

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 127859	Date: 12/10/2014 12:07		Prep Batch: 127729			Date: 12/09/2014 15:31					
						LCS Source: WHemPSP_00172					
1664B	LCS 180-127729/2-A	HEM (Oil & Grease)	33.7		mg/L	40.0	84	78-114	0	18	
Batch ID: 127728	Date: 12/09/2014 13:12		Prep Batch: 127665			Date: 12/09/2014 08:45					
						LCS Source: WCN10Si_00466					
9014	LCS 180-127665/3-A	Cyanide, Total	198		ug/L	200	99	85-115			
Batch ID: 127233	Date: 12/04/2014 11:35										
						LCS Source: WResPSP_00028					
SM 2540D	LCS 180-127233/1	Total Suspended Solids	50.0		mg/L	56.9	88	80-120			

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 127859	Date: 12/10/2014 12:07		Prep Batch: 127729			Date: 12/09/2014 15:31					
						LCSD Source: WHemPSP_00172					
1664B	LCSD 180-127729/3-A	HEM (Oil & Grease)	33.8		mg/L	40.0	85	78-114	0	18	

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

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 127728	Date: 12/09/2014 13:07		Prep Batch: 127665			Date: 12/09/2014 08:45					
						LCS Source: WCN0.5L1_00458					
9014	LLCS 180-127665/1-A	Cyanide, Total	46.2		ug/L	50.0	92	90-110			

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

FORM VIIA-IN

7A-IN
HIGH LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 127728	Date: 12/09/2014 13:09		Prep Batch: 127665			Date: 12/09/2014 08:45					
						LCS Source: WCN10Pi_00461					
9014	HLCS 180-127665/2-A	Cyanide, Total	256		ug/L	250	102	90-110			

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9014 MDL Date: 10/15/2014 12:58

Prep Method: 9010C

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Cyanide, Total		10	2.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9014 XMDL Date: 10/15/2014 12:59

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Cyanide, Total		10	2.5

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 1664B MDL Date: 01/27/2011 15:53

Prep Method: 1664B

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
HEM (Oil & Grease)		5	1.4986

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 1664B XMDL Date: 01/27/2011 15:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
HEM (Oil & Grease)		5	1.4986

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540D MDL Date: 01/28/2010 13:00

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Suspended Solids		2	2

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-39432-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540D XMDL Date: 01/28/2010 13:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Suspended Solids		2	2

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Prep Method: 9010C

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LLCS 180-127665/1-A	12/09/2014 08:45	127665		50	50
HLCS 180-127665/2-A	12/09/2014 08:45	127665		50	50
LCS 180-127665/3-A	12/09/2014 08:45	127665		50	50
MB 180-127665/4-A	12/09/2014 08:45	127665		50	50
180-39432-1	12/09/2014 08:45	127665		50	50
180-39432-2	12/09/2014 08:45	127665		50	50
180-39432-3	12/09/2014 08:45	127665		50	50
180-39432-4	12/09/2014 08:45	127665		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Prep Method: 1664B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-127729/1-A	12/09/2014 15:31	127729		1000	1000
LCS 180-127729/2-A	12/09/2014 15:31	127729		1000	1000
LCSD 180-127729/3-A	12/09/2014 15:31	127729		1000	1000
180-39432-1	12/09/2014 15:31	127729		960	1000
180-39432-2	12/09/2014 15:31	127729		960	1000
180-39432-3	12/09/2014 15:31	127729		960	1000
180-39432-4	12/09/2014 15:31	127729		960	1000

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: NOEQUIP Method: 9014

Start Date: 12/09/2014 12:59 End Date: 12/09/2014 14:32

Lab Sample ID	D/F	Type	Time	Analytes																			
				CN																			
ICV 180-127728/1	1		12:59	X																			
ICB 180-127728/2	1		13:01	X																			
CCV 180-127728/3	1		13:03	X																			
CCB 180-127728/4	1		13:05	X																			
LLCS 180-127665/1-A	1	T	13:07	X																			
HLCS 180-127665/2-A	1	T	13:09	X																			
LCS 180-127665/3-A	1	T	13:12	X																			
MB 180-127665/4-A	1	T	13:14	X																			
ZZZZZZ			13:16																				
ZZZZZZ			13:18																				
ZZZZZZ			13:20																				
ZZZZZZ			13:22																				
ZZZZZZ			13:24																				
ZZZZZZ			13:27																				
CCV 180-127728/15	1		13:29	X																			
CCB 180-127728/16	1		13:31	X																			
ZZZZZZ			13:33																				
ZZZZZZ			13:35																				
ZZZZZZ			13:37																				
ZZZZZZ			13:39																				
180-39432-1	1	T	13:42	X																			
180-39432-2	1	T	13:44	X																			
180-39432-3	1	T	13:46	X																			
180-39432-4	1	T	13:48	X																			
ZZZZZZ			13:50																				
ZZZZZZ			13:52																				
CCV 180-127728/27	1		13:54	X																			
CCB 180-127728/28	1		13:57	X																			
ZZZZZZ			13:59																				
ZZZZZZ			14:01																				
ZZZZZZ			14:03																				
ZZZZZZ			14:05																				
ZZZZZZ			14:06																				
ZZZZZZ			14:08																				
CCV 180-127728/35	1		14:10	X																			
CCB 180-127728/36	1		14:11	X																			
CCV 180-127728/37			14:25																				
CCB 180-127728/38			14:27																				
ZZZZZZ			14:29																				
CCV 180-127728/40			14:30																				
CCB 180-127728/41			14:32																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: NOEQUIP Method: 9014

