ANALYTICAL REPORT

Job Number: 180-44401-1

Job Description: Harley Davidson

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

Attention: Allan Miller

Approved for release.
Carrie L Gamber
Senior Project Manager
6/5/2015 8:52 AM

Carrie L Gamber, Senior Project Manager
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2428
carrie.gamber@testamericainc.com
06/05/2015

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-44401-1

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 05/22/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.9 C.

VOLATILES
Several samples was diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits are provided.

Surrogate recovery for the following samples was outside control limits: HD-MW-132-0/1-0 (180-44401-5) and HD-MW-50S-0/1-0 (180-44401-7). Evidence of matrix interferences is not obvious, however sample needed to be re-analyzed at a dilution.

Surrogate recovery for the following sample was outside control limits: HD-MW-132-0/1-0 (180-44401-5). This was the re-analysis at a x100 dilution which resulted with high toluene d8 surrogate, the same as the x25 dilution run. Both analysis are being reported.

The laboratory control sample (LCS) for 143442 recovered outside control limits for the following analyte: Chloromethane. A low-level LCS (LODV), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LODV demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

METALS
Calcium was detected in method blank MB 180-142877/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

ALKALINITY
Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-143606/2 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.

IC
Nitrate as N was detected in method blank MB 180-142621/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Client Sample ID: HD-MW-39D-0/1-0 — Lab Sample ID: 180-44401-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	24		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.41	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	33		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	18		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	91		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6300		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	29000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-74S-0/1-0 — Lab Sample ID: 180-44401-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.0		1.0	0.30	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	34		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.6		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	25		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.8		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	76		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	21		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	88000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3400		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	12000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	29000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-127-0/1-0 — Lab Sample ID: 180-44401-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	6.0		5.0	1.5	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	0.89	J	5.0	0.85	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	240		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	5.8		5.0	1.4	ug/L	5		8260C	Total/NA
Carbon tetrachloride	1.0	J	5.0	0.68	ug/L	5		8260C	Total/NA
Trichloroethene	130		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	35		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	2.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	7.7		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	92000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3800		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	27000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-127-0/1-0 (Continued) — Lab Sample ID: 180-44401-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-114-0/1-0 — Lab Sample ID: 180-44401-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	38		25	5.7	ug/L	25		8260C	Total/NA
1,1-Dichloroethene	150		25	7.4	ug/L	25		8260C	Total/NA
trans-1,2-Dichloroethene	15	J	25	4.2	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	4300	E	25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	32		25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	2900	E	25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	NQ		25	3.7	ug/L	25		8260C	Total/NA
1,1-Dichloroethene - DL	38	J	100	30	ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3700		100	24	ug/L	100		8260C	Total/NA
Trichloroethene - DL	2800		100	14	ug/L	100		8260C	Total/NA
Tetrachloroethene - DL	1500		100	15	ug/L	100		8260C	Total/NA
Nitrate as N	0.69	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	77		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	7900		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	36000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-132-0/1-0 — Lab Sample ID: 180-44401-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.1	J	25	3.1	ug/L	25		8260C	Total/NA
trans-1,2-Dichloroethene	14	J	25	4.2	ug/L	25		8260C	Total/NA
1,1-Dichloroethane	81		25	2.9	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	2200	E	25	5.9	ug/L	25		8260C	Total/NA
Trichloroethene	1500	E	25	3.6	ug/L	25		8260C	Total/NA
1,1-Dichloroethene - DL	160		100	30	ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3100		100	24	ug/L	100		8260C	Total/NA
Trichloroethene - DL	2200		100	14	ug/L	100		8260C	Total/NA
Nitrate as N	4.0	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	14		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	4.6		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	59000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	1700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	4200		500	1.2	ug/L	1		6020A	Total/NA
Sodium	4700		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	170	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	170	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-51D-0/1-0 — Lab Sample ID: 180-44401-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-51D-0/1-0 (Continued) — Lab Sample ID: 180-44401-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	66		25	7.4	ug/L	25		8260C	Total/NA
1,1-Dichloroethane	40		25	2.9	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	630		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	48		25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	660		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	51		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	1.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	50		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	71000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	20000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	39000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-50S-0/1-0 — Lab Sample ID: 180-44401-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	120		25	7.4	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	2200	E	25	5.9	ug/L	25		8260C	Total/NA
Chloroform	5.6	J	25	4.3	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	330		25	7.2	ug/L	25		8260C	Total/NA
Carbon tetrachloride	7.7	J	25	3.4	ug/L	25		8260C	Total/NA
Trichloroethene	1400	E	25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	560		25	3.7	ug/L	25		8260C	Total/NA
1,1-Dichloroethene - DL	150		100	30	ug/L	100		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3100		100	24	ug/L	100		8260C	Total/NA
1,1,1-Trichloroethane - DL	420		100	29	ug/L	100		8260C	Total/NA
Trichloroethene - DL	2100		100	14	ug/L	100		8260C	Total/NA
Tetrachloroethene - DL	740		100	15	ug/L	100		8260C	Total/NA
Nitrate as N	2.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	180		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	59		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8600		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	47000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC5-0/1-2 — Lab Sample ID: 180-44401-8

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 05/21/15 10:55
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			06/03/15 17:22	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/03/15 17:22	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/03/15 17:22	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/03/15 17:22	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/03/15 17:22	1
Acetone	5.0	U	5.0	2.5	ug/L			06/03/15 17:22	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/03/15 17:22	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/03/15 17:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/03/15 17:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/03/15 17:22	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/03/15 17:22	1
cis-1,2-Dichloroethene	**24**		1.0	0.24	ug/L			06/03/15 17:22	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/03/15 17:22	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/03/15 17:22	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/03/15 17:22	1
1,1,1-Trichloroethane	**0.41**	**J**	1.0	0.29	ug/L			06/03/15 17:22	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/03/15 17:22	1
Benzene	1.0	U	1.0	0.11	ug/L			06/03/15 17:22	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/03/15 17:22	1
Trichloroethene	**33**		1.0	0.14	ug/L			06/03/15 17:22	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/03/15 17:22	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/03/15 17:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/03/15 17:22	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/03/15 17:22	1
Toluene	1.0	U	1.0	0.15	ug/L			06/03/15 17:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/03/15 17:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/03/15 17:22	1
Tetrachloroethene	**18**		1.0	0.15	ug/L			06/03/15 17:22	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/03/15 17:22	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/03/15 17:22	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/03/15 17:22	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/03/15 17:22	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/03/15 17:22	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/03/15 17:22	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/03/15 17:22	1
Styrene	1.0	U	1.0	0.097	ug/L			06/03/15 17:22	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/03/15 17:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/03/15 17:22	1
Acrylonitrile	20	U	20	0.55	ug/L			06/03/15 17:22	1
1,4-Dioxane	200	U	200	34	ug/L			06/03/15 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*64 - 135*		*06/03/15 17:22*	*1*
Toluene-d8 (Surr)	*99*		*71 - 118*		*06/03/15 17:22*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 118*		*06/03/15 17:22*	*1*
Dibromofluoromethane (Surr)	*92*		*70 - 128*		*06/03/15 17:22*	*1*

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

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 05/21/15 09:25
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			06/03/15 19:12	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/03/15 19:12	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/03/15 19:12	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/03/15 19:12	1
1,1-Dichloroethene	**1.0**		1.0	0.30	ug/L			06/03/15 19:12	1
Acetone	5.0	U	5.0	2.5	ug/L			06/03/15 19:12	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/03/15 19:12	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/03/15 19:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/03/15 19:12	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/03/15 19:12	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/03/15 19:12	1
cis-1,2-Dichloroethene	**34**		1.0	0.24	ug/L			06/03/15 19:12	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/03/15 19:12	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/03/15 19:12	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/03/15 19:12	1
1,1,1-Trichloroethane	**2.6**		1.0	0.29	ug/L			06/03/15 19:12	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/03/15 19:12	1
Benzene	1.0	U	1.0	0.11	ug/L			06/03/15 19:12	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/03/15 19:12	1
Trichloroethene	**25**		1.0	0.14	ug/L			06/03/15 19:12	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/03/15 19:12	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/03/15 19:12	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/03/15 19:12	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/03/15 19:12	1
Toluene	1.0	U	1.0	0.15	ug/L			06/03/15 19:12	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/03/15 19:12	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/03/15 19:12	1
Tetrachloroethene	**9.8**		1.0	0.15	ug/L			06/03/15 19:12	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/03/15 19:12	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/03/15 19:12	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/03/15 19:12	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/03/15 19:12	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/03/15 19:12	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/03/15 19:12	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/03/15 19:12	1
Styrene	1.0	U	1.0	0.097	ug/L			06/03/15 19:12	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/03/15 19:12	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/03/15 19:12	1
Acrylonitrile	20	U	20	0.55	ug/L			06/03/15 19:12	1
1,4-Dioxane	200	U	200	34	ug/L			06/03/15 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*06/03/15 19:12*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*06/03/15 19:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*06/03/15 19:12*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 128*		*06/03/15 19:12*	*1*

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

Client Sample ID: HD-MW-127-0/1-0
Date Collected: 05/21/15 12:15
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			06/03/15 18:45	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			06/03/15 18:45	5
Bromomethane	5.0	U	5.0	1.6	ug/L			06/03/15 18:45	5
Chloroethane	5.0	U	5.0	1.1	ug/L			06/03/15 18:45	5
1,1-Dichloroethene	**6.0**		5.0	1.5	ug/L			06/03/15 18:45	5
Acetone	25	U	25	13	ug/L			06/03/15 18:45	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			06/03/15 18:45	5
Methylene Chloride	5.0	U	5.0	0.63	ug/L			06/03/15 18:45	5
trans-1,2-Dichloroethene	**0.89**	**J**	5.0	0.85	ug/L			06/03/15 18:45	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			06/03/15 18:45	5
1,1-Dichloroethane	5.0	U	5.0	0.58	ug/L			06/03/15 18:45	5
cis-1,2-Dichloroethene	**240**		5.0	1.2	ug/L			06/03/15 18:45	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			06/03/15 18:45	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			06/03/15 18:45	5
Chloroform	5.0	U	5.0	0.85	ug/L			06/03/15 18:45	5
1,1,1-Trichloroethane	**5.8**		5.0	1.4	ug/L			06/03/15 18:45	5
Carbon tetrachloride	**1.0**	**J**	5.0	0.68	ug/L			06/03/15 18:45	5
Benzene	5.0	U	5.0	0.53	ug/L			06/03/15 18:45	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			06/03/15 18:45	5
Trichloroethene	**130**		5.0	0.72	ug/L			06/03/15 18:45	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			06/03/15 18:45	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			06/03/15 18:45	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			06/03/15 18:45	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			06/03/15 18:45	5
Toluene	5.0	U	5.0	0.75	ug/L			06/03/15 18:45	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			06/03/15 18:45	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			06/03/15 18:45	5
Tetrachloroethene	**35**		5.0	0.74	ug/L			06/03/15 18:45	5
2-Hexanone	25	U	25	0.80	ug/L			06/03/15 18:45	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			06/03/15 18:45	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			06/03/15 18:45	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			06/03/15 18:45	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			06/03/15 18:45	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			06/03/15 18:45	5
Xylenes, Total	15	U	15	2.4	ug/L			06/03/15 18:45	5
Styrene	5.0	U	5.0	0.48	ug/L			06/03/15 18:45	5
Bromoform	5.0	U	5.0	0.96	ug/L			06/03/15 18:45	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			06/03/15 18:45	5
Acrylonitrile	100	U	100	2.7	ug/L			06/03/15 18:45	5
1,4-Dioxane	1000	U	1000	170	ug/L			06/03/15 18:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*06/03/15 18:45*	*5*
Toluene-d8 (Surr)	*115*		*71 - 118*		*06/03/15 18:45*	*5*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*06/03/15 18:45*	*5*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/03/15 18:45*	*5*

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

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 05/21/15 09:56
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			06/02/15 17:26	25
Vinyl chloride	**38**		25	5.7	ug/L			06/02/15 17:26	25
Bromomethane	25	U	25	7.8	ug/L			06/02/15 17:26	25
Chloroethane	25	U	25	5.4	ug/L			06/02/15 17:26	25
1,1-Dichloroethene	**150**		25	7.4	ug/L			06/02/15 17:26	25
Acetone	130	U	130	63	ug/L			06/02/15 17:26	25
Carbon disulfide	25	U	25	5.3	ug/L			06/02/15 17:26	25
Methylene Chloride	25	U	25	3.1	ug/L			06/02/15 17:26	25
trans-1,2-Dichloroethene	**15**	**J**	25	4.2	ug/L			06/02/15 17:26	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			06/02/15 17:26	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			06/02/15 17:26	25
cis-1,2-Dichloroethene	**4300**	**E**	25	5.9	ug/L			06/02/15 17:26	25
Bromochloromethane	25	U	25	4.5	ug/L			06/02/15 17:26	25
2-Butanone (MEK)	130	U	130	14	ug/L			06/02/15 17:26	25
Chloroform	25	U	25	4.3	ug/L			06/02/15 17:26	25
1,1,1-Trichloroethane	**32**		25	7.2	ug/L			06/02/15 17:26	25
Carbon tetrachloride	25	U	25	3.4	ug/L			06/02/15 17:26	25
Benzene	25	U	25	2.6	ug/L			06/02/15 17:26	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			06/02/15 17:26	25
Trichloroethene	**2900**	**E**	25	3.6	ug/L			06/02/15 17:26	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			06/02/15 17:26	25
Bromodichloromethane	25	U	25	3.3	ug/L			06/02/15 17:26	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			06/02/15 17:26	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			06/02/15 17:26	25
Toluene	25	U	25	3.8	ug/L			06/02/15 17:26	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			06/02/15 17:26	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			06/02/15 17:26	25
Tetrachloroethene	**NQ**		25	3.7	ug/L			06/02/15 17:26	25
2-Hexanone	130	U	130	4.0	ug/L			06/02/15 17:26	25
Dibromochloromethane	25	U	25	3.4	ug/L			06/02/15 17:26	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			06/02/15 17:26	25
Chlorobenzene	25	U	25	3.4	ug/L			06/02/15 17:26	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			06/02/15 17:26	25
Ethylbenzene	25	U	25	5.7	ug/L			06/02/15 17:26	25
Xylenes, Total	75	U	75	12	ug/L			06/02/15 17:26	25
Styrene	25	U	25	2.4	ug/L			06/02/15 17:26	25
Bromoform	25	U	25	4.8	ug/L			06/02/15 17:26	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			06/02/15 17:26	25
Acrylonitrile	500	U	500	14	ug/L			06/02/15 17:26	25
1,4-Dioxane	5000	U	5000	860	ug/L			06/02/15 17:26	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 135*		*06/02/15 17:26*	*25*
Toluene-d8 (Surr)	*112*		*71 - 118*		*06/02/15 17:26*	*25*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*06/02/15 17:26*	*25*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*06/02/15 17:26*	*25*

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

Client Sample ID: HD-MW-132-0/1-0
Date Collected: 05/21/15 11:41
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			06/02/15 18:21	25
Vinyl chloride	25	U	25	5.7	ug/L			06/02/15 18:21	25
Bromomethane	25	U	25	7.8	ug/L			06/02/15 18:21	25
Chloroethane	25	U	25	5.4	ug/L			06/02/15 18:21	25
1,1-Dichloroethene	25	U	25	7.4	ug/L			06/02/15 18:21	25
Acetone	130	U	130	63	ug/L			06/02/15 18:21	25
Carbon disulfide	25	U	25	5.3	ug/L			06/02/15 18:21	25
Methylene Chloride	**3.1**	**J**	25	3.1	ug/L			06/02/15 18:21	25
trans-1,2-Dichloroethene	**14**	**J**	25	4.2	ug/L			06/02/15 18:21	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			06/02/15 18:21	25
1,1-Dichloroethane	**81**		25	2.9	ug/L			06/02/15 18:21	25
cis-1,2-Dichloroethene	**2200**	**E**	25	5.9	ug/L			06/02/15 18:21	25
Bromochloromethane	25	U	25	4.5	ug/L			06/02/15 18:21	25
2-Butanone (MEK)	130	U	130	14	ug/L			06/02/15 18:21	25
Chloroform	25	U	25	4.3	ug/L			06/02/15 18:21	25
1,1,1-Trichloroethane	25	U	25	7.2	ug/L			06/02/15 18:21	25
Carbon tetrachloride	25	U	25	3.4	ug/L			06/02/15 18:21	25
Benzene	25	U	25	2.6	ug/L			06/02/15 18:21	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			06/02/15 18:21	25
Trichloroethene	**1500**	**E**	25	3.6	ug/L			06/02/15 18:21	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			06/02/15 18:21	25
Bromodichloromethane	25	U	25	3.3	ug/L			06/02/15 18:21	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			06/02/15 18:21	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			06/02/15 18:21	25
Toluene	25	U	25	3.8	ug/L			06/02/15 18:21	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			06/02/15 18:21	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			06/02/15 18:21	25
Tetrachloroethene	25	U	25	3.7	ug/L			06/02/15 18:21	25
2-Hexanone	130	U	130	4.0	ug/L			06/02/15 18:21	25
Dibromochloromethane	25	U	25	3.4	ug/L			06/02/15 18:21	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			06/02/15 18:21	25
Chlorobenzene	25	U	25	3.4	ug/L			06/02/15 18:21	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			06/02/15 18:21	25
Ethylbenzene	25	U	25	5.7	ug/L			06/02/15 18:21	25
Xylenes, Total	75	U	75	12	ug/L			06/02/15 18:21	25
Styrene	25	U	25	2.4	ug/L			06/02/15 18:21	25
Bromoform	25	U	25	4.8	ug/L			06/02/15 18:21	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			06/02/15 18:21	25
Acrylonitrile	500	U	500	14	ug/L			06/02/15 18:21	25
1,4-Dioxane	5000	U	5000	860	ug/L			06/02/15 18:21	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*64 - 135*		*06/02/15 18:21*	*25*
Toluene-d8 (Surr)	*127*	*X*	*71 - 118*		*06/02/15 18:21*	*25*
4-Bromofluorobenzene (Surr)	*56*	*X*	*70 - 118*		*06/02/15 18:21*	*25*
Dibromofluoromethane (Surr)	*91*		*70 - 128*		*06/02/15 18:21*	*25*

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

Client Sample ID: HD-MW-51D-0/1-0
Date Collected: 05/21/15 08:20
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			06/03/15 17:50	25
Vinyl chloride	25	U	25	5.7	ug/L			06/03/15 17:50	25
Bromomethane	25	U	25	7.8	ug/L			06/03/15 17:50	25
Chloroethane	25	U	25	5.4	ug/L			06/03/15 17:50	25
1,1-Dichloroethene	**66**		25	7.4	ug/L			06/03/15 17:50	25
Acetone	130	U	130	63	ug/L			06/03/15 17:50	25
Carbon disulfide	25	U	25	5.3	ug/L			06/03/15 17:50	25
Methylene Chloride	25	U	25	3.1	ug/L			06/03/15 17:50	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			06/03/15 17:50	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			06/03/15 17:50	25
1,1-Dichloroethane	**40**		25	2.9	ug/L			06/03/15 17:50	25
cis-1,2-Dichloroethene	**630**		25	5.9	ug/L			06/03/15 17:50	25
Bromochloromethane	25	U	25	4.5	ug/L			06/03/15 17:50	25
2-Butanone (MEK)	130	U	130	14	ug/L			06/03/15 17:50	25
Chloroform	25	U	25	4.3	ug/L			06/03/15 17:50	25
1,1,1-Trichloroethane	**48**		25	7.2	ug/L			06/03/15 17:50	25
Carbon tetrachloride	25	U	25	3.4	ug/L			06/03/15 17:50	25
Benzene	25	U	25	2.6	ug/L			06/03/15 17:50	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			06/03/15 17:50	25
Trichloroethene	**660**		25	3.6	ug/L			06/03/15 17:50	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			06/03/15 17:50	25
Bromodichloromethane	25	U	25	3.3	ug/L			06/03/15 17:50	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			06/03/15 17:50	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			06/03/15 17:50	25
Toluene	25	U	25	3.8	ug/L			06/03/15 17:50	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			06/03/15 17:50	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			06/03/15 17:50	25
Tetrachloroethene	**51**		25	3.7	ug/L			06/03/15 17:50	25
2-Hexanone	130	U	130	4.0	ug/L			06/03/15 17:50	25
Dibromochloromethane	25	U	25	3.4	ug/L			06/03/15 17:50	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			06/03/15 17:50	25
Chlorobenzene	25	U	25	3.4	ug/L			06/03/15 17:50	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			06/03/15 17:50	25
Ethylbenzene	25	U	25	5.7	ug/L			06/03/15 17:50	25
Xylenes, Total	75	U	75	12	ug/L			06/03/15 17:50	25
Styrene	25	U	25	2.4	ug/L			06/03/15 17:50	25
Bromoform	25	U	25	4.8	ug/L			06/03/15 17:50	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			06/03/15 17:50	25
Acrylonitrile	500	U	500	14	ug/L			06/03/15 17:50	25
1,4-Dioxane	5000	U	5000	860	ug/L			06/03/15 17:50	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*06/03/15 17:50*	*25*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/03/15 17:50*	*25*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*06/03/15 17:50*	*25*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*06/03/15 17:50*	*25*

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

Client Sample ID: HD-MW-50S-0/1-0
Date Collected: 05/21/15 08:10
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			06/02/15 19:16	25
Vinyl chloride	25	U	25	5.7	ug/L			06/02/15 19:16	25
Bromomethane	25	U	25	7.8	ug/L			06/02/15 19:16	25
Chloroethane	25	U	25	5.4	ug/L			06/02/15 19:16	25
1,1-Dichloroethene	**120**		25	7.4	ug/L			06/02/15 19:16	25
Acetone	130	U	130	63	ug/L			06/02/15 19:16	25
Carbon disulfide	25	U	25	5.3	ug/L			06/02/15 19:16	25
Methylene Chloride	25	U	25	3.1	ug/L			06/02/15 19:16	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			06/02/15 19:16	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			06/02/15 19:16	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			06/02/15 19:16	25
cis-1,2-Dichloroethene	**2200**	**E**	25	5.9	ug/L			06/02/15 19:16	25
Bromochloromethane	25	U	25	4.5	ug/L			06/02/15 19:16	25
2-Butanone (MEK)	130	U	130	14	ug/L			06/02/15 19:16	25
Chloroform	**5.6**	**J**	25	4.3	ug/L			06/02/15 19:16	25
1,1,1-Trichloroethane	**330**		25	7.2	ug/L			06/02/15 19:16	25
Carbon tetrachloride	**7.7**	**J**	25	3.4	ug/L			06/02/15 19:16	25
Benzene	25	U	25	2.6	ug/L			06/02/15 19:16	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			06/02/15 19:16	25
Trichloroethene	**1400**	**E**	25	3.6	ug/L			06/02/15 19:16	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			06/02/15 19:16	25
Bromodichloromethane	25	U	25	3.3	ug/L			06/02/15 19:16	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			06/02/15 19:16	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			06/02/15 19:16	25
Toluene	25	U	25	3.8	ug/L			06/02/15 19:16	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			06/02/15 19:16	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			06/02/15 19:16	25
Tetrachloroethene	**560**		25	3.7	ug/L			06/02/15 19:16	25
2-Hexanone	130	U	130	4.0	ug/L			06/02/15 19:16	25
Dibromochloromethane	25	U	25	3.4	ug/L			06/02/15 19:16	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			06/02/15 19:16	25
Chlorobenzene	25	U	25	3.4	ug/L			06/02/15 19:16	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			06/02/15 19:16	25
Ethylbenzene	25	U	25	5.7	ug/L			06/02/15 19:16	25
Xylenes, Total	75	U	75	12	ug/L			06/02/15 19:16	25
Styrene	25	U	25	2.4	ug/L			06/02/15 19:16	25
Bromoform	25	U	25	4.8	ug/L			06/02/15 19:16	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			06/02/15 19:16	25
Acrylonitrile	500	U	500	14	ug/L			06/02/15 19:16	25
1,4-Dioxane	5000	U	5000	860	ug/L			06/02/15 19:16	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*69*		*64 - 135*		*06/02/15 19:16*	*25*
Toluene-d8 (Surr)	*55*	*X*	*71 - 118*		*06/02/15 19:16*	*25*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*		*06/02/15 19:16*	*25*
Dibromofluoromethane (Surr)	*84*		*70 - 128*		*06/02/15 19:16*	*25*

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

Client Sample ID: HD-QC5-0/1-2
Date Collected: 05/21/15 12:00
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U *	1.0	0.28	ug/L			06/01/15 15:17	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/01/15 15:17	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/01/15 15:17	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 15:17	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/01/15 15:17	1
Acetone	5.0	U	5.0	2.5	ug/L			06/01/15 15:17	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/01/15 15:17	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/01/15 15:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/01/15 15:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/01/15 15:17	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/01/15 15:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			06/01/15 15:17	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/01/15 15:17	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/01/15 15:17	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/01/15 15:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			06/01/15 15:17	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/01/15 15:17	1
Benzene	1.0	U	1.0	0.11	ug/L			06/01/15 15:17	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 15:17	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			06/01/15 15:17	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/01/15 15:17	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/01/15 15:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/01/15 15:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/01/15 15:17	1
Toluene	1.0	U	1.0	0.15	ug/L			06/01/15 15:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/01/15 15:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 15:17	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/15 15:17	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/01/15 15:17	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/01/15 15:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/01/15 15:17	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/01/15 15:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/01/15 15:17	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/01/15 15:17	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/01/15 15:17	1
Styrene	1.0	U	1.0	0.097	ug/L			06/01/15 15:17	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/01/15 15:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 15:17	1
Acrylonitrile	20	U	20	0.55	ug/L			06/01/15 15:17	1
1,4-Dioxane	200	U	200	34	ug/L			06/01/15 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*06/01/15 15:17*	*1*
Toluene-d8 (Surr)	*117*		*71 - 118*		*06/01/15 15:17*	*1*
4-Bromofluorobenzene (Surr)	*114*		*70 - 118*		*06/01/15 15:17*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/01/15 15:17*	*1*

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

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 05/21/15 09:56
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	100	U	100	28	ug/L			06/03/15 18:18	100
Vinyl chloride	100	U	100	23	ug/L			06/03/15 18:18	100
Bromomethane	100	U	100	31	ug/L			06/03/15 18:18	100
Chloroethane	100	U	100	21	ug/L			06/03/15 18:18	100
1,1-Dichloroethene	**38**	**J**	100	30	ug/L			06/03/15 18:18	100
Acetone	500	U	500	250	ug/L			06/03/15 18:18	100
Carbon disulfide	100	U	100	21	ug/L			06/03/15 18:18	100
Methylene Chloride	100	U	100	13	ug/L			06/03/15 18:18	100
trans-1,2-Dichloroethene	100	U	100	17	ug/L			06/03/15 18:18	100
Methyl tert-butyl ether	100	U	100	18	ug/L			06/03/15 18:18	100
1,1-Dichloroethane	100	U	100	12	ug/L			06/03/15 18:18	100
cis-1,2-Dichloroethene	**3700**		100	24	ug/L			06/03/15 18:18	100
Bromochloromethane	100	U	100	18	ug/L			06/03/15 18:18	100
2-Butanone (MEK)	500	U	500	55	ug/L			06/03/15 18:18	100
Chloroform	100	U	100	17	ug/L			06/03/15 18:18	100
1,1,1-Trichloroethane	100	U	100	29	ug/L			06/03/15 18:18	100
Carbon tetrachloride	100	U	100	14	ug/L			06/03/15 18:18	100
Benzene	100	U	100	11	ug/L			06/03/15 18:18	100
1,2-Dichloroethane	100	U	100	21	ug/L			06/03/15 18:18	100
Trichloroethene	**2800**		100	14	ug/L			06/03/15 18:18	100
1,2-Dichloropropane	100	U	100	9.5	ug/L			06/03/15 18:18	100
Bromodichloromethane	100	U	100	13	ug/L			06/03/15 18:18	100
cis-1,3-Dichloropropene	100	U	100	19	ug/L			06/03/15 18:18	100
4-Methyl-2-pentanone (MIBK)	500	U	500	53	ug/L			06/03/15 18:18	100
Toluene	100	U	100	15	ug/L			06/03/15 18:18	100
trans-1,3-Dichloropropene	100	U	100	15	ug/L			06/03/15 18:18	100
1,1,2-Trichloroethane	100	U	100	20	ug/L			06/03/15 18:18	100
Tetrachloroethene	**1500**		100	15	ug/L			06/03/15 18:18	100
2-Hexanone	500	U	500	16	ug/L			06/03/15 18:18	100
Dibromochloromethane	100	U	100	14	ug/L			06/03/15 18:18	100
1,2-Dibromoethane (EDB)	100	U	100	18	ug/L			06/03/15 18:18	100
Chlorobenzene	100	U	100	14	ug/L			06/03/15 18:18	100
1,1,1,2-Tetrachloroethane	100	U	100	28	ug/L			06/03/15 18:18	100
Ethylbenzene	100	U	100	23	ug/L			06/03/15 18:18	100
Xylenes, Total	300	U	300	49	ug/L			06/03/15 18:18	100
Styrene	100	U	100	9.7	ug/L			06/03/15 18:18	100
Bromoform	100	U	100	19	ug/L			06/03/15 18:18	100
1,1,2,2-Tetrachloroethane	100	U	100	20	ug/L			06/03/15 18:18	100
Acrylonitrile	2000	U	2000	55	ug/L			06/03/15 18:18	100
1,4-Dioxane	20000	U	20000	3400	ug/L			06/03/15 18:18	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*		*06/03/15 18:18*	*100*
Toluene-d8 (Surr)	*99*		*71 - 118*		*06/03/15 18:18*	*100*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*06/03/15 18:18*	*100*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*06/03/15 18:18*	*100*

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

Client Sample ID: HD-MW-132-0/1-0
Date Collected: 05/21/15 11:41
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	100	U	100	28	ug/L			06/03/15 15:05	100
Vinyl chloride	100	U	100	23	ug/L			06/03/15 15:05	100
Bromomethane	100	U	100	31	ug/L			06/03/15 15:05	100
Chloroethane	100	U	100	21	ug/L			06/03/15 15:05	100
1,1-Dichloroethene	**160**		100	30	ug/L			06/03/15 15:05	100
Acetone	500	U	500	250	ug/L			06/03/15 15:05	100
Carbon disulfide	100	U	100	21	ug/L			06/03/15 15:05	100
Methylene Chloride	100	U	100	13	ug/L			06/03/15 15:05	100
trans-1,2-Dichloroethene	100	U	100	17	ug/L			06/03/15 15:05	100
Methyl tert-butyl ether	100	U	100	18	ug/L			06/03/15 15:05	100
1,1-Dichloroethane	100	U	100	12	ug/L			06/03/15 15:05	100
cis-1,2-Dichloroethene	**3100**		100	24	ug/L			06/03/15 15:05	100
Bromochloromethane	100	U	100	18	ug/L			06/03/15 15:05	100
2-Butanone (MEK)	500	U	500	55	ug/L			06/03/15 15:05	100
Chloroform	100	U	100	17	ug/L			06/03/15 15:05	100
1,1,1-Trichloroethane	100	U	100	29	ug/L			06/03/15 15:05	100
Carbon tetrachloride	100	U	100	14	ug/L			06/03/15 15:05	100
Benzene	100	U	100	11	ug/L			06/03/15 15:05	100
1,2-Dichloroethane	100	U	100	21	ug/L			06/03/15 15:05	100
Trichloroethene	**2200**		100	14	ug/L			06/03/15 15:05	100
1,2-Dichloropropane	100	U	100	9.5	ug/L			06/03/15 15:05	100
Bromodichloromethane	100	U	100	13	ug/L			06/03/15 15:05	100
cis-1,3-Dichloropropene	100	U	100	19	ug/L			06/03/15 15:05	100
4-Methyl-2-pentanone (MIBK)	500	U	500	53	ug/L			06/03/15 15:05	100
Toluene	100	U	100	15	ug/L			06/03/15 15:05	100
trans-1,3-Dichloropropene	100	U	100	15	ug/L			06/03/15 15:05	100
1,1,2-Trichloroethane	100	U	100	20	ug/L			06/03/15 15:05	100
Tetrachloroethene	100	U	100	15	ug/L			06/03/15 15:05	100
2-Hexanone	500	U	500	16	ug/L			06/03/15 15:05	100
Dibromochloromethane	100	U	100	14	ug/L			06/03/15 15:05	100
1,2-Dibromoethane (EDB)	100	U	100	18	ug/L			06/03/15 15:05	100
Chlorobenzene	100	U	100	14	ug/L			06/03/15 15:05	100
1,1,1,2-Tetrachloroethane	100	U	100	28	ug/L			06/03/15 15:05	100
Ethylbenzene	100	U	100	23	ug/L			06/03/15 15:05	100
Xylenes, Total	300	U	300	49	ug/L			06/03/15 15:05	100
Styrene	100	U	100	9.7	ug/L			06/03/15 15:05	100
Bromoform	100	U	100	19	ug/L			06/03/15 15:05	100
1,1,2,2-Tetrachloroethane	100	U	100	20	ug/L			06/03/15 15:05	100
Acrylonitrile	2000	U	2000	55	ug/L			06/03/15 15:05	100
1,4-Dioxane	20000	U	20000	3400	ug/L			06/03/15 15:05	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*64 - 135*		*06/03/15 15:05*	*100*
Toluene-d8 (Surr)	*123*	*X*	*71 - 118*		*06/03/15 15:05*	*100*
4-Bromofluorobenzene (Surr)	*118*		*70 - 118*		*06/03/15 15:05*	*100*
Dibromofluoromethane (Surr)	*124*		*70 - 128*		*06/03/15 15:05*	*100*

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

Client Sample ID: HD-MW-50S-0/1-0
Date Collected: 05/21/15 08:10
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	100	U	100	28	ug/L			06/03/15 15:32	100
Vinyl chloride	100	U	100	23	ug/L			06/03/15 15:32	100
Bromomethane	100	U	100	31	ug/L			06/03/15 15:32	100
Chloroethane	100	U	100	21	ug/L			06/03/15 15:32	100
1,1-Dichloroethene	**150**		100	30	ug/L			06/03/15 15:32	100
Acetone	500	U	500	250	ug/L			06/03/15 15:32	100
Carbon disulfide	100	U	100	21	ug/L			06/03/15 15:32	100
Methylene Chloride	100	U	100	13	ug/L			06/03/15 15:32	100
trans-1,2-Dichloroethene	100	U	100	17	ug/L			06/03/15 15:32	100
Methyl tert-butyl ether	100	U	100	18	ug/L			06/03/15 15:32	100
1,1-Dichloroethane	100	U	100	12	ug/L			06/03/15 15:32	100
cis-1,2-Dichloroethene	**3100**		100	24	ug/L			06/03/15 15:32	100
Bromochloromethane	100	U	100	18	ug/L			06/03/15 15:32	100
2-Butanone (MEK)	500	U	500	55	ug/L			06/03/15 15:32	100
Chloroform	100	U	100	17	ug/L			06/03/15 15:32	100
1,1,1-Trichloroethane	**420**		100	29	ug/L			06/03/15 15:32	100
Carbon tetrachloride	100	U	100	14	ug/L			06/03/15 15:32	100
Benzene	100	U	100	11	ug/L			06/03/15 15:32	100
1,2-Dichloroethane	100	U	100	21	ug/L			06/03/15 15:32	100
Trichloroethene	**2100**		100	14	ug/L			06/03/15 15:32	100
1,2-Dichloropropane	100	U	100	9.5	ug/L			06/03/15 15:32	100
Bromodichloromethane	100	U	100	13	ug/L			06/03/15 15:32	100
cis-1,3-Dichloropropene	100	U	100	19	ug/L			06/03/15 15:32	100
4-Methyl-2-pentanone (MIBK)	500	U	500	53	ug/L			06/03/15 15:32	100
Toluene	100	U	100	15	ug/L			06/03/15 15:32	100
trans-1,3-Dichloropropene	100	U	100	15	ug/L			06/03/15 15:32	100
1,1,2-Trichloroethane	100	U	100	20	ug/L			06/03/15 15:32	100
Tetrachloroethene	**740**		100	15	ug/L			06/03/15 15:32	100
2-Hexanone	500	U	500	16	ug/L			06/03/15 15:32	100
Dibromochloromethane	100	U	100	14	ug/L			06/03/15 15:32	100
1,2-Dibromoethane (EDB)	100	U	100	18	ug/L			06/03/15 15:32	100
Chlorobenzene	100	U	100	14	ug/L			06/03/15 15:32	100
1,1,1,2-Tetrachloroethane	100	U	100	28	ug/L			06/03/15 15:32	100
Ethylbenzene	100	U	100	23	ug/L			06/03/15 15:32	100
Xylenes, Total	300	U	300	49	ug/L			06/03/15 15:32	100
Styrene	100	U	100	9.7	ug/L			06/03/15 15:32	100
Bromoform	100	U	100	19	ug/L			06/03/15 15:32	100
1,1,2,2-Tetrachloroethane	100	U	100	20	ug/L			06/03/15 15:32	100
Acrylonitrile	2000	U	2000	55	ug/L			06/03/15 15:32	100
1,4-Dioxane	20000	U	20000	3400	ug/L			06/03/15 15:32	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*06/03/15 15:32*	*100*
Toluene-d8 (Surr)	*118*		*71 - 118*		*06/03/15 15:32*	*100*
4-Bromofluorobenzene (Surr)	*109*		*70 - 118*		*06/03/15 15:32*	*100*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*06/03/15 15:32*	*100*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 05/21/15 10:55
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.1	B	0.10	0.0062	mg/L			05/23/15 08:58	1
Chloride	91		1.0	0.20	mg/L			05/23/15 08:58	1
Sulfate	34		1.0	0.21	mg/L			05/23/15 08:58	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 05/21/15 09:25
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1	B	0.10	0.0062	mg/L			05/23/15 08:24	1
Chloride	76		1.0	0.20	mg/L			05/23/15 08:24	1
Sulfate	21		1.0	0.21	mg/L			05/23/15 08:24	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-127-0/1-0
Date Collected: 05/21/15 12:15
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1	B	0.10	0.0062	mg/L			05/23/15 10:42	1
Chloride	110		1.0	0.20	mg/L			05/23/15 10:42	1
Sulfate	7.7		1.0	0.21	mg/L			05/23/15 10:42	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 05/21/15 09:56
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.69	B	0.10	0.0062	mg/L			05/23/15 08:41	1
Chloride	150		1.0	0.20	mg/L			05/23/15 08:41	1
Sulfate	77		1.0	0.21	mg/L			05/23/15 08:41	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-132-0/1-0
Date Collected: 05/21/15 11:41
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.0	B	0.10	0.0062	mg/L			05/23/15 09:16	1
Chloride	14		1.0	0.20	mg/L			05/23/15 09:16	1
Sulfate	4.6		1.0	0.21	mg/L			05/23/15 09:16	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-51D-0/1-0
Date Collected: 05/21/15 08:20
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.3	B	0.10	0.0062	mg/L			05/23/15 08:06	1
Chloride	110		1.0	0.20	mg/L			05/23/15 08:06	1
Sulfate	50		1.0	0.21	mg/L			05/23/15 08:06	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-50S-0/1-0
Date Collected: 05/21/15 08:10
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4	B	0.10	0.0062	mg/L			05/23/15 07:30	1
Chloride	180		1.0	0.20	mg/L			05/23/15 07:30	1
Sulfate	59		1.0	0.21	mg/L			05/23/15 07:30	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 05/21/15 10:55
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 14:47	1
Potassium	6300		500	5.8	ug/L		05/27/15 10:42	06/03/15 14:47	1
Magnesium	13000		500	1.2	ug/L		05/27/15 10:42	06/03/15 14:47	1
Sodium	29000		500	3.8	ug/L		05/27/15 10:42	06/03/15 14:47	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 05/21/15 09:25
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	88000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 14:51	1
Potassium	3400		500	5.8	ug/L		05/27/15 10:42	06/03/15 14:51	1
Magnesium	12000		500	1.2	ug/L		05/27/15 10:42	06/03/15 14:51	1
Sodium	29000		500	3.8	ug/L		05/27/15 10:42	06/03/15 14:51	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-127-0/1-0
Date Collected: 05/21/15 12:15
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	92000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 14:55	1
Potassium	3800		500	5.8	ug/L		05/27/15 10:42	06/03/15 14:55	1
Magnesium	19000		500	1.2	ug/L		05/27/15 10:42	06/03/15 14:55	1
Sodium	27000		500	3.8	ug/L		05/27/15 10:42	06/03/15 14:55	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 05/21/15 09:56
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 15:09	1
Potassium	7900		500	5.8	ug/L		05/27/15 10:42	06/03/15 15:09	1
Magnesium	21000		500	1.2	ug/L		05/27/15 10:42	06/03/15 15:09	1
Sodium	36000		500	3.8	ug/L		05/27/15 10:42	06/03/15 15:09	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-132-0/1-0
Date Collected: 05/21/15 11:41
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	59000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 15:13	1
Potassium	1700		500	5.8	ug/L		05/27/15 10:42	06/03/15 15:13	1
Magnesium	4200		500	1.2	ug/L		05/27/15 10:42	06/03/15 15:13	1
Sodium	4700		500	3.8	ug/L		05/27/15 10:42	06/03/15 15:13	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-51D-0/1-0
Date Collected: 05/21/15 08:20
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	71000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 15:16	1
Potassium	20000		500	5.8	ug/L		05/27/15 10:42	06/03/15 15:16	1
Magnesium	21000		500	1.2	ug/L		05/27/15 10:42	06/03/15 15:16	1
Sodium	39000		500	3.8	ug/L		05/27/15 10:42	06/03/15 15:16	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-50S-0/1-0
Date Collected: 05/21/15 08:10
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	500	2.8	ug/L		05/27/15 10:42	06/03/15 15:20	1
Potassium	8600		500	5.8	ug/L		05/27/15 10:42	06/03/15 15:20	1
Magnesium	15000		500	1.2	ug/L		05/27/15 10:42	06/03/15 15:20	1
Sodium	47000		500	3.8	ug/L		05/27/15 10:42	06/03/15 15:20	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

General Chemistry

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 05/21/15 10:55
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

General Chemistry

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 05/21/15 09:25
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

General Chemistry

Client Sample ID: HD-MW-127-0/1-0
Date Collected: 05/21/15 12:15
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

General Chemistry

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 05/21/15 09:56
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

General Chemistry

Client Sample ID: HD-MW-132-0/1-0
Date Collected: 05/21/15 11:41
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**170**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**170**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

General Chemistry

Client Sample ID: HD-MW-51D-0/1-0
Date Collected: 05/21/15 08:20
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

General Chemistry

Client Sample ID: HD-MW-50S-0/1-0
Date Collected: 05/21/15 08:10
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.28	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.29	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.20	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.20	ug/L	8260C
1,1-Dichloroethane	1.0	0.12	ug/L	8260C
1,1-Dichloroethene	1.0	0.30	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.18	ug/L	8260C
1,2-Dichloroethane	1.0	0.21	ug/L	8260C
1,2-Dichloropropane	1.0	0.095	ug/L	8260C
1,4-Dioxane	200	34	ug/L	8260C
2-Butanone (MEK)	5.0	0.55	ug/L	8260C
2-Hexanone	5.0	0.16	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	0.53	ug/L	8260C
Acetone	5.0	2.5	ug/L	8260C
Acrylonitrile	20	0.55	ug/L	8260C
Benzene	1.0	0.11	ug/L	8260C
Bromochloromethane	1.0	0.18	ug/L	8260C
Bromodichloromethane	1.0	0.13	ug/L	8260C
Bromoform	1.0	0.19	ug/L	8260C
Bromomethane	1.0	0.31	ug/L	8260C
Carbon disulfide	1.0	0.21	ug/L	8260C
Carbon tetrachloride	1.0	0.14	ug/L	8260C
Chlorobenzene	1.0	0.14	ug/L	8260C
Chloroethane	1.0	0.21	ug/L	8260C
Chloroform	1.0	0.17	ug/L	8260C
Chloromethane	1.0	0.28	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.24	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.19	ug/L	8260C
Dibromochloromethane	1.0	0.14	ug/L	8260C
Ethylbenzene	1.0	0.23	ug/L	8260C
Methyl tert-butyl ether	1.0	0.18	ug/L	8260C
Methylene Chloride	1.0	0.13	ug/L	8260C
Styrene	1.0	0.097	ug/L	8260C
Tetrachloroethene	1.0	0.15	ug/L	8260C
Toluene	1.0	0.15	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.17	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.15	ug/L	8260C
Trichloroethene	1.0	0.14	ug/L	8260C
Vinyl chloride	1.0	0.23	ug/L	8260C
Xylenes, Total	3.0	0.49	ug/L	8260C

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL	MDL	Units	Method
Chloride	1.0	0.20	mg/L	300.0
Nitrate as N	0.10	0.0062	mg/L	300.0
Sulfate	1.0	0.21	mg/L	300.0

Method: 6020A - Metals (ICP/MS)

Analyte	RL	MDL	Units	Method
Calcium	500	2.8	ug/L	6020A

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	RL	MDL	Units	Method
Magnesium	500	1.2	ug/L	6020A
Potassium	500	5.8	ug/L	6020A
Sodium	500	3.8	ug/L	6020A

General Chemistry

Analyte	RL	MDL	Units	Method
Bicarbonate Alkalinity as CaCO3	5.0	0.41	mg/L	SM 2320B
Carbonate Alkalinity as CaCO3	5.0	0.41	mg/L	SM 2320B
Total Alkalinity as CaCO3 to pH 4.5	5.0	0.41	mg/L	SM 2320B

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(64-135)	(71-118)	(70-118)	(70-128)
180-44401-1	HD-MW-39D-0/1-0	82	99	85	92
180-44401-2	HD-MW-74S-0/1-0	100	107	102	108
180-44401-3	HD-MW-127-0/1-0	97	115	102	106
180-44401-4	HD-MW-114-0/1-0	87	112	103	100
180-44401-4 - DL	HD-MW-114-0/1-0	93	99	90	101
180-44401-5	HD-MW-132-0/1-0	82	127 X	56 X	91
180-44401-5 - DL	HD-MW-132-0/1-0	113	123 X	118	124
180-44401-6	HD-MW-51D-0/1-0	101	98	93	107
180-44401-7	HD-MW-50S-0/1-0	69	55 X	89	84
180-44401-7 - DL	HD-MW-50S-0/1-0	98	118	109	107
180-44401-8	HD-QC5-0/1-2	98	117	114	106
LCS 180-143422/8	Lab Control Sample	99	112	108	103
LCS 180-143527/10	Lab Control Sample	104	109	105	110
LCS 180-143682/9	Lab Control Sample	114	109	107	116
MB 180-143422/6	Method Blank	95	110	94	101
MB 180-143527/7	Method Blank	94	109	103	106
MB 180-143682/6	Method Blank	77	98	89	90

Surrogate Legend

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

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

Lab Sample ID: MB 180-143422/6
Matrix: Water
Analysis Batch: 143422

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			06/01/15 12:21	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/01/15 12:21	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/01/15 12:21	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 12:21	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/01/15 12:21	1
Acetone	5.0	U	5.0	2.5	ug/L			06/01/15 12:21	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/01/15 12:21	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/01/15 12:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/01/15 12:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/01/15 12:21	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/01/15 12:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			06/01/15 12:21	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/01/15 12:21	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/01/15 12:21	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/01/15 12:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			06/01/15 12:21	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
Benzene	1.0	U	1.0	0.11	ug/L			06/01/15 12:21	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 12:21	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/01/15 12:21	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/01/15 12:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/01/15 12:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/01/15 12:21	1
Toluene	1.0	U	1.0	0.15	ug/L			06/01/15 12:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/01/15 12:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 12:21	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/15 12:21	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/01/15 12:21	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/01/15 12:21	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/01/15 12:21	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/01/15 12:21	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/01/15 12:21	1
Styrene	1.0	U	1.0	0.097	ug/L			06/01/15 12:21	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/01/15 12:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 12:21	1
Acrylonitrile	20	U	20	0.55	ug/L			06/01/15 12:21	1
1,4-Dioxane	200	U	200	34	ug/L			06/01/15 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*06/01/15 12:21*	*1*
Toluene-d8 (Surr)	*110*		*71 - 118*		*06/01/15 12:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*06/01/15 12:21*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*06/01/15 12:21*	*1*

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

Lab Sample ID: LCS 180-143422/8
Matrix: Water
Analysis Batch: 143422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	4.93	*	ug/L		49	50 - 139
Vinyl chloride	10.0	5.37		ug/L		54	53 - 138
Bromomethane	10.0	6.93		ug/L		69	33 - 150
Chloroethane	10.0	5.69		ug/L		57	36 - 142
1,1-Dichloroethene	10.0	9.34		ug/L		93	65 - 136
Acetone	20.0	21.8		ug/L		109	22 - 150
Carbon disulfide	10.0	11.4		ug/L		114	54 - 132
Methylene Chloride	10.0	11.7		ug/L		117	63 - 129
trans-1,2-Dichloroethene	10.0	9.80		ug/L		98	73 - 126
Methyl tert-butyl ether	10.0	11.7		ug/L		117	64 - 123
1,1-Dichloroethane	10.0	11.0		ug/L		110	73 - 126
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	70 - 120
Bromochloromethane	10.0	10.0		ug/L		100	70 - 127
2-Butanone (MEK)	20.0	16.4		ug/L		82	39 - 138
Chloroform	10.0	11.0		ug/L		110	72 - 127
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	63 - 133
Carbon tetrachloride	10.0	9.96		ug/L		100	55 - 150
Benzene	10.0	9.00		ug/L		90	80 - 120
1,2-Dichloroethane	10.0	10.3		ug/L		103	68 - 132
Trichloroethene	10.0	8.52		ug/L		85	73 - 120
1,2-Dichloropropane	10.0	10.4		ug/L		104	76 - 124
Bromodichloromethane	10.0	11.0		ug/L		110	66 - 130
cis-1,3-Dichloropropene	10.0	9.86		ug/L		99	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	45 - 145
Toluene	10.0	9.83		ug/L		98	80 - 123
trans-1,3-Dichloropropene	10.0	9.64		ug/L		96	65 - 125
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	10.0	8.73		ug/L		87	70 - 135
2-Hexanone	20.0	20.7		ug/L		104	25 - 132
Dibromochloromethane	10.0	10.2		ug/L		102	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	63 - 140
Ethylbenzene	10.0	9.31		ug/L		93	72 - 126
Xylenes, Total	20.0	18.9		ug/L		95	76 - 128
Styrene	10.0	10.3		ug/L		103	71 - 127
Bromoform	10.0	9.71		ug/L		97	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.82		ug/L		98	62 - 125
Acrylonitrile	100	105		ug/L		105	30 - 140
1,4-Dioxane	200	179	J	ug/L		90	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*
Toluene-d8 (Surr)	*112*		*71 - 118*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*
Dibromofluoromethane (Surr)	*103*		*70 - 128*

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

Lab Sample ID: MB 180-143527/7
Matrix: Water
Analysis Batch: 143527

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			06/02/15 13:18	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/02/15 13:18	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/02/15 13:18	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/02/15 13:18	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/02/15 13:18	1
Acetone	5.0	U	5.0	2.5	ug/L			06/02/15 13:18	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/02/15 13:18	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/02/15 13:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/02/15 13:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/02/15 13:18	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/02/15 13:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			06/02/15 13:18	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/02/15 13:18	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/02/15 13:18	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/02/15 13:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			06/02/15 13:18	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
Benzene	1.0	U	1.0	0.11	ug/L			06/02/15 13:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/02/15 13:18	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/02/15 13:18	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/02/15 13:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/02/15 13:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/02/15 13:18	1
Toluene	1.0	U	1.0	0.15	ug/L			06/02/15 13:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/02/15 13:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/02/15 13:18	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/02/15 13:18	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/02/15 13:18	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/02/15 13:18	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/02/15 13:18	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/02/15 13:18	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/02/15 13:18	1
Styrene	1.0	U	1.0	0.097	ug/L			06/02/15 13:18	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/02/15 13:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/02/15 13:18	1
Acrylonitrile	20	U	20	0.55	ug/L			06/02/15 13:18	1
1,4-Dioxane	200	U	200	34	ug/L			06/02/15 13:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 135*		*06/02/15 13:18*	*1*
Toluene-d8 (Surr)	*109*		*71 - 118*		*06/02/15 13:18*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*06/02/15 13:18*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/02/15 13:18*	*1*

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

Lab Sample ID: LCS 180-143527/10
Matrix: Water
Analysis Batch: 143527

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	6.52		ug/L		65	50 - 139
Vinyl chloride	10.0	6.88		ug/L		69	53 - 138
Bromomethane	10.0	8.46		ug/L		85	33 - 150
Chloroethane	10.0	8.01		ug/L		80	36 - 142
1,1-Dichloroethene	10.0	8.19		ug/L		82	65 - 136
Acetone	20.0	12.2		ug/L		61	22 - 150
Carbon disulfide	10.0	8.08		ug/L		81	54 - 132
Methylene Chloride	10.0	11.9		ug/L		119	63 - 129
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	73 - 126
Methyl tert-butyl ether	10.0	11.5		ug/L		115	64 - 123
1,1-Dichloroethane	10.0	12.1		ug/L		121	73 - 126
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	70 - 120
Bromochloromethane	10.0	10.6		ug/L		106	70 - 127
2-Butanone (MEK)	20.0	17.2		ug/L		86	39 - 138
Chloroform	10.0	11.5		ug/L		115	72 - 127
1,1,1-Trichloroethane	10.0	12.6		ug/L		126	63 - 133
Carbon tetrachloride	10.0	12.2		ug/L		122	55 - 150
Benzene	10.0	10.6		ug/L		106	80 - 120
1,2-Dichloroethane	10.0	10.7		ug/L		107	68 - 132
Trichloroethene	10.0	10.0		ug/L		100	73 - 120
1,2-Dichloropropane	10.0	10.4		ug/L		104	76 - 124
Bromodichloromethane	10.0	11.2		ug/L		112	66 - 130
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.9		ug/L		85	45 - 145
Toluene	10.0	10.2		ug/L		102	80 - 123
trans-1,3-Dichloropropene	10.0	9.86		ug/L		99	65 - 125
1,1,2-Trichloroethane	10.0	9.92		ug/L		99	77 - 127
Tetrachloroethene	10.0	10.8		ug/L		108	70 - 135
2-Hexanone	20.0	20.6		ug/L		103	25 - 132
Dibromochloromethane	10.0	10.1		ug/L		101	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.63		ug/L		96	74 - 123
Chlorobenzene	10.0	10.8		ug/L		108	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.6		ug/L		106	63 - 140
Ethylbenzene	10.0	10.1		ug/L		101	72 - 126
Xylenes, Total	20.0	20.2		ug/L		101	76 - 128
Styrene	10.0	10.6		ug/L		106	71 - 127
Bromoform	10.0	8.89		ug/L		89	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.37		ug/L		94	62 - 125
Acrylonitrile	100	91.2		ug/L		91	30 - 140
1,4-Dioxane	200	192	J	ug/L		96	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*109*		*71 - 118*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*
Dibromofluoromethane (Surr)	*110*		*70 - 128*

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

Lab Sample ID: MB 180-143682/6
Matrix: Water
Analysis Batch: 143682

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			06/03/15 11:43	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/03/15 11:43	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/03/15 11:43	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/03/15 11:43	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/03/15 11:43	1
Acetone	5.0	U	5.0	2.5	ug/L			06/03/15 11:43	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/03/15 11:43	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/03/15 11:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/03/15 11:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/03/15 11:43	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/03/15 11:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			06/03/15 11:43	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/03/15 11:43	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/03/15 11:43	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/03/15 11:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			06/03/15 11:43	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/03/15 11:43	1
Benzene	1.0	U	1.0	0.11	ug/L			06/03/15 11:43	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/03/15 11:43	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			06/03/15 11:43	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/03/15 11:43	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/03/15 11:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/03/15 11:43	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/03/15 11:43	1
Toluene	1.0	U	1.0	0.15	ug/L			06/03/15 11:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/03/15 11:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/03/15 11:43	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/03/15 11:43	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/03/15 11:43	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/03/15 11:43	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/03/15 11:43	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/03/15 11:43	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/03/15 11:43	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/03/15 11:43	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/03/15 11:43	1
Styrene	1.0	U	1.0	0.097	ug/L			06/03/15 11:43	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/03/15 11:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/03/15 11:43	1
Acrylonitrile	20	U	20	0.55	ug/L			06/03/15 11:43	1
1,4-Dioxane	200	U	200	34	ug/L			06/03/15 11:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*77*		*64 - 135*		*06/03/15 11:43*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*06/03/15 11:43*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*		*06/03/15 11:43*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 128*		*06/03/15 11:43*	*1*

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

Lab Sample ID: LCS 180-143682/9
Matrix: Water
Analysis Batch: 143682

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	6.74		ug/L		67	50 - 139
Vinyl chloride	10.0	8.21		ug/L		82	53 - 138
Bromomethane	10.0	8.61		ug/L		86	33 - 150
Chloroethane	10.0	10.6		ug/L		106	36 - 142
1,1-Dichloroethene	10.0	8.88		ug/L		89	65 - 136
Acetone	20.0	26.9		ug/L		134	22 - 150
Carbon disulfide	10.0	10.6		ug/L		106	54 - 132
Methylene Chloride	10.0	11.2		ug/L		112	63 - 129
trans-1,2-Dichloroethene	10.0	8.89		ug/L		89	73 - 126
Methyl tert-butyl ether	10.0	11.3		ug/L		113	64 - 123
1,1-Dichloroethane	10.0	11.2		ug/L		112	73 - 126
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	70 - 120
Bromochloromethane	10.0	10.2		ug/L		102	70 - 127
2-Butanone (MEK)	20.0	17.3		ug/L		86	39 - 138
Chloroform	10.0	11.4		ug/L		114	72 - 127
1,1,1-Trichloroethane	10.0	11.0		ug/L		110	63 - 133
Carbon tetrachloride	10.0	10.6		ug/L		106	55 - 150
Benzene	10.0	9.89		ug/L		99	80 - 120
1,2-Dichloroethane	10.0	11.1		ug/L		111	68 - 132
Trichloroethene	10.0	9.09		ug/L		91	73 - 120
1,2-Dichloropropane	10.0	10.5		ug/L		105	76 - 124
Bromodichloromethane	10.0	11.6		ug/L		116	66 - 130
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.8		ug/L		84	45 - 145
Toluene	10.0	9.42		ug/L		94	80 - 123
trans-1,3-Dichloropropene	10.0	10.2		ug/L		102	65 - 125
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	77 - 127
Tetrachloroethene	10.0	8.73		ug/L		87	70 - 135
2-Hexanone	20.0	19.0		ug/L		95	25 - 132
Dibromochloromethane	10.0	10.3		ug/L		103	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.73		ug/L		97	74 - 123
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.6		ug/L		106	63 - 140
Ethylbenzene	10.0	9.21		ug/L		92	72 - 126
Xylenes, Total	20.0	18.2		ug/L		91	76 - 128
Styrene	10.0	10.0		ug/L		100	71 - 127
Bromoform	10.0	9.66		ug/L		97	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.38		ug/L		94	62 - 125
Acrylonitrile	100	100		ug/L		100	30 - 140
1,4-Dioxane	200	176	J	ug/L		88	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 135*
Toluene-d8 (Surr)	*109*		*71 - 118*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*
Dibromofluoromethane (Surr)	*116*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-142621/6
Matrix: Water
Analysis Batch: 142621

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.00929	J	0.10	0.0062	mg/L			05/23/15 07:13	1
Chloride	1.0	U	1.0	0.20	mg/L			05/23/15 07:13	1
Sulfate	1.0	U	1.0	0.21	mg/L			05/23/15 07:13	1

Lab Sample ID: LCS 180-142621/5
Matrix: Water
Analysis Batch: 142621

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.53		mg/L		101	90 - 110
Chloride	50.0	50.4		mg/L		101	90 - 110
Sulfate	50.0	50.2		mg/L		100	90 - 110

Lab Sample ID: 180-44401-5 MS
Matrix: Water
Analysis Batch: 142621

Client Sample ID: HD-MW-132-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.0	B	1.25	5.36		mg/L		109	80 - 120
Chloride	14		25.0	39.7		mg/L		105	80 - 120
Sulfate	4.6		25.0	30.5		mg/L		104	80 - 120

Lab Sample ID: 180-44401-5 MSD
Matrix: Water
Analysis Batch: 142621

Client Sample ID: HD-MW-132-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.0	B	1.25	5.30		mg/L		104	80 - 120	1	20
Chloride	14		25.0	39.4		mg/L		103	80 - 120	1	20
Sulfate	4.6		25.0	30.3		mg/L		103	80 - 120	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 180-142877/1-A
Matrix: Water
Analysis Batch: 143856

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 142877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	11.4	J	500	2.8	ug/L		05/27/15 10:42	06/03/15 13:51	1
Potassium	500	U	500	5.8	ug/L		05/27/15 10:42	06/03/15 13:51	1
Magnesium	500	U	500	1.2	ug/L		05/27/15 10:42	06/03/15 13:51	1
Sodium	500	U	500	3.8	ug/L		05/27/15 10:42	06/03/15 13:51	1

Lab Sample ID: LCS 180-142877/2-A
Matrix: Water
Analysis Batch: 143856

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 142877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	46700		ug/L		93	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-142877/2-A
Matrix: Water
Analysis Batch: 143856

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 142877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	50000	44900		ug/L		90	80 - 120
Magnesium	50000	43200		ug/L		86	80 - 120
Sodium	50000	41300		ug/L		83	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-143606/2
Matrix: Water
Analysis Batch: 143606

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	1.98	J	5.0	0.41	mg/L			06/03/15 05:25	1
Bicarbonate Alkalinity as CaCO3	1.98	J	5.0	0.41	mg/L			06/03/15 05:25	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/03/15 05:25	1

Lab Sample ID: LCS 180-143606/1
Matrix: Water
Analysis Batch: 143606

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	261		mg/L		105	80 - 120

Lab Sample ID: 180-44401-1 DU
Matrix: Water
Analysis Batch: 143606

Client Sample ID: HD-MW-39D-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	B	253		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	250	B	253		mg/L		2	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

GC/MS VOA

Analysis Batch: 143422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-8	HD-QC5-0/1-2	Total/NA	Water	8260C	
LCS 180-143422/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143422/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-4	HD-MW-114-0/1-0	Total/NA	Water	8260C	
180-44401-5	HD-MW-132-0/1-0	Total/NA	Water	8260C	
180-44401-7	HD-MW-50S-0/1-0	Total/NA	Water	8260C	
LCS 180-143527/10	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143527/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-1	HD-MW-39D-0/1-0	Total/NA	Water	8260C	
180-44401-2	HD-MW-74S-0/1-0	Total/NA	Water	8260C	
180-44401-3	HD-MW-127-0/1-0	Total/NA	Water	8260C	
180-44401-4 - DL	HD-MW-114-0/1-0	Total/NA	Water	8260C	
180-44401-5 - DL	HD-MW-132-0/1-0	Total/NA	Water	8260C	
180-44401-6	HD-MW-51D-0/1-0	Total/NA	Water	8260C	
180-44401-7 - DL	HD-MW-50S-0/1-0	Total/NA	Water	8260C	
LCS 180-143682/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143682/6	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 142621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-1	HD-MW-39D-0/1-0	Total/NA	Water	300.0	
180-44401-2	HD-MW-74S-0/1-0	Total/NA	Water	300.0	
180-44401-3	HD-MW-127-0/1-0	Total/NA	Water	300.0	
180-44401-4	HD-MW-114-0/1-0	Total/NA	Water	300.0	
180-44401-5	HD-MW-132-0/1-0	Total/NA	Water	300.0	
180-44401-5 MS	HD-MW-132-0/1-0	Total/NA	Water	300.0	
180-44401-5 MSD	HD-MW-132-0/1-0	Total/NA	Water	300.0	
180-44401-6	HD-MW-51D-0/1-0	Total/NA	Water	300.0	
180-44401-7	HD-MW-50S-0/1-0	Total/NA	Water	300.0	
LCS 180-142621/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-142621/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 142877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-1	HD-MW-39D-0/1-0	Total/NA	Water	3005A	
180-44401-2	HD-MW-74S-0/1-0	Total/NA	Water	3005A	
180-44401-3	HD-MW-127-0/1-0	Total/NA	Water	3005A	
180-44401-4	HD-MW-114-0/1-0	Total/NA	Water	3005A	
180-44401-5	HD-MW-132-0/1-0	Total/NA	Water	3005A	
180-44401-6	HD-MW-51D-0/1-0	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 142877 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-7	HD-MW-50S-0/1-0	Total/NA	Water	3005A	
LCS 180-142877/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-142877/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 143856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-1	HD-MW-39D-0/1-0	Total/NA	Water	6020A	142877
180-44401-2	HD-MW-74S-0/1-0	Total/NA	Water	6020A	142877
180-44401-3	HD-MW-127-0/1-0	Total/NA	Water	6020A	142877
180-44401-4	HD-MW-114-0/1-0	Total/NA	Water	6020A	142877
180-44401-5	HD-MW-132-0/1-0	Total/NA	Water	6020A	142877
180-44401-6	HD-MW-51D-0/1-0	Total/NA	Water	6020A	142877
180-44401-7	HD-MW-50S-0/1-0	Total/NA	Water	6020A	142877
CRI 180-143856/7	DL		Water	6020A	
CRI 180-143856/89	DL		Water	6020A	
ICSA 180-143856/8	ICS		Water	6020A	
ICSAB 180-143856/9	ICS		Water	6020A	
LCS 180-142877/2-A	Lab Control Sample	Total Recoverable	Water	6020A	142877
MB 180-142877/1-A	Method Blank	Total Recoverable	Water	6020A	142877

General Chemistry

Analysis Batch: 143606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44401-1	HD-MW-39D-0/1-0	Total/NA	Water	SM 2320B	
180-44401-1 DU	HD-MW-39D-0/1-0	Total/NA	Water	SM 2320B	
180-44401-2	HD-MW-74S-0/1-0	Total/NA	Water	SM 2320B	
180-44401-3	HD-MW-127-0/1-0	Total/NA	Water	SM 2320B	
180-44401-4	HD-MW-114-0/1-0	Total/NA	Water	SM 2320B	
180-44401-5	HD-MW-132-0/1-0	Total/NA	Water	SM 2320B	
180-44401-6	HD-MW-51D-0/1-0	Total/NA	Water	SM 2320B	
180-44401-7	HD-MW-50S-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-143606/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-143606/2	Method Blank	Total/NA	Water	SM 2320B	

Client Sample ID: HD-MW-39D-0/1-0

Date Collected: 05/21/15 10:55
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143682	06/03/15 17:22	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 08:58	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 14:47	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-74S-0/1-0

Date Collected: 05/21/15 09:25
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143682	06/03/15 19:12	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 08:24	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 14:51	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-127-0/1-0

Date Collected: 05/21/15 12:15
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	20 mL	20 mL	143682	06/03/15 18:45	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 10:42	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 14:55	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-114-0/1-0

Lab Sample ID: 180-44401-4

Date Collected: 05/21/15 09:56

Matrix: Water

Date Received: 05/22/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	20 mL	20 mL	143527	06/02/15 17:26	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	100	20 mL	20 mL	143682	06/03/15 18:18	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 08:41	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 15:09	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-132-0/1-0

Lab Sample ID: 180-44401-5

Date Collected: 05/21/15 11:41

Matrix: Water

Date Received: 05/22/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	20 mL	20 mL	143527	06/02/15 18:21	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	100	20 mL	20 mL	143682	06/03/15 15:05	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 09:16	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 15:13	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-51D-0/1-0

Lab Sample ID: 180-44401-6

Date Collected: 05/21/15 08:20

Matrix: Water

Date Received: 05/22/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	20 mL	20 mL	143682	06/03/15 17:50	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 08:06	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 15:16	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Client Sample ID: HD-MW-50S-0/1-0

Date Collected: 05/21/15 08:10
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	20 mL	20 mL	143527	06/02/15 19:16	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	DL	100	20 mL	20 mL	143682	06/03/15 15:32	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142621	05/23/15 07:30	JMO	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142877	05/27/15 10:42	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143856	06/03/15 15:20	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143606	06/03/15 05:25	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-QC5-0/1-2

Date Collected: 05/21/15 12:00
Date Received: 05/22/15 09:00

Lab Sample ID: 180-44401-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143422	06/01/15 15:17	PJJ	TAL PIT
	Instrument ID: CHHP7									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

AB1 = Ashwin Baikadi

Batch Type: Analysis

CLL = Cheryl Loheyde

CNF = Caitlin Ferguson

JMO = John Oravec

PJJ = Patrick Journet

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-16

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT
300.0	Anions, Ion Chromatography	MCAWW	TAL PIT
6020A	Metals (ICP/MS)	SW846	TAL PIT
SM 2320B	Alkalinity	SM	TAL PIT

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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.

Laboratory References:

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

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44401-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-44401-1	HD-MW-39D-0/1-0	Water	05/21/15 10:55	05/22/15 09:00
180-44401-2	HD-MW-74S-0/1-0	Water	05/21/15 09:25	05/22/15 09:00
180-44401-3	HD-MW-127-0/1-0	Water	05/21/15 12:15	05/22/15 09:00
180-44401-4	HD-MW-114-0/1-0	Water	05/21/15 09:56	05/22/15 09:00
180-44401-5	HD-MW-132-0/1-0	Water	05/21/15 11:41	05/22/15 09:00
180-44401-6	HD-MW-51D-0/1-0	Water	05/21/15 08:20	05/22/15 09:00
180-44401-7	HD-MW-50S-0/1-0	Water	05/21/15 08:10	05/22/15 09:00
180-44401-8	HD-QC5-0/1-2	Water	05/21/15 12:00	05/22/15 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/3 Client Sample ID:

Date Analyzed: 03/30/15 10:57 Lab File ID: 7033003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.93	Poor chromatography	journetp	03/30/15 11:35
Chloromethane	2.09	Poor chromatography	journetp	03/30/15 11:35
Vinyl chloride	2.17	Poor chromatography	journetp	03/30/15 11:35
Bromomethane	2.50	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloroethene	3.46	Poor chromatography	journetp	03/30/15 11:35
1,1,2-Trichloro-1,2,2-trifluoroethane	3.64	Poor chromatography	journetp	03/30/15 11:35
Acetone	3.87	Poor chromatography	journetp	03/30/15 11:35
Allyl chloride	4.06	Poor chromatography	journetp	03/30/15 11:35
Methylene Chloride	4.32	Poor chromatography	journetp	03/30/15 11:35
Methyl acetate	4.36	Poor chromatography	journetp	03/30/15 11:35
Acrylonitrile	4.87	Poor chromatography	journetp	03/30/15 11:35
Methyl tert-butyl ether	4.90	Poor chromatography	journetp	03/30/15 11:35
Hexane	5.12	Poor chromatography	journetp	03/30/15 11:35
Vinyl acetate	5.12	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloroethane	5.33	Poor chromatography	journetp	03/30/15 11:35
2,2-Dichloropropane	6.08	Poor chromatography	journetp	03/30/15 11:35
Chloroform	6.50	Poor chromatography	journetp	03/30/15 11:35
1,1,1-Trichloroethane	6.67	Poor chromatography	journetp	03/30/15 11:35
Cyclohexane	6.72	Poor chromatography	journetp	03/30/15 11:35
Tetrahydrofuran	6.73	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloropropene	6.86	Poor chromatography	journetp	03/30/15 11:35
1,2-Dichloroethane	7.13	Poor chromatography	journetp	03/30/15 11:35
Isobutyl alcohol	7.21	Poor chromatography	journetp	03/30/15 11:35
n-Heptane	7.39	Poor chromatography	journetp	03/30/15 11:35
Trichloroethene	7.80	Poor chromatography	journetp	03/30/15 11:35
Dibromomethane	8.15	Poor chromatography	journetp	03/30/15 11:35
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 11:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/4 Client Sample ID:

Date Analyzed: 03/30/15 11:28 Lab File ID: 7033004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.20	Poor chromatography	journetp	03/30/15 12:11
Carbon disulfide	3.75	Poor chromatography	journetp	03/30/15 12:11
Acetone	3.87	Poor chromatography	journetp	03/30/15 12:11
Allyl chloride	4.11	Poor chromatography	journetp	03/30/15 12:11
tert-Butyl alcohol	4.73	Poor chromatography	journetp	03/30/15 12:11
Acrylonitrile	4.82	Poor chromatography	journetp	03/30/15 12:11
Chloroform	6.51	Poor chromatography	journetp	03/30/15 12:11
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 12:11

Lab Sample ID: ICIS 180-136928/5 Client Sample ID:

Date Analyzed: 03/30/15 11:55 Lab File ID: 7033005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.76	Poor chromatography	journetp	03/30/15 12:42
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 15:32

Lab Sample ID: IC 180-136928/6 Client Sample ID:

Date Analyzed: 03/30/15 12:23 Lab File ID: 7033006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.73	Poor chromatography	journetp	03/30/15 13:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/7 Client Sample ID:

Date Analyzed: 03/30/15 13:05 Lab File ID: 7033007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.76	Poor chromatography	journetp	03/30/15 13:53
tert-Butyl alcohol	4.74	Poor chromatography	journetp	03/30/15 16:20
1,2,4-Trichlorobenzene	14.80	Poor chromatography	journetp	03/30/15 16:20

Lab Sample ID: IC 180-136928/8 Client Sample ID:

Date Analyzed: 03/30/15 13:32 Lab File ID: 7033008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.73	Poor chromatography	journetp	03/30/15 14:17
tert-Butyl alcohol	4.74	Poor chromatography	journetp	03/30/15 14:17

Lab Sample ID: IC 180-136928/10 Client Sample ID:

Date Analyzed: 03/30/15 14:36 Lab File ID: 7033010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.75	Poor chromatography	journetp	03/30/15 15:30
Allyl chloride	4.08	Poor chromatography	journetp	03/30/15 15:30
Acrylonitrile	4.84	Poor chromatography	journetp	03/30/15 15:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143422

Lab Sample ID: CCVIS 180-143422/3 Client Sample ID:

Date Analyzed: 06/01/15 10:16 Lab File ID: 7060103.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.92	Poor chromatography	journetp	06/01/15 11:05
Chloromethane	2.05	Poor chromatography	journetp	06/01/15 11:05
Vinyl chloride	2.23	Poor chromatography	journetp	06/01/15 11:05
Bromomethane	2.51	Poor chromatography	journetp	06/01/15 11:05
1,1-Dichloroethene	3.54	Poor chromatography	journetp	06/01/15 11:05

Lab Sample ID: LCS 180-143422/8 Client Sample ID:

Date Analyzed: 06/01/15 13:26 Lab File ID: 7060108.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.05	Poor chromatography	journetp	06/01/15 14:03
Vinyl chloride	2.20	Poor chromatography	journetp	06/01/15 13:58

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143527

Lab Sample ID: CCVIS 180-143527/3 Client Sample ID:

Date Analyzed: 06/02/15 10:22 Lab File ID: 7060203.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.03	Poor chromatography	journetp	06/02/15 10:57
Vinyl chloride	2.23	Poor chromatography	journetp	06/02/15 10:57
Carbon disulfide	3.84	Poor chromatography	journetp	06/02/15 11:30

Lab Sample ID: LCS 180-143527/10 Client Sample ID:

Date Analyzed: 06/02/15 14:40 Lab File ID: 7060210.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.91	Poor chromatography	journetp	06/02/15 15:34

Lab Sample ID: 180-44401-4 Client Sample ID: HD-MW-114-0/1-0

Date Analyzed: 06/02/15 17:26 Lab File ID: 7060216.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,1-Trichloroethane	6.70	Poor chromatography	journetp	06/03/15 08:05

Lab Sample ID: 180-44401-7 Client Sample ID: HD-MW-50S-0/1-0

Date Analyzed: 06/02/15 19:16 Lab File ID: 7060220.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.50	Poor chromatography	journetp	06/03/15 08:10
Carbon tetrachloride	6.88	Poor chromatography	journetp	06/03/15 08:10

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143682

Lab Sample ID: CCVIS 180-143682/3 Client Sample ID:

Date Analyzed: 06/03/15 10:07 Lab File ID: 7060303.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.88	Poor chromatography	journetp	06/03/15 10:43
Allyl chloride	4.18	Poor chromatography	journetp	06/03/15 10:43
Hexane	5.18	Poor chromatography	journetp	06/03/15 10:46

Lab Sample ID: LCS 180-143682/9 Client Sample ID:

Date Analyzed: 06/03/15 13:09 Lab File ID: 7060309.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.06	Poor chromatography	journetp	06/03/15 13:56

Lab Sample ID: 180-44401-5 DL Client Sample ID: HD-MW-132-0/1-0 DL

Date Analyzed: 06/03/15 15:05 Lab File ID: 7060314.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.65	Poor chromatography	journetp	06/03/15 16:06
TBA-d9 (IS)	4.58	Poor chromatography	journetp	06/03/15 15:49
Chlorobenzene-d5	10.47	Poor chromatography	journetp	06/03/15 15:49

Lab Sample ID: 180-44401-7 DL Client Sample ID: HD-MW-50S-0/1-0 DL

Date Analyzed: 06/03/15 15:32 Lab File ID: 7060315.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.65	Poor chromatography	journetp	06/03/15 16:04
trans-1,2-Dichloroethene	4.79	Poor chromatography	journetp	06/03/15 16:04
Chloroform	6.51	Poor chromatography	journetp	06/03/15 16:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143682

Lab Sample ID: 180-44401-6 Client Sample ID: HD-MW-51D-0/1-0

Date Analyzed: 06/03/15 17:50 Lab File ID: 7060320.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.64	Poor chromatography	journetp	06/03/15 18:21
1,1,1-Trichloroethane	6.69	Poor chromatography	journetp	06/03/15 18:21

Lab Sample ID: 180-44401-4 DL Client Sample ID: HD-MW-114-0/1-0 DL

Date Analyzed: 06/03/15 18:18 Lab File ID: 7060321.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.64	Poor chromatography	journetp	06/04/15 07:38
1,1,1-Trichloroethane	6.69	Poor chromatography	journetp	06/04/15 07:38

Lab Sample ID: 180-44401-3 Client Sample ID: HD-MW-127-0/1-0

Date Analyzed: 06/03/15 18:45 Lab File ID: 7060322.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.63	Poor chromatography	journetp	06/04/15 07:39
trans-1,2-Dichloroethene	4.83	Poor chromatography	journetp	06/04/15 07:39
Carbon tetrachloride	6.87	Poor chromatography	journetp	06/04/15 07:39

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01245	05/23/15	05/22/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00007	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 ug/mL
.ICPRIMARYSTA_00007	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
icicv_01277	05/23/15	05/22/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00006	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00006	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00171	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00209	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL
							Nitrate as N	0.25 ug/mL
							Orthophosphate as P	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL4_00143	04/16/15	04/15/15	DI Water, Lot na	5 mL	ICSTDL7_00141	0.5 mL	Bromide	2 ug/mL
							Chloride	10 ug/mL
							Fluoride	0.5 ug/mL
							Nitrate as N	0.5 ug/mL
							Orthophosphate as P	0.5 ug/mL
							Sulfate	10 ug/mL
							Nitrite as N	0.5 ug/mL
.ICSTDL7_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL5_00145	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00141	1 mL	Bromide	4 ug/mL
							Chloride	20 ug/mL
							Fluoride	1 ug/mL
							Nitrate as N	1 ug/mL
							Orthophosphate as P	1 ug/mL
							Sulfate	20 ug/mL
							Nitrite as N	1 ug/mL
.ICSTDL7_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00141	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL8_00112	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.6 mL	Bromide	30 ug/mL
							Chloride	150 ug/mL
							Fluoride	7.5 ug/mL
							Nitrate as N	7.5 ug/mL
							Orthophosphate as P	7.5 ug/mL
							Sulfate	150 ug/mL
					ICPRIMARYSTDB_00008	0.6 mL	Nitrite as N	7.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00115	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
MCCV1X_00076	07/01/15	05/31/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00006	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00066	05/29/15	04/29/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00005	1 mL	Calcium	0.5 ppm
							Magnesium	0.5 ppm
							Potassium	0.5 ppm
							Sodium	0.5 ppm
.MMSCRI-1B_00005	04/01/16	Inorganic Ventures, Lot J2-MEB572092			(Purchased Reagent)		Calcium	125 ppm
							Magnesium	125 ppm
							Potassium	125 ppm
							Sodium	125 ppm
MICSABX_00071	06/19/15	05/19/15	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Ag	0.02 ppm
							As	0.02 ppm
							Cd	0.02 ppm
							Co	0.02 ppm
							Cr	0.02 ppm
							Cu	0.02 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mn	0.0225 ppm
							Ni	0.02 ppm
							Zn	0.025 ppm
					MMSICSAB-1_00008	0.2 mL	Ba	0.02 ppm
							Be	0.02 ppm
							Pb	0.02 ppm
							Sr	0.025 ppm
							Tl	0.02 ppm
							V	0.02 ppm
					MMSICSAB-2_00007	0.2 mL	B	0.05 ppm
							Sb	0.02 ppm
							Se	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
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151			(Purchased Reagent)		Ag	2 ppm
							As	2 ppm
							Cd	2 ppm
							Co	2 ppm
							Cr	2 ppm
							Cu	2 ppm
							Mn	2.25 ppm
							Ni	2 ppm
							Zn	2.5 ppm
.MMSICSAB-1_00008	06/01/16	Inorganic Ventures, Lot J2-MEB575125			(Purchased Reagent)		Ba	10 ppm
							Be	10 ppm
							Pb	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm
							V	10 ppm
.MMSICSAB-2_00007	06/01/16	Inorganic Ventures, Lot J2-MEB575126			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm
							Se	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00067	06/19/15	05/19/15	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
MICVX_00032	06/19/15	05/19/15	2% Nitric Acid, Lot 25106	250 mg/L	MICPMSICV_00018	10 mg/L	Calcium	40 mg/L
							Magnesium	40 mg/L
							Potassium	40 mg/L
							Sodium	40 mg/L
.MICPMSICV_00018	11/30/15	SPEX CertiPrep, Lot 7-230WL			(Purchased Reagent)		Calcium	1000 ppm
							Magnesium	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
MSTD2X_00047	07/01/15	05/31/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00006	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MTAPITTICPMS_00020	07/01/15	INORGANIC VENTURES, Lot H2-MEB532047			(Purchased Reagent)		Ag	5 ug/mL
							Al	200 ug/mL
							As	4 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Be	5 ug/mL
							Cd	5 ug/mL
							Co	50 ug/mL
							Cr	20 ug/mL
							Cu	25 ug/mL
							Fe	100 ug/mL
							Mn	50 ug/mL
							Ni	50 ug/mL
							Pb	2 ug/mL
							Se	1 ug/mL
							Sr	100 ug/mL
							Tl	5 ug/mL
							V	50 ug/mL
							Zn	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MTAPITTMSA_00024	04/01/16	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSC_00030	04/01/16	Inorganic Ventures, Lot H2-MEB532046			(Purchased Reagent)		Mo	100 ug/mL
							Sb	50 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
VOA8260INT_00030	04/10/15	03/10/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00091	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00091	07/31/19	Restek, Lot A0104742			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_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
VOA8260SURR_00036	06/13/15	05/13/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00090	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_00090	04/30/19	Restek, Lot A0102817			(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_00124	06/02/15	05/26/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00102	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00121	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00102	04/30/18		Restek, Lot A0110106		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00121	06/15/16	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00031	0.8 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-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	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
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00031	01/31/17		Restek, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOA2ND_00125	06/10/15	06/03/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00098	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00121	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00098	01/31/18		Restek, Lot A0108226		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00121	06/15/16	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00031	0.8 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-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	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
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00031	01/31/17		Restek, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00108	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00092	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_00106	1.25 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00092	09/30/16		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00106	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00038	0.16 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_00014	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-Dibromoethane (EDB)	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
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	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_00038	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00014	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
							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-Dibromoethane (EDB)	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	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
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00121	06/02/15	05/26/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00100	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00117	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00100	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00117	06/15/15	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00028	0.8 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-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	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
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00028	02/28/16		Restek, Lot A0108166		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00123	06/10/15	06/03/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00101	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00117	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00101	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00117	06/15/15	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00028	0.8 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-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	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
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00028	02/28/16		Restek, Lot A0108166		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOAACRPRI_00003	03/31/15	03/03/15	Methanol, Lot 85233	100 mL	VOAACRORES_00064	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00064	03/31/15		Restek, Lot A0107338		(Purchased Reagent)		Acrolein	20000 ug/mL
VOAVAPRI_00005	04/13/15	03/13/15	Methanol, Lot 85233	50 mL	VOA8260VARES_00050	0.25 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00050	07/31/15		Restek, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
voaWKet2 Rest_00002	04/16/15	03/16/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00042	0.1 mL	2-Hexanone	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00042	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Hexanone	12500 ug/mL
							Acetone	12500 ug/mL
voaWket2nd Re_00002	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00047	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00047	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWketmix1Re_00001	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00043	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	25 ug/mL
.VOA8260KET1ST_00043	04/30/18	Restek, Lot A0110400			(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWketPri Re_00005	06/01/15	05/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00041	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00041	01/31/18	Restek, Lot A0108151			(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
WALK125PPMCCV_00085	11/14/15	05/14/15	DI Water, Lot SUPERQ	1000 mL	WNa2CO3P_00007	0.125 g	Total Alkalinity as CaCO3 to pH 4.5	125 mg/L
.WNa2CO3P_00007	07/09/18	Fisher Scientific, Lot 138124			(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g
WALK250PPMPi_00094	11/14/15	05/14/15	DI Water, Lot Super Q	1000 mL	WNa2CO3P_00007	0.25 g	Total Alkalinity as CaCO3 to pH 4.5	250 mg/L
.WNa2CO3P_00007	07/09/18	Fisher Scientific, Lot 138124			(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g

Reagent

ICPRIMARYSTA_00006

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

Product Description:

Name:	IC Spike
Part Number:	**SM-606-005 Solution A**
Lot Number:	**1427624**
Matrix:	H_2O
Purity:	99.1+%

Certified Values:

Component	Certified Value (µg/mL)	NIST SRM ID	NIST SRM Lot #
Bromide	500 ± 5	3184	020701
Chloride	2500 ± 25	3182	060925
Fluoride	125.00 ± 1.25	3183	050721
NO_3 as N	125.00 ± 1.25	3185	050517
PO_4 as P	125.00 ± 1.25	3186	090723
Sulfate	2500 ± 25	3181	080603

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via ion chromatography (IC) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

Preparation Information:

Custom standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by IC for conformity prior to use. The matrix is 18 megohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**
The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided.

Preparation Date:	**October 3, 2014**
Shipped Date:	**October 8, 2014**
Expiration Date:	**October 8, 2015**
Certificate Issue Date:	**October 8, 2014**

Quality Information:

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Angel Sellers,
Quality Manager

Reagent

ICPRIMARYSTDB_00008

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

Certificate of Analysis

Product Description:

Name:	IC Spike	Source Material:	Sodium Nitrite
Part Number:	**SM-606-005 Solution B**	Material Purity:	100%
Lot Number:	**1427626**	Matrix:	H_2O

Certified Value:

NO_2 as N 125.00 µg/mL ± 1.25 µg/mL

The Certified value is based on gravimetric preparation and verified against a second source or independent lot via ion chromatography (IC) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.

Preparation Information:

The highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by analytical methods for conformity prior to use. This standard was prepared using methods developed at NIST for the preparation of SRM Spectrometric Standard Solutions. The matrix is 18 megohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.
The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542.

c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards:**
The Calibration Standard is traceable to a second source or independent lot.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided.

Preparation Date:	October 3, 2014
Shipped Date:	October 8, 2014
Expiration Date:	October 8, 2015
Certificate Issue Date:	October 8, 2014

Quality Information:

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

Angel Sellers,
Quality Manager

Reagent

M6020ICS-0A_00005

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

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0B_00006

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

Reagent

MCALSPECAREV_00006

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 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-CAL-SPECA-REV
Lot Number:	J2-MEB575123
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	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

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	25.01 ± 0.13 µg/mL	Arsenic, As	5.000 ± 0.032 µg/mL
Barium, Ba	4.997 ± 0.028 µg/mL	Beryllium, Be	5.003 ± 0.032 µg/mL
Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2 500 ± 11 µg/mL
Chromium+3, Cr3	4.999 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.025 µg/mL
Copper, Cu	4.998 ± 0.032 µg/mL	Iron, Fe	1 250 ± 6 µg/mL
Lead, Pb	4.999 ± 0.025 µg/mL	Magnesium, Mg	2 500 ± 12 µg/mL
Manganese, Mn	24.99 ± 0.12 µg/mL	Nickel, Ni	4.998 ± 0.028 µg/mL
Potassium, K	2 500 ± 11 µg/mL	Selenium, Se	4.998 ± 0.028 µg/mL
Silver, Ag	4.998 ± 0.036 µg/mL	Sodium, Na	2 500 ± 11 µg/mL
Strontium, Sr	5.002 ± 0.032 µg/mL	Thallium, Tl	4.999 ± 0.040 µg/mL
Vanadium, V	5.002 ± 0.032 µg/mL	Zinc, Zn	5.001 ± 0.028 µg/mL

Certified Density: 1.048 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	060502
As	EDTA		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
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	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
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	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
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 $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = 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 stablity.

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 cap 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.

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 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

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

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

Reagent

MICPMSICV_00018

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

Reagent

MMSCRI-1B_00005

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 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSCRI-1B-REV1
Lot Number:	J2-MEB572092
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	125 µg/mL ea:
	Ca, K, Mg, Na,
	12.5 µg/mL ea:
	Fe,
	7.5 µg/mL ea:
	Al,
	2.5 µg/mL ea:
	Ba,
	1.25 µg/mL ea:
	Mn, Se, Sr, Zn,
	0.5 µg/mL ea:
	Cr3, Cu,
	0.25 µg/mL ea:
	Ag, As, Be, Cd,
	Ni, Pb, Tl, V,
	0.125 µg/mL ea:
	Co

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	7.49 ± 0.05 µg/mL	Arsenic, As	0.2501 ± 0.0021 µg/mL
Barium, Ba	2.500 ± 0.019 µg/mL	Beryllium, Be	0.2500 ± 0.0021 µg/mL
Cadmium, Cd	0.2501 ± 0.0019 µg/mL	Calcium, Ca	125.0 ± 0.6 µg/mL
Chromium+3, Cr3	0.5000 ± 0.0041 µg/mL	Cobalt, Co	0.1250 ± 0.0011 µg/mL
Copper, Cu	0.5003 ± 0.0035 µg/mL	Iron, Fe	12.50 ± 0.07 µg/mL
Lead, Pb	0.2501 ± 0.0017 µg/mL	Magnesium, Mg	125.0 ± 0.6 µg/mL
Manganese, Mn	1.250 ± 0.010 µg/mL	Nickel, Ni	0.2500 ± 0.0020 µg/mL
Potassium, K	125.0 ± 0.6 µg/mL	Selenium, Se	1.250 ± 0.010 µg/mL
Silver, Ag	0.2500 ± 0.0023 µg/mL	Sodium, Na	125.0 ± 0.6 µg/mL
Strontium, Sr	1.250 ± 0.008 µg/mL	Thallium, Tl	0.2501 ± 0.0021 µg/mL
Vanadium, V	0.2499 ± 0.0018 µg/mL	Zinc, Zn	1.250 ± 0.010 µg/mL

Certified Density: 1.019 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	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	892707
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	Calculated		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 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 cap 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.

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 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

March 20, 2015

11.2 Expiration Date

EXPIRES
01 APR 2016

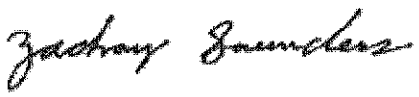
11.3 Period of Validity

- 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

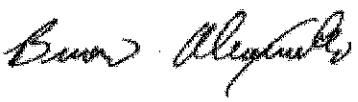
Certificate Prepared By:

Zach Saunders
Product Documentation Technician



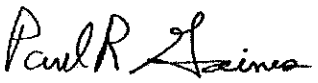
Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MMSICSAB-1_00008

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 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSICSAB-1
Lot Number:	J2-MEB575125
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Ba, Be, Pb,
Sr, Tl, V

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.00 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL
Lead, Pb	10.00 ± 0.05 µg/mL	Strontium, Sr	10.00 ± 0.06 µg/mL
Thallium, Tl	10.00 ± 0.08 µg/mL	Vanadium, V	10.00 ± 0.06 µg/mL

Certified Density: 1.013 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	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 (±) = $2\,[\,\Sigma(s_i)^2\,]^{1/2}$ 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 cap 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

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JAN 2016

11.3 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

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

Reagent

MMSICSAB-2_00007

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CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030
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1.0 ACCREDITATION / REGISTRATION

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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-MSICSAB-2
Lot Number:	J2-MEB575126
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	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

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	25.01 ± 0.17 µg/mL
Selenium, Se	25.00 ± 0.17 µg/mL	Silicon, Si	250.0 ± 1.9 µg/mL
Tin, Sn	50.01 ± 0.23 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
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

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 (±) = $2 [\Sigma(s_i)^2]^{1/2}$ 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 cap 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

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

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

Reagent

MTAPITTICPMS_00020

1222800

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

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Rec'd 6/17/14 RJR

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-ICPMS
Lot Number:	H2-MEB532047
Matrix:	0.7% (v/v) HNO3
Value / Analyte(s):	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 ± 1.0 µg/mL	Arsenic, As	4.002 ± 0.028 µg/mL	Barium, Ba	200.0 ± 1.0 µg/mL
Beryllium, Be	5.000 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.000 ± 0.024 µg/mL
Chromium+3, Cr3	20.00 ± 0.10 µg/mL	Cobalt, Co	50.02 ± 0.25 µg/mL	Copper, Cu	25.00 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.000 ± 0.010 µg/mL	Manganese, Mn	49.99 ± 0.22 µg/mL
Nickel, Ni	50.02 ± 0.24 µg/mL	Selenium, Se	1.001 ± 0.006 µg/mL	Silver, Ag	5.002 ± 0.032 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.002 ± 0.033 µg/mL	Vanadium, V	50.00 ± 0.24 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

Certified Density: 1.003 g/mL (measured at 20 ± 1 °C)

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	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	080531
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	120619
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	3168	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
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 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.

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 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 Requirments 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 06, 2014

11.2 Expiration Date

11.3 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

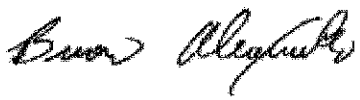
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

Reagent

MTAPITTMSA_00024

INORGANIC VENTURES™
300 Technology Drive
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inorganicventures.com

1507790, 1507791

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030
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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Recd 3/19/15
a B

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

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

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

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 cap 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 Expiration Date

EXPIRES
1 APR 2016

11.3 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

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

Reagent

MTAPITTMSC_00030

ISO 7793, ISO 7794

CERTIFICATE OF ANALYSIS

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 • USA
inorganicventures.com

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ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

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

Recd 3/19/15
QB

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 ± 0.6 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 $(\bar{x}) = \frac{\Sigma x_i}{n}$ ($\bar{x}$) = 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

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

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

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 cap 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 Expiration Date

EXPIRES
1 APR 2016

11.3 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 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

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

Reagent

VOA8260GAS1ST_00092

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0108198

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

8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,504.8 µg/mL	+/- 21.9788 µg/mL +/- 32.6918 µg/mL +/- 36.4326 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,509.8 µg/mL	+/- 19.6377 µg/mL +/- 31.2039 µg/mL +/- 35.1185 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,515.3 µg/mL	+/- 22.1368 µg/mL +/- 32.8734 µg/mL +/- 36.6254 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	2,498.0 µg/mL	+/- 23.6713 µg/mL +/- 33.8065 µg/mL +/- 37.4176 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,503.7 µg/mL	+/- 30.8470 µg/mL +/- 39.2011 µg/mL +/- 42.3685 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,507.7 µg/mL	+/- 21.9404 µg/mL +/- 32.6873 µg/mL +/- 36.4370 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.7 µg/mL	+/- 26.0039 µg/mL +/- 35.4965 µg/mL +/- 38.9583 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.9	µg/mL	+/-	21.5914	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBD5121V)			+/-	32.4119	µg/mL	Unstressed
	Purity 99%				+/-	36.1734	µg/mL	Stressed

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

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

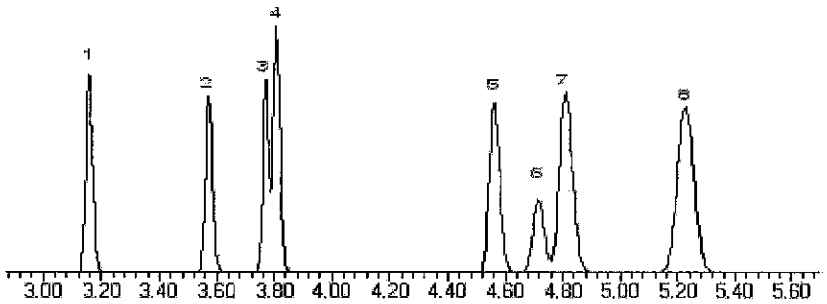
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

Date Mixed: 08-Jan-2015 **Balance:** 1125113331

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS1ST_00100

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Certificate of Analysis

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0110070

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

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

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,499.9 µg/mL	+/- 17.9502 µg/mL +/- 30.0934 µg/mL +/- 34.1055 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,500.1 µg/mL	+/- 17.2963 µg/mL +/- 29.7101 µg/mL +/- 33.7686 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,500.2 µg/mL	+/- 16.5642 µg/mL +/- 29.2906 µg/mL +/- 33.4004 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.0 µg/mL	+/- 17.0072 µg/mL +/- 29.5416 µg/mL +/- 33.6200 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,499.8 µg/mL	+/- 18.9451 µg/mL +/- 30.6969 µg/mL +/- 34.6391 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 17.6395 µg/mL +/- 29.9122 µg/mL +/- 33.9470 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.2 µg/mL	+/- 16.7318 µg/mL +/- 29.3854 µg/mL +/- 33.4835 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,500.3	µg/mL	+/-	16.5866	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBD5121V)			+/-	29.3037	µg/mL	Unstressed
	Purity 99%				+/-	33.4120	µg/mL	Stressed

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

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

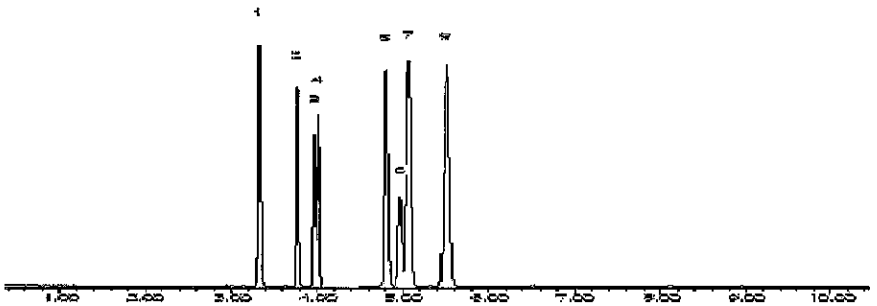
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

Date Mixed: 02-Apr-2015 **Balance:** B251644995

Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

Reagent

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0110070

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

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

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,499.9 µg/mL	+/- 17.9502 µg/mL +/- 30.0934 µg/mL +/- 34.1055 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,500.1 µg/mL	+/- 17.2963 µg/mL +/- 29.7101 µg/mL +/- 33.7686 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,500.2 µg/mL	+/- 16.5642 µg/mL +/- 29.2906 µg/mL +/- 33.4004 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.0 µg/mL	+/- 17.0072 µg/mL +/- 29.5416 µg/mL +/- 33.6200 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,499.8 µg/mL	+/- 18.9451 µg/mL +/- 30.6969 µg/mL +/- 34.6391 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 17.6395 µg/mL +/- 29.9122 µg/mL +/- 33.9470 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.2 µg/mL	+/- 16.7318 µg/mL +/- 29.3854 µg/mL +/- 33.4835 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,500.3	µg/mL	+/-	16.5866	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot SHBD5121V)			+/-	29.3037	µg/mL	Unstressed
	Purity 99%				+/-	33.4120	µg/mL	Stressed

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

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

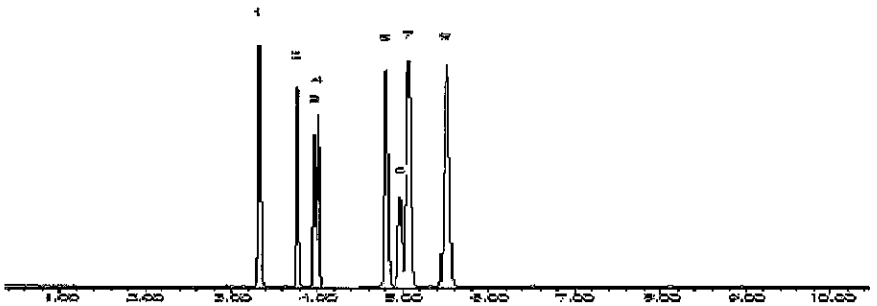
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

Date Mixed: 02-Apr-2015 **Balance:** B251644995

Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722.sec **Lot No.:** A0108226

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

8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)	2,494.8 µg/mL	+/- 23.5521	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 19630)		+/- 33.7009	µg/mL	Unstressed
	Purity 99%		+/- 37.3133	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,505.6 µg/mL	+/- 26.4745	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 35.8743	µg/mL	Unstressed
	Purity 99%		+/- 39.3156	µg/mL	Stressed
3	Vinyl chloride	2,499.8 µg/mL	+/- 25.3054	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 34.9816	µg/mL	Unstressed
	Purity 99%		+/- 38.4872	µg/mL	Stressed
4	1,3-Butadiene	2,505.4 µg/mL	+/- 23.1450	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 33.4914	µg/mL	Unstressed
	Purity 99%		+/- 37.1536	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,495.4 µg/mL	+/- 25.3762	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 35.0038	µg/mL	Unstressed
	Purity 99%		+/- 38.4957	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,499.5 µg/mL	+/- 21.8687	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 32.5806	µg/mL	Unstressed
	Purity 99%		+/- 36.3180	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,511.0 µg/mL	+/- 21.9690	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 32.7299	µg/mL	Unstressed
	Purity 99%		+/- 36.4846	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,504.4	µg/mL	+/-	25.2390	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q158-102)			+/-	34.9647	µg/mL	Unstressed
	Purity 99%				+/-	38.4843	µg/mL	Stressed

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

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

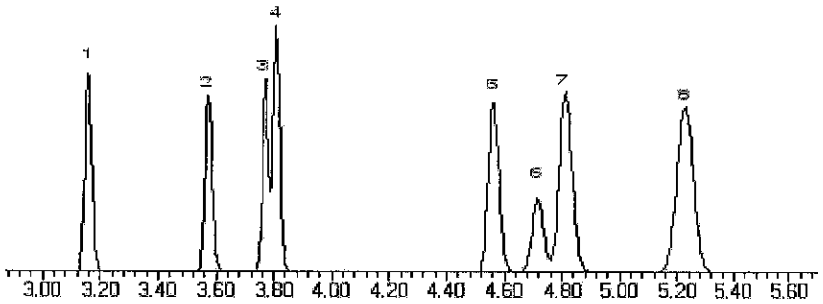
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

Date Mixed: 12-Jan-2015 **Balance:** 1127510105

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722.sec **Lot No.:** A0110106

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

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

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 19630) **Purity** 99%	2,509.4 µg/mL	+/- 20.9236 µg/mL +/- 32.0257 µg/mL +/- 35.8494 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,502.7 µg/mL	+/- 23.6266 µg/mL +/- 33.8074 µg/mL +/- 37.4313 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,491.5 µg/mL	+/- 17.2880 µg/mL +/- 29.6375 µg/mL +/- 33.6784 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 18349) **Purity** 99%	2,507.8 µg/mL	+/- 22.8524 µg/mL +/- 33.3069 µg/mL +/- 36.9941 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot Q119-46) **Purity** 99%	2,506.8 µg/mL	+/- 26.3554 µg/mL +/- 35.7944 µg/mL +/- 39.2459 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot Q18B-13) **Purity** 99%	2,509.1 µg/mL	+/- 21.2389 µg/mL +/- 32.2303 µg/mL +/- 36.0315 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4.SEC (Lot SHBC0858V) **Purity** 99%	2,500.4 µg/mL	+/- 21.7500 µg/mL +/- 32.5072 µg/mL +/- 36.2547 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,504.6	µg/mL	+/-	24.2951	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q158-102)			+/-	34.2908	µg/mL	Unstressed
	Purity 99%				+/-	37.8735	µg/mL	Stressed

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

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

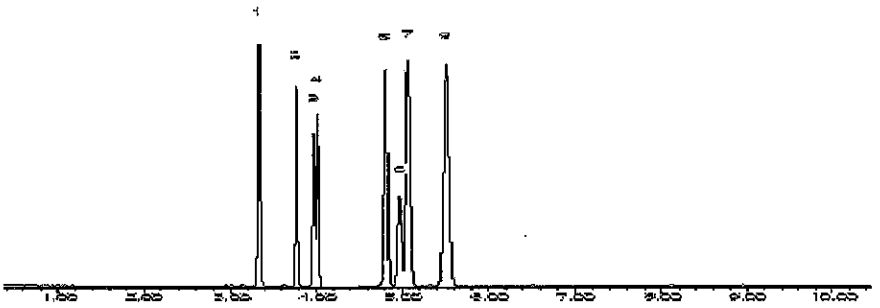
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

Tyler Brown - QA Analyst

Date Mixed: 06-Apr-2015 **Balance:** 1127510105

Date Passed: 08-Apr-2015

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

Reagent

VOA8260INTRES_00091

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

Catalog No. : 567649 **Lot No.:** A0104742

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 (Lot I201P5) **Purity** 99%	5,003.0 µg/mL	+/- 29.0879 µg/mL +/- 106.1005 µg/mL +/- 106.5713 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene **CAS #** 462-06-6 (Lot 1380033) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
3	1,4-Dioxane-d8 **CAS #** 17647-74-4 (Lot 11C-596) **Purity** 99%	5,009.6 µg/mL	+/- 29.1262 µg/mL +/- 106.2405 µg/mL +/- 106.7119 µg/mL	Gravimetric Unstressed Stressed
4	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-22736) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
5	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	250.8 µg/mL	+/- 1.4795 µg/mL +/- 5.3247 µg/mL +/- 5.3483 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00038

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0108151

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBK8325V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00041

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0108151

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBK8325V) **Purity** 99%	12,537.0 µg/mL	+/- 73.4069 µg/mL +/- 667.2480 µg/mL +/- 667.9837 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00043

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0110400

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

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

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

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	12,506.8 µg/mL	+/- 73.2301 µg/mL +/- 665.6407 µg/mL +/- 666.3747 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot BCBH7802V) **Purity** 99%	12,504.8 µg/mL	+/- 73.2184 µg/mL +/- 665.5343 µg/mL +/- 666.2681 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBF5332V) **Purity** 99%	12,509.2 µg/mL	+/- 73.2441 µg/mL +/- 665.7684 µg/mL +/- 666.5025 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBN7380V) **Purity** 99%	12,501.6 µg/mL	+/- 73.1996 µg/mL +/- 665.3640 µg/mL +/- 666.0976 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET2ND_00042

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721.SEC **Lot No.:** A0108157

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone		12,504.0	µg/mL	+/- 73.2137	µg/mL	Gravimetric
	CAS # 67-64-1.SEC	(Lot 0902033)			+/- 665.4917	µg/mL	Unstressed
	Purity 99%				+/- 666.2255	µg/mL	Stressed
2	2-Butanone (MEK)		12,506.0	µg/mL	+/- 73.2254	µg/mL	Gravimetric
	CAS # 78-93-3.SEC	(Lot VEGGI)			+/- 665.5981	µg/mL	Unstressed
	Purity 99%				+/- 666.3320	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,537.3	µg/mL	+/- 73.4088	µg/mL	Gravimetric
	CAS # 108-10-1.SEC	(Lot E29T040)			+/- 667.2658	µg/mL	Unstressed
	Purity 99%				+/- 668.0015	µg/mL	Stressed
4	2-Hexanone		12,508.7	µg/mL	+/- 73.2410	µg/mL	Gravimetric
	CAS # 591-78-6.SEC	(Lot ZSVCD-FF)			+/- 665.7401	µg/mL	Unstressed
	Purity 99%				+/- 666.4741	µg/mL	Stressed

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

Reagent

VOA8260KET2ND_00047

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721.SEC **Lot No.:** A0108157

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone		12,504.0	µg/mL	+/- 73.2137	µg/mL	Gravimetric
	CAS # 67-64-1.SEC	(Lot 0902033)			+/- 665.4917	µg/mL	Unstressed
	Purity 99%				+/- 666.2255	µg/mL	Stressed
2	2-Butanone (MEK)		12,506.0	µg/mL	+/- 73.2254	µg/mL	Gravimetric
	CAS # 78-93-3.SEC	(Lot VEGGI)			+/- 665.5981	µg/mL	Unstressed
	Purity 99%				+/- 666.3320	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,537.3	µg/mL	+/- 73.4088	µg/mL	Gravimetric
	CAS # 108-10-1.SEC	(Lot E29T040)			+/- 667.2658	µg/mL	Unstressed
	Purity 99%				+/- 668.0015	µg/mL	Stressed
4	2-Hexanone		12,508.7	µg/mL	+/- 73.2410	µg/mL	Gravimetric
	CAS # 591-78-6.SEC	(Lot ZSVCD-FF)			+/- 665.7401	µg/mL	Unstressed
	Purity 99%				+/- 666.4741	µg/mL	Stressed

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

Reagent

VOA8260MEGA1_00014

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

Catalog No. : 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 µg/mL +/- 44.2531 µg/mL +/- 44.4335 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 µg/mL +/- 44.2519 µg/mL +/- 44.4323 µg/mL		Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 µg/mL +/- 44.2527 µg/mL +/- 44.4331 µg/mL		Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 µg/mL +/- 442.5291 µg/mL +/- 444.3332 µg/mL		Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 µg/mL -/- 44.2531 µg/mL +/- 44.4335 µg/mL		Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 µg/mL +/- 44.2527 µg/mL +/- 44.4331 µg/mL		Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 µg/mL +/- 221.2646 µg/mL +/- 222.1666 µg/mL		Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 µg/mL +/- 44.2527 µg/mL +/- 44.4331 µg/mL		Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 µg/mL +/- 44.2531 µg/mL +/- 44.4335 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)

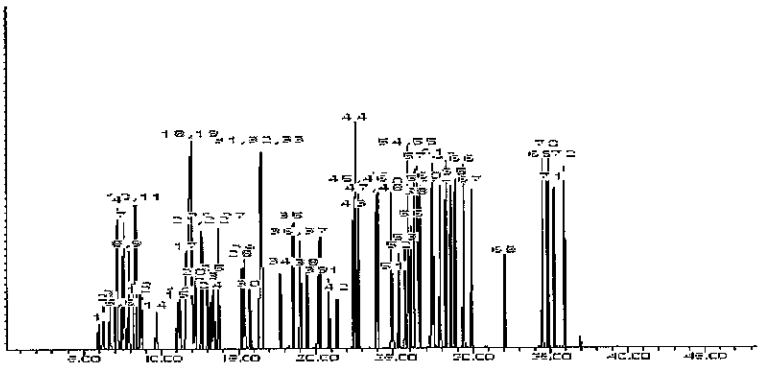
Carrier Gas:
helium-constant pressure 30 psi

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

Reagent

VOA8260MEGA1_00028

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720 **Lot No.:** A0108166

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBF3466V) **Purity** 99%	2,521.3 µg/mL	+/- 14.6588 µg/mL +/- 134.1754 µg/mL +/- 134.3233 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00001135) **Purity** 99%	2,522.5 µg/mL	+/- 14.6660 µg/mL +/- 134.2419 µg/mL +/- 134.3899 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethane **CAS #** 75-34-3 (Lot Q179-33) **Purity** 98%	2,499.5 µg/mL	+/- 14.5323 µg/mL +/- 133.0173 µg/mL +/- 133.1640 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBC6893V) **Purity** 99%	25,002.4 µg/mL	+/- 145.3584 µg/mL +/- 1,330.5704 µg/mL +/- 1,332.0378 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBC7288V) **Purity** 99%	2,510.0 µg/mL	+/- 14.5934 µg/mL +/- 133.5767 µg/mL +/- 133.7240 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9 (Lot SHBD7134V) **Purity** 98%	12,505.4 µg/mL	+/- 72.7037 µg/mL +/- 665.5101 µg/mL +/- 666.2440 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot MKBG5777V) **Purity** 99%	2,500.0 µg/mL	+/- 19.2743 µg/mL +/- 133.6453 µg/mL +/- 133.7914 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	Purity 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	Purity 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	Purity 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	Purity 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	Purity 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	Purity 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	Purity 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	Purity 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	Purity 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	Purity 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	Purity 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	Purity 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	Purity 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	Purity 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	Purity 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	Purity 99%				+/-	133.4709	µg/mL	Stressed

24	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBF2321V)	2,501.4	µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBC6595V)	2,501.6	µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBD4617V)	2,509.1	µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBF0943V)	2,504.8	µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane **CAS #** 108-87-2 **Purity** 99%	(Lot 50996APV)	2,502.5	µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,502.4	µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane **CAS #** 75-27-4 **Purity** 98%	(Lot MKBL1617V)	2,507.9	µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBF2002V)	50,001.4	µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 99%	(Lot 10169264)	2,508.1	µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 20936)	2,507.0	µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBF2730V)	2,502.4	µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot 69796APV)	2,500.9	µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C363110)	2,502.1	µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,507.5	µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2,505.3	µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD2073V)	2,506.5	µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,503.2	µg/mL	+/-	14.5536	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBP0459V)			+/-	133.2129	µg/mL	Unstressed
	Purity 98%				+/-	133.3598	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,504.3	µg/mL	+/-	14.5599	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	133.2707	µg/mL	Unstressed
	Purity 99%				+/-	133.4176	µg/mL	Stressed
42	Chlorobenzene		2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBD3200V)			+/-	133.6166	µg/mL	Unstressed
	Purity 99%				+/-	133.7639	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	133.1975	µg/mL	Unstressed
	Purity 99%				+/-	133.3444	µg/mL	Stressed
44	Ethylbenzene		2,509.6	µg/mL	+/-	14.5912	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBC9001V)			+/-	133.5567	µg/mL	Unstressed
	Purity 99%				+/-	133.7040	µg/mL	Stressed
45	m-Xylene		1,252.6	µg/mL	+/-	7.2829	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF1720V)			+/-	66.6619	µg/mL	Unstressed
	Purity 99%				+/-	66.7355	µg/mL	Stressed
46	o-Xylene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBC8668V)			+/-	133.2390	µg/mL	Unstressed
	Purity 98%				+/-	133.3859	µg/mL	Stressed
47	p-Xylene		1,253.3	µg/mL	+/-	7.2865	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	66.6952	µg/mL	Unstressed
	Purity 99%				+/-	66.7688	µg/mL	Stressed
48	Styrene		2,503.5	µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot 10182421)			+/-	133.2307	µg/mL	Unstressed
	Purity 99%				+/-	133.3777	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10169400)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
50	bromoform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	133.4569	µg/mL	Unstressed
	Purity 99%				+/-	133.6041	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,510.3	µg/mL	+/-	14.5948	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)			+/-	133.5900	µg/mL	Unstressed
	Purity 99%				+/-	133.7373	µg/mL	Stressed
52	chloroform		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBB7498V)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 1428739V)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.5	µg/mL	+/-	14.5322	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP5371V)			+/-	133.0168	µg/mL	Unstressed
	Purity 96%				+/-	133.1635	µg/mL	Stressed
55	n-Propylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBQ8049V)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed

56	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot MKBD4032V)	2,501.1	µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ1732V)	2,501.6	µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBH8892V)	2,500.3	µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBB7205V)	2,506.4	µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot S52237V)	2,500.1	µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBJ3305V)	2,503.1	µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBK3151V)	2,504.0	µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBK4439V)	2,501.1	µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBC1891V)	2,506.1	µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBL3891V)	2,507.0	µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09418JJV)	2,502.6	µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot 68996CMV)	2,501.6	µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	2,505.9	µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot 26896BM)	2,501.5	µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 98%	(Lot K22W009)	2,501.6	µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBH4351V)	2,502.6	µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	µg/mL	Stressed

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

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

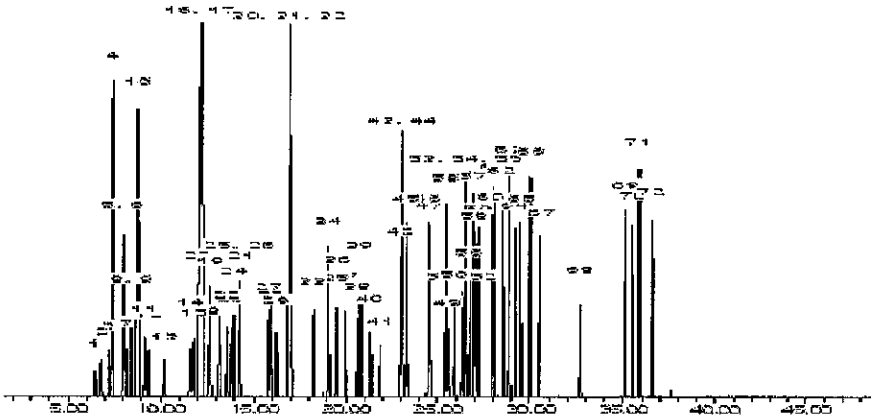
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

Date Mixed: 07-Jan-2015 **Balance:** 1125113331

Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260MEGA2_00031

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569720.sec **Lot No.:** A0108163

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 133.1044 µg/mL +/- 133.2511 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,501.1 µg/mL	+/- 14.5418 µg/mL +/- 133.1044 µg/mL +/- 133.2511 µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 903000) **Purity** 99%	2,502.8 µg/mL	+/- 14.5512 µg/mL +/- 133.1908 µg/mL +/- 133.3377 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.5 µg/mL	+/- 145.3477 µg/mL +/- 1,330.4725 µg/mL +/- 1,331.9397 µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot A13Y016) **Purity** 97%	2,500.5 µg/mL	+/- 14.5383 µg/mL +/- 133.0732 µg/mL +/- 133.2199 µg/mL	Gravimetric Unstressed Stressed
6	Methyl acetate **CAS #** 79-20-9.SEC (Lot YDGVD) **Purity** 99%	12,500.6 µg/mL	+/- 72.6759 µg/mL +/- 665.2553 µg/mL +/- 665.9889 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot 5MNOA-DQ) **Purity** 99%	2,501.3 µg/mL	+/- 14.5425 µg/mL +/- 133.1110 µg/mL +/- 133.2578 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	133.1177	µg/mL	Unstressed
	Purity 99%				+/-	133.2645	µg/mL	Stressed
9	Carbon disulfide		2,501.2	µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	133.1086	µg/mL	Unstressed
	Purity 98%				+/-	133.2554	µg/mL	Stressed
10	Acrylonitrile		25,002.1	µg/mL	+/-	145.3569	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot CCFKL)			+/-	1,330.5571	µg/mL	Unstressed
	Purity 99%				+/-	1,332.0244	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed
12	n-Hexane (C6)		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot K24W001)			+/-	133.0499	µg/mL	Unstressed
	Purity 98%				+/-	133.1967	µg/mL	Stressed
13	1,1-Dichloroethane		2,503.0	µg/mL	+/-	14.5527	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 2663100)			+/-	133.2041	µg/mL	Unstressed
	Purity 99%				+/-	133.3510	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot GI01)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	133.0538	µg/mL	Unstressed
	Purity 97%				+/-	133.2005	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,501.3	µg/mL	+/-	363.3687	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot PH2XK)			+/-	3,326.1766	µg/mL	Unstressed
	Purity 99%				+/-	3,329.8447	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	133.0711	µg/mL	Unstressed
	Purity 99%				+/-	133.2178	µg/mL	Stressed
18	Bromochloromethane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 345600)			+/-	133.0777	µg/mL	Unstressed
	Purity 99%				+/-	133.2245	µg/mL	Stressed
19	Tetrahydrofuran		5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot XWFLA)			+/-	266.2087	µg/mL	Unstressed
	Purity 99%				+/-	266.5023	µg/mL	Stressed
20	1,1,1-Trichloroethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot 1103200)			+/-	133.1443	µg/mL	Unstressed
	Purity 99%				+/-	133.2911	µg/mL	Stressed
21	Cyclohexane		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
22	1,1-Dichloropropene		2,501.1	µg/mL	+/-	14.5419	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 2028500)			+/-	133.1054	µg/mL	Unstressed
	Purity 97%				+/-	133.2522	µg/mL	Stressed
23	Carbon tetrachloride		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	133.1477	µg/mL	Unstressed
	Purity 98%				+/-	133.2946	µg/mL	Stressed

24	n-Heptane (C7)		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot OGM01)			+/-	133.0644	µg/mL	Unstressed
	Purity 99%				+/-	133.2112	µg/mL	Stressed
25	1,2-Dichloroethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	133.1443	µg/mL	Unstressed
	Purity 99%				+/-	133.2911	µg/mL	Stressed
26	Benzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	133.0911	µg/mL	Unstressed
	Purity 99%				+/-	133.2378	µg/mL	Stressed
27	Trichloroethene		2,500.6	µg/mL	+/-	14.5387	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	133.0760	µg/mL	Unstressed
	Purity 98%				+/-	133.2228	µg/mL	Stressed
28	Methylcyclohexane		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot 24MSD-CD)			+/-	133.0711	µg/mL	Unstressed
	Purity 99%				+/-	133.2178	µg/mL	Stressed
29	1,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot OGG01)			+/-	133.0445	µg/mL	Unstressed
	Purity 99%				+/-	133.1912	µg/mL	Stressed
30	Bromodichloromethane		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 10171168)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
31	1,4-Dioxane		50,000.8	µg/mL	+/-	290.6935	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot CHA4A)			+/-	2,660.9280	µg/mL	Unstressed
	Purity 99%				+/-	2,663.8624	µg/mL	Stressed
32	Dibromomethane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	133.0777	µg/mL	Unstressed
	Purity 99%				+/-	133.2245	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 7ZLXJ-TJ)			+/-	133.0977	µg/mL	Unstressed
	Purity 99%				+/-	133.2445	µg/mL	Stressed
34	Toluene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	133.0511	µg/mL	Unstressed
	Purity 99%				+/-	133.1979	µg/mL	Stressed
35	Ethyl methacrylate		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,501.6	µg/mL	+/-	14.5444	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot 2ECIC-NM)			+/-	133.1282	µg/mL	Unstressed
	Purity 98%				+/-	133.2750	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 732700)			+/-	133.0977	µg/mL	Unstressed
	Purity 99%				+/-	133.2445	µg/mL	Stressed
38	1,3-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
39	Tetrachloroethene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	133.0445	µg/mL	Unstressed
	Purity 99%				+/-	133.1912	µg/mL	Stressed

40	Dibromochloromethane		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot I13W021)			+/-	133.1377	µg/mL	Unstressed
	Purity 97%				+/-	133.2845	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,502.1	µg/mL	+/-	14.5472	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 1368400)			+/-	133.1542	µg/mL	Unstressed
	Purity 98%				+/-	133.3011	µg/mL	Stressed
42	Chlorobenzene		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	133.1310	µg/mL	Unstressed
	Purity 99%				+/-	133.2778	µg/mL	Stressed
43	1,1,1,2-Tetrachloroethane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01-QSHR)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
44	Ethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE-GR)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed
45	m-Xylene		1,250.4	µg/mL	+/-	7.2698	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	66.5422	µg/mL	Unstressed
	Purity 99%				+/-	66.6156	µg/mL	Stressed
46	o-Xylene		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01-KTPK)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
47	p-Xylene		1,251.6	µg/mL	+/-	7.2771	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	66.6087	µg/mL	Unstressed
	Purity 99%				+/-	66.6822	µg/mL	Stressed
48	Styrene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot OFIOL-IA)			+/-	133.0911	µg/mL	Unstressed
	Purity 99%				+/-	133.2378	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
50	Bromoform		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 1039300)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
51	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	133.1975	µg/mL	Unstressed
	Purity 99%				+/-	133.3444	µg/mL	Stressed
52	Chloroform		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 67-66-3.SEC	(Lot 1297547)			+/-	133.1310	µg/mL	Unstressed
	Purity 99%				+/-	133.2778	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)			+/-	133.1477	µg/mL	Unstressed
	Purity 98%				+/-	133.2946	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,502.7	µg/mL	+/-	14.5510	µg/mL	Gravimetric
	CAS # 110-57-6.SEC	(Lot 100700-2)			+/-	133.1893	µg/mL	Unstressed
	Purity 97%				+/-	133.3362	µg/mL	Stressed
55	n-Propylbenzene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC-IT)			+/-	133.0445	µg/mL	Unstressed
	Purity 99%				+/-	133.1912	µg/mL	Stressed

56	Bromobenzene **CAS #** 108-86-1.SEC **Purity** 99%	(Lot 2FUHG-EM)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene **CAS #** 95-63-6.SEC **Purity** 99%	(Lot SC7LO-QA)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene **CAS #** 95-49-8.SEC **Purity** 99%	(Lot SW8QG-AO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene **CAS #** 106-43-4.SEC **Purity** 99%	(Lot P4XHJ-AO)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene **CAS #** 98-06-6.SEC **Purity** 99%	(Lot OGN01)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene **CAS #** 108-67-8.SEC **Purity** 99%	(Lot FGH02-CMLN)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene **CAS #** 135-98-8.SEC **Purity** 99%	(Lot OGN01)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) **CAS #** 99-87-6.SEC **Purity** 99%	(Lot 1721700)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene **CAS #** 541-73-1.SEC **Purity** 99%	(Lot FMDFD-KA)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene **CAS #** 106-46-7.SEC **Purity** 99%	(Lot YWKDC-MK)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene **CAS #** 104-51-8.SEC **Purity** 99%	(Lot OGN01)	2,500.6 µg/mL	+/- 14.5388 +/- 133.0777 +/- 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene **CAS #** 95-50-1.SEC **Purity** 99%	(Lot 4NRGF-OT)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8.SEC **Purity** 97%	(Lot LC00408V)	2,500.5 µg/mL	+/- 14.5383 +/- 133.0732 +/- 133.2199	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene **CAS #** 120-82-1.SEC **Purity** 99%	(Lot OGO01)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene **CAS #** 87-68-3.SEC **Purity** 97%	(Lot 2009400)	2,501.0 µg/mL	+/- 14.5412 +/- 133.0990 +/- 133.2458	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene **CAS #** 91-20-3.SEC **Purity** 99%	(Lot 4KW3H-OO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.4	µg/mL	+/-	14.5490	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/-	133.1709	µg/mL	Unstressed
	Purity 99%				+/-	133.3177	µg/mL	Stressed

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

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

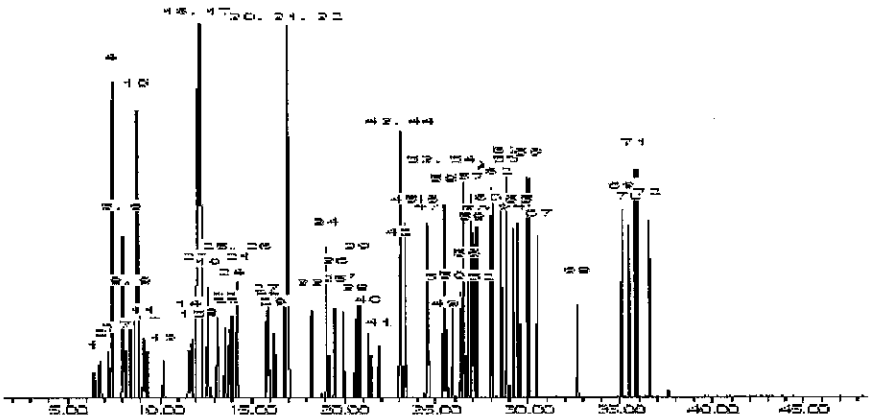
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

Tyler Brown - QA Analyst

Date Mixed: 07-Jan-2015 **Balance:** 1127510105

Date Passed: 14-Jan-2015

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

Reagent

VOA8260SURRES_00046

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A093505

Description : 8260 Surrogate Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260SURRES_00090

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0102817

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 : April 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 022012) **Purity** 99%	2,503.8 µg/mL	+/- 14.5573 +/- 28.2339 +/- 32.4891	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 13I-483) **Purity** 99%	2,502.4 µg/mL	+/- 14.5492 +/- 28.2182 +/- 32.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 28.1911 +/- 32.4398	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,503.6 µg/mL	+/- 14.5561 +/- 28.2317 +/- 32.4865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260VARES_00050

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569724 **Lot No.:** A0108225

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

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

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

Expiration Date : July 31, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBC8935V)		+/- 266.1189	µg/mL	Unstressed
	Purity 99%		+/- 266.4123	µg/mL	Stressed

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

Tech Tips:

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

Reagent

VOAACRORES_00064

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0107338

Description : 8260 List 1/Std #5 Acrolein High

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

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

Expiration Date : March 31, 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	19,759.0 µg/mL	+/- 115.6933	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 140429JLM)		+/- 633.5357	µg/mL	Unstressed
	Purity 99%		+/- 736.4159	µg/mL	Stressed

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

Reagent

WNa2CO3P_00007

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S263**	**Quality Test / Release Date**	**4/8/2014**
Lot Number	**138124**		
Description	**SODIUM CARBONATE, ANHYDROUS, CERTIFIED A.C.S.**		
Country of Origin	**China**	*** Suggested Retest Date**	**Apr-2019**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White granular powder
ASSAY	%	>= 99.5	100.3
CALCIUM	%	<= 0.03	0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
LOSS ON HEATING @ 285 DEG C	%	<= 1.0	0.1
MAGNESIUM	%	<= 0.005	<0.001
PHOSPHATE (PO4)	%	<= 0.001	0.0010
POTASSIUM (K)	%	<= 0.005	0.001
SILICA (SiO2)	%	<= 0.005	0.005
SULFUR COMPOUNDS	%	<= 0.003	<0.0030

Lab Manager Fair Lawn

1243950
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243948
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243949
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243947
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Method 8260C Low Level

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-39D-0/1-0	180-44401-1	92	82	99	85
HD-MW-74S-0/1-0	180-44401-2	108	100	107	102
HD-MW-127-0/1-0	180-44401-3	106	97	115	102
HD-MW-114-0/1-0	180-44401-4	100	87	112	103
HD-MW-114-0/1-0 DL	180-44401-4 DL	101	93	99	90
HD-MW-132-0/1-0	180-44401-5	91	82	127 X	56 X
HD-MW-132-0/1-0 DL	180-44401-5 DL	124	113	123 X	118
HD-MW-51D-0/1-0	180-44401-6	107	101	98	93
HD-MW-50S-0/1-0	180-44401-7	84	69	55 X	89
HD-MW-50S-0/1-0 DL	180-44401-7 DL	107	98	118	109
HD-QC5-0/1-2	180-44401-8	106	98	117	114
	MB 180-143422/6	101	95	110	94
	MB 180-143527/7	106	94	109	103
	MB 180-143682/6	90	77	98	89
	LCS 180-143422/8	103	99	112	108
	LCS 180-143527/10	110	104	109	105
	LCS 180-143682/9	116	114	109	107

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	70-128
DCA = 1,2-Dichloroethane-d4 (Surr)	64-135
TOL = Toluene-d8 (Surr)	71-118
BFB = 4-Bromofluorobenzene (Surr)	70-118

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.: 180-44401-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060108.D

Lab ID: LCS 180-143422/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	4.93	49	50-139	*
Vinyl chloride	10.0	5.37	54	53-138	
Bromomethane	10.0	6.93	69	33-150	
Chloroethane	10.0	5.69	57	36-142	
1,1-Dichloroethene	10.0	9.34	93	65-136	
Acetone	20.0	21.8	109	22-150	
Carbon disulfide	10.0	11.4	114	54-132	
Methylene Chloride	10.0	11.7	117	63-129	
trans-1,2-Dichloroethene	10.0	9.80	98	73-126	
Methyl tert-butyl ether	10.0	11.7	117	64-123	
1,1-Dichloroethane	10.0	11.0	110	73-126	
cis-1,2-Dichloroethene	10.0	10.7	107	70-120	
Bromochloromethane	10.0	10.0	100	70-127	
2-Butanone (MEK)	20.0	16.4	82	39-138	
Chloroform	10.0	11.0	110	72-127	
1,1,1-Trichloroethane	10.0	11.1	111	63-133	
Carbon tetrachloride	10.0	9.96	100	55-150	
Benzene	10.0	9.00	90	80-120	
1,2-Dichloroethane	10.0	10.3	103	68-132	
Trichloroethene	10.0	8.52	85	73-120	
1,2-Dichloropropane	10.0	10.4	104	76-124	
Bromodichloromethane	10.0	11.0	110	66-130	
cis-1,3-Dichloropropene	10.0	9.86	99	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.3	97	45-145	
Toluene	10.0	9.83	98	80-123	
trans-1,3-Dichloropropene	10.0	9.64	96	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	77-127	
Tetrachloroethene	10.0	8.73	87	70-135	
2-Hexanone	20.0	20.7	104	25-132	
Dibromochloromethane	10.0	10.2	102	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	74-123	
Chlorobenzene	10.0	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.8	108	63-140	
Ethylbenzene	10.0	9.31	93	72-126	
Xylenes, Total	20.0	18.9	95	76-128	
Styrene	10.0	10.3	103	71-127	
Bromoform	10.0	9.71	97	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.82	98	62-125	
Acrylonitrile	100	105	105	30-140	
1,4-Dioxane	200	179 J	90	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060210.D

Lab ID: LCS 180-143527/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.52	65	50-139	
Vinyl chloride	10.0	6.88	69	53-138	
Bromomethane	10.0	8.46	85	33-150	
Chloroethane	10.0	8.01	80	36-142	
1,1-Dichloroethene	10.0	8.19	82	65-136	
Acetone	20.0	12.2	61	22-150	
Carbon disulfide	10.0	8.08	81	54-132	
Methylene Chloride	10.0	11.9	119	63-129	
trans-1,2-Dichloroethene	10.0	10.6	106	73-126	
Methyl tert-butyl ether	10.0	11.5	115	64-123	
1,1-Dichloroethane	10.0	12.1	121	73-126	
cis-1,2-Dichloroethene	10.0	11.2	112	70-120	
Bromochloromethane	10.0	10.6	106	70-127	
2-Butanone (MEK)	20.0	17.2	86	39-138	
Chloroform	10.0	11.5	115	72-127	
1,1,1-Trichloroethane	10.0	12.6	126	63-133	
Carbon tetrachloride	10.0	12.2	122	55-150	
Benzene	10.0	10.6	106	80-120	
1,2-Dichloroethane	10.0	10.7	107	68-132	
Trichloroethene	10.0	10.0	100	73-120	
1,2-Dichloropropane	10.0	10.4	104	76-124	
Bromodichloromethane	10.0	11.2	112	66-130	
cis-1,3-Dichloropropene	10.0	10.5	105	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.9	85	45-145	
Toluene	10.0	10.2	102	80-123	
trans-1,3-Dichloropropene	10.0	9.86	99	65-125	
1,1,2-Trichloroethane	10.0	9.92	99	77-127	
Tetrachloroethene	10.0	10.8	108	70-135	
2-Hexanone	20.0	20.6	103	25-132	
Dibromochloromethane	10.0	10.1	101	60-140	
1,2-Dibromoethane (EDB)	10.0	9.63	96	74-123	
Chlorobenzene	10.0	10.8	108	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.6	106	63-140	
Ethylbenzene	10.0	10.1	101	72-126	
Xylenes, Total	20.0	20.2	101	76-128	
Styrene	10.0	10.6	106	71-127	
Bromoform	10.0	8.89	89	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.37	94	62-125	
Acrylonitrile	100	91.2	91	30-140	
1,4-Dioxane	200	192 J	96	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060309.D

Lab ID: LCS 180-143682/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.74	67	50-139	
Vinyl chloride	10.0	8.21	82	53-138	
Bromomethane	10.0	8.61	86	33-150	
Chloroethane	10.0	10.6	106	36-142	
1,1-Dichloroethene	10.0	8.88	89	65-136	
Acetone	20.0	26.9	134	22-150	
Carbon disulfide	10.0	10.6	106	54-132	
Methylene Chloride	10.0	11.2	112	63-129	
trans-1,2-Dichloroethene	10.0	8.89	89	73-126	
Methyl tert-butyl ether	10.0	11.3	113	64-123	
1,1-Dichloroethane	10.0	11.2	112	73-126	
cis-1,2-Dichloroethene	10.0	11.2	112	70-120	
Bromochloromethane	10.0	10.2	102	70-127	
2-Butanone (MEK)	20.0	17.3	86	39-138	
Chloroform	10.0	11.4	114	72-127	
1,1,1-Trichloroethane	10.0	11.0	110	63-133	
Carbon tetrachloride	10.0	10.6	106	55-150	
Benzene	10.0	9.89	99	80-120	
1,2-Dichloroethane	10.0	11.1	111	68-132	
Trichloroethene	10.0	9.09	91	73-120	
1,2-Dichloropropane	10.0	10.5	105	76-124	
Bromodichloromethane	10.0	11.6	116	66-130	
cis-1,3-Dichloropropene	10.0	10.4	104	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.8	84	45-145	
Toluene	10.0	9.42	94	80-123	
trans-1,3-Dichloropropene	10.0	10.2	102	65-125	
1,1,2-Trichloroethane	10.0	10.1	101	77-127	
Tetrachloroethene	10.0	8.73	87	70-135	
2-Hexanone	20.0	19.0	95	25-132	
Dibromochloromethane	10.0	10.3	103	60-140	
1,2-Dibromoethane (EDB)	10.0	9.73	97	74-123	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.6	106	63-140	
Ethylbenzene	10.0	9.21	92	72-126	
Xylenes, Total	20.0	18.2	91	76-128	
Styrene	10.0	10.0	100	71-127	
Bromoform	10.0	9.66	97	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.38	94	62-125	
Acrylonitrile	100	100	100	30-140	
1,4-Dioxane	200	176 J	88	10-160	

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.: 180-44401-1

SDG No.:

Lab File ID: 7060106.D Lab Sample ID: MB 180-143422/6

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

Instrument ID: CHHP7 Date Analyzed: 06/01/2015 12:21

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-143422/8	7060108.D	06/01/2015 13:26
HD-QC5-0/1-2	180-44401-8	7060112.D	06/01/2015 15:17

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: 7060207.D Lab Sample ID: MB 180-143527/7

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

Instrument ID: CHHP7 Date Analyzed: 06/02/2015 13:18

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 180-143527/10	7060210.D	06/02/2015 14:40
HD-MW-114-0/1-0	180-44401-4	7060216.D	06/02/2015 17:26
HD-MW-132-0/1-0	180-44401-5	7060218.D	06/02/2015 18:21
HD-MW-50S-0/1-0	180-44401-7	7060220.D	06/02/2015 19:16

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: 7060306.D Lab Sample ID: MB 180-143682/6

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

Instrument ID: CHHP7 Date Analyzed: 06/03/2015 11:43

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 180-143682/9	7060309.D	06/03/2015 13:09
HD-MW-132-0/1-0 DL	180-44401-5 DL	7060314.D	06/03/2015 15:05
HD-MW-50S-0/1-0 DL	180-44401-7 DL	7060315.D	06/03/2015 15:32
HD-MW-39D-0/1-0	180-44401-1	7060319.D	06/03/2015 17:22
HD-MW-51D-0/1-0	180-44401-6	7060320.D	06/03/2015 17:50
HD-MW-114-0/1-0 DL	180-44401-4 DL	7060321.D	06/03/2015 18:18
HD-MW-127-0/1-0	180-44401-3	7060322.D	06/03/2015 18:45
HD-MW-74S-0/1-0	180-44401-2	7060323.D	06/03/2015 19:12

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: 7033001.D BFB Injection Date: 03/30/2015

Instrument ID: CHHP7 BFB Injection Time: 09:32

Analysis Batch No.: 136928

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.4	
75	30.0 - 60.0 % of mass 95	51.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	80.2	
175	5.0 - 9.0 % of mass 174	5.6	(6.9)1
176	95.0 - 101.0 % of mass 174	77.4	(96.5)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 180-136928/3	7033003.D	03/30/2015	10:57
	IC 180-136928/4	7033004.D	03/30/2015	11:28
	ICIS 180-136928/5	7033005.D	03/30/2015	11:55
	IC 180-136928/6	7033006.D	03/30/2015	12:23
	IC 180-136928/7	7033007.D	03/30/2015	13:05
	IC 180-136928/8	7033008.D	03/30/2015	13:32
	IC 180-136928/9	7033009.D	03/30/2015	14:05
	IC 180-136928/10	7033010.D	03/30/2015	14:36

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: 7060101.D BFB Injection Date: 06/01/2015

Instrument ID: CHHP7 BFB Injection Time: 08:05

Analysis Batch No.: 143422

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.0	
75	30.0 - 60.0 % of mass 95	52.1	
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	1.0	(1.2)1
174	50.0 - 120.00 % of mass 95	85.1	
175	5.0 - 9.0 % of mass 174	7.2	(8.4)1
176	95.0 - 101.0 % of mass 174	83.5	(98.1)1
177	5.0 - 9.0 % of mass 176	5.5	(6.6)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-143422/3	7060103.D	06/01/2015	10:16
	MB 180-143422/6	7060106.D	06/01/2015	12:21
	LCS 180-143422/8	7060108.D	06/01/2015	13:26
HD-QC5-0/1-2	180-44401-8	7060112.D	06/01/2015	15:17

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: 7060201.D BFB Injection Date: 06/02/2015

Instrument ID: CHHP7 BFB Injection Time: 08:07

Analysis Batch No.: 143527

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.5	(0.6)1
174	50.0 - 120.00 % of mass 95	82.6	
175	5.0 - 9.0 % of mass 174	6.1	(7.4)1
176	95.0 - 101.0 % of mass 174	81.2	(98.3)1
177	5.0 - 9.0 % of mass 176	5.9	(7.3)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-143527/3	7060203.D	06/02/2015	10:22
	MB 180-143527/7	7060207.D	06/02/2015	13:18
	LCS 180-143527/10	7060210.D	06/02/2015	14:40
HD-MW-114-0/1-0	180-44401-4	7060216.D	06/02/2015	17:26
HD-MW-132-0/1-0	180-44401-5	7060218.D	06/02/2015	18:21
HD-MW-50S-0/1-0	180-44401-7	7060220.D	06/02/2015	19:16

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: 7060301.D BFB Injection Date: 06/03/2015

Instrument ID: CHHP7 BFB Injection Time: 07:45

Analysis Batch No.: 143682

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	54.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.1	(0.2)1
174	50.0 - 120.00 % of mass 95	86.2	
175	5.0 - 9.0 % of mass 174	6.0	(6.9)1
176	95.0 - 101.0 % of mass 174	84.9	(98.5)1
177	5.0 - 9.0 % of mass 176	5.4	(6.3)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-143682/3	7060303.D	06/03/2015	10:07
	MB 180-143682/6	7060306.D	06/03/2015	11:43
	LCS 180-143682/9	7060309.D	06/03/2015	13:09
HD-MW-132-0/1-0 DL	180-44401-5 DL	7060314.D	06/03/2015	15:05
HD-MW-50S-0/1-0 DL	180-44401-7 DL	7060315.D	06/03/2015	15:32
HD-MW-39D-0/1-0	180-44401-1	7060319.D	06/03/2015	17:22
HD-MW-51D-0/1-0	180-44401-6	7060320.D	06/03/2015	17:50
HD-MW-114-0/1-0 DL	180-44401-4 DL	7060321.D	06/03/2015	18:18
HD-MW-127-0/1-0	180-44401-3	7060322.D	06/03/2015	18:45
HD-MW-74S-0/1-0	180-44401-2	7060323.D	06/03/2015	19:12

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Sample No.: CCVIS 180-143422/3 Date Analyzed: 06/01/2015 10:16

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060103.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		311382	4.67	906833	7.40	276357	10.46
UPPER LIMIT		622764	5.17	1813666	7.90	552714	10.96
LOWER LIMIT		155691	4.17	453417	6.90	138179	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143422/6		362692	4.60	1370560	7.41	358269	10.47
LCS 180-143422/8		291851	4.66	918645	7.41	264285	10.47
180-44401-8	HD-QC5-0/1-2	381559	4.61	1417221	7.42	359677	10.46

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Sample No.: CCVIS 180-143422/3 Date Analyzed: 06/01/2015 10:16

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060103.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		310944	12.79				
UPPER LIMIT		621888	13.29				
LOWER LIMIT		155472	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143422/6		371489	12.79				
LCS 180-143422/8		299791	12.79				
180-44401-8	HD-QC5-0/1-2	392366	12.78				

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Sample No.: CCVIS 180-143527/3 Date Analyzed: 06/02/2015 10:22

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060203.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		225816	4.70	888768	7.40	287056	10.46
UPPER LIMIT		451632	5.20	1777536	7.90	574112	10.96
LOWER LIMIT		112908	4.20	444384	6.90	143528	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143527/7		309665	4.57	1402793	7.41	372700	10.47
LCS 180-143527/10		271285	4.62	1048432	7.41	316438	10.47
180-44401-4	HD-MW-114-0/1-0	277628	4.59	1290018	7.41	334454	10.47
180-44401-5	HD-MW-132-0/1-0	258804	4.59	1353548	7.42	276294	10.47
180-44401-7	HD-MW-50S-0/1-0	121623	4.59	723041	7.42	351186	10.47

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Sample No.: CCVIS 180-143527/3 Date Analyzed: 06/02/2015 10:22

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060203.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		286471	12.79				
UPPER LIMIT		572942	13.29				
LOWER LIMIT		143236	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143527/7		404518	12.78				
LCS 180-143527/10		356058	12.79				
180-44401-4	HD-MW-114-0/1-0	358790	12.79				
180-44401-5	HD-MW-132-0/1-0	188467	12.79				
180-44401-7	HD-MW-50S-0/1-0	367365	12.79				

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Sample No.: CCVIS 180-143682/3 Date Analyzed: 06/03/2015 10:07

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060303.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		274962	4.67	967771	7.41	296808	10.47
UPPER LIMIT		549924	5.17	1935542	7.91	593616	10.97
LOWER LIMIT		137481	4.17	483886	6.91	148404	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143682/6		320412	4.61	1306693	7.41	330411	10.47
LCS 180-143682/9		295256	4.68	937550	7.40	286380	10.46
180-44401-5 DL	HD-MW-132-0/1-0 DL	318764	4.58	1268851	7.41	352402	10.47
180-44401-7 DL	HD-MW-50S-0/1-0 DL	336123	4.58	1329507	7.41	352874	10.47
180-44401-1	HD-MW-39D-0/1-0	145339	4.60	1208659	7.42	325085	10.46
180-44401-6	HD-MW-51D-0/1-0	495927	4.61	1892409	7.42	540231	10.47
180-44401-4 DL	HD-MW-114-0/1-0 DL	251762	4.60	1247707	7.41	362463	10.47
180-44401-3	HD-MW-127-0/1-0	289169	4.58	1235610	7.42	324163	10.46
180-44401-2	HD-MW-74S-0/1-0	320446	4.57	1165093	7.41	320548	10.47

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Sample No.: CCVIS 180-143682/3 Date Analyzed: 06/03/2015 10:07

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060303.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		330552	12.79				
UPPER LIMIT		661104	13.29				
LOWER LIMIT		165276	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143682/6		365907	12.78				
LCS 180-143682/9		320763	12.78				
180-44401-5 DL	HD-MW-132-0/1-0 DL	372186	12.79				
180-44401-7 DL	HD-MW-50S-0/1-0 DL	390689	12.79				
180-44401-1	HD-MW-39D-0/1-0	358108	12.79				
180-44401-6	HD-MW-51D-0/1-0	567090	12.78				
180-44401-4 DL	HD-MW-114-0/1-0 DL	391158	12.79				
180-44401-3	HD-MW-127-0/1-0	343815	12.79				
180-44401-2	HD-MW-74S-0/1-0	341329	12.79				

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-39D-0/1-0 | Lab Sample ID: 180-44401-1

Matrix: Water | Lab File ID: 7060319.D

Analysis Method: 8260C | Date Collected: 05/21/2015 10:55

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 17:22

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.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	24		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.41	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	33		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	18		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-39D-0/1-0 | Lab Sample ID: 180-44401-1

Matrix: Water | Lab File ID: 7060319.D

Analysis Method: 8260C | Date Collected: 05/21/2015 10:55

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 17:22

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.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	85		70-118
1868-53-7	Dibromofluoromethane (Surr)	92		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060319.D
Lims ID: 180-44401-E-1 Lab Sample ID: 180-44401-1
Client ID: HD-MW-39D-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 17:22:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44401-E-1
Misc. Info.: 180-0007238-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Jun-2015 07:43:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 03-Jun-2015 18:25:21

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.599	4.629	-0.030	92	145339	4000.0	
*	2 Fluorobenzene (IS)	96	7.415	7.415	0.000	99	1208659	200.0	
*	3 Chlorobenzene-d5	119	10.463	10.469	-0.006	86	325085	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	95	358108	200.0	
$	5 Dibromofluoromethane (Surr	113	6.691	6.685	0.006	91	354809	184.0	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.056	-0.006	93	302262	164.4	
$	7 Toluene-d8 (Surr)	98	9.040	9.039	0.001	93	956495	198.4	
$	8 4-Bromofluorobenzene (Surr	95	11.631	11.631	0.000	90	372916	170.9	
	12 Chloromethane	50		2.031				ND	
	13 Vinyl chloride	62		2.250				ND	
	15 Bromomethane	94		2.518				ND	
	16 Chloroethane	64		2.645				ND	
	22 1,1-Dichloroethene	96	3.656	3.619	0.037	57	9215	5.68	
	24 Acetone	43		3.783				ND	
	26 Carbon disulfide	76		3.929				ND	
	31 Methylene Chloride	84		4.422				ND	
	33 Acrylonitrile	53		4.787				ND	
	34 trans-1,2-Dichloroethene	96		4.805				ND	
	35 Methyl tert-butyl ether	73		4.854				ND	
	37 1,1-Dichloroethane	63		5.371				ND	
	45 cis-1,2-Dichloroethene	96	6.107	6.119	-0.012	79	962334	481.6	
	46 2-Butanone (MEK)	43		6.168				ND	
	49 Chlorobromomethane	128		6.387				ND	
	52 Chloroform	83		6.502				ND	
	53 1,1,1-Trichloroethane	97	6.697	6.685	0.012	40	24694	8.18	
	56 Carbon tetrachloride	117		6.873				ND	
	58 Benzene	78		7.105				ND	
	59 1,2-Dichloroethane	62		7.135				ND	
	64 Trichloroethene	130	7.805	7.804	0.001	92	1555625	652.4	
	67 1,2-Dichloropropane	63		8.029				ND	
	70 1,4-Dioxane	88		8.175				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.654	9.648	0.006	92	494405	355.8	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.609				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

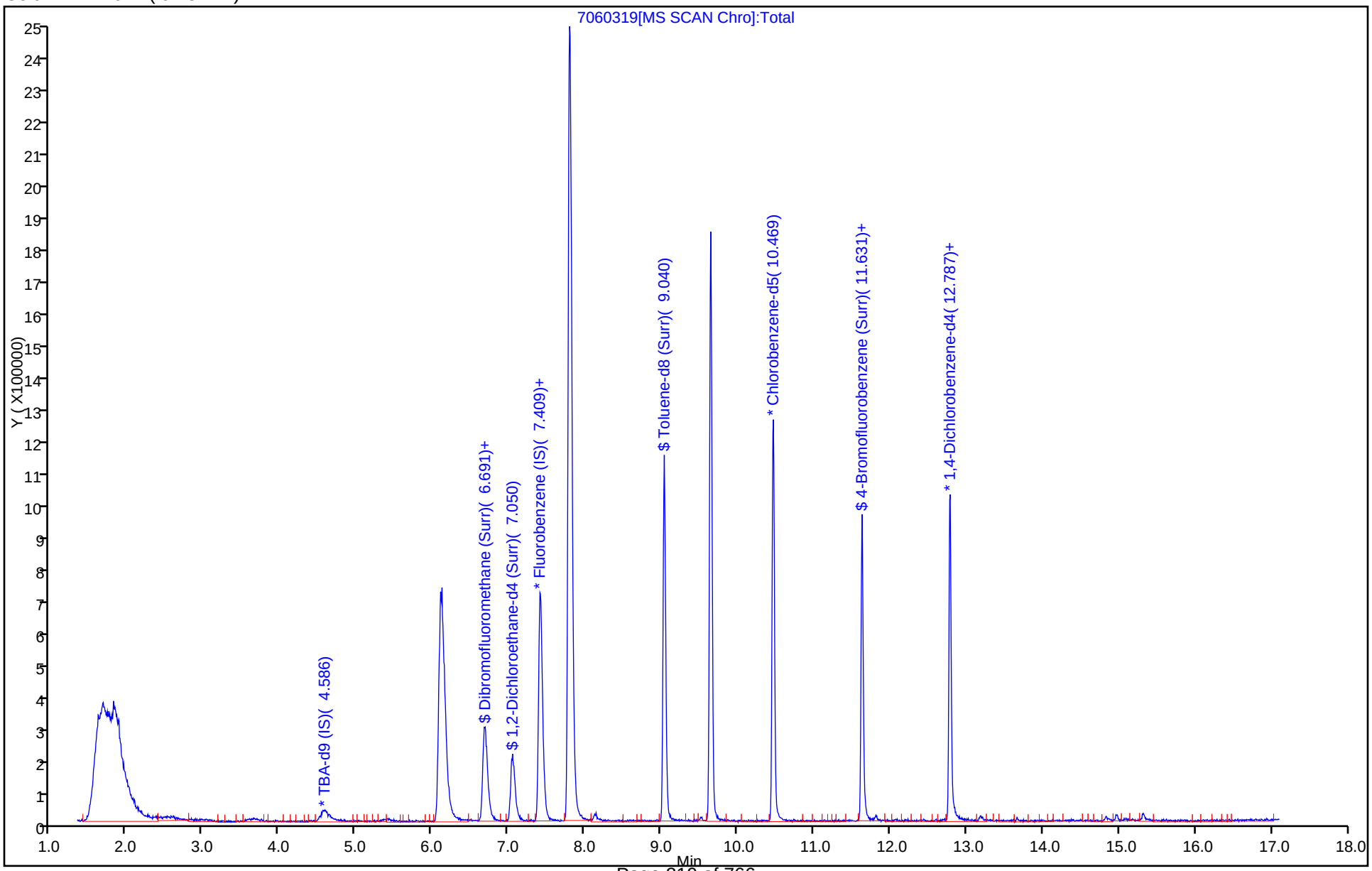
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Jun-2015 07:49:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060319.D				
Injection Date:	03-Jun-2015 17:22:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-1	Lab Sample ID:	180-44401-1	Worklist Smp#:	18
Client ID:	HD-MW-39D-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

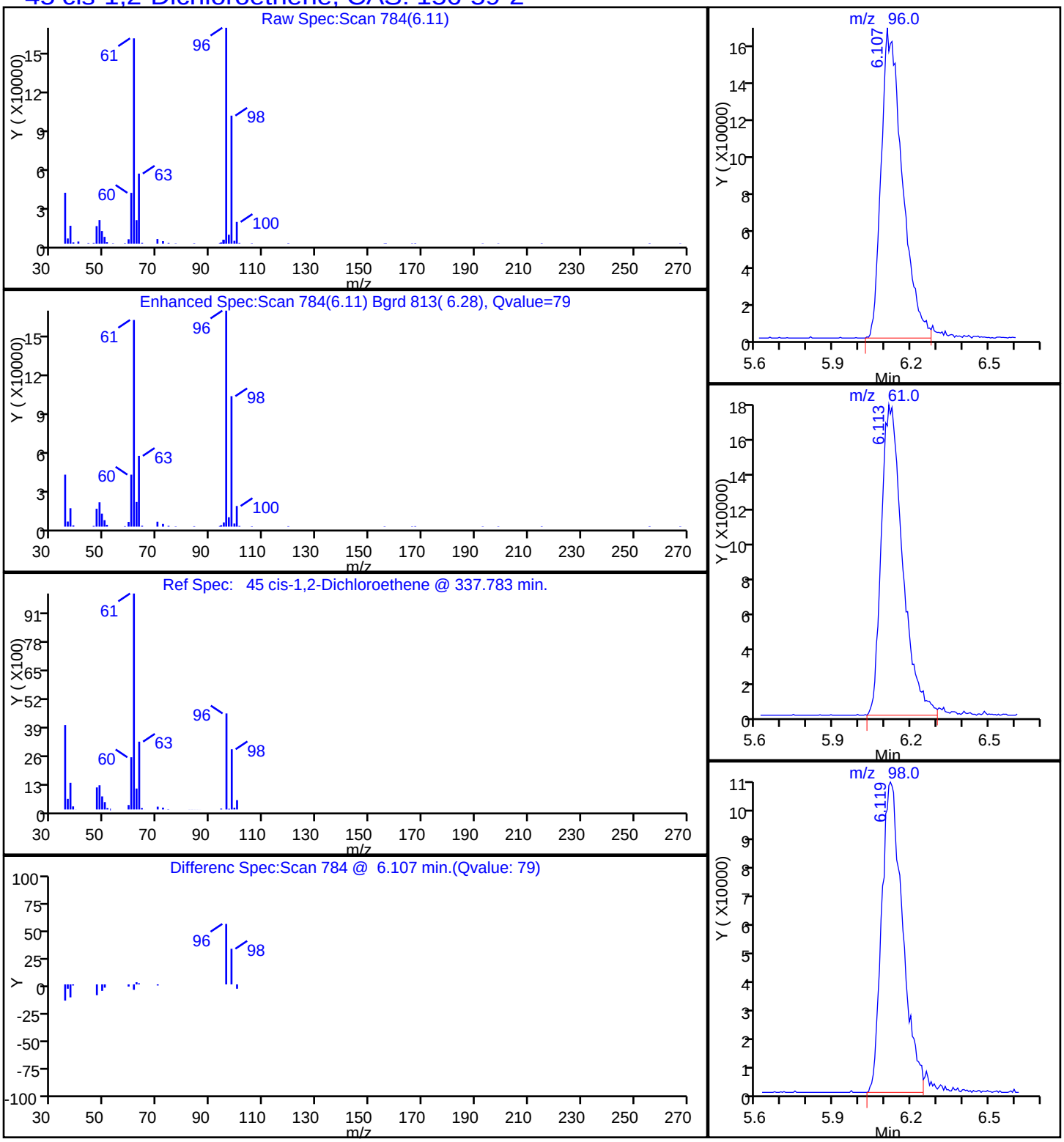


Report Date: 04-Jun-2015 07:49:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060319.D				
Injection Date:	03-Jun-2015 17:22:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-1	Lab Sample ID:	180-44401-1		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



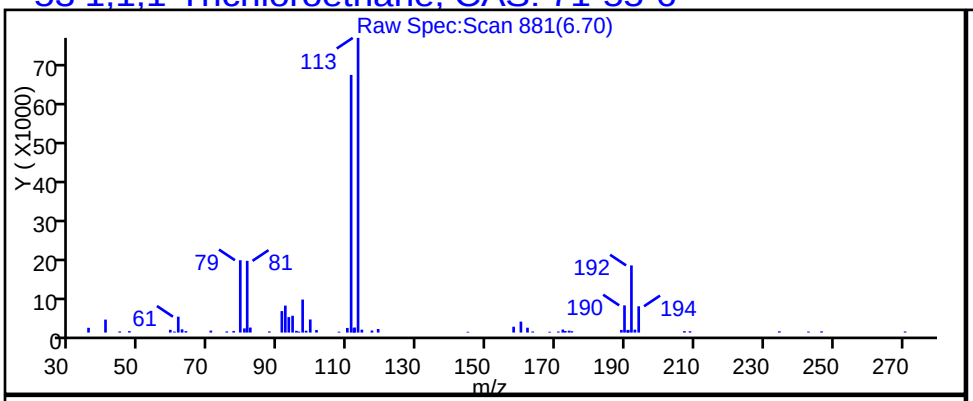
Report Date: 04-Jun-2015 07:49:36 Chrom Revision: 2.2 05-May-2015 11:39:10

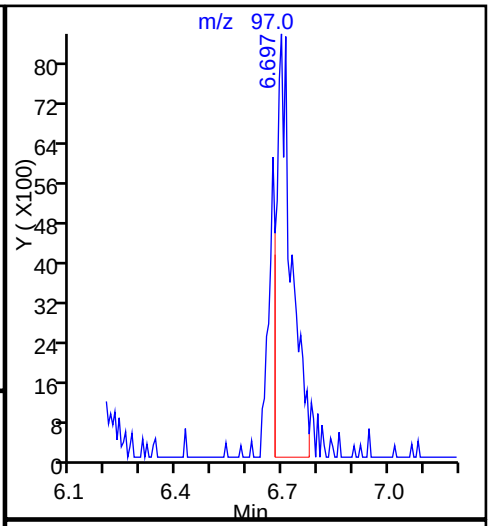
TestAmerica Pittsburgh

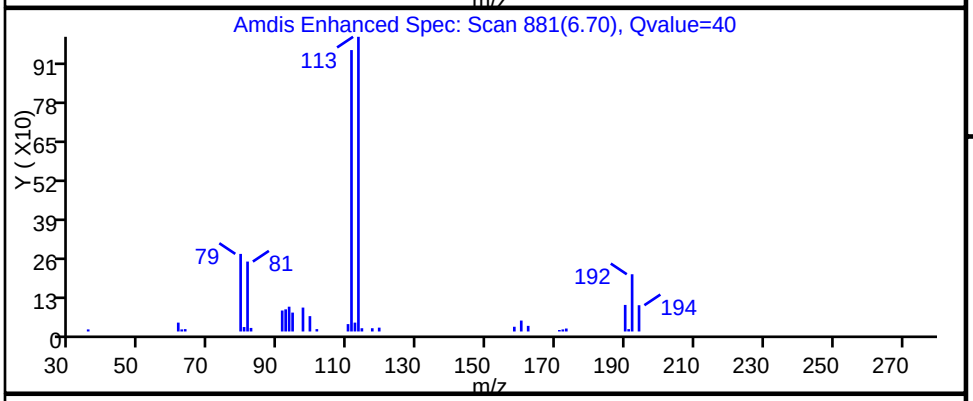
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060319.D

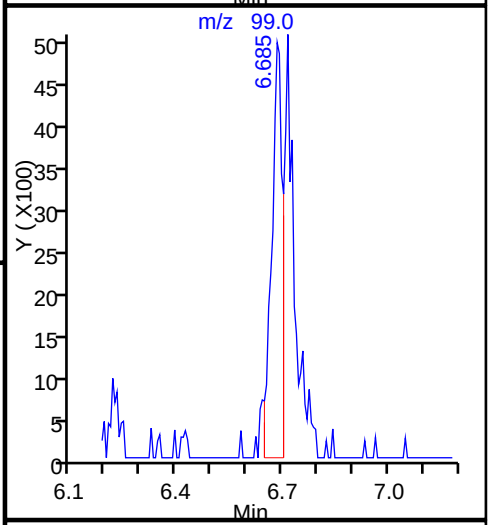
Injection Date:	03-Jun-2015 17:22:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-1	Lab Sample ID:	180-44401-1		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

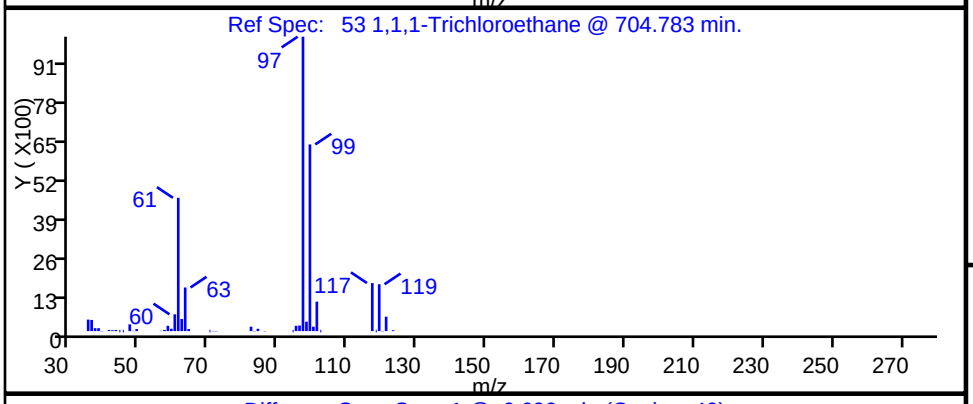
53 1,1,1-Trichloroethane, CAS: 71-55-6

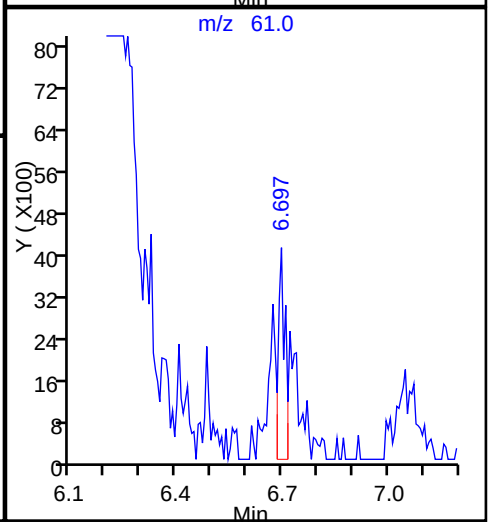


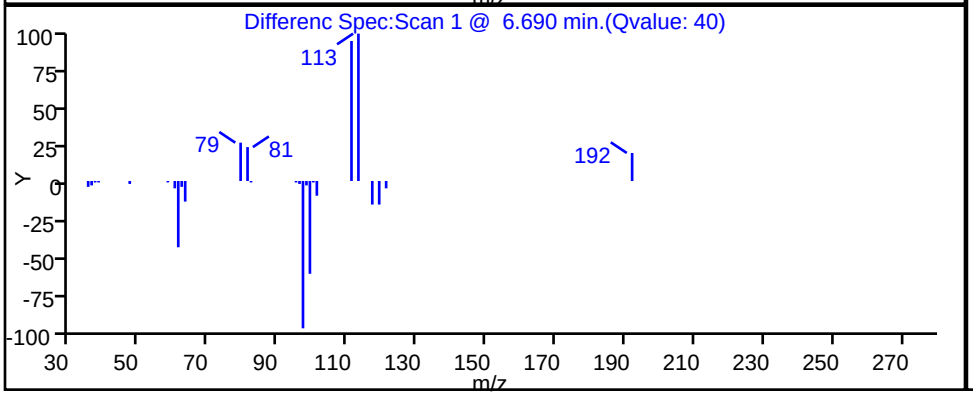










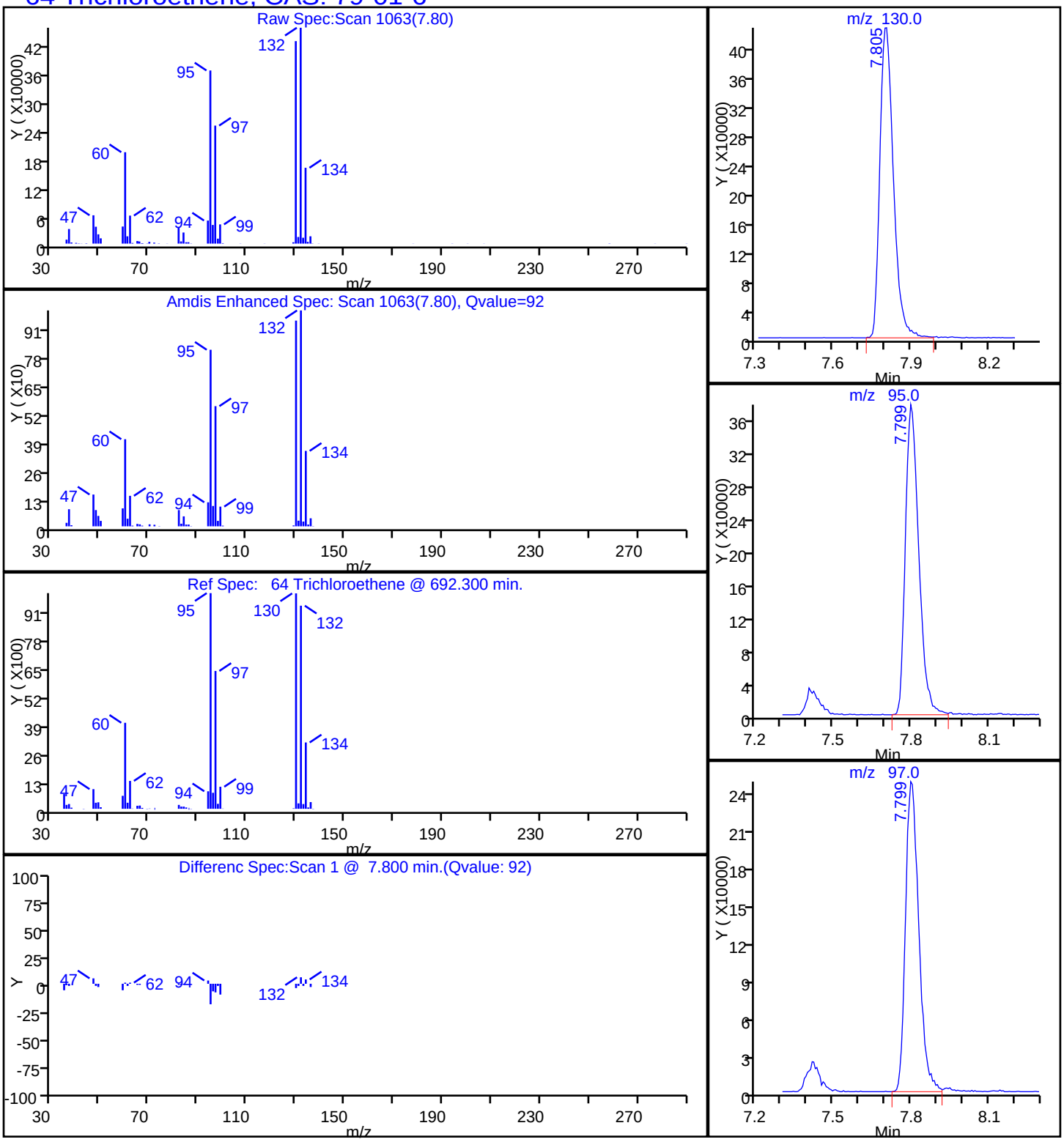


Report Date: 04-Jun-2015 07:49:36 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060319.D				
Injection Date:	03-Jun-2015 17:22:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-1	Lab Sample ID:	180-44401-1		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

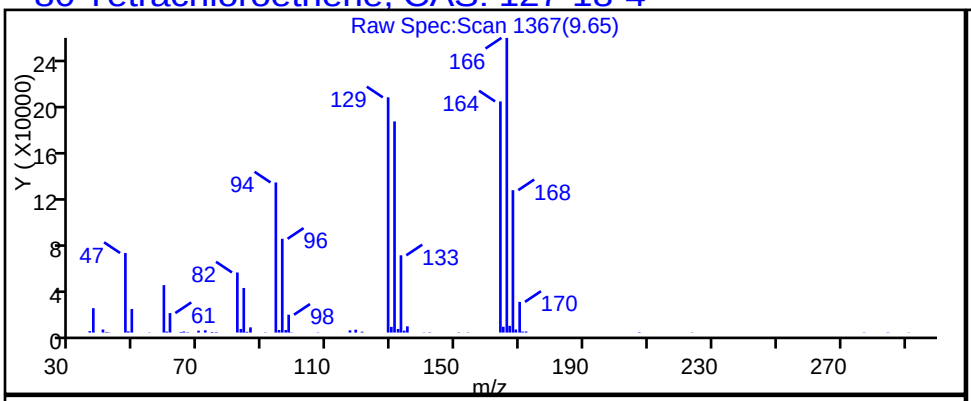


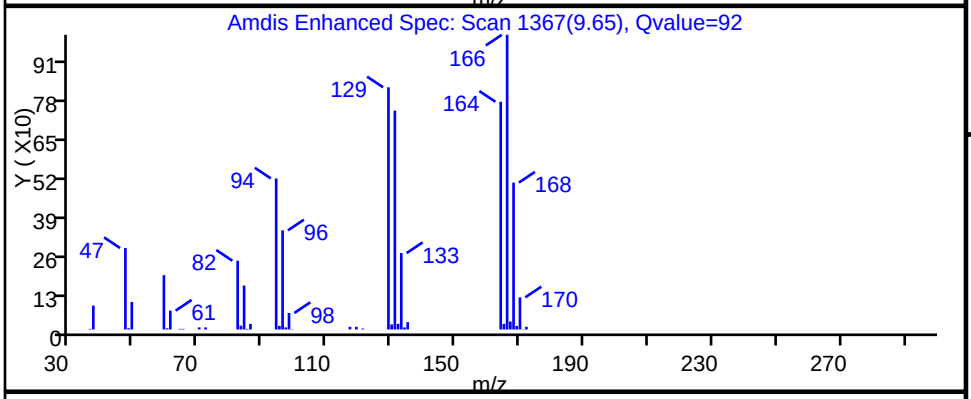
Report Date: 04-Jun-2015 07:49:36 Chrom Revision: 2.2 05-May-2015 11:39:10

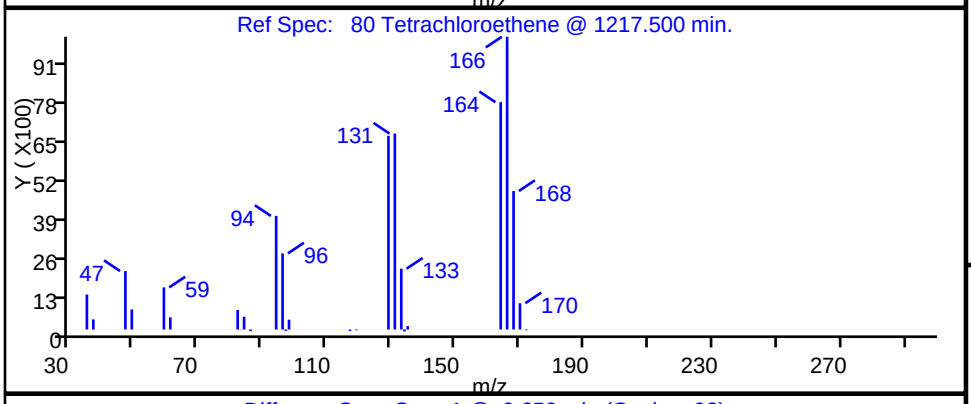
TestAmerica Pittsburgh

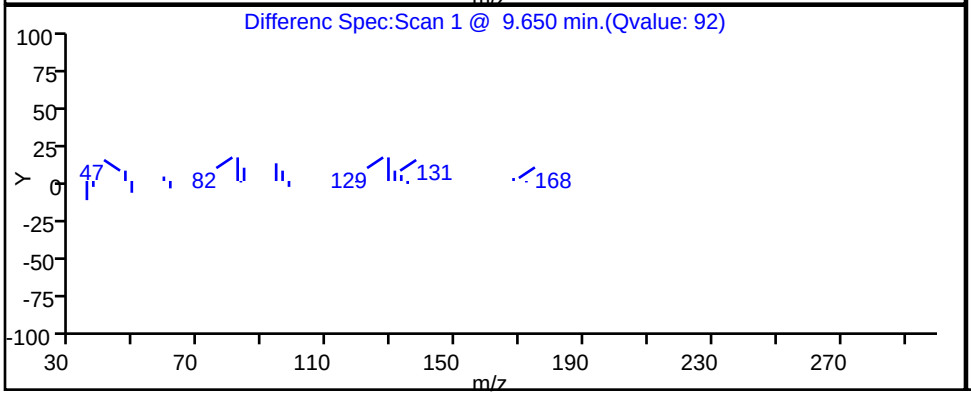
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060319.D				
Injection Date:	03-Jun-2015 17:22:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-1	Lab Sample ID:	180-44401-1		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	034635	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

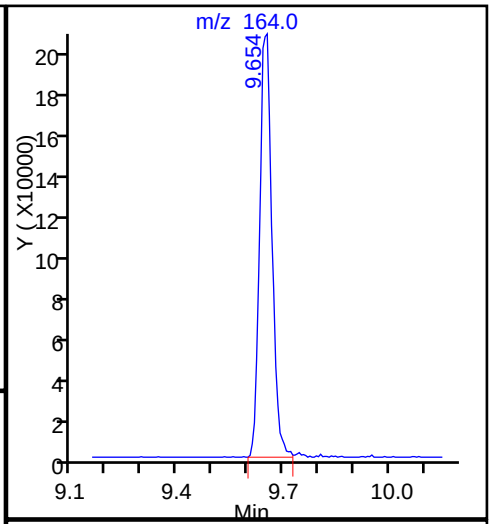
80 Tetrachloroethene, CAS: 127-18-4

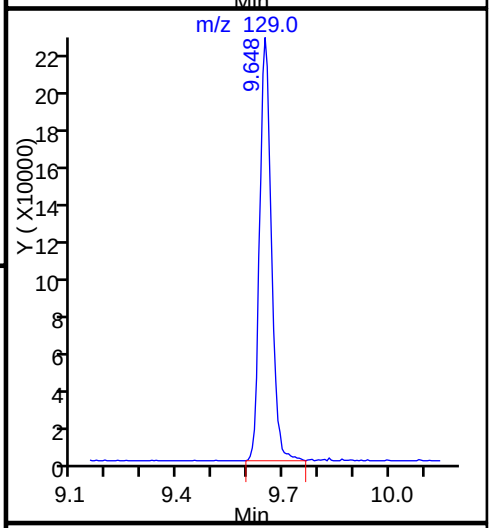


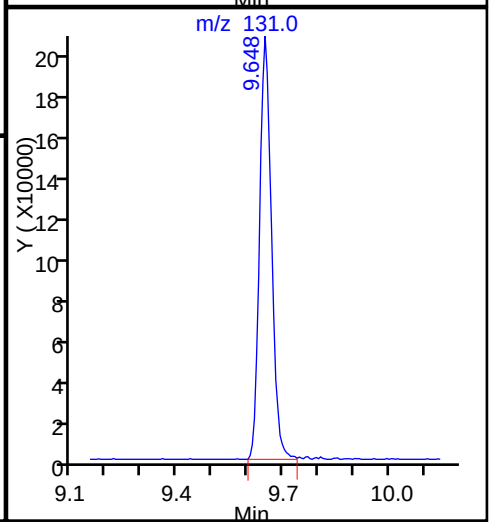












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-74S-0/1-0 | Lab Sample ID: 180-44401-2

Matrix: Water | Lab File ID: 7060323.D

Analysis Method: 8260C | Date Collected: 05/21/2015 09:25

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 19:12

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.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	34		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.6		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	25		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	9.8		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-74S-0/1-0 | Lab Sample ID: 180-44401-2

Matrix: Water | Lab File ID: 7060323.D

Analysis Method: 8260C | Date Collected: 05/21/2015 09:25

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 19:12

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.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D
Lims ID: 180-44401-D-2 Lab Sample ID: Client 180-143682/22-A
Client ID: HD-MW-74S-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 19:12:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44401-D-2
Misc. Info.: 180-0007238-022
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Jun-2015 09:13:56 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 04-Jun-2015 09:13:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.573	4.629	-0.056	97	320446	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.415	-0.001	98	1165093	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	-0.001	85	320548	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	94	341329	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.672	6.685	-0.013	91	402694	216.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.055	7.056	-0.001	93	352772	199.1	
$ 7 Toluene-d8 (Surr)	98	9.044	9.039	0.005	93	1019063	214.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.631	-0.001	90	431980	203.4	
12 Chloromethane	50		2.031				ND	
13 Vinyl chloride	62		2.250				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.645				ND	
22 1,1-Dichloroethene	96	3.630	3.619	0.011	85	32790	21.0	
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.929				ND	
31 Methylene Chloride	84		4.422				ND	
33 Acrylonitrile	53		4.787				ND	
34 trans-1,2-Dichloroethene	96		4.805				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.371				ND	
45 cis-1,2-Dichloroethene	96	6.118	6.119	-0.001	75	1301036	675.5	
46 2-Butanone (MEK)	43		6.168				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.690	6.685	0.005	83	150081	51.6	
56 Carbon tetrachloride	117		6.873				ND	
58 Benzene	78		7.105				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.803	7.804	-0.001	92	1156959	503.3	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.175				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.647	9.648	-0.001	91	297257	196.4	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.609				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

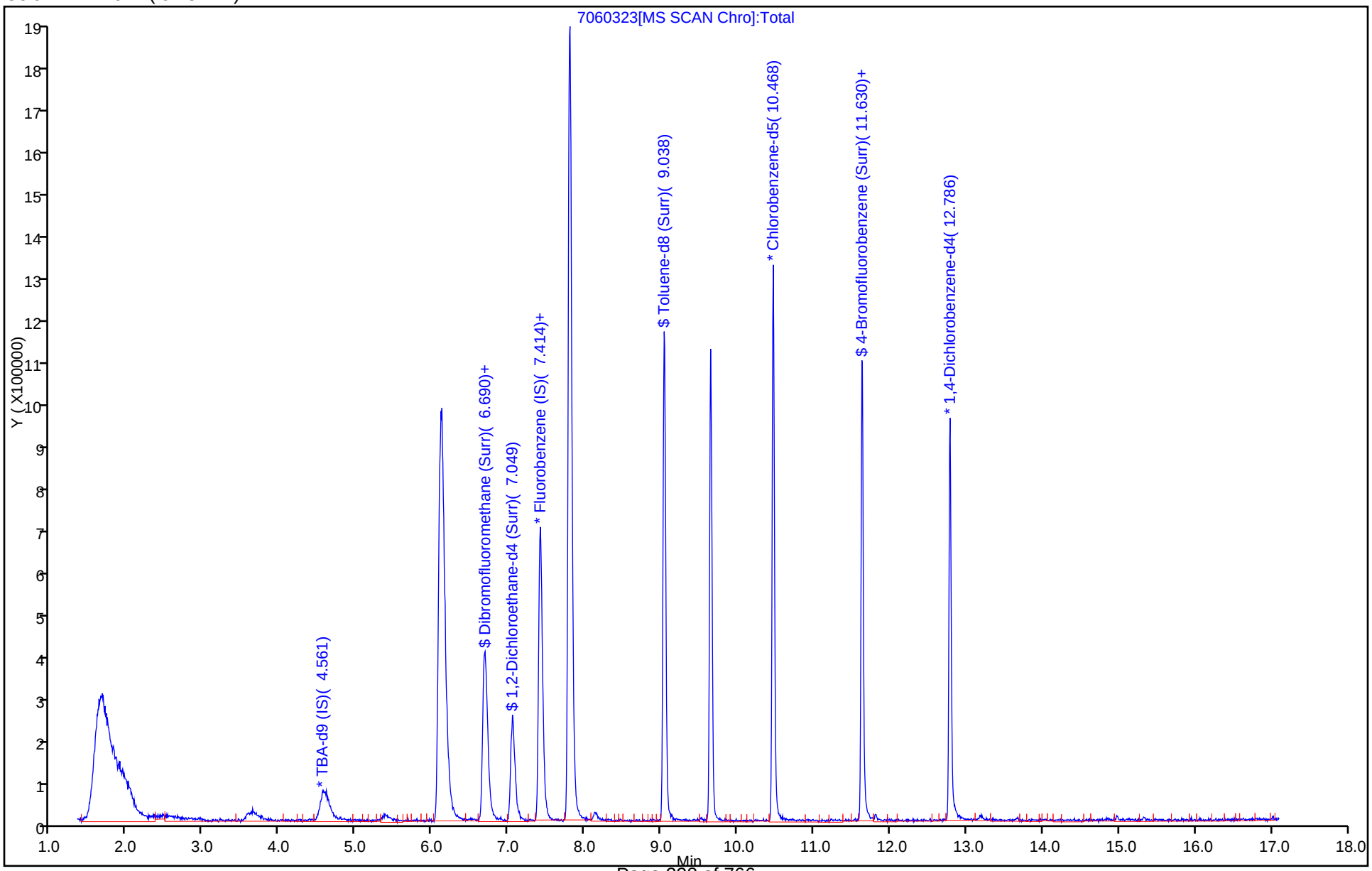
Report Date: 04-Jun-2015 09:13:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D

Injection Date:	03-Jun-2015 19:12:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-D-2	Lab Sample ID:	Client 180-143682/22-A	Worklist Smp#:	22
Client ID:	HD-MW-74S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 04-Jun-2015 09:13:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D

Injection Date: 03-Jun-2015 19:12:30 Instrument ID: CHHP7

Lims ID: 180-44401-D-2 Lab Sample ID: Client 180-143682/22-A

Client ID: HD-MW-74S-0/1-0

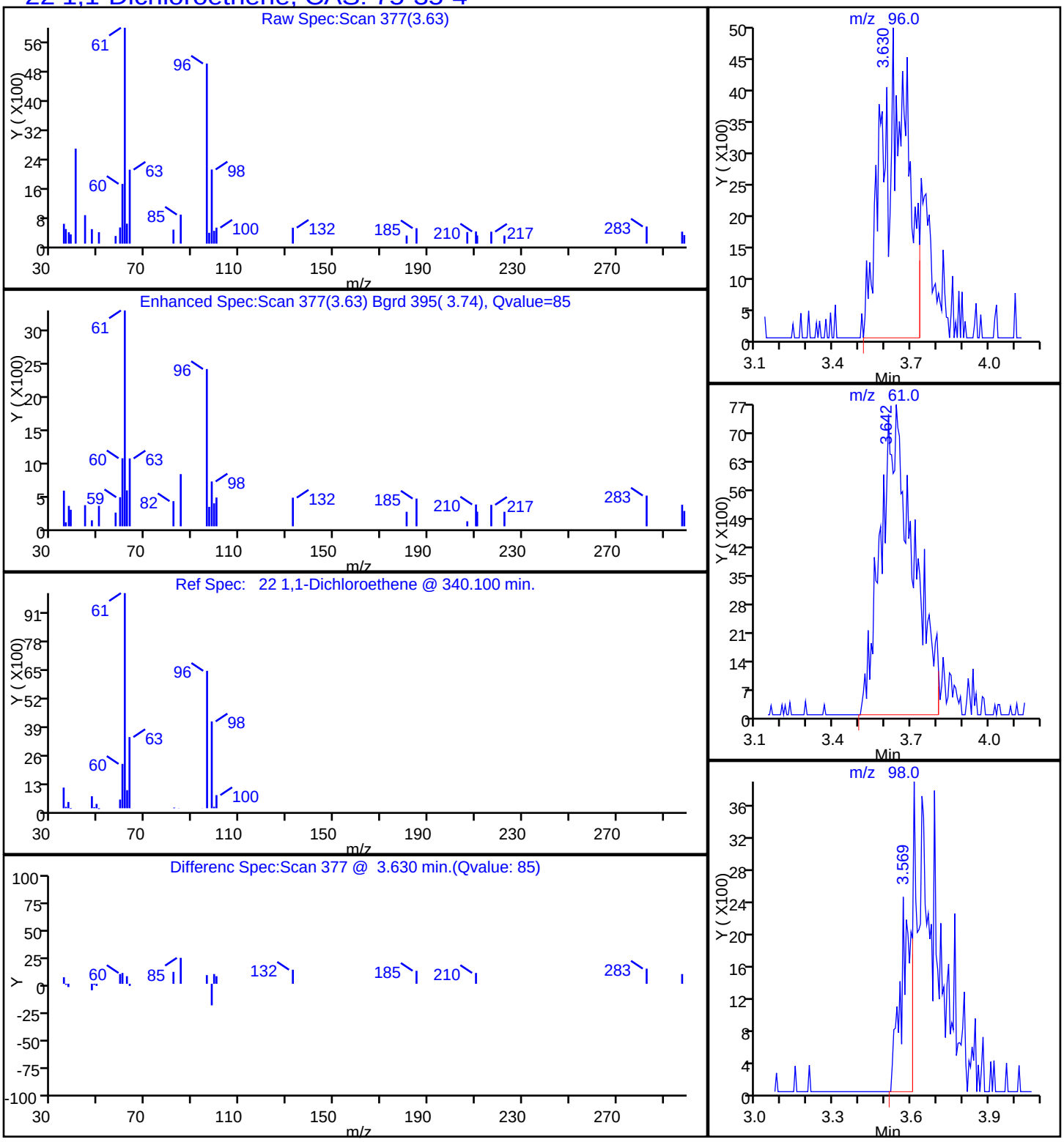
Operator ID: 034635 ALS Bottle#: 21 Worklist Smp#: 22

Purge Vol: 20.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL

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

22 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 04-Jun-2015 09:13:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D

Injection Date: 03-Jun-2015 19:12:30 Instrument ID: CHHP7

Lims ID: 180-44401-D-2 Lab Sample ID: Client 180-143682/22-A

Client ID: HD-MW-74S-0/1-0

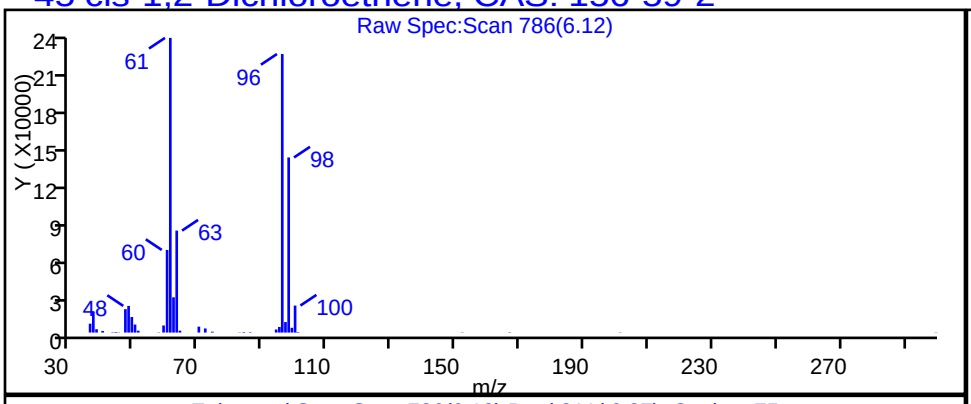
Operator ID: 034635 ALS Bottle#: 21 Worklist Smp#: 22

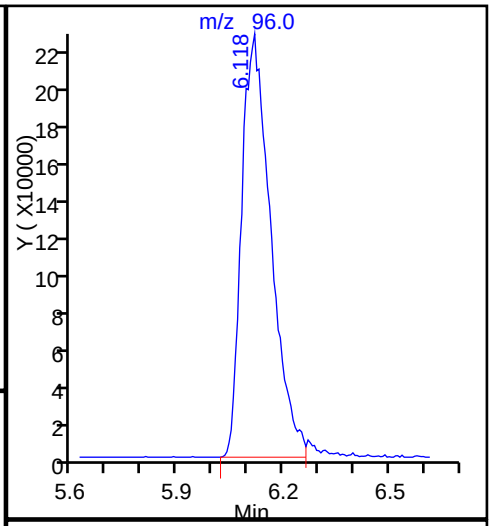
Purge Vol: 20.000 mL Dil. Factor: 1.0000

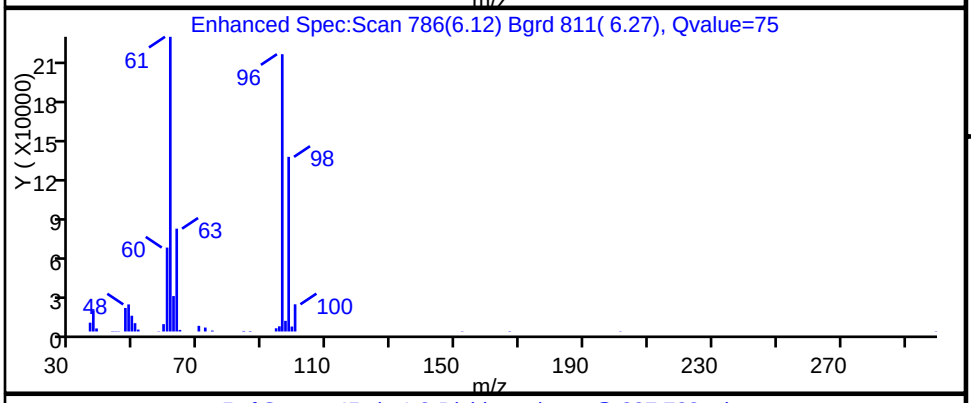
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL

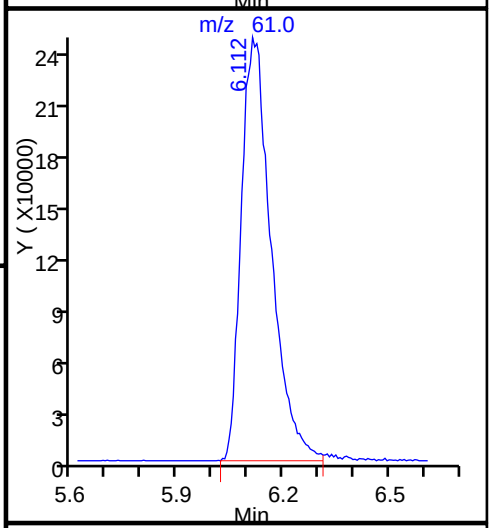
Column: DB-624 (0.18 mm) Detector MS SCAN

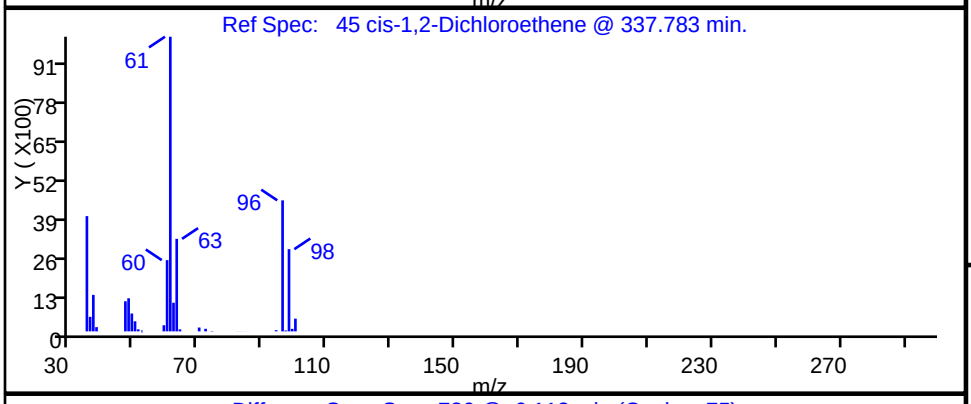
45 cis-1,2-Dichloroethene, CAS: 156-59-2

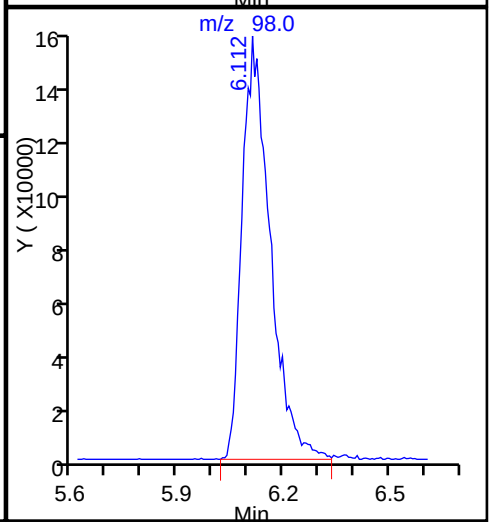


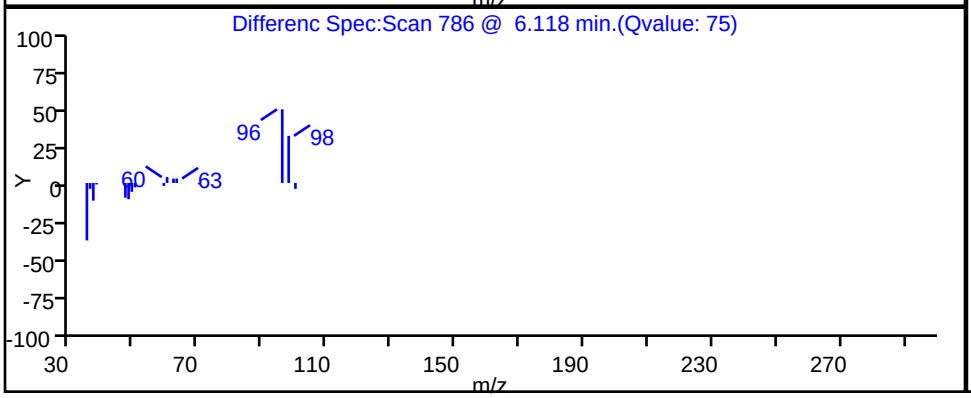










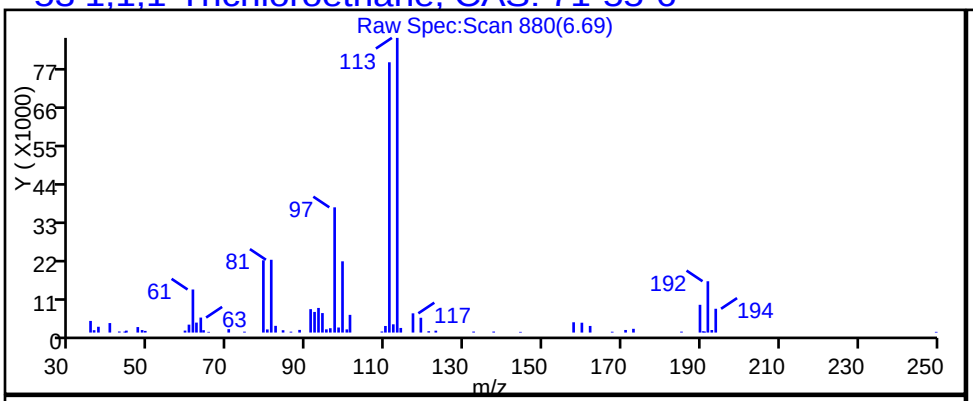


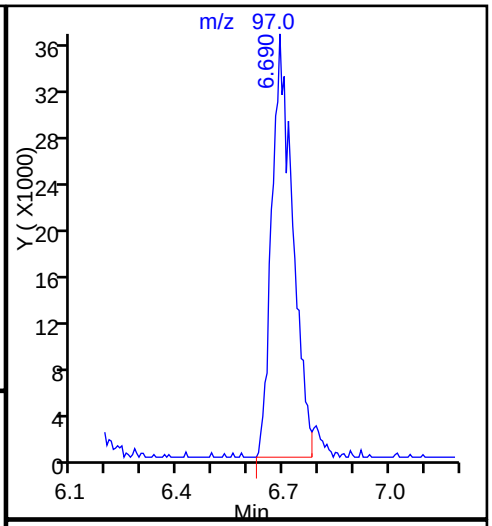
Report Date: 04-Jun-2015 09:13:57 Chrom Revision: 2.2 05-May-2015 11:39:10

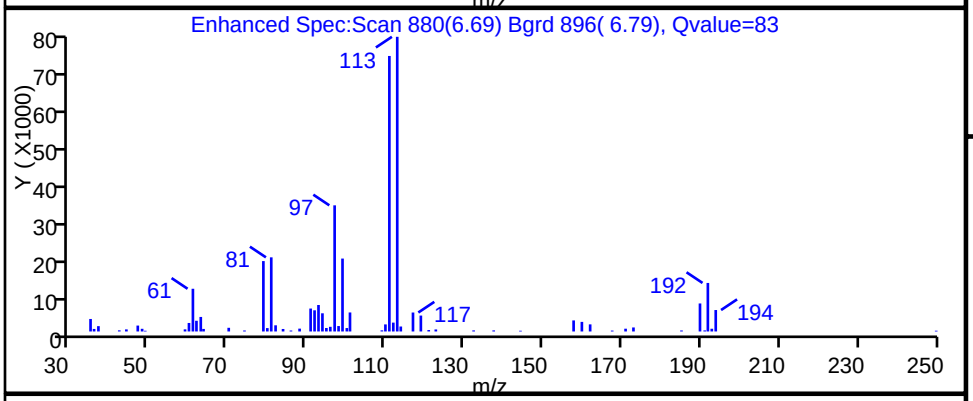
TestAmerica Pittsburgh

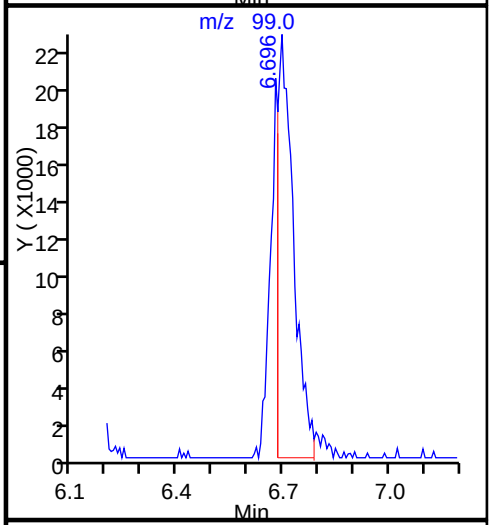
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D				
Injection Date:	03-Jun-2015 19:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-D-2	Lab Sample ID:	Client 180-143682/22-A		
Client ID:	HD-MW-74S-0/1-0				
Operator ID:	034635	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

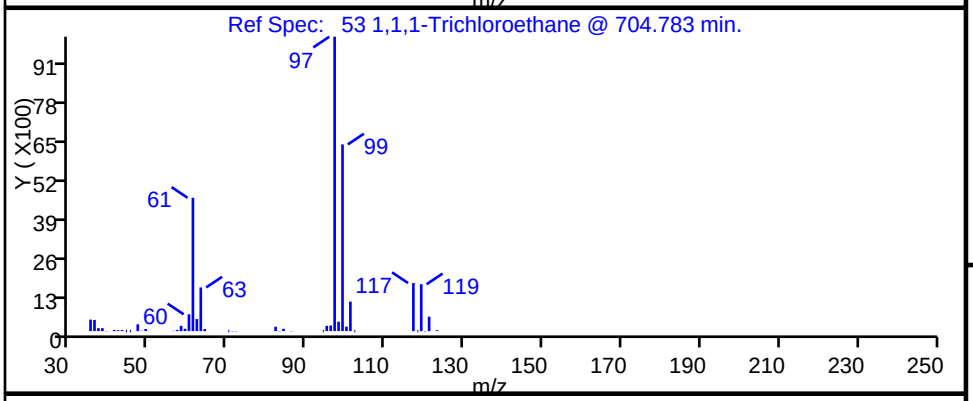
53 1,1,1-Trichloroethane, CAS: 71-55-6

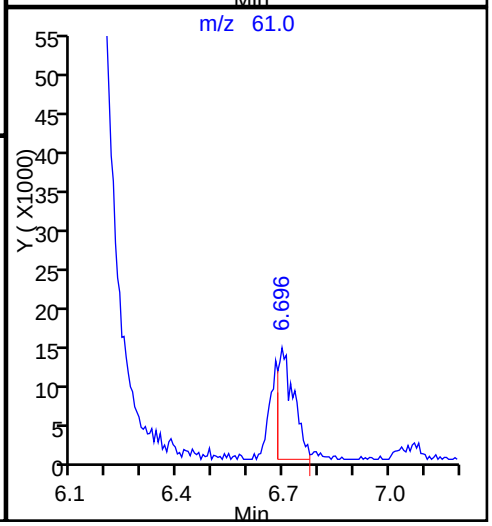


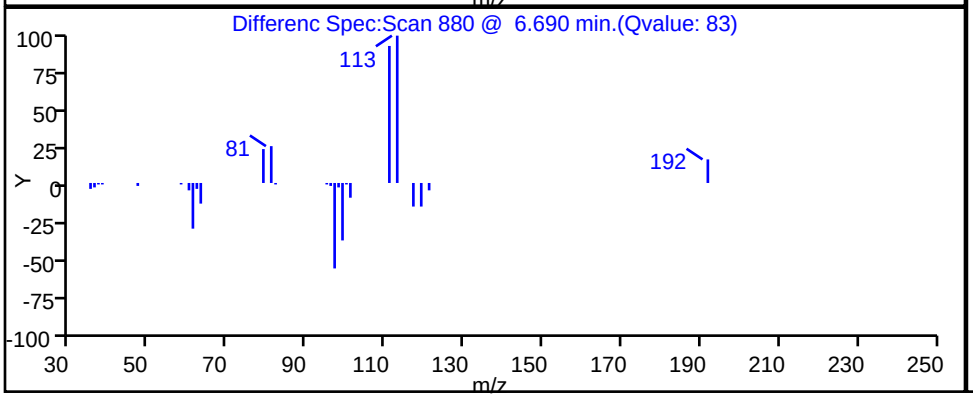












Report Date: 04-Jun-2015 09:13:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D

Injection Date: 03-Jun-2015 19:12:30 Instrument ID: CHHP7

Lims ID: 180-44401-D-2 Lab Sample ID: Client 180-143682/22-A

Client ID: HD-MW-74S-0/1-0

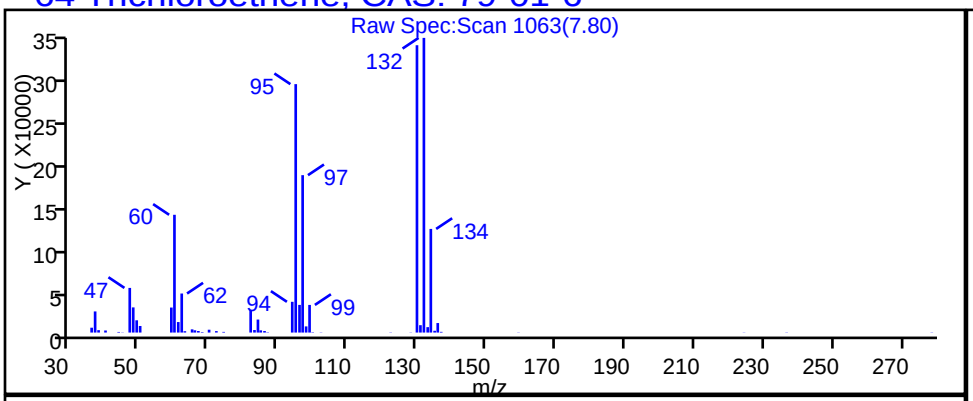
Operator ID: 034635 ALS Bottle#: 21 Worklist Smp#: 22

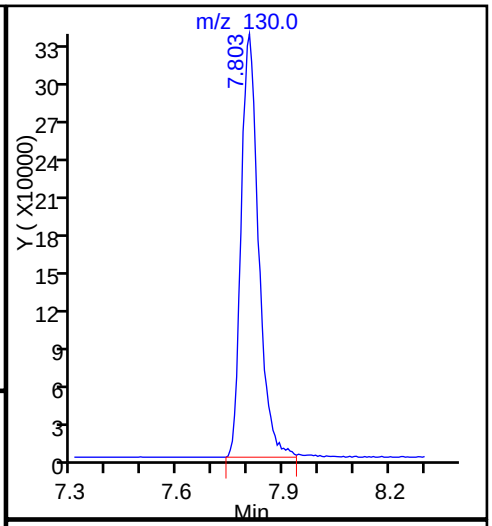
Purge Vol: 20.000 mL Dil. Factor: 1.0000

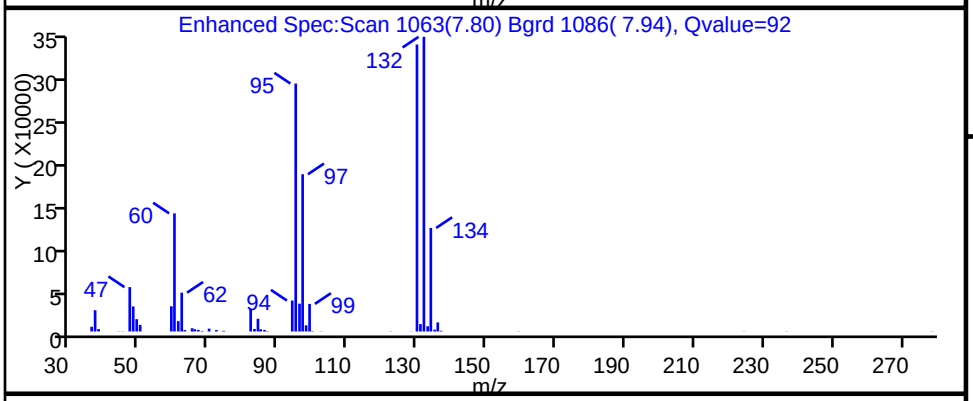
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL

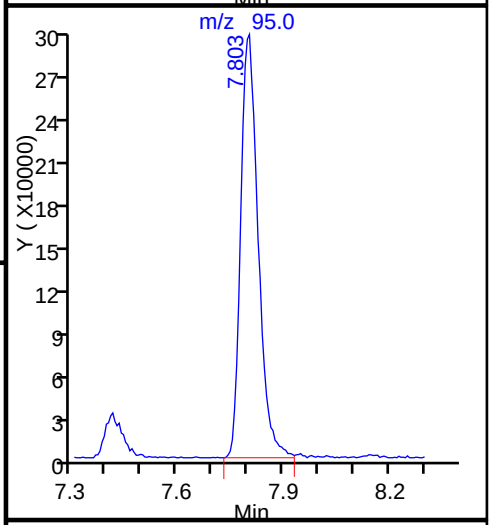
Column: DB-624 (0.18 mm) Detector MS SCAN

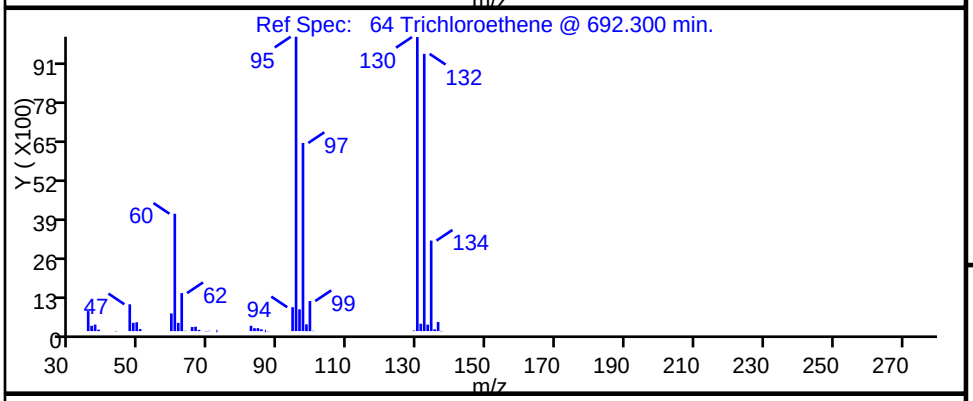
64 Trichloroethene, CAS: 79-01-6

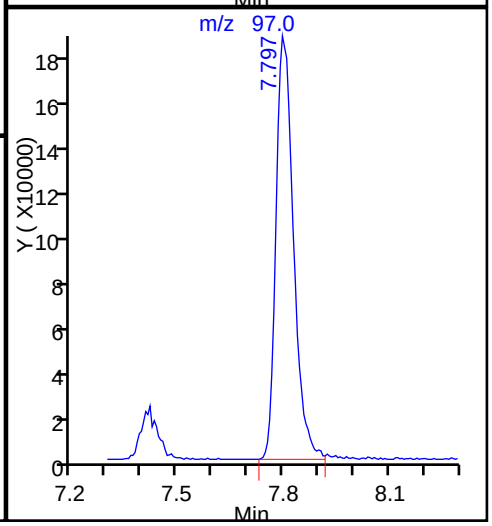


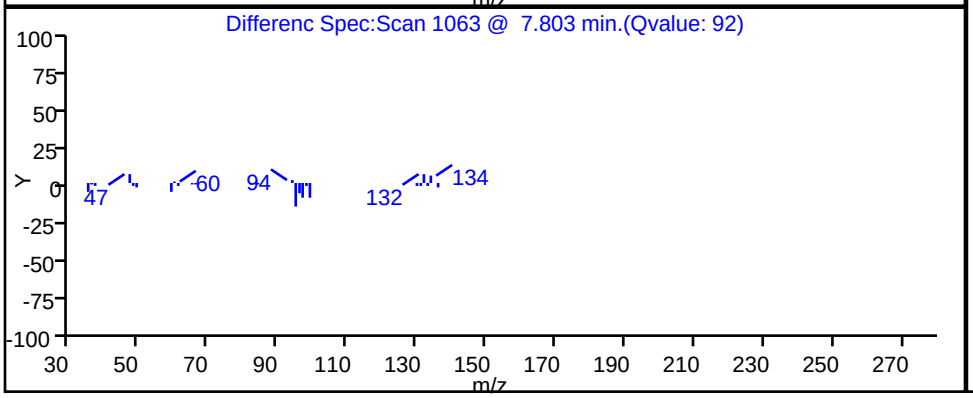












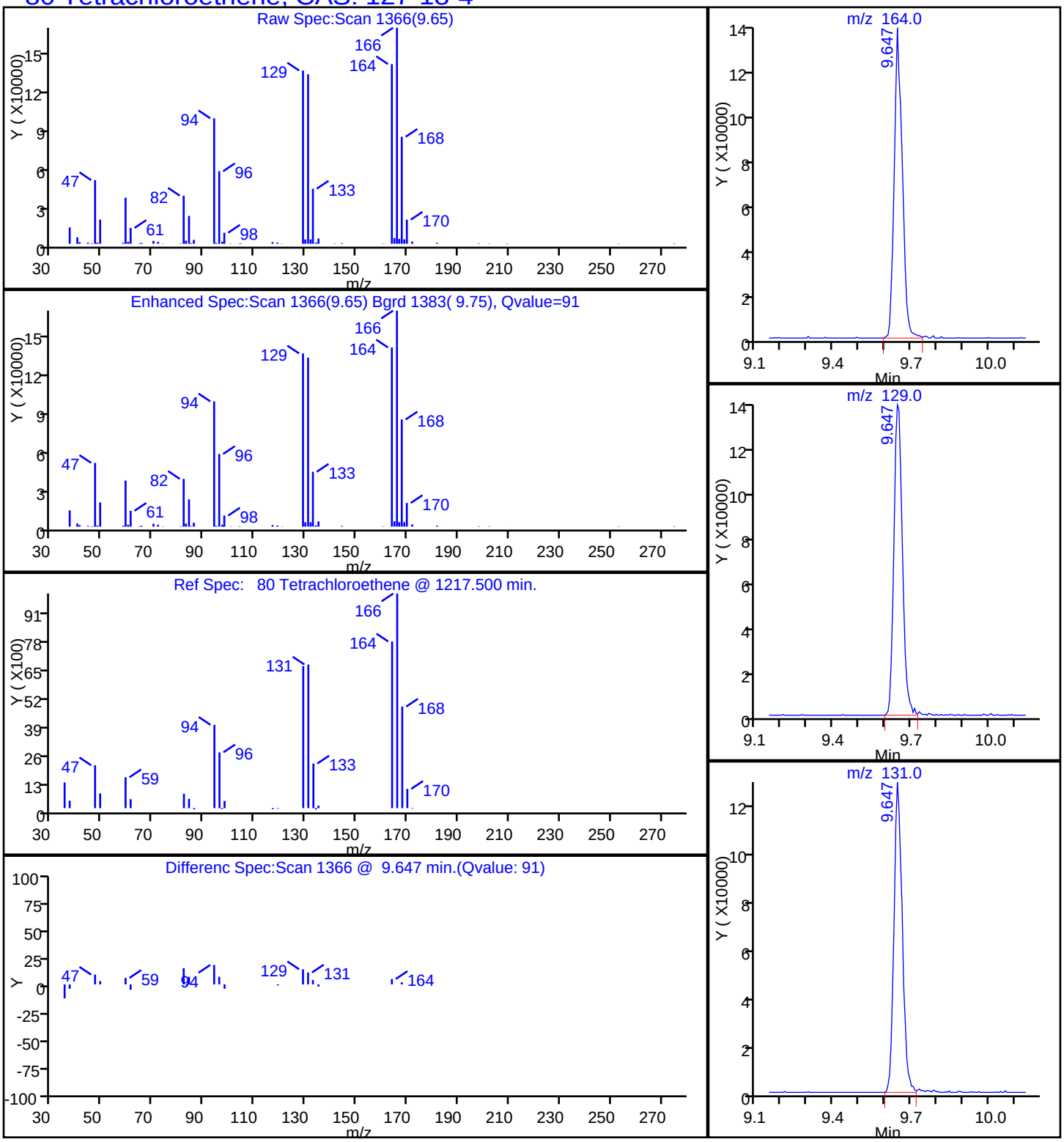
Report Date: 04-Jun-2015 09:13:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060323.D

Injection Date:	03-Jun-2015 19:12:30	Instrument ID:	CHHP7
Lims ID:	180-44401-D-2	Lab Sample ID:	Client 180-143682/22-A
Client ID:	HD-MW-74S-0/1-0		
Operator ID:	034635	ALS Bottle#:	21 Worklist Smp#: 22
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-127-0/1-0 | Lab Sample ID: 180-44401-3

Matrix: Water | Lab File ID: 7060322.D

Analysis Method: 8260C | Date Collected: 05/21/2015 12:15

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 18:45

Soil Aliquot Vol: | Dilution Factor: 5

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.4
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
74-83-9	Bromomethane	5.0	U	5.0	1.6
75-00-3	Chloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	6.0		5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.0	U	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	0.89	J	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	240		5.0	1.2
74-97-5	Bromochloromethane	5.0	U	5.0	0.90
78-93-3	2-Butanone (MEK)	25	U	25	2.7
67-66-3	Chloroform	5.0	U	5.0	0.85
71-55-6	1,1,1-Trichloroethane	5.8		5.0	1.4
56-23-5	Carbon tetrachloride	1.0	J	5.0	0.68
71-43-2	Benzene	5.0	U	5.0	0.53
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.1
79-01-6	Trichloroethene	130		5.0	0.72
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.47
75-27-4	Bromodichloromethane	5.0	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	2.6
108-88-3	Toluene	5.0	U	5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.74
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.0
127-18-4	Tetrachloroethene	35		5.0	0.74
591-78-6	2-Hexanone	25	U	25	0.80
124-48-1	Dibromochloromethane	5.0	U	5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90
108-90-7	Chlorobenzene	5.0	U	5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4
100-41-4	Ethylbenzene	5.0	U	5.0	1.1
1330-20-7	Xylenes, Total	15	U	15	2.4
100-42-5	Styrene	5.0	U	5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-127-0/1-0 | Lab Sample ID: 180-44401-3

Matrix: Water | Lab File ID: 7060322.D

Analysis Method: 8260C | Date Collected: 05/21/2015 12:15

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 18:45

Soil Aliquot Vol: | Dilution Factor: 5

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0
107-13-1	Acrylonitrile	100	U	100	2.7
123-91-1	1,4-Dioxane	1000	U	1000	170

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	115		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D
Lims ID: 180-44401-E-3 Lab Sample ID: 180-44401-3
Client ID: HD-MW-127-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 18:45:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 5.0000
Sample Info: 180-44401-E-3
Misc. Info.: 180-0007238-021
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Jun-2015 07:43:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 04-Jun-2015 07:39:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.575	4.629	-0.055	94	289169	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.415	0.000	99	1235610	200.0	
* 3 Chlorobenzene-d5	119	10.463	10.469	-0.006	86	324163	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	96	343815	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.685	-0.006	91	418426	212.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.056	-0.012	93	364943	194.2	
$ 7 Toluene-d8 (Surr)	98	9.040	9.039	0.001	93	1107934	230.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.631	0.000	89	437140	203.5	
12 Chloromethane	50		2.031				ND	
13 Vinyl chloride	62		2.250				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.645				ND	
22 1,1-Dichloroethene	96	3.632	3.619	0.013	22	39695	23.9	M
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.929				ND	
31 Methylene Chloride	84		4.422				ND	
33 Acrylonitrile	53		4.787				ND	
34 trans-1,2-Dichloroethene	96	4.830	4.805	0.025	24	7314	3.55	M
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.371				ND	
45 cis-1,2-Dichloroethene	96	6.120	6.119	0.001	79	1966024	962.5	
46 2-Butanone (MEK)	43		6.168				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.704	6.685	0.019	44	71126	23.1	
56 Carbon tetrachloride	117	6.874	6.873	0.001	43	12667	4.07	M
58 Benzene	78		7.105				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.799	7.804	-0.005	94	1235096	506.7	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.175				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.654	9.648	0.006	92	228266	141.2	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.609				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

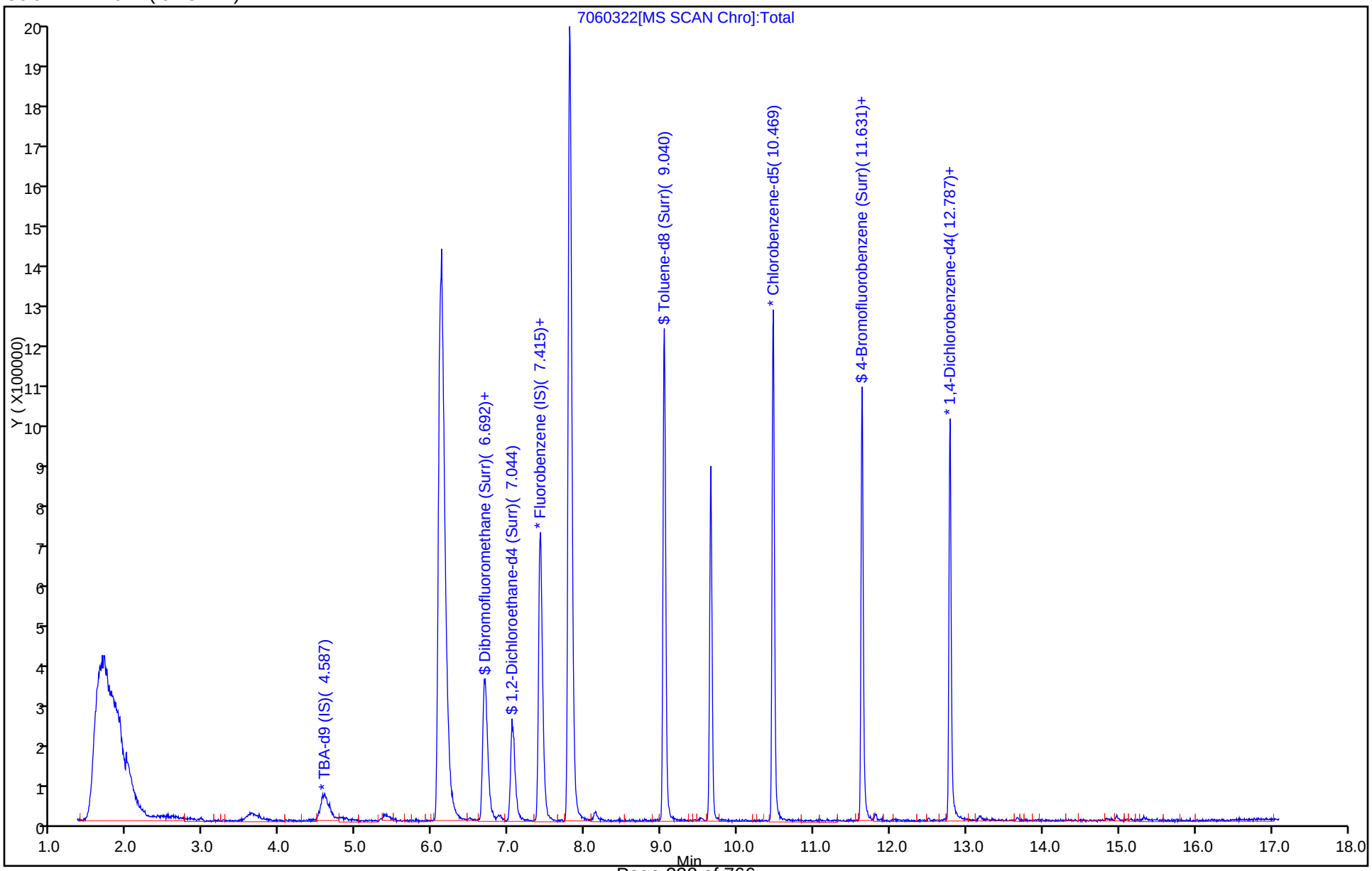
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3	Worklist Smp#:	21
Client ID:	HD-MW-127-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



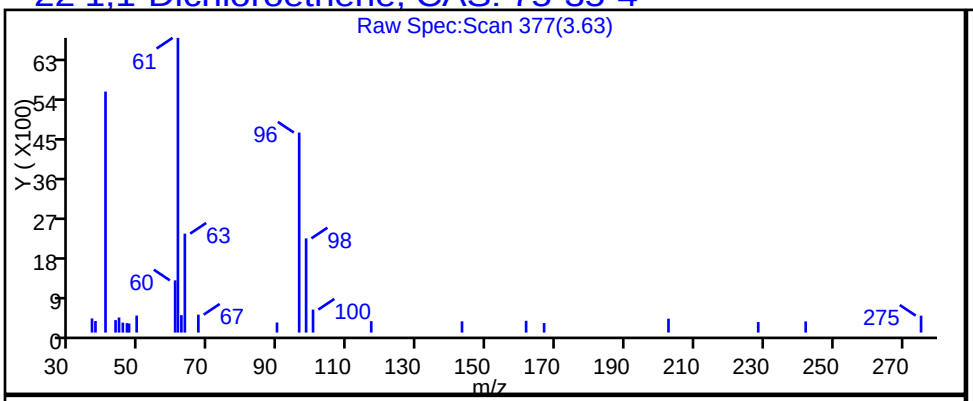
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

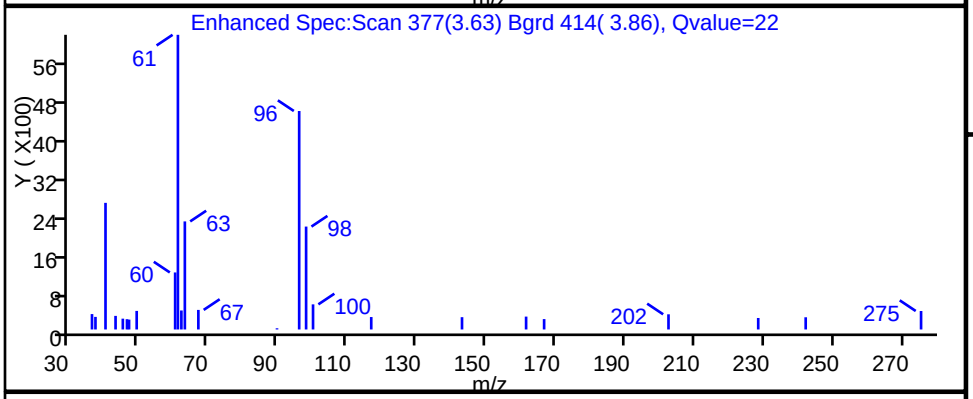
TestAmerica Pittsburgh

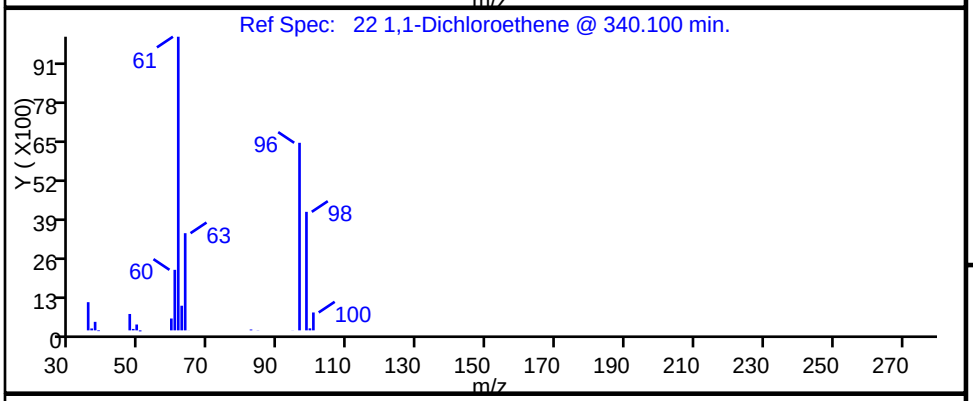
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D

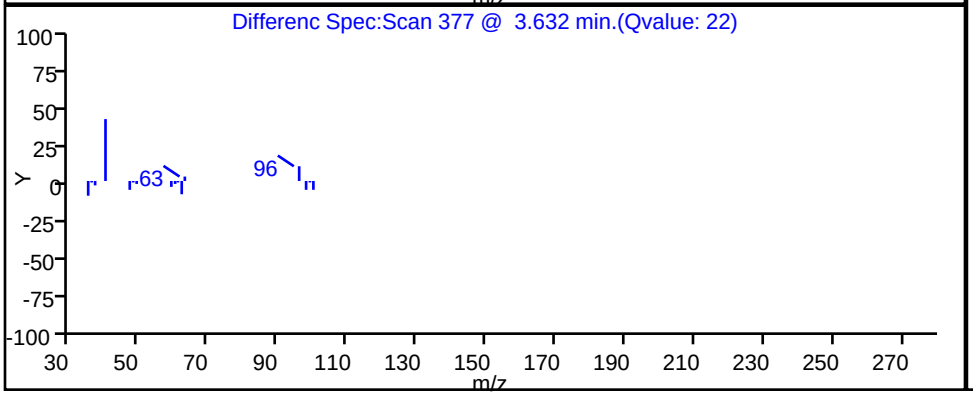
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

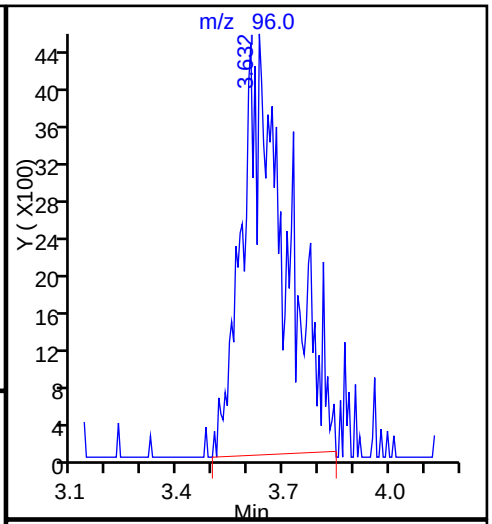
22 1,1-Dichloroethene, CAS: 75-35-4

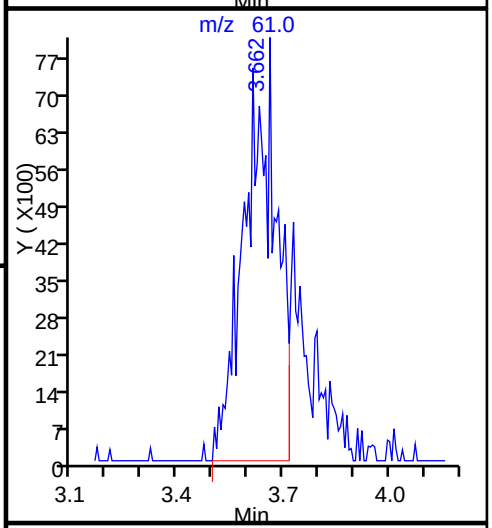


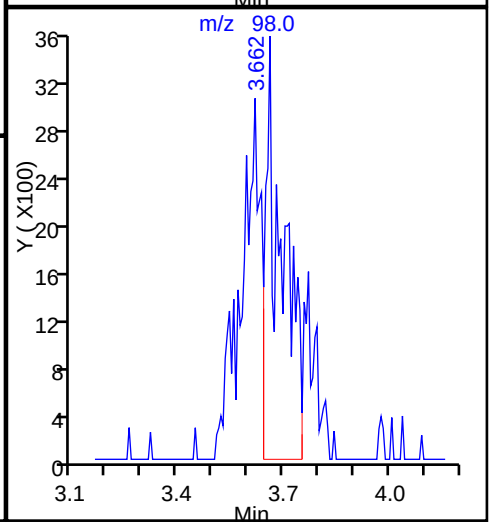










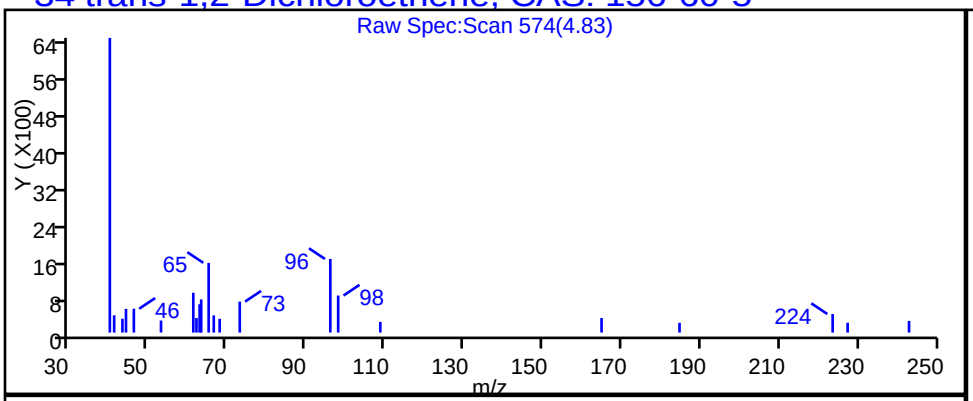


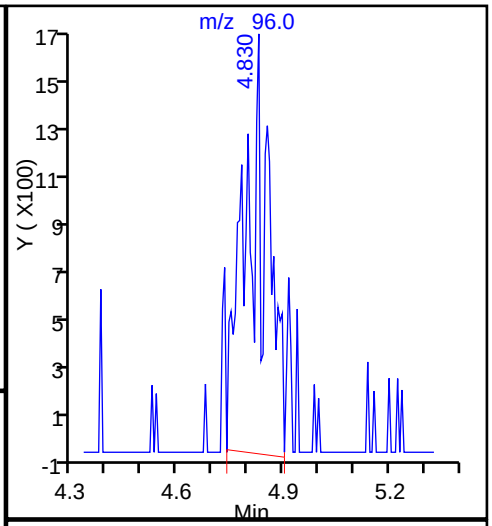
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

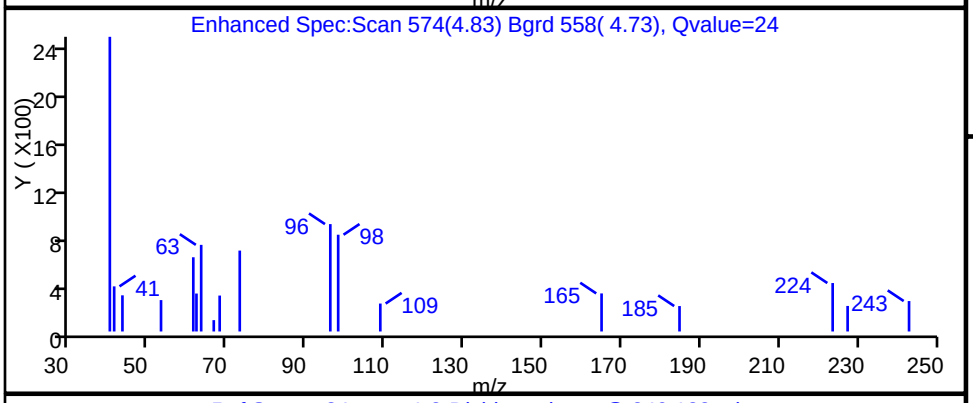
TestAmerica Pittsburgh

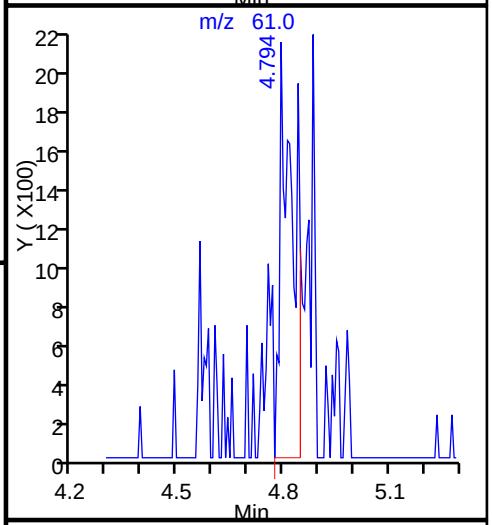
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

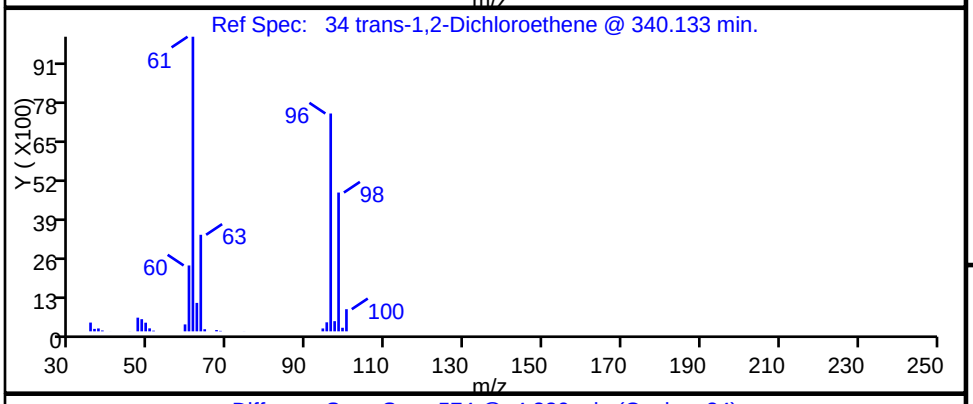
34 trans-1,2-Dichloroethene, CAS: 156-60-5

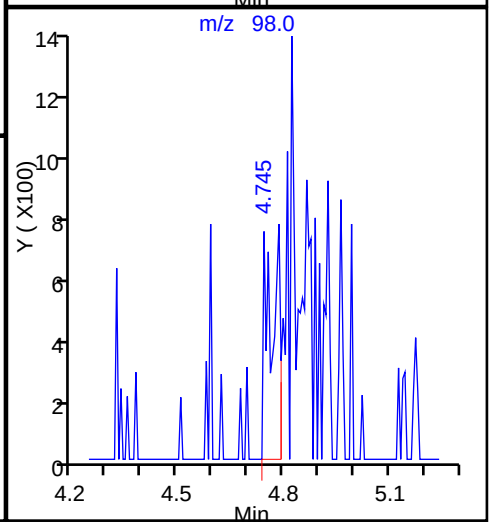


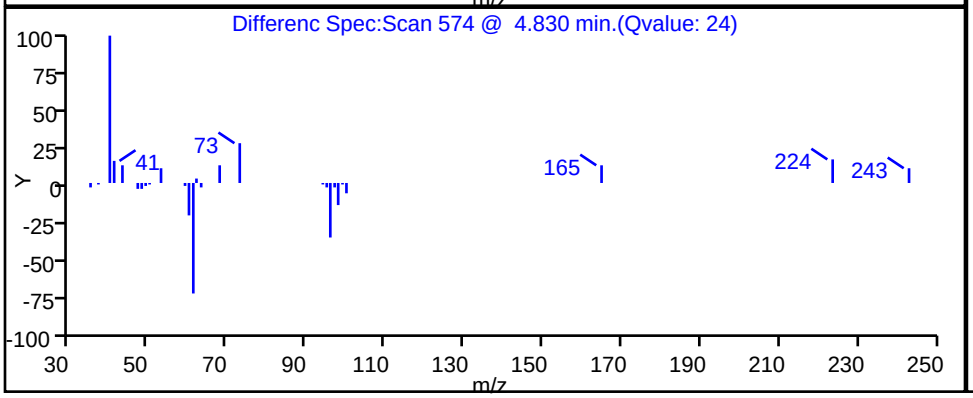










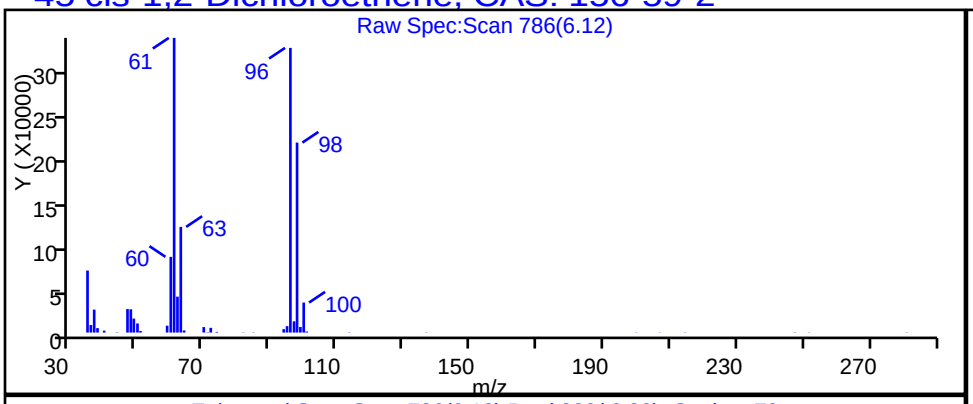


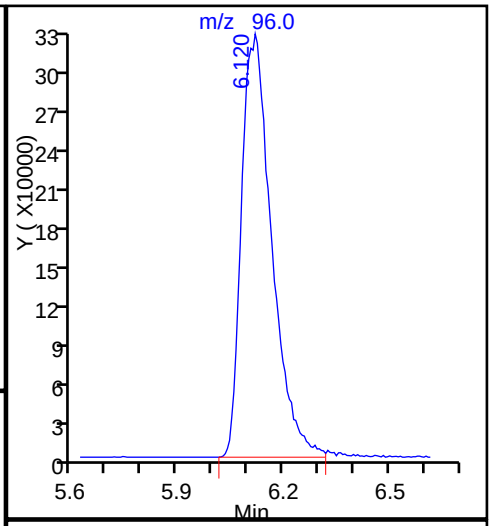
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

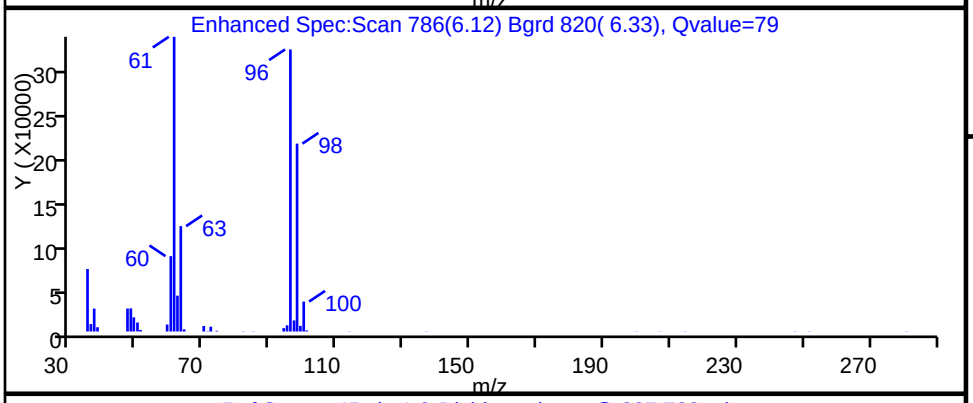
TestAmerica Pittsburgh

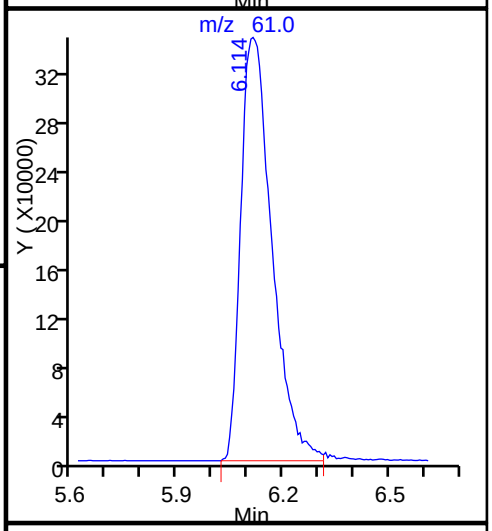
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

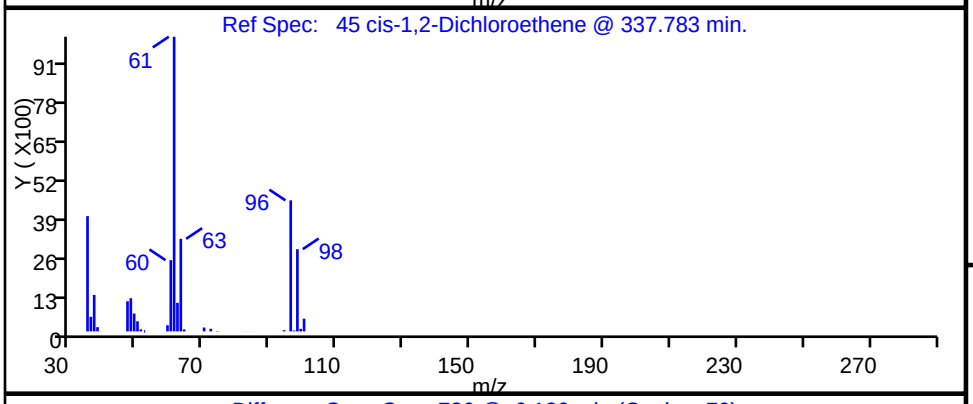
45 cis-1,2-Dichloroethene, CAS: 156-59-2

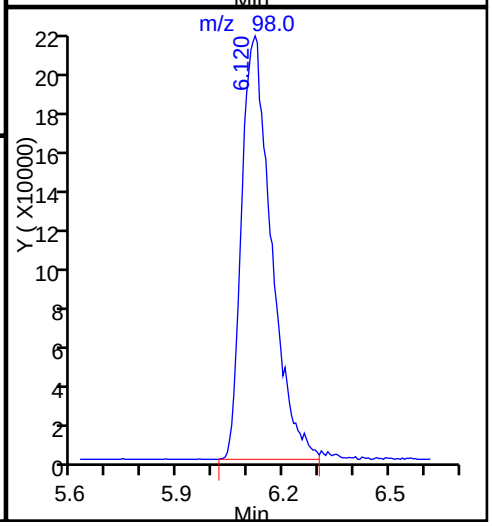


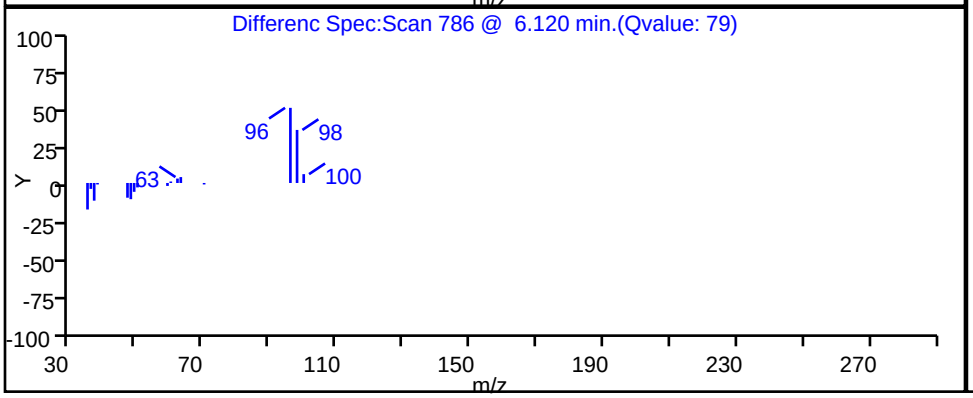












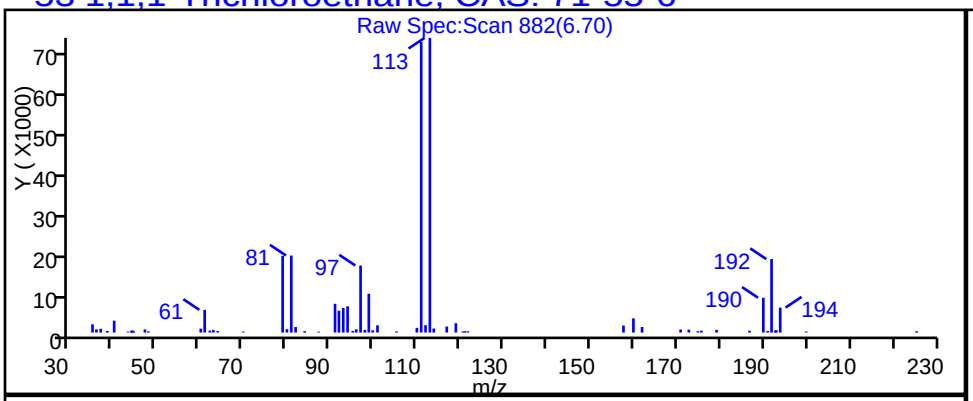
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

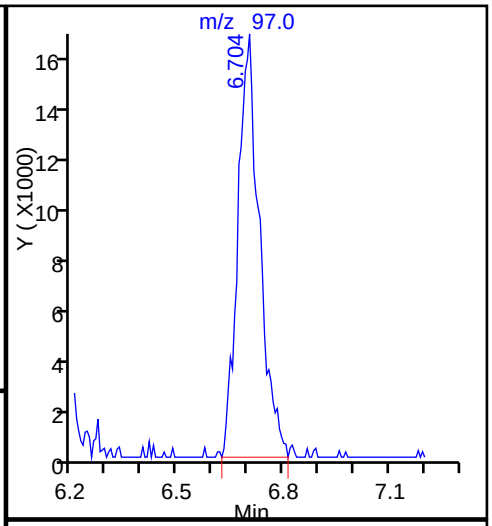
TestAmerica Pittsburgh

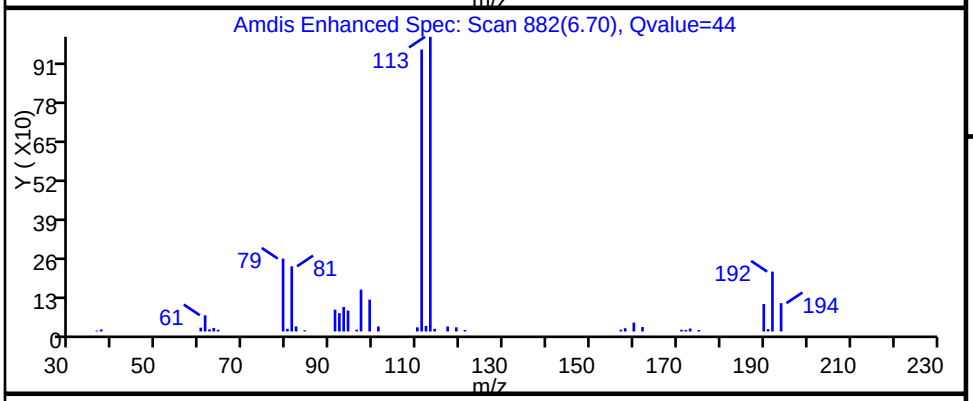
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D

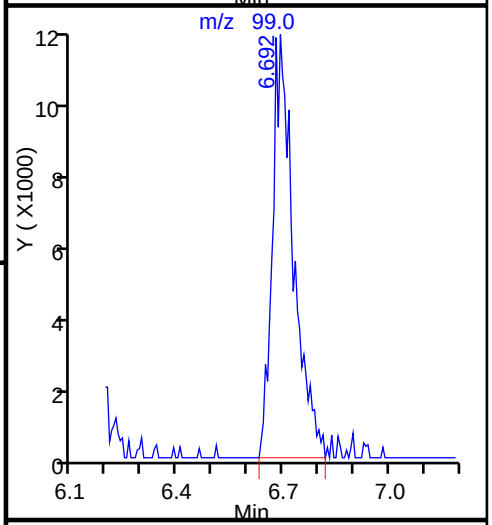
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

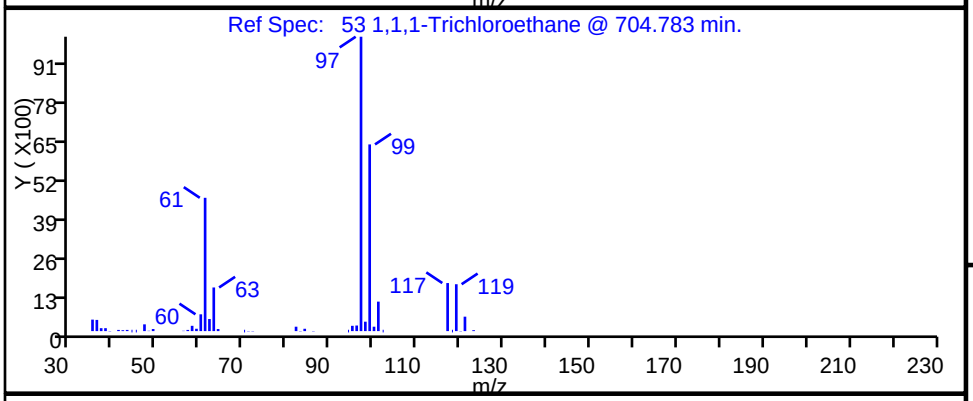
53 1,1,1-Trichloroethane, CAS: 71-55-6

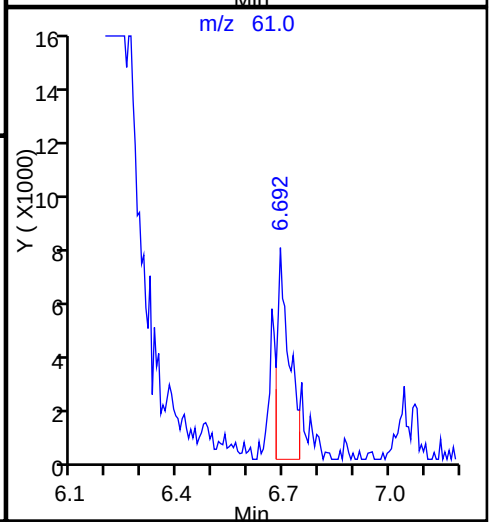


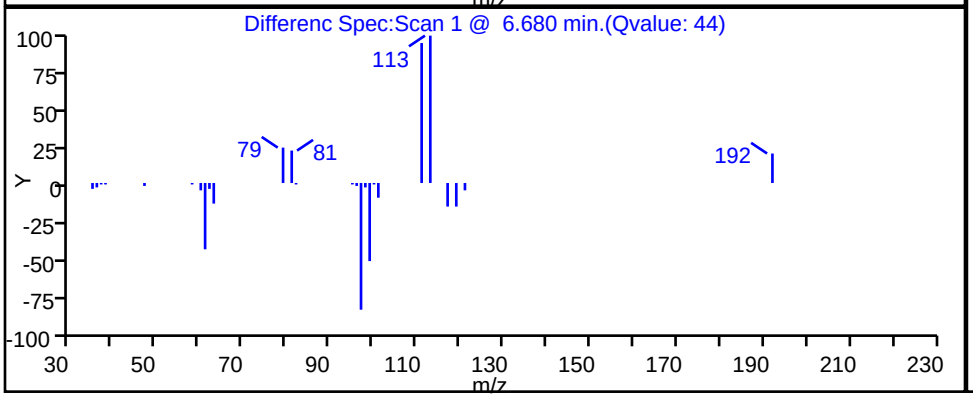












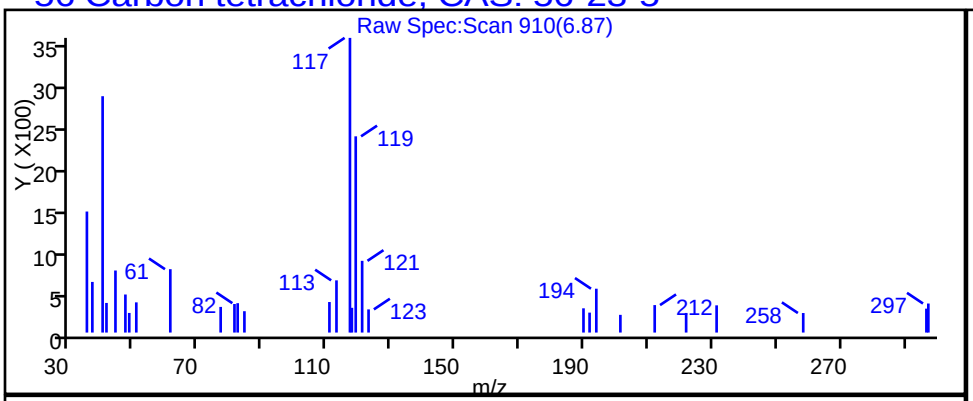
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

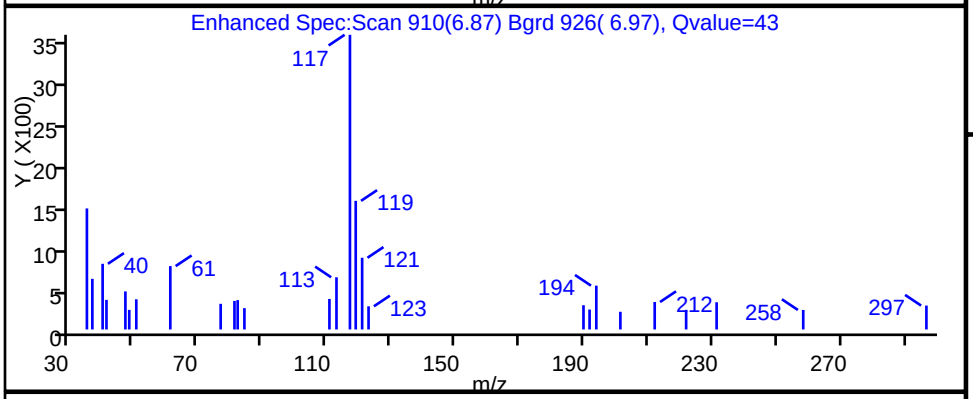
TestAmerica Pittsburgh

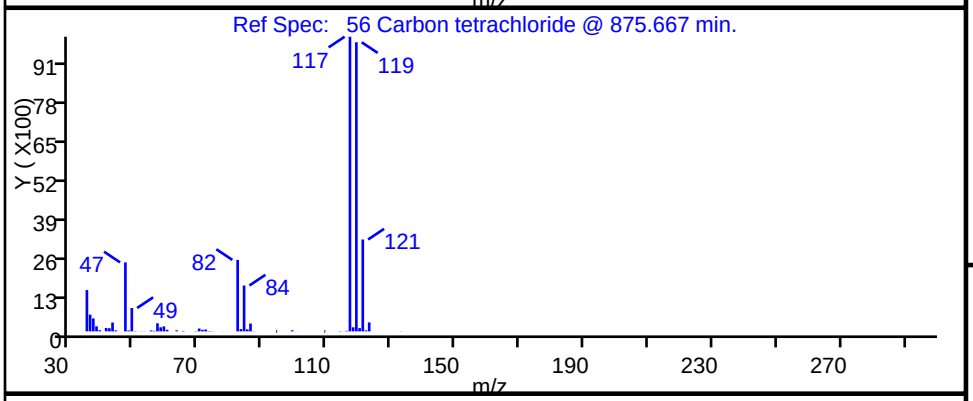
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D

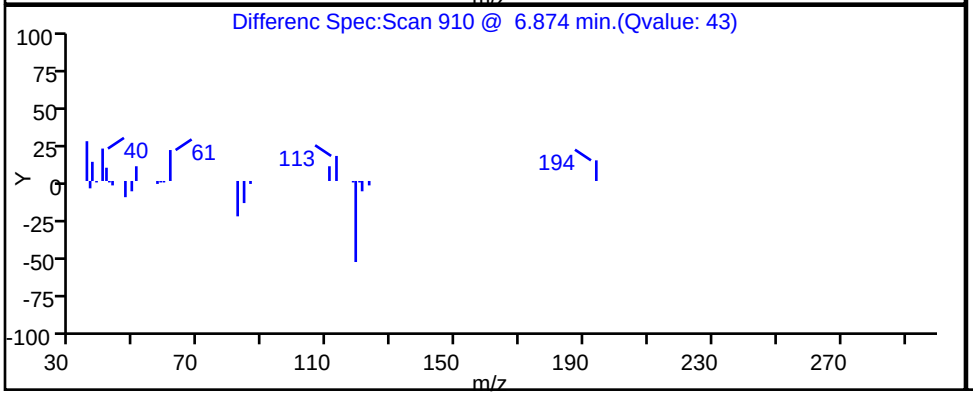
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

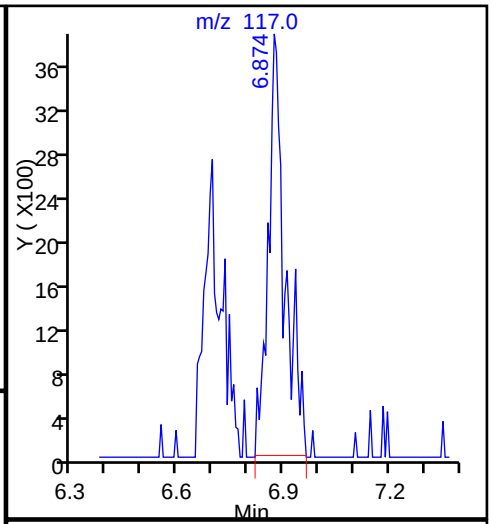
56 Carbon tetrachloride, CAS: 56-23-5

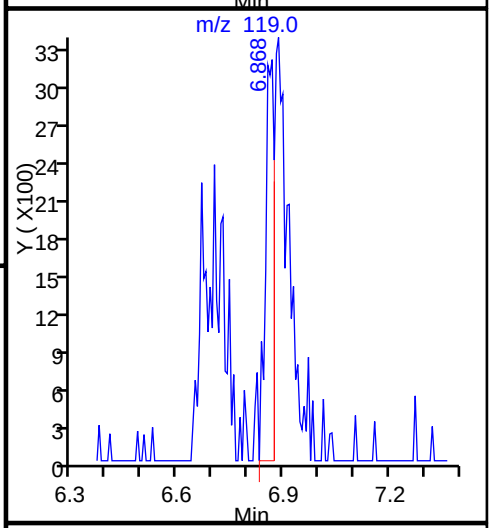


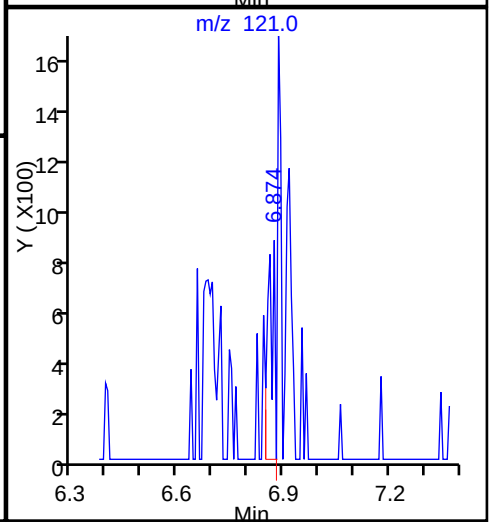










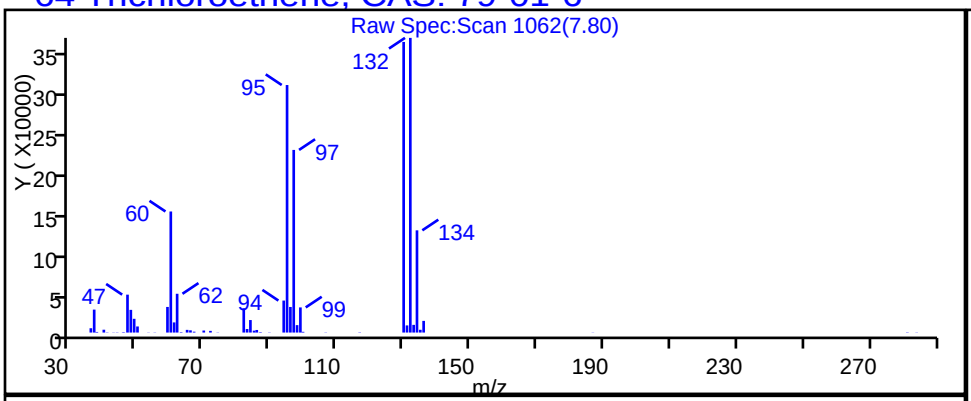


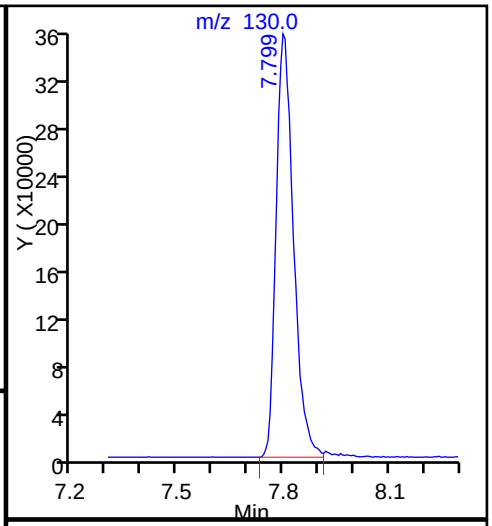
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

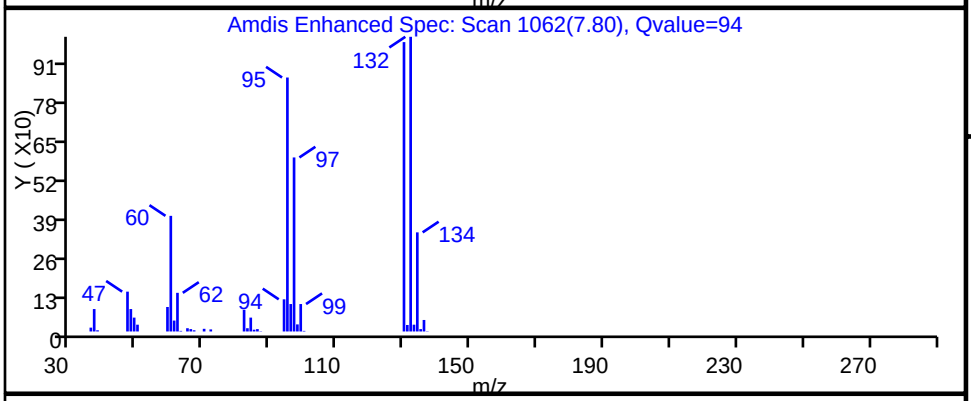
TestAmerica Pittsburgh

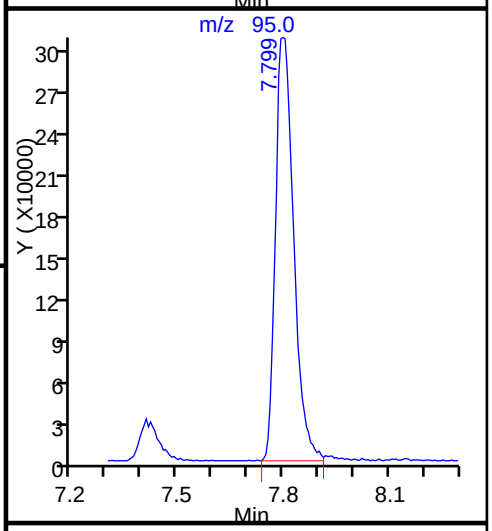
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

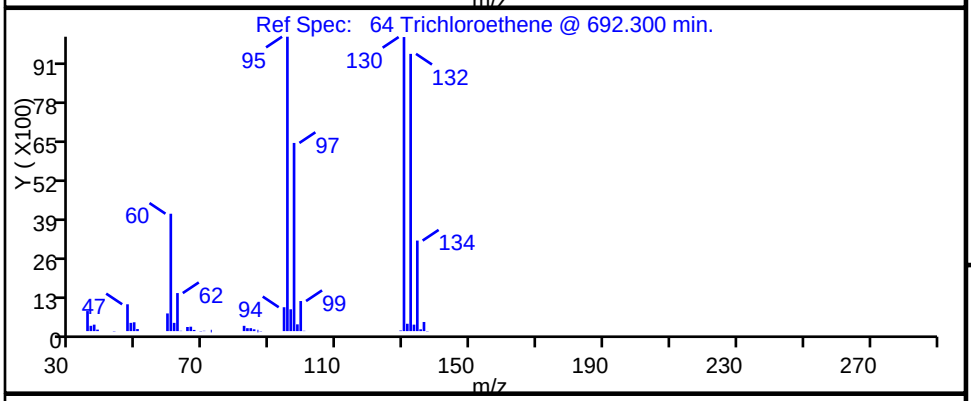
64 Trichloroethene, CAS: 79-01-6

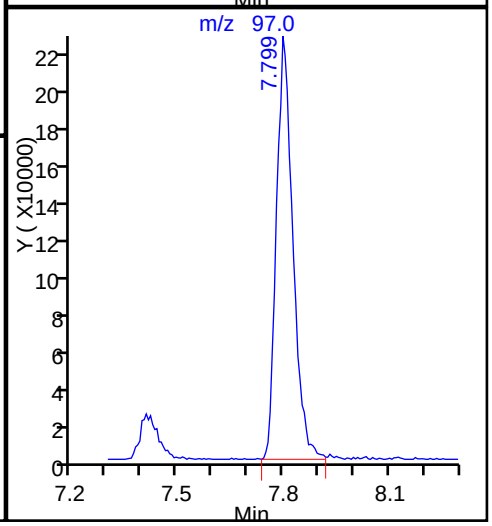


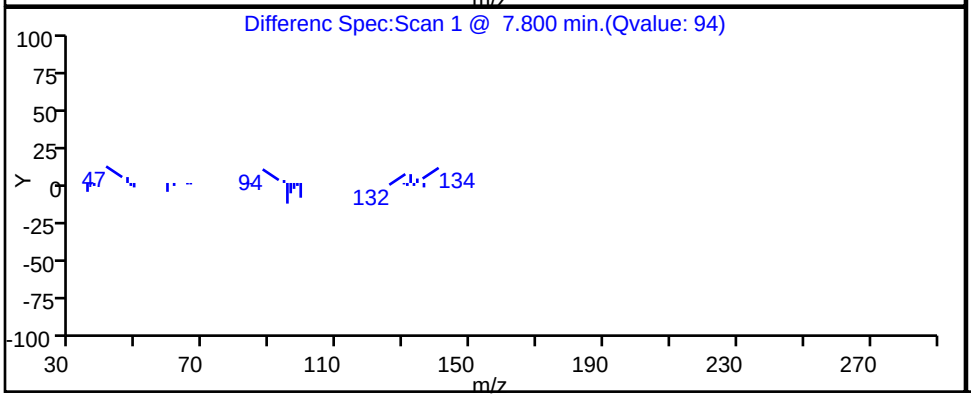












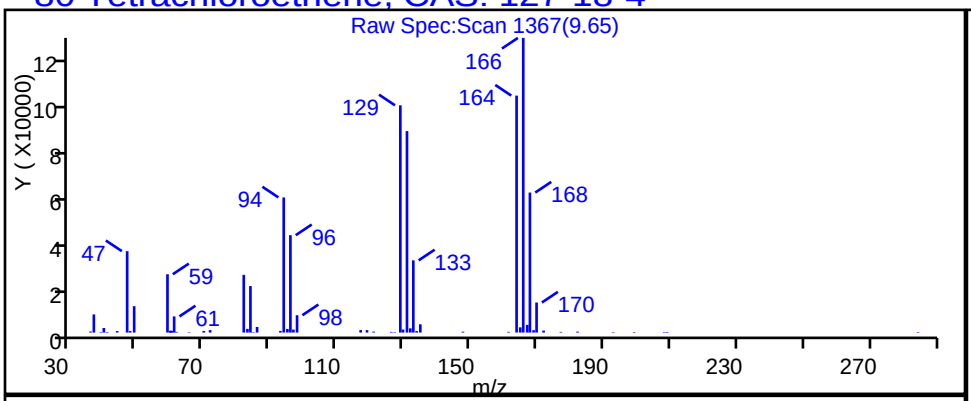
Report Date: 04-Jun-2015 07:49:39 Chrom Revision: 2.2 05-May-2015 11:39:10

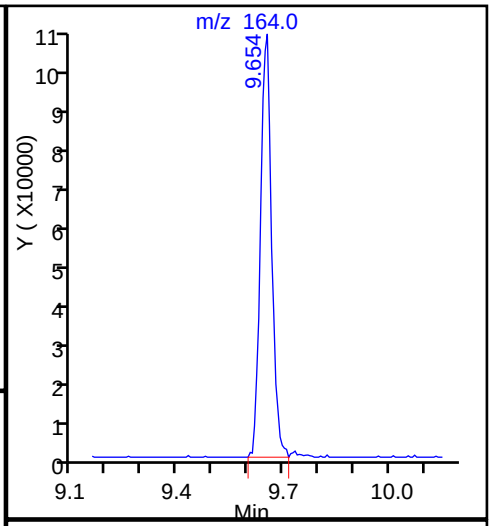
TestAmerica Pittsburgh

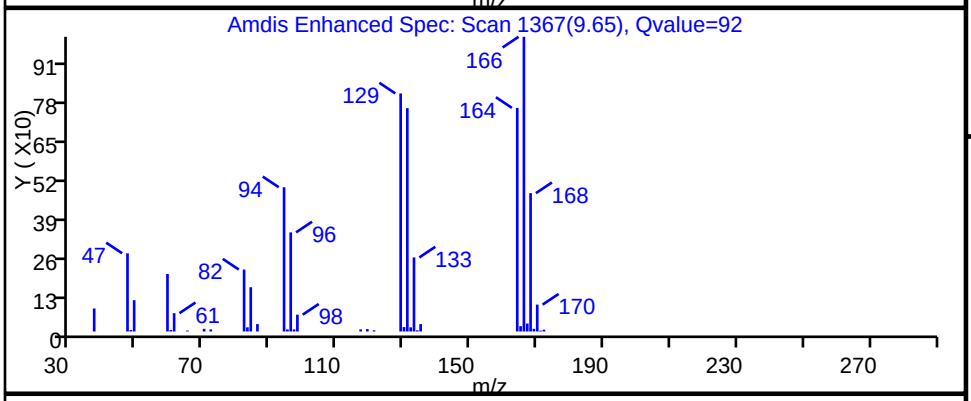
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D

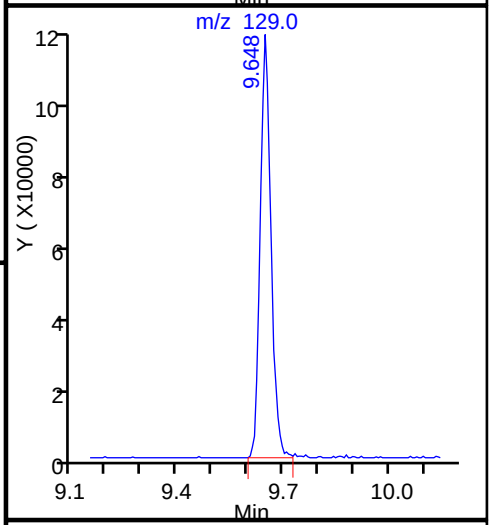
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

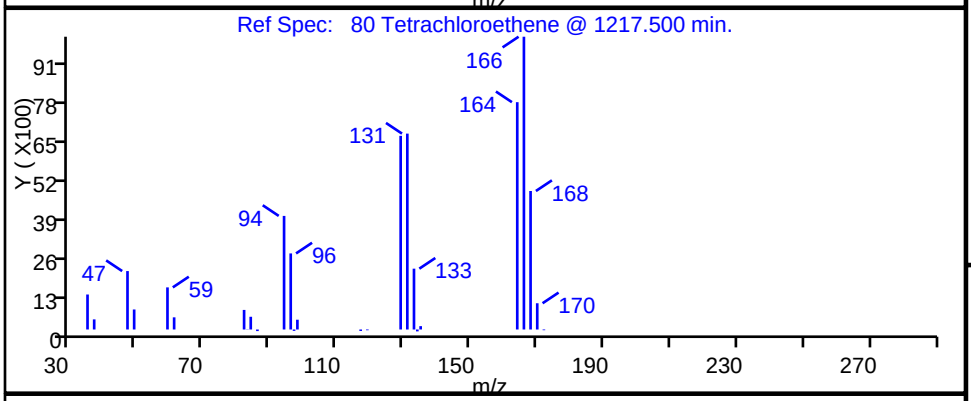
80 Tetrachloroethene, CAS: 127-18-4

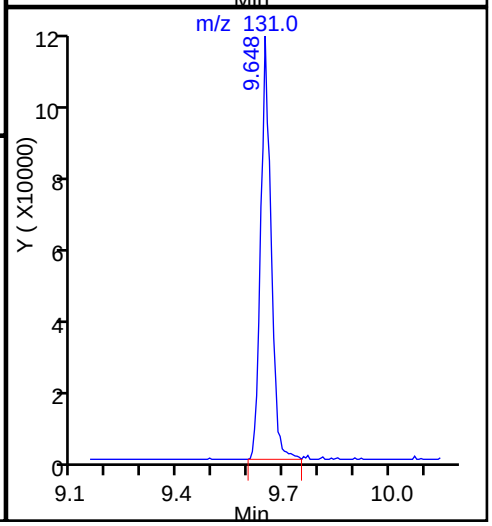


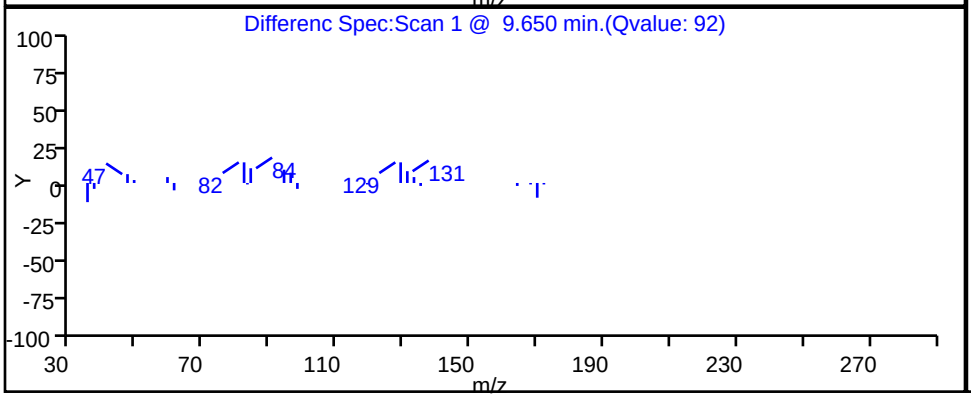












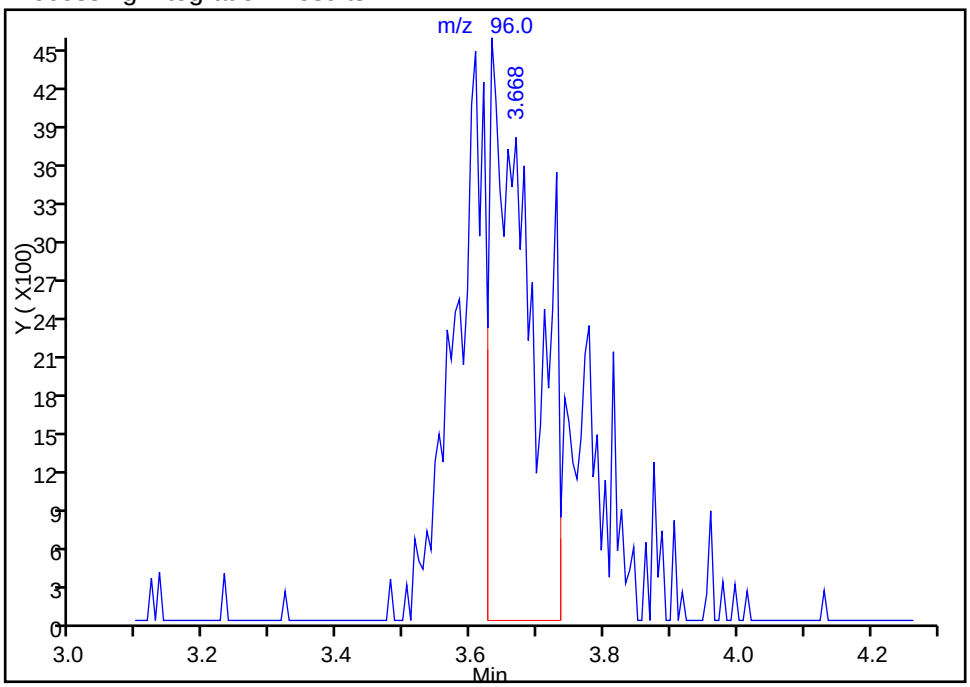
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

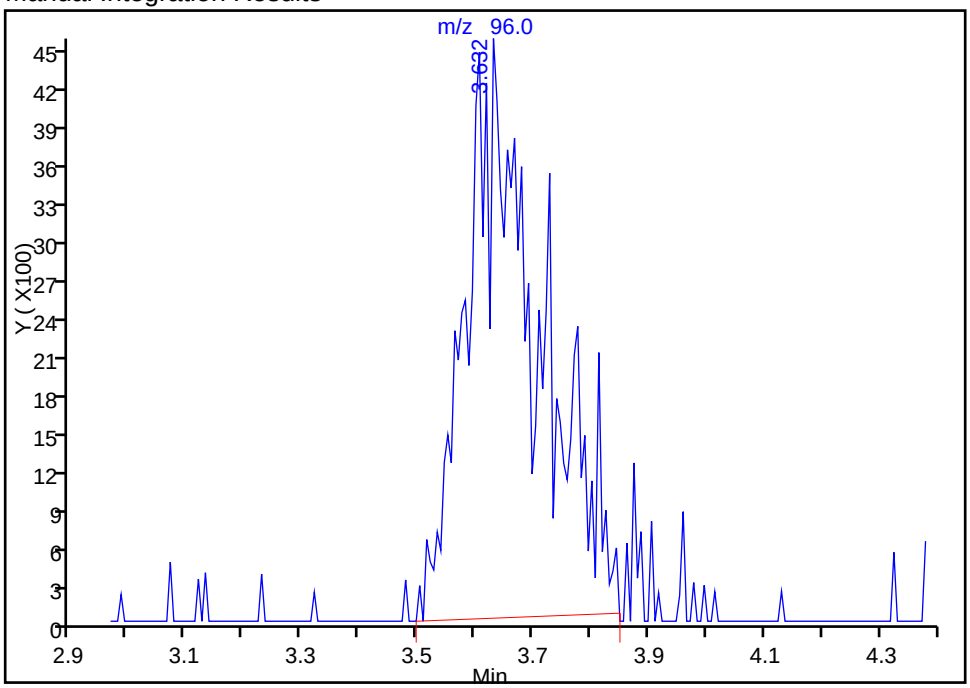
Processing Integration Results

RT: 3.67
Area: 19425
Amount: 11.708862
Amount Units: ng



Manual Integration Results

RT: 3.63
Area: 39695
Amount: 23.927067
Amount Units: ng



Reviewer: journetp, 04-Jun-2015 07:39:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

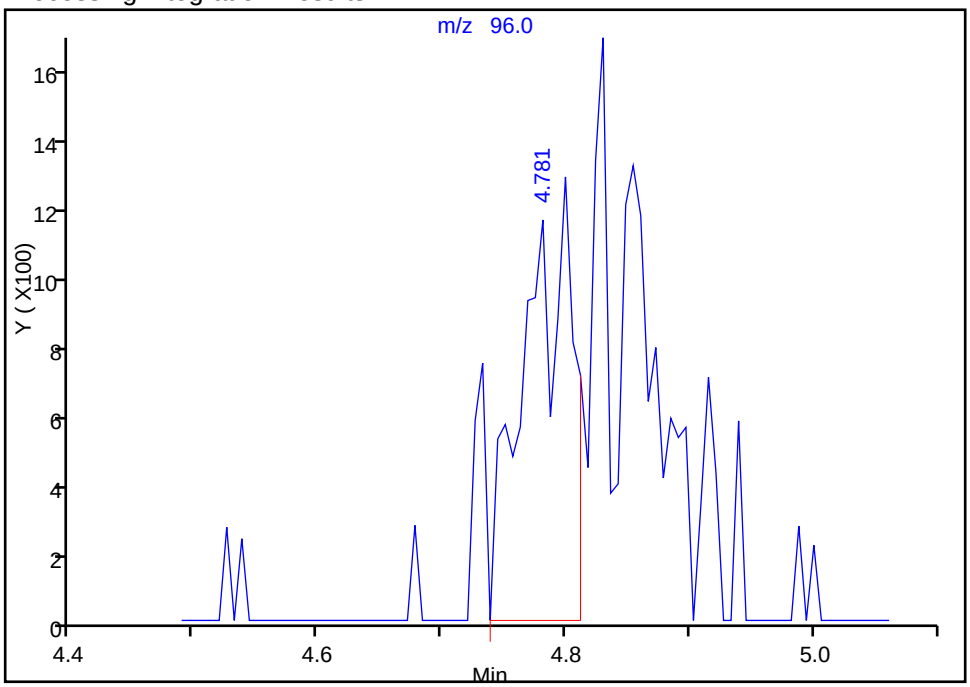
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5

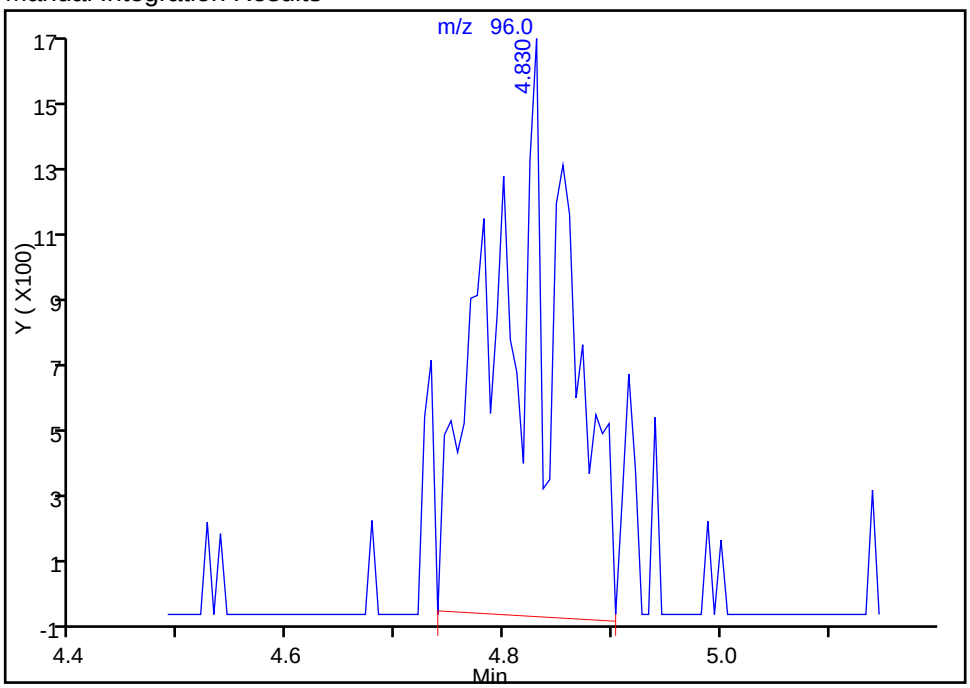
Processing Integration Results

RT: 4.78
Area: 3282
Amount: 1.594439
Amount Units: ng



Manual Integration Results

RT: 4.83
Area: 7314
Amount: 3.553238
Amount Units: ng



Reviewer: journetp, 04-Jun-2015 07:39:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

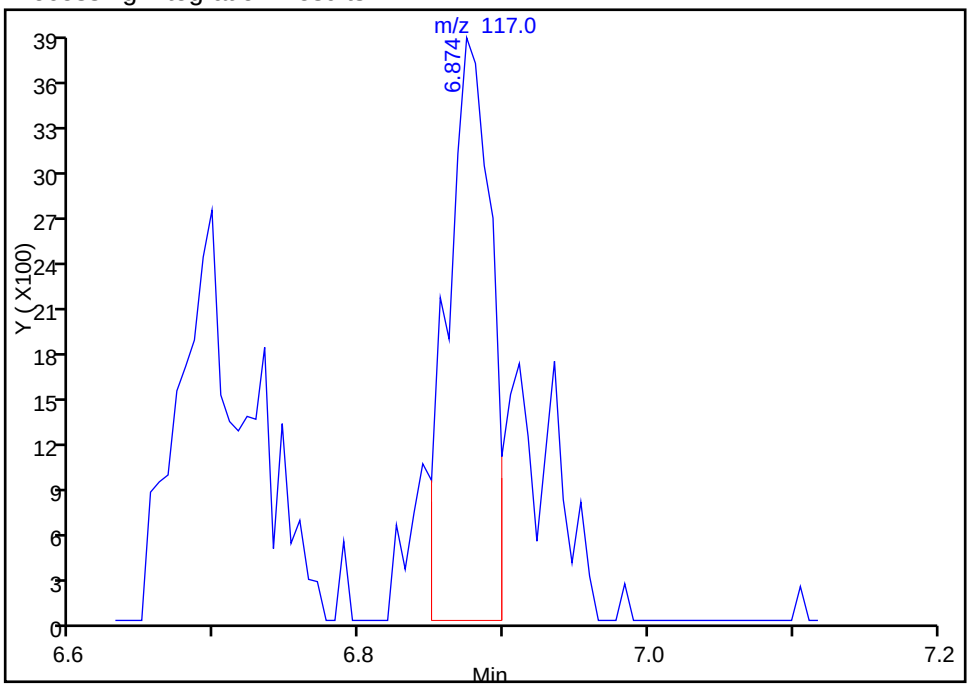
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060322.D				
Injection Date:	03-Jun-2015 18:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

56 Carbon tetrachloride, CAS: 56-23-5

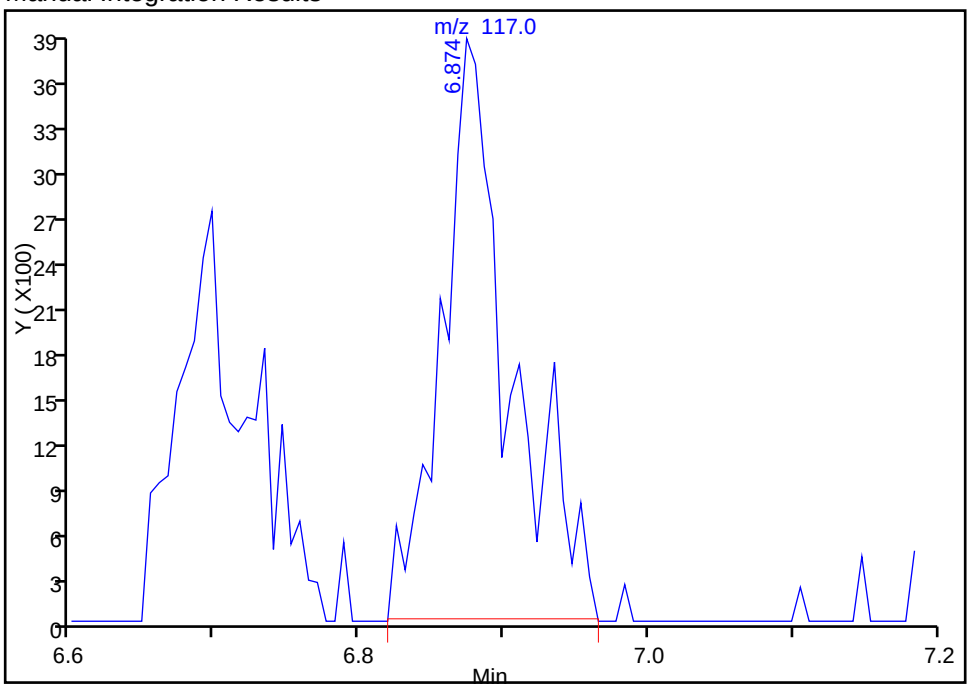
Processing Integration Results

RT: 6.87
Area: 8154
Amount: 2.620115
Amount Units: ng



Manual Integration Results

RT: 6.87
Area: 12667
Amount: 4.070272
Amount Units: ng



Reviewer: journetp, 04-Jun-2015 07:39:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 | Lab Sample ID: 180-44401-4

Matrix: Water | Lab File ID: 7060216.D

Analysis Method: 8260C | Date Collected: 05/21/2015 09:56

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 17:26

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	38		25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	150		25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	25	U	25	3.1
156-60-5	trans-1,2-Dichloroethene	15	J	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	25	U	25	2.9
156-59-2	*cis-1,2-Dichloroethene*	*4300*	*E*	*25*	*5.9*
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	32		25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	*Trichloroethene*	*2900*	*E*	*25*	*3.6*
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	*Tetrachloroethene*	*NQ*		*25*	*3.7*
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 | Lab Sample ID: 180-44401-4

Matrix: Water | Lab File ID: 7060216.D

Analysis Method: 8260C | Date Collected: 05/21/2015 09:56

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 17:26

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D
Lims ID: 180-44401-E-4 Lab Sample ID: 180-44401-4
Client ID: HD-MW-114-0/1-0
Sample Type: Client
Inject. Date: 02-Jun-2015 17:26:30 ALS Bottle#: 4 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 25.0000
Sample Info: 180-44401-E-4
Misc. Info.: 180-0007217-016
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 08:32:34 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 08:05:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.585	4.568	0.017	97	277628	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.415	-0.007	98	1290018	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	0.000	87	334454	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	96	358790	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.691	-0.007	92	411541	200.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.050	-0.001	93	341770	174.2	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	93	1106306	223.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	454692	205.3	
12 Chloromethane	50		2.049				ND	
13 Vinyl chloride	62	2.225	2.219	0.006	33	61544	30.3	
15 Bromomethane	94		2.578				ND	
16 Chloroethane	64		2.651				ND	
22 1,1-Dichloroethene	96	3.661	3.655	0.006	95	213675	123.4	
24 Acetone	43		3.777				ND	
26 Carbon disulfide	76		3.935				ND	
31 Methylene Chloride	84		4.415				ND	
33 Acrylonitrile	53		4.793				ND	
34 trans-1,2-Dichloroethene	96	4.835	4.799	0.036	57	26535	12.3	
35 Methyl tert-butyl ether	73		4.847				ND	
37 1,1-Dichloroethane	63		5.371				ND	
45 cis-1,2-Dichloroethene	96	6.112	6.125	-0.013	72	7268272	3408.1	E
46 2-Butanone (MEK)	43		6.161				ND	
49 Chlorobromomethane	128		6.399				ND	
52 Chloroform	83		6.508				ND	
53 1,1,1-Trichloroethane	97	6.702	6.697	0.005	83	82067	25.5	M
56 Carbon tetrachloride	117		6.879				ND	
58 Benzene	78		7.104				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.804	7.798	0.006	90	5975225	2347.8	E
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.331				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.653	9.653	0.000	89	2258521		NQ
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.012				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

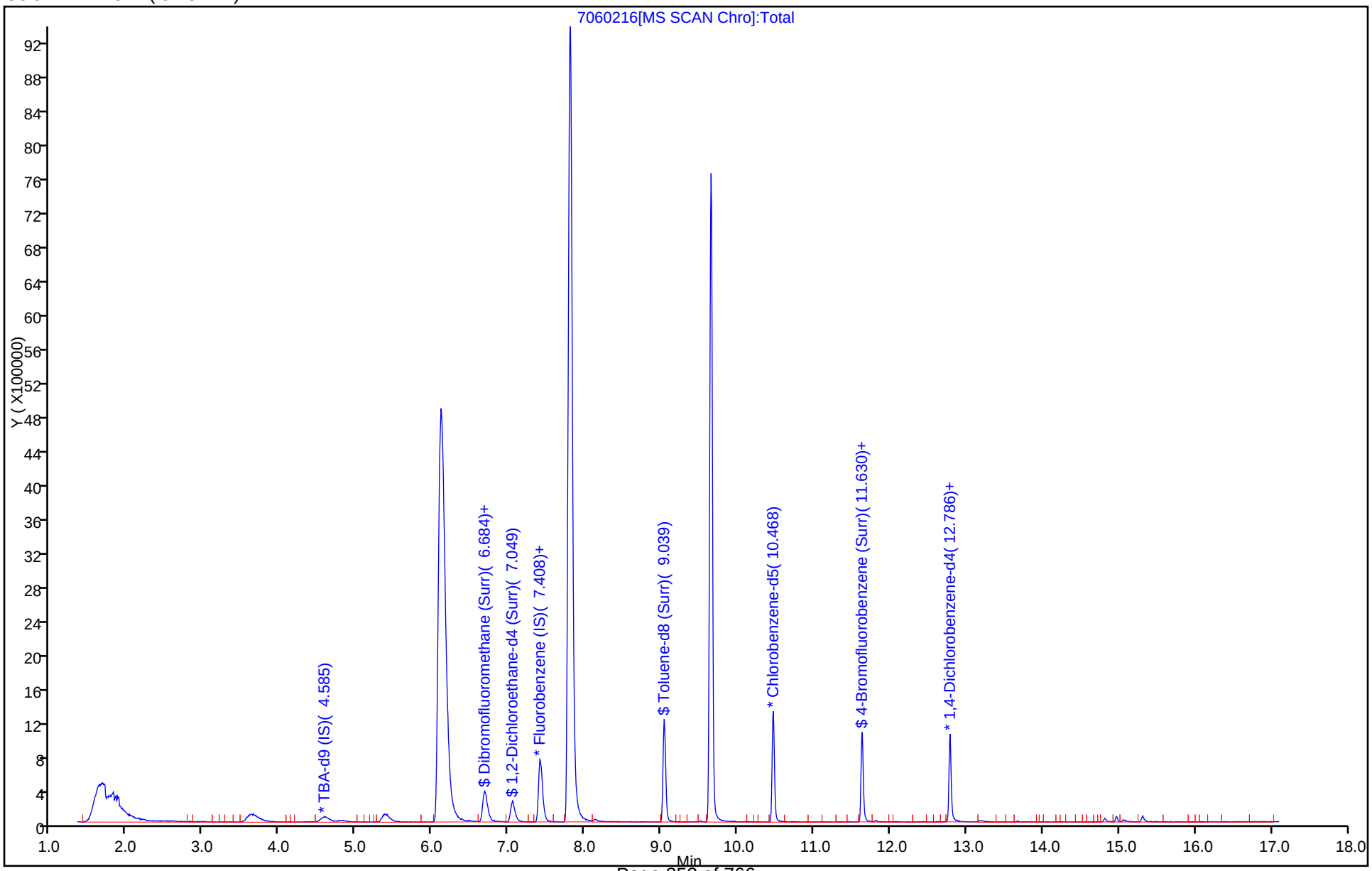
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Jun-2015 08:33:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D				
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4	Worklist Smp#:	16
Client ID:	HD-MW-114-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

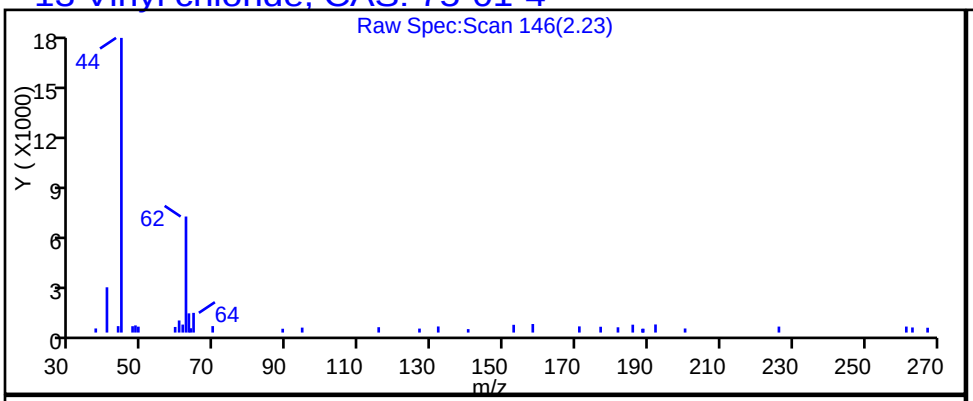


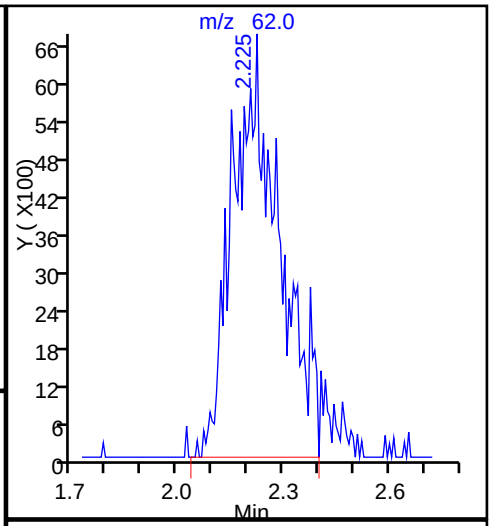
Report Date: 03-Jun-2015 08:33:53 Chrom Revision: 2.2 05-May-2015 11:39:10

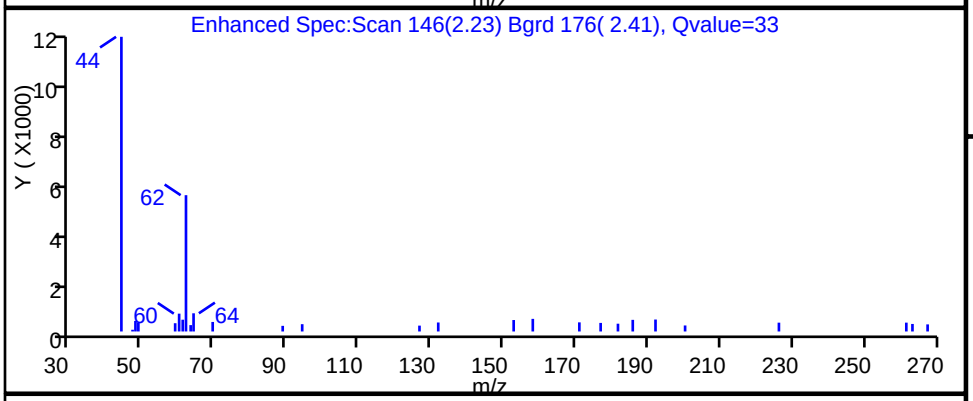
TestAmerica Pittsburgh

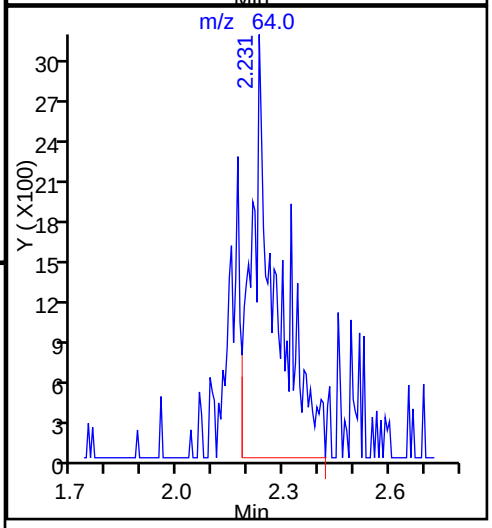
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D				
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

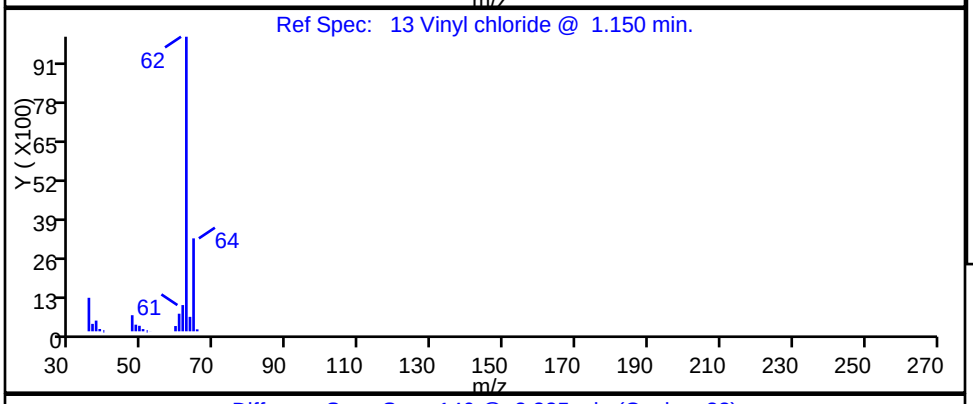
13 Vinyl chloride, CAS: 75-01-4

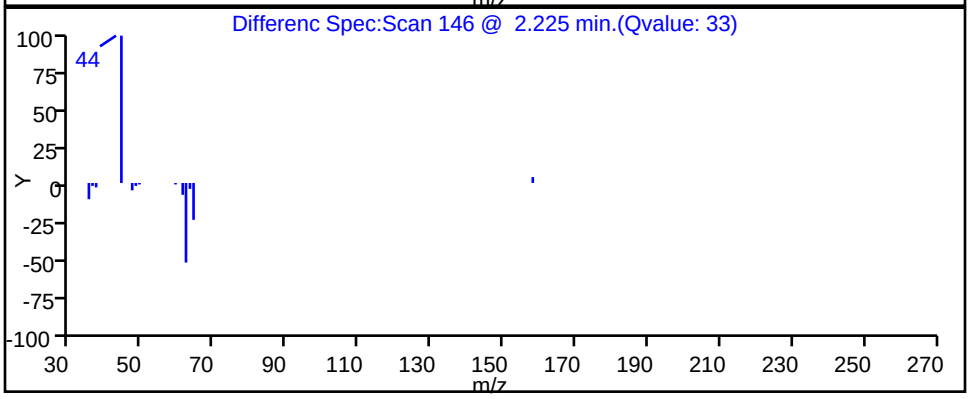












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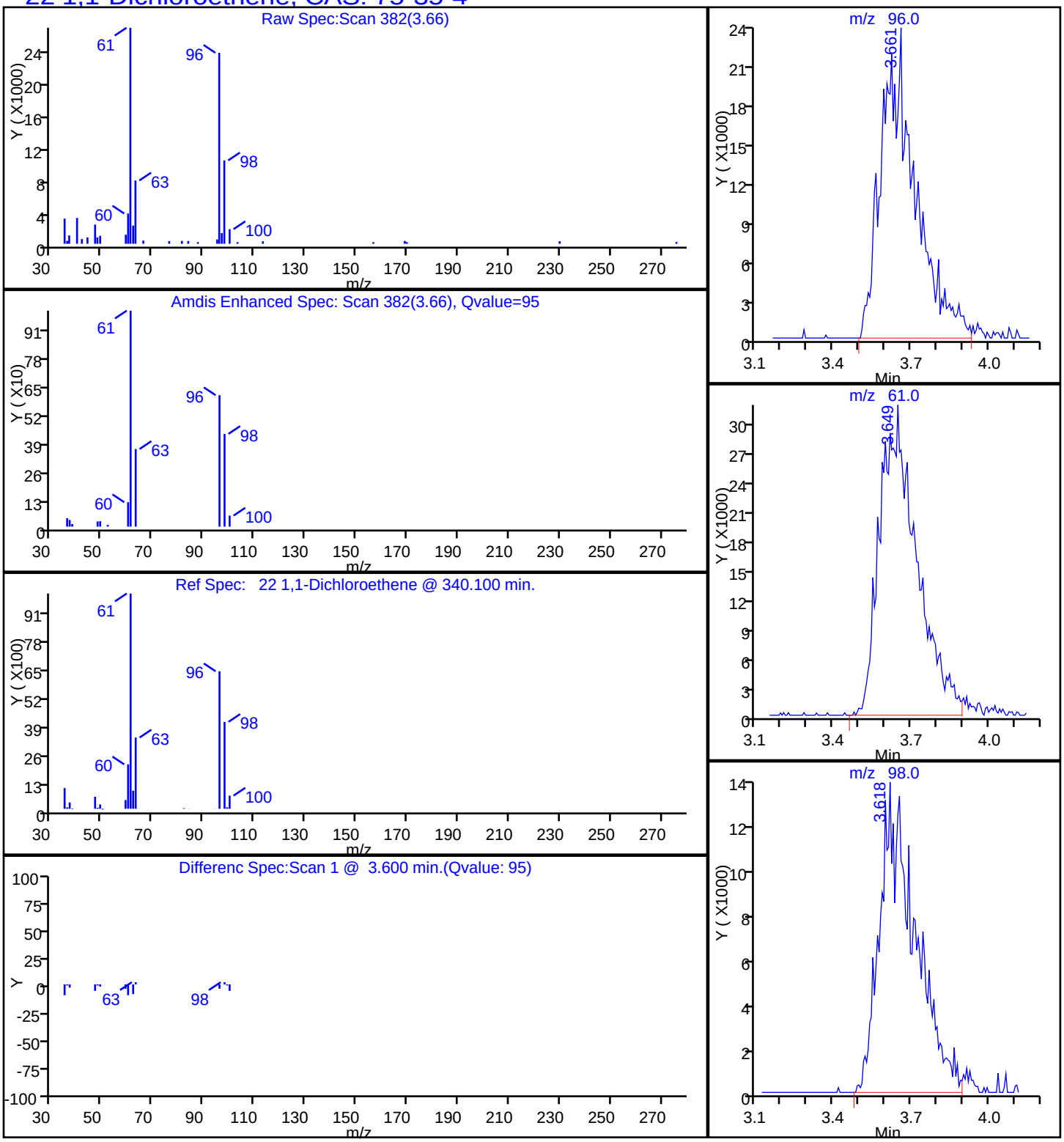
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D				
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4



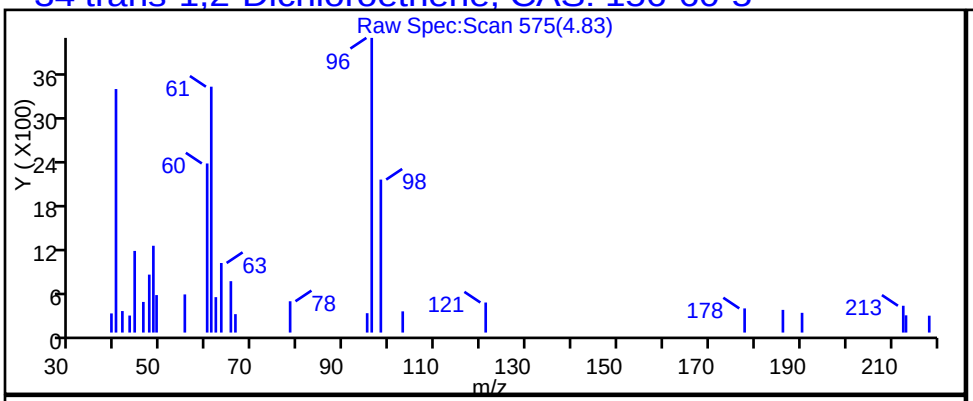
Report Date: 03-Jun-2015 08:33:53 Chrom Revision: 2.2 05-May-2015 11:39:10

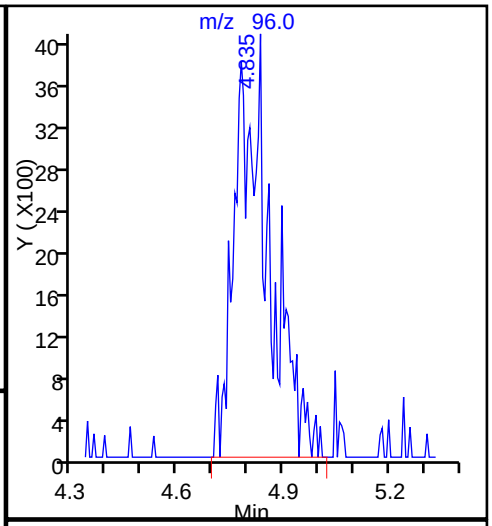
TestAmerica Pittsburgh

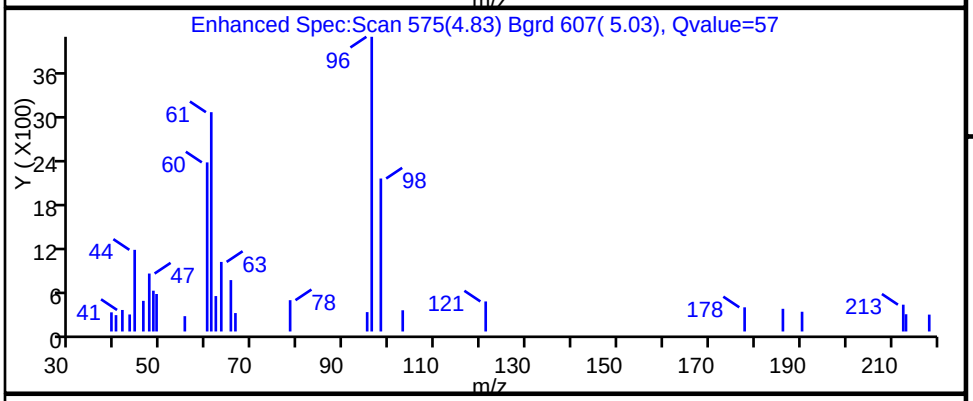
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D

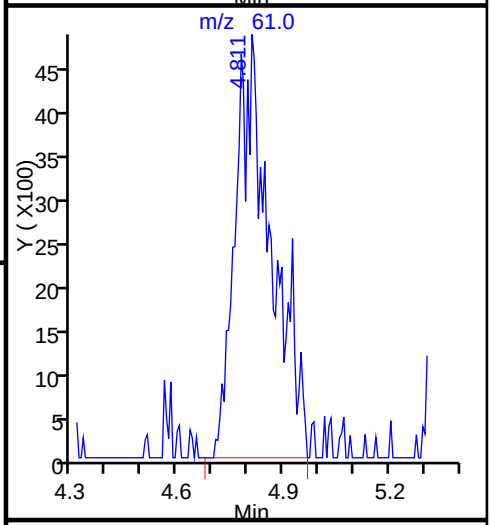
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

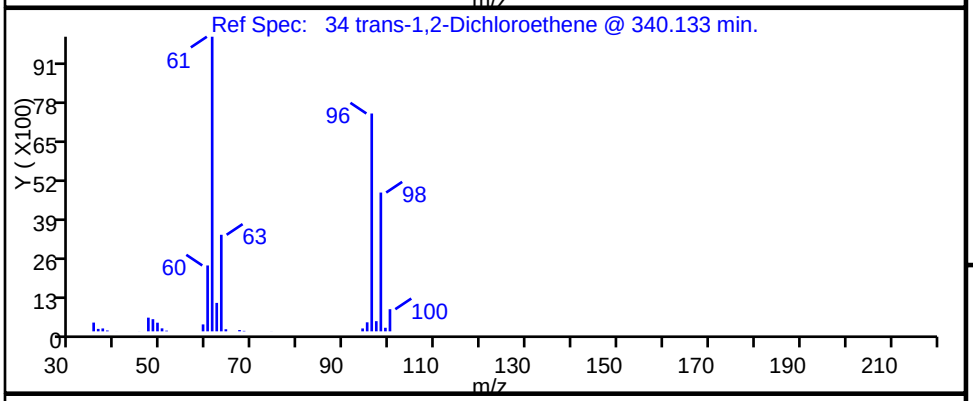
34 trans-1,2-Dichloroethene, CAS: 156-60-5

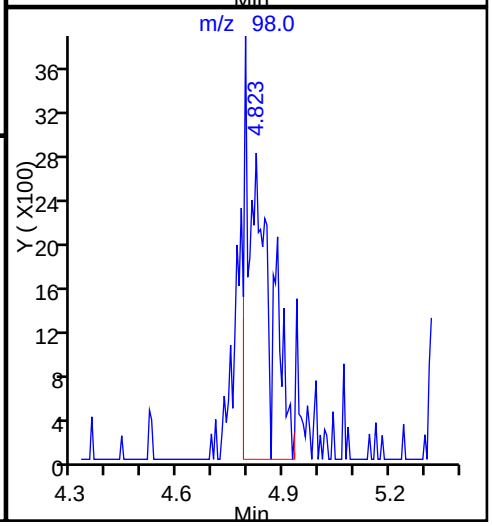


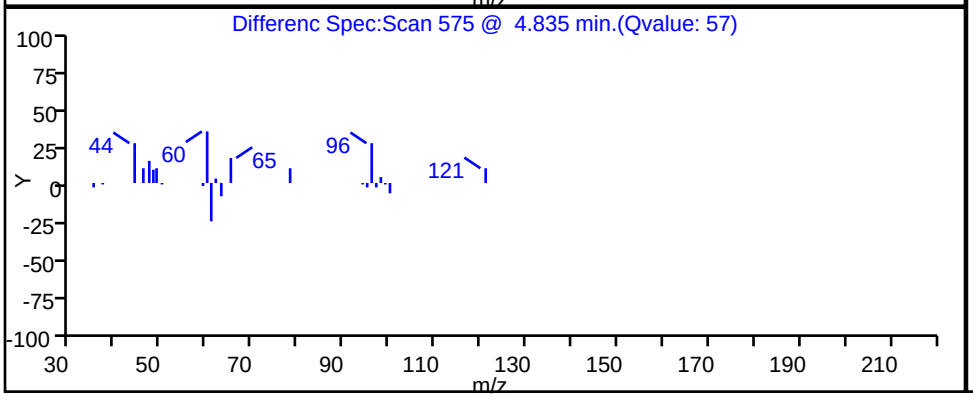










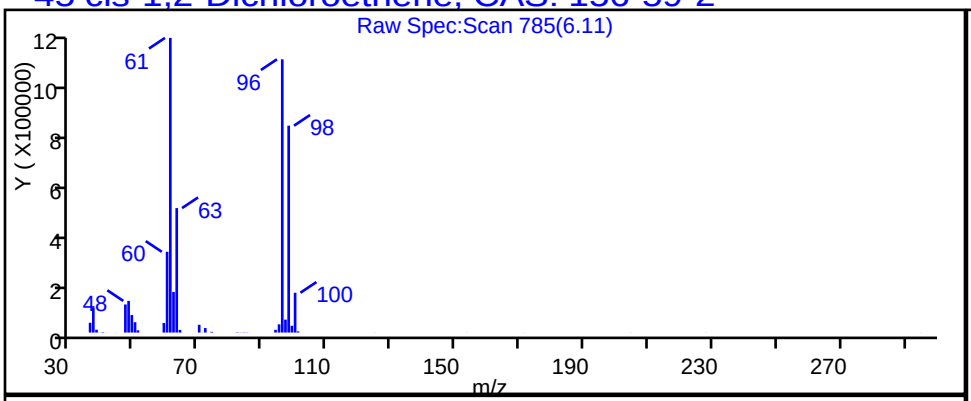


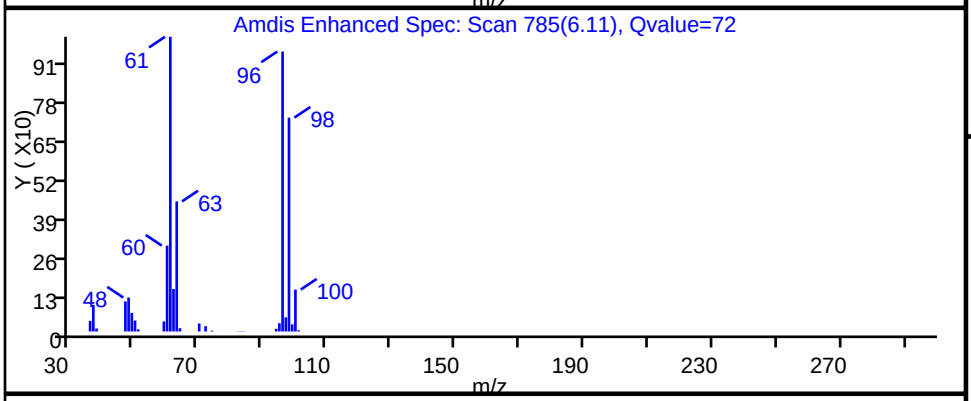
Report Date: 03-Jun-2015 08:33:53 Chrom Revision: 2.2 05-May-2015 11:39:10

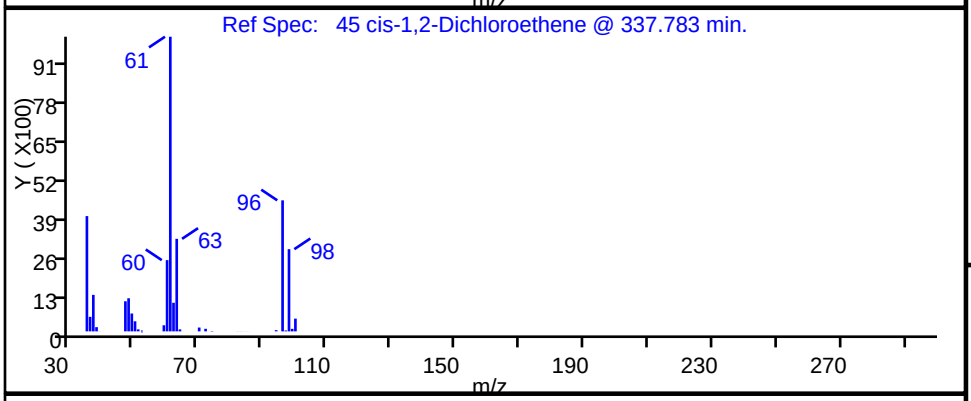
TestAmerica Pittsburgh

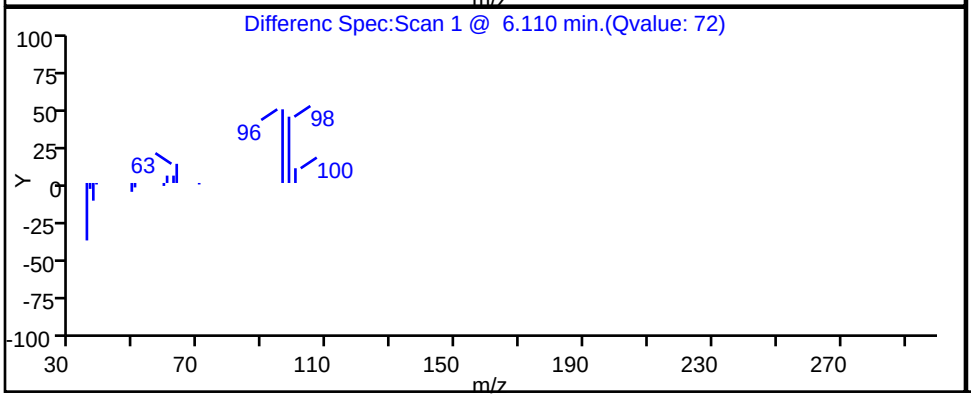
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D				
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

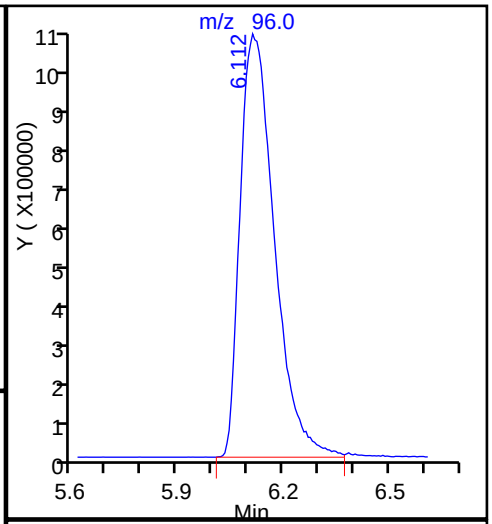
45 cis-1,2-Dichloroethene, CAS: 156-59-2

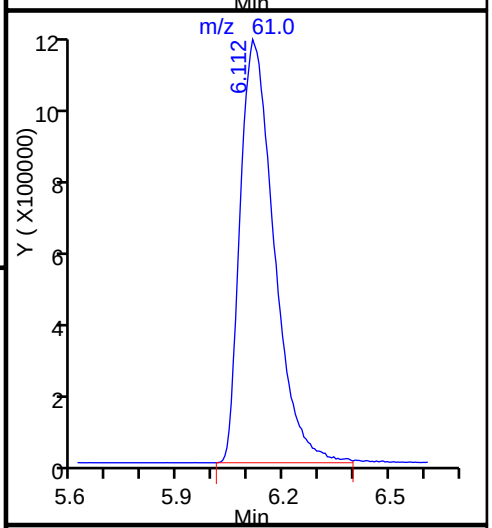


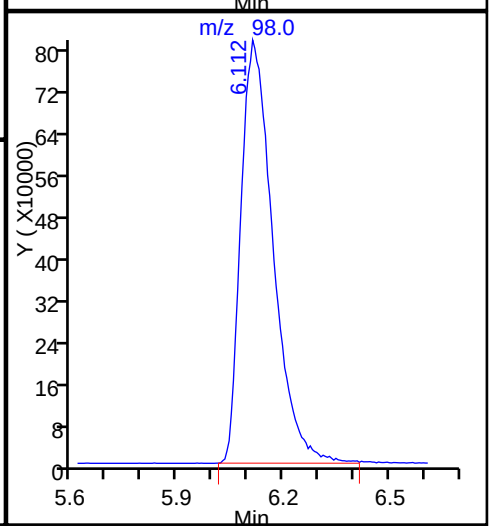












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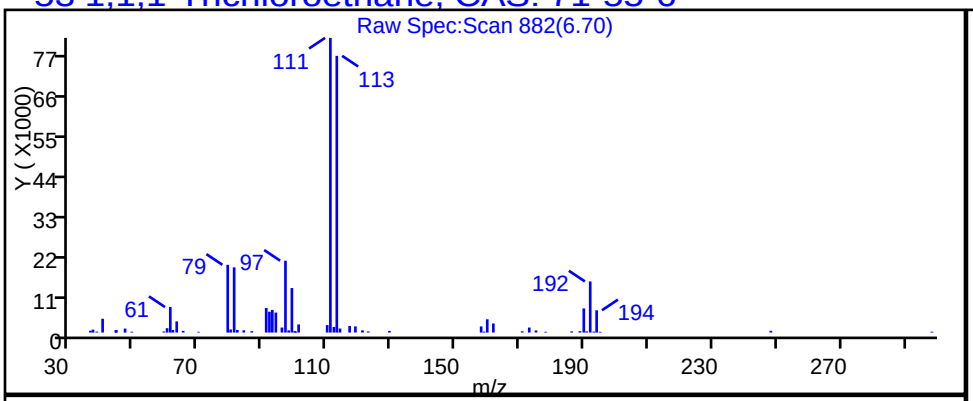
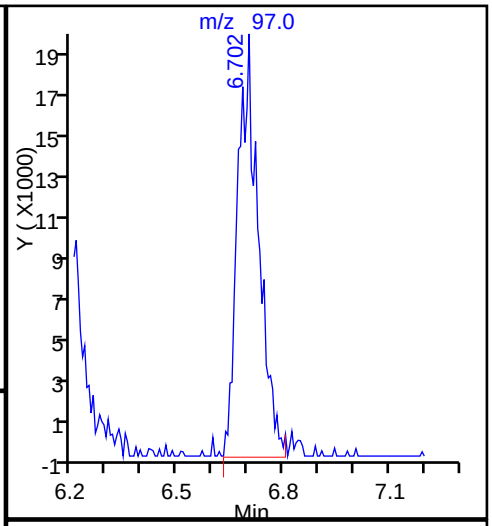
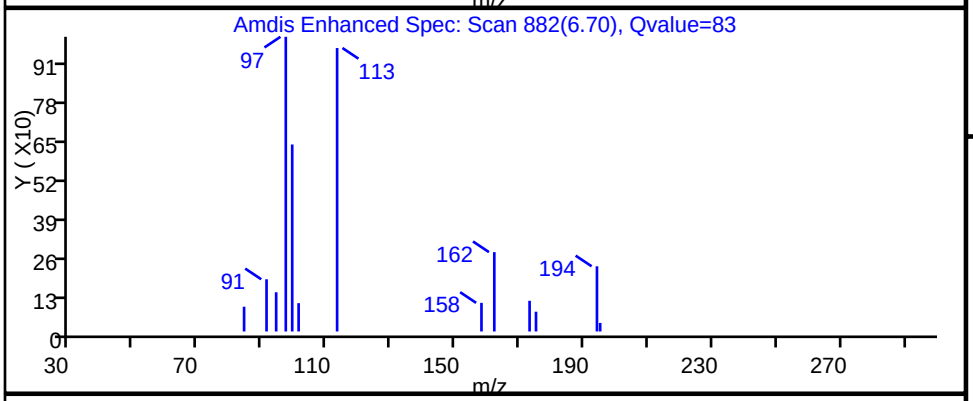
TestAmerica Pittsburgh

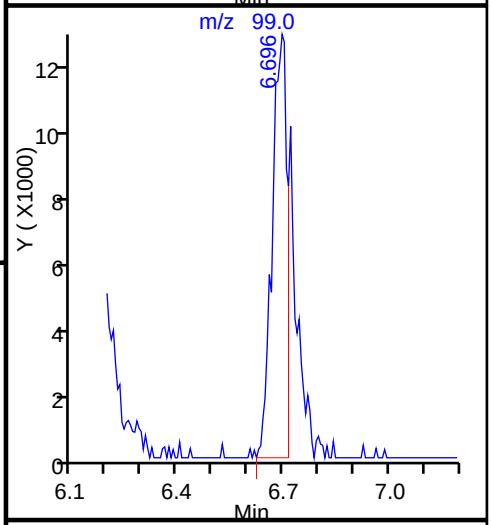
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D				
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

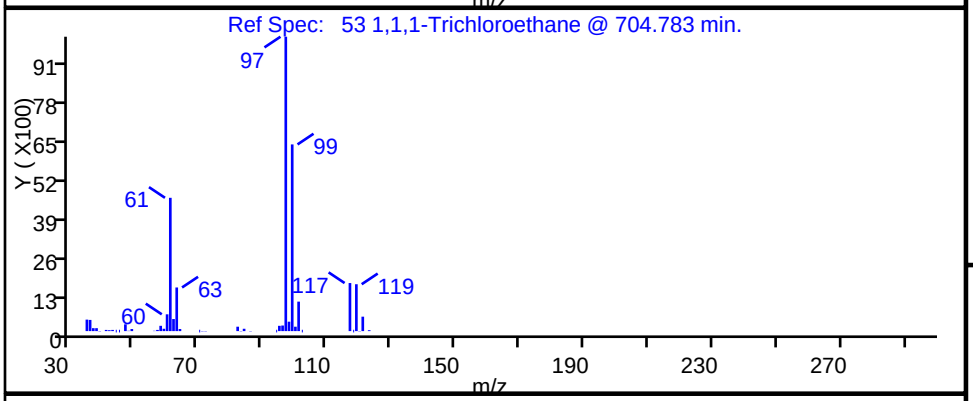
53 1,1,1-Trichloroethane, CAS: 71-55-6

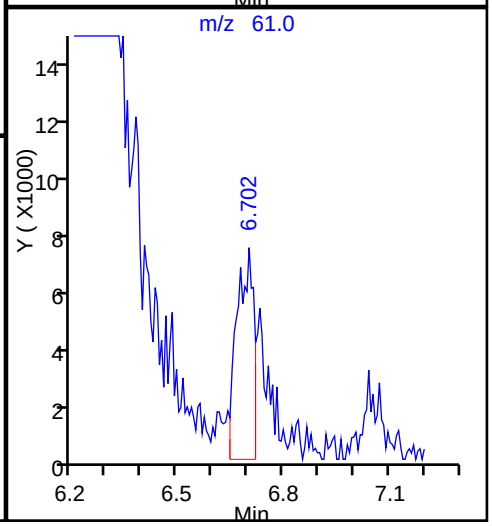


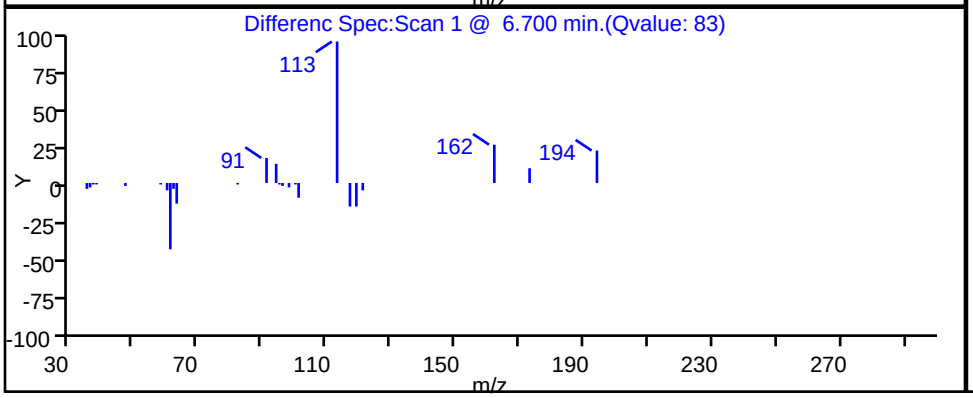












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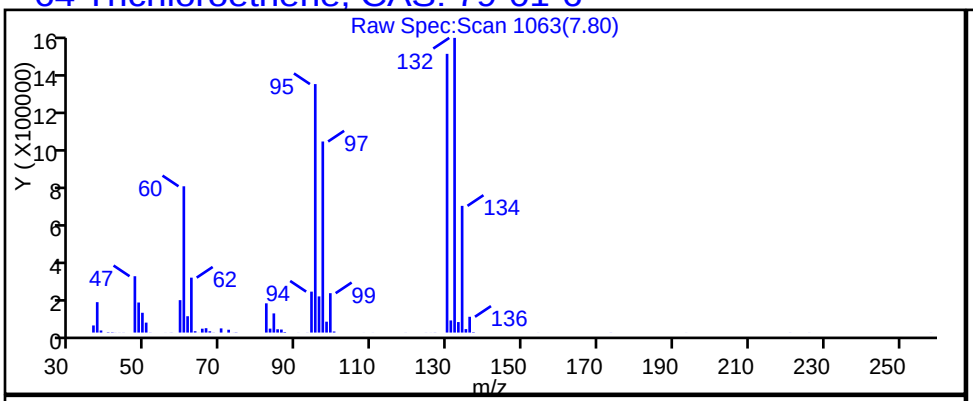
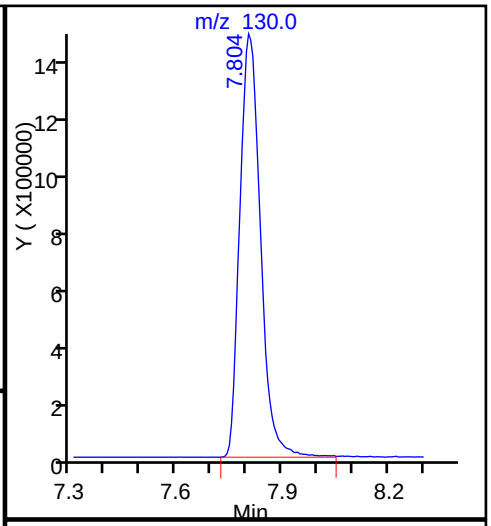
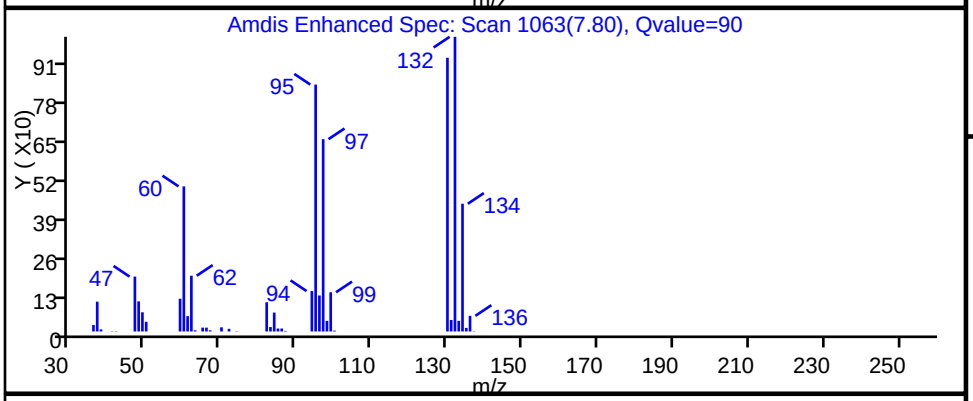
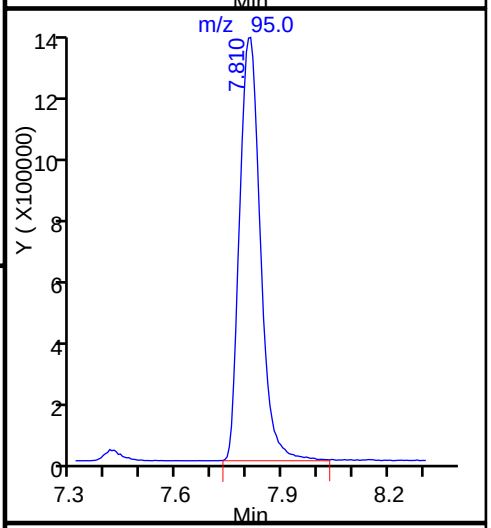
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

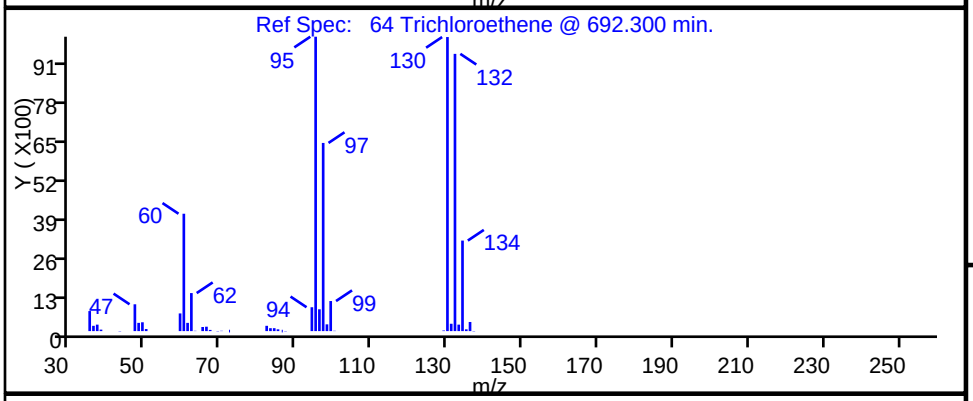
64 Trichloroethene, CAS: 79-01-6

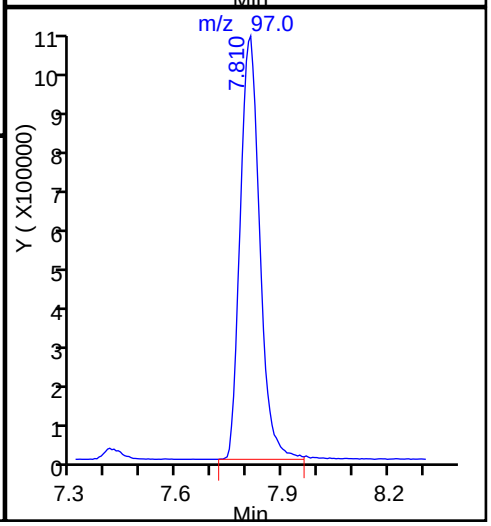


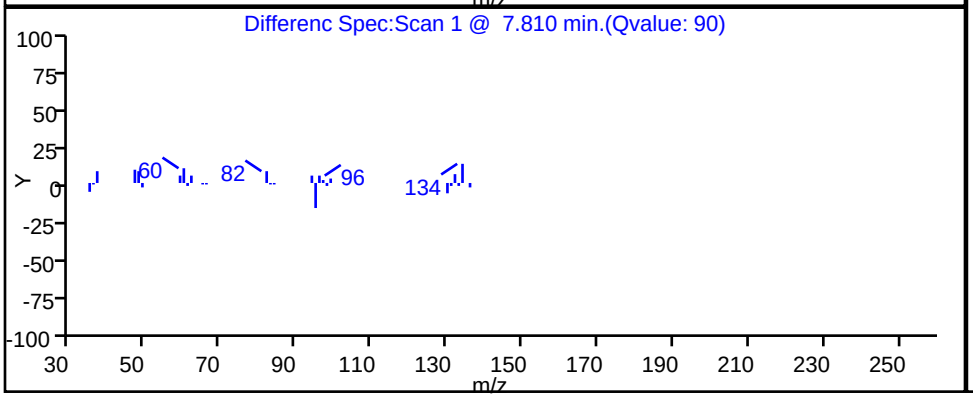












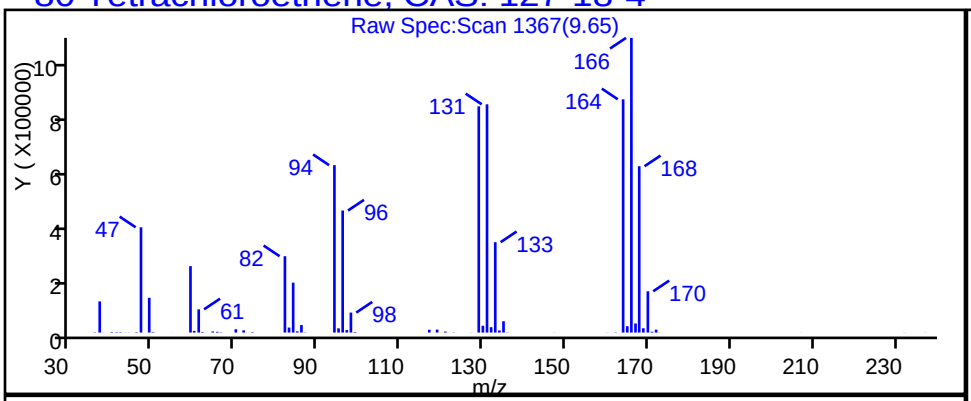
Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

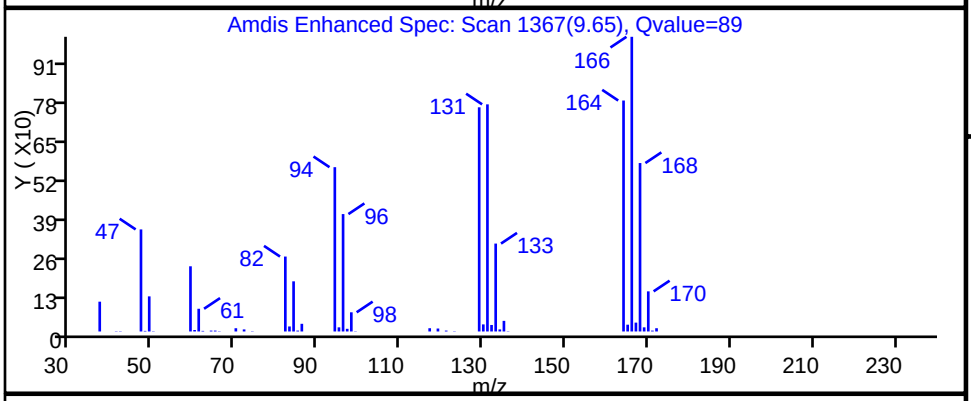
TestAmerica Pittsburgh

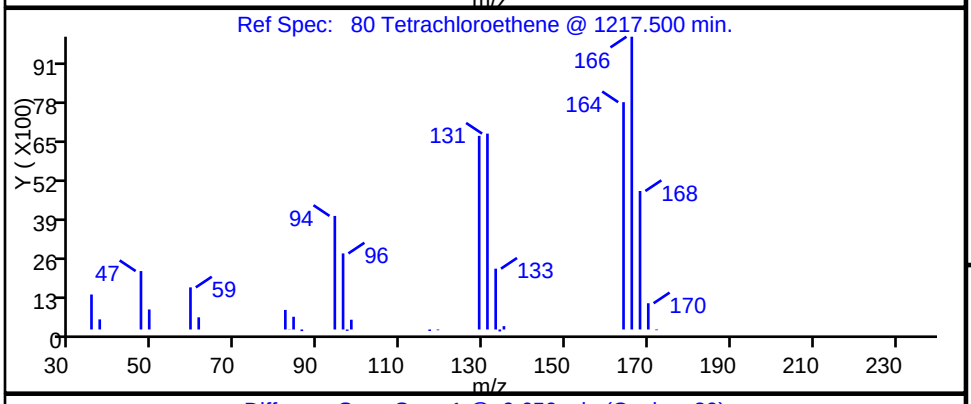
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D

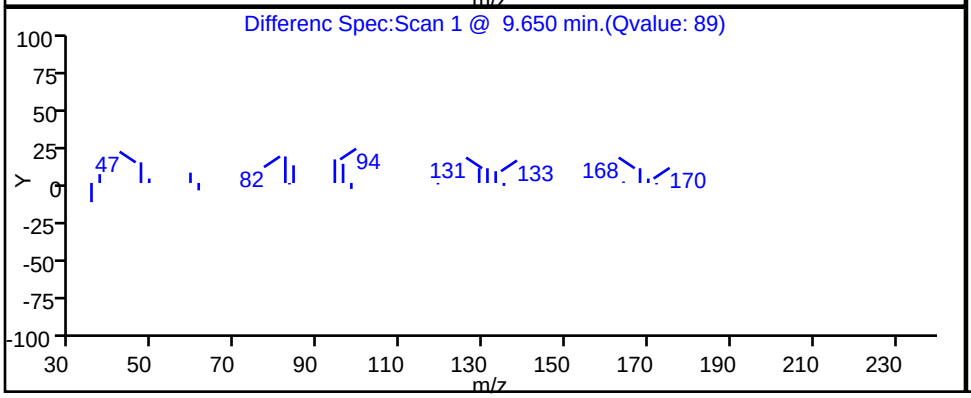
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

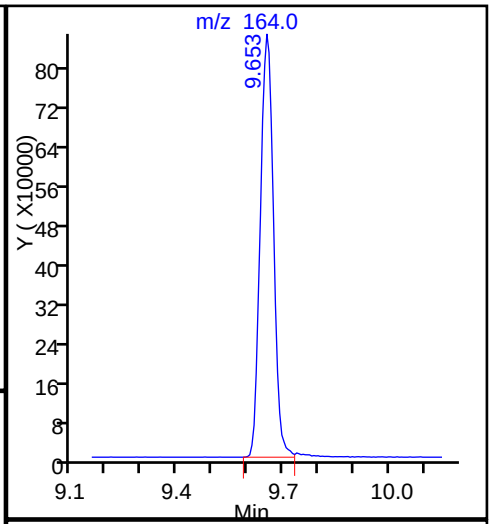
80 Tetrachloroethene, CAS: 127-18-4

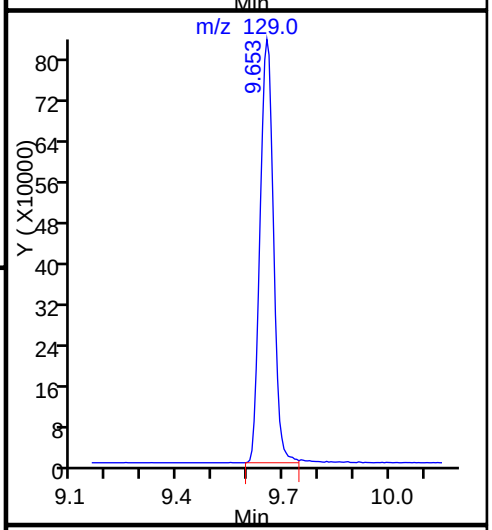


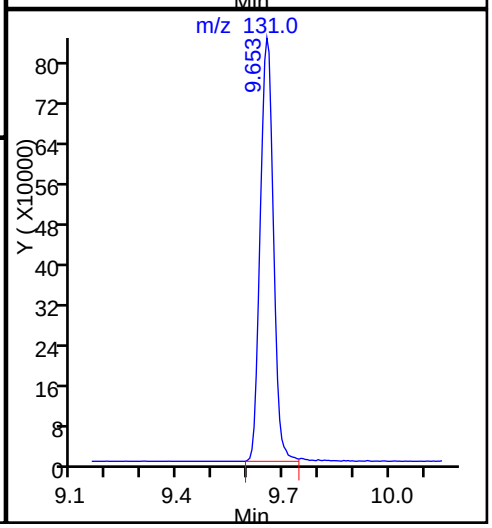












Manual Integration/User Assign Peak Report

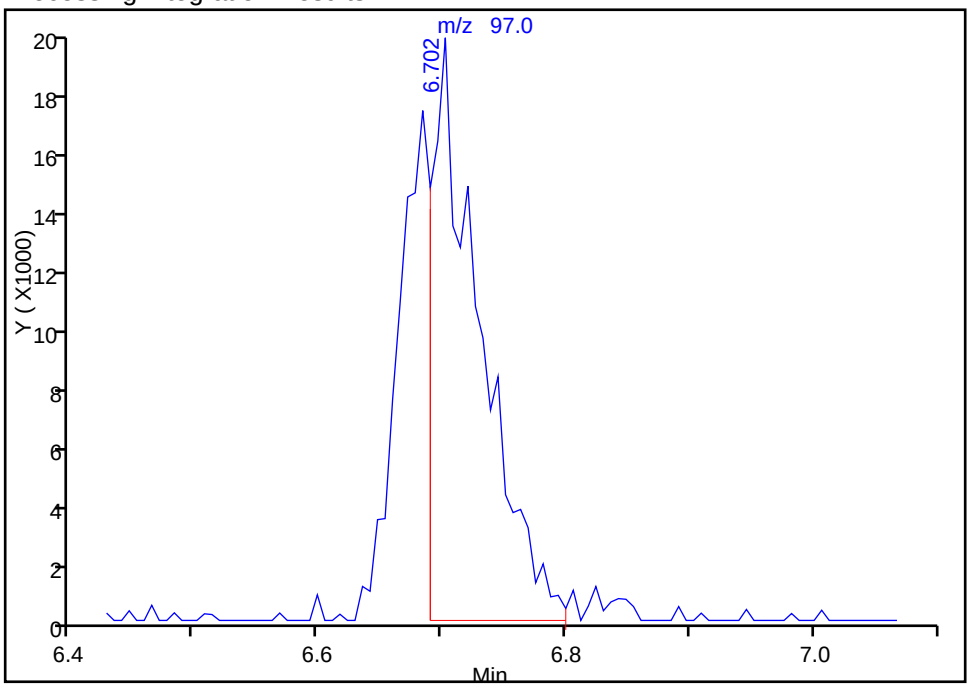
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060216.D				
Injection Date:	02-Jun-2015 17:26:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

53 1,1,1-Trichloroethane, CAS: 71-55-6

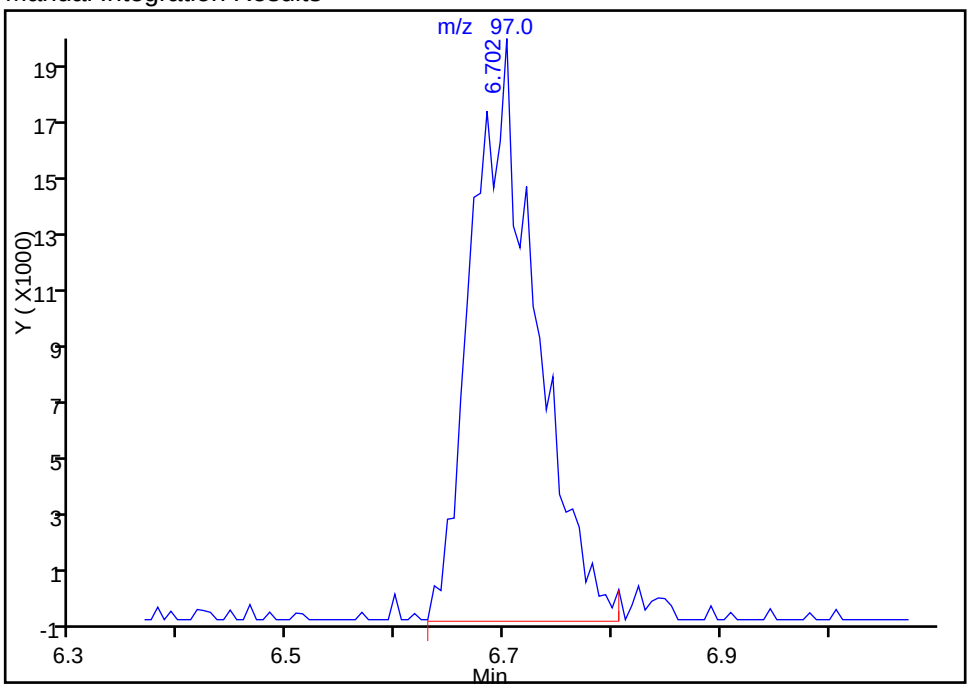
Processing Integration Results

RT: 6.70
Area: 54105
Amount: 16.798075
Amount Units: ng



Manual Integration Results

RT: 6.70
Area: 82067
Amount: 25.479486
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 08:05:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 DL | Lab Sample ID: 180-44401-4 DL

Matrix: Water | Lab File ID: 7060321.D

Analysis Method: 8260C | Date Collected: 05/21/2015 09:56

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 18:18

Soil Aliquot Vol: | Dilution Factor: 100

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	100	U	100	28
75-01-4	Vinyl chloride	100	U	100	23
74-83-9	Bromomethane	100	U	100	31
75-00-3	Chloroethane	100	U	100	21
75-35-4	1,1-Dichloroethene	38	J	100	30
67-64-1	Acetone	500	U	500	250
75-15-0	Carbon disulfide	100	U	100	21
75-09-2	Methylene Chloride	100	U	100	13
156-60-5	trans-1,2-Dichloroethene	100	U	100	17
1634-04-4	Methyl tert-butyl ether	100	U	100	18
75-34-3	1,1-Dichloroethane	100	U	100	12
156-59-2	cis-1,2-Dichloroethene	3700		100	24
74-97-5	Bromochloromethane	100	U	100	18
78-93-3	2-Butanone (MEK)	500	U	500	55
67-66-3	Chloroform	100	U	100	17
71-55-6	1,1,1-Trichloroethane	100	U	100	29
56-23-5	Carbon tetrachloride	100	U	100	14
71-43-2	Benzene	100	U	100	11
107-06-2	1,2-Dichloroethane	100	U	100	21
79-01-6	Trichloroethene	2800		100	14
78-87-5	1,2-Dichloropropane	100	U	100	9.5
75-27-4	Bromodichloromethane	100	U	100	13
10061-01-5	cis-1,3-Dichloropropene	100	U	100	19
108-10-1	4-Methyl-2-pentanone (MIBK)	500	U	500	53
108-88-3	Toluene	100	U	100	15
10061-02-6	trans-1,3-Dichloropropene	100	U	100	15
79-00-5	1,1,2-Trichloroethane	100	U	100	20
127-18-4	Tetrachloroethene	1500		100	15
591-78-6	2-Hexanone	500	U	500	16
124-48-1	Dibromochloromethane	100	U	100	14
106-93-4	1,2-Dibromoethane (EDB)	100	U	100	18
108-90-7	Chlorobenzene	100	U	100	14
630-20-6	1,1,1,2-Tetrachloroethane	100	U	100	28
100-41-4	Ethylbenzene	100	U	100	23
1330-20-7	Xylenes, Total	300	U	300	49
100-42-5	Styrene	100	U	100	9.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 DL | Lab Sample ID: 180-44401-4 DL

Matrix: Water | Lab File ID: 7060321.D

Analysis Method: 8260C | Date Collected: 05/21/2015 09:56

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 18:18

Soil Aliquot Vol: | Dilution Factor: 100

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*100*	*U*	*100*	*19*
79-34-5	*1,1,2,2-Tetrachloroethane*	*100*	*U*	*100*	*20*
107-13-1	*Acrylonitrile*	*2000*	*U*	*2000*	*55*
123-91-1	*1,4-Dioxane*	*20000*	*U*	*20000*	*3400*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D
Lims ID: 180-44401-E-4 Lab Sample ID: 180-44401-4
Client ID: HD-MW-114-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 18:18:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 100.0000
Sample Info: 180-44401-E-4
Misc. Info.: 180-0007238-020
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Jun-2015 07:43:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 04-Jun-2015 07:38:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.597	4.629	-0.032	96	251762	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.415	-0.007	99	1247707	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	-0.001	85	362463	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	96	391158	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.690	6.685	0.005	92	403950	203.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.056	-0.013	95	353977	186.5	
$ 7 Toluene-d8 (Surr)	98	9.038	9.039	-0.001	92	1065323	198.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.631	-0.001	89	434349	179.2	
12 Chloromethane	50		2.031				ND	
13 Vinyl chloride	62		2.250				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.645				ND	
22 1,1-Dichloroethene	96	3.636	3.619	0.017	37	12867	7.68	M
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.929				ND	
31 Methylene Chloride	84		4.422				ND	
33 Acrylonitrile	53		4.787				ND	
34 trans-1,2-Dichloroethene	96		4.805				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.371				ND	
45 cis-1,2-Dichloroethene	96	6.118	6.119	-0.001	80	1544982	749.0	
46 2-Butanone (MEK)	43		6.168				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.690	6.685	0.005	38	9121	2.93	M
56 Carbon tetrachloride	117		6.873				ND	
58 Benzene	78		7.105				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.797	7.804	-0.007	93	1389554	564.5	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.175				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.647	9.648	-0.002	92	483717	303.6	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.609				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

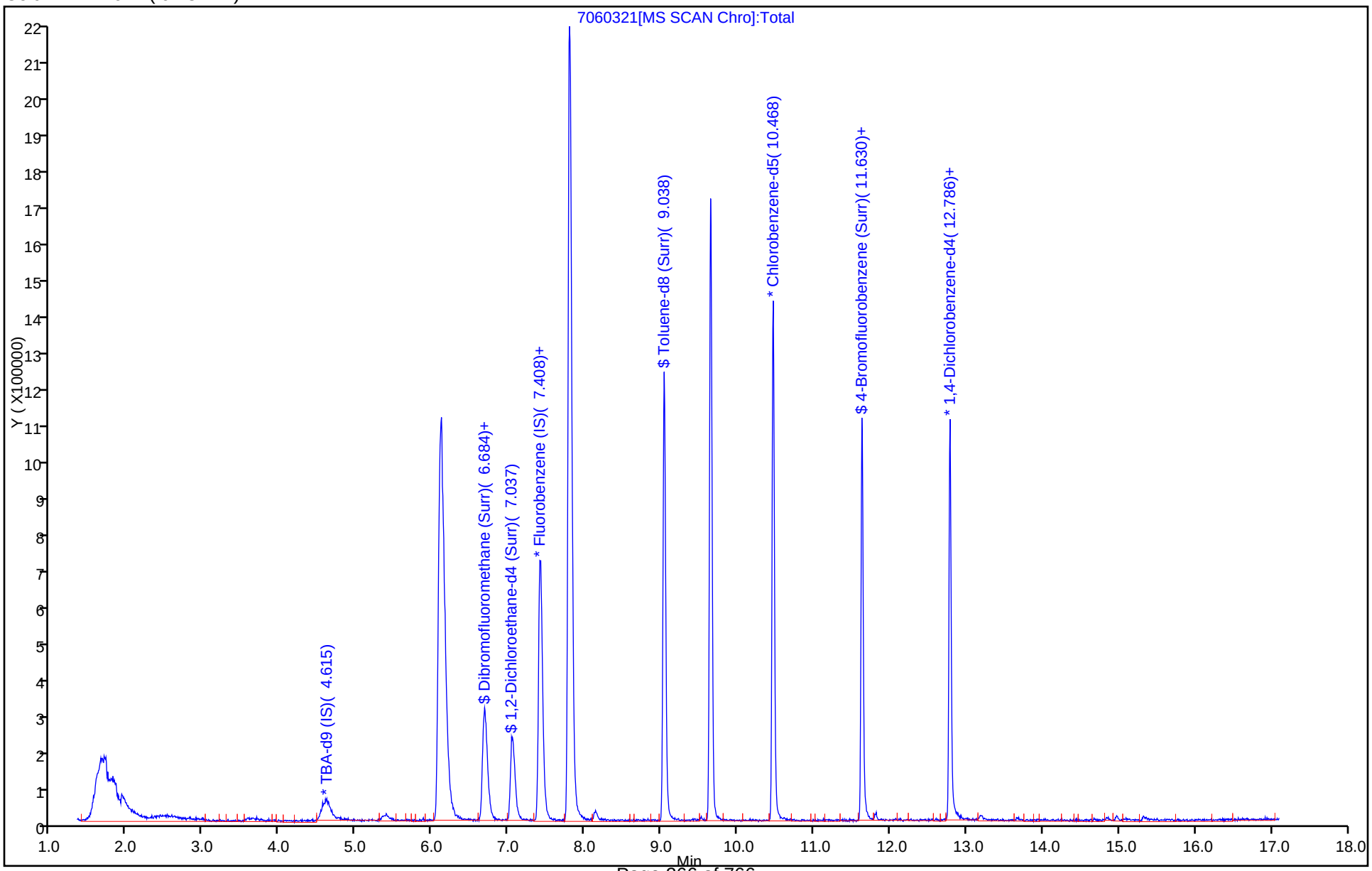
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Jun-2015 07:49:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D				
Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4	Worklist Smp#:	20
Client ID:	HD-MW-114-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	100.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



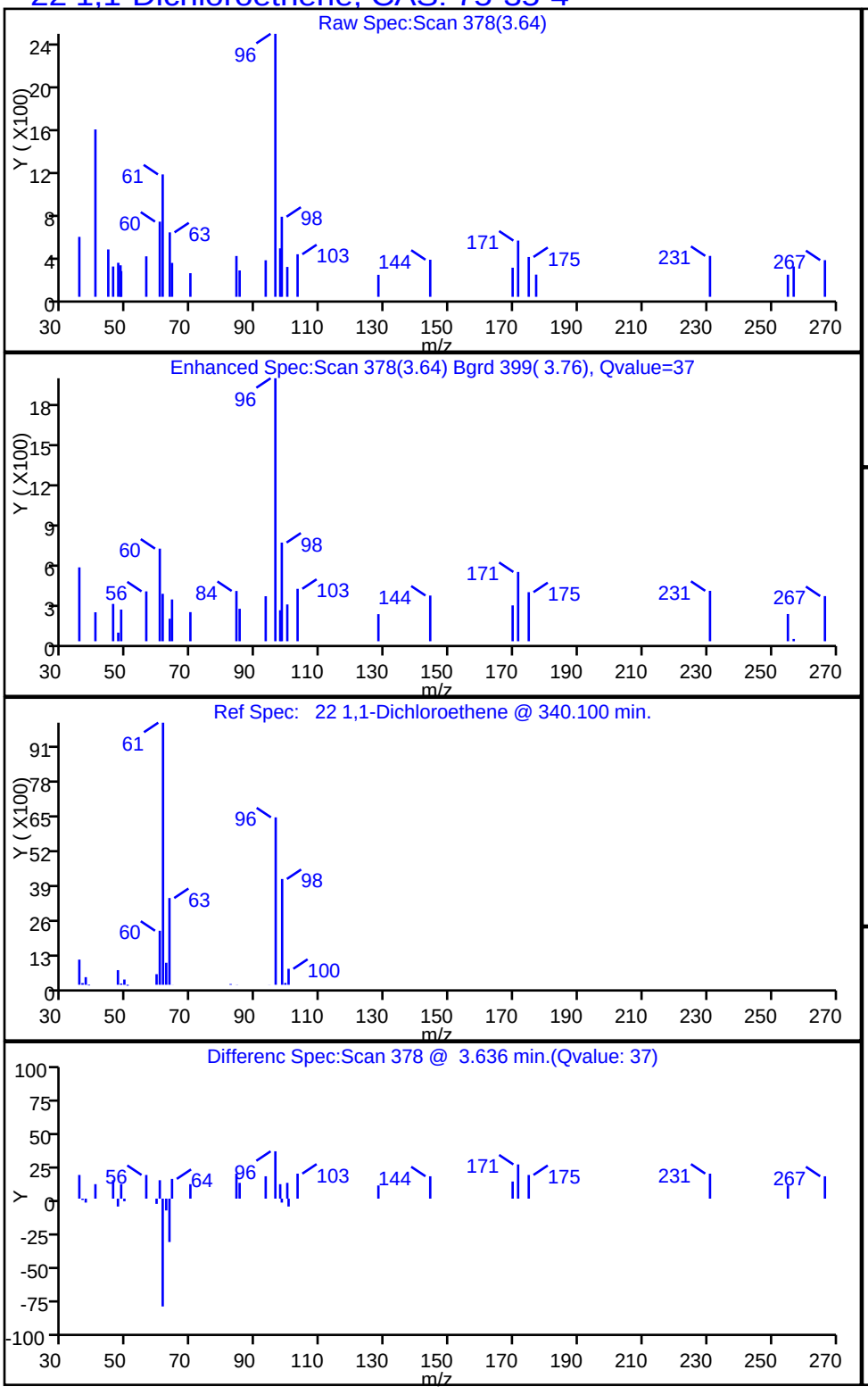
Report Date: 04-Jun-2015 07:49:38 Chrom Revision: 2.2 05-May-2015 11:39:10

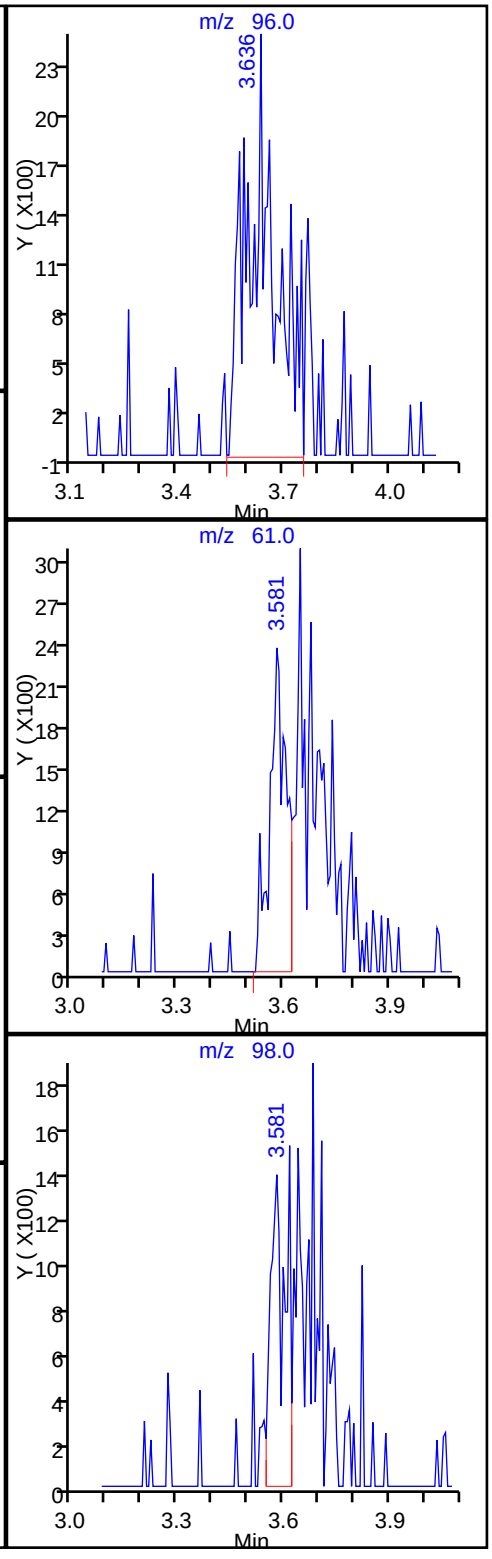
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D

Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4





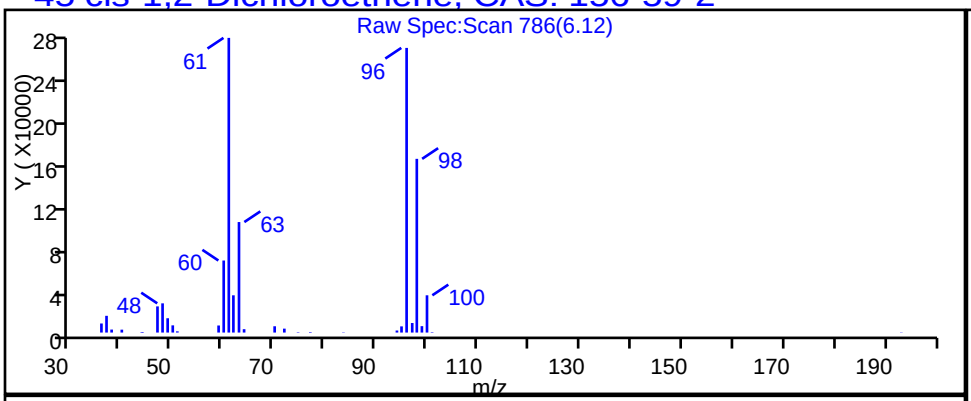
Report Date: 04-Jun-2015 07:49:38 Chrom Revision: 2.2 05-May-2015 11:39:10

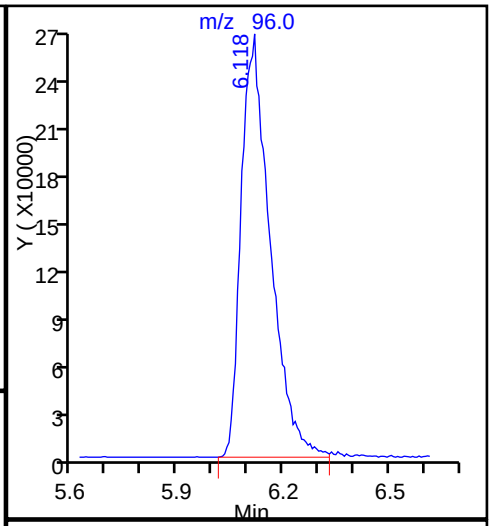
TestAmerica Pittsburgh

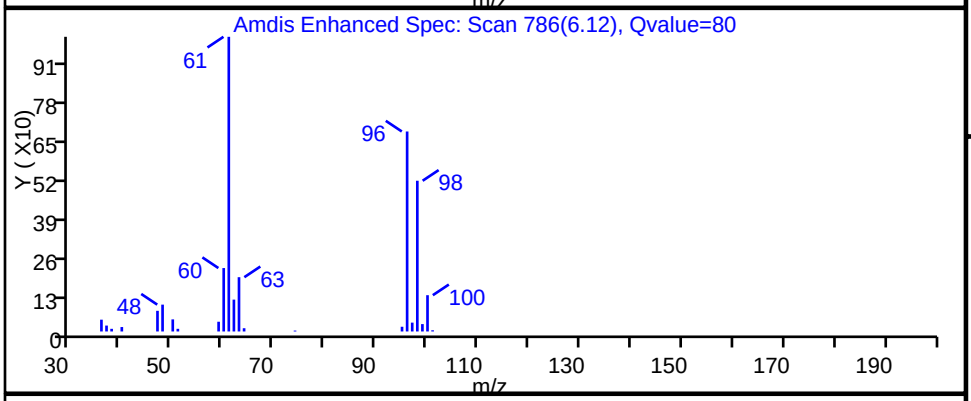
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D

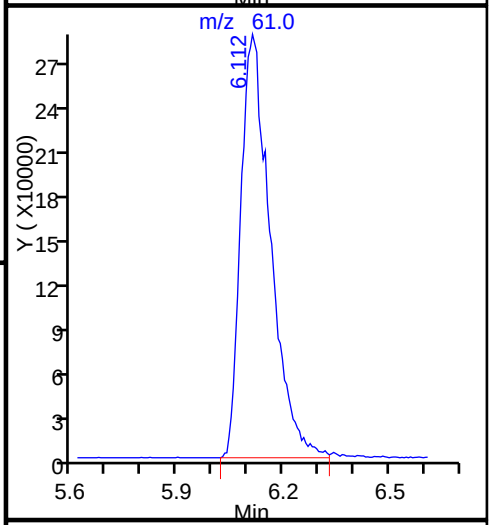
Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

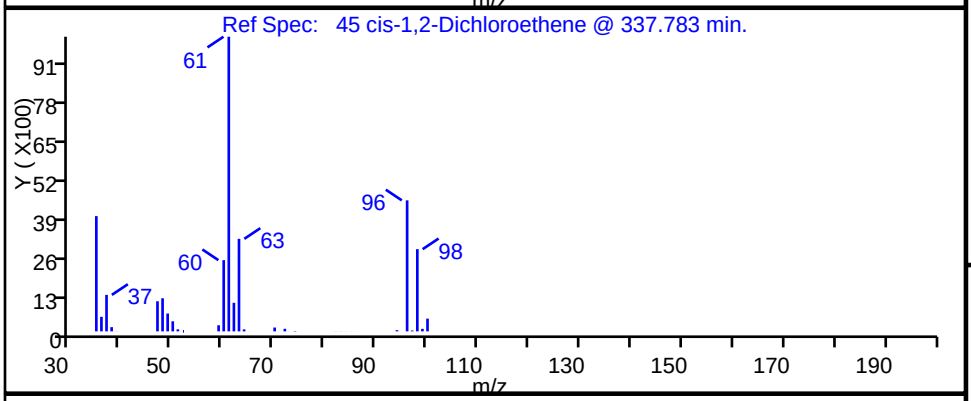
45 cis-1,2-Dichloroethene, CAS: 156-59-2

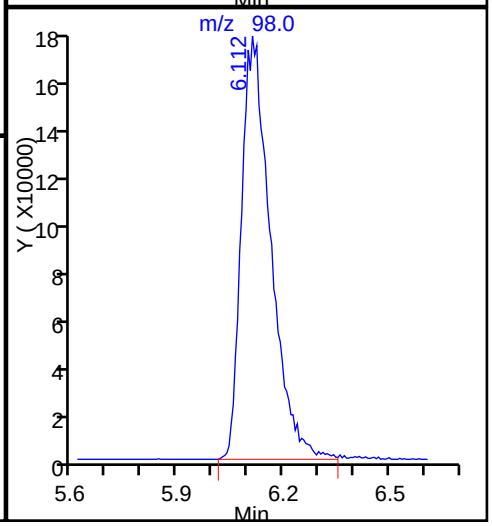


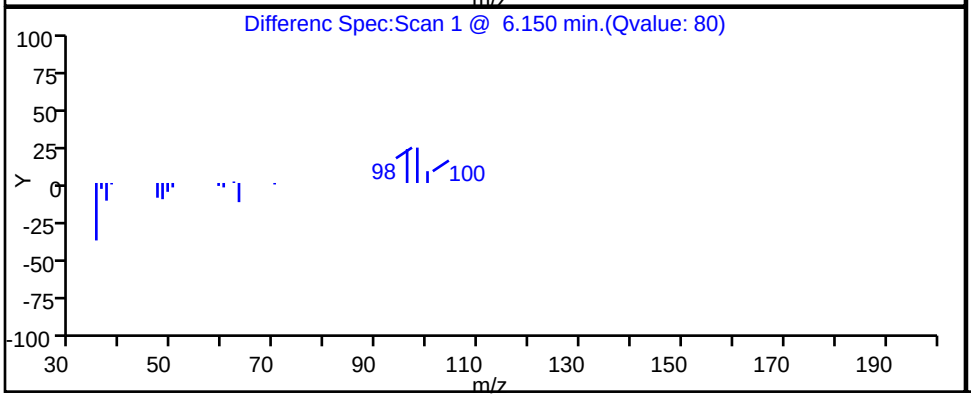










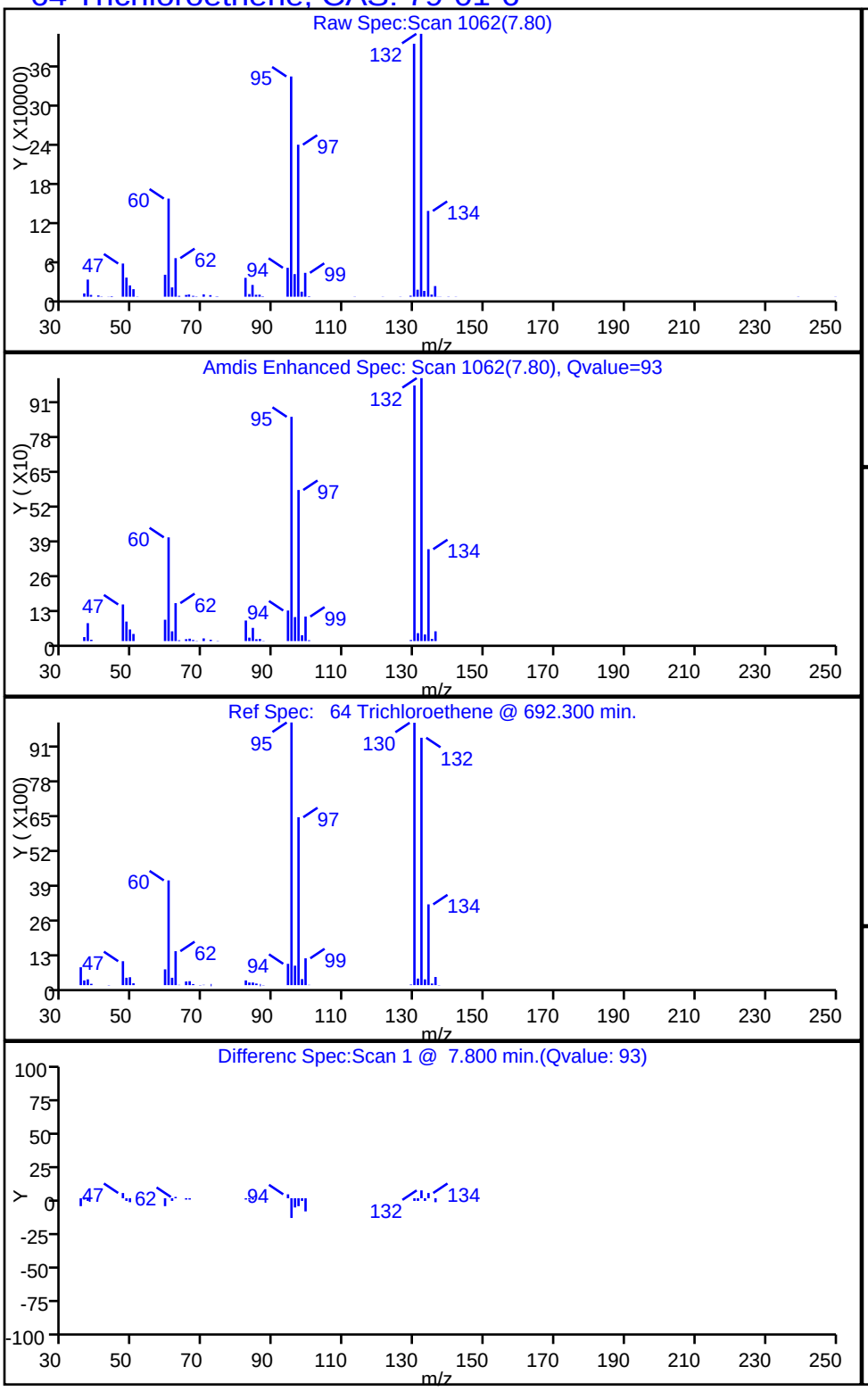


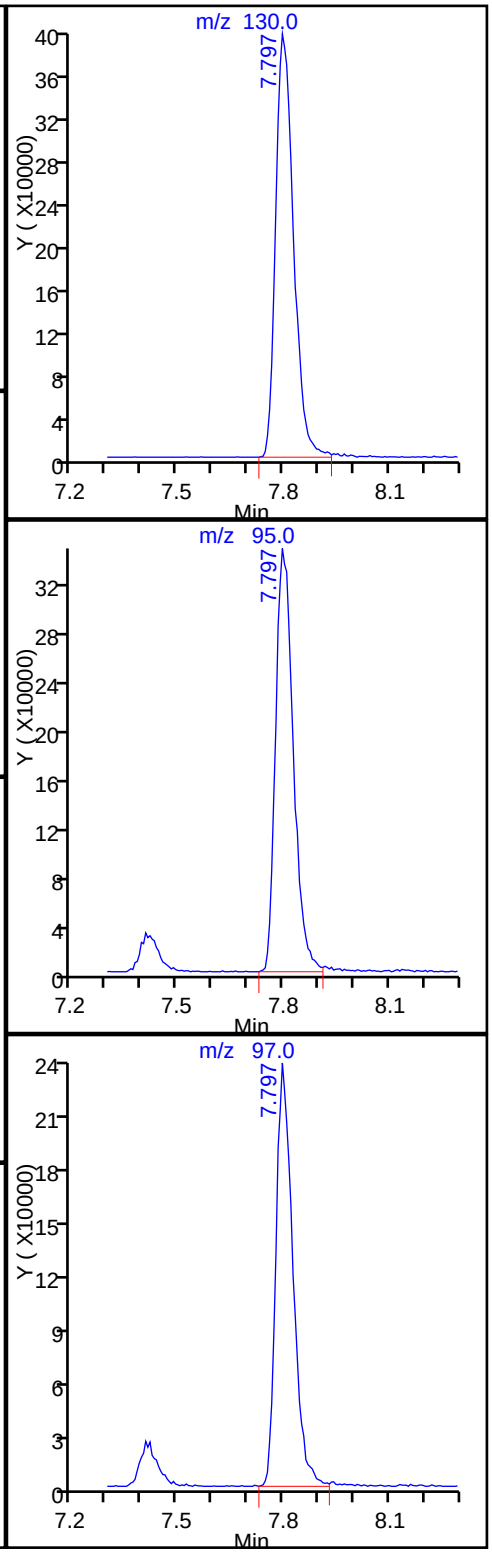
Report Date: 04-Jun-2015 07:49:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D				
Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6



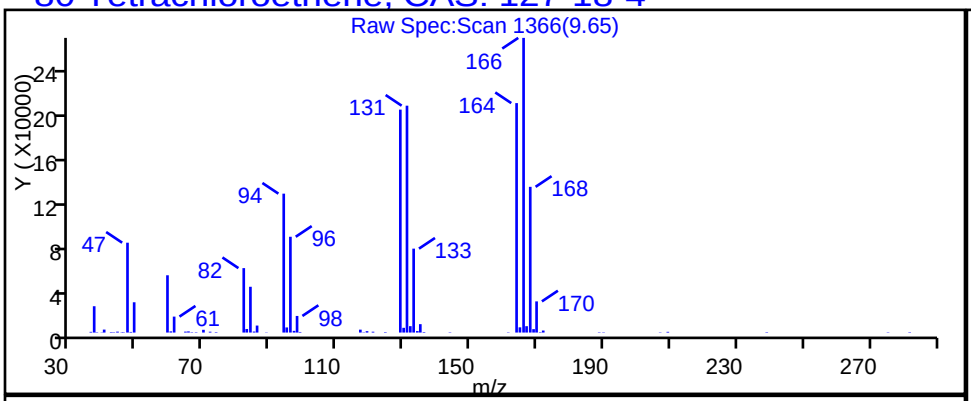


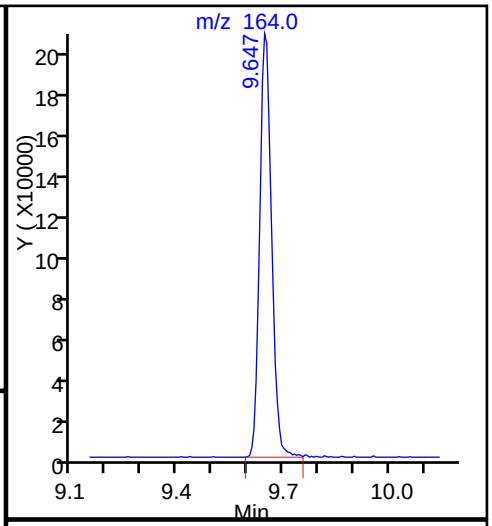
Report Date: 04-Jun-2015 07:49:38 Chrom Revision: 2.2 05-May-2015 11:39:10

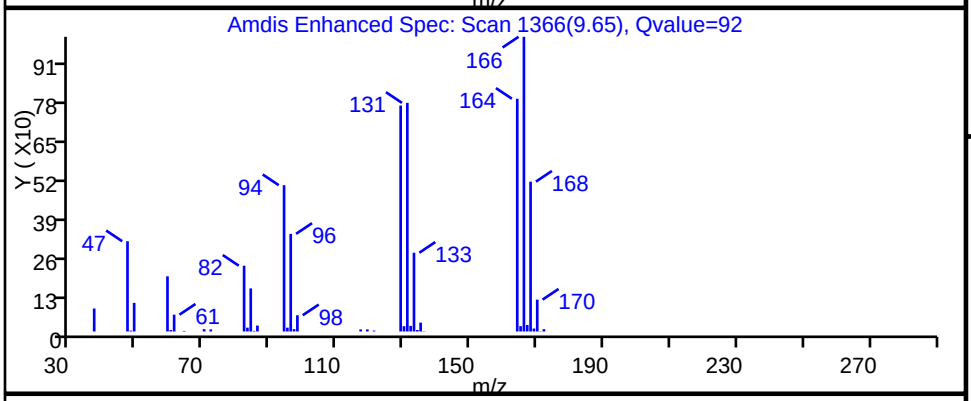
TestAmerica Pittsburgh

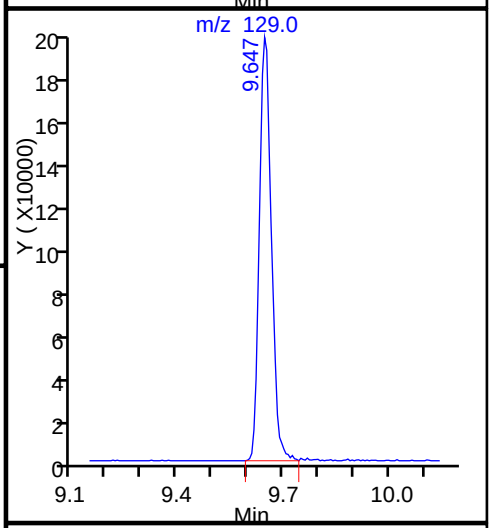
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D				
Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

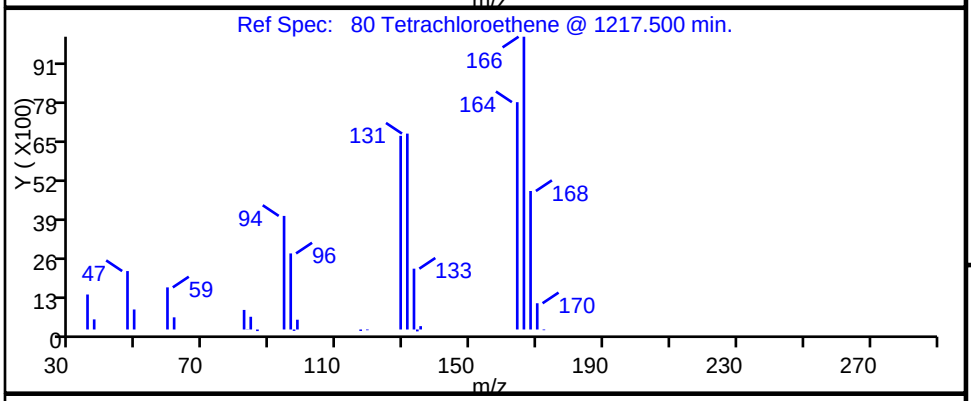
80 Tetrachloroethene, CAS: 127-18-4

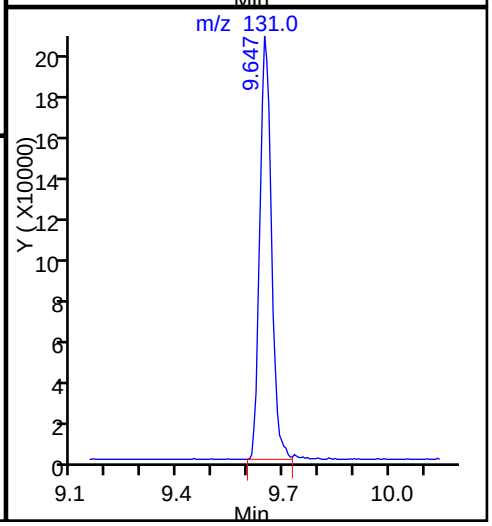


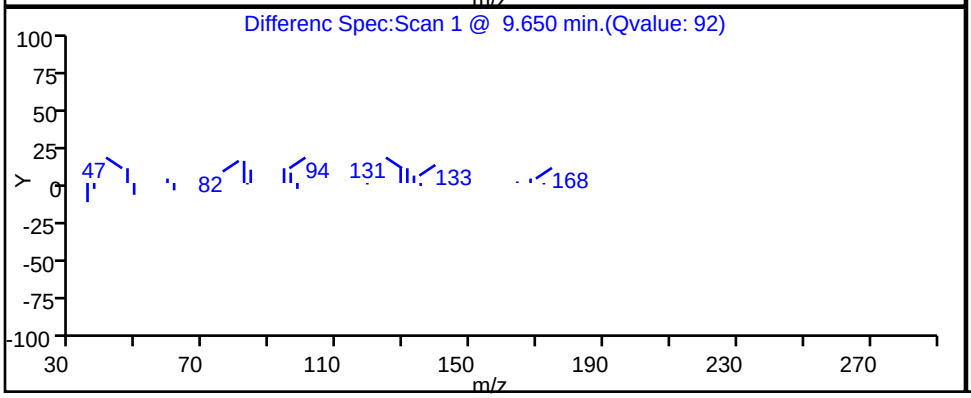












Manual Integration/User Assign Peak Report

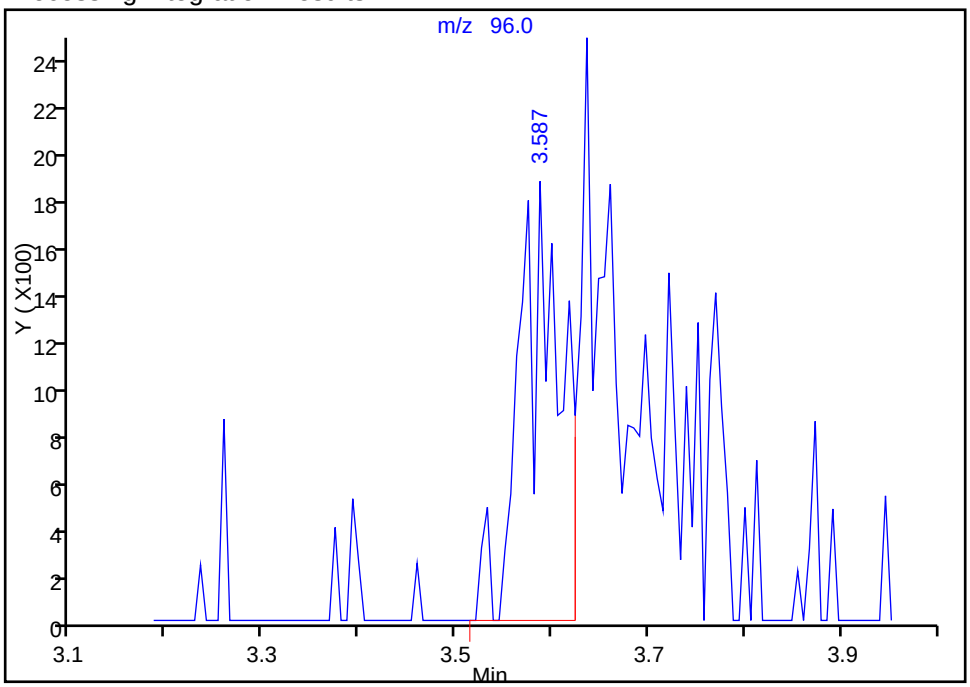
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D				
Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