Start Date: 12/09/2014 12:59 End Date: 12/09/2014 14:32

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: NOEQUIP Method: 1664B

Start Date: 12/10/2014 12:07 End Date: 12/10/2014 15:08

Lab Sample ID	D/F	Type	Time	Analytes																			
				HEM																			
MB 180-127729/1-A	1	T	12:07	X																			
LCS 180-127729/2-A	1	T	12:07	X																			
LCSD 180-127729/3-A	1	T	12:07	X																			
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
180-39432-1	1	T	12:07	X																			
180-39432-2	1	T	12:07	X																			
180-39432-3	1	T	12:07	X																			
180-39432-4	1	T	12:07	X																			
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			12:07																				
ZZZZZZ			15:08																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2540D

Start Date: 12/04/2014 11:35 End Date: 12/04/2014 11:57

Lab Sample ID	D / F	Type	Time	Analytes																			
				TSS																			
LCS 180-127233/1	1	T	11:35	X																			
MB 180-127233/2	1	T	11:35	X																			
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
180-39432-1	1	T	11:35	X																			
180-39432-2	1	T	11:35	X																			
180-39432-3	1	T	11:35	X																			
180-39432-4	1	T	11:35	X																			
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:35																				
ZZZZZZ			11:57																				
ZZZZZZ			11:57																				
ZZZZZZ			11:57																				

Prep Types

T = Total/NA

AQ2 Report

Serial Number: SEAL 2
Report Requested By: Test America
Date & Time: 12/09/2014 15:05:13
Tray Number: 1
Tray Name: 14.12.09 (08-59)

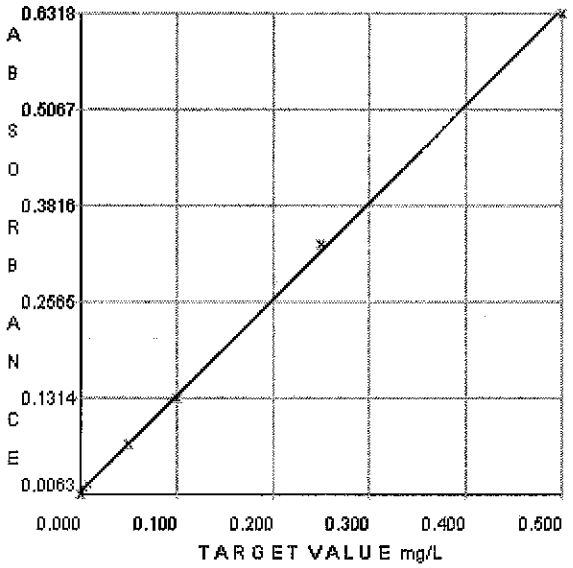
CYANIDE

Calibration Chart

Type	Observed	Calculated	Target	% Error
S1	0.0063	-0.0013	0.0000	
S90	0.0141	0.0048	0.0050	-3.2413
S91	0.0191	0.0088	0.0100	-12.0248
S92	0.0719	0.0508	0.0500	1.6148
S93	0.1306	0.0976	0.1000	-2.4068
S94	0.3318	0.2578	0.2500	3.1017
S95	0.6318	0.4965	0.5000	-0.6902
S0	0.0061	-0.0015	0.0000	

Polynomial Order: 1
Correlation Coefficient: 0.9998
Carryover: -0.0
Date & Time: 12/09/2014 12:56:59

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
CN - Phos Buff	1390860	Test America	11/03/2015 21:00:00
CN - Chl-T	1433088	Test America	12/16/2014 21:00:00
CN - PyrBrbA	1304925	Test America	02/28/2015 21:00:00