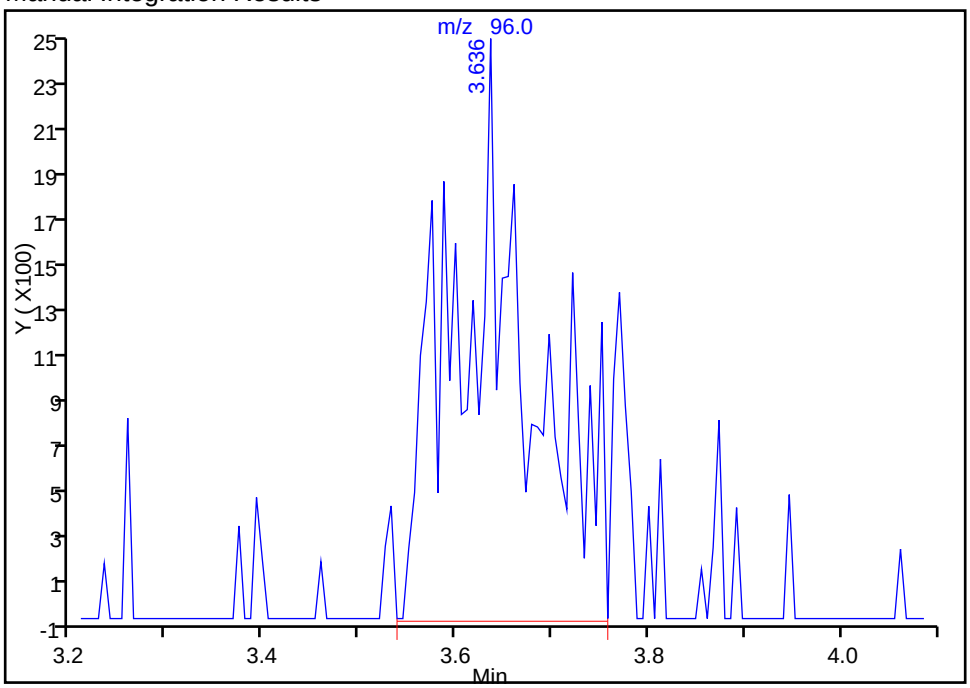
Processing Integration Results

RT: 3.59
Area: 5280
Amount: 3.151784
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 12867
Amount: 7.680682
Amount Units: ng



Reviewer: journetp, 04-Jun-2015 07:38:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

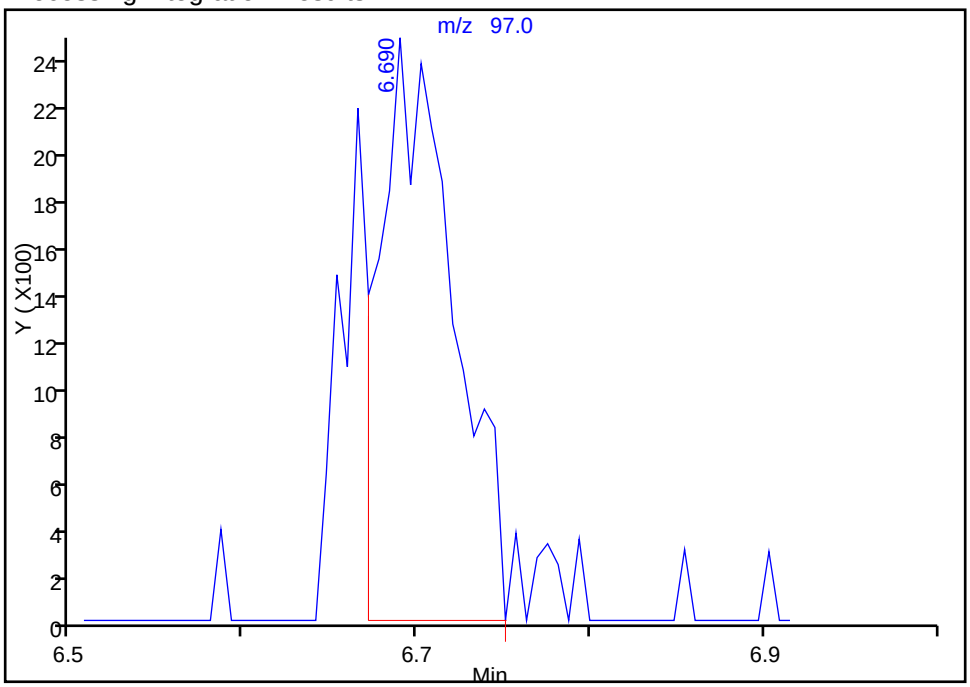
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060321.D				
Injection Date:	03-Jun-2015 18:18:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

53 1,1,1-Trichloroethane, CAS: 71-55-6

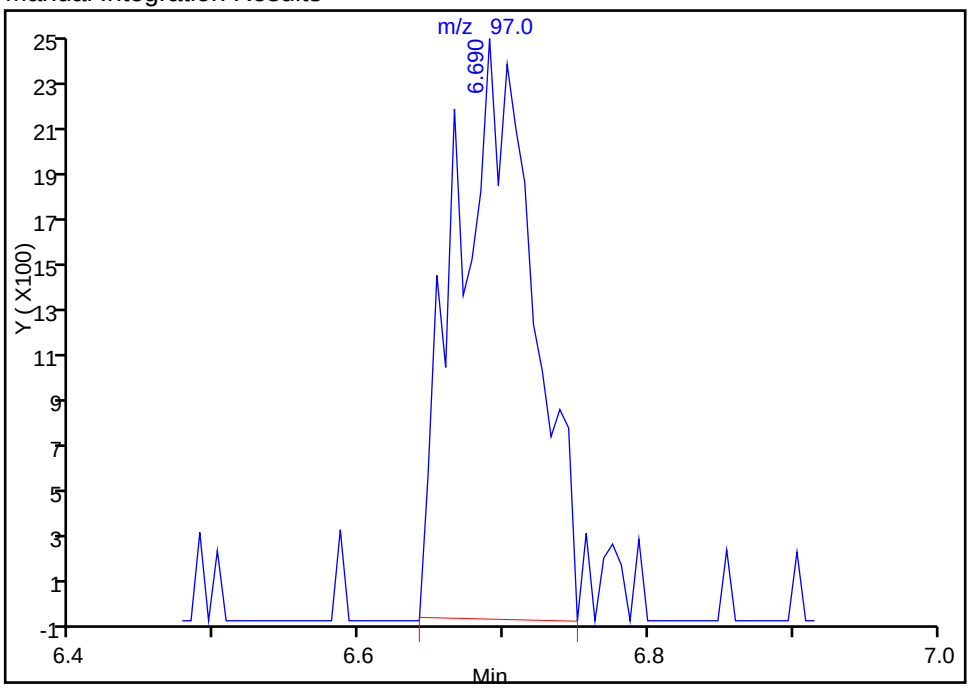
Processing Integration Results

RT: 6.69
Area: 7246
Amount: 2.325967
Amount Units: ng



Manual Integration Results

RT: 6.69
Area: 9121
Amount: 2.927843
Amount Units: ng



Reviewer: journetp, 04-Jun-2015 07:38:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 | Lab Sample ID: 180-44401-5

Matrix: Water | Lab File ID: 7060218.D

Analysis Method: 8260C | Date Collected: 05/21/2015 11:41

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 18:21

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	25	U	25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	3.1	J	25	3.1
156-60-5	trans-1,2-Dichloroethene	14	J	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	81		25	2.9
156-59-2	*cis-1,2-Dichloroethene*	*2200*	*E*	*25*	*5.9*
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	25	U	25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	*Trichloroethene*	*1500*	*E*	*25*	*3.6*
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	25	U	25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 | Lab Sample ID: 180-44401-5

Matrix: Water | Lab File ID: 7060218.D

Analysis Method: 8260C | Date Collected: 05/21/2015 11:41

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 18:21

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		64-135
2037-26-5	Toluene-d8 (Surr)	127	X	71-118
460-00-4	4-Bromofluorobenzene (Surr)	56	X	70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D
Lims ID: 180-44401-E-5 Lab Sample ID: 180-44401-5
Client ID: HD-MW-132-0/1-0
Sample Type: Client
Inject. Date: 02-Jun-2015 18:21:30 ALS Bottle#: 6 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 25.0000
Sample Info: 180-44401-E-5
Misc. Info.: 180-0007217-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 08:32:34 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 08:08:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.591	4.568	0.023	93	258804	4000.0	
* 2 Fluorobenzene (IS)	96	7.420	7.415	0.005	99	1353548	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	0.000	84	276294	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.786	0.006	95	188467	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.691	-0.007	87	394262	182.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.050	-0.001	93	338378	164.4	
$ 7 Toluene-d8 (Surr)	98	9.038	9.039	-0.001	93	1044435	254.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.630	0.006	87	217979	112.9	
12 Chloromethane	50		2.049				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.578				ND	
16 Chloroethane	64		2.651				ND	
22 1,1-Dichloroethene	96		3.655				ND	
24 Acetone	43		3.777				ND	
26 Carbon disulfide	76		3.935				ND	
31 Methylene Chloride	84	4.415	4.415	0.000	31	4911	2.52	
33 Acrylonitrile	53		4.793				ND	
34 trans-1,2-Dichloroethene	96	4.786	4.799	-0.013	77	24519	10.9	
35 Methyl tert-butyl ether	73		4.847				ND	
37 1,1-Dichloroethane	63	5.394	5.371	0.023	96	214986	65.1	
45 cis-1,2-Dichloroethene	96	6.112	6.125	-0.013	74	3892138	1739.4	E
46 2-Butanone (MEK)	43		6.161				ND	
49 Chlorobromomethane	128		6.399				ND	
52 Chloroform	83		6.508				ND	
53 1,1,1-Trichloroethane	97		6.697				ND	
56 Carbon tetrachloride	117		6.879				ND	
58 Benzene	78		7.104				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.803	7.798	0.005	92	3250855	1217.4	E
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.331				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164		9.653				ND	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.012				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

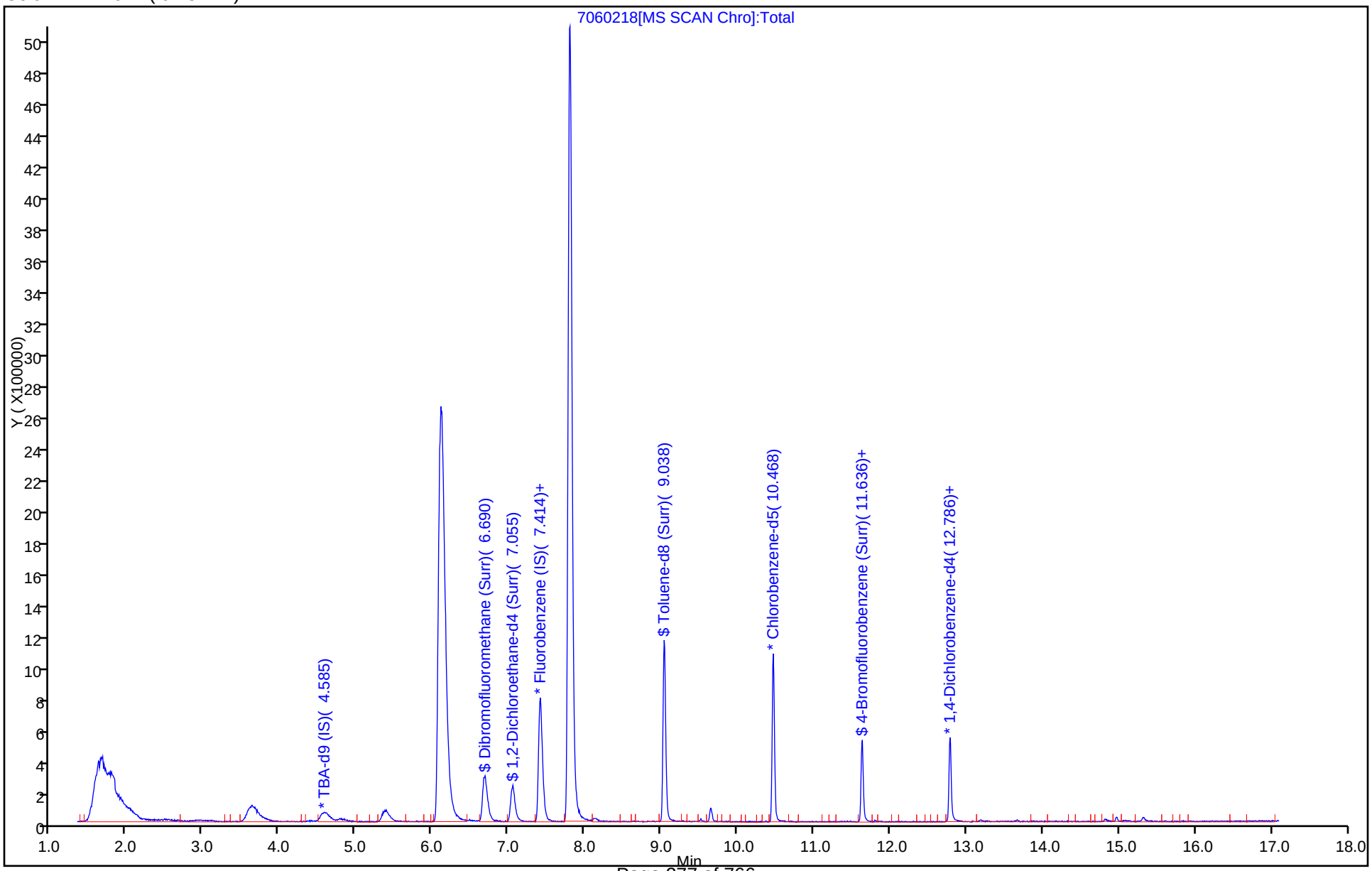
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D				
Injection Date:	02-Jun-2015 18:21:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-5	Lab Sample ID:	180-44401-5	Worklist Smp#:	18
Client ID:	HD-MW-132-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



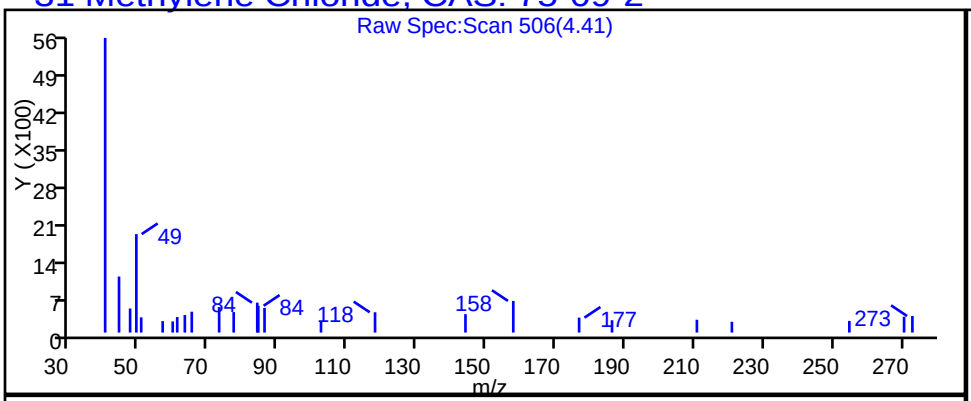
Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

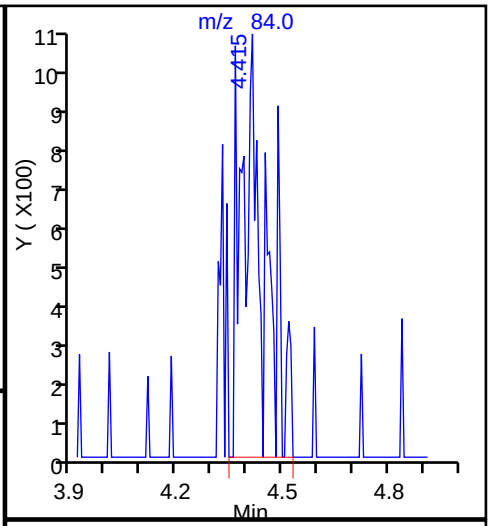
TestAmerica Pittsburgh

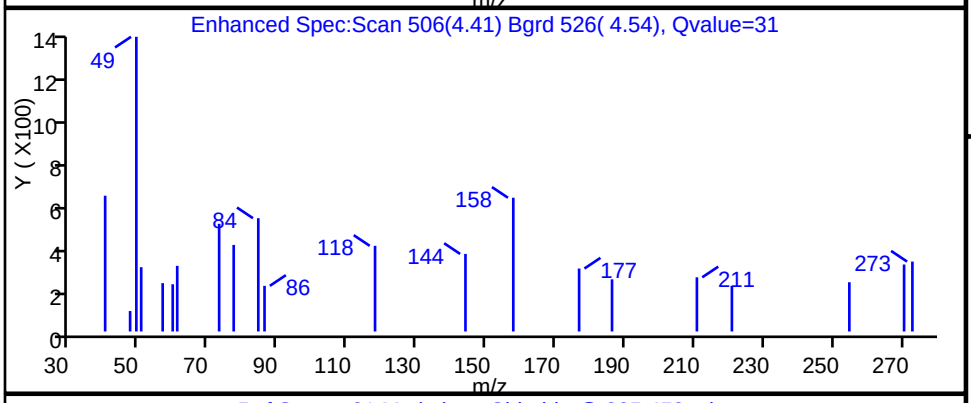
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D

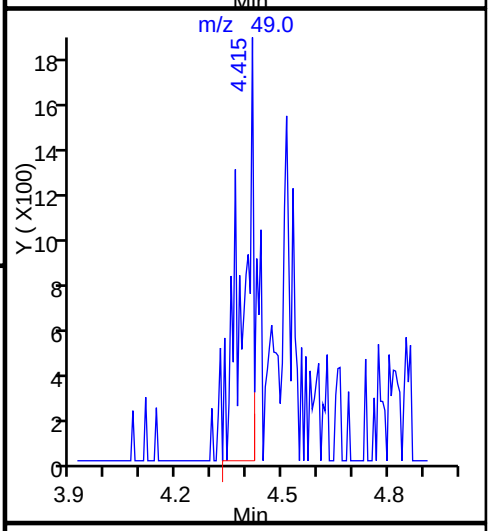
Injection Date:	02-Jun-2015 18:21:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

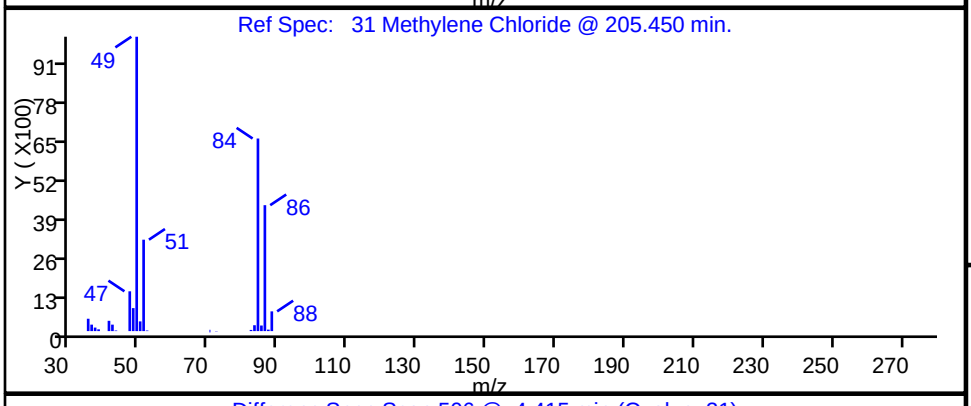
31 Methylene Chloride, CAS: 75-09-2

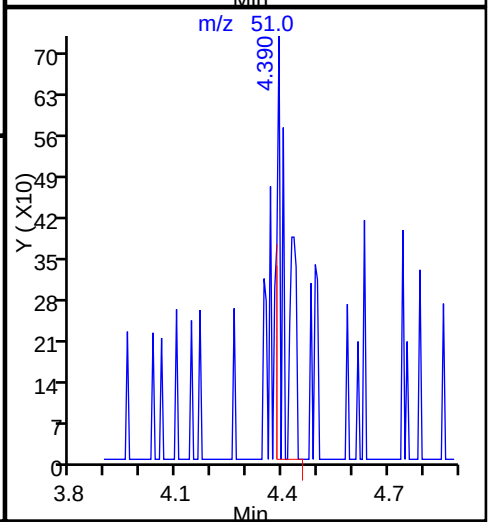


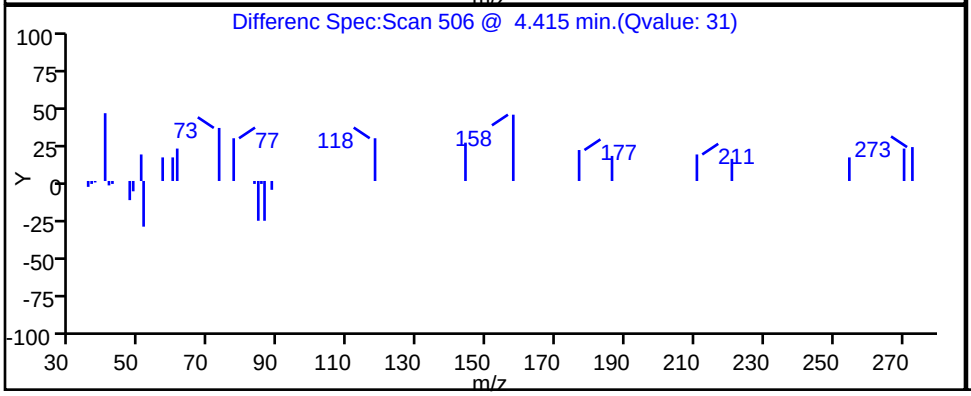












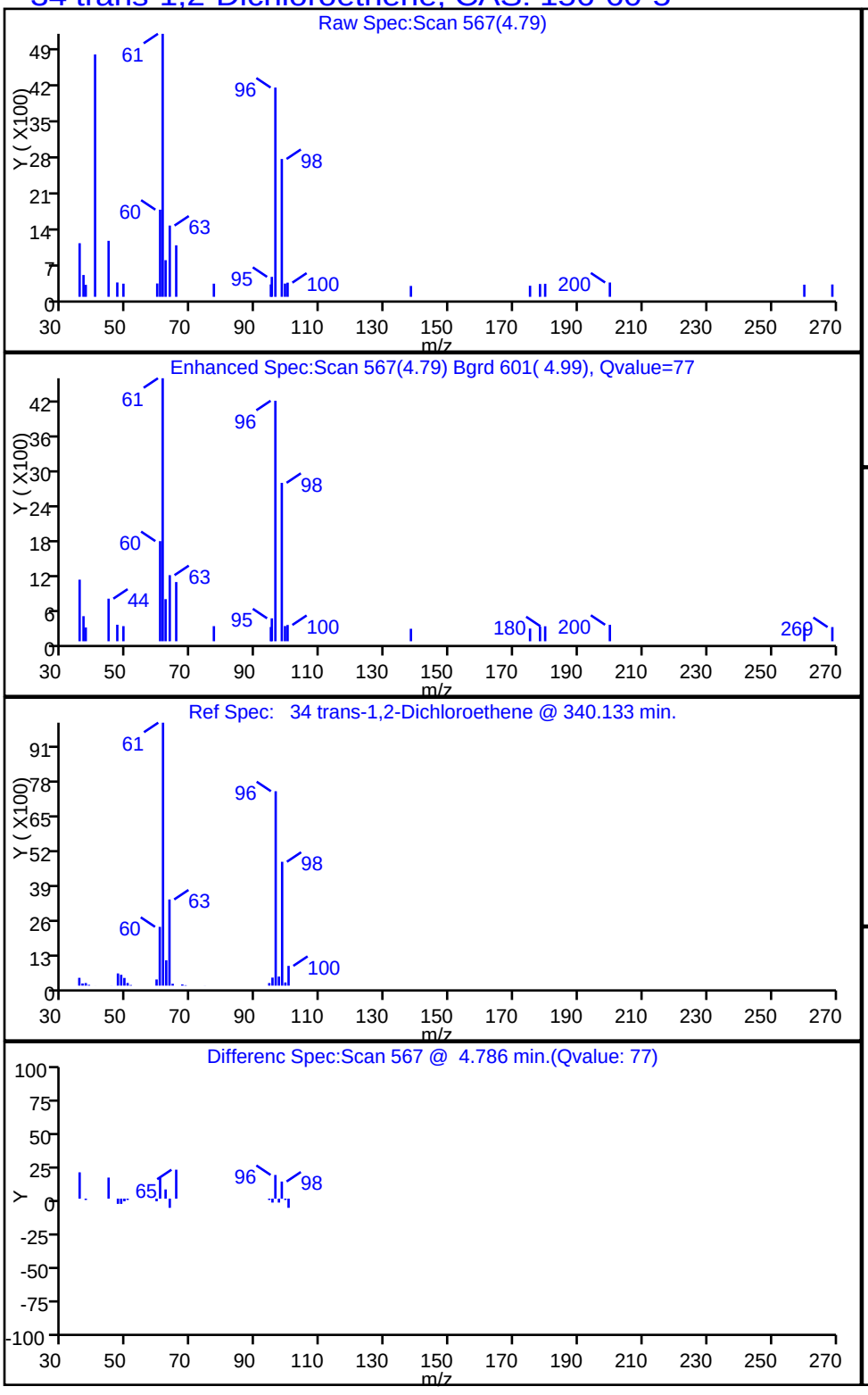
Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

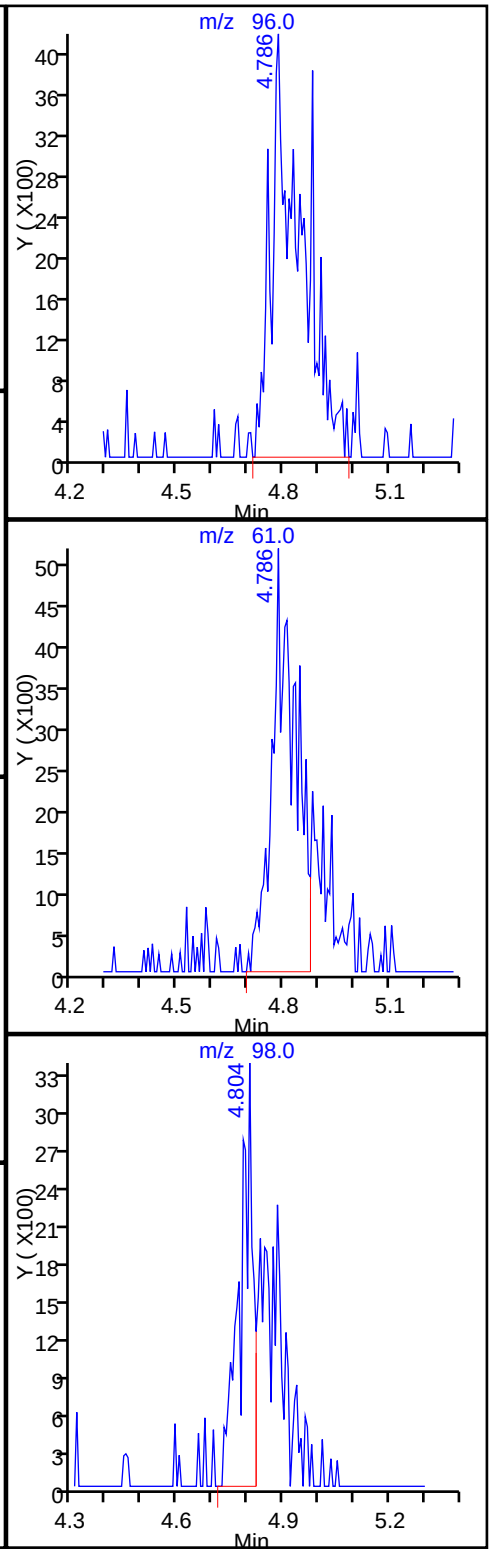
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D

Injection Date:	02-Jun-2015 18:21:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



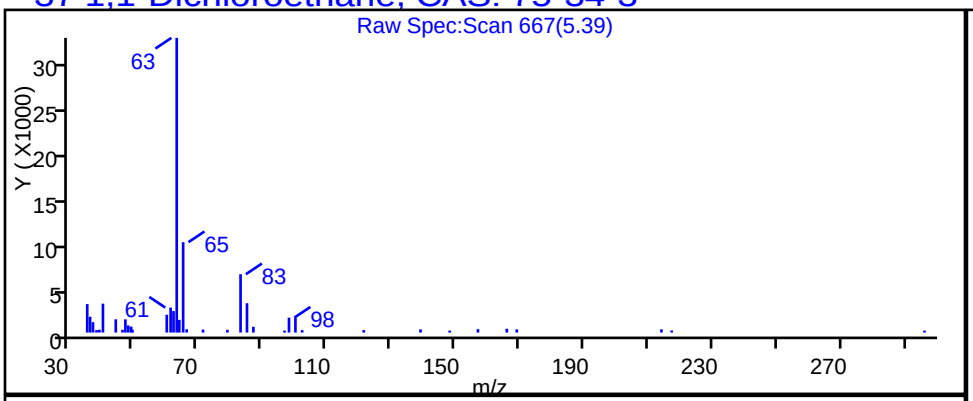


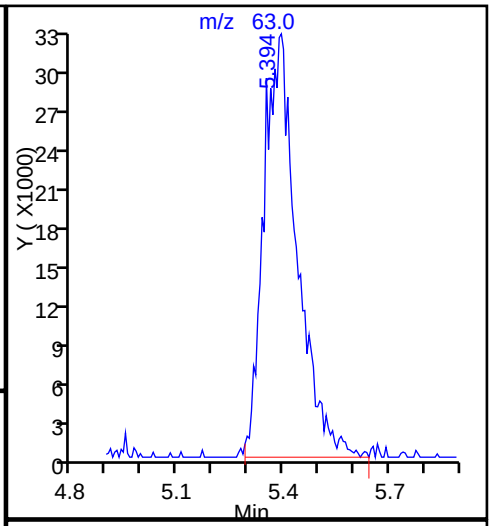
Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

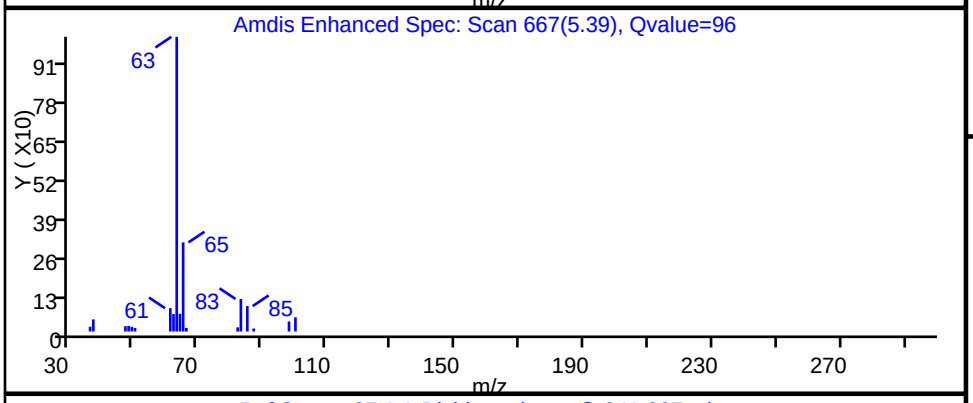
TestAmerica Pittsburgh

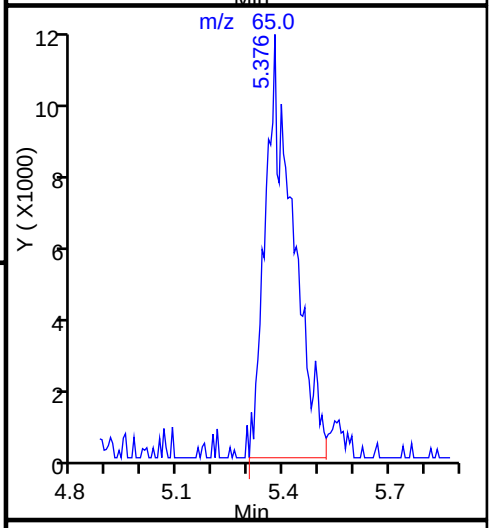
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D				
Injection Date:	02-Jun-2015 18:21:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

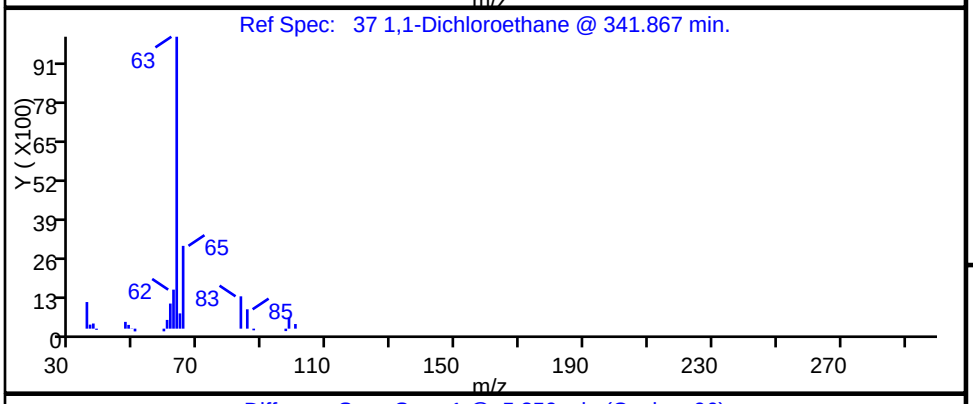
37 1,1-Dichloroethane, CAS: 75-34-3

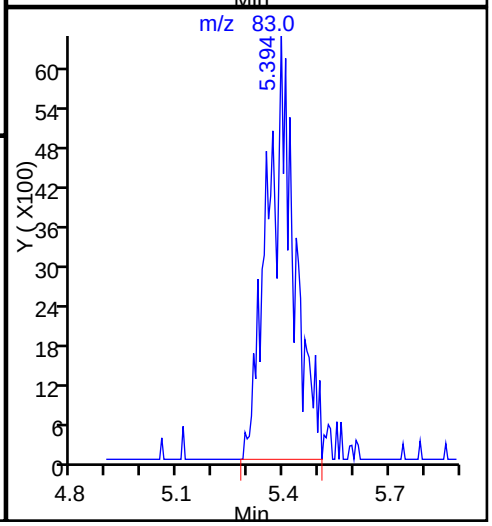


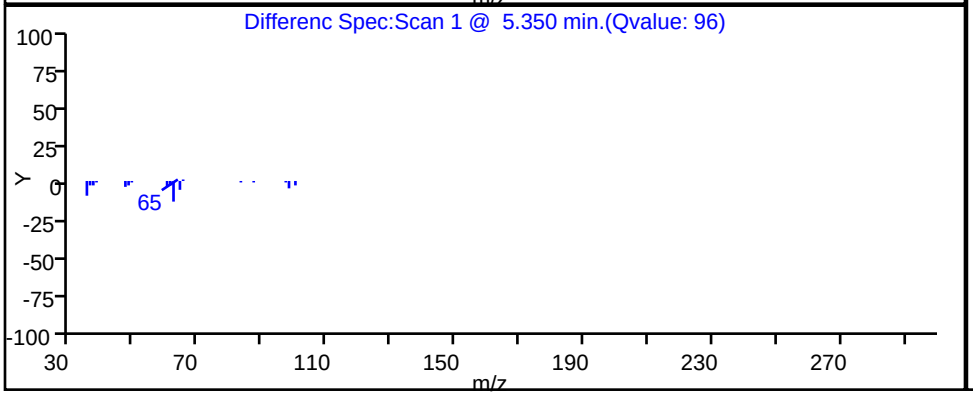










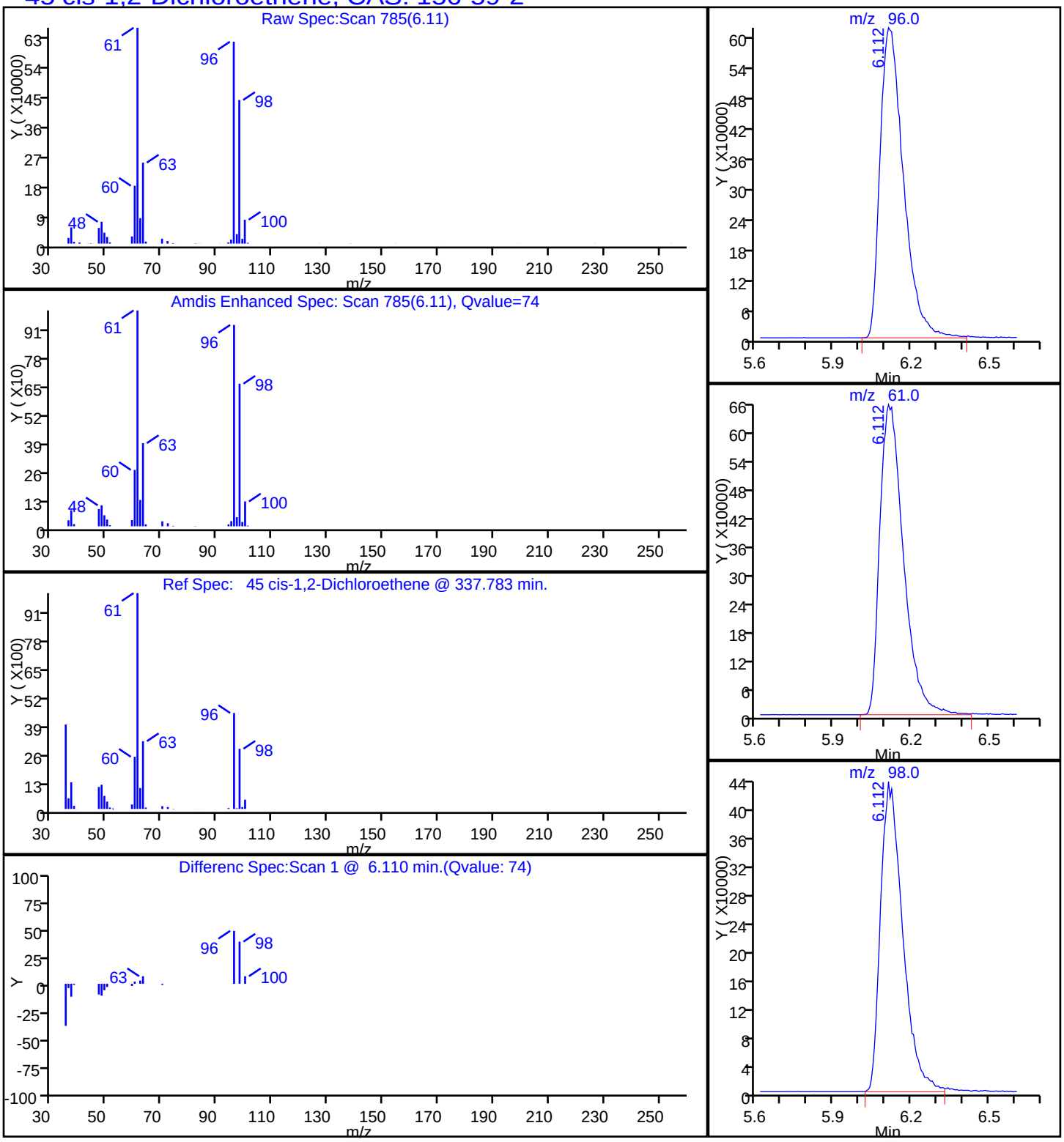


Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D				
Injection Date:	02-Jun-2015 18:21:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

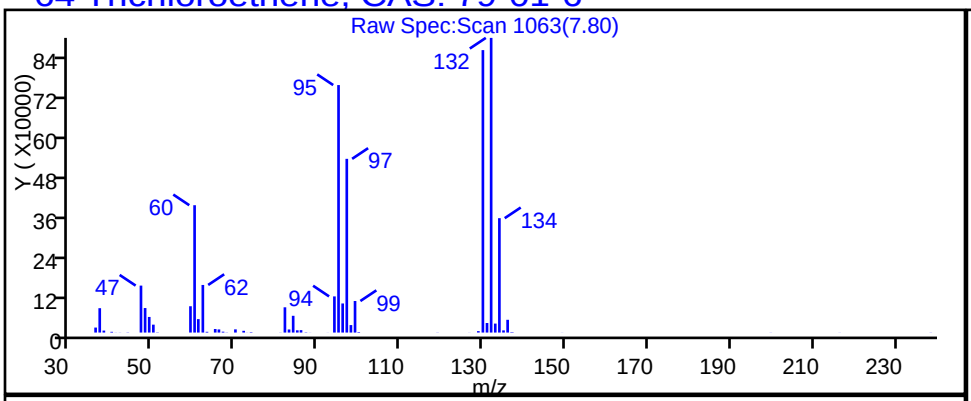


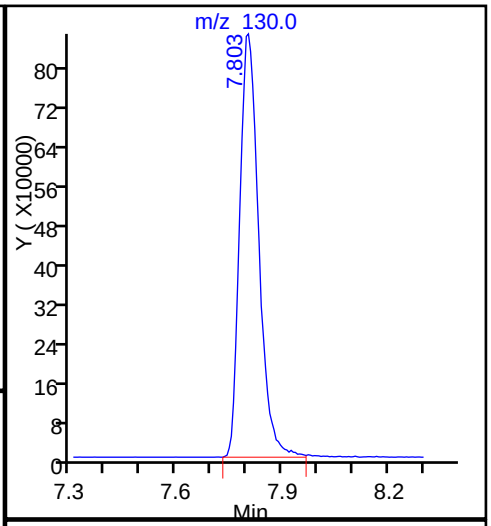
Report Date: 03-Jun-2015 08:33:54 Chrom Revision: 2.2 05-May-2015 11:39:10

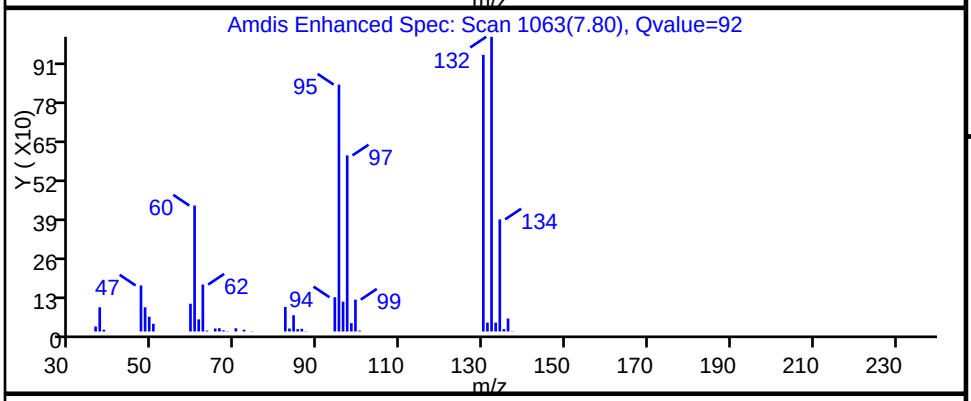
TestAmerica Pittsburgh

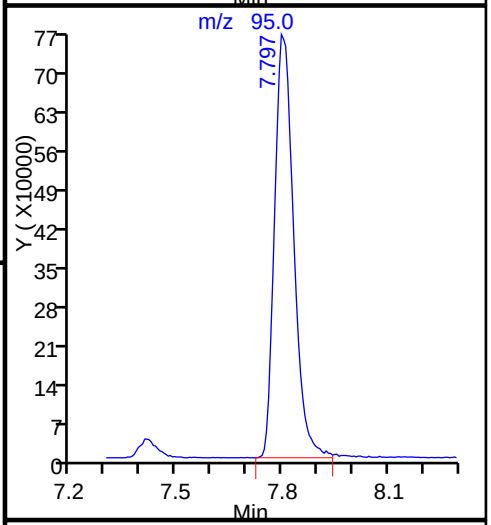
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060218.D				
Injection Date:	02-Jun-2015 18:21:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

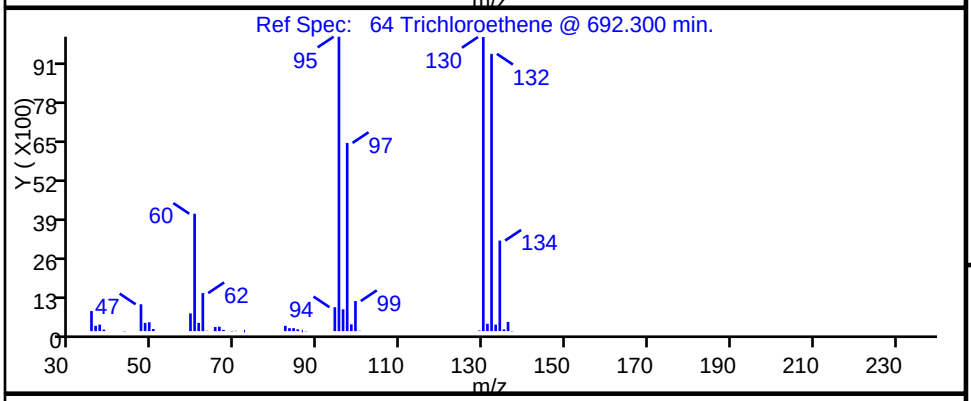
64 Trichloroethene, CAS: 79-01-6

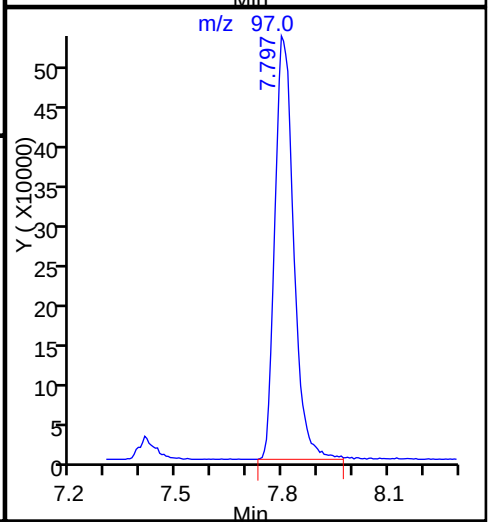


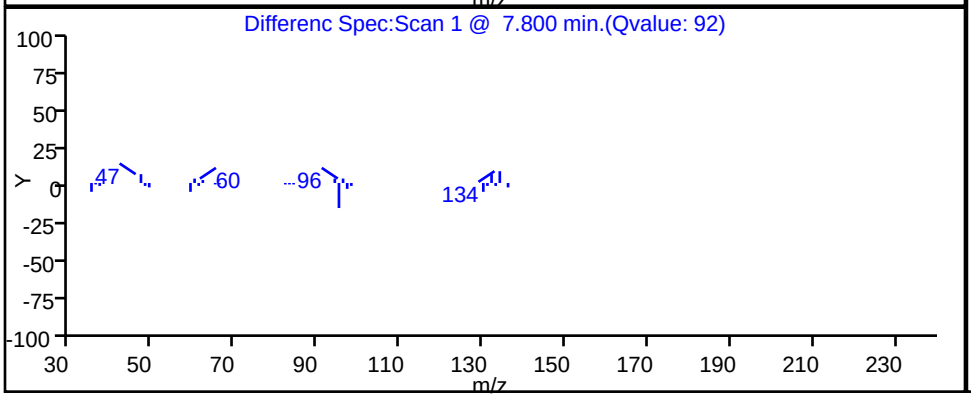












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 DL | Lab Sample ID: 180-44401-5 DL

Matrix: Water | Lab File ID: 7060314.D

Analysis Method: 8260C | Date Collected: 05/21/2015 11:41

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 15:05

Soil Aliquot Vol: | Dilution Factor: 100

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	100	U	100	28
75-01-4	Vinyl chloride	100	U	100	23
74-83-9	Bromomethane	100	U	100	31
75-00-3	Chloroethane	100	U	100	21
75-35-4	1,1-Dichloroethene	160		100	30
67-64-1	Acetone	500	U	500	250
75-15-0	Carbon disulfide	100	U	100	21
75-09-2	Methylene Chloride	100	U	100	13
156-60-5	trans-1,2-Dichloroethene	100	U	100	17
1634-04-4	Methyl tert-butyl ether	100	U	100	18
75-34-3	1,1-Dichloroethane	100	U	100	12
156-59-2	cis-1,2-Dichloroethene	3100		100	24
74-97-5	Bromochloromethane	100	U	100	18
78-93-3	2-Butanone (MEK)	500	U	500	55
67-66-3	Chloroform	100	U	100	17
71-55-6	1,1,1-Trichloroethane	100	U	100	29
56-23-5	Carbon tetrachloride	100	U	100	14
71-43-2	Benzene	100	U	100	11
107-06-2	1,2-Dichloroethane	100	U	100	21
79-01-6	Trichloroethene	2200		100	14
78-87-5	1,2-Dichloropropane	100	U	100	9.5
75-27-4	Bromodichloromethane	100	U	100	13
10061-01-5	cis-1,3-Dichloropropene	100	U	100	19
108-10-1	4-Methyl-2-pentanone (MIBK)	500	U	500	53
108-88-3	Toluene	100	U	100	15
10061-02-6	trans-1,3-Dichloropropene	100	U	100	15
79-00-5	1,1,2-Trichloroethane	100	U	100	20
127-18-4	Tetrachloroethene	100	U	100	15
591-78-6	2-Hexanone	500	U	500	16
124-48-1	Dibromochloromethane	100	U	100	14
106-93-4	1,2-Dibromoethane (EDB)	100	U	100	18
108-90-7	Chlorobenzene	100	U	100	14
630-20-6	1,1,1,2-Tetrachloroethane	100	U	100	28
100-41-4	Ethylbenzene	100	U	100	23
1330-20-7	Xylenes, Total	300	U	300	49
100-42-5	Styrene	100	U	100	9.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 DL | Lab Sample ID: 180-44401-5 DL

Matrix: Water | Lab File ID: 7060314.D

Analysis Method: 8260C | Date Collected: 05/21/2015 11:41

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 15:05

Soil Aliquot Vol: | Dilution Factor: 100

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*100*	*U*	*100*	*19*
79-34-5	*1,1,2,2-Tetrachloroethane*	*100*	*U*	*100*	*20*
107-13-1	*Acrylonitrile*	*2000*	*U*	*2000*	*55*
123-91-1	*1,4-Dioxane*	*20000*	*U*	*20000*	*3400*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	123	*X*	71-118
460-00-4	4-Bromofluorobenzene (Surr)	118		70-118
1868-53-7	Dibromofluoromethane (Surr)	124		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D
Lims ID: 180-44401-C-5 Lab Sample ID: 180-44401-5
Client ID: HD-MW-132-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 15:05:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 100.0000
Sample Info: 180-44401-C-5
Misc. Info.: 180-0007238-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Jun-2015 08:07:14 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 04-Jun-2015 08:07:14

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.576	4.629	-0.053	98	318764	4000.0	M
*	2 Fluorobenzene (IS)	96	7.411	7.415	-0.004	99	1268851	200.0	
*	3 Chlorobenzene-d5	119	10.471	10.469	0.002	86	352402	200.0	M
*	4 1,4-Dichlorobenzene-d4	152	12.789	12.787	0.002	96	372186	200.0	
$	5 Dibromofluoromethane (Surr	113	6.675	6.685	-0.010	92	501544	247.8	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.056	-0.016	94	436473	226.2	
$	7 Toluene-d8 (Surr)	98	9.036	9.039	-0.003	92	1286631	246.2	
$	8 4-Bromofluorobenzene (Surr	95	11.633	11.631	0.002	89	547454	236.7	
	12 Chloromethane	50		2.031				ND	
	13 Vinyl chloride	62		2.250				ND	
	15 Bromomethane	94		2.518				ND	
	16 Chloroethane	64		2.645				ND	
	22 1,1-Dichloroethene	96	3.646	3.619	0.027	62	55017	32.3	M
	24 Acetone	43		3.783				ND	
	26 Carbon disulfide	76		3.929				ND	
	31 Methylene Chloride	84	4.382	4.422	-0.040	1	1564	0.8554	
	33 Acrylonitrile	53		4.787				ND	
	34 trans-1,2-Dichloroethene	96		4.805				ND	
	35 Methyl tert-butyl ether	73		4.854				ND	
	37 1,1-Dichloroethane	63		5.371				ND	
	45 cis-1,2-Dichloroethene	96	6.109	6.119	-0.010	77	1305695	622.5	
	46 2-Butanone (MEK)	43		6.168				ND	
	49 Chlorobromomethane	128		6.387				ND	
	52 Chloroform	83		6.502				ND	
	53 1,1,1-Trichloroethane	97		6.685				ND	
	56 Carbon tetrachloride	117		6.873				ND	
	58 Benzene	78		7.105				ND	
	59 1,2-Dichloroethane	62		7.135				ND	
	64 Trichloroethene	130	7.801	7.804	-0.003	93	1123653	448.9	
	67 1,2-Dichloropropane	63		8.029				ND	
	70 1,4-Dioxane	88		8.175				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164		9.648				ND	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.609				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

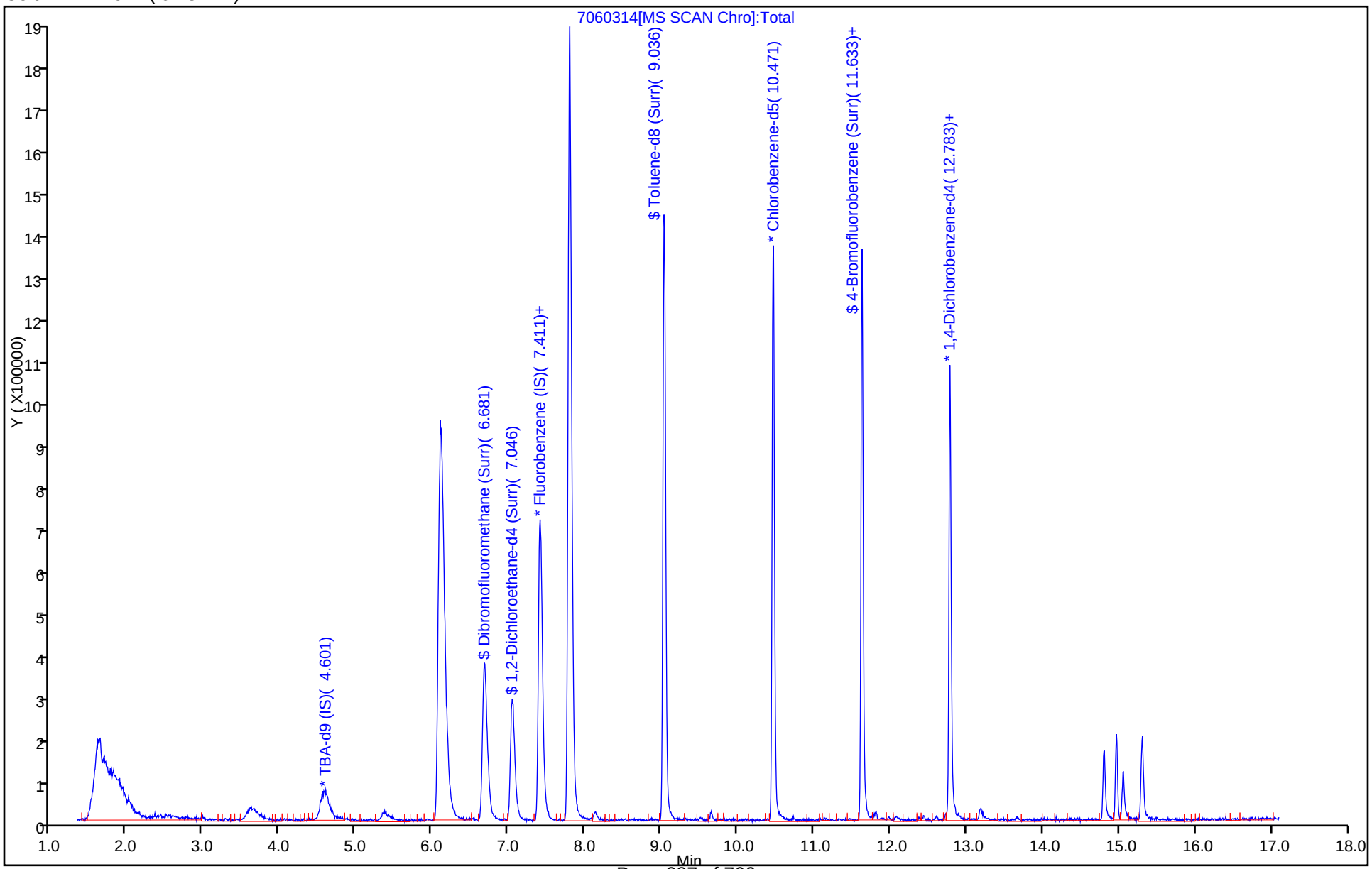
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Jun-2015 08:07:14 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D				
Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5	Worklist Smp#:	13
Client ID:	HD-MW-132-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	100.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



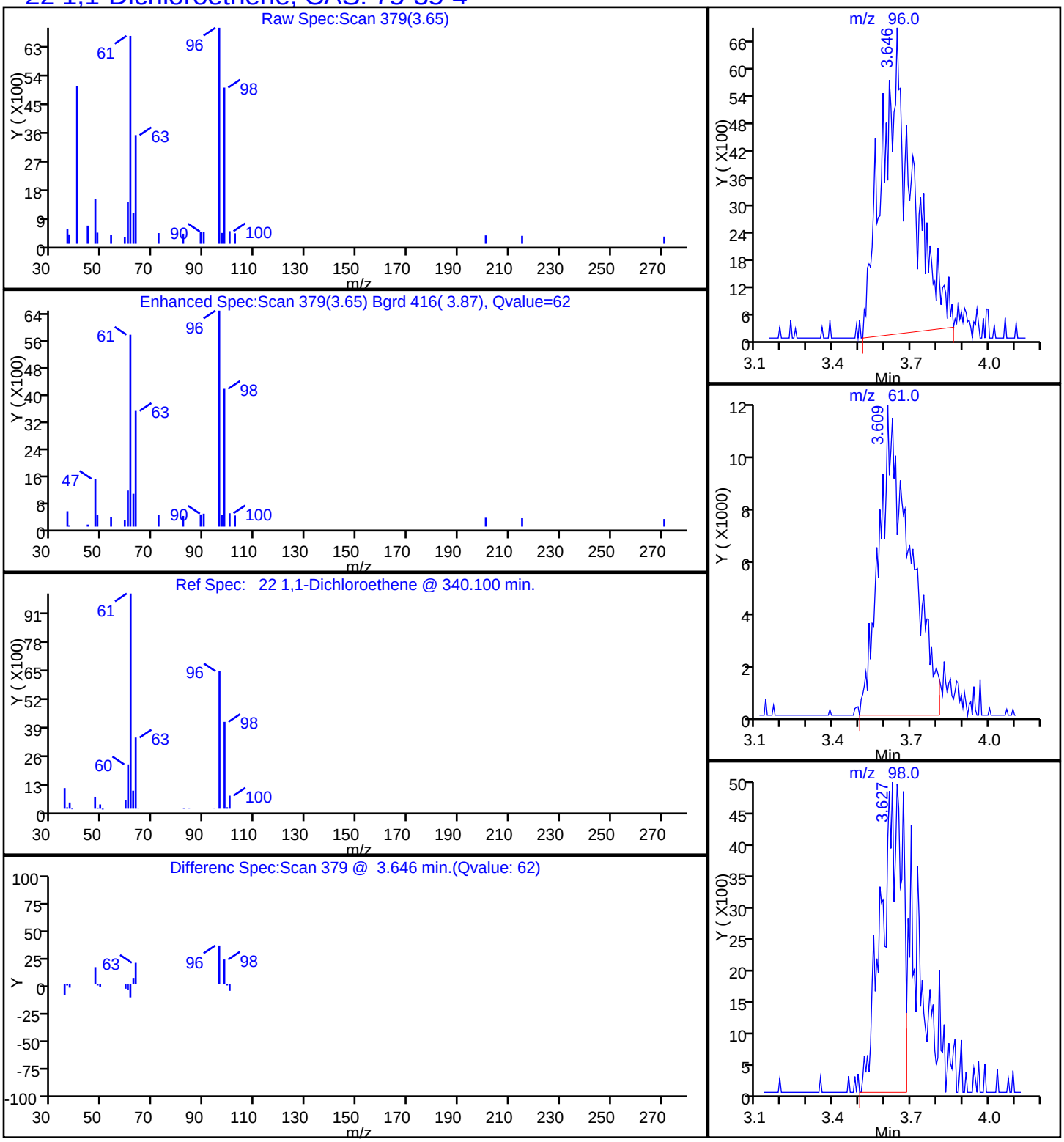
Report Date: 04-Jun-2015 08:07:14 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D

Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4



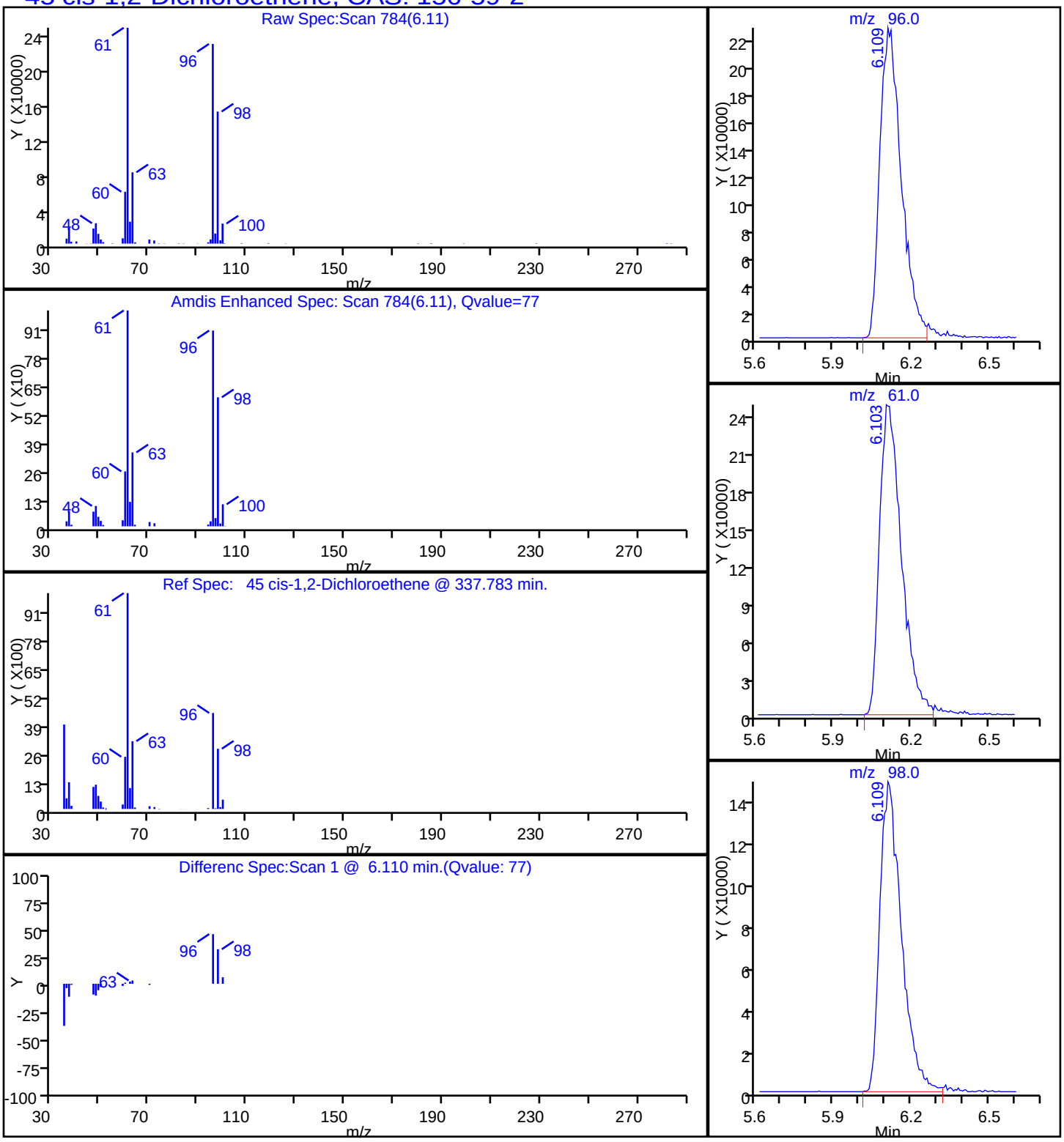
Report Date: 04-Jun-2015 08:07:14 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D

Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

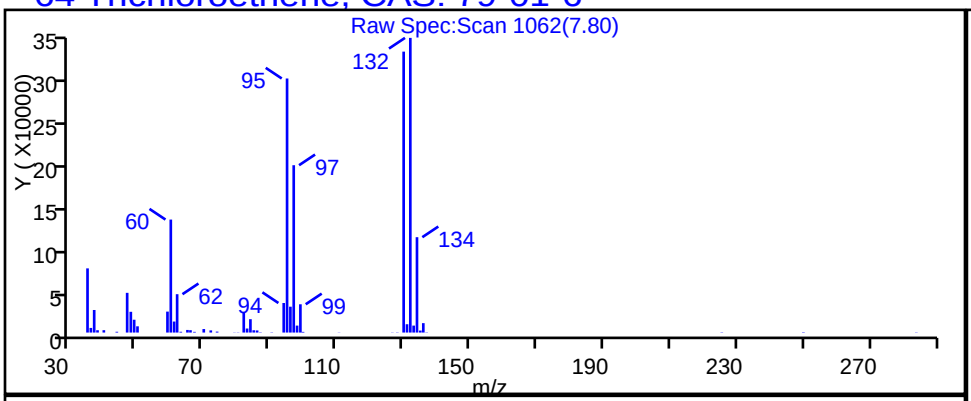


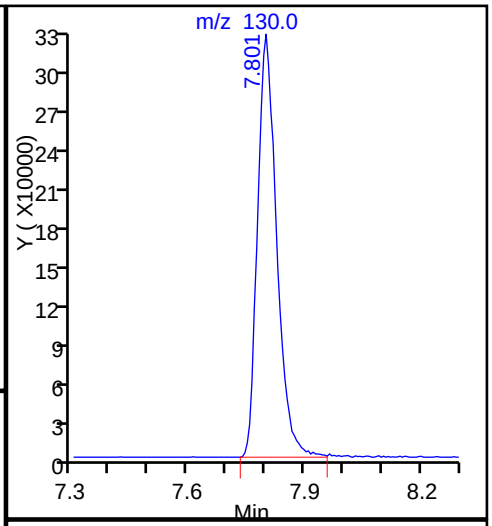
Report Date: 04-Jun-2015 08:07:14 Chrom Revision: 2.2 05-May-2015 11:39:10

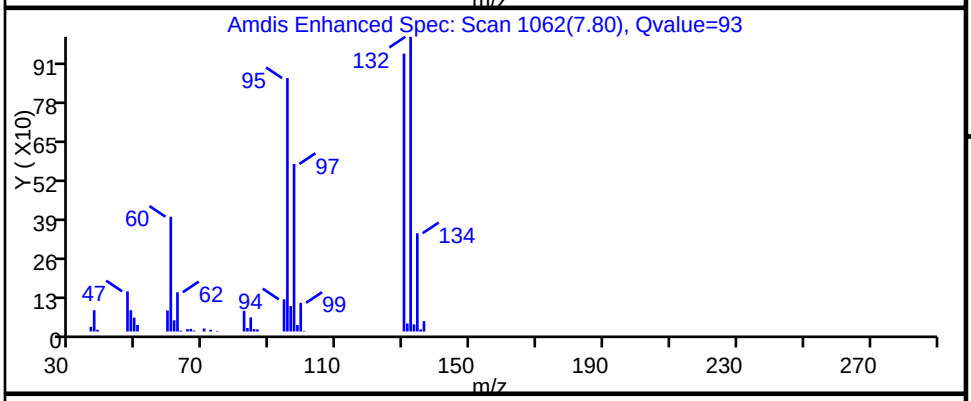
TestAmerica Pittsburgh

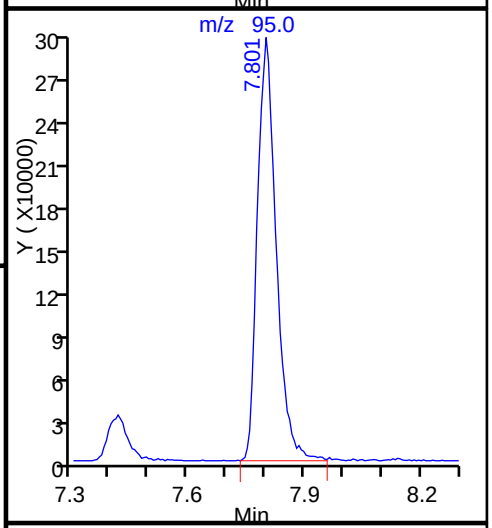
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D				
Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

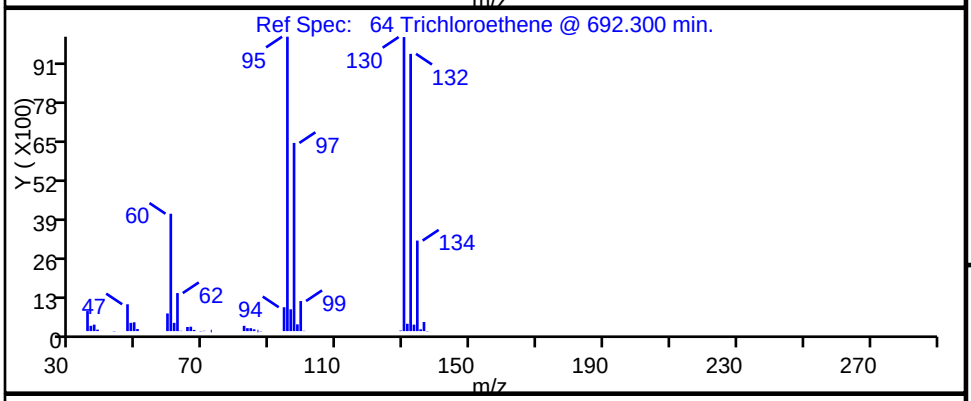
64 Trichloroethene, CAS: 79-01-6

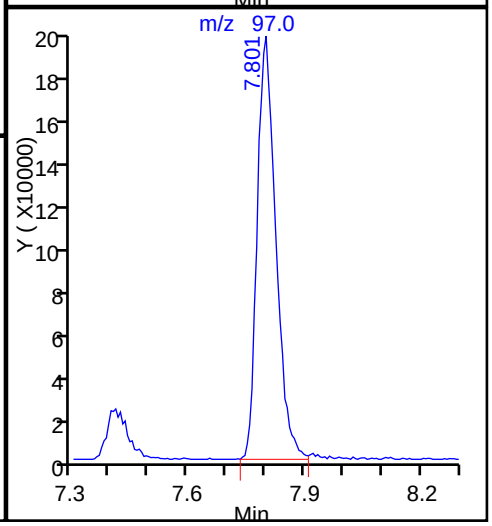


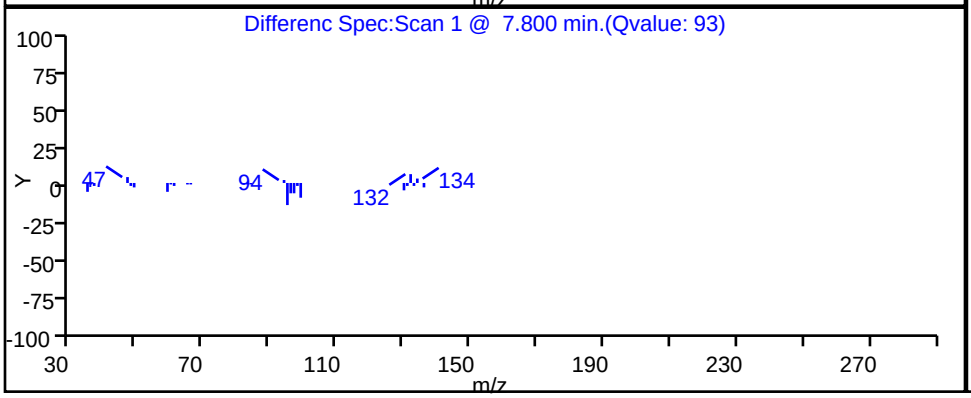












Manual Integration/User Assign Peak Report

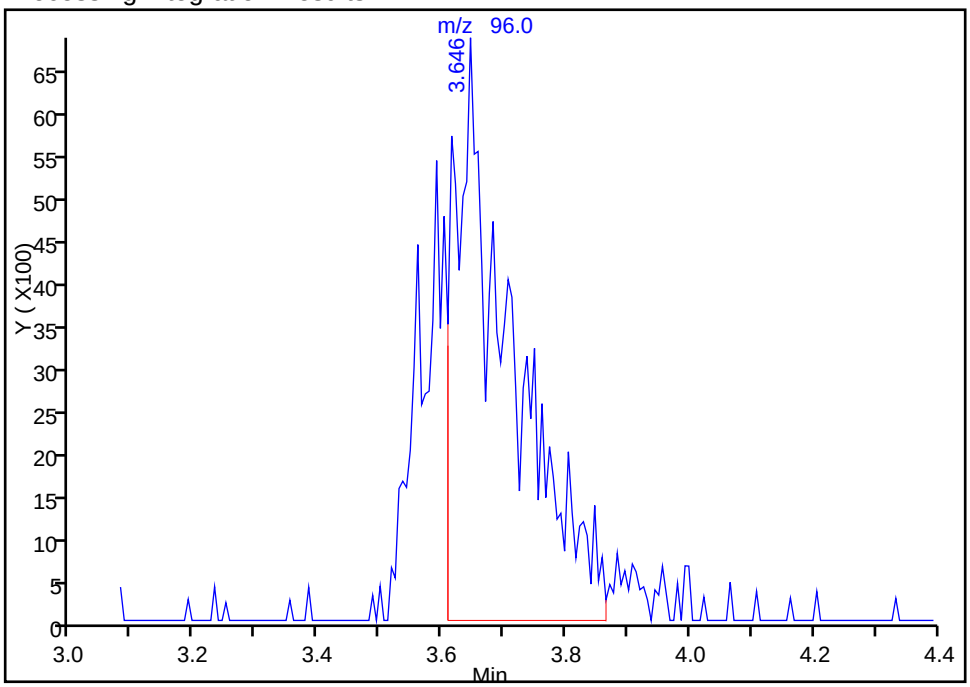
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D				
Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

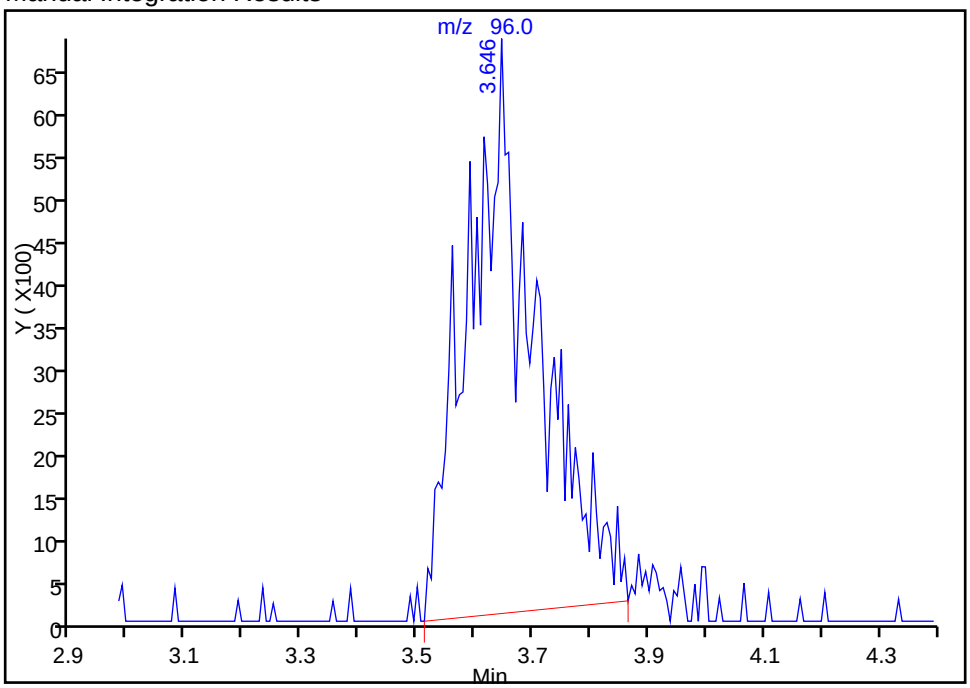
Processing Integration Results

RT: 3.65
Area: 42932
Amount: 25.200292
Amount Units: ng



Manual Integration Results

RT: 3.65
Area: 55017
Amount: 32.293964
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 16:06:35
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

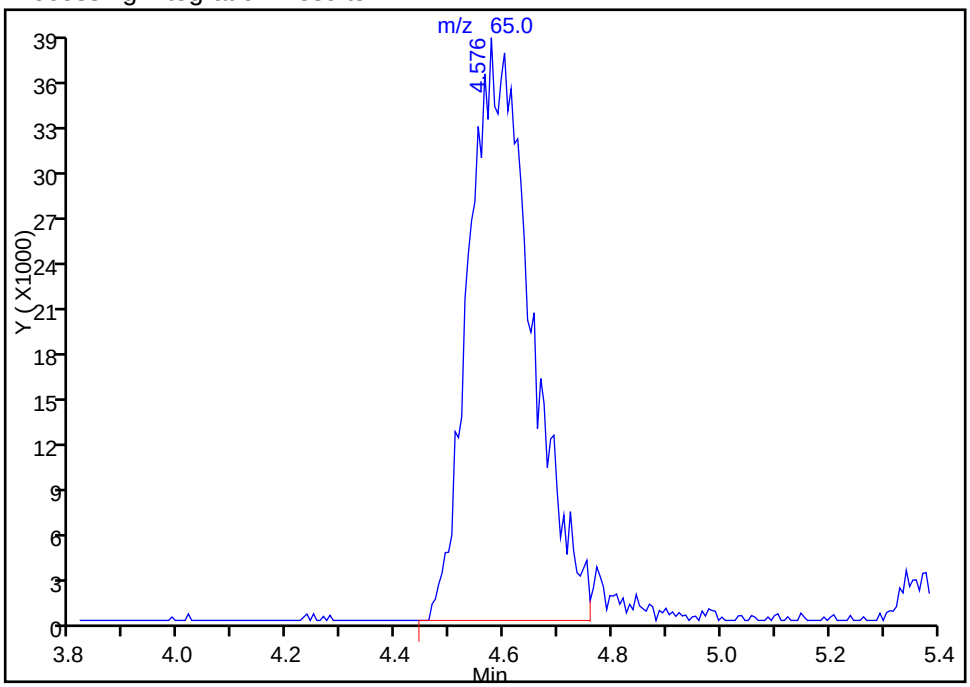
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D				
Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

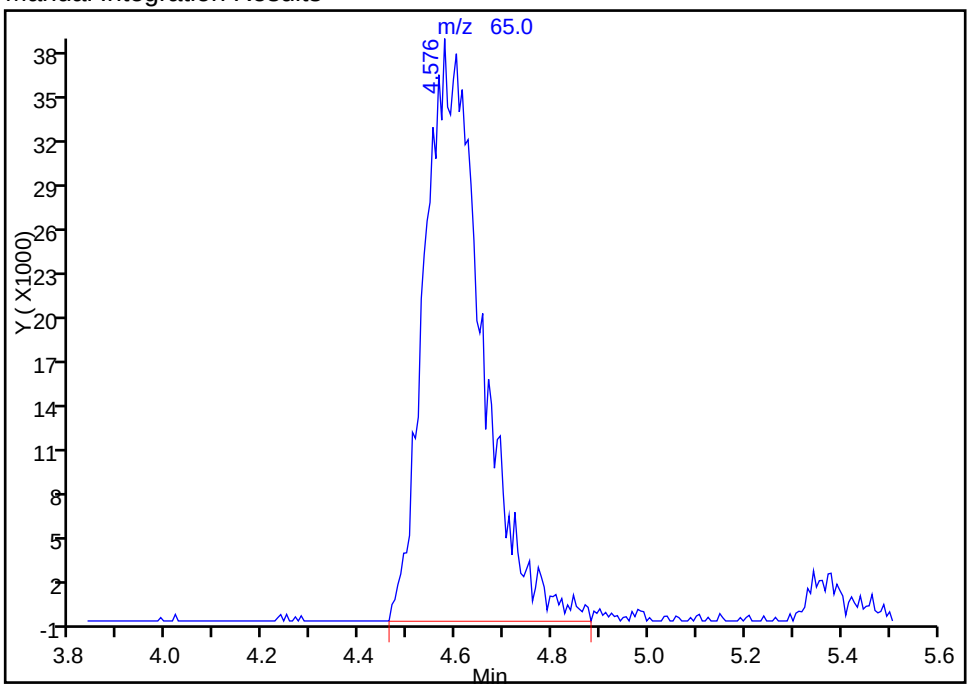
Processing Integration Results

RT: 4.58
Area: 308327
Amount: 4000.0000
Amount Units: ng



Manual Integration Results

RT: 4.58
Area: 318764
Amount: 4000.0000
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 15:49:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

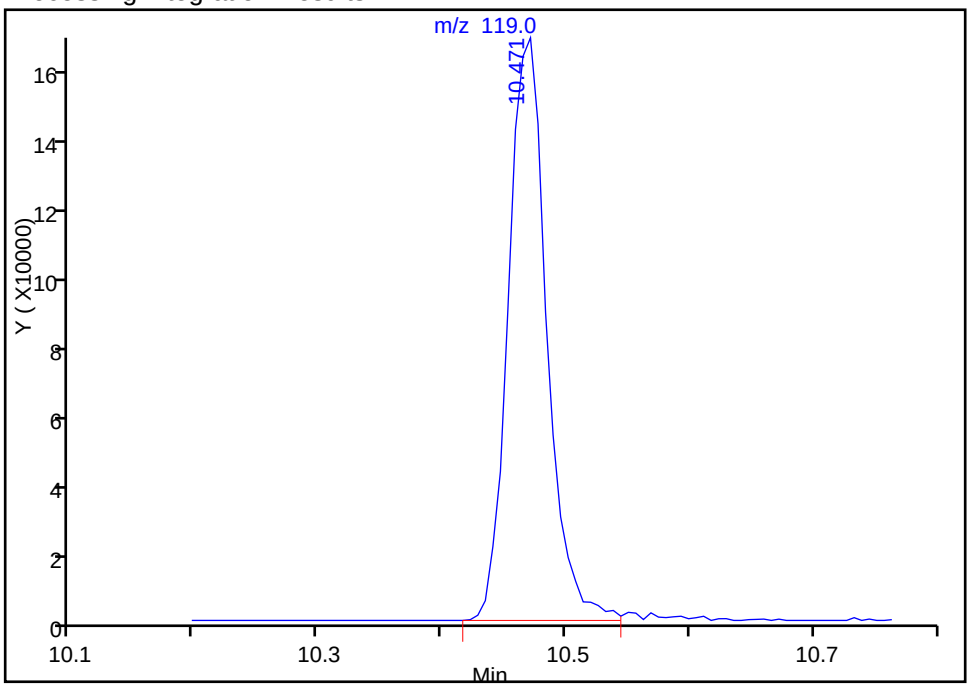
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060314.D				
Injection Date:	03-Jun-2015 15:05:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-5	Lab Sample ID:	180-44401-5		
Client ID:	HD-MW-132-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

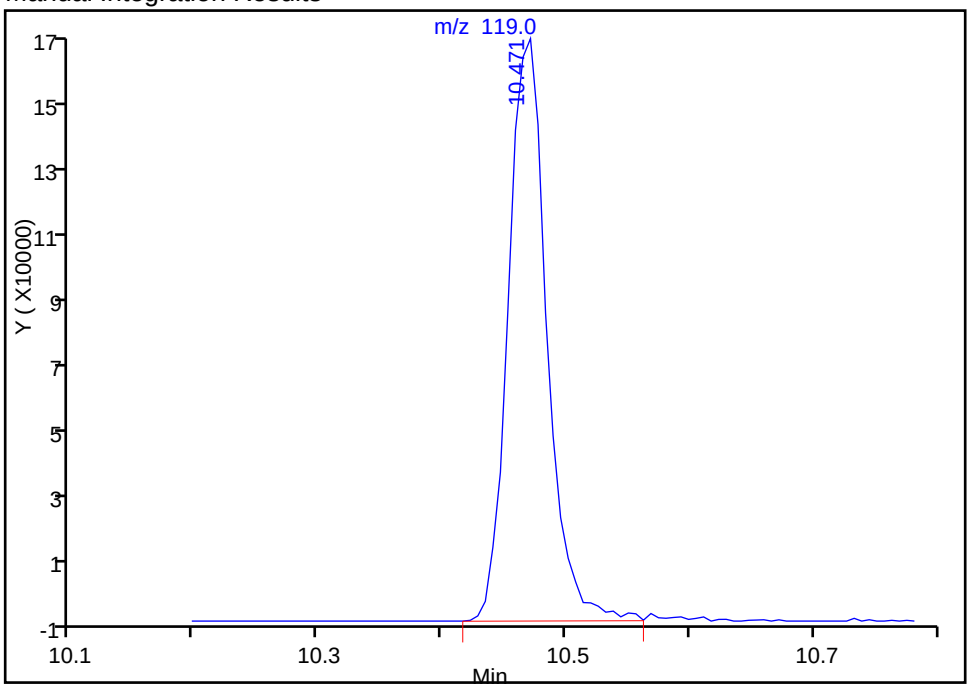
Processing Integration Results

RT: 10.47
Area: 351008
Amount: 200.0000
Amount Units: ng



Manual Integration Results

RT: 10.47
Area: 352402
Amount: 200.0000
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 15:49:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-51D-0/1-0 | Lab Sample ID: 180-44401-6

Matrix: Water | Lab File ID: 7060320.D

Analysis Method: 8260C | Date Collected: 05/21/2015 08:20

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 17:50

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	66		25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	25	U	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	40		25	2.9
156-59-2	cis-1,2-Dichloroethene	630		25	5.9
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	48		25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	Trichloroethene	660		25	3.6
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	51		25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-51D-0/1-0 | Lab Sample ID: 180-44401-6

Matrix: Water | Lab File ID: 7060320.D

Analysis Method: 8260C | Date Collected: 05/21/2015 08:20

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 17:50

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D
Lims ID: 180-44401-E-6 Lab Sample ID: 180-44401-6
Client ID: HD-MW-51D-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 17:50:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 25.0000
Sample Info: 180-44401-E-6
Misc. Info.: 180-0007238-019
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Jun-2015 07:43:00 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 03-Jun-2015 18:21:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.612	4.629	-0.017	94	495927	4000.0	
* 2 Fluorobenzene (IS)	96	7.416	7.415	0.001	98	1892409	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.469	0.001	86	540231	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.782	12.787	-0.005	95	567090	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.692	6.685	0.007	90	646956	214.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.056	-0.005	95	579698	201.4	
$ 7 Toluene-d8 (Surr)	98	9.040	9.039	0.001	92	1571310	196.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.631	0.001	90	668178	185.4	
12 Chloromethane	50		2.031				ND	
13 Vinyl chloride	62		2.250				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.645				ND	
22 1,1-Dichloroethene	96	3.638	3.619	0.019	73	133510	52.5	M
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.929				ND	
31 Methylene Chloride	84		4.422				ND	
33 Acrylonitrile	53		4.787				ND	
34 trans-1,2-Dichloroethene	96	4.812	4.805	0.007	1	5014	1.59	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63	5.372	5.371	0.001	97	146075	31.6	
45 cis-1,2-Dichloroethene	96	6.114	6.119	-0.005	77	1567702	501.1	
46 2-Butanone (MEK)	43		6.168				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.502				ND	
53 1,1,1-Trichloroethane	97	6.686	6.685	0.001	64	183240	38.8	M
56 Carbon tetrachloride	117		6.873				ND	
58 Benzene	78		7.105				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.799	7.804	-0.005	92	1974993	529.0	
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.175				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.643	9.648	-0.005	90	148109	40.5	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.006				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.609				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

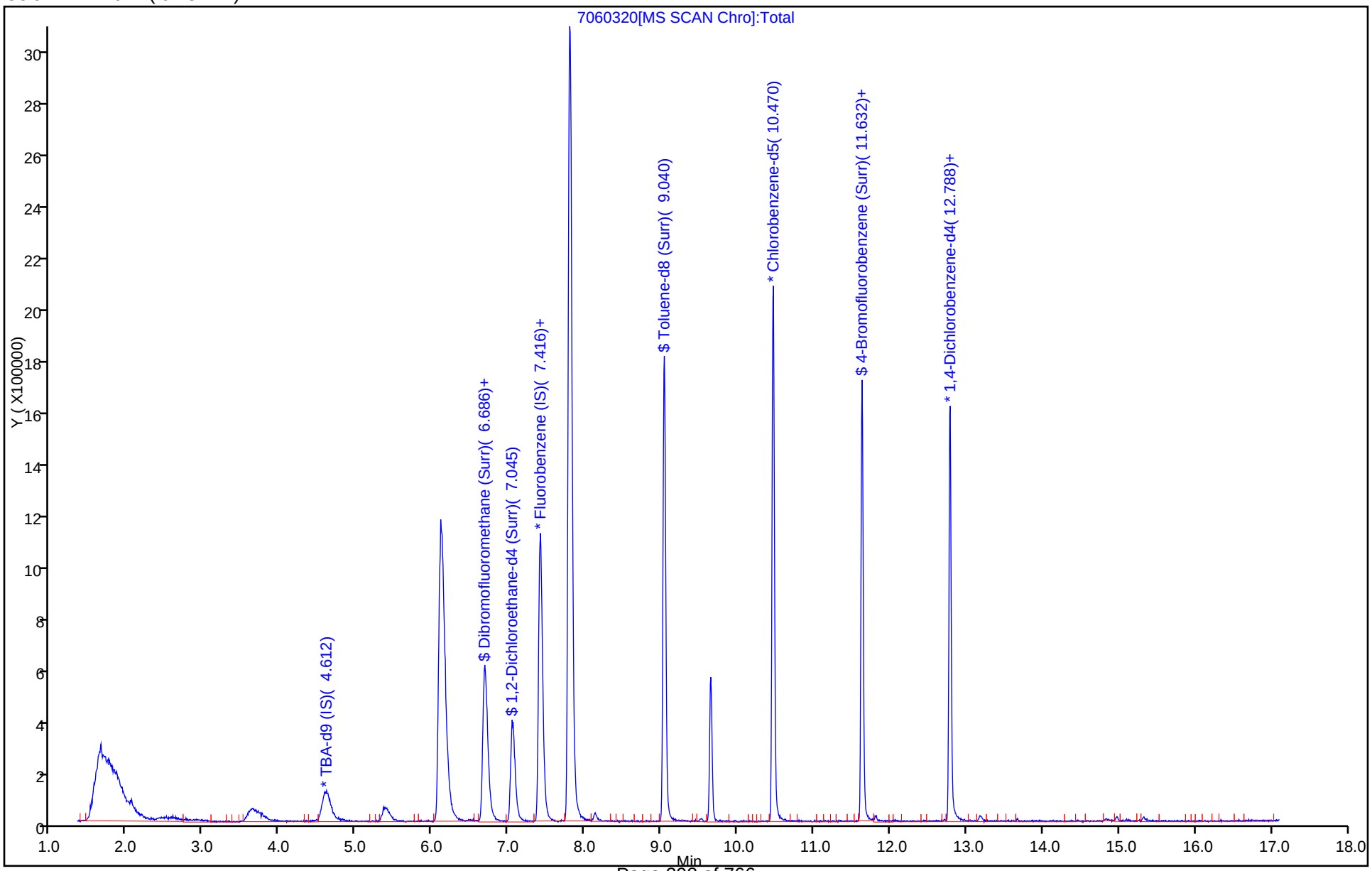
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D				
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6	Worklist Smp#:	19
Client ID:	HD-MW-51D-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

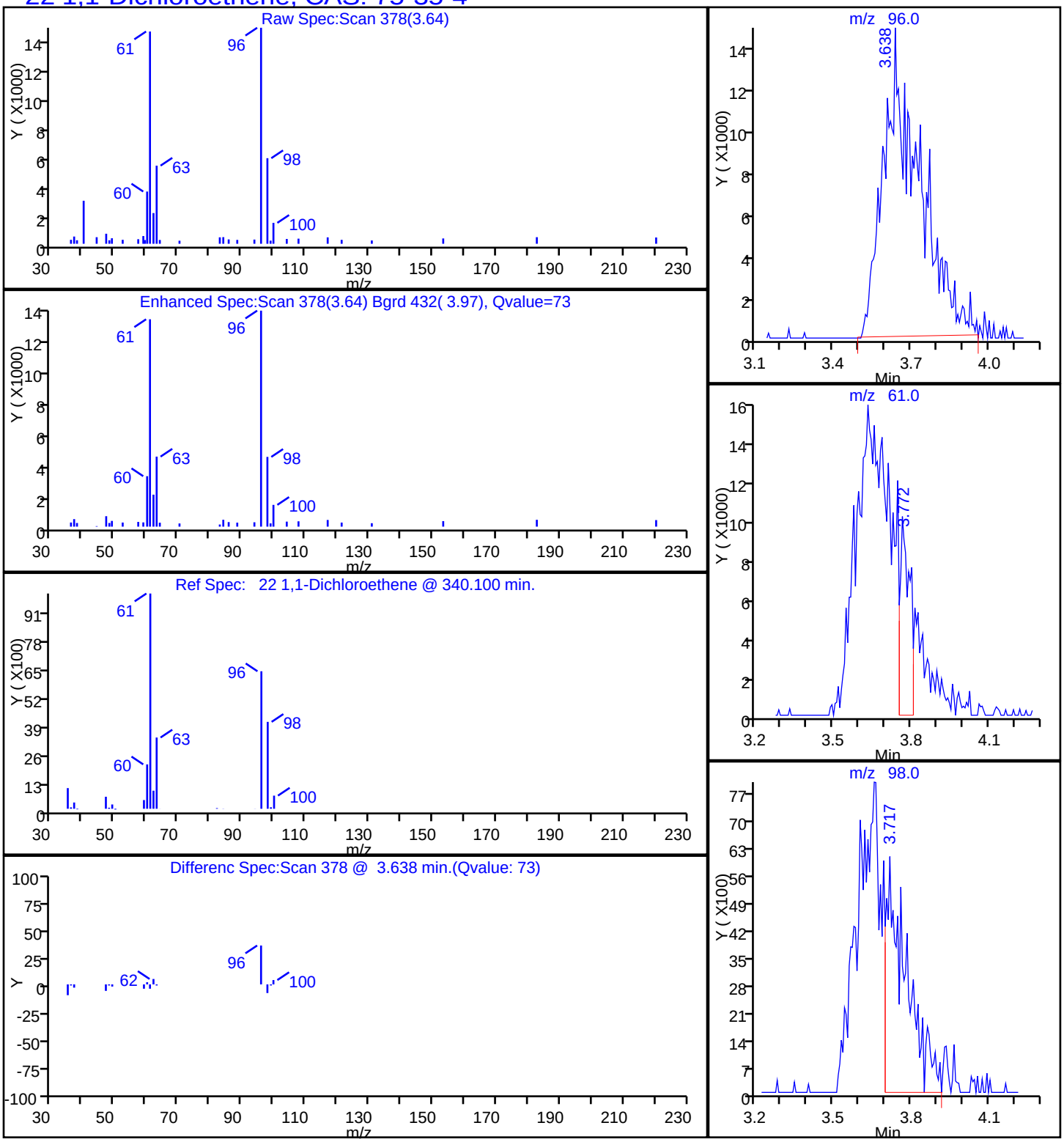


Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D				
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

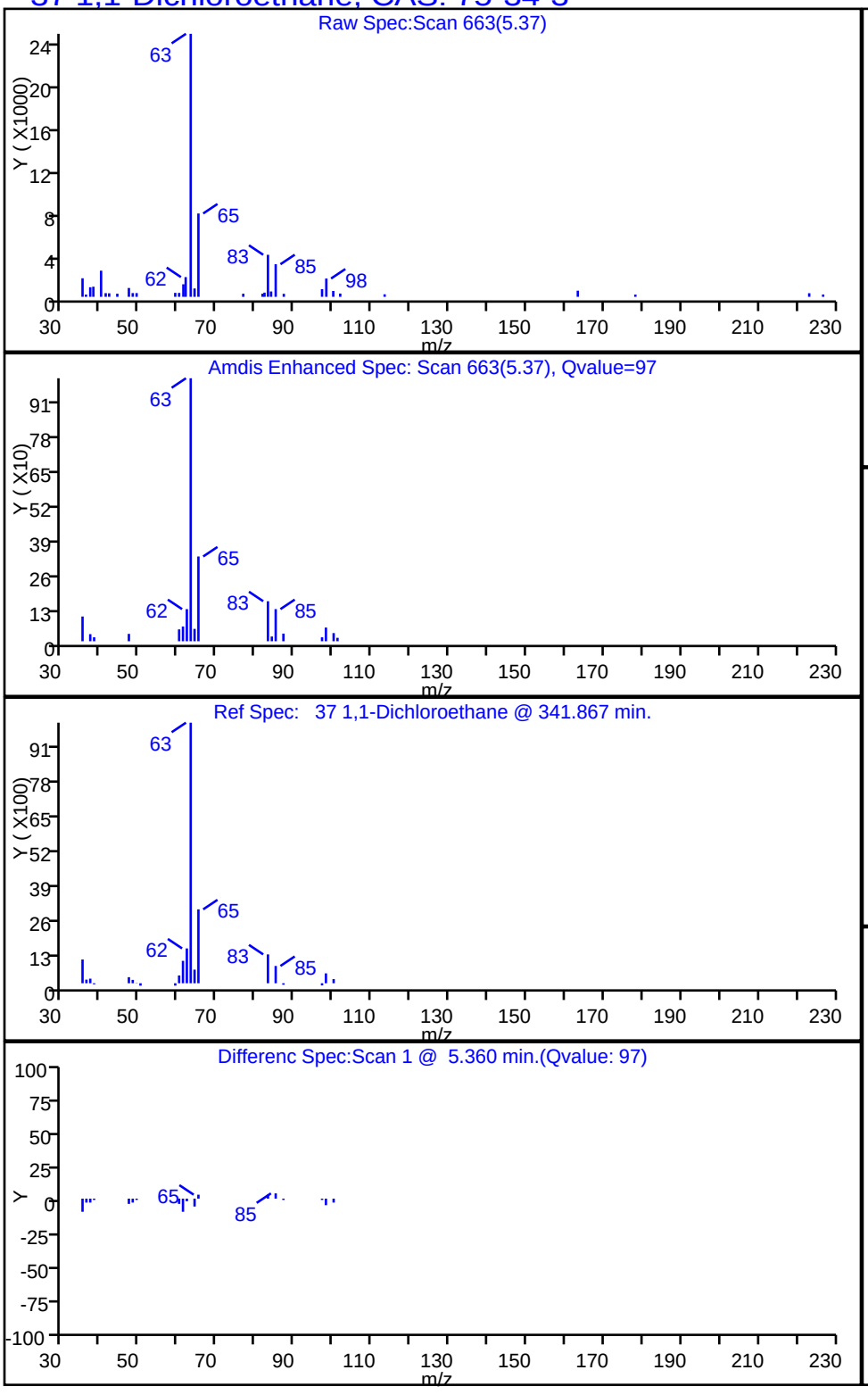


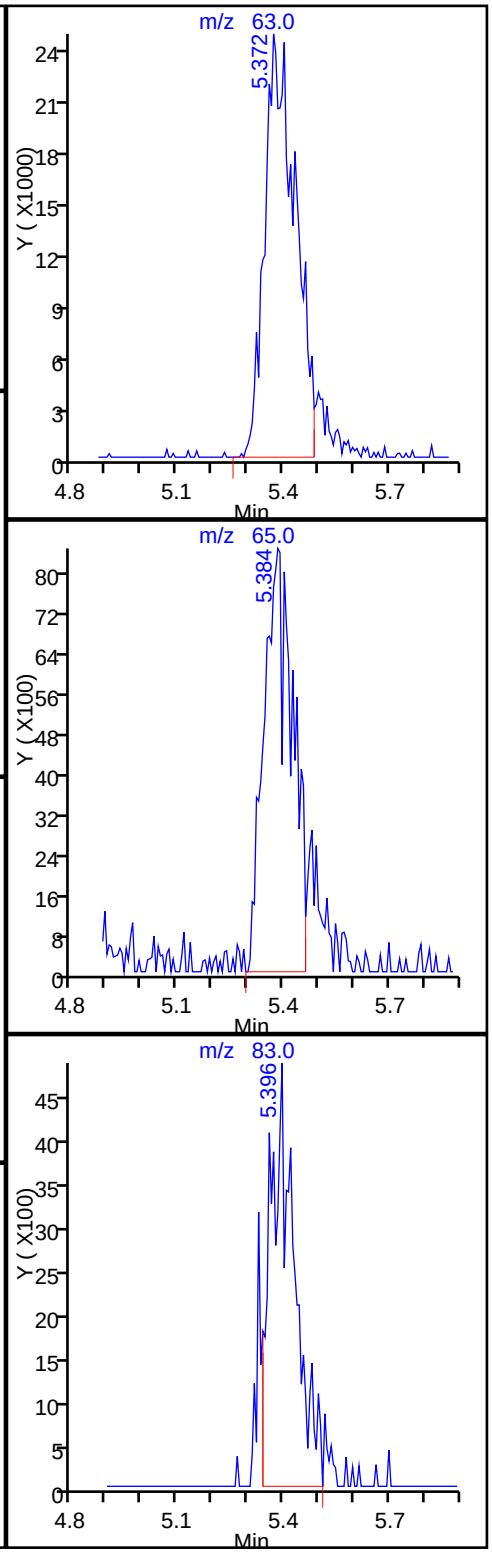
Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D				
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3





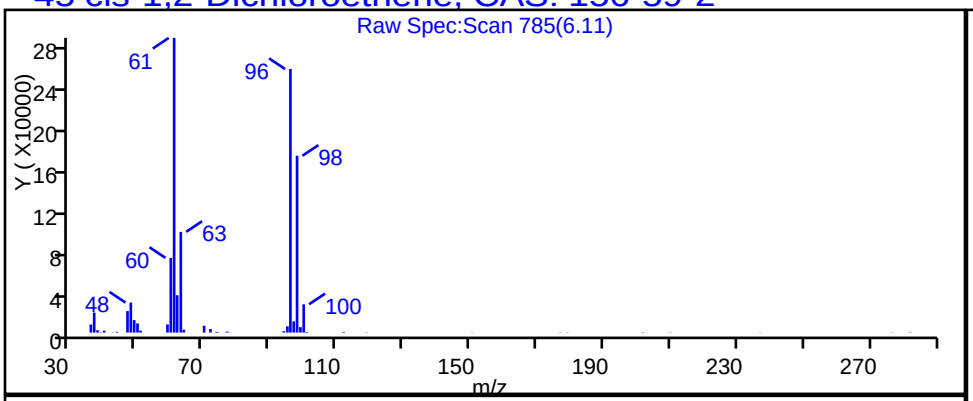
Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

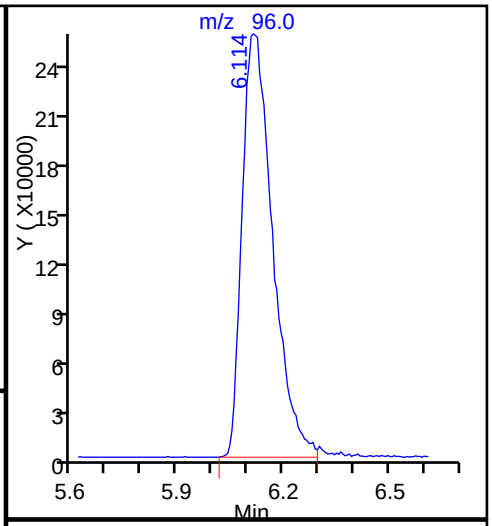
TestAmerica Pittsburgh

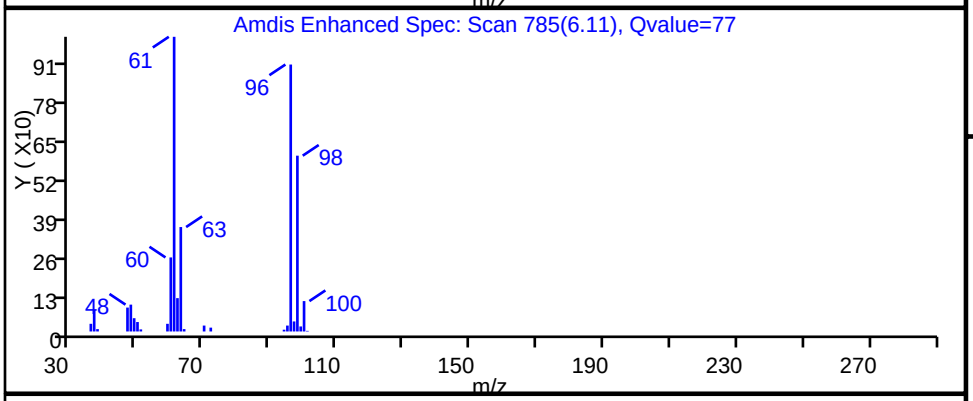
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D

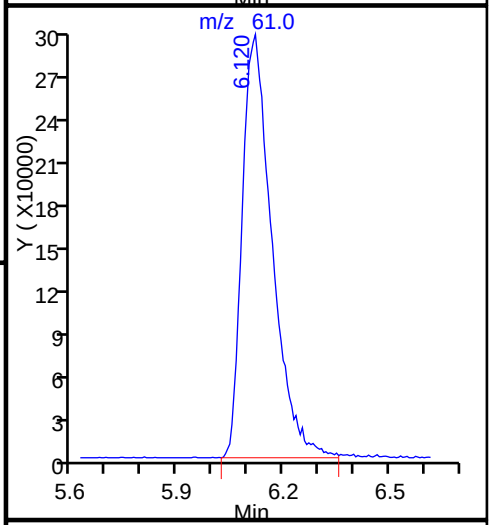
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

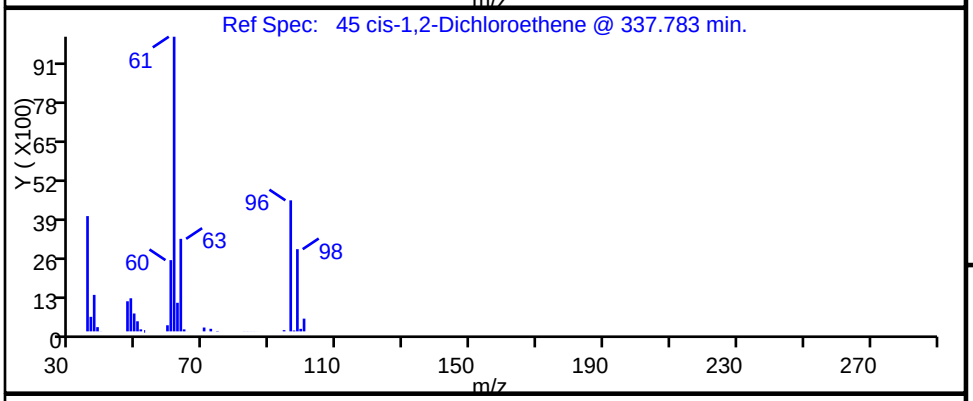
45 cis-1,2-Dichloroethene, CAS: 156-59-2

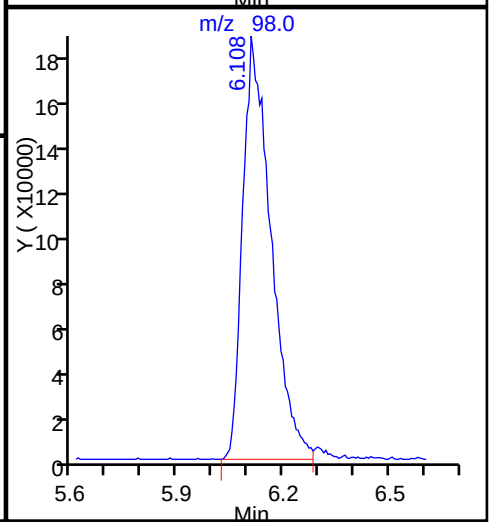


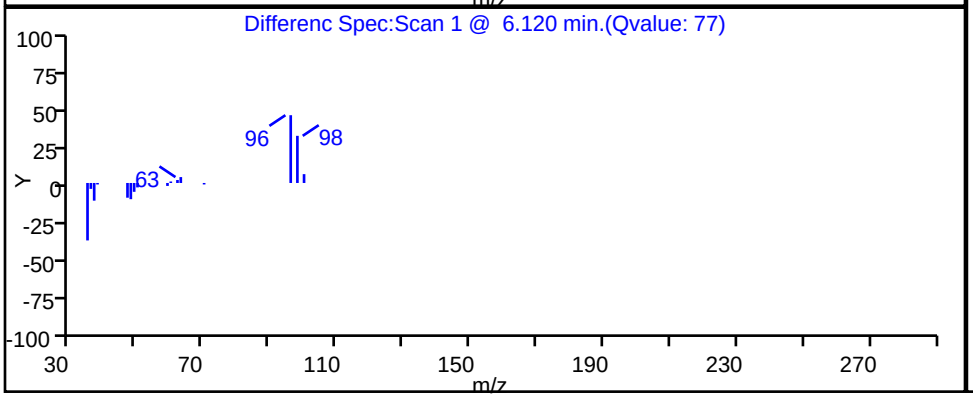










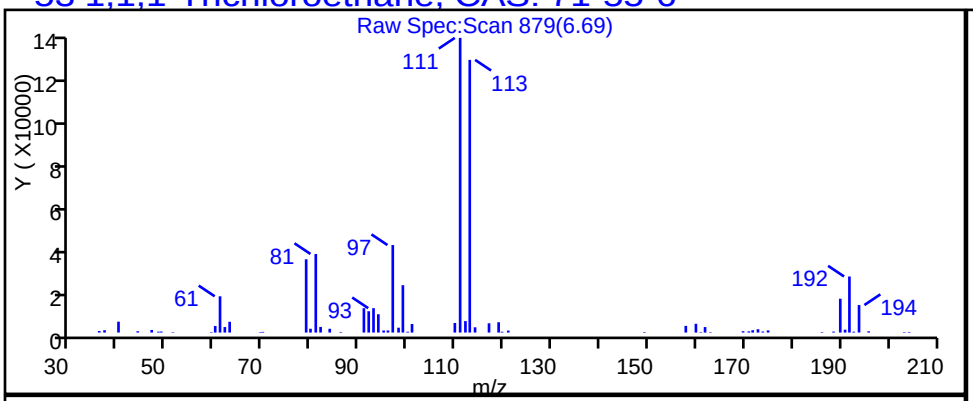


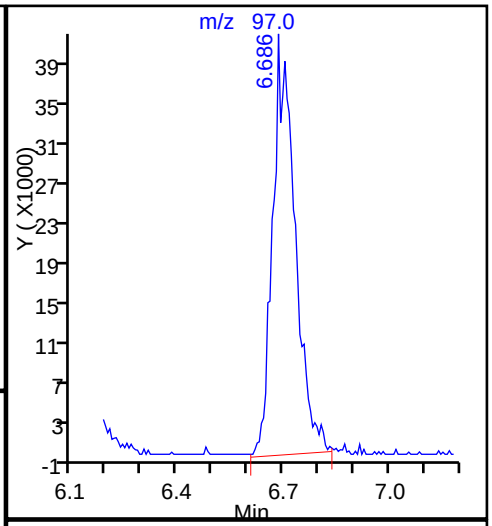
Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

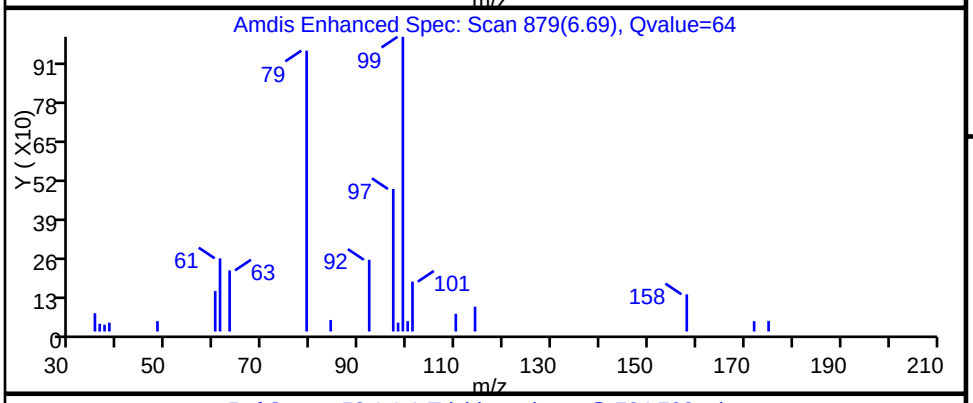
TestAmerica Pittsburgh

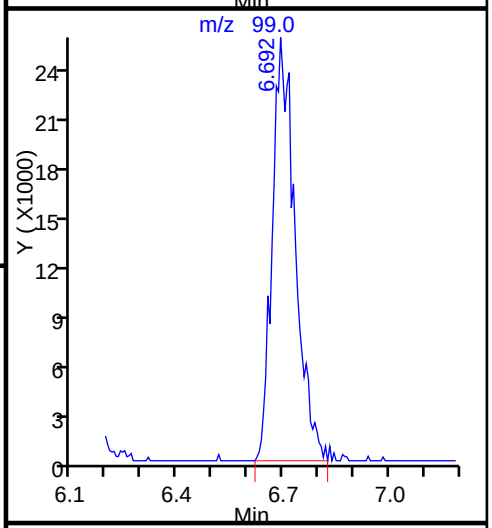
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D				
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

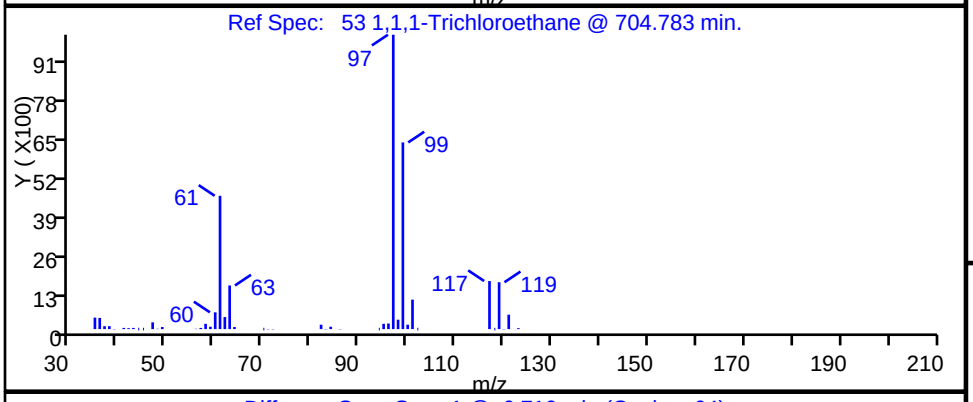
53 1,1,1-Trichloroethane, CAS: 71-55-6

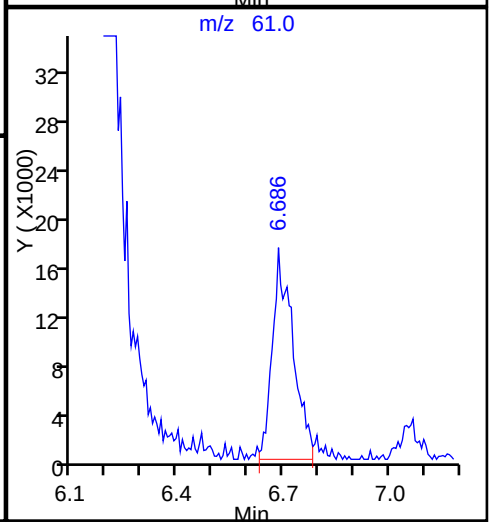


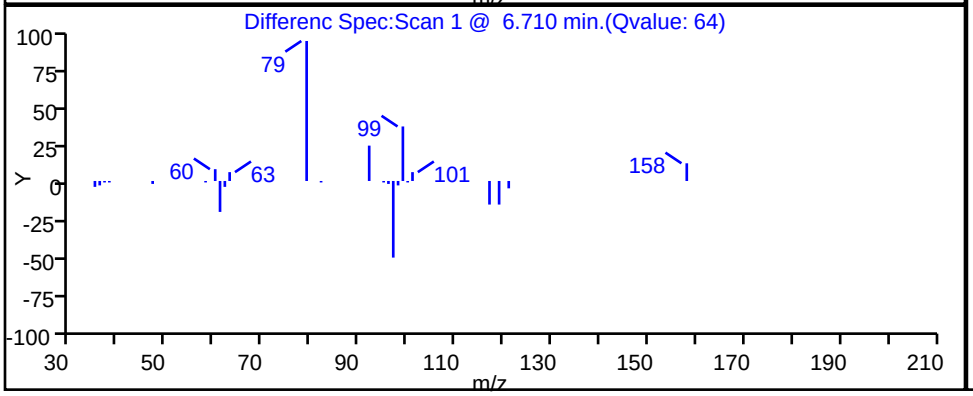












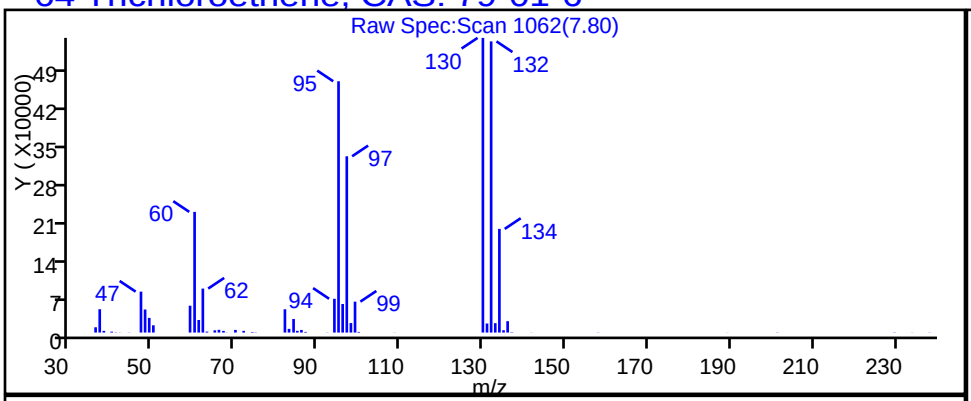
Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

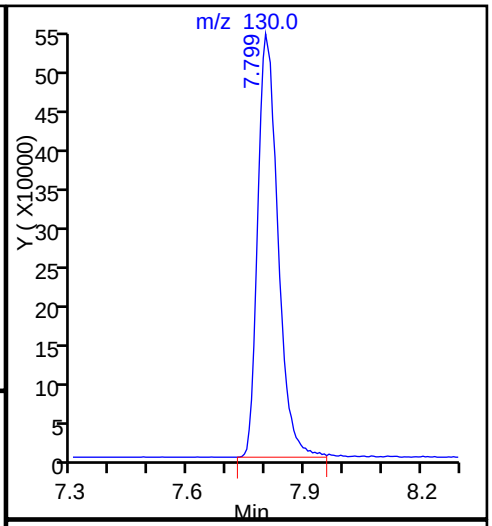
TestAmerica Pittsburgh

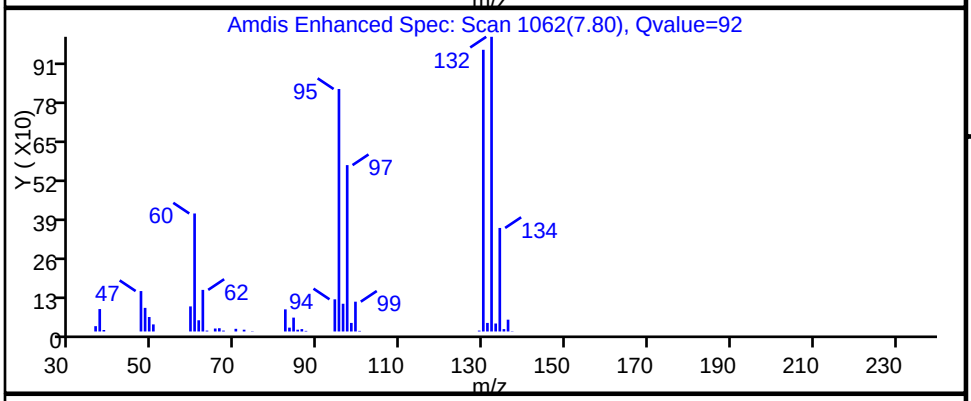
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D

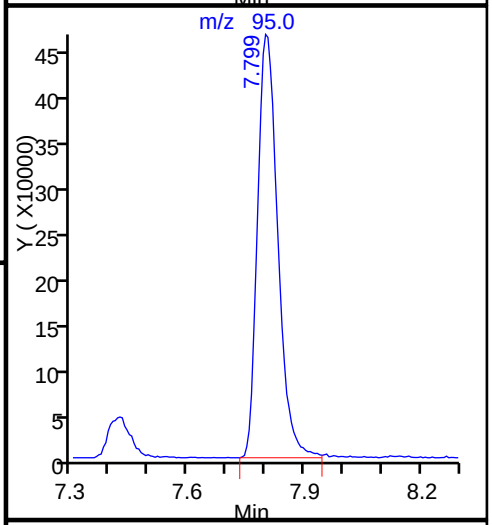
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

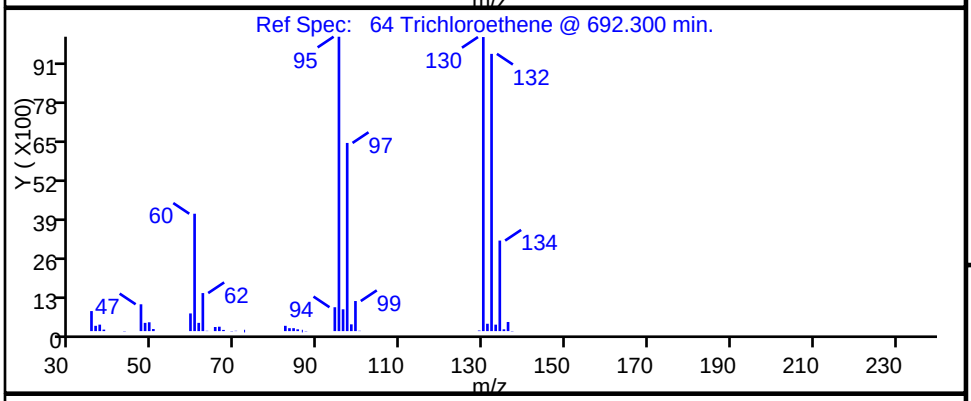
64 Trichloroethene, CAS: 79-01-6

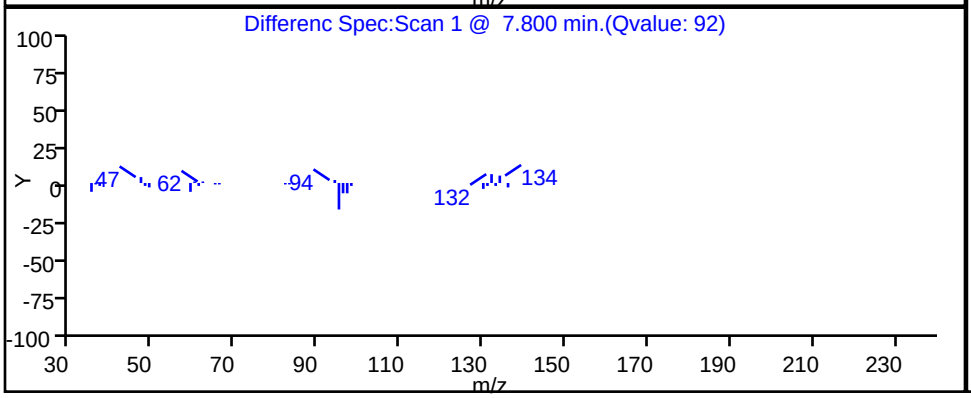


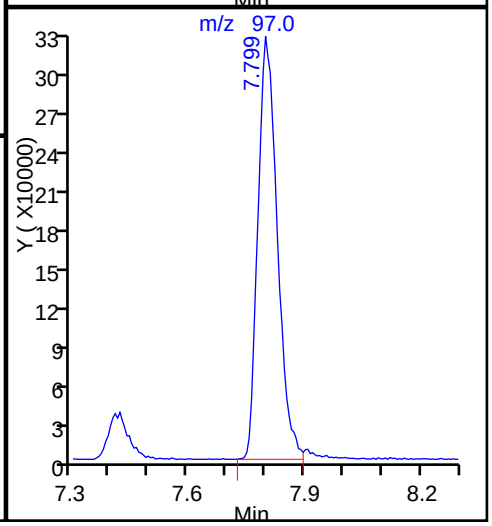












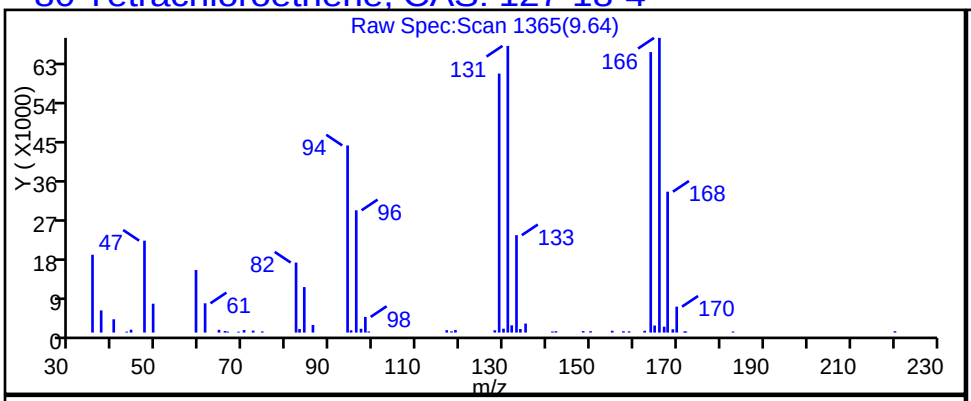
Report Date: 04-Jun-2015 07:49:37 Chrom Revision: 2.2 05-May-2015 11:39:10

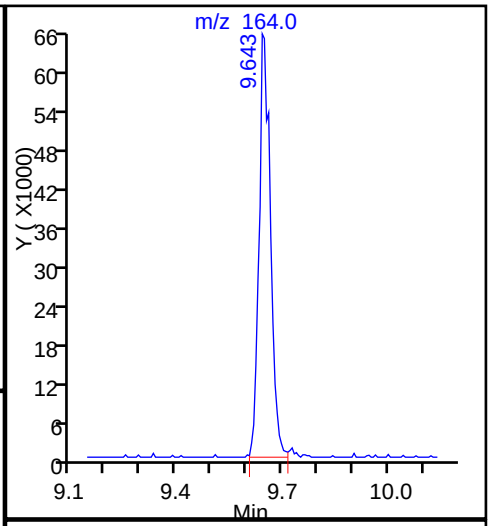
TestAmerica Pittsburgh

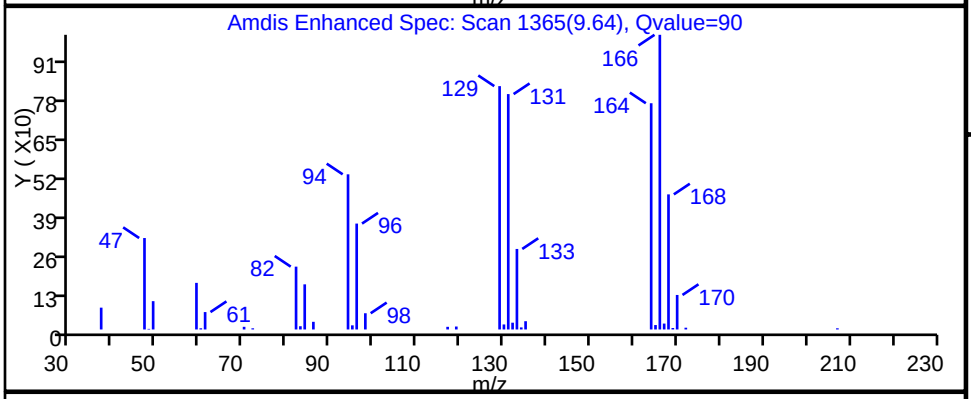
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D

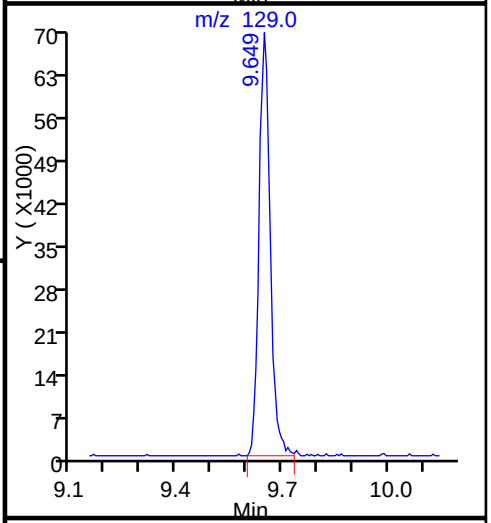
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

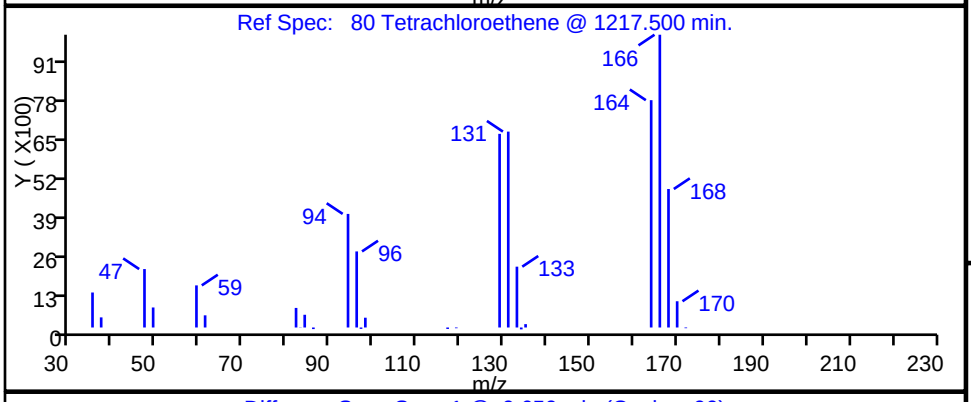
80 Tetrachloroethene, CAS: 127-18-4

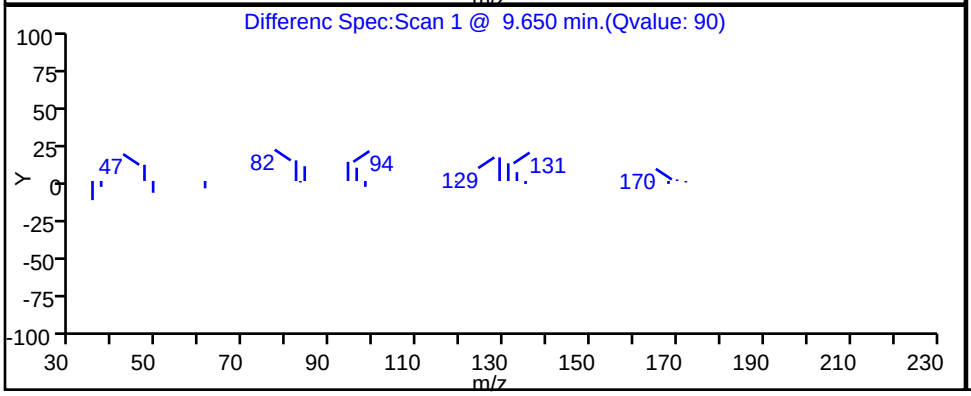


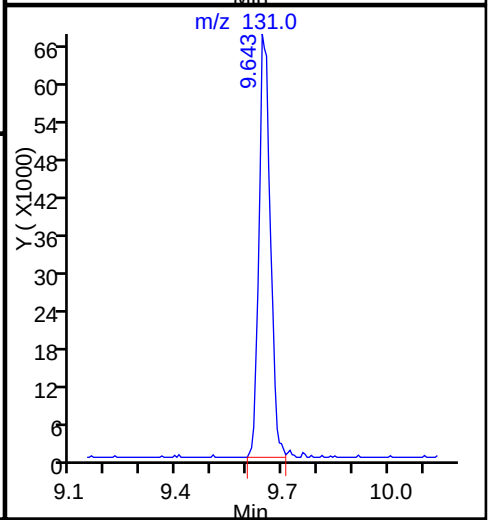












Manual Integration/User Assign Peak Report

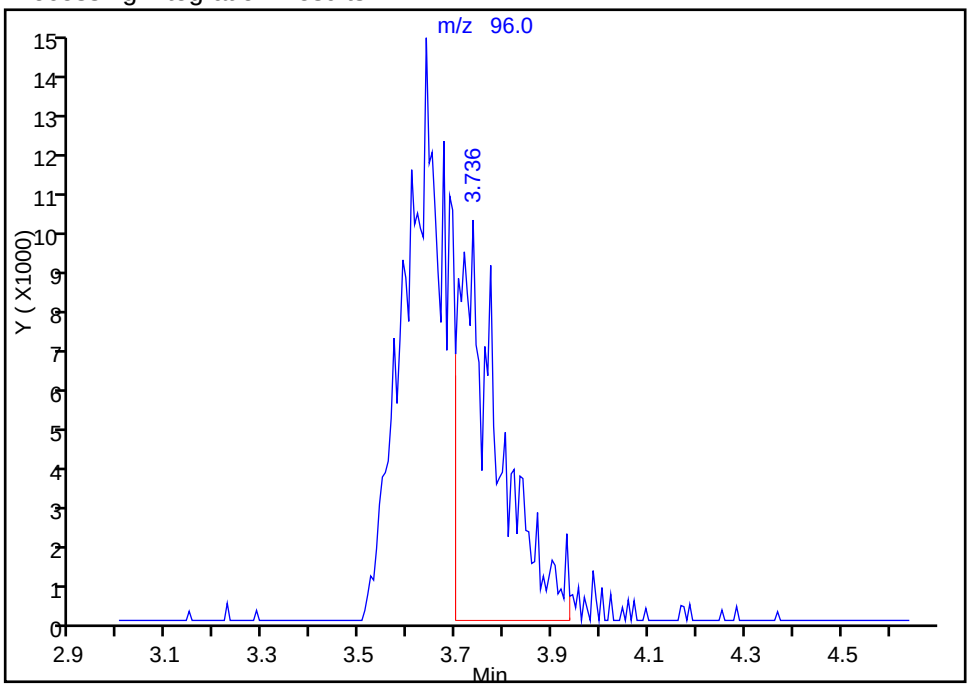
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D				
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

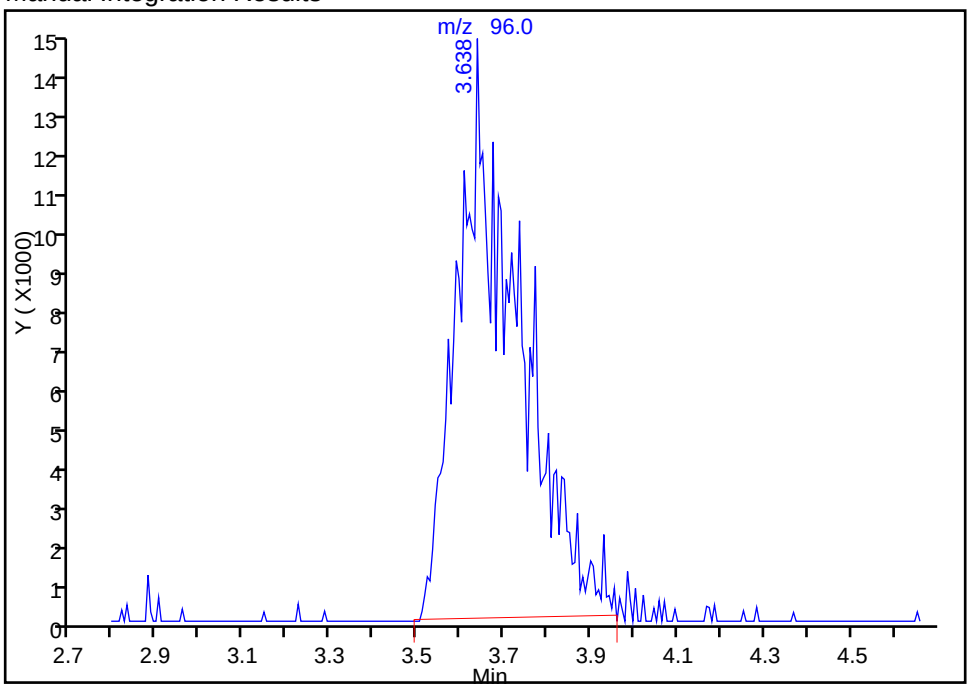
Processing Integration Results

RT: 3.74
Area: 56099
Amount: 22.078786
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 133510
Amount: 52.545300
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 18:21:24
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

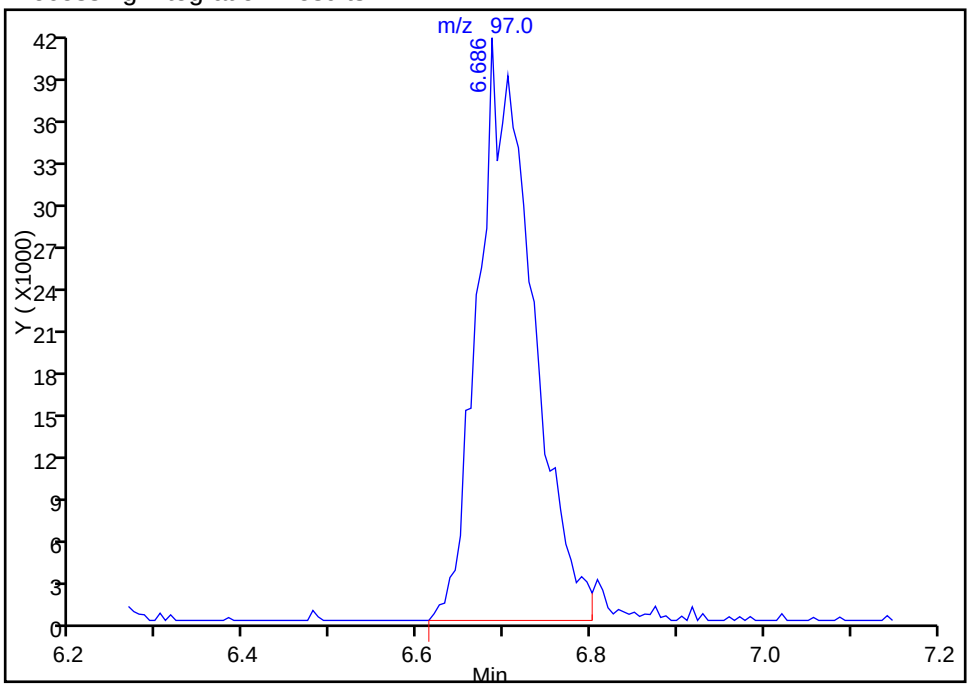
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060320.D				
Injection Date:	03-Jun-2015 17:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Operator ID:	034635	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

53 1,1,1-Trichloroethane, CAS: 71-55-6

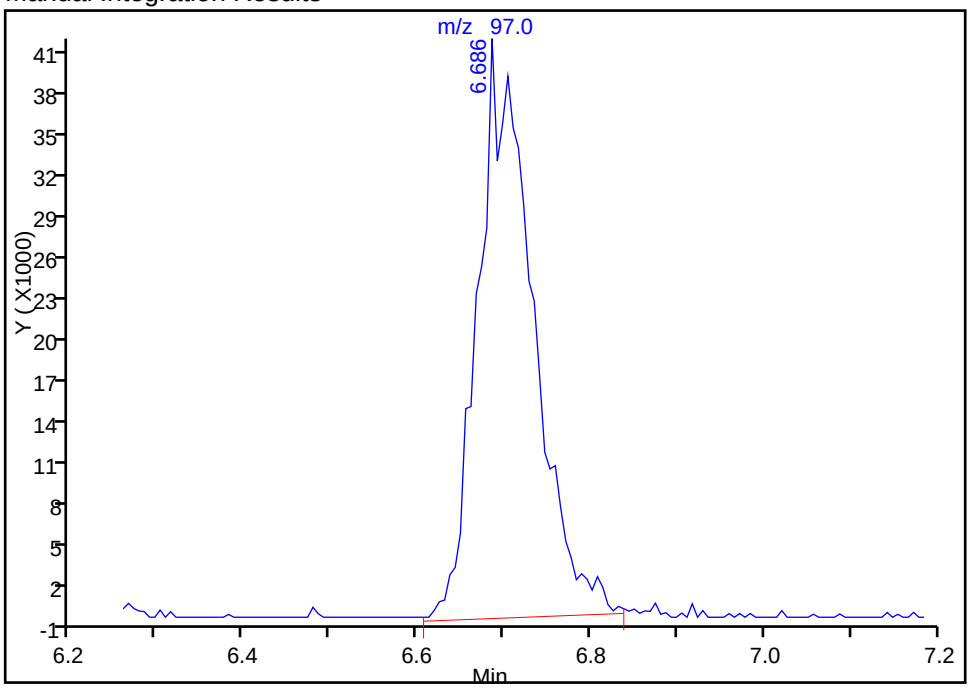
Processing Integration Results

RT: 6.69
Area: 180309
Amount: 38.161046
Amount Units: ng



Manual Integration Results

RT: 6.69
Area: 183240
Amount: 38.781371
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 18:21:24
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-50S-0/1-0 | Lab Sample ID: 180-44401-7

Matrix: Water | Lab File ID: 7060220.D

Analysis Method: 8260C | Date Collected: 05/21/2015 08:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 19:16

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	120		25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	25	U	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	25	U	25	2.9
156-59-2	*cis-1,2-Dichloroethene*	*2200*	*E*	*25*	*5.9*
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	5.6	J	25	4.3
71-55-6	1,1,1-Trichloroethane	330		25	7.2
56-23-5	Carbon tetrachloride	7.7	J	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	*Trichloroethene*	*1400*	*E*	*25*	*3.6*
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	560		25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-50S-0/1-0 | Lab Sample ID: 180-44401-7

Matrix: Water | Lab File ID: 7060220.D

Analysis Method: 8260C | Date Collected: 05/21/2015 08:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 19:16

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		64-135
2037-26-5	Toluene-d8 (Surr)	55	X	71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	84		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D
Lims ID: 180-44401-E-7 Lab Sample ID: 180-44401-7
Client ID: HD-MW-50S-0/1-0
Sample Type: Client
Inject. Date: 02-Jun-2015 19:16:30 ALS Bottle#: 12 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 25.0000
Sample Info: 180-44401-E-7
Misc. Info.: 180-0007217-020
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 08:32:34 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 08:10:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.586	4.568	0.018	77	121623	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.415	0.000	99	723041	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.469	0.001	85	351186	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	97	367365	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.691	-0.012	88	192736	167.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.056	7.050	0.006	96	152773	138.9	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	92	576668	110.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	416395	177.1	
12 Chloromethane	50		2.049				ND	
13 Vinyl chloride	62		2.219				ND	
15 Bromomethane	94		2.578				ND	
16 Chloroethane	64		2.651				ND	
22 1,1-Dichloroethene	96	3.655	3.655	0.000	67	94924	97.8	
24 Acetone	43		3.777				ND	
26 Carbon disulfide	76		3.935				ND	
31 Methylene Chloride	84		4.415				ND	
33 Acrylonitrile	53		4.793				ND	
34 trans-1,2-Dichloroethene	96		4.799				ND	
35 Methyl tert-butyl ether	73		4.847				ND	
37 1,1-Dichloroethane	63		5.371				ND	
45 cis-1,2-Dichloroethene	96	6.107	6.125	-0.018	75	2091312	1749.6	E
46 2-Butanone (MEK)	43		6.161				ND	
49 Chlorobromomethane	128		6.399				ND	
52 Chloroform	83	6.502	6.508	-0.006	38	8888	4.47	M
53 1,1,1-Trichloroethane	97	6.691	6.697	-0.006	97	471279	261.1	
56 Carbon tetrachloride	117	6.879	6.879	0.000	12	11222	6.16	M
58 Benzene	78		7.104				ND	
59 1,2-Dichloroethane	62		7.135				ND	
64 Trichloroethene	130	7.804	7.798	0.006	92	1635451	1146.5	E
67 1,2-Dichloropropane	63		8.029				ND	
70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.331				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.653	9.653	0.000	93	639615	445.2	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.012				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

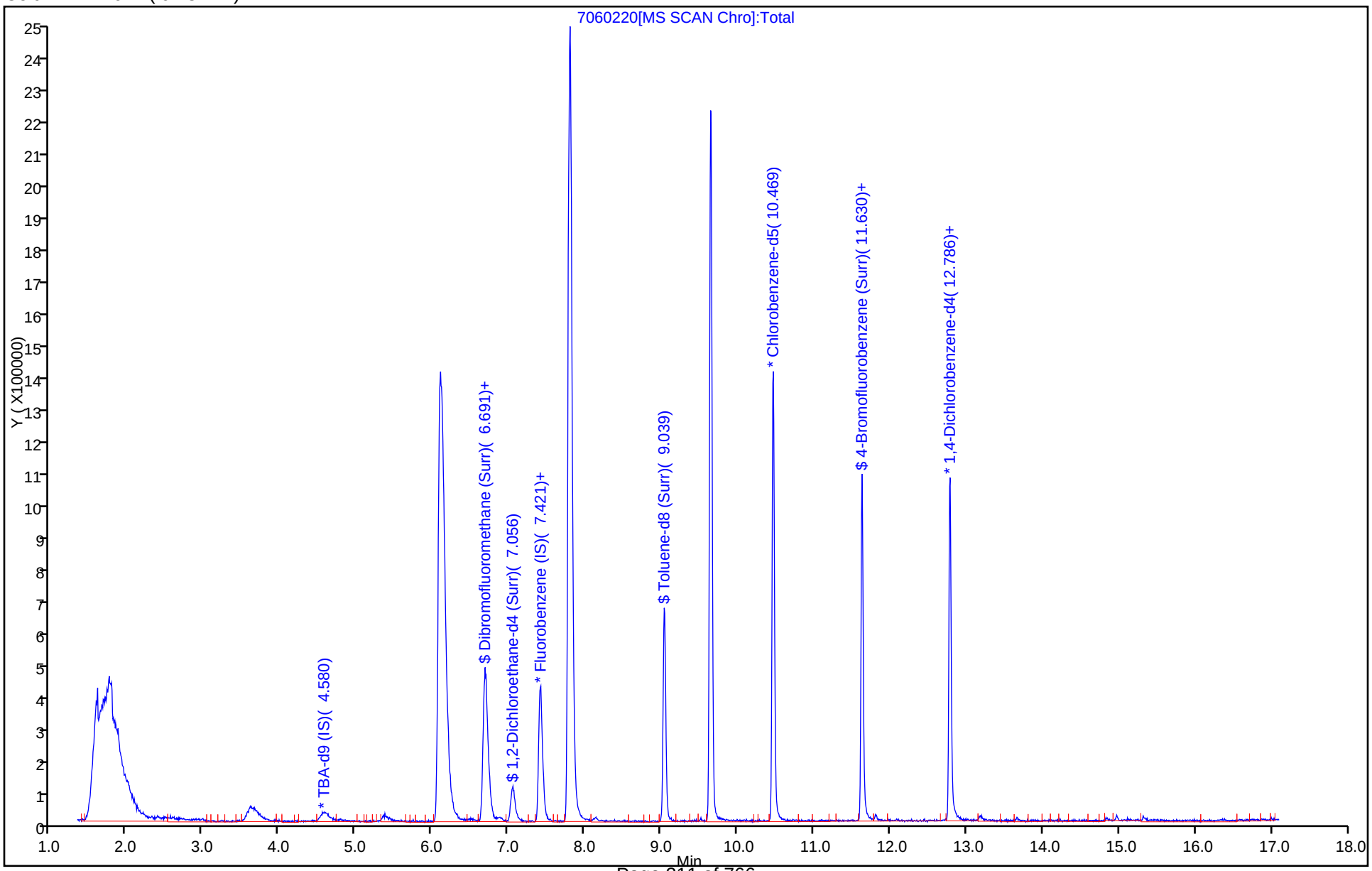
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D

Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7	Worklist Smp#:	20
Client ID:	HD-MW-50S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



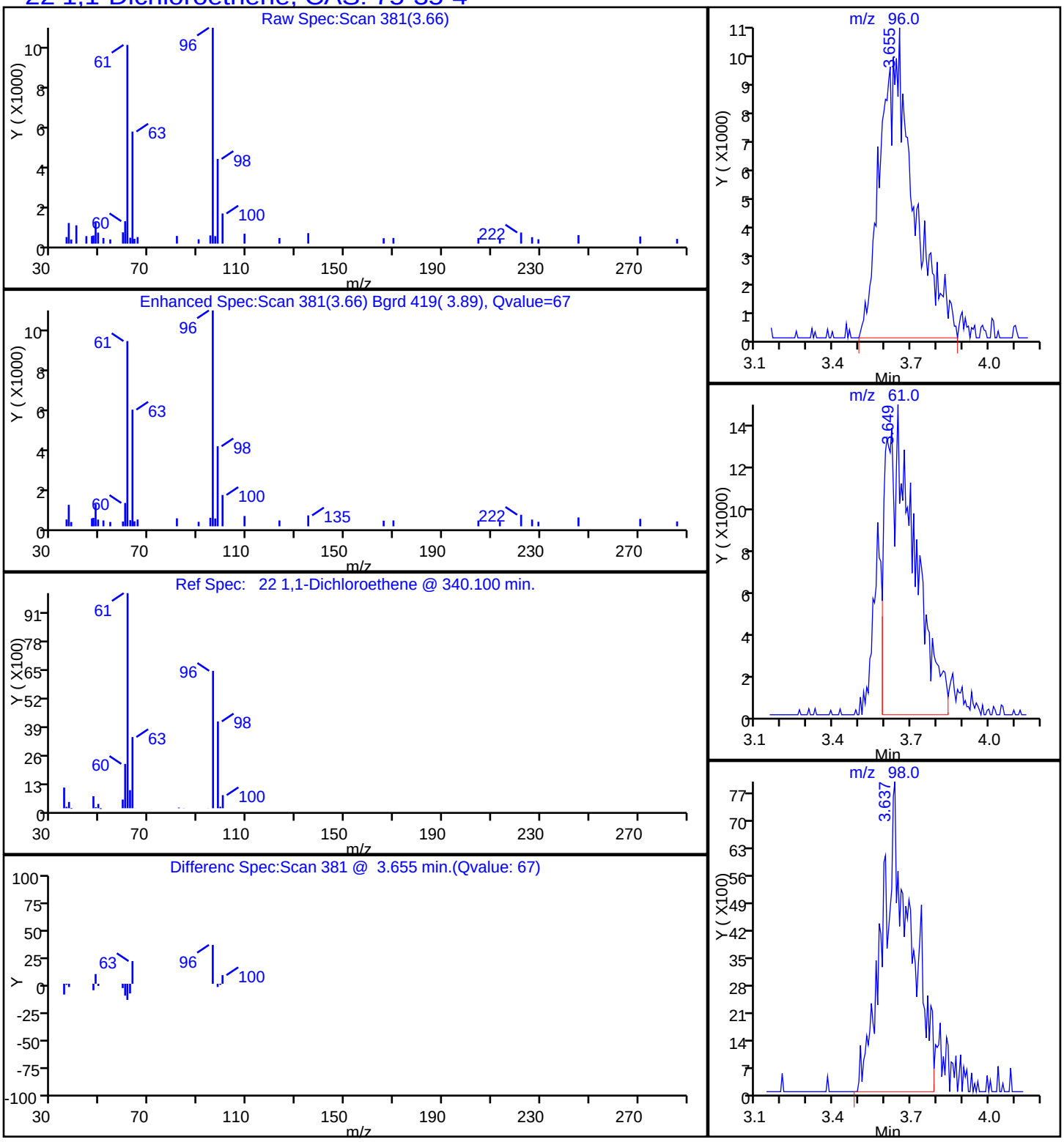
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D

Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

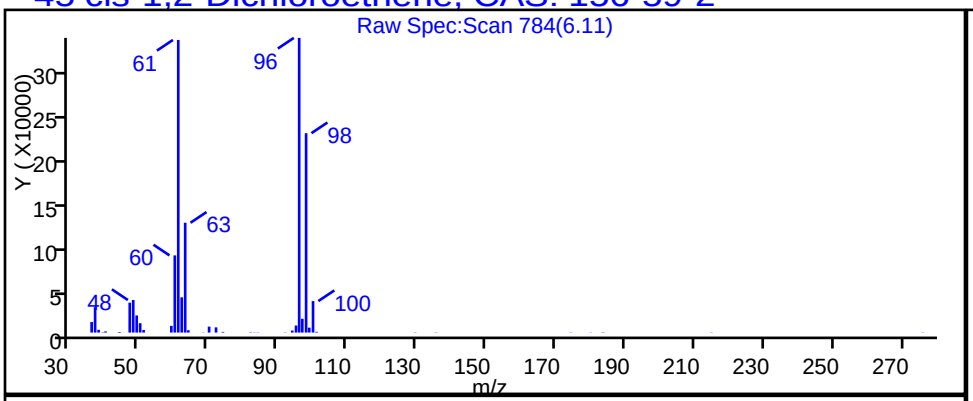


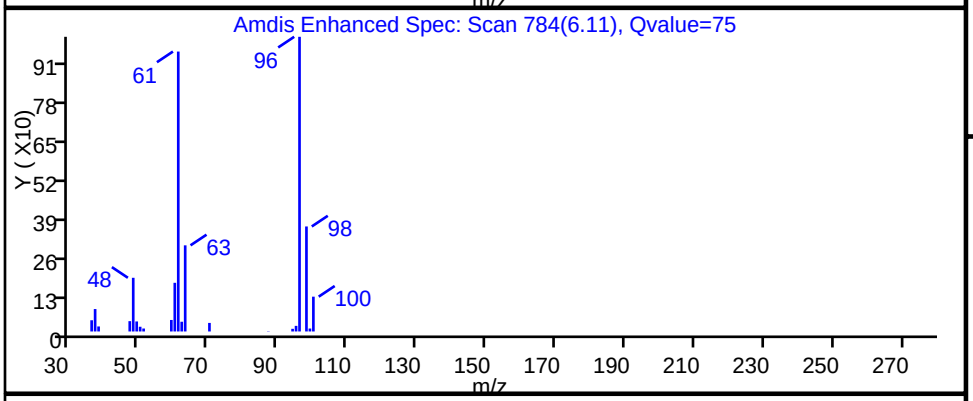
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

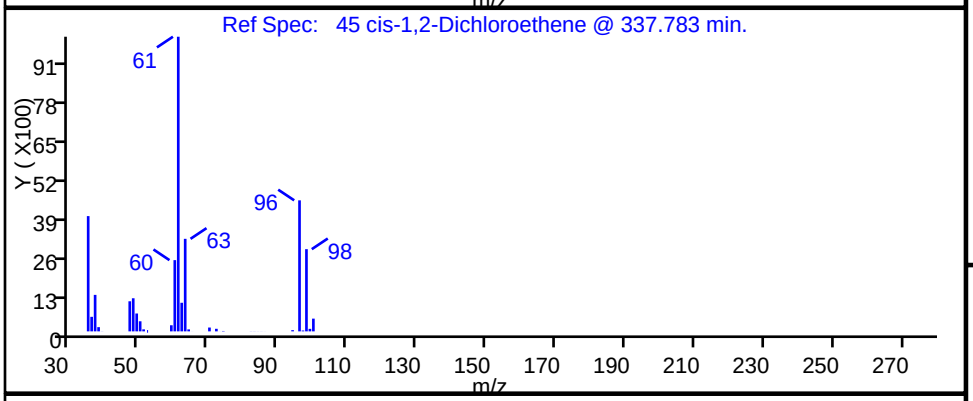
TestAmerica Pittsburgh

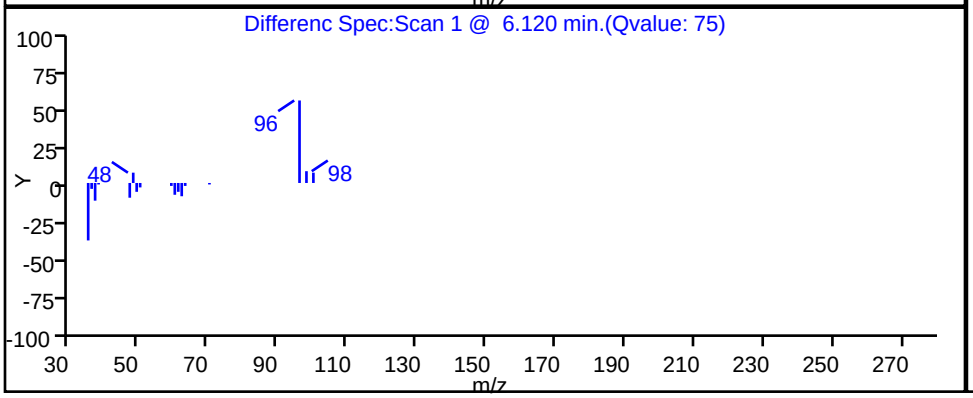
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D				
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

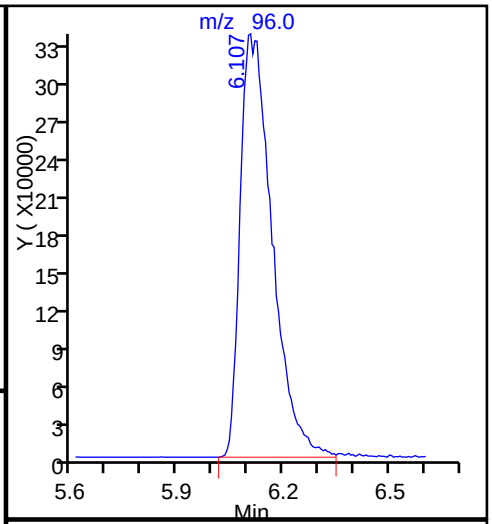
45 cis-1,2-Dichloroethene, CAS: 156-59-2

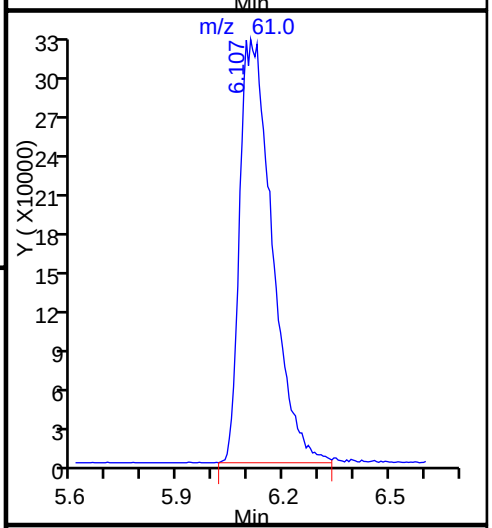


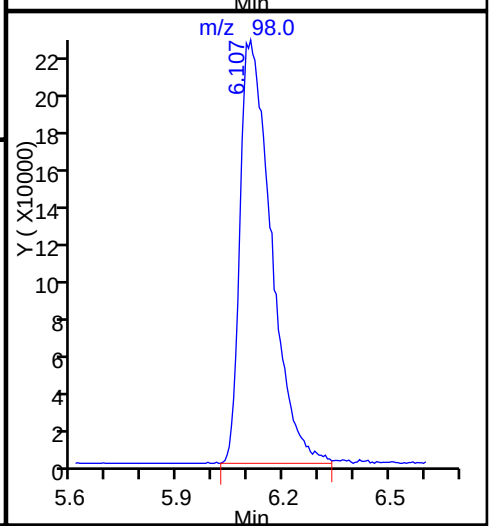












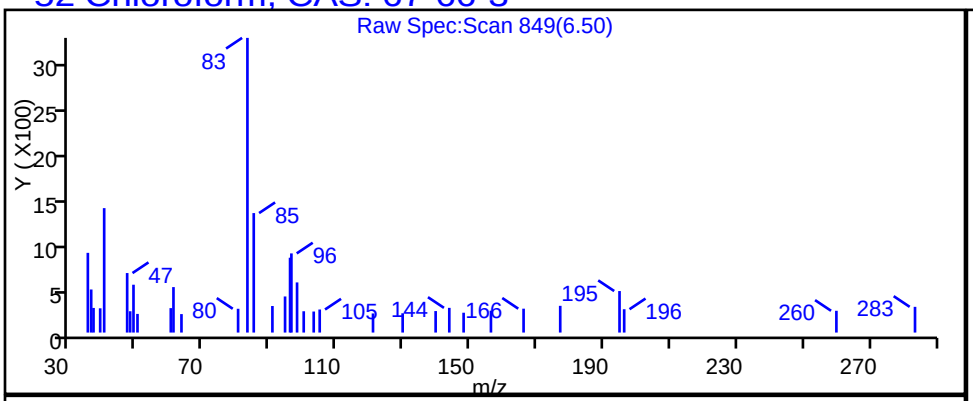
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

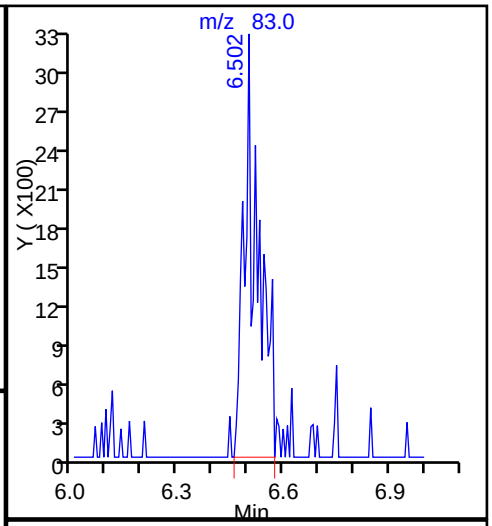
TestAmerica Pittsburgh

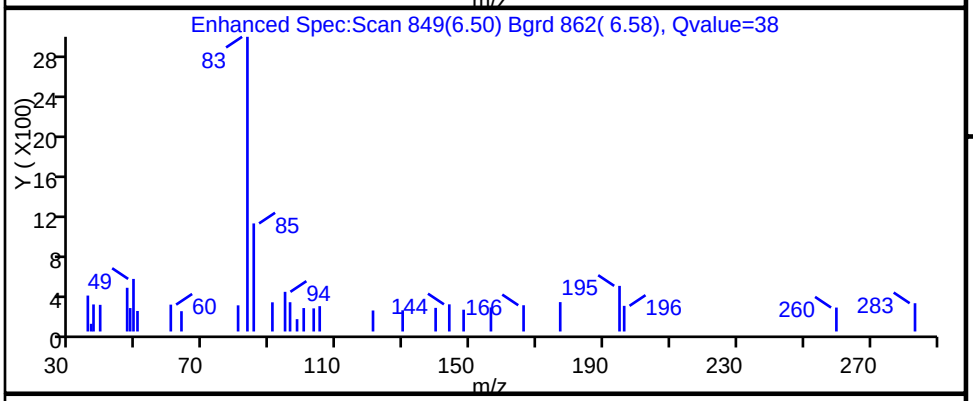
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D

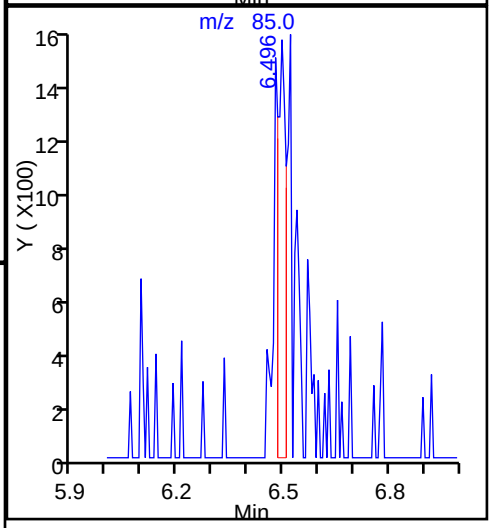
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

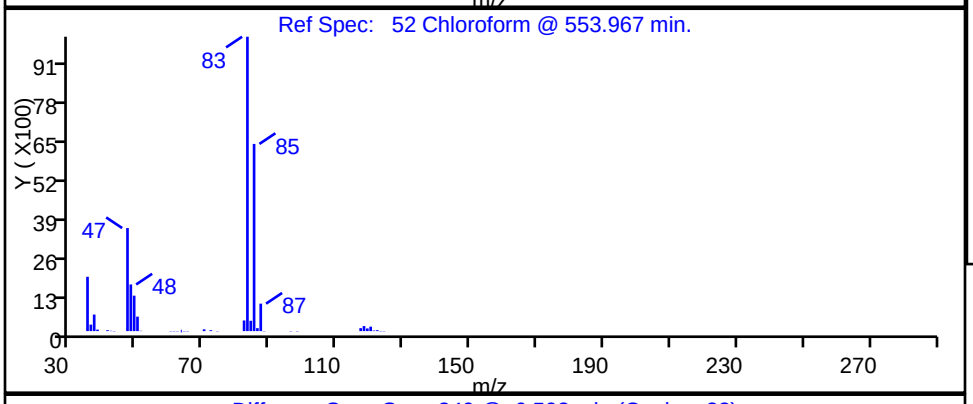
52 Chloroform, CAS: 67-66-3

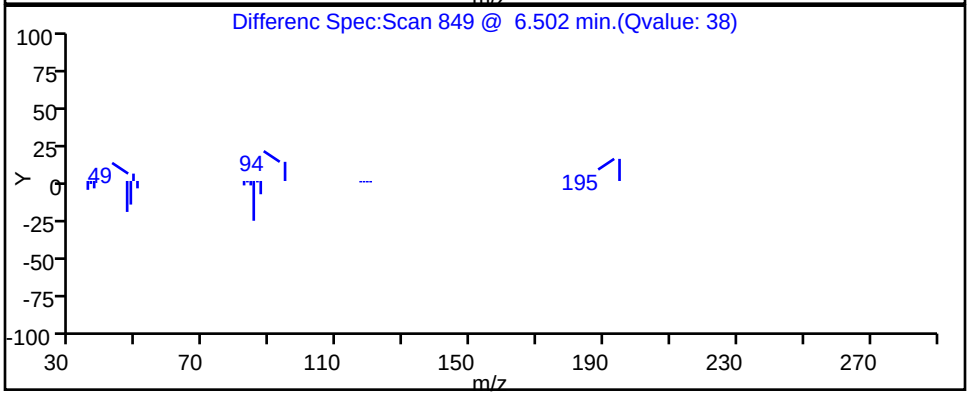










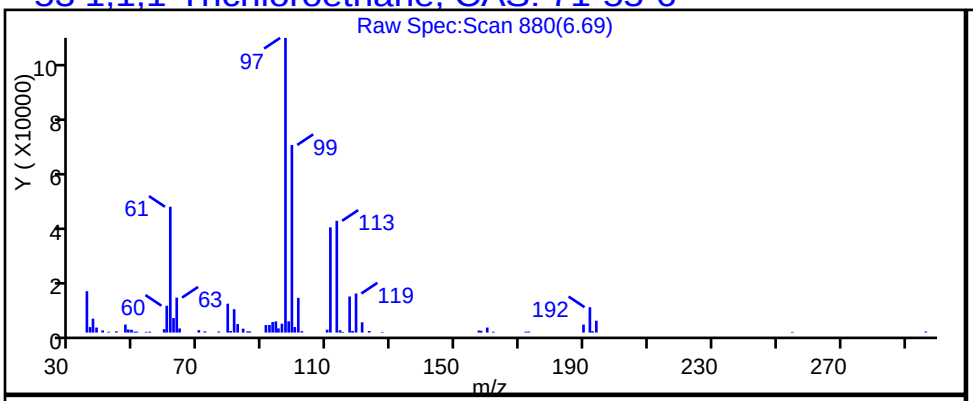


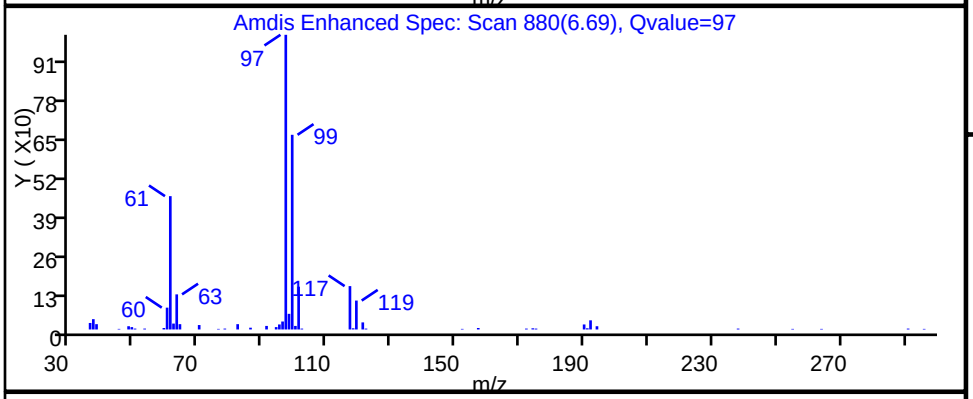
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

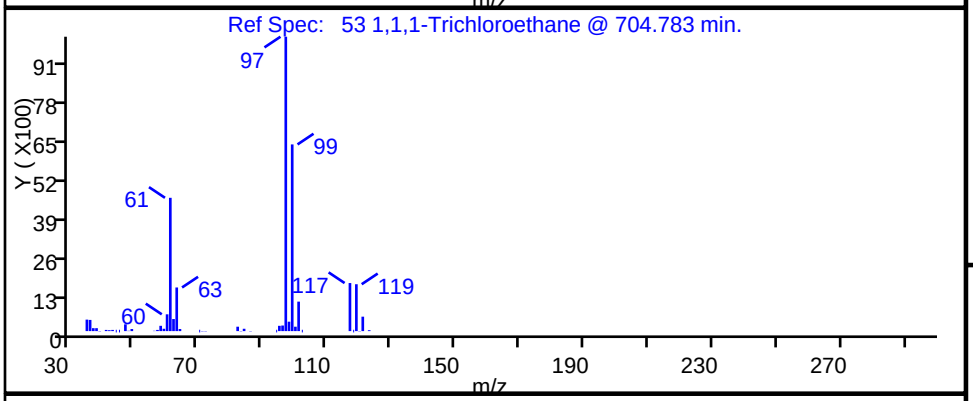
TestAmerica Pittsburgh

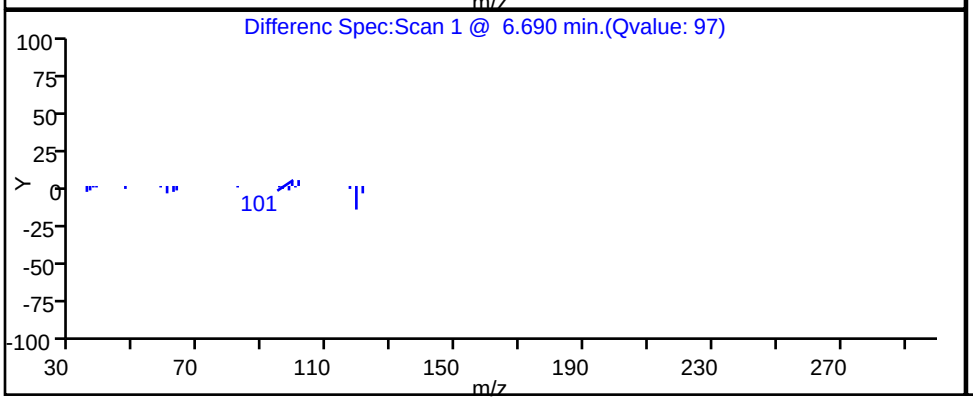
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D				
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

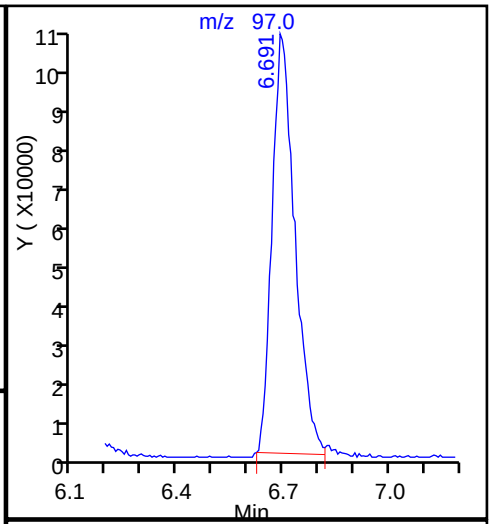
53 1,1,1-Trichloroethane, CAS: 71-55-6

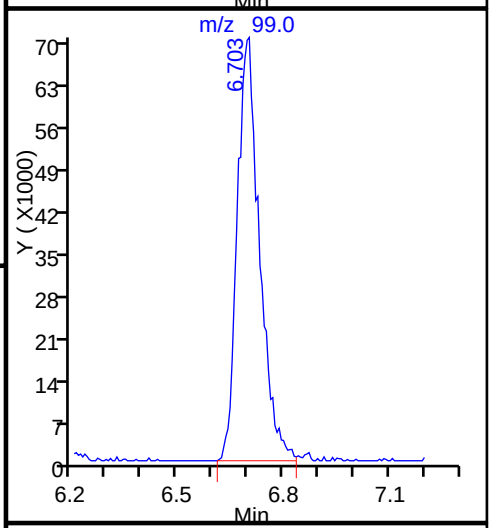


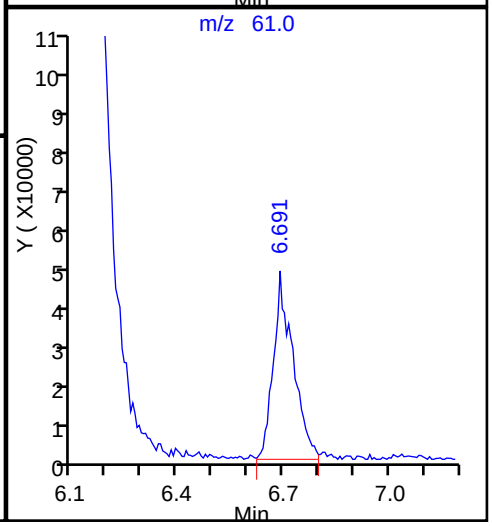










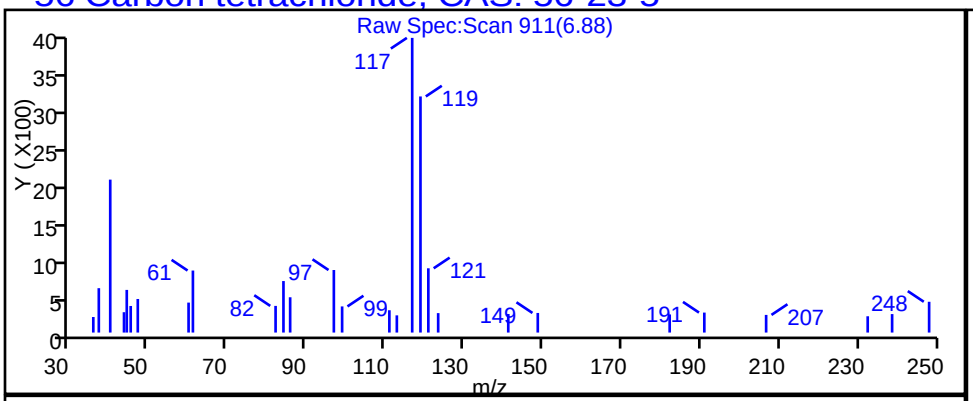


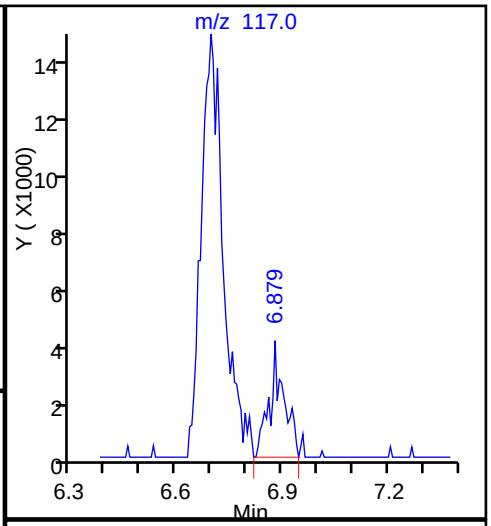
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

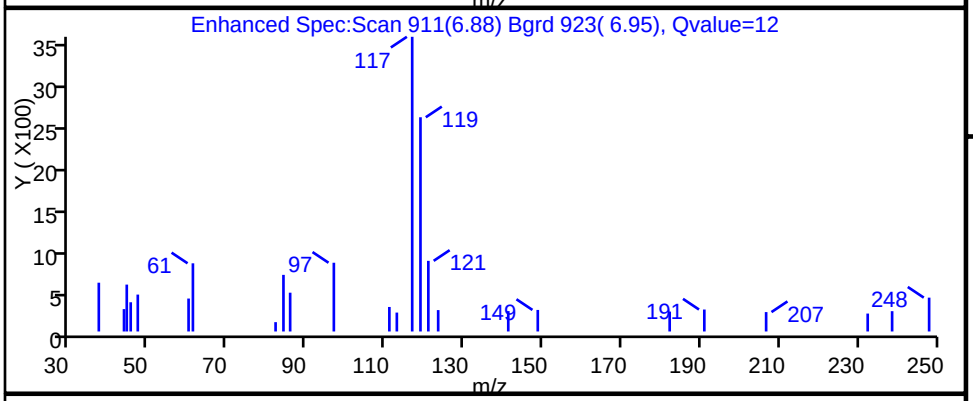
TestAmerica Pittsburgh

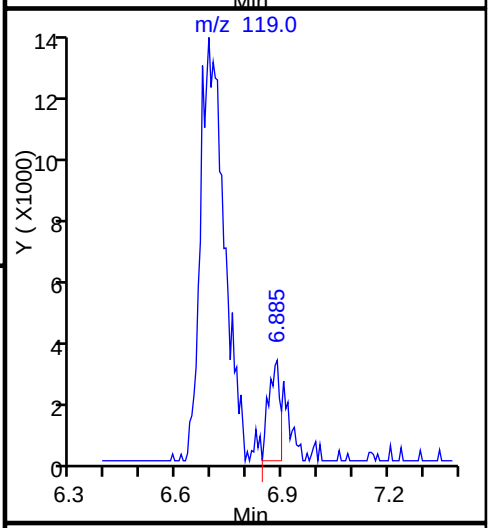
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D				
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

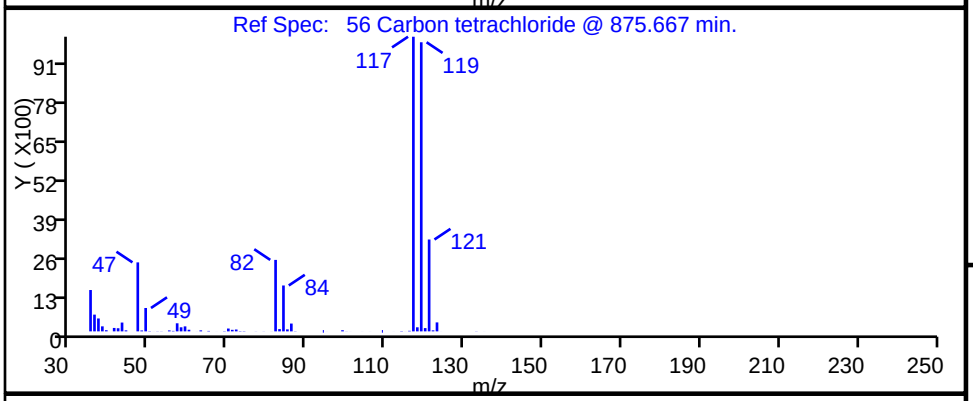
56 Carbon tetrachloride, CAS: 56-23-5

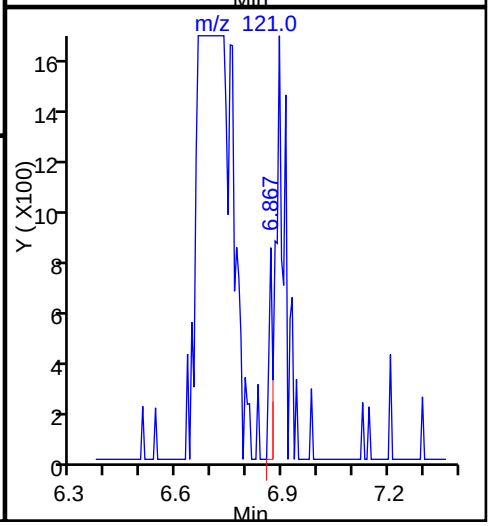


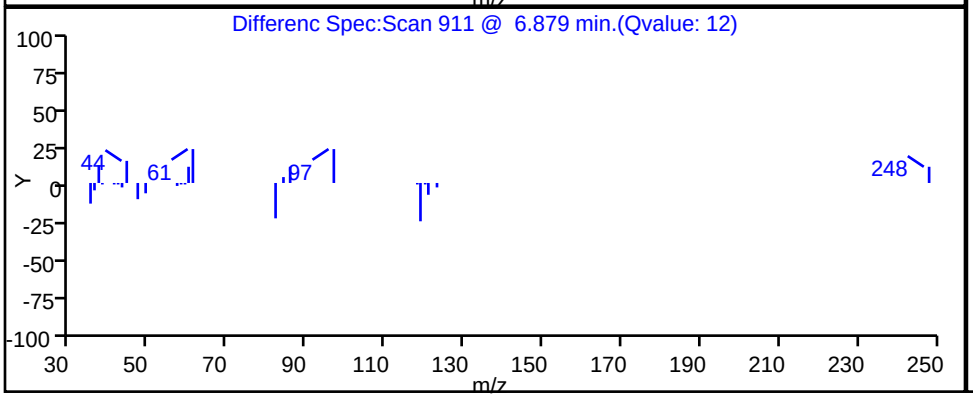












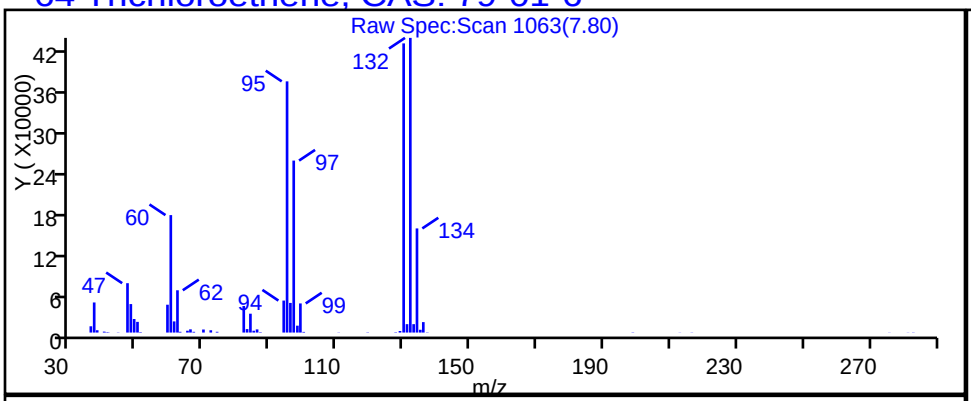
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

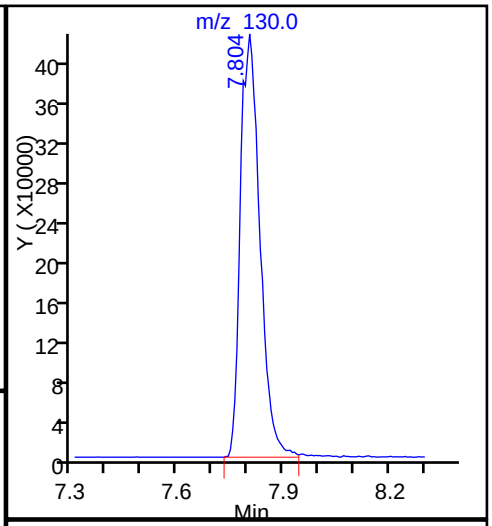
TestAmerica Pittsburgh

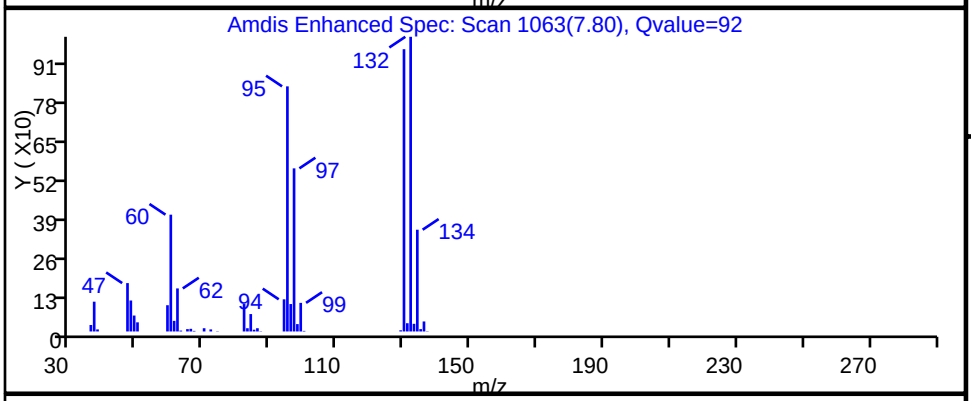
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D

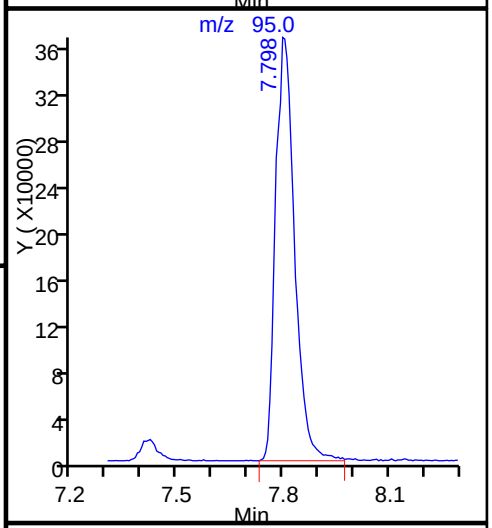
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

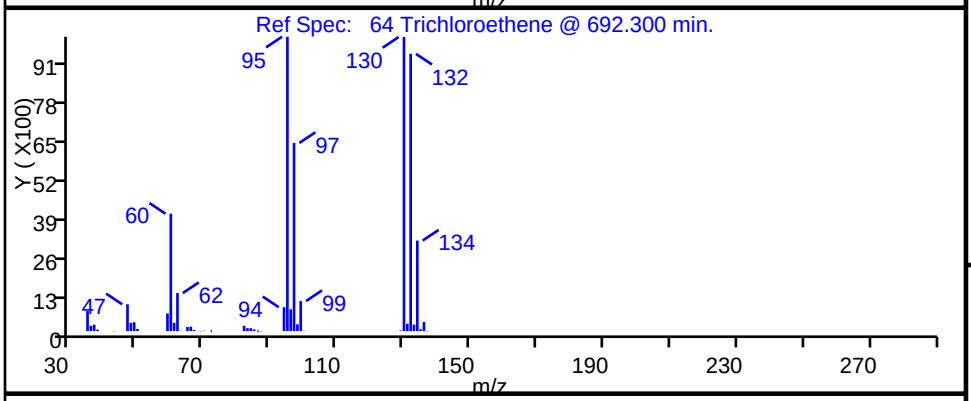
64 Trichloroethene, CAS: 79-01-6

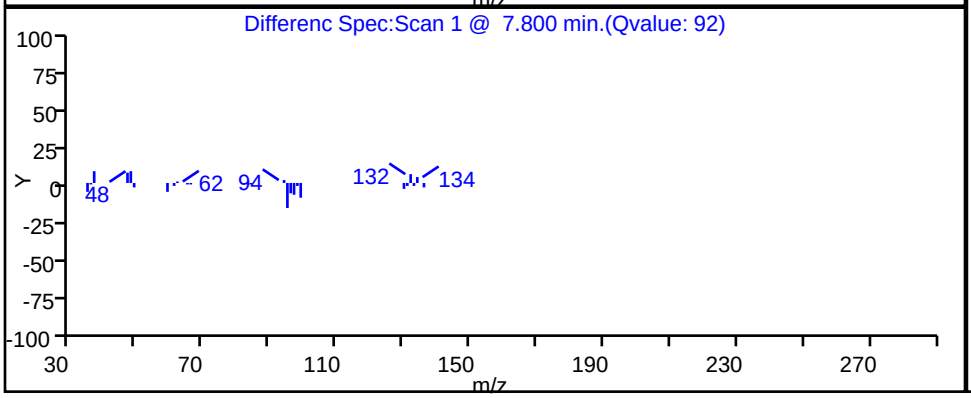


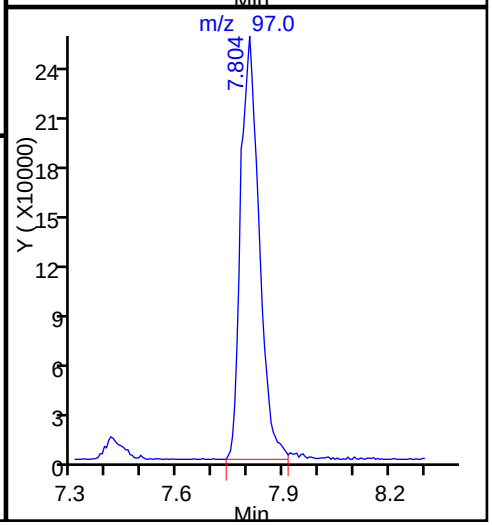












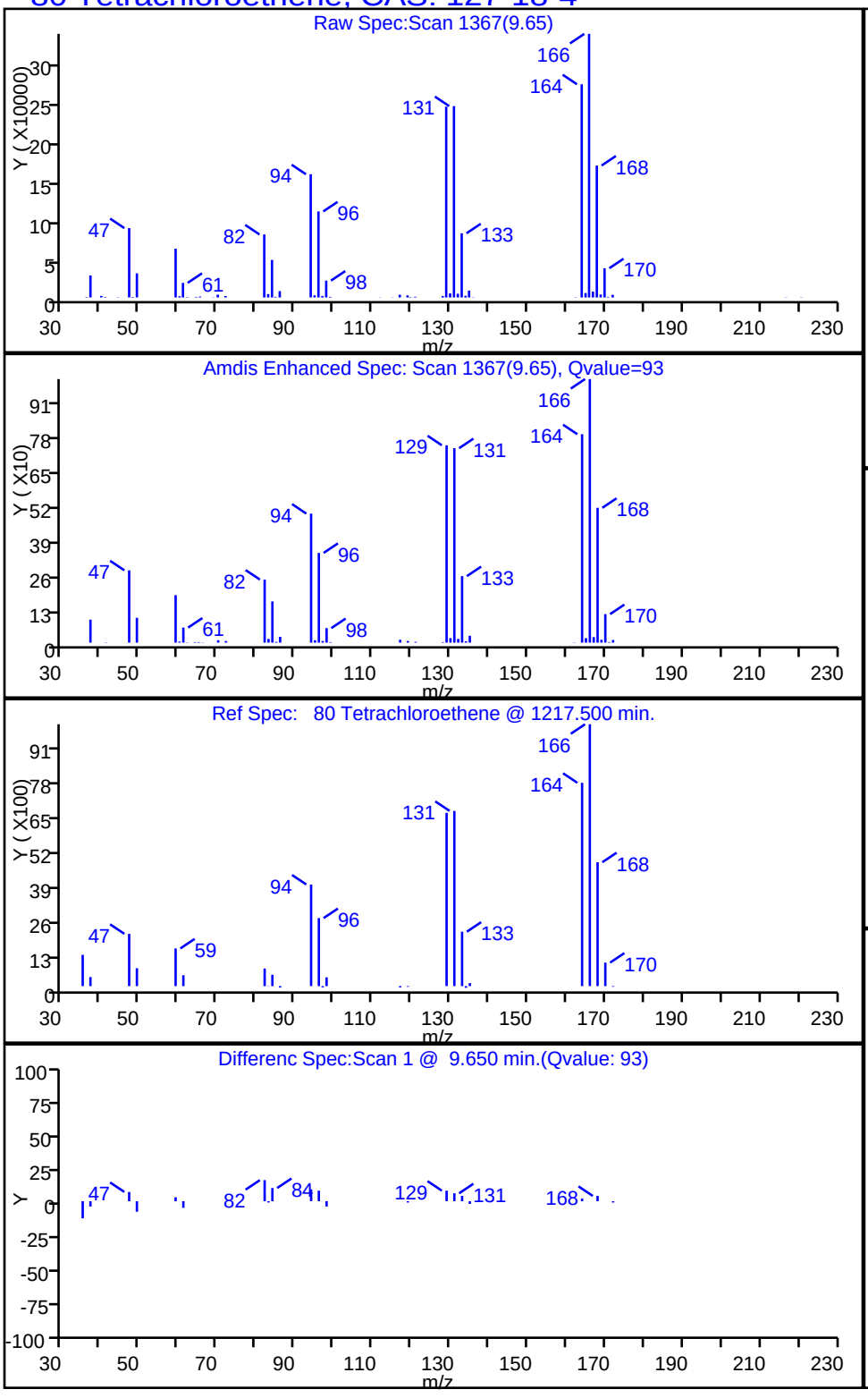
Report Date: 03-Jun-2015 08:33:55 Chrom Revision: 2.2 05-May-2015 11:39:10

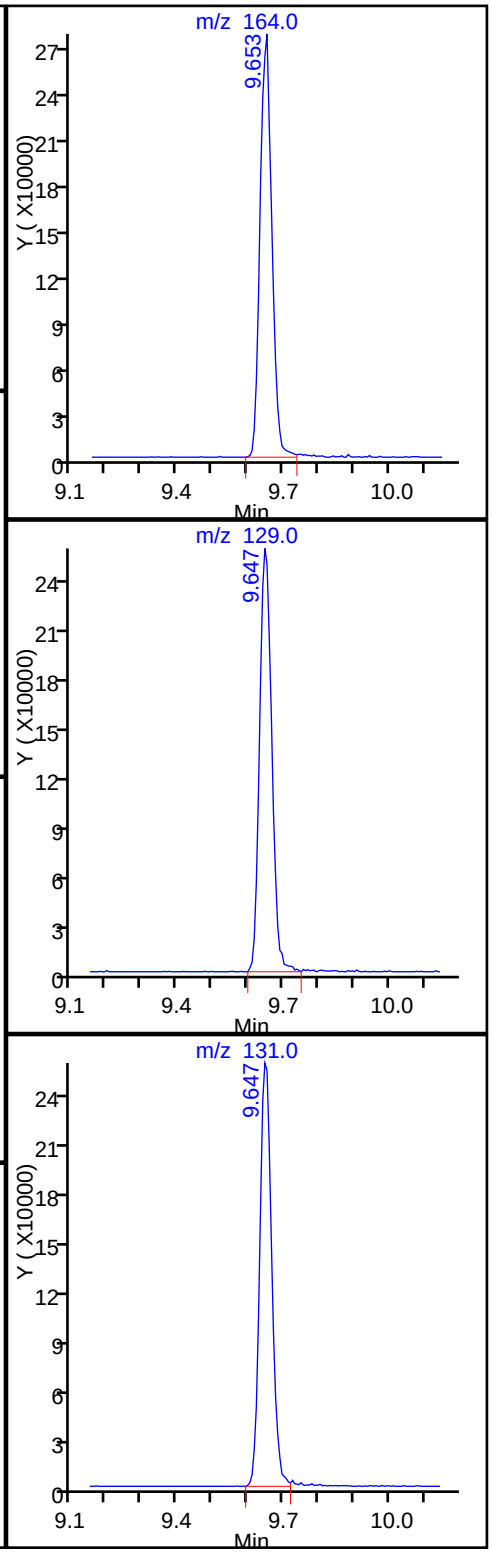
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D

Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





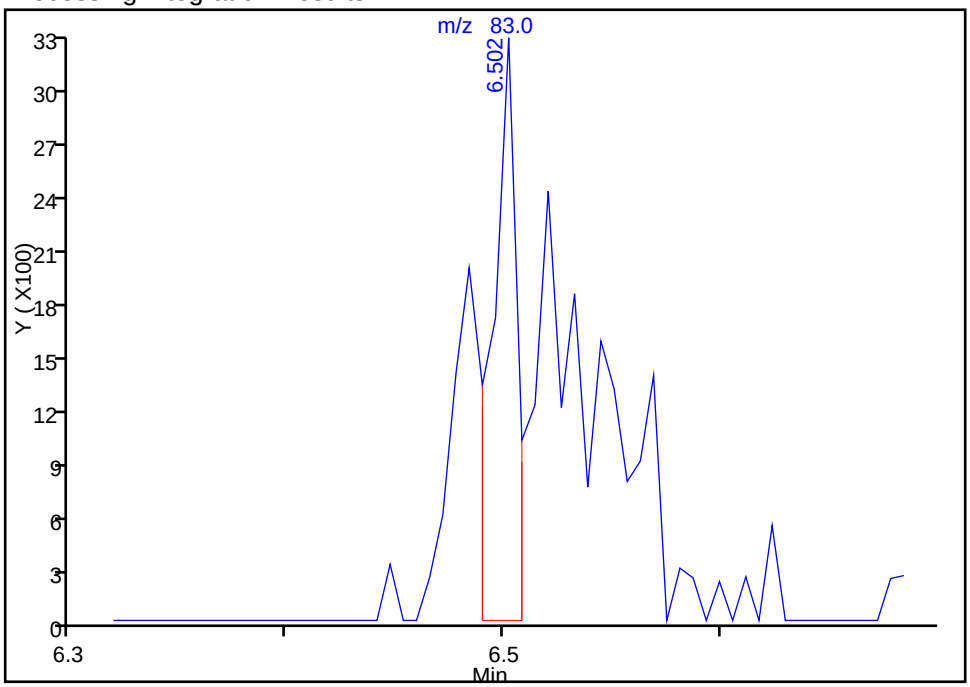
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D				
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

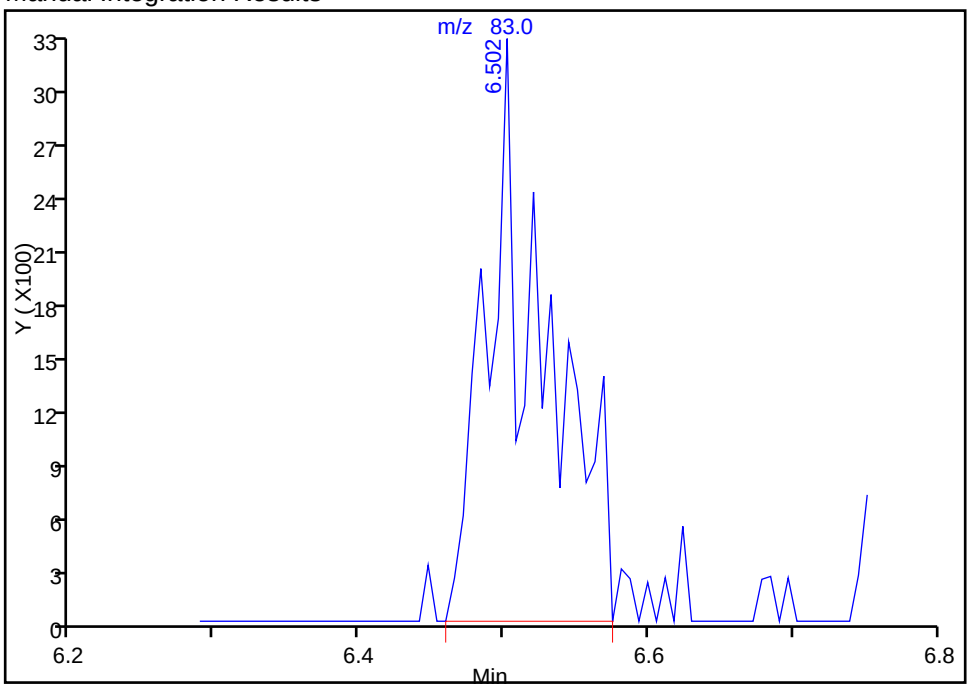
Processing Integration Results

RT: 6.50
Area: 2614
Amount: 1.314867
Amount Units: ng



Manual Integration Results

RT: 6.50
Area: 8888
Amount: 4.470750
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 08:10:00
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

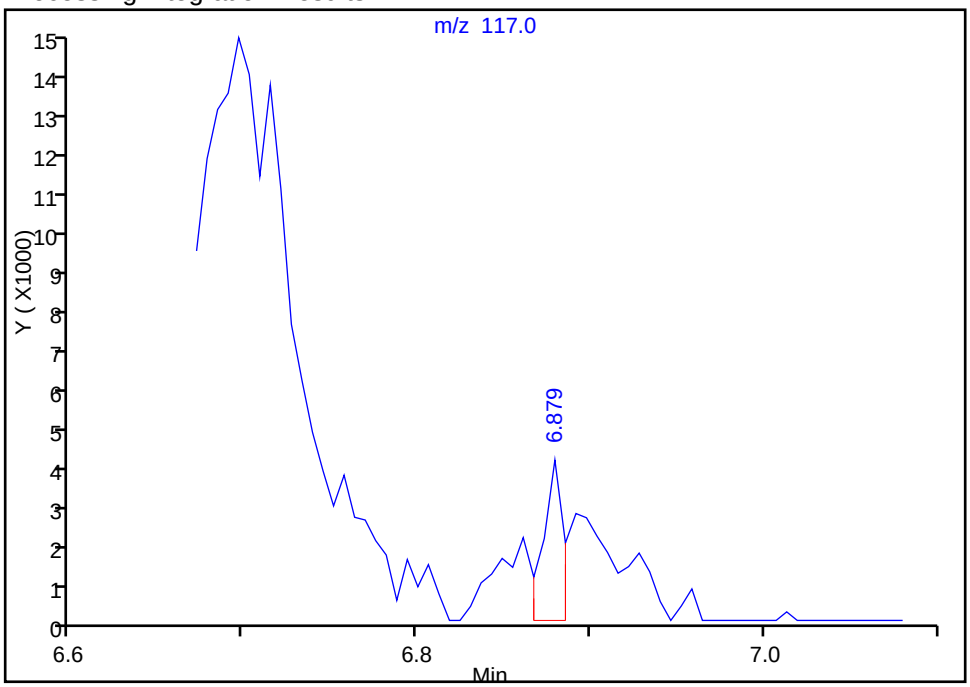
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060220.D				
Injection Date:	02-Jun-2015 19:16:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-E-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

56 Carbon tetrachloride, CAS: 56-23-5

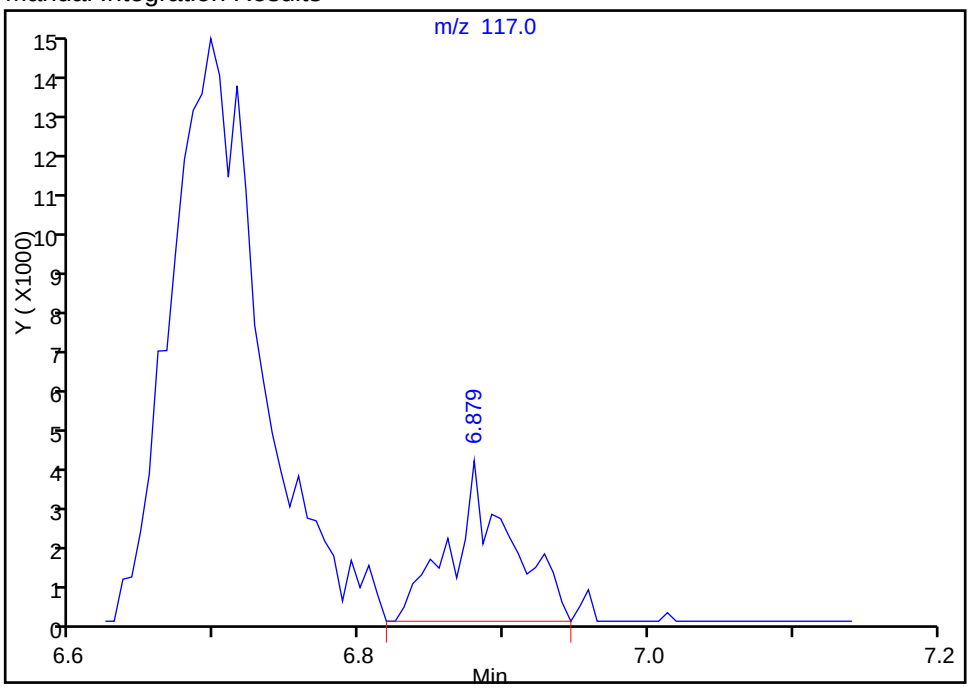
Processing Integration Results

RT: 6.88
Area: 3246
Amount: 1.782447
Amount Units: ng



Manual Integration Results

RT: 6.88
Area: 11222
Amount: 6.162238
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 08:10:00
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-50S-0/1-0 DL | Lab Sample ID: 180-44401-7 DL

Matrix: Water | Lab File ID: 7060315.D

Analysis Method: 8260C | Date Collected: 05/21/2015 08:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 15:32

Soil Aliquot Vol: | Dilution Factor: 100

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	100	U	100	28
75-01-4	Vinyl chloride	100	U	100	23
74-83-9	Bromomethane	100	U	100	31
75-00-3	Chloroethane	100	U	100	21
75-35-4	1,1-Dichloroethene	150		100	30
67-64-1	Acetone	500	U	500	250
75-15-0	Carbon disulfide	100	U	100	21
75-09-2	Methylene Chloride	100	U	100	13
156-60-5	trans-1,2-Dichloroethene	100	U	100	17
1634-04-4	Methyl tert-butyl ether	100	U	100	18
75-34-3	1,1-Dichloroethane	100	U	100	12
156-59-2	cis-1,2-Dichloroethene	3100		100	24
74-97-5	Bromochloromethane	100	U	100	18
78-93-3	2-Butanone (MEK)	500	U	500	55
67-66-3	Chloroform	100	U	100	17
71-55-6	1,1,1-Trichloroethane	420		100	29
56-23-5	Carbon tetrachloride	100	U	100	14
71-43-2	Benzene	100	U	100	11
107-06-2	1,2-Dichloroethane	100	U	100	21
79-01-6	Trichloroethene	2100		100	14
78-87-5	1,2-Dichloropropane	100	U	100	9.5
75-27-4	Bromodichloromethane	100	U	100	13
10061-01-5	cis-1,3-Dichloropropene	100	U	100	19
108-10-1	4-Methyl-2-pentanone (MIBK)	500	U	500	53
108-88-3	Toluene	100	U	100	15
10061-02-6	trans-1,3-Dichloropropene	100	U	100	15
79-00-5	1,1,2-Trichloroethane	100	U	100	20
127-18-4	Tetrachloroethene	740		100	15
591-78-6	2-Hexanone	500	U	500	16
124-48-1	Dibromochloromethane	100	U	100	14
106-93-4	1,2-Dibromoethane (EDB)	100	U	100	18
108-90-7	Chlorobenzene	100	U	100	14
630-20-6	1,1,1,2-Tetrachloroethane	100	U	100	28
100-41-4	Ethylbenzene	100	U	100	23
1330-20-7	Xylenes, Total	300	U	300	49
100-42-5	Styrene	100	U	100	9.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-50S-0/1-0 DL | Lab Sample ID: 180-44401-7 DL

Matrix: Water | Lab File ID: 7060315.D

Analysis Method: 8260C | Date Collected: 05/21/2015 08:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 15:32

Soil Aliquot Vol: | Dilution Factor: 100

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*100*	*U*	*100*	*19*
79-34-5	*1,1,2,2-Tetrachloroethane*	*100*	*U*	*100*	*20*
107-13-1	*Acrylonitrile*	*2000*	*U*	*2000*	*55*
123-91-1	*1,4-Dioxane*	*20000*	*U*	*20000*	*3400*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	118		71-118
460-00-4	4-Bromofluorobenzene (Surr)	109		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D
Lims ID: 180-44401-C-7 Lab Sample ID: 180-44401-7
Client ID: HD-MW-50S-0/1-0
Sample Type: Client
Inject. Date: 03-Jun-2015 15:32:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 100.0000
Sample Info: 180-44401-C-7
Misc. Info.: 180-0007238-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 16:09:37 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 16:04:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.582	4.673	-0.091	93	336123	4000.0	
* 2 Fluorobenzene (IS)	96	7.410	7.405	0.005	98	1329507	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.465	0.005	86	352874	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.789	-0.001	95	390689	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.687	6.675	0.012	91	454551	214.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.052	7.040	0.012	95	397849	196.8	
$ 7 Toluene-d8 (Surr)	98	9.035	9.035	0.000	93	1235403	236.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.633	-0.001	89	508283	218.4	
12 Chloromethane	50		2.045				ND	
13 Vinyl chloride	62		2.228				ND	
15 Bromomethane	94		2.532				ND	
16 Chloroethane	64		2.635				ND	
22 1,1-Dichloroethene	96	3.645	3.584	0.061	64	52606	29.5	M
24 Acetone	43		3.779				ND	
26 Carbon disulfide	76		3.883				ND	
31 Methylene Chloride	84		4.406				ND	
33 Acrylonitrile	53		4.789				ND	
34 trans-1,2-Dichloroethene	96	4.789	4.783	0.005	1	1454	0.6565	M
35 Methyl tert-butyl ether	73		4.850				ND	
37 1,1-Dichloroethane	63		5.367				ND	
45 cis-1,2-Dichloroethene	96	6.115	6.103	0.012	77	1341219	610.2	
46 2-Butanone (MEK)	43		6.176				ND	
49 Chlorobromomethane	128		6.377				ND	
52 Chloroform	83	6.510	6.492	0.018	42	7861	2.15	M
53 1,1,1-Trichloroethane	97	6.705	6.681	0.024	70	276568	83.3	
56 Carbon tetrachloride	117		6.863				ND	M
58 Benzene	78		7.095				ND	
59 1,2-Dichloroethane	62		7.125				ND	
64 Trichloroethene	130	7.794	7.788	0.006	93	1103359	420.7	
67 1,2-Dichloropropane	63		8.038				ND	
70 1,4-Dioxane	88		8.184				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.317				ND	
74 cis-1,3-Dichloropropene	75		8.768				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.932				ND	
76 Toluene	91		9.102				ND	
77 trans-1,3-Dichloropropene	75		9.321				ND	
79 1,1,2-Trichloroethane	97		9.504				ND	
80 Tetrachloroethene	164	9.649	9.650	-0.001	93	258708	148.2	
82 2-Hexanone	43		9.759				ND	
84 Chlorodibromomethane	129		9.893				ND	
85 Ethylene Dibromide	107		10.009				ND	
87 Chlorobenzene	112		10.495				ND	
89 1,1,1,2-Tetrachloroethane	131		10.574				ND	
90 Ethylbenzene	106		10.605				ND	
91 m-Xylene & p-Xylene	106		10.720				ND	
92 o-Xylene	106		11.110				ND	
93 Styrene	104		11.128				ND	
94 Bromoform	173		11.310				ND	
99 1,1,2,2-Tetrachloroethane	83		11.767				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

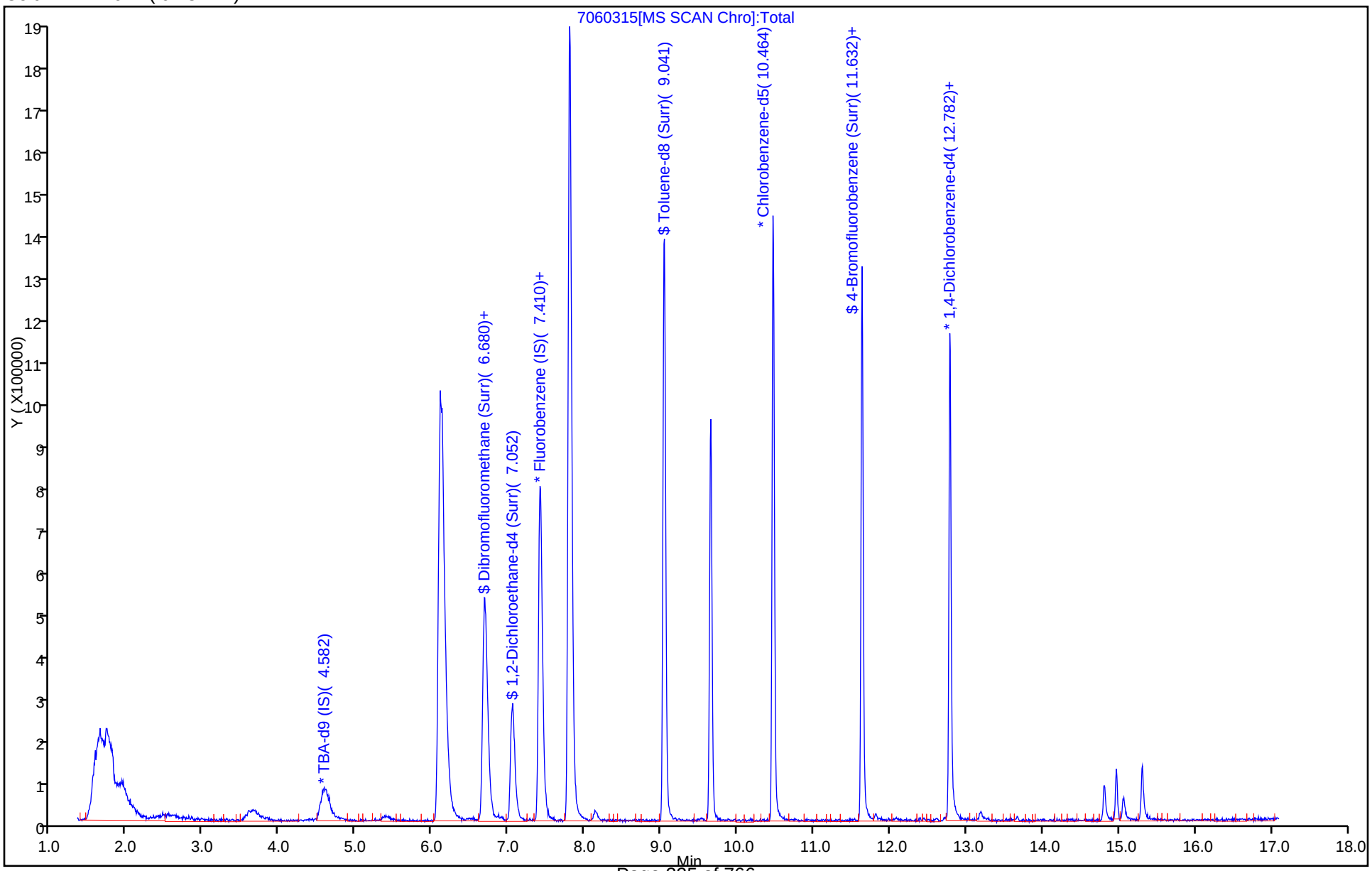
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Jun-2015 16:09:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D				
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7	Worklist Smp#:	14
Client ID:	HD-MW-50S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	100.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



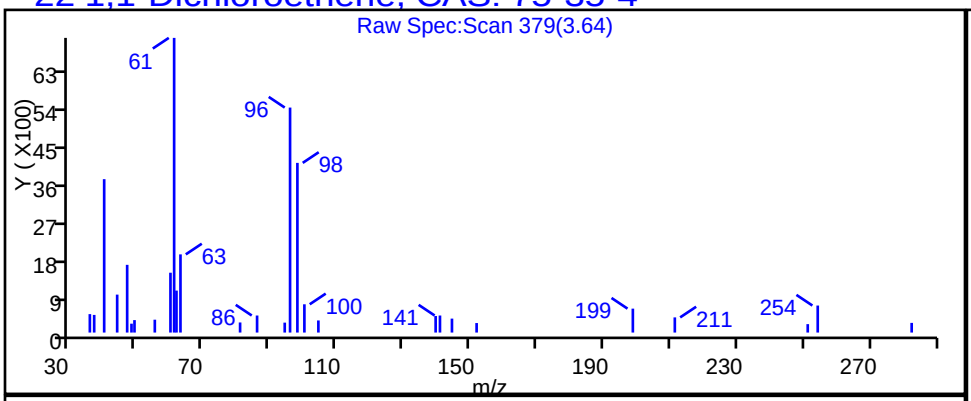
Report Date: 03-Jun-2015 16:09:48 Chrom Revision: 2.2 05-May-2015 11:39:10

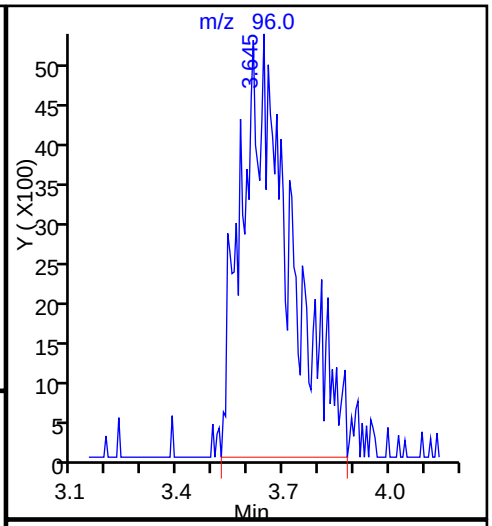
TestAmerica Pittsburgh

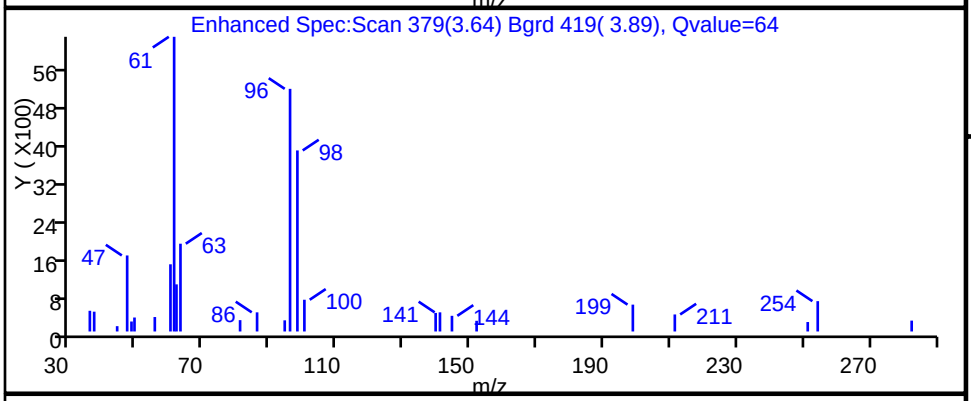
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D

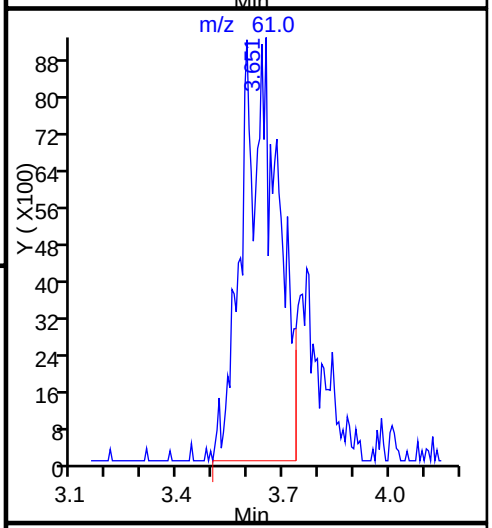
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

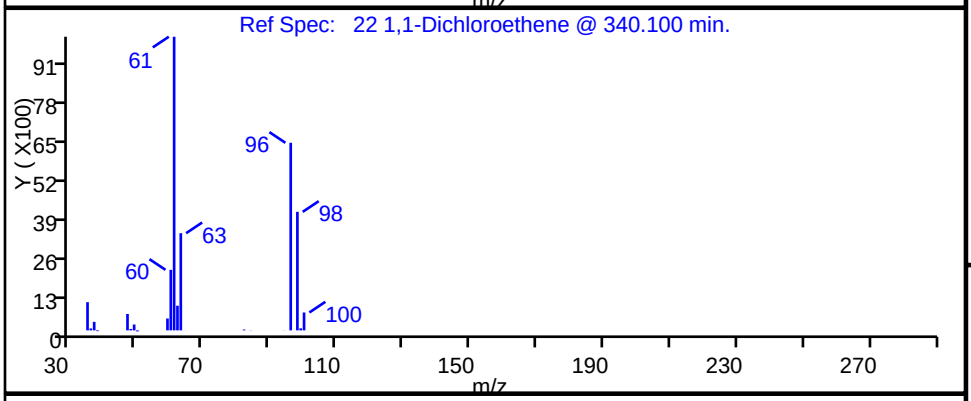
22 1,1-Dichloroethene, CAS: 75-35-4

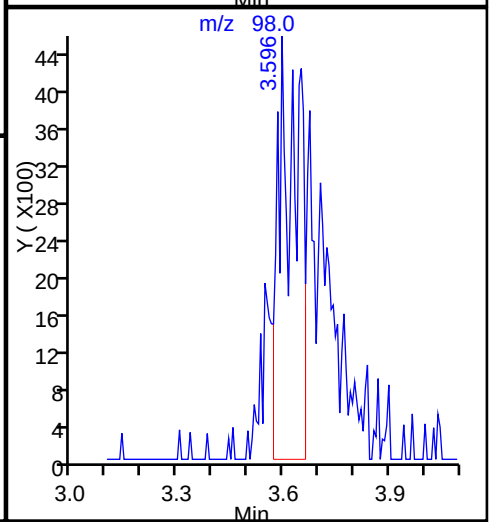


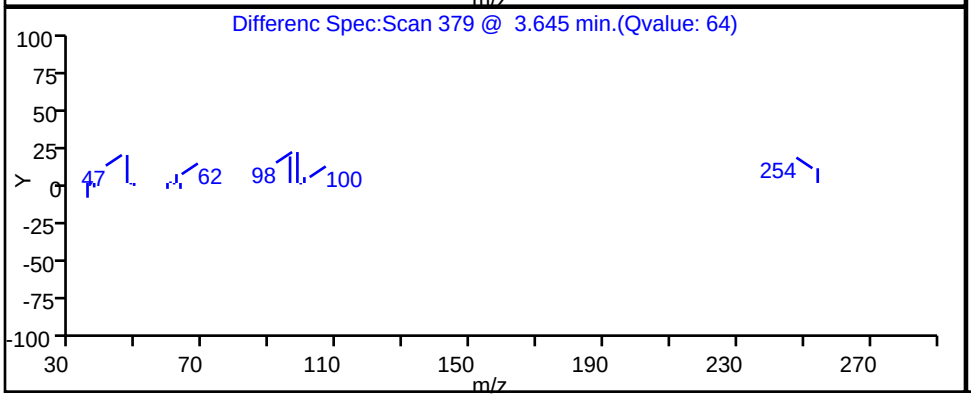










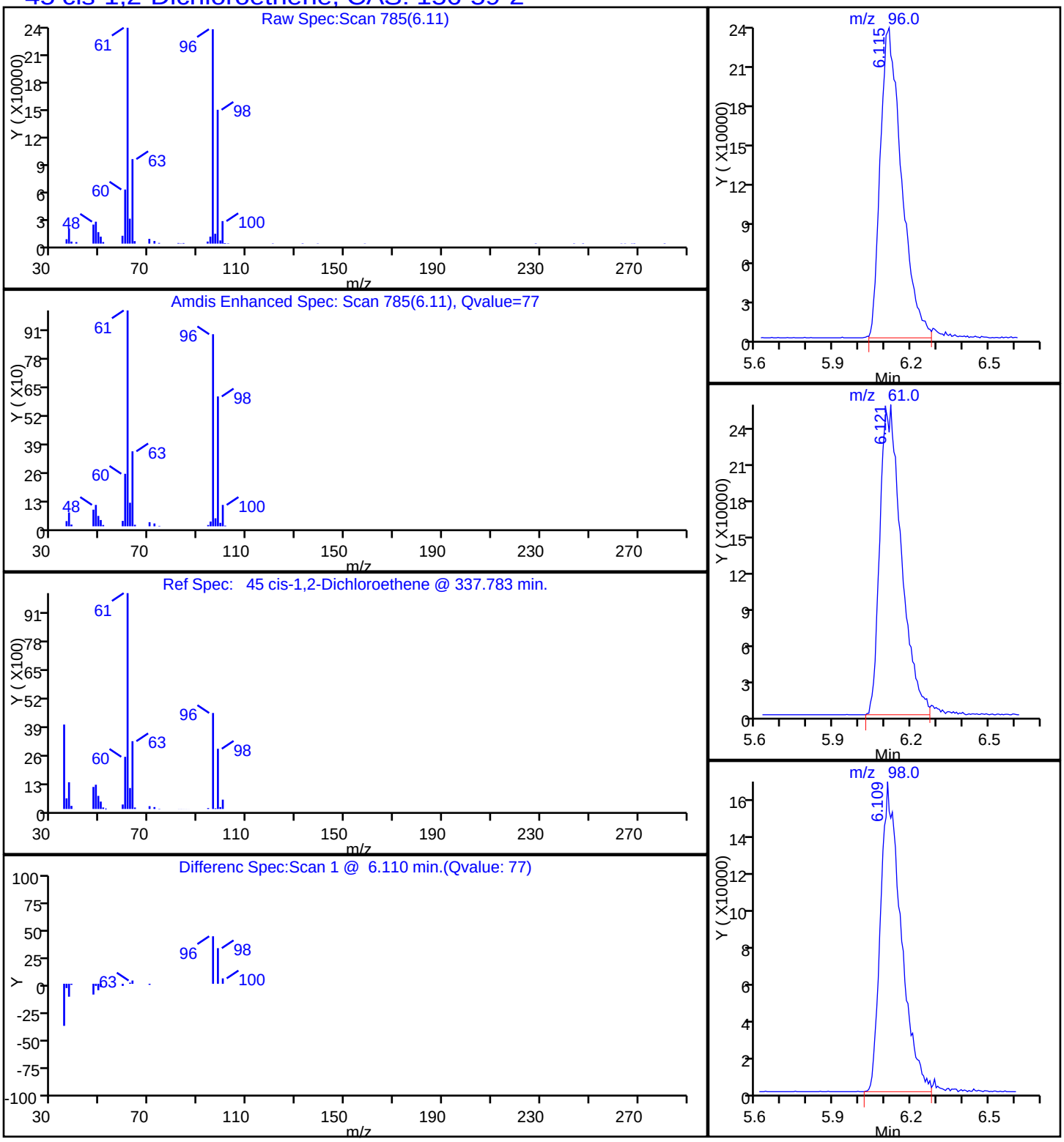


Report Date: 03-Jun-2015 16:09:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D				
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



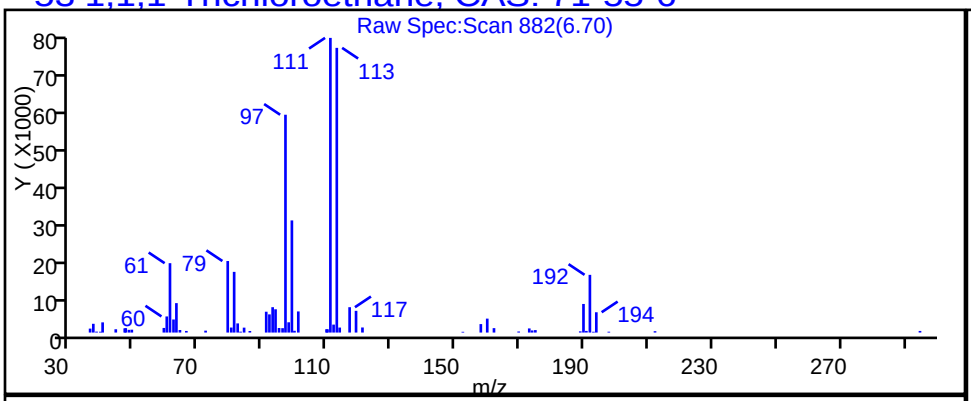
Report Date: 03-Jun-2015 16:09:48 Chrom Revision: 2.2 05-May-2015 11:39:10

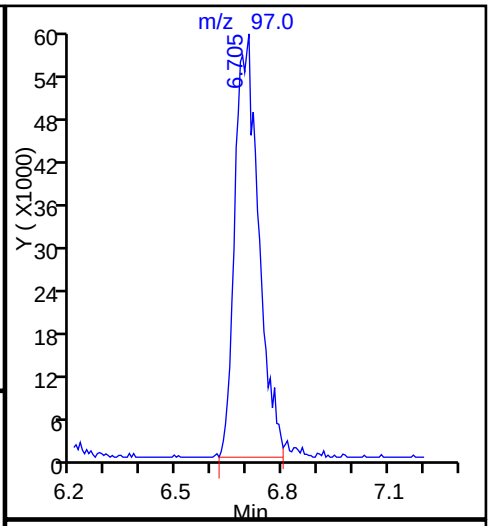
TestAmerica Pittsburgh

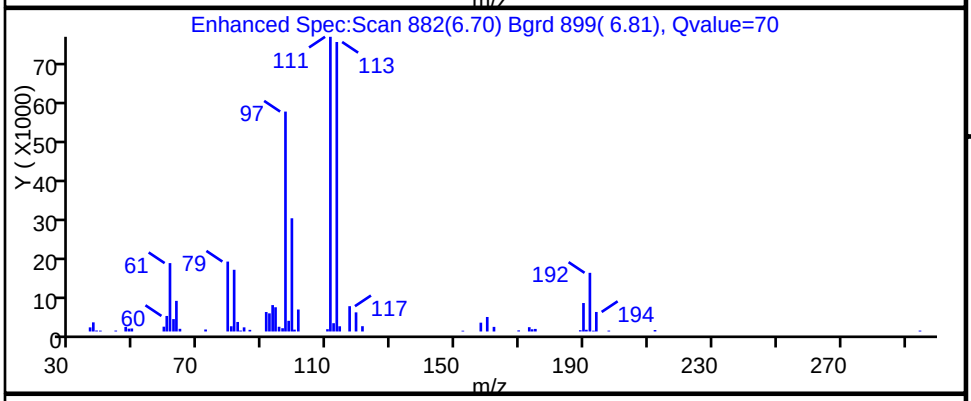
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D

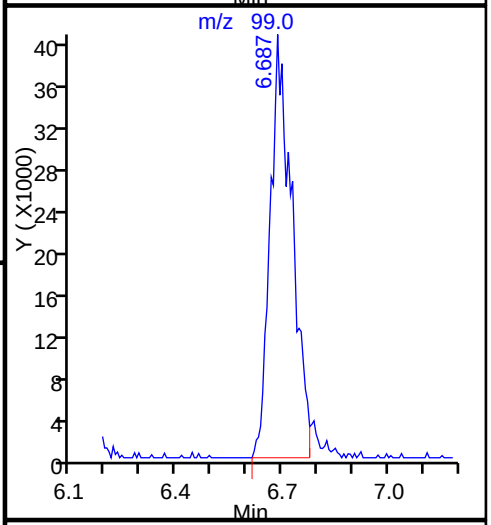
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

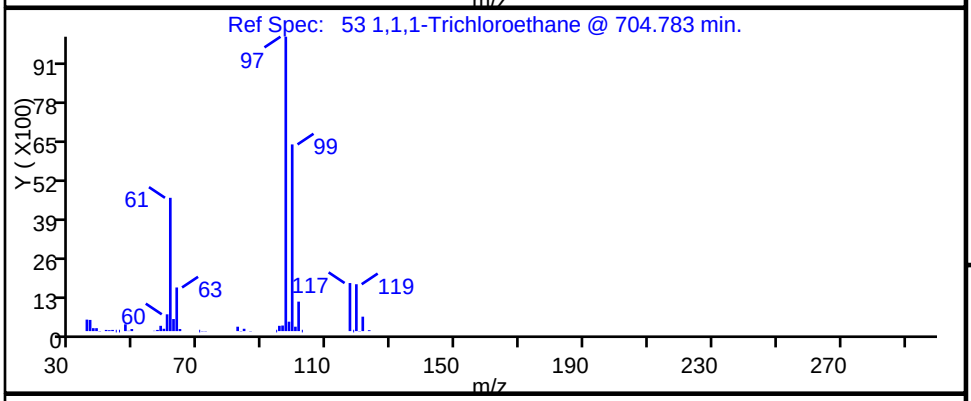
53 1,1,1-Trichloroethane, CAS: 71-55-6

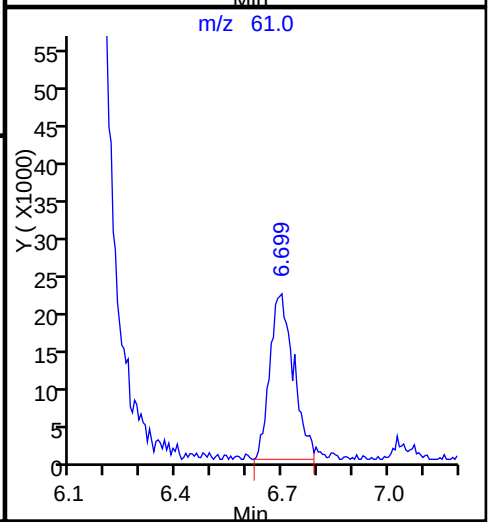


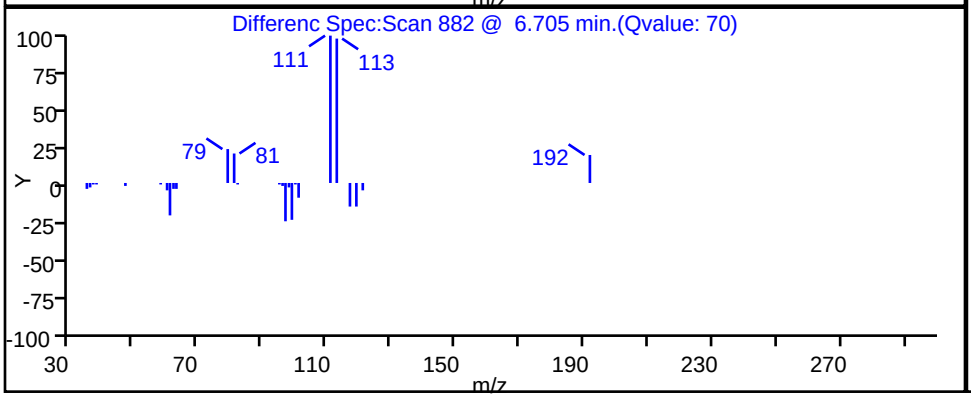










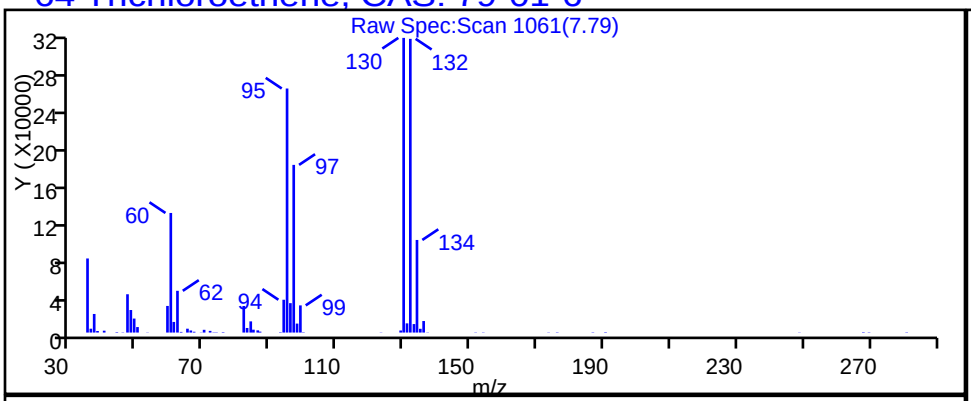


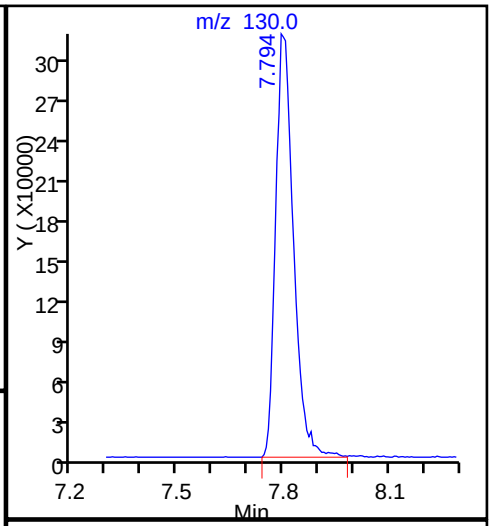
Report Date: 03-Jun-2015 16:09:48 Chrom Revision: 2.2 05-May-2015 11:39:10

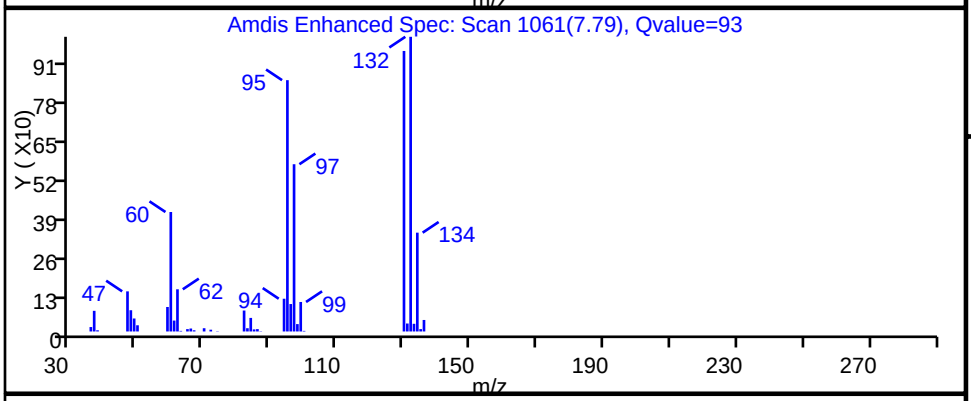
TestAmerica Pittsburgh

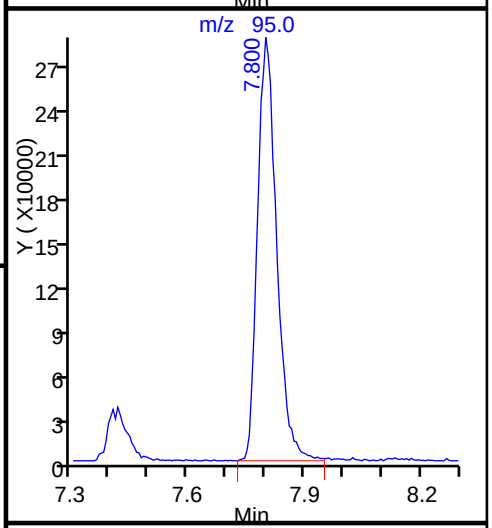
Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D				
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

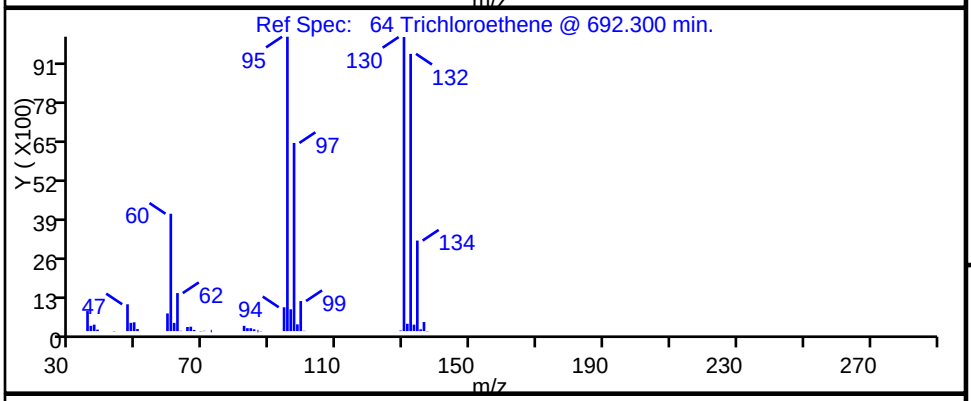
64 Trichloroethene, CAS: 79-01-6

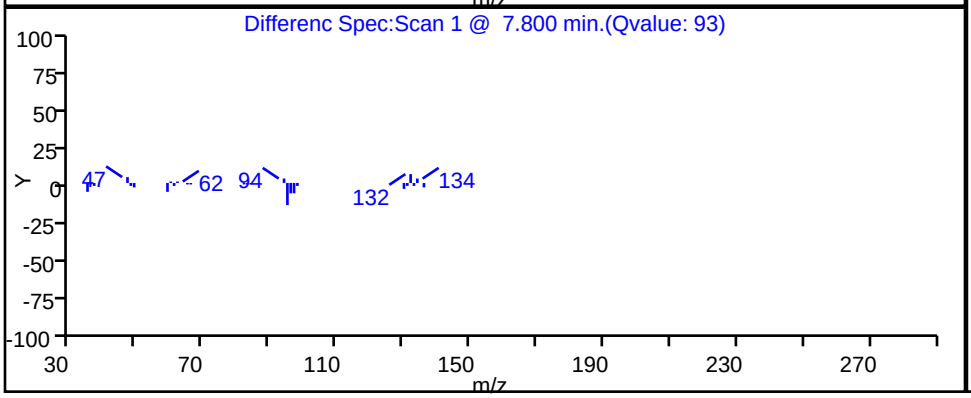


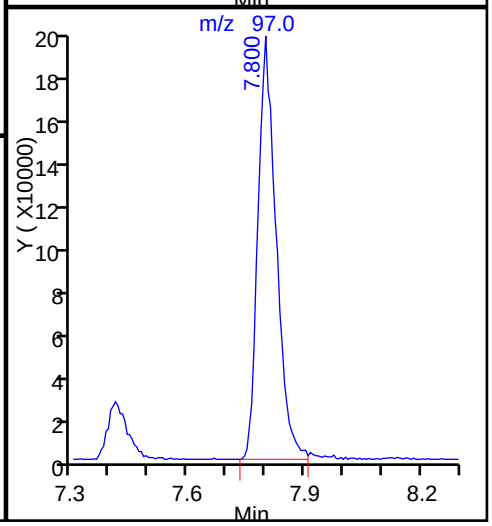












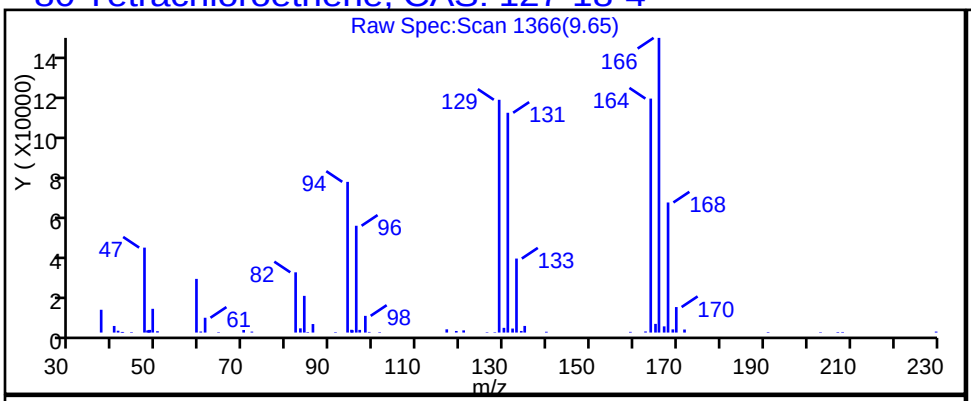
Report Date: 03-Jun-2015 16:09:48 Chrom Revision: 2.2 05-May-2015 11:39:10

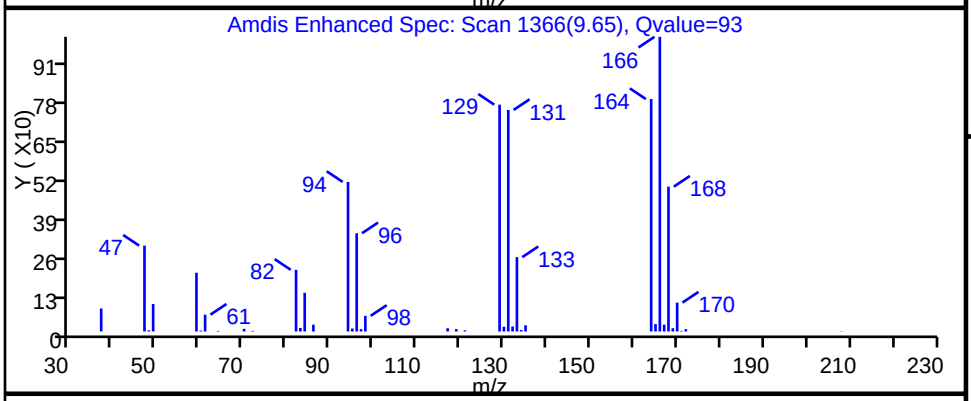
TestAmerica Pittsburgh

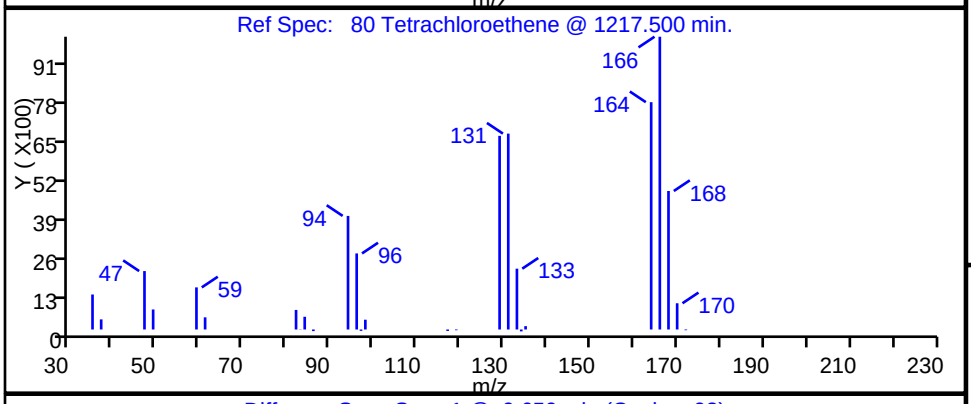
Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D

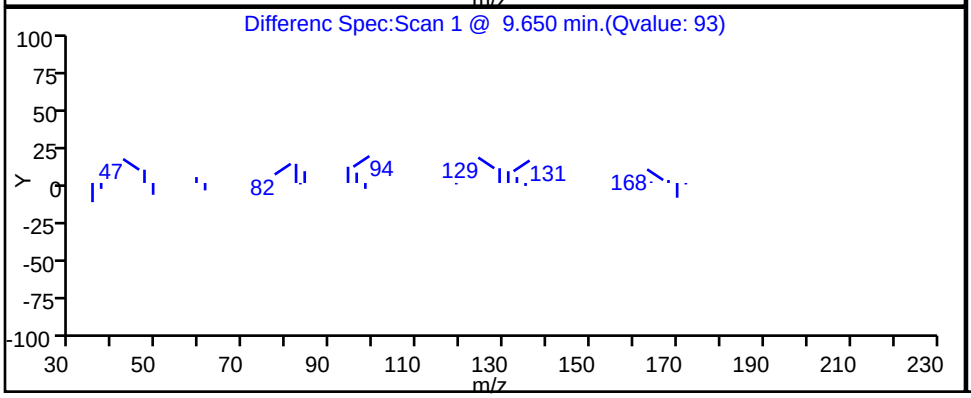
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

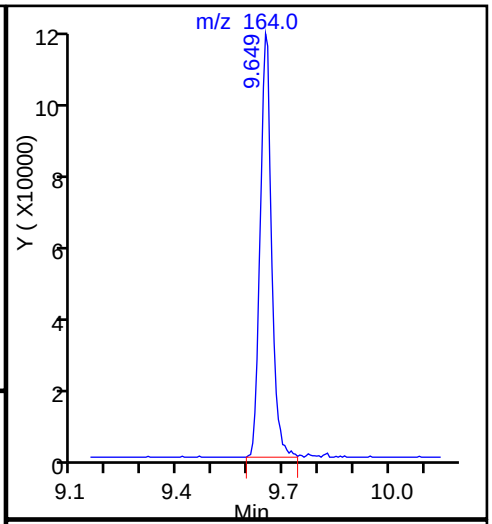
80 Tetrachloroethene, CAS: 127-18-4

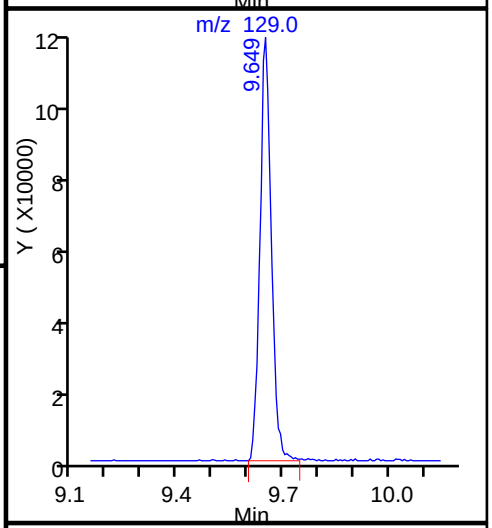


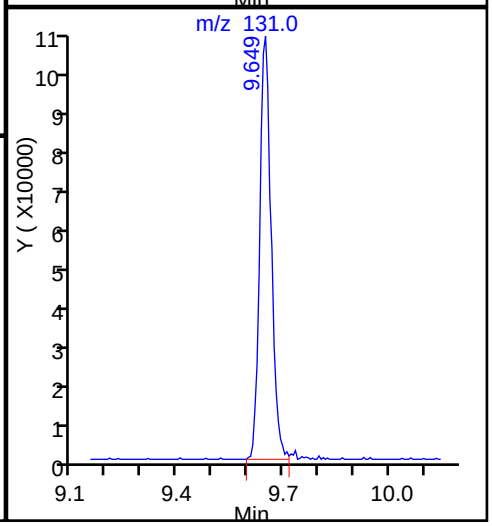












Manual Integration/User Assign Peak Report

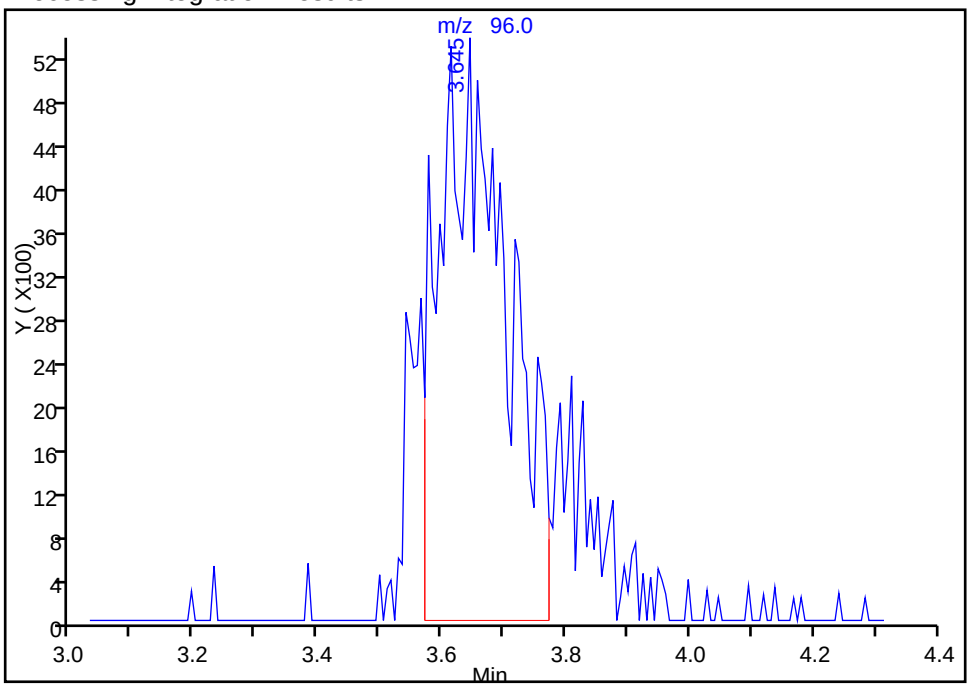
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D				
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

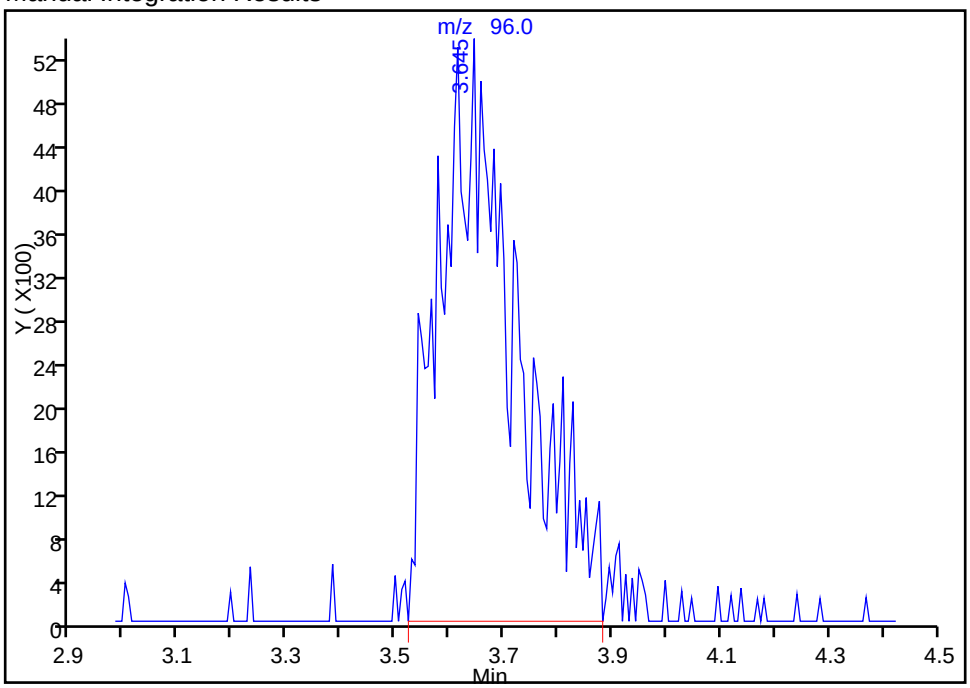
Processing Integration Results

RT: 3.64
Area: 40221
Amount: 22.531874
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 52606
Amount: 29.469973
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 16:04:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

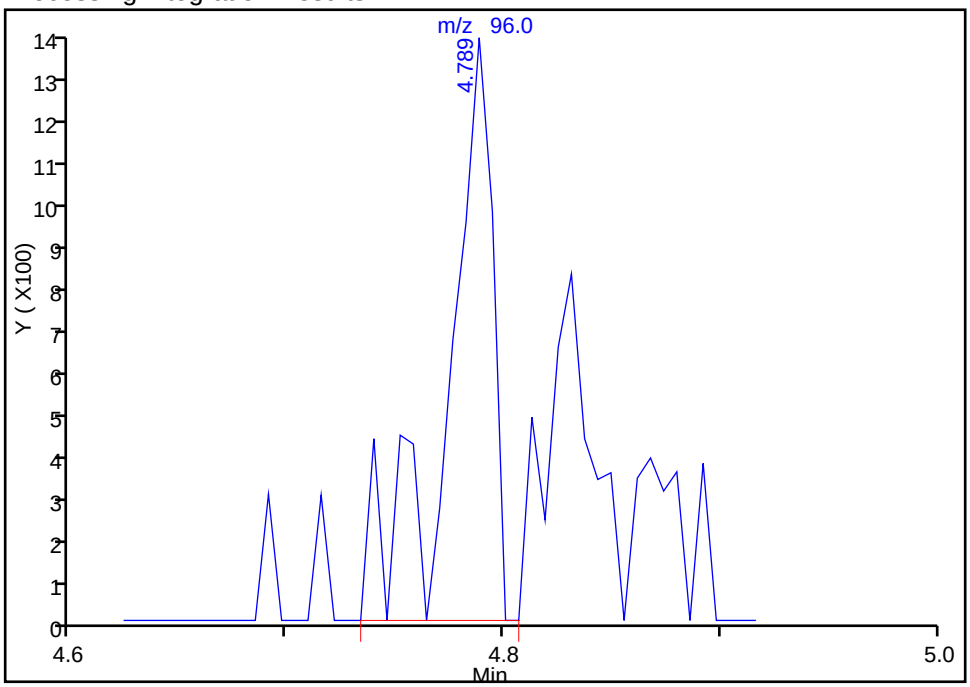
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D				
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5

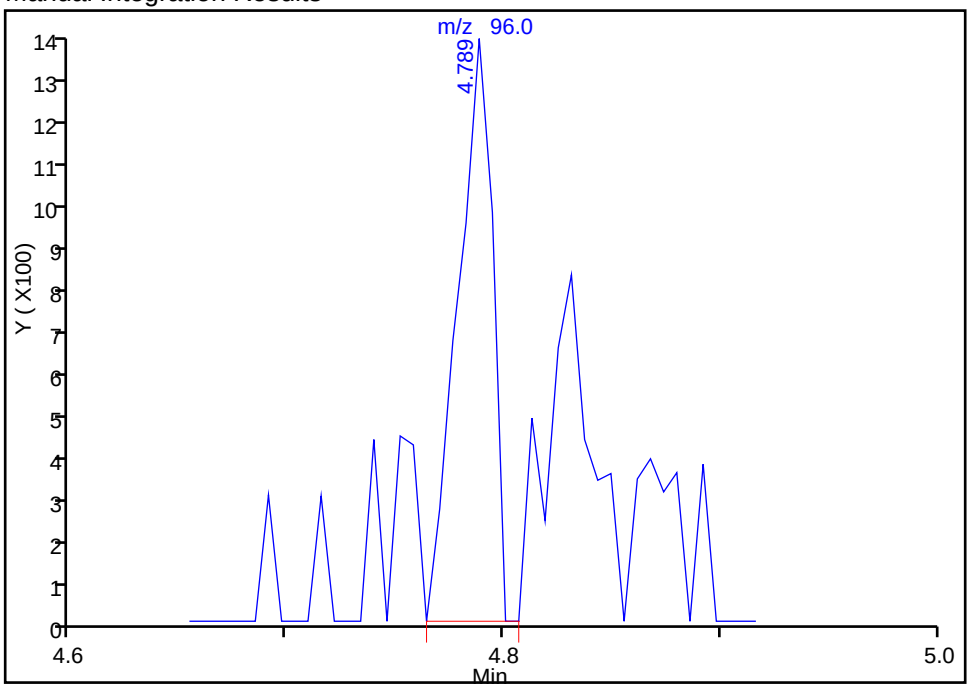
Processing Integration Results

RT: 4.79
Area: 1897
Amount: 0.856500
Amount Units: ng



Manual Integration Results

RT: 4.79
Area: 1454
Amount: 0.656485
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 16:04:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

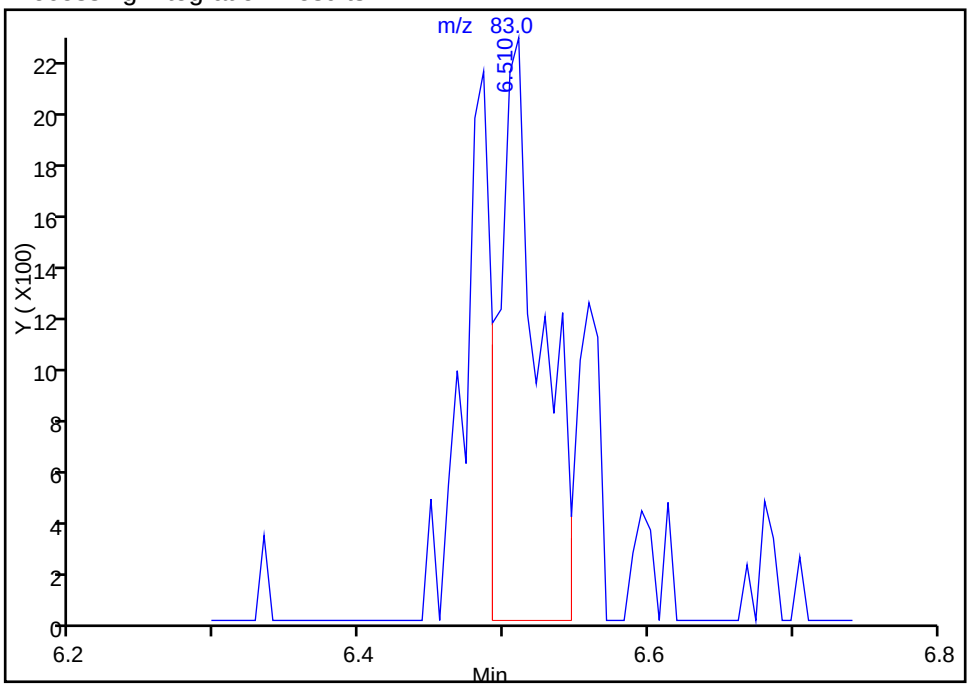
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060315.D				
Injection Date:	03-Jun-2015 15:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44401-C-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	100.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

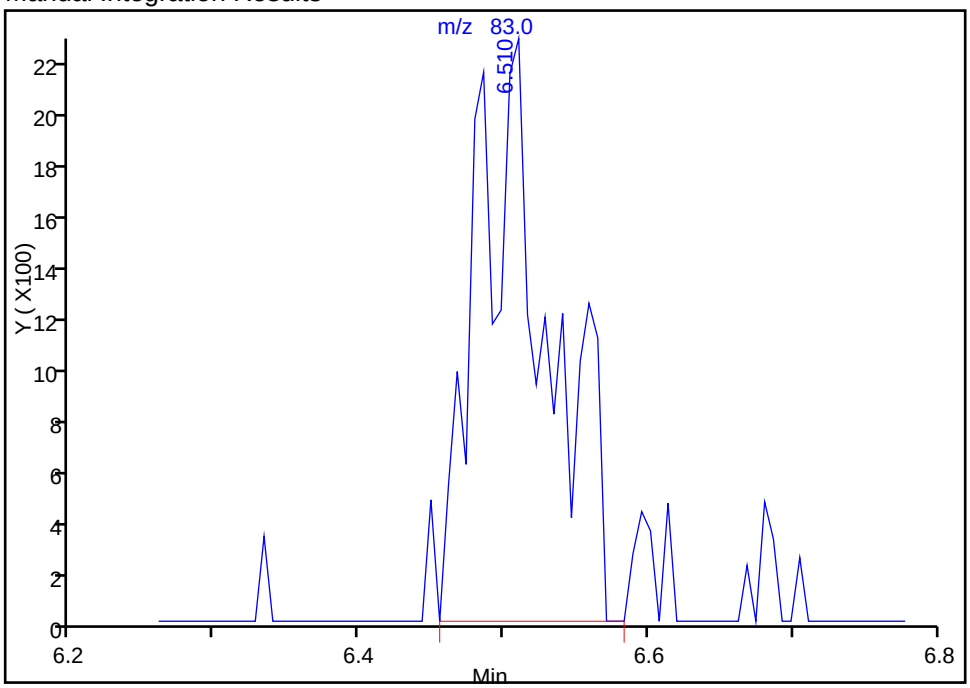
Processing Integration Results

RT: 6.51
Area: 4452
Amount: 1.217878
Amount Units: ng



Manual Integration Results

RT: 6.51
Area: 7861
Amount: 2.150435
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 16:04:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-QC5-0/1-2 | Lab Sample ID: 180-44401-8

Matrix: Water | Lab File ID: 7060112.D

Analysis Method: 8260C | Date Collected: 05/21/2015 12:00

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 15:17

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.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U *	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-QC5-0/1-2 | Lab Sample ID: 180-44401-8

Matrix: Water | Lab File ID: 7060112.D

Analysis Method: 8260C | Date Collected: 05/21/2015 12:00

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 15:17

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.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	117		71-118
460-00-4	4-Bromofluorobenzene (Surr)	114		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060112.D
Lims ID: 180-44401-A-8 Lab Sample ID: 180-44401-8
Client ID: HD-QC5-0/1-2
Sample Type: Client
Inject. Date: 01-Jun-2015 15:17:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44401-a-8
Misc. Info.: 180-0007205-012
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 01-Jun-2015 16:42:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.605	4.665	-0.060	98	381559	4000.0	
* 2 Fluorobenzene (IS)	96	7.416	7.403	0.013	98	1417221	200.0	
* 3 Chlorobenzene-d5	119	10.464	10.463	0.001	86	359677	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.781	12.787	-0.006	96	392366	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.680	6.679	0.001	91	477191	211.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.038	0.013	93	422721	196.1	
$ 7 Toluene-d8 (Surr)	98	9.040	9.033	0.007	93	1244878	233.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.631	0.001	91	537578	227.2	
12 Chloromethane	50		2.049				ND	
13 Vinyl chloride	62		2.232				ND	
15 Bromomethane	94		2.506				ND	
16 Chloroethane	64		2.621				ND	
22 1,1-Dichloroethene	96		3.540				ND	
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.868				ND	
31 Methylene Chloride	84		4.398				ND	
34 trans-1,2-Dichloroethene	96		4.781				ND	
33 Acrylonitrile	53		4.799				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96		6.095				ND	
46 2-Butanone (MEK)	43		6.180				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97		6.679				ND	
56 Carbon tetrachloride	117		6.862				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.123				ND	
64 Trichloroethene	130		7.798				ND	
67 1,2-Dichloropropane	63		8.023				ND	
70 1,4-Dioxane	88		8.194				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.315				ND	
74 cis-1,3-Dichloropropene	75		8.772				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.100				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164		9.642				ND	
82 2-Hexanone	43		9.763				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.493				ND	
89 1,1,1,2-Tetrachloroethane	131		10.572				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

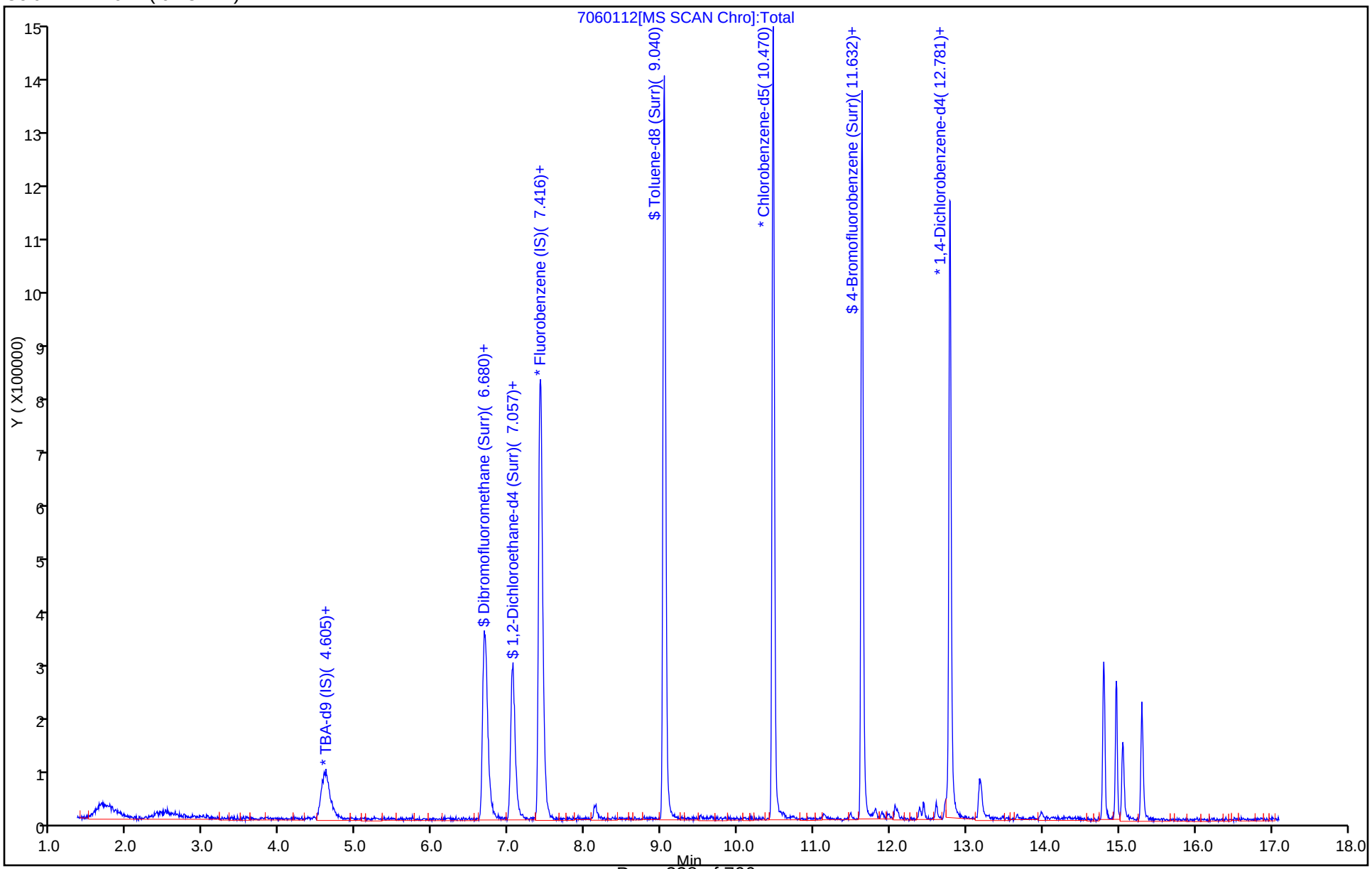
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 16:53:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060112.D				
Injection Date:	01-Jun-2015 15:17:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44401-A-8	Lab Sample ID:	180-44401-8	Worklist Smp#:	12
Client ID:	HD-QC5-0/1-2				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4049 0.3360	0.3761 0.3806	0.3617 0.3747	0.3587	0.3730	Ave		0.3707			0.1000	5.3		20.0			
Chloromethane	0.4308 0.3754	0.4379 0.3945	0.4020 0.4112	0.3800	0.3991	Ave		0.4039			0.1000	5.5		20.0			
1,3-Butadiene	0.4251 0.2932	0.3417 0.3152	0.3460 0.3224	0.3068	0.3068	Ave		0.3321			0.0100	12.5		20.0			
Vinyl chloride	0.3430 0.2838	0.3404 0.3210	0.3159 0.3182	0.2980	0.2958	Ave		0.3145			0.1000	6.7		20.0			
Bromomethane	0.2266 0.2452	0.2793 0.2522	0.2713 0.2662	0.2427	0.2439	Ave		0.2534			0.0500	6.9		20.0			
Chloroethane	0.2749 0.2395	0.2785 0.2519	0.2559 0.2542	0.2356	0.2394	Ave		0.2537			0.0500	6.3		20.0			
Dichlorofluoromethane	0.7624 0.6398	0.7284 0.6488	0.6941 0.6491	0.6381	0.6400	Ave		0.6751			0.0100	7.1		20.0			
Trichlorofluoromethane	0.7558 0.6595	0.7530 0.7005	0.7468 0.7001	0.6815	0.6845	Ave		0.7102			0.1000	5.2		20.0			
Ethyl ether	0.1832 0.2255	0.2405 0.2425	0.2306 0.2326	0.2160	0.2318	Ave		0.2253			0.0100	8.4		20.0			
Acrolein	0.0140 0.0164	0.0160 0.0160	0.0152 0.0149	0.0165	0.0154	Ave		0.0156			0.0100	5.4		20.0			
1,1-Dichloroethene	0.2532 0.2638	0.2820 0.2718	0.2758 0.2787	0.2533	0.2696	Ave		0.2685			0.1000	4.1		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3623 0.2819	0.3410 0.3053	0.3208 0.3072	0.2935	0.2861	Ave		0.3122			0.1000	8.9		20.0			
Iodomethane	0.6392 0.5330	0.5866 0.5561	0.5852 0.5561	0.4994	0.5379	Ave		0.5617			0.0100	7.5		20.0			
Carbon disulfide	0.8938 0.7034	0.8609 0.9569	0.7989 0.7561	0.7339	0.7484	Ave		0.8065			0.1000	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.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
Acetone	0.0935 0.0524	0.0700 0.0605	0.0664 0.0503	0.0662	0.0561	Lin2	3.9852	0.0533			0.0500				0.9900		0.9900
Allyl chloride	0.2214 0.1874	0.2078 0.1919	0.2013 0.2089	0.1739	0.1919	Ave		0.1981			0.0100	7.5		20.0			
Methylene Chloride	0.3799 0.2640	0.3035 0.2714	0.2901 0.2769	0.2560	0.2639	Ave		0.2882			0.1000	13.9		20.0			
Methyl acetate	0.1722 0.1194	0.1395 0.1300	0.1248 0.1160	0.1357	0.1284	Ave		0.1332			0.1000	13.2		20.0			
trans-1,2-Dichloroethene	0.4144 0.3019	0.3607 0.3130	0.3396 0.3157	0.3071	0.3131	Ave		0.3332			0.1000	11.4		20.0			
tert-Butyl alcohol	0.0387 0.0932	0.1220 +++++	0.0794 +++++	0.0809	0.0812	Qua	17.849	0.0649	0.0000036		0.0100				0.9920		0.9900
Acrylonitrile	0.0594 0.0496	0.0592 0.0518	0.0519 0.0462	0.0554	0.0529	Ave		0.0533			0.0100	8.5		20.0			
Methyl tert-butyl ether	0.7899 0.6103	0.7134 0.6206	0.6523 0.5906	0.6451	0.6306	Ave		0.6566			0.1000	9.9		20.0			
Hexane	0.4307 0.2822	0.3669 0.3594	0.3490 0.3339	0.3327	0.3327	Ave		0.3484			0.0100	12.0		20.0			
Vinyl acetate	0.3325 0.2396	0.2619 0.2566	0.2643 0.2523	0.2426	0.2520	Ave		0.2627			0.0100	11.2		20.0			
1,1-Dichloroethane	0.5036 0.4591	0.5274 0.4830	0.5023 0.4831	0.4692	0.4788	Ave		0.4883			0.2000	4.5		20.0			
2,2-Dichloropropane	0.5029 0.3592	0.4513 0.3672	0.4370 0.3719	0.3889	0.3853	Ave		0.4080			0.0100	12.4		20.0			
cis-1,2-Dichloroethene	0.3895 0.3036	0.3445 0.3133	0.3428 0.3139	0.3115	0.3259	Ave		0.3306			0.1000	8.5		20.0			
2-Butanone (MEK)	0.0916 0.0823	0.0945 0.0951	0.0865 0.0835	0.0972	0.0865	Ave		0.0896			0.0500	6.4		20.0			
Bromochloromethane	0.2408 0.1735	0.1985 0.1795	0.1868 0.1771	0.1814	0.1858	Ave		0.1904			0.0100	11.4		20.0			
Chloroform	0.6919 0.4962	0.6021 0.5075	0.5638 0.4970	0.5223	0.5185	Ave		0.5499			0.2000	12.4		20.0			
1,1,1-Trichloroethane	0.6470 0.4338	0.5649 0.4453	0.5204 0.4470	0.4662	0.4702	Ave		0.4994			0.1000	14.8		20.0			
Tetrahydrofuran	0.0583 0.0434	0.0523 0.0473	0.0512 0.0465	0.0465	0.0468	Ave		0.0490			0.0100	9.5		20.0			
Cyclohexane	0.4837 0.3016	0.3789 0.3248	0.3560 0.3179	0.3259	0.3297	Ave		0.3523			0.1000	16.5		20.0			
Carbon tetrachloride	0.6825 0.4374	0.5598 0.4499	0.5182 0.4533	0.4633	0.4653	Ave		0.5037			0.1000	16.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
1,1-Dichloropropene	0.4749 0.3118	0.4121 0.3254	0.3632 0.3234	0.3425	0.3315	Ave		0.3606			0.0100	15.5		20.0			
Benzene	1.2865 0.8459	1.1208 0.8565	1.0418 0.8374	0.9472	0.9380	Ave		0.9843			0.5000	16.0		20.0			
1,2-Dichloroethane	0.4449 0.2913	0.3598 0.3041	0.3316 0.2882	0.3189	0.3208	Ave		0.3325			0.1000	15.3		20.0			
Isobutyl alcohol	0.0058 0.0078	0.0090 0.0084	0.0087 0.0079	0.0084	0.0083	Ave		0.0080		*	0.0100	12.1		20.0			
n-Heptane	0.3667 0.2726	0.3198 0.3008	0.3140 0.2819	0.2975	0.2874	Ave		0.3051			0.0100	9.7		20.0			
Trichloroethene	0.5030 0.3592	0.4242 0.3643	0.4070 0.3634	0.3655	0.3701	Ave		0.3946			0.2000	12.6		20.0			
Methylcyclohexane	0.6516 0.4077	0.5613 0.4391	0.4963 0.4290	0.4483	0.4477	Ave		0.4851			0.1000	17.0		20.0			
1,2-Dichloropropane	0.2769 0.2046	0.2408 0.2102	0.2226 0.2067	0.2149	0.2169	Ave		0.2242			0.1000	10.8		20.0			
Dibromomethane	0.2155 0.1533	0.1721 0.1630	0.1605 0.1556	0.1580	0.1578	Ave		0.1670			0.0100	12.2		20.0			
1,4-Dioxane	0.0011 0.0017	0.0017 0.0016	0.0016 0.0015	0.0016	0.0017	Ave		0.0016		*	0.0100	14.0		20.0			
Bromodichloromethane	0.5011 0.3791	0.4345 0.3935	0.4389 0.3715	0.4015	0.4055	Ave		0.4157			0.2000	10.1		20.0			
cis-1,3-Dichloropropene	0.5064 0.3991	0.4647 0.4120	0.4361 0.3956	0.4220	0.4141	Ave		0.4312			0.2000	8.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.6767 0.5042	0.6920 0.5327	0.5982 0.4777	0.6068	0.5871	Ave		0.5844			0.1000	13.1		20.0			
Toluene	5.1899 2.5462	4.3323 +++++	3.7458 +++++	3.2001	3.0884	Qua	59.817	3.6113	-0.001653		0.4000				0.9980		0.9900
trans-1,3-Dichloropropene	1.5711 1.0794	1.3970 1.1590	1.3200 1.0988	1.2284	1.2043	Ave		1.2572			0.1000	13.2		20.0			
Ethyl methacrylate	0.9335 0.7520	0.9291 0.8068	0.8555 0.7438	0.8484	0.8213	Ave		0.8363			0.0100	8.5		20.0			
1,1,2-Trichloroethane	0.8855 0.6162	0.8540 0.6499	0.7237 0.6235	0.7000	0.6895	Ave		0.7178			0.1000	14.1		20.0			
Tetrachloroethene	1.3748 0.7298	1.1588 +++++	1.0063 +++++	0.8271	0.8403	Qua	18.605	0.9071	-0.000294		0.2000				0.9960		0.9900
1,3-Dichloropropane	1.4391 0.8728	1.2584 0.9209	1.0879 0.8529	1.0537	1.0026	Ave		1.0610			0.0100	19.0		20.0			
2-Hexanone	0.3670 0.3420	0.4257 0.3868	0.3763 0.3473	0.4008	0.3699	Ave		0.3770			0.1000	7.3		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.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	1.6221 1.0342	1.4835 1.0818	1.2614 1.0448	1.1836	1.1607	Ave		1.2340			0.1000	17.3		20.0			
1,2-Dibromoethane (EDB)	1.0152 0.7073	0.9211 0.7388	0.8185 0.7100	0.8157	0.7788	Ave		0.8132			0.1000	13.2		20.0			
Chlorobenzene	3.3646 1.9926	2.9913 2.0244	2.7538 +++++	2.3750	2.3439	Ave		2.5494			0.5000	20.0		20.0			
1,1,1,2-Tetrachloroethane	1.5889 0.9290	1.4050 +++++	1.2815 +++++	1.0970	1.0940	Ave		1.2326			0.0100	19.5		20.0			
Ethylbenzene	1.8336 +++++	1.5625 +++++	1.4260 +++++	1.2323	1.1882	Ave		1.4485			0.1000	18.1		20.0			
m-Xylene & p-Xylene	2.4750 +++++	2.1389 +++++	1.8971 +++++	1.6377	1.6157	Ave		1.9529			0.1000	18.5		20.0			
o-Xylene	2.5079 +++++	2.1474 +++++	1.9091 +++++	1.6305	1.6116	Ave		1.9613			0.3000	19.2		20.0			
Styrene	3.8120 1.9480	3.3063 +++++	2.9124 +++++	2.4325	2.2974	Qua	50.819	2.6911	-0.001179		0.3000				0.9960		0.9900
Bromoform	0.7243 0.6451	0.7592 0.6862	0.7446 0.6361	0.7002	0.6981	Ave		0.6992			0.1000	6.2		20.0			
Isopropylbenzene	7.1951 3.1900	5.9426 +++++	5.0312 +++++	4.2116	4.0042	Qua	92.518	4.8193	-0.002533		0.1000				0.9970		0.9900
1,1,2,2-Tetrachloroethane	0.9848 0.6054	0.9132 0.6322	0.8169 0.5648	0.7841	0.7248	Ave		0.7533			0.3000	19.9		20.0			
Bromobenzene	1.1165 0.7135	0.9786 0.7488	0.9296 0.7475	0.8209	0.8013	Ave		0.8571			0.0100	16.3		20.0			
1,2,3-Trichloropropane	0.2417 0.1693	0.1958 0.1858	0.1909 0.1738	0.1938	0.1843	Ave		0.1919			0.0100	11.5		20.0			
trans-1,4-Dichloro-2-butene	0.1531 0.1100	0.1141 0.1244	0.1095 0.1185	0.1163	0.1158	Ave		0.1202			0.0100	11.7		20.0			
N-Propylbenzene	1.4292 0.8832	1.1494 0.9326	1.1314 0.9537	0.9720	0.9646	Ave		1.0520			0.0100	17.0		20.0			
2-Chlorotoluene	1.2281 0.7964	1.0898 0.8646	1.0225 0.8617	0.8871	0.8904	Ave		0.9551			0.0100	15.2		20.0			
1,3,5-Trimethylbenzene	4.1186 1.8195	3.0572 1.9013	2.7687 +++++	2.3152	2.2282	Qua	67.889	2.3446	-0.000742		0.0100				0.9930		0.9900
4-Chlorotoluene	1.2432 0.7686	1.0657 0.8062	0.9133 0.8390	0.8423	0.8441	Ave		0.9153			0.0100	17.5		20.0			
tert-Butylbenzene	4.2827 +++++	3.4124 +++++	3.0690 +++++	2.5961	2.8531	Lin2	30.327	2.8130			0.0100				0.9920		0.9900
1,2,4-Trimethylbenzene	4.0219 1.9151	3.0757 +++++	2.8098 +++++	2.3617	2.3037	Qua	42.580	2.6673	-0.001167		0.0100				0.9980		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.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
sec-Butylbenzene	5.2909 2.4720	4.0963 2.5660	3.6564 +++++	3.1061	2.9949	Qua	84.993	3.1560	-0.000971		0.0100				0.9940		0.9900
1,3-Dichlorobenzene	2.4747 +++++	1.9570 +++++	1.7890 +++++	1.5759	1.5484	Lin2	17.686	1.6184			0.6000				0.9930		0.9900
4-Isopropyltoluene	4.9789 2.1016	3.7099 +++++	3.2078 +++++	2.7147	2.6092	Qua	59.165	3.0703	-0.001511		0.0100				0.9980		0.9900
1,4-Dichlorobenzene	2.1272 1.3020	1.8048 1.3637	1.6770 1.3380	1.5472	1.5324	Ave		1.5865			0.5000	17.6		20.0			
n-Butylbenzene	4.0854 1.7178	3.0325 +++++	2.6889 +++++	2.2607	2.1557	Qua	45.927	2.5887	-0.001344		0.0100				0.9980		0.9900
1,2-Dichlorobenzene	2.0434 +++++	1.6187 +++++	1.4639 +++++	1.3402	1.3053	Ave		1.5543			0.4000	19.3		20.0			
1,2-Dibromo-3-Chloropropane	0.0507 0.0782	0.0680 0.0870	0.0819 0.0820	0.0731	0.0825	Lin2	-0.637	0.0814			0.0500				0.9960		0.9900
1,2,4-Trichlorobenzene	0.7025 0.4194	0.3528 0.5475	0.4356 0.5373	0.4533	0.4943	Ave		0.4928			0.2000	21.5	*	20.0			
Hexachlorobutadiene	0.4740 0.2409	0.2353 0.3139	0.2616 0.3189	0.2513	0.2667	Ave		0.2953			0.0100	26.6	*	20.0			
Naphthalene	1.5147 0.6355	0.5116 0.8497	0.7105 0.7291	0.7661	0.7400	Ave		0.8071			0.0100	37.5	*	20.0			
1,2,3-Trichlorobenzene	0.7098 0.2525	0.1737 0.3849	0.2343 0.3451	0.3041	0.2934	Ave		0.3372			0.0100	48.7	*	20.0			
Dibromofluoromethane (Surr)	0.3940 0.2872	0.3394 0.3076	0.3277 0.2870	0.3013	0.3080	Ave		0.3190				11.1		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3741 0.2827	0.3162 0.2966	0.2978 0.2767	0.2969	0.2923	Ave		0.3042				10.0		20.0			
Toluene-d8 (Surr)	+++++ 2.4399	3.9879 2.5256	3.5025 2.4058	2.9863	2.9170	Ave		2.9664				20.0		20.0			
4-Bromofluorobenzene (Surr)	2.1145 1.1414	1.5844 1.1868	1.5023 1.1481	1.2914	1.2834	Lin2	18.461	1.2346							0.9900		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 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	41448 1251238	202683 1578981	396029 1958336	547112	769843	20.0 700	100 800	200 1000	300	400
Chloromethane	FB	Ave	44098 1397995	236017 1636714	440108 2148873	579635	823816	20.0 700	100 800	200 1000	300	400
1,3-Butadiene	FB	Ave	43516 1091852	184180 1307567	378863 1684970	467958	633176	20.0 700	100 800	200 1000	300	400
Vinyl chloride	FB	Ave	35111 1056944	183450 1331694	345858 1662883	454519	610532	20.0 700	100 800	200 1000	300	400
Bromomethane	FB	Ave	23195 913392	150507 1046463	297025 1390949	370267	503455	20.0 700	100 800	200 1000	300	400
Chloroethane	FB	Ave	28139 891876	150067 1044851	280211 1328639	359315	494064	20.0 700	100 800	200 1000	300	400
Dichlorofluoromethane	FB	Ave	78053 2383040	392557 2691604	759945 3391987	973235	1320934	20.0 700	100 800	200 1000	300	400
Trichlorofluoromethane	FB	Ave	77379 2456359	405833 2906130	817631 3658414	1039442	1412799	20.0 700	100 800	200 1000	300	400
Ethyl ether	FB	Ave	18758 839764	129633 1005937	252518 1215677	329495	478344	20.0 700	100 800	200 1000	300	400
Acrolein	FB	Ave	28748 78643	43044 83224	49804 85538	58776	63644	400 900	500 1000	600 1100	700	800
1,1-Dichloroethene	FB	Ave	25924 982672	151987 1127478	301988 1456322	386363	556448	20.0 700	100 800	200 1000	300	400
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	37088 1049950	183780 1266754	351192 1605157	447607	590436	20.0 700	100 800	200 1000	300	400
Iodomethane	FB	Ave	65439 1985287	316113 2306954	640777 2906153	761762	1110172	20.0 700	100 800	200 1000	300	400
Carbon disulfide	FB	Ave	91497 2619768	463969 3969960	874756 3951355	1119377	1544647	20.0 700	100 800	200 1000	300	400
Acetone	FB	Lin2	47874 390281	75446 501900	145367 526230	201909	231424	100 1400	200 1600	400 2000	600	800

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
Allyl chloride	FB	Ave	22664 698091	111987 796185	220406 1091756	265180	396144	20.0 700	100 800	200 1000	300	400
Methylene Chloride	FB	Ave	38895 983292	163557 1126005	317590 1446969	390467	544613	20.0 700	100 800	200 1000	300	400
Methyl acetate	FB	Ave	88164 2224238	375826 2696602	683140 3030290	1035067	1324779	100 3500	500 4000	1000 5000	1500	2000
trans-1,2-Dichloroethene	FB	Ave	42422 1124535	194386 1298488	371778 1650008	468410	646149	20.0 700	100 800	200 1000	300	400
tert-Butyl alcohol	TBA	Qua	567 53007	9778 +++++	12318 +++++	18904	25255	200 7000	1000 +++++	2000 +++++	3000	4000
Acrylonitrile	FB	Ave	60806 1848860	318922 2150290	568053 2412565	845412	1091986	200 7000	1000 8000	2000 10000	3000	4000
Methyl tert-butyl ether	FB	Ave	80870 2272845	384502 2574759	714150 3086291	984040	1301482	20.0 700	100 800	200 1000	300	400
Hexane	FB	Ave	44092 1051129	197721 1491013	382145 1744973	507536	686716	20.0 700	100 800	200 1000	300	400
Vinyl acetate	FB	Ave	34041 892468	141126 1064694	289383 1318507	370011	520045	20.0 700	100 800	200 1000	300	400
1,1-Dichloroethane	FB	Ave	51559 1709875	284258 2003605	550009 2524474	715666	988166	20.0 700	100 800	200 1000	300	400
2,2-Dichloropropane	FB	Ave	51484 1337687	243195 1523531	478480 1943271	593228	795291	20.0 700	100 800	200 1000	300	400
cis-1,2-Dichloroethene	FB	Ave	39878 1130925	185651 1299902	375290 1640293	475209	672672	20.0 700	100 800	200 1000	300	400
2-Butanone (MEK)	FB	Ave	46886 613084	101832 789394	189308 872275	296627	357127	100 1400	200 1600	400 2000	600	800
Bromochloromethane	FB	Ave	24652 646182	106979 744761	204558 925671	276754	383470	20.0 700	100 800	200 1000	300	400
Chloroform	FB	Ave	70828 1847979	324491 2105517	617343 2597161	796703	1070128	20.0 700	100 800	200 1000	300	400
1,1,1-Trichloroethane	FB	Ave	66238 1615549	304449 1847241	569802 2336141	711168	970491	20.0 700	100 800	200 1000	300	400
Tetrahydrofuran	FB	Ave	11945 323514	56328 392456	112031 486083	141960	193358	40.0 1400	200 1600	400 2000	600	800
Cyclohexane	FB	Ave	49523 1123391	204193 1347518	389741 1661352	497062	680423	20.0 700	100 800	200 1000	300	400
Carbon tetrachloride	FB	Ave	69874 1629157	301680 1866632	567374 2368924	706744	960424	20.0 700	100 800	200 1000	300	400
1,1-Dichloropropene	FB	Ave	48614 1161217	222122 1350014	397710 1689887	522409	684260	20.0 700	100 800	200 1000	300	400
Benzene	FB	Ave	131703 3150535	604063 3553209	1140696 4375955	1444796	1936130	20.0 700	100 800	200 1000	300	400

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	45545 1085110	193915 1261454	363062 1506238	486348	662167	20.0 700	100 800	200 1000	300	400
Isobutyl alcohol	FB	Ave	14915 725140	120699 875607	238248 1032146	318675	426103	500 17500	2500 20000	5000 25000	7500	10000
n-Heptane	FB	Ave	37541 1015361	172370 1247753	343792 1473278	453730	593146	20.0 700	100 800	200 1000	300	400
Trichloroethene	FB	Ave	51491 1337763	228617 1511187	445574 1899175	557536	763898	20.0 700	100 800	200 1000	300	400
Methylcyclohexane	FB	Ave	66709 1518386	302516 1821723	543409 2242100	683732	924161	20.0 700	100 800	200 1000	300	400
1,2-Dichloropropane	FB	Ave	28343 761874	129781 872134	243750 1079980	327752	447696	20.0 700	100 800	200 1000	300	400
Dibromomethane	FB	Ave	22063 570980	92763 676332	175702 813226	240979	325671	20.0 700	100 800	200 1000	300	400
1,4-Dioxane	FB	Ave	2158 129768	18551 130621	36036 160108	49259	68277	400 14000	2000 16000	4000 20000	6000	8000
Bromodichloromethane	FB	Ave	51297 1412009	234170 1632472	480549 1941561	612413	837049	20.0 700	100 800	200 1000	300	400
cis-1,3-Dichloropropene	FB	Ave	51839 1486494	250427 1709267	477454 2067222	643615	854790	20.0 700	100 800	200 1000	300	400
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	92825 1221845	198312 1421595	367652 1593755	558709	733664	100 1400	200 1600	400 2000	600	800
Toluene	CBZ	Qua	142380 3084889	620797 +++++	1151125 +++++	1473364	1929599	20.0 700	100 +++++	200 +++++	300	400
trans-1,3-Dichloropropene	CBZ	Ave	43102 1307789	200178 1546548	405643 1832921	565545	752421	20.0 700	100 800	200 1000	300	400
Ethyl methacrylate	CBZ	Ave	25609 911071	133131 1076607	262894 1240685	390626	513149	20.0 700	100 800	200 1000	300	400
1,1,2-Trichloroethane	CBZ	Ave	24292 746577	122370 867173	222398 1040134	322268	430806	20.0 700	100 800	200 1000	300	400
Tetrachloroethene	CBZ	Qua	37717 884171	166044 +++++	309255 +++++	380796	524990	20.0 700	100 +++++	200 +++++	300	400
1,3-Dichloropropane	CBZ	Ave	39480 1057404	180327 1228755	334311 1422739	485148	626433	20.0 700	100 800	200 1000	300	400
2-Hexanone	CBZ	Ave	50336 828690	121993 1032279	231264 1158826	369022	462161	100 1400	200 1600	400 2000	600	800
Dibromochloromethane	CBZ	Ave	44500 1253031	212583 1443562	387652 1742790	544921	725170	20.0 700	100 800	200 1000	300	400
1,2-Dibromoethane (EDB)	CBZ	Ave	27850 856980	131988 985791	251542 1184293	375561	486579	20.0 700	100 800	200 1000	300	400
Chlorobenzene	CBZ	Ave	92306 2414200	428641 2701248	846268 +++++	1093489	1464442	20.0 700	100 800	200 +++++	300	400

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
1,1,1,2-Tetrachloroethane	CBZ	Ave	43591 1125563	201326 +++++	393829 +++++	505049	683517	20.0 700	100 +++++	200 +++++	300	400
Ethylbenzene	CBZ	Ave	50304 +++++	223898 +++++	438222 +++++	567348	742350	20.0 +++++	100 +++++	200 +++++	300	400
m-Xylene & p-Xylene	CBZ	Ave	67901 +++++	306490 +++++	582999 +++++	753992	1009451	20.0 +++++	100 +++++	200 +++++	300	400
o-Xylene	CBZ	Ave	68803 +++++	307714 +++++	586685 +++++	750708	1006935	20.0 +++++	100 +++++	200 +++++	300	400
Styrene	CBZ	Qua	104580 2360095	473776 +++++	895002 +++++	1119936	1435413	20.0 700	100 +++++	200 +++++	300	400
Bromoform	CBZ	Ave	19871 781610	108786 915646	228827 1061162	322387	436139	20.0 700	100 800	200 1000	300	400
Isopropylbenzene	CBZ	Qua	197392 3864822	851551 +++++	1546157 +++++	1939042	2501798	20.0 700	100 +++++	200 +++++	300	400
1,1,2,2-Tetrachloroethane	CBZ	Ave	27018 733504	130862 843599	251042 942162	360995	452814	20.0 700	100 800	200 1000	300	400
Bromobenzene	DCB	Ave	45193 1224216	217052 1357100	423173 1650286	548599	719427	20.0 700	100 800	200 1000	300	400
1,2,3-Trichloropropane	DCB	Ave	9783 290435	43419 336681	86903 383754	129479	165438	20.0 700	100 800	200 1000	300	400
trans-1,4-Dichloro-2-butene	DCB	Ave	6196 188752	25315 225524	49829 261594	77709	103928	20.0 700	100 800	200 1000	300	400
N-Propylbenzene	DCB	Ave	57850 1515443	254930 1690335	515043 2105507	649531	866084	20.0 700	100 800	200 1000	300	400
2-Chlorotoluene	DCB	Ave	49710 1366522	241717 1567014	465485 1902501	592801	799439	20.0 700	100 800	200 1000	300	400
1,3,5-Trimethylbenzene	DCB	Qua	166706 3121962	678088 3446156	1260442 +++++	1547120	2000575	20.0 700	100 800	200 +++++	300	400
4-Chlorotoluene	DCB	Ave	50322 1318727	236378 1461135	415760 1852378	562904	757841	20.0 700	100 800	200 1000	300	400
tert-Butylbenzene	DCB	Lin2	173349 +++++	756877 +++++	1397136 +++++	1734851	2561684	20.0 +++++	100 +++++	200 +++++	300	400
1,2,4-Trimethylbenzene	DCB	Qua	162794 3286002	682185 +++++	1279121 +++++	1578246	2068364	20.0 700	100 +++++	200 +++++	300	400
sec-Butylbenzene	DCB	Qua	214158 4241460	908560 4650844	1664550 +++++	2075658	2688983	20.0 700	100 800	200 +++++	300	400
1,3-Dichlorobenzene	DCB	Lin2	100166 +++++	434056 +++++	814415 +++++	1053105	1390255	20.0 +++++	100 +++++	200 +++++	300	400
4-Isopropyltoluene	DCB	Qua	201528 3605948	822865 +++++	1460316 +++++	1814126	2342656	20.0 700	100 +++++	200 +++++	300	400
1,4-Dichlorobenzene	DCB	Ave	86104 2234049	400302 2471728	763456 2953963	1033910	1375837	20.0 700	100 800	200 1000	300	400

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
n-Butylbenzene	DCB	Qua	165362 2947372	672615 +++++	1224106 +++++	1510703	1935500	20.0 700	100 +++++	200 +++++	300	400
1,2-Dichlorobenzene	DCB	Ave	82710 +++++	359029 +++++	666444 +++++	895594	1172011	20.0 +++++	100 +++++	200 +++++	300	400
1,2-Dibromo-3-Chloropropane	DCB	Lin2	2051 134161	15088 157690	37304 181072	48853	74075	20.0 700	100 800	200 1000	300	400
1,2,4-Trichlorobenzene	DCB	Ave	28435 719677	78248 992400	198283 1186297	302905	443796	20.0 700	100 800	200 1000	300	400
Hexachlorobutadiene	DCB	Ave	19184 413354	52188 568860	119072 704150	167959	239421	20.0 700	100 800	200 1000	300	400
Naphthalene	DCB	Ave	61310 1090423	113468 1540124	323445 1609562	511933	664374	20.0 700	100 800	200 1000	300	400
1,2,3-Trichlorobenzene	DCB	Ave	28729 433251	38530 697645	106664 761958	203191	263400	20.0 700	100 800	200 1000	300	400
Dibromofluoromethane (Surr)	FB	Ave	40332 1069500	182892 1276297	358794 1499933	459650	635809	20.0 700	100 800	200 1000	300	400
1,2-Dichloroethane-d4 (Surr)	FB	Ave	38294 1052781	170431 1230322	326104 1446117	452870	603243	20.0 700	100 800	200 1000	300	400
Toluene-d8 (Surr)	CBZ	Ave	+++++ 2956031	571452 3370087	1076372 4013224	1374921	1822472	+++++ 700	100 800	200 1000	300	400
4-Bromofluorobenzene (Surr)	CBZ	Lin2	58011 1382927	227038 1583659	461682 1915172	594575	801850	20.0 700	100 800	200 1000	300	400

Curve Type Legend:

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 30-Mar-2015 10:57:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:14 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 11:35:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.012	5.024	-0.012	82	293090	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	99	1023741	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	84	274343	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.006	93	404767	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.678	0.001	84	40332	20.0	24.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.037	0.007	66	38294	20.0	24.6	
$ 7 Toluene-d8 (Surr)	98		9.033				ND	ND	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.636	-0.005	92	58011	20.0	19.3	
11 Dichlorodifluoromethane	85	1.934	1.939	-0.005	1	41448	20.0	21.8	M
12 Chloromethane	50	2.086	2.018	0.068	22	44098	20.0	21.3	M
14 Butadiene	39	2.183	2.176	0.007	65	43516	20.0	25.6	
13 Vinyl chloride	62	2.171	2.225	-0.054	27	35111	20.0	21.8	M
15 Bromomethane	94	2.499	2.499	0.000	10	23195	20.0	17.9	M
16 Chloroethane	64	2.615	2.639	-0.024	65	28139	20.0	21.7	
17 Dichlorofluoromethane	67	2.919	2.882	0.037	69	78053	20.0	22.6	
18 Trichlorofluoromethane	101	2.956	2.913	0.043	75	77379	20.0	21.3	
20 Ethyl ether	59	3.357	3.314	0.043	64	18758	20.0	16.3	
22 1,1-Dichloroethene	96	3.461	3.460	0.001	1	25924	20.0	18.9	M
21 Acrolein	56	3.485	3.497	-0.012	72	28748	400.0	361.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.637	3.563	0.074	1	37088	20.0	23.2	M
25 Iodomethane	142	3.710	3.716	-0.006	92	65439	20.0	22.8	
26 Carbon disulfide	76	3.771	3.764	0.007	79	91497	20.0	22.2	
24 Acetone	43	3.874	3.855	0.019	65	47874	100.0	100.6	M
28 3-Chloro-1-propene	76	4.063	4.087	-0.024	54	22664	20.0	22.4	M
31 Methylene Chloride	84	4.318	4.294	0.024	55	38895	20.0	26.4	M
30 Methyl acetate	43	4.355	4.324	0.031	68	88164	100.0	129.3	M
34 trans-1,2-Dichloroethene	96	4.714	4.725	-0.011	55	42422	20.0	24.9	
32 2-Methyl-2-propanol	59	4.708	4.744	-0.036	1	567	200.0	-157.2	
33 Acrylonitrile	53	4.872	4.829	0.043	64	60806	200.0	222.9	M
35 Methyl tert-butyl ether	73	4.896	4.890	0.006	62	80870	20.0	24.1	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.115	5.090	0.025	81	44092	20.0	24.7	M
38 Vinyl acetate	43	5.115	5.115	0.000	76	34041	20.0	25.3	M
37 1,1-Dichloroethane	63	5.328	5.334	-0.006	62	51559	20.0	20.6	M
44 2,2-Dichloropropane	77	6.083	6.076	0.007	84	51484	20.0	24.7	M
45 cis-1,2-Dichloroethene	96	6.101	6.094	0.007	76	39878	20.0	23.6	
46 2-Butanone (MEK)	43	6.222	6.216	0.006	74	46886	100.0	102.2	
49 Chlorobromomethane	128	6.375	6.380	-0.005	74	24652	20.0	25.3	
52 Chloroform	83	6.502	6.496	0.006	92	70828	20.0	25.2	M
53 1,1,1-Trichloroethane	97	6.667	6.660	0.007	94	66238	20.0	25.9	M
51 Tetrahydrofuran	42	6.727	6.709	0.018	46	11945	40.0	47.6	M
54 Cyclohexane	56	6.715	6.709	0.006	86	49523	20.0	27.5	M
56 Carbon tetrachloride	117	6.849	6.849	0.000	95	69874	20.0	27.1	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	50	48614	20.0	26.3	M
58 Benzene	78	7.098	7.086	0.012	95	131703	20.0	26.1	
59 1,2-Dichloroethane	62	7.129	7.122	0.007	84	45545	20.0	26.8	M
62 n-Heptane	43	7.390	7.390	0.000	40	37541	20.0	24.0	M
57 Isobutyl alcohol	41	7.208	7.396	-0.188	56	14915	500.0	362.9	M
64 Trichloroethene	130	7.798	7.785	0.013	88	51491	20.0	25.5	M
66 Methylcyclohexane	83	7.981	7.980	0.001	86	66709	20.0	26.9	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	82	28343	20.0	24.7	
68 Dibromomethane	93	8.151	8.144	0.007	90	22063	20.0	25.8	M
70 1,4-Dioxane	88	8.206	8.205	0.001	2	2158	400.0	269.0	M
71 Dichlorobromomethane	83	8.321	8.315	0.006	96	51297	20.0	24.1	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	89	51839	20.0	23.5	
75 4-Methyl-2-pentanone (MIBK	43	8.948	8.947	0.001	97	92825	100.0	115.8	
76 Toluene	91	9.100	9.099	0.001	97	142380	20.0	12.2	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	95	43102	20.0	25.0	
78 Ethyl methacrylate	69	9.428	9.428	0.000	92	25609	20.0	22.3	
79 1,1,2-Trichloroethane	97	9.514	9.513	0.001	91	24292	20.0	24.7	
80 Tetrachloroethene	164	9.647	9.641	0.006	91	37717	20.0	9.83	
81 1,3-Dichloropropane	76	9.666	9.671	-0.005	92	39480	20.0	27.1	
82 2-Hexanone	43	9.769	9.769	0.000	95	50336	100.0	97.3	
84 Chlorodibromomethane	129	9.897	9.896	0.001	85	44500	20.0	26.3	
85 Ethylene Dibromide	107	10.012	10.006	0.006	95	27850	20.0	25.0	
87 Chlorobenzene	112	10.499	10.499	0.000	97	92306	20.0	26.4	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.578	-0.006	89	43591	20.0	25.8	
90 Ethylbenzene	106	10.603	10.602	0.001	98	50304	20.0	25.3	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	67901	20.0	25.3	
92 o-Xylene	106	11.114	11.113	0.001	95	68803	20.0	25.6	
93 Styrene	104	11.126	11.125	0.001	94	104580	20.0	9.49	
94 Bromoform	173	11.314	11.314	0.000	92	19871	20.0	20.7	
97 Isopropylbenzene	105	11.479	11.478	0.001	96	197392	20.0	10.7	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	59	27018	20.0	26.1	
100 Bromobenzene	156	11.789	11.788	0.001	90	45193	20.0	26.1	
101 1,2,3-Trichloropropane	110	11.813	11.819	-0.006	55	9783	20.0	25.2	
102 trans-1,4-Dichloro-2-buten	53	11.837	11.831	0.006	47	6196	20.0	25.5	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	57850	20.0	27.2	
104 2-Chlorotoluene	126	11.983	11.977	0.006	97	49710	20.0	25.7	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	95	166706	20.0	6.19	
107 4-Chlorotoluene	126	12.087	12.086	0.001	95	50322	20.0	27.2	
108 tert-Butylbenzene	119	12.391	12.391	0.000	91	173349	20.0	19.7	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	95	162794	20.0	14.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.610	12.610	0.000	94	214158	20.0	6.61	
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	96	100166	20.0	19.7	
114 4-Isopropyltoluene	119	12.750	12.756	-0.006	96	201528	20.0	13.2	
115 1,4-Dichlorobenzene	146	12.817	12.816	0.001	94	86104	20.0	26.8	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	165362	20.0	13.9	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	82710	20.0	26.3	
122 1,2-Dibromo-3-Chloropropan	75	13.955	13.972	-0.017	52	2051	20.0	20.3	
126 1,2,4-Trichlorobenzene	180	14.818	14.806	0.012	91	28435	20.0	28.5	
127 Hexachlorobutadiene	225	14.964	14.970	-0.006	84	19184	20.0	32.1	
128 Naphthalene	128	15.056	15.055	0.001	96	61310	20.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.311	15.305	0.006	93	28729	20.0	42.1	
S 134 1,2-Dichloroethene, Total	96				0		40.0	48.4	
S 133 Xylenes, Total	106				0		40.0	50.9	
S 135 1,3-Dichloropropene, Total	1				0		40.0	48.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	0.80	Units: uL
VOAVAPRI_00005	Amount Added:	0.80	Units: uL
VOAACRPRI_00003	Amount Added:	16.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	0.80	Units: uL
voaWKet2 Rest_00002	Amount Added:	3.20	Units: uL

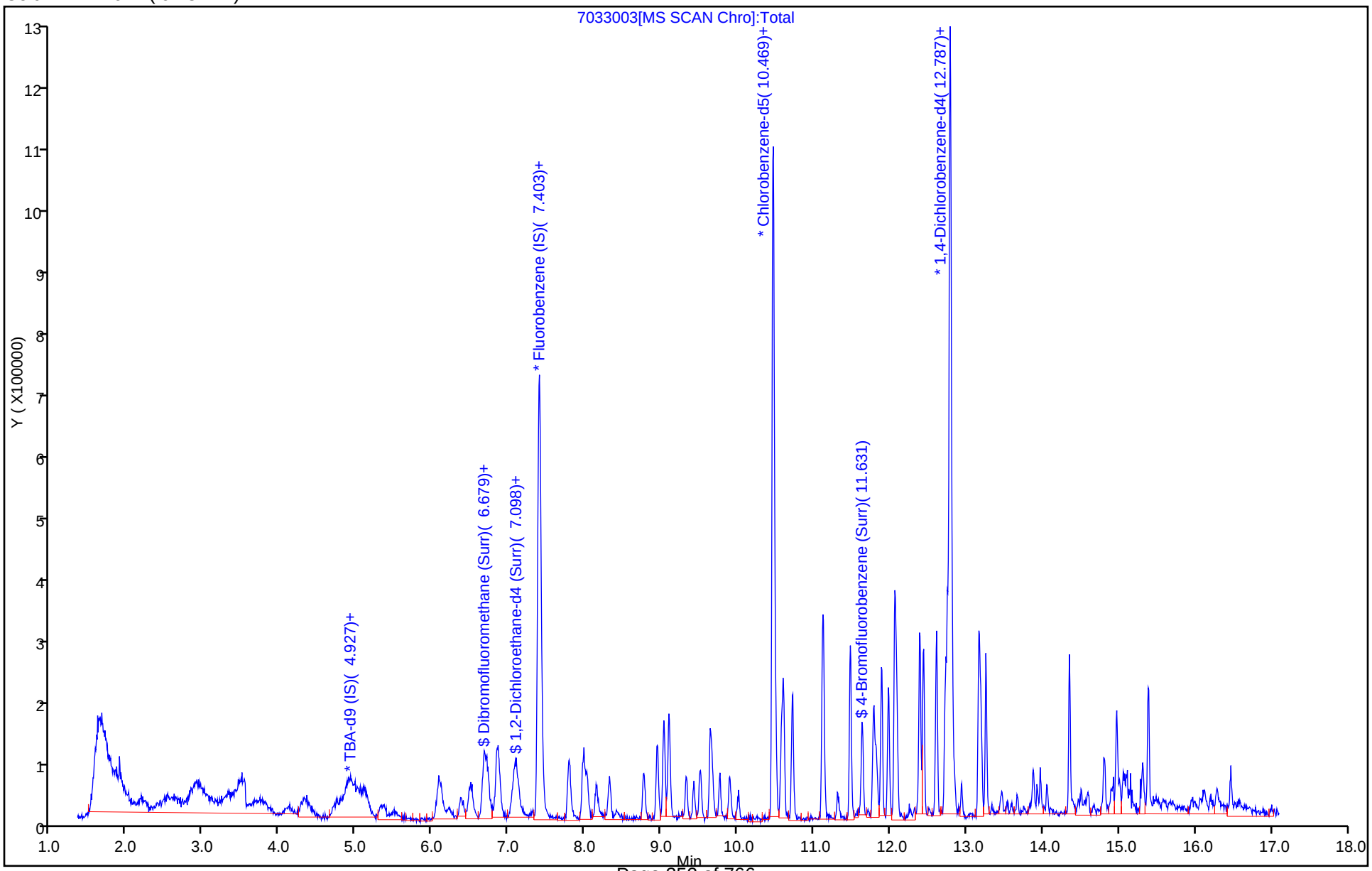
Report Date: 31-Mar-2015 08:54:15 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D

Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

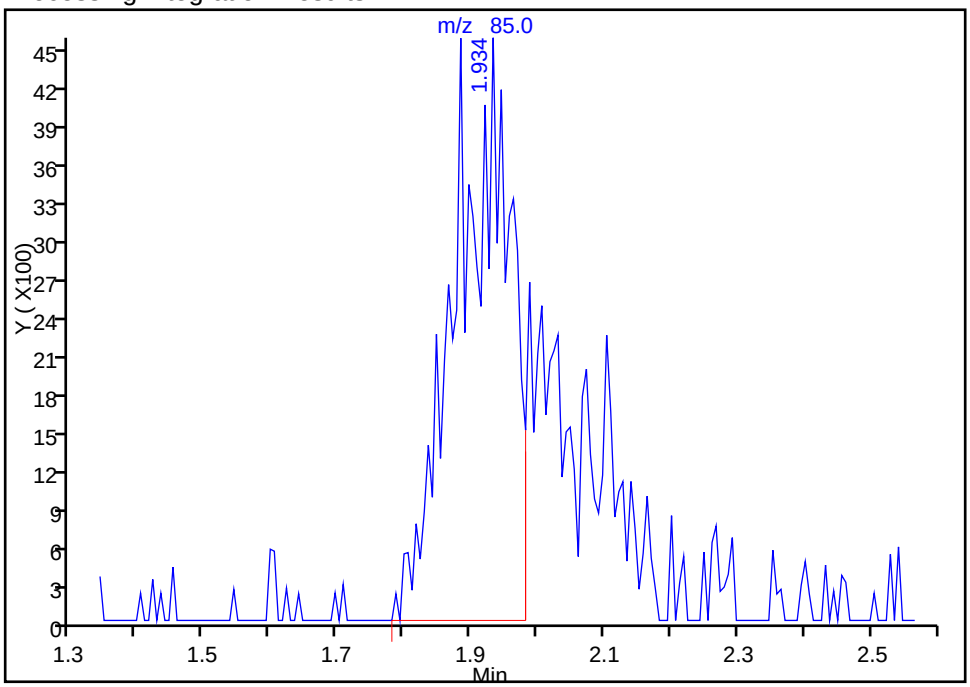
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Dichlorodifluoromethane, CAS: 75-71-8

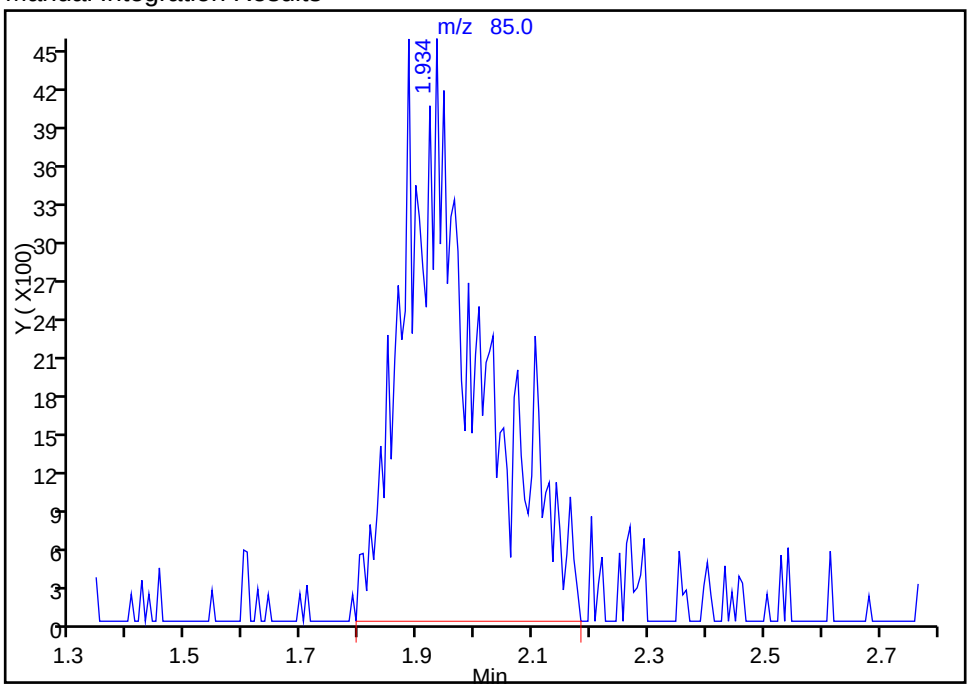
Processing Integration Results

RT: 1.93
Area: 26133
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 1.93
Area: 41448
Amount: 21.843208
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

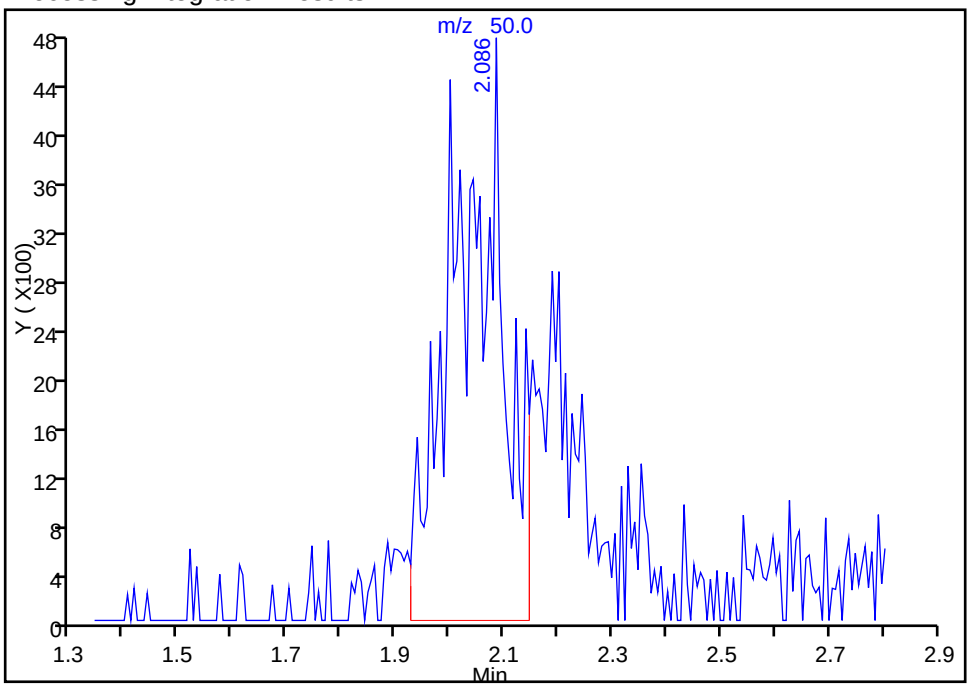
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

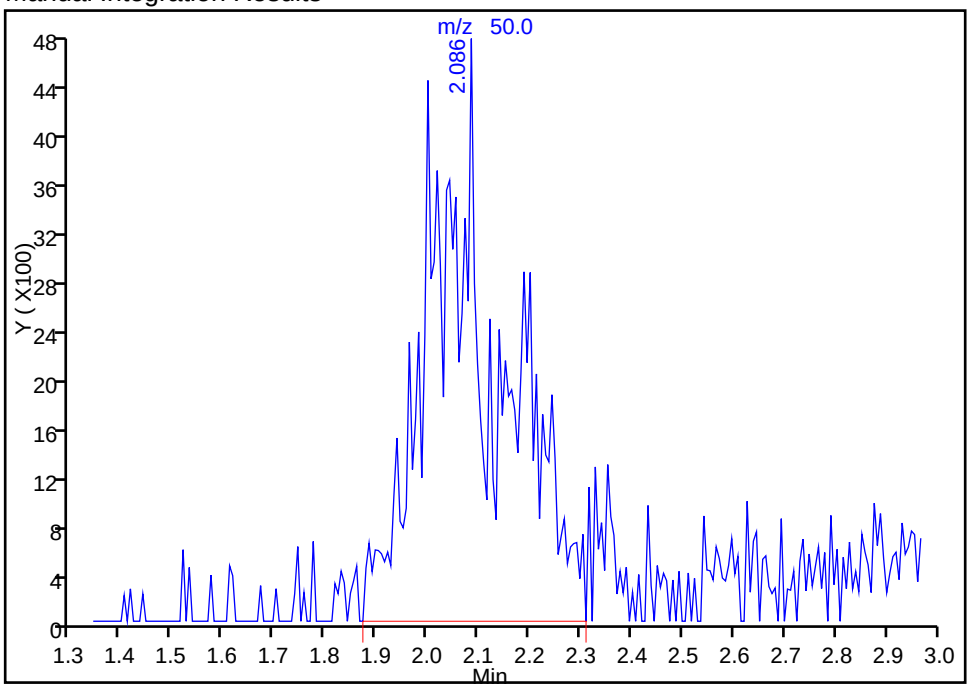
Processing Integration Results

RT: 2.09
Area: 29503
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.09
Area: 44098
Amount: 21.331829
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

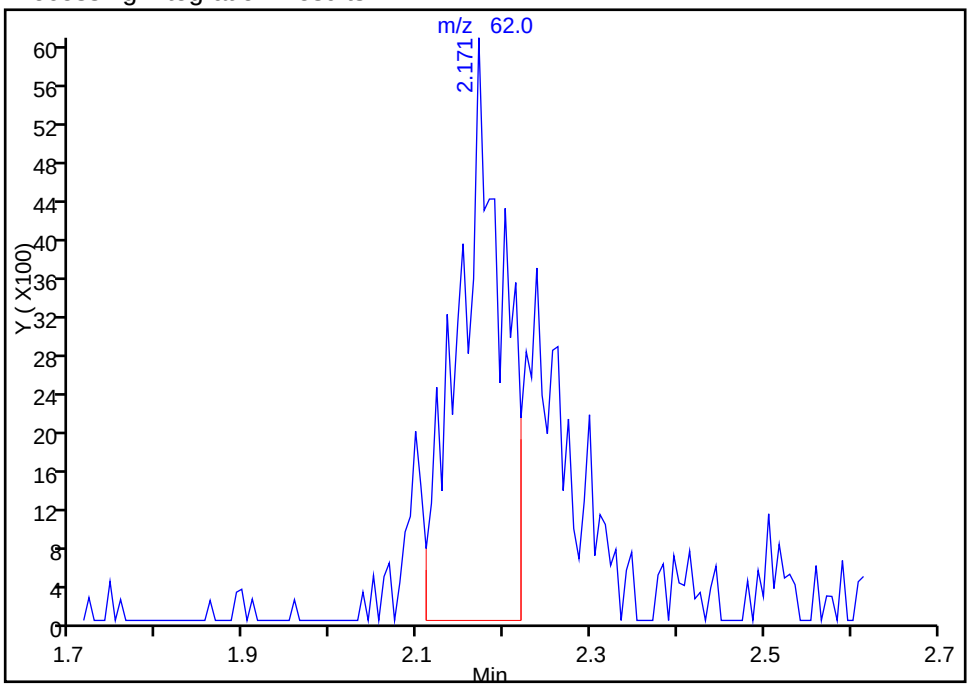
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

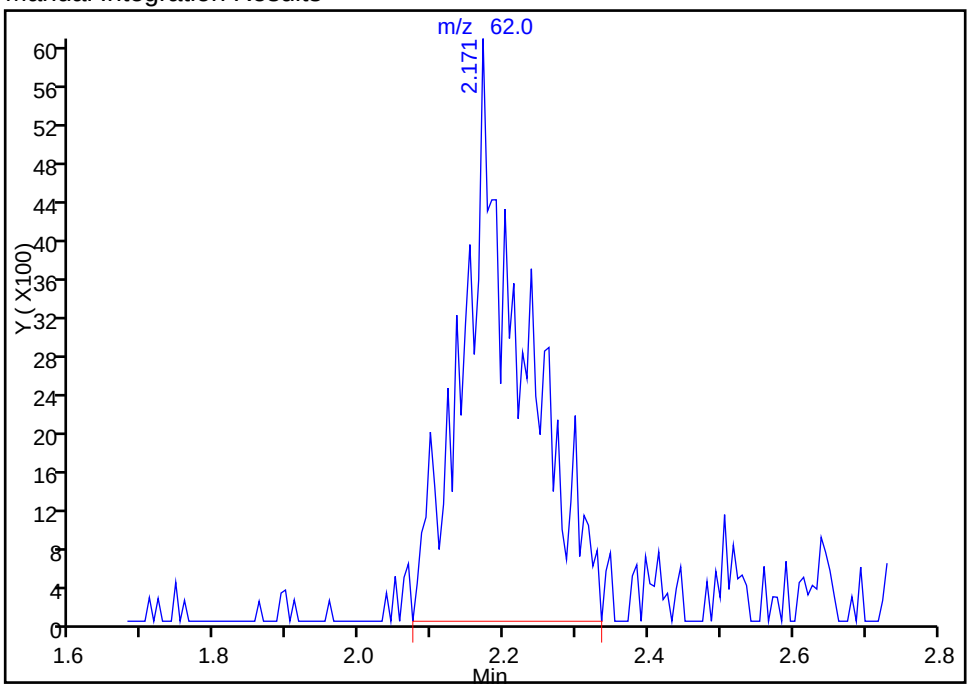
Processing Integration Results

RT: 2.17
Area: 21509
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.17
Area: 35111
Amount: 21.810178
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

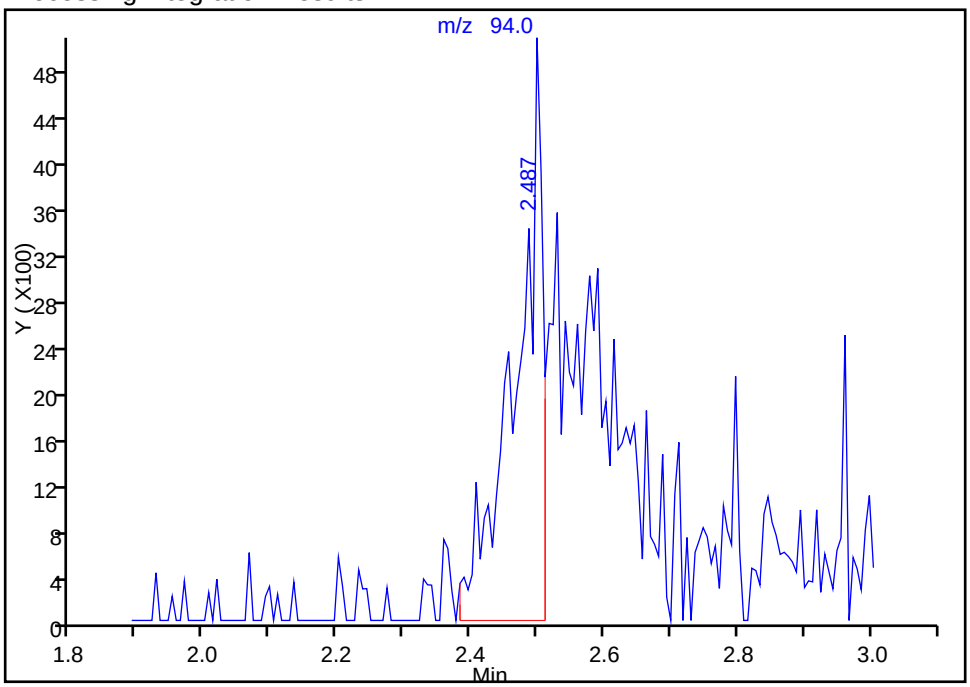
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

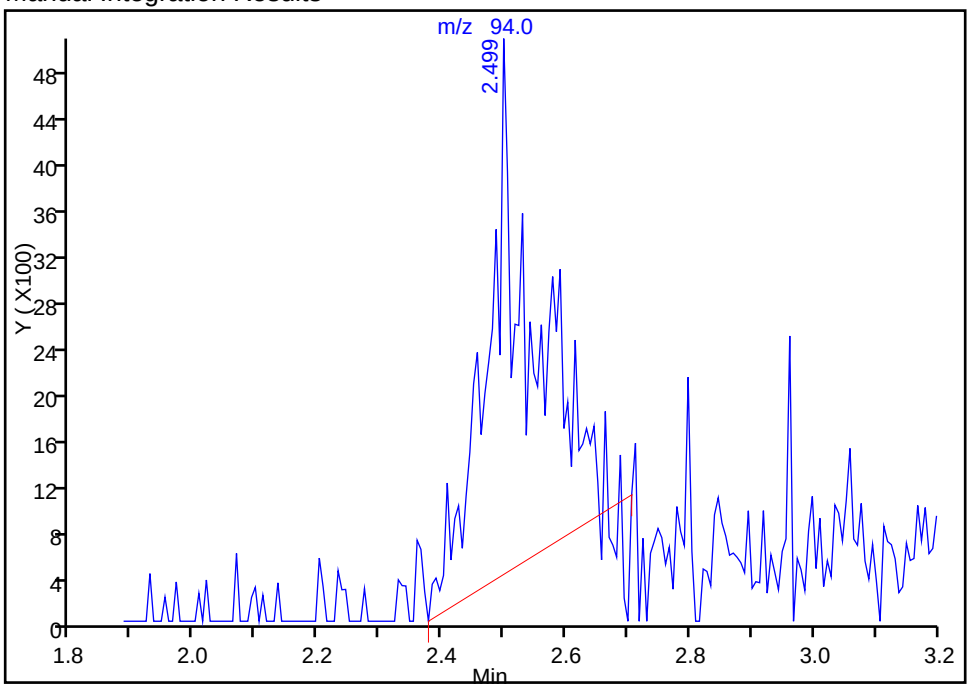
Processing Integration Results

RT: 2.49
Area: 13755
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.50
Area: 23195
Amount: 17.880294
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

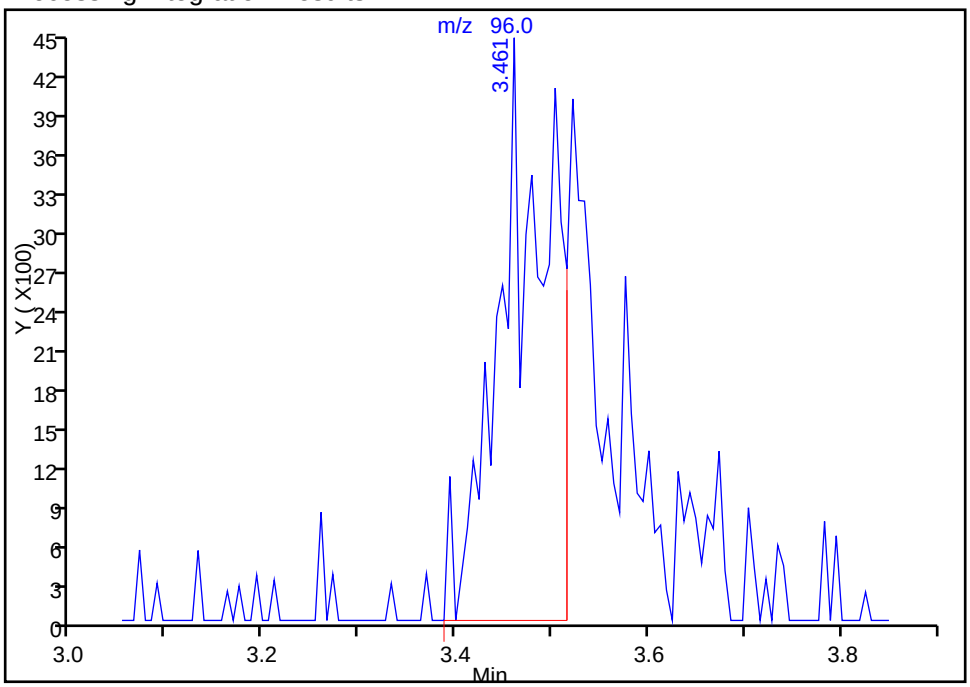
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

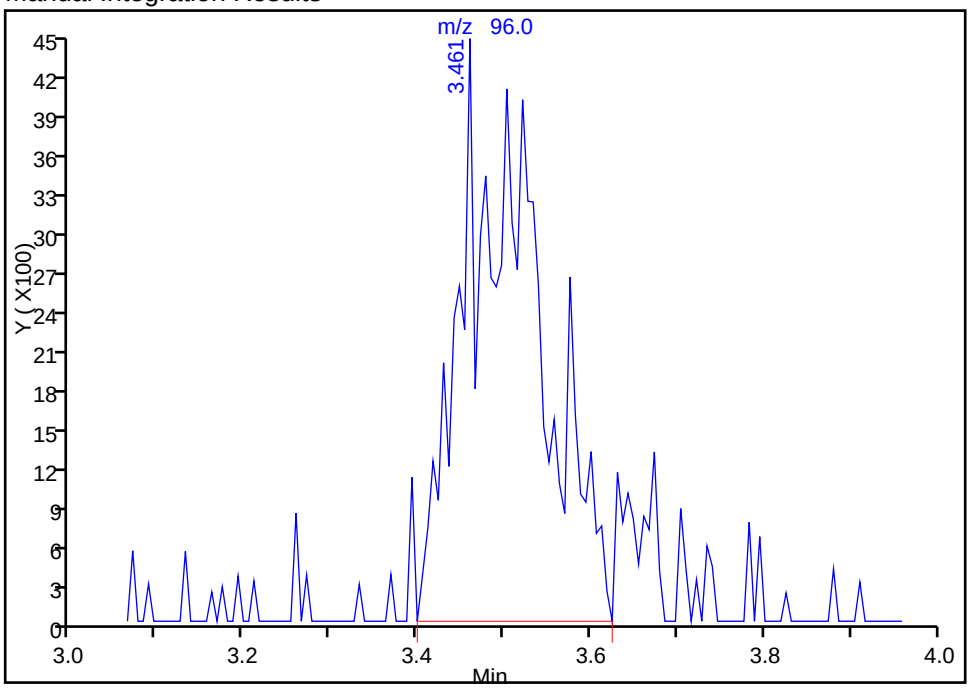
Processing Integration Results

RT: 3.46
Area: 16183
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 3.46
Area: 25924
Amount: 18.860231
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

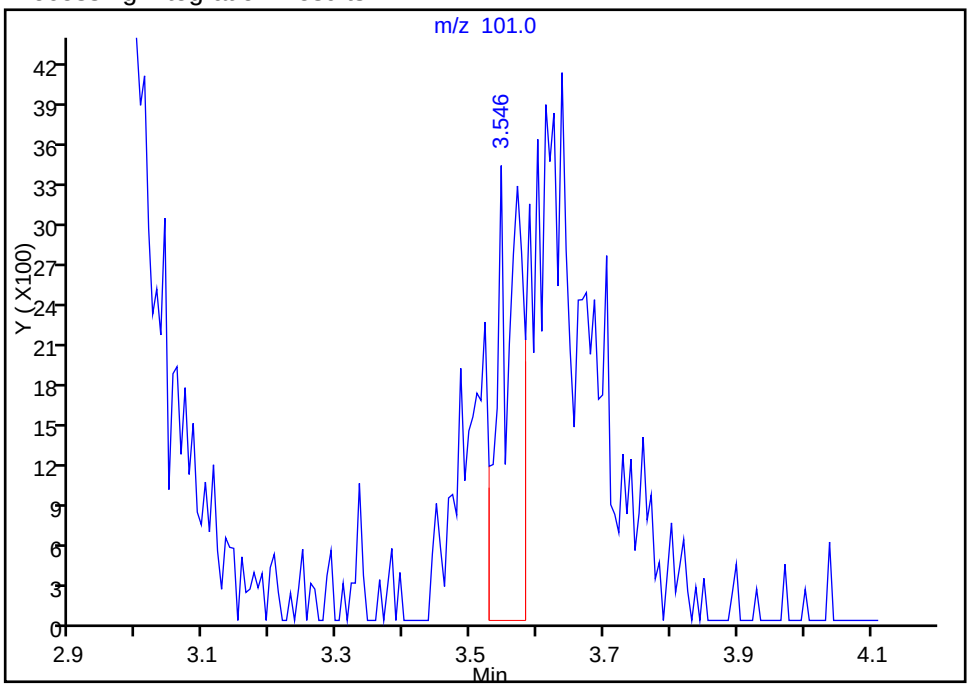
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

23 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

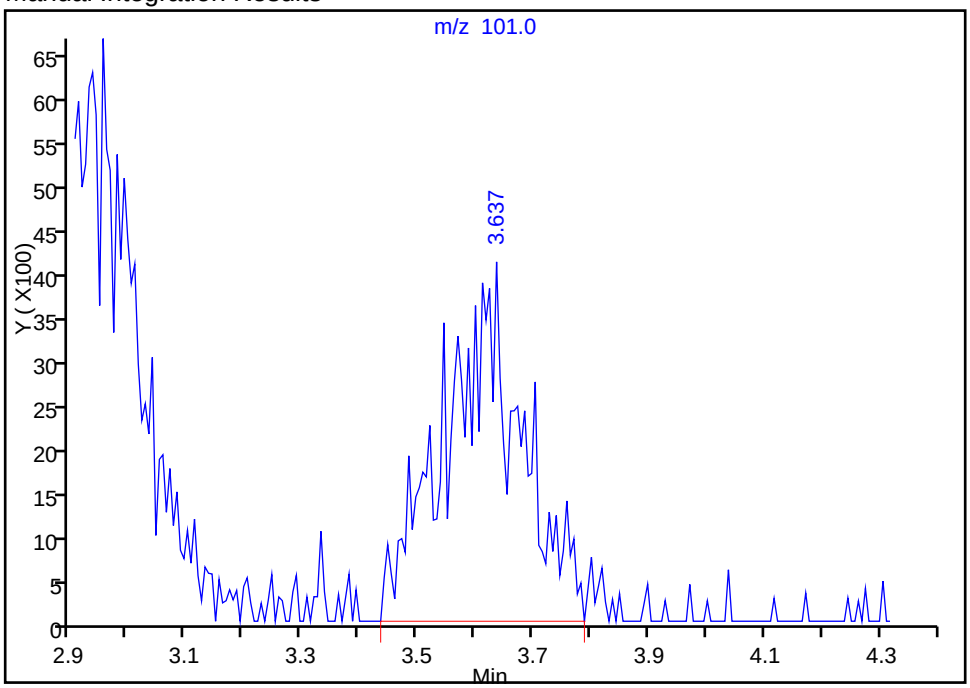
Processing Integration Results

RT: 3.55
Area: 7866
Amount: 0
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 37088
Amount: 23.204719
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

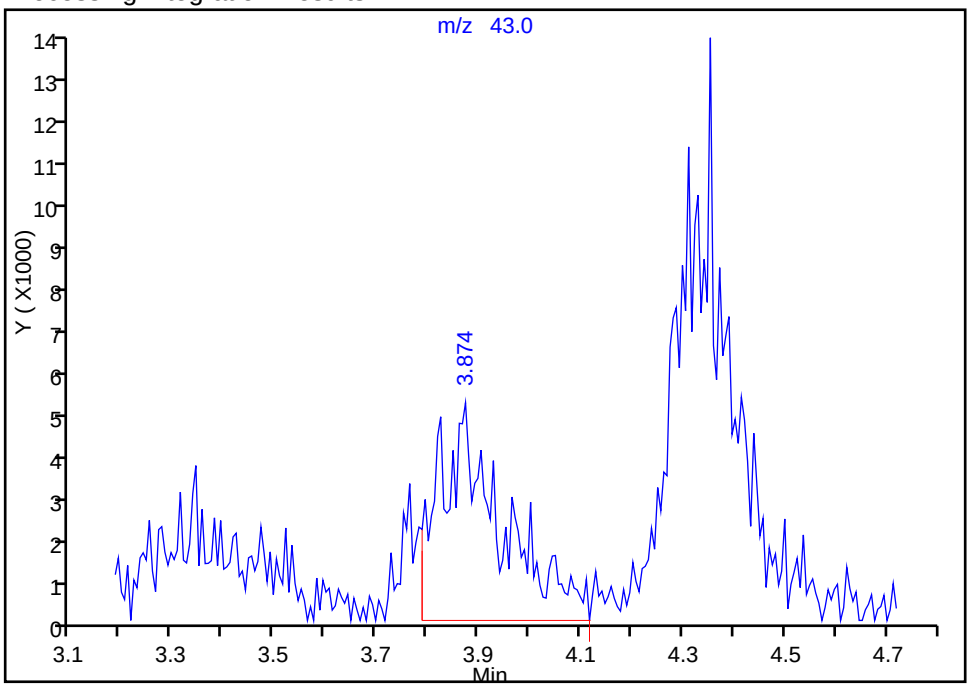
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

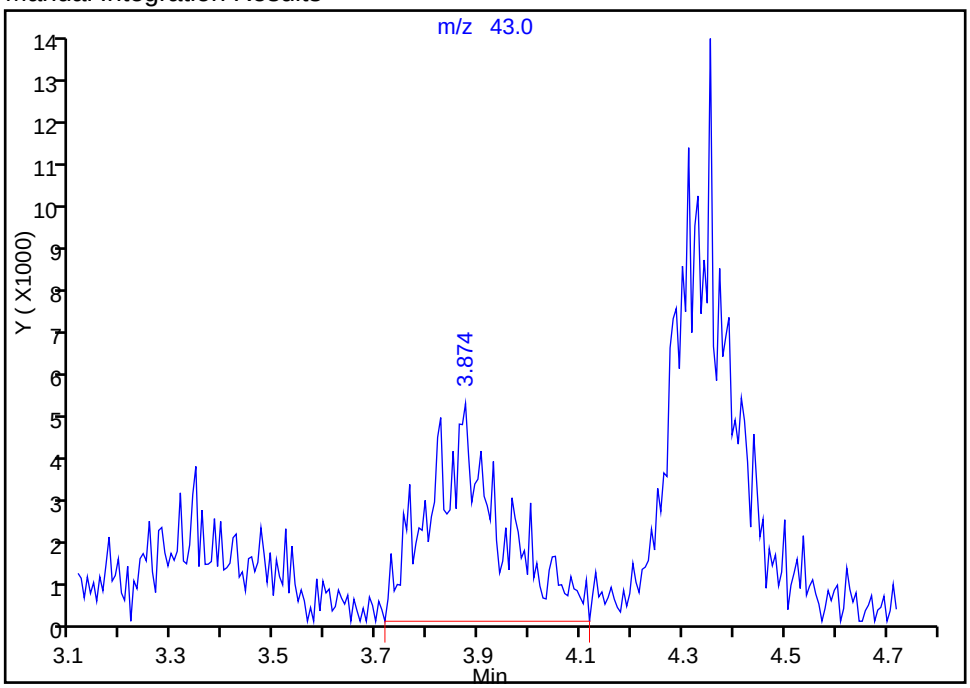
Processing Integration Results

RT: 3.87
Area: 41567
Amount: 100.0000
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 47874
Amount: 100.6346
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

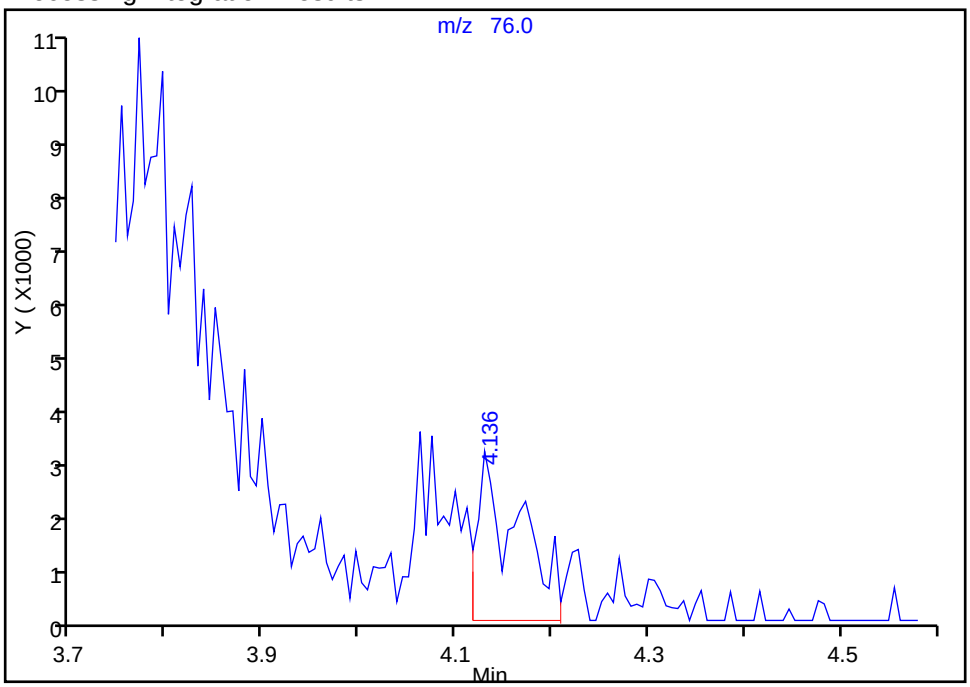
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

28 3-Chloro-1-propene, CAS: 107-05-1

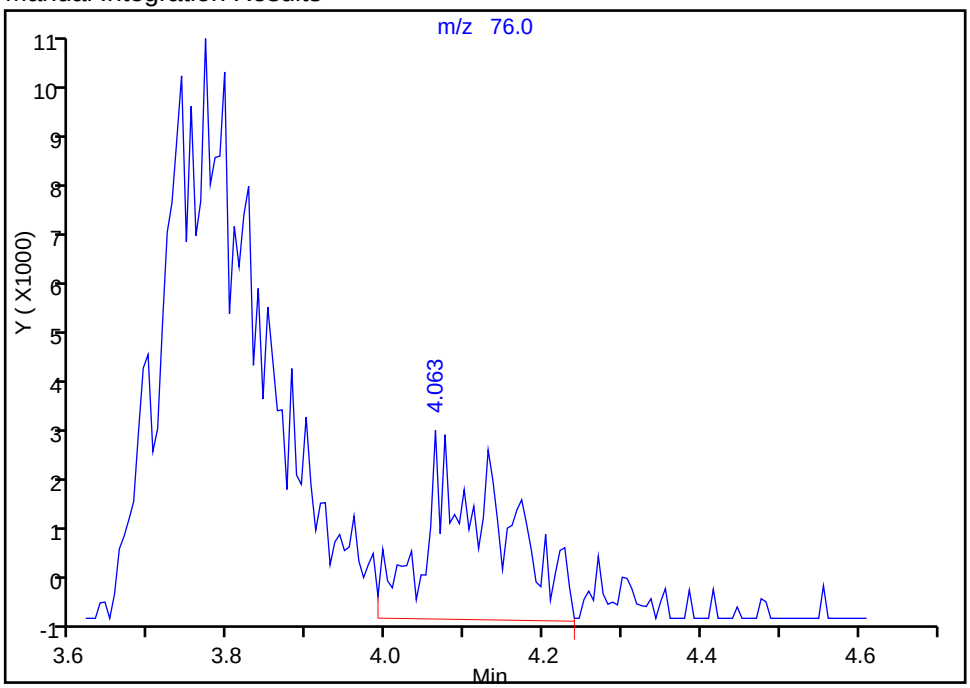
Processing Integration Results

RT: 4.14
Area: 9385
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.06
Area: 22664
Amount: 22.354527
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

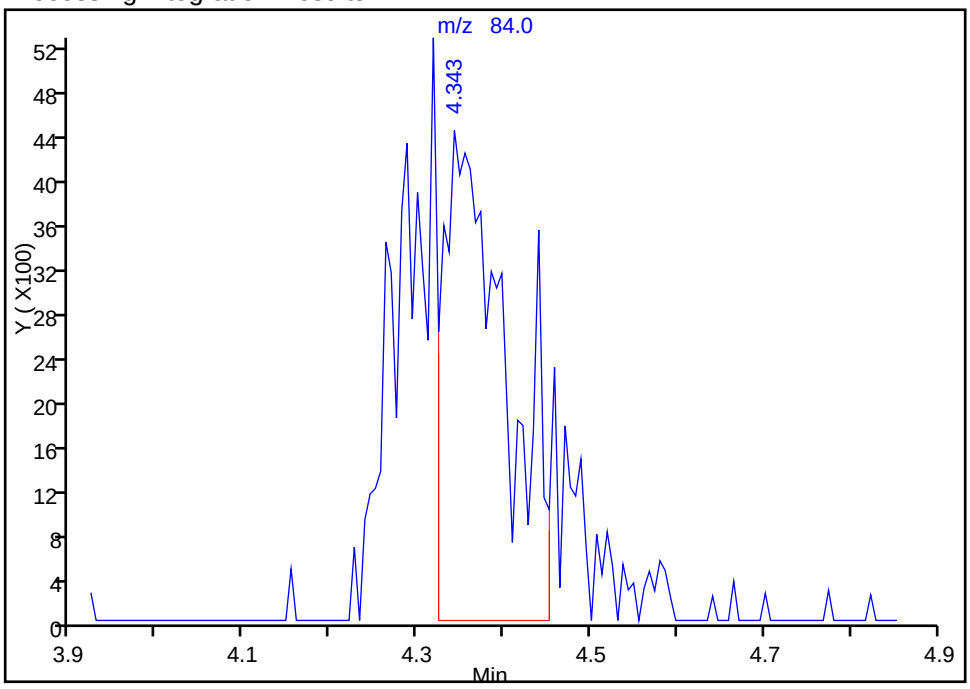
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

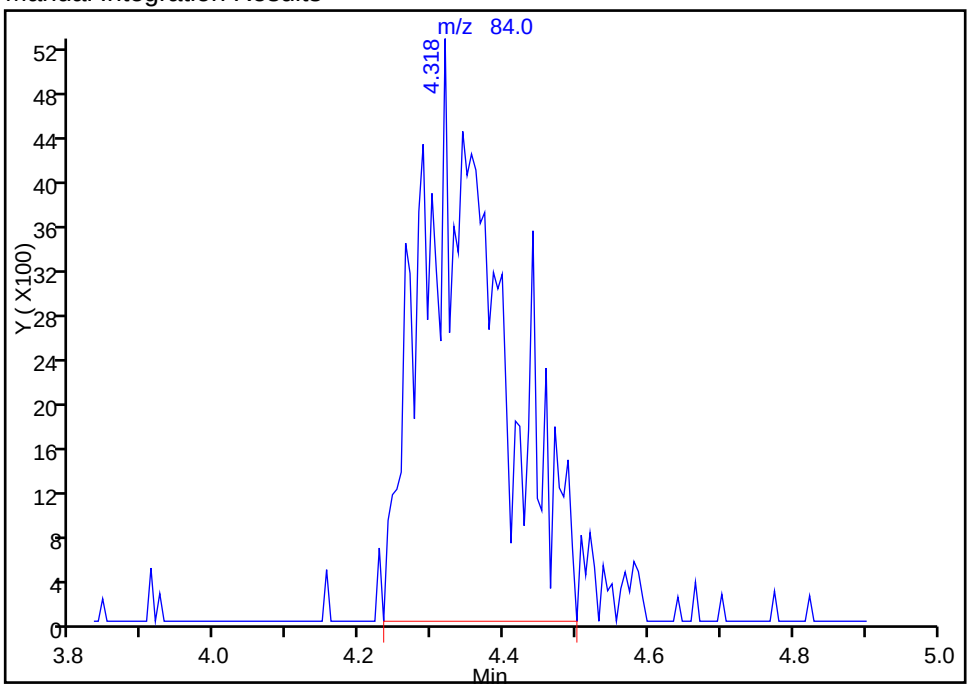
Processing Integration Results

RT: 4.34
Area: 21726
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 38895
Amount: 26.365167
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

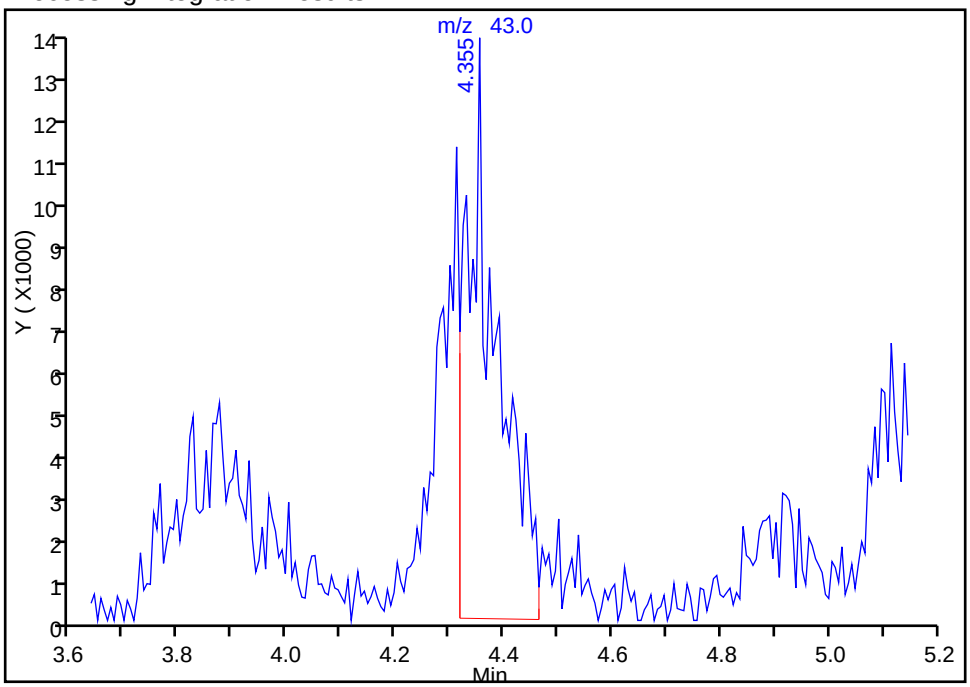
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

30 Methyl acetate, CAS: 79-20-9

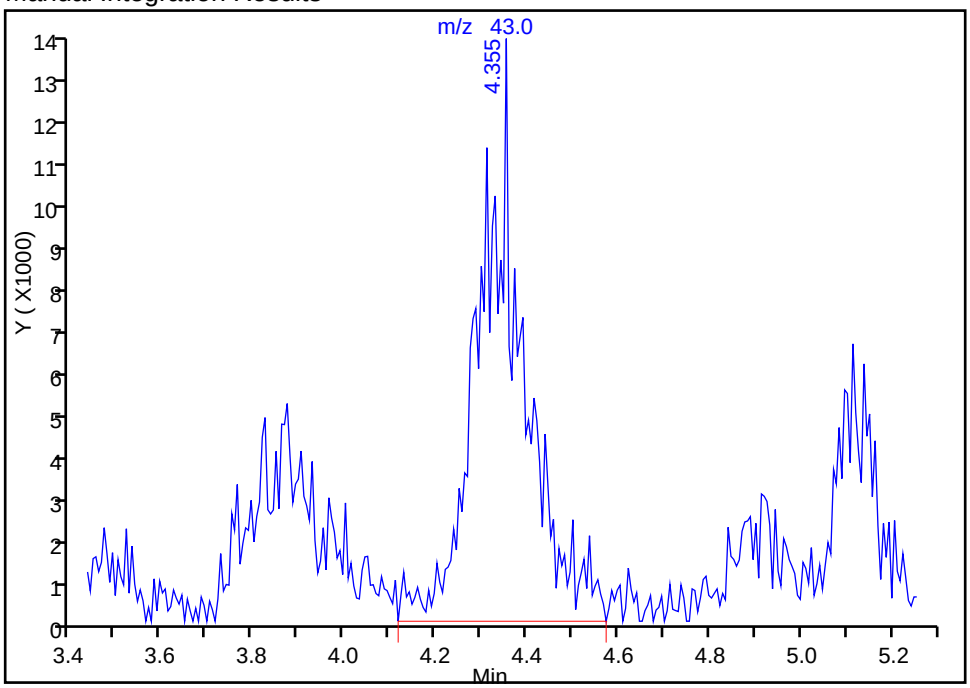
Processing Integration Results

RT: 4.35
Area: 51204
Amount: 100.0000
Amount Units: ng



Manual Integration Results

RT: 4.35
Area: 88164
Amount: 129.2601
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

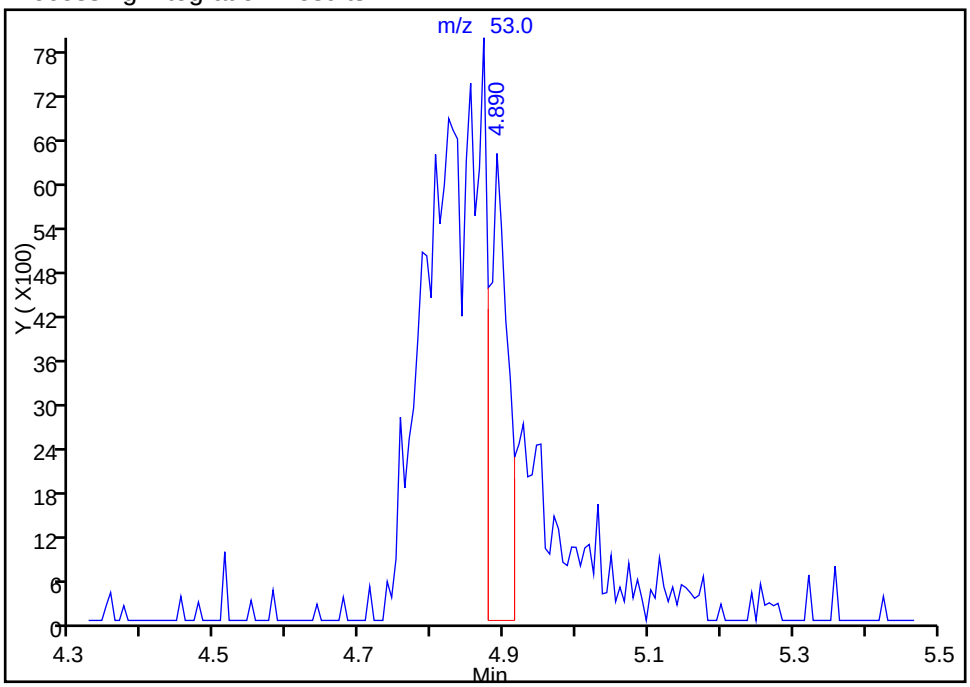
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

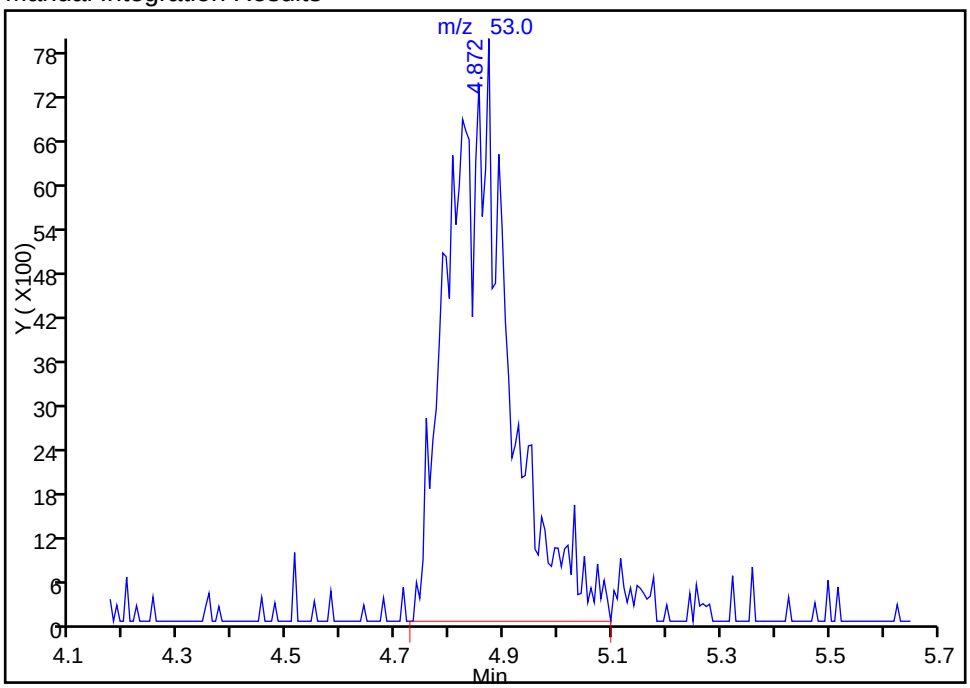
Processing Integration Results

RT: 4.89
Area: 11115
Amount: 0
Amount Units: ng



Manual Integration Results

RT: 4.87
Area: 60806
Amount: 222.8607
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

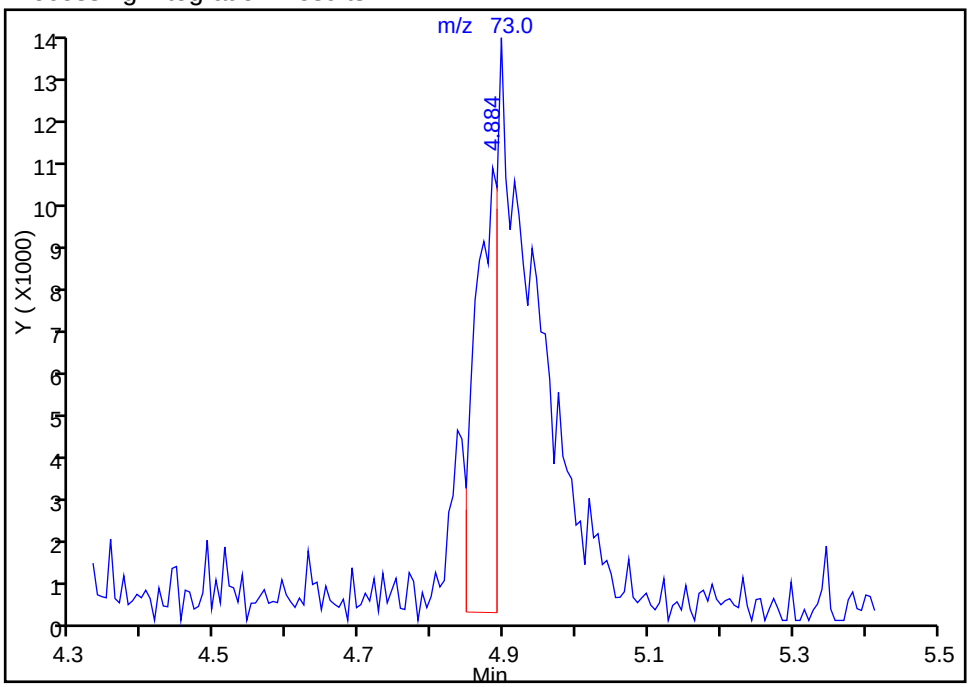
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

35 Methyl tert-butyl ether, CAS: 1634-04-4

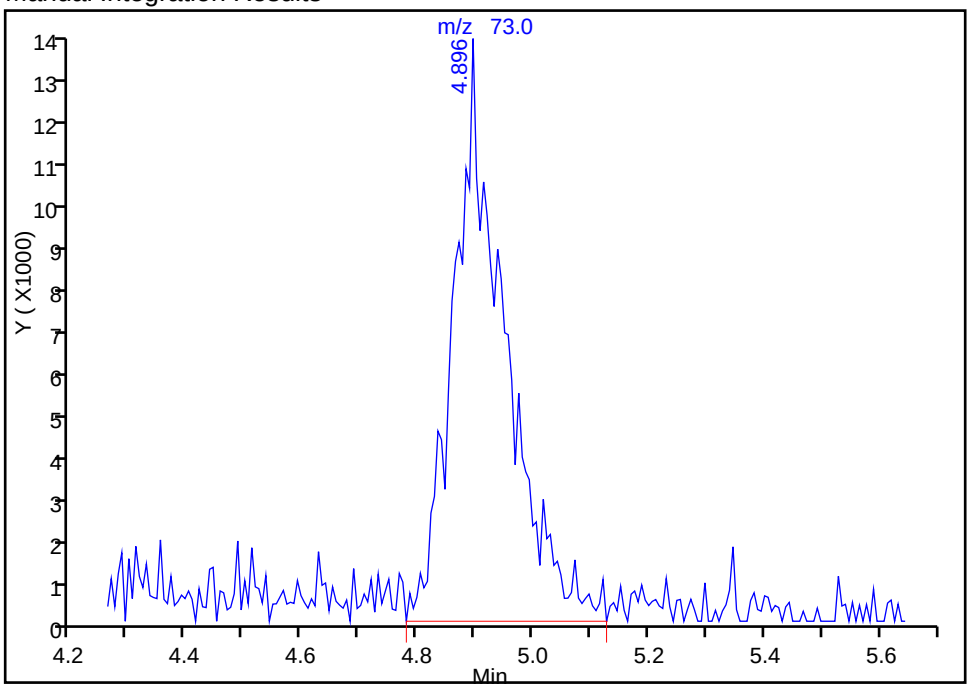
Processing Integration Results

RT: 4.88
Area: 21512
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.90
Area: 80870
Amount: 24.061609
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

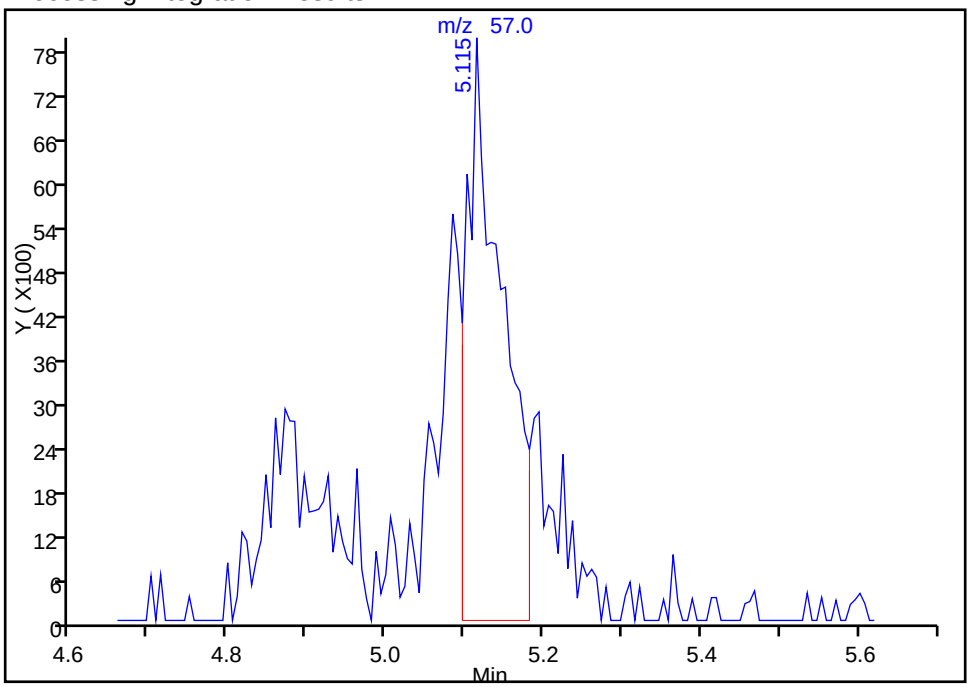
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

36 Hexane, CAS: 110-54-3

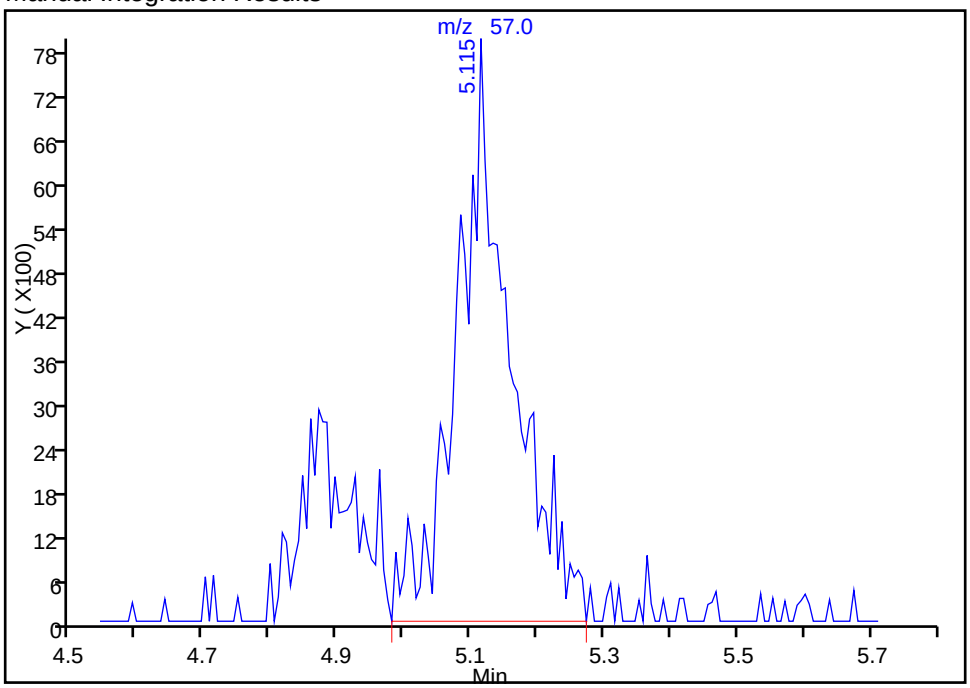
Processing Integration Results

RT: 5.12
Area: 24973
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 44092
Amount: 24.720726
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

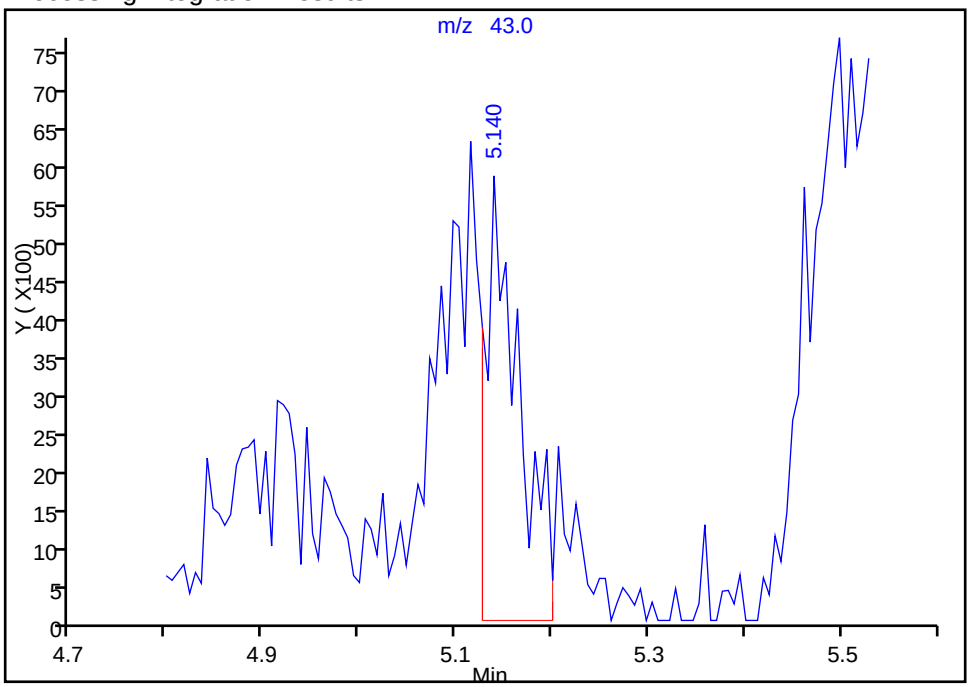
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

38 Vinyl acetate, CAS: 108-05-4

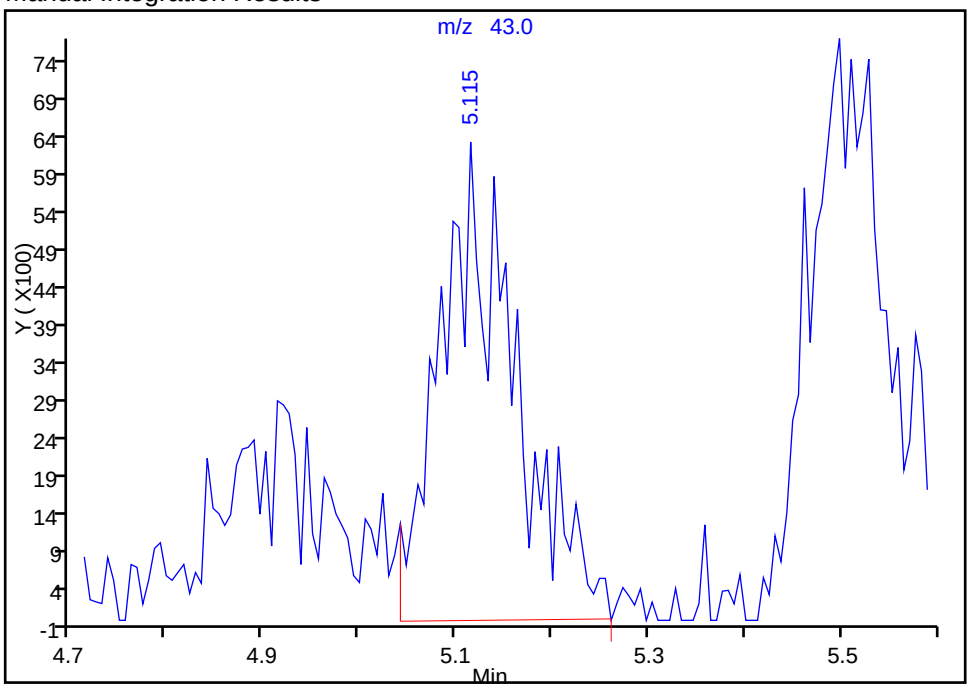
Processing Integration Results

RT: 5.14
Area: 14037
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 34041
Amount: 25.312957
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
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Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

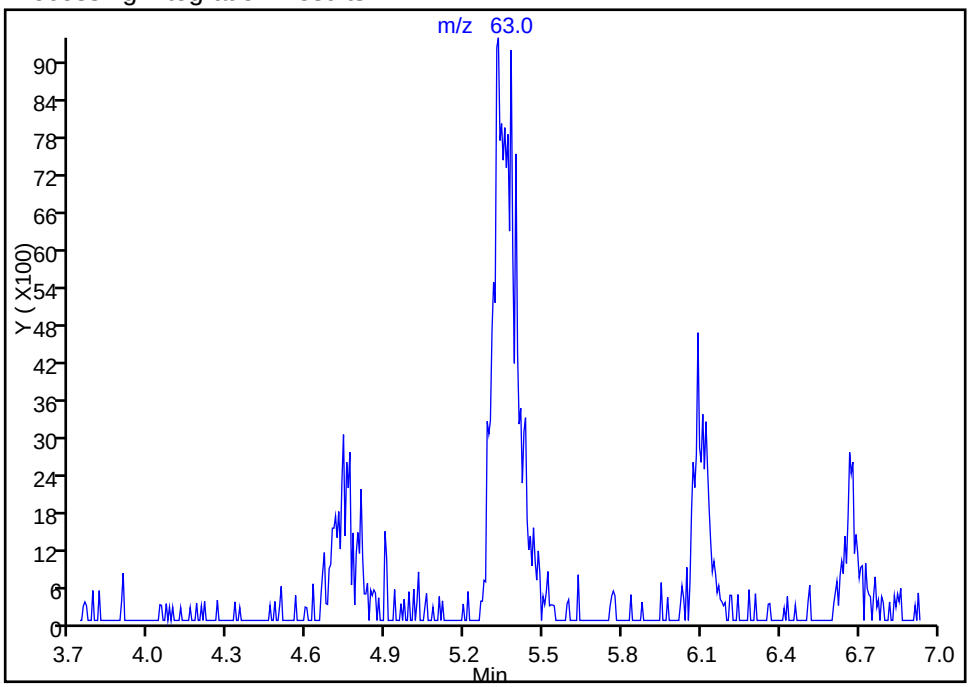
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3

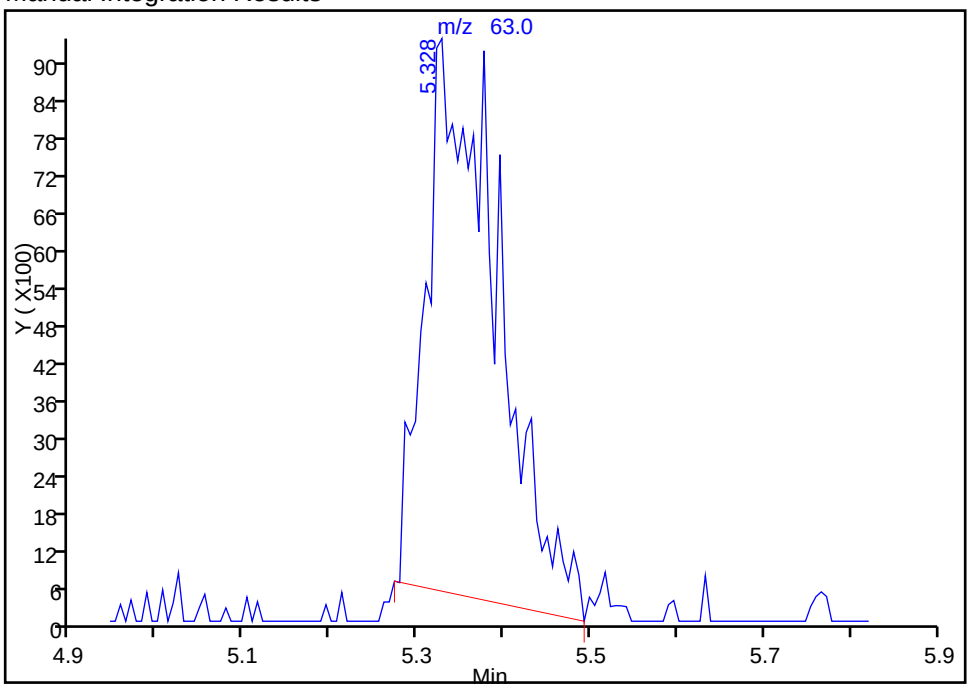
Processing Integration Results

Not Detected
Expected RT: 5.33



Manual Integration Results

RT: 5.33
Area: 51559
Amount: 20.627467
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

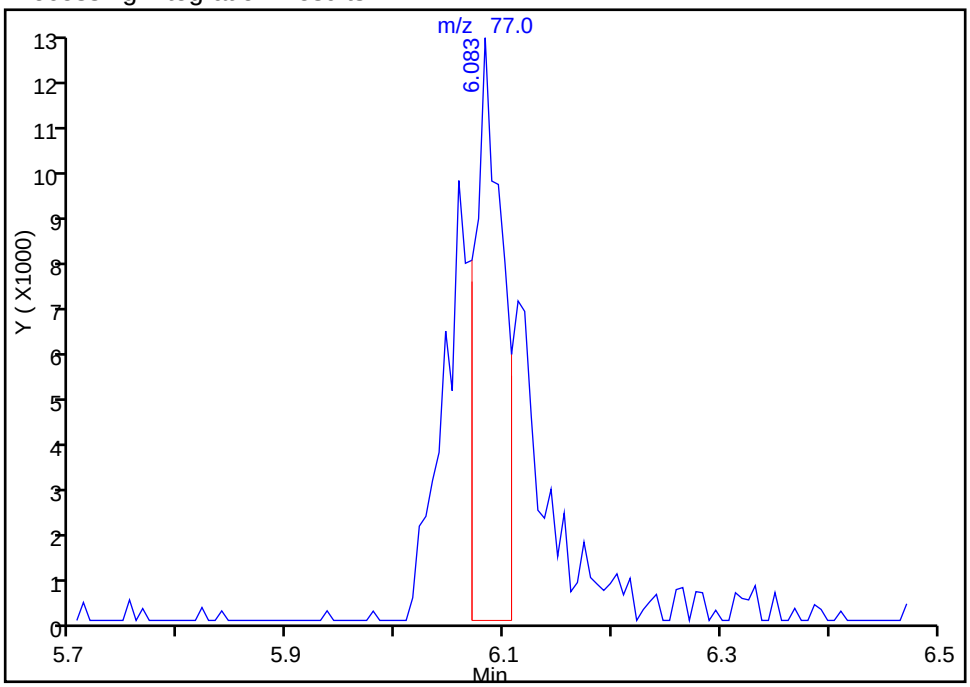
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

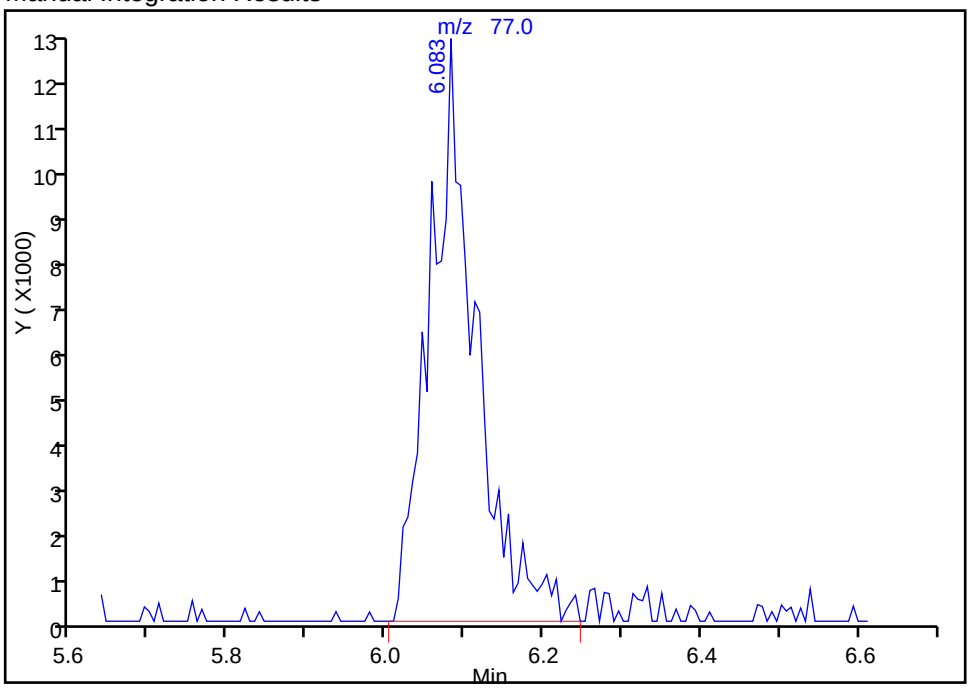
Processing Integration Results

RT: 6.08
Area: 22544
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.08
Area: 51484
Amount: 24.654531
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

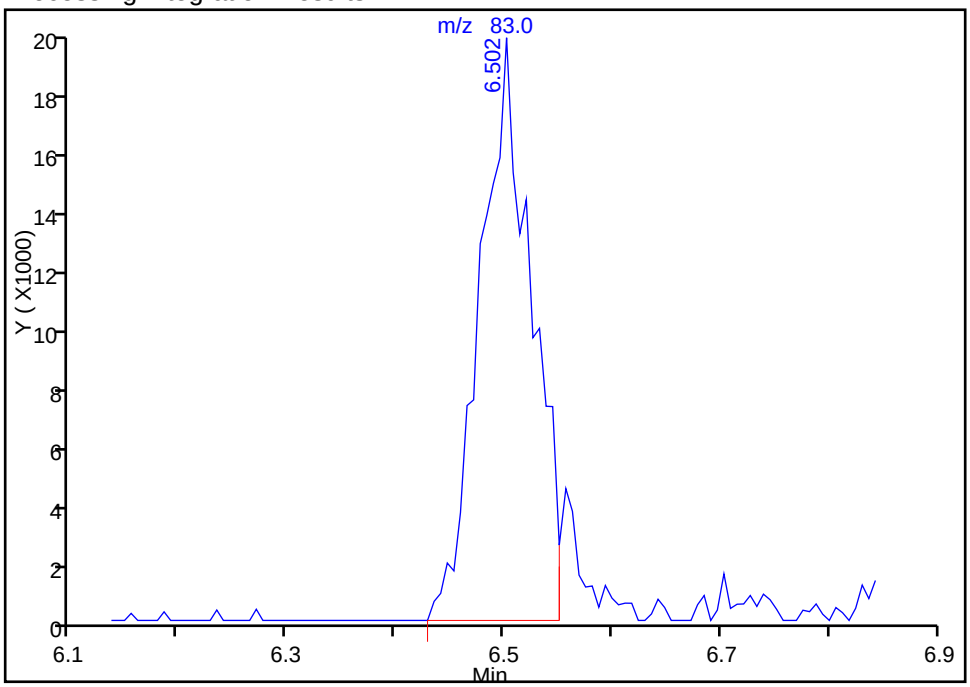
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

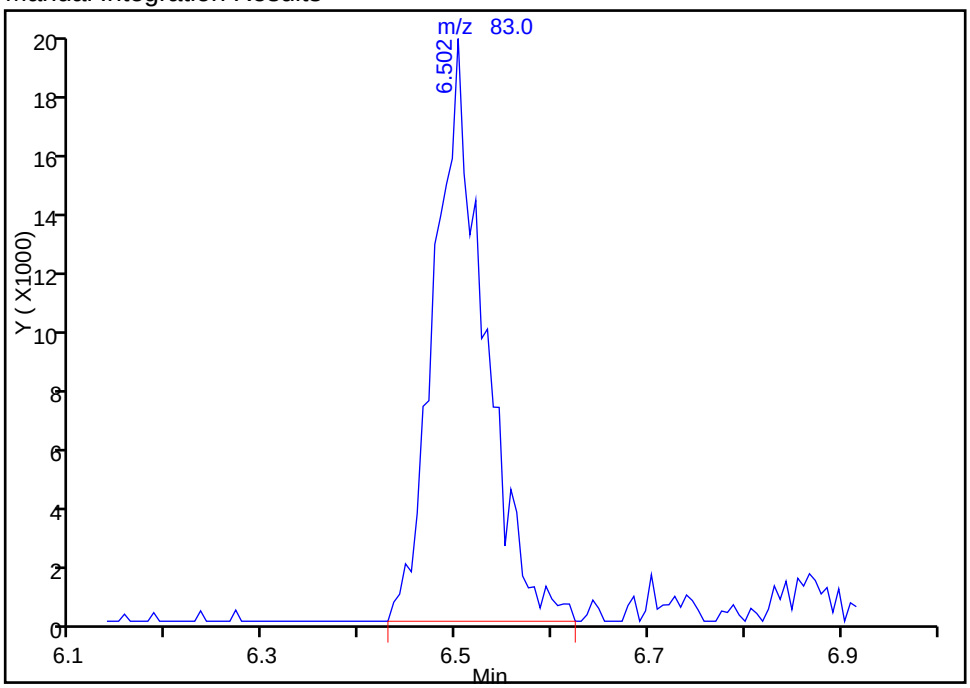
Processing Integration Results

RT: 6.50
Area: 65001
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.50
Area: 70828
Amount: 25.162519
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