Cup	Type	ID	Result	Units	Raw Data	Test Dil.	Cup Dil.	User	Time/Date
	S1	STANDARD 1	0.0063		0.006348				12/09/2014 12:41:55
	S90	STANDARD 90	0.0141		0.014108				12/09/2014 12:44:06
	S91	STANDARD 91	0.0191		0.019082				12/09/2014 12:46:14
	S92	STANDARD 92	0.0719		0.071854				12/09/2014 12:48:22
	S93	STANDARD 93	0.1306		0.130625				12/09/2014 12:50:32
	S94	STANDARD 94	0.3318		0.331816				12/09/2014 12:52:43
	S95	STANDARD 95	0.6318		0.631785				12/09/2014 12:54:51
	S0	STANDARD 0	0.0061		0.006096				12/09/2014 12:56:59
1	C15	ICV	0.2023	mg/L	0.262141				12/09/2014 12:59:07
2	C17	ICB	-0.0017	mg/L	0.005884				12/09/2014 13:01:16
	C11	C C V	0.1011	mg/L	0.135073				12/09/2014 13:03:24
	C12	C C B	-0.0009	mg/L	0.006908				12/09/2014 13:05:33
3	U1	LLCS 180-1276651-A	0.0462	mg/L	0.066032				12/09/2014 13:07:42
4	U2	HLCS 180-1276652-A	0.2558	mg/L	0.329308				12/09/2014 13:09:50
5	U3	LCS 180-1276653-A	0.1975	mg/L	0.256076				12/09/2014 13:12:00

6	U4	MB 180-1276654-A	-0.0014	mg/L	0.006317		12/09/2014 13:14:09
7	U5	180-39356-N-1-A	0.4117	mg/L	0.525226		12/09/2014 13:16:19
8	U6	180-39356-N-1-B MS	0.5814	mg/L	0.738322		12/09/2014 13:18:30
9	U7	180-39356-N-2-A	0.0015	mg/L	0.009908		12/09/2014 13:20:39
10	U8	180-39356-N-3-A	0.1572	mg/L	0.205460		12/09/2014 13:22:48
11	U9	180-39356-N-4-A	0.0114	mg/L	0.022326		12/09/2014 13:24:57
12	U10	180-39378-D-2-A	0.0796	mg/L	0.108041		12/09/2014 13:27:06
	C11	C C V	0.1029	mg/L	0.137320		12/09/2014 13:29:15
	C12	C C B	-0.0017	mg/L	0.005902		12/09/2014 13:31:24
13	U11	180-39378-D-4-A	0.0491	mg/L	0.069648		12/09/2014 13:33:33
14	U12	180-39402-N-1-A	-0.0008	mg/L	0.007022		12/09/2014 13:35:41
15	U13	180-39402-N-2-A	0.0114	mg/L	0.022301		12/09/2014 13:37:49
16	U14	180-39430-C-3-A	-0.0013	mg/L	0.006346		12/09/2014 13:39:57
17	U15	180-39432-H-1-A	-0.0008	mg/L	0.006983		12/09/2014 13:42:08
18	U16	180-39432-H-2-A	-0.0000	mg/L	0.007996		12/09/2014 13:44:18
19	U17	180-39432-H-3-A	0.0144	mg/L	0.026140		12/09/2014 13:46:26
20	U18	180-39432-H-4-A	0.0022	mg/L	0.010844		12/09/2014 13:48:34
21	U19	180-39450-Q-3-B	-0.0009	mg/L	0.006915		12/09/2014 13:50:42
22	U20	180-39450-E-3-A MS	0.1022	mg/L	0.136427		12/09/2014 13:52:50
	C11	C C V	0.0995	mg/L	0.132992		12/09/2014 13:54:58
	C12	C C B	-0.0015	mg/L	0.006189		12/09/2014 13:57:06
23	U21	180-39450-D-3-A MSD	0.1053	mg/L	0.140322		12/09/2014 13:59:18
24	U22	180-39487-B-2-A	-0.0011	mg/L	0.006641		12/09/2014 14:01:28
25	U23	180-39567-I-2-A	-0.0009	mg/L	0.006877		12/09/2014 14:03:15
26	U24	180-39567-K-3-A	0.4495	mg/L	0.572697		12/09/2014 14:05:03
27	U25	180-39581-F-1-A	0.0723	mg/L	0.098875		12/09/2014 14:06:43
28	U26	180-39581-F-2-A	0.1980	mg/L	0.256739		12/09/2014 14:08:22
	C11	C C V	0.1036	mg/L	0.138218		12/09/2014 14:10:02
	C12	C C B	-0.0015	mg/L	0.006138		12/09/2014 14:11:42
	C11	CCV	0.1015	mg/L	0.135572		12/09/2014 14:25:51
	C12	CCB	-0.0014	mg/L	0.006276		12/09/2014 14:27:32
8	U6	180-39356-N-1-B MS	0.5888	mg/L	0.155952	x 5.000	12/09/2014 14:29:12
	C11	CCV	0.0998	mg/L	0.133339		12/09/2014 14:30:51
	C12	CCB	-0.0013	mg/L	0.006404		12/09/2014 14:32:32