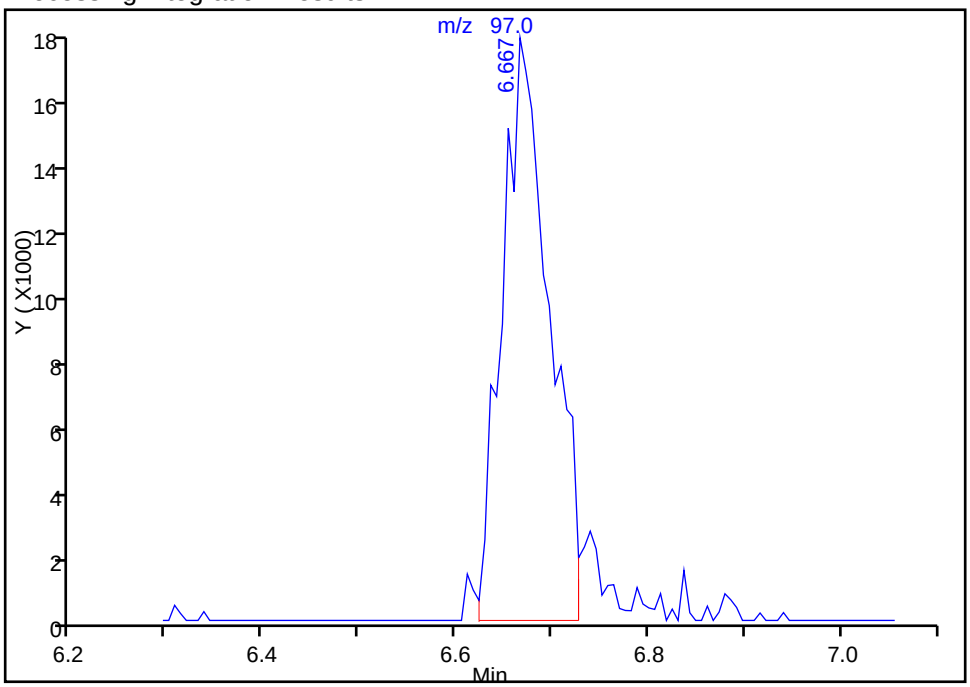
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

53 1,1,1-Trichloroethane, CAS: 71-55-6

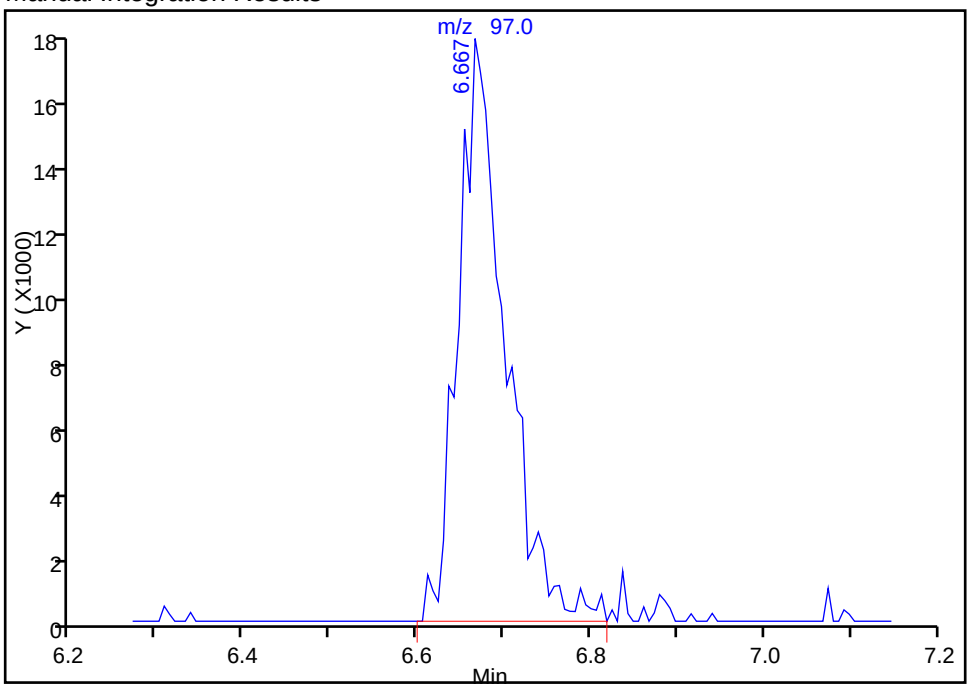
Processing Integration Results

RT: 6.67
Area: 60310
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.67
Area: 66238
Amount: 25.914032
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

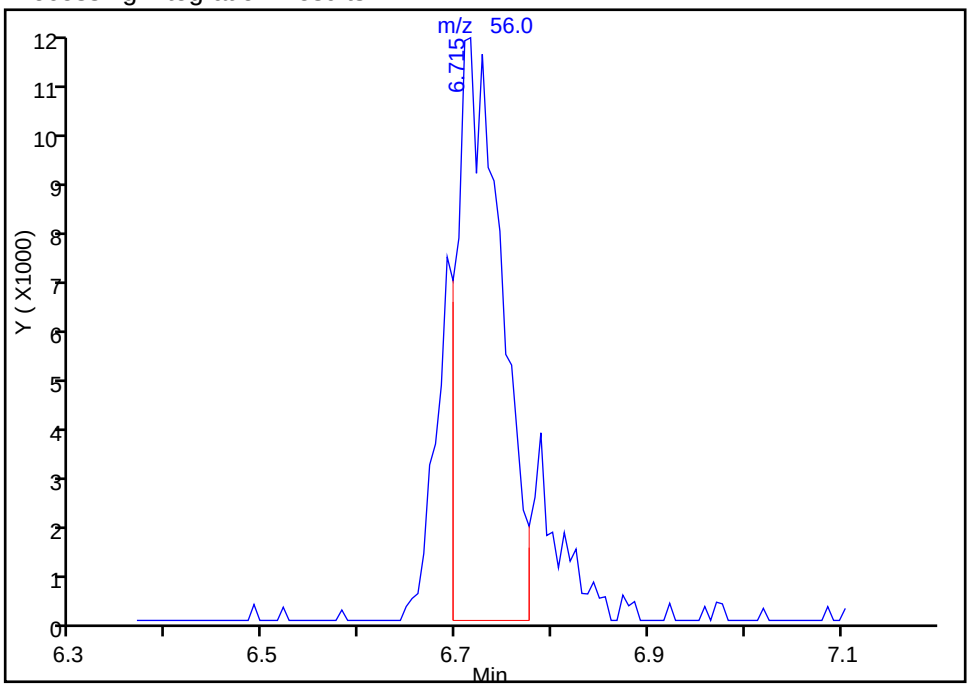
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

54 Cyclohexane, CAS: 110-82-7

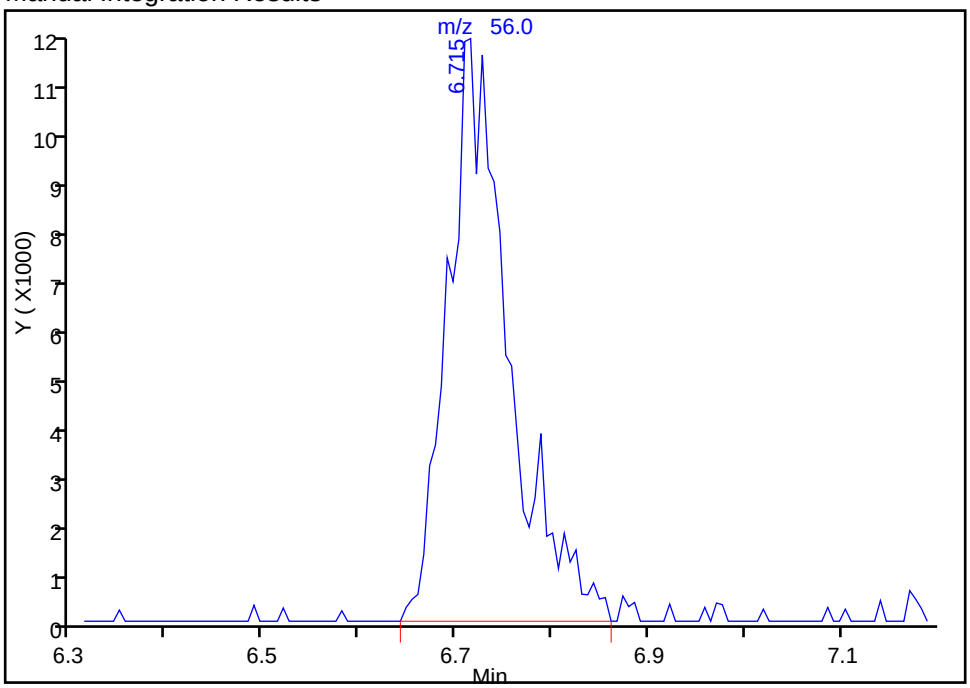
Processing Integration Results

RT: 6.72
Area: 35785
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.72
Area: 49523
Amount: 27.461349
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

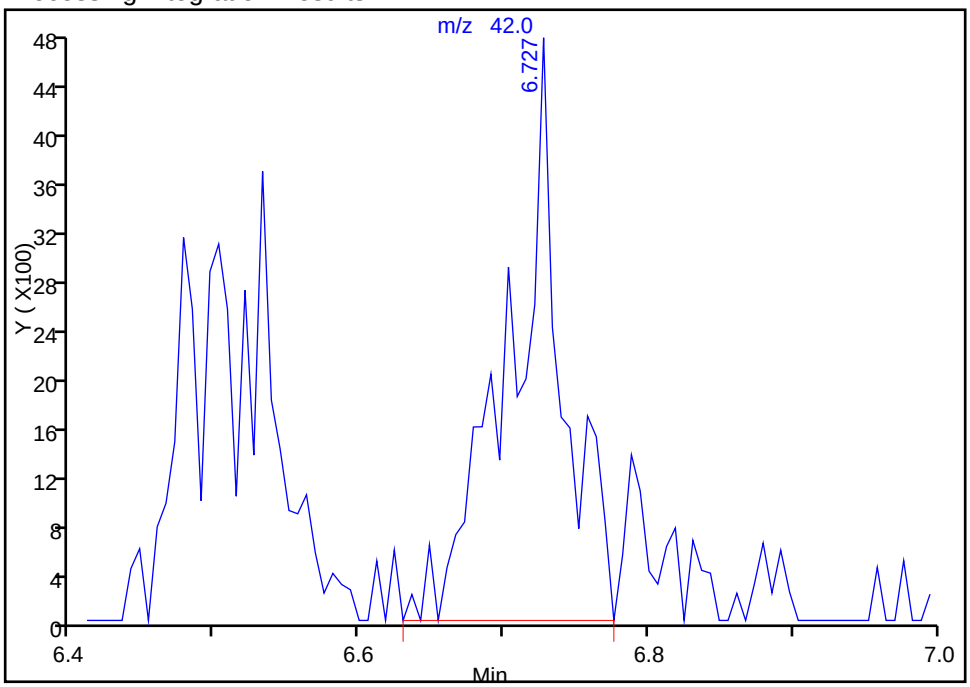
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

51 Tetrahydrofuran, CAS: 109-99-9

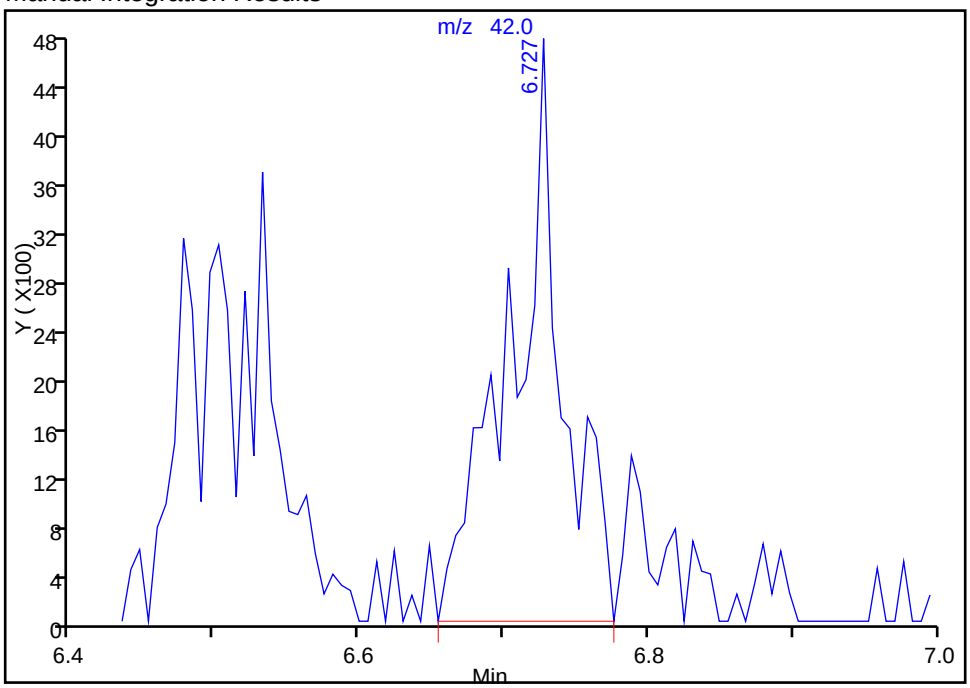
Processing Integration Results

RT: 6.73
Area: 12247
Amount: 40.000000
Amount Units: ng



Manual Integration Results

RT: 6.73
Area: 11945
Amount: 47.579118
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

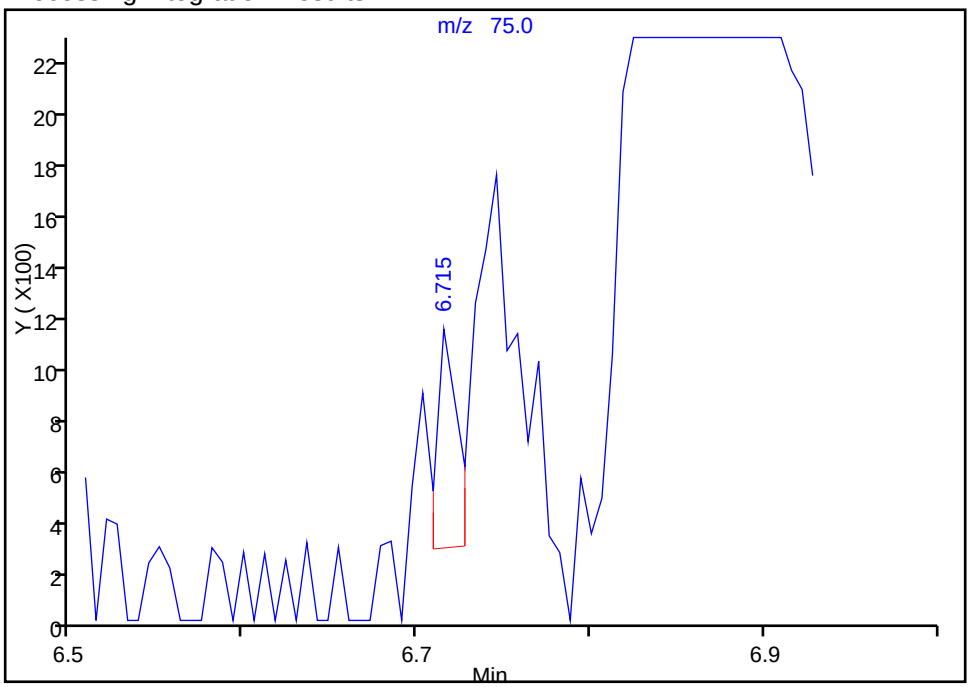
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 1,1-Dichloropropene, CAS: 563-58-6

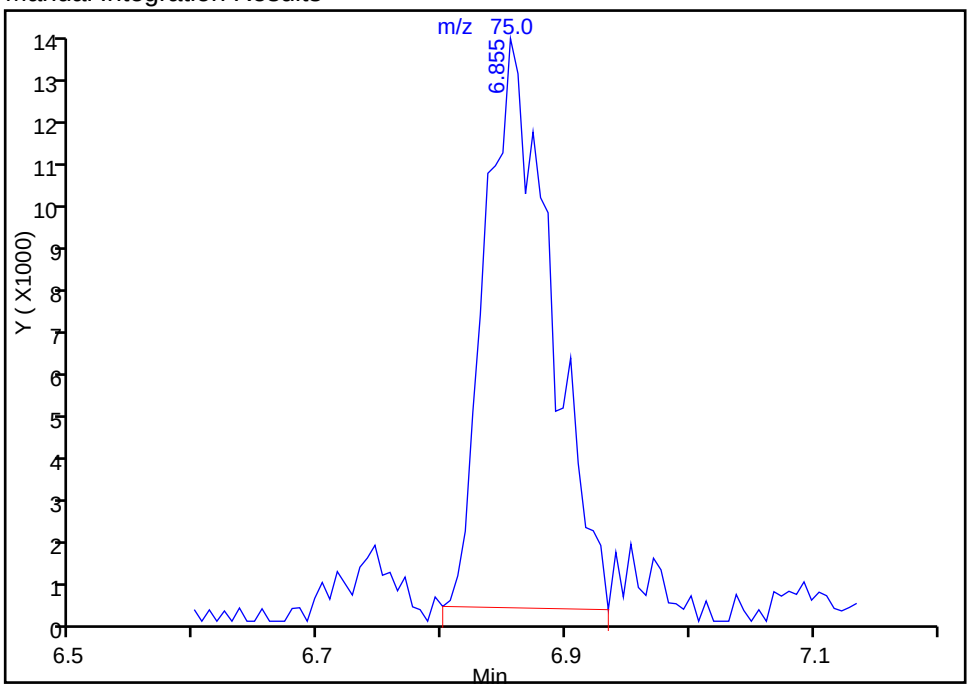
Processing Integration Results

RT: 6.72
Area: 727
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.86
Area: 48614
Amount: 26.337182
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

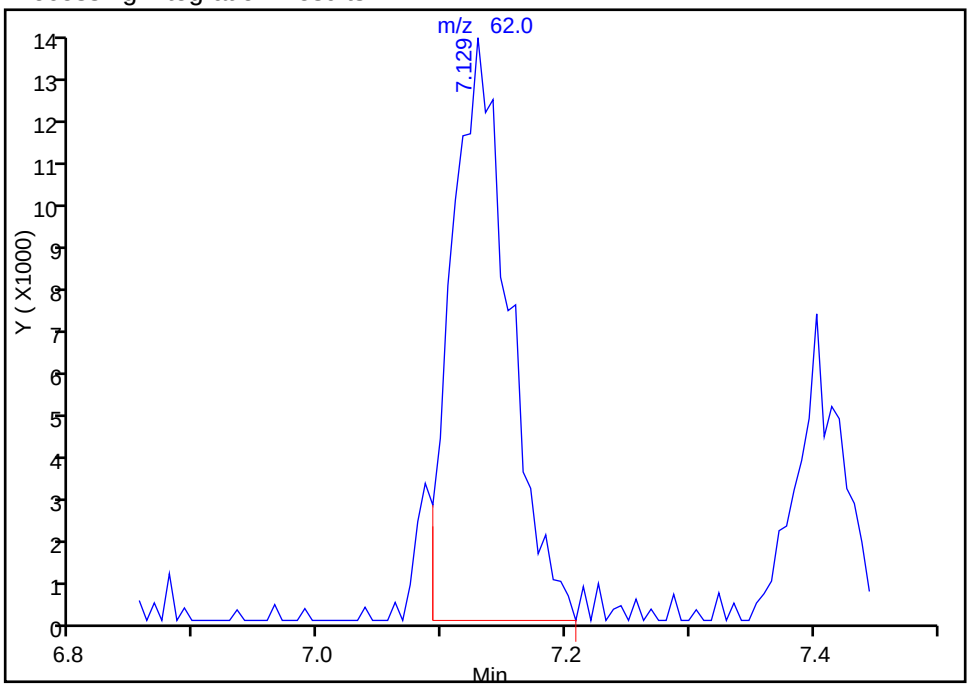
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

59 1,2-Dichloroethane, CAS: 107-06-2

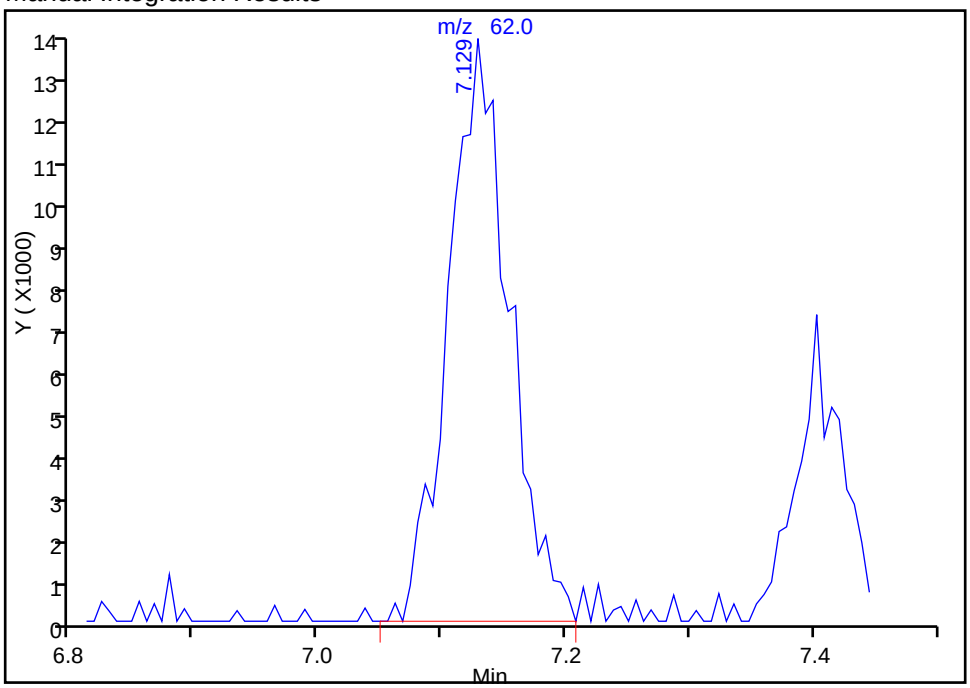
Processing Integration Results

RT: 7.13
Area: 43117
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.13
Area: 45545
Amount: 26.764103
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

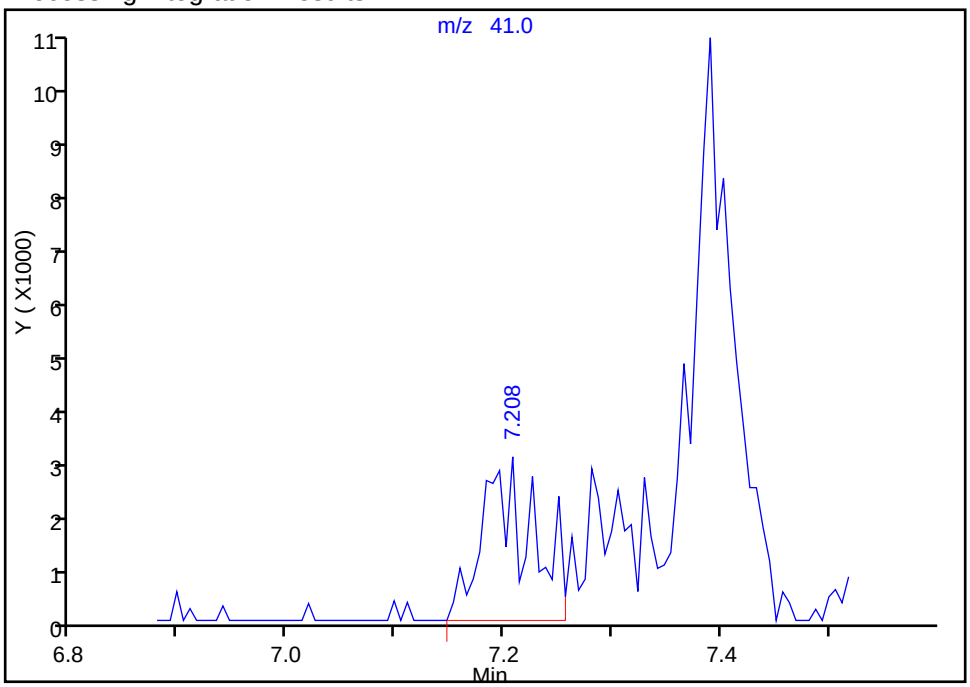
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

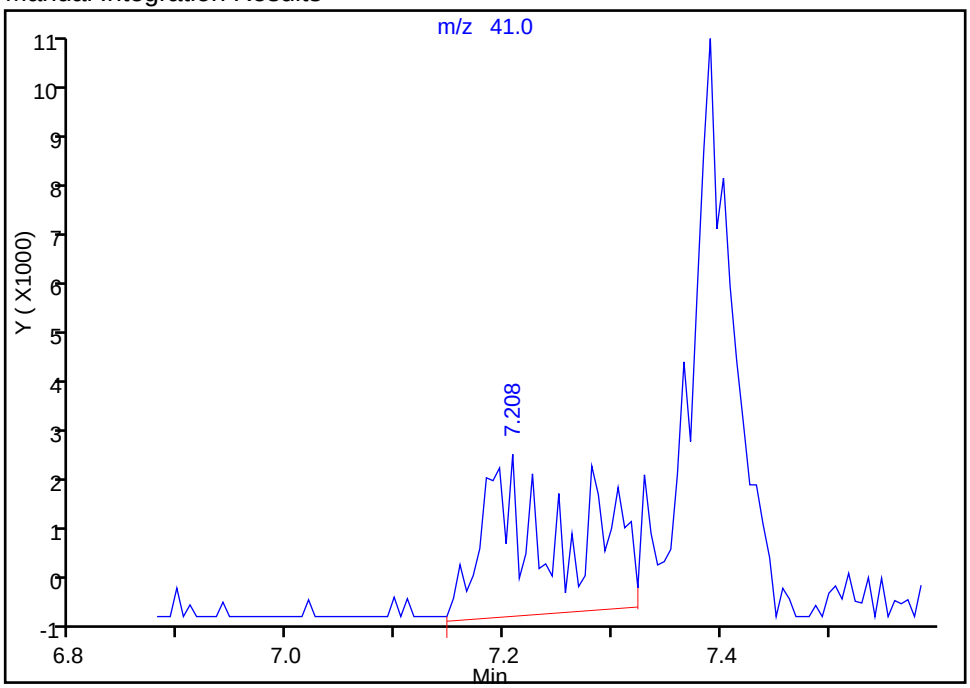
Processing Integration Results

RT: 7.21
Area: 9274
Amount: 500.0000
Amount Units: ng



Manual Integration Results

RT: 7.21
Area: 14915
Amount: 362.8929
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

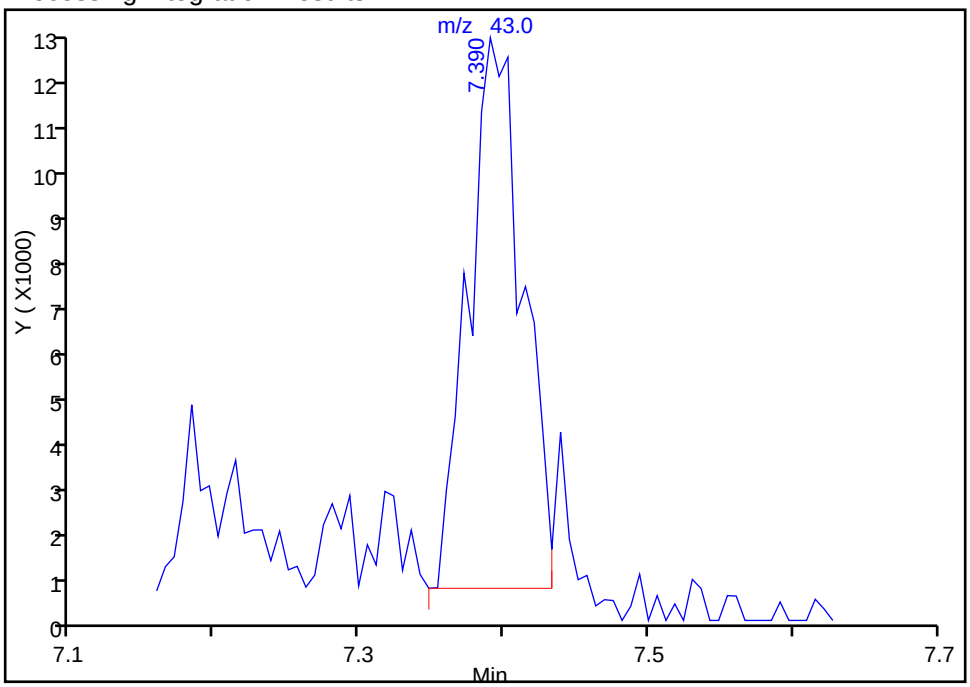
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

62 n-Heptane, CAS: 142-82-5

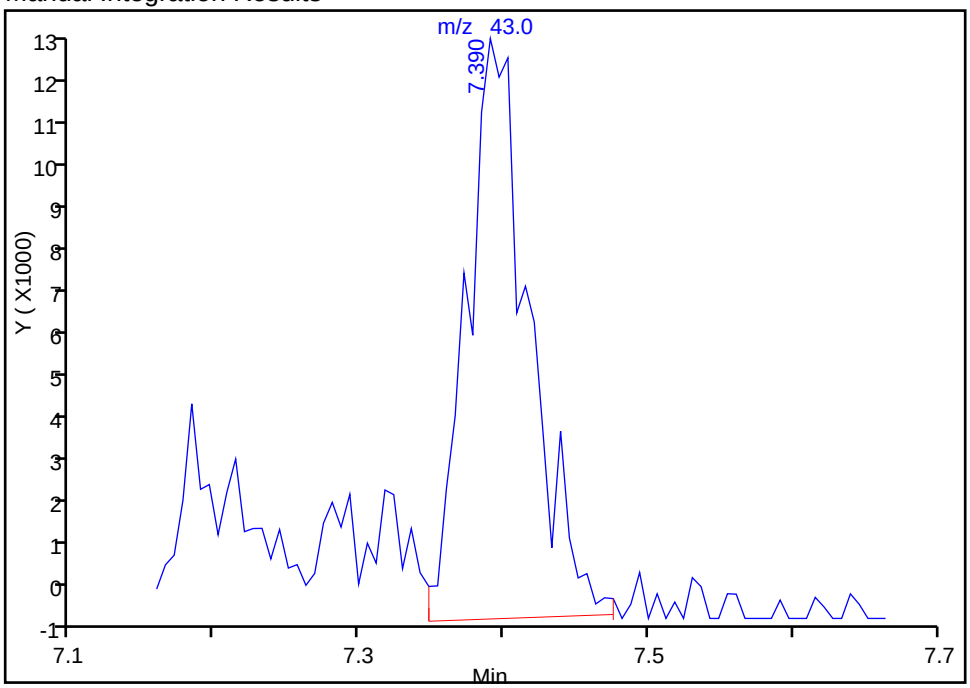
Processing Integration Results

RT: 7.39
Area: 30699
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.39
Area: 37541
Amount: 24.039397
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

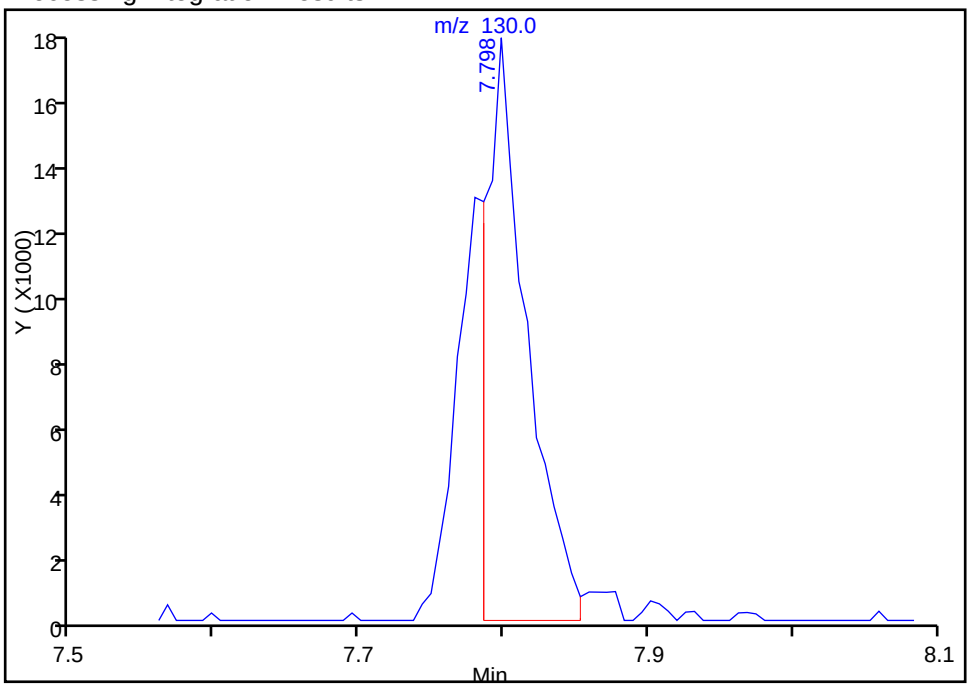
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

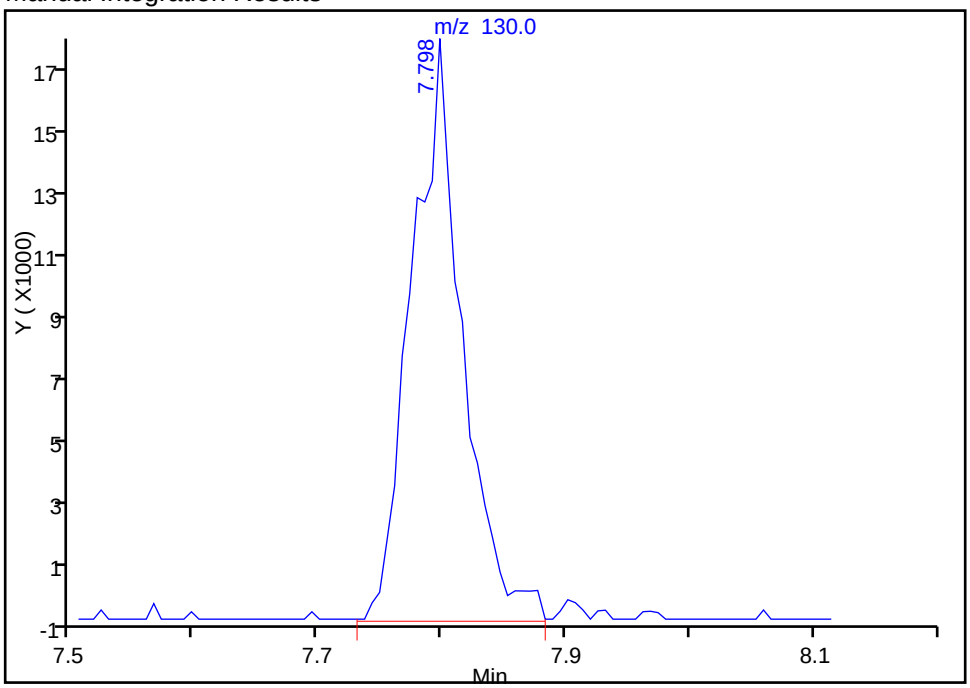
Processing Integration Results

RT: 7.80
Area: 35318
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.80
Area: 51491
Amount: 25.494006
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

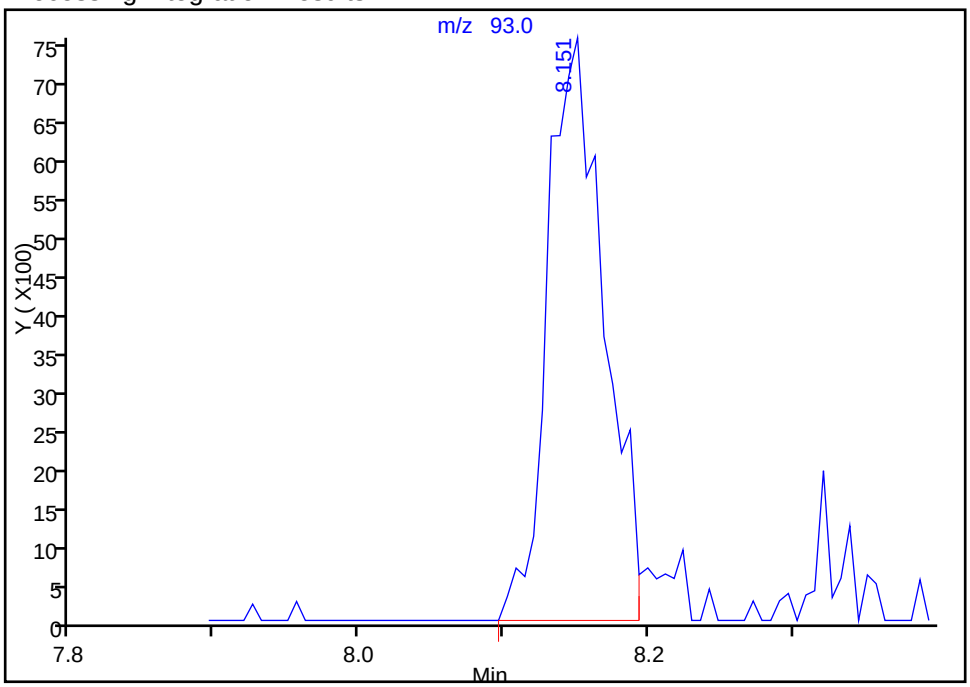
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

68 Dibromomethane, CAS: 74-95-3

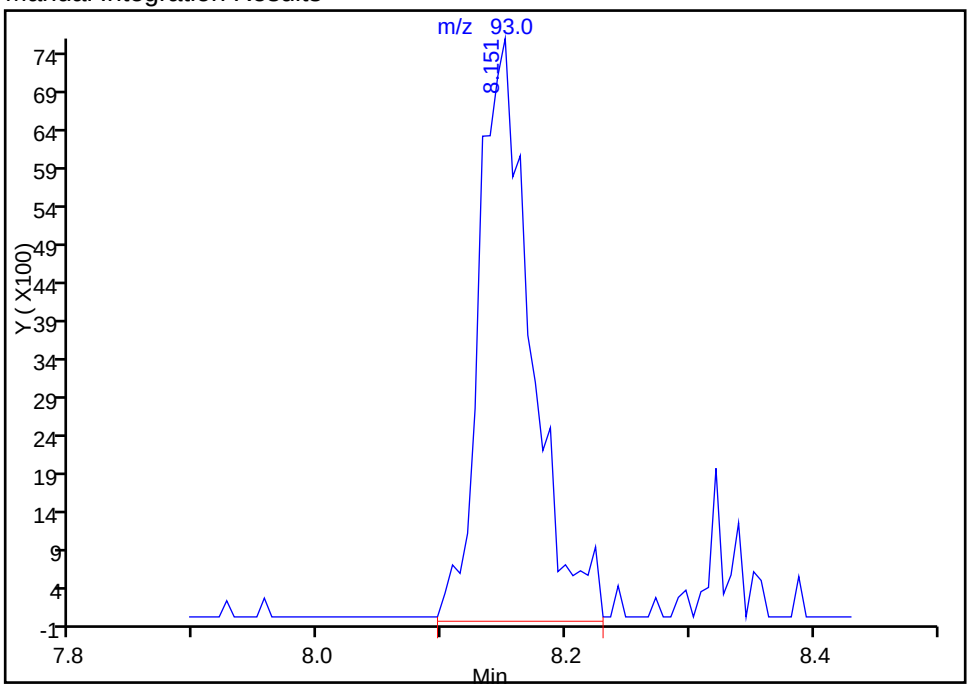
Processing Integration Results

RT: 8.15
Area: 20404
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 8.15
Area: 22063
Amount: 25.813221
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

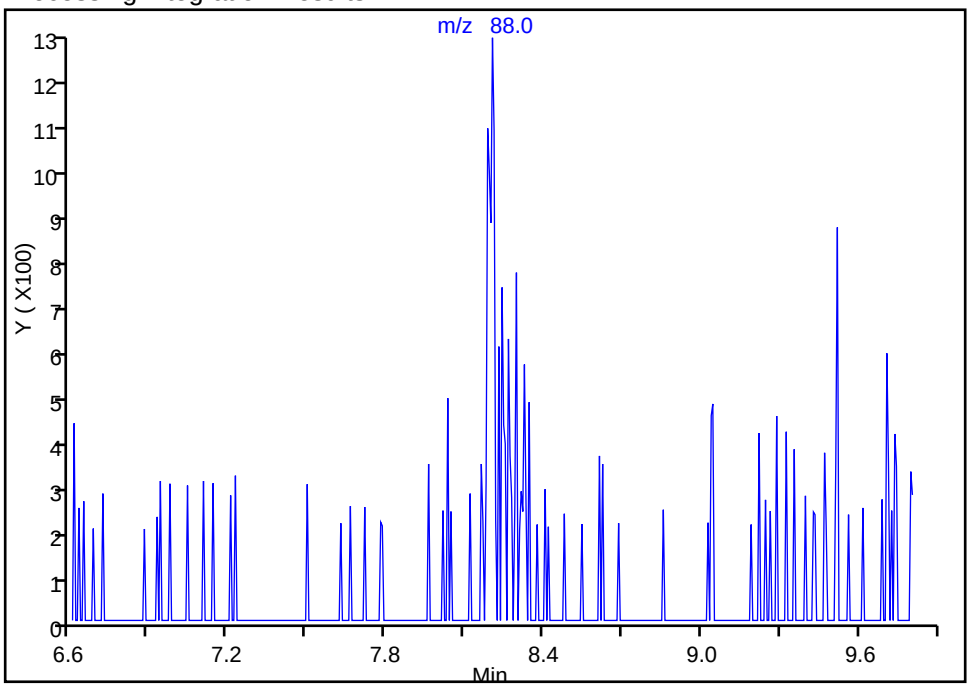
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

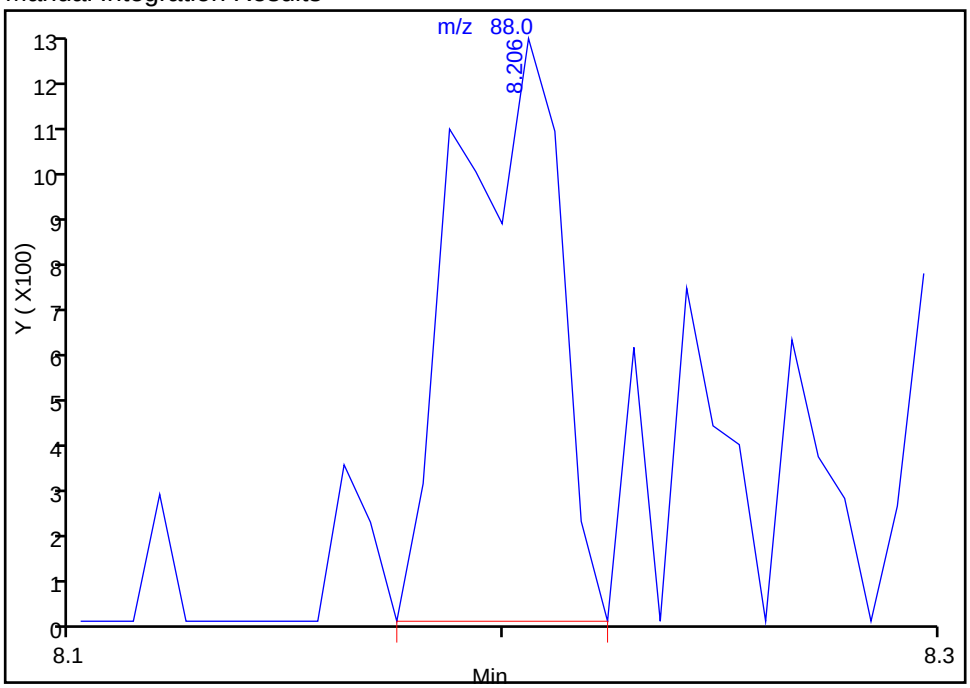
Not Detected
Expected RT: 8.21

Processing Integration Results



Manual Integration Results

RT: 8.21
Area: 2158
Amount: 269.0070
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 30-Mar-2015 11:28:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:17 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 12:11:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.061	5.024	0.037	92	320581	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	99	1077871	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	84	286591	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.005	93	443603	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.678	0.007	79	182892	100.0	106.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.038	7.037	0.001	93	170431	100.0	104.0	
$ 7 Toluene-d8 (Surr)	98	9.034	9.033	0.001	93	571452	100.0	134.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	92	227038	100.0	113.4	
11 Dichlorodifluoromethane	85	1.928	1.939	-0.011	61	202683	100.0	101.5	
12 Chloromethane	50	2.013	2.018	-0.005	86	236017	100.0	108.4	
14 Butadiene	39	2.202	2.176	0.026	90	184180	100.0	102.9	M
13 Vinyl chloride	62	2.202	2.225	-0.023	83	183450	100.0	108.2	
15 Bromomethane	94	2.542	2.499	0.043	86	150507	100.0	110.2	
16 Chloroethane	64	2.628	2.639	-0.011	72	150067	100.0	109.7	
17 Dichlorofluoromethane	67	2.871	2.882	-0.011	93	392557	100.0	107.9	
18 Trichlorofluoromethane	101	2.944	2.913	0.031	90	405833	100.0	106.0	
20 Ethyl ether	59	3.309	3.314	-0.005	80	129633	100.0	106.7	
22 1,1-Dichloroethene	96	3.485	3.460	0.025	93	151987	100.0	105.0	
21 Acrolein	56	3.552	3.497	0.055	44	43044	500.0	513.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.571	3.563	0.008	90	183780	100.0	109.2	
25 Iodomethane	142	3.704	3.716	-0.012	95	316113	100.0	104.4	
26 Carbon disulfide	76	3.753	3.764	-0.011	96	463969	100.0	106.7	M
24 Acetone	43	3.869	3.855	0.014	27	75446	200.0	187.7	M
28 3-Chloro-1-propene	76	4.106	4.087	0.019	1	111987	100.0	104.9	M
31 Methylene Chloride	84	4.301	4.294	0.007	75	163557	100.0	105.3	
30 Methyl acetate	43	4.331	4.324	0.007	99	375826	500.0	523.3	
34 trans-1,2-Dichloroethene	96	4.726	4.725	0.001	94	194386	100.0	108.3	
32 2-Methyl-2-propanol	59	4.732	4.744	-0.012	33	9778	1000.0	1483.1	M
33 Acrylonitrile	53	4.824	4.829	-0.005	50	318922	1000.0	1110.2	M
35 Methyl tert-butyl ether	73	4.909	4.890	0.019	94	384502	100.0	108.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.110	5.090	0.020	93	197721	100.0	105.3	
38 Vinyl acetate	43	5.104	5.115	-0.011	87	141126	100.0	99.7	
37 1,1-Dichloroethane	63	5.335	5.334	0.001	96	284258	100.0	108.0	
44 2,2-Dichloropropane	77	6.083	6.076	0.007	81	243195	100.0	110.6	
45 cis-1,2-Dichloroethene	96	6.095	6.094	0.001	80	185651	100.0	104.2	
46 2-Butanone (MEK)	43	6.229	6.216	0.013	98	101832	200.0	210.8	
49 Chlorobromomethane	128	6.363	6.380	-0.017	82	106979	100.0	104.2	
52 Chloroform	83	6.509	6.496	0.013	1	324491	100.0	109.5	M
53 1,1,1-Trichloroethane	97	6.679	6.660	0.019	95	304449	100.0	113.1	
51 Tetrahydrofuran	42	6.697	6.709	-0.012	45	56328	200.0	213.1	
54 Cyclohexane	56	6.704	6.709	-0.005	72	204193	100.0	107.5	
56 Carbon tetrachloride	117	6.850	6.849	0.001	95	301680	100.0	111.1	
55 1,1-Dichloropropene	75	6.850	6.855	-0.005	88	222122	100.0	114.3	
58 Benzene	78	7.087	7.086	0.001	95	604063	100.0	113.9	
59 1,2-Dichloroethane	62	7.123	7.122	0.001	96	193915	100.0	108.2	
62 n-Heptane	43	7.391	7.390	0.001	84	172370	100.0	104.8	
57 Isobutyl alcohol	41	7.397	7.396	0.001	79	120699	2500.0	2789.2	
64 Trichloroethene	130	7.786	7.785	0.001	93	228617	100.0	107.5	
66 Methylcyclohexane	83	7.981	7.980	0.001	84	302516	100.0	115.7	
67 1,2-Dichloropropane	63	8.024	8.029	-0.005	81	129781	100.0	107.4	
68 Dibromomethane	93	8.145	8.144	0.001	93	92763	100.0	103.1	
70 1,4-Dioxane	88	8.206	8.205	0.001	41	18551	2000.0	2196.4	M
71 Dichlorobromomethane	83	8.322	8.315	0.007	98	234170	100.0	104.5	
74 cis-1,3-Dichloropropene	75	8.766	8.771	-0.005	94	250427	100.0	107.8	
75 4-Methyl-2-pentanone (MIBK	43	8.948	8.947	0.001	96	198312	200.0	236.8	
76 Toluene	91	9.100	9.099	0.001	99	620797	100.0	108.8	
77 trans-1,3-Dichloropropene	75	9.326	9.325	0.001	94	200178	100.0	111.1	
78 Ethyl methacrylate	69	9.429	9.428	0.001	87	133131	100.0	111.1	
79 1,1,2-Trichloroethane	97	9.514	9.513	0.001	89	122370	100.0	119.0	
80 Tetrachloroethene	164	9.642	9.641	0.001	91	166044	100.0	111.2	
81 1,3-Dichloropropane	76	9.672	9.671	0.001	91	180327	100.0	118.6	
82 2-Hexanone	43	9.770	9.769	0.001	96	121993	200.0	225.8	
84 Chlorodibromomethane	129	9.903	9.896	0.007	86	212583	100.0	120.2	
85 Ethylene Dibromide	107	10.007	10.006	0.001	98	131988	100.0	113.3	
87 Chlorobenzene	112	10.500	10.499	0.001	95	428641	100.0	117.3	
89 1,1,1,2-Tetrachloroethane	131	10.579	10.578	0.001	93	201326	100.0	114.0	
90 Ethylbenzene	106	10.609	10.602	0.007	98	223898	100.0	107.9	
91 m-Xylene & p-Xylene	106	10.725	10.718	0.007	98	306490	100.0	109.5	
92 o-Xylene	106	11.114	11.113	0.001	96	307714	100.0	109.5	
93 Styrene	104	11.126	11.125	0.001	92	473776	100.0	109.2	
94 Bromoform	173	11.315	11.314	0.001	94	108786	100.0	108.6	
97 Isopropylbenzene	105	11.479	11.478	0.001	95	851551	100.0	110.5	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	96	130862	100.0	121.2	
100 Bromobenzene	156	11.789	11.788	0.001	86	217052	100.0	114.2	
101 1,2,3-Trichloropropane	110	11.826	11.819	0.007	85	43419	100.0	102.0	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.831	0.001	68	25315	100.0	95.0	
103 N-Propylbenzene	120	11.893	11.892	0.001	97	254930	100.0	109.3	
104 2-Chlorotoluene	126	11.978	11.977	0.001	96	241717	100.0	114.1	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	97	678088	100.0	104.9	
107 4-Chlorotoluene	126	12.087	12.086	0.001	96	236378	100.0	116.4	
108 tert-Butylbenzene	119	12.392	12.391	0.001	91	756877	100.0	110.5	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	96	682185	100.0	104.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.611	12.610	0.001	94	908560	100.0	106.3	
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	97	434056	100.0	110.0	
114 4-Isopropyltoluene	119	12.750	12.756	-0.006	96	822865	100.0	107.2	
115 1,4-Dichlorobenzene	146	12.817	12.816	0.001	95	400302	100.0	113.8	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	672615	100.0	105.1	
121 1,2-Dichlorobenzene	146	13.189	13.188	0.000	96	359029	100.0	104.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.972	0.001	78	15088	100.0	91.4	
126 1,2,4-Trichlorobenzene	180	14.807	14.806	0.001	95	78248	100.0	71.6	
127 Hexachlorobutadiene	225	14.971	14.970	0.001	82	52188	100.0	79.7	
128 Naphthalene	128	15.056	15.055	0.001	95	113468	100.0	63.4	
129 1,2,3-Trichlorobenzene	180	15.306	15.305	0.001	95	38530	100.0	51.5	
S 134 1,2-Dichloroethene, Total	96				0		200.0	212.4	
S 133 Xylenes, Total	106				0		200.0	219.0	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.9	

QC Flag Legend

Review Flags

M - Manually Integrated

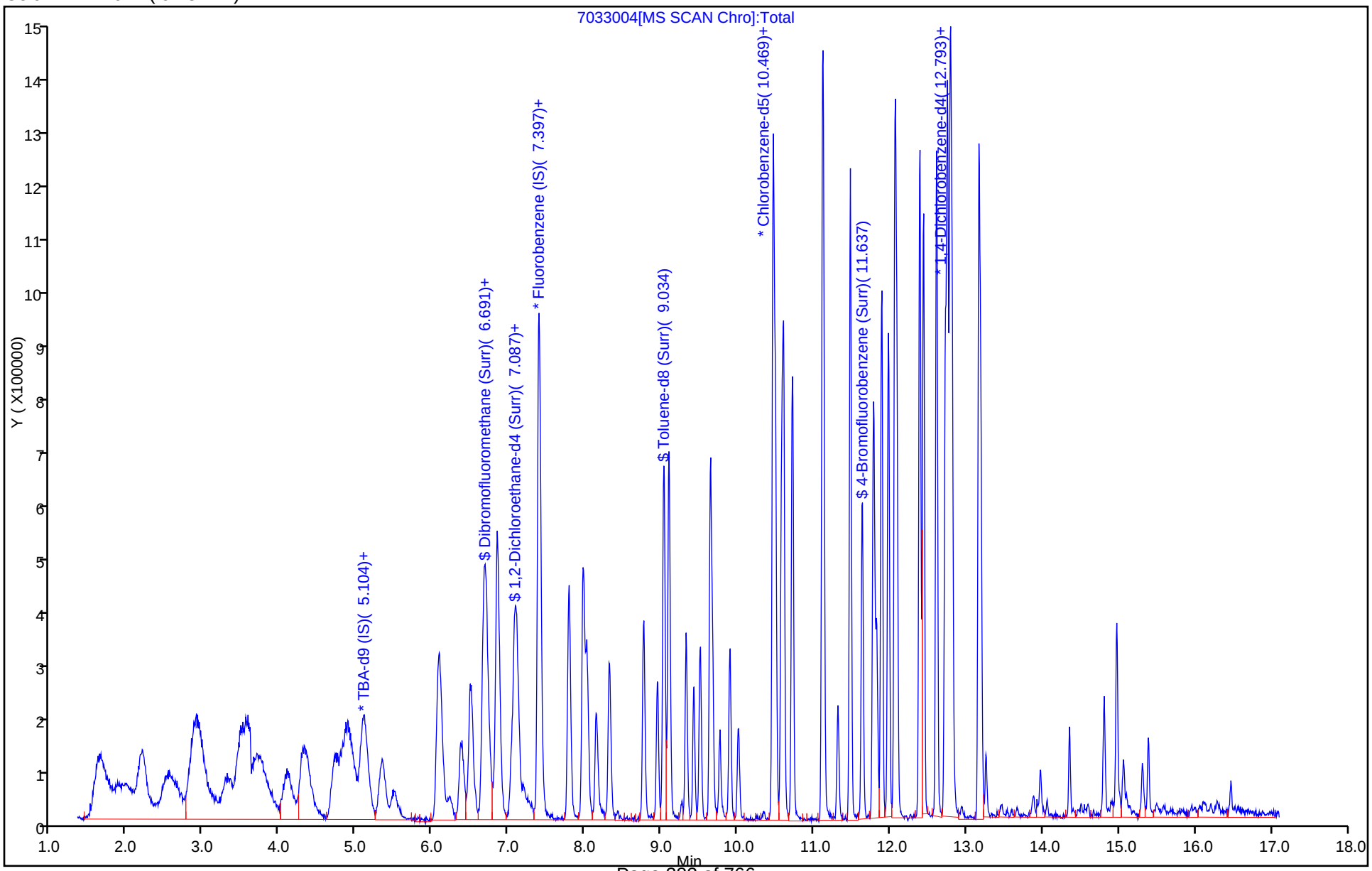
Reagents:

VOA8260SURR_00017	Amount Added:	4.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	4.00	Units: uL
VOAACRPRI_00003	Amount Added:	20.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	4.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	4.00	Units: uL

Report Date: 31-Mar-2015 08:54:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column: DB-624 (0.18 mm)					



Manual Integration/User Assign Peak Report

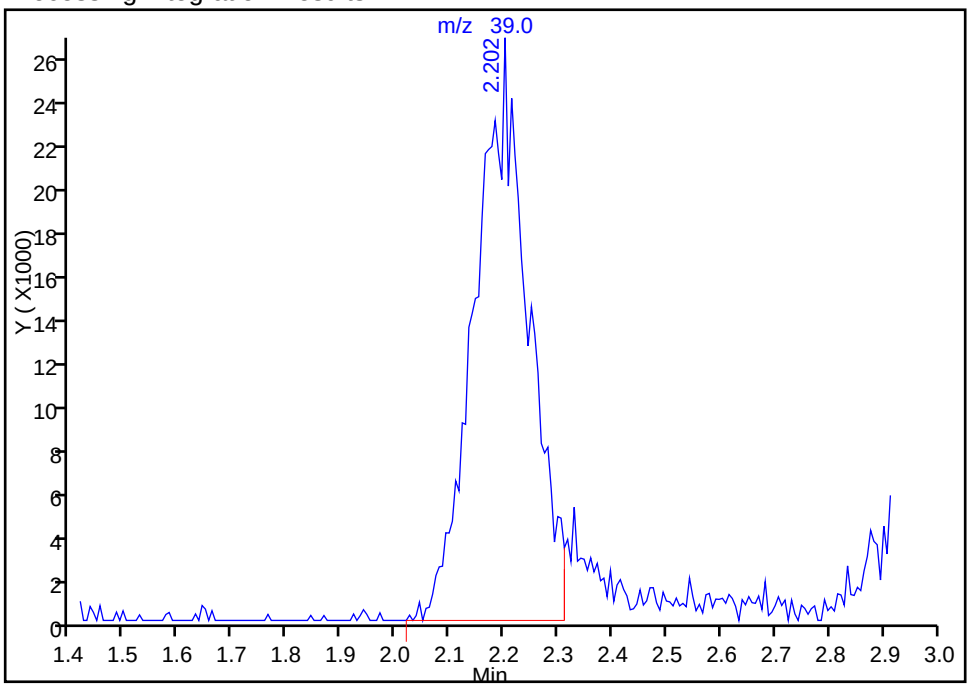
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

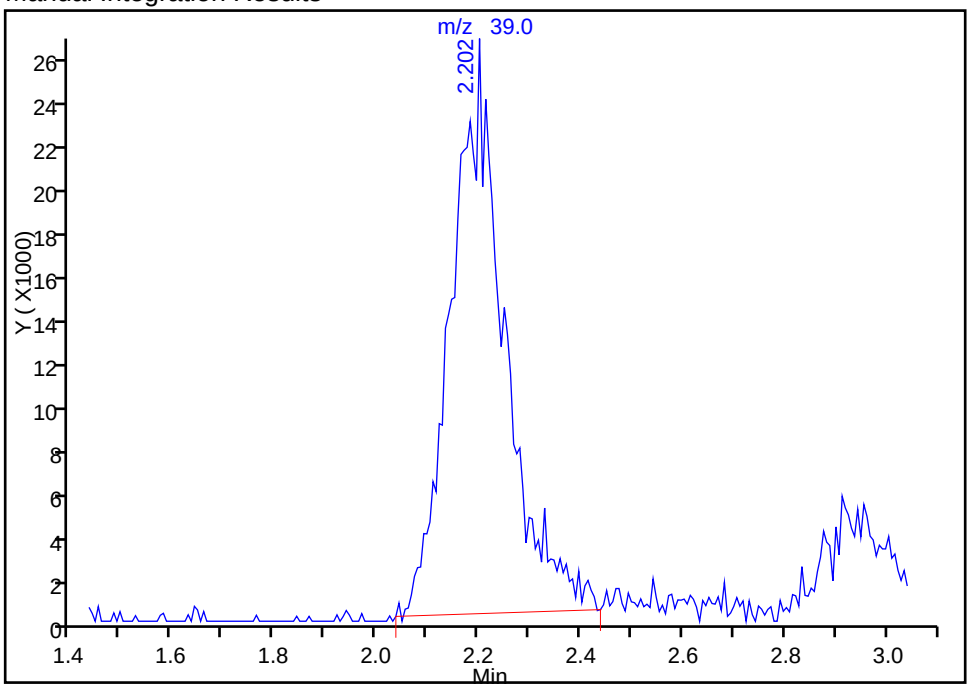
Processing Integration Results

RT: 2.20
Area: 177223
Amount: 87.235904
Amount Units: ng



Manual Integration Results

RT: 2.20
Area: 184180
Amount: 102.8902
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

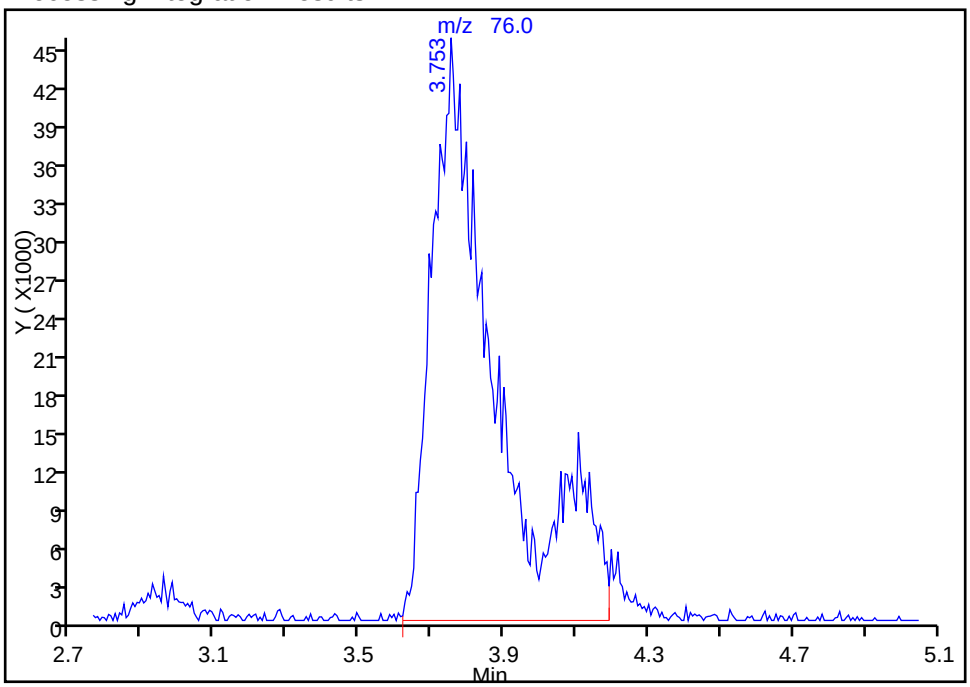
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

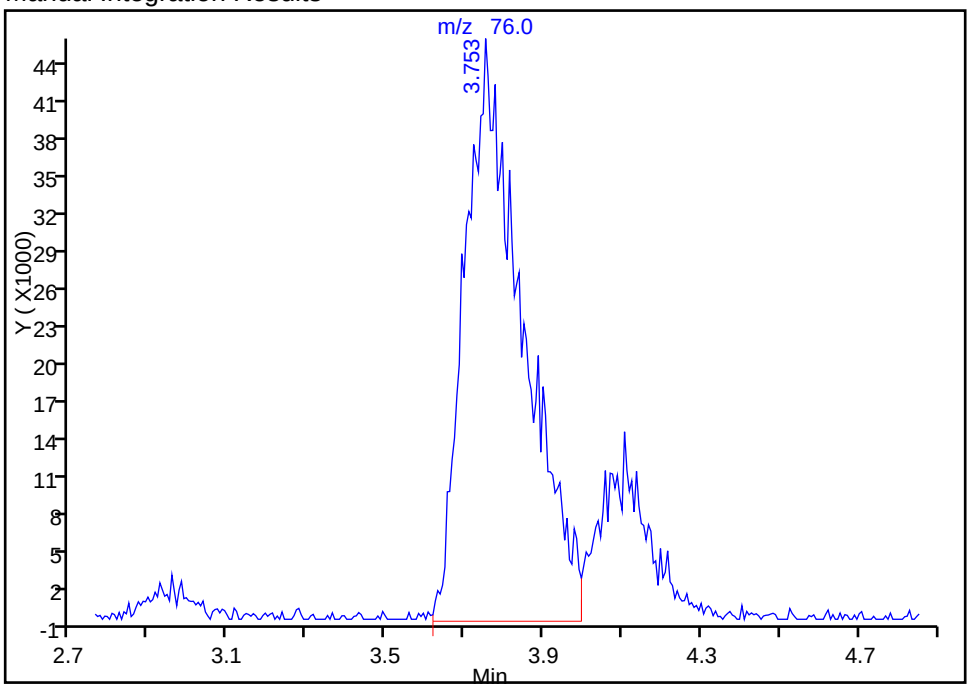
Processing Integration Results

RT: 3.75
Area: 555041
Amount: 107.0768
Amount Units: ng



Manual Integration Results

RT: 3.75
Area: 463969
Amount: 106.7401
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

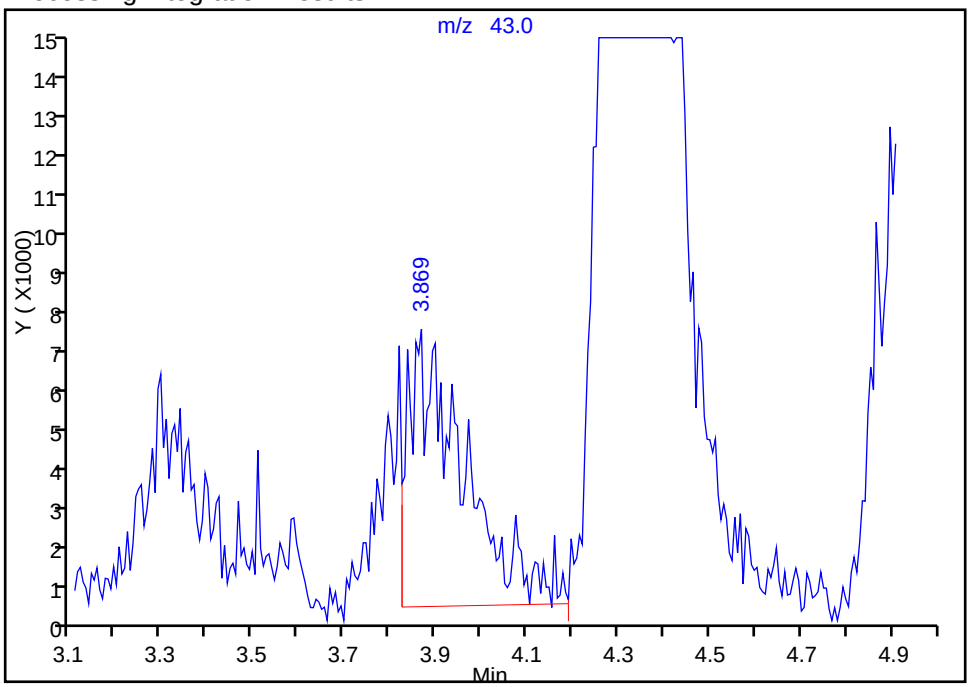
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

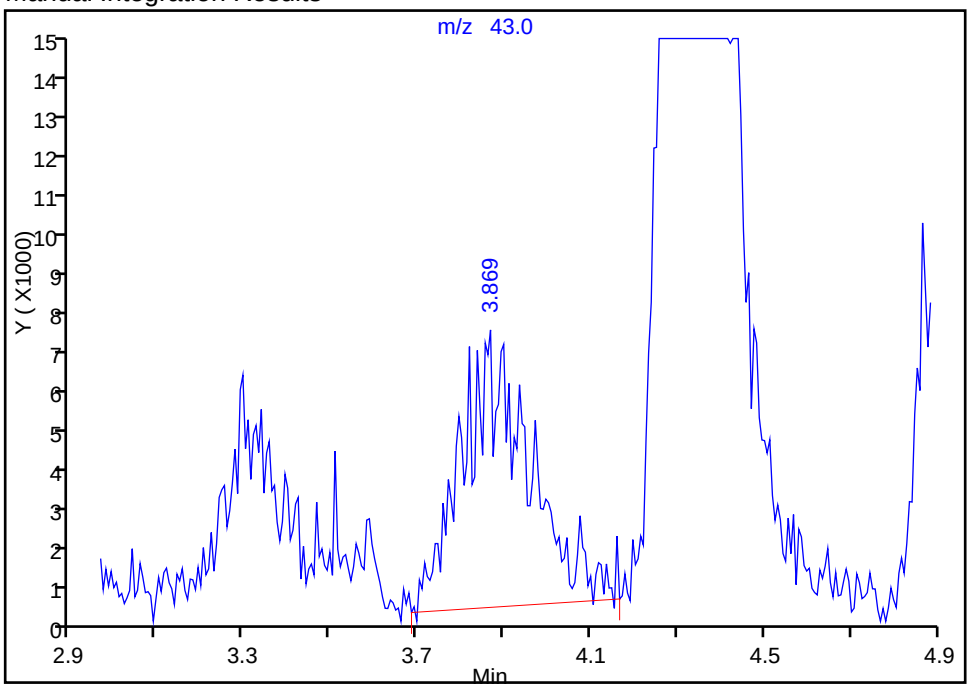
Processing Integration Results

RT: 3.87
Area: 59143
Amount: 147.9003
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 75446
Amount: 187.7476
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

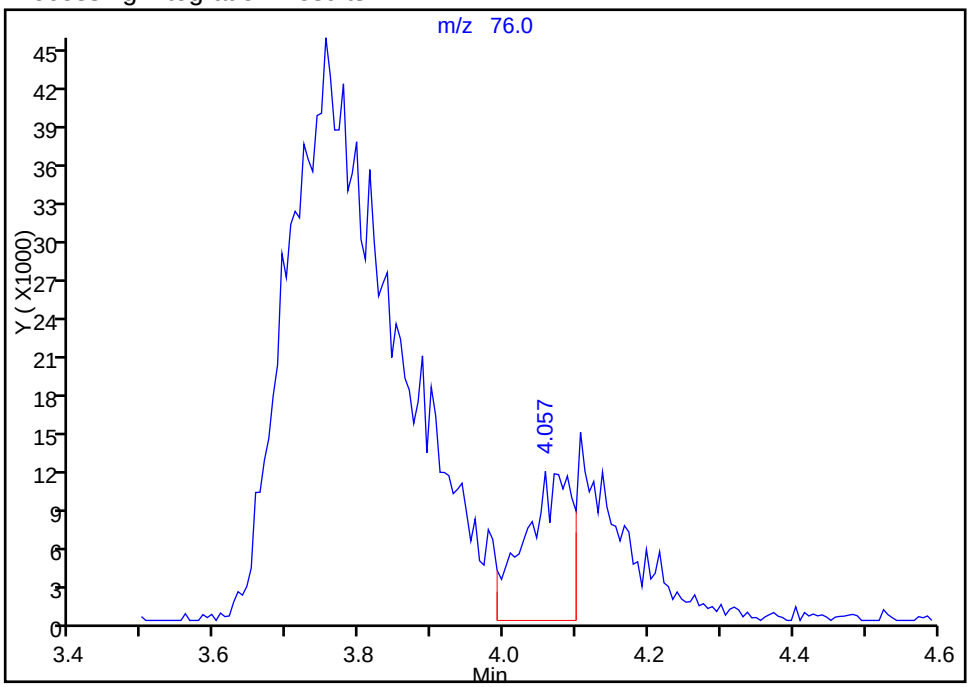
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Injection Date: 30-Mar-2015 11:28:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

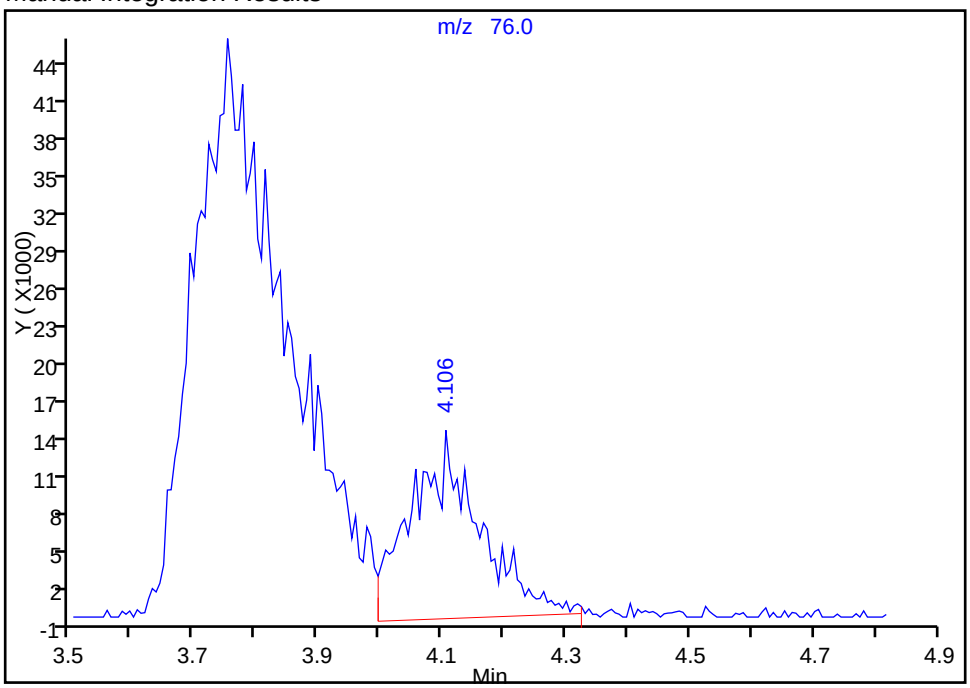
Processing Integration Results

RT: 4.06
Area: 52473
Amount: 61.091566
Amount Units: ng



Manual Integration Results

RT: 4.11
Area: 111987
Amount: 104.9107
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

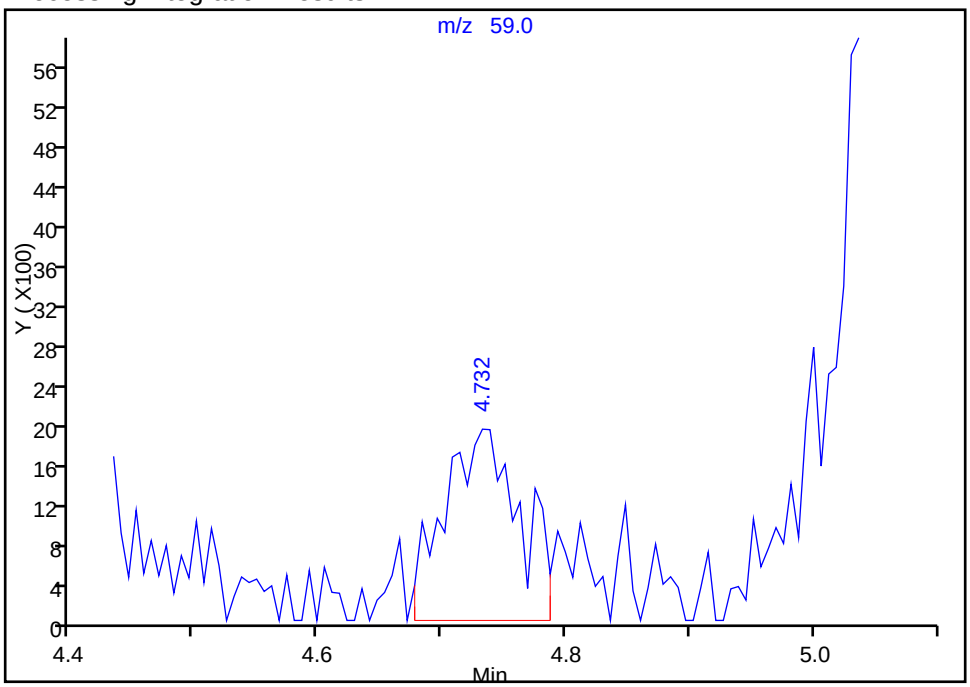
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Injection Date: 30-Mar-2015 11:28:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

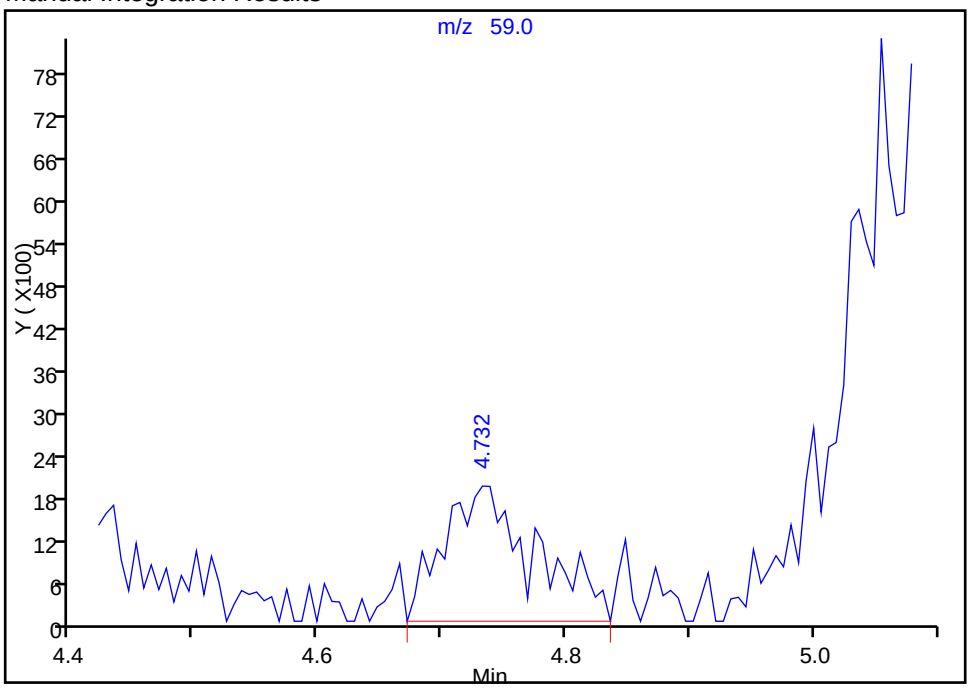
Processing Integration Results

RT: 4.73
Area: 8182
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 9778
Amount: 1483.0651
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

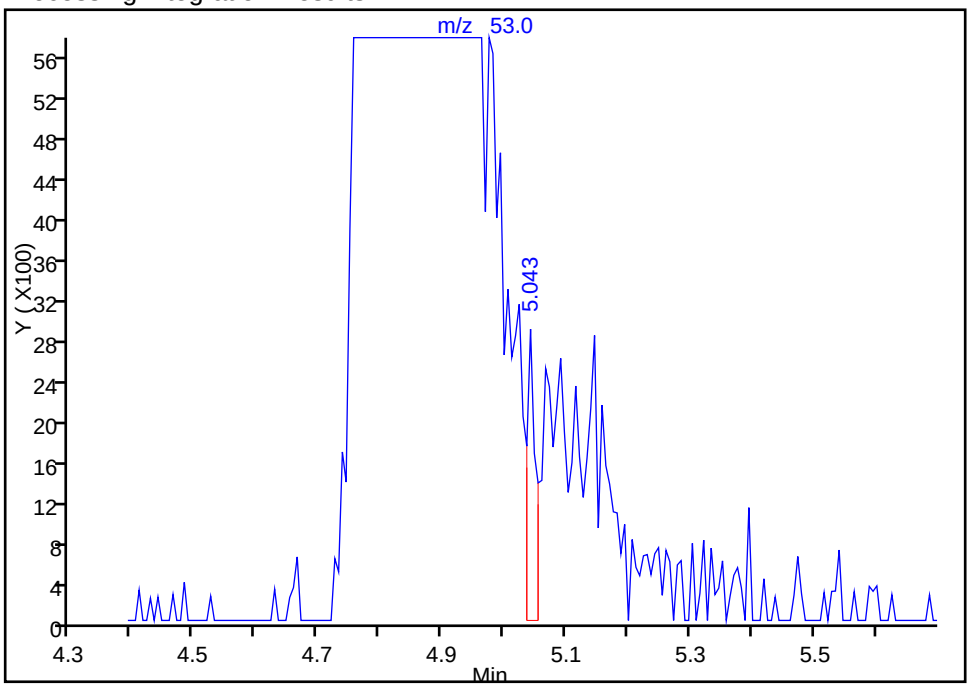
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

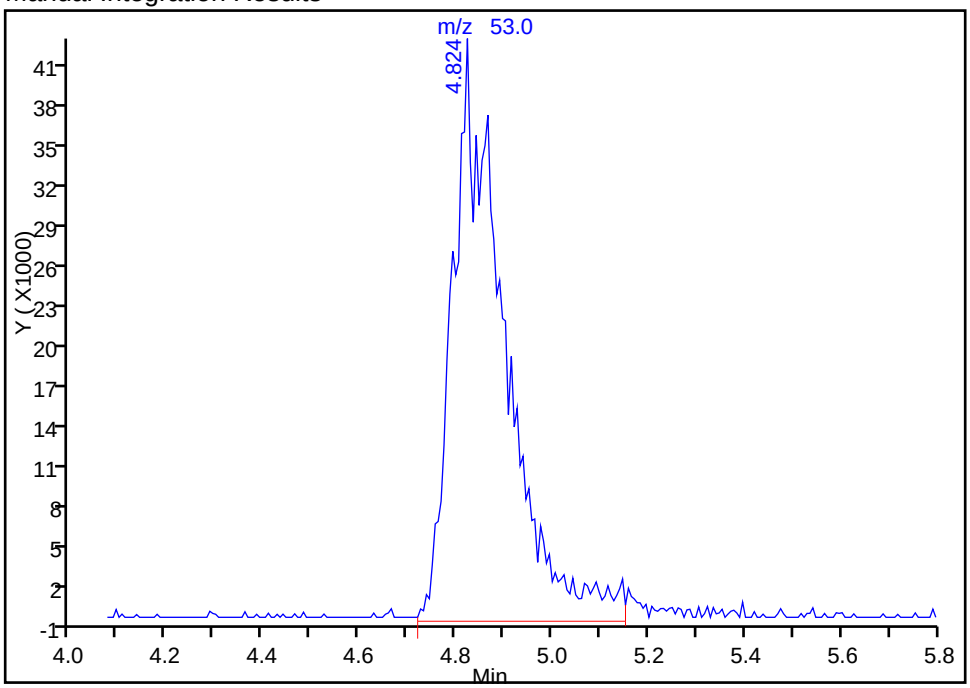
Processing Integration Results

RT: 5.04
Area: 2761
Amount: 17.103044
Amount Units: ng



Manual Integration Results

RT: 4.82
Area: 318922
Amount: 1110.1834
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

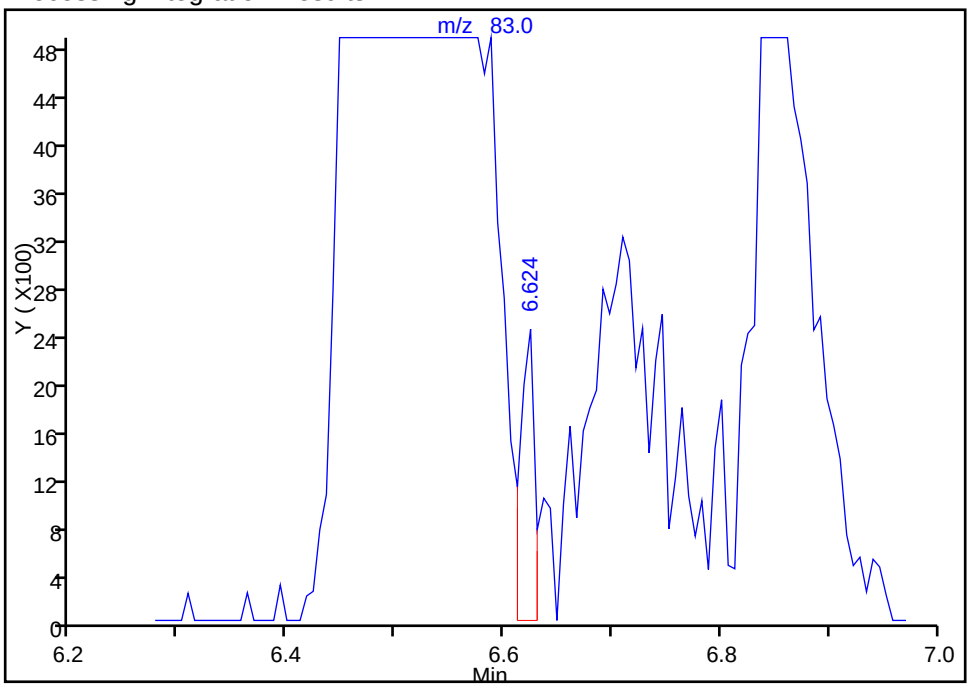
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Injection Date: 30-Mar-2015 11:28:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

52 Chloroform, CAS: 67-66-3

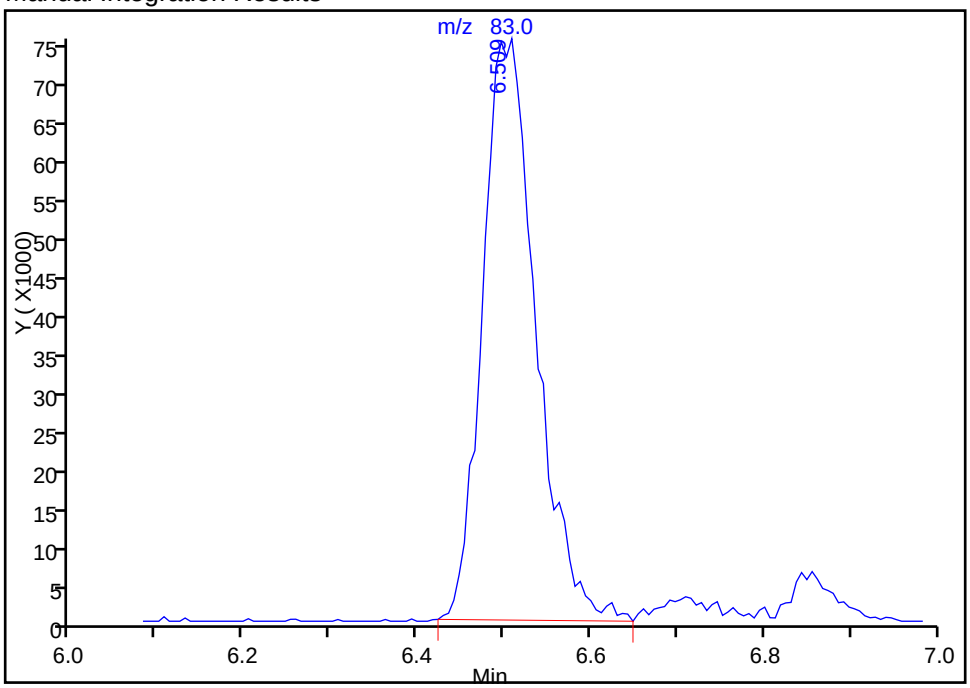
Processing Integration Results

RT: 6.62
Area: 2278
Amount: 1.214470
Amount Units: ng



Manual Integration Results

RT: 6.51
Area: 324491
Amount: 109.4902
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

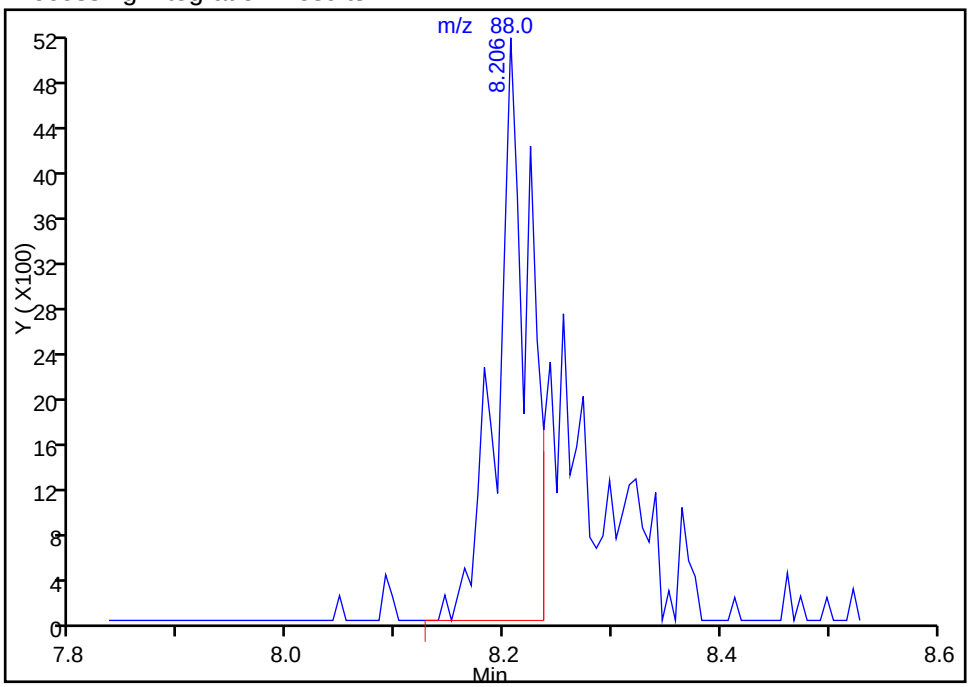
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

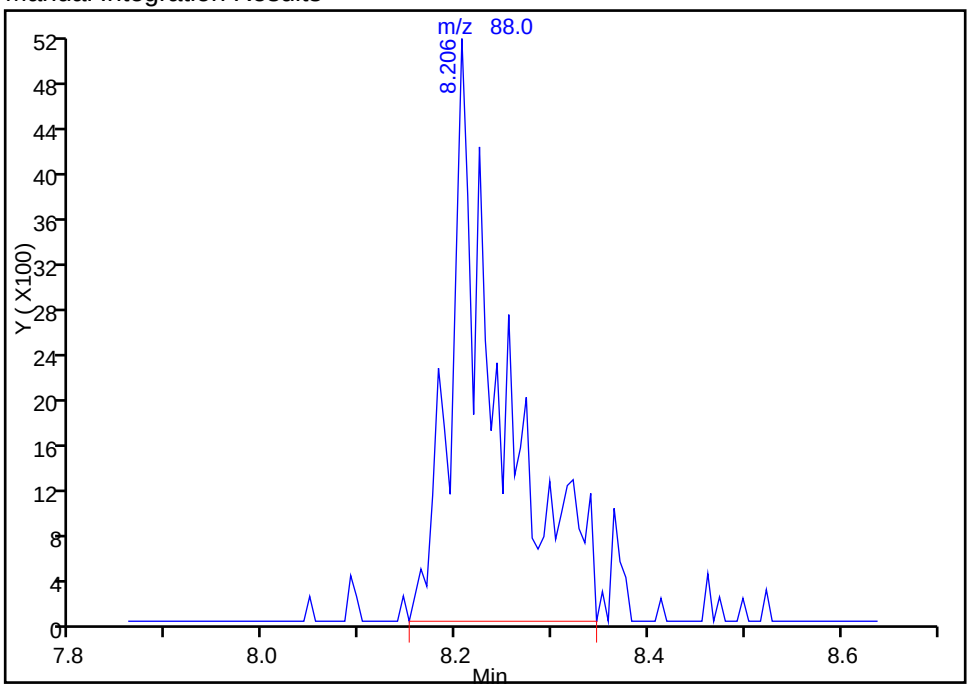
Processing Integration Results

RT: 8.21
Area: 10899
Amount: 1958.5330
Amount Units: ng



Manual Integration Results

RT: 8.21
Area: 18551
Amount: 2196.3559
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 30-Mar-2015 11:55:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 180-0006234-005
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:19 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 12:42:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.024	5.024	0.000	92	310282	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.396	7.396	0.000	95	1094895	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.462	10.462	0.000	86	307311	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	93	455243	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.678	0.000	85	358794	200.0	205.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.037	7.037	0.000	68	326104	200.0	195.8	
$ 7 Toluene-d8 (Surr)	98	9.033	9.033	0.000	91	1076372	200.0	236.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	90	461682	200.0	228.4	
11 Dichlorodifluoromethane	85	1.939	1.939	0.000	58	396029	200.0	195.1	
12 Chloromethane	50	2.018	2.018	0.000	96	440108	200.0	199.1	
14 Butadiene	39	2.176	2.176	0.000	95	378863	200.0	208.4	
13 Vinyl chloride	62	2.225	2.225	0.000	96	345858	200.0	200.9	
15 Bromomethane	94	2.499	2.499	0.000	93	297025	200.0	214.1	
16 Chloroethane	64	2.639	2.639	0.000	58	280211	200.0	201.7	
17 Dichlorofluoromethane	67	2.882	2.882	0.000	95	759945	200.0	205.6	
18 Trichlorofluoromethane	101	2.913	2.913	0.000	85	817631	200.0	210.3	
20 Ethyl ether	59	3.314	3.314	0.000	85	252518	200.0	204.7	
22 1,1-Dichloroethene	96	3.460	3.460	0.000	95	301988	200.0	205.4	
21 Acrolein	56	3.497	3.497	0.000	29	49804	600.0	584.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.563	3.563	0.000	90	351192	200.0	205.4	
25 Iodomethane	142	3.716	3.716	0.000	87	640777	200.0	208.4	
26 Carbon disulfide	76	3.764	3.764	0.000	99	874756	200.0	198.1	M
24 Acetone	43	3.855	3.855	0.000	30	145367	400.0	423.1	
28 3-Chloro-1-propene	76	4.087	4.087	0.000	83	220406	200.0	203.3	
31 Methylene Chloride	84	4.294	4.294	0.000	79	317590	200.0	201.3	
30 Methyl acetate	43	4.324	4.324	0.000	98	683140	1000.0	936.5	
34 trans-1,2-Dichloroethene	96	4.725	4.725	0.000	93	371778	200.0	203.8	
32 2-Methyl-2-propanol	59	4.744	4.744	0.000	34	12318	2000.0	1959.0	
33 Acrylonitrile	53	4.829	4.829	0.000	99	568053	2000.0	1946.7	
35 Methyl tert-butyl ether	73	4.890	4.890	0.000	93	714150	200.0	198.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.090	5.090	0.000	94	382145	200.0	200.3	
38 Vinyl acetate	43	5.115	5.115	0.000	91	289383	200.0	201.2	
37 1,1-Dichloroethane	63	5.334	5.334	0.000	96	550009	200.0	205.7	
44 2,2-Dichloropropane	77	6.076	6.076	0.000	89	478480	200.0	214.2	
45 cis-1,2-Dichloroethene	96	6.094	6.094	0.000	77	375290	200.0	207.3	
46 2-Butanone (MEK)	43	6.216	6.216	0.000	99	189308	400.0	385.7	
49 Chlorobromomethane	128	6.380	6.380	0.000	83	204558	200.0	196.2	
52 Chloroform	83	6.496	6.496	0.000	93	617343	200.0	205.1	
53 1,1,1-Trichloroethane	97	6.660	6.660	0.000	97	569802	200.0	208.4	
51 Tetrahydrofuran	42	6.709	6.709	0.000	44	112031	400.0	417.2	
54 Cyclohexane	56	6.709	6.709	0.000	77	389741	200.0	202.1	
56 Carbon tetrachloride	117	6.849	6.849	0.000	94	567374	200.0	205.7	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	89	397710	200.0	201.5	
58 Benzene	78	7.086	7.086	0.000	95	1140696	200.0	211.7	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	97	363062	200.0	199.5	
62 n-Heptane	43	7.390	7.390	0.000	63	343792	200.0	205.8	
57 Isobutyl alcohol	41	7.396	7.396	0.000	50	238248	5000.0	5420.0	
64 Trichloroethene	130	7.785	7.785	0.000	91	445574	200.0	206.3	
66 Methylcyclohexane	83	7.980	7.980	0.000	87	543409	200.0	204.6	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	82	243750	200.0	198.6	
68 Dibromomethane	93	8.144	8.144	0.000	95	175702	200.0	192.2	
70 1,4-Dioxane	88	8.205	8.205	0.000	88	36036	4000.0	4200.2	M
71 Dichlorobromomethane	83	8.315	8.315	0.000	97	480549	200.0	211.2	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	91	477454	200.0	202.2	
75 4-Methyl-2-pentanone (MIBK	43	8.947	8.947	0.000	97	367652	400.0	409.4	
76 Toluene	91	9.099	9.099	0.000	98	1151125	200.0	211.3	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	94	405643	200.0	210.0	
78 Ethyl methacrylate	69	9.428	9.428	0.000	87	262894	200.0	204.6	
79 1,1,2-Trichloroethane	97	9.513	9.513	0.000	92	222398	200.0	201.6	
80 Tetrachloroethene	164	9.641	9.641	0.000	94	309255	200.0	216.5	
81 1,3-Dichloropropane	76	9.671	9.671	0.000	90	334311	200.0	205.1	
82 2-Hexanone	43	9.769	9.769	0.000	97	231264	400.0	399.3	
84 Chlorodibromomethane	129	9.896	9.896	0.000	89	387652	200.0	204.4	
85 Ethylene Dibromide	107	10.006	10.006	0.000	98	251542	200.0	201.3	
87 Chlorobenzene	112	10.499	10.499	0.000	94	846268	200.0	216.0	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	93	393829	200.0	207.9	
90 Ethylbenzene	106	10.602	10.602	0.000	98	438222	200.0	196.9	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	97	582999	200.0	194.3	
92 o-Xylene	106	11.113	11.113	0.000	95	586685	200.0	194.7	
93 Styrene	104	11.125	11.125	0.000	93	895002	200.0	218.5	
94 Bromoform	173	11.314	11.314	0.000	94	228827	200.0	213.0	
97 Isopropylbenzene	105	11.478	11.478	0.000	95	1546157	200.0	213.6	
99 1,1,2,2-Tetrachloroethane	83	11.776	11.776	0.000	98	251042	200.0	216.9	
100 Bromobenzene	156	11.788	11.788	0.000	86	423173	200.0	216.9	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	83	86903	200.0	199.0	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	70	49829	200.0	182.1	
103 N-Propylbenzene	120	11.892	11.892	0.000	96	515043	200.0	215.1	
104 2-Chlorotoluene	126	11.977	11.977	0.000	95	465485	200.0	214.1	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	97	1260442	200.0	223.0	
107 4-Chlorotoluene	126	12.086	12.086	0.000	96	415760	200.0	199.6	
108 tert-Butylbenzene	119	12.391	12.391	0.000	91	1397136	200.0	207.4	
110 1,2,4-Trimethylbenzene	105	12.439	12.439	0.000	96	1279121	200.0	214.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.610	12.610	0.000	94	1664550	200.0	219.6	
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	97	814415	200.0	210.1	
114 4-Isopropyltoluene	119	12.756	12.756	0.000	95	1460316	200.0	211.8	
115 1,4-Dichlorobenzene	146	12.816	12.816	0.000	94	763456	200.0	211.4	
120 n-Butylbenzene	91	13.163	13.163	0.000	95	1224106	200.0	213.7	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	666444	200.0	188.4	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.972	0.000	88	37304	200.0	209.2	
126 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	95	198283	200.0	176.8	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	88	119072	200.0	177.1	
128 Naphthalene	128	15.055	15.055	0.000	96	323445	200.0	176.1	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	93	106664	200.0	139.0	
S 134 1,2-Dichloroethene, Total	96				0		400.0	411.2	
S 133 Xylenes, Total	106				0		400.0	389.0	
S 135 1,3-Dichloropropene, Total	1				0		400.0	412.2	

QC Flag Legend

Review Flags

M - Manually Integrated

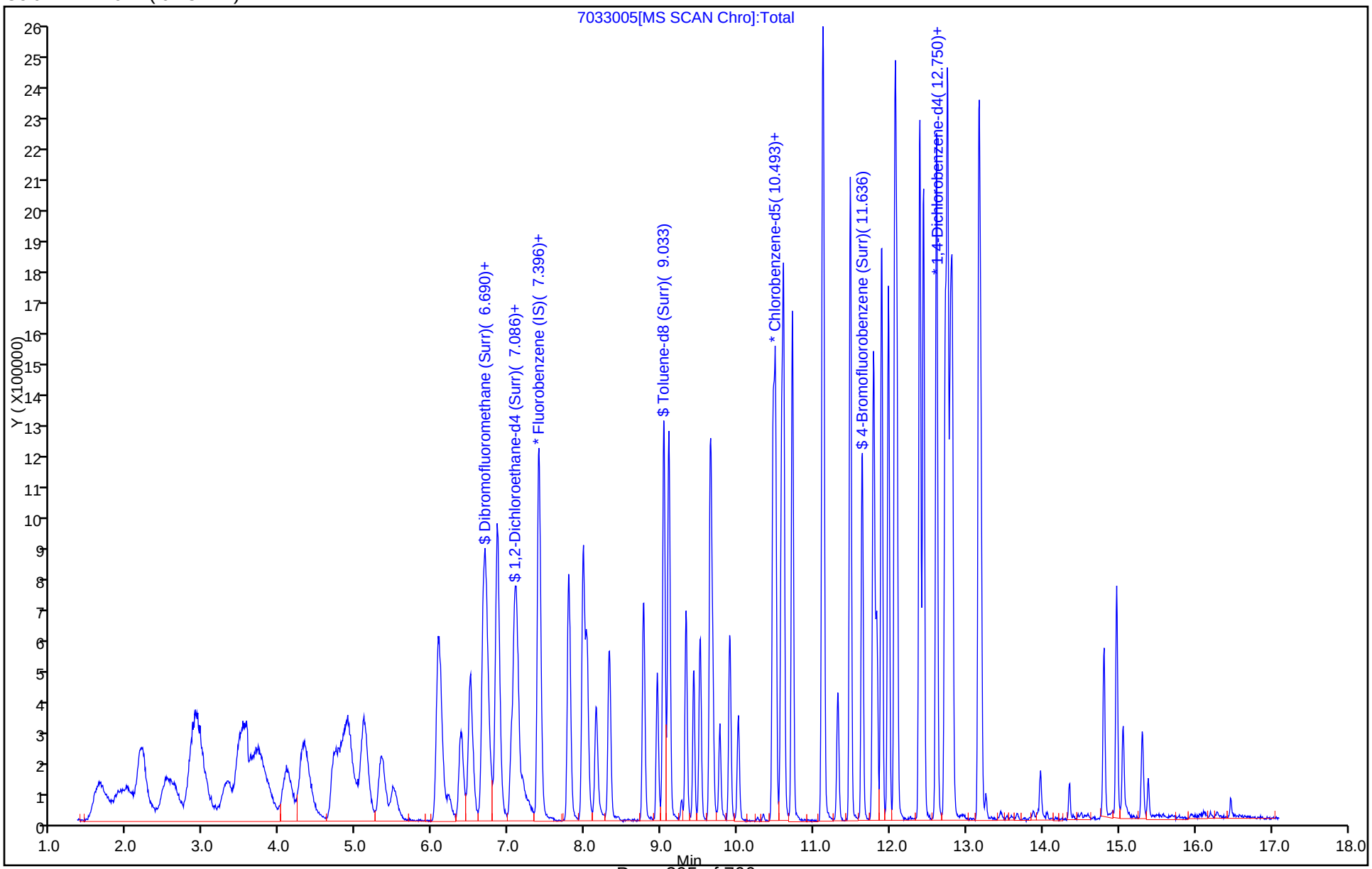
Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	8.00	Units: uL
VOAACRPRI_00003	Amount Added:	24.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

Report Date: 31-Mar-2015 08:54:21 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	icis			Worklist Smp#:	5
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column: DB-624 (0.18 mm)					



Manual Integration/User Assign Peak Report

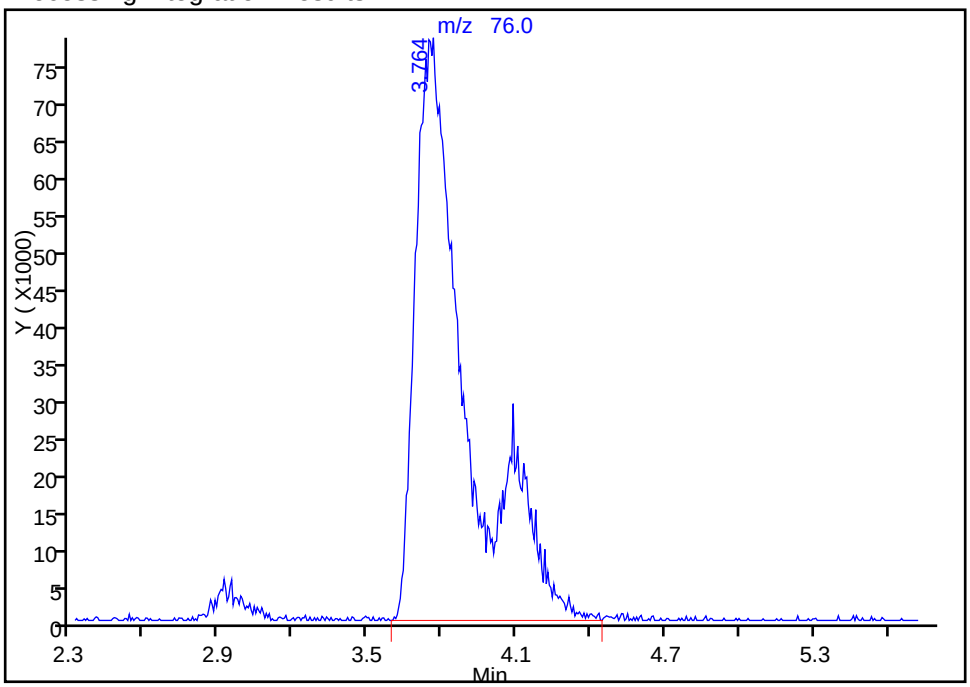
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7		
Lims ID:	icis				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

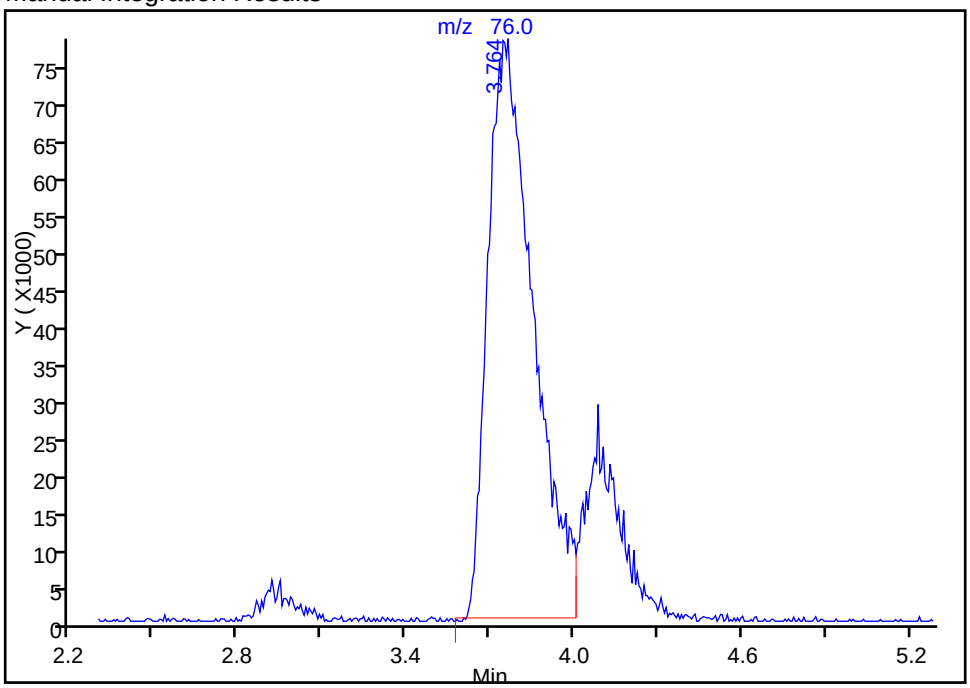
Processing Integration Results

RT: 3.76
Area: 1107648
Amount: 219.4227
Amount Units: ng



Manual Integration Results

RT: 3.76
Area: 874756
Amount: 198.1162
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:42:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

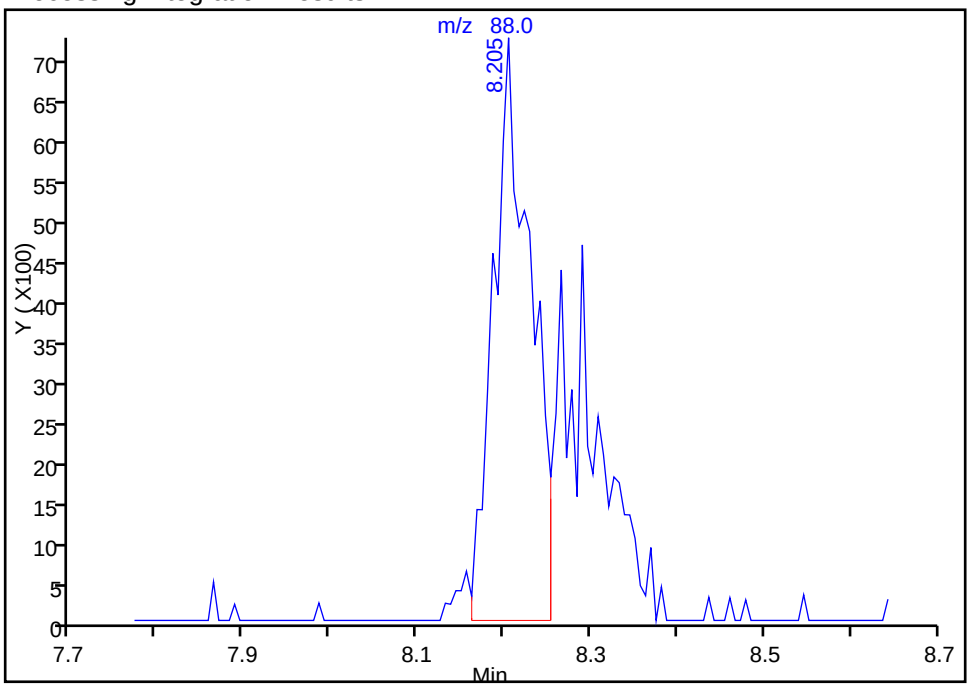
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7		
Lims ID:	icis				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

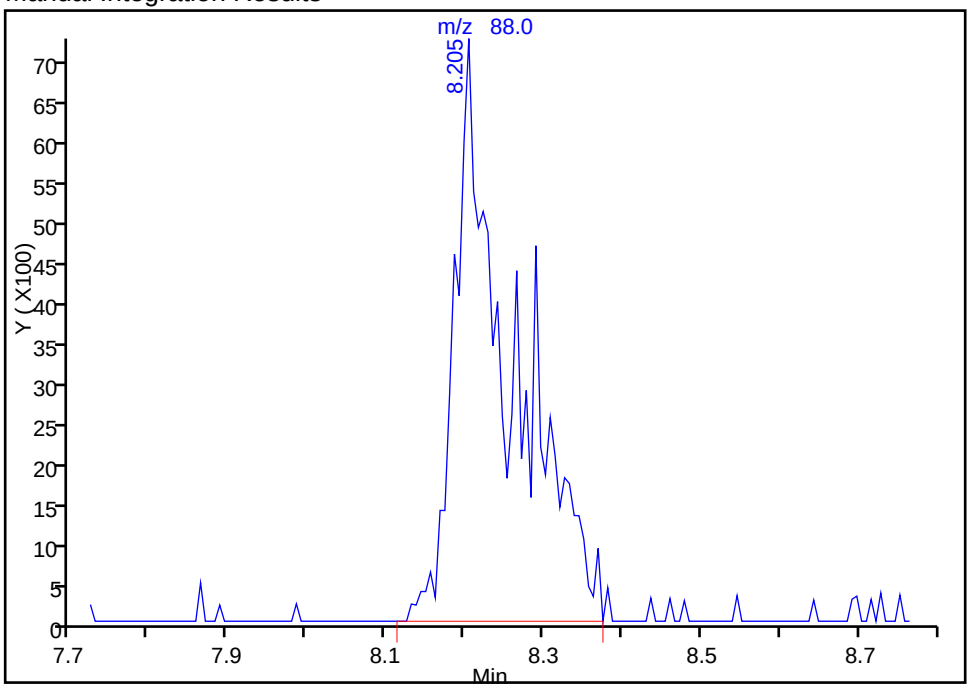
Processing Integration Results

RT: 8.21
Area: 21873
Amount: 2688.0682
Amount Units: ng



Manual Integration Results

RT: 8.21
Area: 36036
Amount: 4200.1644
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:32:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 30-Mar-2015 12:23:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-006
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 09:13:23 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 31-Mar-2015 09:13:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.051	5.051	0.000	88	311643	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	93	1016877	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	306938	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	94	445506	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	91	459650	300.0	283.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.040	0.000	70	452870	300.0	292.8	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	1374921	300.0	302.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	91	594575	300.0	298.8	
11 Dichlorodifluoromethane	85	1.888	1.888	0.000	91	547112	300.0	290.3	
12 Chloromethane	50	2.015	2.015	0.000	87	579635	300.0	282.3	
14 Butadiene	39	2.174	2.174	0.000	96	467958	300.0	277.1	
13 Vinyl chloride	62	2.204	2.204	0.000	79	454519	300.0	284.2	
15 Bromomethane	94	2.496	2.496	0.000	95	370267	300.0	287.4	
16 Chloroethane	64	2.612	2.612	0.000	98	359315	300.0	278.5	
17 Dichlorofluoromethane	67	2.873	2.873	0.000	94	973235	300.0	283.5	
18 Trichlorofluoromethane	101	2.904	2.904	0.000	90	1039442	300.0	287.9	
20 Ethyl ether	59	3.299	3.299	0.000	96	329495	300.0	287.6	
21 Acrolein	56	3.445	3.445	0.000	27	58776	700.0	743.1	
22 1,1-Dichloroethene	96	3.457	3.457	0.000	85	386363	300.0	283.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.579	3.579	0.000	93	447607	300.0	281.9	
25 Iodomethane	142	3.676	3.676	0.000	97	761762	300.0	266.7	
26 Carbon disulfide	76	3.731	3.731	0.000	98	1119377	300.0	273.0	M
24 Acetone	43	3.877	3.877	0.000	71	201909	600.0	669.8	
28 3-Chloro-1-propene	76	4.072	4.072	0.000	85	265180	300.0	263.3	
31 Methylene Chloride	84	4.309	4.309	0.000	66	390467	300.0	266.5	
30 Methyl acetate	43	4.321	4.321	0.000	97	1035067	1500.0	1527.8	
34 trans-1,2-Dichloroethene	96	4.698	4.698	0.000	93	468410	300.0	276.5	
32 2-Methyl-2-propanol	59	4.698	4.698	0.000	32	18904	3000.0	2972.9	
33 Acrylonitrile	53	4.844	4.844	0.000	98	845412	3000.0	3119.4	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	95	984040	300.0	294.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.100	5.100	0.000	92	507536	300.0	286.5	
38 Vinyl acetate	43	5.100	5.100	0.000	64	370011	300.0	277.0	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	97	715666	300.0	288.3	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	88	593228	300.0	286.0	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	77	475209	300.0	282.7	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	100	296627	600.0	650.8	
49 Chlorobromomethane	128	6.377	6.377	0.000	82	276754	300.0	285.8	
52 Chloroform	83	6.493	6.493	0.000	93	796703	300.0	284.9	
53 1,1,1-Trichloroethane	97	6.669	6.669	0.000	97	711168	300.0	280.1	
51 Tetrahydrofuran	42	6.700	6.700	0.000	52	141960	600.0	569.3	
54 Cyclohexane	56	6.712	6.712	0.000	88	497062	300.0	277.5	
56 Carbon tetrachloride	117	6.846	6.846	0.000	95	706744	300.0	275.9	
55 1,1-Dichloropropene	75	6.852	6.852	0.000	88	522409	300.0	284.9	
58 Benzene	78	7.083	7.083	0.000	95	1444796	300.0	288.7	
59 1,2-Dichloroethane	62	7.126	7.126	0.000	95	486348	300.0	287.7	
62 n-Heptane	43	7.387	7.387	0.000	75	453730	300.0	292.5	
57 Isobutyl alcohol	41	7.393	7.393	0.000	60	318675	7500.0	7805.9	
64 Trichloroethene	130	7.789	7.789	0.000	91	557536	300.0	277.9	
66 Methylcyclohexane	83	7.977	7.977	0.000	87	683732	300.0	277.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	79	327752	300.0	287.5	
68 Dibromomethane	93	8.141	8.141	0.000	92	240979	300.0	283.8	
70 1,4-Dioxane	88	8.214	8.214	0.000	78	49259	6000.0	6181.9	
71 Dichlorobromomethane	83	8.318	8.318	0.000	97	612413	300.0	289.7	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	92	643615	300.0	293.5	
75 4-Methyl-2-pentanone (MIBK	43	8.951	8.951	0.000	96	558709	600.0	622.9	
76 Toluene	91	9.103	9.103	0.000	97	1473364	300.0	287.0	
77 trans-1,3-Dichloropropene	75	9.322	9.322	0.000	95	565545	300.0	293.1	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	390626	300.0	304.4	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	91	322268	300.0	292.6	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	380796	300.0	278.1	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	90	485148	300.0	297.9	
82 2-Hexanone	43	9.766	9.766	0.000	97	369022	600.0	637.9	
84 Chlorodibromomethane	129	9.900	9.900	0.000	89	544921	300.0	287.7	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	375561	300.0	300.9	
87 Chlorobenzene	112	10.496	10.496	0.000	94	1093489	300.0	279.5	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	93	505049	300.0	267.0	
90 Ethylbenzene	106	10.605	10.605	0.000	97	567348	300.0	255.2	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	97	753992	300.0	251.6	
92 o-Xylene	106	11.116	11.116	0.000	94	750708	300.0	249.4	
93 Styrene	104	11.128	11.128	0.000	92	1119936	300.0	288.8	
94 Bromoform	173	11.311	11.311	0.000	93	322387	300.0	300.4	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	1939042	300.0	285.9	
99 1,1,2,2-Tetrachloroethane	83	11.773	11.773	0.000	98	360995	300.0	312.3	
100 Bromobenzene	156	11.785	11.785	0.000	86	548599	300.0	287.4	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	86	129479	300.0	302.9	
102 trans-1,4-Dichloro-2-buten	53	11.834	11.834	0.000	72	77709	300.0	290.2	
103 N-Propylbenzene	120	11.889	11.889	0.000	96	649531	300.0	277.2	
104 2-Chlorotoluene	126	11.980	11.980	0.000	95	592801	300.0	278.6	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	97	1547120	300.0	294.8	
107 4-Chlorotoluene	126	12.090	12.090	0.000	95	562904	300.0	276.1	
108 tert-Butylbenzene	119	12.388	12.388	0.000	91	1734851	300.0	266.1	
110 1,2,4-Trimethylbenzene	105	12.442	12.442	0.000	95	1578246	300.0	285.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.613	12.613	0.000	94	2075658	300.0	295.1	
113 1,3-Dichlorobenzene	146	12.722	12.722	0.000	97	1053105	300.0	281.2	
114 4-Isopropyltoluene	119	12.753	12.753	0.000	94	1814126	300.0	286.3	
115 1,4-Dichlorobenzene	146	12.814	12.814	0.000	93	1033910	300.0	292.6	
120 n-Butylbenzene	91	13.160	13.160	0.000	94	1510703	300.0	287.0	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	98	895594	300.0	258.7	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	89	48853	300.0	277.4	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	302905	300.0	275.9	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	88	167959	300.0	255.3	
128 Naphthalene	128	15.052	15.052	0.000	97	511933	300.0	284.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	94	203191	300.0	270.5	
S 134 1,2-Dichloroethene, Total	96				0		600.0	559.2	
S 133 Xylenes, Total	106				0		600.0	501.0	
S 135 1,3-Dichloropropene, Total	1				0		600.0	586.6	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

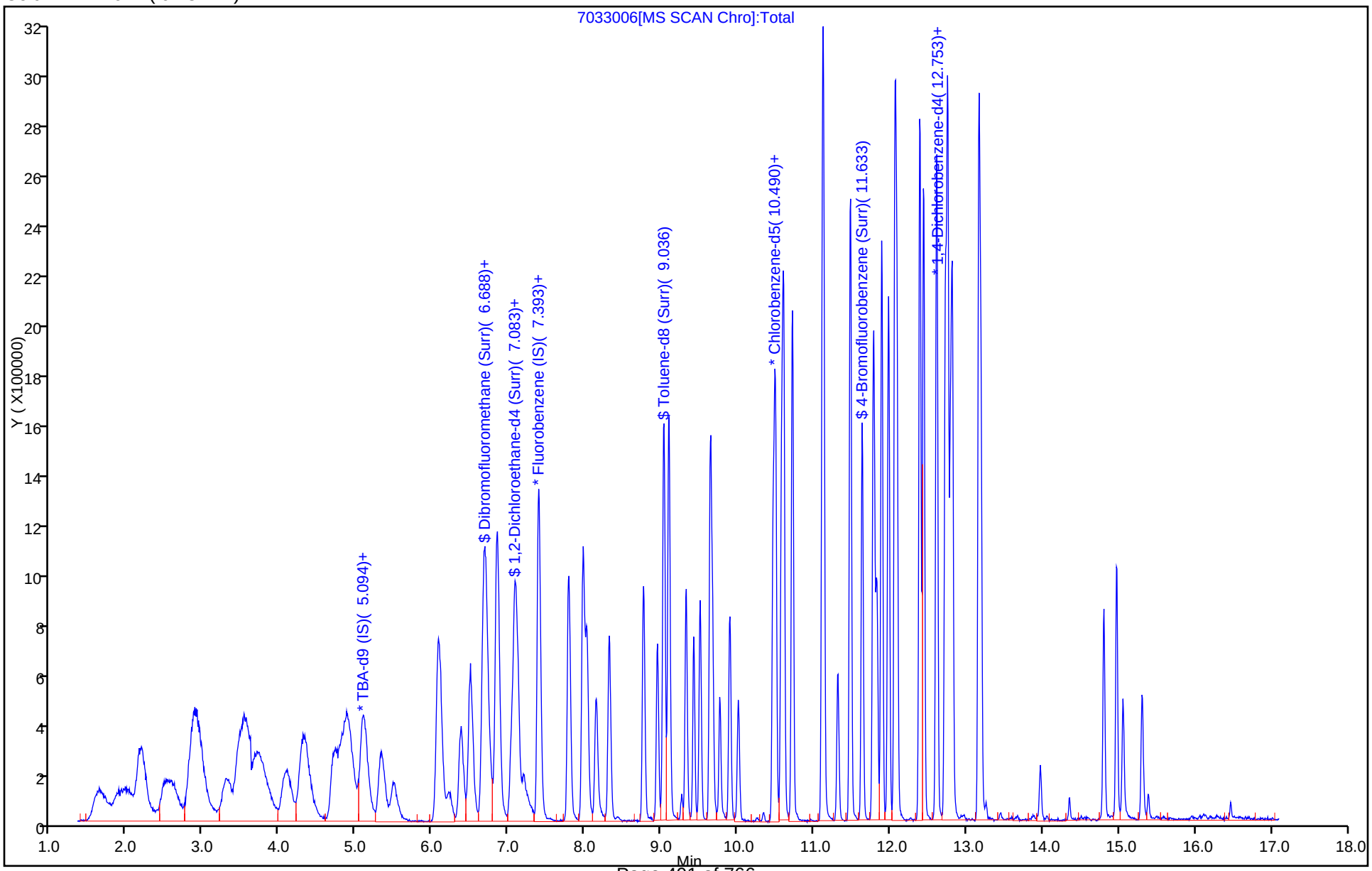
VOA8260SURR_00017	Amount Added:	12.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	12.00	Units: uL
VOAACRPRI_00003	Amount Added:	28.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	12.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	12.00	Units: uL

Report Date: 31-Mar-2015 09:13:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D				
Injection Date:	30-Mar-2015 12:23:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

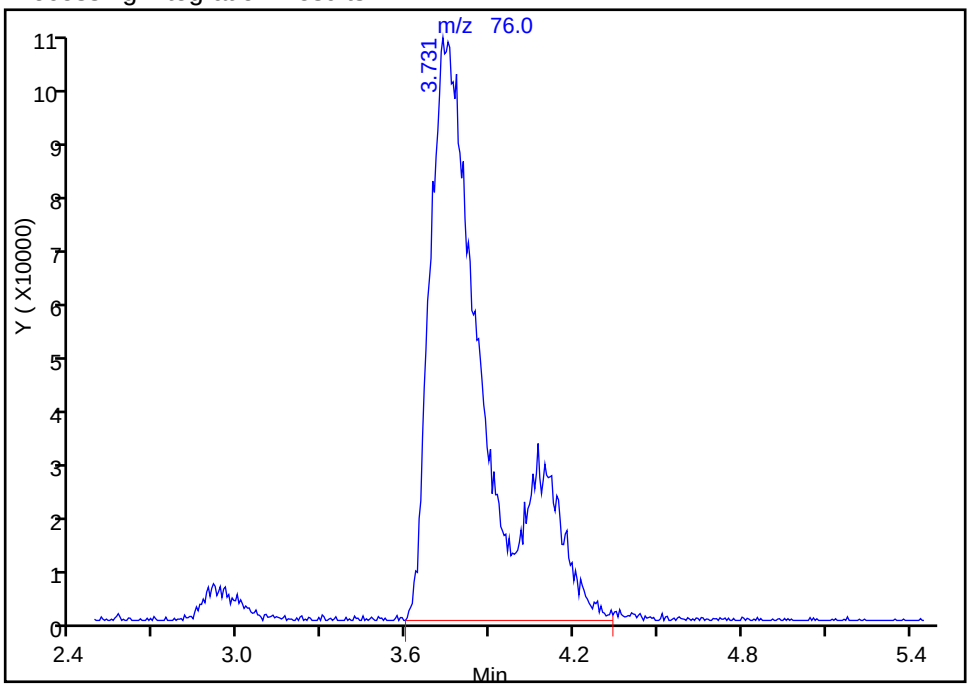
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D				
Injection Date:	30-Mar-2015 12:23:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

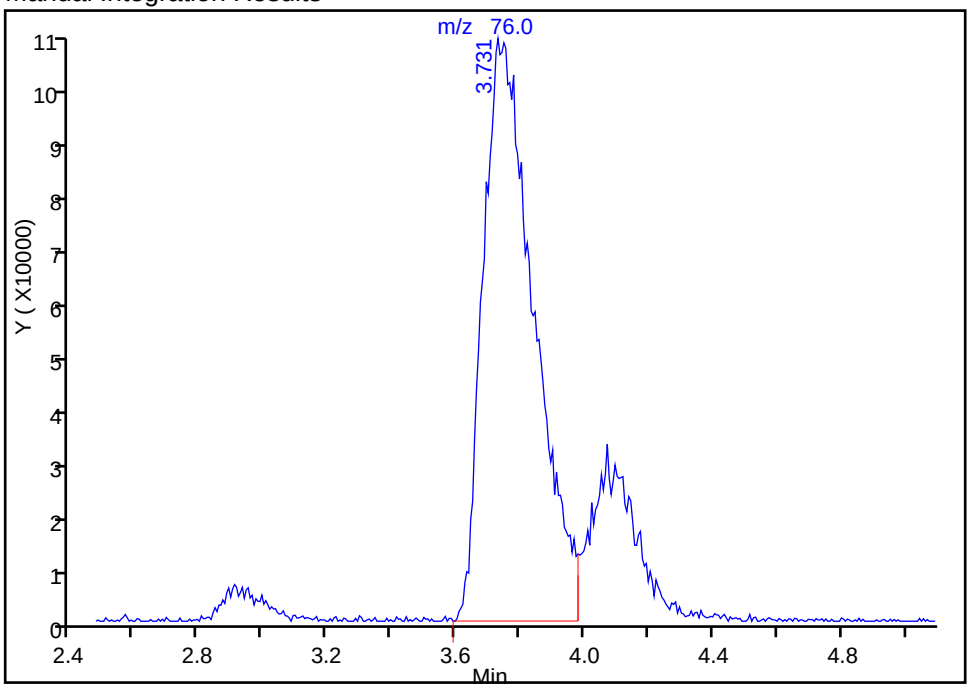
Processing Integration Results

RT: 3.73
Area: 1395013
Amount: 316.4464
Amount Units: ng



Manual Integration Results

RT: 3.73
Area: 1119377
Amount: 272.9691
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 13:12:54
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 30-Mar-2015 13:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-007
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:23 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 13:53:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.045	5.051	-0.006	90	310851	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	92	1032012	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	84	312393	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	448930	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.687	6.675	0.012	89	635809	400.0	386.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	70	603243	400.0	384.4	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	1822472	400.0	393.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	91	801850	400.0	400.9	
11 Dichlorodifluoromethane	85	1.918	1.888	0.030	88	769843	400.0	402.5	
12 Chloromethane	50	2.052	2.015	0.037	87	823816	400.0	395.3	
14 Butadiene	39	2.210	2.174	0.036	95	633176	400.0	369.4	
13 Vinyl chloride	62	2.204	2.204	0.000	97	610532	400.0	376.2	
15 Bromomethane	94	2.545	2.496	0.049	93	503455	400.0	385.0	
16 Chloroethane	64	2.666	2.612	0.054	49	494064	400.0	377.4	
17 Dichlorofluoromethane	67	2.904	2.873	0.031	96	1320934	400.0	379.2	
18 Trichlorofluoromethane	101	2.934	2.904	0.030	87	1412799	400.0	385.5	
20 Ethyl ether	59	3.305	3.299	0.006	90	478344	400.0	411.4	
22 1,1-Dichloroethene	96	3.481	3.457	0.024	97	556448	400.0	401.6	
21 Acrolein	56	3.488	3.445	0.043	45	63644	800.0	792.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.585	3.579	0.006	88	590436	400.0	366.5	
25 Iodomethane	142	3.670	3.676	-0.006	98	1110172	400.0	383.0	
26 Carbon disulfide	76	3.755	3.731	0.024	99	1544647	400.0	371.2	M
24 Acetone	43	3.865	3.877	-0.012	26	231424	800.0	766.1	
28 3-Chloro-1-propene	76	4.090	4.072	0.018	87	396144	400.0	387.6	
31 Methylene Chloride	84	4.309	4.309	0.000	76	544613	400.0	366.2	
30 Methyl acetate	43	4.327	4.321	0.006	97	1324779	2000.0	1926.7	
34 trans-1,2-Dichloroethene	96	4.710	4.698	0.012	90	646149	400.0	375.8	
32 2-Methyl-2-propanol	59	4.735	4.698	0.037	31	25255	4000.0	3891.2	M
33 Acrylonitrile	53	4.832	4.844	-0.012	99	1091986	4000.0	3970.2	
35 Methyl tert-butyl ether	73	4.899	4.905	-0.006	96	1301482	400.0	384.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.118	5.100	0.018	96	686716	400.0	381.9	
38 Vinyl acetate	43	5.112	5.100	0.012	70	520045	400.0	383.6	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	96	988166	400.0	392.2	
44 2,2-Dichloropropane	77	6.079	6.073	0.006	87	795291	400.0	377.8	
45 cis-1,2-Dichloroethene	96	6.097	6.091	0.006	77	672672	400.0	394.3	
46 2-Butanone (MEK)	43	6.219	6.225	-0.006	100	357127	800.0	772.0	
49 Chlorobromomethane	128	6.383	6.377	0.006	80	383470	400.0	390.2	
52 Chloroform	83	6.499	6.493	0.006	93	1070128	400.0	377.1	
53 1,1,1-Trichloroethane	97	6.675	6.669	0.006	96	970491	400.0	376.6	
51 Tetrahydrofuran	42	6.712	6.700	0.012	51	193358	800.0	764.0	
54 Cyclohexane	56	6.718	6.712	0.006	78	680423	400.0	374.3	
56 Carbon tetrachloride	117	6.858	6.846	0.012	94	960424	400.0	369.5	
55 1,1-Dichloropropene	75	6.858	6.852	0.006	88	684260	400.0	367.7	
58 Benzene	78	7.089	7.083	0.006	95	1936130	400.0	381.2	
59 1,2-Dichloroethane	62	7.132	7.126	0.006	97	662167	400.0	386.0	
62 n-Heptane	43	7.399	7.387	0.012	84	593146	400.0	376.8	
57 Isobutyl alcohol	41	7.393	7.393	0.000	74	426103	10000	10284	
64 Trichloroethene	130	7.795	7.789	0.006	91	763898	400.0	375.2	
66 Methylcyclohexane	83	7.983	7.977	0.006	86	924161	400.0	369.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	81	447696	400.0	387.0	
68 Dibromomethane	93	8.154	8.141	0.013	94	325671	400.0	378.0	
70 1,4-Dioxane	88	8.208	8.214	-0.006	85	68277	8000.0	8442.9	
71 Dichlorobromomethane	83	8.324	8.318	0.006	97	837049	400.0	390.2	
74 cis-1,3-Dichloropropene	75	8.774	8.768	0.006	91	854790	400.0	384.1	
75 4-Methyl-2-pentanone (MIBK	43	8.951	8.951	0.000	95	733664	800.0	803.7	
76 Toluene	91	9.103	9.103	0.000	96	1929599	400.0	398.0	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	752421	400.0	383.2	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	513149	400.0	392.8	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	91	430806	400.0	384.3	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	524990	400.0	402.5	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	91	626433	400.0	378.0	
82 2-Hexanone	43	9.772	9.766	0.006	96	462161	800.0	784.9	
84 Chlorodibromomethane	129	9.900	9.900	0.000	88	725170	400.0	376.2	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	486579	400.0	383.1	
87 Chlorobenzene	112	10.502	10.496	0.006	93	1464442	400.0	367.8	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	683517	400.0	355.0	
90 Ethylbenzene	106	10.605	10.605	0.000	97	742350	400.0	328.1	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	95	1009451	400.0	330.9	
92 o-Xylene	106	11.116	11.116	0.000	94	1006935	400.0	328.7	
93 Styrene	104	11.134	11.128	0.006	93	1435413	400.0	388.9	
94 Bromoform	173	11.317	11.311	0.006	95	436139	400.0	399.3	
97 Isopropylbenzene	105	11.481	11.481	0.000	96	2501798	400.0	395.2	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	97	452814	400.0	384.9	
100 Bromobenzene	156	11.785	11.785	0.000	86	719427	400.0	374.0	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	87	165438	400.0	384.1	
102 trans-1,4-Dichloro-2-buten	53	11.834	11.834	0.000	80	103928	400.0	385.2	
103 N-Propylbenzene	120	11.895	11.889	0.006	95	866084	400.0	366.8	
104 2-Chlorotoluene	126	11.980	11.980	0.000	96	799439	400.0	372.9	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	97	2000575	400.0	402.4	
107 4-Chlorotoluene	126	12.090	12.090	0.000	94	757841	400.0	368.9	
108 tert-Butylbenzene	119	12.394	12.388	0.006	91	2561684	400.0	394.9	
110 1,2,4-Trimethylbenzene	105	12.442	12.442	0.000	95	2068364	400.0	399.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.613	12.613	0.000	94	2688983	400.0	402.5	
113 1,3-Dichlorobenzene	146	12.728	12.722	0.006	96	1390255	400.0	371.8	
114 4-Isopropyltoluene	119	12.759	12.753	0.006	94	2342656	400.0	399.0	
115 1,4-Dichlorobenzene	146	12.820	12.814	0.006	92	1375837	400.0	386.3	
120 n-Butylbenzene	91	13.166	13.160	0.006	94	1935500	400.0	397.3	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	97	1172011	400.0	335.9	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	88	74075	400.0	413.4	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	95	443796	400.0	401.2	M
127 Hexachlorobutadiene	225	14.973	14.973	0.000	88	239421	400.0	361.2	
128 Naphthalene	128	15.058	15.052	0.006	96	664374	400.0	366.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	95	263400	400.0	348.0	
S 134 1,2-Dichloroethene, Total	96				0		800.0	770.1	
S 133 Xylenes, Total	106				0		800.0	659.6	
S 135 1,3-Dichloropropene, Total	1				0		800.0	767.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

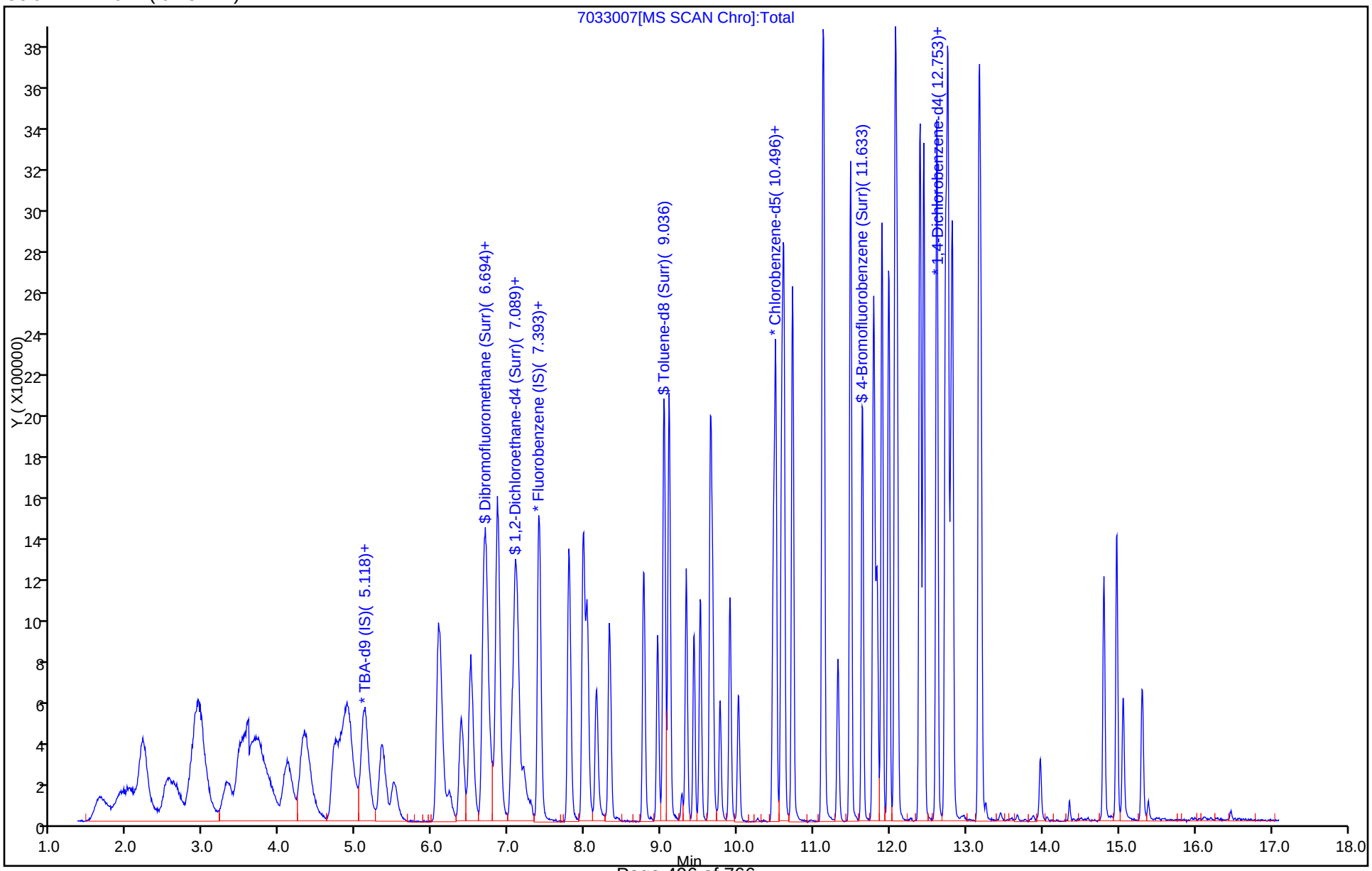
VOA8260SURR_00017	Amount Added:	16.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	16.00	Units: uL
VOAACRPRI_00003	Amount Added:	32.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	16.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	16.00	Units: uL

Report Date: 31-Mar-2015 08:54:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

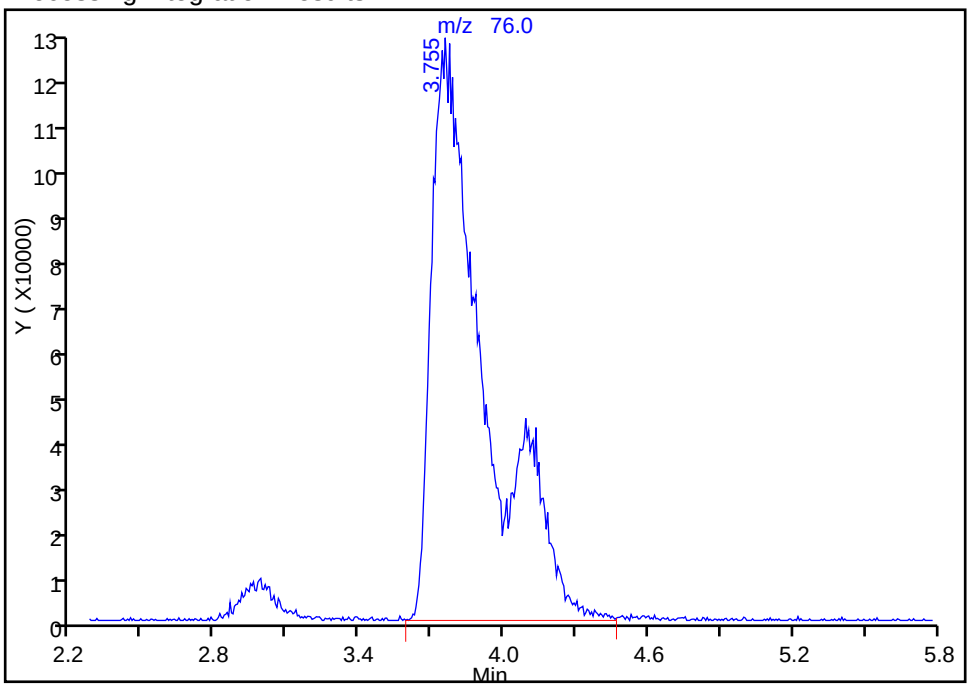
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D
Injection Date: 30-Mar-2015 13:05:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 Carbon disulfide, CAS: 75-15-0

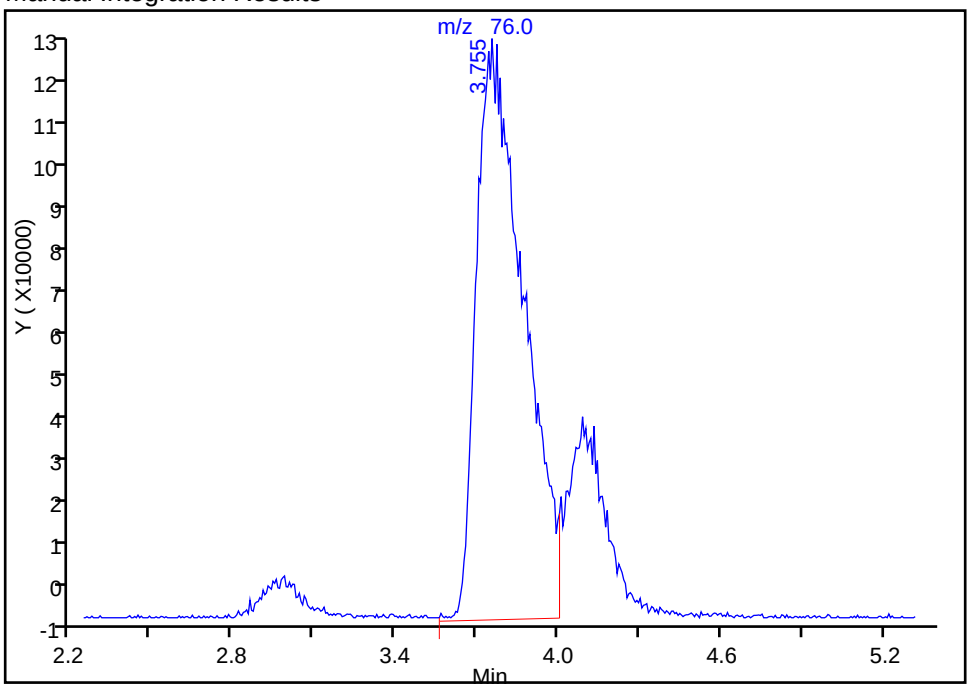
Processing Integration Results

RT: 3.76
Area: 1952405
Amount: 446.8874
Amount Units: ng



Manual Integration Results

RT: 3.76
Area: 1544647
Amount: 371.1505
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 13:53:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

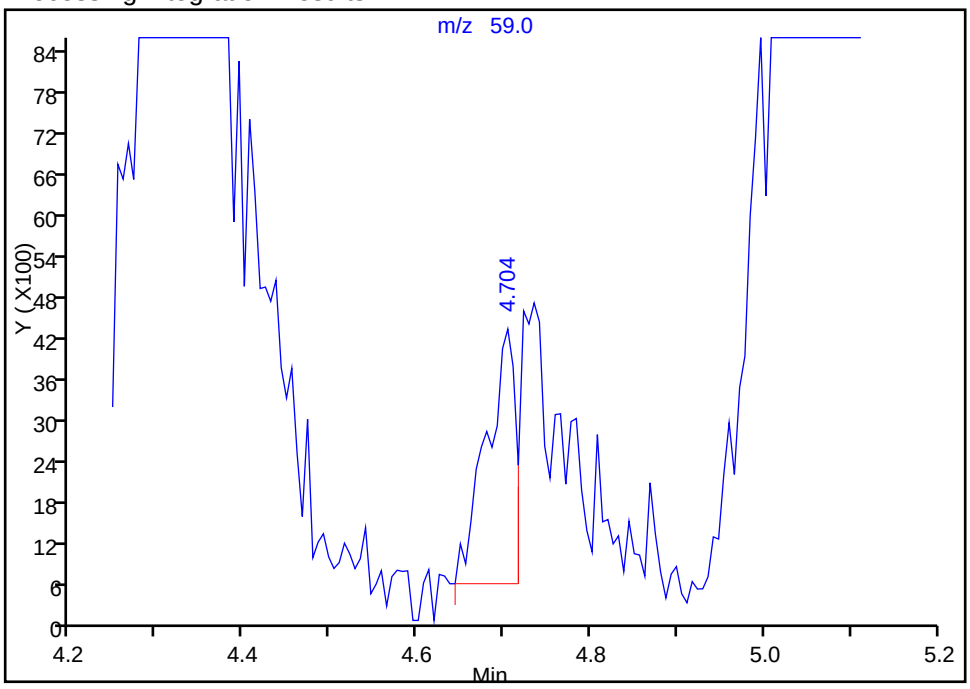
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

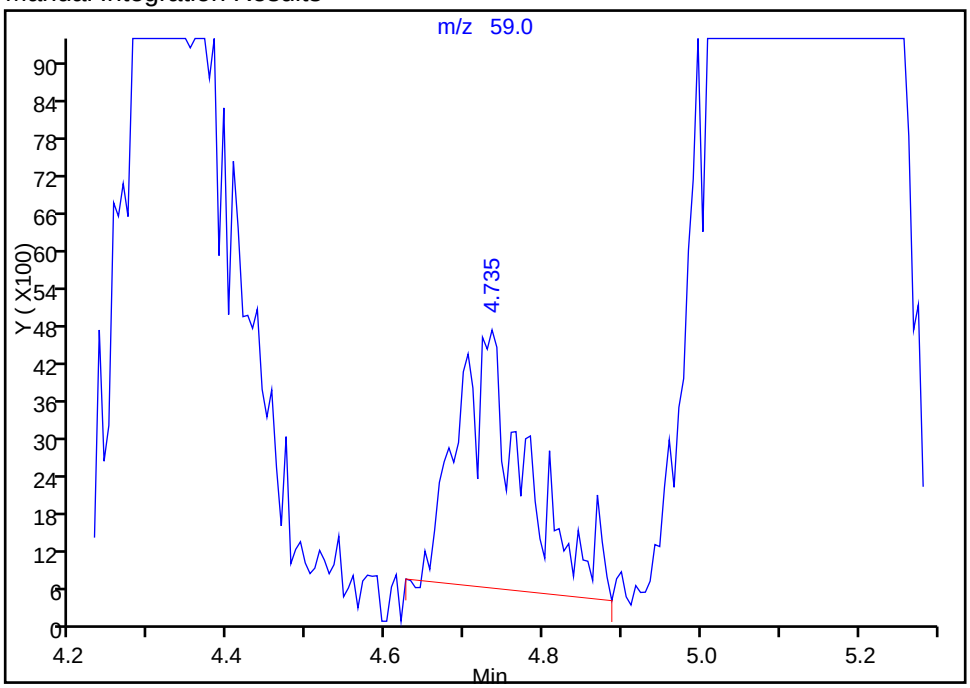
Processing Integration Results

RT: 4.70
Area: 8865
Amount: 1468.1351
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 25255
Amount: 3891.2177
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 16:20:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

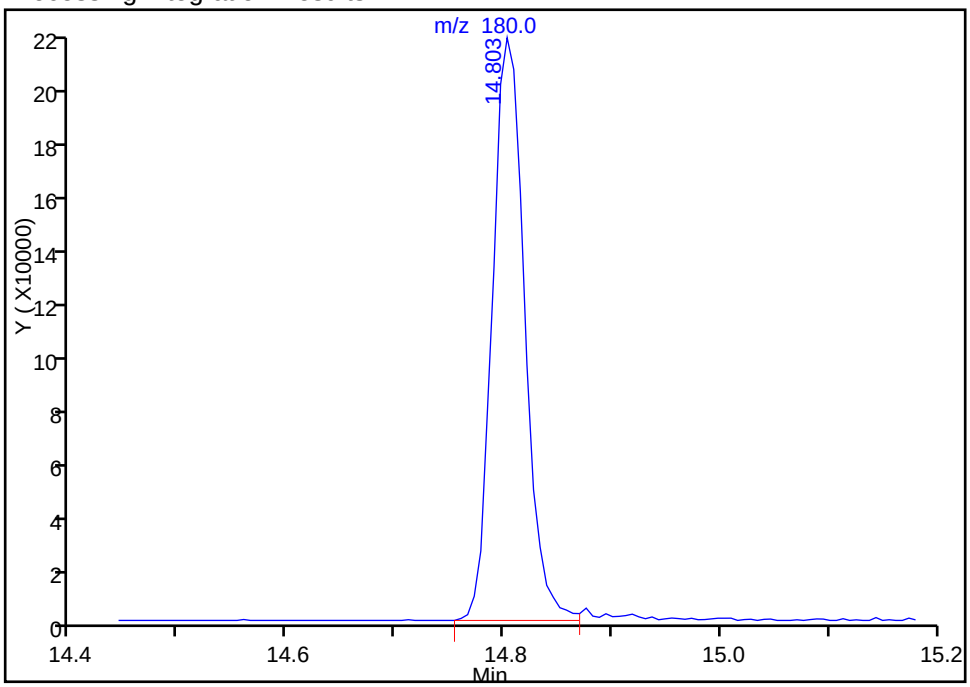
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D
Injection Date: 30-Mar-2015 13:05:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

126 1,2,4-Trichlorobenzene, CAS: 120-82-1

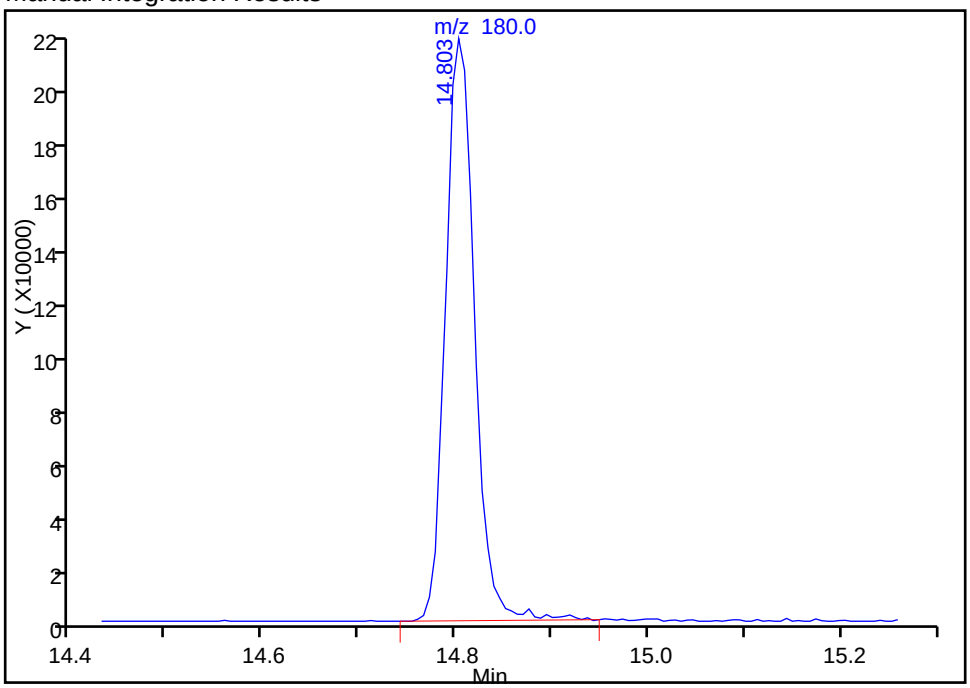
Processing Integration Results

RT: 14.80
Area: 439985
Amount: 424.0170
Amount Units: ng



Manual Integration Results

RT: 14.80
Area: 443796
Amount: 401.1709
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 16:20:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 30-Mar-2015 13:32:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-008
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 09:17:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 14:17:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.045	5.051	-0.006	90	325061	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	94	1064126	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	346158	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	490230	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	89	1069500	700.0	630.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	1052781	700.0	650.5	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	2956031	700.0	575.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.006	91	1382927	700.0	632.2	
11 Dichlorodifluoromethane	85	1.900	1.888	0.012	95	1251238	700.0	634.4	
12 Chloromethane	50	2.046	2.015	0.031	89	1397995	700.0	650.6	
14 Butadiene	39	2.204	2.174	0.030	95	1091852	700.0	617.8	
13 Vinyl chloride	62	2.222	2.204	0.018	90	1056944	700.0	631.6	
15 Bromomethane	94	2.508	2.496	0.012	95	913392	700.0	677.4	
16 Chloroethane	64	2.642	2.612	0.030	92	891876	700.0	660.7	
17 Dichlorofluoromethane	67	2.897	2.873	0.024	93	2383040	700.0	663.5	
18 Trichlorofluoromethane	101	2.958	2.904	0.054	94	2456359	700.0	650.0	
20 Ethyl ether	59	3.293	3.299	-0.006	88	839764	700.0	700.4	
21 Acrolein	56	3.463	3.445	0.018	29	78643	900.0	950.1	
22 1,1-Dichloroethene	96	3.487	3.457	0.030	93	982672	700.0	687.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.603	3.579	0.024	93	1049950	700.0	632.0	
25 Iodomethane	142	3.676	3.676	0.000	98	1985287	700.0	664.3	
26 Carbon disulfide	76	3.731	3.731	0.000	98	2619768	700.0	610.5	M
24 Acetone	43	3.846	3.877	-0.031	30	390281	1400.0	1300.6	
28 3-Chloro-1-propene	76	4.096	4.072	0.024	86	698091	700.0	662.4	
31 Methylene Chloride	84	4.315	4.309	0.006	83	983292	700.0	641.2	
30 Methyl acetate	43	4.321	4.321	0.000	96	2224238	3500.0	3137.3	
34 trans-1,2-Dichloroethene	96	4.716	4.698	0.018	94	1124535	700.0	634.4	
32 2-Methyl-2-propanol	59	4.735	4.698	0.037	1	53007	7000.0	7028.6	M
33 Acrylonitrile	53	4.832	4.844	-0.012	97	1848860	7000.0	6519.1	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	95	2272845	700.0	650.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.106	5.100	0.006	93	1051129	700.0	567.0	
38 Vinyl acetate	43	5.106	5.100	0.006	65	892468	700.0	638.5	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	96	1709875	700.0	658.1	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	92	1337687	700.0	616.3	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	82	1130925	700.0	642.9	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	100	613084	1400.0	1285.4	
49 Chlorobromomethane	128	6.383	6.377	0.006	84	646182	700.0	637.7	
52 Chloroform	83	6.499	6.493	0.006	93	1847979	700.0	631.6	
53 1,1,1-Trichloroethane	97	6.675	6.669	0.006	97	1615549	700.0	608.1	
51 Tetrahydrofuran	42	6.712	6.700	0.012	55	323514	1400.0	1239.7	
54 Cyclohexane	56	6.712	6.712	0.000	88	1123391	700.0	599.3	
56 Carbon tetrachloride	117	6.846	6.846	0.000	94	1629157	700.0	607.9	
55 1,1-Dichloropropene	75	6.852	6.852	0.000	89	1161217	700.0	605.2	
58 Benzene	78	7.089	7.083	0.006	96	3150535	700.0	601.6	
59 1,2-Dichloroethane	62	7.131	7.126	0.005	87	1085110	700.0	613.5	
62 n-Heptane	43	7.393	7.387	0.006	92	1015361	700.0	625.5	
57 Isobutyl alcohol	41	7.393	7.393	0.000	86	725140	17500	16974	
64 Trichloroethene	130	7.795	7.789	0.006	92	1337763	700.0	637.2	
66 Methylcyclohexane	83	7.977	7.977	0.000	85	1518386	700.0	588.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	80	761874	700.0	638.7	
68 Dibromomethane	93	8.147	8.141	0.006	94	570980	700.0	642.7	
70 1,4-Dioxane	88	8.214	8.214	0.000	86	129768	14000	15562	
71 Dichlorobromomethane	83	8.324	8.318	0.006	96	1412009	700.0	638.4	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	91	1486494	700.0	647.9	
75 4-Methyl-2-pentanone (MIBK	43	8.957	8.951	0.006	95	1221845	1400.0	1207.9	
76 Toluene	91	9.109	9.103	0.006	95	3084889	700.0	703.5	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	1307789	700.0	601.0	
78 Ethyl methacrylate	69	9.431	9.425	0.006	88	911071	700.0	629.4	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	92	746577	700.0	601.0	
80 Tetrachloroethene	164	9.650	9.644	0.006	92	884171	700.0	702.4	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	91	1057404	700.0	575.8	
82 2-Hexanone	43	9.772	9.766	0.006	97	828690	1400.0	1270.2	
84 Chlorodibromomethane	129	9.899	9.900	-0.001	88	1253031	700.0	586.7	
85 Ethylene Dibromide	107	10.015	10.009	0.006	98	856980	700.0	608.9	
87 Chlorobenzene	112	10.502	10.496	0.006	91	2414200	700.0	547.1	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	1125563	700.0	527.6	
90 Ethylbenzene	106	10.611	10.605	0.006	96	1229831	700.0	490.5	
91 m-Xylene & p-Xylene	106	10.727	10.721	0.006	93	1715038	700.0	507.4	
92 o-Xylene	106	11.122	11.116	0.006	92	1683040	700.0	495.8	
93 Styrene	104	11.134	11.128	0.006	90	2360095	700.0	706.5	
94 Bromoform	173	11.317	11.311	0.006	93	781610	700.0	645.8	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	3864822	700.0	706.3	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	95	733504	700.0	562.6	
100 Bromobenzene	156	11.791	11.785	0.006	85	1224216	700.0	582.7	
101 1,2,3-Trichloropropane	110	11.828	11.822	0.006	86	290435	700.0	617.4	
102 trans-1,4-Dichloro-2-buten	53	11.840	11.834	0.006	78	188752	700.0	640.6	
103 N-Propylbenzene	120	11.901	11.889	0.012	93	1515443	700.0	587.7	
104 2-Chlorotoluene	126	11.986	11.980	0.006	92	1366522	700.0	583.7	
106 1,3,5-Trimethylbenzene	105	12.071	12.065	0.006	96	3121962	700.0	646.6	
107 4-Chlorotoluene	126	12.096	12.090	0.006	91	1318727	700.0	587.8	
108 tert-Butylbenzene	119	12.394	12.388	0.006	91	3583483	700.0	508.9	
110 1,2,4-Trimethylbenzene	105	12.448	12.442	0.006	94	3286002	700.0	702.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.619	12.613	0.006	94	4241460	700.0	652.2	
113 1,3-Dichlorobenzene	146	12.734	12.722	0.012	94	2242920	700.0	554.5	
114 4-Isopropyltoluene	119	12.759	12.753	0.006	92	3605948	700.0	703.5	
115 1,4-Dichlorobenzene	146	12.820	12.814	0.006	90	2234049	700.0	574.5	
120 n-Butylbenzene	91	13.172	13.160	0.012	93	2947372	700.0	704.4	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	95	1883558	700.0	494.4	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	91	134161	700.0	680.5	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	719677	700.0	595.7	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	90	413354	700.0	571.0	
128 Naphthalene	128	15.052	15.052	0.000	97	1090423	700.0	551.2	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	95	433251	700.0	524.2	
S 134 1,2-Dichloroethene, Total	96				0		1400.0	1277.2	
S 133 Xylenes, Total	106				0		1400.0	1003.2	
S 135 1,3-Dichloropropene, Total	1				0		1400.0	1248.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	28.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	28.00	Units: uL
VOAACRPRI_00003	Amount Added:	36.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	28.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	28.00	Units: uL

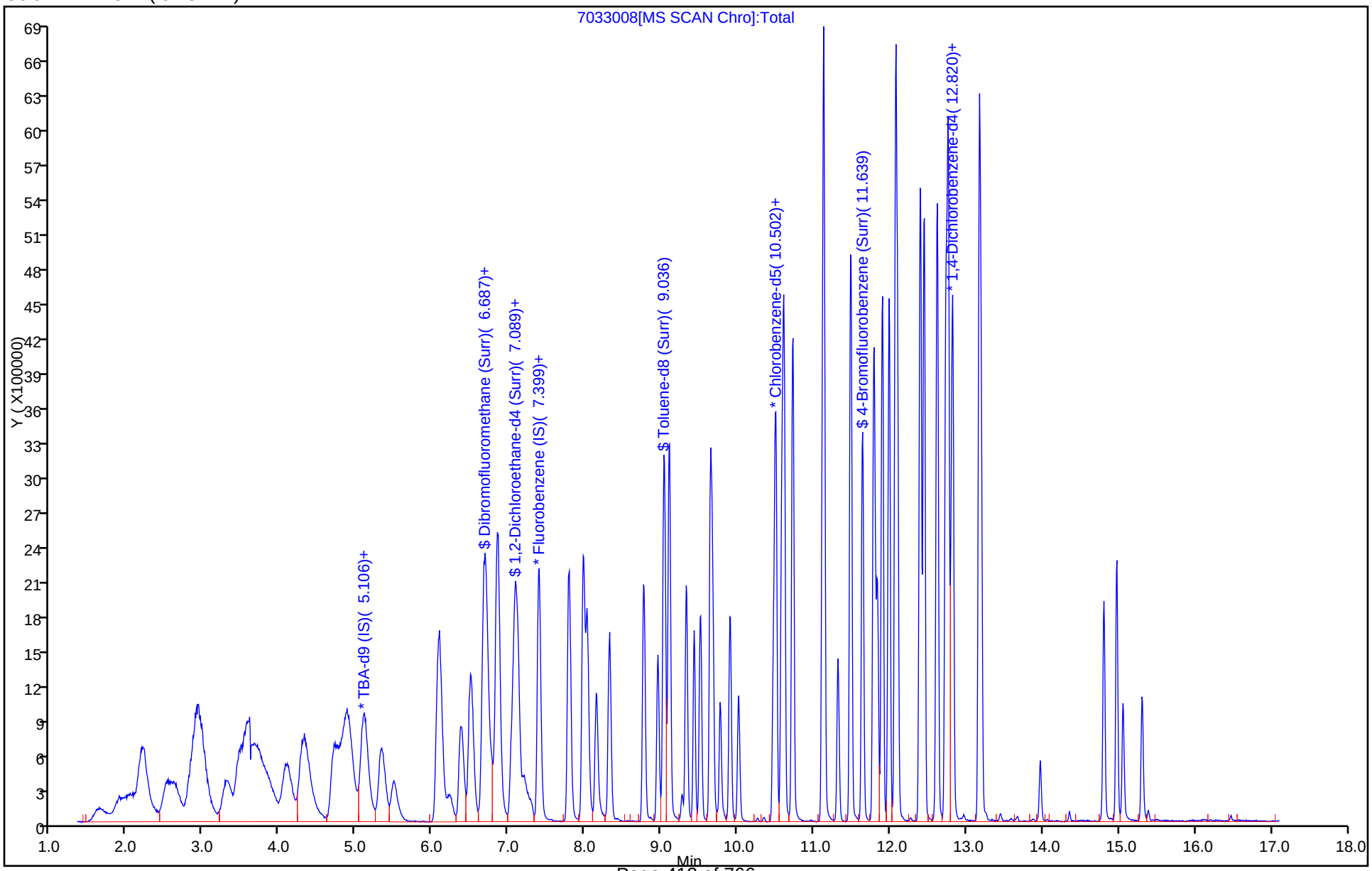
Report Date: 31-Mar-2015 09:17:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D

Injection Date:	30-Mar-2015 13:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

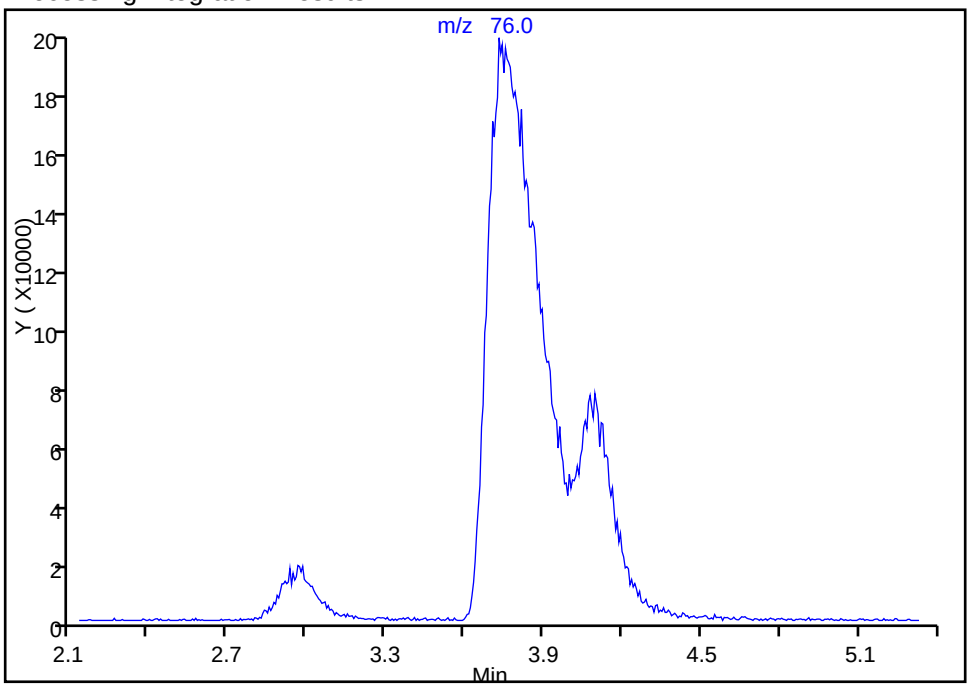
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D				
Injection Date:	30-Mar-2015 13:32:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

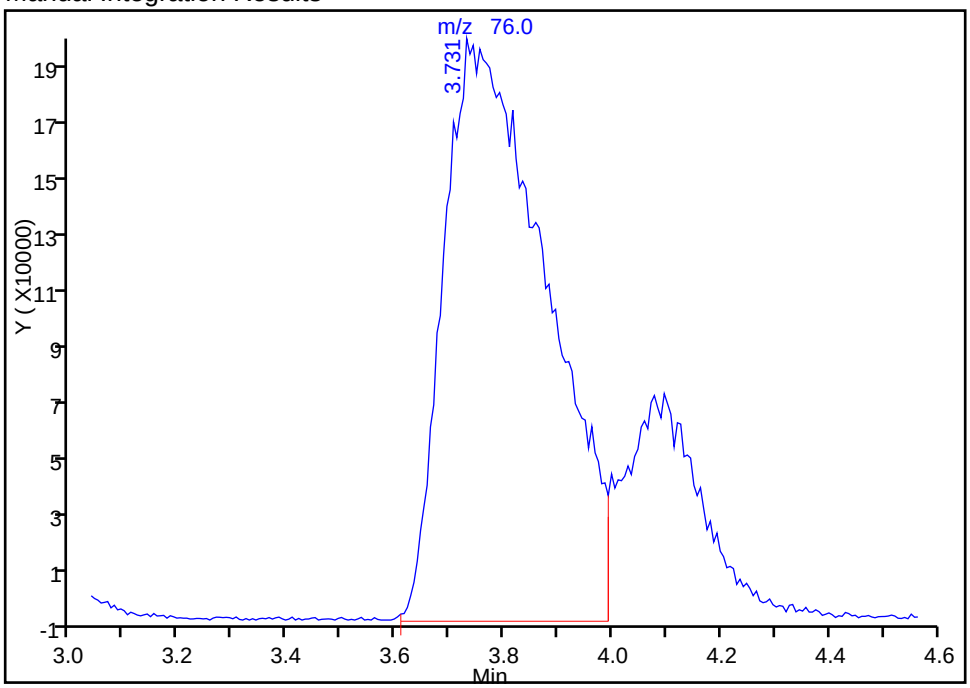
Not Detected
Expected RT: 3.73

Processing Integration Results



Manual Integration Results

RT: 3.73
Area: 2619768
Amount: 610.4854
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 14:17:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

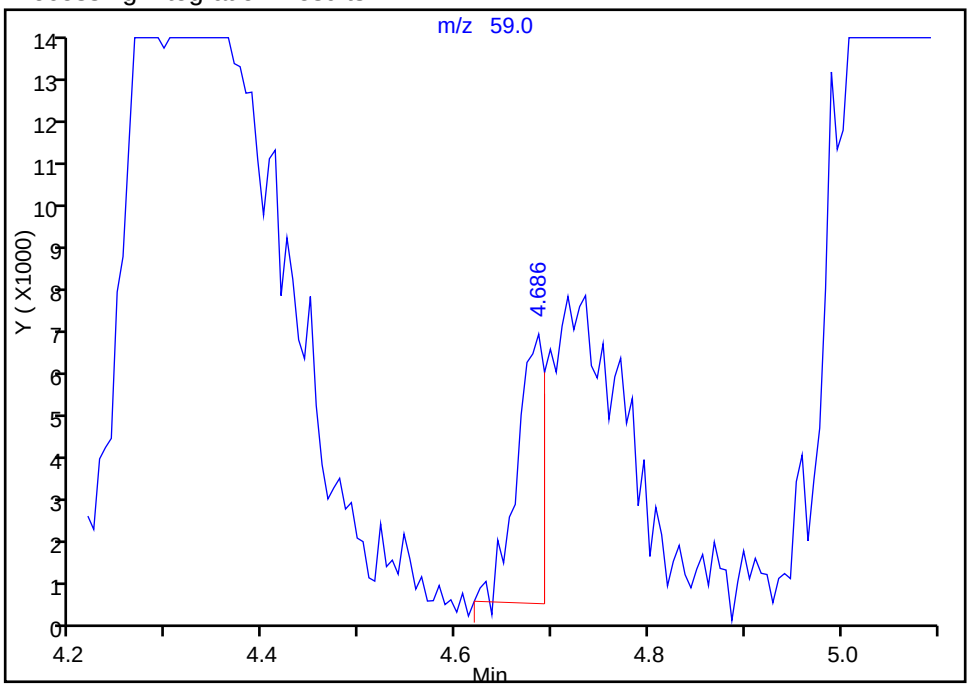
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D
Injection Date: 30-Mar-2015 13:32:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

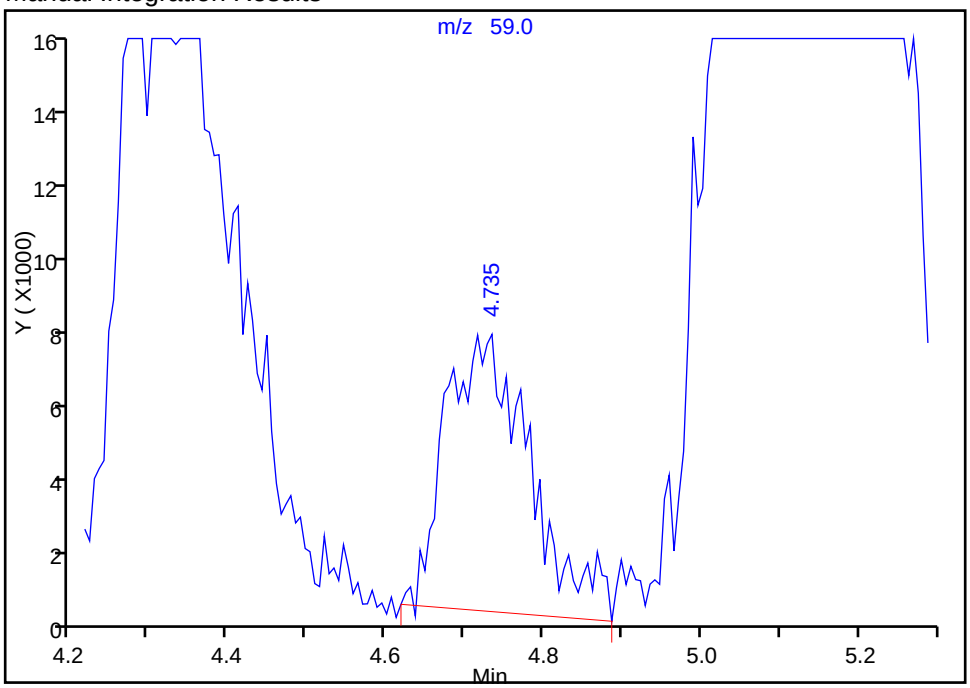
Processing Integration Results

RT: 4.69
Area: 12354
Amount: 2062.6313
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 53007
Amount: 7028.5816
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 14:17:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033009.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 30-Mar-2015 14:05:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-009
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:27 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 15:31:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.057	5.051	0.006	39	296956	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	97	1037142	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	333592	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	453121	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.675	0.006	90	1276297	800.0	771.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	1230322	800.0	780.0	
$ 7 Toluene-d8 (Surr)	98	9.042	9.036	0.006	92	3370087	800.0	681.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.006	91	1583659	800.0	754.1	
11 Dichlorodifluoromethane	85	1.906	1.888	0.018	85	1578981	800.0	821.4	
12 Chloromethane	50	2.070	2.015	0.055	87	1636714	800.0	781.5	
14 Butadiene	39	2.192	2.174	0.018	97	1307567	800.0	759.1	
13 Vinyl chloride	62	2.216	2.204	0.012	67	1331694	800.0	816.5	
15 Bromomethane	94	2.520	2.496	0.024	94	1046463	800.0	796.3	
16 Chloroethane	64	2.630	2.612	0.018	80	1044851	800.0	794.1	
17 Dichlorofluoromethane	67	2.904	2.873	0.031	93	2691604	800.0	768.9	
18 Trichlorofluoromethane	101	2.940	2.904	0.036	90	2906130	800.0	789.1	
20 Ethyl ether	59	3.299	3.299	0.000	91	1005937	800.0	860.8	
21 Acrolein	56	3.475	3.445	0.030	27	83224	1000.0	1031.6	
22 1,1-Dichloroethene	96	3.530	3.457	0.073	96	1127478	800.0	809.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.585	3.579	0.006	93	1266754	800.0	782.3	
25 Iodomethane	142	3.688	3.676	0.012	99	2306954	800.0	792.0	
26 Carbon disulfide	76	3.780	3.731	0.049	100	3969960	800.0	949.2	
24 Acetone	43	3.907	3.877	0.030	40	501900	1600.0	1739.9	
28 3-Chloro-1-propene	76	4.078	4.072	0.006	83	796185	800.0	775.2	
31 Methylene Chloride	84	4.315	4.309	0.006	70	1126005	800.0	753.4	
30 Methyl acetate	43	4.333	4.321	0.012	97	2696602	4000.0	3902.5	
34 trans-1,2-Dichloroethene	96	4.723	4.698	0.025	89	1298488	800.0	751.5	
32 2-Methyl-2-propanol	59	4.723	4.698	0.025	32	42028	8000.0	6265.5	
33 Acrylonitrile	53	4.832	4.844	-0.012	99	2150290	8000.0	7779.2	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	94	2574759	800.0	756.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.106	5.100	0.006	93	1491013	800.0	825.2	
38 Vinyl acetate	43	5.106	5.100	0.006	98	1064694	800.0	781.5	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	97	2003605	800.0	791.2	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	88	1523531	800.0	720.2	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	77	1299902	800.0	758.1	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	99	789394	1600.0	1698.1	
49 Chlorobromomethane	128	6.377	6.377	0.000	81	744761	800.0	754.1	
52 Chloroform	83	6.505	6.493	0.012	93	2105517	800.0	738.3	
53 1,1,1-Trichloroethane	97	6.669	6.669	0.000	96	1847241	800.0	713.4	
51 Tetrahydrofuran	42	6.511	6.700	-0.189	92	392456	1600.0	1543.0	
54 Cyclohexane	56	6.718	6.712	0.006	88	1347518	800.0	737.6	
56 Carbon tetrachloride	117	6.852	6.846	0.006	95	1866632	800.0	714.6	
55 1,1-Dichloropropene	75	6.858	6.852	0.006	88	1350014	800.0	721.9	
58 Benzene	78	7.095	7.083	0.012	97	3553209	800.0	696.1	
59 1,2-Dichloroethane	62	7.132	7.126	0.006	94	1261454	800.0	731.7	
62 n-Heptane	43	7.393	7.387	0.006	87	1247753	800.0	788.7	
57 Isobutyl alcohol	41	7.393	7.393	0.000	84	875607	20000	21029	
64 Trichloroethene	130	7.789	7.789	0.000	91	1511187	800.0	738.5	
66 Methylcyclohexane	83	7.977	7.977	0.000	86	1821723	800.0	724.1	
67 1,2-Dichloropropane	63	8.032	8.026	0.006	79	872134	800.0	750.2	
68 Dibromomethane	93	8.148	8.141	0.007	93	676332	800.0	781.1	
70 1,4-Dioxane	88	8.208	8.214	-0.006	84	130621	16000	16072	
71 Dichlorobromomethane	83	8.324	8.318	0.006	97	1632472	800.0	757.3	
74 cis-1,3-Dichloropropene	75	8.774	8.768	0.006	87	1709267	800.0	764.3	
75 4-Methyl-2-pentanone (MIBK	43	8.957	8.951	0.006	94	1421595	1600.0	1458.4	
76 Toluene	91	9.109	9.103	0.006	94	3491462	800.0	NQ	
77 trans-1,3-Dichloropropene	75	9.334	9.322	0.012	94	1546548	800.0	737.5	
78 Ethyl methacrylate	69	9.431	9.425	0.006	87	1076607	800.0	771.8	
79 1,1,2-Trichloroethane	97	9.516	9.510	0.006	93	867173	800.0	724.3	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	1011053	800.0	924.4	
81 1,3-Dichloropropane	76	9.681	9.674	0.007	92	1228755	800.0	694.3	
82 2-Hexanone	43	9.772	9.766	0.006	95	1032279	1600.0	1641.8	
84 Chlorodibromomethane	129	9.900	9.900	0.000	91	1443562	800.0	701.3	
85 Ethylene Dibromide	107	10.015	10.009	0.006	98	985791	800.0	726.8	
87 Chlorobenzene	112	10.502	10.496	0.006	91	2701248	800.0	635.2	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	1258389	800.0	612.1	
90 Ethylbenzene	106	10.611	10.605	0.006	95	1391048	800.0	575.8	
91 m-Xylene & p-Xylene	106	10.727	10.721	0.006	93	1961344	800.0	602.1	
92 o-Xylene	106	11.122	11.116	0.006	93	1933648	800.0	591.1	
93 Styrene	104	11.134	11.128	0.006	93	2670138	800.0	NQ	
94 Bromoform	173	11.317	11.311	0.006	93	915646	800.0	785.1	
97 Isopropylbenzene	105	11.487	11.481	0.006	95	4316426	800.0	NQ	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	97	843599	800.0	671.4	
100 Bromobenzene	156	11.798	11.785	0.013	85	1357100	800.0	698.9	
101 1,2,3-Trichloropropane	110	11.828	11.822	0.006	86	336681	800.0	774.4	
102 trans-1,4-Dichloro-2-buten	53	11.840	11.834	0.006	79	225524	800.0	828.1	
103 N-Propylbenzene	120	11.901	11.889	0.012	94	1690335	800.0	709.2	
104 2-Chlorotoluene	126	11.992	11.980	0.012	91	1567014	800.0	724.2	
106 1,3,5-Trimethylbenzene	105	12.071	12.065	0.006	95	3446156	800.0	846.6	
107 4-Chlorotoluene	126	12.096	12.090	0.006	91	1461135	800.0	704.6	
108 tert-Butylbenzene	119	12.400	12.388	0.012	91	3999628	800.0	616.8	
110 1,2,4-Trimethylbenzene	105	12.449	12.442	0.007	93	3545216	800.0	1107.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.619	12.613	0.006	94	4650844	800.0	841.1	
113 1,3-Dichlorobenzene	146	12.734	12.722	0.012	93	2457052	800.0	659.2	
114 4-Isopropyltoluene	119	12.765	12.753	0.012	91	3946644	800.0	NQ	
115 1,4-Dichlorobenzene	146	12.826	12.814	0.012	93	2471728	800.0	687.6	
120 n-Butylbenzene	91	13.172	13.160	0.012	91	3283929	800.0	NQ	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	94	2089815	800.0	593.5	
122 1,2-Dibromo-3-Chloropropan	75	13.963	13.969	-0.006	90	157690	800.0	863.2	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	992400	800.0	888.8	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	91	568860	800.0	850.2	
128 Naphthalene	128	15.052	15.052	0.000	97	1540124	800.0	842.2	
129 1,2,3-Trichlorobenzene	180	15.302	15.308	-0.006	96	697645	800.0	913.1	
S 134 1,2-Dichloroethene, Total	96				0		1600.0	1509.7	
S 133 Xylenes, Total	106				0		1600.0	1193.2	
S 135 1,3-Dichloropropene, Total	1				0		1600.0	1501.8	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

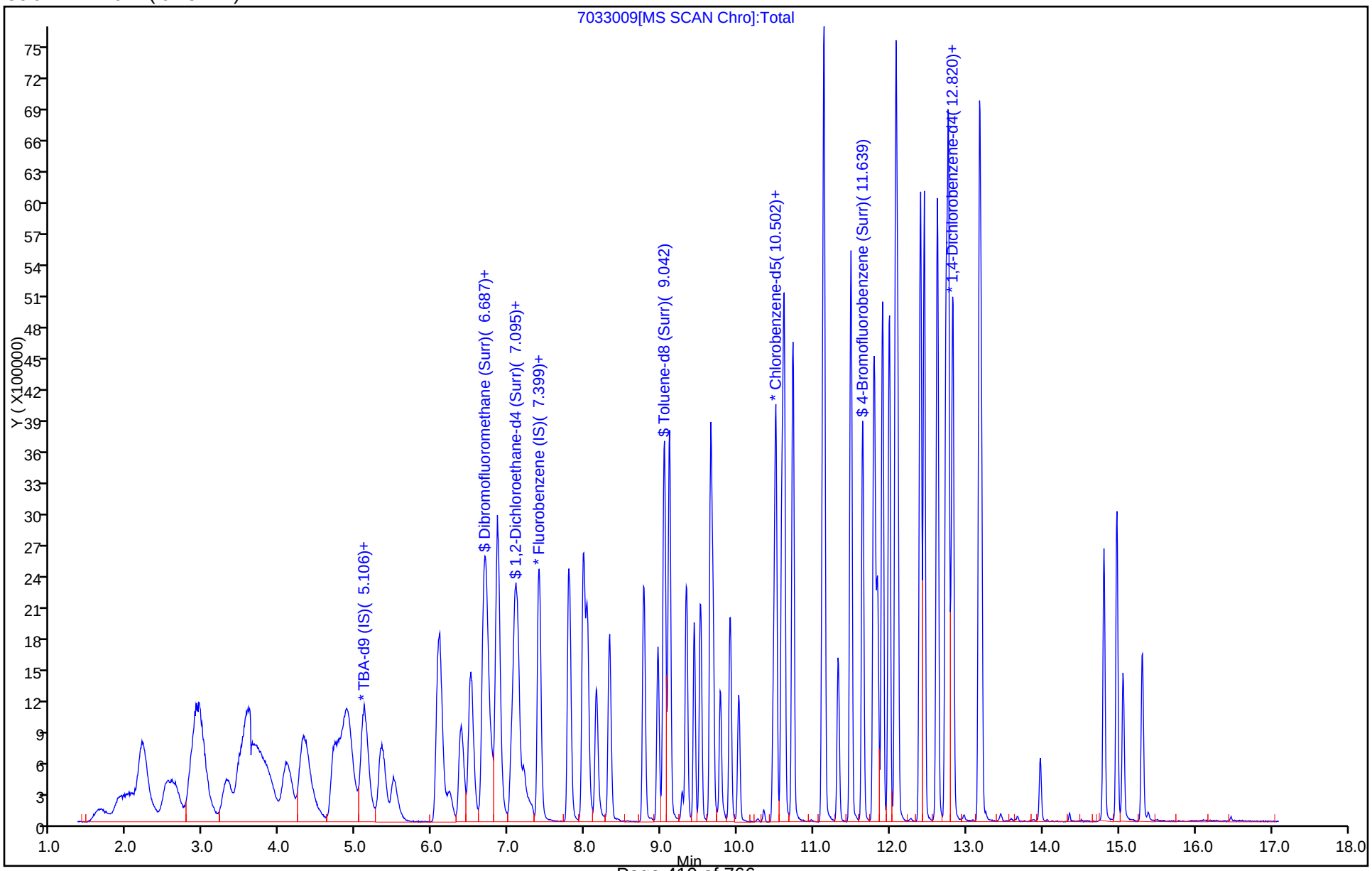
Reagents:

VOA8260SURR_00017	Amount Added:	32.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	32.00	Units: uL
VOAACRPRI_00003	Amount Added:	40.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	32.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	32.00	Units: uL

Report Date: 31-Mar-2015 08:54:28 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033009.D				
Injection Date:	30-Mar-2015 14:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column: DB-624 (0.18 mm)					



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 30-Mar-2015 14:36:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-010
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:29 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 30-Mar-2015 15:30:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.098	5.051	0.047	29	262357	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.410	7.399	0.011	78	1045154	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.476	10.471	0.005	82	333626	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.800	12.789	0.011	92	441544	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.675	0.011	92	1499933	1000.0	899.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.040	0.011	67	1446117	1000.0	909.8	
$ 7 Toluene-d8 (Surr)	98	9.040	9.036	0.004	92	4013224	1000.0	811.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.644	11.633	0.011	92	1915172	1000.0	915.0	
11 Dichlorodifluoromethane	85	1.904	1.888	0.016	97	1958336	1000.0	1010.9	
12 Chloromethane	50	2.075	2.015	0.060	64	2148873	1000.0	1018.2	
14 Butadiene	39	2.202	2.174	0.028	96	1684970	1000.0	970.8	
13 Vinyl chloride	62	2.239	2.204	0.035	98	1662883	1000.0	1011.8	
15 Bromomethane	94	2.537	2.496	0.041	96	1390949	1000.0	1050.3	
16 Chloroethane	64	2.610	2.612	-0.002	96	1328639	1000.0	1002.1	
17 Dichlorofluoromethane	67	2.890	2.873	0.017	96	3391987	1000.0	961.5	
18 Trichlorofluoromethane	101	2.963	2.904	0.059	92	3658414	1000.0	985.7	
20 Ethyl ether	59	3.310	3.299	0.011	90	1215677	1000.0	1032.3	
21 Acrolein	56	3.480	3.445	0.035	28	85538	1100.0	1052.1	
22 1,1-Dichloroethene	96	3.553	3.457	0.096	91	1456322	1000.0	1037.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.571	3.579	-0.008	94	1605157	1000.0	983.7	
25 Iodomethane	142	3.681	3.676	0.005	90	2906153	1000.0	990.1	
26 Carbon disulfide	76	3.754	3.731	0.023	100	3951355	1000.0	937.5	M
24 Acetone	43	3.875	3.877	-0.002	16	526230	2000.0	1813.3	
28 3-Chloro-1-propene	76	4.082	4.072	0.010	84	1091756	1000.0	1054.8	M
31 Methylene Chloride	84	4.313	4.309	0.004	80	1446969	1000.0	960.7	
30 Methyl acetate	43	4.326	4.321	0.005	99	3030290	5000.0	4351.8	
34 trans-1,2-Dichloroethene	96	4.727	4.698	0.029	96	1650008	1000.0	947.7	
32 2-Methyl-2-propanol	59	4.709	4.698	0.011	32	87352	10000	12101	
33 Acrylonitrile	53	4.843	4.844	-0.001	95	2412565	10000	8661.2	M
35 Methyl tert-butyl ether	73	4.928	4.905	0.023	96	3086291	1000.0	899.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.098	5.100	-0.002	94	1744973	1000.0	958.3	
38 Vinyl acetate	43	5.092	5.100	-0.008	62	1318507	1000.0	960.4	
37 1,1-Dichloroethane	63	5.335	5.337	-0.002	95	2524474	1000.0	989.3	
44 2,2-Dichloropropane	77	6.078	6.073	0.005	89	1943271	1000.0	911.5	
45 cis-1,2-Dichloroethene	96	6.096	6.091	0.005	77	1640293	1000.0	949.3	
46 2-Butanone (MEK)	43	6.242	6.225	0.017	99	872275	2000.0	1862.0	
49 Chlorobromomethane	128	6.382	6.377	0.005	81	925671	1000.0	930.1	
52 Chloroform	83	6.497	6.493	0.004	93	2597161	1000.0	903.8	
53 1,1,1-Trichloroethane	97	6.668	6.669	-0.001	97	2336141	1000.0	895.2	
51 Tetrahydrofuran	42	6.722	6.700	0.022	50	486083	2000.0	1896.5	
54 Cyclohexane	56	6.716	6.712	0.004	90	1661352	1000.0	902.4	
56 Carbon tetrachloride	117	6.856	6.846	0.010	93	2368924	1000.0	899.9	
55 1,1-Dichloropropene	75	6.856	6.852	0.004	88	1689887	1000.0	896.8	
58 Benzene	78	7.094	7.083	0.011	96	4375955	1000.0	850.8	
59 1,2-Dichloroethane	62	7.136	7.126	0.010	97	1506238	1000.0	867.0	
62 n-Heptane	43	7.392	7.387	0.005	84	1473278	1000.0	924.1	
57 Isobutyl alcohol	41	7.392	7.393	-0.001	83	1032146	25000	24598	
64 Trichloroethene	130	7.793	7.789	0.004	90	1899175	1000.0	921.0	
66 Methylcyclohexane	83	7.982	7.977	0.005	85	2242100	1000.0	884.4	
67 1,2-Dichloropropane	63	8.036	8.026	0.010	80	1079980	1000.0	921.8	
68 Dibromomethane	93	8.152	8.141	0.011	93	813226	1000.0	932.0	
70 1,4-Dioxane	88	8.207	8.214	-0.007	82	160108	20000	19549	
71 Dichlorobromomethane	83	8.322	8.318	0.004	96	1941561	1000.0	893.7	
74 cis-1,3-Dichloropropene	75	8.773	8.768	0.005	90	2067222	1000.0	917.3	
75 4-Methyl-2-pentanone (MIBK	43	8.961	8.951	0.010	95	1593755	2000.0	1634.8	
76 Toluene	91	9.107	9.103	0.004	93	4117813	1000.0	NQ	
77 trans-1,3-Dichloropropene	75	9.332	9.322	0.010	94	1832921	1000.0	874.0	
78 Ethyl methacrylate	69	9.436	9.425	0.011	87	1240685	1000.0	889.4	
79 1,1,2-Trichloroethane	97	9.515	9.510	0.005	91	1040134	1000.0	868.7	
80 Tetrachloroethene	164	9.649	9.644	0.005	91	1252526	1000.0	NQ	
81 1,3-Dichloropropane	76	9.679	9.674	0.005	91	1422739	1000.0	803.8	
82 2-Hexanone	43	9.782	9.766	0.016	95	1158826	2000.0	1842.9	
84 Chlorodibromomethane	129	9.904	9.900	0.004	88	1742790	1000.0	846.6	
85 Ethylene Dibromide	107	10.014	10.009	0.005	98	1184293	1000.0	873.1	
87 Chlorobenzene	112	10.506	10.496	0.010	95	3258104	1000.0	766.1	
89 1,1,1,2-Tetrachloroethane	131	10.585	10.581	0.004	92	1561007	1000.0	759.2	
90 Ethylbenzene	106	10.616	10.605	0.011	94	1756448	1000.0	726.9	
91 m-Xylene & p-Xylene	106	10.731	10.721	0.010	91	2370008	1000.0	727.5	
92 o-Xylene	106	11.127	11.116	0.011	89	2438224	1000.0	745.2	
93 Styrene	104	11.139	11.128	0.011	88	3231479	1000.0	NQ	
94 Bromoform	173	11.322	11.311	0.011	93	1061162	1000.0	909.8	
97 Isopropylbenzene	105	11.492	11.481	0.011	95	5133808	1000.0	NQ	
99 1,1,2,2-Tetrachloroethane	83	11.784	11.773	0.011	97	942162	1000.0	749.8	
100 Bromobenzene	156	11.796	11.785	0.011	84	1650286	1000.0	872.2	
101 1,2,3-Trichloropropane	110	11.833	11.822	0.011	86	383754	1000.0	905.8	
102 trans-1,4-Dichloro-2-buten	53	11.845	11.834	0.011	87	261594	1000.0	985.7	
103 N-Propylbenzene	120	11.906	11.889	0.017	91	2105507	1000.0	906.6	
104 2-Chlorotoluene	126	11.991	11.980	0.011	93	1902501	1000.0	902.3	
106 1,3,5-Trimethylbenzene	105	12.076	12.065	0.011	94	4183147	1000.0	1394.8	
107 4-Chlorotoluene	126	12.100	12.090	0.010	92	1852378	1000.0	916.7	
108 tert-Butylbenzene	119	12.404	12.388	0.016	91	4730707	1000.0	751.0	
110 1,2,4-Trimethylbenzene	105	12.453	12.442	0.011	92	4215502	1000.0	NQ	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.623	12.613	0.010	93	5554035	1000.0	1253.2	
113 1,3-Dichlorobenzene	146	12.739	12.722	0.017	93	2939423	1000.0	811.7	
114 4-Isopropyltoluene	119	12.769	12.753	0.016	90	4751587	1000.0	NQ	
115 1,4-Dichlorobenzene	146	12.824	12.814	0.010	92	2953963	1000.0	843.4	
120 n-Butylbenzene	91	13.171	13.160	0.011	88	3968525	1000.0	NQ	
121 1,2-Dichlorobenzene	146	13.195	13.191	0.004	93	2520618	1000.0	734.6	
122 1,2-Dibromo-3-Chloropropan	75	13.968	13.969	-0.001	90	181072	1000.0	1015.8	
126 1,2,4-Trichlorobenzene	180	14.801	14.803	-0.002	96	1186297	1000.0	1090.3	
127 Hexachlorobutadiene	225	14.978	14.973	0.005	89	704150	1000.0	1080.0	
128 Naphthalene	128	15.057	15.052	0.005	97	1609562	1000.0	903.3	
129 1,2,3-Trichlorobenzene	180	15.306	15.308	-0.002	95	761958	1000.0	1023.5	
S 134 1,2-Dichloroethene, Total	96				0		2000.0	1897.0	
S 133 Xylenes, Total	106				0		2000.0	1472.8	
S 135 1,3-Dichloropropene, Total	1				0		2000.0	1791.3	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Review Flags

M - Manually Integrated

Reagents:

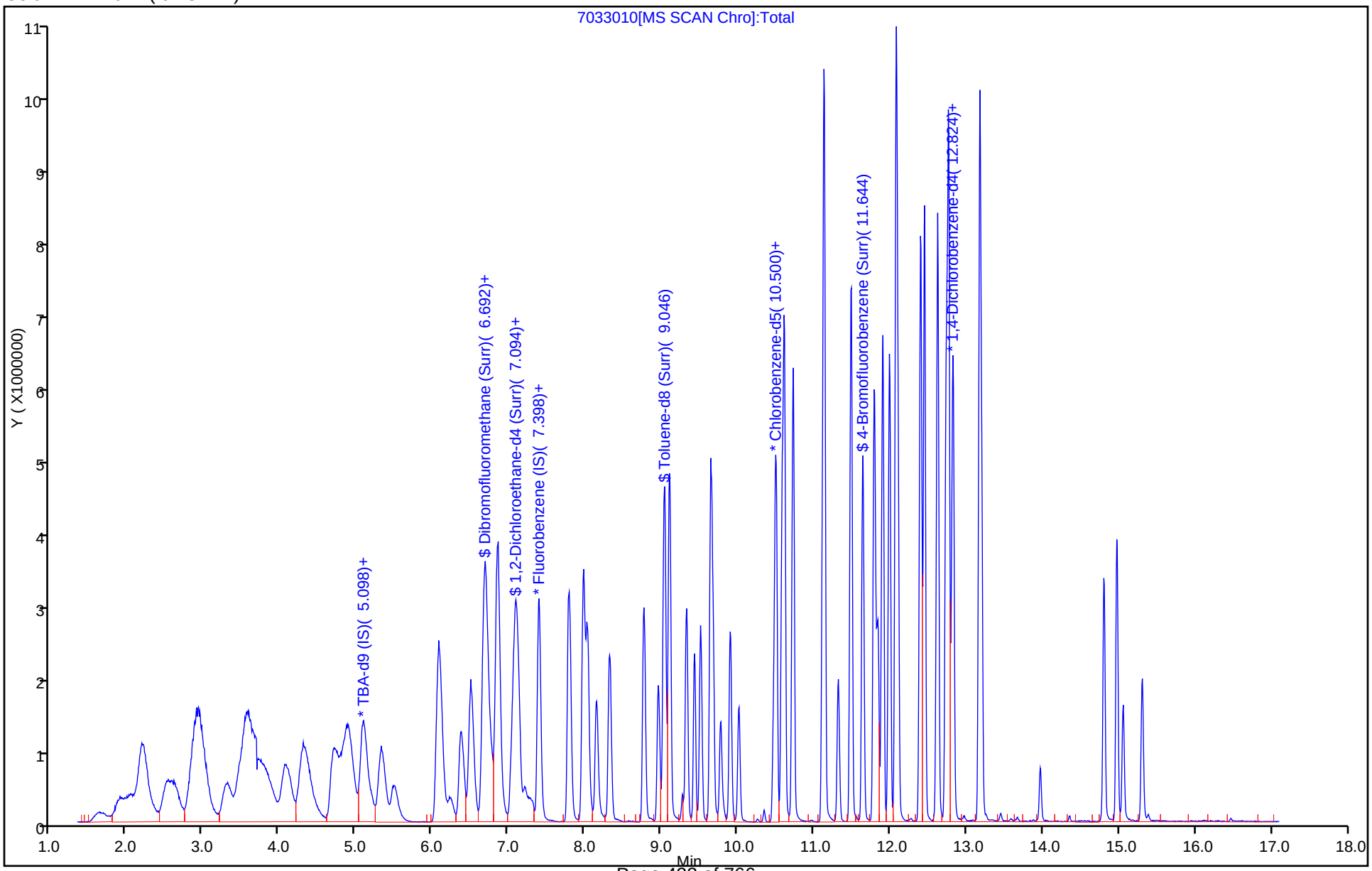
VOA8260SURR_00017	Amount Added:	40.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	40.00	Units: uL
VOAACRPRI_00003	Amount Added:	44.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	40.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	40.00	Units: uL

Report Date: 31-Mar-2015 08:54:29 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

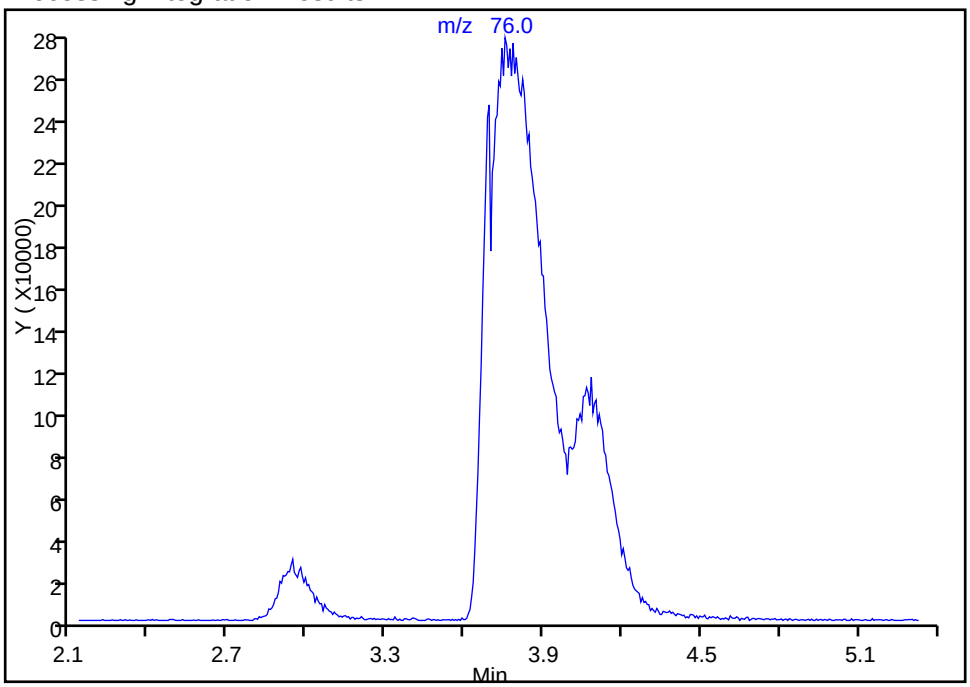
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

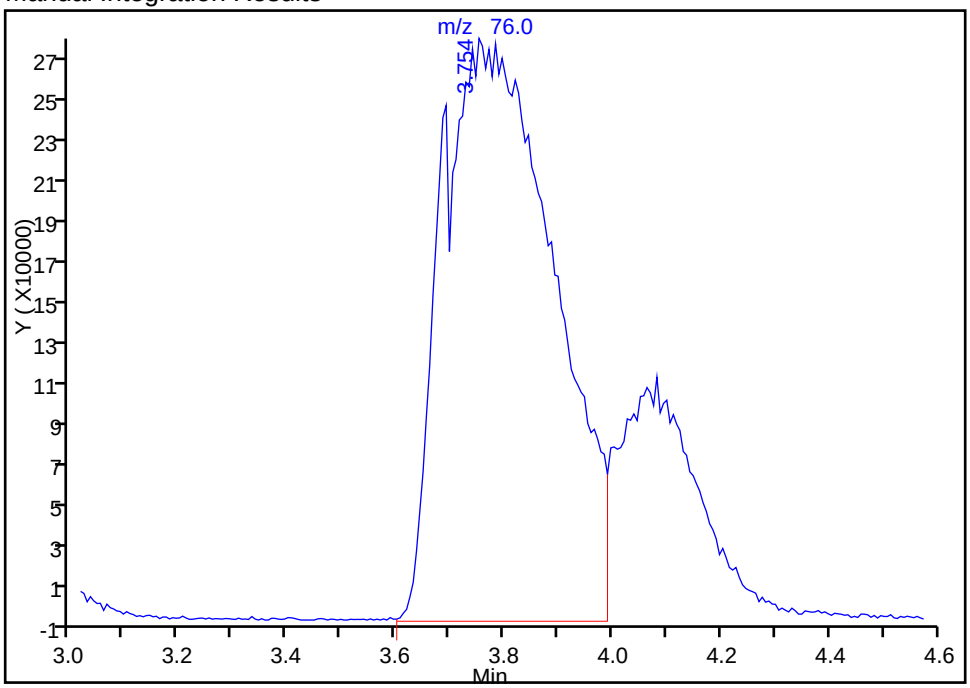
Not Detected
Expected RT: 3.73

Processing Integration Results



Manual Integration Results

RT: 3.75
Area: 3951355
Amount: 937.5001
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

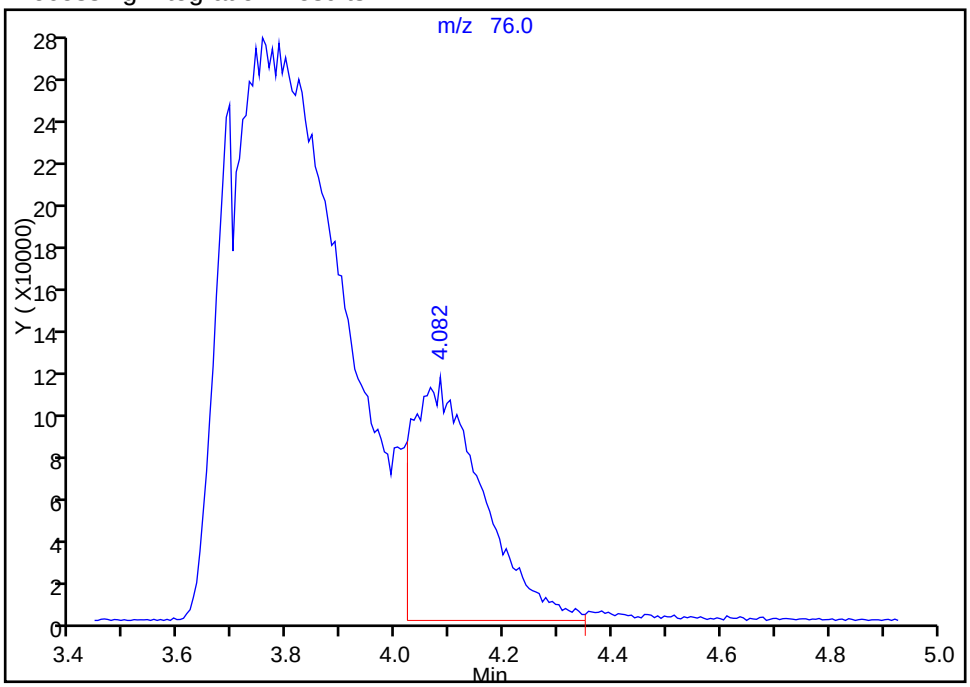
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D
Injection Date: 30-Mar-2015 14:36:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

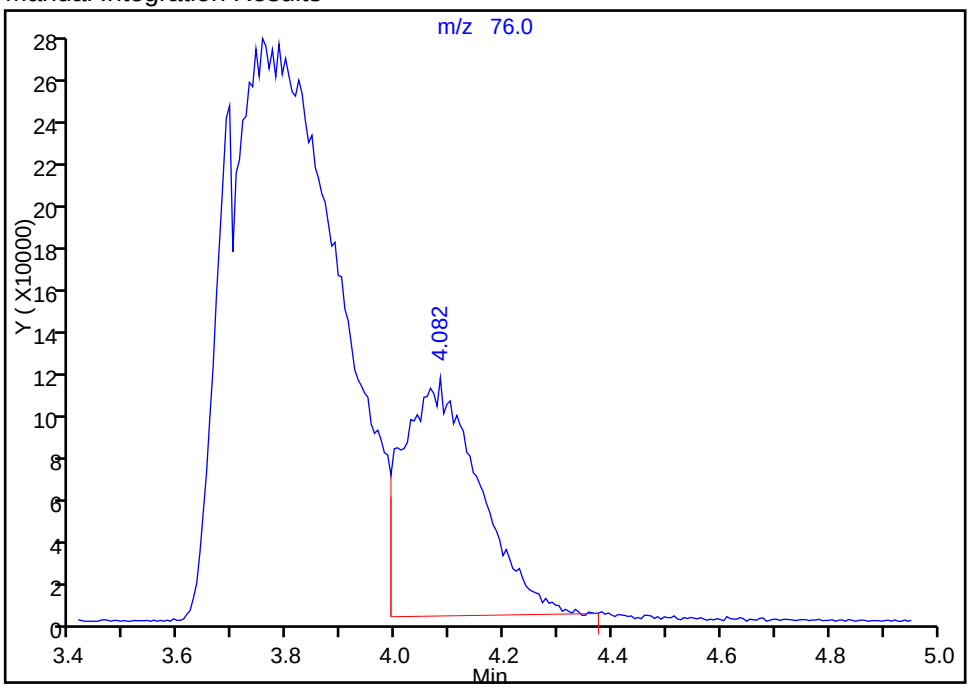
Processing Integration Results

RT: 4.08
Area: 1009836
Amount: 985.3886
Amount Units: ng



Manual Integration Results

RT: 4.08
Area: 1091756
Amount: 1054.7859
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

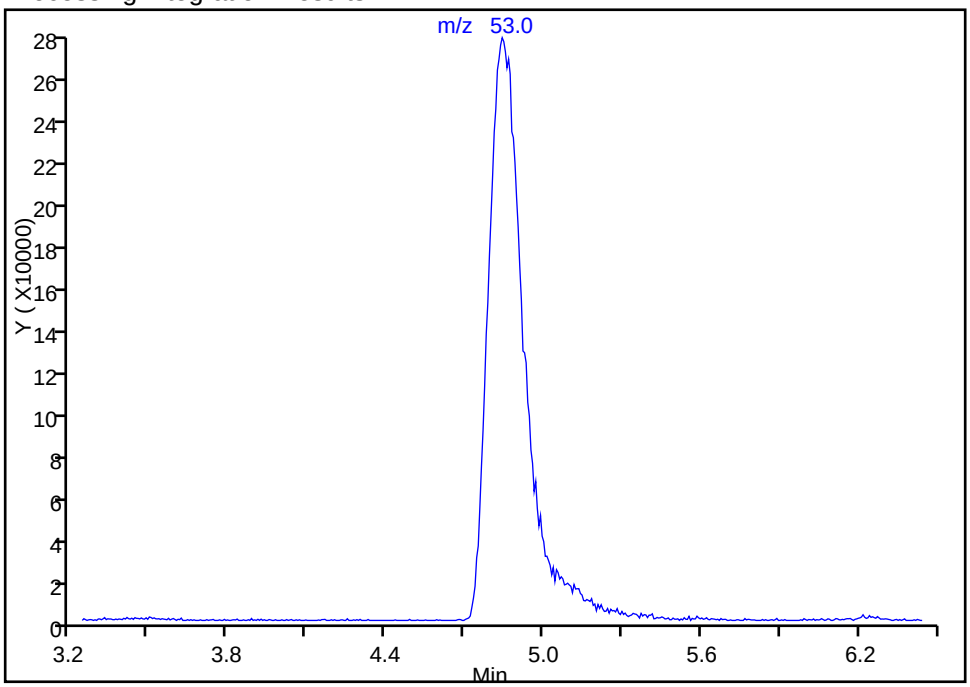
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

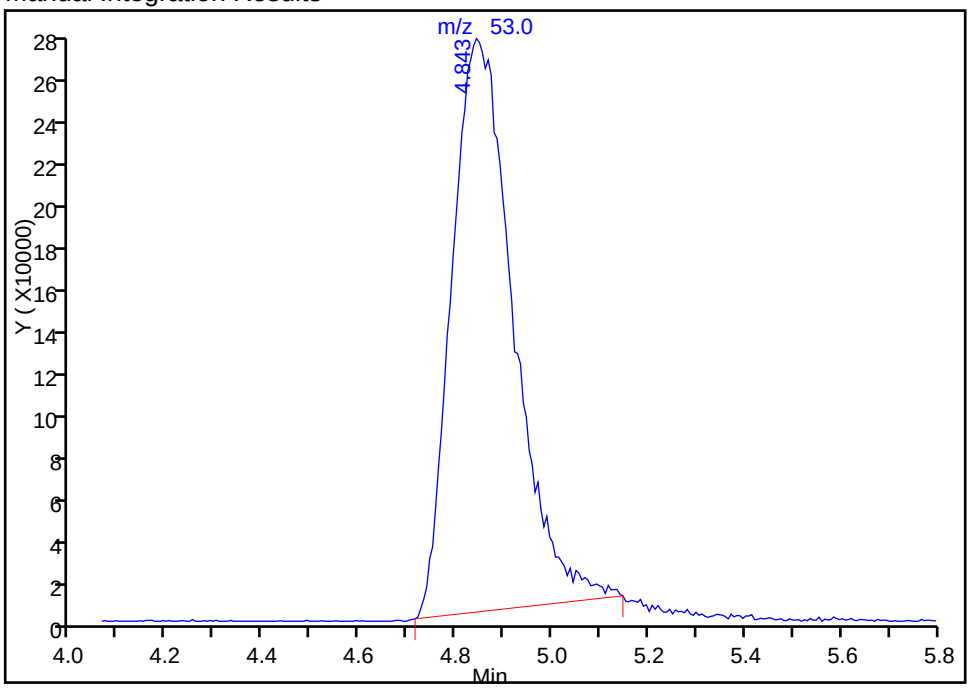
Not Detected
Expected RT: 4.84

Processing Integration Results



Manual Integration Results

RT: 4.84
Area: 2412565
Amount: 8661.1546
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143422/3 Calibration Date: 06/01/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060103.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	0.3707	0.1624	0.1000	4.38	10.0	-56.2*	20.0
Chloromethane	Ave	0.4039	0.2247	0.1000	5.56	10.0	-44.4*	20.0
Vinyl chloride	Ave	0.3145	0.2384	0.1000	7.58	10.0	-24.2*	20.0
Bromomethane	Ave	0.2534	0.1976	0.0500	7.80	10.0	-22.0*	20.0
Chloroethane	Ave	0.2537	0.2053	0.0500	8.09	10.0	-19.1	20.0
Trichlorofluoromethane	Ave	0.7102	0.7185	0.1000	10.1	10.0	1.2	20.0
Dichlorofluoromethane	Ave	0.6751	0.7140	0.0100	10.6	10.0	5.8	20.0
Ethyl ether	Ave	0.2253	0.1905	0.0100	8.46	10.0	-15.4	20.0
1,1-Dichloroethene	Ave	0.2685	0.2451	0.1000	9.13	10.0	-8.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3122	0.2621	0.1000	8.39	10.0	-16.1	20.0
Iodomethane	Ave	0.5617	0.5392	0.0100	9.60	10.0	-4.0	20.0
Acetone	Lin2		0.0847	0.0500	28.0	20.0	40.1*	20.0
Carbon disulfide	Ave	0.8065	0.8736	0.1000	10.8	10.0	8.3	20.0
Allyl chloride	Ave	0.1981	0.1926	0.0100	9.72	10.0	-2.8	20.0
Methyl acetate	Ave	0.1332	0.1400	0.1000	52.5	50.0	5.1	20.0
Methylene Chloride	Ave	0.2882	0.3099	0.1000	10.8	10.0	7.5	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3040	0.1000	9.12	10.0	-8.8	20.0
tert-Butyl alcohol	Qua		1.123	0.0100	872	100	771.7*	20.0
Acrylonitrile	Ave	0.0533	0.0600	0.0100	113	100	12.6	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7770	0.1000	11.8	10.0	18.3	20.0
Hexane	Ave	0.3484	0.1891	0.0100	5.43	10.0	-45.7*	20.0
Vinyl acetate	Ave	0.2627	0.1816	0.0100	6.91	10.0	-30.9*	20.0
1,1-Dichloroethane	Ave	0.4883	0.5446	0.2000	11.2	10.0	11.5	20.0
2,2-Dichloropropane	Ave	0.4080	0.4625	0.0100	11.3	10.0	13.4	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3508	0.1000	10.6	10.0	6.1	20.0
2-Butanone (MEK)	Ave	0.0896	0.0877	0.0500	19.6	20.0	-2.2	20.0
Bromochloromethane	Ave	0.1904	0.1975	0.0100	10.4	10.0	3.7	20.0
Chloroform	Ave	0.5499	0.5962	0.2000	10.8	10.0	8.4	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5609	0.1000	11.2	10.0	12.3	20.0
Cyclohexane	Ave	0.3523	0.3448	0.1000	9.79	10.0	-2.1	20.0
Tetrahydrofuran	Ave	0.0490	0.0457	0.0100	18.6	20.0	-6.8	20.0
Carbon tetrachloride	Ave	0.5037	0.5027	0.1000	9.98	10.0	-0.2	20.0
1,1-Dichloropropene	Ave	0.3606	0.3280	0.0100	9.10	10.0	-9.0	20.0
Benzene	Ave	0.9843	0.9681	0.5000	9.84	10.0	-1.6	20.0
Isobutyl alcohol	Ave	0.0080	0.0051*	0.0100	158	250	-36.9*	20.0
1,2-Dichloroethane	Ave	0.3325	0.3710	0.1000	11.2	10.0	11.6	20.0
n-Heptane	Ave	0.3051	0.2535	0.0100	8.31	10.0	-16.9	20.0
Trichloroethene	Ave	0.3946	0.3664	0.2000	9.28	10.0	-7.2	20.0
Methylcyclohexane	Ave	0.4851	0.4407	0.1000	9.08	10.0	-9.2	20.0
1,2-Dichloropropane	Ave	0.2242	0.2350	0.1000	10.5	10.0	4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143422/3 Calibration Date: 06/01/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060103.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
Dibromomethane	Ave	0.1670	0.1787	0.0100	10.7	10.0	7.0	20.0
1,4-Dioxane	Ave	0.0016	0.0014*	0.0100	178	200	-10.8	20.0
Bromodichloromethane	Ave	0.4157	0.4735	0.2000	11.4	10.0	13.9	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4459	0.2000	10.3	10.0	3.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.6157	0.1000	21.1	20.0	5.3	20.0
Toluene	Qua		3.235	0.4000	8.85	10.0	-11.5	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.291	0.1000	10.3	10.0	2.7	20.0
Ethyl methacrylate	Ave	0.8363	0.9750	0.0100	11.7	10.0	16.6	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.7852	0.1000	10.9	10.0	9.4	20.0
Tetrachloroethene	Qua		0.8688	0.2000	9.09	10.0	-9.1	20.0
1,3-Dichloropropane	Ave	1.061	1.171	0.0100	11.0	10.0	10.3	20.0
2-Hexanone	Ave	0.3770	0.4448	0.1000	23.6	20.0	18.0	20.0
Dibromochloromethane	Ave	1.234	1.284	0.1000	10.4	10.0	4.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.8663	0.1000	10.7	10.0	6.5	20.0
Chlorobenzene	Ave	2.549	2.633	0.5000	10.3	10.0	3.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.229	0.0100	9.97	10.0	-0.3	20.0
Ethylbenzene	Ave	1.449	1.329	0.1000	9.18	10.0	-8.2	20.0
m-Xylene & p-Xylene	Ave	1.953	1.792	0.1000	9.18	10.0	-8.2	20.0
o-Xylene	Ave	1.961	1.893	0.3000	9.65	10.0	-3.5	20.0
Styrene	Qua		2.774	0.3000	10.3	10.0	2.9	20.0
Bromoform	Ave	0.6992	0.7123	0.1000	10.2	10.0	1.9	20.0
Isopropylbenzene	Qua		4.497	0.1000	9.28	10.0	-7.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.8073	0.3000	10.7	10.0	7.2	20.0
Bromobenzene	Ave	0.8571	1.128	0.0100	13.2	10.0	31.6*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2331	0.0100	12.1	10.0	21.5*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1348	0.0100	11.2	10.0	12.1	20.0
N-Propylbenzene	Ave	1.052	1.206	0.0100	11.5	10.0	14.6	20.0
2-Chlorotoluene	Ave	0.9551	1.113	0.0100	11.7	10.0	16.5	20.0
1,3,5-Trimethylbenzene	Qua		3.192	0.0100	13.3	10.0	32.8*	20.0
4-Chlorotoluene	Ave	0.9153	1.059	0.0100	11.6	10.0	15.6	20.0
tert-Butylbenzene	Lin2	3.243	3.075	0.0100	10.4	10.0	3.9	20.0
1,2,4-Trimethylbenzene	Qua		3.129	0.0100	12.2	10.0	22.5*	20.0
sec-Butylbenzene	Qua		3.923	0.0100	12.0	10.0	19.6	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.766	0.6000	10.4	10.0	3.7	20.0
4-Isopropyltoluene	Qua		3.239	0.0100	10.7	10.0	7.2	20.0
1,4-Dichlorobenzene	Ave	1.587	1.645	0.5000	10.4	10.0	3.7	20.0
n-Butylbenzene	Qua		2.572	0.0100	10.1	10.0	1.1	20.0
1,2-Dichlorobenzene	Ave	1.554	1.451	0.4000	9.34	10.0	-6.6	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0890	0.0500	11.3	10.0	13.2	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.4506	0.2000	9.14	10.0	-8.6	20.0
Hexachlorobutadiene	Ave	0.2953	0.2103	0.0100	7.12	10.0	-28.8*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143422/3 Calibration Date: 06/01/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060103.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
Naphthalene	Ave	0.8071	0.7838	0.0100	9.71	10.0	-2.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.3897	0.0100	11.6	10.0	15.5	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3279		10.3	10.0	2.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.3215		10.6	10.0	5.7	20.0
Toluene-d8 (Surr)	Ave	2.966	2.856		9.63	10.0	-3.7	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.391		10.5	10.0	5.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 01-Jun-2015 10:16:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007198-002
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub11

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 01-Jun-2015 11:05:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.665	4.665	0.000	96	311382	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.403	0.000	95	906833	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.463	10.463	0.000	86	276357	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	94	310944	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.679	0.000	71	297306	200.0	205.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.038	7.038	0.000	63	291543	200.0	211.4	
$ 7 Toluene-d8 (Surr)	98	9.033	9.033	0.000	93	789243	200.0	192.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.631	0.000	90	384332	200.0	210.3	
11 Dichlorodifluoromethane	85	1.916	1.916	0.000	27	147249	200.0	87.6	M
12 Chloromethane	50	2.049	2.049	0.000	28	203744	200.0	111.3	M
14 Butadiene	39	2.208	2.208	0.000	93	188295	200.0	125.0	M
13 Vinyl chloride	62	2.232	2.232	0.000	94	216203	200.0	151.6	M
15 Bromomethane	94	2.506	2.506	0.000	89	179169	200.0	155.9	M
16 Chloroethane	64	2.621	2.621	0.000	49	186186	200.0	161.8	
18 Trichlorofluoromethane	101	2.877	2.877	0.000	91	651552	200.0	202.3	
17 Dichlorofluoromethane	67	2.901	2.901	0.000	96	647456	200.0	211.5	
20 Ethyl ether	59	3.327	3.327	0.000	85	172789	200.0	169.1	
22 1,1-Dichloroethene	96	3.540	3.540	0.000	91	222226	200.0	182.5	M
23 1,1,2-Trichloro-1,2,2-trif	101	3.716	3.716	0.000	76	237696	200.0	167.9	
25 Iodomethane	142	3.765	3.765	0.000	98	488971	200.0	192.0	
24 Acetone	43	3.783	3.783	0.000	38	153552	400.0	560.2	
26 Carbon disulfide	76	3.868	3.868	0.000	100	792246	200.0	216.6	
28 3-Chloro-1-propene	76	4.142	4.142	0.000	72	174639	200.0	194.5	
30 Methyl acetate	43	4.306	4.306	0.000	97	634800	1000.0	1050.7	
31 Methylene Chloride	84	4.398	4.398	0.000	91	281058	200.0	215.1	
34 trans-1,2-Dichloroethene	96	4.781	4.781	0.000	96	275676	200.0	182.5	
32 2-Methyl-2-propanol	59	4.787	4.787	0.000	54	174907	2000.0	17434	E
33 Acrylonitrile	53	4.799	4.799	0.000	98	544277	2000.0	2252.0	
35 Methyl tert-butyl ether	73	4.854	4.854	0.000	98	704619	200.0	236.7	
38 Vinyl acetate	43	5.170	5.170	0.000	72	164662	200.0	138.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.164	5.164	0.000	93	171496	200.0	108.5	
37 1,1-Dichloroethane	63	5.359	5.359	0.000	97	493885	200.0	223.1	
44 2,2-Dichloropropane	77	6.095	6.095	0.000	82	419393	200.0	226.7	
45 cis-1,2-Dichloroethene	96	6.095	6.095	0.000	81	318124	200.0	212.2	
46 2-Butanone (MEK)	43	6.180	6.180	0.000	92	159006	400.0	391.2	
49 Chlorobromomethane	128	6.387	6.387	0.000	83	179115	200.0	207.4	
52 Chloroform	83	6.497	6.497	0.000	96	540667	200.0	216.8	
53 1,1,1-Trichloroethane	97	6.679	6.679	0.000	96	508612	200.0	224.6	
51 Tetrahydrofuran	42	6.740	6.740	0.000	45	82921	400.0	372.9	
54 Cyclohexane	56	6.734	6.734	0.000	90	312655	200.0	195.7	
55 1,1-Dichloropropene	75	6.868	6.868	0.000	83	297424	200.0	181.9	
56 Carbon tetrachloride	117	6.862	6.862	0.000	96	455822	200.0	199.6	
58 Benzene	78	7.099	7.099	0.000	96	877865	200.0	196.7	
59 1,2-Dichloroethane	62	7.123	7.123	0.000	97	336392	200.0	223.2	
57 Isobutyl alcohol	41	7.105	7.105	0.000	47	114820	5000.0	3153.8	
62 n-Heptane	43	7.403	7.403	0.000	57	229833	200.0	166.1	
64 Trichloroethene	130	7.798	7.798	0.000	96	332216	200.0	185.7	
66 Methylcyclohexane	83	7.993	7.993	0.000	88	399596	200.0	181.7	
67 1,2-Dichloropropane	63	8.023	8.023	0.000	91	213128	200.0	209.7	
68 Dibromomethane	93	8.139	8.139	0.000	94	162072	200.0	214.1	
70 1,4-Dioxane	88	8.194	8.194	0.000	84	25367	4000.0	3569.8	
71 Dichlorobromomethane	83	8.315	8.315	0.000	98	429346	200.0	227.8	
74 cis-1,3-Dichloropropene	75	8.772	8.772	0.000	92	404358	200.0	206.8	
75 4-Methyl-2-pentanone (MIBK	43	8.936	8.936	0.000	96	340283	400.0	421.4	
76 Toluene	91	9.100	9.100	0.000	98	894112	200.0	176.9	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	96	356913	200.0	205.4	
78 Ethyl methacrylate	69	9.417	9.417	0.000	88	269457	200.0	233.2	
79 1,1,2-Trichloroethane	97	9.508	9.508	0.000	92	216983	200.0	218.8	
80 Tetrachloroethene	164	9.642	9.642	0.000	92	240096	200.0	181.7	
81 1,3-Dichloropropane	76	9.672	9.672	0.000	92	323491	200.0	220.6	
82 2-Hexanone	43	9.763	9.763	0.000	97	245818	400.0	471.9	
84 Chlorodibromomethane	129	9.897	9.897	0.000	89	354797	200.0	208.1	
85 Ethylene Dibromide	107	10.007	10.007	0.000	99	239397	200.0	213.1	
87 Chlorobenzene	112	10.493	10.493	0.000	93	727573	200.0	206.5	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.572	0.000	94	339562	200.0	199.4	
90 Ethylbenzene	106	10.603	10.603	0.000	98	367283	200.0	183.5	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	495351	200.0	183.6	
92 o-Xylene	106	11.114	11.114	0.000	96	523249	200.0	193.1	
93 Styrene	104	11.126	11.126	0.000	93	766656	200.0	205.9	
94 Bromoform	173	11.315	11.315	0.000	94	196851	200.0	203.7	
97 Isopropylbenzene	105	11.479	11.479	0.000	96	1242892	200.0	185.5	
99 1,1,2,2-Tetrachloroethane	83	11.771	11.771	0.000	97	223088	200.0	214.3	
100 Bromobenzene	156	11.783	11.783	0.000	90	350755	200.0	263.2	
101 1,2,3-Trichloropropane	110	11.813	11.813	0.000	86	72493	200.0	243.0	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.832	0.000	74	41899	200.0	224.2	
103 N-Propylbenzene	120	11.886	11.886	0.000	97	374944	200.0	229.2	
104 2-Chlorotoluene	126	11.972	11.972	0.000	97	346116	200.0	233.1	
106 1,3,5-Trimethylbenzene	105	12.057	12.057	0.000	97	992482	200.0	265.6	
107 4-Chlorotoluene	126	12.087	12.087	0.000	96	329143	200.0	231.3	
108 tert-Butylbenzene	119	12.385	12.385	0.000	92	956193	200.0	207.9	
110 1,2,4-Trimethylbenzene	105	12.434	12.434	0.000	97	972959	200.0	244.9	
112 sec-Butylbenzene	105	12.604	12.604	0.000	95	1219799	200.0	239.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.720	12.720	0.000	97	549216	200.0	207.3	
114 4-Isopropyltoluene	119	12.750	12.750	0.000	95	1007276	200.0	214.4	
115 1,4-Dichlorobenzene	146	12.811	12.811	0.000	93	511444	200.0	207.3	
120 n-Butylbenzene	91	13.158	13.158	0.000	96	799796	200.0	202.2	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	96	451260	200.0	186.7	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.967	0.006	86	27658	200.0	226.5	
126 1,2,4-Trichlorobenzene	180	14.800	14.800	0.000	95	140101	200.0	182.8	
127 Hexachlorobutadiene	225	14.971	14.971	0.000	89	65389	200.0	142.4	
128 Naphthalene	128	15.050	15.050	0.000	96	243729	200.0	194.2	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	96	121161	200.0	231.1	
S 133 Xylenes, Total	106				0		400.0	376.6	
S 134 1,2-Dichloroethene, Total	96				0		400.0	394.7	
S 135 1,3-Dichloropropene, Total	1				0		400.0	412.2	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWketPri Re_00005	Amount Added:	8.00	Units: uL		
VOA8260VOAPRI_00121	Amount Added:	8.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL		
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent	
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent	

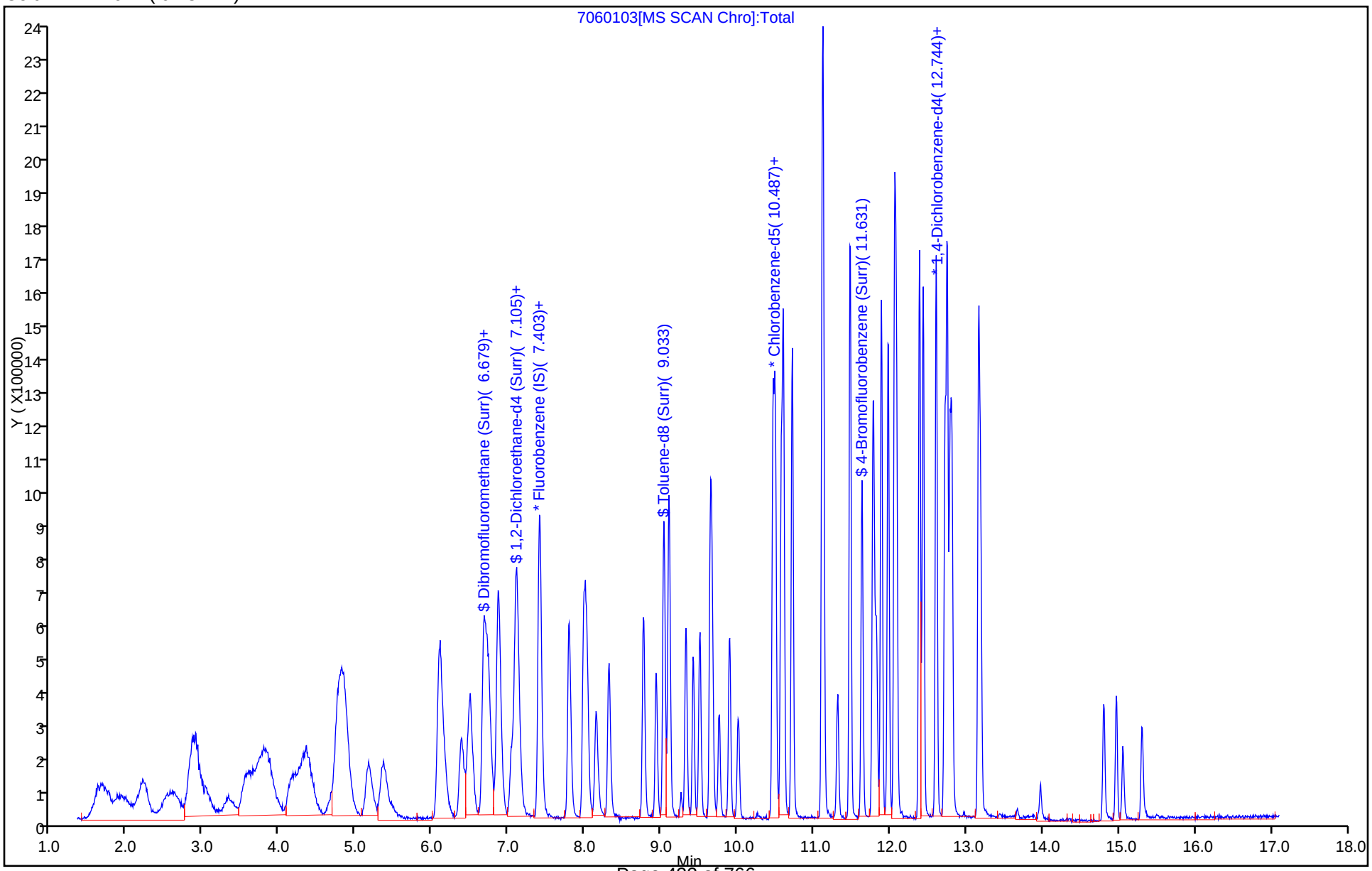
Report Date: 01-Jun-2015 16:53:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D

Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



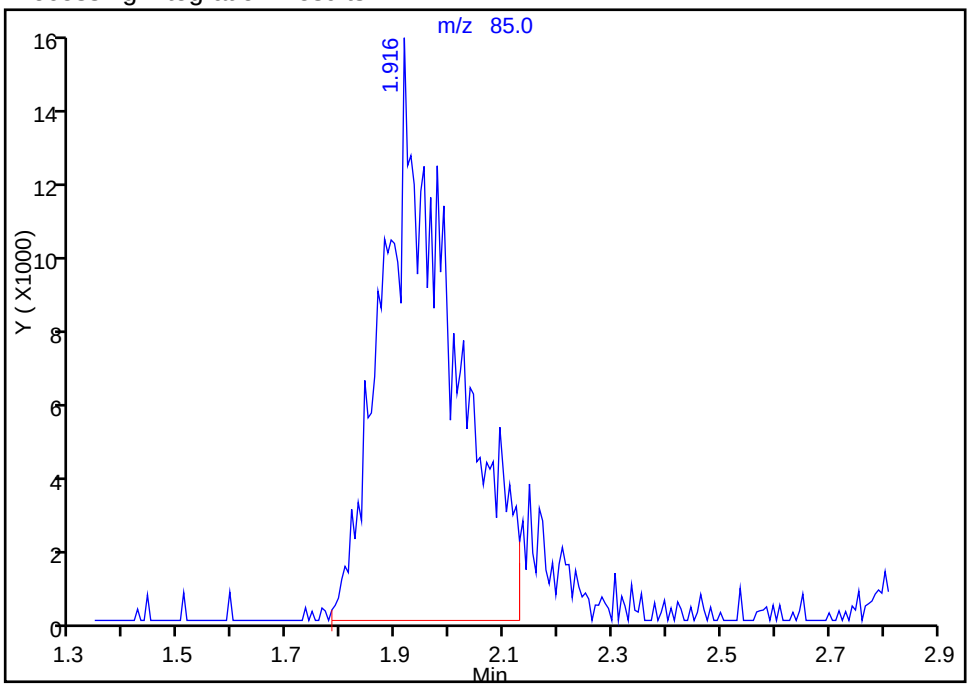
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Dichlorodifluoromethane, CAS: 75-71-8

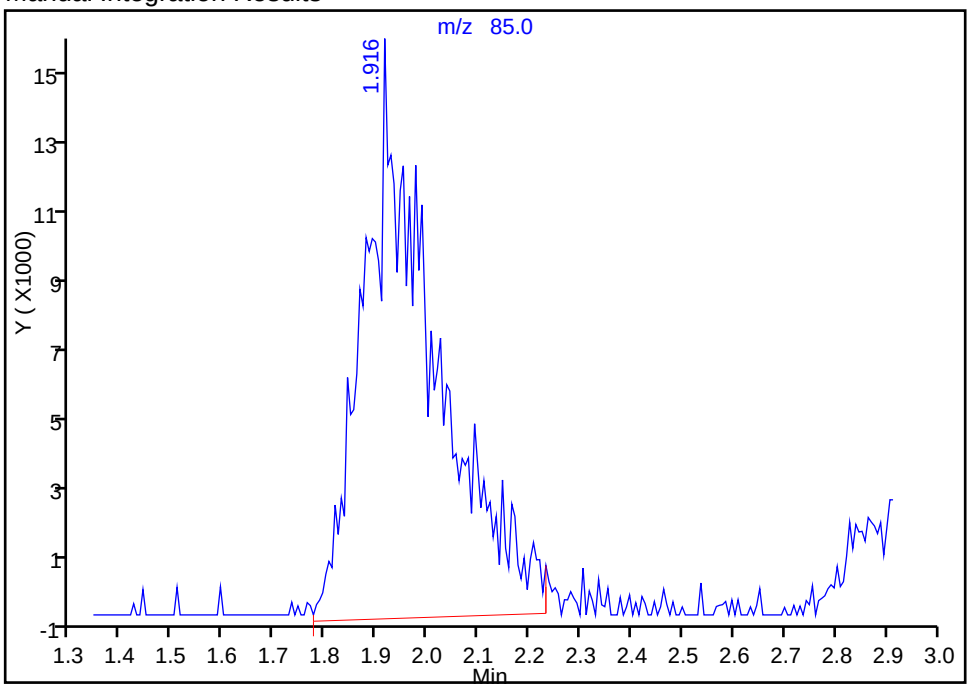
Processing Integration Results

RT: 1.92
Area: 134820
Amount: 80.210265
Amount Units: ng



Manual Integration Results

RT: 1.92
Area: 147249
Amount: 87.604816
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

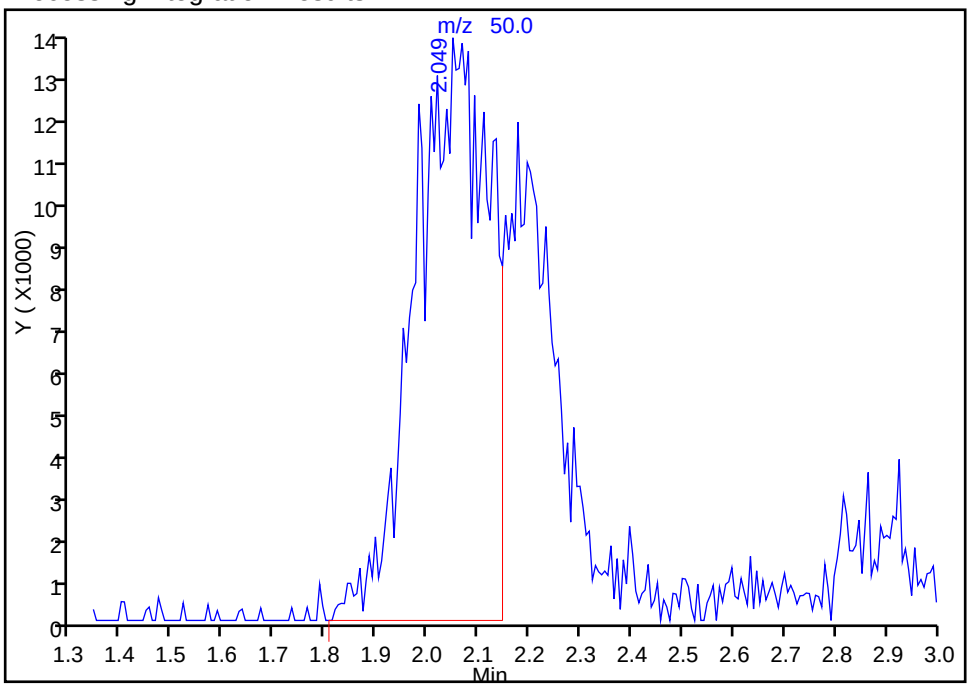
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D
Injection Date: 01-Jun-2015 10:16:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

12 Chloromethane, CAS: 74-87-3

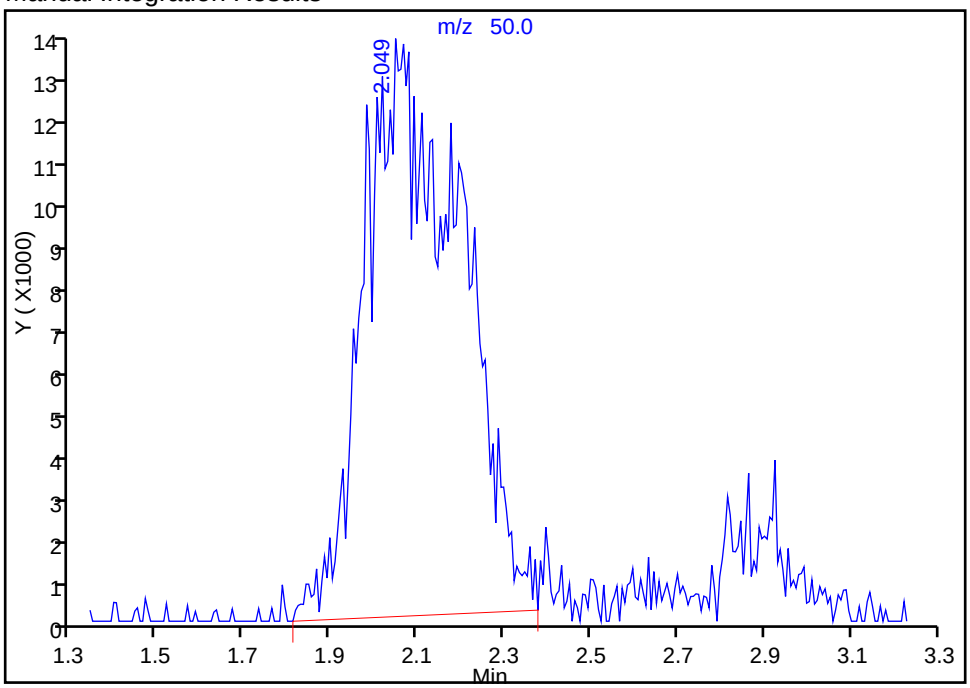
Processing Integration Results

RT: 2.05
Area: 135774
Amount: 74.146149
Amount Units: ng



Manual Integration Results

RT: 2.05
Area: 203744
Amount: 111.2646
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

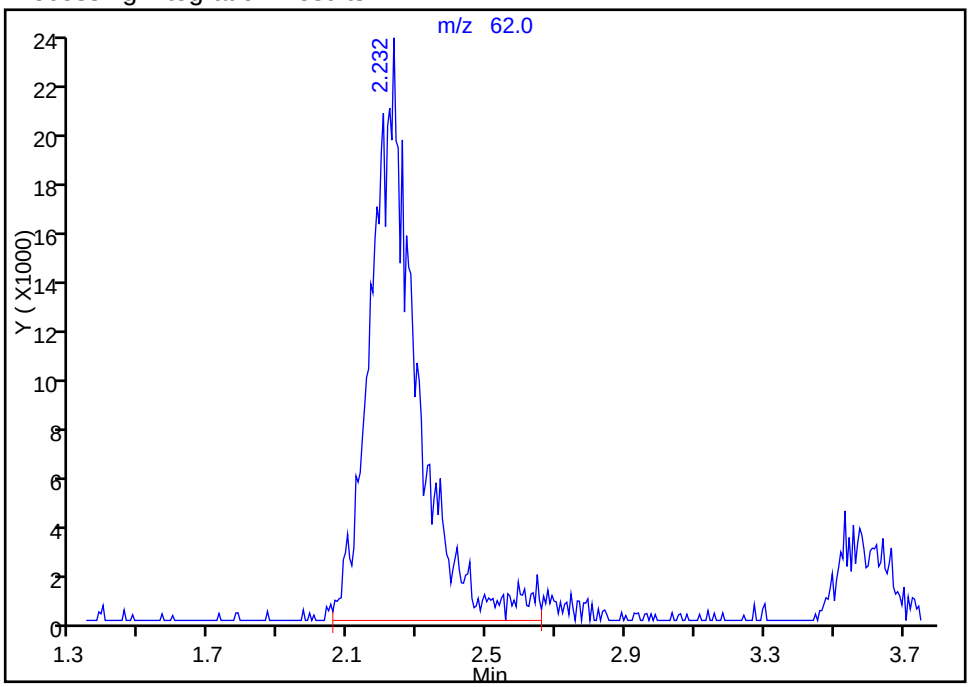
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

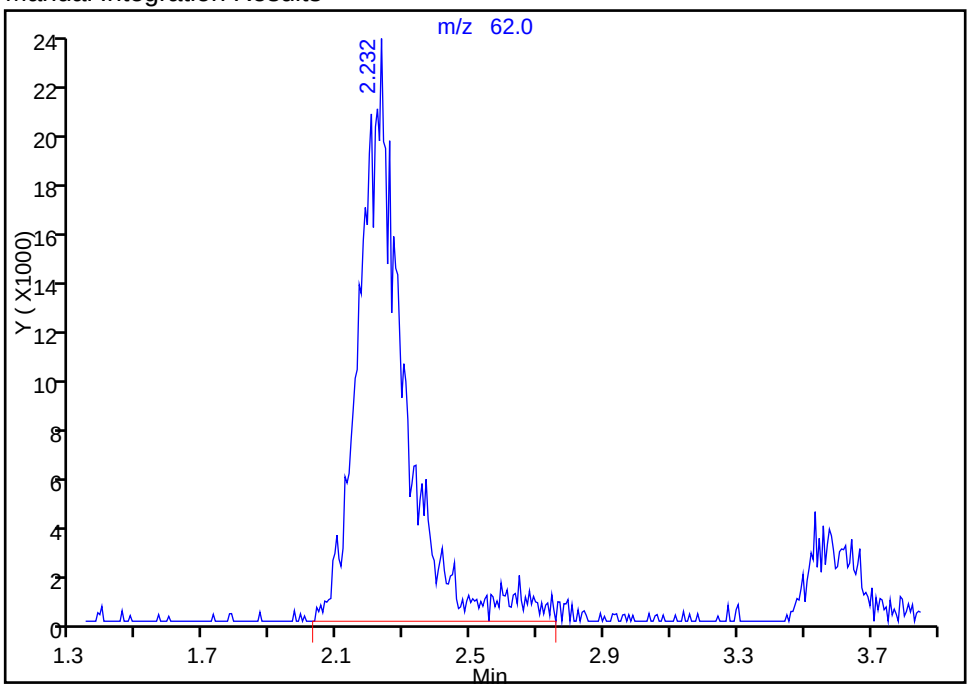
Processing Integration Results

RT: 2.23
Area: 211704
Amount: 148.4595
Amount Units: ng



Manual Integration Results

RT: 2.23
Area: 216203
Amount: 151.6144
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

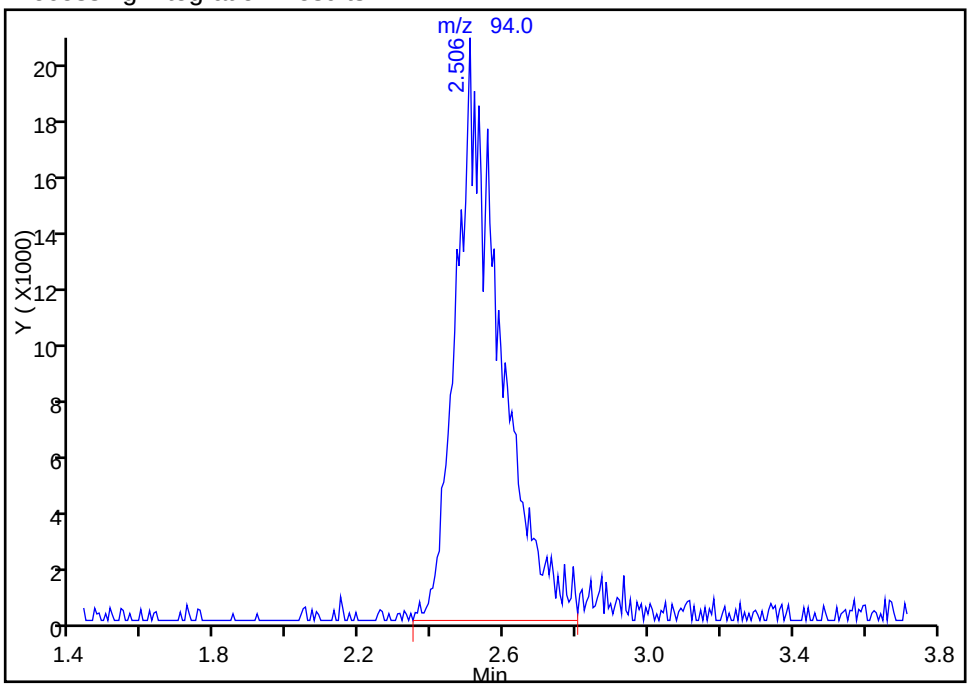
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

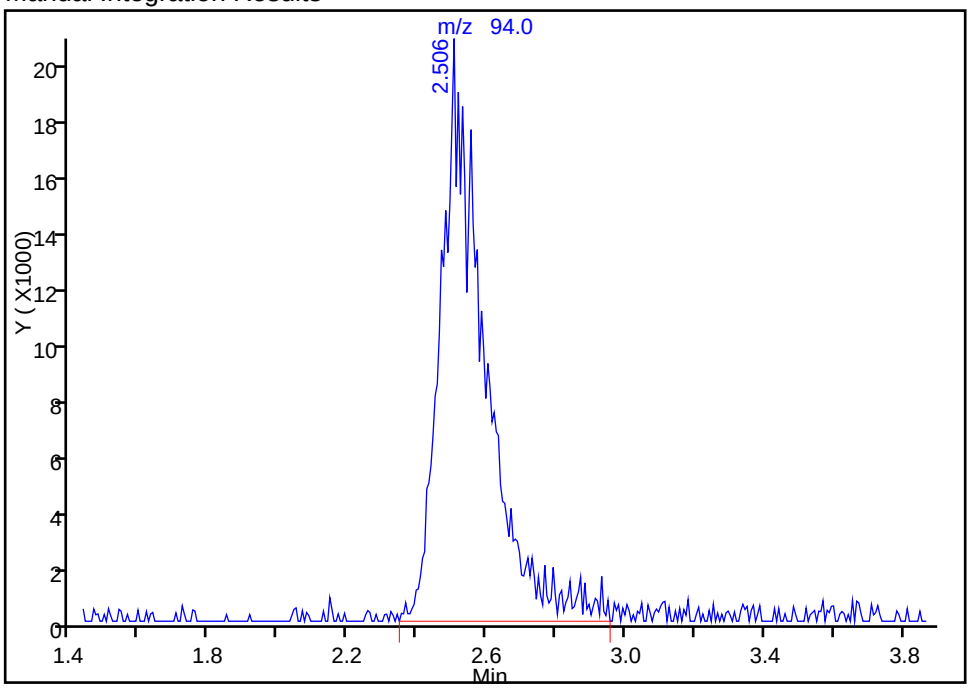
Processing Integration Results

RT: 2.51
Area: 172724
Amount: 150.3127
Amount Units: ng



Manual Integration Results

RT: 2.51
Area: 179169
Amount: 155.9215
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

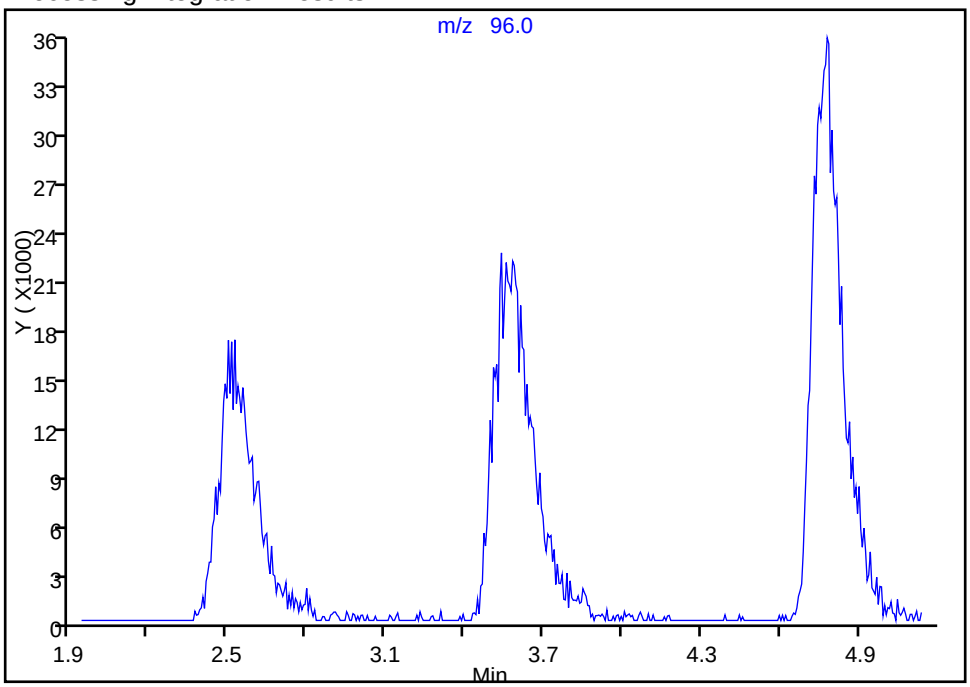
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

22 1,1-Dichloroethene, CAS: 75-35-4

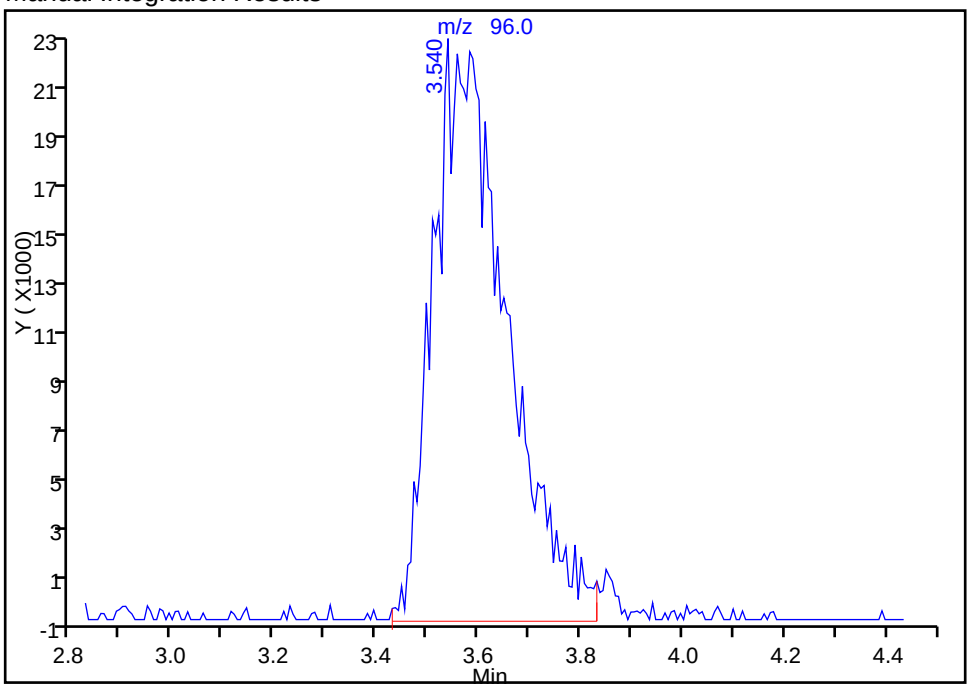
Not Detected
Expected RT: 3.54

Processing Integration Results



Manual Integration Results

RT: 3.54
Area: 222226
Amount: 182.5167
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143527/3 Calibration Date: 06/02/2015 10:22

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060203.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	0.3707	0.1816	0.1000	4.90	10.0	-51.0*	20.0
Chloromethane	Ave	0.4039	0.2264	0.1000	5.61	10.0	-43.9*	20.0
Vinyl chloride	Ave	0.3145	0.2054	0.1000	6.53	10.0	-34.7*	20.0
Bromomethane	Ave	0.2534	0.2399	0.0500	9.47	10.0	-5.3	20.0
Chloroethane	Ave	0.2537	0.2264	0.0500	8.92	10.0	-10.8	20.0
Dichlorofluoromethane	Ave	0.6751	0.7031	0.0100	10.4	10.0	4.2	20.0
Trichlorofluoromethane	Ave	0.7102	0.7615	0.1000	10.7	10.0	7.2	20.0
Ethyl ether	Ave	0.2253	0.2162	0.0100	9.59	10.0	-4.1	20.0
Acrolein	Ave	0.0156	0.0366	0.0100	70.5	30.0	135.0*	20.0
1,1-Dichloroethene	Ave	0.2685	0.3099	0.1000	11.5	10.0	15.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3122	0.3586	0.1000	11.5	10.0	14.8	20.0
Acetone	Lin2		0.0700	0.0500	22.5	20.0	12.6	20.0
Iodomethane	Ave	0.5617	0.6579	0.0100	11.7	10.0	17.1	20.0
Carbon disulfide	Ave	0.8065	0.8976	0.1000	11.1	10.0	11.3	20.0
Allyl chloride	Ave	0.1981	0.2086	0.0100	10.5	10.0	5.3	20.0
Methyl acetate	Ave	0.1332	0.1190	0.1000	44.6	50.0	-10.7	20.0
Methylene Chloride	Ave	0.2882	0.3409	0.1000	11.8	10.0	18.3	20.0
tert-Butyl alcohol	Qua		1.127	0.0100	874	100	773.6*	20.0
Acrylonitrile	Ave	0.0533	0.0495	0.0100	92.8	100	-7.2	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3497	0.1000	10.5	10.0	5.0	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7348	0.1000	11.2	10.0	11.9	20.0
Hexane	Ave	0.3484	0.2833	0.0100	8.13	10.0	-18.7	20.0
Vinyl acetate	Ave	0.2627	0.2326	0.0100	8.85	10.0	-11.5	20.0
1,1-Dichloroethane	Ave	0.4883	0.5598	0.2000	11.5	10.0	14.6	20.0
2,2-Dichloropropane	Ave	0.4080	0.5609	0.0100	13.7	10.0	37.5*	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3959	0.1000	12.0	10.0	19.7	20.0
2-Butanone (MEK)	Ave	0.0896	0.0759	0.0500	16.9	20.0	-15.3	20.0
Bromochloromethane	Ave	0.1904	0.2015	0.0100	10.6	10.0	5.8	20.0
Chloroform	Ave	0.5499	0.6520	0.2000	11.9	10.0	18.6	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.6380	0.1000	12.8	10.0	27.8*	20.0
Cyclohexane	Ave	0.3523	0.3999	0.1000	11.4	10.0	13.5	20.0
Tetrahydrofuran	Ave	0.0490	0.0560	0.0100	22.8	20.0	14.2	20.0
Carbon tetrachloride	Ave	0.5037	0.6159	0.1000	12.2	10.0	22.3*	20.0
1,1-Dichloropropene	Ave	0.3606	0.3821	0.0100	10.6	10.0	6.0	20.0
Benzene	Ave	0.9843	1.082	0.5000	11.0	10.0	10.0	20.0
1,2-Dichloroethane	Ave	0.3325	0.3668	0.1000	11.0	10.0	10.3	20.0
Isobutyl alcohol	Ave	0.0080	0.0080*	0.0100	248	250	-0.9	20.0
n-Heptane	Ave	0.3051	0.2589	0.0100	8.49	10.0	-15.1	20.0
Trichloroethene	Ave	0.3946	0.4039	0.2000	10.2	10.0	2.4	20.0
Methylcyclohexane	Ave	0.4851	0.4700	0.1000	9.69	10.0	-3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143527/3 Calibration Date: 06/02/2015 10:22

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060203.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2242	0.2427	0.1000	10.8	10.0	8.3	20.0
Dibromomethane	Ave	0.1670	0.1923	0.0100	11.5	10.0	15.1	20.0
1,4-Dioxane	Ave	0.0016	0.0014*	0.0100	177	200	-11.3	20.0
Bromodichloromethane	Ave	0.4157	0.5094	0.2000	12.3	10.0	22.5*	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4880	0.2000	11.3	10.0	13.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.4654	0.1000	15.9	20.0	-20.4*	20.0
Toluene	Qua		3.600	0.4000	10.1	10.0	0.7	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.220	0.1000	9.71	10.0	-2.9	20.0
Ethyl methacrylate	Ave	0.8363	0.7736	0.0100	9.25	10.0	-7.5	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6824	0.1000	9.51	10.0	-4.9	20.0
Tetrachloroethene	Qua		0.9582	0.2000	10.2	10.0	2.1	20.0
1,3-Dichloropropane	Ave	1.061	1.030	0.0100	9.71	10.0	-2.9	20.0
2-Hexanone	Ave	0.3770	0.3403	0.1000	18.1	20.0	-9.7	20.0
Dibromochloromethane	Ave	1.234	1.223	0.1000	9.91	10.0	-0.9	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7646	0.1000	9.40	10.0	-6.0	20.0
Chlorobenzene	Ave	2.549	2.704	0.5000	10.6	10.0	6.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.272	0.0100	10.3	10.0	3.2	20.0
Ethylbenzene	Ave	1.449	1.405	0.1000	9.70	10.0	-3.0	20.0
m-Xylene & p-Xylene	Ave	1.953	1.830	0.1000	9.37	10.0	-6.3	20.0
o-Xylene	Ave	1.961	1.939	0.3000	9.88	10.0	-1.2	20.0
Styrene	Qua		2.799	0.3000	10.4	10.0	4.0	20.0
Bromoform	Ave	0.6992	0.6428	0.1000	9.19	10.0	-8.1	20.0
Isopropylbenzene	Qua		4.683	0.1000	9.76	10.0	-2.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.6166	0.3000	8.19	10.0	-18.1	20.0
Bromobenzene	Ave	0.8571	1.183	0.0100	13.8	10.0	38.1*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2091	0.0100	10.9	10.0	9.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1057	0.0100	8.80	10.0	-12.0	20.0
N-Propylbenzene	Ave	1.052	1.264	0.0100	12.0	10.0	20.2*	20.0
2-Chlorotoluene	Ave	0.9551	1.258	0.0100	13.2	10.0	31.7*	20.0
1,3,5-Trimethylbenzene	Qua		3.173	0.0100	13.2	10.0	31.8*	20.0
4-Chlorotoluene	Ave	0.9153	1.100	0.0100	12.0	10.0	20.2*	20.0
tert-Butylbenzene	Lin2	3.243	3.078	0.0100	10.4	10.0	4.0	20.0
1,2,4-Trimethylbenzene	Qua		3.063	0.0100	11.9	10.0	19.3	20.0
sec-Butylbenzene	Qua		3.382	0.0100	9.98	10.0	-0.2	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.692	0.6000	9.91	10.0	-0.9	20.0
4-Isopropyltoluene	Qua		3.394	0.0100	11.4	10.0	13.6	20.0
1,4-Dichlorobenzene	Ave	1.587	1.690	0.5000	10.6	10.0	6.5	20.0
n-Butylbenzene	Qua		2.865	0.0100	11.6	10.0	15.7	20.0
1,2-Dichlorobenzene	Ave	1.554	1.495	0.4000	9.62	10.0	-3.8	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.1011	0.0500	12.8	10.0	28.2*	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.7429	0.2000	15.1	10.0	50.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143527/3 Calibration Date: 06/02/2015 10:22

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060203.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
Hexachlorobutadiene	Ave	0.2953	0.4873	0.0100	16.5	10.0	65.0*	20.0
Naphthalene	Ave	0.8071	1.298	0.0100	16.1	10.0	60.9*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.4964	0.0100	14.7	10.0	47.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3526		11.1	10.0	10.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.3338		11.0	10.0	9.7	20.0
Toluene-d8 (Surr)	Ave	2.966	3.223		10.9	10.0	8.6	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.460		11.1	10.0	10.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Jun-2015 10:22:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007217-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 15:41:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 10:57:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.695	4.695	0.000	90	225816	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.402	0.000	95	888768	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.462	10.462	0.000	85	287056	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	93	286471	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.684	0.000	68	313391	200.0	221.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.043	0.000	92	296635	200.0	219.5	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	93	925158	200.0	217.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	418964	200.0	221.5	
11 Dichlorodifluoromethane	85	1.921	1.921	0.000	30	161367	200.0	98.0	
12 Chloromethane	50	2.030	2.030	0.000	7	201249	200.0	112.1	M
13 Vinyl chloride	62	2.231	2.231	0.000	67	182517	200.0	130.6	M
14 Butadiene	39	2.207	2.207	0.000	94	194956	200.0	132.1	
15 Bromomethane	94	2.493	2.493	0.000	85	213244	200.0	189.3	
16 Chloroethane	64	2.621	2.621	0.000	50	201184	200.0	178.4	
17 Dichlorofluoromethane	67	2.876	2.876	0.000	92	624901	200.0	208.3	
18 Trichlorofluoromethane	101	2.888	2.888	0.000	75	676788	200.0	214.4	
20 Ethyl ether	59	3.357	3.357	0.000	64	192132	200.0	191.9	
21 Acrolein	56	3.509	3.509	0.000	53	97483	600.0	1410.0	E
22 1,1-Dichloroethene	96	3.588	3.588	0.000	84	275457	200.0	230.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.691	3.691	0.000	91	318693	200.0	229.7	
24 Acetone	43	3.801	3.801	0.000	38	124444	400.0	450.3	
25 Iodomethane	142	3.801	3.801	0.000	97	584739	200.0	234.3	
26 Carbon disulfide	76	3.837	3.837	0.000	100	797790	200.0	222.6	M
28 3-Chloro-1-propene	76	4.148	4.148	0.000	65	185388	200.0	210.6	
30 Methyl acetate	43	4.294	4.294	0.000	97	528666	1000.0	892.8	
31 Methylene Chloride	84	4.373	4.373	0.000	95	302983	200.0	236.6	
33 Acrylonitrile	53	4.792	4.792	0.000	98	439535	2000.0	1855.6	
32 2-Methyl-2-propanol	59	4.786	4.786	0.000	91	127265	2000.0	17473	E
34 trans-1,2-Dichloroethene	96	4.792	4.792	0.000	98	310787	200.0	209.9	
35 Methyl tert-butyl ether	73	4.847	4.847	0.000	97	653095	200.0	223.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.170	5.170	0.000	92	251803	200.0	162.6	
38 Vinyl acetate	43	5.176	5.176	0.000	71	206743	200.0	177.1	
37 1,1-Dichloroethane	63	5.358	5.358	0.000	98	497499	200.0	229.3	
44 2,2-Dichloropropane	77	6.088	6.088	0.000	82	498481	200.0	275.0	
45 cis-1,2-Dichloroethene	96	6.094	6.094	0.000	86	351872	200.0	239.5	
46 2-Butanone (MEK)	43	6.161	6.161	0.000	93	134965	400.0	338.8	
49 Chlorobromomethane	128	6.380	6.380	0.000	88	179056	200.0	211.6	
52 Chloroform	83	6.496	6.496	0.000	94	579461	200.0	237.1	
53 1,1,1-Trichloroethane	97	6.684	6.684	0.000	96	567020	200.0	255.5	
51 Tetrahydrofuran	42	6.739	6.739	0.000	32	99552	400.0	456.8	
54 Cyclohexane	56	6.739	6.739	0.000	90	355430	200.0	227.0	
56 Carbon tetrachloride	117	6.867	6.867	0.000	95	547394	200.0	244.5	
55 1,1-Dichloropropene	75	6.873	6.873	0.000	79	339605	200.0	211.9	
58 Benzene	78	7.092	7.092	0.000	96	962009	200.0	219.9	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	98	325996	200.0	220.7	
62 n-Heptane	43	7.414	7.414	0.000	59	230087	200.0	169.7	
57 Isobutyl alcohol	41	7.402	7.402	0.000	50	176733	5000.0	4953.1	
64 Trichloroethene	130	7.792	7.792	0.000	95	358996	200.0	204.7	
66 Methylcyclohexane	83	7.992	7.992	0.000	88	417721	200.0	193.8	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	74	215707	200.0	216.5	
68 Dibromomethane	93	8.150	8.150	0.000	95	170874	200.0	230.3	
70 1,4-Dioxane	88	8.187	8.187	0.000	87	24698	4000.0	3546.3	
71 Dichlorobromomethane	83	8.315	8.315	0.000	98	452695	200.0	245.1	
74 cis-1,3-Dichloropropene	75	8.765	8.765	0.000	93	433749	200.0	226.3	
75 4-Methyl-2-pentanone (MIBK	43	8.929	8.929	0.000	96	267195	400.0	318.5	
76 Toluene	91	9.099	9.099	0.000	97	1033272	200.0	201.3	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	96	350326	200.0	194.1	
78 Ethyl methacrylate	69	9.416	9.416	0.000	88	222057	200.0	185.0	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	94	195873	200.0	190.1	
80 Tetrachloroethene	164	9.647	9.647	0.000	92	275068	200.0	204.3	
81 1,3-Dichloropropane	76	9.671	9.671	0.000	93	295638	200.0	194.1	
82 2-Hexanone	43	9.763	9.763	0.000	97	195360	400.0	361.1	
84 Chlorodibromomethane	129	9.896	9.896	0.000	90	351108	200.0	198.2	
85 Ethylene Dibromide	107	10.012	10.012	0.000	97	219482	200.0	188.1	
87 Chlorobenzene	112	10.493	10.493	0.000	94	776154	200.0	212.1	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.572	0.000	92	365032	200.0	206.3	
90 Ethylbenzene	106	10.602	10.602	0.000	98	403178	200.0	193.9	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	525408	200.0	187.5	
92 o-Xylene	106	11.113	11.113	0.000	94	556516	200.0	197.7	
93 Styrene	104	11.125	11.125	0.000	93	803369	200.0	208.1	
94 Bromoform	173	11.314	11.314	0.000	93	184522	200.0	183.9	
97 Isopropylbenzene	105	11.478	11.478	0.000	96	1344352	200.0	195.2	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.770	0.000	97	176988	200.0	163.7	
100 Bromobenzene	156	11.782	11.782	0.000	88	338974	200.0	276.1	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	83	59907	200.0	217.9	
102 trans-1,4-Dichloro-2-buten	53	11.825	11.825	0.000	75	30288	200.0	175.9	
103 N-Propylbenzene	120	11.886	11.886	0.000	97	362162	200.0	240.3	
104 2-Chlorotoluene	126	11.977	11.977	0.000	96	360422	200.0	263.5	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	96	908911	200.0	263.7	
107 4-Chlorotoluene	126	12.086	12.086	0.000	97	315194	200.0	240.4	
108 tert-Butylbenzene	119	12.385	12.385	0.000	91	881755	200.0	208.1	
110 1,2,4-Trimethylbenzene	105	12.433	12.433	0.000	96	877486	200.0	238.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.604	12.604	0.000	94	968854	200.0	199.7	
113 1,3-Dichlorobenzene	146	12.719	12.719	0.000	98	484753	200.0	198.2	
114 4-Isopropyltoluene	119	12.750	12.750	0.000	96	972194	200.0	227.2	
115 1,4-Dichlorobenzene	146	12.810	12.810	0.000	96	484017	200.0	213.0	
120 n-Butylbenzene	91	13.163	13.163	0.000	96	820669	200.0	231.4	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	428284	200.0	192.4	
122 1,2-Dibromo-3-Chloropropan	75	13.966	13.966	0.000	84	28961	200.0	256.3	
126 1,2,4-Trichlorobenzene	180	14.800	14.800	0.000	95	212827	200.0	301.5	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	92	139590	200.0	330.0	
128 Naphthalene	128	15.049	15.049	0.000	97	371949	200.0	321.7	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	95	142204	200.0	294.4	
S 134 1,2-Dichloroethene, Total	96				0		400.0	449.4	
S 133 Xylenes, Total	106				0		400.0	385.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	420.5	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWketmix1Re_00001	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

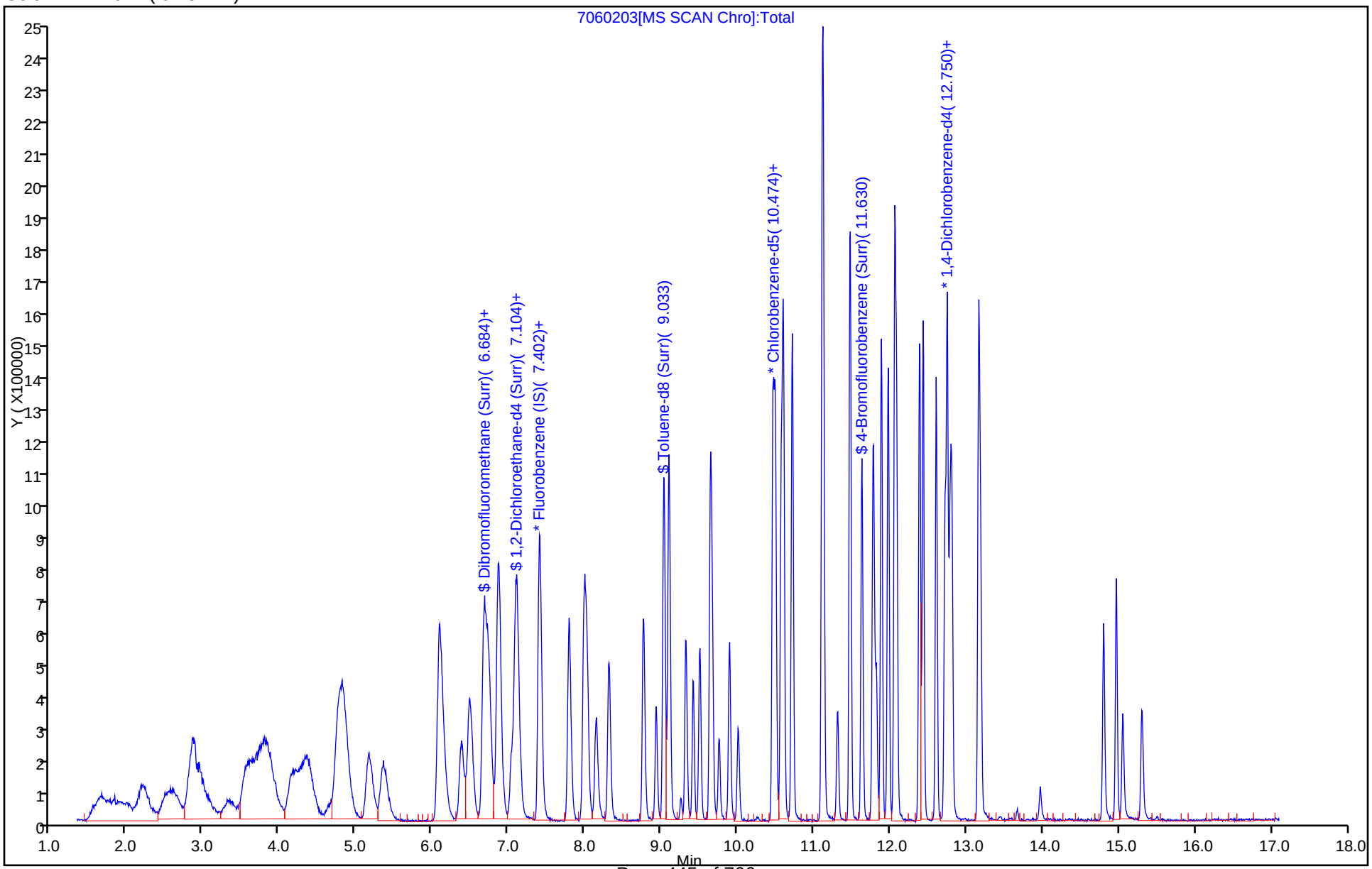
Report Date: 02-Jun-2015 15:41:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D

Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

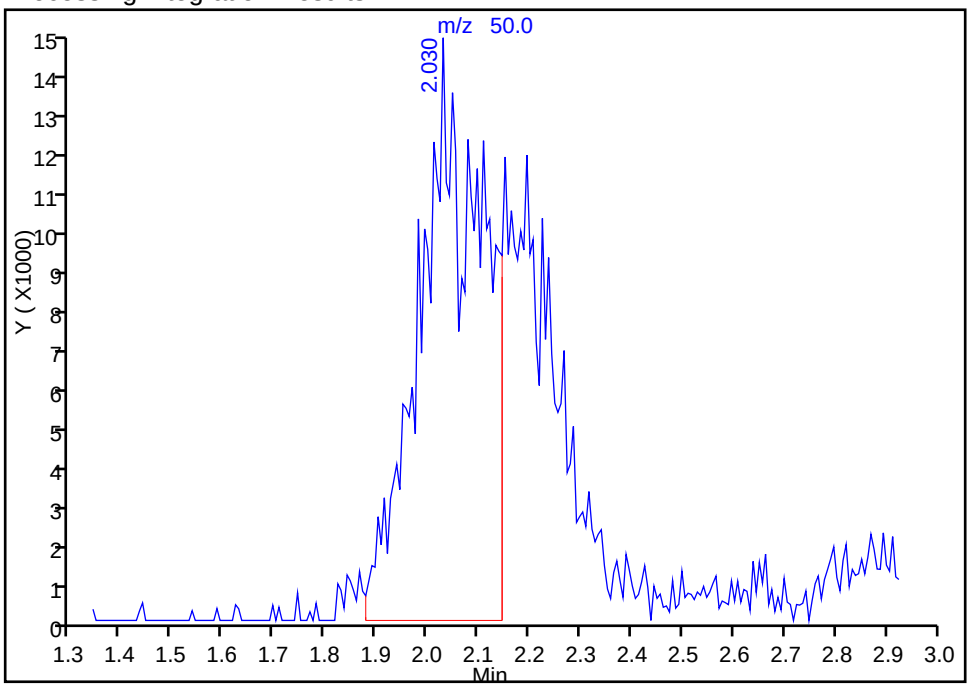
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D				
Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

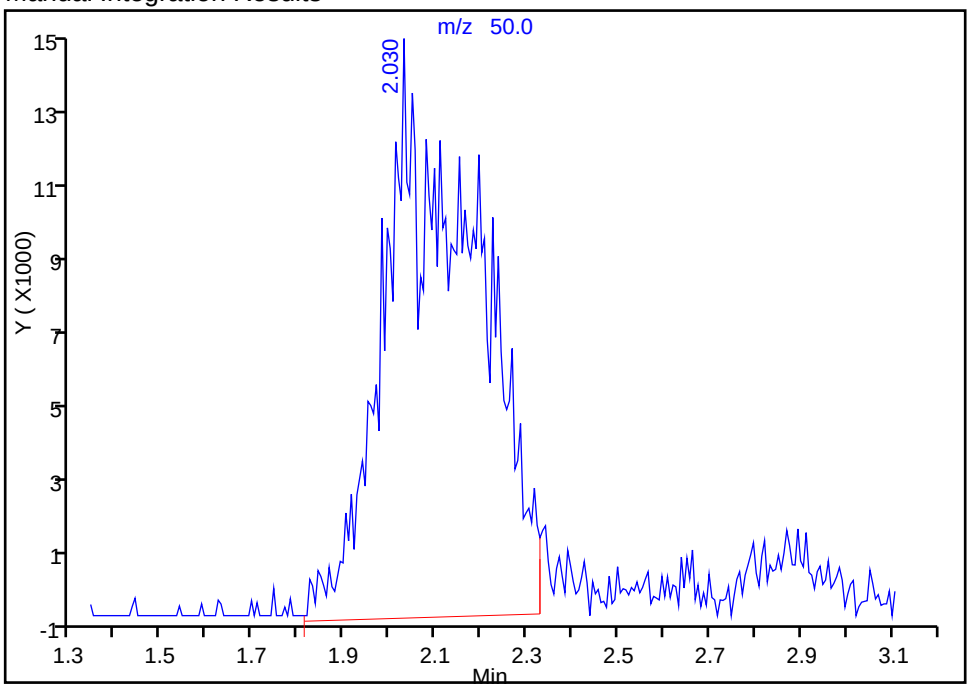
Processing Integration Results

RT: 2.03
Area: 124146
Amount: 69.174117
Amount Units: ng



Manual Integration Results

RT: 2.03
Area: 201249
Amount: 112.1359
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 10:57:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

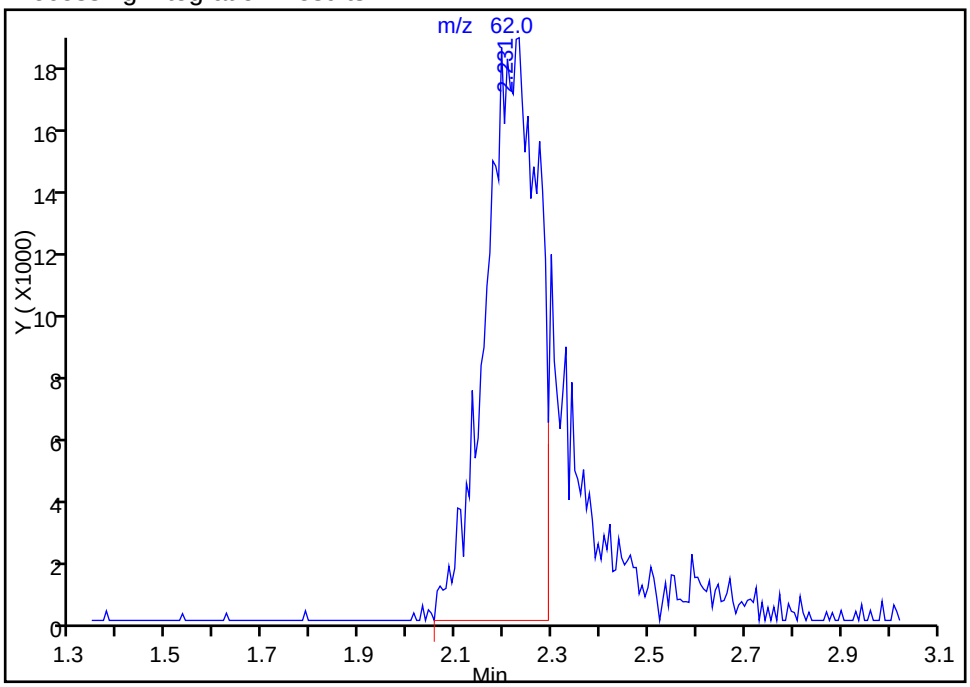
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D				
Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

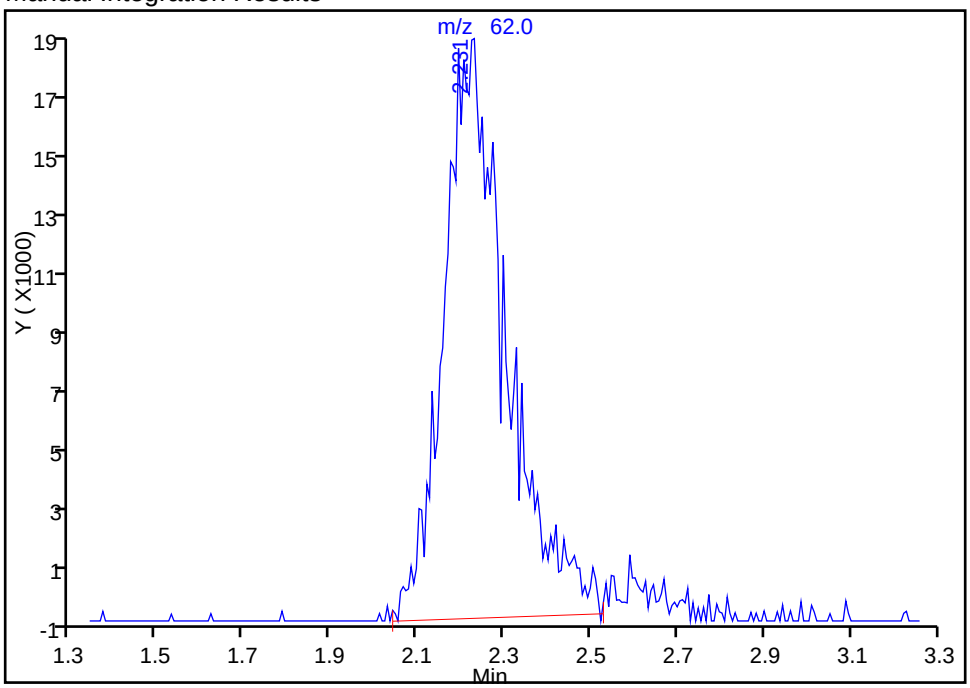
Processing Integration Results

RT: 2.23
Area: 138990
Amount: 99.449190
Amount Units: ng



Manual Integration Results

RT: 2.23
Area: 182517
Amount: 130.5933
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 10:57:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

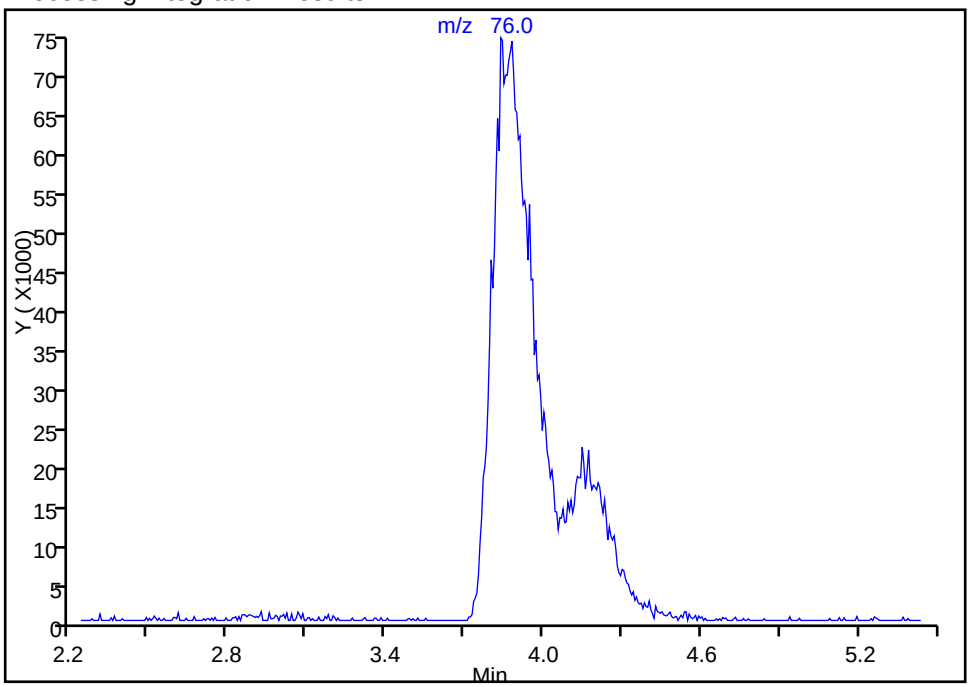
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D				
Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

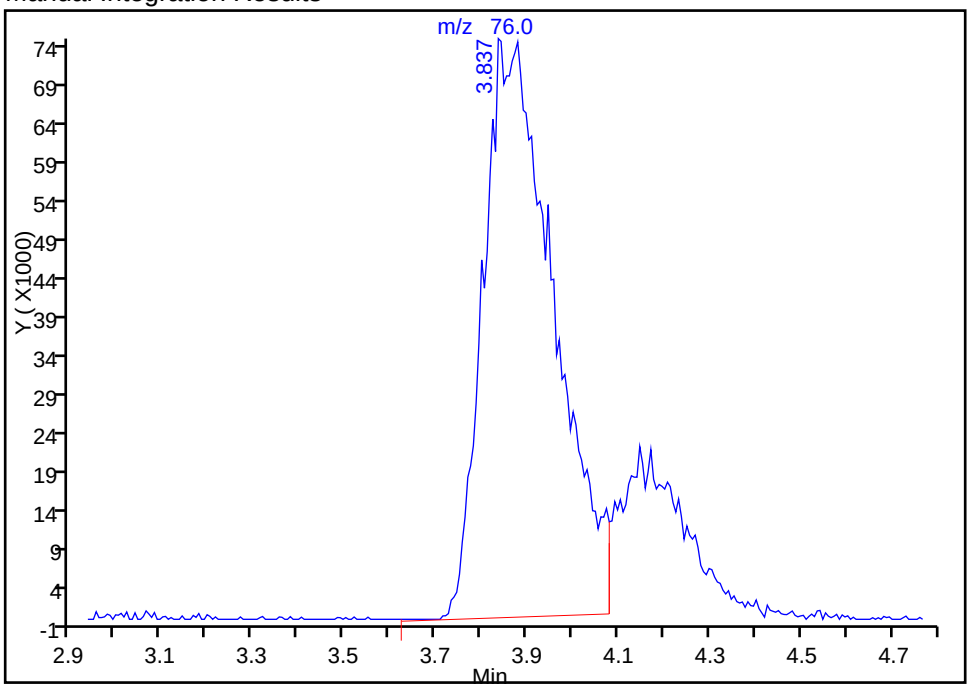
Processing Integration Results

Not Detected
Expected RT: 3.84



Manual Integration Results

RT: 3.84
Area: 797790
Amount: 222.5900
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 11:30:25
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143682/3 Calibration Date: 06/03/2015 10:07

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060303.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	0.3707	0.2052	0.1000	5.53	10.0	-44.7*	20.0
Chloromethane	Ave	0.4039	0.2738	0.1000	6.78	10.0	-32.2*	20.0
Vinyl chloride	Ave	0.3145	0.2745	0.1000	8.73	10.0	-12.7	20.0
Bromomethane	Ave	0.2534	0.2357	0.0500	9.30	10.0	-7.0	20.0
Chloroethane	Ave	0.2537	0.2750	0.0500	10.8	10.0	8.4	20.0
Trichlorofluoromethane	Ave	0.7102	0.8940	0.1000	12.6	10.0	25.9*	20.0
Dichlorofluoromethane	Ave	0.6751	0.8331	0.0100	12.3	10.0	23.4*	20.0
Ethyl ether	Ave	0.2253	0.1251	0.0100	5.55	10.0	-44.5*	20.0
Acrolein	Ave	0.0156	0.0373	0.0100	71.9	30.0	139.7*	20.0
1,1-Dichloroethene	Ave	0.2685	0.2800	0.1000	10.4	10.0	4.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3122	0.3126	0.1000	10.0	10.0	0.1	20.0
Acetone	Lin2		0.0769	0.0500	25.1	20.0	25.5*	20.0
Iodomethane	Ave	0.5617	0.5599	0.0100	9.97	10.0	-0.3	20.0
Carbon disulfide	Ave	0.8065	0.7275	0.1000	9.02	10.0	-9.8	20.0
Allyl chloride	Ave	0.1981	0.2048	0.0100	10.3	10.0	3.4	20.0
Methyl acetate	Ave	0.1332	0.1132	0.1000	42.5	50.0	-15.0	20.0
Methylene Chloride	Ave	0.2882	0.3023	0.1000	10.5	10.0	4.9	20.0
tert-Butyl alcohol	Qua		1.185	0.0100	904	100	803.6*	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3050	0.1000	9.15	10.0	-8.5	20.0
Acrylonitrile	Ave	0.0533	0.0499	0.0100	93.6	100	-6.4	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7347	0.1000	11.2	10.0	11.9	20.0
Vinyl acetate	Ave	0.2627	0.1840	0.0100	7.00	10.0	-30.0*	20.0
Hexane	Ave	0.3484	0.2754	0.0100	7.90	10.0	-21.0*	20.0
1,1-Dichloroethane	Ave	0.4883	0.5258	0.2000	10.8	10.0	7.7	20.0
2,2-Dichloropropane	Ave	0.4080	0.5457	0.0100	13.4	10.0	33.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3384	0.1000	10.2	10.0	2.3	20.0
2-Butanone (MEK)	Ave	0.0896	0.0768	0.0500	17.1	20.0	-14.3	20.0
Bromochloromethane	Ave	0.1904	0.1838	0.0100	9.65	10.0	-3.5	20.0
Chloroform	Ave	0.5499	0.5884	0.2000	10.7	10.0	7.0	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5642	0.1000	11.3	10.0	13.0	20.0
Tetrahydrofuran	Ave	0.0490	0.0532	0.0100	21.7	20.0	8.4	20.0
Cyclohexane	Ave	0.3523	0.3543	0.1000	10.1	10.0	0.6	20.0
Carbon tetrachloride	Ave	0.5037	0.5554	0.1000	11.0	10.0	10.3	20.0
1,1-Dichloropropene	Ave	0.3606	0.3324	0.0100	9.22	10.0	-7.8	20.0
Benzene	Ave	0.9843	0.9495	0.5000	9.65	10.0	-3.5	20.0
1,2-Dichloroethane	Ave	0.3325	0.3379	0.1000	10.2	10.0	1.6	20.0
Isobutyl alcohol	Ave	0.0080	0.0074*	0.0100	231	250	-7.6	20.0
n-Heptane	Ave	0.3051	0.2482	0.0100	8.13	10.0	-18.7	20.0
Trichloroethene	Ave	0.3946	0.3711	0.2000	9.40	10.0	-6.0	20.0
Methylcyclohexane	Ave	0.4851	0.4497	0.1000	9.27	10.0	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143682/3 Calibration Date: 06/03/2015 10:07

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060303.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2242	0.2193	0.1000	9.78	10.0	-2.2	20.0
Dibromomethane	Ave	0.1670	0.1668	0.0100	9.99	10.0	-0.1	20.0
1,4-Dioxane	Ave	0.0016	0.0013*	0.0100	171	200	-14.3	20.0
Bromodichloromethane	Ave	0.4157	0.4637	0.2000	11.2	10.0	11.5	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4369	0.2000	10.1	10.0	1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.4957	0.1000	17.0	20.0	-15.2	20.0
Toluene	Qua		3.420	0.4000	9.46	10.0	-5.4	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.243	0.1000	9.88	10.0	-1.2	20.0
Ethyl methacrylate	Ave	0.8363	0.8172	0.0100	9.77	10.0	-2.3	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6968	0.1000	9.71	10.0	-2.9	20.0
Tetrachloroethene	Qua		0.8940	0.2000	9.40	10.0	-6.0	20.0
1,3-Dichloropropane	Ave	1.061	1.059	0.0100	9.98	10.0	-0.2	20.0
2-Hexanone	Ave	0.3770	0.3598	0.1000	19.1	20.0	-4.5	20.0
Dibromochloromethane	Ave	1.234	1.219	0.1000	9.88	10.0	-1.2	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7574	0.1000	9.31	10.0	-6.9	20.0
Chlorobenzene	Ave	2.549	2.607	0.5000	10.2	10.0	2.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.263	0.0100	10.2	10.0	2.5	20.0
Ethylbenzene	Ave	1.449	1.319	0.1000	9.10	10.0	-9.0	20.0
m-Xylene & p-Xylene	Ave	1.953	1.813	0.1000	9.28	10.0	-7.2	20.0
o-Xylene	Ave	1.961	1.839	0.3000	9.38	10.0	-6.2	20.0
Styrene	Qua		2.672	0.3000	9.83	10.0	-1.7	20.0
Bromoform	Ave	0.6992	0.6774	0.1000	9.69	10.0	-3.1	20.0
Isopropylbenzene	Qua		4.441	0.1000	9.13	10.0	-8.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.7105	0.3000	9.43	10.0	-5.7	20.0
Bromobenzene	Ave	0.8571	1.107	0.0100	12.9	10.0	29.1*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2159	0.0100	11.2	10.0	12.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1471	0.0100	12.2	10.0	22.4*	20.0
N-Propylbenzene	Ave	1.052	1.196	0.0100	11.4	10.0	13.7	20.0
2-Chlorotoluene	Ave	0.9551	1.120	0.0100	11.7	10.0	17.3	20.0
1,3,5-Trimethylbenzene	Qua		3.220	0.0100	13.4	10.0	34.3*	20.0
4-Chlorotoluene	Ave	0.9153	1.059	0.0100	11.6	10.0	15.7	20.0
tert-Butylbenzene	Lin2	3.243	3.211	0.0100	10.9	10.0	8.7	20.0
1,2,4-Trimethylbenzene	Qua		3.048	0.0100	11.9	10.0	18.6	20.0
sec-Butylbenzene	Qua		3.897	0.0100	11.9	10.0	18.7	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.797	0.6000	10.6	10.0	5.6	20.0
4-Isopropyltoluene	Qua		3.207	0.0100	10.6	10.0	5.8	20.0
1,4-Dichlorobenzene	Ave	1.587	1.661	0.5000	10.5	10.0	4.7	20.0
n-Butylbenzene	Qua		2.651	0.0100	10.5	10.0	5.0	20.0
1,2-Dichlorobenzene	Ave	1.554	1.431	0.4000	9.21	10.0	-7.9	20.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0984	0.0500	12.5	10.0	24.9*	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.7708	0.2000	15.6	10.0	56.4*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCVIS 180-143682/3 Calibration Date: 06/03/2015 10:07

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060303.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
Hexachlorobutadiene	Ave	0.2953	0.4604	0.0100	15.6	10.0	55.9*	20.0
Naphthalene	Ave	0.8071	1.255	0.0100	15.6	10.0	55.5*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.4994	0.0100	14.8	10.0	48.1*	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3505		11.0	10.0	9.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.3347		11.0	10.0	10.1	20.0
Toluene-d8 (Surr)	Ave	2.966	3.299		11.1	10.0	11.2	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.466		11.1	10.0	11.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060303.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Jun-2015 10:07:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007238-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 16:09:37 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 10:43:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.673	4.673	0.000	93	274962	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.405	0.000	95	967771	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.465	10.465	0.000	85	296808	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	93	330552	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	84	339208	200.0	219.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.040	0.000	92	323955	200.0	220.1	
$ 7 Toluene-d8 (Surr)	98	9.035	9.035	0.000	93	979162	200.0	222.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	89	434975	200.0	222.5	
11 Dichlorodifluoromethane	85	1.942	1.942	0.000	69	198539	200.0	110.7	
12 Chloromethane	50	2.045	2.045	0.000	72	264986	200.0	135.6	
14 Butadiene	39	2.240	2.240	0.000	93	258440	200.0	160.8	
13 Vinyl chloride	62	2.228	2.228	0.000	79	265669	200.0	174.6	
15 Bromomethane	94	2.532	2.532	0.000	83	228131	200.0	186.0	
16 Chloroethane	64	2.635	2.635	0.000	77	266138	200.0	216.8	
18 Trichlorofluoromethane	101	2.830	2.830	0.000	93	865210	200.0	251.8	
17 Dichlorofluoromethane	67	2.897	2.897	0.000	93	806257	200.0	246.8	
20 Ethyl ether	59	3.365	3.365	0.000	89	121066	200.0	111.0	
21 Acrolein	56	3.493	3.493	0.000	78	108247	600.0	1437.9	E
22 1,1-Dichloroethene	96	3.584	3.584	0.000	90	270939	200.0	208.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.773	3.773	0.000	71	302509	200.0	200.2	
24 Acetone	43	3.779	3.779	0.000	45	148802	400.0	501.8	
25 Iodomethane	142	3.785	3.785	0.000	97	541804	200.0	199.3	
26 Carbon disulfide	76	3.883	3.883	0.000	100	704075	200.0	180.4	M
28 3-Chloro-1-propene	76	4.181	4.181	0.000	88	198187	200.0	206.8	M
30 Methyl acetate	43	4.302	4.302	0.000	98	547889	1000.0	849.7	
31 Methylene Chloride	84	4.406	4.406	0.000	91	292528	200.0	209.8	
32 2-Methyl-2-propanol	59	4.783	4.783	0.000	56	162911	2000.0	18071	E
33 Acrylonitrile	53	4.789	4.789	0.000	98	482872	2000.0	1872.1	
34 trans-1,2-Dichloroethene	96	4.783	4.783	0.000	90	295125	200.0	183.1	
35 Methyl tert-butyl ether	73	4.850	4.850	0.000	98	711045	200.0	223.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.160	5.160	0.000	67	178075	200.0	140.1	
36 Hexane	57	5.184	5.184	0.000	94	266550	200.0	158.1	M
37 1,1-Dichloroethane	63	5.367	5.367	0.000	97	508874	200.0	215.4	
44 2,2-Dichloropropane	77	6.085	6.085	0.000	83	528115	200.0	267.5	
45 cis-1,2-Dichloroethene	96	6.103	6.103	0.000	80	327451	200.0	204.7	
46 2-Butanone (MEK)	43	6.176	6.176	0.000	98	148650	400.0	342.7	
49 Chlorobromomethane	128	6.377	6.377	0.000	84	177901	200.0	193.1	
52 Chloroform	83	6.492	6.492	0.000	94	569394	200.0	214.0	
53 1,1,1-Trichloroethane	97	6.681	6.681	0.000	97	546028	200.0	226.0	
51 Tetrahydrofuran	42	6.742	6.742	0.000	32	102895	400.0	433.6	
54 Cyclohexane	56	6.748	6.748	0.000	76	342837	200.0	201.1	
56 Carbon tetrachloride	117	6.863	6.863	0.000	95	537488	200.0	220.5	
55 1,1-Dichloropropene	75	6.870	6.870	0.000	80	321658	200.0	184.3	
58 Benzene	78	7.095	7.095	0.000	96	918913	200.0	192.9	
59 1,2-Dichloroethane	62	7.125	7.125	0.000	90	327044	200.0	203.3	
57 Isobutyl alcohol	41	7.405	7.405	0.000	50	179560	5000.0	4621.5	
62 n-Heptane	43	7.411	7.411	0.000	58	240176	200.0	162.7	
64 Trichloroethene	130	7.788	7.788	0.000	94	359119	200.0	188.1	
66 Methylcyclohexane	83	7.995	7.995	0.000	90	435211	200.0	185.4	
67 1,2-Dichloropropane	63	8.038	8.038	0.000	84	212252	200.0	195.7	
68 Dibromomethane	93	8.141	8.141	0.000	94	161439	200.0	199.8	
70 1,4-Dioxane	88	8.184	8.184	0.000	41	26011	4000.0	3429.9	
71 Dichlorobromomethane	83	8.317	8.317	0.000	97	448703	200.0	223.1	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	92	422846	200.0	202.6	
75 4-Methyl-2-pentanone (MIBK	43	8.932	8.932	0.000	96	294269	400.0	339.3	
76 Toluene	91	9.102	9.102	0.000	98	1015007	200.0	189.2	
77 trans-1,3-Dichloropropene	75	9.321	9.321	0.000	96	368833	200.0	197.7	
78 Ethyl methacrylate	69	9.419	9.419	0.000	88	242559	200.0	195.4	
79 1,1,2-Trichloroethane	97	9.504	9.504	0.000	92	206810	200.0	194.1	
80 Tetrachloroethene	164	9.650	9.650	0.000	93	265352	200.0	188.1	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	93	314327	200.0	199.6	
82 2-Hexanone	43	9.759	9.759	0.000	97	213608	400.0	381.8	
84 Chlorodibromomethane	129	9.893	9.893	0.000	88	361764	200.0	197.5	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	224812	200.0	186.3	
87 Chlorobenzene	112	10.495	10.495	0.000	94	773842	200.0	204.5	
89 1,1,1,2-Tetrachloroethane	131	10.574	10.574	0.000	91	374935	200.0	205.0	
90 Ethylbenzene	106	10.605	10.605	0.000	98	391352	200.0	182.1	
91 m-Xylene & p-Xylene	106	10.720	10.720	0.000	97	537977	200.0	185.6	
92 o-Xylene	106	11.110	11.110	0.000	96	545912	200.0	187.6	
93 Styrene	104	11.128	11.128	0.000	94	793024	200.0	196.6	
94 Bromoform	173	11.310	11.310	0.000	94	201054	200.0	193.8	
97 Isopropylbenzene	105	11.475	11.475	0.000	96	1318024	200.0	182.6	
99 1,1,2,2-Tetrachloroethane	83	11.767	11.767	0.000	97	210891	200.0	188.7	
100 Bromobenzene	156	11.785	11.785	0.000	88	365761	200.0	258.2	
101 1,2,3-Trichloropropane	110	11.815	11.815	0.000	84	71350	200.0	225.0	
102 trans-1,4-Dichloro-2-buten	53	11.828	11.828	0.000	69	48629	200.0	244.8	
103 N-Propylbenzene	120	11.882	11.882	0.000	97	395289	200.0	227.3	
104 2-Chlorotoluene	126	11.974	11.974	0.000	97	370338	200.0	234.6	
106 1,3,5-Trimethylbenzene	105	12.059	12.059	0.000	96	1064388	200.0	268.5	
107 4-Chlorotoluene	126	12.083	12.083	0.000	96	350120	200.0	231.4	
108 tert-Butylbenzene	119	12.387	12.387	0.000	91	1061326	200.0	217.5	
110 1,2,4-Trimethylbenzene	105	12.430	12.430	0.000	95	1007543	200.0	237.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.606	12.606	0.000	95	1288300	200.0	237.4	
113 1,3-Dichlorobenzene	146	12.722	12.722	0.000	97	594016	200.0	211.1	
114 4-Isopropyltoluene	119	12.746	12.746	0.000	94	1060079	200.0	211.7	
115 1,4-Dichlorobenzene	146	12.813	12.813	0.000	94	549167	200.0	209.4	
120 n-Butylbenzene	91	13.160	13.160	0.000	96	876183	200.0	209.9	
121 1,2-Dichlorobenzene	146	13.184	13.184	0.000	97	473121	200.0	184.2	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	85	32532	200.0	249.7	
126 1,2,4-Trichlorobenzene	180	14.802	14.802	0.000	95	254794	200.0	312.8	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	91	152190	200.0	311.8	
128 Naphthalene	128	15.052	15.052	0.000	97	414916	200.0	311.0	
129 1,2,3-Trichlorobenzene	180	15.307	15.307	0.000	95	165076	200.0	296.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	387.7	
S 133 Xylenes, Total	106				0		400.0	373.2	
S 135 1,3-Dichloropropene, Total	1				0		400.0	400.3	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

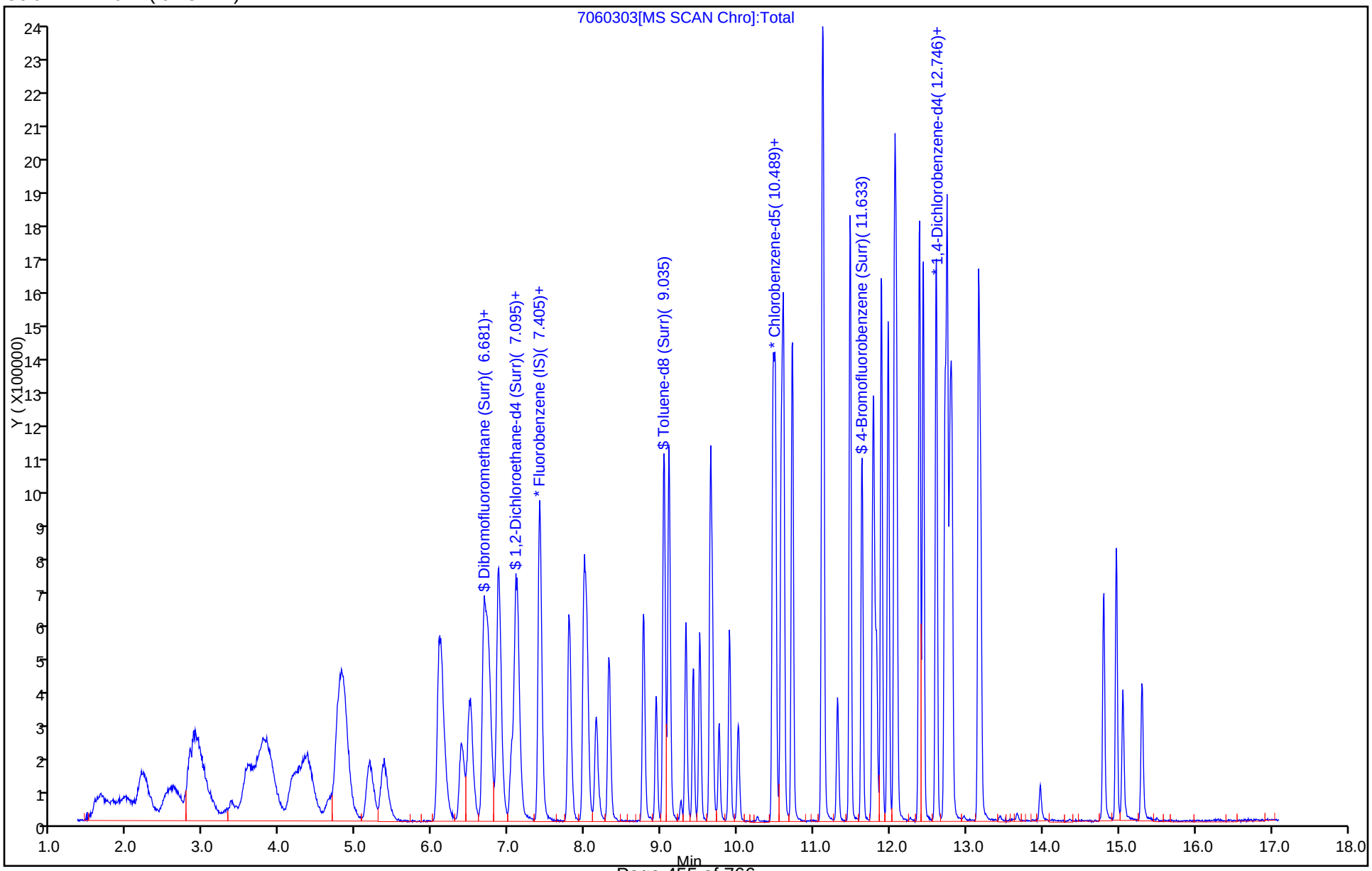
voaWketmix1Re_00001	Amount Added: 8.00	Units: uL		
VOA8260VOAPRI_00123	Amount Added: 8.00	Units: uL		
voaWVA1st Res_00001	Amount Added: 8.00	Units: uL		
VOAACRLOEINPR_00001	Amount Added: 24.00	Units: uL		
VOA8260SURR_00036	Amount Added: 8.00	Units: uL	Run Reagent	
VOA8260INT_00036	Amount Added: 8.00	Units: uL	Run Reagent	

Report Date: 03-Jun-2015 16:09:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060303.D				
Injection Date:	03-Jun-2015 10:07:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

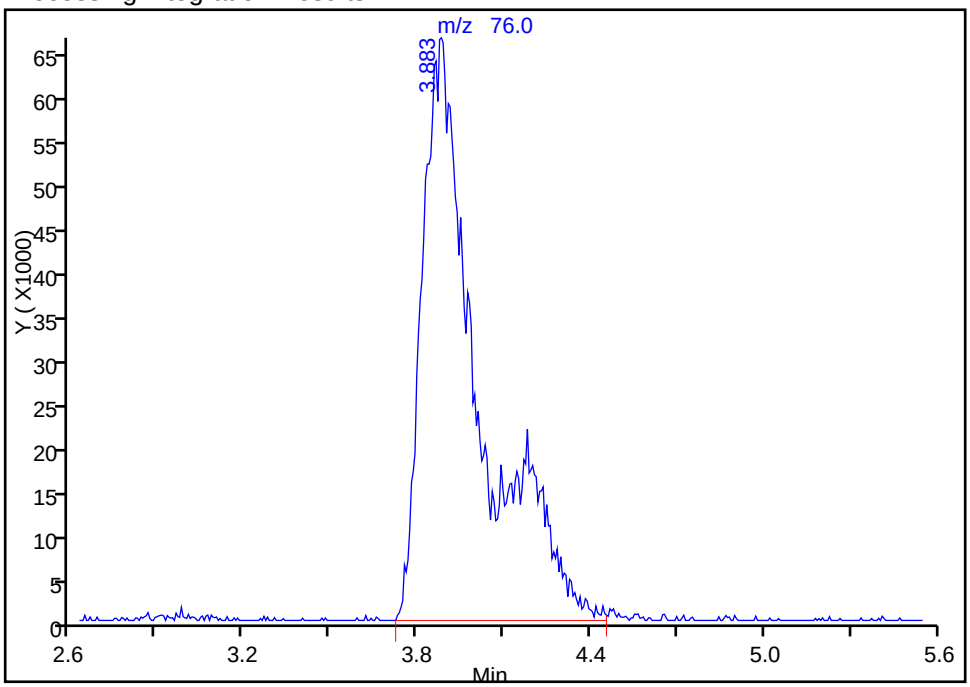
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060303.D				
Injection Date:	03-Jun-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

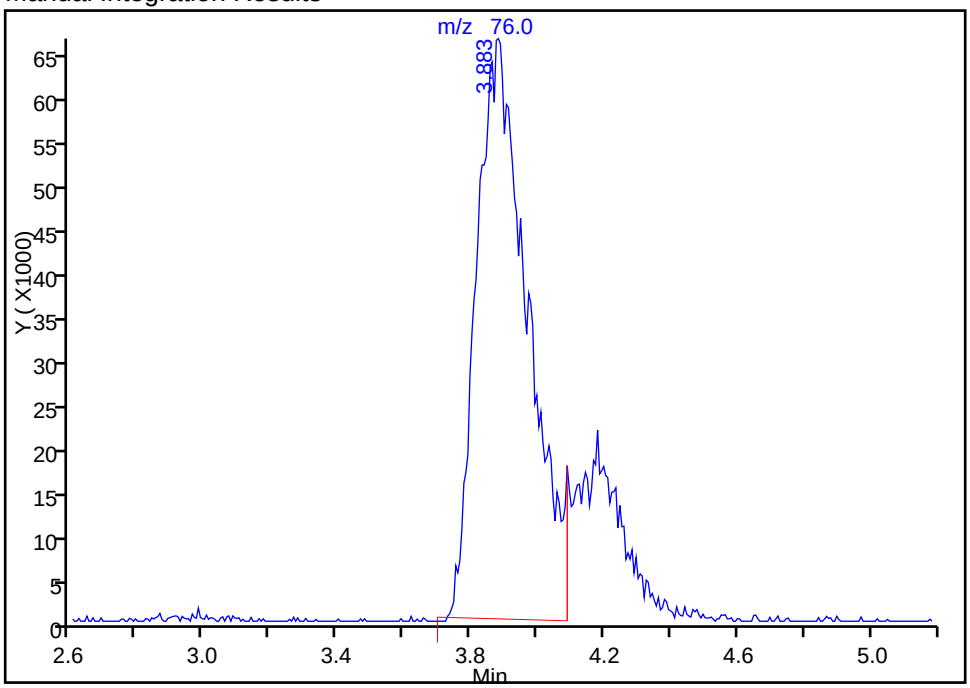
Processing Integration Results

RT: 3.88
Area: 900799
Amount: 230.8133
Amount Units: ng



Manual Integration Results

RT: 3.88
Area: 704075
Amount: 180.4064
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 10:43:55
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

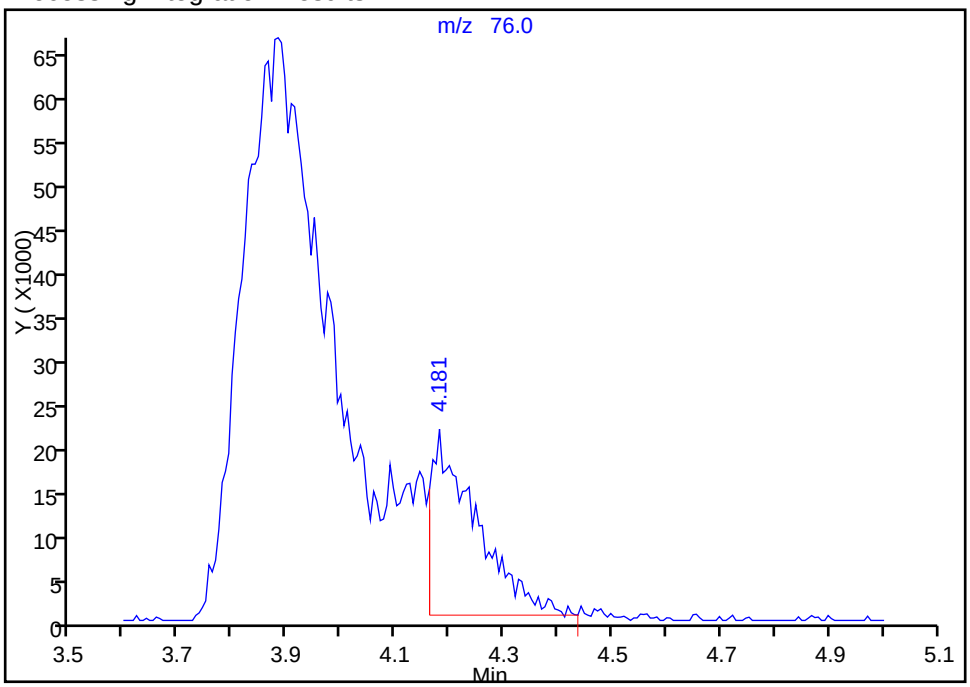
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060303.D
Injection Date: 03-Jun-2015 10:07:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

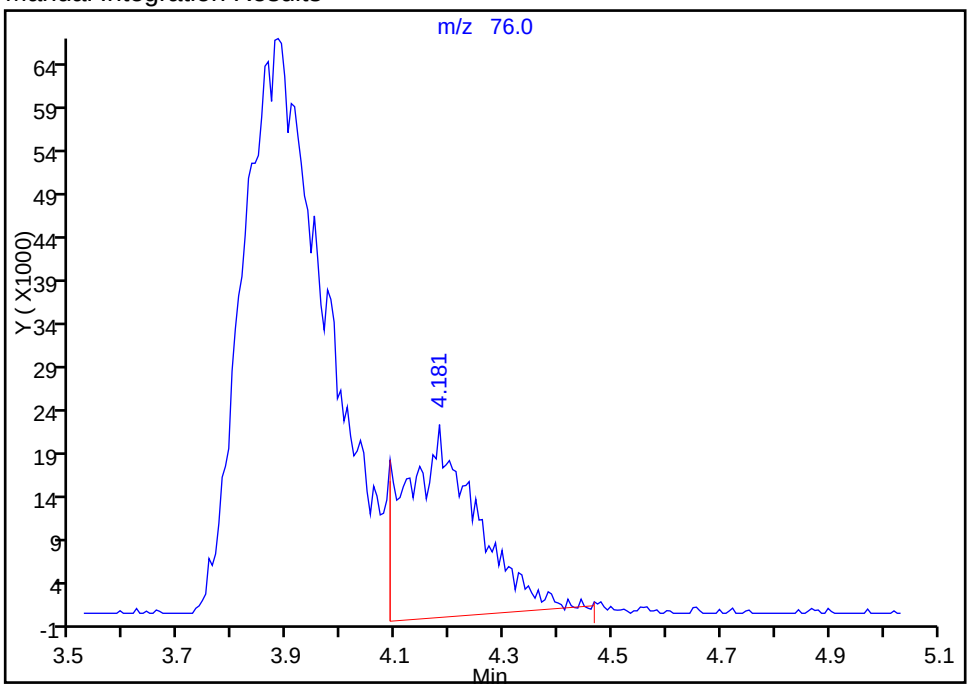
Processing Integration Results

RT: 4.18
Area: 120356
Amount: 125.5782
Amount Units: ng



Manual Integration Results

RT: 4.18
Area: 198187
Amount: 206.7862
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 10:43:55
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

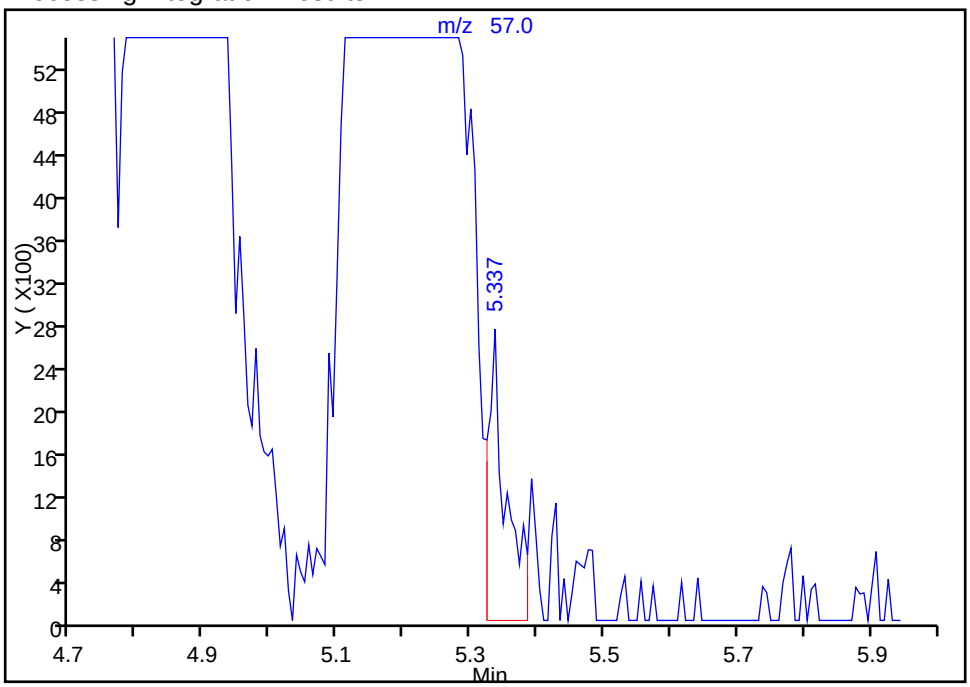
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060303.D				
Injection Date:	03-Jun-2015 10:07:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

36 Hexane, CAS: 110-54-3

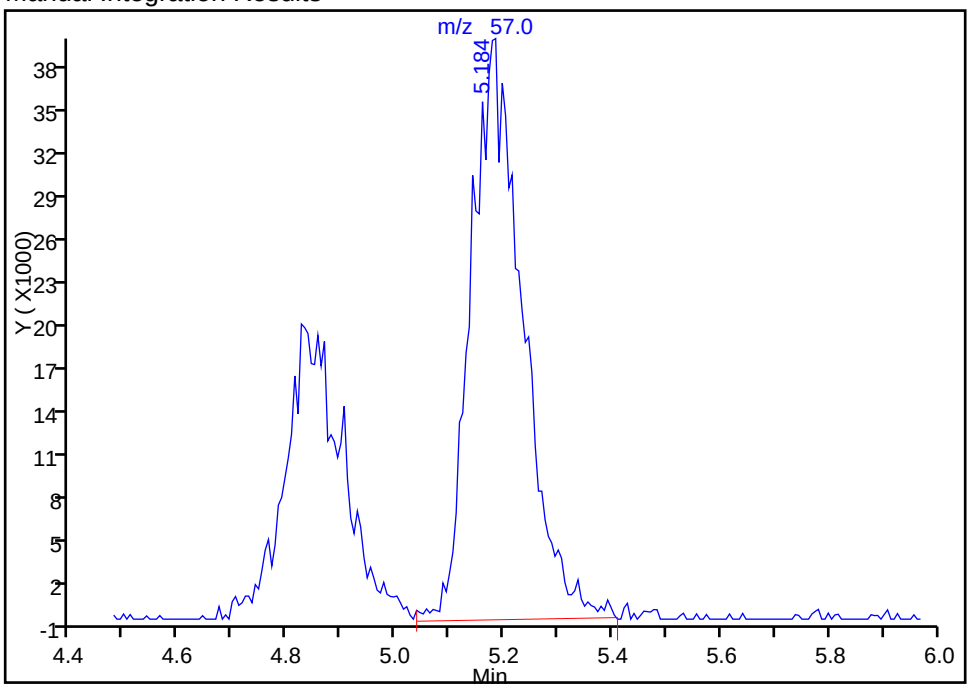
Processing Integration Results

RT: 5.34
Area: 4948
Amount: 2.934598
Amount Units: ng



Manual Integration Results

RT: 5.18
Area: 266550
Amount: 158.0875
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 10:46:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	30-Mar-2015 09:32:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006234-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-Mar-2015 08:54:12	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.637	11.637	0.000	0	289971	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

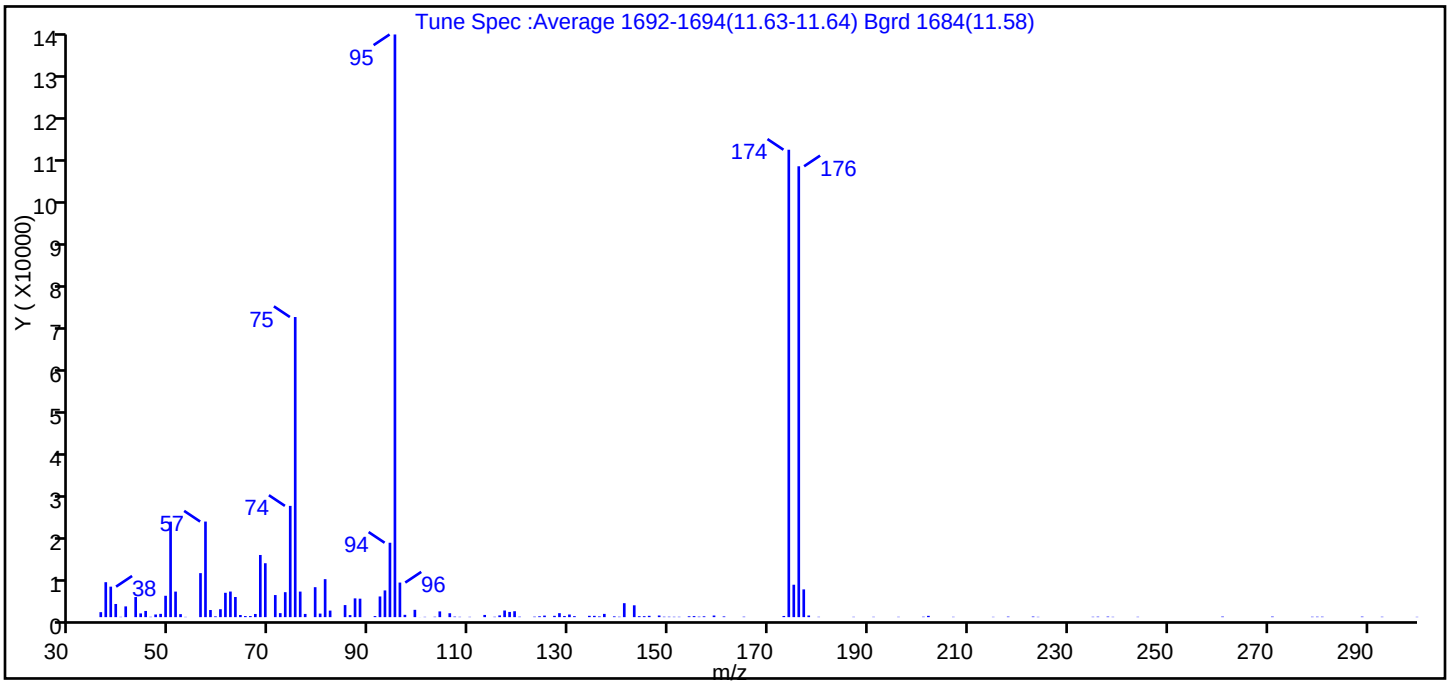
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D
Injection Date: 30-Mar-2015 09:32:30 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_LL_CHHP7 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.4
75	30 to 60% of m/z 95	51.5
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	80.2
175	5 to 9% of m/z 174	5.6 (6.9)
176	Greater than 95% but less than 101% of m/z 174	77.4 (96.5)
177	5 to 9% of m/z 176	4.8 (6.2)

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 30-Mar-2015 09:32:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1684(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1170	73.00	5848	118.00	1221	165.00	105
37.00	8186	74.00	26056	119.00	1385	173.00	274
38.00	7142	75.00	70280	120.00	109	174.00	109456
39.00	3083	76.00	5984	123.00	114	175.00	7591
40.00	73	77.00	754	124.00	206	176.00	105584
41.00	2517	79.00	7016	125.00	361	177.00	6501
43.00	4710	80.00	834	127.00	306	178.00	384
44.00	876	81.00	8896	128.00	933	180.00	78
45.00	1453	82.00	1533	129.00	273	187.00	76
46.00	79	85.00	2824	130.00	615	191.00	77
47.00	624	86.00	480	131.00	233	196.00	76
48.00	770	87.00	4396	134.00	310	201.00	102
49.00	5005	88.00	4323	135.00	303	202.00	305
50.00	22368	91.00	251	136.00	171	207.00	75
51.00	5983	92.00	4844	137.00	763	215.00	70
52.00	702	93.00	6261	139.00	182	218.00	122
53.00	62	94.00	17424	140.00	99	223.00	137
56.00	10307	95.00	136448	141.00	3269	224.00	69
57.00	22384	96.00	8098	143.00	2771	235.00	86
58.00	1668	97.00	542	144.00	224	236.00	111
59.00	184	99.00	1717	145.00	225	238.00	129
60.00	1857	100.00	12	146.00	313	239.00	76
61.00	5703	101.00	71	148.00	379	244.00	79
62.00	5994	103.00	96	149.00	101	261.00	131
63.00	4718	104.00	1345	150.00	102	271.00	130
64.00	499	106.00	915	151.00	87	279.00	94
65.00	255	107.00	125	152.00	86	280.00	103
66.00	253	108.00	78	154.00	202	281.00	102
67.00	743	110.00	74	155.00	243	289.00	120
68.00	14557	113.00	515	156.00	115	293.00	88
69.00	12624	115.00	90	157.00	197	300.00	69
71.00	5173	116.00	405	159.00	377		
72.00	939	117.00	1555	161.00	170		

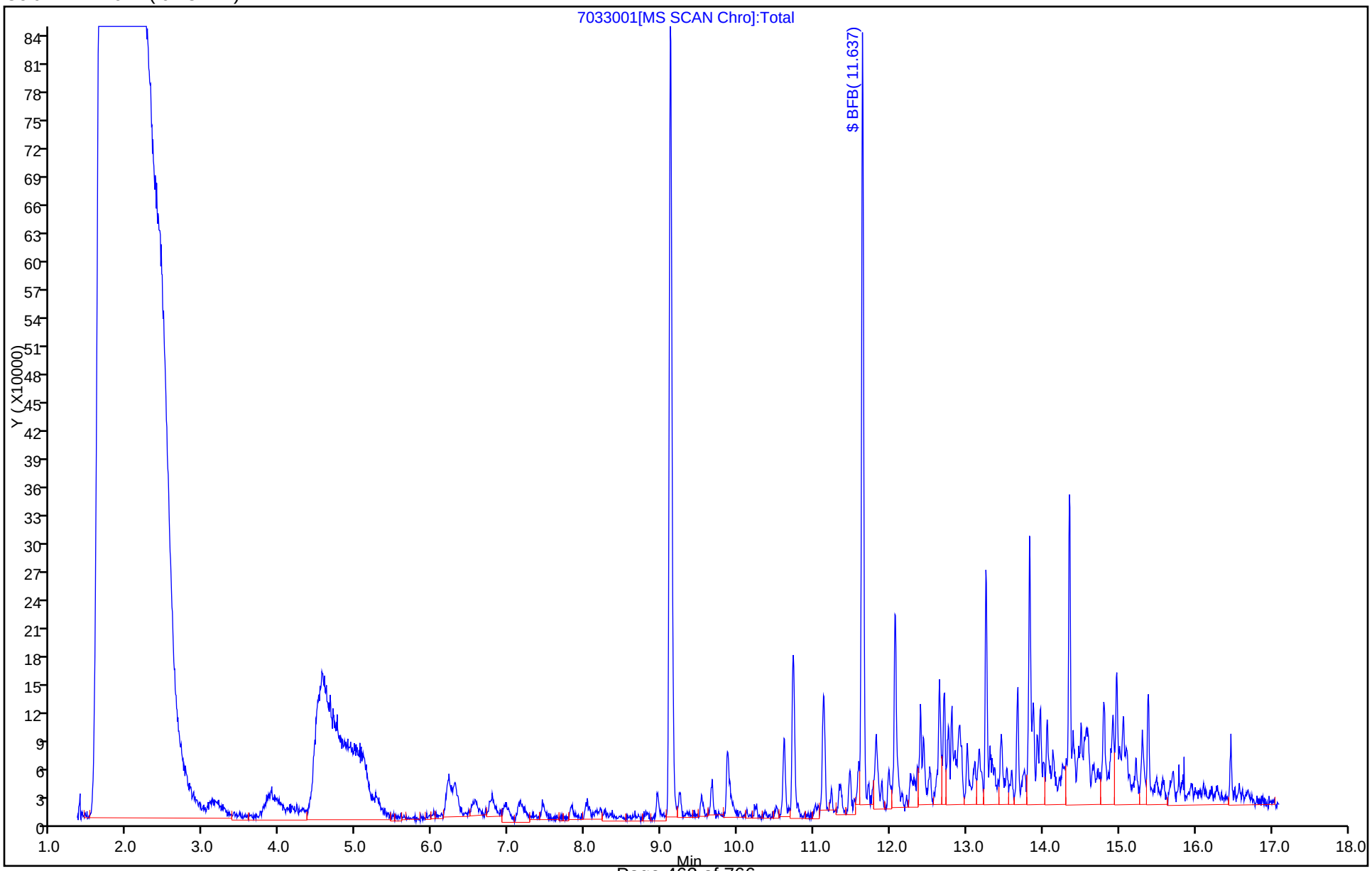
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1170	73.00	5848	118.00	1221	165.00	105
37.00	8186	74.00	26056	119.00	1385	173.00	274
38.00	7142	75.00	70280	120.00	109	174.00	109456
39.00	3083	76.00	5984	123.00	114	175.00	7591
40.00	73	77.00	754	124.00	206	176.00	105584
41.00	2517	79.00	7016	125.00	361	177.00	6501
43.00	4710	80.00	834	127.00	306	178.00	384
44.00	876	81.00	8896	128.00	933	180.00	78
45.00	1453	82.00	1533	129.00	273	187.00	76
46.00	79	85.00	2824	130.00	615	191.00	77
47.00	624	86.00	480	131.00	233	196.00	76
48.00	770	87.00	4396	134.00	310	201.00	102
49.00	5005	88.00	4323	135.00	303	202.00	305
50.00	22368	91.00	251	136.00	171	207.00	75
51.00	5983	92.00	4844	137.00	763	215.00	70
52.00	702	93.00	6261	139.00	182	218.00	122
53.00	62	94.00	17424	140.00	99	223.00	137
56.00	10307	95.00	136448	141.00	3269	224.00	69
57.00	22384	96.00	8098	143.00	2771	235.00	86
58.00	1668	97.00	542	144.00	224	236.00	111
59.00	184	99.00	1717	145.00	225	238.00	129
60.00	1857	100.00	12	146.00	313	239.00	76
61.00	5703	101.00	71	148.00	379	244.00	79
62.00	5994	103.00	96	149.00	101	261.00	131
63.00	4718	104.00	1345	150.00	102	271.00	130
64.00	499	106.00	915	151.00	87	279.00	94
65.00	255	107.00	125	152.00	86	280.00	103
66.00	253	108.00	78	154.00	202	281.00	102
67.00	743	110.00	74	155.00	243	289.00	120
68.00	14557	113.00	515	156.00	115	293.00	88
69.00	12624	115.00	90	157.00	197	300.00	69
71.00	5173	116.00	405	159.00	377		
72.00	939	117.00	1555	161.00	170		

Report Date: 31-Mar-2015 08:54:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D				
Injection Date:	30-Mar-2015 09:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	01-Jun-2015 08:05:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007198-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	01-Jun-2015 16:53:05	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.634	11.634	0.000	0	618613	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

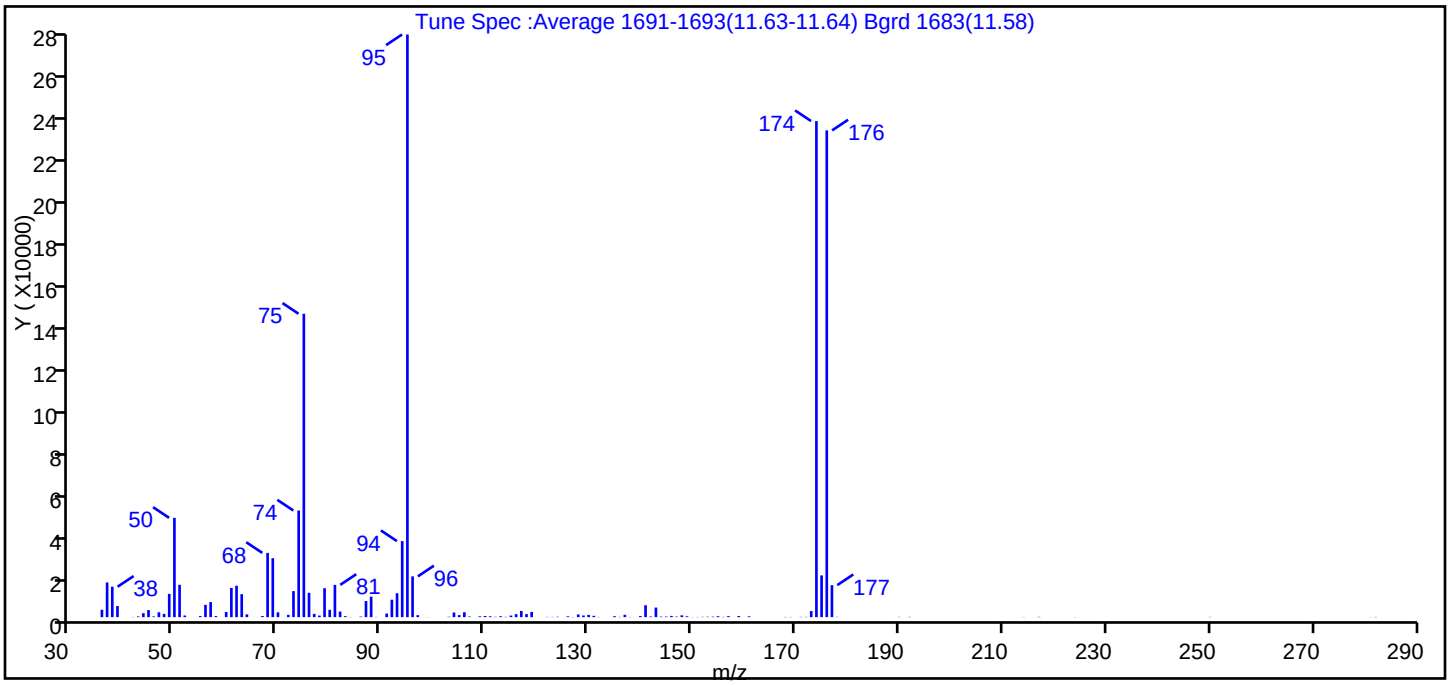
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D
Injection Date: 01-Jun-2015 08:05:30 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_LL_CHHP7 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.0
75	30 to 60% of m/z 95	52.1
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	1.0 (1.2)
174	50 to 120% of m/z 95	85.1
175	5 to 9% of m/z 174	7.2 (8.4)
176	Greater than 95% but less than 101% of m/z 174	83.5 (98.1)
177	5 to 9% of m/z 176	5.5 (6.6)

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 01-Jun-2015 08:05:30
Spectrum: Tune Spec :Average 1691-1693(11.63-11.64) Bgrd 1683(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 121

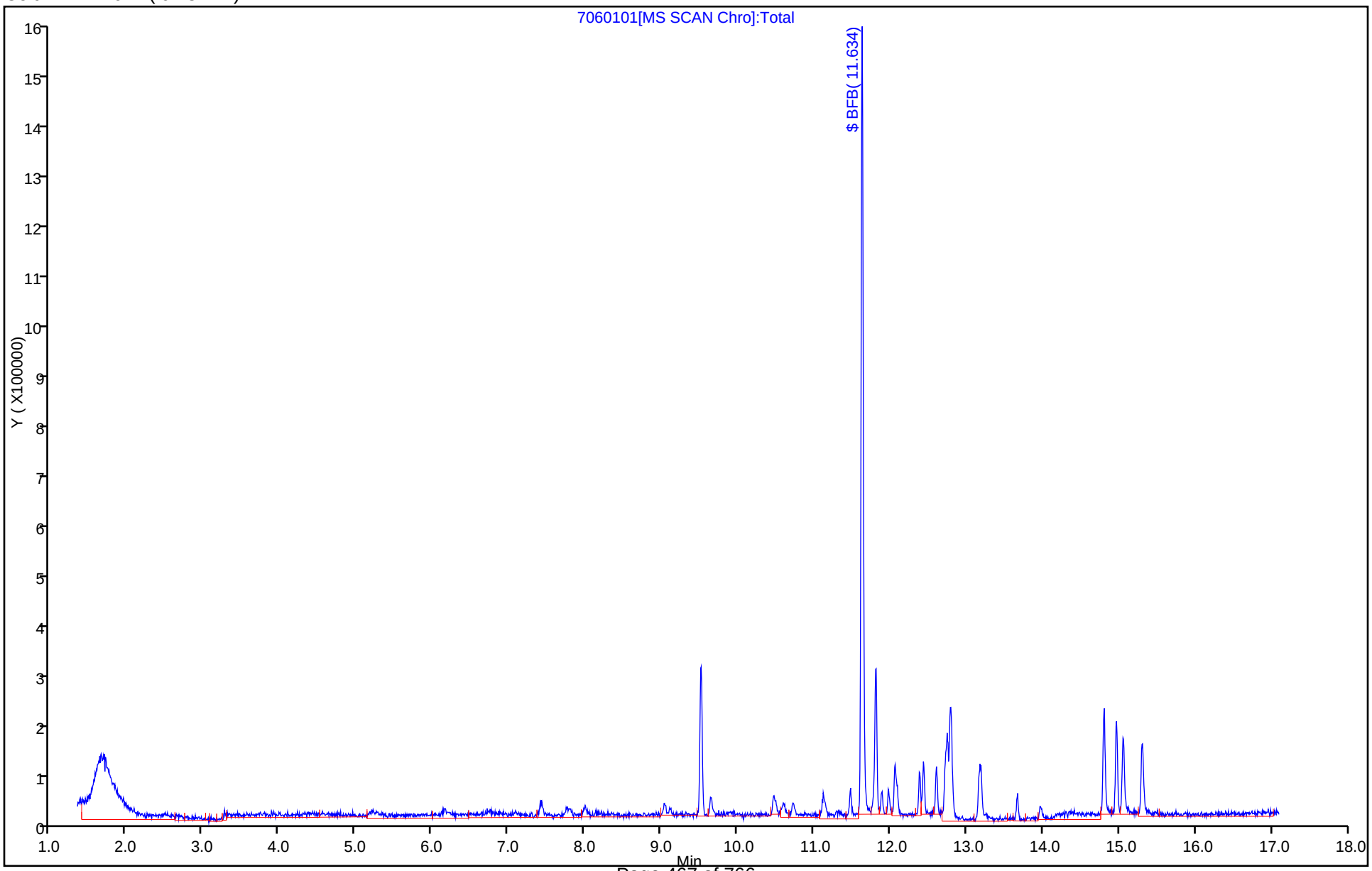
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3462	75.00	141696	113.00	428	150.00	64
37.00	16199	76.00	11381	114.00	147	151.00	82
38.00	14205	77.00	1501	115.00	751	152.00	141
39.00	5195	78.00	728	116.00	1389	153.00	198
42.00	83	79.00	13521	117.00	2896	154.00	232
43.00	322	80.00	3407	118.00	1419	155.00	449
44.00	1829	81.00	15075	119.00	2432	156.00	125
45.00	3318	82.00	2605	122.00	113	157.00	471
46.00	342	83.00	462	123.00	100	159.00	532
47.00	2264	84.00	83	124.00	192	161.00	387
48.00	1523	86.00	257	126.00	381	168.00	105
49.00	10856	87.00	7503	127.00	83	169.00	92
50.00	46376	88.00	9574	128.00	1251	171.00	130
51.00	15113	89.00	95	129.00	773	172.00	130
52.00	761	91.00	1684	130.00	1036	173.00	2830
55.00	482	92.00	8129	131.00	624	174.00	231680
56.00	5733	93.00	11185	132.00	94	175.00	19480
57.00	7036	94.00	35512	135.00	444	176.00	227328
58.00	486	95.00	272128	136.00	113	177.00	14951
60.00	2412	96.00	19048	137.00	1090	178.00	142
61.00	13653	97.00	920	138.00	89	190.00	122
62.00	14683	99.00	67	140.00	506	192.00	138
63.00	10743	103.00	176	141.00	5564	214.00	77
64.00	1307	104.00	2164	142.00	294	217.00	152
67.00	507	105.00	962	143.00	4476	224.00	68
68.00	30008	106.00	2294	144.00	245	250.00	112
69.00	27528	107.00	285	145.00	277	281.00	74
70.00	2248	109.00	387	146.00	576	282.00	103
72.00	1067	110.00	542	147.00	237		
73.00	12162	111.00	392	148.00	852		
74.00	49800	112.00	154	149.00	400		

Report Date: 01-Jun-2015 16:53:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D				
Injection Date:	01-Jun-2015 08:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	02-Jun-2015 08:07:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007217-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	02-Jun-2015 15:41:06	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK014				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.632	11.632	0.000	0	935595	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

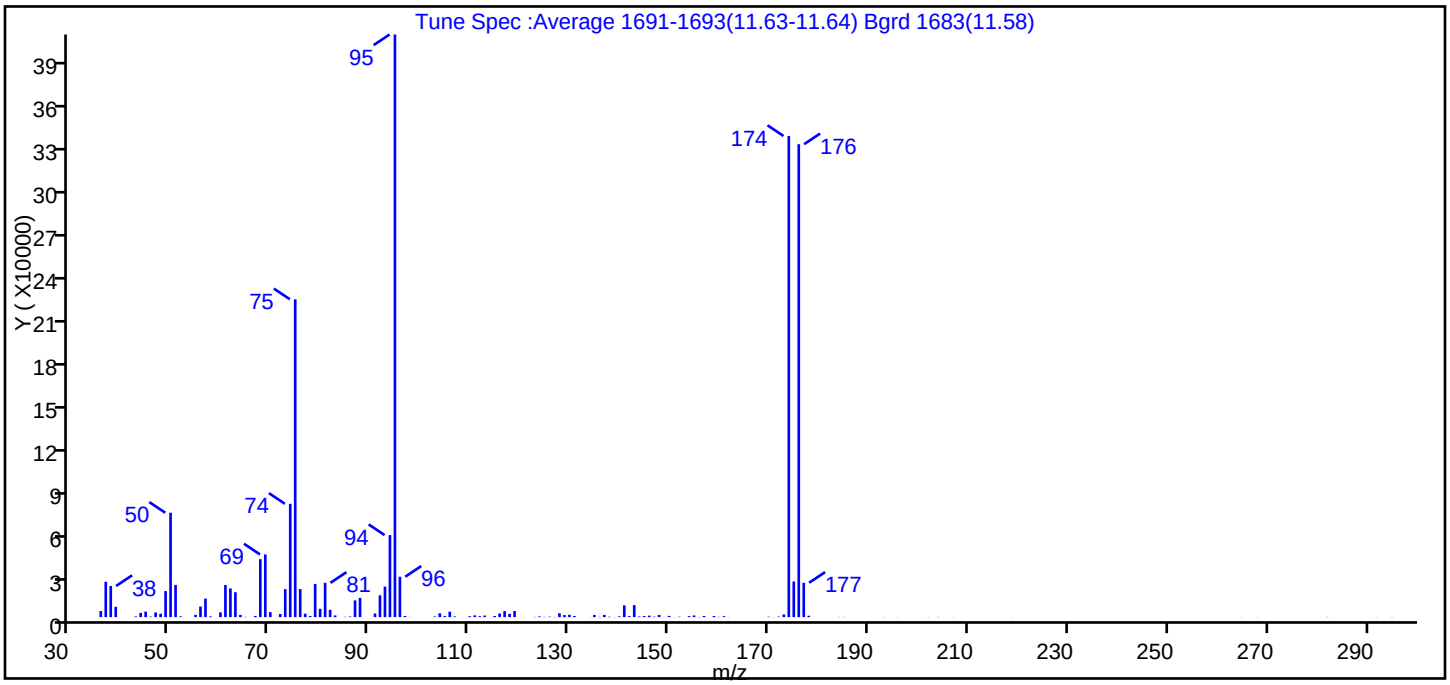
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D
Injection Date: 02-Jun-2015 08:07:30 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_LL_CHHP7 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.9
75	30 to 60% of m/z 95	54.6
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	82.6
175	5 to 9% of m/z 174	6.1 (7.4)
176	Greater than 95% but less than 101% of m/z 174	81.2 (98.3)
177	5 to 9% of m/z 176	5.9 (7.3)

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 02-Jun-2015 08:07:30
Spectrum: Tune Spec :Average 1691-1693(11.63-11.64) Bgrd 1683(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 125

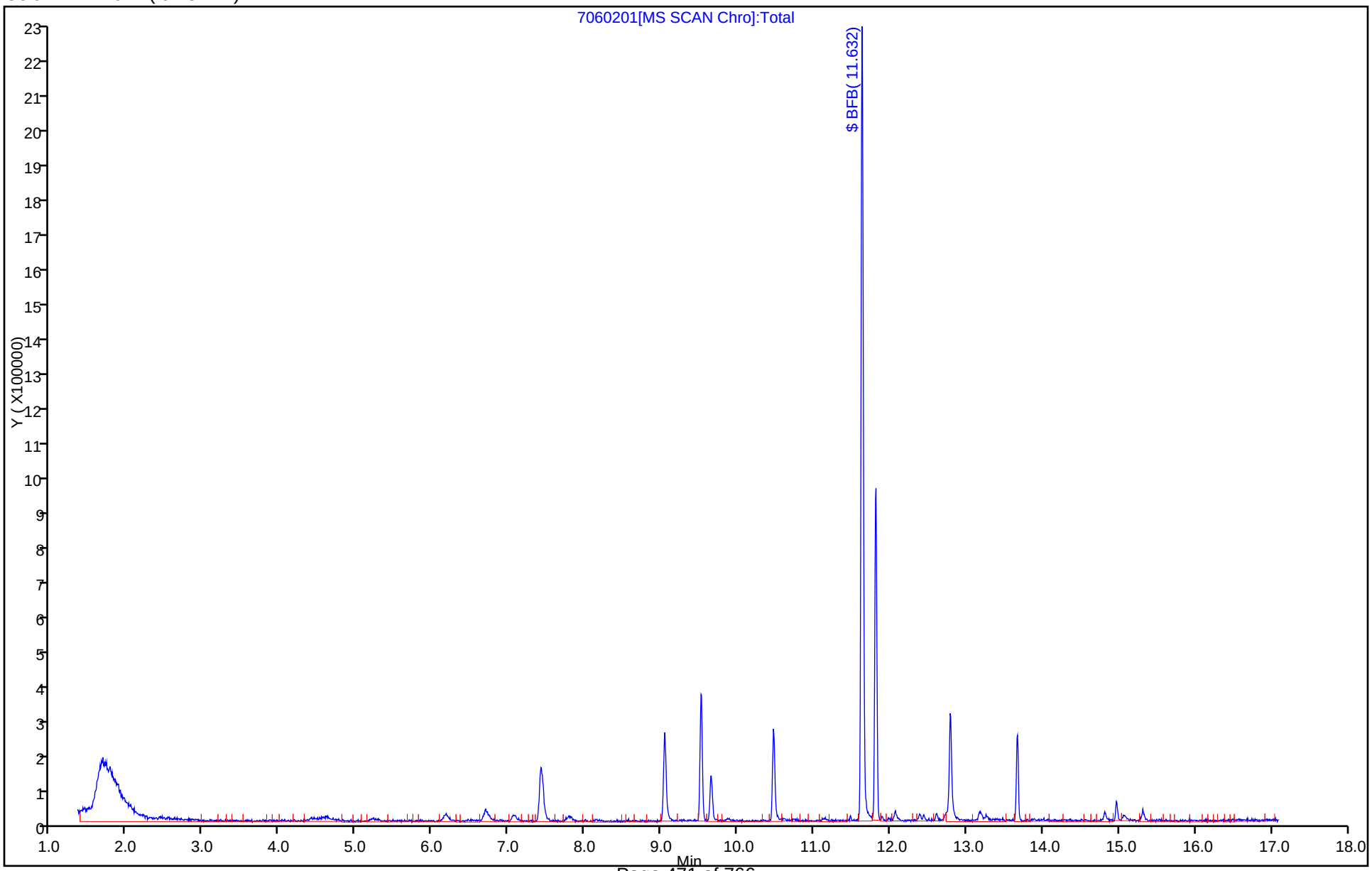
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4210	76.00	19360	118.00	2233	155.00	1152
37.00	24392	77.00	2435	119.00	4215	156.00	129
38.00	21496	78.00	751	121.00	74	157.00	811
39.00	7160	79.00	22920	123.00	162	159.00	797
43.00	490	80.00	5752	124.00	518	160.00	184
44.00	2920	81.00	23672	125.00	166	161.00	648
45.00	3844	82.00	5053	126.00	325	162.00	100
46.00	343	83.00	1169	127.00	147	170.00	281
47.00	3250	85.00	223	128.00	2693	171.00	100
48.00	2310	86.00	427	129.00	1424	172.00	354
49.00	17992	87.00	11547	130.00	1597	173.00	1832
50.00	72056	88.00	13307	131.00	792	174.00	332032
51.00	22224	91.00	2514	134.00	97	175.00	24600
52.00	541	92.00	15051	135.00	1529	176.00	326336
55.00	1583	93.00	21096	136.00	195	177.00	23704
56.00	7318	94.00	56632	137.00	1525	178.00	985
57.00	12813	95.00	402048	138.00	304	184.00	124
58.00	545	96.00	27896	139.00	96	185.00	132
60.00	3294	97.00	764	140.00	549	193.00	105
61.00	22144	98.00	122	141.00	8135	196.00	81
62.00	19784	103.00	442	142.00	687	202.00	104
63.00	17184	104.00	2685	143.00	8297	204.00	148
64.00	1514	105.00	737	144.00	443	207.00	90
65.00	190	106.00	3756	145.00	753	219.00	83
67.00	819	107.00	474	146.00	1047	265.00	82
68.00	40000	110.00	652	147.00	320	268.00	73
69.00	43272	111.00	1224	148.00	1532	282.00	158
70.00	3485	112.00	621	149.00	68	292.00	100
72.00	2152	113.00	1107	150.00	878	295.00	115
73.00	19296	115.00	805	151.00	110		
74.00	78208	116.00	2520	152.00	288		
75.00	219328	117.00	4158	154.00	680		

Report Date: 02-Jun-2015 15:41:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D				
Injection Date:	02-Jun-2015 08:07:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060301.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-Jun-2015 07:45:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007238-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	03-Jun-2015 16:09:37	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK016				
First Level Reviewer: journetp		Date:	03-Jun-2015 08:27:12		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.634	11.634	0.000	0	456857	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

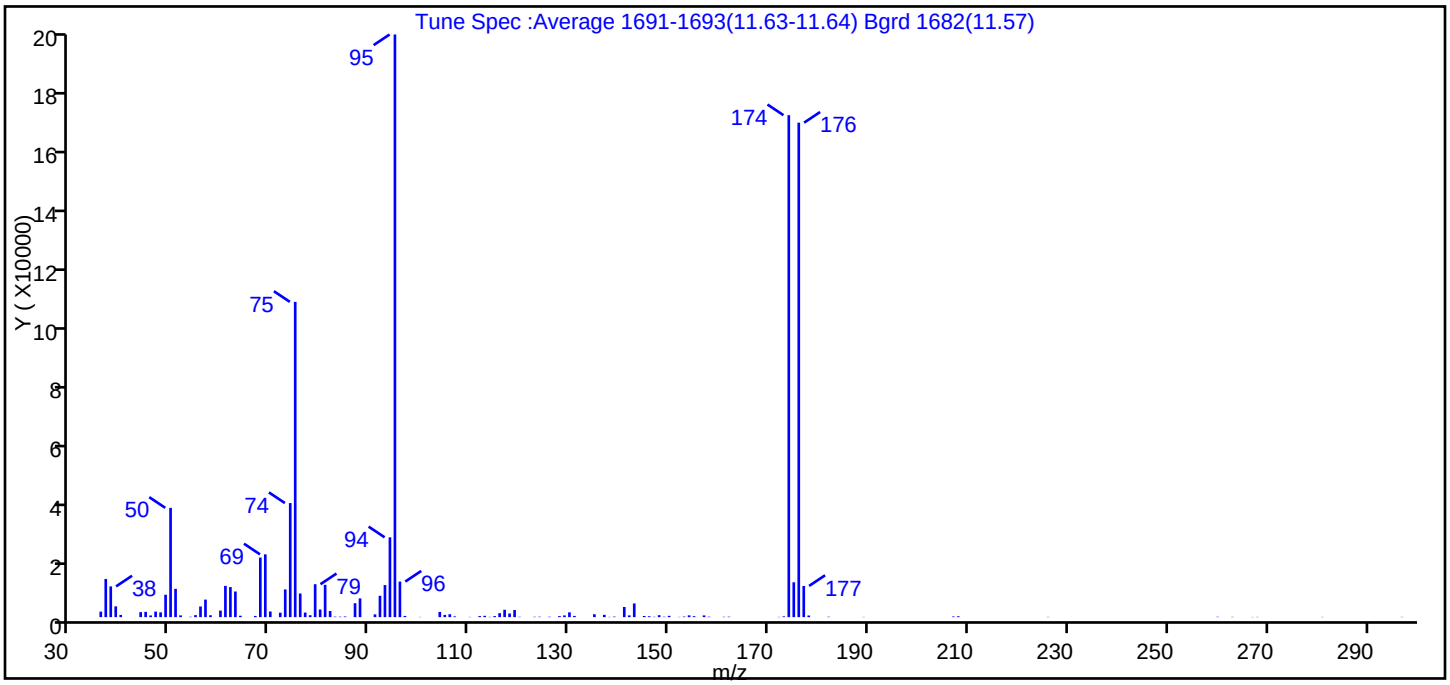
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060301.D
Injection Date: 03-Jun-2015 07:45:30 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_LL_CHHP7 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.8
75	30 to 60% of m/z 95	54.1
96	5 to 9% of m/z 95	6.1
173	Less than 2% of m/z 174	0.1 (0.2)
174	50 to 120% of m/z 95	86.2
175	5 to 9% of m/z 174	6.0 (6.9)
176	Greater than 95% but less than 101% of m/z 174	84.9 (98.5)
177	5 to 9% of m/z 176	5.4 (6.3)

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060301.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 03-Jun-2015 07:45:30
Spectrum: Tune Spec :Average 1691-1693(11.63-11.64) Bgrd 1682(11.57)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1890	73.00	9449	112.00	362	152.00	85
37.00	13022	74.00	38904	113.00	457	153.00	193
38.00	10483	75.00	107520	114.00	87	154.00	613
39.00	3676	76.00	8071	115.00	360	155.00	323
40.00	751	77.00	1566	116.00	1359	157.00	593
44.00	1715	78.00	654	117.00	2507	158.00	152
45.00	1804	79.00	11234	118.00	1244	161.00	121
46.00	573	80.00	2615	119.00	2431	162.00	155
47.00	1896	81.00	11022	120.00	120	172.00	86
48.00	1633	82.00	2093	123.00	126	173.00	268
49.00	7641	83.00	166	124.00	147	174.00	171200
50.00	37280	84.00	157	126.00	135	175.00	11888
51.00	9646	85.00	219	128.00	355	176.00	168640
52.00	604	87.00	4749	129.00	589	177.00	10639
54.00	129	88.00	6392	130.00	1634	178.00	555
55.00	692	91.00	945	131.00	420	182.00	134
56.00	3642	92.00	7286	135.00	986	189.00	74
57.00	5982	93.00	10950	137.00	790	207.00	215
58.00	644	94.00	27232	138.00	84	208.00	289
60.00	2238	95.00	198720	139.00	185	226.00	87
61.00	10656	96.00	12123	141.00	3464	260.00	124
62.00	10251	97.00	411	142.00	596	263.00	96
63.00	8747	100.00	77	143.00	4671	267.00	67
64.00	484	104.00	1781	145.00	399	268.00	83
67.00	414	105.00	772	146.00	307	281.00	78
68.00	20320	106.00	993	147.00	117	297.00	84
69.00	21416	107.00	250	148.00	669		
70.00	1929	110.00	81	149.00	144		
72.00	1518	111.00	2	150.00	449		

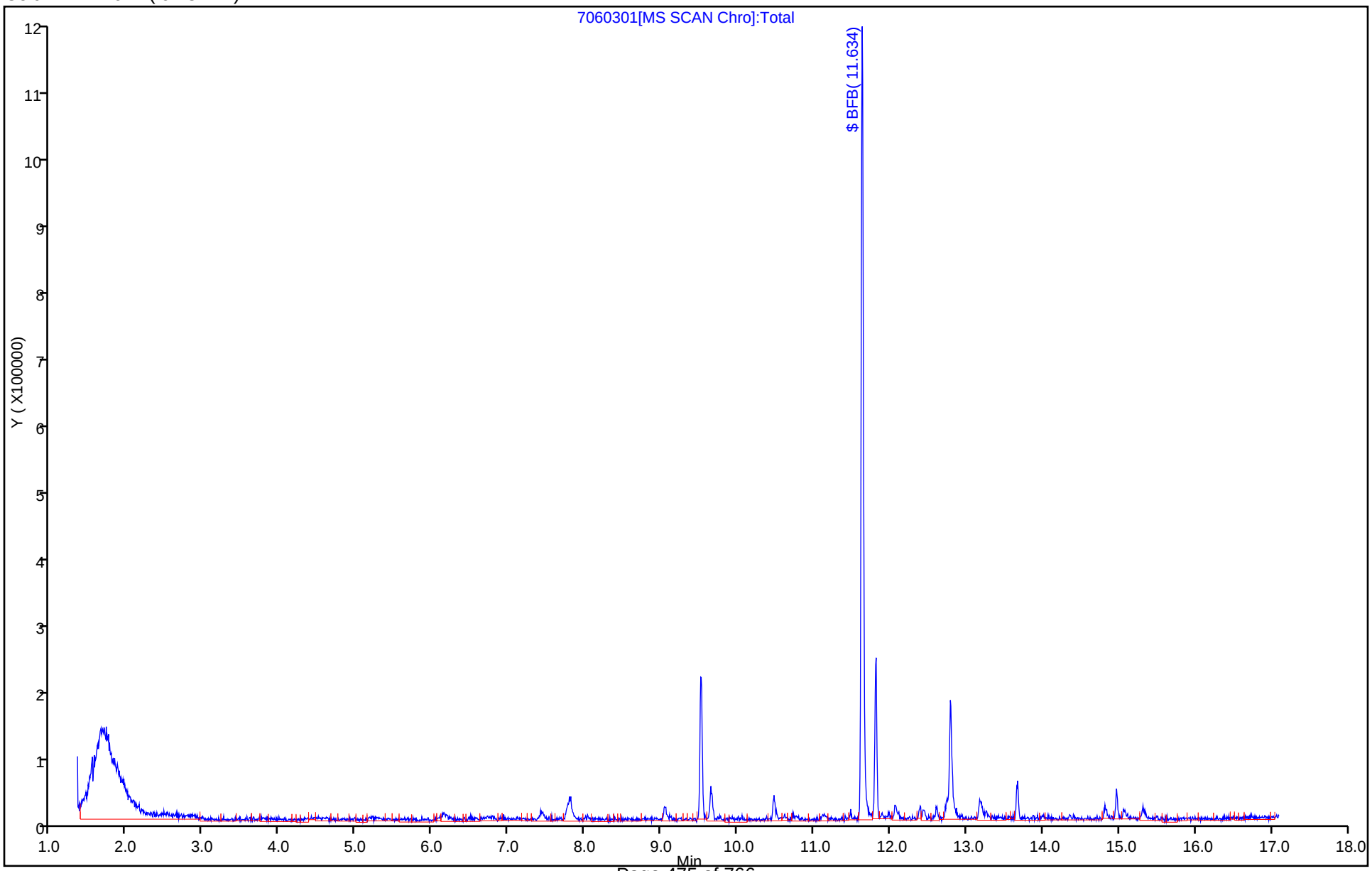
Report Date: 03-Jun-2015 16:09:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060301.D

Injection Date:	03-Jun-2015 07:45:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143422/6

Matrix: Water | Lab File ID: 7060106.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 12:21

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143422/6

Matrix: Water | Lab File ID: 7060106.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 12:21

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060106.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 01-Jun-2015 12:21:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007205-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 01-Jun-2015 12:53:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.598	4.665	-0.067	90	362692	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.403	0.005	99	1370560	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.463	0.005	86	358269	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	96	371489	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.679	-0.001	92	442654	200.0	202.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.038	0.011	92	395052	200.0	189.5	
$ 7 Toluene-d8 (Surr)	98	9.039	9.033	0.006	93	1166821	200.0	219.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.631	-0.001	90	450106	200.0	188.6	
11 Dichlorodifluoromethane	85		1.916					ND	
12 Chloromethane	50		2.049					ND	
14 Butadiene	39		2.208					ND	
13 Vinyl chloride	62		2.232					ND	
15 Bromomethane	94		2.506					ND	
16 Chloroethane	64		2.621					ND	
18 Trichlorofluoromethane	101		2.877					ND	
17 Dichlorofluoromethane	67		2.901					ND	
19 Ethanol	45		3.388					ND	
20 Ethyl ether	59		3.327					ND	
21 Acrolein	56		3.516					ND	
22 1,1-Dichloroethene	96		3.540					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.716					ND	
27 Isopropyl alcohol	45		3.784					ND	
25 Iodomethane	142		3.765					ND	
24 Acetone	43		3.783					ND	
26 Carbon disulfide	76		3.868					ND	
28 3-Chloro-1-propene	76		4.142					ND	
29 Acetonitrile	40		4.210					ND	
30 Methyl acetate	43		4.306					ND	
31 Methylene Chloride	84		4.398					ND	
34 trans-1,2-Dichloroethene	96		4.781					ND	
32 2-Methyl-2-propanol	59		4.787					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 Acrylonitrile	53		4.799					ND	
35 Methyl tert-butyl ether	73		4.854					ND	
38 Vinyl acetate	43		5.170					ND	
36 Hexane	57		5.164					ND	
37 1,1-Dichloroethane	63		5.359					ND	
41 Isopropyl ether	45		5.426					ND	
40 Isopropyl ether TIC	45		5.444					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	77		6.095					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
45 cis-1,2-Dichloroethene	96		6.095					ND	
48 Ethyl acetate	43		6.175					ND	
46 2-Butanone (MEK)	43		6.180					ND	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.387					ND	
47 Propionitrile	54		6.430					ND	
52 Chloroform	83		6.497					ND	
53 1,1,1-Trichloroethane	97		6.679					ND	
51 Tetrahydrofuran	42		6.740					ND	
54 Cyclohexane	56		6.734					ND	
55 1,1-Dichloropropene	75		6.868					ND	
56 Carbon tetrachloride	117		6.862					ND	
58 Benzene	78		7.099					ND	
59 1,2-Dichloroethane	62		7.123					ND	
60 Tert-amyl methyl ether (TI	73		7.227					ND	
57 Isobutyl alcohol	41		7.105					ND	
61 Tert-amyl methyl ether	73	7.402	7.404	-0.002	37	5762			NC
62 n-Heptane	43		7.403					ND	
64 Trichloroethene	130		7.798					ND	
66 Methylcyclohexane	83		7.993					ND	
65 Ethyl acrylate	55		7.994					ND	
69 Methyl methacrylate	69		7.994					ND	
63 n-Butanol	56		8.103					ND	
67 1,2-Dichloropropane	63		8.023					ND	
68 Dibromomethane	93		8.139					ND	
70 1,4-Dioxane	88		8.194					ND	
71 Dichlorobromomethane	83		8.315					ND	
72 2-Nitropropane	41		8.492					ND	
73 2-Chloroethyl vinyl ether	63	8.868	8.766	0.102	1	285			NC
74 cis-1,3-Dichloropropene	75		8.772					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936					ND	
76 Toluene	91		9.100					ND	
77 trans-1,3-Dichloropropene	75		9.325					ND	
78 Ethyl methacrylate	69		9.417					ND	
79 1,1,2-Trichloroethane	97		9.508					ND	
80 Tetrachloroethene	164		9.642					ND	
81 1,3-Dichloropropane	76		9.672					ND	
83 n-Butyl acetate	43		9.758					ND	
82 2-Hexanone	43		9.763					ND	
84 Chlorodibromomethane	129		9.897					ND	
85 Ethylene Dibromide	107		10.007					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.493					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.572					ND	
90 Ethylbenzene	106		10.603					ND	
91 m-Xylene & p-Xylene	106		10.718					ND	
92 o-Xylene	106		11.114					ND	
93 Styrene	104		11.126					ND	
94 Bromoform	173		11.315					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57	11.521	11.473	0.048	0	214			NC
97 Isopropylbenzene	105		11.479					ND	
99 1,1,2,2-Tetrachloroethane	83		11.771					ND	
100 Bromobenzene	156		11.783					ND	
101 1,2,3-Trichloropropane	110		11.813					ND	
102 trans-1,4-Dichloro-2-buten	53		11.832					ND	
103 N-Propylbenzene	120		11.886					ND	
98 Cyclohexanone	55	11.959	11.905	0.054	1	389			NC
104 2-Chlorotoluene	126		11.972					ND	
106 1,3,5-Trimethylbenzene	105		12.057					ND	
105 3-Chlorotoluene	126	11.989	12.082	-0.093	1	212			NC
107 4-Chlorotoluene	126		12.087					ND	
108 tert-Butylbenzene	119		12.385					ND	
109 Pentachloroethane	167		12.404					ND	
110 1,2,4-Trimethylbenzene	105		12.434					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.604					ND	
117 1,2,3-Trimethylbenzene	105	12.749	12.605	0.144	1	224			NC
113 1,3-Dichlorobenzene	146		12.720					ND	
114 4-Isopropyltoluene	119		12.750					ND	
115 1,4-Dichlorobenzene	146		12.811					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91		13.158					ND	
120 n-Butylbenzene	91		13.158					ND	
121 1,2-Dichlorobenzene	146		13.188					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.967					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.800					ND	
127 Hexachlorobutadiene	225		14.971					ND	
128 Naphthalene	128		15.050					ND	
129 1,2,3-Trichlorobenzene	180		15.305					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.541					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
153 1,2 Epoxybutane TIC	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

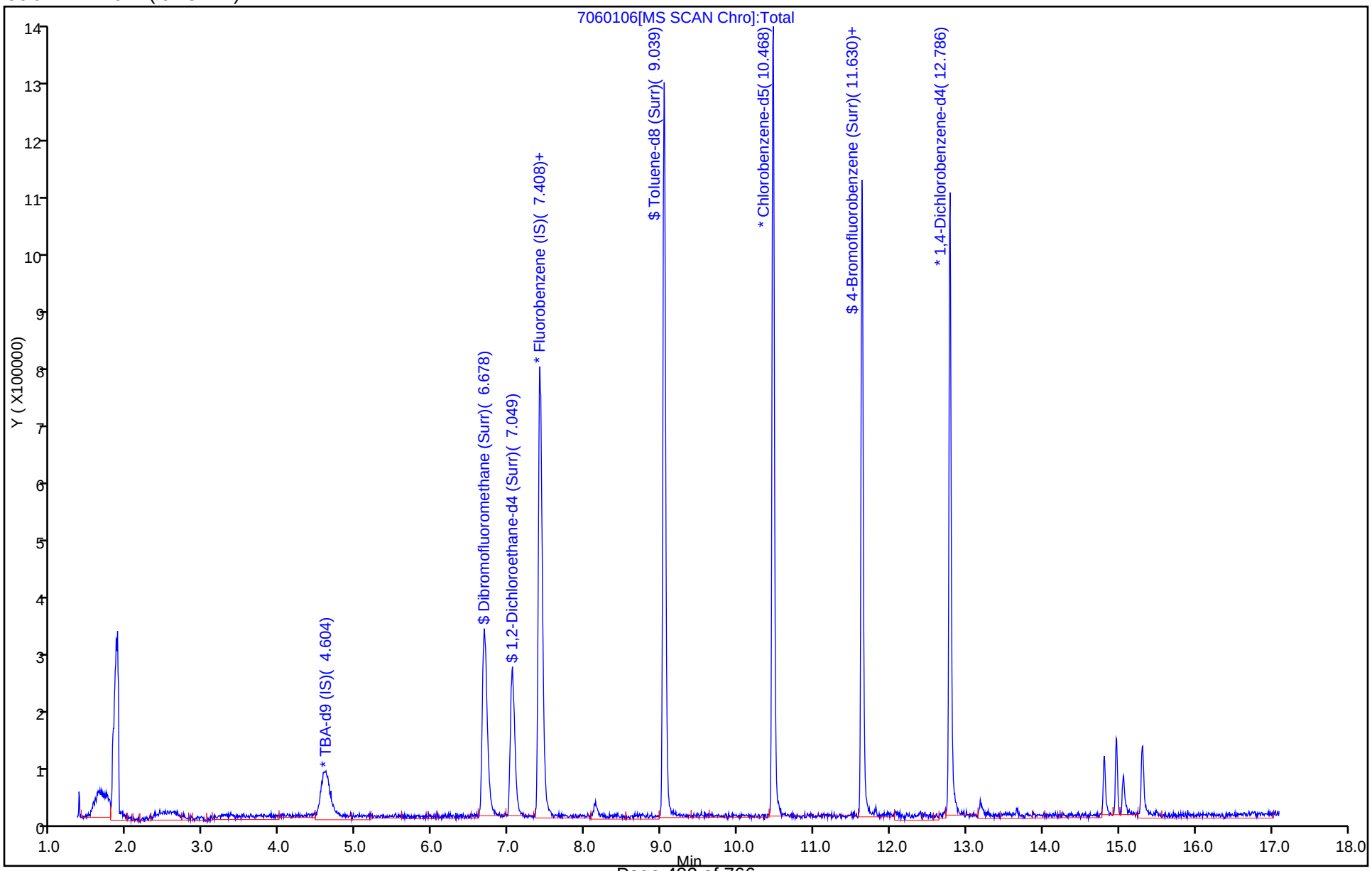
Report Date: 01-Jun-2015 16:53:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060106.D

Injection Date:	01-Jun-2015 12:21:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143527/7

Matrix: Water | Lab File ID: 7060207.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 13:18

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.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143527/7

Matrix: Water | Lab File ID: 7060207.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 13:18

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.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060207.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 02-Jun-2015 13:18:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007217-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 15:41:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 13:52:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.574	4.695	-0.121	97	309665	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.409	7.402	0.007	99	1402793	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	86	372700	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.781	12.786	-0.005	95	404518	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.684	0.001	90	474848	200.0	212.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.043	0.001	92	403015	200.0	188.9	
$ 7 Toluene-d8 (Surr)	98	9.040	9.039	0.001	93	1206766	200.0	218.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	90	509964	200.0	206.7	
11 Dichlorodifluoromethane	85		1.921					ND	
12 Chloromethane	50		2.030					ND	
13 Vinyl chloride	62		2.231					ND	
14 Butadiene	39		2.207					ND	
15 Bromomethane	94		2.493					ND	
16 Chloroethane	64		2.621					ND	
17 Dichlorofluoromethane	67		2.876					ND	
18 Trichlorofluoromethane	101		2.888					ND	
19 Ethanol	45		3.363					ND	
20 Ethyl ether	59		3.357					ND	
21 Acrolein	56		3.509					ND	
22 1,1-Dichloroethene	96		3.588					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.691					ND	
24 Acetone	43		3.801					ND	
27 Isopropyl alcohol	45		3.789					ND	
25 Iodomethane	142		3.801					ND	
26 Carbon disulfide	76		3.837					ND	
28 3-Chloro-1-propene	76		4.148					ND	
29 Acetonitrile	40		4.233					ND	
30 Methyl acetate	43		4.294					ND	
31 Methylene Chloride	84		4.373					ND	
33 Acrylonitrile	53		4.792					ND	
32 2-Methyl-2-propanol	59		4.786					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.792					ND	
35 Methyl tert-butyl ether	73		4.847					ND	
36 Hexane	57		5.170					ND	
38 Vinyl acetate	43		5.176					ND	
41 Isopropyl ether	45		5.310					ND	
37 1,1-Dichloroethane	63		5.358					ND	
40 Isopropyl ether TIC	45		5.444					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
44 2,2-Dichloropropane	77		6.088					ND	
45 cis-1,2-Dichloroethene	96		6.094					ND	
46 2-Butanone (MEK)	43		6.161					ND	
48 Ethyl acetate	43		6.168					ND	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.380					ND	
47 Propionitrile	54		6.430					ND	
52 Chloroform	83		6.496					ND	
53 1,1,1-Trichloroethane	97		6.684					ND	
51 Tetrahydrofuran	42		6.739					ND	
54 Cyclohexane	56		6.739					ND	
56 Carbon tetrachloride	117		6.867					ND	
55 1,1-Dichloropropene	75		6.873					ND	
58 Benzene	78		7.092					ND	
59 1,2-Dichloroethane	62		7.122					ND	
60 Tert-amyl methyl ether (TI	73		7.227					ND	
61 Tert-amyl methyl ether	73	7.409	7.415	-0.006	37	22350			NC
62 n-Heptane	43		7.414					ND	
57 Isobutyl alcohol	41		7.402					ND	
64 Trichloroethene	130		7.792					ND	
66 Methylcyclohexane	83		7.992					ND	
65 Ethyl acrylate	55		7.999					ND	
67 1,2-Dichloropropane	63		8.029					ND	
63 n-Butanol	56	7.963	8.096	-0.133	1	199			NC
69 Methyl methacrylate	69		8.145					ND	
68 Dibromomethane	93		8.150					ND	
70 1,4-Dioxane	88		8.187					ND	
71 Dichlorobromomethane	83		8.315					ND	
72 2-Nitropropane	41	8.620	8.504	0.116	1	85			NC
74 cis-1,3-Dichloropropene	75		8.765					ND	
73 2-Chloroethyl vinyl ether	63	8.602	8.777	-0.175	1	74			NC
75 4-Methyl-2-pentanone (MIBK	43		8.929					ND	
76 Toluene	91		9.099					ND	
77 trans-1,3-Dichloropropene	75		9.325					ND	
78 Ethyl methacrylate	69		9.416					ND	
79 1,1,2-Trichloroethane	97		9.507					ND	
80 Tetrachloroethene	164		9.647					ND	
81 1,3-Dichloropropane	76		9.671					ND	
83 n-Butyl acetate	43		9.757					ND	
82 2-Hexanone	43		9.763					ND	
84 Chlorodibromomethane	129		9.896					ND	
85 Ethylene Dibromide	107		10.012					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.493					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.572					ND	
90 Ethylbenzene	106		10.602					ND	
91 m-Xylene & p-Xylene	106		10.718					ND	
92 o-Xylene	106		11.113					ND	
93 Styrene	104		11.125					ND	
94 Bromoform	173		11.314					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57		11.466					ND	
97 Isopropylbenzene	105		11.478					ND	
99 1,1,2,2-Tetrachloroethane	83		11.770					ND	
100 Bromobenzene	156		11.782					ND	
101 1,2,3-Trichloropropane	110		11.819					ND	
102 trans-1,4-Dichloro-2-buten	53		11.825					ND	
103 N-Propylbenzene	120		11.886					ND	
98 Cyclohexanone	55	11.905	11.916	-0.011	1	226			NC
104 2-Chlorotoluene	126		11.977					ND	
106 1,3,5-Trimethylbenzene	105		12.062					ND	
105 3-Chlorotoluene	126	11.996	12.087	-0.091	1	140			NC
107 4-Chlorotoluene	126		12.086					ND	
108 tert-Butylbenzene	119		12.385					ND	
109 Pentachloroethane	167		12.409					ND	
110 1,2,4-Trimethylbenzene	105		12.433					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.604					ND	
117 1,2,3-Trimethylbenzene	105	12.446	12.604	-0.158	1	1953			NC
113 1,3-Dichlorobenzene	146		12.719					ND	
114 4-Isopropyltoluene	119		12.750					ND	
115 1,4-Dichlorobenzene	146		12.810					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
120 n-Butylbenzene	91		13.163					ND	
119 Benzyl chloride	91		13.163					ND	
121 1,2-Dichlorobenzene	146		13.188					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.966					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.800					ND	
127 Hexachlorobutadiene	225		14.970					ND	
128 Naphthalene	128		15.049					ND	
129 1,2,3-Trichlorobenzene	180		15.305					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142	16.589	16.541	0.048	1	178			NC
147 2,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Isooctane	57		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
149 3,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

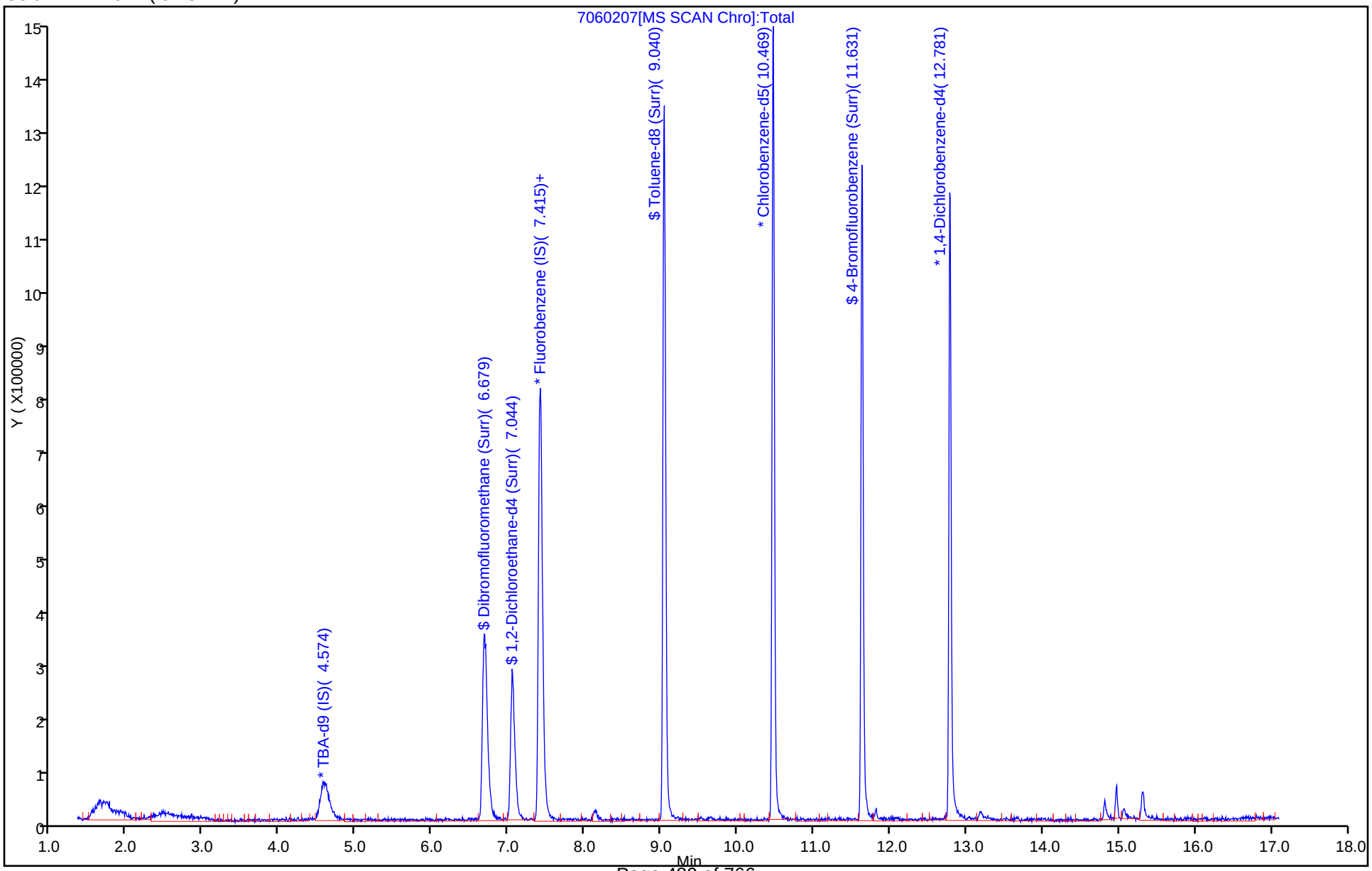
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 02-Jun-2015 15:41:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060207.D				
Injection Date:	02-Jun-2015 13:18:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143682/6

Matrix: Water | Lab File ID: 7060306.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 11:43

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143682/6

Matrix: Water | Lab File ID: 7060306.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 11:43