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127665 Batch Start Date: 12/09/14 08:45 Batch Analyst: Johnson, Paul

Batch Method: 9010C Batch End Date: 12/09/14 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	SulfideCheck	ChlorineCheck	WCN0.5L1 00458	WCN10Pi 00461
LLCS 180-127665/1		9010C, 9014		50 mL	50 mL			5 mL	
HLCS 180-127665/2		9010C, 9014		50 mL	50 mL				1.25 mL
LCS 180-127665/3		9010C, 9014		50 mL	50 mL				
MB 180-127665/4		9010C, 9014		50 mL	50 mL				
180-39432-H-1	ST-071-120114	9010C, 9014	T	50 mL	50 mL	N	N		
180-39432-H-2	ST-UNNAMED-120114	9010C, 9014	T	50 mL	50 mL	N	N		
180-39432-H-3	ST-018-120114	9010C, 9014	T	50 mL	50 mL	N	N		
180-39432-H-4	ST-014-120114	9010C, 9014	T	50 mL	50 mL	N	N		

Lab Sample ID	Client Sample ID	Method Chain	Basis	WCN10Si 00466					
LLCS 180-127665/1		9010C, 9014							
HLCS 180-127665/2		9010C, 9014							
LCS 180-127665/3		9010C, 9014		1 mL					
MB 180-127665/4		9010C, 9014							
180-39432-H-1	ST-071-120114	9010C, 9014	T						
180-39432-H-2	ST-UNNAMED-120114	9010C, 9014	T						
180-39432-H-3	ST-018-120114	9010C, 9014	T						
180-39432-H-4	ST-014-120114	9010C, 9014	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127665 Batch Start Date: 12/09/14 08:45 Batch Analyst: Johnson, Paul

Batch Method: 9010C Batch End Date: 12/09/14 10:15

Batch Notes	
Distillation Temperature	150 Degrees C
KI-Starch Paper Lot #	1276531
Lead Acetate Lot #	1276537
Magnesium Chloride Dispenser ID	42145
Magnesium Chloride Lot Number	1390859
NaOH Dispenser ID	10J62292
Sodium Hydroxide Reagent ID Number	1323151
Pipette ID	J1207624U
Sulfamic Acid Reagent ID Number	955307
Sulfuric Acid Dispenser ID	21014
Sulfuric Acid Reagent ID Number	1414463

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127728 Batch Start Date: 12/09/14 12:59 Batch Analyst: Johnson, Paul

Batch Method: 9014 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WCN0.1L3 00010	WCN0.2ICV 00295			
ICV 180-127728/1		9014		10 mL		10 mL			
CCV 180-127728/3		9014		10 mL	10 mL				
CCV 180-127728/15		9014		10 mL	10 mL				
CCV 180-127728/27		9014		10 mL	10 mL				
CCV 180-127728/35		9014		10 mL	10 mL				

Batch Notes	
Buffer Reagent ID Number	1390860
Chloramine-T Reagent ID Number	1433088
NaOH Lot #	1323151
Pipette ID	J1207624U
Pyridine-Barbituric Acid Reagent ID	1304925

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127729 Batch Start Date: 12/10/14 07:25 Batch Analyst: Klingman, Neil A

Batch Method: 1664B Batch End Date: 12/10/14 13:06

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	Final pH	GrossWeight	TareWeight	InitialAmount	FinalAmount
MB 180-127729/1		1664B, 1664B		2.00 SU	2.00 SU	1000 g	0 g	1000 mL	1000 mL
LCS 180-127729/2		1664B, 1664B		2.00 SU	2.00 SU	1000 g	0 g	1000 mL	1000 mL
LCSD 180-127729/3		1664B, 1664B		2.00 SU	2.00 SU	1000 g	0 g	1000 mL	1000 mL
180-39432-C-1	ST-071-120114	1664B, 1664B	T	2.00 SU	2.00 SU	960 g	0 g	960 mL	1000 mL
180-39432-C-2	ST-UNNAMED-120114	1664B, 1664B	T	2.00 SU	2.00 SU	960 g	0 g	960 mL	1000 mL
180-39432-C-3	ST-018-120114	1664B, 1664B	T	2.00 SU	2.00 SU	960 g	0 g	960 mL	1000 mL
180-39432-C-4	ST-014-120114	1664B, 1664B	T	2.00 SU	2.00 SU	960 g	0 g	960 mL	1000 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceiverTube	WHemPSP 00172				
MB 180-127729/1		1664B, 1664B		2.3494 g					
LCS 180-127729/2		1664B, 1664B		2.2840 g	10 mL				
LCSD 180-127729/3		1664B, 1664B		2.3625 g	10 mL				
180-39432-C-1	ST-071-120114	1664B, 1664B	T	2.3553 g					
180-39432-C-2	ST-UNNAMED-120114	1664B, 1664B	T	2.3281 g					
180-39432-C-3	ST-018-120114	1664B, 1664B	T	2.3810 g					
180-39432-C-4	ST-014-120114	1664B, 1664B	T	2.3779 g					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127729 Batch Start Date: 12/10/14 07:25 Batch Analyst: Klingman, Neil A

Batch Method: 1664B Batch End Date: 12/10/14 13:06

Batch Notes	
Batch Comment	pH strip lot HC419379
Person's name who did the concentration	NAK
Disk Lot Number	UCT 000405-GJ
Evaporator Temperature	48 Degrees C
Extraction Analyst	NAK
Glass Wool ID	26013999
Hexane Lot#	1345111
Manifold ID	UCT
Methanol Lot Number	1400460
Nominal Amount Used	1000 mL
Sufficient volume for MS/MSD?	No

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127859 Batch Start Date: 12/10/14 12:07 Batch Analyst: Klingman, Neil A

Batch Method: 1664B Batch End Date: 12/10/14 16:38

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	ReceiverTube	HEMWgt1	HEMWgt2	Residue	Residue2
MB 180-127729/1-A		1664B		1000 mL	2.3494 g	2.3500 g	2.3500 g	0.0006 g	0.0006 g
LCS 180-127729/2-A		1664B		1000 mL	2.2840 g	2.3177 g	2.3177 g	0.0337 g	0.0337 g
LCSD 180-127729/3-A		1664B		1000 mL	2.3625 g	2.3963 g	2.3963 g	0.0338 g	0.0338 g
180-39432-C-1-A	ST-071-120114	1664B	T	1000 mL	2.3553 g	2.3586 g	2.3586 g	0.0033 g	0.0033 g
180-39432-C-2-A	ST-UNNAMED-120114	1664B	T	1000 mL	2.3281 g	2.3307 g	2.3307 g	0.0026 g	0.0026 g
180-39432-C-3-A	ST-018-120114	1664B	T	1000 mL	2.3810 g	2.3836 g	2.3836 g	0.0026 g	0.0026 g
180-39432-C-4-A	ST-014-120114	1664B	T	1000 mL	2.3779 g	2.3808 g	2.3808 g	0.0029 g	0.0029 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight2OK	CalcMsg				
MB 180-127729/1-A		1664B		Pass 0.0005g	HEM OK. SGT-HEM not calculated.				
LCS 180-127729/2-A		1664B		Pass 0.0005g	HEM OK. SGT-HEM not calculated.				
LCSD 180-127729/3-A		1664B		Pass 0.0005g	HEM OK. SGT-HEM not calculated.				
180-39432-C-1-A	ST-071-120114	1664B	T	Pass 0.0005g	HEM OK. SGT-HEM not calculated.				
180-39432-C-2-A	ST-UNNAMED-120114	1664B	T	Pass 0.0005g	HEM OK. SGT-HEM not calculated.				
180-39432-C-3-A	ST-018-120114	1664B	T	Pass 0.0005g	HEM OK. SGT-HEM not calculated.				
180-39432-C-4-A	ST-014-120114	1664B	T	Pass 0.0005g	HEM OK. SGT-HEM not calculated.				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127859 Batch Start Date: 12/10/14 12:07 Batch Analyst: Klingman, Neil A

Batch Method: 1664B Batch End Date: 12/10/14 16:38

Batch Notes	
Balance ID	1126020829
Cal check after 1st Weighing - 1g	1.0001 g
Cal check after 1st Weighing - 2 mg	0.0020 g
Cal check after 2nd Weighing - 1g	1.0001 g
Cal check after 2nd Weighing - 2 mg	0.0020 g
Calibration Check After 1st Weighing	5.0000 g
Calibration Check After 2nd Weighing	5.0000 g
Calibration Check Before 1st Weighing	5.0000 g
Calibration Check Before 2nd Weighing	5.0000 g
Cal check before 1st Weighing - 1g	1.0001 g
Cal check before 1st Weighing - 2 mg	0.0020 g
Cal check before 2nd Weighing - 1g	1.0001 g
Cal check before 2nd Weighing - 2 mg	0.0020 g
Batch Comment	pH strip lot HC419379
Prep Solvent Volume Used	40 ml
Perform Calculation (0=No, 1=Yes)	1
Solvent	1345111