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060306.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 03-Jun-2015 11:43:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007238-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 17:35:04 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 12:24:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.608	4.629	-0.021	91	320412	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.412	7.415	-0.003	99	1306693	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.466	10.469	-0.003	86	330411	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.784	12.787	-0.003	96	365907	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.682	6.685	-0.003	91	376554	200.0	180.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.047	7.056	-0.009	94	305292	200.0	153.6	
$ 7 Toluene-d8 (Surr)	98	9.042	9.039	0.003	93	963816	200.0	196.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.634	11.631	0.003	90	393090	200.0	177.8	
11 Dichlorodifluoromethane	85		1.958					ND	
12 Chloromethane	50		2.031					ND	
14 Butadiene	39		2.238					ND	
13 Vinyl chloride	62		2.250					ND	
15 Bromomethane	94		2.518					ND	
16 Chloroethane	64		2.645					ND	
18 Trichlorofluoromethane	101		2.931					ND	
17 Dichlorofluoromethane	67		2.931					ND	
19 Ethanol	45		3.321					ND	
20 Ethyl ether	59		3.345					ND	
21 Acrolein	56		3.493					ND	
22 1,1-Dichloroethene	96		3.619					ND	
27 Isopropyl alcohol	45		3.771					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.773					ND	
24 Acetone	43		3.783					ND	
25 Iodomethane	142		3.813					ND	
26 Carbon disulfide	76		3.929					ND	
29 Acetonitrile	40		4.203					ND	
28 3-Chloro-1-propene	76		4.215					ND	
30 Methyl acetate	43		4.318					ND	
31 Methylene Chloride	84		4.422					ND	
32 2-Methyl-2-propanol	59		4.756					ND	
33 Acrylonitrile	53		4.787					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.805					ND	
35 Methyl tert-butyl ether	73		4.854					ND	
38 Vinyl acetate	43		5.188					ND	
36 Hexane	57		5.194					ND	
41 Isopropyl ether	45		5.310					ND	
37 1,1-Dichloroethane	63		5.371					ND	
40 Isopropyl ether TIC	45		5.444					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
44 2,2-Dichloropropane	77		6.095					ND	
45 cis-1,2-Dichloroethene	96		6.119					ND	
48 Ethyl acetate	43		6.168					ND	
46 2-Butanone (MEK)	43		6.168					ND	
47 Propionitrile	54		6.265					ND	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.387					ND	
52 Chloroform	83		6.502					ND	
53 1,1,1-Trichloroethane	97		6.685					ND	
54 Cyclohexane	56		6.758					ND	
51 Tetrahydrofuran	42		6.758					ND	
56 Carbon tetrachloride	117		6.873					ND	
55 1,1-Dichloropropene	75		6.880					ND	
58 Benzene	78		7.105					ND	
59 1,2-Dichloroethane	62		7.135					ND	
60 Tert-amyl methyl ether (TI	73		7.227					ND	
61 Tert-amyl methyl ether	73		7.397					ND	
57 Isobutyl alcohol	41		7.421					ND	
62 n-Heptane	43		7.421					ND	
64 Trichloroethene	130		7.804					ND	
65 Ethyl acrylate	55		7.993					ND	
69 Methyl methacrylate	69		7.993					ND	
66 Methylcyclohexane	83		7.999					ND	
67 1,2-Dichloropropane	63		8.029					ND	
63 n-Butanol	56		8.108					ND	
68 Dibromomethane	93		8.157					ND	
70 1,4-Dioxane	88		8.175					ND	
71 Dichlorobromomethane	83		8.321					ND	
72 2-Nitropropane	41		8.406					ND	
74 cis-1,3-Dichloropropene	75		8.771					ND	
73 2-Chloroethyl vinyl ether	63		8.771					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936					ND	
76 Toluene	91		9.106					ND	
77 trans-1,3-Dichloropropene	75		9.325					ND	
78 Ethyl methacrylate	69		9.422					ND	
79 1,1,2-Trichloroethane	97		9.508					ND	
80 Tetrachloroethene	164		9.648					ND	
81 1,3-Dichloropropane	76		9.672					ND	
82 2-Hexanone	43		9.757					ND	
83 n-Butyl acetate	43		9.757					ND	
84 Chlorodibromomethane	129		9.897					ND	
85 Ethylene Dibromide	107		10.006					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.499					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.578					ND	
90 Ethylbenzene	106		10.609					ND	
91 m-Xylene & p-Xylene	106		10.718					ND	
92 o-Xylene	106		11.114					ND	
93 Styrene	104		11.126					ND	
94 Bromoform	173		11.314					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57		11.466					ND	
97 Isopropylbenzene	105		11.479					ND	
99 1,1,2,2-Tetrachloroethane	83		11.771					ND	
100 Bromobenzene	156		11.783					ND	
101 1,2,3-Trichloropropane	110		11.819					ND	
102 trans-1,4-Dichloro-2-buten	53		11.831					ND	
103 N-Propylbenzene	120		11.886					ND	
98 Cyclohexanone	55		11.892					ND	
104 2-Chlorotoluene	126		11.977					ND	
106 1,3,5-Trimethylbenzene	105		12.063					ND	
105 3-Chlorotoluene	126		12.087					ND	
107 4-Chlorotoluene	126		12.087					ND	
108 tert-Butylbenzene	119		12.385					ND	
109 Pentachloroethane	167		12.409					ND	
110 1,2,4-Trimethylbenzene	105		12.434					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.604					ND	
117 1,2,3-Trimethylbenzene	105		12.604					ND	
113 1,3-Dichlorobenzene	146		12.720					ND	
114 4-Isopropyltoluene	119		12.750					ND	
115 1,4-Dichlorobenzene	146		12.811					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91		13.158					ND	
120 n-Butylbenzene	91		13.158					ND	
121 1,2-Dichlorobenzene	146		13.188					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.973					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.812					ND	
127 Hexachlorobutadiene	225		14.964					ND	
128 Naphthalene	128		15.074					ND	
129 1,2,3-Trichlorobenzene	180		15.311					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.558					ND	
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
146 2,5-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Reagents:

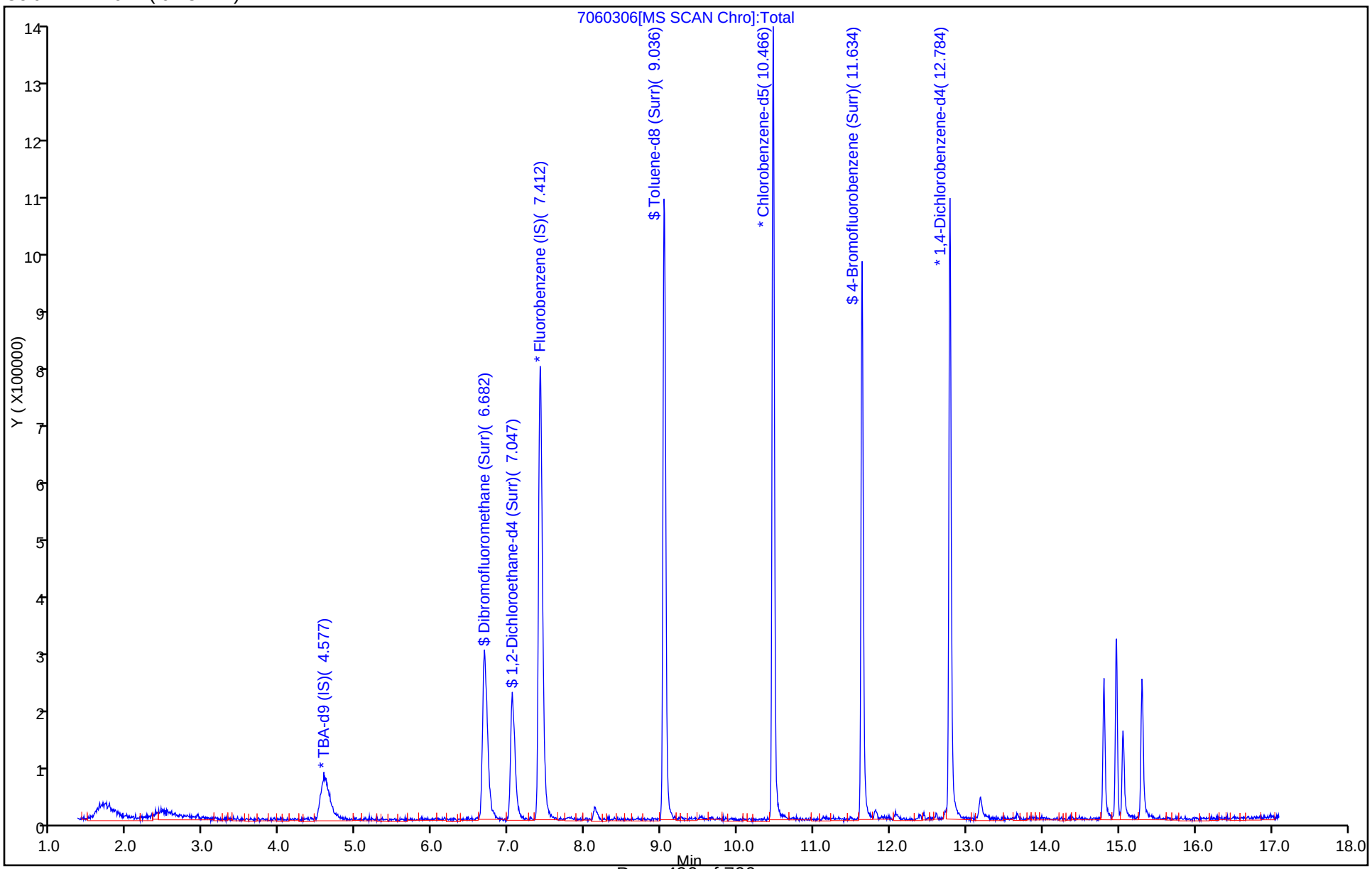
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Jun-2015 17:35:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060306.D				
Injection Date:	03-Jun-2015 11:43:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143422/8

Matrix: Water | Lab File ID: 7060108.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 13:26

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.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	4.93		1.0	0.28
75-01-4	Vinyl chloride	5.37		1.0	0.23
74-83-9	Bromomethane	6.93		1.0	0.31
75-00-3	Chloroethane	5.69		1.0	0.21
75-35-4	1,1-Dichloroethene	9.34		1.0	0.30
67-64-1	Acetone	21.8		5.0	2.5
75-15-0	Carbon disulfide	11.4		1.0	0.21
75-09-2	Methylene Chloride	11.7		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.80		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.7		1.0	0.18
75-34-3	1,1-Dichloroethane	11.0		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.7		1.0	0.24
74-97-5	Bromochloromethane	10.0		1.0	0.18
78-93-3	2-Butanone (MEK)	16.4		5.0	0.55
67-66-3	Chloroform	11.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.1		1.0	0.29
56-23-5	Carbon tetrachloride	9.96		1.0	0.14
71-43-2	Benzene	9.00		1.0	0.11
107-06-2	1,2-Dichloroethane	10.3		1.0	0.21
79-01-6	Trichloroethene	8.52		1.0	0.14
78-87-5	1,2-Dichloropropane	10.4		1.0	0.095
75-27-4	Bromodichloromethane	11.0		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.86		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.3		5.0	0.53
108-88-3	Toluene	9.83		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.64		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	8.73		1.0	0.15
591-78-6	2-Hexanone	20.7		5.0	0.16
124-48-1	Dibromochloromethane	10.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.8		1.0	0.28
100-41-4	Ethylbenzene	9.31		1.0	0.23
1330-20-7	Xylenes, Total	18.9		3.0	0.49
100-42-5	Styrene	10.3		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143422/8

Matrix: Water | Lab File ID: 7060108.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 13:26

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.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.71		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.82		1.0	0.20
107-13-1	Acrylonitrile	105		20	0.55
123-91-1	1,4-Dioxane	179	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 01-Jun-2015 13:26:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007205-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:16:16 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: journetp Date: 01-Jun-2015 17:06:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.656	4.666	-0.010	93	291851	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.404	0.001	96	918645	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.465	10.470	-0.005	85	264285	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.787	0.002	93	299791	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.680	-0.005	79	302400	200.0	206.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.053	7.038	0.015	79	277328	200.0	198.5	
$ 7 Toluene-d8 (Surr)	98	9.036	9.034	0.002	93	881369	200.0	224.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.632	-0.005	88	376852	200.0	216.0	
11 Dichlorodifluoromethane	85	1.936	1.928	0.008	17	95600	200.0	56.1	
12 Chloromethane	50	2.046	2.032	0.014	80	182723	200.0	98.5	M
14 Butadiene	39	2.222	2.184	0.038	88	129464	200.0	84.9	
13 Vinyl chloride	62	2.204	2.245	-0.041	81	155221	200.0	107.5	M
15 Bromomethane	94	2.533	2.518	0.015	82	161384	200.0	138.6	
16 Chloroethane	64	2.630	2.646	-0.016	76	132608	200.0	113.8	
18 Trichlorofluoromethane	101	2.806	2.829	-0.023	80	432214	200.0	132.5	
17 Dichlorofluoromethane	67	2.916	2.896	0.020	77	447349	200.0	144.3	
20 Ethyl ether	59	3.323	3.395	-0.071	71	175856	200.0	169.9	
21 Acrolein	56	3.536	3.516	0.020	23	16545	600.0	231.5	
22 1,1-Dichloroethene	96	3.542	3.583	-0.041	94	230487	200.0	186.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.755	3.716	0.039	50	238411	200.0	166.2	
25 Iodomethane	142	3.804	3.790	0.014	100	538924	200.0	208.9	
24 Acetone	43	3.780	3.796	-0.016	37	124944	400.0	435.3	
26 Carbon disulfide	76	3.865	3.881	-0.016	98	841686	200.0	227.2	
28 3-Chloro-1-propene	76	4.163	4.173	-0.010	63	167901	200.0	184.6	
30 Methyl acetate	43	4.297	4.289	0.008	99	550484	1000.0	899.4	
31 Methylene Chloride	84	4.358	4.380	-0.022	92	310246	200.0	234.4	
34 trans-1,2-Dichloroethene	96	4.753	4.763	-0.010	93	300003	200.0	196.0	
32 2-Methyl-2-propanol	59	4.777	4.782	-0.005	61	168355	2000.0	17749	E
33 Acrylonitrile	53	4.777	4.794	-0.017	96	513666	2000.0	2098.0	
35 Methyl tert-butyl ether	73	4.838	4.854	-0.016	96	707056	200.0	234.4	
36 Hexane	57	5.173	5.177	-0.004	93	120576	200.0	75.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.349	5.359	-0.010	97	491976	200.0	219.3	
44 2,2-Dichloropropane	77	6.098	6.083	0.015	82	408071	200.0	217.8	
45 cis-1,2-Dichloroethene	96	6.091	6.102	-0.011	84	325807	200.0	214.5	
46 2-Butanone (MEK)	43	6.164	6.175	-0.011	99	134938	400.0	327.7	
49 Chlorobromomethane	128	6.383	6.381	0.002	83	175468	200.0	200.6	
52 Chloroform	83	6.499	6.497	0.002	95	553846	200.0	219.3	
53 1,1,1-Trichloroethane	97	6.675	6.680	-0.005	98	509182	200.0	222.0	
51 Tetrahydrofuran	42	6.736	6.728	0.008	50	83928	400.0	372.5	
54 Cyclohexane	56	6.736	6.746	-0.010	92	288676	200.0	178.4	
55 1,1-Dichloropropene	75	6.870	6.862	0.008	81	277523	200.0	167.6	
56 Carbon tetrachloride	117	6.858	6.868	-0.010	95	460921	200.0	199.2	
58 Benzene	78	7.101	7.099	0.002	96	813493	200.0	179.9	
59 1,2-Dichloroethane	62	7.120	7.124	-0.004	98	315689	200.0	206.7	
57 Isobutyl alcohol	41	7.095	7.251	-0.156	42	91235	5000.0	2473.8	
62 n-Heptane	43	7.412	7.410	0.002	52	184260	200.0	131.5	
64 Trichloroethene	130	7.795	7.793	0.002	93	308847	200.0	170.4	
66 Methylcyclohexane	83	7.983	7.988	-0.005	87	351924	200.0	157.9	
67 1,2-Dichloropropane	63	8.020	8.140	-0.120	90	213370	200.0	207.2	
68 Dibromomethane	93	8.142	8.146	-0.004	96	152431	200.0	198.7	
70 1,4-Dioxane	88	8.196	8.188	0.008	80	25793	4000.0	3583.1	
71 Dichlorobromomethane	83	8.312	8.316	-0.004	98	421172	200.0	220.6	
74 cis-1,3-Dichloropropene	75	8.768	8.766	0.002	92	390618	200.0	197.2	
75 4-Methyl-2-pentanone (MIBK	43	8.932	8.937	-0.005	95	298224	400.0	386.2	
76 Toluene	91	9.103	9.101	0.002	98	932738	200.0	196.6	
77 trans-1,3-Dichloropropene	75	9.328	9.320	0.008	96	320300	200.0	192.8	
78 Ethyl methacrylate	69	9.419	9.417	0.002	87	225478	200.0	204.0	
79 1,1,2-Trichloroethane	97	9.510	9.502	0.008	89	207470	200.0	218.7	
80 Tetrachloroethene	164	9.644	9.642	0.002	94	222130	200.0	174.7	
81 1,3-Dichloropropane	76	9.675	9.673	0.002	93	303008	200.0	216.1	
82 2-Hexanone	43	9.760	9.758	0.002	97	206689	400.0	414.9	
84 Chlorodibromomethane	129	9.900	9.898	0.002	89	334192	200.0	204.9	
85 Ethylene Dibromide	107	10.009	10.007	0.002	98	220981	200.0	205.7	
87 Chlorobenzene	112	10.496	10.500	-0.004	95	706755	200.0	209.8	
89 1,1,1,2-Tetrachloroethane	131	10.575	10.573	0.002	93	351699	200.0	215.9	
90 Ethylbenzene	106	10.605	10.603	0.002	98	356426	200.0	186.2	
91 m-Xylene & p-Xylene	106	10.715	10.719	-0.004	98	471324	200.0	182.6	
92 o-Xylene	106	11.110	11.108	0.002	96	506755	200.0	195.5	
93 Styrene	104	11.122	11.127	-0.005	93	732532	200.0	205.6	
94 Bromoform	173	11.305	11.315	-0.010	94	179366	200.0	194.1	
97 Isopropylbenzene	105	11.475	11.473	0.002	96	1196446	200.0	187.1	
99 1,1,2,2-Tetrachloroethane	83	11.767	11.771	-0.004	97	195429	200.0	196.3	
100 Bromobenzene	156	11.786	11.784	0.002	89	340826	200.0	265.3	
101 1,2,3-Trichloropropane	110	11.816	11.820	-0.004	82	69034	200.0	240.0	
102 trans-1,4-Dichloro-2-buten	53	11.828	11.826	0.002	66	39076	200.0	216.9	
103 N-Propylbenzene	120	11.883	11.887	-0.004	98	338765	200.0	214.8	
104 2-Chlorotoluene	126	11.974	11.972	0.002	97	332347	200.0	232.1	
106 1,3,5-Trimethylbenzene	105	12.059	12.057	0.002	96	957002	200.0	265.7	
107 4-Chlorotoluene	126	12.084	12.173	-0.089	96	312138	200.0	227.5	
108 tert-Butylbenzene	119	12.388	12.386	0.002	93	906028	200.0	204.1	
110 1,2,4-Trimethylbenzene	105	12.430	12.435	-0.005	97	938200	200.0	245.0	
112 sec-Butylbenzene	105	12.607	12.605	0.002	95	1113183	200.0	223.8	
113 1,3-Dichlorobenzene	146	12.722	12.720	0.002	97	533245	200.0	208.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.747	12.751	-0.004	96	944452	200.0	207.0	
115 1,4-Dichlorobenzene	146	12.808	12.812	-0.004	94	484091	200.0	203.6	
120 n-Butylbenzene	91	13.160	13.158	0.002	97	700101	200.0	179.4	
121 1,2-Dichlorobenzene	146	13.185	13.189	-0.004	96	410989	200.0	176.4	
122 1,2-Dibromo-3-Chloropropan	75	13.976	13.980	-0.004	88	27274	200.0	231.5	
126 1,2,4-Trichlorobenzene	180	14.803	14.807	-0.004	92	137448	200.0	186.1	
127 Hexachlorobutadiene	225	14.967	14.965	0.002	95	69403	200.0	156.8	
128 Naphthalene	128	15.052	15.063	-0.011	96	248010	200.0	205.0	
129 1,2,3-Trichlorobenzene	180	15.308	15.300	0.008	94	87987	200.0	174.1	
S 133 Xylenes, Total	106				0		400.0	378.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	410.6	
S 135 1,3-Dichloropropene, Total	1				0		400.0	390.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added: 8.00	Units: uL		
voaWketPri Re_00005	Amount Added: 8.00	Units: uL		
voaWacro2 Res_00003	Amount Added: 24.00	Units: uL		
VOA8260SURR_00036	Amount Added: 8.00	Units: uL	Run Reagent	
VOA8260INT_00036	Amount Added: 8.00	Units: uL	Run Reagent	

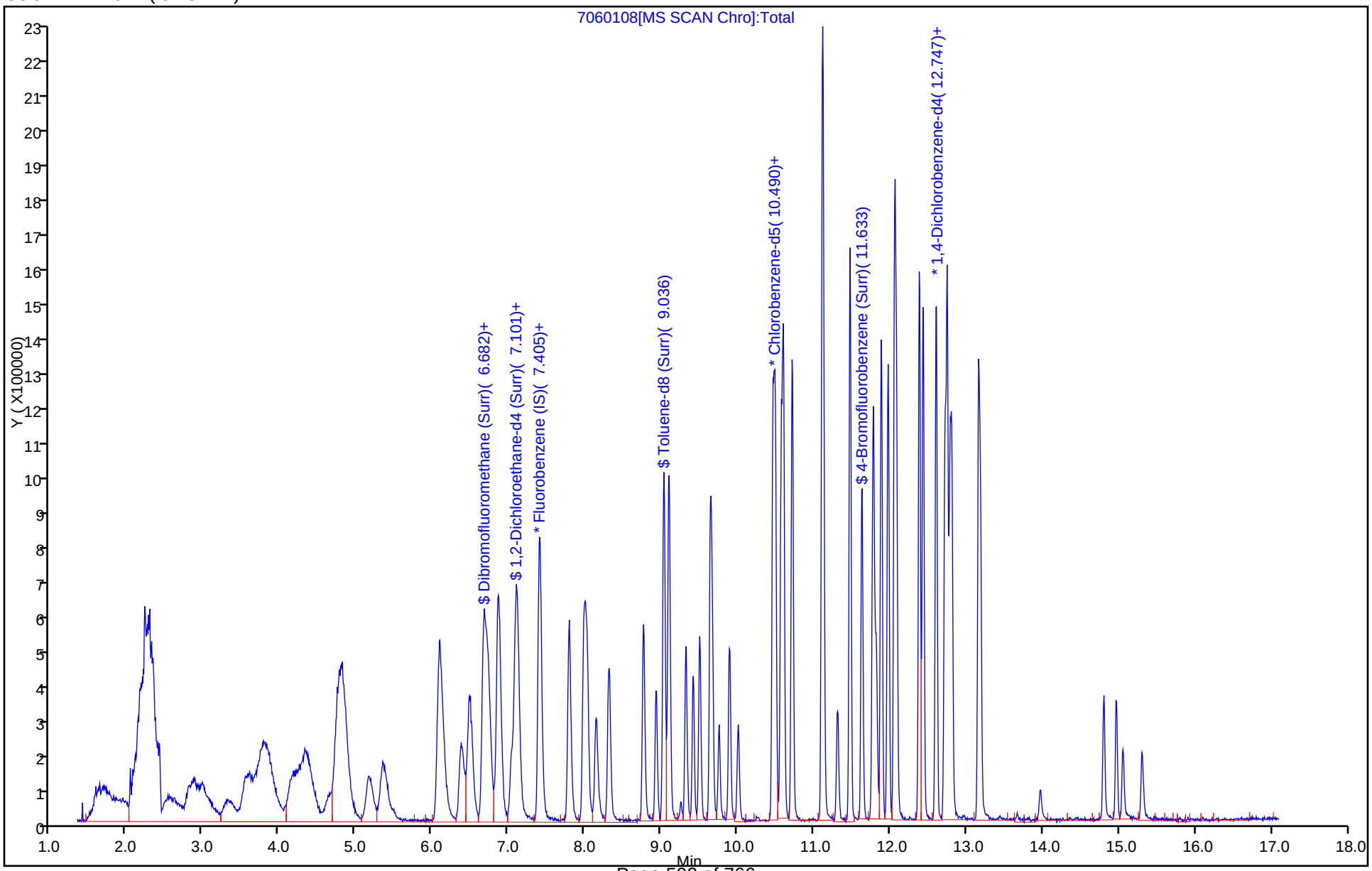
Report Date: 01-Jun-2015 17:16:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D

Injection Date:	01-Jun-2015 13:26:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

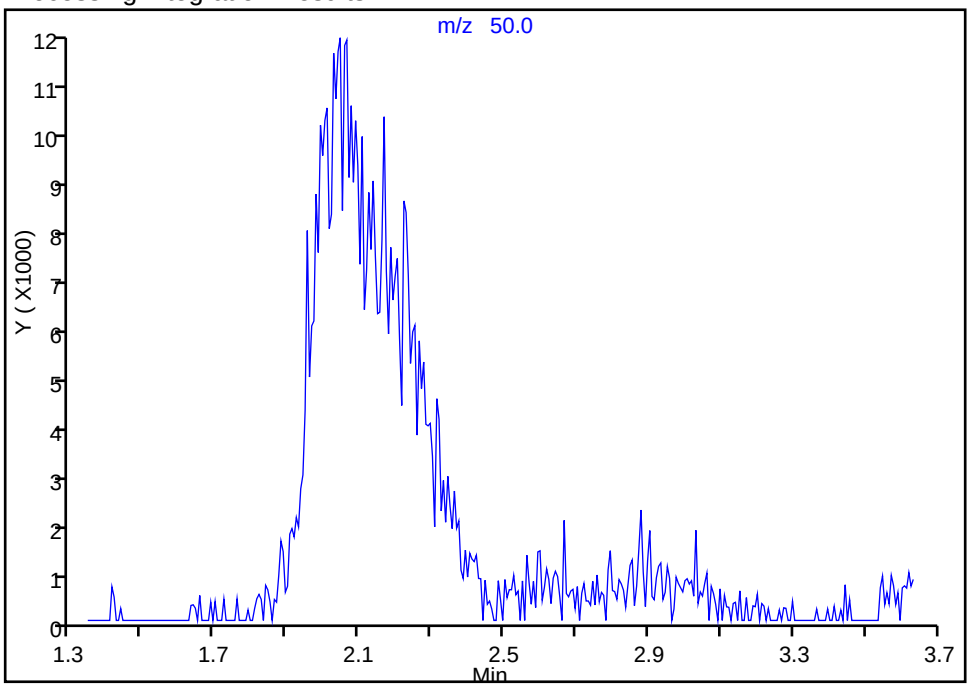
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D				
Injection Date:	01-Jun-2015 13:26:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

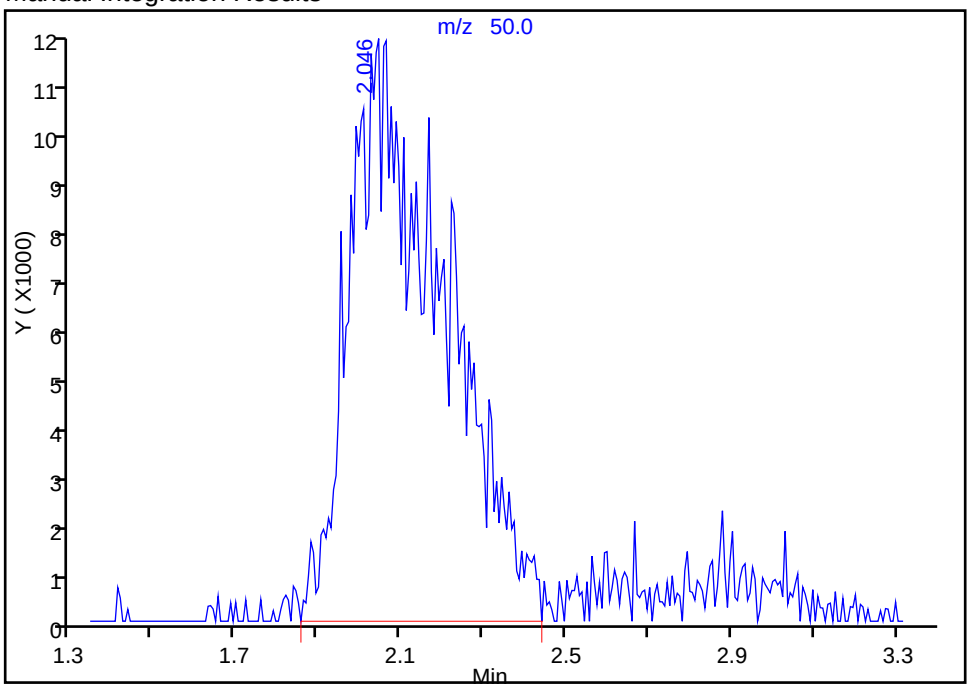
Not Detected
Expected RT: 2.03

Processing Integration Results



Manual Integration Results

RT: 2.05
Area: 182723
Amount: 98.501945
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 14:03:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

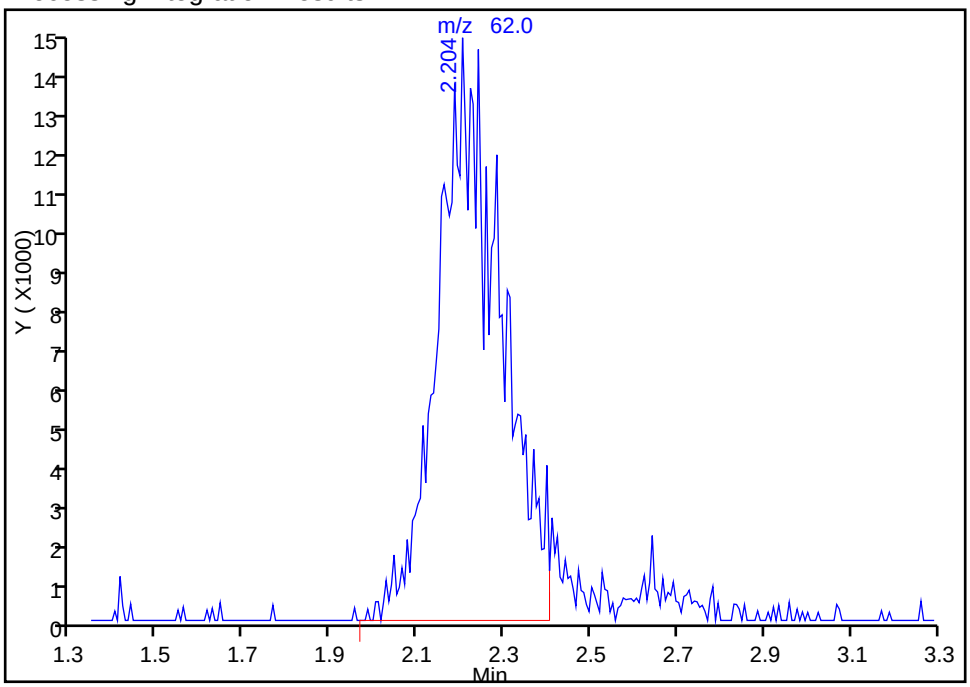
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D
Injection Date: 01-Jun-2015 13:26:30 Instrument ID: CHHP7
Lims ID: lcs
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

13 Vinyl chloride, CAS: 75-01-4

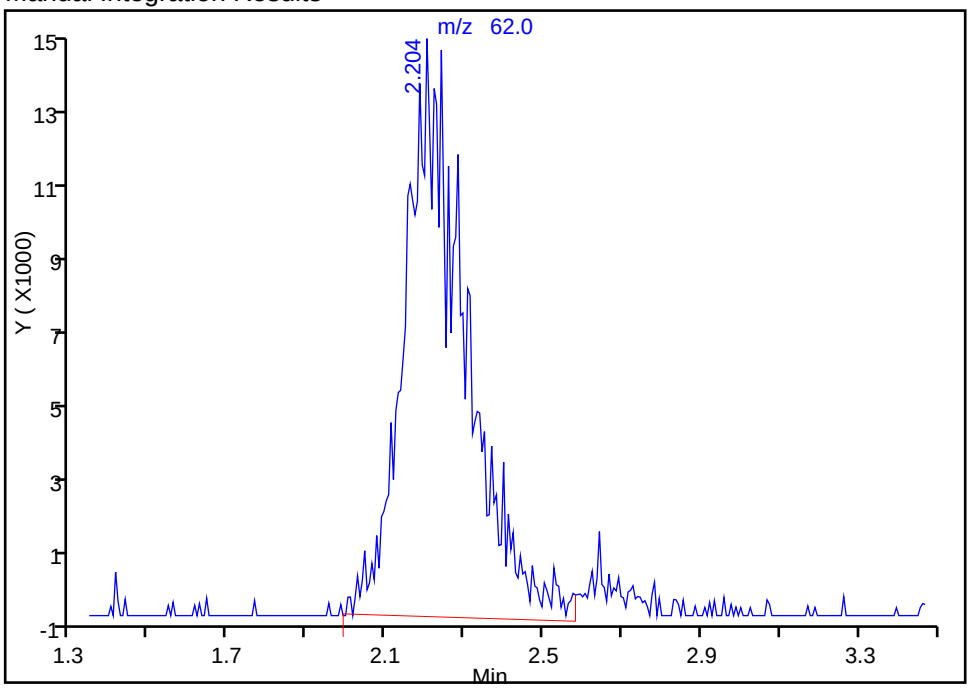
Processing Integration Results

RT: 2.20
Area: 144815
Amount: 100.2471
Amount Units: ng



Manual Integration Results

RT: 2.20
Area: 155221
Amount: 107.4506
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 13:58:47
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143527/10

Matrix: Water | Lab File ID: 7060210.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 14:40

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.52		1.0	0.28
75-01-4	Vinyl chloride	6.88		1.0	0.23
74-83-9	Bromomethane	8.46		1.0	0.31
75-00-3	Chloroethane	8.01		1.0	0.21
75-35-4	1,1-Dichloroethene	8.19		1.0	0.30
67-64-1	Acetone	12.2		5.0	2.5
75-15-0	Carbon disulfide	8.08		1.0	0.21
75-09-2	Methylene Chloride	11.9		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.6		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.5		1.0	0.18
75-34-3	1,1-Dichloroethane	12.1		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.2		1.0	0.24
74-97-5	Bromochloromethane	10.6		1.0	0.18
78-93-3	2-Butanone (MEK)	17.2		5.0	0.55
67-66-3	Chloroform	11.5		1.0	0.17
71-55-6	1,1,1-Trichloroethane	12.6		1.0	0.29
56-23-5	Carbon tetrachloride	12.2		1.0	0.14
71-43-2	Benzene	10.6		1.0	0.11
107-06-2	1,2-Dichloroethane	10.7		1.0	0.21
79-01-6	Trichloroethene	10.0		1.0	0.14
78-87-5	1,2-Dichloropropane	10.4		1.0	0.095
75-27-4	Bromodichloromethane	11.2		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.9		5.0	0.53
108-88-3	Toluene	10.2		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.86		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.92		1.0	0.20
127-18-4	Tetrachloroethene	10.8		1.0	0.15
591-78-6	2-Hexanone	20.6		5.0	0.16
124-48-1	Dibromochloromethane	10.1		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.63		1.0	0.18
108-90-7	Chlorobenzene	10.8		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.6		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.2		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143527/10

Matrix: Water | Lab File ID: 7060210.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 14:40

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.89		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.37		1.0	0.20
107-13-1	Acrylonitrile	91.2		20	0.55
123-91-1	1,4-Dioxane	192	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 02-Jun-2015 14:40:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007217-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 09:01:24 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 09:00:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.616	4.568	0.048	95	271285	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.415	-0.007	94	1048432	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	0.000	86	316438	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	96	356058	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.690	6.691	-0.001	86	368881	200.0	220.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.050	-0.007	88	332462	200.0	208.5	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	92	1019780	200.0	217.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	437492	200.0	209.0	
11 Dichlorodifluoromethane	85	1.921	1.982	-0.061	56	260041	200.0	133.8	
12 Chloromethane	50	2.037	2.049	-0.012	89	276210	200.0	130.5	
13 Vinyl chloride	62	2.219	2.219	0.000	90	226795	200.0	137.6	
14 Butadiene	39	2.207	2.238	-0.031	87	221552	200.0	127.2	
15 Bromomethane	94	2.554	2.578	-0.024	87	224748	200.0	169.2	
16 Chloroethane	64	2.688	2.651	0.037	50	213158	200.0	160.3	
17 Dichlorofluoromethane	67	2.949	2.949	0.000	77	559475	200.0	158.1	
18 Trichlorofluoromethane	101	2.888	3.004	-0.116	80	679455	200.0	182.5	
20 Ethyl ether	59	3.357	3.381	-0.024	84	126440	200.0	107.0	
21 Acrolein	56	3.588	3.509	0.079	1	9236	600.0	113.2	M
22 1,1-Dichloroethene	96	3.606	3.655	-0.049	90	230677	200.0	163.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.758	3.771	-0.013	78	242132	200.0	147.9	M
24 Acetone	43	3.783	3.777	0.006	39	88879	400.0	243.2	
25 Iodomethane	142	3.807	3.838	-0.031	96	505038	200.0	171.5	
26 Carbon disulfide	76	3.910	3.935	-0.025	85	683327	200.0	161.6	M
28 3-Chloro-1-propene	76	4.190	4.148	0.042	78	255727	200.0	246.3	
30 Methyl acetate	43	4.312	4.318	-0.006	96	562857	1000.0	805.8	
31 Methylene Chloride	84	4.379	4.415	-0.036	89	358082	200.0	237.0	
33 Acrylonitrile	53	4.786	4.793	-0.007	98	509509	2000.0	1823.4	
32 2-Methyl-2-propanol	59	4.756	4.799	-0.043	90	89088	2000.0	11980	E
34 trans-1,2-Dichloroethene	96	4.786	4.799	-0.013	95	371176	200.0	212.5	
35 Methyl tert-butyl ether	73	4.859	4.847	0.012	95	794335	200.0	230.8	
36 Hexane	57	5.194	5.079	0.115	92	337635	200.0	184.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.188	5.188	0.000	81	245706	200.0	178.4	
37 1,1-Dichloroethane	63	5.364	5.371	-0.007	97	621906	200.0	242.9	
44 2,2-Dichloropropane	77	6.283	6.119	0.164	1	3709	200.0	1.73	
45 cis-1,2-Dichloroethene	96	6.106	6.125	-0.019	84	386523	200.0	223.0	
46 2-Butanone (MEK)	43	6.173	6.161	0.012	99	162042	400.0	344.8	
49 Chlorobromomethane	128	6.405	6.399	0.005	81	211295	200.0	211.7	
52 Chloroform	83	6.502	6.508	-0.006	93	665651	200.0	230.9	
53 1,1,1-Trichloroethane	97	6.690	6.697	-0.007	96	657629	200.0	251.2	
51 Tetrahydrofuran	42	6.745	6.752	-0.007	47	122482	400.0	476.4	
54 Cyclohexane	56	6.745	6.752	-0.007	90	445807	200.0	241.4	
56 Carbon tetrachloride	117	6.867	6.879	-0.012	96	645558	200.0	244.5	
55 1,1-Dichloropropene	75	6.879	6.879	0.000	87	412683	200.0	218.3	
58 Benzene	78	7.104	7.104	0.000	96	1094163	200.0	212.1	
59 1,2-Dichloroethane	62	7.135	7.135	0.000	98	373201	200.0	214.1	
62 n-Heptane	43	7.414	7.415	-0.001	62	324114	200.0	202.7	
57 Isobutyl alcohol	41	7.420	7.421	-0.001	54	238642	5000.0	5669.6	
64 Trichloroethene	130	7.798	7.798	0.000	95	413795	200.0	200.1	
66 Methylcyclohexane	83	7.998	7.999	-0.001	89	562652	200.0	221.2	
67 1,2-Dichloropropane	63	8.035	8.029	0.006	75	244163	200.0	207.8	
68 Dibromomethane	93	8.150	8.151	-0.001	94	179588	200.0	205.2	
70 1,4-Dioxane	88	8.199	8.187	0.012	90	31522	4000.0	3836.9	
71 Dichlorobromomethane	83	8.315	8.321	-0.006	98	487692	200.0	223.8	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	91	476602	200.0	210.8	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	96	313032	400.0	338.5	
76 Toluene	91	9.106	9.106	0.000	98	1152836	200.0	204.3	
77 trans-1,3-Dichloropropene	75	9.325	9.331	-0.006	95	392383	200.0	197.3	
78 Ethyl methacrylate	69	9.422	9.422	0.000	88	245276	200.0	185.4	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	90	225394	200.0	198.5	
80 Tetrachloroethene	164	9.653	9.653	0.000	93	316813	200.0	215.2	
81 1,3-Dichloropropane	76	9.671	9.672	-0.001	92	333715	200.0	198.8	
82 2-Hexanone	43	9.756	9.757	-0.001	97	245897	400.0	412.3	
84 Chlorodibromomethane	129	9.896	9.897	-0.001	88	393198	200.0	201.4	
85 Ethylene Dibromide	107	10.006	10.012	-0.006	96	247802	200.0	192.6	
87 Chlorobenzene	112	10.499	10.499	0.000	95	868835	200.0	215.4	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	93	413896	200.0	212.2	
90 Ethylbenzene	106	10.602	10.602	0.000	98	463693	200.0	202.3	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	97	619308	200.0	200.4	
92 o-Xylene	106	11.113	11.113	0.000	95	634473	200.0	204.5	
93 Styrene	104	11.125	11.126	-0.001	94	901670	200.0	212.7	
94 Bromoform	173	11.314	11.314	0.000	94	196669	200.0	177.8	
97 Isopropylbenzene	105	11.478	11.478	0.000	96	1571351	200.0	210.1	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.770	0.000	98	223239	200.0	187.3	
100 Bromobenzene	156	11.782	11.783	-0.001	89	401163	200.0	262.9	
101 1,2,3-Trichloropropane	110	11.819	11.813	0.006	79	67590	200.0	197.8	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	73	41591	200.0	194.4	
103 N-Propylbenzene	120	11.886	11.892	-0.006	96	473485	200.0	252.8	
104 2-Chlorotoluene	126	11.977	11.977	0.000	97	411012	200.0	241.7	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	95	1268268	200.0	304.2	
107 4-Chlorotoluene	126	12.086	12.190	-0.104	96	395960	200.0	243.0	
108 tert-Butylbenzene	119	12.385	12.385	0.000	92	1222337	200.0	233.3	
110 1,2,4-Trimethylbenzene	105	12.433	12.433	0.000	98	1207895	200.0	270.4	
112 sec-Butylbenzene	105	12.604	12.604	0.000	95	1575694	200.0	277.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.719	12.719	0.000	96	658187	200.0	217.5	
114 4-Isopropyltoluene	119	12.750	12.750	0.000	95	1283066	200.0	245.0	
115 1,4-Dichlorobenzene	146	12.810	12.811	-0.001	94	585370	200.0	207.2	
120 n-Butylbenzene	91	13.157	13.163	-0.006	95	1027847	200.0	233.6	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	503715	200.0	182.0	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.985	-0.013	89	29545	200.0	211.8	
126 1,2,4-Trichlorobenzene	180	14.806	14.818	-0.012	95	167012	200.0	190.3	
127 Hexachlorobutadiene	225	14.964	14.970	-0.006	94	113871	200.0	216.6	
128 Naphthalene	128	15.055	15.068	-0.013	97	264781	200.0	184.3	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	96	73429	200.0	122.3	
S 134 1,2-Dichloroethene, Total	96				0		400.0	435.5	
S 133 Xylenes, Total	106				0		400.0	404.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	408.1	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

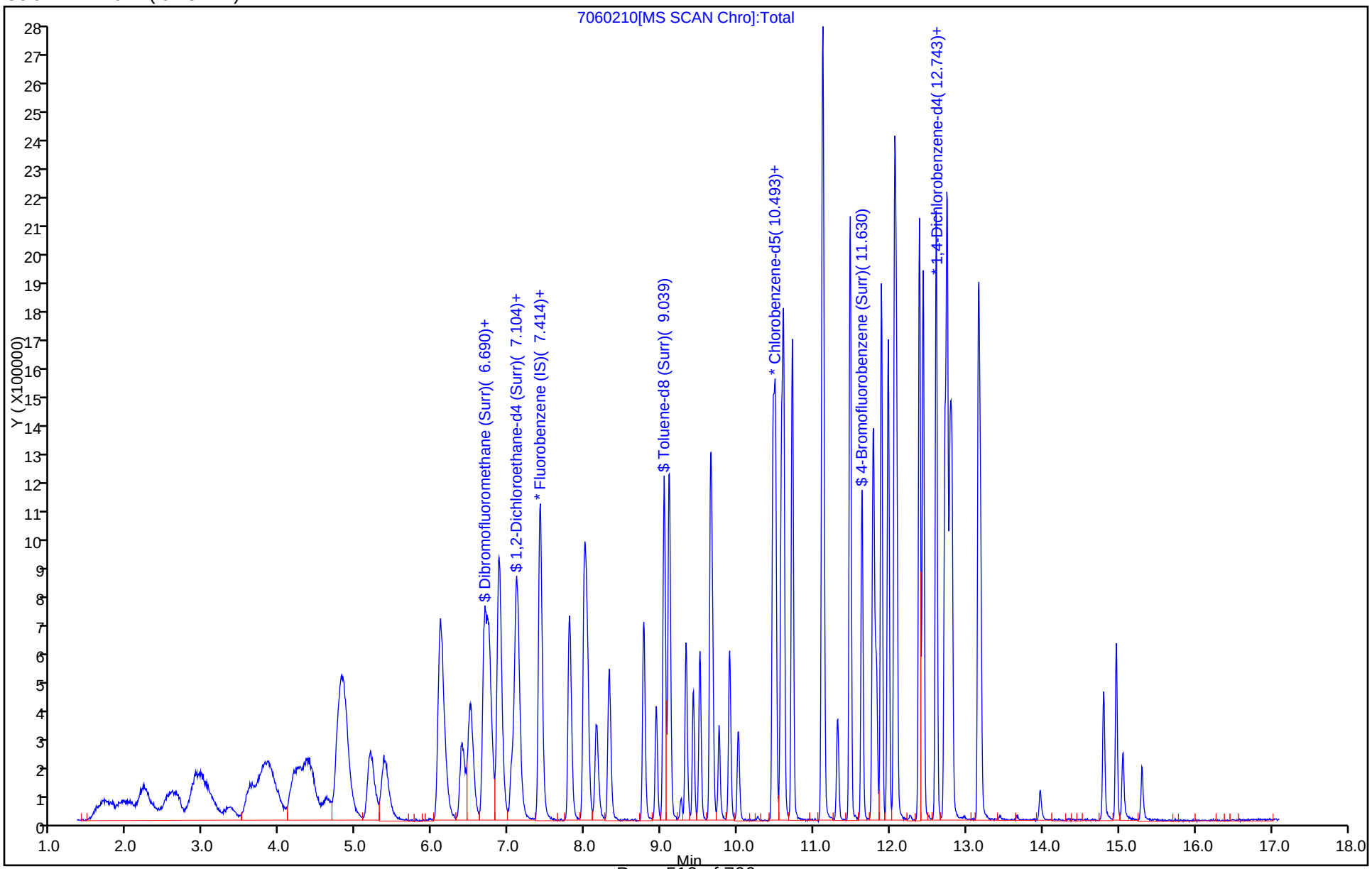
voaWVA2nd Res_00007	Amount Added:	8.00	Units: uL	
voaWket2nd Re_00002	Amount Added:	8.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 03-Jun-2015 09:24:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D				
Injection Date:	02-Jun-2015 14:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



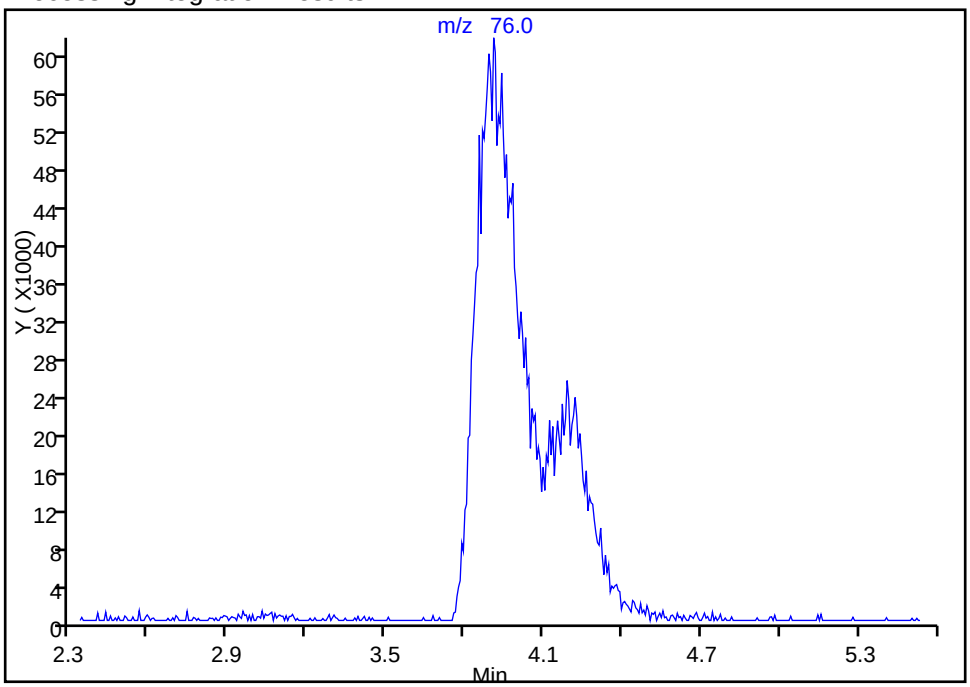
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D				
Injection Date:	02-Jun-2015 14:40:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

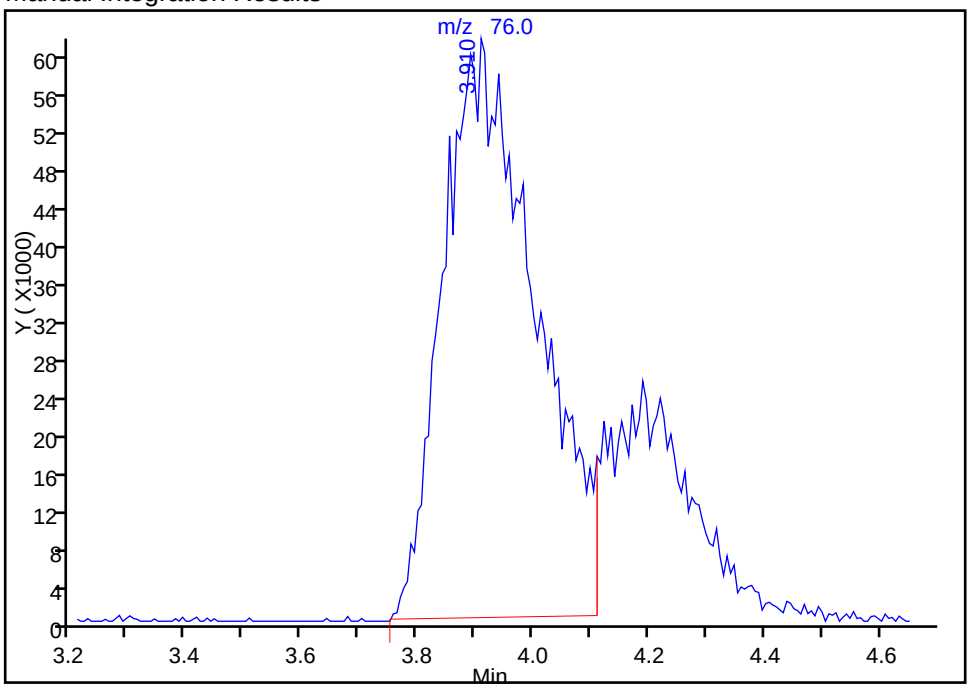
Not Detected
Expected RT: 3.93

Processing Integration Results



Manual Integration Results

RT: 3.91
Area: 683327
Amount: 161.6195
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 15:34:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143682/9

Matrix: Water | Lab File ID: 7060309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 13:09

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.74		1.0	0.28
75-01-4	Vinyl chloride	8.21		1.0	0.23
74-83-9	Bromomethane	8.61		1.0	0.31
75-00-3	Chloroethane	10.6		1.0	0.21
75-35-4	1,1-Dichloroethene	8.88		1.0	0.30
67-64-1	Acetone	26.9		5.0	2.5
75-15-0	Carbon disulfide	10.6		1.0	0.21
75-09-2	Methylene Chloride	11.2		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.89		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.3		1.0	0.18
75-34-3	1,1-Dichloroethane	11.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.2		1.0	0.24
74-97-5	Bromochloromethane	10.2		1.0	0.18
78-93-3	2-Butanone (MEK)	17.3		5.0	0.55
67-66-3	Chloroform	11.4		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.0		1.0	0.29
56-23-5	Carbon tetrachloride	10.6		1.0	0.14
71-43-2	Benzene	9.89		1.0	0.11
107-06-2	1,2-Dichloroethane	11.1		1.0	0.21
79-01-6	Trichloroethene	9.09		1.0	0.14
78-87-5	1,2-Dichloropropane	10.5		1.0	0.095
75-27-4	Bromodichloromethane	11.6		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.4		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.8		5.0	0.53
108-88-3	Toluene	9.42		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.2		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	8.73		1.0	0.15
591-78-6	2-Hexanone	19.0		5.0	0.16
124-48-1	Dibromochloromethane	10.3		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.73		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.6		1.0	0.28
100-41-4	Ethylbenzene	9.21		1.0	0.23
1330-20-7	Xylenes, Total	18.2		3.0	0.49
100-42-5	Styrene	10.0		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143682/9

Matrix: Water | Lab File ID: 7060309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/03/2015 13:09

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143682 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.66		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.38		1.0	0.20
107-13-1	Acrylonitrile	100		20	0.55
123-91-1	1,4-Dioxane	176	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060309.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 03-Jun-2015 13:09:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007238-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 16:09:37 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 13:56:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.678	4.673	0.005	96	295256	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.404	7.405	-0.001	95	937550	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.464	10.465	-0.001	84	286380	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.782	12.789	-0.007	95	320763	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.680	6.675	0.005	80	347702	200.0	232.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.045	7.040	0.005	94	324016	200.0	227.2	
$ 7 Toluene-d8 (Surr)	98	9.034	9.035	-0.001	93	925861	200.0	218.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.633	-0.001	88	404549	200.0	213.9	
11 Dichlorodifluoromethane	85	1.959	1.942	0.017	32	163084	200.0	93.8	M
12 Chloromethane	50	2.056	2.045	0.011	94	255146	200.0	134.8	M
14 Butadiene	39	2.215	2.240	-0.025	95	242742	200.0	155.9	
13 Vinyl chloride	62	2.215	2.228	-0.013	83	242056	200.0	164.2	
15 Bromomethane	94	2.507	2.532	-0.025	90	204470	200.0	172.1	
16 Chloroethane	64	2.640	2.635	0.005	48	251467	200.0	211.4	
18 Trichlorofluoromethane	101	2.835	2.830	0.005	82	959451	200.0	288.2	
17 Dichlorofluoromethane	67	2.914	2.897	0.017	78	974362	200.0	307.9	
20 Ethyl ether	59	3.340	3.365	-0.025	88	171173	200.0	162.0	
21 Acrolein	56	3.522	3.493	0.029	77	57591	600.0	789.7	
22 1,1-Dichloroethene	96	3.565	3.584	-0.019	85	223541	200.0	177.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.723	3.773	-0.050	78	251439	200.0	171.8	
24 Acetone	43	3.772	3.779	-0.007	47	152956	200.0	537.0	
25 Iodomethane	142	3.784	3.785	-0.001	98	513622	200.0	195.1	
26 Carbon disulfide	76	3.857	3.883	-0.026	100	804688	200.0	212.8	
28 3-Chloro-1-propene	76	4.210	4.181	0.029	69	178375	200.0	192.1	
30 Methyl acetate	43	4.307	4.302	0.005	98	567978	1000.0	909.3	
31 Methylene Chloride	84	4.356	4.406	-0.050	91	302086	200.0	223.6	
32 2-Methyl-2-propanol	59	4.770	4.783	-0.013	64	167445	2000.0	17547	E
33 Acrylonitrile	53	4.770	4.789	-0.019	98	501378	2000.0	2006.5	
34 trans-1,2-Dichloroethene	96	4.770	4.783	-0.013	83	277798	200.0	177.9	
35 Methyl tert-butyl ether	73	4.849	4.850	-0.001	94	693050	200.0	225.2	
36 Hexane	57	5.177	5.184	-0.007	95	239638	200.0	146.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.372	5.367	0.005	96	511873	200.0	223.6	
44 2,2-Dichloropropane	77	6.102	6.085	0.017	79	434158	200.0	227.0	
45 cis-1,2-Dichloroethene	96	6.102	6.103	-0.001	80	346577	200.0	223.6	
46 2-Butanone (MEK)	43	6.163	6.176	-0.013	98	145376	200.0	345.9	
49 Chlorobromomethane	128	6.388	6.377	0.011	83	182946	200.0	204.9	
52 Chloroform	83	6.497	6.492	0.005	93	588095	200.0	228.1	
53 1,1,1-Trichloroethane	97	6.674	6.681	-0.007	97	515867	200.0	220.4	
51 Tetrahydrofuran	42	6.728	6.742	-0.014	48	89625	400.0	389.8	
54 Cyclohexane	56	6.728	6.748	-0.020	91	316154	200.0	191.4	
56 Carbon tetrachloride	117	6.862	6.863	-0.001	96	499024	200.0	211.3	
55 1,1-Dichloropropene	75	6.868	6.870	-0.002	81	300483	200.0	177.8	
58 Benzene	78	7.100	7.095	0.005	97	912612	200.0	197.8	
59 1,2-Dichloroethane	62	7.124	7.125	-0.001	74	345501	200.0	221.7	
57 Isobutyl alcohol	41	7.410	7.405	0.005	49	170229	5000.0	4522.6	
62 n-Heptane	43	7.416	7.411	0.005	57	232994	200.0	162.9	
64 Trichloroethene	130	7.799	7.788	0.011	94	336184	200.0	181.8	
66 Methylcyclohexane	83	7.982	7.995	-0.013	90	415899	200.0	182.9	
67 1,2-Dichloropropane	63	8.030	8.038	-0.008	91	220605	200.0	209.9	
68 Dibromomethane	93	8.152	8.141	0.011	95	171910	200.0	219.6	
70 1,4-Dioxane	88	8.170	8.184	-0.014	87	25812	4000.0	3513.4	
71 Dichlorobromomethane	83	8.310	8.317	-0.007	98	453789	200.0	232.9	
74 cis-1,3-Dichloropropene	75	8.773	8.768	0.004	91	419477	200.0	207.5	
75 4-Methyl-2-pentanone (MIBK	43	8.937	8.932	0.005	96	281401	200.0	336.3	
76 Toluene	91	9.101	9.102	-0.001	98	975736	200.0	188.4	
77 trans-1,3-Dichloropropene	75	9.320	9.321	-0.001	95	366006	200.0	203.3	
78 Ethyl methacrylate	69	9.417	9.419	-0.002	87	237139	200.0	198.0	
79 1,1,2-Trichloroethane	97	9.509	9.504	0.005	90	208212	200.0	202.6	
80 Tetrachloroethene	164	9.642	9.650	-0.008	92	240598	200.0	174.6	
81 1,3-Dichloropropane	76	9.673	9.674	-0.001	92	309831	200.0	203.9	
82 2-Hexanone	43	9.758	9.759	-0.001	97	205591	200.0	380.9	
84 Chlorodibromomethane	129	9.898	9.893	0.005	90	362235	200.0	205.0	
85 Ethylene Dibromide	107	10.014	10.009	0.005	97	226551	200.0	194.6	
87 Chlorobenzene	112	10.494	10.495	-0.001	94	747885	200.0	204.9	
89 1,1,1,2-Tetrachloroethane	131	10.573	10.574	-0.001	93	372802	200.0	211.2	
90 Ethylbenzene	106	10.604	10.605	-0.001	98	381911	200.0	184.1	
91 m-Xylene & p-Xylene	106	10.719	10.720	-0.001	98	495720	200.0	177.3	
92 o-Xylene	106	11.109	11.110	-0.001	96	525147	200.0	187.0	
93 Styrene	104	11.127	11.128	-0.001	93	776554	200.0	200.2	
94 Bromoform	173	11.309	11.310	-0.001	93	193468	200.0	193.2	
97 Isopropylbenzene	105	11.474	11.475	-0.001	96	1294365	200.0	186.7	
99 1,1,2,2-Tetrachloroethane	83	11.766	11.767	-0.001	97	202263	200.0	187.5	
100 Bromobenzene	156	11.784	11.785	-0.001	89	355190	200.0	258.4	
101 1,2,3-Trichloropropane	110	11.814	11.815	-0.001	84	71660	200.0	232.8	
102 trans-1,4-Dichloro-2-buten	53	11.826	11.828	-0.002	80	43567	200.0	226.0	
103 N-Propylbenzene	120	11.887	11.882	0.005	97	387071	200.0	229.4	
104 2-Chlorotoluene	126	11.972	11.974	-0.002	97	365633	200.0	238.7	
106 1,3,5-Trimethylbenzene	105	12.058	12.059	-0.001	96	1028488	200.0	267.1	
107 4-Chlorotoluene	126	12.082	12.083	-0.001	97	341729	200.0	232.8	
108 tert-Butylbenzene	119	12.386	12.387	-0.001	92	1014210	200.0	214.0	
110 1,2,4-Trimethylbenzene	105	12.435	12.430	0.005	97	1020042	200.0	249.8	
112 sec-Butylbenzene	105	12.605	12.606	-0.001	95	1262047	200.0	240.1	
113 1,3-Dichlorobenzene	146	12.721	12.722	-0.001	97	581110	200.0	213.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.751	12.746	0.005	96	1057308	200.0	219.1	
115 1,4-Dichlorobenzene	146	12.812	12.813	-0.001	94	532676	200.0	209.3	
120 n-Butylbenzene	91	13.159	13.160	-0.001	96	823329	200.0	201.7	
121 1,2-Dichlorobenzene	146	13.183	13.184	-0.001	97	446913	200.0	179.3	
122 1,2-Dibromo-3-Chloropropan	75	13.968	13.969	-0.001	80	27079	200.0	215.3	
126 1,2,4-Trichlorobenzene	180	14.801	14.802	-0.001	94	150476	200.0	190.4	
127 Hexachlorobutadiene	225	14.965	14.973	-0.008	92	88499	200.0	186.9	
128 Naphthalene	128	15.051	15.052	-0.001	96	251729	200.0	194.5	
129 1,2,3-Trichlorobenzene	180	15.300	15.307	-0.007	95	91225	200.0	168.7	
S 134 1,2-Dichloroethene, Total	96				0		400.0	401.5	
S 133 Xylenes, Total	106				0		400.0	364.3	
S 135 1,3-Dichloropropene, Total	1				0		400.0	410.8	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00125	Amount Added:	8.00	Units: uL	
voaWAcro2nd R_00005	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

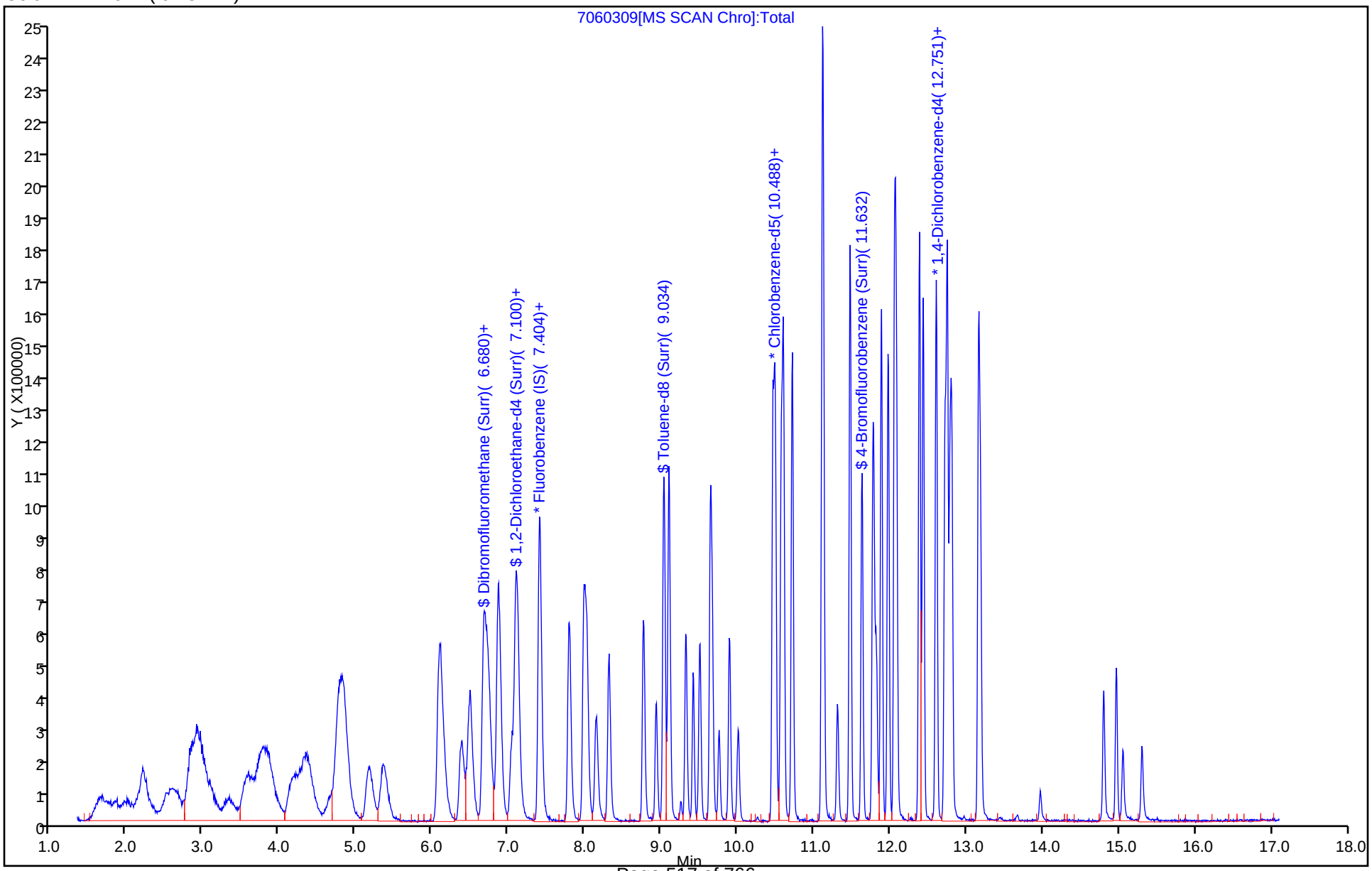
Report Date: 03-Jun-2015 16:09:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060309.D

Injection Date:	03-Jun-2015 13:09:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

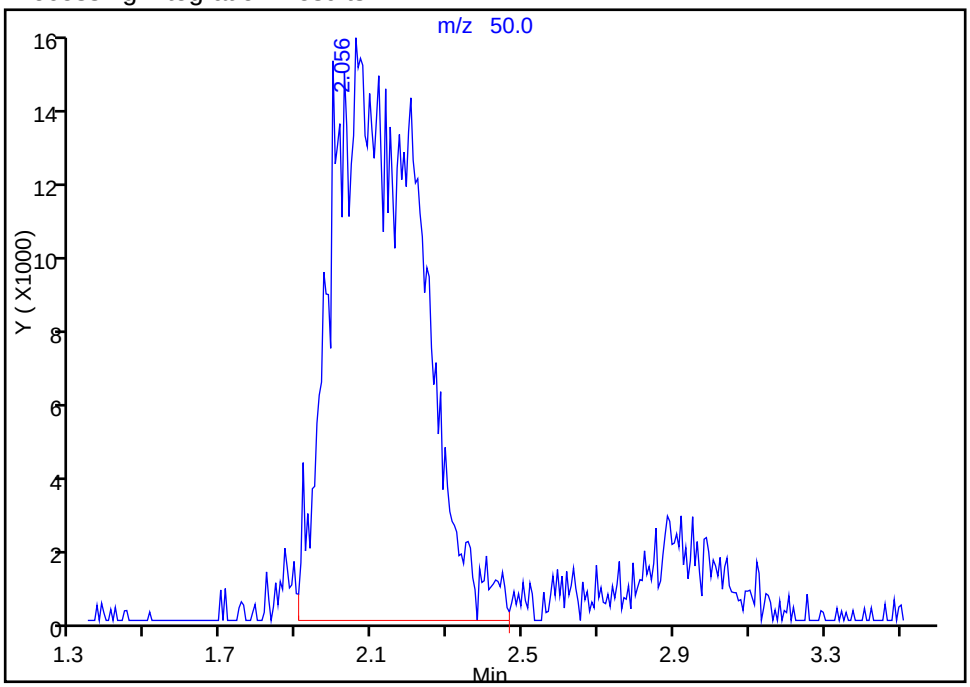
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150603-7238.b\7060309.D				
Injection Date:	03-Jun-2015 13:09:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

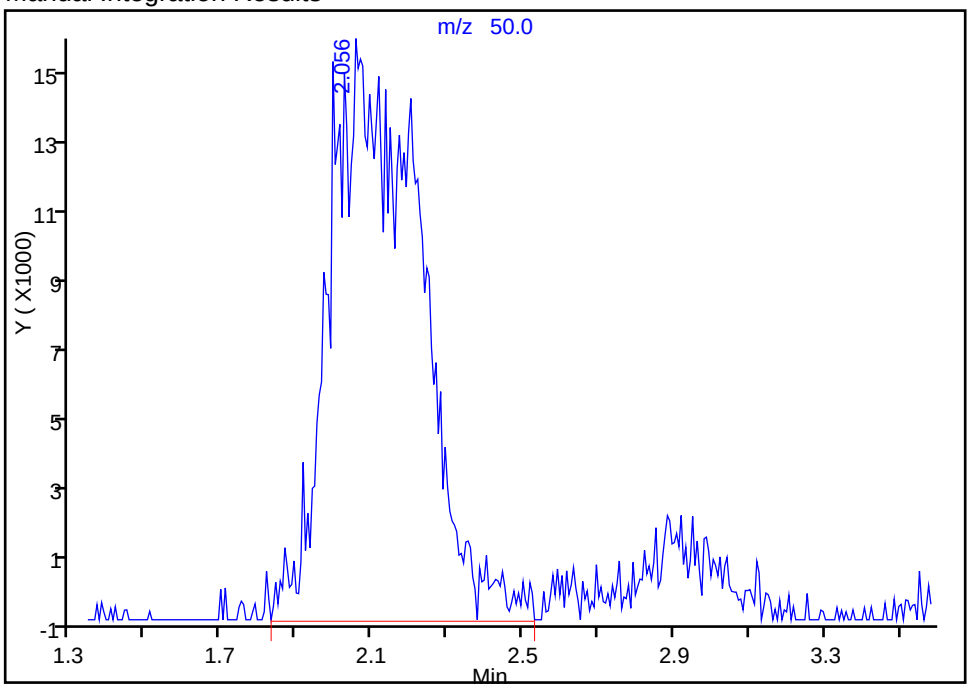
Processing Integration Results

RT: 2.06
Area: 247220
Amount: 130.5835
Amount Units: ng



Manual Integration Results

RT: 2.06
Area: 255146
Amount: 134.7701
Amount Units: ng



Reviewer: journetp, 03-Jun-2015 13:56:51
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Start Date: 03/30/2015 09:32

Analysis Batch Number: 136928 End Date: 03/30/2015 14:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-136928/1		03/30/2015 09:32	1	7033001.D	DB-624 0.18(mm)
IC 180-136928/3		03/30/2015 10:57	1	7033003.D	DB-624 0.18(mm)
IC 180-136928/4		03/30/2015 11:28	1	7033004.D	DB-624 0.18(mm)
ICIS 180-136928/5		03/30/2015 11:55	1	7033005.D	DB-624 0.18(mm)
IC 180-136928/6		03/30/2015 12:23	1	7033006.D	DB-624 0.18(mm)
IC 180-136928/7		03/30/2015 13:05	1	7033007.D	DB-624 0.18(mm)
IC 180-136928/8		03/30/2015 13:32	1	7033008.D	DB-624 0.18(mm)
IC 180-136928/9		03/30/2015 14:05	1	7033009.D	DB-624 0.18(mm)
IC 180-136928/10		03/30/2015 14:36	1	7033010.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Start Date: 06/01/2015 08:05

Analysis Batch Number: 143422 End Date: 06/01/2015 19:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143422/1		06/01/2015 08:05	1	7060101.D	DB-624 0.18(mm)
CCVIS 180-143422/3		06/01/2015 10:16	1	7060103.D	DB-624 0.18(mm)
LODV 180-143422/4		06/01/2015 10:59	1		DB-624 0.18(mm)
MB 180-143422/6		06/01/2015 12:21	1	7060106.D	DB-624 0.18(mm)
LCS 180-143422/8		06/01/2015 13:26	1	7060108.D	DB-624 0.18(mm)
ZZZZZ		06/01/2015 13:54	1		DB-624 0.18(mm)
ZZZZZ		06/01/2015 14:22	1		DB-624 0.18(mm)
180-44401-8	HD-QC5-0/1-2	06/01/2015 15:17	1	7060112.D	DB-624 0.18(mm)
ZZZZZ		06/01/2015 15:45	1		DB-624 0.18(mm)
ZZZZZ		06/01/2015 16:12	3		DB-624 0.18(mm)
ZZZZZ		06/01/2015 16:40	10		DB-624 0.18(mm)
ZZZZZ		06/01/2015 17:08	250		DB-624 0.18(mm)
ZZZZZ		06/01/2015 17:40	5		DB-624 0.18(mm)
ZZZZZ		06/01/2015 18:08	1		DB-624 0.18(mm)
ZZZZZ		06/01/2015 19:03	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Start Date: 06/02/2015 08:07

Analysis Batch Number: 143527 End Date: 06/02/2015 19:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143527/1		06/02/2015 08:07	1	7060201.D	DB-624 0.18(mm)
CCVIS 180-143527/3		06/02/2015 10:22	1	7060203.D	DB-624 0.18(mm)
LODV 180-143527/4		06/02/2015 11:02	1		DB-624 0.18(mm)
MB 180-143527/7		06/02/2015 13:18	1	7060207.D	DB-624 0.18(mm)
ZZZZZ		06/02/2015 13:46	1		DB-624 0.18(mm)
ZZZZZ		06/02/2015 14:13	1		DB-624 0.18(mm)
LCS 180-143527/10		06/02/2015 14:40	1	7060210.D	DB-624 0.18(mm)
ZZZZZ		06/02/2015 15:08	1		DB-624 0.18(mm)
ZZZZZ		06/02/2015 15:35	1		DB-624 0.18(mm)
ZZZZZ		06/02/2015 16:03	1		DB-624 0.18(mm)
ZZZZZ		06/02/2015 16:31	5		DB-624 0.18(mm)
ZZZZZ		06/02/2015 16:58	5		DB-624 0.18(mm)
180-44401-4	HD-MW-114-0/1-0	06/02/2015 17:26	25	7060216.D	DB-624 0.18(mm)
180-44401-5	HD-MW-132-0/1-0	06/02/2015 18:21	25	7060218.D	DB-624 0.18(mm)
180-44401-7	HD-MW-50S-0/1-0	06/02/2015 19:16	25	7060220.D	DB-624 0.18(mm)
ZZZZZ		06/02/2015 19:44	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHHP7 Start Date: 06/03/2015 07:45

Analysis Batch Number: 143682 End Date: 06/03/2015 19:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143682/1		06/03/2015 07:45	1	7060301.D	DB-624 0.18(mm)
CCVIS 180-143682/3		06/03/2015 10:07	1	7060303.D	DB-624 0.18(mm)
LODV 180-143682/4		06/03/2015 10:48	1		DB-624 0.18(mm)
MB 180-143682/6		06/03/2015 11:43	1	7060306.D	DB-624 0.18(mm)
ZZZZZ		06/03/2015 12:11	1		DB-624 0.18(mm)
ZZZZZ		06/03/2015 12:38	1		DB-624 0.18(mm)
LCS 180-143682/9		06/03/2015 13:09	1	7060309.D	DB-624 0.18(mm)
ZZZZZ		06/03/2015 13:36	1		DB-624 0.18(mm)
ZZZZZ		06/03/2015 14:04	1		DB-624 0.18(mm)
ZZZZZ		06/03/2015 14:31	1		DB-624 0.18(mm)
180-44401-5 DL	HD-MW-132-0/1-0 DL	06/03/2015 15:05	100	7060314.D	DB-624 0.18(mm)
180-44401-7 DL	HD-MW-50S-0/1-0 DL	06/03/2015 15:32	100	7060315.D	DB-624 0.18(mm)
ZZZZZ		06/03/2015 16:00	25		DB-624 0.18(mm)
ZZZZZ		06/03/2015 16:27	100		DB-624 0.18(mm)
ZZZZZ		06/03/2015 16:55	5		DB-624 0.18(mm)
180-44401-1	HD-MW-39D-0/1-0	06/03/2015 17:22	1	7060319.D	DB-624 0.18(mm)
180-44401-6	HD-MW-51D-0/1-0	06/03/2015 17:50	25	7060320.D	DB-624 0.18(mm)
180-44401-4 DL	HD-MW-114-0/1-0 DL	06/03/2015 18:18	100	7060321.D	DB-624 0.18(mm)
180-44401-3	HD-MW-127-0/1-0	06/03/2015 18:45	5	7060322.D	DB-624 0.18(mm)
180-44401-2	HD-MW-74S-0/1-0	06/03/2015 19:12	1	7060323.D	DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 05-23-2015-5.d

Lab ID: LCS 180-142621/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.53	101	90-110	
Chloride	50.0	50.4	101	90-110	
Sulfate	50.0	50.2	100	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 05-23-2015-16.d

Lab ID: 180-44401-5 MS Client ID: HD-MW-132-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	4.0	5.36	109	80-120	
Chloride	25.0	14	39.7	105	80-120	
Sulfate	25.0	4.6	30.5	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 05-23-2015-17.d

Lab ID: 180-44401-5 MSD Client ID: HD-MW-132-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	5.30	104	1	20	80-120	
Chloride	25.0	39.4	103	1	20	80-120	
Sulfate	25.0	30.3	103	1	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab File ID: B-ICS2100 B 05-23-2015-6.d Lab Sample ID: MB 180-142621/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 05/23/2015 07:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-142621/4	B-ICS2100 B 05-23-2015-4.d	05/23/2015 06:38
	LCS 180-142621/5	B-ICS2100 B 05-23-2015-5.d	05/23/2015 06:56
HD-MW-50S-0/1-0	180-44401-7	B-ICS2100 B 05-23-2015-7.d	05/23/2015 07:30
HD-MW-51D-0/1-0	180-44401-6	B-ICS2100 B 05-23-2015-9.d	05/23/2015 08:06
HD-MW-74S-0/1-0	180-44401-2	B-ICS2100 B 05-23-2015-10.d	05/23/2015 08:24
HD-MW-114-0/1-0	180-44401-4	B-ICS2100 B 05-23-2015-11.d	05/23/2015 08:41
HD-MW-39D-0/1-0	180-44401-1	B-ICS2100 B 05-23-2015-12.d	05/23/2015 08:58
HD-MW-132-0/1-0	180-44401-5	B-ICS2100 B 05-23-2015-13.d	05/23/2015 09:16
	CCB 180-142621/15	B-ICS2100 B 05-23-2015-15.d	05/23/2015 09:50
HD-MW-132-0/1-0 MS	180-44401-5 MS	B-ICS2100 B 05-23-2015-16.d	05/23/2015 10:08
HD-MW-132-0/1-0 MSD	180-44401-5 MSD	B-ICS2100 B 05-23-2015-17.d	05/23/2015 10:25
HD-MW-127-0/1-0	180-44401-3	B-ICS2100 B 05-23-2015-18.d	05/23/2015 10:42
	CCB 180-142621/20	B-ICS2100 B 05-23-2015-20.d	05/23/2015 11:17

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-39D-0/1-0 Lab Sample ID: 180-44401-1

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-12.d

Analysis Method: 300.0 Date Collected: 05/21/2015 10:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 08:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.1	B	0.10	0.0062
16887-00-6	Chloride	91		1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

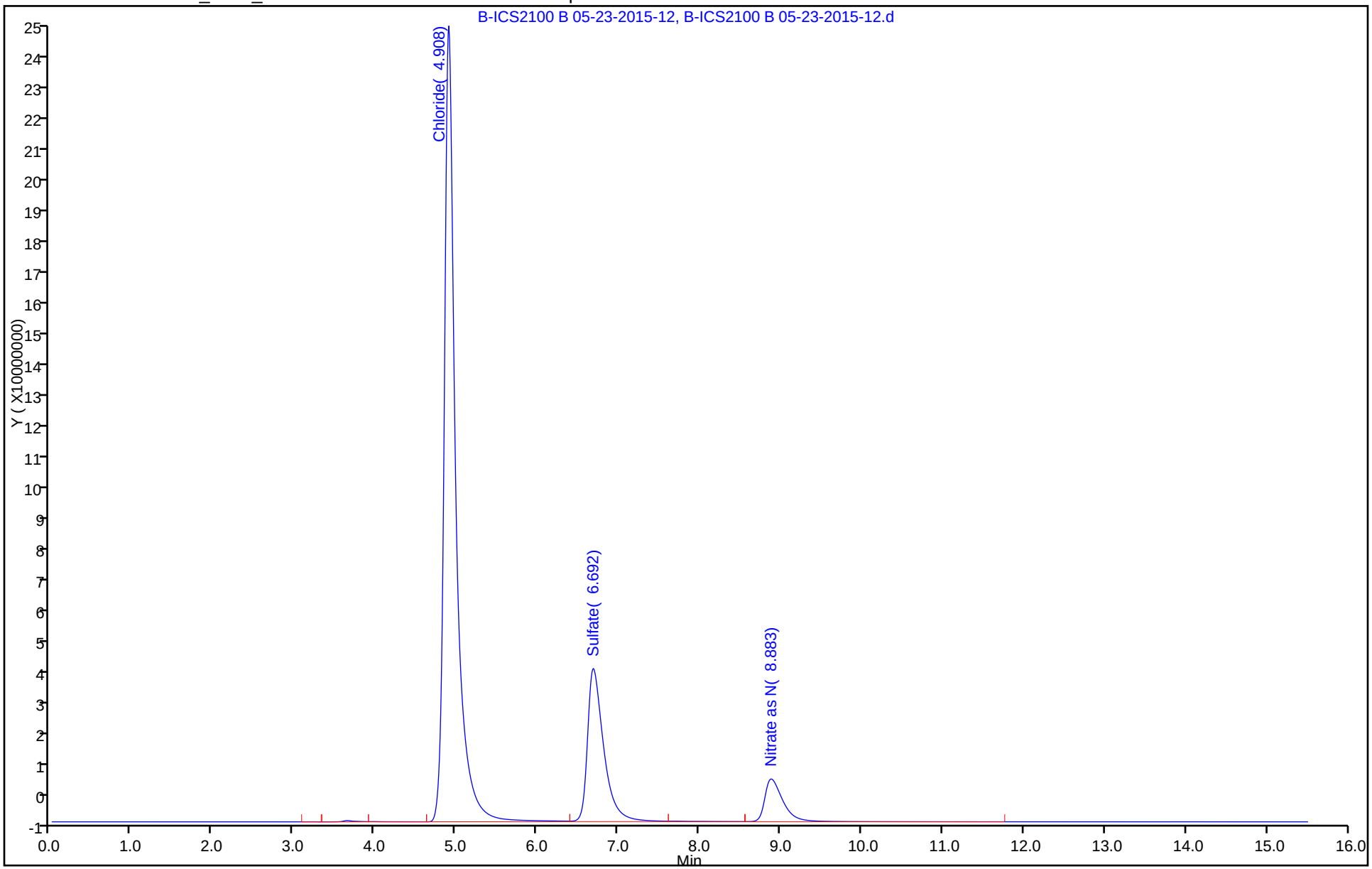
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-12.d				
Lims ID:	180-44401-A-1	Lab Sample ID:	180-44401-1		
Client ID:	HD-MW-39D-0/1-0				
Sample Type:	Client				
Inject. Date:	23-May-2015 08:58:00	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007079-012				
Misc. Info.:	12 180-44401-a-1				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 04:46:55	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.917	-0.009	2423485417	90.9	
3 Sulfate	6.692	6.683	0.009	657283830	33.5	
5 Nitrate as N	8.883	8.900	-0.017	204116226	3.09	

Report Date: 25-May-2015 04:52:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-12.d				
Injection Date:	23-May-2015 08:58:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-1	Lab Sample ID:	180-44401-1	Worklist Smp#:	12
Client ID:	HD-MW-39D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-44401-2

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-10.d

Analysis Method: 300.0 Date Collected: 05/21/2015 09:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 08:24

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1	B	0.10	0.0062
16887-00-6	Chloride	76		1.0	0.20
14808-79-8	Sulfate	21		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

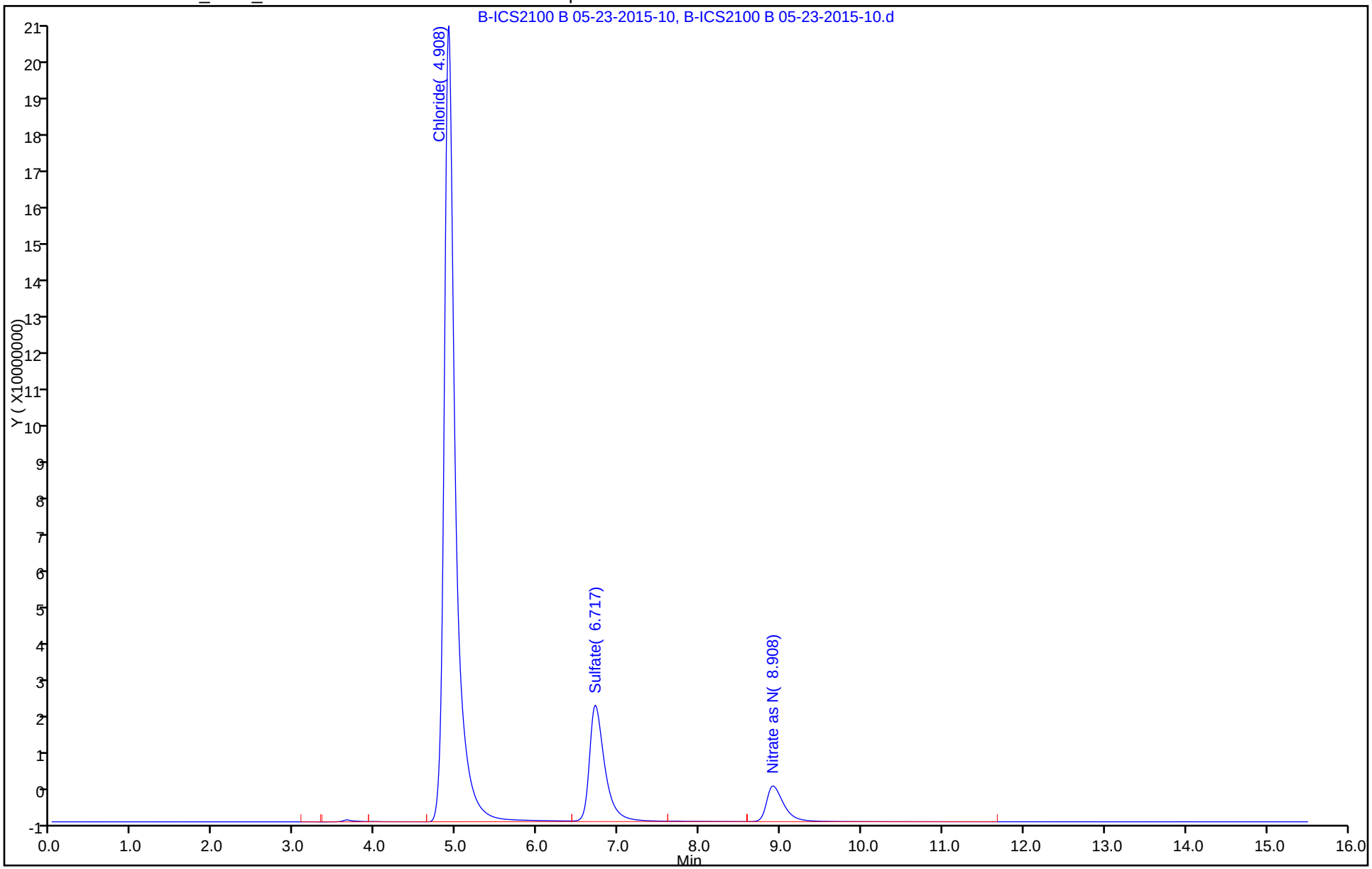
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-10.d				
Lims ID:	180-44401-A-2	Lab Sample ID:	180-44401-2		
Client ID:	HD-MW-74S-0/1-0				
Sample Type:	Client				
Inject. Date:	23-May-2015 08:24:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007079-010				
Misc. Info.:	10 180-44401-a-2				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 04:46:55	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.917	-0.009	2036755796	76.4	
3 Sulfate	6.717	6.683	0.034	404175309	20.5	
5 Nitrate as N	8.908	8.900	0.008	139193983	2.11	

Report Date: 25-May-2015 04:52:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-10.d				
Injection Date:	23-May-2015 08:24:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-2	Lab Sample ID:	180-44401-2	Worklist Smp#:	10
Client ID:	HD-MW-74S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-127-0/1-0 Lab Sample ID: 180-44401-3

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-18.d

Analysis Method: 300.0 Date Collected: 05/21/2015 12:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 10:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	7.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

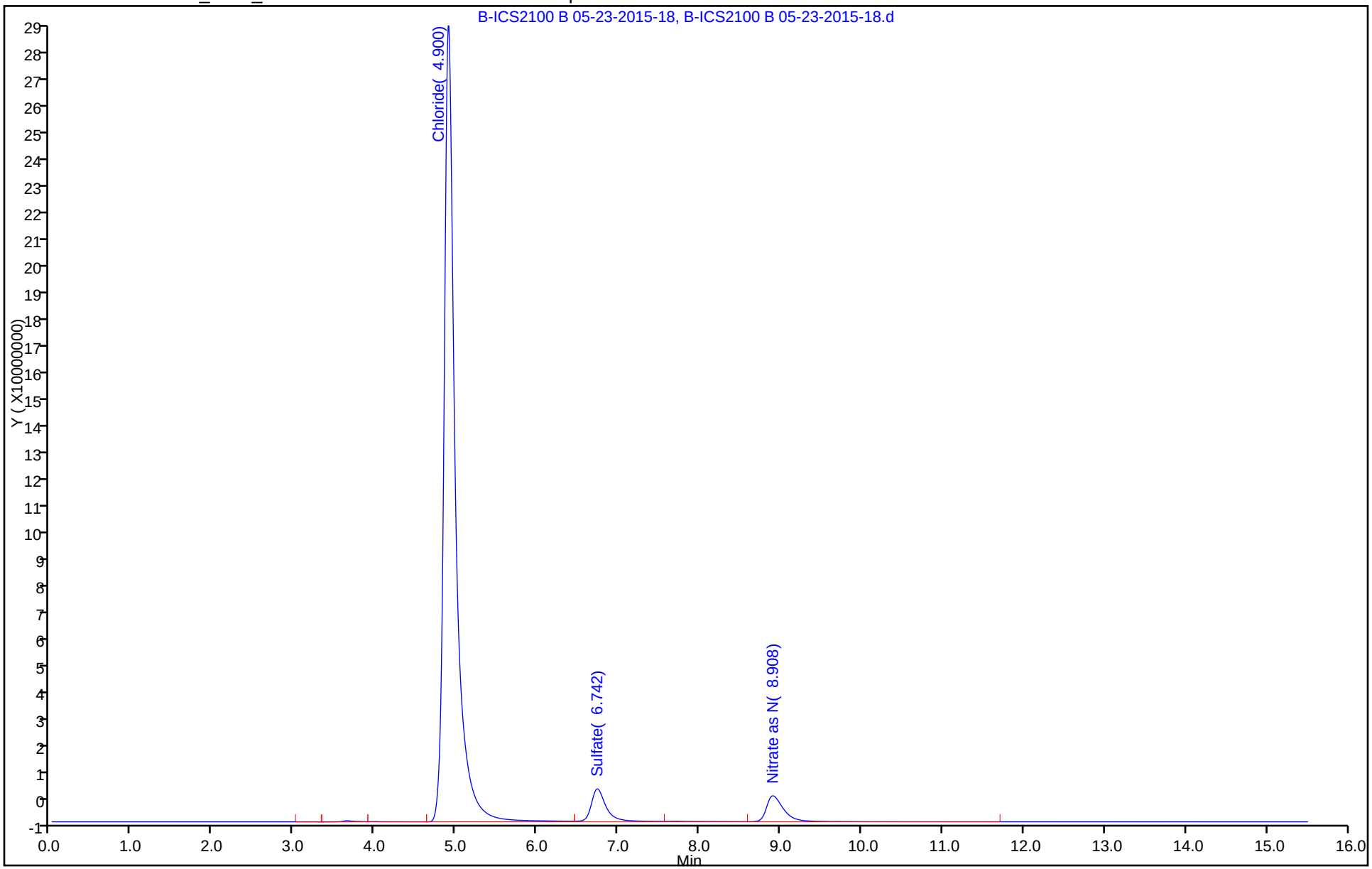
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-18.d				
Lims ID:	180-44401-A-3	Lab Sample ID:	180-44401-3		
Client ID:	HD-MW-127-0/1-0				
Sample Type:	Client				
Inject. Date:	23-May-2015 10:42:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007079-018				
Misc. Info.:	18 180-44401-a-3				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 04:52:28	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				
First Level Reviewer: oravecj		Date:	23-May-2015 11:52:32		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.900	4.908	-0.008	2809849469	105.3	
3 Sulfate	6.742	6.675	0.067	152972030	7.65	
5 Nitrate as N	8.908	8.892	0.016	138998219	2.11	

Report Date: 25-May-2015 04:52:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-18.d				
Injection Date:	23-May-2015 10:42:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-3	Lab Sample ID:	180-44401-3	Worklist Smp#:	18
Client ID:	HD-MW-127-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-44401-4

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-11.d

Analysis Method: 300.0 Date Collected: 05/21/2015 09:56

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 08:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.69	B	0.10	0.0062
16887-00-6	Chloride	150		1.0	0.20
14808-79-8	Sulfate	77		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

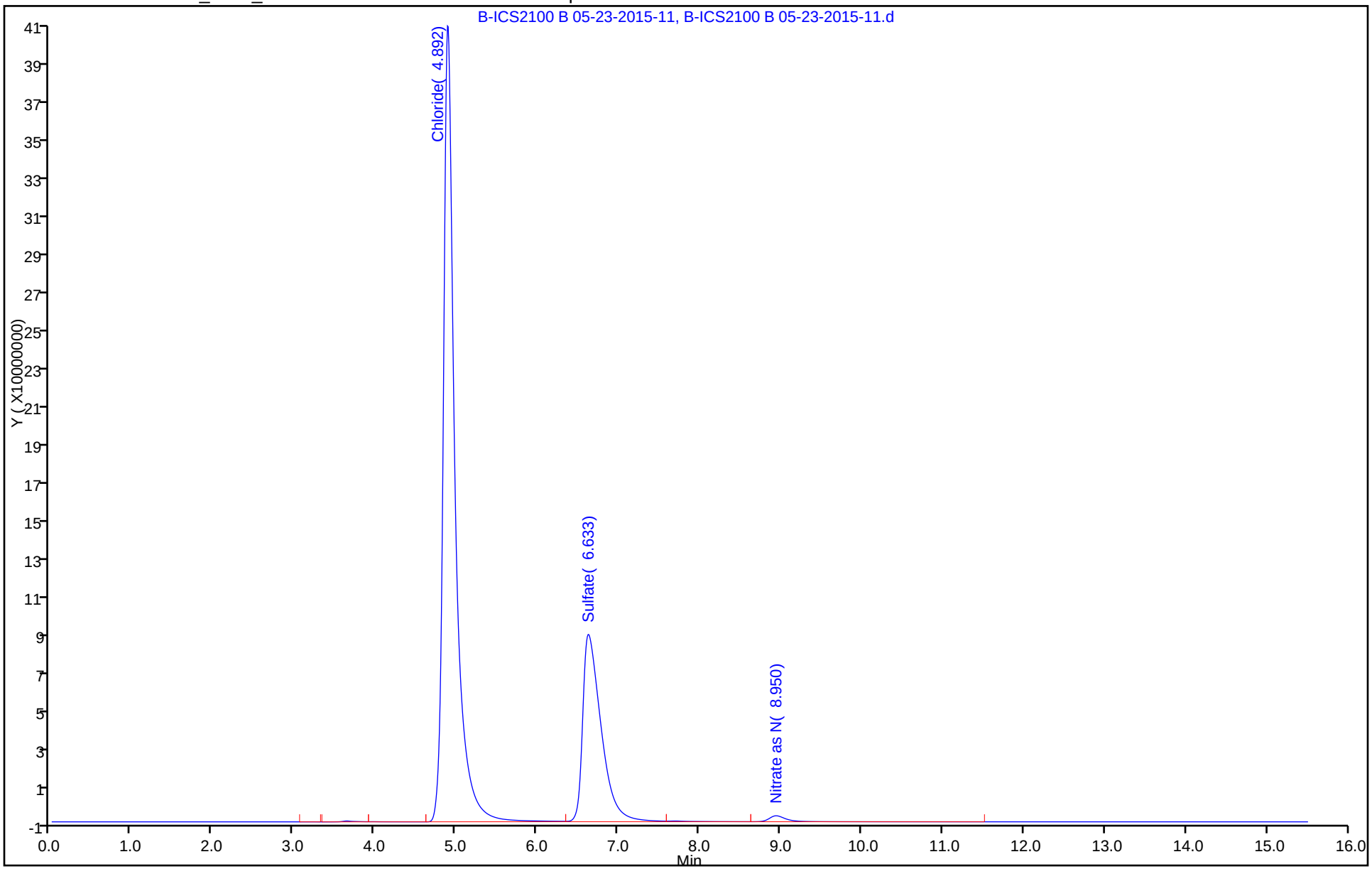
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-11.d				
Lims ID:	180-44401-A-4	Lab Sample ID:	180-44401-4		
Client ID:	HD-MW-114-0/1-0				
Sample Type:	Client				
Inject. Date:	23-May-2015 08:41:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007079-011				
Misc. Info.:	11 180-44401-a-4				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 04:46:55	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.892	4.917	-0.025	4062203363	152.3	
3 Sulfate	6.633	6.683	-0.050	1505272440	77.1	
5 Nitrate as N	8.950	8.900	0.050	44806255	0.6851	

Report Date: 25-May-2015 04:52:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-11.d				
Injection Date:	23-May-2015 08:41:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-4	Lab Sample ID:	180-44401-4	Worklist Smp#:	11
Client ID:	HD-MW-114-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 Lab Sample ID: 180-44401-5

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-13.d

Analysis Method: 300.0 Date Collected: 05/21/2015 11:41

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 09:16

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.0	B	0.10	0.0062
16887-00-6	Chloride	14		1.0	0.20
14808-79-8	Sulfate	4.6		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-13.d
Lims ID: 180-44401-A-5 Lab Sample ID: 180-44401-5
Client ID: HD-MW-132-0/1-0
Sample Type: Client
Inject. Date: 23-May-2015 09:16:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-013
Misc. Info.: 13 180-44401-a-5
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:46:55 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

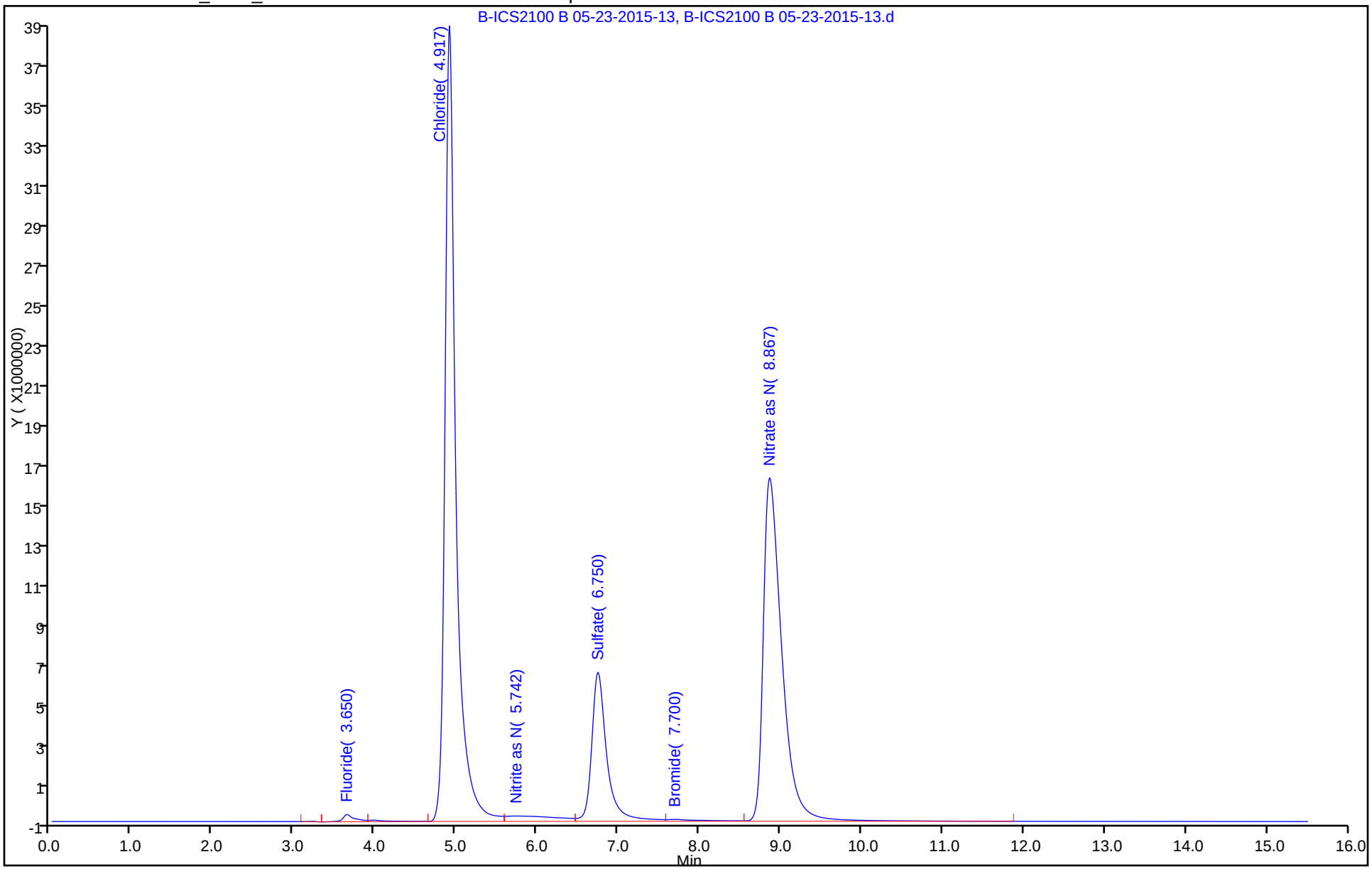
Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.667	-0.017	3583883	0.0793	
2 Chloride	4.917	4.917	0.000	361878929	13.6	
7 Nitrite as N	5.742	5.775	-0.033	11132103	0.1763	
3 Sulfate	6.750	6.683	0.067	93364256	4.59	
4 Bromide	7.700	7.708	-0.008	91435H	0.1146	
5 Nitrate as N	8.867	8.900	-0.033	264365238	4.00	
6 Orthophosphate as P		12.192			ND	

Report Date: 25-May-2015 04:52:28 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-13.d				
Injection Date:	23-May-2015 09:16:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-5	Lab Sample ID:	180-44401-5	Worklist Smp#:	13
Client ID:	HD-MW-132-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-51D-0/1-0 Lab Sample ID: 180-44401-6

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-9.d

Analysis Method: 300.0 Date Collected: 05/21/2015 08:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 08:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.3	B	0.10	0.0062
16887-00-6	Chloride	110		1.0	0.20
14808-79-8	Sulfate	50		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

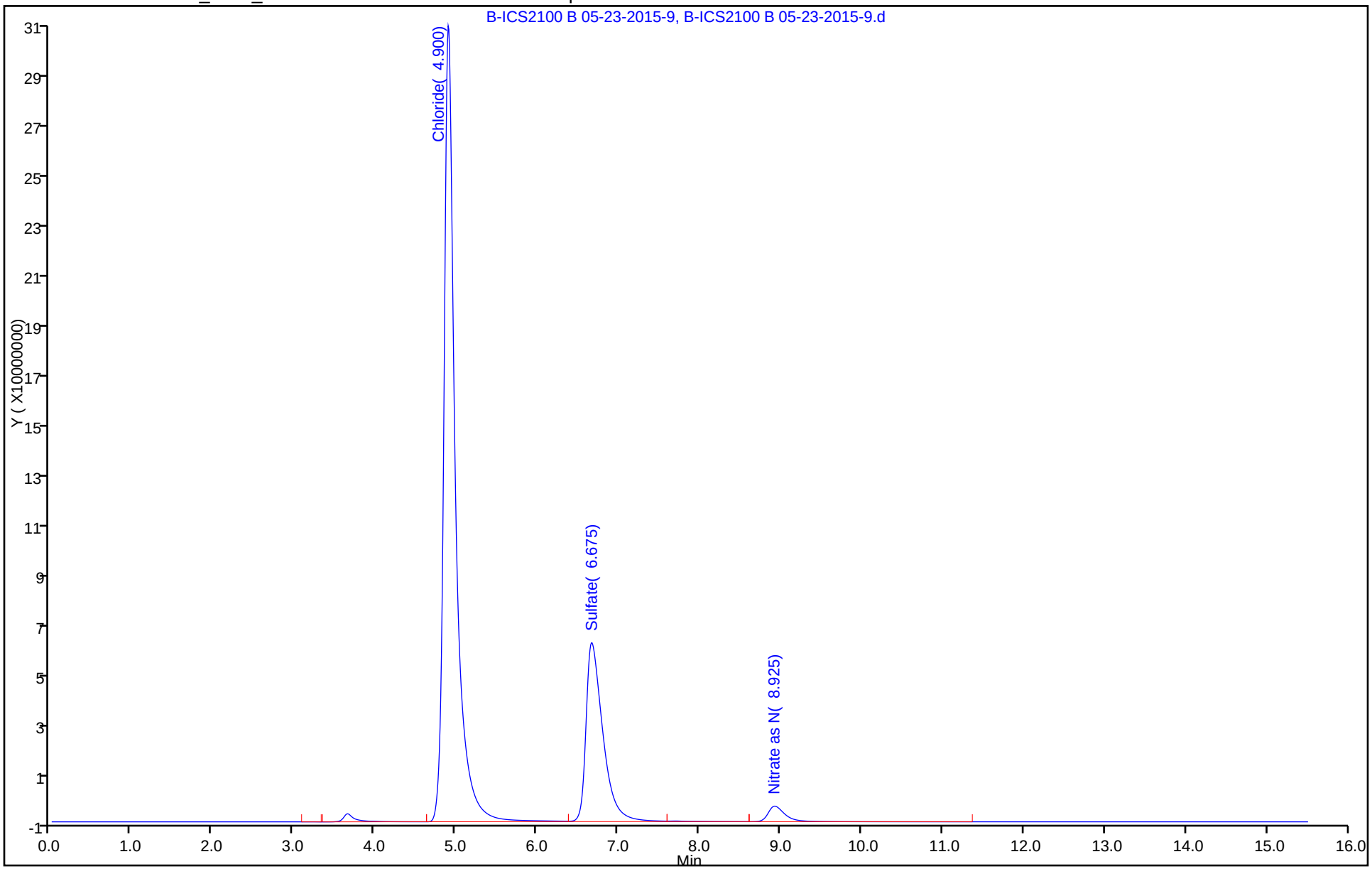
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-9.d				
Lims ID:	180-44401-A-6	Lab Sample ID:	180-44401-6		
Client ID:	HD-MW-51D-0/1-0				
Sample Type:	Client				
Inject. Date:	23-May-2015 08:06:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007079-009				
Misc. Info.:	9 180-44401-a-6				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 04:46:50	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.900	4.908	-0.008	2990289090	112.1	
3 Sulfate	6.675	6.675	0.000	984582737	50.3	
5 Nitrate as N	8.925	8.892	0.033	86258178	1.31	

Report Date: 25-May-2015 04:46:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-9.d				
Injection Date:	23-May-2015 08:06:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-6	Lab Sample ID:	180-44401-6	Worklist Smp#:	9
Client ID:	HD-MW-51D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-50S-0/1-0 | Lab Sample ID: 180-44401-7

Matrix: Water | Lab File ID: B-ICS2100 B 05-23-2015-7.d

Analysis Method: 300.0 | Date Collected: 05/21/2015 08:10

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/23/2015 07:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4	B	0.10	0.0062
16887-00-6	Chloride	180		1.0	0.20
14808-79-8	Sulfate	59		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

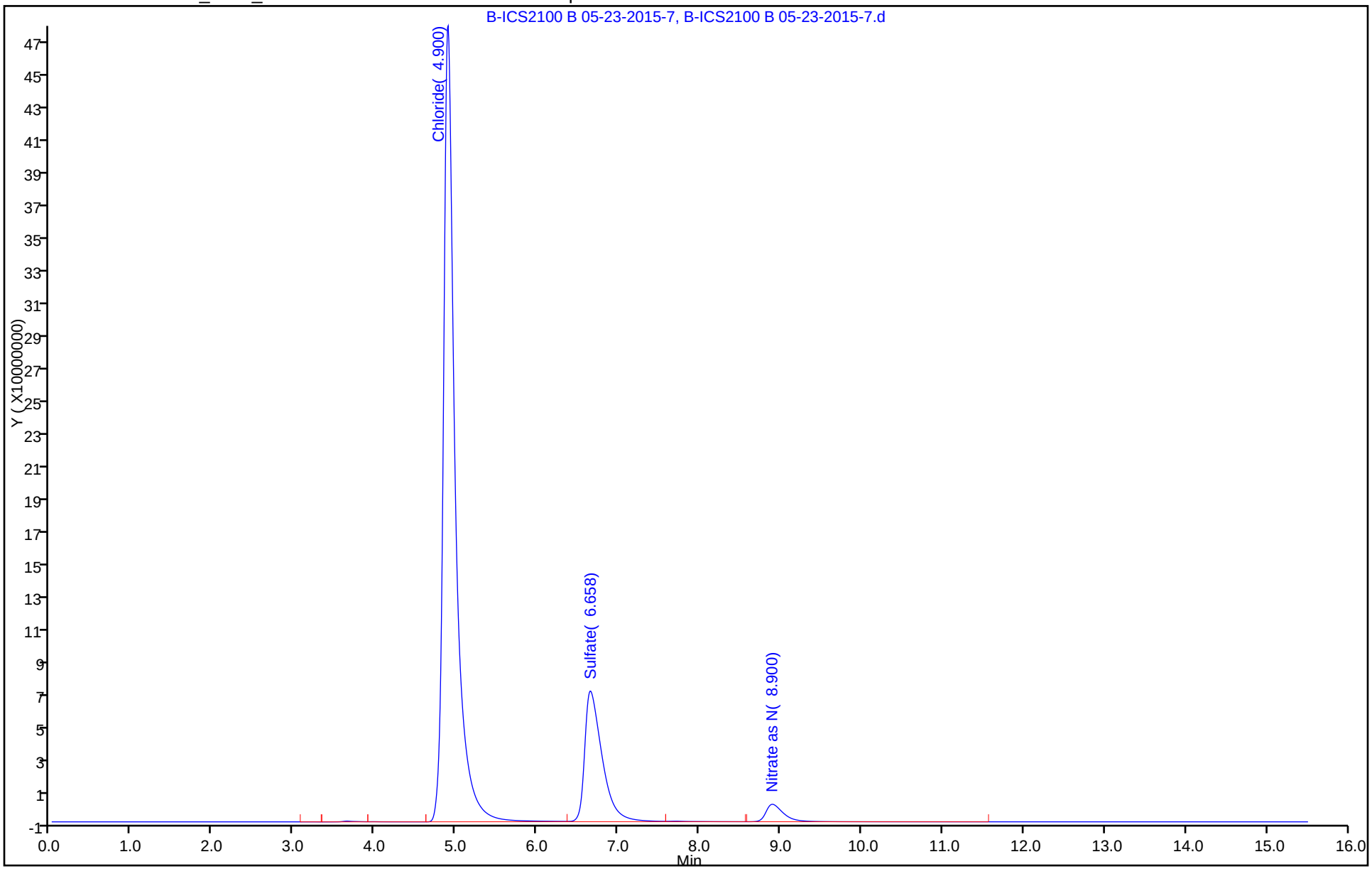
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-7.d				
Lims ID:	180-44401-A-7	Lab Sample ID:	180-44401-7		
Client ID:	HD-MW-50S-0/1-0				
Sample Type:	Client				
Inject. Date:	23-May-2015 07:30:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007079-007				
Misc. Info.:	7 180-44401-a-7				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 04:46:50	Calib Date:	15-Apr-2015 17:45:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.900	4.908	-0.008	4775471958	179.0	
3 Sulfate	6.658	6.675	-0.017	1161099178	59.4	
5 Nitrate as N	8.900	8.892	0.008	156728224	2.37	

Report Date: 25-May-2015 04:46:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-7.d				
Injection Date:	23-May-2015 07:30:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-7	Lab Sample ID:	180-44401-7	Worklist Smp#:	7
Client ID:	HD-MW-50S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.658	3.658	3.658	3.667	3.667	3.667	3.667	3.675			3.308 - 4.008	3.665
Chloride	4.950	4.950	4.942	4.942	4.933	4.933	4.925	4.917			4.592 - 5.292	4.937
Nitrite as N	5.817	5.817	5.817	5.817	5.817	5.817	+++++	+++++			5.567 - 6.067	5.817
Sulfate	6.858	6.850	6.833	6.808	6.750	6.683	6.625	6.575			6.483 - 7.183	6.748
Bromide	7.817	7.817	7.808	7.808	7.783	7.767	7.733	7.717			7.458 - 8.158	7.781
Nitrate as N	9.100	9.100	9.083	9.067	9.017	8.967	8.917	8.875			8.833 - 9.333	9.016
Orthophosphate as P	+++++	+++++	12.633	12.600	12.467	12.317	12.183	12.083			12.133 - 13.133	12.381

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.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 LVL 8		B	M1	M2								
Fluoride	46484040 44488770	41188952 43022992	45611308 42521689	45839580 41976790	Lin2	142149.513	43397203.3							0.9980		0.9950
Chloride	25085564 26660142	26222144 26369330	26666796 26648824	26747431 26853496	Lin2	-1610994.2	26686961.8							1.0000		0.9950
Nitrite as N	76927840 57882564	60781072 54059356	61607114 +++++	61339242 +++++	Lin2	972853.413	57624405.7							0.9980		0.9950
Sulfate	23335222 19577256	20457294 19212636	19964310 19359210	19887329 19477723	Lin2	3912770.84	19478213.4							1.0000		0.9950
Bromide	835850 915403	853785 881845	884616 868328	909169 849773	Lin2	-9816.0251	883383.993							0.9990		0.9950
Nitrate as N	55575600 66453469	60515684 66412101	63992838 67380292	65497209 68126262	Lin2	-571568.42	66232763.7							0.9990		0.9950
Orthophosphate as P	+++++ 26468473	+++++ 26383080	23630620 26946762	24921352 27192225	Lin2	-1805036.3	27076969.6							1.0000		0.9950

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

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1 Analy Batch No.: 138618

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		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
Fluoride	Lin2	2324202 215114961	10297238 318912666	22805654 419767900	45839580	111221925	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	25085564 2636933019	131110722 3997323672	266667960 5370699112	534948618	1333007108	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3846392 270296782	15195268 +++++	30803557 +++++	61339242	144706410	0.0500 5.00	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	23335222 1921263587	102286469 2903881535	199643096 3895544554	397746587	978862804	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	167170 17636894	853785 26049842	1769232 33990920	3636676	9154030	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2778780 332060506	15128921 505352191	31996419 681262618	65497209	166133672	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	+++++ 131915399	+++++ 202100715	11815310 271922248	24921352	66171182	+++++ 5.00	+++++ 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:
Lin2 = Linear 1/conc^2 by height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Apr-2015 15:44:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-002
Misc. Info.: 3659 ic l2
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	2324202	0.0500	0.0503	
2 Chloride	4.950	4.942	0.008	25085564	1.00	1.00	
7 Nitrite as N	5.817	5.817	0.000	3846392	0.0500	0.0499	
3 Sulfate	6.858	6.833	0.025	23335222	1.00	1.00	
4 Bromide	7.817	7.808	0.009	167170H	0.2000	0.2004	
5 Nitrate as N	9.100	9.083	0.017	2778780	0.0500	0.0506	
6 Orthophosphate as P	12.667	12.633	0.034	870881	0.0500	0.0988	

Reagents:

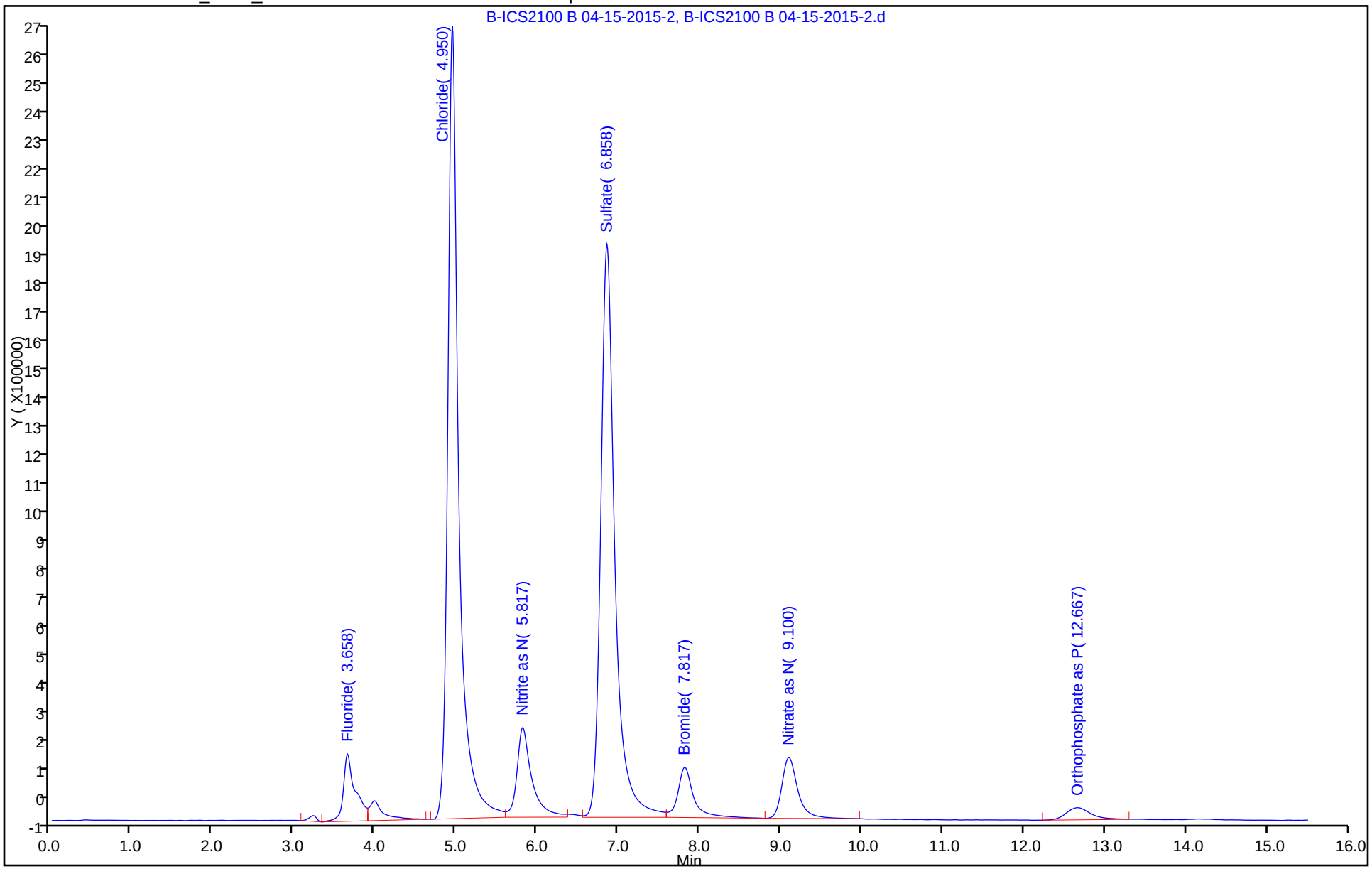
ICSTDL2_00171 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d

Injection Date:	15-Apr-2015 15:44:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Apr-2015 16:01:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-003
Misc. Info.: 27860 ic l3
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	10297238	0.2500	0.2340	
2 Chloride	4.950	4.942	0.008	131110722	5.00	4.97	
7 Nitrite as N	5.817	5.817	0.000	15195268	0.2500	0.2468	
3 Sulfate	6.850	6.833	0.017	102286469	5.00	5.05	
4 Bromide	7.817	7.808	0.009	853785H	1.00	0.9776	
5 Nitrate as N	9.100	9.083	0.017	15128921	0.2500	0.2371	
6 Orthophosphate as P	12.667	12.633	0.034	5299466	0.2500	0.2624	

Reagents:

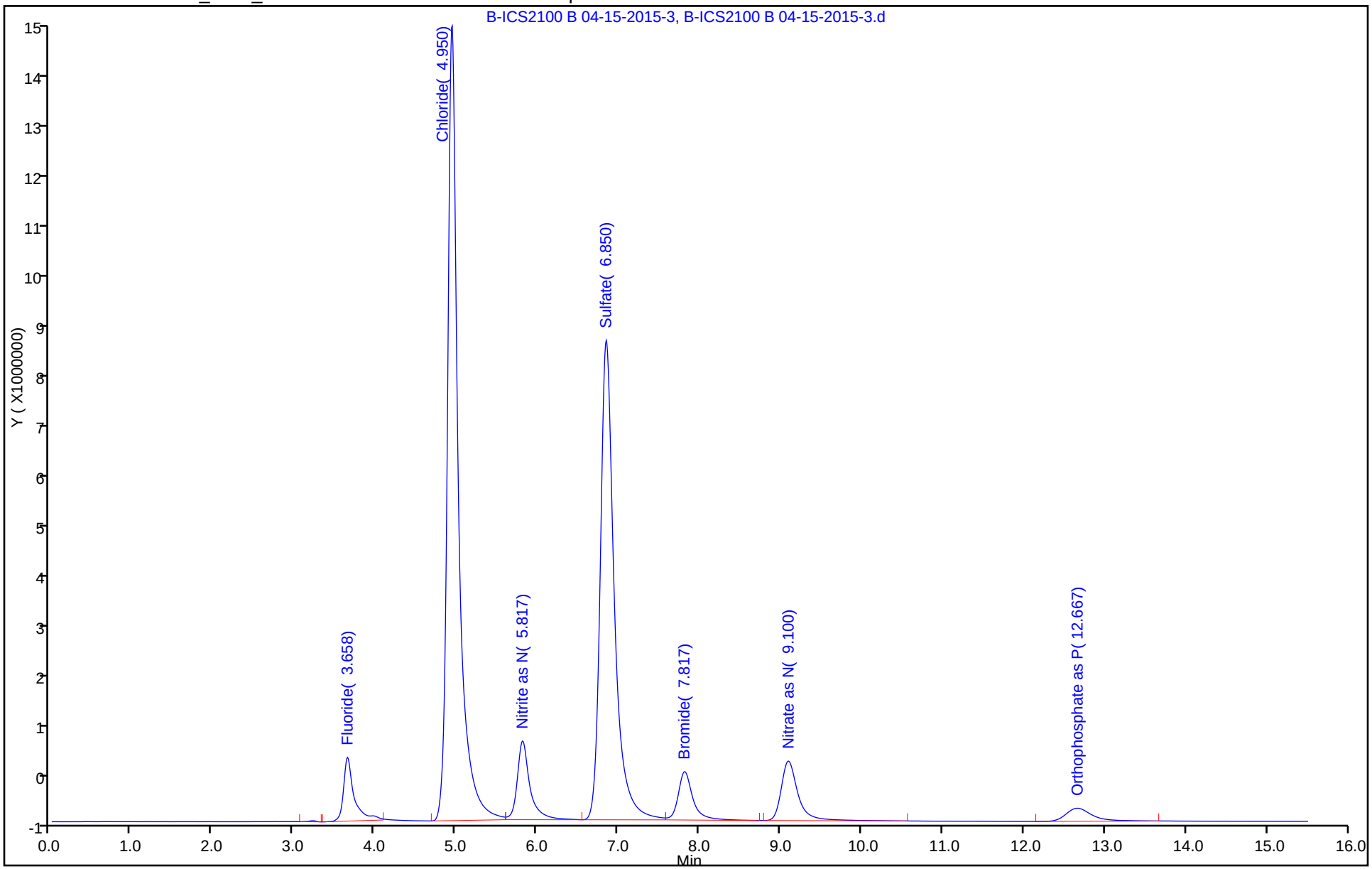
ICSTDL3_00209 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:32 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d

Injection Date:	15-Apr-2015 16:01:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 15-Apr-2015 16:19:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-004
Misc. Info.: 21504 icrt l4
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:57:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	22805654	0.5000	0.5222	
2 Chloride	4.942	4.942	0.000	266667960	10.0	10.1	
7 Nitrite as N	5.817	5.817	0.000	30803557	0.5000	0.5177	
3 Sulfate	6.833	6.833	0.000	199643096	10.0	10.0	
4 Bromide	7.808	7.808	0.000	1769232H	2.00	2.01	
5 Nitrate as N	9.083	9.083	0.000	31996419	0.5000	0.4917	
6 Orthophosphate as P	12.633	12.633	0.000	11815310	0.5000	0.5030	

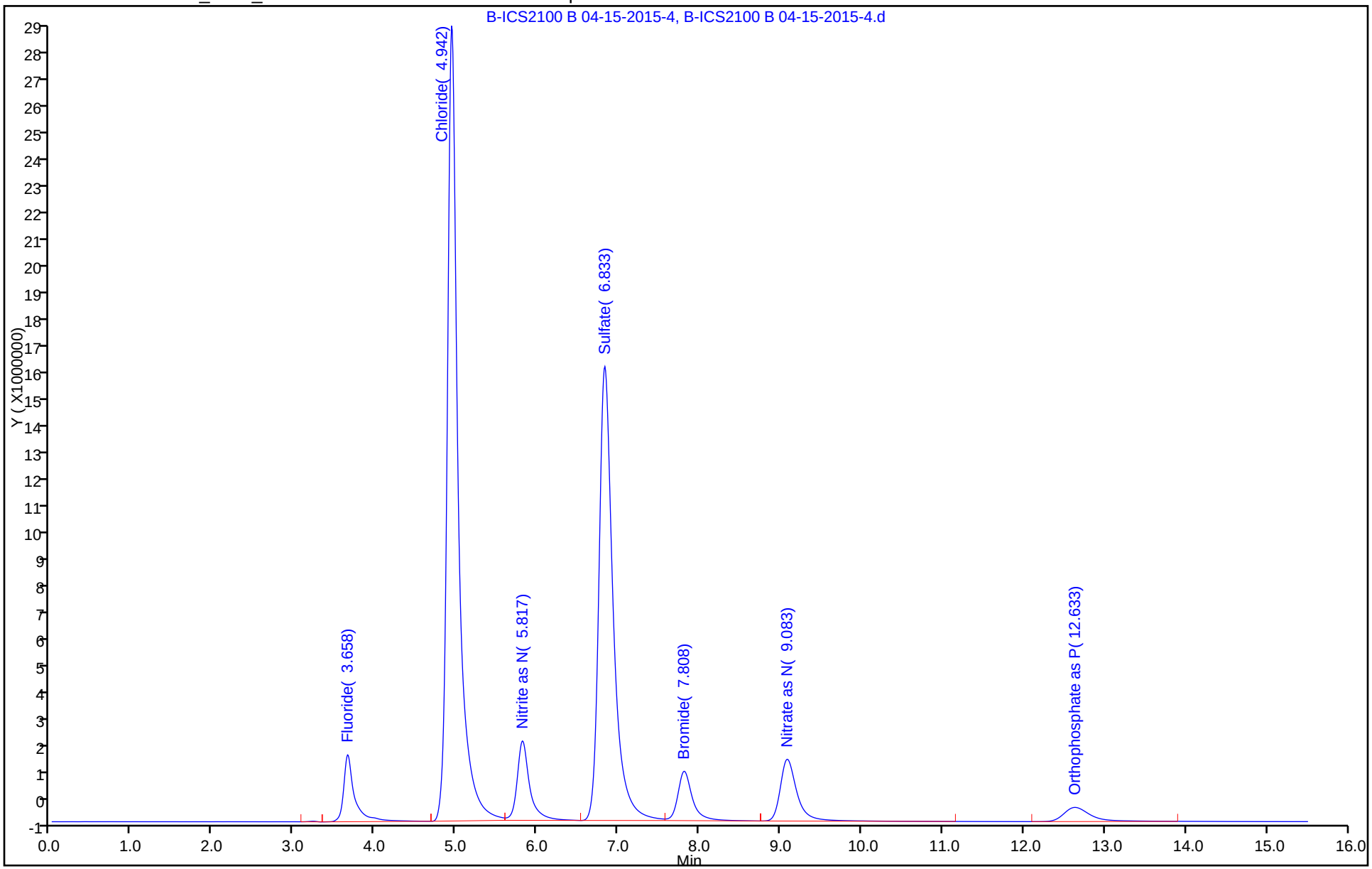
Reagents:

ICSTDL4_00143 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d				
Injection Date:	15-Apr-2015 16:19:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Apr-2015 16:36:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-005
Misc. Info.: 13847 ic l5
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	45839580	1.00	1.05	
2 Chloride	4.942	4.942	0.000	534948618	20.0	20.1	
7 Nitrite as N	5.817	5.817	0.000	61339242	1.00	1.05	
3 Sulfate	6.808	6.833	-0.025	397746587	20.0	20.2	
4 Bromide	7.808	7.808	0.000	3636676	4.00	4.13	H
5 Nitrate as N	9.067	9.083	-0.016	65497209	1.00	1.00	
6 Orthophosphate as P	12.600	12.633	-0.033	24921352	1.00	0.9871	

Reagents:

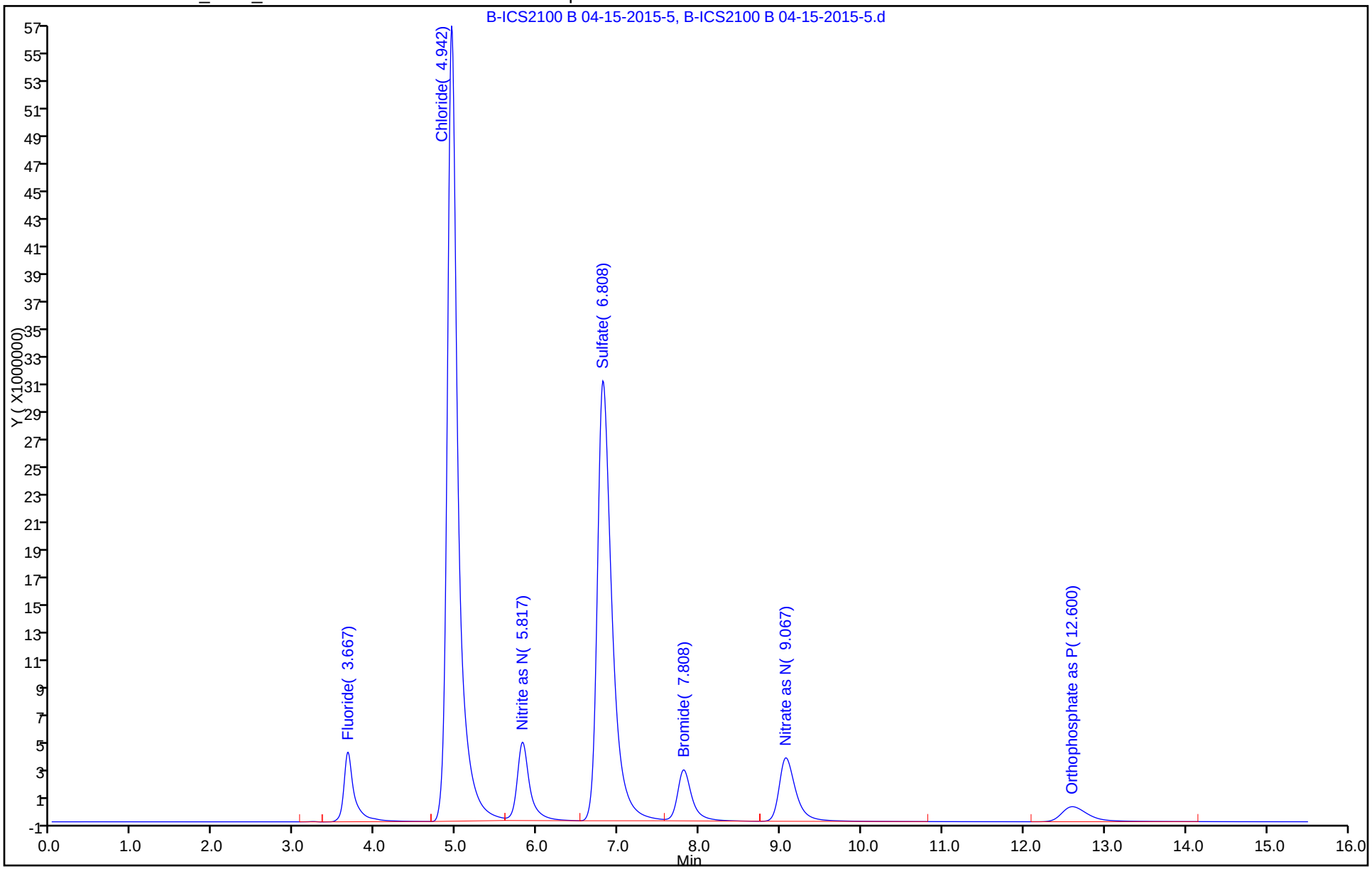
ICSTDL5_00145 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d

Injection Date:	15-Apr-2015 16:36:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Apr-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-006
Misc. Info.: 10546 ic l6
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	111221925	2.50	2.56	
2 Chloride	4.933	4.942	-0.009	1333007108	50.0	50.0	
7 Nitrite as N	5.817	5.817	0.000	144706410	2.50	2.49	
3 Sulfate	6.750	6.833	-0.083	978862804	50.0	50.1	
4 Bromide	7.783	7.808	-0.025	9154030H	10.0	10.4	
5 Nitrate as N	9.017	9.083	-0.066	166133672	2.50	2.52	
6 Orthophosphate as P	12.467	12.633	-0.166	66171182	2.50	2.51	

Reagents:

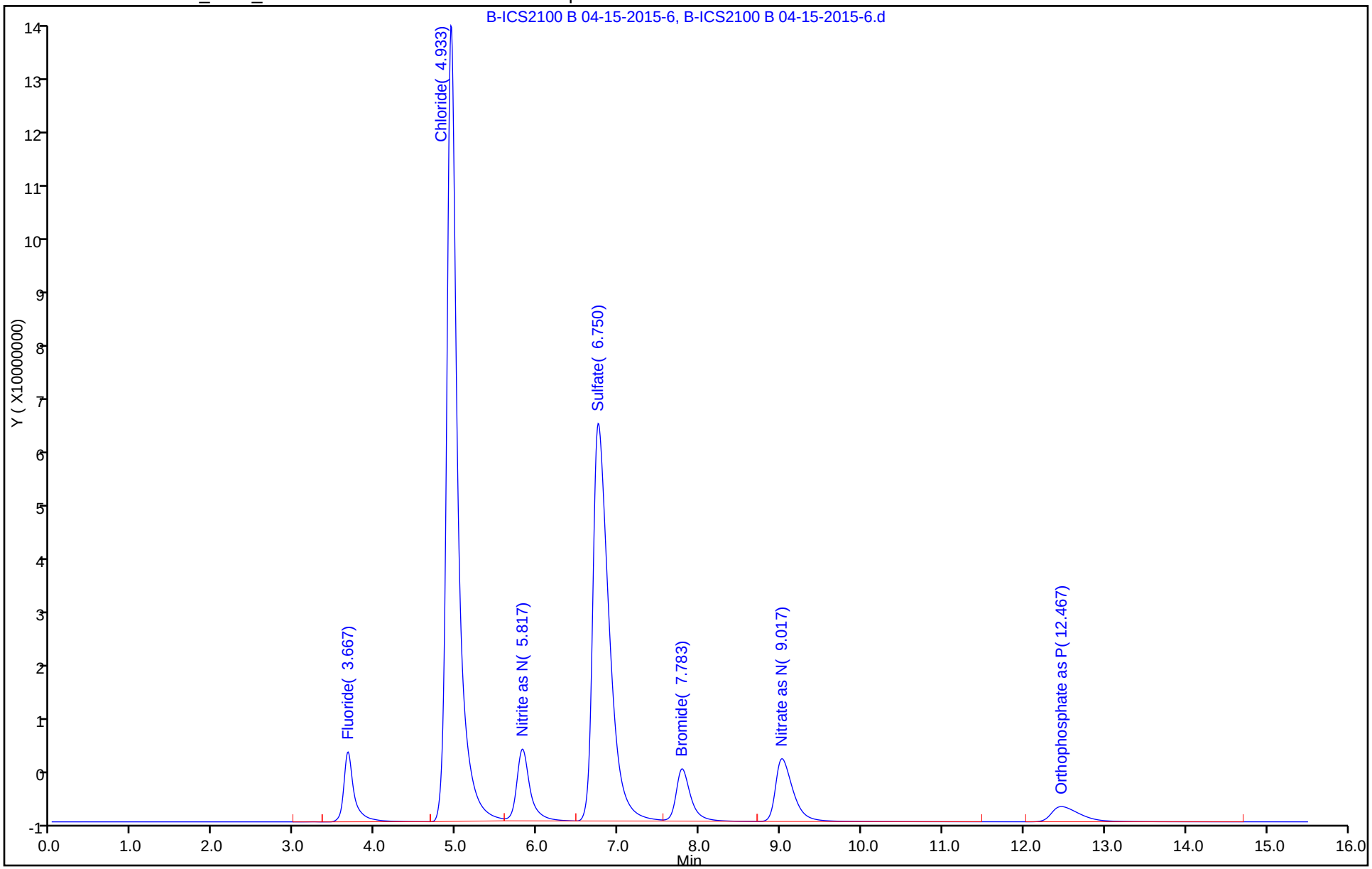
ICSTDL6_00213 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d

Injection Date:	15-Apr-2015 16:53:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Apr-2015 17:11:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-007
Misc. Info.: 9005 ic l7
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	215114961	5.00	4.95	
2 Chloride	4.933	4.942	-0.009	2636933019	100.0	98.9	
7 Nitrite as N	5.817	5.817	0.000	270296782	5.00	4.67	
3 Sulfate	6.683	6.833	-0.150	1921263587	100.0	98.4	
4 Bromide	7.767	7.808	-0.041	17636894	20.0	20.0	H
5 Nitrate as N	8.967	9.083	-0.116	332060506	5.00	5.02	
6 Orthophosphate as P	12.317	12.633	-0.316	131915399	5.00	4.94	

Reagents:

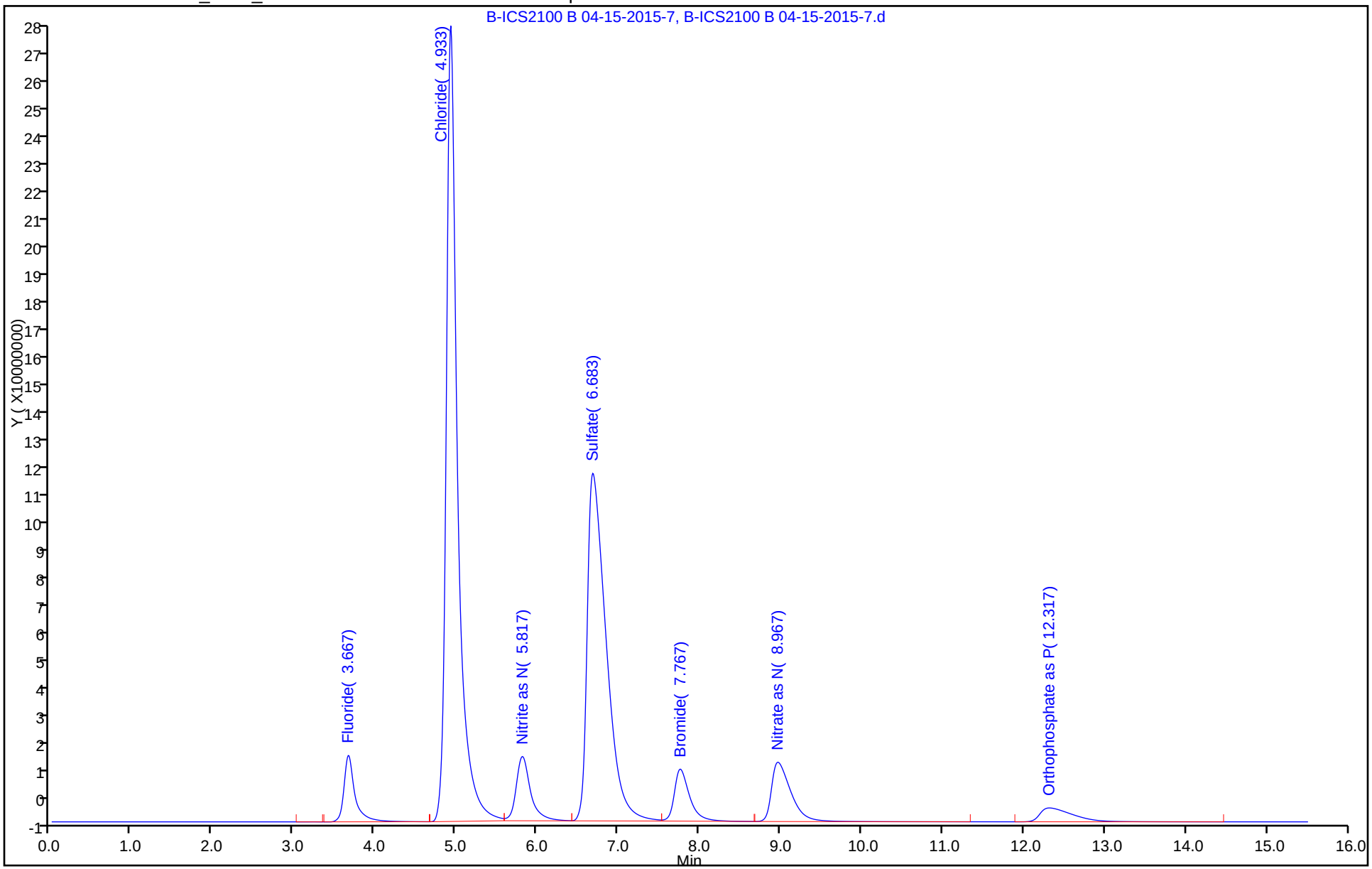
ICSTDL7_00141 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d

Injection Date:	15-Apr-2015 17:11:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 15-Apr-2015 17:28:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-008
Misc. Info.: 7430 ic l8
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 12:00:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	318912666	7.50	7.35	
2 Chloride	4.925	4.942	-0.017	3997323672	150.0	149.8	
7 Nitrite as N	5.808	5.817	-0.009	362807489	7.50	6.28	
3 Sulfate	6.625	6.833	-0.208	2903881535	150.0	148.9	
4 Bromide	7.733	7.808	-0.075	26049842H	30.0	29.5	
5 Nitrate as N	8.917	9.083	-0.166	505352191	7.50	7.64	
6 Orthophosphate as P	12.183	12.633	-0.450	202100715	7.50	7.53	

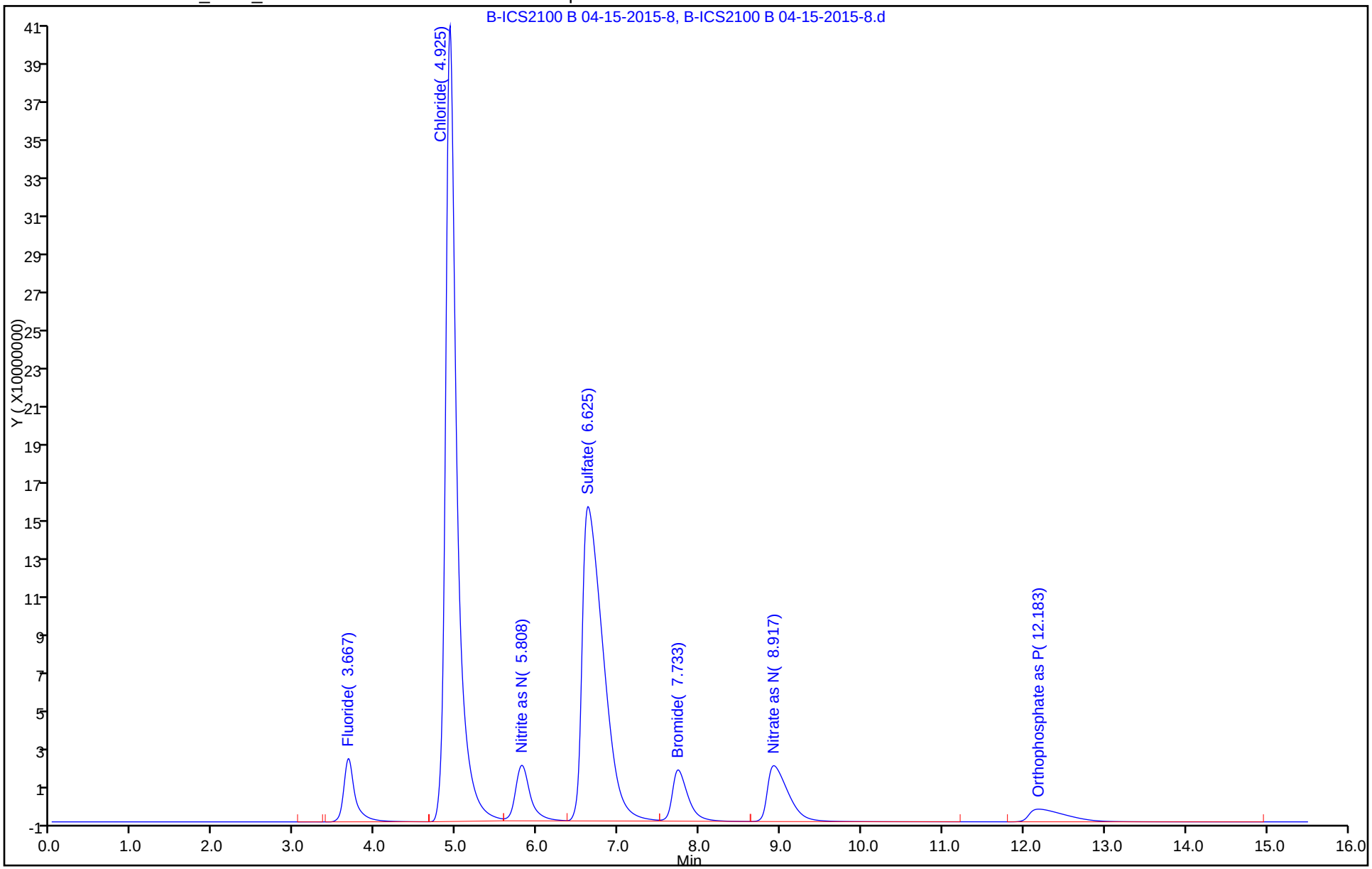
Reagents:

ICSTDL8_00112 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d				
Injection Date:	15-Apr-2015 17:28:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 15-Apr-2015 17:45:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-009
Misc. Info.: 4878 ic l9
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:58:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.675	3.658	0.017	419767900	10.0	9.67	
2 Chloride	4.917	4.942	-0.025	5370699112	200.0	201.3	
7 Nitrite as N	5.808	5.817	-0.009	499624168	10.0	8.65	
3 Sulfate	6.575	6.833	-0.258	3895544554	200.0	199.8	
4 Bromide	7.717	7.808	-0.091	33990920	40.0	38.5	H
5 Nitrate as N	8.875	9.083	-0.208	681262618	10.0	10.3	
6 Orthophosphate as P	12.083	12.633	-0.550	271922248	10.0	10.1	

Reagents:

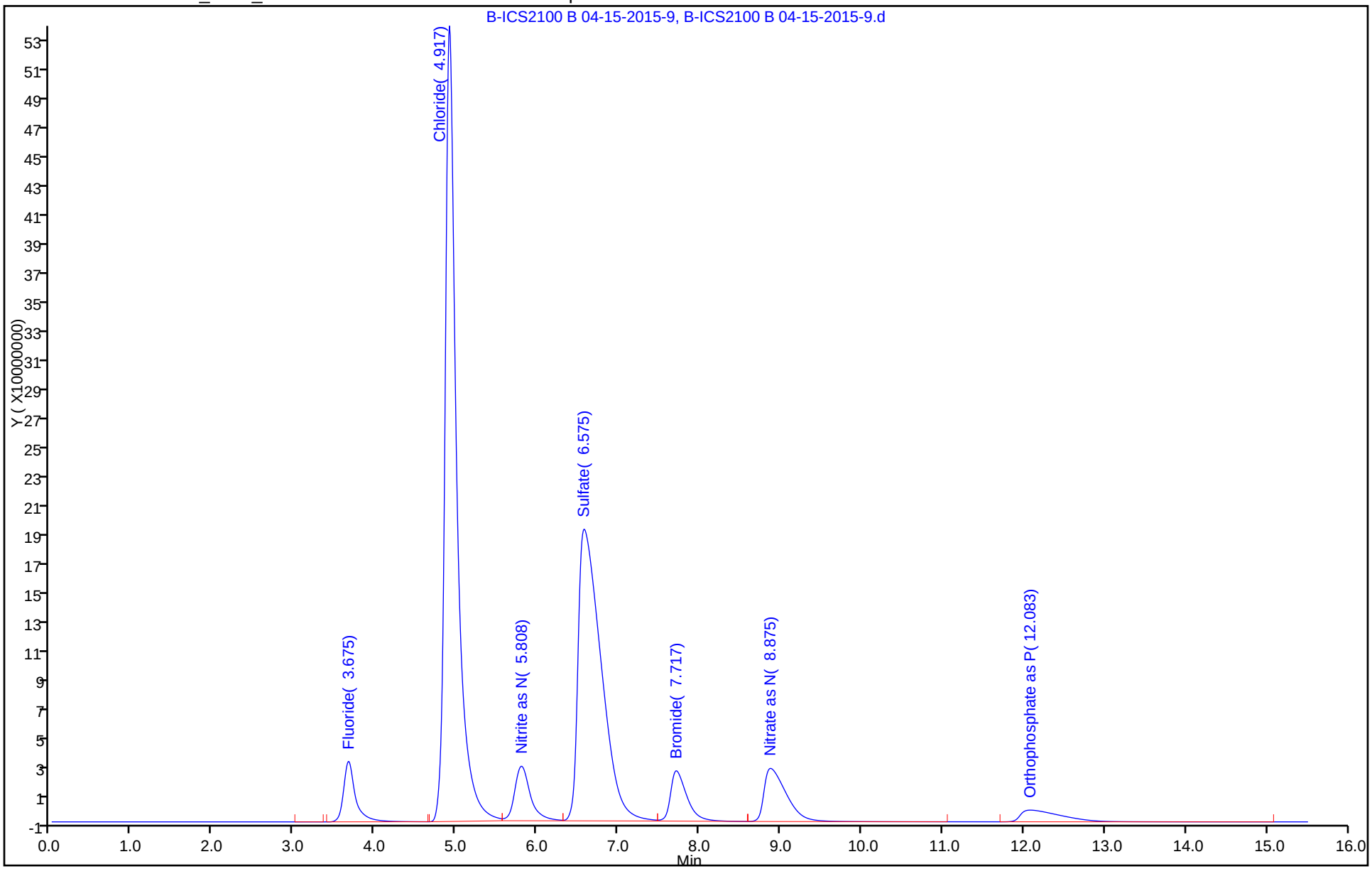
ICSTDL9_00115 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Injection Date:	15-Apr-2015 17:45:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: ICV 180-142621/2 Calibration Date: 05/23/2015 06:04

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43514315		3.00	3.00	0.2	10.0
Chloride	Lin2		26101291		58.7	60.0	-2.1	10.0
Nitrite as N	Lin2	62099531	57512731		2.98	3.00	-0.8	10.0
Sulfate	Lin2		19044020		58.5	60.0	-2.6	10.0
Bromide	Lin2		892106		12.1	12.0	1.1	10.0
Nitrate as N	Lin2		63803309		2.90	3.00	-3.4	10.0
Orthophosphate as P	Lin2		21978838		2.50	3.00	-16.6*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: ICV 180-142621/2 Calibration Date: 05/23/2015 06:04

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.91	4.57	5.27
Nitrite as N	5.76	5.53	6.03
Sulfate	6.67	6.33	7.03
Bromide	7.70	7.36	8.06
Nitrate as N	8.89	8.65	9.15
Orthophosphate as P	12.17	11.69	12.69

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 23-May-2015 06:04:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:46:55 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	130542945	3.00	3.00	
2 Chloride	4.908	4.917	-0.009	1566077456	60.0	58.7	
7 Nitrite as N	5.758	5.775	-0.017	172607208	3.00	2.98	
3 Sulfate	6.667	6.683	-0.016	1142641178	60.0	58.5	
4 Bromide	7.700	7.708	-0.008	10705270H	12.0	12.1	
5 Nitrate as N	8.892	8.900	-0.008	191409928	3.00	2.90	
6 Orthophosphate as P	12.167	12.192	-0.025	65936513	3.00	2.50	

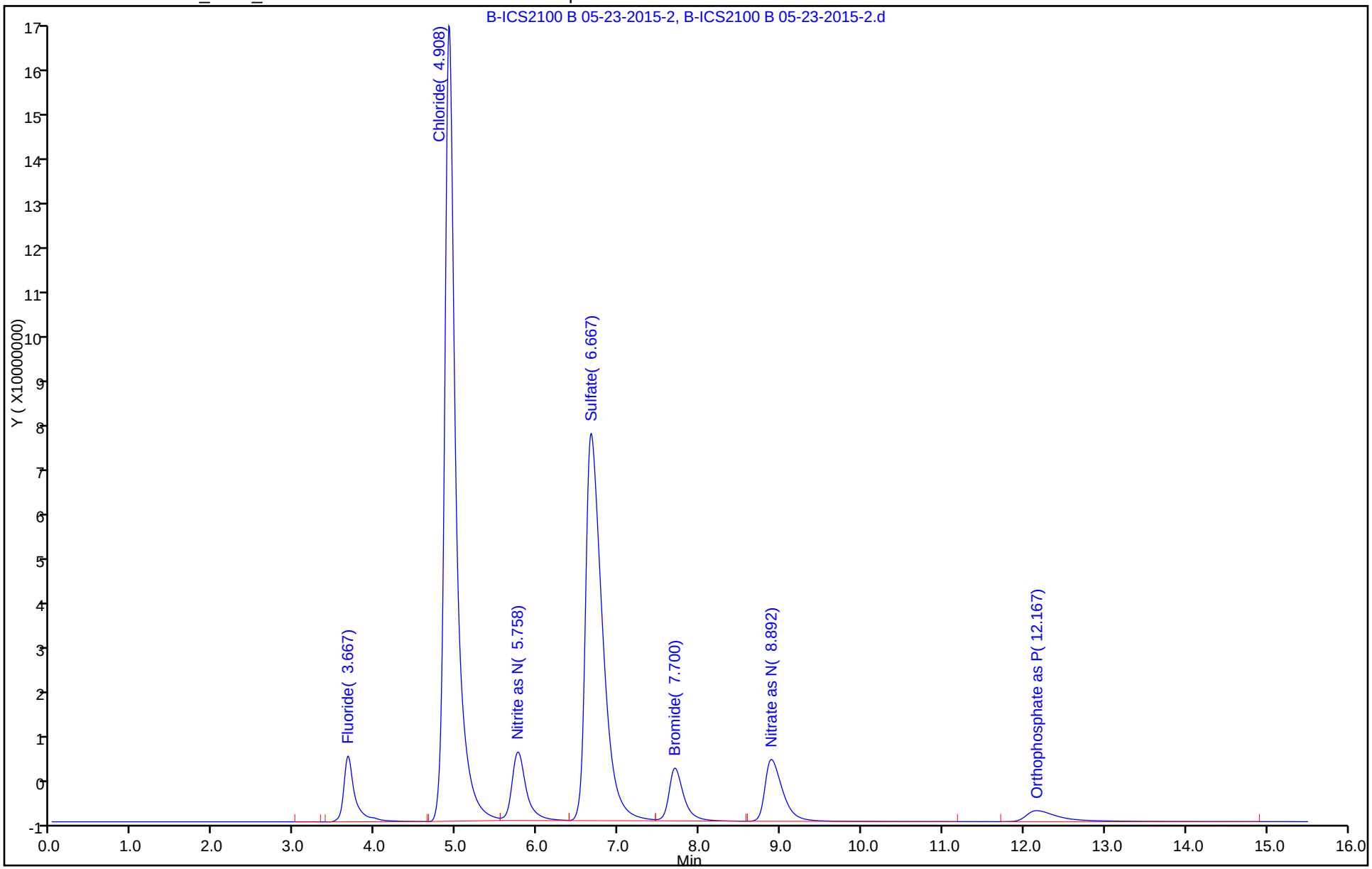
Reagents:

icicv_01277 Amount Added: 1.00 Units: mL

Report Date: 25-May-2015 04:46:56 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-2.d				
Injection Date:	23-May-2015 06:04:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCV 180-142621/3 Calibration Date: 05/23/2015 06:21

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43961146		2.53	2.50	1.2	10.0
Chloride	Lin2		27038925		50.7	50.0	1.4	10.0
Nitrite as N	Lin2	62099531	58655491		2.53	2.50	1.1	10.0
Sulfate	Lin2		19750256		50.5	50.0	1.0	10.0
Bromide	Lin2		912253		10.3	10.0	3.4	10.0
Nitrate as N	Lin2		67168315		2.54	2.50	1.8	10.0
Orthophosphate as P	Lin2		23049341		2.19	2.50	-12.2*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCV 180-142621/3 Calibration Date: 05/23/2015 06:21

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.67	3.32	4.02
Chloride	4.92	4.57	5.27
Nitrite as N	5.78	5.53	6.03
Sulfate	6.68	6.33	7.03
Bromide	7.71	7.36	8.06
Nitrate as N	8.90	8.65	9.15
Orthophosphate as P	12.19	11.69	12.69

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-May-2015 06:21:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-003
Misc. Info.: 3 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:46:55 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.667	0.000	109902864	2.50	2.53	
2 Chloride	4.917	4.917	0.000	1351946225	50.0	50.7	
7 Nitrite as N	5.775	5.775	0.000	146638727	2.50	2.53	
3 Sulfate	6.683	6.683	0.000	987512816	50.0	50.5	
4 Bromide	7.708	7.708	0.000	9122533	10.0	10.3	H
5 Nitrate as N	8.900	8.900	0.000	167920787	2.50	2.54	
6 Orthophosphate as P	12.192	12.192	0.000	57623352	2.50	2.19	

Reagents:

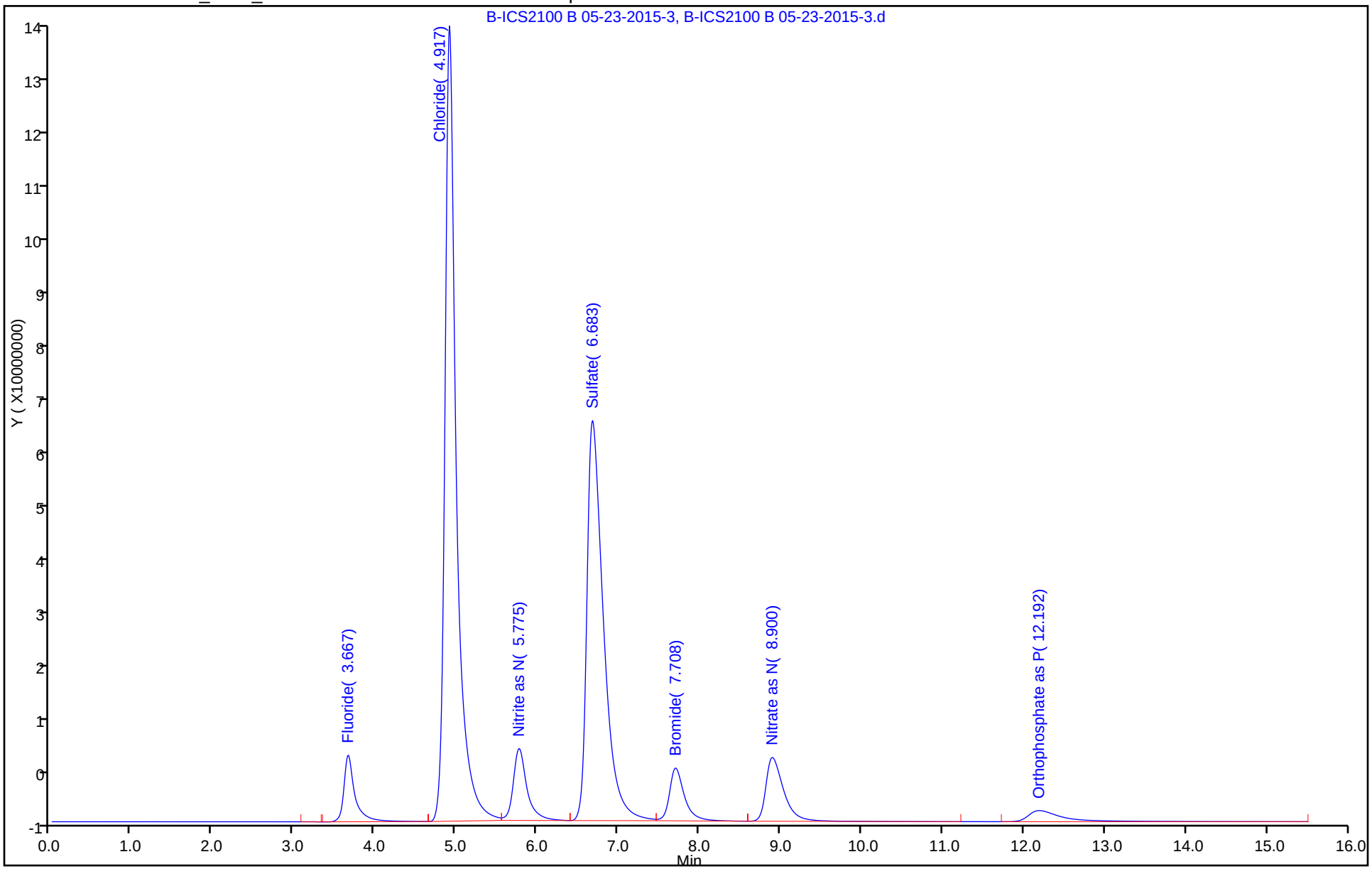
icccv_01245 Amount Added: 1.00 Units: mL

Report Date: 25-May-2015 04:46:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-3.d

Injection Date:	23-May-2015 06:21:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCV 180-142621/14 Calibration Date: 05/23/2015 09:33

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-14.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43042190		2.48	2.50	-0.9	10.0
Chloride	Lin2		26548120		49.8	50.0	-0.4	10.0
Nitrite as N	Lin2	62099531	57571276		2.48	2.50	-0.8	10.0
Sulfate	Lin2		19379320		49.5	50.0	-0.9	10.0
Bromide	Lin2		903208		10.2	10.0	2.4	10.0
Nitrate as N	Lin2		65913631		2.50	2.50	-0.1	10.0
Orthophosphate as P	Lin2		20595501		1.97	2.50	-21.3*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCV 180-142621/14 Calibration Date: 05/23/2015 09:33

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-14.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.91	4.56	5.26
Nitrite as N	5.78	5.53	6.03
Sulfate	6.68	6.33	7.03
Bromide	7.70	7.35	8.05
Nitrate as N	8.89	8.64	9.14
Orthophosphate as P	12.18	11.68	12.68

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-14.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-May-2015 09:33:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-014
Misc. Info.: 14 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:52:28 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	107605475	2.50	2.48	
2 Chloride	4.908	4.908	0.000	1327406004	50.0	49.8	
7 Nitrite as N	5.775	5.775	0.000	143928191	2.50	2.48	
3 Sulfate	6.675	6.675	0.000	968966010	50.0	49.5	
4 Bromide	7.700	7.700	0.000	9032083	10.0	10.2	H
5 Nitrate as N	8.892	8.892	0.000	164784077	2.50	2.50	
6 Orthophosphate as P	12.175	12.175	0.000	51488753	2.50	1.97	

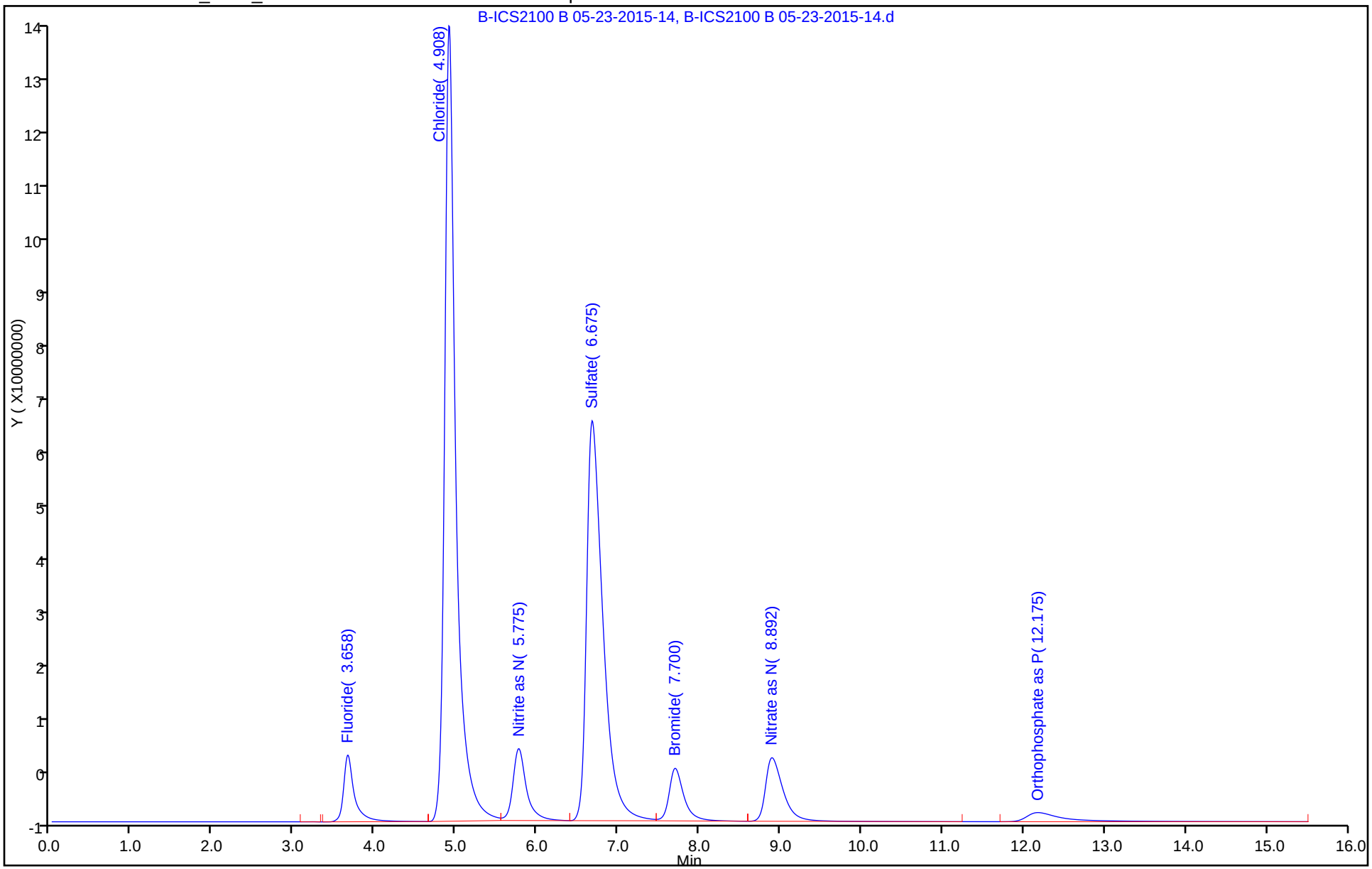
Reagents:

icccv_01245 Amount Added: 1.00 Units: mL

Report Date: 25-May-2015 04:52:28 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-14.d				
Injection Date:	23-May-2015 09:33:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	14
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCV 180-142621/19 Calibration Date: 05/23/2015 11:00

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-19.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43130464		2.48	2.50	-0.7	10.0
Chloride	Lin2		26595000		49.9	50.0	-0.2	10.0
Nitrite as N	Lin2	62099531	57519291		2.48	2.50	-0.9	10.0
Sulfate	Lin2		19414747		49.6	50.0	-0.7	10.0
Bromide	Lin2		896829		10.2	10.0	1.6	10.0
Nitrate as N	Lin2		65934739		2.50	2.50	-0.1	10.0
Orthophosphate as P	Lin2		20925259		2.00	2.50	-20.1*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: CCV 180-142621/19 Calibration Date: 05/23/2015 11:00

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-23-2015-19.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.91	4.56	5.26
Nitrite as N	5.77	5.52	6.02
Sulfate	6.68	6.33	7.03
Bromide	7.70	7.35	8.05
Nitrate as N	8.89	8.64	9.14
Orthophosphate as P	12.20	11.70	12.70

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-19.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-May-2015 11:00:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-019
Misc. Info.: 34 CCV
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:52:30 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

First Level Reviewer: oravecj Date: 23-May-2015 13:22:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	107826161	2.50	2.48	
2 Chloride	4.908	4.908	0.000	1329749978	50.0	49.9	
7 Nitrite as N	5.767	5.767	0.000	143798227	2.50	2.48	
3 Sulfate	6.683	6.683	0.000	970737336	50.0	49.6	
4 Bromide	7.700	7.700	0.000	8968294	10.0	10.2	H
5 Nitrate as N	8.892	8.892	0.000	164836847	2.50	2.50	
6 Orthophosphate as P	12.200	12.200	0.000	52313147	2.50	2.00	

Reagents:

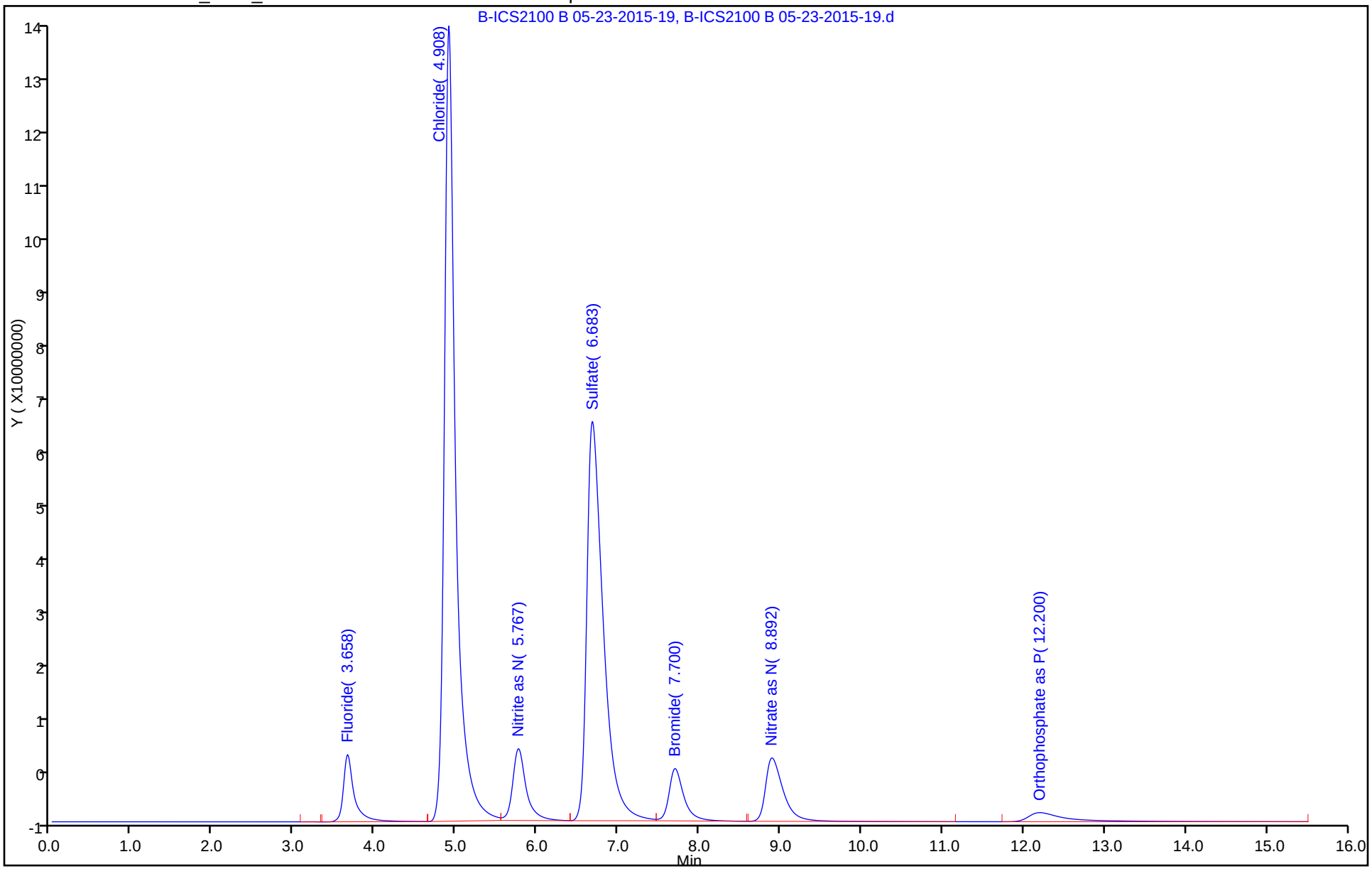
icccv_01245 Amount Added: 1.00 Units: mL

Report Date: 25-May-2015 04:52:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-19.d

Injection Date:	23-May-2015 11:00:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142621/6

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 07:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00929	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 23-May-2015 07:13:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:46:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

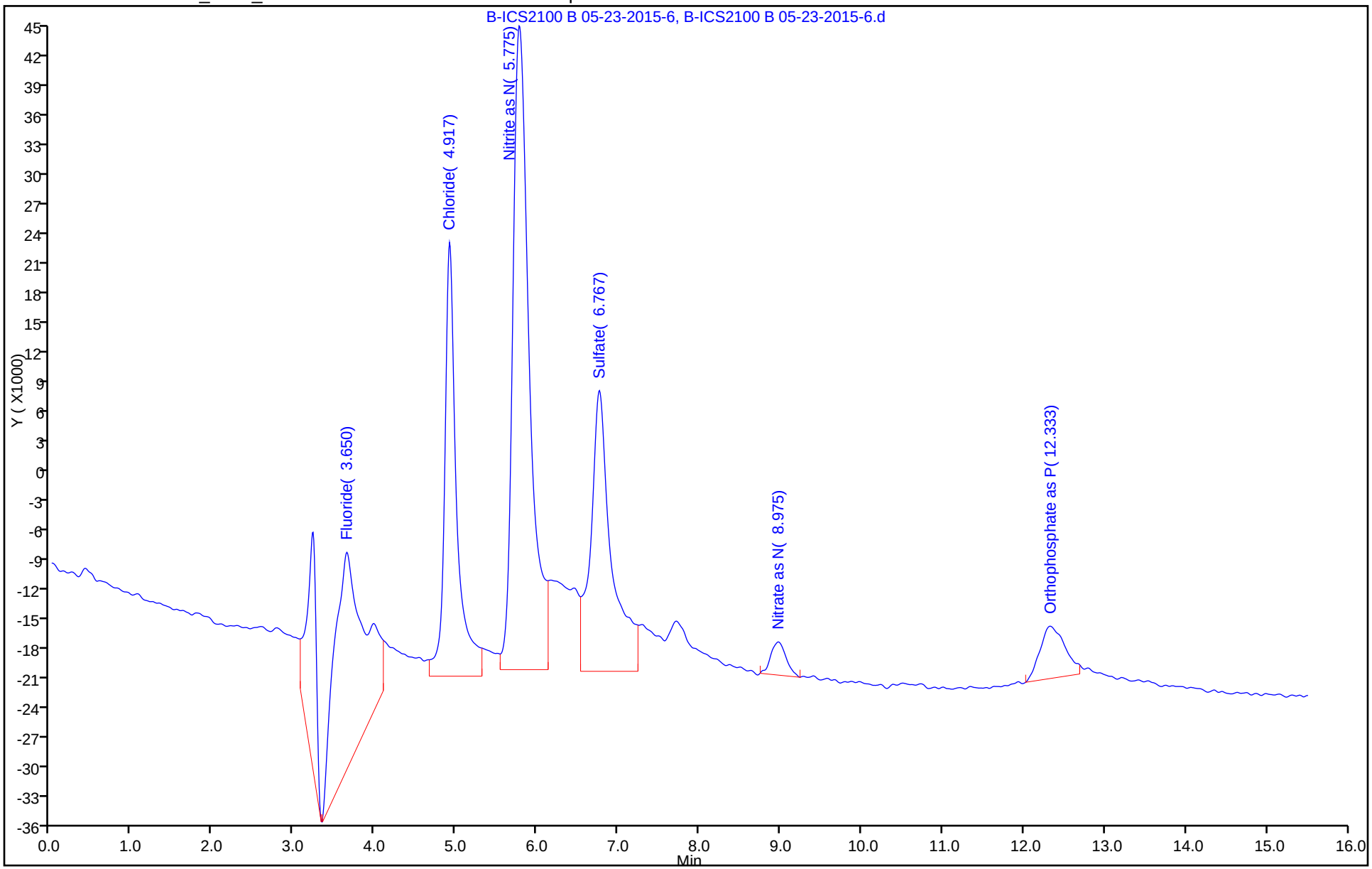
Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	551676		0.009437	
2 Chloride	4.917	4.908	0.009	448296		0.0772	
7 Nitrite as N	5.775	5.775	0.000	930655		-0.000732	
3 Sulfate	6.767	6.675	0.092	503210		-0.1750	
4 Bromide		7.700				ND	
5 Nitrate as N	8.975	8.892	0.083	43574		0.009288	
6 Orthophosphate as P	12.333	12.175	0.158	112096		0.0708	

Report Date: 25-May-2015 04:46:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-6.d				
Injection Date:	23-May-2015 07:13:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142621/4

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 06:38

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00943	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-May-2015 06:38:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-004
Misc. Info.: 4 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:46:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

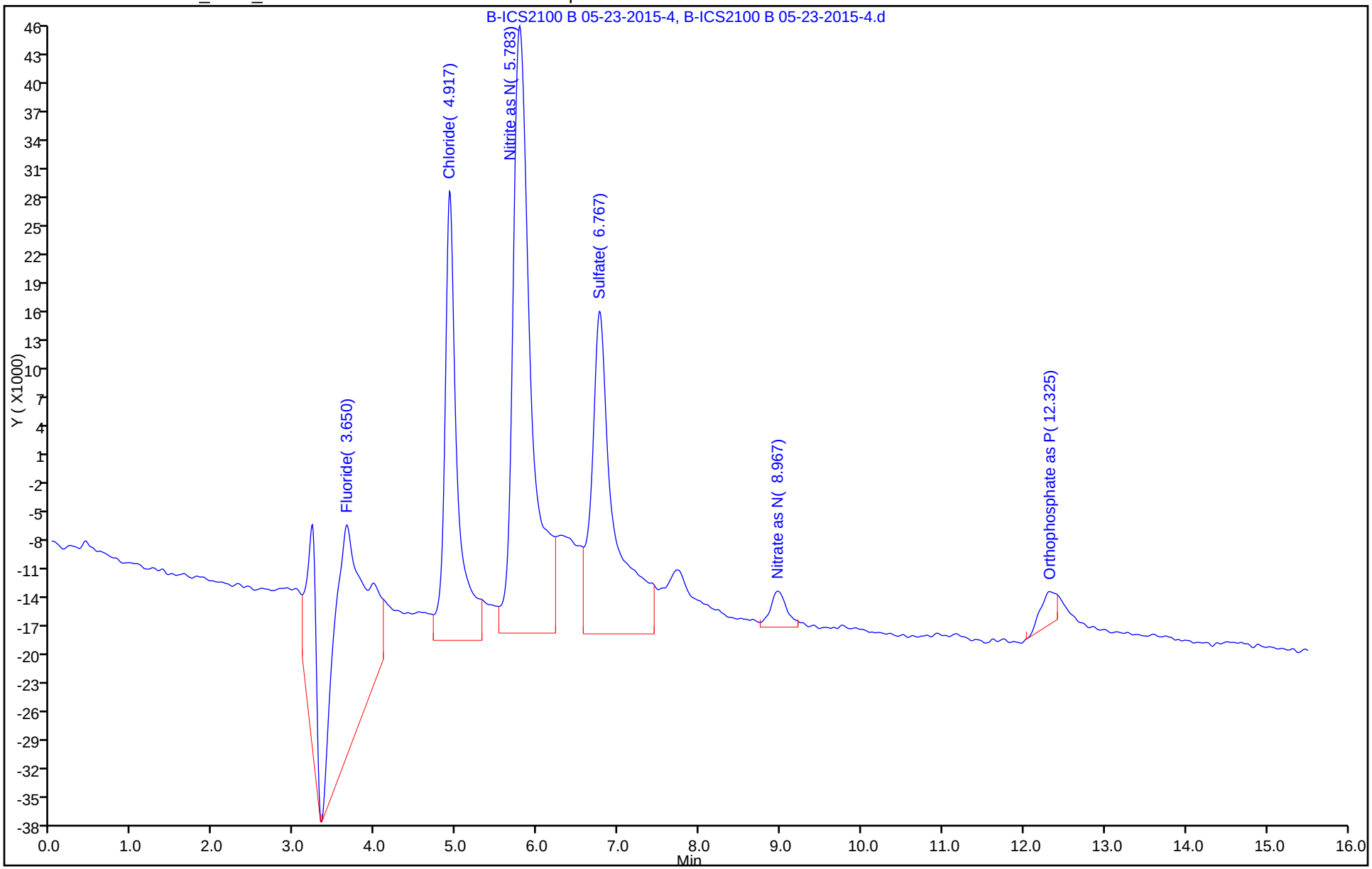
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	636804		0.0114	
2 Chloride	4.917	4.908	0.009	503260		0.0792	
7 Nitrite as N	5.783	5.775	0.008	994742		0.000380	
3 Sulfate	6.767	6.675	0.092	655996		-0.1672	
4 Bromide		7.700				ND	
5 Nitrate as N	8.967	8.892	0.075	53148		0.009432	
6 Orthophosphate as P	12.325	12.175	0.150	46176		0.0684	

Report Date: 25-May-2015 04:46:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-4.d

Injection Date:	23-May-2015 06:38:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142621/15

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-15.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 09:50

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-15.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-May-2015 09:50:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-015
Misc. Info.: 15 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:52:28 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

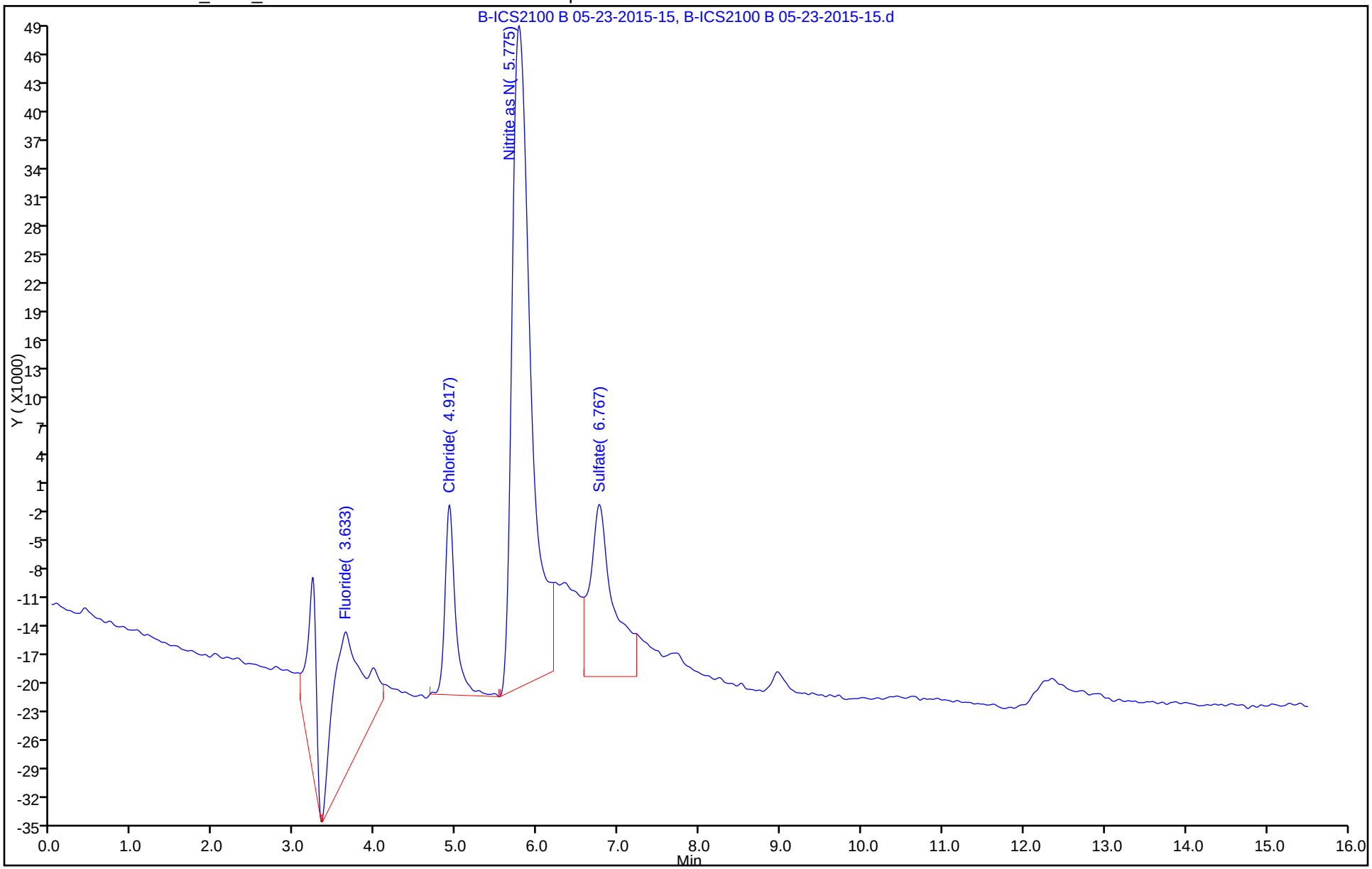
Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.633	3.658	-0.025	378296		0.005442	
2 Chloride	4.917	4.908	0.009	182310		0.0672	
7 Nitrite as N	5.775	5.775	0.000	1123887		0.002621	
3 Sulfate	6.767	6.675	0.092	362849		-0.1823	
4 Bromide		7.700				ND	
5 Nitrate as N		8.892				ND	
6 Orthophosphate as P		12.175				ND	

Report Date: 25-May-2015 04:52:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-15.d				
Injection Date:	23-May-2015 09:50:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142621/20

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-20.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 11:17

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-20.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 23-May-2015 11:17:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-020
Misc. Info.: 35 CCB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:52:30 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

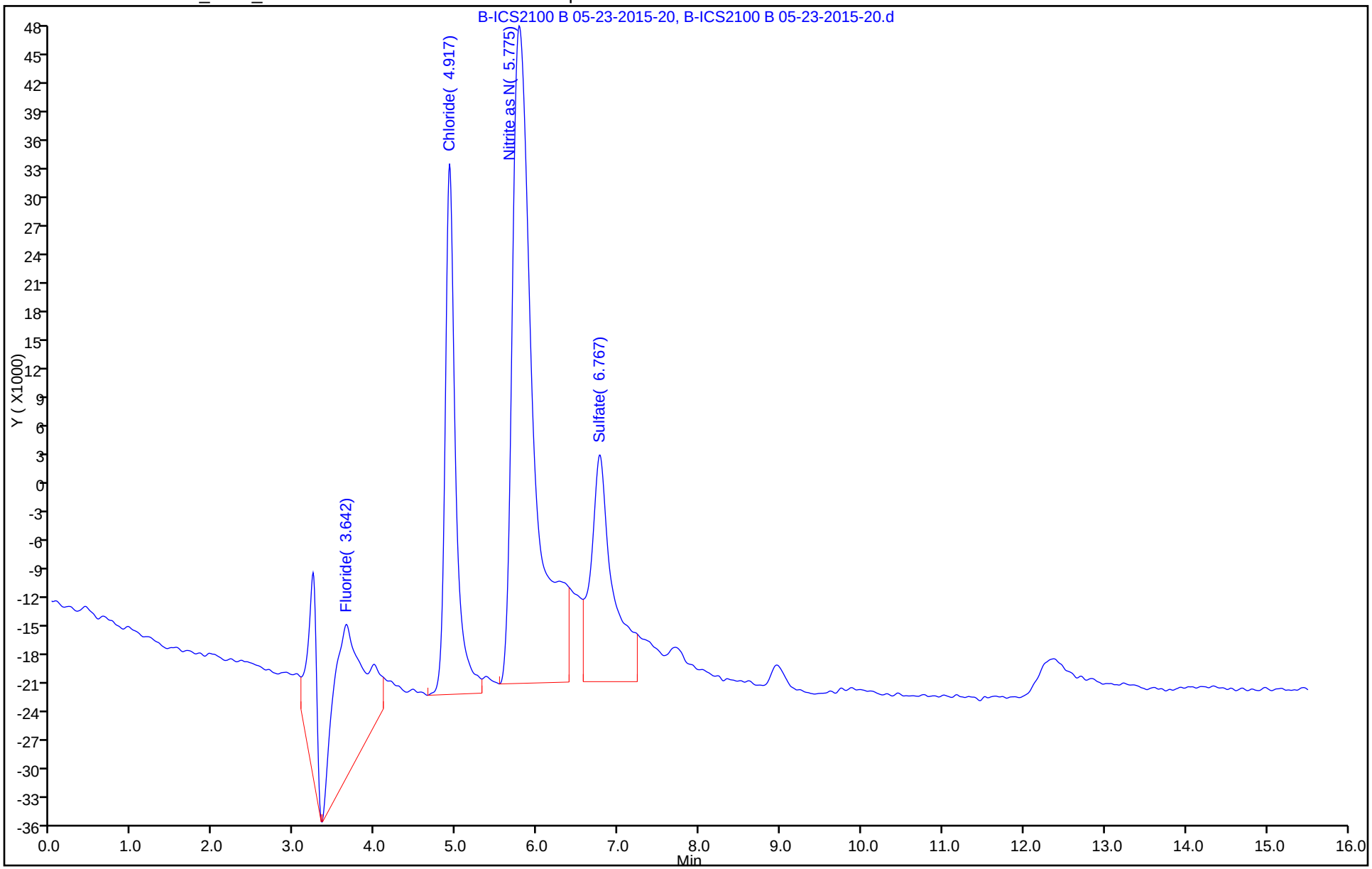
Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	420039		0.006403	
2 Chloride	4.917	4.908	0.009	501623		0.0792	
7 Nitrite as N	5.775	5.767	0.008	1268470		0.005130	
3 Sulfate	6.767	6.683	0.084	452505		-0.1776	
4 Bromide		7.700				ND	
5 Nitrate as N		8.892				ND	
6 Orthophosphate as P		12.200				ND	

Report Date: 25-May-2015 04:52:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-20.d				
Injection Date:	23-May-2015 11:17:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	20
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-142621/5

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 06:56

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.53		0.10	0.0062
16887-00-6	Chloride	50.4		1.0	0.20
14808-79-8	Sulfate	50.2		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 23-May-2015 06:56:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:46:50 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	109414991	2.50	2.52	
2 Chloride	4.908	4.908	0.000	1344385344	50.0	50.4	
7 Nitrite as N	5.767	5.775	-0.008	146059376	2.50	2.52	
3 Sulfate	6.675	6.675	0.000	982076044	50.0	50.2	
4 Bromide	7.700	7.700	0.000	9087578H	10.0	10.3	
5 Nitrate as N	8.892	8.892	0.000	167180144	2.50	2.53	
6 Orthophosphate as P	12.183	12.175	0.008	57032900	2.50	2.17	

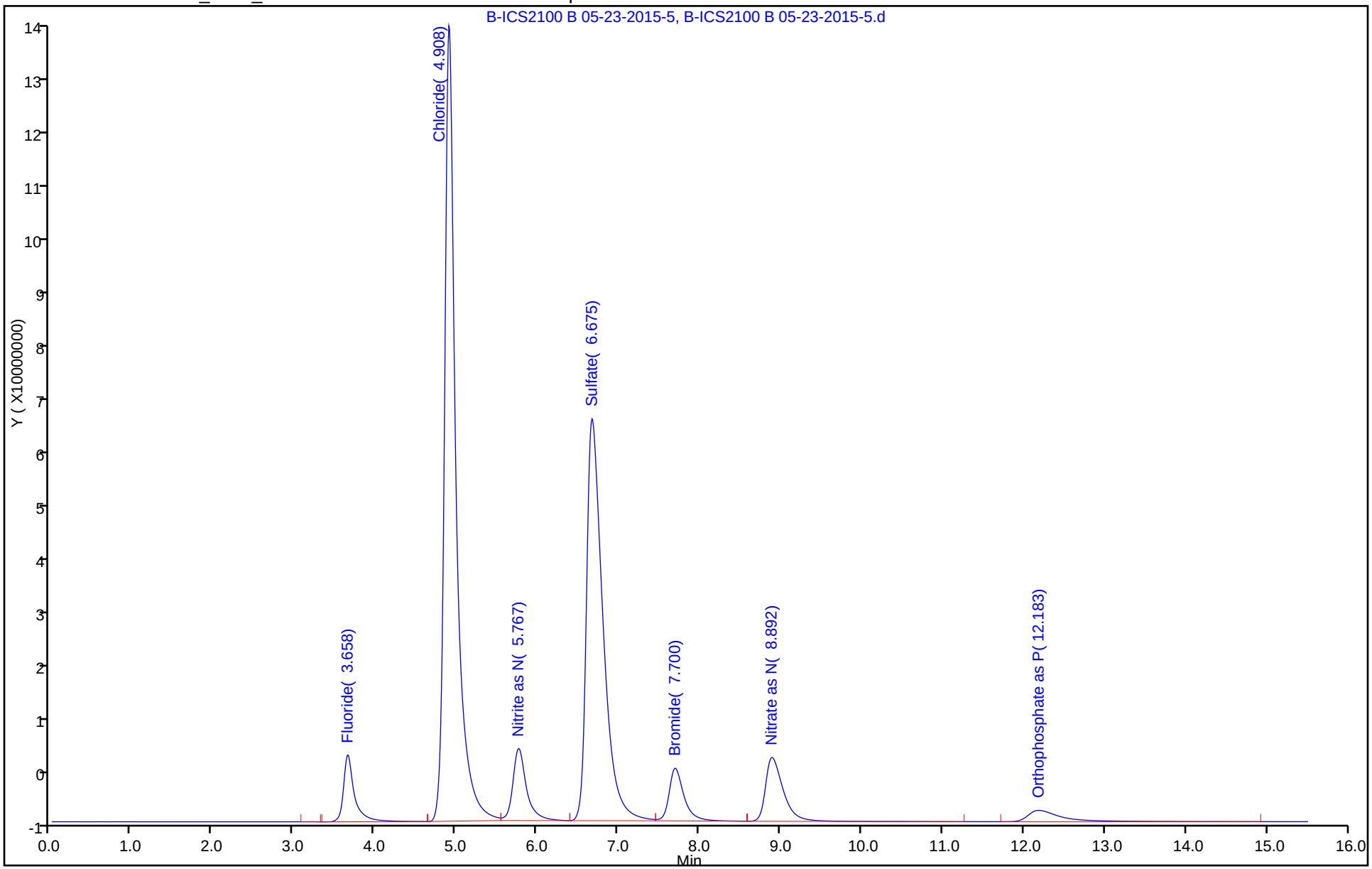
Reagents:

icccv_01245 Amount Added: 1.00 Units: mL

Report Date: 25-May-2015 04:46:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-5.d				
Injection Date:	23-May-2015 06:56:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 MS Lab Sample ID: 180-44401-5 MS