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127233 Batch Start Date: 12/04/14 12:45 Batch Analyst: Swanson, Jim

Batch Method: SM 2540D Batch End Date: 12/05/14 10:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
LCS 180-127233/1		SM 2540D		250 mL	B0216641 0.1154	0.1154 g	50 mL	0.1180 g	0.1179 g
MB 180-127233/2		SM 2540D		250 mL	B0216640 0.1126	0.1126 g	250 mL	0.1126 g	0.1126 g
180-39432-G-1	ST-071-120114	SM 2540D	T	250 mL	B0216632 0.1133	0.1133 g	250 mL	0.1184 g	0.1182 g
180-39432-G-2	ST-UNNAMED-120114	SM 2540D	T	250 mL	B0216631 0.1137	0.1137 g	250 mL	0.1140 g	0.1141 g
180-39432-G-3	ST-018-120114	SM 2540D	T	250 mL	B0216630 0.1122	0.1122 g	250 mL	0.1199 g	0.1197 g
180-39432-G-4	ST-014-120114	SM 2540D	T	250 mL	B0216629 0.1137	0.1137 g	250 mL	0.1153 g	0.1153 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	Residue	Residue2	ResDishWt	DishWeight
LCS 180-127233/1		SM 2540D		0 g	PASS <0.5mg	0.0026 g	0.0025 g	0.1179 g	0.1154 g
MB 180-127233/2		SM 2540D		0 g	PASS <0.5mg	0 g	0 g	0.1126 g	0.1126 g
180-39432-G-1	ST-071-120114	SM 2540D	T	0 g	PASS <0.5mg	0.0051 g	0.0049 g	0.1182 g	0.1133 g
180-39432-G-2	ST-UNNAMED-120114	SM 2540D	T	0 g	PASS <0.5mg	0.0003 g	0.0004 g	0.1141 g	0.1137 g
180-39432-G-3	ST-018-120114	SM 2540D	T	0 g	PASS <0.5mg	0.0077 g	0.0075 g	0.1197 g	0.1122 g
180-39432-G-4	ST-014-120114	SM 2540D	T	0 g	PASS <0.5mg	0.0016 g	0.0016 g	0.1153 g	0.1137 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WResPSP 00028					
LCS 180-127233/1		SM 2540D		50 mL					
MB 180-127233/2		SM 2540D							
180-39432-G-1	ST-071-120114	SM 2540D	T						
180-39432-G-2	ST-UNNAMED-120114	SM 2540D	T						
180-39432-G-3	ST-018-120114	SM 2540D	T						
180-39432-G-4	ST-014-120114	SM 2540D	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-39432-1

SDG No.:

Batch Number: 127233 Batch Start Date: 12/04/14 12:45 Batch Analyst: Swanson, Jim

Batch Method: SM 2540D Batch End Date: 12/05/14 10:00

Batch Notes	
Balance ID	1126020829
Batch Comment	Weights Setup (mg, g, g) 2, 50, 100 Final: 2, 50, 100
Constant Weight (WT2) Date/Time in Oven	12/4/14@1545
Constant Weight (WT2) Date/Time Out	12/5/14@0830
Constant Weight (WT2) Temp In	104.2 Celsius
Constant Weight (WT2) Temp Out	104.2 Celsius
Uncorrected CW (Wt2) Temp In	104 Celsius
Uncorrected CW (Wt2) Temp Out	104 Celsius
Corrected Temperature in Oven	104.2 Celsius
Corrected Temperature out of Oven	104.2 Celsius
Date/Time Samples placed in Oven	12/4/14@1245
Date/Time Samples removed from Oven	12/4/14@1430
Filter Paper Lot Number	Whatman 202385
Nominal Amount Used	250 mL
Oven ID	ov02
Perform Calculation (0=No, 1=Yes)	1
ID number of the thermometer	Wet c
Uncorrected In Temperature	104 Celsius
Uncorrected Out Temperature	104 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Client:	Project Manager:
EA Engineering Science, and Technology, Inc.	**Frank Barranco**
	Phone: 410-329-5137
225 Schilling Circle, Suite 400	Field Contact:
Hunt Valley, MD 21031	**Mike Durbano**
	Phone: (609) 332-0534
Project Name: Sparrows Point	TestAmerica Quote #: 18010139-1
Project#: 15131.01	
Page 1 of 1	**Site Water**

Date	Time	Water	Sediment	Sample Identification	No. of Containers	PPL VOCs (SW846 8260C)	PPL SVOCs/PAHs (SW846 8270D LL)	PPL Metals (SW846 6020A)	Mercury (SW846 7470A)	PCB Aroclors (SW846 8082A LL)	Cyanide (SW846 9014)	Oil and Grease (EPA Method 1644B)	Suspended Solids (SW846 2540D)
12/01/14	1735	X		ST-071-120114	13	X	X	X	X	X	X	X	X
12/01/14	1825	X		ST-unnamed-120114	13	X	X	X	X	X	X	X	X
12/01/14	1850	X		ST-018-120114	13	X	X	X	X	X	X	X	X
12/01/14	1920	X		ST-014-120114	13	X	X	X	X	X	X	X	X

Parameters/Method Numbers for Analysis

Chain of Custody Record

Laboratory:
TestAmerica - Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238

phone: 412.963.2428
fax: 412.963.2468

ATTN: Carrie Gamber

Remarks

SEE PROJECT SPECIFIC ANALYTE LIST

180-39432 Chain of Custody

Sampled by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	
Mike Durbano	12/2/14 1500			**STORMWATER SPARROW'S POINT**
Relinquished by: (Signature)	Date/Time	Received by Laboratory: (Signature)	Date/Time	
		Debbie Watson	12-3-14 9:30	

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed sheet containing the label at the line so that the entire shipping label is visible. Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers, authorized retail outlets and UPS drivers.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.
   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

180-39432 Waybill

FOLD HERE

MIKE DURBANO
4105847000 5907
EA ENG SCIENCE TECH
225 SCHILLING CIRCLE
HUNT VALLEY MD 21031

50 LBS 3 OF 3

SHIP TO:
SAMPLE RECIEVING
4129637058
TEST AMERICA
301 ALPHA DR.
PITTSBURGH PA 15238-2907

PA 152 9-22

UPS NEXT DAY AIR 1

TRACKING #: 1Z 288 682 01 9375 7170

Uncorrected temp 31.2 °C
Thermometer ID
CF 0 Initials
PT-WI-SR-001 effective 7/26/13

BILLING: P/P
UPS CARBON NEUTRAL SHIPMENT

Department Code: 2123
Project Phase AND Task: 1513101 0004

GS 16.7.04. WNINV50 57.0A 10/2014

UPS CampusShip: View/Print Label

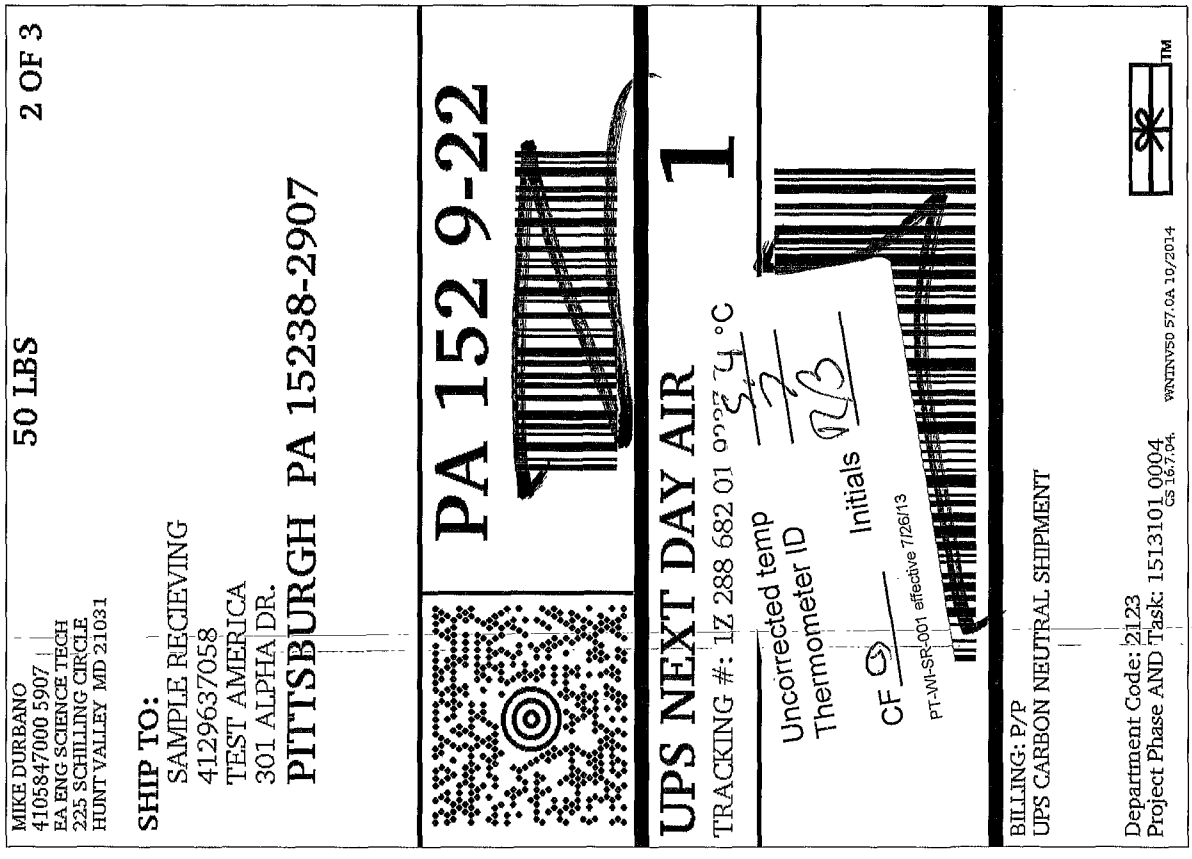
1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed sheet containing the label at the line so that the entire shipping label is visible. Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers, authorized retail outlets and UPS drivers.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.
   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

FOLD HERE



UPS CampusShip: View/Print Label

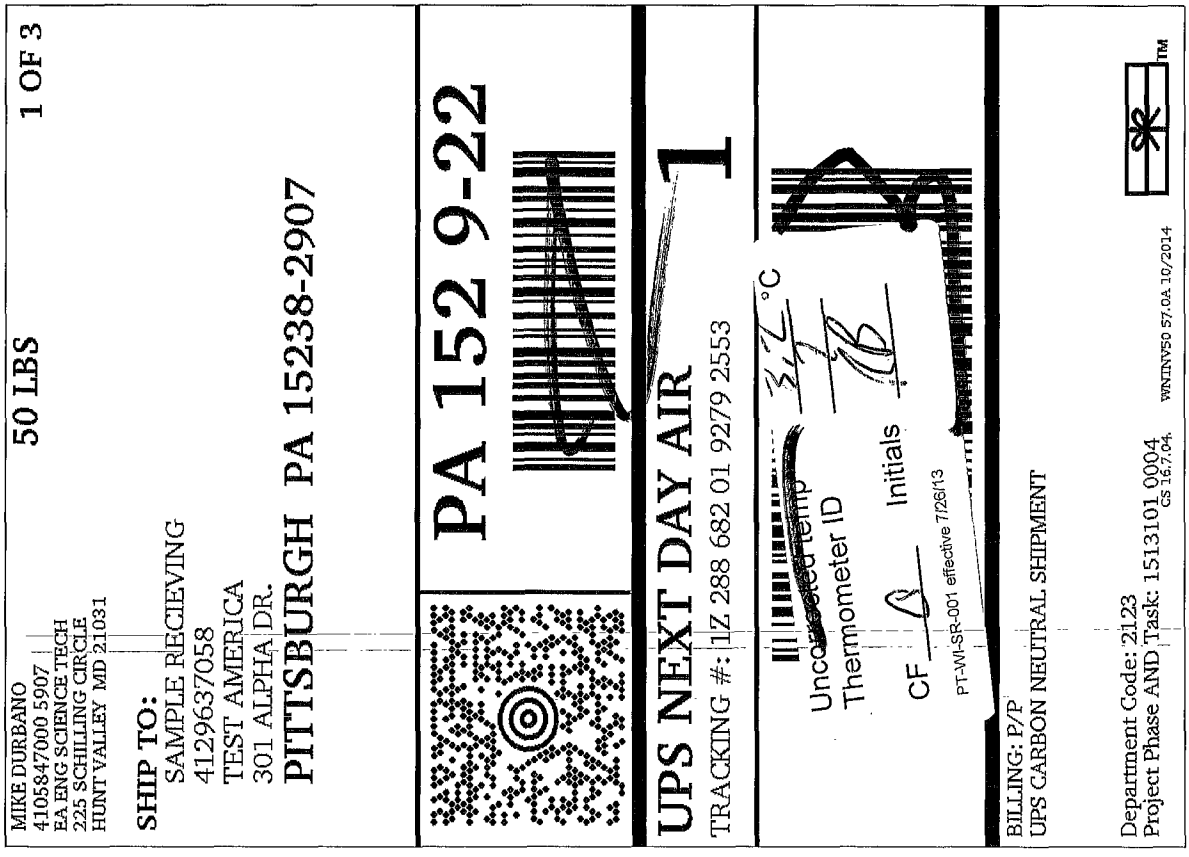
1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed sheet containing the label at the line so that the entire shipping label is visible. Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers, authorized retail outlets and UPS drivers.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.
   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

FOLD HERE



Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 180-39432-1

Login Number: 39432

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Watson, Debbie

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.	False	
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	