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-16.d

Analysis Method: 300.0 Date Collected: 05/21/2015 11:41

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 10:08

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.36		0.10	0.0062
16887-00-6	Chloride	39.7		1.0	0.20
14808-79-8	Sulfate	30.5		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-16.d
Lims ID: 180-44401-A-5 MS
Client ID:
Sample Type: MS
Inject. Date: 23-May-2015 10:08:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-016
Misc. Info.: 16 180-44401-a-5 ms
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:52:28 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	60138474	1.25	1.38	
2 Chloride	4.908	4.908	0.000	1059112762	25.0	39.7	
7 Nitrite as N	5.742	5.775	-0.033	80136284	1.25	1.37	
3 Sulfate	6.700	6.675	0.025	598758034	25.0	30.5	
4 Bromide	7.708	7.700	0.008	4686696	5.00	5.32	H
5 Nitrate as N	8.842	8.892	-0.050	354527809	1.25	5.36	
6 Orthophosphate as P	12.508	12.175	0.333	18519767	1.25	0.7506	

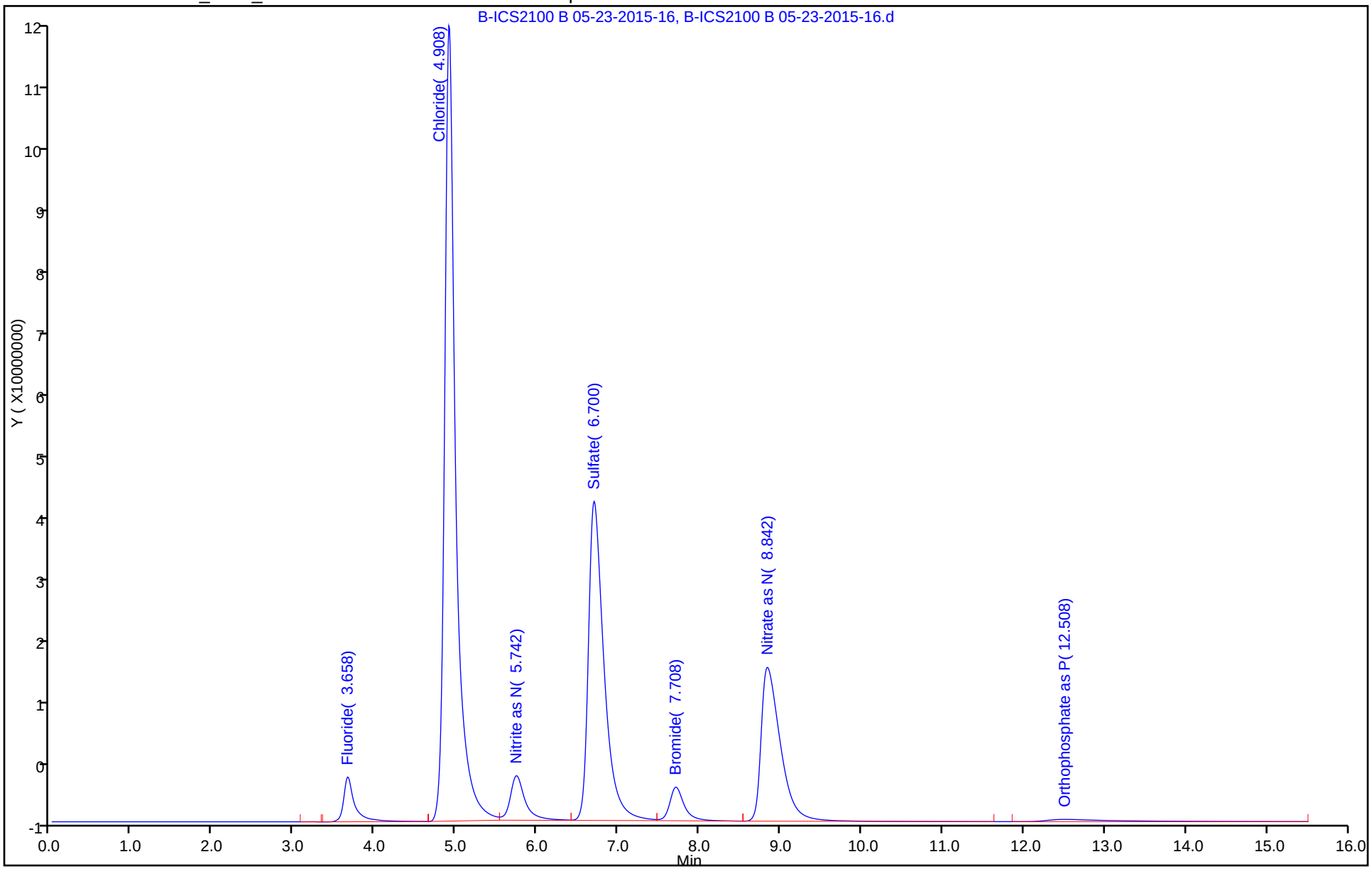
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL
ICPRIMARYSTDB_00008 Amount Added: 0.15 Units: mL

Report Date: 25-May-2015 04:52:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-16.d				
Injection Date:	23-May-2015 10:08:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-5 MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Client Sample ID: HD-MW-132-0/1-0 MSD Lab Sample ID: 180-44401-5 MSD

Matrix: Water Lab File ID: B-ICS2100 B 05-23-2015-17.d

Analysis Method: 300.0 Date Collected: 05/21/2015 11:41

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/23/2015 10:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142621 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.30		0.10	0.0062
16887-00-6	Chloride	39.4		1.0	0.20
14808-79-8	Sulfate	30.3		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-17.d
Lims ID: 180-44401-A-5 MSD
Client ID:
Sample Type: MSD
Inject. Date: 23-May-2015 10:25:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007079-017
Misc. Info.: 17 180-44401-a-5 msd
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 04:52:28 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	59519769	1.25	1.37	
2 Chloride	4.908	4.908	0.000	1048552482	25.0	39.4	
7 Nitrite as N	5.742	5.775	-0.033	79081057	1.25	1.36	
3 Sulfate	6.700	6.675	0.025	593674964	25.0	30.3	
4 Bromide	7.708	7.700	0.008	4670255	5.00	5.30	H
5 Nitrate as N	8.833	8.892	-0.059	350596957	1.25	5.30	
6 Orthophosphate as P	12.508	12.175	0.333	19434437	1.25	0.7844	

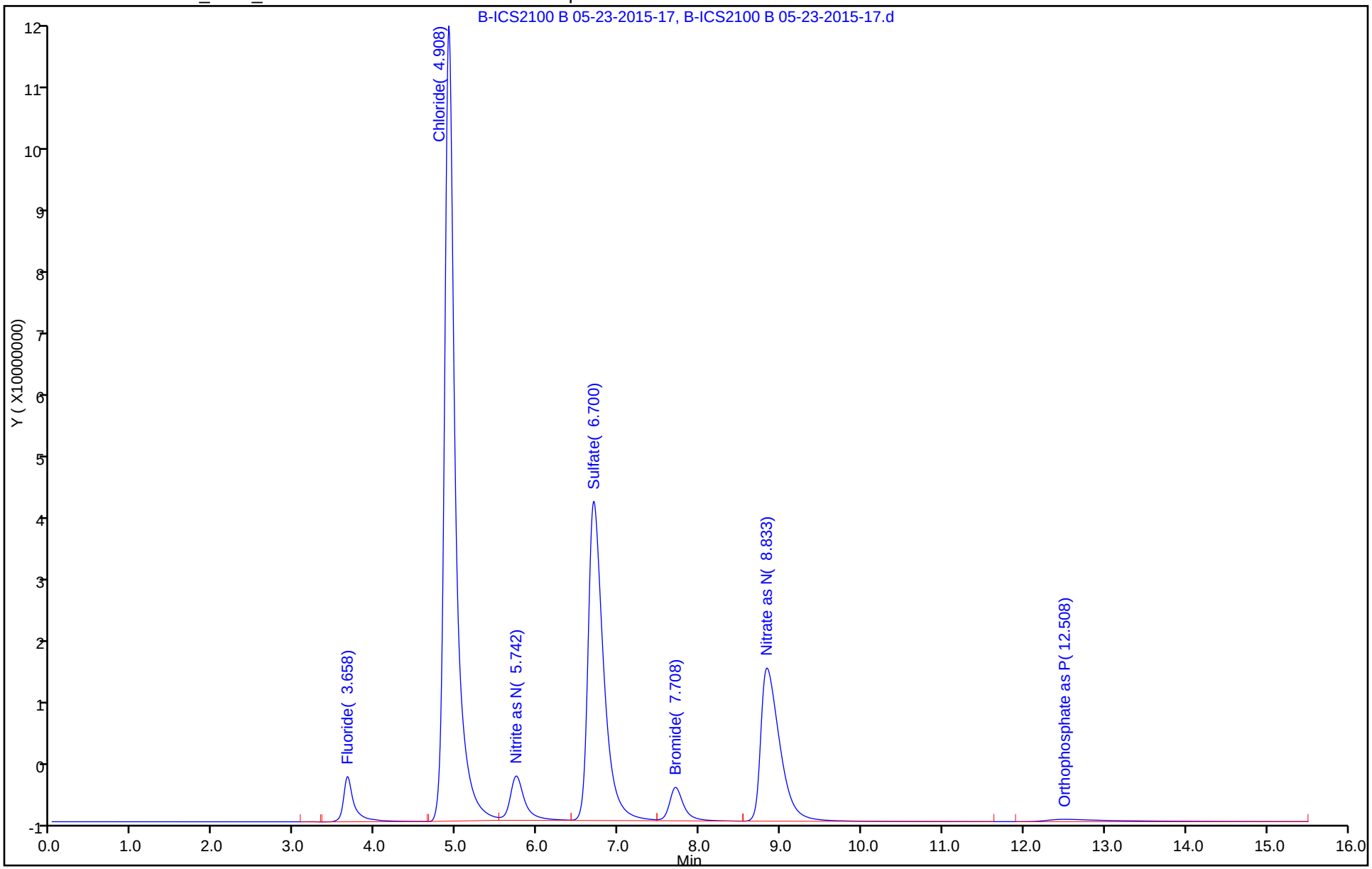
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL
ICPRIMARYSTDB_00008 Amount Added: 0.15 Units: mL

Report Date: 25-May-2015 04:52:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150523-7079.b\B-ICS2100 B 05-23-2015-17.d				
Injection Date:	23-May-2015 10:25:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44401-A-5 MSD			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 04/15/2015 14:54

Analysis Batch Number: 138618 End Date: 04/15/2015 19:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2015 14:54	1		AS-18
IC 180-138618/2		04/15/2015 15:44	1	B-ICS2100 B 04-15-2015-2.d	AS-18
IC 180-138618/3		04/15/2015 16:01	1	B-ICS2100 B 04-15-2015-3.d	AS-18
ICRT 180-138618/4		04/15/2015 16:19	1	B-ICS2100 B 04-15-2015-4.d	AS-18
IC 180-138618/5		04/15/2015 16:36	1	B-ICS2100 B 04-15-2015-5.d	AS-18
IC 180-138618/6		04/15/2015 16:53	1	B-ICS2100 B 04-15-2015-6.d	AS-18
IC 180-138618/7		04/15/2015 17:11	1	B-ICS2100 B 04-15-2015-7.d	AS-18
IC 180-138618/8		04/15/2015 17:28	1	B-ICS2100 B 04-15-2015-8.d	AS-18
IC 180-138618/9		04/15/2015 17:45	1	B-ICS2100 B 04-15-2015-9.d	AS-18
ZZZZZ		04/15/2015 18:03	1		AS-18
ZZZZZ		04/15/2015 18:20	1		AS-18
ZZZZZ		04/15/2015 18:37	1		AS-18
ICV 180-138618/13		04/15/2015 18:55	1		AS-18
CCV 180-138618/14		04/15/2015 19:12	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 05/23/2015 05:46

Analysis Batch Number: 142621 End Date: 05/23/2015 18:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/23/2015 05:46	1		AS-18
ICV 180-142621/2		05/23/2015 06:04	1	B-ICS2100 B 05-23-2015-2.d	AS-18
CCV 180-142621/3		05/23/2015 06:21	1	B-ICS2100 B 05-23-2015-3.d	AS-18
CCB 180-142621/4		05/23/2015 06:38	1	B-ICS2100 B 05-23-2015-4.d	AS-18
LCS 180-142621/5		05/23/2015 06:56	1	B-ICS2100 B 05-23-2015-5.d	AS-18
MB 180-142621/6		05/23/2015 07:13	1	B-ICS2100 B 05-23-2015-6.d	AS-18
180-44401-7	HD-MW-50S-0/1-0	05/23/2015 07:30	1	B-ICS2100 B 05-23-2015-7.d	AS-18
180-44401-7	HD-MW-50S-0/1-0	05/23/2015 07:48	5	B-ICS2100 B 05-23-2015-8.d	AS-18
180-44401-6	HD-MW-51D-0/1-0	05/23/2015 08:06	1	B-ICS2100 B 05-23-2015-9.d	AS-18
180-44401-2	HD-MW-74S-0/1-0	05/23/2015 08:24	1	B-ICS2100 B 05-23-2015-10.d	AS-18
180-44401-4	HD-MW-114-0/1-0	05/23/2015 08:41	1	B-ICS2100 B 05-23-2015-11.d	AS-18
180-44401-1	HD-MW-39D-0/1-0	05/23/2015 08:58	1	B-ICS2100 B 05-23-2015-12.d	AS-18
180-44401-5	HD-MW-132-0/1-0	05/23/2015 09:16	1	B-ICS2100 B 05-23-2015-13.d	AS-18
CCV 180-142621/14		05/23/2015 09:33	1	B-ICS2100 B 05-23-2015-14.d	AS-18
CCB 180-142621/15		05/23/2015 09:50	1	B-ICS2100 B 05-23-2015-15.d	AS-18
180-44401-5 MS	HD-MW-132-0/1-0 MS	05/23/2015 10:08	1	B-ICS2100 B 05-23-2015-16.d	AS-18
180-44401-5 MSD	HD-MW-132-0/1-0 MSD	05/23/2015 10:25	1	B-ICS2100 B 05-23-2015-17.d	AS-18
180-44401-3	HD-MW-127-0/1-0	05/23/2015 10:42	1	B-ICS2100 B 05-23-2015-18.d	AS-18
CCV 180-142621/19		05/23/2015 11:00	1	B-ICS2100 B 05-23-2015-19.d	AS-18
CCB 180-142621/20		05/23/2015 11:17	1	B-ICS2100 B 05-23-2015-20.d	AS-18
ZZZZZ		05/23/2015 11:58	1		AS-18
ZZZZZ		05/23/2015 12:15	1		AS-18
ZZZZZ		05/23/2015 12:32	25		AS-18
ZZZZZ		05/23/2015 12:49	250		AS-18
CCV 180-142621/25		05/23/2015 13:07	1		AS-18
CCB 180-142621/26		05/23/2015 13:24	1		AS-18
ZZZZZ		05/23/2015 14:07	100		AS-18
ZZZZZ		05/23/2015 14:24	100		AS-18
ZZZZZ		05/23/2015 14:42	100		AS-18
ZZZZZ		05/23/2015 14:59	1000		AS-18
ZZZZZ		05/23/2015 15:16	1000		AS-18
ZZZZZ		05/23/2015 15:34	1000		AS-18
ZZZZZ		05/23/2015 15:51	5		AS-18
ZZZZZ		05/23/2015 16:08	50		AS-18
ZZZZZ		05/23/2015 16:26	5		AS-18
ZZZZZ		05/23/2015 16:43	50		AS-18
CCV 180-142621/37		05/23/2015 17:00	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 05/23/2015 05:46

Analysis Batch Number: 142621 End Date: 05/23/2015 18:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 180-142621/38		05/23/2015 17:17	1		AS-18
ZZZZZ		05/23/2015 17:35	25		AS-18
ZZZZZ		05/23/2015 17:52	250		AS-18
ZZZZZ		05/23/2015 18:09	1		AS-18
CCV 180-142621/42		05/23/2015 18:27	1		AS-18
CCB 180-142621/43		05/23/2015 18:44	1		AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44401-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-39D-0/1-0	180-44401-1
HD-MW-74S-0/1-0	180-44401-2
HD-MW-127-0/1-0	180-44401-3
HD-MW-114-0/1-0	180-44401-4
HD-MW-132-0/1-0	180-44401-5
HD-MW-51D-0/1-0	180-44401-6
HD-MW-50S-0/1-0	180-44401-7

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-39D-0/1-0 Lab Sample ID: 180-44401-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 10:55

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6300	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	29000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-44401-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 09:25

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	88000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3400	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	12000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	29000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-127-0/1-0 Lab Sample ID: 180-44401-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 12:15

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	92000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3800	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	19000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	27000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-44401-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 09:56

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7900	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	36000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-132-0/1-0 Lab Sample ID: 180-44401-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 11:41

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	59000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	1700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	4200	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	4700	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-51D-0/1-0 Lab Sample ID: 180-44401-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 08:20

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	71000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	20000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	39000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-50S-0/1-0 Lab Sample ID: 180-44401-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 08:10

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8600	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	15000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	47000	500	3.8	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	ICV 180-143856/5 06/03/2015 11:21				CCV 180-143856/10 06/03/2015 11:42				CCV 180-143856/34 06/03/2015 13:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	41000		40000	103	47700		50000	95	46600		50000	93
Magnesium	40900		40000	102	46700		50000	93	47000		50000	94
Potassium	42100		40000	105	47600		50000	95	46600		50000	93
Sodium	40400		40000	101	47100		50000	94	46000		50000	92

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.: 180-44401-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	CCV 180-143856/46 06/03/2015 14:10				CCV 180-143856/58 06/03/2015 14:59				CCV 180-143856/70 06/03/2015 15:47			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	47300		50000	95	49100		50000	98	47700		50000	95
Magnesium	46800		50000	94	47100		50000	94	46600		50000	93
Potassium	46800		50000	94	48800		50000	98	46600		50000	93
Sodium	47200		50000	94	46500		50000	93	47300		50000	95

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.: 180-44401-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-143856/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	501		100	70-130
Potassium	500	519		104	70-130
Magnesium	500	504		101	70-130
Sodium	500	505		101	70-130

Lab Sample ID: CRI 180-143856/89 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	436	J	87	70-130
Potassium	500	461	J	92	70-130
Magnesium	500	453	J	91	70-130
Sodium	500	452	J	90	70-130

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.: 180-44401-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-143856/6 06/03/2015 11:25		CCB1 180-143856/11 06/03/2015 11:49		CCB3 180-143856/35 06/03/2015 13:25		CCB4 180-143856/47 06/03/2015 14:17	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U	500	U	3.11	J
Magnesium	500	1.29	J	500	U	500	U	500	U
Potassium	500	500	U	500	U	500	U	500	U
Sodium	500	500	U	500	U	500	U	500	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB5 180-143856/59 06/03/2015 15:05		CCB6 180-143856/71 06/03/2015 15:53					
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U				
Magnesium	500	500	U	500	U				
Potassium	500	500	U	500	U				
Sodium	500	500	U	500	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-142877/1-A

Instrument Code: M Batch No.: 143856

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	11.4	J		6020A
7440-09-7	Potassium	500	U		6020A
7439-95-4	Magnesium	500	U		6020A
7440-23-5	Sodium	500	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Lab Sample ID: ICSA 180-143856/8 Instrument ID: M

Lab File ID: M50603A.xml ICS Source: MICSAX_00067

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**106800**	**107**
Magnesium	**100000**	**102300**	**102**
Potassium	**100000**	**104400**	**104**
Sodium	**100000**	**100400**	**100**
Aluminum	*100000*	*98540*	*99*
Antimony		*0.261*	
Arsenic		*0.150*	
Barium		*0.147*	
Beryllium		*0.0400*	
Boron		*1.01*	
Cadmium		*0.447*	
Chromium		*-0.731*	
Cobalt		*0.182*	
Copper		*1.93*	
Iron	*100000*	*106100*	*106*
Lead		*0.256*	
Manganese		*0.565*	
Molybdenum	*2000*	*2340*	*117*
Nickel		*0.407*	
Selenium		*0.303*	
Silicon		*12.8*	
Silver		*0.150*	
Strontium		*0.685*	
Thallium		*0.0180*	
Tin		*0.241*	
Titanium	*2000*	*2252*	*113*
Vanadium		*-0.717*	
Zinc		*4.46*	

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.: 180-44401-1

SDG No.:

Lab Sample ID: ICSAB 180-143856/9 Instrument ID: M

Lab File ID: M50603A.xml ICS Source: MICSABX_00071

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**110300**	**110**
Magnesium	**100000**	**109133**	**109**
Potassium	**100000**	**109367**	**109**
Sodium	**100000**	**108467**	**108**
Aluminum	*100000*	*105833*	*106*
Antimony	*20.0*	*22.6*	*113*
Arsenic	*20.0*	*22.9*	*115*
Barium	*20.0*	*21.0*	*105*
Beryllium	*20.0*	*20.9*	*105*
Boron	*50.0*	*54.9*	*110*
Cadmium	*20.0*	*21.3*	*107*
Chromium	*20.0*	*20.5*	*102*
Cobalt	*20.0*	*21.5*	*108*
Copper	*20.0*	*23.5*	*118*
Iron	*100000*	*107100*	*107*
Lead	*20.0*	*21.6*	*108*
Manganese	*22.5*	*21.5*	*95*
Molybdenum	*2000*	*2373*	*119*
Nickel	*20.0*	*21.4*	*107*
Selenium	*50.0*	*57.6*	*115*
Silicon	*500*	*586*	*117*
Silver	*20.0*	*20.5*	*102*
Strontium	*25.0*	*21.3*	*85*
Thallium	*20.0*	*20.8*	*104*
Tin	*100*	*108*	*108*
Titanium	*2000*	*2314*	*116*
Vanadium	*20.0*	*20.8*	*104*
Zinc	*25.0*	*26.3*	*105*

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

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-142877/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	46700		93	80	120		6020A
Potassium	50000	44900		90	80	120		6020A
Magnesium	50000	43200		86	80	120		6020A
Sodium	50000	41300		83	80	120		6020A

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

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44401-1

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)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44401-1

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)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-44401-1

SDG No.:

Instrument ID: M Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		1500000	6020A
Potassium		450000	6020A
Magnesium		1500000	6020A
Sodium		450000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-142877/1-A	05/27/2015 10:42	142877		50	50
LCS 180-142877/2-A	05/27/2015 10:42	142877		50	50
180-44401-1	05/27/2015 10:42	142877		50	50
180-44401-2	05/27/2015 10:42	142877		50	50
180-44401-3	05/27/2015 10:42	142877		50	50
180-44401-4	05/27/2015 10:42	142877		50	50
180-44401-5	05/27/2015 10:42	142877		50	50
180-44401-6	05/27/2015 10:42	142877		50	50
180-44401-7	05/27/2015 10:42	142877		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/03/2015 07:53 End Date: 06/03/2015 18:14

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-143856/1			07:53																										
STD1 180-143856/2 IC	1		11:10	X	X	X	X																						
STD2 180-143856/3 IC	1		11:14	X	X	X	X																						
STD3 180-143856/4 IC	1		11:17	X	X	X	X																						
ICV 180-143856/5	1		11:21	X	X	X	X																						
ICB 180-143856/6	1		11:25	X	X	X	X																						
CRI 180-143856/7	1		11:28	X	X	X	X																						
ICSA 180-143856/8	1		11:32	X	X	X	X																						
ICSAB 180-143856/9	1		11:35	X	X	X	X																						
CCV 180-143856/10	1		11:42	X	X	X	X																						
CCB1 180-143856/11	1		11:49	X	X	X	X																						
ZZZZZZ			11:52																										
ZZZZZZ			11:56																										
ZZZZZZ			12:00																										
ZZZZZZ			12:04																										
ZZZZZZ			12:08																										
ZZZZZZ			12:11																										
ZZZZZZ			12:15																										
ZZZZZZ			12:19																										
ZZZZZZ			12:23																										
ZZZZZZ			12:27																										
CCV 180-143856/22			12:31																										
CCB2 180-143856/23			12:37																										
ZZZZZZ			12:41																										
ZZZZZZ			12:45																										
ZZZZZZ			12:48																										
ZZZZZZ			12:52																										
ZZZZZZ			12:56																										
ZZZZZZ			13:00																										
ZZZZZZ			13:04																										
ZZZZZZ			13:07																										
ZZZZZZ			13:11																										
ZZZZZZ			13:15																										
CCV 180-143856/34	1		13:19	X	X	X	X																						
CCB3 180-143856/35	1		13:25	X	X	X	X																						
ZZZZZZ			13:29																										
ZZZZZZ			13:33																										
ZZZZZZ			13:37																										
ZZZZZZ			13:41																										
ZZZZZZ			13:44																										
MB 180-142877/1-A	1	R	13:51	X	X	X	X																						
LCS 180-142877/2-A	1	R	13:55	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/03/2015 07:53 End Date: 06/03/2015 18:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					
ZZZZZZ			13:59																									
ZZZZZZ			14:02																									
ZZZZZZ			14:06																									
CCV 180-143856/46	1		14:10	X	X	X	X																					
CCB4 180-143856/47	1		14:17	X	X	X	X																					
ZZZZZZ			14:20																									
ZZZZZZ			14:24																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
ZZZZZZ			14:36																									
ZZZZZZ			14:39																									
ZZZZZZ			14:43																									
180-44401-1	1	T	14:47	X	X	X	X																					
180-44401-2	1	T	14:51	X	X	X	X																					
180-44401-3	1	T	14:55	X	X	X	X																					
CCV 180-143856/58	1		14:59	X	X	X	X																					
CCB5 180-143856/59	1		15:05	X	X	X	X																					
180-44401-4	1	T	15:09	X	X	X	X																					
180-44401-5	1	T	15:13	X	X	X	X																					
180-44401-6	1	T	15:16	X	X	X	X																					
180-44401-7	1	T	15:20	X	X	X	X																					
ZZZZZZ			15:24																									
ZZZZZZ			15:28																									
ZZZZZZ			15:32																									
ZZZZZZ			15:35																									
ZZZZZZ			15:39																									
ZZZZZZ			15:43																									
CCV 180-143856/70	1		15:47	X	X	X	X																					
CCB6 180-143856/71	1		15:53	X	X	X	X																					
ZZZZZZ			15:57																									
ZZZZZZ			16:01																									
ZZZZZZ			16:05																									
ZZZZZZ			16:09																									
ZZZZZZ			16:12																									
ZZZZZZ			16:16																									
ZZZZZZ			16:20																									
ZZZZZZ			16:24																									
ZZZZZZ			16:28																									
ZZZZZZ			16:31																									
CCV 180-143856/82			16:35																									
CCB7 180-143856/83			16:42																									
ZZZZZZ			16:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/03/2015 07:53 End Date: 06/03/2015 18:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na																							
ZZZZZZ			16:49																											
ZZZZZZ			16:53																											
ZZZZZZ			16:57																											
ZZZZZZ			17:01																											
CRI 180-143856/89	1		17:11	X	X	X	X																							
ZZZZZZ			17:15																											
ZZZZZZ			17:19																											
CCV 180-143856/92			17:23																											
CCB8 180-143856/93			17:30																											
ZZZZZZ			17:33																											
ZZZZZZ			17:37																											
ZZZZZZ			17:41																											
ZZZZZZ			17:45																											
ZZZZZZ			17:49																											
ZZZZZZ			17:52																											
ZZZZZZ			17:56																											
ZZZZZZ			18:00																											
ZZZZZZ			18:04																											
CCV 180-143856/103			18:08																											
CCB9 180-143856/104			18:14																											

Prep Types:
R = Total Recoverable
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/03/2015 End Date: 06/03/2015

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 180-143856/2 I	11:10	100		100		100		100		100	
STD2 180-143856/3 I	11:14	91		94		95		90		91	
STD3 180-143856/4 I	11:17	96		94		95		96		95	
ICV 180-143856/5	11:21	100		97		101		97		102	
ICB 180-143856/6	11:25	101		98		96		98		96	
CRI 180-143856/7	11:28	99		94		97		92		95	
ICSA 180-143856/8	11:32	82		81		88		84		87	
ICSAB 180-143856/9	11:35	77		78		87		83		86	
CCV 180-143856/10	11:42	86		89		92		89		86	
CCB1 180-143856/11	11:49	93		94		97		98		98	
CCV 180-143856/34	13:19	94		94		94		93		88	
CCB3 180-143856/35	13:25	98		93		92		94		92	
MB 180-142877/1-A	13:51	100		92		93		93		92	
LCS 180-142877/2-A	13:55	90		77		85		82		83	
CCV 180-143856/46	14:10	93		90		91		89		85	
CCB4 180-143856/47	14:17	99		94		90		91		89	
180-44401-1	14:47	89		77		82		80		82	
180-44401-2	14:51	90		73		84		82		84	
180-44401-3	14:55	94		78		84		82		83	
CCV 180-143856/58	14:59	97		84		88		85		81	
CCB5 180-143856/59	15:05	104		93		93		93		92	
180-44401-4	15:09	97		78		86		84		85	
180-44401-5	15:13	94		77		84		84		84	
180-44401-6	15:16	90		77		84		83		85	
180-44401-7	15:20	91		78		85		83		85	
CCV 180-143856/70	15:47	94		90		91		88		85	
CCB6 180-143856/71	15:53	102		98		93		94		92	
CRI 180-143856/89	17:11	102		105		112		91		90	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/03/2015 End Date: 06/03/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-143856/2 I	11:10	100		100		100					
STD2 180-143856/3 I	11:14	95		95		98					
STD3 180-143856/4 I	11:17	96		97		100					
ICV 180-143856/5	11:21	103		98		101					
ICB 180-143856/6	11:25	97		97		100					
CRI 180-143856/7	11:28	96		95		96					
ICSA 180-143856/8	11:32	95		96		105					
ICSAB 180-143856/9	11:35	94		95		95					
CCV 180-143856/10	11:42	96		97		100					
CCB1 180-143856/11	11:49	100		100		104					
CCV 180-143856/34	13:19	97		98		95					
CCB3 180-143856/35	13:25	93		93		96					
MB 180-142877/1-A	13:51	95		95		97					
LCS 180-142877/2-A	13:55	93		94		84					
CCV 180-143856/46	14:10	95		96		90					
CCB4 180-143856/47	14:17	89		88		89					
180-44401-1	14:47	91		91		83					
180-44401-2	14:51	93		94		89					
180-44401-3	14:55	90		90		79					
CCV 180-143856/58	14:59	91		91		83					
CCB5 180-143856/59	15:05	92		92		93					
180-44401-4	15:09	93		93		84					
180-44401-5	15:13	91		92		85					
180-44401-6	15:16	93		95		86					
180-44401-7	15:20	92		93		85					
CCV 180-143856/70	15:47	93		94		91					
CCB6 180-143856/71	15:53	92		92		96					
CRI 180-143856/89	17:11	89		89		89					

Dilution Corrected Concentrations

STD1 1565410 INT STD 6/3/2015 11:10:44 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	11:11:03	102.057%	0.006	0.087	-0.040	0.000	0.144	0.136	0.353
2	11:11:22	100.352%	-0.019	0.099	0.079	0.000	-0.108	0.110	-0.167
3	11:11:41	97.591%	0.013	-0.186	-0.040	0.000	-0.036	-0.247	-0.186
x		100.000%	-0.000	0.000	0.000	0.000	0.000	0.000	-0.000
σ		2.254%	0.017	0.161	0.069	0.000	0.130	0.214	0.306
%RSD		2.254	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	11:11:03	0.099	-3.503	0.000	0.244	0.687	0.467	100.641%	0.042
2	11:11:22	-0.007	-0.389	0.000	0.358	-1.384	0.071	98.779%	-0.031
3	11:11:41	-0.092	3.892	0.000	-0.602	0.696	-0.538	100.580%	-0.012
x		0.000	-0.000	0.000	-0.000	0.000	0.000	100.000%	-0.000
σ		0.096	3.713	0.000	0.524	1.198	0.506	1.058%	0.038
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.058	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:03	0.002	0.012	-0.000	-0.360	1.071	-0.002	0.020	-0.001
2	11:11:22	-0.014	-0.013	-0.003	0.859	0.159	0.001	-0.006	-0.005
3	11:11:41	0.011	0.002	0.004	-0.499	-1.230	0.001	-0.013	0.006
x		-0.000	-0.000	0.000	-0.000	-0.000	0.000	0.000	0.000
σ		0.013	0.012	0.003	0.747	1.159	0.002	0.017	0.005
%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	11:11:03	-0.008	-0.002	-0.005	-0.003	0.052	0.005	0.000	0.000
2	11:11:22	0.008	0.027	0.036	-0.054	-0.192	-0.075	0.000	-0.001
3	11:11:41	-0.001	-0.025	-0.031	0.057	0.140	0.070	0.000	0.000
x		-0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.000
σ		0.008	0.026	0.034	0.055	0.172	0.072	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	11:11:03	98.939%	-0.431	-0.378	99.289%	-0.002	-0.004	-0.008	-0.003
2	11:11:22	100.573%	0.018	0.099	99.916%	0.001	-0.000	-0.025	-0.020
3	11:11:41	100.488%	0.413	0.279	100.795%	0.001	0.004	0.033	0.023
x		100.000%	0.000	-0.000	100.000%	0.000	0.000	-0.000	-0.000
σ		0.920%	0.422	0.340	0.756%	0.002	0.004	0.029	0.021
%RSD		0.920	0.000	0.000	0.756	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	11:11:03	98.867%	-0.069	-0.025	-0.029	-0.013	0.005	98.074%	98.024%
2	11:11:22	100.125%	-0.001	0.007	0.028	0.007	-0.010	100.218%	100.594%
3	11:11:41	101.008%	0.070	0.018	0.000	0.007	0.005	101.708%	101.381%
x		100.000%	-0.000	0.000	-0.000	-0.000	0.000	100.000%	100.000%
σ		1.076%	0.069	0.023	0.029	0.012	0.008	1.827%	1.756%
%RSD		1.076	0.000	0.000	0.000	0.000	0.000	1.827	1.756

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:03	-0.001	0.000	0.000	-0.005	-0.003	99.200%
2	11:11:22	0.000	0.001	0.003	0.002	0.001	100.198%
3	11:11:41	0.001	-0.001	-0.003	0.004	0.003	100.602%
x		0.000	0.000	0.000	-0.000	0.000	100.000%
σ		0.001	0.001	0.003	0.005	0.003	0.722%
%RSD		0.000	0.000	0.000	0.000	0.000	0.722

STD2 1594024 6/3/2015 11:14:10 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	11:14:10	96.175%	190.200	0.988	0.632	0.000	93030.000	93770.000	93760.000
2	11:14:29	89.990%	206.700	0.866	0.883	0.000	100700.000	99460.000	99710.000
3	11:14:48	87.859%	203.100	1.013	0.659	0.000	106300.000	106800.000	106500.000
x		91.341%	200.000	0.955	0.725	0.000	100000.000	100000.000	100000.000
σ		4.320%	8.714	0.079	0.138	0.000	6664.000	6513.000	6390.000
%RSD		4.729	4.357	8.243	19.010	0.000	6.664	6.513	6.390
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:10	934.200	20.070	0.000	94180.000	95790.000	96460.000	98.650%	0.147
2	11:14:29	991.500	37.280	0.000	97840.000	96010.000	96080.000	94.999%	0.252
3	11:14:48	1074.000	55.540	0.000	108000.000	108200.000	107500.000	87.245%	0.279
x		1000.000	37.630	0.000	100000.000	100000.000	100000.000	93.631%	0.226
σ		70.480	17.740	0.000	7147.000	7106.000	6465.000	5.824%	0.069
%RSD		7.048	47.140	0.000	7.147	7.106	6.465	6.220	30.690
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:10	193.600	194.000	974.000	48770.000	49030.000	196.800	193.200	192.300
2	11:14:29	193.300	197.400	981.600	49140.000	49470.000	196.700	199.300	199.300
3	11:14:48	213.200	208.600	1044.000	52090.000	51500.000	206.500	207.500	208.400
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		11.400	7.649	38.600	1821.000	1317.000	5.629	7.137	8.100
%RSD		5.698	3.824	3.860	3.642	2.634	2.814	3.569	4.050
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:10	192.600	192.900	194.100	198.500	199.200	201.500	0.000	198.200
2	11:14:29	198.700	198.700	198.200	197.700	198.000	198.300	0.000	200.300
3	11:14:48	208.800	208.400	207.700	203.800	202.800	200.200	0.000	201.500
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		8.172	7.873	7.010	3.294	2.536	1.596	0.000	1.665
%RSD		4.086	3.937	3.505	1.647	1.268	0.798	0.000	0.833
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:10	94.428%	-0.495	-0.408	89.660%	197.800	198.000	198.700	197.700
2	11:14:29	95.119%	0.093	0.380	89.890%	201.200	200.800	201.200	201.800
3	11:14:48	94.867%	0.727	0.801	90.053%	201.000	201.200	200.100	200.600
x		94.804%	0.109	0.258	89.867%	200.000	200.000	200.000	200.000
σ		0.349%	0.611	0.614	0.197%	1.910	1.741	1.226	2.110
%RSD		0.369	563.100	238.100	0.220	0.955	0.871	0.613	1.055
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:10	90.994%	0.052	0.300	0.266	198.900	199.300	93.047%	93.745%
2	11:14:29	90.895%	0.177	0.279	0.245	201.000	200.600	96.435%	95.714%
3	11:14:48	91.189%	0.274	0.291	0.283	200.100	200.200	96.086%	96.635%
x		91.026%	0.168	0.290	0.265	200.000	200.000	95.189%	95.365%
σ		0.150%	0.111	0.011	0.019	1.057	0.670	1.863%	1.476%
%RSD		0.164	66.270	3.708	7.309	0.528	0.335	1.958	1.548
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:14:10	190.300	189.800	189.100	188.900	189.000	101.484%		
2	11:14:29	202.800	201.500	202.200	203.100	202.300	97.315%		
3	11:14:48	206.900	208.600	208.700	208.000	208.800	95.505%		
x		200.000	200.000	200.000	200.000	200.000	98.101%		
σ		8.664	9.505	9.993	9.916	10.080	3.066%		
%RSD		4.332	4.752	4.996	4.958	5.042	3.126		

STD3 1594025 6/3/2015 11:17:46 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	11:17:46	99.424%	0.059	197.900	191.600	0.000	26.630	19.260	18.840
2	11:18:05	95.310%	0.074	209.800	204.400	0.000	25.950	16.700	16.830
3	11:18:24	94.318%	0.097	192.300	204.000	0.000	26.350	15.640	16.740
x		96.351%	0.077	200.000	200.000	0.000	26.310	17.200	17.470
σ		2.707%	0.019	8.945	7.310	0.000	0.344	1.862	1.188
%RSD		2.810	25.220	4.473	3.655	0.000	1.306	10.820	6.801

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:46	19.710	9920.000	0.000	21.700	44.580	132.600	96.080%	202.800
2	11:18:05	20.360	9938.000	0.000	18.910	30.990	118.000	94.386%	195.900
3	11:18:24	20.380	10140.000	0.000	17.930	46.740	120.700	91.896%	201.300
x		20.150	10000.000	0.000	19.510	40.770	123.800	94.120%	200.000
σ		0.380	123.500	0.000	1.959	8.538	7.779	2.105%	3.668
%RSD		1.888	1.235	0.000	10.040	20.940	6.285	2.236	1.834

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:46	0.055	0.007	0.313	28.980	32.950	0.044	0.097	0.244
2	11:18:05	0.078	0.013	0.278	26.730	31.840	0.048	0.149	0.198
3	11:18:24	0.103	0.048	0.290	25.290	27.660	0.045	0.181	0.250
x		0.079	0.023	0.294	27.000	30.820	0.046	0.142	0.231
σ		0.024	0.022	0.018	1.859	2.787	0.002	0.042	0.028
%RSD		30.860	96.060	5.972	6.887	9.043	3.798	29.870	12.290

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:46	0.369	3.447	3.127	0.556	2.014	1.855	0.000	0.099
2	11:18:05	0.241	3.299	3.286	0.991	2.644	3.223	0.000	0.083
3	11:18:24	0.238	3.218	3.200	1.006	2.718	2.828	0.000	0.074
x		0.283	3.322	3.204	0.851	2.459	2.635	0.000	0.085
σ		0.075	0.116	0.080	0.256	0.387	0.704	0.000	0.013
%RSD		26.380	3.494	2.482	30.030	15.750	26.720	0.000	14.990

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:46	93.848%	198.000	197.700	94.725%	0.113	0.105	0.089	-0.391
2	11:18:05	94.696%	198.900	200.500	96.061%	0.100	0.100	0.093	-0.460
3	11:18:24	95.877%	203.200	201.800	96.168%	0.107	0.112	0.025	-0.342
x		94.807%	200.000	200.000	95.652%	0.107	0.106	0.069	-0.398
σ		1.019%	2.777	2.090	0.804%	0.006	0.006	0.038	0.059
%RSD		1.075	1.389	1.045	0.841	5.957	5.677	55.030	14.950

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:46	94.391%	197.600	197.000	196.500	0.126	0.383	94.226%	94.523%
2	11:18:05	95.090%	201.300	200.900	201.200	0.156	0.344	96.086%	96.918%
3	11:18:24	96.325%	201.100	202.100	202.300	0.127	0.379	99.024%	100.266%
x		95.269%	200.000	200.000	200.000	0.136	0.369	96.445%	97.236%
σ		0.979%	2.075	2.643	3.069	0.017	0.021	2.419%	2.885%
%RSD		1.028	1.038	1.321	1.535	12.570	5.757	2.508	2.967

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:46	0.058	0.074	0.082	0.075	0.072	100.016%
2	11:18:05	0.067	0.068	0.064	0.066	0.075	100.183%
3	11:18:24	0.078	0.063	0.086	0.098	0.076	100.869%
x		0.067	0.068	0.077	0.080	0.074	100.356%
σ		0.010	0.005	0.012	0.017	0.002	0.452%
%RSD		14.920	7.519	15.060	20.800	3.289	0.450

ICV 1578172 6/3/2015 11:21:22 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:22	100.509%	79.500	86.940	86.150	0.000	40040.000	40010.000	40960.000
2	11:21:42	95.967%	80.800	88.710	89.560	0.000	40640.000	41000.000	41450.000
3	11:22:01	102.937%	79.850	86.860	84.630	0.000	40430.000	41230.000	40270.000
x		99.804%	100.065%	109.384%	108.474%	0.000	100.930%	101.868%	102.231%
σ		3.538%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.545	0.836	1.196	2.910	0.000	0.751	1.594	1.460
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:22	417.800	4740.000	0.000	41640.000	40920.000	40340.000	97.699%	87.050
2	11:21:42	420.500	5052.000	0.000	42700.000	41530.000	41590.000	99.357%	85.010
3	11:22:01	407.500	4919.000	0.000	42000.000	41300.000	41120.000	93.931%	84.300
x		103.819%	122.590%	0.000	105.283%	103.127%	102.545%	96.996%	106.815%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.780%	n/a
%RSD		1.648	3.188	0.000	1.280	0.738	1.532	2.867	1.672
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:22	81.700	83.970	392.700	19880.000	19450.000	79.920	79.390	81.040
2	11:21:42	81.590	83.560	393.800	19720.000	19280.000	78.470	80.070	81.540
3	11:22:01	81.040	83.020	412.700	20360.000	20020.000	82.020	82.770	83.550
x		101.805%	104.400%	99.943%	99.924%	97.926%	100.172%	100.931%	102.554%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.429	0.570	2.815	1.662	1.969	2.224	2.215	1.622
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:22	80.600	82.990	83.380	82.890	87.760	84.080	0.000	77.920
2	11:21:42	81.430	82.590	83.940	82.570	85.770	85.880	0.000	78.760
3	11:22:01	84.500	85.130	84.970	83.320	84.100	85.710	0.000	78.670
x		102.721%	104.462%	105.119%	103.660%	107.349%	106.527%	0.000	98.067%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.499	1.635	0.957	0.456	2.135	1.161	0.000	0.588
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:22	100.086%	81.990	85.150	96.563%	78.870	78.870	77.930	77.270
2	11:21:42	100.414%	85.660	88.070	96.705%	80.180	80.290	81.090	78.230
3	11:22:01	103.093%	86.870	88.360	97.015%	80.690	80.100	80.110	78.000
x		101.198%	106.048%	108.992%	96.761%	99.894%	99.693%	99.637%	97.295%
σ		1.650%	n/a	n/a	0.231%	n/a	n/a	n/a	n/a
%RSD		1.630	2.996	2.034	0.239	1.172	0.969	2.024	0.644
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:21:22	100.811%	78.450	85.600	86.680	78.070	77.910	99.123%	95.707%
2	11:21:42	102.362%	79.020	86.080	85.910	76.870	78.290	103.111%	98.068%
3	11:22:01	102.679%	79.650	88.250	88.200	78.500	78.050	105.892%	100.138%
x		101.951%	98.798%	108.306%	108.660%	97.266%	97.602%	102.709%	97.971%
σ		0.999%	n/a	n/a	n/a	n/a	n/a	3.402%	2.217%
%RSD		0.980	0.764	1.627	1.344	1.089	0.244	3.313	2.263
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:21:22	82.900	82.650	82.220	79.530	80.930	102.606%		
2	11:21:42	87.250	86.850	86.190	83.230	84.620	100.932%		
3	11:22:01	89.490	89.440	88.210	86.040	87.330	99.832%		
x		108.180%	107.890%	106.925%	103.666%	105.367%	101.123%		
σ		n/a	n/a	n/a	n/a	n/a	1.397%		
%RSD		3.874	3.972	3.563	3.935	3.815	1.381		

ICB 6/3/2015 11:25:02 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	11:25:02	107.414%	0.013	0.362	0.369	0.000	3.426	1.719	1.795
2	11:25:21	98.348%	0.018	0.778	0.260	0.000	2.675	0.959	1.143
3	11:25:40	95.961%	0.009	0.038	0.274	0.000	2.322	0.988	0.923
x		100.575%	0.013	0.393	0.301	0.000	2.808	1.222	1.287
σ		6.043%	0.005	0.371	0.059	0.000	0.564	0.431	0.453
%RSD		6.008	34.350	94.420	19.700	0.000	20.080	35.270	35.210

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:02	0.032	-12.140	0.000	5.734	-0.321	2.013	98.551%	-0.030
2	11:25:21	-0.035	1.694	0.000	4.778	2.983	0.343	96.817%	0.007
3	11:25:40	-0.150	4.102	0.000	3.342	1.882	1.433	97.292%	-0.050
x		-0.051	-2.114	0.000	4.618	1.515	1.263	97.553%	-0.024
σ		0.092	8.765	0.000	1.204	1.683	0.848	0.896%	0.029
%RSD		181.600	414.500	0.000	26.070	111.100	67.130	0.918	119.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:02	0.002	-0.040	0.022	5.747	10.510	0.005	-0.029	0.012
2	11:25:21	0.002	-0.027	0.003	2.661	7.968	0.003	0.021	0.026
3	11:25:40	-0.001	-0.035	0.010	-0.674	6.905	0.001	0.011	0.029
x		0.001	-0.034	0.012	2.578	8.462	0.003	0.001	0.023
σ		0.002	0.007	0.009	3.211	1.854	0.002	0.026	0.009
%RSD		202.100	19.620	81.930	124.600	21.920	60.690	2533.000	40.340

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:02	0.023	0.024	0.024	0.162	1.071	0.620	0.000	0.003
2	11:25:21	0.015	0.104	0.001	0.342	1.056	0.936	0.000	0.002
3	11:25:40	0.006	-0.002	0.048	0.374	1.248	1.305	0.000	0.002
x		0.014	0.042	0.024	0.293	1.125	0.954	0.000	0.003
σ		0.008	0.055	0.023	0.114	0.107	0.343	0.000	0.001
%RSD		57.170	130.600	97.560	39.100	9.517	35.940	0.000	33.860

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:02	94.839%	-0.005	0.114	96.676%	0.024	0.021	0.057	0.041
2	11:25:21	95.458%	0.478	0.790	97.842%	0.027	0.025	-0.002	-0.001
3	11:25:40	96.143%	0.857	1.015	97.886%	0.027	0.035	0.013	0.008
x		95.480%	0.444	0.639	97.468%	0.026	0.027	0.023	0.016
σ		0.652%	0.432	0.469	0.686%	0.002	0.007	0.031	0.022
%RSD		0.683	97.410	73.350	0.704	6.370	25.660	136.600	138.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:02	94.804%	0.005	0.162	0.153	-0.002	-0.003	95.170%	94.731%
2	11:25:21	96.071%	0.173	0.226	0.199	-0.008	-0.007	97.421%	96.609%
3	11:25:40	97.706%	0.171	0.181	0.151	0.007	0.008	98.221%	98.590%
x		96.194%	0.116	0.190	0.168	-0.001	-0.001	96.937%	96.643%
σ		1.455%	0.096	0.033	0.027	0.008	0.008	1.582%	1.930%
%RSD		1.512	83.080	17.180	16.160	758.100	1253.000	1.632	1.997

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:02	0.022	0.025	0.004	0.016	0.003	99.486%
2	11:25:21	0.023	0.031	0.009	-0.004	0.000	99.736%
3	11:25:40	0.023	0.026	0.002	0.000	0.002	100.486%
x		0.023	0.027	0.005	0.004	0.001	99.903%
σ		0.001	0.003	0.003	0.011	0.001	0.520%
%RSD		3.677	12.410	65.930	263.500	74.830	0.521

CRI 1554040 6/3/2015 11:28:41 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:41	102.616%	1.043	22.360	20.780	0.000	511.100	506.100	503.100
2	11:29:00	94.873%	1.356	22.290	21.670	0.000	510.900	506.400	510.300
3	11:29:19	98.139%	0.946	21.390	21.320	0.000	493.300	496.700	499.400
x		98.542%	111.508%	110.073%	106.275%	0.000	101.019%	100.612%	100.852%
σ		3.887%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.944	19.220	2.465	2.114	0.000	2.015	1.098	1.106
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:41	30.800	488.300	0.000	521.700	526.500	479.000	95.396%	5.301
2	11:29:00	33.180	542.300	0.000	522.900	541.000	500.000	95.137%	5.382
3	11:29:19	32.920	518.800	0.000	513.700	570.300	523.100	90.642%	5.139
x		107.659%	103.296%	0.000	103.883%	109.181%	100.139%	93.725%	105.478%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.673%	n/a
%RSD		4.050	5.243	0.000	0.966	4.084	4.400	2.852	2.341
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:41	0.892	1.991	4.894	48.360	55.700	0.532	1.096	2.180
2	11:29:00	0.978	2.041	4.950	48.000	60.150	0.516	1.088	2.217
3	11:29:19	0.985	2.117	5.207	51.240	60.920	0.503	1.025	2.479
x		95.158%	102.489%	100.335%	98.392%	117.847%	103.389%	106.991%	114.610%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.464	3.090	3.325	3.610	4.781	2.855	3.622	7.116
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:41	2.134	6.283	6.477	1.189	5.643	5.854	0.000	4.936
2	11:29:00	2.320	6.574	6.279	1.292	5.609	6.103	0.000	5.060
3	11:29:19	2.232	6.590	6.798	1.204	6.195	5.367	0.000	4.996
x		111.440%	129.652%	130.363%	122.827%	116.314%	115.491%	0.000	99.946%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.158	2.664	4.016	4.497	5.661	6.482	0.000	1.244
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:41	96.073%	3.261	3.250	91.754%	1.125	1.148	1.100	1.039
2	11:29:00	96.867%	3.379	3.507	91.677%	1.169	1.163	1.108	1.082
3	11:29:19	98.350%	3.450	3.796	91.495%	1.192	1.079	1.026	1.155
x		97.097%	67.265%	70.360%	91.642%	116.190%	113.016%	107.786%	109.210%
σ		1.155%	n/a	n/a	0.133%	n/a	n/a	n/a	n/a
%RSD		1.190	2.843	7.761	0.146	2.900	3.964	4.176	5.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:41	94.077%	4.388	2.166	2.230	10.390	10.160	93.427%	92.797%
2	11:29:00	96.047%	4.546	2.153	2.206	9.979	10.340	95.874%	95.303%
3	11:29:19	94.822%	4.646	2.298	2.316	10.460	10.550	97.795%	97.640%
x		94.982%	90.530%	110.292%	112.530%	102.760%	103.522%	95.699%	95.246%
σ		0.994%	n/a	n/a	n/a	n/a	n/a	2.189%	2.422%
%RSD		1.047	2.877	3.650	2.561	2.528	1.888	2.288	2.543
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:28:41	1.065	1.069	1.083	1.052	1.061	94.688%		
2	11:29:00	1.112	1.077	1.066	1.122	1.093	96.463%		
3	11:29:19	1.168	1.112	1.073	1.143	1.134	96.606%		
x		111.489%	108.597%	107.399%	110.580%	109.616%	95.919%		
σ		n/a	n/a	n/a	n/a	n/a	1.068%		
%RSD		4.630	2.141	0.758	4.319	3.325	1.114		

ICSA 1578047 6/3/2015 11:32:18 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	11:32:18	82.008%	0.019	1.044	0.938	0.000	97650.000	96240.000	97630.000
2	11:32:38	86.046%	0.052	0.751	1.220	0.000	101800.000	102200.000	103000.000
3	11:32:58	77.505%	0.049	1.041	0.878	0.000	101600.000	104500.000	106100.000
x		81.853%	0.040	0.946	1.012	0.000	100400.000	101000.000	102300.000
σ		4.273%	0.019	0.168	0.183	0.000	2362.000	4252.000	4278.000
%RSD		5.220	46.420	17.790	18.080	0.000	2.353	4.211	4.184

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:18	92970.000	3.089	0.000	97760.000	99160.000	98270.000	88.438%	2061.000
2	11:32:38	102200.000	16.240	0.000	108000.000	111800.000	111500.000	77.863%	2346.000
3	11:32:58	100400.000	19.000	0.000	107400.000	109600.000	110500.000	77.442%	2350.000
x		98540.000	12.780	0.000	104400.000	106900.000	106800.000	81.248%	2252.000
σ		4911.000	8.501	0.000	5748.000	6753.000	7375.000	6.231%	165.600
%RSD		4.983	66.540	0.000	5.507	6.319	6.907	7.669	7.350

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:18	-0.728	-0.759	0.543	98450.000	99030.000	0.185	0.379	1.640
2	11:32:38	-0.628	-0.872	0.592	109200.000	109000.000	0.191	0.414	1.724
3	11:32:58	-0.796	-0.562	0.560	110700.000	109200.000	0.169	0.427	1.811
x		-0.717	-0.731	0.565	106100.000	105700.000	0.182	0.407	1.725
σ		0.084	0.157	0.025	6667.000	5799.000	0.011	0.025	0.085
%RSD		11.770	21.440	4.377	6.284	5.485	6.193	6.100	4.937

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:18	1.972	4.173	3.099	0.068	0.949	0.328	0.000	0.659
2	11:32:38	1.953	4.601	3.440	0.114	0.951	0.213	0.000	0.687
3	11:32:58	1.861	4.600	3.550	0.268	0.762	0.368	0.000	0.710
x		1.929	4.458	3.363	0.150	0.887	0.303	0.000	0.685
σ		0.059	0.247	0.235	0.105	0.109	0.081	0.000	0.026
%RSD		3.062	5.529	6.982	69.860	12.260	26.660	0.000	3.729

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:18	86.199%	2275.000	2315.000	82.581%	0.136	0.133	0.516	0.404
2	11:32:38	88.734%	2299.000	2347.000	84.014%	0.157	0.161	0.223	0.248
3	11:32:58	88.738%	2308.000	2360.000	84.956%	0.156	0.162	0.603	0.333
x		87.890%	2294.000	2340.000	83.850%	0.150	0.152	0.447	0.328
σ		1.465%	17.030	23.230	1.196%	0.011	0.016	0.199	0.078
%RSD		1.667	0.742	0.992	1.426	7.628	10.550	44.560	23.830

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:18	85.140%	0.197	0.221	0.267	0.114	0.143	90.923%	92.426%
2	11:32:38	87.590%	0.206	0.258	0.306	0.142	0.182	95.843%	96.677%
3	11:32:58	88.776%	0.320	0.303	0.359	0.156	0.115	98.542%	98.924%
x		87.169%	0.241	0.261	0.311	0.137	0.147	95.103%	96.009%
σ		1.854%	0.069	0.041	0.046	0.021	0.033	3.863%	3.300%
%RSD		2.127	28.500	15.760	14.940	15.390	22.700	4.062	3.437

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:18	0.012	0.016	0.224	0.218	0.220	114.689%
2	11:32:38	0.023	0.020	0.273	0.288	0.258	101.882%
3	11:32:58	0.023	0.018	0.296	0.278	0.289	99.158%
x		0.019	0.018	0.265	0.261	0.256	105.243%
σ		0.006	0.002	0.037	0.038	0.035	8.293%
%RSD		32.930	11.450	13.910	14.480	13.500	7.880

ICSAB 1578158 6/3/2015 11:35:58 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:58	83.260%	21.400	52.640	53.500	0.000	104700.000	105800.000	103700.000
2	11:36:18	71.571%	21.160	54.240	57.340	0.000	112700.000	113300.000	113500.000
3	11:36:37	76.800%	20.140	51.660	53.940	0.000	108000.000	109000.000	110200.000
x		77.210%	104.488%	105.695%	109.850%	0.000	108.424%	109.369%	109.101%
σ		5.855%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		7.583	3.199	2.464	3.822	0.000	3.709	3.461	4.554
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:58	101500.000	564.900	0.000	106700.000	107100.000	107200.000	80.693%	2245.000
2	11:36:18	110500.000	621.300	0.000	110700.000	111400.000	111700.000	78.753%	2330.000
3	11:36:37	105500.000	572.700	0.000	110700.000	113500.000	112000.000	74.921%	2366.000
x		105.821%	117.263%	0.000	109.366%	110.659%	110.315%	78.122%	115.676%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.937%	n/a
%RSD		4.258	5.206	0.000	2.090	2.944	2.420	3.760	2.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:58	20.150	20.460	20.840	105500.000	104800.000	21.270	20.900	22.430
2	11:36:18	20.910	20.290	21.530	105900.000	106400.000	21.250	21.260	22.810
3	11:36:37	21.450	20.690	22.070	109900.000	109500.000	22.120	22.180	23.560
x		104.179%	102.388%	93.396%	107.089%	106.922%	107.742%	107.233%	114.667%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.125	0.985	2.869	2.243	2.248	2.287	3.086	2.504
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:58	23.490	25.750	24.450	22.970	58.220	58.780	0.000	21.100
2	11:36:18	22.700	25.960	25.530	23.090	57.530	57.070	0.000	21.380
3	11:36:37	24.310	27.100	26.210	22.650	58.040	57.050	0.000	21.410
x		117.495%	105.076%	101.586%	114.517%	115.867%	115.270%	0.000	106.487%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.417	2.754	3.501	0.987	0.617	1.726	0.000	0.804
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:58	86.734%	2324.000	2359.000	82.961%	20.150	20.170	20.970	20.780
2	11:36:18	87.619%	2340.000	2374.000	82.477%	20.680	20.870	21.860	20.860
3	11:36:37	87.733%	2343.000	2386.000	82.754%	20.640	20.660	21.080	21.000
x		87.362%	116.779%	118.648%	82.731%	102.461%	102.824%	106.524%	104.409%
σ		0.547%	n/a	n/a	0.243%	n/a	n/a	n/a	n/a
%RSD		0.626	0.444	0.553	0.293	1.435	1.753	2.264	0.528
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:35:58	84.902%	106.800	22.760	22.380	20.390	20.700	92.657%	92.166%
2	11:36:18	86.057%	107.700	22.430	22.570	21.110	20.980	94.368%	95.345%
3	11:36:37	86.957%	108.200	22.530	22.530	20.760	21.260	96.210%	96.895%
x		85.972%	107.565%	112.879%	112.451%	103.784%	104.894%	94.412%	94.802%
σ		1.030%	n/a	n/a	n/a	n/a	n/a	1.777%	2.411%
%RSD		1.198	0.662	0.746	0.452	1.728	1.336	1.882	2.543
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:35:58	19.230	19.300	20.360	20.250	20.150	98.672%		
2	11:36:18	20.920	20.870	21.600	21.690	21.680	94.723%		
3	11:36:37	22.290	22.160	22.870	23.000	22.920	90.763%		
x		104.053%	103.888%	108.043%	108.248%	107.909%	94.719%		
σ		n/a	n/a	n/a	n/a	n/a	3.955%		
%RSD		7.361	6.888	5.823	6.360	6.418	4.175		

CCV 1594026 6/3/2015 11:42:34 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	88.255%	94.380	95.970	98.040	0.000	46460.000	46540.000	45940.000
2	11:42:54	86.517%	94.970	98.490	98.710	0.000	46900.000	47020.000	46380.000
3	11:43:13	84.412%	92.350	94.090	98.480	0.000	47940.000	47970.000	47660.000
x		86.395%	93.899%	96.184%	98.412%	0.000	94.202%	94.348%	93.318%
σ		1.924%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.227	1.462	2.293	0.346	0.000	1.617	1.542	1.924

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	464.600	5048.000	0.000	46230.000	46250.000	45400.000	93.520%	92.060
2	11:42:54	461.500	5025.000	0.000	46870.000	47020.000	46870.000	91.009%	95.940
3	11:43:13	471.800	5062.000	0.000	49810.000	51920.000	50680.000	82.994%	102.800
x		93.200%	100.902%	0.000	95.270%	96.792%	95.300%	89.174%	96.950%
σ		n/a	n/a	0.000	n/a	n/a	n/a	5.497%	n/a
%RSD		1.136	0.371	0.000	4.009	6.353	5.710	6.165	5.630

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	88.550	89.090	445.400	22310.000	22260.000	88.510	90.620	92.850
2	11:42:54	90.620	91.940	457.400	23050.000	22690.000	92.280	93.600	94.280
3	11:43:13	99.610	101.500	493.700	24540.000	24330.000	98.070	97.900	98.580
x		92.926%	94.171%	93.099%	93.212%	92.360%	92.954%	94.040%	95.237%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.324	6.896	5.407	4.864	4.729	5.184	3.891	3.132

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	93.950	88.130	89.330	94.010	97.130	95.240	0.000	92.400
2	11:42:54	95.340	90.420	89.060	94.980	96.530	97.400	0.000	93.940
3	11:43:13	99.620	95.280	96.700	98.600	98.210	96.940	0.000	93.540
x		96.306%	91.277%	91.700%	95.863%	97.291%	96.524%	0.000	93.290%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.068	3.999	4.726	2.524	0.876	1.177	0.000	0.854

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	91.011%	102.200	102.200	88.165%	94.610	95.750	96.100	97.210
2	11:42:54	91.766%	105.400	107.000	89.105%	95.900	96.740	98.970	98.830
3	11:43:13	92.103%	107.300	108.900	89.452%	95.820	97.590	98.920	97.710
x		91.627%	104.957%	106.051%	88.907%	95.444%	96.692%	97.995%	97.920%
σ		0.559%	n/a	n/a	0.666%	n/a	n/a	n/a	n/a
%RSD		0.610	2.460	3.253	0.749	0.758	0.954	1.676	0.849

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	85.126%	98.260	92.790	93.550	95.880	94.830	93.072%	94.176%
2	11:42:54	85.844%	100.000	94.010	94.650	96.600	95.980	97.001%	97.482%
3	11:43:13	86.950%	99.440	94.430	95.310	96.260	97.340	98.340%	98.845%
x		85.973%	99.239%	93.743%	94.504%	96.244%	96.053%	96.138%	96.834%
σ		0.919%	n/a	n/a	n/a	n/a	n/a	2.738%	2.401%
%RSD		1.068	0.901	0.906	0.943	0.377	1.307	2.848	2.480

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:34	88.660	88.300	89.540	89.490	88.710	102.548%
2	11:42:54	94.950	94.090	94.810	95.280	95.080	99.635%
3	11:43:13	97.770	97.150	98.120	98.580	98.700	98.361%
x		93.793%	93.180%	94.160%	94.451%	94.165%	100.181%
σ		n/a	n/a	n/a	n/a	n/a	2.146%
%RSD		4.972	4.825	4.598	4.872	5.368	2.142

CCB1 6/3/2015 11:49:02 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	11:49:22	98.825%	0.054	-0.007	0.164	0.000	1.903	1.056	0.764
2	11:49:41	91.537%	0.017	-0.027	0.050	0.000	2.158	0.869	0.506
3	11:50:00	89.815%	0.036	0.213	0.002	0.000	1.929	0.726	0.504
x		93.392%	0.036	0.060	0.072	0.000	1.997	0.884	0.592
σ		4.783%	0.018	0.133	0.083	0.000	0.141	0.166	0.149
%RSD		5.122	51.690	222.700	115.100	0.000	7.036	18.740	25.270

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:22	0.063	-39.390	0.000	3.638	2.020	-0.032	93.986%	0.025
2	11:49:41	0.056	-31.320	0.000	2.896	0.923	0.816	93.785%	-0.091
3	11:50:00	0.039	-34.560	0.000	0.575	0.887	1.136	94.962%	0.034
x		0.052	-35.090	0.000	2.369	1.277	0.640	94.245%	-0.011
σ		0.012	4.060	0.000	1.598	0.644	0.604	0.630%	0.070
%RSD		23.420	11.570	0.000	67.440	50.460	94.330	0.668	650.100

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:22	0.018	-0.026	0.002	1.036	4.395	-0.001	-0.021	0.006
2	11:49:41	-0.005	-0.030	0.015	-0.382	4.708	0.001	0.029	0.012
3	11:50:00	-0.007	-0.025	0.001	0.165	2.963	0.001	0.013	0.009
x		0.002	-0.027	0.006	0.273	4.022	0.000	0.007	0.009
σ		0.014	0.003	0.008	0.715	0.930	0.001	0.025	0.003
%RSD		719.500	11.050	126.100	262.200	23.130	309.100	367.400	34.390

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:22	-0.006	0.017	0.080	-0.011	0.356	0.224	0.000	-0.000
2	11:49:41	0.050	0.050	0.107	0.110	0.839	0.299	0.000	0.001
3	11:50:00	-0.012	0.106	0.144	0.067	0.750	0.699	0.000	0.002
x		0.010	0.058	0.111	0.055	0.648	0.407	0.000	0.001
σ		0.034	0.045	0.032	0.061	0.257	0.256	0.000	0.001
%RSD		327.800	77.450	29.300	110.800	39.630	62.830	0.000	123.100

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:22	95.694%	0.397	0.474	97.714%	0.009	0.006	0.013	0.011
2	11:49:41	97.475%	1.226	1.317	97.933%	0.006	0.011	0.001	-0.003
3	11:50:00	96.368%	1.510	1.650	97.521%	0.016	0.008	0.013	0.007
x		96.513%	1.044	1.147	97.723%	0.010	0.008	0.009	0.005
σ		0.899%	0.579	0.606	0.206%	0.005	0.002	0.007	0.007
%RSD		0.932	55.420	52.820	0.211	45.640	26.170	75.240	137.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:22	96.507%	0.011	0.720	0.719	-0.008	0.011	97.692%	97.901%
2	11:49:41	97.981%	0.030	0.757	0.838	0.012	-0.001	100.795%	101.498%
3	11:50:00	99.512%	0.091	0.753	0.779	0.002	-0.004	101.708%	101.843%
x		98.000%	0.044	0.743	0.779	0.002	0.002	100.065%	100.414%
σ		1.502%	0.042	0.020	0.060	0.010	0.008	2.105%	2.183%
%RSD		1.533	95.200	2.725	7.679	521.900	373.500	2.104	2.174

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:22	0.007	0.012	-0.006	-0.004	-0.006	104.433%
2	11:49:41	0.011	0.015	-0.002	-0.007	-0.004	104.533%
3	11:50:00	0.013	0.010	0.008	0.001	0.000	104.228%
x		0.010	0.012	0.000	-0.003	-0.003	104.398%
σ		0.003	0.003	0.007	0.004	0.003	0.156%
%RSD		32.340	20.200	3192.000	125.800	107.000	0.149

MB 180-142095/1-A 6/3/2015 11:52:51 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	11:53:11	95.890%	-0.002	0.224	0.093	0.000	2.958	0.212	1.056
2	11:53:30	97.364%	-0.013	-0.059	-0.087	0.000	2.904	0.332	0.234
3	11:53:49	93.120%	0.038	0.061	-0.003	0.000	2.650	0.305	0.495
x		95.458%	0.008	0.075	0.001	0.000	2.837	0.283	0.595
σ		2.155%	0.027	0.142	0.090	0.000	0.165	0.063	0.420
%RSD		2.257	331.800	188.300	7998.000	0.000	5.804	22.250	70.620

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:11	0.959	-25.450	0.000	3.476	5.124	7.517	97.385%	-0.028
2	11:53:30	0.922	-18.500	0.000	3.973	5.487	5.971	92.619%	-0.019
3	11:53:49	0.814	-17.440	0.000	2.783	2.140	7.454	91.685%	0.042
x		0.898	-20.460	0.000	3.411	4.251	6.981	93.896%	-0.001
σ		0.075	4.351	0.000	0.598	1.836	0.875	3.057%	0.038
%RSD		8.364	21.270	0.000	17.520	43.210	12.540	3.256	2663.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:11	-0.024	-0.029	0.017	-1.170	1.634	-0.002	-0.010	0.009
2	11:53:30	-0.031	-0.070	0.009	0.247	3.159	0.004	0.005	0.032
3	11:53:49	-0.014	-0.041	0.022	1.563	2.569	0.001	0.035	0.030
x		-0.023	-0.047	0.016	0.214	2.454	0.001	0.010	0.024
σ		0.009	0.021	0.007	1.366	0.769	0.003	0.023	0.013
%RSD		36.970	43.880	41.400	640.100	31.330	365.200	228.100	53.220

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:11	0.026	0.665	0.618	-0.038	0.648	0.176	0.000	0.001
2	11:53:30	0.012	0.765	0.672	0.072	0.485	0.174	0.000	0.005
3	11:53:49	0.035	0.720	0.556	0.165	0.363	0.443	0.000	0.008
x		0.024	0.717	0.616	0.066	0.499	0.264	0.000	0.005
σ		0.012	0.050	0.058	0.102	0.143	0.155	0.000	0.003
%RSD		48.300	6.925	9.428	154.200	28.680	58.480	0.000	70.270

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:11	94.561%	-0.128	-0.027	95.482%	0.002	0.005	0.052	0.044
2	11:53:30	95.729%	0.526	0.506	96.390%	0.009	0.012	0.066	0.047
3	11:53:49	95.968%	0.740	0.708	96.263%	0.008	0.011	0.006	0.007
x		95.419%	0.379	0.396	96.045%	0.006	0.009	0.042	0.032
σ		0.753%	0.452	0.380	0.491%	0.004	0.004	0.032	0.022
%RSD		0.789	119.200	96.080	0.512	63.660	40.560	75.640	68.590

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:11	94.226%	0.006	0.598	0.566	0.008	0.024	95.695%	96.064%
2	11:53:30	96.299%	0.072	0.566	0.601	0.044	-0.004	99.354%	99.867%
3	11:53:49	96.662%	0.111	0.561	0.479	0.023	0.026	100.428%	100.566%
x		95.729%	0.063	0.575	0.548	0.025	0.015	98.492%	98.832%
σ		1.314%	0.053	0.020	0.063	0.018	0.017	2.481%	2.423%
%RSD		1.373	83.860	3.525	11.470	71.760	107.500	2.519	2.451

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:11	0.002	0.005	0.004	0.011	0.005	106.142%
2	11:53:30	0.007	0.006	0.010	0.008	0.007	105.001%
3	11:53:49	0.002	0.007	0.003	0.003	0.003	104.917%
x		0.003	0.006	0.005	0.007	0.005	105.353%
σ		0.003	0.001	0.004	0.004	0.002	0.684%
%RSD		86.850	10.420	74.430	53.400	46.790	0.649

LCS 180-142095/2-A 6/3/2015 11:56:38 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	11:56:57	98.451%	38.460	842.000	878.700	0.000	41390.000	42680.000	42680.000
2	11:57:17	97.685%	40.320	902.900	882.200	0.000	42070.000	43230.000	43620.000
3	11:57:36	96.901%	41.950	857.100	904.200	0.000	43570.000	44690.000	44430.000
x		97.679%	40.240	867.300	888.400	0.000	42340.000	43530.000	43570.000
σ		0.775%	1.748	31.690	13.820	0.000	1112.000	1040.000	874.400
%RSD		0.793	4.344	3.654	1.556	0.000	2.627	2.389	2.007

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:57	1681.000	9410.000	0.000	47930.000	50020.000	49480.000	76.084%	1024.000
2	11:57:17	1673.000	8943.000	0.000	47620.000	50410.000	48470.000	73.297%	1022.000
3	11:57:36	1686.000	8906.000	0.000	46870.000	50180.000	49400.000	73.719%	1011.000
x		1680.000	9086.000	0.000	47470.000	50200.000	49120.000	74.367%	1019.000
σ		6.216	280.900	0.000	542.900	198.900	563.500	1.502%	6.895
%RSD		0.370	3.092	0.000	1.144	0.396	1.147	2.020	0.677

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:57	493.900	195.900	480.100	1016.000	1291.000	489.900	484.800	245.200
2	11:57:17	500.200	200.800	494.200	1059.000	1307.000	507.300	510.200	258.100
3	11:57:36	484.700	196.700	489.700	1059.000	1317.000	514.100	515.400	259.800
x		492.900	197.800	488.000	1045.000	1305.000	503.700	503.500	254.400
σ		7.789	2.621	7.195	25.060	13.210	12.480	16.390	7.970
%RSD		1.580	1.325	1.474	2.399	1.012	2.477	3.256	3.133

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:57	242.900	468.200	463.400	37.520	10.190	10.690	0.000	915.600
2	11:57:17	254.200	483.400	488.900	37.800	9.542	10.200	0.000	910.300
3	11:57:36	258.000	489.900	494.100	38.730	9.985	10.100	0.000	916.900
x		251.700	480.500	482.100	38.020	9.906	10.330	0.000	914.200
σ		7.854	11.140	16.440	0.631	0.332	0.315	0.000	3.495
%RSD		3.121	2.319	3.410	1.660	3.346	3.048	0.000	0.382

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:57	85.306%	986.800	1012.000	82.772%	47.290	47.440	47.490	41.200
2	11:57:17	87.771%	994.600	1020.000	83.877%	47.110	47.250	47.920	41.120
3	11:57:36	88.365%	1006.000	1023.000	85.297%	46.580	47.110	48.240	40.960
x		87.147%	995.800	1018.000	83.982%	46.990	47.270	47.880	41.090
σ		1.622%	9.658	5.652	1.266%	0.371	0.167	0.379	0.125
%RSD		1.861	0.970	0.555	1.508	0.789	0.354	0.792	0.304

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:57	84.053%	1881.000	489.800	489.400	1820.000	1824.000	92.934%	93.085%
2	11:57:17	86.040%	1889.000	498.000	497.000	1819.000	1838.000	95.469%	95.595%
3	11:57:36	87.136%	1885.000	496.600	499.500	1827.000	1837.000	97.649%	98.040%
x		85.743%	1885.000	494.800	495.300	1822.000	1833.000	95.351%	95.574%
σ		1.563%	4.073	4.375	5.260	4.698	7.911	2.360%	2.478%
%RSD		1.823	0.216	0.884	1.062	0.258	0.432	2.475	2.592

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:57	51.050	51.750	21.450	21.430	21.610	81.358%
2	11:57:17	51.680	52.040	21.510	21.510	21.820	83.400%
3	11:57:36	51.860	52.350	21.360	21.370	21.660	85.568%
x		51.530	52.050	21.440	21.440	21.700	83.442%
σ		0.424	0.301	0.076	0.072	0.111	2.105%
%RSD		0.823	0.578	0.353	0.335	0.509	2.523

180-44105-D-1-A @10 6/3/2015 12:00:25 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	12:00:45	104.344%	-0.005	4.623	4.706	0.000	2634.000	664.200	655.700
2	12:01:04	101.392%	-0.014	4.681	4.783	0.000	2701.000	672.200	689.500
3	12:01:23	100.186%	0.002	4.205	4.553	0.000	2674.000	698.100	692.500
x		101.974%	-0.006	4.503	4.681	0.000	2670.000	678.100	679.200
σ		2.139%	0.008	0.260	0.117	0.000	33.770	17.700	20.450
%RSD		2.098	141.700	5.772	2.494	0.000	1.265	2.609	3.011
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:45	2.476	429.800	0.000	172.000	5276.000	4818.000	92.251%	0.171
2	12:01:04	2.224	450.800	0.000	179.900	5405.000	4993.000	90.500%	0.298
3	12:01:23	2.148	431.400	0.000	174.300	5410.000	5068.000	89.772%	0.169
x		2.283	437.300	0.000	175.400	5364.000	4960.000	90.841%	0.212
σ		0.172	11.700	0.000	4.058	75.880	128.200	1.274%	0.074
%RSD		7.516	2.675	0.000	2.314	1.415	2.585	1.403	34.870
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:45	-0.180	0.079	0.732	33.740	69.250	0.030	0.071	0.290
2	12:01:04	0.156	0.064	0.762	29.300	58.310	0.026	0.137	0.280
3	12:01:23	0.040	0.054	0.756	29.590	64.760	0.019	0.051	0.226
x		0.005	0.066	0.750	30.880	64.110	0.025	0.086	0.266
σ		0.171	0.013	0.016	2.480	5.498	0.006	0.045	0.035
%RSD		3205.000	19.410	2.154	8.030	8.576	23.170	52.200	13.020
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:45	0.352	1.722	1.754	0.080	-0.402	0.124	0.000	111.000
2	12:01:04	0.305	1.837	1.778	0.141	-0.609	0.321	0.000	112.300
3	12:01:23	0.287	1.764	1.755	0.153	-0.392	0.104	0.000	113.000
x		0.315	1.774	1.762	0.125	-0.468	0.183	0.000	112.100
σ		0.034	0.058	0.013	0.039	0.123	0.120	0.000	1.001
%RSD		10.660	3.294	0.749	31.650	26.210	65.390	0.000	0.893
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:45	95.634%	3.645	3.824	96.587%	0.018	0.006	0.069	0.049
2	12:01:04	95.533%	4.272	4.255	96.681%	0.008	0.008	0.047	0.026
3	12:01:23	95.267%	4.005	4.060	96.787%	0.003	0.008	0.069	0.035
x		95.478%	3.974	4.046	96.685%	0.010	0.007	0.061	0.037
σ		0.190%	0.314	0.216	0.100%	0.007	0.001	0.013	0.012
%RSD		0.199	7.910	5.338	0.104	75.820	19.800	20.620	32.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:45	95.132%	1.162	0.040	0.008	15.180	14.420	98.136%	98.141%
2	12:01:04	96.613%	1.225	0.056	0.050	15.020	15.320	99.797%	100.099%
3	12:01:23	96.787%	1.156	0.059	0.058	14.810	14.650	101.136%	101.715%
x		96.177%	1.181	0.052	0.039	15.000	14.800	99.690%	99.985%
σ		0.909%	0.038	0.010	0.027	0.189	0.471	1.503%	1.790%
%RSD		0.945	3.226	19.600	68.770	1.256	3.182	1.508	1.790
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:00:45	0.263	0.280	0.068	0.047	0.059	96.760%		
2	12:01:04	0.195	0.218	0.064	0.049	0.057	95.546%		
3	12:01:23	0.150	0.164	0.069	0.038	0.055	95.896%		
x		0.203	0.220	0.067	0.045	0.057	96.067%		
σ		0.057	0.058	0.003	0.006	0.002	0.625%		
%RSD		27.860	26.300	4.059	13.540	3.127	0.651		

180-44105-D-1-A SD@50 6/3/2015 12:04:13 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	12:04:32	105.576%	-0.001	1.311	1.253	0.000	553.200	138.600	137.400
2	12:04:51	104.565%	0.009	1.012	1.131	0.000	527.000	131.300	131.800
3	12:05:11	100.635%	0.002	1.463	1.354	0.000	541.900	133.800	138.300
x		103.592%	0.003	1.262	1.246	0.000	540.700	134.600	135.900
σ		2.610%	0.005	0.230	0.112	0.000	13.160	3.738	3.536
%RSD		2.520	157.100	18.190	8.959	0.000	2.435	2.777	2.603

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:32	1.051	50.460	0.000	34.450	1026.000	933.700	97.858%	0.027
2	12:04:51	1.008	48.100	0.000	32.760	1010.000	925.600	99.084%	0.069
3	12:05:11	1.076	56.110	0.000	35.410	1127.000	1004.000	94.488%	0.081
x		1.045	51.560	0.000	34.210	1054.000	954.200	97.143%	0.059
σ		0.034	4.117	0.000	1.344	63.850	42.850	2.380%	0.028
%RSD		3.281	7.985	0.000	3.928	6.056	4.490	2.450	47.750

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:32	-0.041	-0.094	0.188	1.468	12.940	0.009	0.107	0.080
2	12:04:51	-0.148	-0.008	0.177	3.034	15.240	0.007	0.069	0.079
3	12:05:11	0.026	-0.038	0.195	3.811	11.990	0.013	0.054	0.096
x		-0.055	-0.047	0.187	2.771	13.390	0.010	0.077	0.085
σ		0.088	0.044	0.009	1.193	1.673	0.003	0.028	0.009
%RSD		161.100	93.380	5.010	43.060	12.500	33.950	35.960	11.210

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:32	0.062	1.140	1.048	-0.007	-0.274	0.021	0.000	22.140
2	12:04:51	0.066	1.113	1.209	0.110	-0.436	0.155	0.000	22.190
3	12:05:11	0.109	1.198	1.393	0.033	-0.160	0.069	0.000	22.630
x		0.079	1.151	1.216	0.045	-0.290	0.082	0.000	22.320
σ		0.026	0.043	0.173	0.059	0.139	0.068	0.000	0.266
%RSD		33.190	3.747	14.220	130.900	47.930	83.480	0.000	1.193

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:32	94.659%	-0.172	-0.001	95.656%	0.002	0.001	0.048	0.033
2	12:04:51	95.372%	0.411	0.382	95.461%	0.002	-0.001	-0.022	-0.001
3	12:05:11	95.791%	0.580	0.568	95.511%	-0.001	-0.002	-0.066	-0.040
x		95.274%	0.273	0.317	95.542%	0.001	-0.001	-0.013	-0.003
σ		0.572%	0.395	0.290	0.102%	0.002	0.002	0.057	0.037
%RSD		0.601	144.700	91.670	0.106	173.300	339.100	443.900	1204.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:32	92.050%	0.155	-0.044	-0.043	3.356	3.095	93.156%	93.045%
2	12:04:51	94.630%	0.256	-0.008	-0.059	3.025	3.098	95.060%	94.466%
3	12:05:11	95.324%	0.218	-0.027	-0.002	2.932	2.896	97.760%	95.772%
x		94.001%	0.210	-0.026	-0.035	3.104	3.029	95.325%	94.428%
σ		1.725%	0.051	0.018	0.029	0.223	0.116	2.313%	1.364%
%RSD		1.835	24.220	69.380	83.740	7.177	3.825	2.427	1.444

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:32	0.042	0.037	0.028	0.018	0.015	92.671%
2	12:04:51	0.040	0.038	0.027	0.033	0.023	91.649%
3	12:05:11	0.049	0.047	0.031	0.015	0.017	91.102%
x		0.044	0.041	0.029	0.022	0.019	91.807%
σ		0.005	0.005	0.002	0.010	0.004	0.796%
%RSD		10.340	13.090	6.898	43.550	22.830	0.867

180-44105-D-1-B MS @10 6/3/2015 12:08:00 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	12:08:20	99.772%	4.568	90.310	98.310	0.000	7018.000	5091.000	5109.000
2	12:08:40	97.922%	4.710	92.740	95.850	0.000	7065.000	5177.000	5144.000
3	12:08:59	96.662%	4.364	85.860	90.570	0.000	6974.000	4962.000	4877.000
x		98.118%	4.547	89.640	94.910	0.000	7019.000	5077.000	5043.000
σ		1.564%	0.174	3.486	3.952	0.000	45.480	108.200	144.900
%RSD		1.594	3.833	3.889	4.164	0.000	0.648	2.132	2.874
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:20	171.800	1346.000	0.000	4570.000	9566.000	8884.000	93.977%	89.930
2	12:08:40	176.900	1367.000	0.000	4649.000	9864.000	9021.000	91.621%	90.940
3	12:08:59	163.900	1307.000	0.000	4630.000	9817.000	8889.000	88.972%	92.850
x		170.900	1340.000	0.000	4616.000	9749.000	8931.000	91.523%	91.240
σ		6.532	30.540	0.000	40.840	160.200	77.820	2.504%	1.482
%RSD		3.823	2.279	0.000	0.885	1.644	0.871	2.736	1.624
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:20	42.770	17.370	43.750	116.300	182.600	44.830	45.290	24.060
2	12:08:40	43.940	17.790	43.380	115.200	172.000	44.490	45.590	23.550
3	12:08:59	45.800	19.160	47.290	129.800	191.800	48.070	49.080	25.370
x		44.170	18.110	44.810	120.500	182.100	45.800	46.660	24.330
σ		1.528	0.937	2.160	8.143	9.877	1.978	2.107	0.937
%RSD		3.459	5.175	4.820	6.759	5.423	4.320	4.516	3.853
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:20	24.160	47.850	47.490	3.943	0.525	1.019	0.000	199.200
2	12:08:40	24.100	47.640	48.310	3.706	0.491	0.756	0.000	197.500
3	12:08:59	25.850	48.380	49.640	4.000	0.457	1.180	0.000	200.600
x		24.700	47.960	48.480	3.883	0.491	0.985	0.000	199.100
σ		0.994	0.386	1.085	0.156	0.035	0.214	0.000	1.537
%RSD		4.025	0.805	2.239	4.015	7.028	21.750	0.000	0.772
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:20	91.259%	88.990	90.030	91.821%	4.694	4.637	4.544	4.210
2	12:08:40	92.459%	89.320	90.740	91.647%	4.533	4.793	4.864	4.432
3	12:08:59	92.909%	91.340	92.390	91.988%	4.630	4.592	4.540	4.194
x		92.209%	89.890	91.050	91.819%	4.619	4.674	4.649	4.279
σ		0.853%	1.272	1.214	0.170%	0.081	0.105	0.186	0.133
%RSD		0.925	1.415	1.334	0.186	1.749	2.256	3.996	3.112
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:20	90.349%	178.200	47.840	47.680	190.500	193.600	92.882%	93.609%
2	12:08:40	91.278%	179.500	47.900	48.160	193.300	195.500	95.975%	95.408%
3	12:08:59	92.618%	179.500	47.660	48.600	192.700	195.100	96.578%	96.581%
x		91.415%	179.100	47.800	48.150	192.200	194.700	95.145%	95.199%
σ		1.140%	0.759	0.125	0.458	1.473	1.016	1.983%	1.497%
%RSD		1.247	0.424	0.261	0.951	0.766	0.522	2.084	1.572
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:08:20	4.375	4.309	1.797	1.956	1.851	98.662%		
2	12:08:40	4.713	4.652	1.888	1.882	1.930	94.754%		
3	12:08:59	4.872	4.687	2.056	1.962	2.016	93.603%		
x		4.653	4.550	1.914	1.933	1.932	95.673%		
σ		0.254	0.209	0.131	0.045	0.083	2.652%		
%RSD		5.454	4.592	6.854	2.322	4.279	2.772		

180-44105-D-1-C MSD @10 6/3/2015 12:11:50 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	12:12:09	99.978%	4.231	88.910	91.530	0.000	6596.000	4807.000	4870.000
2	12:12:28	93.856%	4.254	91.100	90.230	0.000	6941.000	5037.000	5121.000
3	12:12:47	92.936%	4.197	89.420	88.220	0.000	6802.000	5037.000	5015.000
x		95.590%	4.227	89.810	89.990	0.000	6780.000	4961.000	5002.000
σ		3.828%	0.028	1.147	1.669	0.000	173.800	132.700	126.200
%RSD		4.004	0.672	1.277	1.855	0.000	2.563	2.675	2.522
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:09	167.800	1285.000	0.000	4583.000	9562.000	8919.000	95.283%	93.320
2	12:12:28	179.100	1360.000	0.000	4725.000	9817.000	9251.000	90.577%	93.140
3	12:12:47	172.900	1333.000	0.000	4791.000	9944.000	9257.000	91.141%	91.180
x		173.300	1326.000	0.000	4700.000	9774.000	9142.000	92.334%	92.550
σ		5.661	38.020	0.000	106.400	194.200	193.000	2.570%	1.188
%RSD		3.267	2.868	0.000	2.264	1.987	2.111	2.783	1.284
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:09	44.840	18.360	45.550	134.600	192.400	46.330	46.000	24.050
2	12:12:28	45.340	18.770	45.750	133.800	187.400	46.370	48.630	24.890
3	12:12:47	45.720	19.320	46.030	130.300	186.300	46.240	47.140	24.580
x		45.300	18.820	45.780	132.900	188.700	46.310	47.250	24.510
σ		0.443	0.480	0.239	2.257	3.218	0.064	1.317	0.424
%RSD		0.977	2.551	0.522	1.699	1.705	0.138	2.787	1.731
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:09	24.580	47.930	48.100	3.674	0.246	1.095	0.000	201.300
2	12:12:28	25.150	49.280	48.840	3.711	0.484	1.055	0.000	202.300
3	12:12:47	24.090	48.900	48.250	3.867	0.208	1.171	0.000	199.900
x		24.610	48.710	48.400	3.751	0.313	1.107	0.000	201.200
σ		0.528	0.696	0.391	0.103	0.150	0.059	0.000	1.213
%RSD		2.148	1.428	0.808	2.735	47.920	5.324	0.000	0.603
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:09	92.065%	92.630	93.370	92.558%	4.685	4.770	4.524	4.240
2	12:12:28	93.849%	92.790	94.500	93.633%	4.731	4.783	4.424	4.075
3	12:12:47	95.445%	93.080	94.860	94.056%	4.737	4.768	5.002	4.441
x		93.786%	92.830	94.240	93.416%	4.718	4.774	4.650	4.252
σ		1.691%	0.227	0.780	0.772%	0.029	0.008	0.309	0.183
%RSD		1.803	0.245	0.827	0.827	0.608	0.172	6.636	4.311
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:09	93.412%	181.100	47.870	47.820	197.700	196.600	96.194%	96.778%
2	12:12:28	94.420%	183.900	48.210	48.850	194.600	196.500	99.685%	100.759%
3	12:12:47	96.375%	183.000	47.520	47.820	195.700	196.500	101.404%	100.600%
x		94.735%	182.600	47.870	48.160	196.000	196.500	99.094%	99.379%
σ		1.507%	1.440	0.345	0.592	1.593	0.072	2.655%	2.254%
%RSD		1.590	0.789	0.722	1.229	0.813	0.037	2.679	2.268
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:12:09	4.513	4.359	1.996	1.875	1.916	102.553%		
2	12:12:28	4.762	4.755	1.998	1.943	1.999	100.000%		
3	12:12:47	4.975	4.785	2.128	2.068	2.066	99.856%		
x		4.750	4.633	2.041	1.962	1.994	100.803%		
σ		0.231	0.238	0.075	0.098	0.075	1.517%		
%RSD		4.861	5.136	3.698	5.000	3.775	1.505		

180-44105-D-2-A @10 6/3/2015 12:15:38 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	12:15:57	99.156%	0.018	1.541	2.175	0.000	3446.000	516.600	536.700
2	12:16:17	98.177%	-0.013	2.090	2.072	0.000	3468.000	536.200	532.800
3	12:16:36	97.358%	-0.018	2.052	1.818	0.000	3457.000	524.700	515.000
x		98.231%	-0.004	1.894	2.021	0.000	3457.000	525.800	528.200
σ		0.900%	0.019	0.307	0.184	0.000	10.970	9.815	11.580
%RSD		0.917	436.300	16.190	9.096	0.000	0.317	1.867	2.192

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:57	3.080	329.200	0.000	137.600	3708.000	3348.000	98.706%	0.070
2	12:16:17	3.196	332.600	0.000	143.900	3707.000	3365.000	92.944%	0.097
3	12:16:36	3.307	328.500	0.000	141.700	3806.000	3441.000	92.088%	0.065
x		3.194	330.100	0.000	141.100	3740.000	3385.000	94.579%	0.077
σ		0.114	2.217	0.000	3.186	57.250	49.700	3.600%	0.018
%RSD		3.553	0.672	0.000	2.259	1.530	1.468	3.806	22.860

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:57	0.043	0.192	3.108	571.200	578.600	0.026	0.094	0.236
2	12:16:17	-0.189	0.128	3.282	600.300	603.500	0.026	0.156	0.216
3	12:16:36	-0.056	0.154	3.347	610.200	607.500	0.024	0.159	0.252
x		-0.067	0.158	3.246	593.900	596.500	0.025	0.136	0.235
σ		0.116	0.032	0.124	20.270	15.680	0.001	0.037	0.018
%RSD		172.700	20.300	3.813	3.413	2.629	3.266	27.170	7.674

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:57	0.272	2.205	2.116	-0.017	-0.642	0.084	0.000	19.200
2	12:16:17	0.272	2.394	2.302	-0.219	-0.423	-0.151	0.000	19.570
3	12:16:36	0.182	2.334	2.138	-0.066	-0.566	0.265	0.000	19.300
x		0.242	2.311	2.185	-0.101	-0.544	0.066	0.000	19.360
σ		0.052	0.097	0.102	0.105	0.112	0.208	0.000	0.187
%RSD		21.480	4.181	4.656	104.500	20.530	317.900	0.000	0.964

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:57	94.712%	0.527	0.469	96.442%	-0.002	0.008	0.050	0.051
2	12:16:17	96.777%	0.923	0.972	96.763%	0.005	0.011	0.030	0.033
3	12:16:36	97.353%	1.272	1.104	96.961%	0.010	0.008	0.003	-0.005
x		96.281%	0.907	0.849	96.722%	0.004	0.009	0.028	0.026
σ		1.389%	0.373	0.335	0.262%	0.006	0.002	0.024	0.028
%RSD		1.443	41.050	39.470	0.271	136.600	16.690	85.710	108.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:57	96.075%	1.576	-0.024	0.004	12.110	11.580	98.041%	98.309%
2	12:16:17	97.635%	1.544	0.009	-0.015	11.840	11.690	101.150%	100.917%
3	12:16:36	98.018%	1.564	-0.019	-0.013	12.410	12.400	102.058%	102.177%
x		97.243%	1.561	-0.011	-0.008	12.120	11.890	100.416%	100.468%
σ		1.029%	0.016	0.018	0.010	0.286	0.448	2.107%	1.972%
%RSD		1.058	1.037	154.900	128.600	2.356	3.768	2.098	1.963

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:15:57	0.044	0.060	0.457	0.420	0.428	107.399%
2	12:16:17	0.053	0.041	0.505	0.485	0.482	103.625%
3	12:16:36	0.037	0.035	0.531	0.488	0.497	102.475%
x		0.045	0.045	0.497	0.465	0.469	104.500%
σ		0.008	0.013	0.037	0.038	0.036	2.576%
%RSD		18.020	28.250	7.513	8.234	7.751	2.465

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	104.439%	-0.000	8.727	8.438	0.000	5257.000	397.300	394.300
2	12:20:05	101.572%	0.016	8.655	9.505	0.000	5593.000	426.200	428.800
3	12:20:24	103.798%	-0.005	7.897	8.377	0.000	5427.000	407.100	412.600
x		103.270%	0.004	8.426	8.773	0.000	5426.000	410.200	411.900
σ		1.505%	0.011	0.460	0.635	0.000	168.100	14.720	17.250
%RSD		1.457	287.800	5.459	7.235	0.000	3.098	3.588	4.187

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	3.025	300.400	0.000	231.100	3326.000	3083.000	97.449%	-0.061
2	12:20:05	3.118	321.500	0.000	241.400	3594.000	3184.000	93.336%	0.096
3	12:20:24	3.040	318.600	0.000	234.600	3611.000	3238.000	88.358%	0.211
x		3.061	313.500	0.000	235.700	3510.000	3168.000	93.047%	0.082
σ		0.050	11.420	0.000	5.258	160.000	78.460	4.552%	0.137
%RSD		1.630	3.644	0.000	2.231	4.559	2.476	4.893	166.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	-0.100	0.077	5.682	56.730	76.970	0.019	0.078	0.124
2	12:20:05	0.222	0.008	5.517	52.410	78.050	0.010	0.065	0.119
3	12:20:24	0.160	0.026	5.819	58.090	82.010	0.016	0.089	0.157
x		0.094	0.037	5.673	55.740	79.010	0.015	0.078	0.133
σ		0.171	0.036	0.151	2.968	2.655	0.004	0.012	0.021
%RSD		181.600	95.680	2.661	5.325	3.360	28.220	15.440	15.670

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	0.079	1.555	1.567	0.264	-0.983	0.007	0.000	213.100
2	12:20:05	0.150	1.725	1.575	0.128	-0.688	-0.173	0.000	212.800
3	12:20:24	0.096	1.578	1.323	0.524	-0.751	0.190	0.000	213.800
x		0.109	1.619	1.488	0.305	-0.807	0.008	0.000	213.300
σ		0.037	0.092	0.143	0.202	0.156	0.181	0.000	0.505
%RSD		34.390	5.693	9.600	65.980	19.270	2354.000	0.000	0.237

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	94.939%	-0.800	-0.586	95.210%	0.006	-0.002	-0.038	-0.017
2	12:20:05	95.833%	-0.506	-0.302	96.821%	0.009	0.000	-0.080	-0.058
3	12:20:24	96.291%	-0.376	-0.163	96.521%	0.004	0.003	0.020	0.017
x		95.688%	-0.561	-0.350	96.184%	0.007	0.000	-0.033	-0.019
σ		0.687%	0.217	0.216	0.857%	0.003	0.003	0.050	0.037
%RSD		0.718	38.720	61.600	0.891	39.630	1089.000	154.100	193.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	94.295%	0.528	-0.019	-0.009	102.900	103.500	95.806%	96.404%
2	12:20:05	96.114%	0.722	0.007	0.015	103.300	102.600	99.348%	99.583%
3	12:20:24	96.364%	0.732	-0.000	-0.010	103.300	103.600	100.712%	101.367%
x		95.591%	0.661	-0.004	-0.001	103.200	103.200	98.622%	99.118%
σ		1.130%	0.115	0.014	0.014	0.252	0.563	2.532%	2.514%
%RSD		1.182	17.370	340.000	1159.000	0.245	0.545	2.568	2.536

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:19:46	0.004	0.012	0.033	0.032	0.032	104.534%
2	12:20:05	0.015	0.011	0.037	0.039	0.033	100.413%
3	12:20:24	0.010	0.019	0.033	0.028	0.030	99.652%
x		0.009	0.014	0.034	0.033	0.032	101.533%
σ		0.005	0.004	0.002	0.006	0.001	2.627%
%RSD		55.210	31.500	6.640	17.810	3.695	2.587

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	107.596%	-0.001	1.110	0.756	0.000	3449.000	758.700	765.800
2	12:23:54	105.056%	-0.000	0.824	0.804	0.000	3401.000	752.300	761.400
3	12:24:14	100.947%	-0.029	0.921	1.013	0.000	3576.000	826.500	805.300
x		104.533%	-0.010	0.952	0.858	0.000	3475.000	779.200	777.500
σ		3.355%	0.016	0.146	0.137	0.000	90.540	41.140	24.160
%RSD		3.210	162.600	15.320	15.940	0.000	2.605	5.281	3.108

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	7.196	413.000	0.000	298.300	6115.000	5761.000	86.078%	0.033
2	12:23:54	7.272	430.900	0.000	286.200	5924.000	5517.000	89.376%	0.037
3	12:24:14	7.680	469.700	0.000	318.900	6432.000	6015.000	82.342%	-0.062
x		7.382	437.800	0.000	301.100	6157.000	5764.000	85.932%	0.002
σ		0.260	29.010	0.000	16.540	256.300	248.900	3.519%	0.056
%RSD		3.526	6.627	0.000	5.493	4.163	4.319	4.096	2305.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	-0.049	0.118	1.330	16.620	55.330	0.034	0.064	0.132
2	12:23:54	-0.191	0.065	1.336	10.630	50.050	0.023	0.130	0.105
3	12:24:14	-0.176	0.096	1.380	14.680	53.770	0.029	0.107	0.145
x		-0.139	0.093	1.349	13.980	53.050	0.028	0.100	0.128
σ		0.078	0.027	0.027	3.056	2.714	0.005	0.033	0.020
%RSD		56.010	28.640	2.021	21.870	5.116	17.970	33.140	16.060

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	0.141	1.969	1.894	-0.063	-0.556	0.069	0.000	14.450
2	12:23:54	0.140	2.015	1.968	-0.132	-0.371	0.043	0.000	14.430
3	12:24:14	0.137	2.003	2.052	0.255	-0.336	0.140	0.000	14.470
x		0.139	1.996	1.971	0.020	-0.421	0.084	0.000	14.450
σ		0.002	0.024	0.079	0.206	0.118	0.050	0.000	0.019
%RSD		1.248	1.201	3.996	1038.000	28.090	59.360	0.000	0.129

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	93.468%	-1.020	-1.068	94.486%	0.006	-0.001	0.035	0.032
2	12:23:54	92.621%	-0.895	-0.721	93.785%	0.003	0.002	0.025	0.015
3	12:24:14	93.702%	-0.680	-0.659	94.491%	0.001	0.002	0.075	0.062
x		93.263%	-0.865	-0.816	94.254%	0.003	0.001	0.045	0.037
σ		0.569%	0.172	0.221	0.406%	0.003	0.002	0.026	0.024
%RSD		0.610	19.890	27.020	0.431	80.960	177.300	57.970	65.360

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	91.679%	0.340	-0.024	0.010	10.010	9.695	94.643%	95.479%
2	12:23:54	92.885%	0.510	0.020	0.005	9.815	10.150	97.291%	97.414%
3	12:24:14	94.482%	0.462	-0.007	0.000	10.490	9.860	98.351%	98.557%
x		93.015%	0.438	-0.004	0.005	10.100	9.902	96.762%	97.150%
σ		1.406%	0.088	0.022	0.005	0.345	0.232	1.910%	1.556%
%RSD		1.512	20.060	585.800	95.200	3.412	2.341	1.974	1.602

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:35	0.011	0.011	0.060	0.033	0.048	102.183%
2	12:23:54	0.009	0.012	0.059	0.047	0.052	97.968%
3	12:24:14	0.012	0.013	0.067	0.046	0.056	97.769%
x		0.011	0.012	0.062	0.042	0.052	99.307%
σ		0.001	0.001	0.004	0.008	0.004	2.493%
%RSD		12.810	7.198	7.076	18.610	7.101	2.510

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:24	105.936%	-0.011	3.127	3.515	0.000	2390.000	575.300	581.500
2	12:27:44	98.978%	-0.013	3.813	3.982	0.000	2388.000	571.200	576.300
3	12:28:03	95.268%	0.020	2.814	3.207	0.000	2346.000	583.400	581.700
x		100.061%	-0.001	3.251	3.568	0.000	2374.000	576.600	579.800
σ		5.416%	0.019	0.511	0.390	0.000	24.740	6.252	3.052
%RSD		5.412	1759.000	15.720	10.940	0.000	1.042	1.084	0.526
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:24	6.503	409.600	0.000	906.500	4628.000	4321.000	93.738%	-0.021
2	12:27:44	6.431	400.500	0.000	901.300	4975.000	4499.000	88.070%	-0.047
3	12:28:03	6.793	411.700	0.000	895.500	4629.000	4454.000	94.156%	0.117
x		6.576	407.200	0.000	901.100	4744.000	4425.000	91.988%	0.017
σ		0.191	5.943	0.000	5.492	200.100	92.710	3.399%	0.088
%RSD		2.911	1.459	0.000	0.610	4.218	2.095	3.696	529.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:24	0.187	0.049	3.574	7.397	41.220	0.035	0.156	0.244
2	12:27:44	-0.051	0.094	3.743	11.080	42.460	0.044	0.195	0.224
3	12:28:03	0.022	0.053	3.672	4.558	37.580	0.028	0.190	0.212
x		0.053	0.065	3.663	7.678	40.420	0.036	0.180	0.227
σ		0.122	0.025	0.085	3.270	2.539	0.008	0.021	0.016
%RSD		232.100	37.840	2.317	42.590	6.282	21.480	11.830	7.100
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:24	0.233	12.940	12.950	0.030	-0.335	0.071	0.000	98.330
2	12:27:44	0.240	13.110	12.640	-0.092	-0.524	0.035	0.000	99.650
3	12:28:03	0.198	12.560	12.820	0.010	-0.413	-0.008	0.000	99.720
x		0.224	12.870	12.800	-0.017	-0.424	0.033	0.000	99.230
σ		0.023	0.283	0.155	0.066	0.095	0.040	0.000	0.785
%RSD		10.200	2.200	1.207	378.400	22.420	120.000	0.000	0.791
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:24	93.568%	-1.266	-1.223	94.971%	0.004	0.002	0.123	0.112
2	12:27:44	94.175%	-1.219	-1.030	94.557%	0.004	0.001	0.025	0.036
3	12:28:03	93.609%	-1.083	-0.884	93.793%	-0.001	0.002	0.068	0.055
x		93.784%	-1.189	-1.046	94.441%	0.002	0.002	0.072	0.068
σ		0.339%	0.095	0.170	0.598%	0.003	0.001	0.049	0.040
%RSD		0.362	7.965	16.240	0.633	115.200	27.450	68.640	59.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:24	92.702%	0.207	-0.055	-0.053	27.650	27.300	95.232%	96.095%
2	12:27:44	94.211%	0.237	-0.063	-0.027	26.570	26.410	98.248%	98.894%
3	12:28:03	95.329%	0.276	-0.032	-0.055	27.180	27.250	99.951%	99.700%
x		94.081%	0.240	-0.050	-0.045	27.130	26.990	97.810%	98.230%
σ		1.318%	0.034	0.016	0.016	0.543	0.499	2.390%	1.892%
%RSD		1.401	14.320	32.100	34.920	2.002	1.850	2.443	1.926
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:27:24	0.004	0.004	0.039	0.031	0.033	105.087%		
2	12:27:44	-0.002	0.002	0.036	0.041	0.035	101.891%		
3	12:28:03	0.004	0.003	0.055	0.039	0.043	102.018%		
x		0.002	0.003	0.044	0.037	0.037	102.998%		
σ		0.004	0.001	0.010	0.005	0.006	1.810%		
%RSD		200.300	39.090	23.700	13.260	15.240	1.757		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:02	104.149%	90.320	91.330	92.180	0.000	45620.000	45520.000	45190.000
2	12:31:21	96.260%	97.880	105.100	102.600	0.000	48500.000	47370.000	46550.000
3	12:31:40	90.504%	94.290	98.550	97.050	0.000	48370.000	48570.000	48690.000
x		96.971%	94.164%	98.324%	97.264%	0.000	94.991%	94.309%	93.623%
σ		6.850%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		7.064	4.014	6.996	5.341	0.000	3.427	3.260	3.776
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:02	460.400	4784.000	0.000	45740.000	45150.000	45570.000	98.048%	96.030
2	12:31:21	469.200	5051.000	0.000	47100.000	46550.000	47090.000	95.906%	95.400
3	12:31:40	487.100	5243.000	0.000	48360.000	48360.000	47520.000	96.820%	99.300
x		94.449%	100.523%	0.000	94.128%	93.373%	93.460%	96.925%	96.912%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.075%	n/a
%RSD		2.883	4.586	0.000	2.781	3.440	2.193	1.109	2.164
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:02	91.920	93.310	464.000	23580.000	23350.000	93.980	93.820	95.530
2	12:31:21	95.220	95.550	483.200	23980.000	23900.000	95.240	98.410	96.360
3	12:31:40	94.290	95.630	475.800	23500.000	23510.000	93.010	93.070	94.660
x		93.807%	94.831%	94.864%	94.742%	94.355%	94.077%	95.102%	95.516%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.815	1.391	2.044	1.089	1.186	1.190	3.038	0.889
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:02	94.640	90.730	90.310	95.920	94.230	97.070	0.000	92.870
2	12:31:21	97.520	90.680	91.330	96.810	96.210	99.440	0.000	93.970
3	12:31:40	96.520	92.420	92.380	96.280	97.390	99.590	0.000	94.760
x		96.225%	91.276%	91.338%	96.338%	95.946%	98.697%	0.000	93.866%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.520	1.084	1.134	0.467	1.665	1.430	0.000	1.014
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:02	94.268%	93.540	93.960	91.953%	93.460	95.040	95.470	97.210
2	12:31:21	95.337%	95.120	95.880	91.893%	95.010	95.610	96.590	97.950
3	12:31:40	94.897%	95.270	97.390	92.414%	94.830	97.570	97.890	99.730
x		94.834%	94.641%	95.744%	92.087%	94.433%	96.073%	96.650%	98.298%
σ		0.537%	n/a	n/a	0.285%	n/a	n/a	n/a	n/a
%RSD		0.566	1.011	1.794	0.310	0.895	1.382	1.256	1.320
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:31:02	86.710%	97.300	91.640	91.350	95.930	93.780	92.242%	92.844%
2	12:31:21	87.288%	98.520	92.420	92.020	95.840	95.690	94.288%	93.631%
3	12:31:40	88.256%	98.540	92.380	91.140	96.130	95.170	95.240%	95.284%
x		87.418%	98.120%	92.147%	91.504%	95.966%	94.878%	93.923%	93.920%
σ		0.781%	n/a	n/a	n/a	n/a	n/a	1.532%	1.246%
%RSD		0.894	0.725	0.477	0.506	0.159	1.041	1.631	1.326
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:31:02	93.690	92.450	94.280	94.140	94.150	91.622%		
2	12:31:21	97.000	96.570	97.560	98.490	98.200	90.978%		
3	12:31:40	99.400	98.470	100.300	100.300	100.600	90.045%		
x		96.696%	95.830%	97.377%	97.627%	97.664%	90.882%		
σ		n/a	n/a	n/a	n/a	n/a	0.793%		
%RSD		2.969	3.210	3.093	3.219	3.354	0.872		

CCB2 6/3/2015 12:37:30 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	12:37:49	98.179%	-0.008	0.359	0.154	0.000	0.664	0.755	0.054
2	12:38:09	96.542%	0.004	0.501	0.087	0.000	0.589	0.375	0.199
3	12:38:28	95.444%	-0.006	0.420	0.088	0.000	0.491	-0.130	0.185
x		96.721%	-0.004	0.427	0.110	0.000	0.581	0.333	0.146
σ		1.376%	0.006	0.071	0.038	0.000	0.087	0.444	0.080
%RSD		1.423	178.000	16.750	34.770	0.000	14.890	133.300	54.790

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:49	-0.092	-59.160	0.000	3.110	1.971	1.178	95.116%	-0.172
2	12:38:09	-0.130	-56.810	0.000	2.579	0.988	1.445	91.649%	-0.195
3	12:38:28	-0.101	-56.150	0.000	1.526	2.144	0.737	91.494%	-0.088
x		-0.108	-57.370	0.000	2.405	1.701	1.120	92.753%	-0.152
σ		0.020	1.584	0.000	0.806	0.623	0.358	2.048%	0.056
%RSD		18.330	2.761	0.000	33.520	36.640	31.930	2.208	37.150

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:49	0.009	-0.046	0.010	-6.781	0.902	0.004	-0.001	-0.015
2	12:38:09	0.014	-0.030	0.005	-7.878	-0.072	0.003	0.010	-0.005
3	12:38:28	0.006	-0.080	0.007	-6.786	1.524	0.000	-0.036	-0.007
x		0.010	-0.052	0.007	-7.148	0.785	0.002	-0.009	-0.009
σ		0.004	0.025	0.003	0.632	0.805	0.002	0.024	0.005
%RSD		42.900	48.350	39.620	8.842	102.500	85.600	261.100	53.690

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:49	0.007	0.132	0.086	0.019	-0.027	0.199	0.000	0.002
2	12:38:09	0.005	0.208	0.115	0.117	-0.358	0.518	0.000	0.003
3	12:38:28	-0.005	0.071	0.047	0.110	-0.333	0.318	0.000	-0.000
x		0.002	0.137	0.083	0.082	-0.240	0.345	0.000	0.002
σ		0.006	0.069	0.034	0.054	0.184	0.161	0.000	0.002
%RSD		266.700	50.300	41.040	66.280	76.860	46.740	0.000	106.700

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:49	91.943%	-1.121	-1.068	94.793%	0.006	0.005	-0.013	0.004
2	12:38:09	93.637%	-0.953	-0.867	95.512%	0.008	0.004	0.074	0.042
3	12:38:28	95.686%	-0.920	-0.783	95.845%	0.009	0.004	0.046	0.033
x		93.755%	-0.998	-0.906	95.383%	0.008	0.004	0.036	0.026
σ		1.874%	0.108	0.146	0.538%	0.001	0.001	0.044	0.020
%RSD		1.999	10.780	16.140	0.564	15.270	16.300	123.600	74.360

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:49	91.629%	0.036	0.643	0.652	0.004	0.006	92.309%	92.345%
2	12:38:09	94.234%	0.023	0.696	0.635	-0.002	-0.003	94.801%	95.540%
3	12:38:28	94.472%	0.055	0.638	0.703	-0.008	-0.000	96.775%	97.562%
x		93.445%	0.038	0.659	0.664	-0.002	0.001	94.628%	95.149%
σ		1.577%	0.016	0.032	0.035	0.006	0.005	2.238%	2.631%
%RSD		1.688	42.120	4.920	5.273	256.200	592.200	2.365	2.765

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:37:49	0.016	0.007	-0.004	-0.006	-0.003	95.550%
2	12:38:09	0.016	0.020	0.001	-0.005	-0.003	97.265%
3	12:38:28	0.016	0.009	-0.003	0.002	-0.004	97.805%
x		0.016	0.012	-0.002	-0.003	-0.003	96.874%
σ		0.000	0.007	0.003	0.005	0.001	1.177%
%RSD		1.355	62.820	156.700	140.100	24.910	1.215

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	100.958%	-0.014	4.181	4.755	0.000	1397.000	775.600	786.000
2	12:41:59	100.842%	-0.029	4.254	3.834	0.000	1303.000	722.100	725.000
3	12:42:18	99.434%	-0.024	3.772	4.460	0.000	1373.000	765.700	766.800
x		100.411%	-0.022	4.069	4.350	0.000	1358.000	754.500	759.300
σ		0.849%	0.008	0.260	0.470	0.000	48.790	28.470	31.230
%RSD		0.845	35.210	6.395	10.810	0.000	3.593	3.773	4.113

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	5.140	399.300	0.000	123.100	4993.000	4645.000	88.238%	0.003
2	12:41:59	4.763	384.100	0.000	118.100	5076.000	4682.000	86.948%	-0.019
3	12:42:18	5.192	392.500	0.000	120.000	4918.000	4757.000	86.954%	0.056
x		5.032	392.000	0.000	120.400	4996.000	4695.000	87.380%	0.013
σ		0.234	7.609	0.000	2.477	79.450	57.060	0.743%	0.039
%RSD		4.656	1.941	0.000	2.057	1.590	1.215	0.851	296.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	0.197	0.027	1.536	11.000	48.960	0.042	0.064	0.174
2	12:41:59	-0.195	0.046	1.647	15.740	46.740	0.032	0.084	0.168
3	12:42:18	-0.093	-0.019	1.503	9.758	45.500	0.039	0.103	0.179
x		-0.030	0.018	1.562	12.170	47.070	0.038	0.084	0.174
σ		0.203	0.033	0.075	3.157	1.750	0.005	0.020	0.006
%RSD		668.900	181.500	4.804	25.950	3.718	13.930	23.240	3.448

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	0.210	1.483	1.459	0.134	-0.443	0.179	0.000	62.270
2	12:41:59	0.209	1.489	1.660	0.158	-0.522	0.004	0.000	62.200
3	12:42:18	0.167	1.392	1.363	0.023	-0.430	0.207	0.000	62.310
x		0.195	1.455	1.494	0.105	-0.465	0.130	0.000	62.260
σ		0.024	0.054	0.152	0.072	0.050	0.110	0.000	0.058
%RSD		12.340	3.729	10.150	68.760	10.740	84.780	0.000	0.092

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	90.695%	-1.523	-1.406	92.983%	0.013	0.010	-0.015	-0.000
2	12:41:59	93.104%	-1.310	-1.273	92.743%	0.017	0.011	0.043	0.029
3	12:42:18	92.538%	-1.302	-1.238	92.856%	0.009	0.012	0.035	0.036
x		92.112%	-1.379	-1.306	92.861%	0.013	0.011	0.021	0.022
σ		1.260%	0.125	0.088	0.120%	0.004	0.001	0.031	0.019
%RSD		1.368	9.099	6.769	0.129	30.560	7.891	151.400	89.160

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	91.568%	0.062	0.454	0.567	11.180	11.540	95.620%	96.372%
2	12:41:59	93.463%	0.103	0.548	0.484	11.460	11.530	97.525%	98.323%
3	12:42:18	92.867%	0.104	0.556	0.554	12.010	11.710	97.538%	98.361%
x		92.633%	0.090	0.519	0.535	11.550	11.590	96.894%	97.685%
σ		0.969%	0.024	0.057	0.045	0.418	0.105	1.104%	1.138%
%RSD		1.046	26.820	10.940	8.370	3.622	0.904	1.139	1.164

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:40	0.002	0.003	0.036	0.021	0.028	108.558%
2	12:41:59	0.002	0.006	0.042	0.023	0.032	103.252%
3	12:42:18	0.002	0.002	0.035	0.033	0.035	101.581%
x		0.002	0.004	0.038	0.026	0.032	104.464%
σ		0.000	0.002	0.004	0.006	0.004	3.643%
%RSD		12.470	57.720	10.070	24.340	11.700	3.487

180-44105-D-7-A @10 6/3/2015 12:45:09 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	12:45:28	101.070%	0.027	2.208	2.156	0.000	701.900	679.200	674.000
2	12:45:47	103.145%	0.006	2.247	2.246	0.000	712.900	693.000	703.200
3	12:46:06	95.959%	-0.001	1.852	2.164	0.000	719.000	700.300	692.300
x		100.058%	0.011	2.102	2.189	0.000	711.300	690.800	689.800
σ		3.698%	0.015	0.218	0.050	0.000	8.652	10.730	14.760
%RSD		3.696	137.800	10.350	2.269	0.000	1.216	1.554	2.140

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:28	8.085	379.900	0.000	107.500	3309.000	2970.000	89.994%	-0.050
2	12:45:47	8.116	402.700	0.000	115.900	3444.000	3325.000	82.274%	-0.022
3	12:46:06	7.852	377.700	0.000	105.800	3559.000	3095.000	87.825%	0.091
x		8.018	386.800	0.000	109.800	3437.000	3130.000	86.698%	0.006
σ		0.144	13.850	0.000	5.372	125.100	179.800	3.982%	0.074
%RSD		1.797	3.581	0.000	4.894	3.640	5.745	4.593	1193.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:28	-0.027	0.045	5.251	8.114	36.310	0.126	0.130	0.179
2	12:45:47	-0.223	0.048	5.666	16.440	39.650	0.125	0.183	0.227
3	12:46:06	0.160	0.075	5.226	9.050	34.550	0.130	0.108	0.244
x		-0.030	0.056	5.381	11.200	36.840	0.127	0.140	0.217
σ		0.192	0.016	0.247	4.561	2.590	0.003	0.038	0.034
%RSD		639.800	29.050	4.597	40.720	7.032	2.135	27.380	15.570

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:28	0.171	1.080	1.228	0.244	-0.588	0.042	0.000	26.550
2	12:45:47	0.152	1.254	0.959	0.341	-0.629	-0.077	0.000	26.750
3	12:46:06	0.220	1.246	1.012	0.393	-0.309	0.275	0.000	26.720
x		0.181	1.194	1.067	0.326	-0.509	0.080	0.000	26.680
σ		0.035	0.098	0.143	0.076	0.174	0.179	0.000	0.107
%RSD		19.300	8.232	13.370	23.220	34.260	223.100	0.000	0.401

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:28	90.570%	-0.741	-0.602	93.114%	0.000	0.011	0.027	0.022
2	12:45:47	91.788%	-0.418	-0.461	92.467%	0.005	-0.006	0.020	0.020
3	12:46:06	90.627%	-0.475	-0.342	92.242%	0.005	0.001	0.029	0.018
x		90.995%	-0.545	-0.468	92.608%	0.003	0.002	0.025	0.020
σ		0.687%	0.172	0.130	0.452%	0.003	0.009	0.005	0.002
%RSD		0.755	31.640	27.810	0.489	77.340	421.900	18.780	11.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:28	90.622%	-0.020	0.373	0.422	14.740	14.710	93.802%	94.049%
2	12:45:47	91.012%	0.078	0.354	0.413	14.740	14.970	96.596%	97.192%
3	12:46:06	93.194%	0.078	0.411	0.438	15.010	14.870	97.477%	98.033%
x		91.609%	0.045	0.379	0.424	14.830	14.850	95.958%	96.424%
σ		1.386%	0.057	0.029	0.012	0.154	0.133	1.919%	2.100%
%RSD		1.513	125.800	7.739	2.930	1.041	0.895	2.000	2.178

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:45:28	-0.001	0.005	0.048	0.044	0.042	101.471%
2	12:45:47	0.004	0.001	0.051	0.044	0.040	98.974%
3	12:46:06	0.003	0.002	0.059	0.039	0.048	98.550%
x		0.002	0.003	0.053	0.042	0.043	99.665%
σ		0.003	0.002	0.005	0.003	0.004	1.578%
%RSD		157.400	78.760	10.270	6.237	9.457	1.583

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:14	103.354%	-0.004	1.366	0.863	0.000	1422.000	1482.000	1461.000
2	12:49:33	95.912%	-0.023	1.303	0.987	0.000	1435.000	1504.000	1530.000
3	12:49:52	98.146%	-0.013	1.348	0.910	0.000	1281.000	1407.000	1452.000
x		99.137%	-0.013	1.339	0.920	0.000	1379.000	1464.000	1481.000
σ		3.819%	0.009	0.032	0.063	0.000	85.150	50.790	42.550
%RSD		3.852	68.380	2.418	6.802	0.000	6.173	3.468	2.873
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:14	3.144	471.900	0.000	144.200	10930.000	10160.000	90.241%	-0.122
2	12:49:33	3.594	494.900	0.000	156.900	11850.000	10990.000	83.473%	-0.038
3	12:49:52	2.923	451.900	0.000	146.900	11280.000	10440.000	86.470%	-0.043
x		3.221	472.900	0.000	149.300	11350.000	10530.000	86.728%	-0.068
σ		0.342	21.500	0.000	6.711	462.800	417.900	3.391%	0.047
%RSD		10.610	4.547	0.000	4.494	4.077	3.969	3.910	69.730
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:14	0.115	-0.008	0.952	-2.108	71.550	0.044	0.089	0.072
2	12:49:33	0.074	0.083	1.027	2.130	83.230	0.045	0.120	0.097
3	12:49:52	-0.237	0.089	0.984	-0.168	72.410	0.023	0.088	0.129
x		-0.016	0.055	0.988	-0.049	75.730	0.037	0.099	0.099
σ		0.193	0.054	0.038	2.122	6.510	0.012	0.018	0.029
%RSD		1185.000	99.020	3.839	4368.000	8.596	32.650	17.910	29.080
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:14	0.112	1.997	2.129	0.098	-0.911	0.265	0.000	56.740
2	12:49:33	0.146	1.872	1.879	0.210	-0.497	0.029	0.000	57.690
3	12:49:52	0.116	1.920	1.929	-0.099	-0.691	0.219	0.000	57.440
x		0.125	1.929	1.979	0.069	-0.700	0.171	0.000	57.290
σ		0.019	0.063	0.132	0.157	0.207	0.125	0.000	0.494
%RSD		15.030	3.265	6.686	225.500	29.610	73.290	0.000	0.862
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:14	89.725%	-1.462	-1.393	90.708%	0.002	0.005	-0.014	-0.014
2	12:49:33	89.794%	-1.400	-1.311	90.341%	0.009	0.012	-0.043	-0.030
3	12:49:52	91.123%	-1.312	-1.251	90.477%	0.004	0.007	-0.020	-0.028
x		90.214%	-1.391	-1.319	90.508%	0.005	0.008	-0.025	-0.024
σ		0.788%	0.076	0.071	0.185%	0.004	0.004	0.015	0.009
%RSD		0.874	5.442	5.393	0.205	75.670	48.740	60.410	36.480
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:14	89.222%	0.064	0.231	0.271	39.460	40.260	92.450%	92.183%
2	12:49:33	91.956%	0.137	0.327	0.377	39.510	39.530	94.570%	94.601%
3	12:49:52	92.124%	0.138	0.326	0.352	40.330	40.020	96.488%	96.350%
x		91.101%	0.113	0.295	0.334	39.760	39.940	94.503%	94.378%
σ		1.629%	0.042	0.055	0.056	0.489	0.372	2.020%	2.093%
%RSD		1.788	37.550	18.670	16.690	1.229	0.932	2.137	2.217
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:49:14	-0.000	0.005	0.121	0.108	0.113	97.152%		
2	12:49:33	0.002	-0.000	0.111	0.111	0.112	95.342%		
3	12:49:52	-0.002	0.003	0.127	0.096	0.110	94.759%		
x		-0.000	0.002	0.120	0.105	0.112	95.751%		
σ		0.002	0.003	0.008	0.008	0.002	1.248%		
%RSD		626.600	114.400	6.510	7.396	1.465	1.303		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:01	99.432%	0.024	628.500	648.600	0.000	12550.000	15080.000	15180.000
2	12:53:20	94.684%	-0.011	617.000	645.200	0.000	12080.000	15190.000	15310.000
3	12:53:39	87.304%	0.033	705.200	712.100	0.000	13590.000	16200.000	16180.000
x		93.807%	0.015	650.200	668.600	0.000	12740.000	15490.000	15550.000
σ		6.111%	0.023	47.980	37.690	0.000	772.600	616.900	543.600
%RSD		6.515	151.000	7.378	5.637	0.000	6.065	3.983	3.495
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:01	27.500	5956.000	0.000	2630.000	66830.000	66060.000	78.794%	1.130
2	12:53:20	28.590	5894.000	0.000	2666.000	67230.000	65830.000	75.051%	1.511
3	12:53:39	31.190	6329.000	0.000	2719.000	69140.000	66550.000	76.277%	1.214
x		29.100	6060.000	0.000	2672.000	67740.000	66150.000	76.707%	1.285
σ		1.894	234.900	0.000	45.180	1234.000	366.800	1.909%	0.200
%RSD		6.511	3.876	0.000	1.691	1.822	0.555	2.488	15.550
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:01	0.653	0.856	175.900	314.800	673.400	0.361	1.358	0.779
2	12:53:20	-0.740	0.933	181.700	325.100	710.900	0.418	1.333	0.845
3	12:53:39	0.176	0.779	177.500	303.600	647.800	0.383	1.115	0.813
x		0.030	0.856	178.300	314.500	677.400	0.387	1.269	0.812
σ		0.708	0.077	2.994	10.720	31.720	0.029	0.134	0.033
%RSD		2390.000	8.985	1.679	3.410	4.683	7.456	10.530	4.055
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:01	0.803	17.580	17.450	-0.075	0.029	1.396	0.000	203.700
2	12:53:20	1.139	18.330	18.390	0.511	0.388	1.499	0.000	203.700
3	12:53:39	0.915	18.360	18.500	-0.143	0.495	1.517	0.000	203.500
x		0.952	18.090	18.110	0.098	0.304	1.471	0.000	203.600
σ		0.171	0.440	0.575	0.360	0.244	0.066	0.000	0.123
%RSD		17.990	2.433	3.175	369.100	80.230	4.473	0.000	0.061
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:01	85.509%	-0.833	-0.831	84.831%	0.008	0.006	0.067	0.056
2	12:53:20	87.679%	-0.692	-0.628	85.662%	0.020	0.012	0.060	0.044
3	12:53:39	87.888%	-0.711	-0.663	85.882%	0.018	0.013	0.045	0.041
x		87.025%	-0.745	-0.707	85.458%	0.016	0.010	0.057	0.047
σ		1.318%	0.076	0.108	0.554%	0.006	0.004	0.011	0.008
%RSD		1.514	10.260	15.330	0.648	41.760	37.790	18.910	16.830
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:53:01	85.479%	1.329	1.923	1.982	37.070	36.740	92.260%	93.596%
2	12:53:20	87.728%	1.503	1.920	2.002	37.460	37.090	95.826%	96.586%
3	12:53:39	89.080%	1.326	1.778	1.813	37.600	37.160	98.089%	98.317%
x		87.429%	1.386	1.874	1.932	37.380	37.000	95.391%	96.167%
σ		1.819%	0.101	0.083	0.104	0.279	0.220	2.939%	2.388%
%RSD		2.080	7.302	4.430	5.368	0.745	0.594	3.081	2.483
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:53:01	0.015	0.011	3.625	3.224	3.461	88.091%		
2	12:53:20	0.010	0.006	3.591	3.368	3.508	88.867%		
3	12:53:39	0.013	0.012	3.696	3.366	3.546	90.970%		
x		0.013	0.010	3.637	3.320	3.505	89.309%		
σ		0.003	0.003	0.054	0.083	0.043	1.489%		
%RSD		23.480	30.840	1.472	2.489	1.216	1.668		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:47	94.016%	-0.017	746.000	753.700	0.000	13050.000	16500.000	16640.000
2	12:57:07	92.402%	0.001	676.100	693.800	0.000	13280.000	16610.000	16750.000
3	12:57:26	94.419%	-0.011	652.400	647.200	0.000	12430.000	15790.000	15610.000
x		93.612%	-0.009	691.500	698.200	0.000	12920.000	16300.000	16330.000
σ		1.068%	0.009	48.630	53.360	0.000	440.200	443.700	626.200
%RSD		1.141	101.300	7.032	7.642	0.000	3.407	2.722	3.834
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:47	30.890	6398.000	0.000	2688.000	63550.000	63080.000	86.839%	1.074
2	12:57:07	32.100	6589.000	0.000	2798.000	69500.000	69090.000	77.344%	1.335
3	12:57:26	32.160	6173.000	0.000	2620.000	65710.000	64830.000	84.301%	1.200
x		31.720	6387.000	0.000	2702.000	66250.000	65670.000	82.828%	1.203
σ		0.717	208.100	0.000	89.650	3010.000	3094.000	4.916%	0.131
%RSD		2.261	3.259	0.000	3.318	4.543	4.712	5.935	10.850
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:47	0.208	0.832	154.400	171.900	530.600	0.423	1.276	0.686
2	12:57:07	-1.164	0.841	168.200	184.200	561.700	0.453	1.387	0.845
3	12:57:26	1.572	0.847	158.300	168.400	532.200	0.399	1.221	0.672
x		0.206	0.840	160.300	174.800	541.500	0.425	1.295	0.734
σ		1.368	0.008	7.124	8.298	17.500	0.027	0.084	0.096
%RSD		665.300	0.894	4.444	4.746	3.231	6.356	6.497	13.090
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:47	0.874	24.850	24.780	-0.469	-0.014	1.195	0.000	209.900
2	12:57:07	0.900	26.730	26.160	0.925	0.057	1.539	0.000	209.200
3	12:57:26	0.954	24.860	25.020	0.198	-0.091	1.260	0.000	211.500
x		0.909	25.480	25.320	0.218	-0.016	1.331	0.000	210.200
σ		0.041	1.084	0.738	0.697	0.074	0.183	0.000	1.214
%RSD		4.485	4.254	2.914	320.300	458.100	13.750	0.000	0.577
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:47	86.152%	-1.045	-0.955	86.571%	0.002	0.005	-0.024	-0.014
2	12:57:07	87.944%	-0.826	-0.792	85.722%	0.004	0.001	0.026	0.023
3	12:57:26	87.697%	-0.911	-0.810	86.554%	0.005	0.008	0.035	0.029
x		87.264%	-0.927	-0.852	86.282%	0.004	0.005	0.012	0.013
σ		0.971%	0.110	0.090	0.485%	0.001	0.004	0.031	0.023
%RSD		1.113	11.890	10.520	0.562	39.560	86.770	252.400	181.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:56:47	87.460%	0.803	0.911	0.944	36.050	35.880	93.347%	93.956%
2	12:57:07	87.967%	1.003	1.027	0.941	35.920	35.930	94.423%	96.793%
3	12:57:26	88.661%	0.906	0.973	0.954	35.720	36.660	97.120%	98.283%
x		88.029%	0.904	0.970	0.946	35.900	36.160	94.963%	96.344%
σ		0.603%	0.100	0.058	0.007	0.166	0.439	1.944%	2.198%
%RSD		0.685	11.070	5.944	0.730	0.461	1.214	2.047	2.282
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:56:47	0.010	0.006	3.933	3.394	3.600	87.984%		
2	12:57:07	0.006	0.010	3.918	3.489	3.676	88.437%		
3	12:57:26	0.013	0.010	3.958	3.583	3.740	90.538%		
x		0.010	0.009	3.936	3.489	3.672	88.986%		
σ		0.004	0.002	0.020	0.094	0.070	1.363%		
%RSD		37.590	26.800	0.513	2.704	1.903	1.532		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	101.345%	-0.003	647.200	705.000	0.000	12310.000	15290.000	15340.000
2	13:00:54	91.586%	-0.010	716.700	724.100	0.000	13200.000	16510.000	16890.000
3	13:01:13	91.043%	0.030	663.400	679.100	0.000	12110.000	15760.000	16090.000
x		94.658%	0.005	675.800	702.800	0.000	12540.000	15860.000	16110.000
σ		5.798%	0.021	36.330	22.580	0.000	579.500	615.800	777.200
%RSD		6.125	387.300	5.376	3.212	0.000	4.621	3.883	4.825

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	18.600	6028.000	0.000	2628.000	63310.000	62180.000	85.607%	1.015
2	13:00:54	20.860	6604.000	0.000	2874.000	70130.000	69280.000	76.949%	1.259
3	13:01:13	18.000	6033.000	0.000	2685.000	65380.000	63580.000	82.130%	1.700
x		19.150	6222.000	0.000	2729.000	66270.000	65020.000	81.562%	1.325
σ		1.506	331.000	0.000	128.500	3495.000	3761.000	4.357%	0.347
%RSD		7.863	5.321	0.000	4.709	5.274	5.785	5.342	26.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	-0.205	1.006	137.700	147.200	552.500	0.399	1.390	0.664
2	13:00:54	-0.083	0.881	146.100	157.000	551.600	0.392	1.302	0.685
3	13:01:13	1.647	0.886	140.500	145.700	536.100	0.399	0.969	0.688
x		0.453	0.924	141.400	150.000	546.800	0.397	1.220	0.679
σ		1.036	0.071	4.228	6.170	9.235	0.004	0.222	0.013
%RSD		228.700	7.640	2.989	4.114	1.689	1.051	18.170	1.932

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	0.950	23.130	24.030	0.004	-0.088	1.231	0.000	210.000
2	13:00:54	0.842	24.870	25.220	0.009	-0.281	1.061	0.000	211.300
3	13:01:13	0.756	23.800	24.300	0.557	-0.043	0.969	0.000	211.000
x		0.849	23.930	24.510	0.190	-0.137	1.087	0.000	210.700
σ		0.097	0.876	0.622	0.318	0.126	0.133	0.000	0.662
%RSD		11.430	3.662	2.539	167.000	92.230	12.200	0.000	0.314

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	86.734%	-1.116	-0.954	85.328%	-0.001	0.004	0.034	0.031
2	13:00:54	86.906%	-0.913	-0.779	85.619%	-0.001	0.004	0.014	-0.011
3	13:01:13	87.019%	-0.752	-0.682	86.295%	-0.006	0.008	-0.037	-0.019
x		86.886%	-0.927	-0.805	85.747%	-0.002	0.005	0.004	0.000
σ		0.143%	0.183	0.138	0.496%	0.003	0.002	0.037	0.027
%RSD		0.165	19.710	17.140	0.579	122.300	44.180	969.200	20780.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	85.710%	0.646	0.601	0.628	34.880	34.520	92.253%	92.766%
2	13:00:54	86.563%	0.845	0.655	0.695	35.610	34.810	94.087%	94.204%
3	13:01:13	86.831%	0.904	0.718	0.757	36.160	35.770	95.344%	95.696%
x		86.368%	0.798	0.658	0.693	35.550	35.030	93.895%	94.222%
σ		0.585%	0.135	0.058	0.064	0.641	0.654	1.554%	1.465%
%RSD		0.678	16.920	8.863	9.259	1.804	1.867	1.655	1.555

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:00:34	0.005	0.009	2.356	2.032	2.173	86.331%
2	13:00:54	0.007	0.008	2.349	2.237	2.235	88.476%
3	13:01:13	0.005	0.004	2.429	2.041	2.223	88.250%
x		0.006	0.007	2.378	2.103	2.211	87.686%
σ		0.001	0.003	0.045	0.116	0.033	1.179%
%RSD		18.230	38.760	1.877	5.501	1.480	1.345

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:22	92.063%	0.029	416.400	439.700	0.000	36990.000	14270.000	14330.000
2	13:04:41	93.838%	0.022	385.300	393.500	0.000	35720.000	14130.000	14290.000
3	13:05:00	92.998%	-0.010	386.000	408.600	0.000	36240.000	14460.000	14580.000
x		92.966%	0.014	395.900	414.000	0.000	36320.000	14280.000	14400.000
σ		0.888%	0.021	17.780	23.560	0.000	638.200	167.300	157.800
%RSD		0.955	153.400	4.490	5.692	0.000	1.757	1.171	1.096
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:22	29.150	3991.000	0.000	3442.000	106900.000	105100.000	86.358%	0.702
2	13:04:41	29.090	3947.000	0.000	3656.000	114700.000	113300.000	77.526%	1.136
3	13:05:00	28.510	3907.000	0.000	3616.000	116600.000	115100.000	73.704%	1.041
x		28.920	3948.000	0.000	3571.000	112700.000	111100.000	79.196%	0.960
σ		0.358	42.010	0.000	113.400	5125.000	5343.000	6.491%	0.228
%RSD		1.238	1.064	0.000	3.175	4.546	4.808	8.196	23.770
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:22	1.389	0.757	3365.000	3249.000	3768.000	23.960	3.444	0.784
2	13:04:41	0.024	0.864	3685.000	3548.000	4096.000	25.960	3.445	0.887
3	13:05:00	-0.206	0.767	3764.000	3665.000	4273.000	26.970	3.805	0.966
x		0.403	0.796	3604.000	3487.000	4046.000	25.630	3.565	0.879
σ		0.862	0.059	211.500	214.700	256.000	1.532	0.208	0.091
%RSD		214.200	7.446	5.868	6.158	6.328	5.975	5.829	10.390
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:22	0.949	37.570	38.310	0.485	-1.049	0.517	0.000	318.500
2	13:04:41	0.864	39.680	40.320	1.021	-0.684	0.806	0.000	320.300
3	13:05:00	1.012	41.430	43.350	1.292	-1.131	0.770	0.000	319.800
x		0.942	39.560	40.660	0.933	-0.955	0.698	0.000	319.500
σ		0.074	1.932	2.533	0.411	0.238	0.157	0.000	0.916
%RSD		7.873	4.883	6.230	44.040	24.930	22.520	0.000	0.287
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:22	86.066%	-1.011	-0.966	85.444%	0.005	0.001	0.056	0.062
2	13:04:41	87.605%	-0.825	-0.911	85.450%	0.001	-0.003	0.104	0.079
3	13:05:00	88.088%	-0.813	-0.878	85.947%	0.002	0.004	0.005	0.011
x		87.253%	-0.883	-0.918	85.614%	0.003	0.000	0.055	0.050
σ		1.056%	0.111	0.044	0.289%	0.002	0.004	0.049	0.035
%RSD		1.210	12.570	4.809	0.337	73.580	1084.000	89.480	69.590
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:04:22	85.835%	0.441	0.278	0.279	177.500	178.600	92.312%	92.788%
2	13:04:41	87.452%	0.573	0.246	0.252	178.000	177.600	95.330%	96.621%
3	13:05:00	87.543%	0.507	0.292	0.323	178.000	179.500	95.593%	97.291%
x		86.943%	0.507	0.272	0.285	177.800	178.600	94.412%	95.567%
σ		0.961%	0.066	0.024	0.036	0.316	0.984	1.824%	2.430%
%RSD		1.105	12.990	8.718	12.640	0.178	0.551	1.932	2.542
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:04:22	0.022	0.013	1.126	1.028	1.062	87.319%		
2	13:04:41	0.017	0.015	1.093	1.068	1.056	87.788%		
3	13:05:00	0.013	0.014	1.156	1.012	1.084	88.124%		
x		0.018	0.014	1.125	1.036	1.067	87.744%		
σ		0.004	0.001	0.032	0.029	0.015	0.405%		
%RSD		25.300	6.479	2.804	2.803	1.394	0.461		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:10	93.596%	-0.011	186.300	183.600	0.000	4087.000	5679.000	5773.000
2	13:08:29	94.998%	0.016	195.600	198.000	0.000	4141.000	5834.000	5956.000
3	13:08:48	87.889%	0.063	194.800	201.200	0.000	4182.000	6010.000	5990.000
x		92.161%	0.023	192.200	194.300	0.000	4137.000	5841.000	5906.000
σ		3.766%	0.037	5.177	9.363	0.000	47.570	165.900	116.500
%RSD		4.086	162.800	2.693	4.820	0.000	1.150	2.840	1.972
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:10	114.700	3220.000	0.000	1854.000	26890.000	26750.000	77.650%	2.504
2	13:08:29	121.600	3188.000	0.000	1829.000	27770.000	26970.000	76.143%	2.696
3	13:08:48	125.200	3290.000	0.000	1900.000	27920.000	27250.000	74.203%	2.711
x		120.500	3233.000	0.000	1861.000	27530.000	26990.000	75.998%	2.637
σ		5.351	52.220	0.000	35.820	555.500	250.200	1.728%	0.115
%RSD		4.441	1.615	0.000	1.924	2.018	0.927	2.274	4.371
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:10	-0.112	1.681	56.220	280.400	431.100	0.295	0.713	1.201
2	13:08:29	0.198	1.446	54.810	276.100	413.800	0.285	0.767	1.206
3	13:08:48	1.426	1.415	57.460	286.300	425.600	0.279	0.809	1.179
x		0.504	1.514	56.170	280.900	423.500	0.287	0.763	1.195
σ		0.813	0.145	1.326	5.085	8.825	0.008	0.048	0.014
%RSD		161.400	9.600	2.360	1.810	2.084	2.763	6.333	1.203
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:10	1.487	8.935	8.764	0.571	-0.798	0.662	0.000	80.130
2	13:08:29	1.302	8.746	8.888	0.894	-1.295	0.719	0.000	79.400
3	13:08:48	1.270	9.758	9.297	0.480	-0.539	0.442	0.000	79.610
x		1.353	9.147	8.983	0.648	-0.878	0.608	0.000	79.710
σ		0.117	0.538	0.279	0.217	0.384	0.147	0.000	0.375
%RSD		8.661	5.886	3.105	33.490	43.750	24.140	0.000	0.471
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:10	86.546%	-1.240	-1.169	87.346%	0.003	-0.006	0.020	0.032
2	13:08:29	88.039%	-1.152	-1.035	88.285%	-0.005	0.000	0.080	0.049
3	13:08:48	87.909%	-1.157	-1.058	87.591%	0.007	-0.003	0.033	0.022
x		87.498%	-1.183	-1.088	87.740%	0.002	-0.003	0.044	0.034
σ		0.827%	0.050	0.072	0.487%	0.006	0.003	0.032	0.014
%RSD		0.945	4.192	6.593	0.555	365.300	117.500	71.820	39.950
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:10	87.137%	0.278	0.218	0.225	47.990	47.820	93.363%	94.629%
2	13:08:29	88.710%	0.347	0.252	0.196	48.200	47.780	95.548%	95.769%
3	13:08:48	88.703%	0.328	0.233	0.183	49.090	48.230	96.204%	97.662%
x		88.184%	0.318	0.234	0.201	48.430	47.940	95.038%	96.020%
σ		0.906%	0.036	0.017	0.022	0.582	0.253	1.487%	1.532%
%RSD		1.027	11.270	7.231	10.710	1.202	0.527	1.565	1.596
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:08:10	0.003	0.004	3.065	2.802	2.923	92.011%		
2	13:08:29	0.005	0.002	3.251	2.830	2.986	91.433%		
3	13:08:48	0.003	0.006	3.132	2.873	2.998	92.655%		
x		0.004	0.004	3.149	2.835	2.969	92.033%		
σ		0.001	0.002	0.094	0.036	0.040	0.611%		
%RSD		26.280	44.620	2.986	1.257	1.363	0.664		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:57	98.094%	-0.028	321.400	312.600	0.000	5468.000	13640.000	13670.000
2	13:12:16	95.000%	0.000	326.700	329.200	0.000	5839.000	14060.000	14560.000
3	13:12:35	93.039%	0.017	306.800	304.300	0.000	5354.000	13060.000	13010.000
x		95.377%	-0.004	318.300	315.400	0.000	5554.000	13590.000	13750.000
σ		2.549%	0.023	10.300	12.670	0.000	253.400	503.700	777.900
%RSD		2.672	627.200	3.236	4.017	0.000	4.563	3.706	5.657
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:57	121.200	4698.000	0.000	2472.000	88260.000	85450.000	81.077%	2.583
2	13:12:16	131.500	5130.000	0.000	2619.000	96740.000	93970.000	73.473%	3.038
3	13:12:35	114.000	4591.000	0.000	2347.000	85100.000	85420.000	79.968%	2.417
x		122.200	4806.000	0.000	2480.000	90030.000	88280.000	78.173%	2.679
σ		8.764	285.300	0.000	136.100	6020.000	4927.000	4.108%	0.321
%RSD		7.170	5.936	0.000	5.487	6.687	5.581	5.255	11.990
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:57	1.564	1.292	65.300	299.100	820.000	0.482	1.181	1.077
2	13:12:16	3.277	1.349	70.030	315.000	844.100	0.494	0.729	1.248
3	13:12:35	1.090	1.452	67.940	310.500	800.300	0.491	0.944	1.119
x		1.977	1.364	67.760	308.200	821.400	0.489	0.951	1.148
σ		1.151	0.081	2.368	8.213	21.940	0.007	0.226	0.090
%RSD		58.190	5.933	3.495	2.665	2.671	1.338	23.790	7.798
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:57	1.326	13.120	12.530	0.366	-0.098	1.237	0.000	235.800
2	13:12:16	1.427	13.490	13.800	0.653	-0.244	0.959	0.000	238.900
3	13:12:35	1.354	12.800	13.050	0.614	-0.021	1.310	0.000	239.000
x		1.369	13.130	13.130	0.544	-0.121	1.169	0.000	237.900
σ		0.052	0.346	0.635	0.156	0.113	0.185	0.000	1.791
%RSD		3.820	2.635	4.841	28.580	93.720	15.830	0.000	0.753
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:57	85.774%	-0.549	-0.451	84.420%	0.000	-0.004	0.108	0.111
2	13:12:16	85.059%	-0.566	-0.382	84.738%	0.006	0.001	0.184	0.167
3	13:12:35	85.205%	-0.439	-0.289	83.940%	0.001	-0.002	0.102	0.098
x		85.346%	-0.518	-0.374	84.366%	0.003	-0.002	0.131	0.125
σ		0.378%	0.069	0.081	0.401%	0.003	0.003	0.045	0.036
%RSD		0.443	13.270	21.680	0.476	113.500	134.900	34.610	28.940
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:57	84.190%	0.329	0.232	0.222	43.990	43.170	91.042%	91.179%
2	13:12:16	86.085%	0.463	0.199	0.283	43.730	43.720	92.959%	94.182%
3	13:12:35	85.643%	0.465	0.283	0.289	43.240	44.050	93.871%	95.006%
x		85.306%	0.419	0.238	0.264	43.650	43.650	92.624%	93.456%
σ		0.991%	0.078	0.042	0.037	0.378	0.444	1.444%	2.014%
%RSD		1.162	18.650	17.790	14.050	0.865	1.018	1.559	2.155
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:11:57	0.008	0.011	12.450	11.630	11.950	86.727%		
2	13:12:16	0.005	0.007	12.690	11.770	12.190	88.100%		
3	13:12:35	0.015	0.007	12.830	11.790	12.280	87.216%		
x		0.009	0.008	12.660	11.730	12.140	87.348%		
σ		0.005	0.002	0.190	0.091	0.169	0.696%		
%RSD		53.670	25.730	1.503	0.777	1.392	0.796		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	93.137%	0.018	526.100	536.200	0.000	12230.000	14740.000	14920.000
2	13:16:05	85.835%	-0.019	498.000	521.600	0.000	11630.000	14540.000	14710.000
3	13:16:24	91.324%	-0.015	480.200	475.800	0.000	11400.000	14330.000	14420.000
x		90.099%	-0.006	501.400	511.200	0.000	11750.000	14540.000	14690.000
σ		3.802%	0.020	23.160	31.520	0.000	429.400	205.500	248.700
%RSD		4.220	361.700	4.619	6.167	0.000	3.654	1.413	1.693

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	56.020	7630.000	0.000	2808.000	60070.000	59450.000	73.288%	2.516
2	13:16:05	53.540	7344.000	0.000	2670.000	56020.000	54880.000	78.248%	1.849
3	13:16:24	53.470	7132.000	0.000	2737.000	58680.000	57830.000	70.514%	1.589
x		54.340	7368.000	0.000	2739.000	58260.000	57390.000	74.017%	1.984
σ		1.452	249.700	0.000	69.070	2059.000	2316.000	3.918%	0.478
%RSD		2.671	3.388	0.000	2.522	3.534	4.036	5.294	24.090

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	-1.203	0.988	111.500	342.100	702.400	0.583	1.394	1.312
2	13:16:05	0.267	0.909	107.400	315.100	633.900	0.515	1.642	1.186
3	13:16:24	-0.402	0.884	115.300	360.500	698.500	0.523	1.707	1.331
x		-0.446	0.927	111.400	339.200	678.300	0.540	1.581	1.276
σ		0.736	0.054	3.954	22.810	38.450	0.037	0.165	0.079
%RSD		164.900	5.849	3.550	6.724	5.669	6.856	10.450	6.180

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	1.616	26.630	25.810	0.131	-0.224	1.077	0.000	182.700
2	13:16:05	1.240	25.960	26.240	0.686	-0.537	1.242	0.000	183.700
3	13:16:24	1.480	26.290	26.600	0.271	-0.462	1.070	0.000	184.800
x		1.445	26.290	26.220	0.362	-0.408	1.130	0.000	183.700
σ		0.190	0.334	0.399	0.289	0.163	0.097	0.000	1.091
%RSD		13.160	1.268	1.520	79.650	40.100	8.592	0.000	0.594

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	83.319%	-1.249	-1.122	82.613%	0.003	-0.007	0.103	0.082
2	13:16:05	83.772%	-1.032	-1.008	82.654%	0.002	0.004	0.086	0.041
3	13:16:24	84.465%	-0.936	-1.001	82.905%	-0.001	0.002	0.050	0.051
x		83.852%	-1.073	-1.044	82.724%	0.001	-0.000	0.080	0.058
σ		0.577%	0.160	0.068	0.158%	0.002	0.006	0.027	0.021
%RSD		0.688	14.960	6.487	0.191	209.400	2598.000	33.700	36.810

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	82.152%	0.313	0.236	0.258	37.000	36.270	90.911%	90.506%
2	13:16:05	83.341%	0.411	0.255	0.229	37.230	37.810	92.553%	93.428%
3	13:16:24	84.136%	0.477	0.294	0.285	37.590	37.690	93.096%	93.797%
x		83.210%	0.400	0.261	0.257	37.270	37.260	92.187%	92.577%
σ		0.999%	0.083	0.030	0.028	0.298	0.856	1.138%	1.803%
%RSD		1.200	20.630	11.380	10.820	0.800	2.298	1.234	1.947

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:46	0.001	0.005	5.299	4.495	4.751	86.492%
2	13:16:05	0.007	0.006	5.124	4.600	4.818	88.701%
3	13:16:24	0.009	0.005	5.275	4.401	4.795	89.714%
x		0.006	0.005	5.233	4.499	4.788	88.303%
σ		0.004	0.001	0.095	0.099	0.034	1.648%
%RSD		71.140	10.950	1.815	2.207	0.714	1.866

CCV 1594026 6/3/2015 1:19:22 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	13:19:22	95.596%	94.970	94.940	97.870	0.000	45260.000	45570.000	46760.000
2	13:19:41	90.676%	95.280	104.700	102.300	0.000	47330.000	47980.000	48600.000
3	13:20:00	95.404%	91.660	94.470	93.410	0.000	45480.000	46010.000	45760.000
x		93.892%	93.971%	98.019%	97.874%	0.000	92.048%	93.036%	94.077%
σ		2.787%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.968	2.138	5.867	4.566	0.000	2.464	2.754	3.058

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:22	465.000	4819.000	0.000	45490.000	45830.000	45880.000	96.105%	93.100
2	13:19:41	485.500	5064.000	0.000	47380.000	47290.000	47030.000	94.089%	98.050
3	13:20:00	449.900	4876.000	0.000	46830.000	46630.000	46750.000	90.484%	95.660
x		93.357%	98.395%	0.000	93.138%	93.168%	93.106%	93.559%	95.602%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.847%	n/a
%RSD		3.831	2.611	0.000	2.085	1.563	1.298	3.043	2.589

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:22	90.200	88.810	441.000	21940.000	21970.000	87.570	88.050	91.320
2	13:19:41	89.110	92.830	463.300	23350.000	23130.000	91.960	92.490	94.360
3	13:20:00	91.720	94.650	482.900	24180.000	23950.000	96.640	97.620	98.560
x		90.343%	92.097%	92.478%	92.618%	92.060%	92.057%	92.722%	94.749%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.450	3.240	4.530	4.902	4.304	4.926	5.166	3.838

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:22	94.120	89.280	88.840	94.020	96.020	95.660	0.000	92.230
2	13:19:41	96.650	92.080	91.790	94.780	95.250	93.840	0.000	93.390
3	13:20:00	97.260	92.430	92.190	95.510	93.100	95.280	0.000	93.480
x		96.010%	91.264%	90.942%	94.772%	94.792%	94.925%	0.000	93.034%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.734	1.894	2.012	0.786	1.595	1.011	0.000	0.753

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:22	92.893%	93.230	92.510	92.690%	93.430	95.410	95.730	97.670
2	13:19:41	94.226%	93.570	94.770	92.502%	94.650	97.340	96.820	98.320
3	13:20:00	94.598%	94.390	97.020	92.279%	95.740	96.940	98.510	99.110
x		93.905%	93.727%	94.768%	92.490%	94.608%	96.564%	97.019%	98.367%
σ		0.896%	n/a	n/a	0.206%	n/a	n/a	n/a	n/a
%RSD		0.954	0.636	2.380	0.223	1.223	1.056	1.448	0.736

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:22	87.178%	97.290	91.510	90.860	93.380	94.360	95.018%	95.464%
2	13:19:41	88.067%	99.130	92.080	92.350	96.560	95.640	97.407%	98.241%
3	13:20:00	87.479%	99.990	93.720	94.010	95.580	97.420	97.878%	99.026%
x		87.575%	98.803%	92.438%	92.405%	95.175%	95.803%	96.768%	97.577%
σ		0.452%	n/a	n/a	n/a	n/a	n/a	1.533%	1.871%
%RSD		0.517	1.400	1.242	1.709	1.711	1.604	1.585	1.918

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:22	94.080	94.620	96.280	95.850	96.110	96.783%
2	13:19:41	100.200	100.800	102.100	101.900	102.300	94.356%
3	13:20:00	102.400	103.100	104.200	104.700	104.500	92.804%
x		98.916%	99.511%	100.853%	100.827%	100.969%	94.648%
σ		n/a	n/a	n/a	n/a	n/a	2.006%
%RSD		4.375	4.407	4.057	4.489	4.312	2.119

CCB3 6/3/2015 1:25:50 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	13:26:09	102.301%	-0.014	1.171	1.113	0.000	0.554	-0.046	0.440
2	13:26:28	99.305%	-0.003	1.375	1.147	0.000	0.445	0.323	0.199
3	13:26:47	93.686%	0.016	1.257	1.053	0.000	0.408	0.107	0.045
x		98.431%	-0.000	1.268	1.105	0.000	0.469	0.128	0.228
σ		4.374%	0.015	0.102	0.048	0.000	0.076	0.185	0.199
%RSD		4.444	4045.000	8.086	4.316	0.000	16.170	144.800	87.470

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:09	-0.134	-103.500	0.000	1.397	-0.220	1.612	94.079%	-0.079
2	13:26:28	-0.148	-102.700	0.000	1.522	4.415	2.093	91.659%	-0.159
3	13:26:47	-0.137	-101.800	0.000	0.386	5.446	1.543	93.315%	-0.137
x		-0.140	-102.600	0.000	1.102	3.214	1.749	93.018%	-0.125
σ		0.007	0.856	0.000	0.623	3.018	0.299	1.237%	0.041
%RSD		5.281	0.834	0.000	56.530	93.910	17.120	1.330	32.960

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:09	0.000	-0.062	0.028	-7.421	1.900	0.001	-0.036	-0.010
2	13:26:28	0.010	-0.065	0.020	-8.321	0.586	0.000	-0.019	0.005
3	13:26:47	0.013	-0.065	0.010	-9.823	-0.671	-0.003	-0.010	-0.011
x		0.007	-0.064	0.019	-8.522	0.605	-0.001	-0.022	-0.006
σ		0.007	0.002	0.009	1.213	1.286	0.002	0.013	0.009
%RSD		88.520	2.480	45.130	14.240	212.500	283.800	60.600	163.400

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:09	-0.022	0.095	0.094	0.012	-0.682	0.491	0.000	0.003
2	13:26:28	-0.015	0.149	0.074	0.058	-0.696	0.257	0.000	0.003
3	13:26:47	-0.019	0.086	0.044	0.045	-0.047	0.315	0.000	0.006
x		-0.018	0.110	0.071	0.038	-0.475	0.355	0.000	0.004
σ		0.003	0.034	0.026	0.023	0.371	0.122	0.000	0.002
%RSD		18.840	31.310	36.100	61.560	78.060	34.420	0.000	37.880

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:09	91.967%	-1.321	-1.217	93.166%	0.010	0.002	0.092	0.063
2	13:26:28	91.984%	-1.103	-1.001	93.988%	0.005	0.006	0.014	0.011
3	13:26:47	92.581%	-1.028	-1.003	94.144%	0.013	0.007	0.062	0.037
x		92.177%	-1.151	-1.074	93.766%	0.009	0.005	0.056	0.037
σ		0.350%	0.152	0.124	0.526%	0.004	0.003	0.039	0.026
%RSD		0.380	13.230	11.540	0.561	46.730	57.590	70.080	70.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:09	91.082%	-0.064	0.654	0.597	-0.013	0.000	91.909%	91.979%
2	13:26:28	91.331%	0.001	0.692	0.647	-0.018	0.009	93.158%	92.885%
3	13:26:47	92.846%	0.011	0.796	0.676	-0.013	-0.006	94.275%	94.932%
x		91.753%	-0.017	0.714	0.640	-0.015	0.001	93.114%	93.265%
σ		0.955%	0.041	0.074	0.040	0.003	0.008	1.184%	1.513%
%RSD		1.041	236.500	10.310	6.278	21.340	755.800	1.271	1.622

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:09	0.007	0.009	0.001	-0.004	-0.003	96.167%
2	13:26:28	0.005	0.012	0.007	-0.005	-0.002	95.941%
3	13:26:47	0.015	0.009	0.002	-0.006	-0.004	95.728%
x		0.009	0.010	0.003	-0.005	-0.003	95.945%
σ		0.005	0.002	0.004	0.001	0.001	0.219%
%RSD		58.420	17.590	115.200	23.790	45.820	0.229

180-44135-D-1-A 6/3/2015 1:29:40 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	13:29:59	90.232%	-0.004	609.100	643.400	0.000	124600.000	18800.000	19020.000
2	13:30:18	95.015%	0.011	619.000	666.700	0.000	126700.000	19270.000	19480.000
3	13:30:38	86.814%	-0.014	637.100	658.100	0.000	132800.000	19560.000	19880.000
x		90.687%	-0.002	621.700	656.100	0.000	128000.000	19210.000	19460.000
σ		4.119%	0.012	14.180	11.760	0.000	4282.000	384.500	427.100
%RSD		4.542	569.500	2.281	1.793	0.000	3.345	2.001	2.194

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:59	2.793	7061.000	0.000	3194.000	89250.000	89440.000	76.502%	0.800
2	13:30:18	3.078	7204.000	0.000	3229.000	88690.000	89650.000	76.282%	0.987
3	13:30:38	2.963	7227.000	0.000	3207.000	89810.000	90200.000	75.930%	0.978
x		2.945	7164.000	0.000	3210.000	89250.000	89770.000	76.238%	0.922
σ		0.143	90.050	0.000	18.010	560.100	392.400	0.289%	0.105
%RSD		4.868	1.257	0.000	0.561	0.628	0.437	0.379	11.430

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:59	-0.846	0.718	3139.000	34580.000	34280.000	3.724	5.706	1.081
2	13:30:18	-0.723	0.603	3015.000	33520.000	33330.000	3.615	5.570	1.191
3	13:30:38	-1.142	0.647	3043.000	33740.000	33800.000	3.581	5.756	1.196
x		-0.903	0.656	3066.000	33950.000	33800.000	3.640	5.677	1.156
σ		0.215	0.058	65.100	561.600	471.800	0.075	0.096	0.065
%RSD		23.820	8.849	2.124	1.654	1.396	2.052	1.699	5.597

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:59	0.555	5.659	5.553	7.829	-0.826	0.450	0.000	215.700
2	13:30:18	0.448	5.756	5.725	8.084	-0.245	0.431	0.000	215.000
3	13:30:38	0.580	5.957	5.332	8.824	-0.599	0.494	0.000	218.300
x		0.528	5.790	5.537	8.246	-0.557	0.458	0.000	216.300
σ		0.070	0.152	0.197	0.517	0.293	0.032	0.000	1.750
%RSD		13.340	2.627	3.563	6.269	52.660	6.963	0.000	0.809

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:59	85.150%	-1.014	-0.957	82.398%	0.009	0.007	0.149	0.124
2	13:30:18	86.957%	-0.896	-0.835	84.281%	0.008	0.009	0.097	0.079
3	13:30:38	86.608%	-0.768	-0.826	84.532%	0.008	0.007	0.098	0.065
x		86.238%	-0.893	-0.872	83.737%	0.008	0.008	0.115	0.089
σ		0.959%	0.123	0.073	1.166%	0.000	0.001	0.030	0.031
%RSD		1.112	13.780	8.380	1.393	3.812	18.070	26.070	34.630

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:59	82.415%	0.504	2.468	2.440	47.200	46.520	89.661%	90.839%
2	13:30:18	85.253%	0.564	2.298	2.385	46.470	46.450	93.444%	94.146%
3	13:30:38	85.559%	0.635	2.122	2.258	46.660	46.200	94.382%	94.884%
x		84.409%	0.568	2.296	2.361	46.780	46.390	92.496%	93.290%
σ		1.734%	0.065	0.173	0.094	0.380	0.168	2.499%	2.155%
%RSD		2.054	11.480	7.522	3.971	0.812	0.363	2.702	2.310

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:29:59	0.070	0.079	0.310	0.252	0.271	84.017%
2	13:30:18	0.096	0.090	0.268	0.277	0.260	85.608%
3	13:30:38	0.087	0.086	0.324	0.273	0.283	87.853%
x		0.085	0.085	0.301	0.267	0.272	85.826%
σ		0.013	0.005	0.029	0.013	0.012	1.927%
%RSD		15.470	6.457	9.665	5.030	4.293	2.246

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:48	100.585%	0.048	818.500	842.700	0.000	42840.000	14830.000	14900.000
2	13:34:07	95.488%	-0.033	807.900	816.100	0.000	43750.000	15490.000	15530.000
3	13:34:26	96.147%	-0.028	842.200	842.000	0.000	46140.000	16250.000	16160.000
x		97.407%	-0.004	822.900	833.600	0.000	44250.000	15520.000	15530.000
σ		2.772%	0.046	17.560	15.160	0.000	1702.000	714.300	629.200
%RSD		2.846	1052.000	2.134	1.819	0.000	3.847	4.601	4.052
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:48	2.224	6404.000	0.000	2350.000	87730.000	87920.000	87.352%	0.878
2	13:34:07	2.205	6702.000	0.000	2419.000	87690.000	88530.000	88.297%	0.965
3	13:34:26	2.569	6914.000	0.000	2554.000	97840.000	96190.000	78.574%	1.007
x		2.333	6673.000	0.000	2441.000	91090.000	90880.000	84.741%	0.950
σ		0.204	256.300	0.000	104.100	5848.000	4612.000	5.361%	0.066
%RSD		8.766	3.840	0.000	4.266	6.420	5.074	6.327	6.929
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:48	-0.232	1.283	1643.000	19590.000	19970.000	0.403	0.917	6.910
2	13:34:07	-1.189	1.250	1595.000	19450.000	19690.000	0.415	0.757	6.701
3	13:34:26	0.670	1.314	1769.000	21460.000	21840.000	0.416	1.018	7.298
x		-0.250	1.282	1669.000	20170.000	20500.000	0.411	0.897	6.970
σ		0.930	0.032	89.930	1121.000	1167.000	0.008	0.131	0.303
%RSD		371.500	2.519	5.388	5.559	5.695	1.852	14.640	4.347
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:48	6.844	7.611	7.397	8.978	-0.647	0.588	0.000	228.800
2	13:34:07	6.863	7.537	8.202	9.244	-0.538	0.691	0.000	231.600
3	13:34:26	7.160	7.964	8.479	9.280	-0.572	0.335	0.000	233.800
x		6.956	7.704	8.026	9.168	-0.585	0.538	0.000	231.400
σ		0.177	0.228	0.562	0.165	0.056	0.183	0.000	2.497
%RSD		2.543	2.960	7.004	1.799	9.523	34.080	0.000	1.079
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:48	89.368%	-1.086	-1.021	86.613%	0.000	-0.002	0.063	0.054
2	13:34:07	89.729%	-0.978	-0.831	87.376%	0.002	-0.003	-0.046	-0.012
3	13:34:26	90.570%	-0.853	-0.904	88.138%	-0.002	0.001	0.051	0.027
x		89.889%	-0.972	-0.919	87.376%	0.000	-0.001	0.022	0.023
σ		0.617%	0.116	0.096	0.762%	0.002	0.002	0.059	0.033
%RSD		0.686	11.960	10.430	0.873	4639.000	180.100	264.500	143.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:48	86.711%	0.235	0.636	0.624	141.400	143.200	92.134%	93.652%
2	13:34:07	88.482%	0.303	0.691	0.678	142.700	140.800	95.018%	96.541%
3	13:34:26	88.914%	0.366	0.616	0.632	140.000	141.600	96.309%	98.046%
x		88.035%	0.301	0.647	0.644	141.300	141.900	94.487%	96.080%
σ		1.167%	0.066	0.039	0.029	1.351	1.216	2.137%	2.233%
%RSD		1.326	21.760	6.007	4.496	0.956	0.857	2.262	2.324
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:33:48	-0.001	0.001	0.297	0.300	0.303	86.574%		
2	13:34:07	-0.001	0.003	0.366	0.328	0.325	87.593%		
3	13:34:26	0.004	0.002	0.367	0.315	0.329	88.001%		
x		0.001	0.002	0.343	0.314	0.319	87.389%		
σ		0.003	0.001	0.040	0.014	0.014	0.735%		
%RSD		321.300	38.560	11.730	4.525	4.400	0.841		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	93.886%	0.028	1136.000	1111.000	0.000	86070.000	16830.000	16650.000
2	13:37:56	93.157%	-0.027	1126.000	1140.000	0.000	82840.000	16630.000	17090.000
3	13:38:16	85.392%	0.011	1142.000	1146.000	0.000	85890.000	16930.000	16980.000
x		90.812%	0.004	1135.000	1132.000	0.000	84930.000	16800.000	16910.000
σ		4.708%	0.028	8.495	18.880	0.000	1816.000	153.400	231.600
%RSD		5.184	730.600	0.749	1.667	0.000	2.138	0.913	1.370

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	3.229	6889.000	0.000	3347.000	101300.000	100200.000	79.029%	0.686
2	13:37:56	3.004	6705.000	0.000	3347.000	100800.000	100300.000	75.994%	0.834
3	13:38:16	3.104	7097.000	0.000	3419.000	101900.000	99560.000	76.845%	0.781
x		3.112	6897.000	0.000	3371.000	101300.000	100000.000	77.289%	0.767
σ		0.113	195.700	0.000	41.630	514.400	409.100	1.566%	0.075
%RSD		3.618	2.838	0.000	1.235	0.508	0.409	2.026	9.769

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	-0.013	0.733	4.704	78.390	704.400	0.202	0.630	1.839
2	13:37:56	-1.372	0.653	4.766	75.170	665.400	0.183	0.520	1.853
3	13:38:16	1.394	0.613	4.721	68.360	618.900	0.147	0.568	1.777
x		0.003	0.667	4.731	73.970	662.900	0.177	0.573	1.823
σ		1.383	0.061	0.032	5.118	42.810	0.028	0.055	0.041
%RSD		48770.000	9.149	0.679	6.919	6.458	15.630	9.672	2.226

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	1.491	4.157	4.487	-0.108	-0.811	0.367	0.000	333.700
2	13:37:56	1.517	4.550	4.321	-0.219	-0.648	0.508	0.000	344.300
3	13:38:16	1.306	4.295	4.177	0.152	-0.795	0.640	0.000	330.800
x		1.438	4.334	4.328	-0.058	-0.751	0.505	0.000	336.300
σ		0.115	0.200	0.155	0.190	0.089	0.137	0.000	7.106
%RSD		7.987	4.607	3.577	327.600	11.890	27.060	0.000	2.113

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	87.019%	-0.956	-0.897	84.999%	0.002	-0.003	0.121	0.088
2	13:37:56	87.892%	-0.776	-0.704	85.091%	0.002	-0.001	0.047	0.031
3	13:38:16	87.325%	-0.752	-0.575	84.959%	0.000	-0.004	-0.014	-0.020
x		87.412%	-0.828	-0.725	85.017%	0.002	-0.003	0.051	0.033
σ		0.442%	0.112	0.162	0.068%	0.001	0.002	0.068	0.054
%RSD		0.506	13.490	22.380	0.079	71.140	53.450	131.800	164.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	84.759%	0.237	0.295	0.332	53.500	53.750	88.773%	89.393%
2	13:37:56	85.821%	0.224	0.353	0.417	53.730	53.840	92.161%	92.583%
3	13:38:16	87.080%	0.314	0.327	0.406	52.770	52.650	93.496%	93.680%
x		85.887%	0.258	0.325	0.385	53.330	53.410	91.477%	91.885%
σ		1.161%	0.049	0.029	0.046	0.501	0.662	2.435%	2.227%
%RSD		1.352	18.900	8.993	12.040	0.940	1.239	2.662	2.424

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:37	-0.001	-0.000	0.055	0.049	0.048	77.342%
2	13:37:56	-0.002	0.003	0.062	0.049	0.052	80.026%
3	13:38:16	0.003	0.005	0.069	0.041	0.048	81.274%
x		-0.000	0.002	0.062	0.046	0.050	79.547%
σ		0.003	0.002	0.007	0.005	0.002	2.009%
%RSD		1100.000	104.700	11.310	9.717	4.924	2.526

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:25	98.679%	-0.012	6429.000	7040.000	0.000	70850.000	25040.000	24810.000
2	13:41:44	91.078%	-0.027	6349.000	6333.000	0.000	67610.000	24030.000	24250.000
3	13:42:03	91.535%	0.042	6312.000	6365.000	0.000	68650.000	23940.000	24290.000
x		93.764%	0.001	6363.000	6579.000	0.000	69040.000	24340.000	24450.000
σ		4.262%	0.036	60.060	399.000	0.000	1653.000	612.700	314.000
%RSD		4.546	3965.000	0.944	6.064	0.000	2.395	2.517	1.284
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:25	5.426	3388.000	0.000	4814.000	86290.000	83030.000	75.432%	0.598
2	13:41:44	4.809	3262.000	0.000	4842.000	85650.000	82440.000	73.796%	0.703
3	13:42:03	5.485	3353.000	0.000	4641.000	84410.000	87550.000	71.976%	0.349
x		5.240	3334.000	0.000	4765.000	85450.000	84340.000	73.735%	0.550
σ		0.375	64.960	0.000	108.900	957.300	2798.000	1.729%	0.182
%RSD		7.148	1.948	0.000	2.285	1.120	3.317	2.345	33.020
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:25	-0.877	0.835	21.400	107.600	608.300	0.174	2.061	2.114
2	13:41:44	-0.833	1.014	21.450	110.900	595.000	0.213	2.104	2.072
3	13:42:03	-1.013	0.826	21.880	105.700	575.600	0.207	2.078	2.063
x		-0.908	0.892	21.580	108.100	593.000	0.198	2.081	2.083
σ		0.094	0.106	0.264	2.645	16.430	0.021	0.021	0.027
%RSD		10.340	11.890	1.225	2.448	2.772	10.580	1.031	1.313
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:25	1.948	1.626	1.683	1.407	-0.534	0.572	0.000	4741.000
2	13:41:44	1.951	1.607	1.275	1.179	-0.738	0.628	0.000	4745.000
3	13:42:03	1.925	1.822	1.412	1.121	-0.806	0.474	0.000	4726.000
x		1.941	1.685	1.457	1.236	-0.693	0.558	0.000	4737.000
σ		0.015	0.119	0.208	0.151	0.141	0.078	0.000	10.160
%RSD		0.750	7.076	14.250	12.230	20.400	13.910	0.000	0.215
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:25	84.978%	2.781	2.705	83.919%	0.001	-0.004	0.042	0.031
2	13:41:44	85.595%	2.703	3.027	82.973%	0.005	-0.004	0.035	0.033
3	13:42:03	85.374%	2.914	2.925	83.114%	0.001	-0.003	0.046	0.022
x		85.316%	2.799	2.886	83.335%	0.002	-0.004	0.041	0.029
σ		0.313%	0.107	0.165	0.510%	0.002	0.001	0.006	0.006
%RSD		0.366	3.815	5.701	0.612	120.400	15.900	13.880	20.640
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:25	83.194%	0.287	0.409	0.834	176.800	177.500	90.716%	90.783%
2	13:41:44	84.194%	0.367	0.483	0.784	180.700	179.700	92.782%	94.309%
3	13:42:03	84.063%	0.401	0.429	0.762	178.900	180.200	94.541%	95.417%
x		83.817%	0.351	0.440	0.793	178.800	179.100	92.680%	93.503%
σ		0.544%	0.059	0.038	0.037	1.946	1.470	1.914%	2.420%
%RSD		0.648	16.670	8.668	4.633	1.089	0.821	2.065	2.588
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:41:25	0.002	-0.001	0.097	0.075	0.083	81.280%		
2	13:41:44	-0.003	0.000	0.095	0.089	0.085	83.668%		
3	13:42:03	-0.003	0.003	0.101	0.081	0.084	84.417%		
x		-0.001	0.001	0.098	0.082	0.084	83.122%		
σ		0.002	0.002	0.003	0.007	0.001	1.638%		
%RSD		222.700	353.500	2.824	8.804	0.965	1.971		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:11	95.427%	-0.022	1441.000	1439.000	0.000	11330.000	15470.000	15760.000
2	13:45:30	90.285%	0.008	1448.000	1469.000	0.000	11310.000	16240.000	16280.000
3	13:45:50	93.289%	-0.010	1406.000	1449.000	0.000	11400.000	15780.000	15780.000
x		93.000%	-0.008	1432.000	1452.000	0.000	11350.000	15830.000	15940.000
σ		2.583%	0.015	22.370	15.340	0.000	45.920	390.500	293.100
%RSD		2.778	184.400	1.563	1.056	0.000	0.405	2.467	1.838
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:11	3.882	4334.000	0.000	1192.000	99900.000	97790.000	76.999%	0.399
2	13:45:30	3.795	4308.000	0.000	1193.000	103100.000	99430.000	76.514%	0.474
3	13:45:50	3.964	4301.000	0.000	1149.000	98870.000	99860.000	74.760%	0.474
x		3.880	4314.000	0.000	1178.000	100600.000	99030.000	76.091%	0.449
σ		0.084	17.440	0.000	25.160	2184.000	1095.000	1.178%	0.043
%RSD		2.169	0.404	0.000	2.135	2.171	1.106	1.548	9.620
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:11	-0.790	1.061	30.710	181.600	810.400	0.221	0.664	0.332
2	13:45:30	-0.437	1.048	30.660	181.600	734.700	0.251	0.619	0.387
3	13:45:50	-0.138	0.980	30.950	181.600	716.100	0.218	0.530	0.397
x		-0.455	1.030	30.770	181.600	753.700	0.230	0.604	0.372
σ		0.326	0.043	0.156	0.020	49.920	0.018	0.068	0.035
%RSD		71.670	4.209	0.506	0.011	6.623	7.788	11.250	9.426
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:11	0.508	4.089	3.983	-1.247	-1.132	0.110	0.000	257.300
2	13:45:30	0.450	3.894	4.218	0.271	-0.962	0.515	0.000	256.400
3	13:45:50	0.502	3.838	3.694	-0.261	-0.892	0.164	0.000	258.000
x		0.487	3.940	3.965	-0.412	-0.995	0.263	0.000	257.200
σ		0.032	0.132	0.263	0.770	0.123	0.220	0.000	0.795
%RSD		6.590	3.348	6.625	186.900	12.400	83.680	0.000	0.309
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:11	85.653%	-1.602	-1.543	84.708%	0.002	-0.004	0.057	0.026
2	13:45:30	85.844%	-1.550	-1.470	84.805%	-0.001	-0.000	0.030	0.021
3	13:45:50	86.661%	-1.518	-1.444	85.598%	0.002	0.002	0.060	0.052
x		86.053%	-1.557	-1.486	85.037%	0.001	-0.001	0.049	0.033
σ		0.535%	0.043	0.051	0.488%	0.002	0.003	0.017	0.017
%RSD		0.622	2.749	3.464	0.574	130.800	325.600	34.010	50.790
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:11	85.454%	0.142	0.094	0.089	54.020	54.250	94.287%	94.740%
2	13:45:30	87.055%	0.230	0.126	0.133	54.120	52.710	95.218%	96.182%
3	13:45:50	86.046%	0.249	0.123	0.118	54.620	53.750	96.198%	97.915%
x		86.185%	0.207	0.114	0.113	54.250	53.570	95.235%	96.279%
σ		0.810%	0.057	0.018	0.023	0.319	0.785	0.956%	1.590%
%RSD		0.939	27.530	15.600	19.970	0.588	1.465	1.004	1.651
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:45:11	-0.001	-0.002	0.052	0.052	0.041	86.632%		
2	13:45:30	0.000	-0.003	0.054	0.044	0.046	88.436%		
3	13:45:50	-0.002	0.001	0.029	0.036	0.038	89.331%		
x		-0.001	-0.001	0.045	0.044	0.042	88.133%		
σ		0.001	0.002	0.014	0.008	0.004	1.375%		
%RSD		124.800	163.700	30.540	17.330	8.810	1.560		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	101.184%	-0.014	6.001	6.568	0.000	0.824	0.159	-0.033
2	13:52:13	98.201%	-0.002	6.708	5.905	0.000	0.844	0.077	-0.064
3	13:52:33	100.283%	0.007	6.649	6.273	0.000	0.717	-0.221	-0.243
x		99.889%	-0.003	6.453	6.249	0.000	0.795	0.005	-0.113
σ		1.530%	0.011	0.392	0.332	0.000	0.068	0.200	0.113
%RSD		1.532	342.100	6.076	5.316	0.000	8.597	4048.000	100.100

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	0.425	-111.200	0.000	1.724	20.040	11.600	93.243%	-0.137
2	13:52:13	0.461	-110.500	0.000	0.729	23.830	11.590	91.828%	-0.171
3	13:52:33	0.333	-109.600	0.000	0.130	13.840	10.900	89.974%	-0.183
x		0.406	-110.400	0.000	0.861	19.240	11.360	91.682%	-0.164
σ		0.066	0.827	0.000	0.805	5.040	0.399	1.640%	0.024
%RSD		16.280	0.749	0.000	93.550	26.200	3.511	1.788	14.650

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	-0.055	-0.108	0.051	-8.176	-2.123	0.000	0.061	0.007
2	13:52:13	-0.034	-0.074	0.039	-10.140	-1.400	0.002	0.023	0.025
3	13:52:33	-0.060	-0.124	0.045	-11.630	-3.641	0.003	0.011	0.037
x		-0.050	-0.102	0.045	-9.982	-2.388	0.002	0.031	0.023
σ		0.014	0.025	0.006	1.730	1.144	0.001	0.026	0.015
%RSD		27.730	24.590	13.100	17.330	47.900	91.830	82.830	66.290

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	0.022	1.180	1.085	-0.125	-1.184	0.034	0.000	0.014
2	13:52:13	-0.007	1.357	1.195	-0.040	-0.977	-0.068	0.000	0.016
3	13:52:33	0.023	1.217	1.194	-0.085	-1.309	-0.029	0.000	0.012
x		0.013	1.251	1.158	-0.084	-1.157	-0.021	0.000	0.014
σ		0.017	0.093	0.063	0.042	0.168	0.051	0.000	0.002
%RSD		130.500	7.438	5.464	50.860	14.490	240.900	0.000	13.590

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	91.330%	-1.811	-1.748	92.826%	0.006	0.004	0.015	0.008
2	13:52:13	93.222%	-1.784	-1.696	92.649%	-0.004	-0.005	0.128	0.090
3	13:52:33	93.614%	-1.746	-1.691	93.838%	-0.004	-0.007	-0.045	-0.030
x		92.722%	-1.781	-1.712	93.105%	-0.001	-0.003	0.032	0.022
σ		1.221%	0.032	0.032	0.641%	0.006	0.006	0.088	0.061
%RSD		1.317	1.818	1.841	0.689	669.300	209.000	272.100	272.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	90.380%	-0.181	-0.144	-0.151	0.026	0.029	93.503%	92.569%
2	13:52:13	91.712%	-0.164	-0.127	-0.143	0.014	0.037	94.682%	95.309%
3	13:52:33	93.657%	-0.153	-0.133	-0.129	0.019	0.015	96.144%	96.081%
x		91.916%	-0.166	-0.134	-0.141	0.020	0.027	94.776%	94.653%
σ		1.648%	0.014	0.009	0.011	0.006	0.011	1.323%	1.845%
%RSD		1.793	8.297	6.641	7.861	29.450	41.800	1.396	1.950

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:51:54	-0.006	-0.003	0.011	0.006	0.004	98.365%
2	13:52:13	-0.005	-0.004	0.009	0.011	0.010	96.436%
3	13:52:33	-0.003	-0.002	0.010	0.009	0.009	97.520%
x		-0.004	-0.003	0.010	0.009	0.007	97.440%
σ		0.001	0.001	0.001	0.003	0.003	0.967%
%RSD		29.850	30.460	9.015	31.740	42.690	0.992

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	87.979%	42.300	940.000	940.800	0.000	41670.000	43330.000	44500.000
2	13:56:00	90.052%	40.300	850.000	861.000	0.000	39900.000	40790.000	42150.000
3	13:56:20	91.160%	41.370	844.900	878.800	0.000	42450.000	43230.000	42960.000
x		89.730%	41.320	878.300	893.600	0.000	41340.000	42450.000	43200.000
σ		1.614%	1.002	53.490	41.910	0.000	1308.000	1437.000	1198.000
%RSD		1.799	2.424	6.090	4.691	0.000	3.164	3.385	2.772

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	1737.000	9295.000	0.000	46680.000	48270.000	48190.000	76.329%	976.400
2	13:56:00	1622.000	8788.000	0.000	42460.000	44750.000	44010.000	81.758%	911.200
3	13:56:20	1690.000	9020.000	0.000	45530.000	48180.000	47810.000	72.746%	969.100
x		1683.000	9034.000	0.000	44890.000	47070.000	46670.000	76.944%	952.200
σ		57.450	253.700	0.000	2182.000	2008.000	2311.000	4.537%	35.730
%RSD		3.413	2.808	0.000	4.862	4.265	4.952	5.897	3.753

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	488.000	193.700	468.100	963.800	1209.000	473.600	462.400	232.500
2	13:56:00	448.000	180.900	440.400	898.200	1173.000	455.900	440.900	223.000
3	13:56:20	480.000	192.000	474.400	991.900	1221.000	493.600	485.100	246.300
x		472.000	188.900	461.000	951.300	1201.000	474.300	462.800	233.900
σ		21.180	6.943	18.130	48.080	25.180	18.900	22.130	11.690
%RSD		4.488	3.676	3.933	5.054	2.096	3.985	4.782	4.999

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	237.400	457.800	459.000	35.890	8.891	10.630	0.000	901.500
2	13:56:00	225.000	438.200	444.700	35.530	8.273	10.180	0.000	884.500
3	13:56:20	245.500	474.800	466.900	37.450	9.238	10.180	0.000	898.400
x		236.000	456.900	456.900	36.290	8.801	10.330	0.000	894.800
σ		10.350	18.300	11.240	1.021	0.489	0.264	0.000	9.056
%RSD		4.387	4.006	2.460	2.814	5.558	2.560	0.000	1.012

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	83.352%	971.200	1001.000	81.104%	46.010	45.970	46.930	39.270
2	13:56:00	84.643%	974.800	995.300	82.058%	46.090	46.370	47.440	40.600
3	13:56:20	85.720%	974.900	1005.000	83.122%	45.610	46.040	46.440	39.750
x		84.572%	973.600	1001.000	82.095%	45.900	46.130	46.940	39.870
σ		1.185%	2.125	5.012	1.009%	0.258	0.216	0.499	0.673
%RSD		1.402	0.218	0.501	1.229	0.562	0.468	1.064	1.688

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	82.119%	1881.000	476.200	481.900	1762.000	1769.000	90.804%	91.977%
2	13:56:00	83.623%	1859.000	477.900	481.200	1769.000	1774.000	92.575%	94.003%
3	13:56:20	84.391%	1864.000	486.500	485.400	1766.000	1773.000	95.198%	96.890%
x		83.377%	1868.000	480.200	482.800	1766.000	1772.000	92.859%	94.290%
σ		1.156%	11.270	5.496	2.249	3.213	2.814	2.211%	2.469%
%RSD		1.386	0.603	1.145	0.466	0.182	0.159	2.381	2.618

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:41	49.320	49.850	20.520	20.700	20.920	81.562%
2	13:56:00	49.550	50.150	20.780	20.960	21.190	84.209%
3	13:56:20	51.150	51.150	20.880	21.210	21.200	84.611%
x		50.010	50.390	20.730	20.960	21.100	83.461%
σ		0.995	0.681	0.185	0.256	0.162	1.657%
%RSD		1.990	1.351	0.892	1.220	0.767	1.985

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	95.411%	0.005	103.200	104.100	0.000	25940.000	9740.000	9838.000
2	13:59:48	94.815%	0.028	114.100	114.100	0.000	27770.000	10480.000	10650.000
3	14:00:07	97.280%	0.025	100.100	103.400	0.000	25560.000	9626.000	9597.000
x		95.835%	0.019	105.800	107.200	0.000	26420.000	9949.000	10030.000
σ		1.286%	0.013	7.355	5.974	0.000	1181.000	463.200	552.900
%RSD		1.342	65.840	6.951	5.574	0.000	4.470	4.656	5.513

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	145.700	700.000	0.000	1997.000	51880.000	51830.000	83.869%	2.338
2	13:59:48	156.700	740.600	0.000	2198.000	58260.000	55980.000	74.496%	2.730
3	14:00:07	144.900	683.300	0.000	2005.000	53190.000	53120.000	80.423%	2.279
x		149.100	707.900	0.000	2067.000	54440.000	53650.000	79.596%	2.449
σ		6.598	29.470	0.000	113.600	3370.000	2122.000	4.741%	0.245
%RSD		4.425	4.162	0.000	5.496	6.190	3.956	5.956	9.994

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	0.560	1.083	43.160	275.400	602.500	0.312	1.281	2.133
2	13:59:48	-0.489	0.957	45.350	296.100	622.500	0.296	1.380	2.303
3	14:00:07	-1.326	0.944	44.660	286.800	593.700	0.292	1.549	2.200
x		-0.418	0.995	44.390	286.100	606.200	0.300	1.403	2.212
σ		0.945	0.077	1.122	10.340	14.790	0.011	0.136	0.086
%RSD		225.900	7.698	2.528	3.613	2.439	3.495	9.660	3.892

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	2.066	7.586	7.763	0.383	-0.667	0.409	0.000	562.900
2	13:59:48	2.194	8.139	8.107	0.356	-0.850	0.359	0.000	558.900
3	14:00:07	2.171	8.089	7.863	0.087	-0.840	0.467	0.000	571.100
x		2.143	7.938	7.911	0.276	-0.786	0.412	0.000	564.300
σ		0.068	0.306	0.177	0.164	0.103	0.054	0.000	6.204
%RSD		3.180	3.854	2.239	59.400	13.050	13.070	0.000	1.099

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	86.053%	5.336	5.299	85.694%	0.015	0.004	0.110	0.087
2	13:59:48	87.464%	5.874	5.857	87.290%	0.007	0.007	0.046	0.028
3	14:00:07	86.722%	5.341	5.315	86.263%	0.009	-0.000	-0.007	0.003
x		86.746%	5.517	5.491	86.416%	0.010	0.003	0.049	0.039
σ		0.706%	0.309	0.318	0.809%	0.004	0.004	0.059	0.043
%RSD		0.814	5.599	5.787	0.936	41.530	105.900	118.500	108.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	85.419%	1.724	0.227	0.287	26.970	26.900	92.930%	93.147%
2	13:59:48	86.877%	1.517	0.265	0.290	26.840	27.160	95.073%	96.018%
3	14:00:07	87.377%	1.491	0.253	0.312	27.100	26.780	96.213%	97.415%
x		86.558%	1.577	0.248	0.296	26.970	26.950	94.739%	95.527%
σ		1.017%	0.128	0.020	0.013	0.129	0.197	1.667%	2.176%
%RSD		1.175	8.081	7.954	4.467	0.479	0.730	1.759	2.278

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:28	0.304	0.288	1.964	1.913	1.949	85.915%
2	13:59:48	0.220	0.209	1.866	1.831	1.916	88.376%
3	14:00:07	0.178	0.172	1.960	1.814	1.892	89.171%
x		0.234	0.223	1.930	1.853	1.919	87.821%
σ		0.064	0.060	0.056	0.053	0.029	1.697%
%RSD		27.460	26.720	2.881	2.851	1.493	1.933

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:16	101.219%	-0.019	24.120	22.410	0.000	5033.000	1855.000	1903.000
2	14:03:35	104.261%	-0.019	24.570	24.370	0.000	5360.000	1986.000	2002.000
3	14:03:54	89.889%	0.013	24.830	25.350	0.000	5383.000	2008.000	2028.000
x		98.456%	-0.008	24.500	24.040	0.000	5259.000	1950.000	1978.000
σ		7.574%	0.019	0.360	1.494	0.000	195.900	82.910	66.300
%RSD		7.693	222.100	1.468	6.215	0.000	3.726	4.253	3.352
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:16	21.670	42.870	0.000	369.300	10150.000	9344.000	93.370%	0.366
2	14:03:35	24.220	55.480	0.000	407.500	10970.000	10340.000	82.999%	0.342
3	14:03:54	24.120	62.230	0.000	391.200	10810.000	10050.000	87.594%	0.539
x		23.340	53.530	0.000	389.300	10640.000	9911.000	87.988%	0.416
σ		1.444	9.828	0.000	19.180	437.000	511.400	5.197%	0.108
%RSD		6.188	18.360	0.000	4.925	4.107	5.160	5.906	25.840
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:16	0.203	0.177	8.352	44.430	123.300	0.060	0.199	0.438
2	14:03:35	-0.278	0.146	8.918	50.310	127.300	0.047	0.240	0.464
3	14:03:54	-0.081	0.149	8.522	44.530	118.200	0.063	0.274	0.431
x		-0.052	0.158	8.597	46.420	122.900	0.057	0.238	0.444
σ		0.241	0.017	0.290	3.368	4.548	0.009	0.038	0.018
%RSD		463.900	10.930	3.376	7.254	3.700	15.070	15.890	3.972
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:16	0.450	2.089	2.012	0.074	-1.156	-0.045	0.000	106.900
2	14:03:35	0.424	2.090	2.201	0.085	-1.361	-0.076	0.000	108.300
3	14:03:54	0.474	2.182	2.154	0.168	-0.874	0.026	0.000	110.400
x		0.449	2.120	2.122	0.109	-1.131	-0.032	0.000	108.500
σ		0.025	0.053	0.098	0.051	0.245	0.052	0.000	1.787
%RSD		5.584	2.503	4.623	47.190	21.630	164.500	0.000	1.646
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:16	91.008%	-0.356	-0.350	90.654%	-0.004	-0.003	0.019	0.018
2	14:03:35	91.418%	-0.223	0.050	91.602%	0.007	-0.007	0.036	0.033
3	14:03:54	89.423%	0.063	0.034	89.948%	0.001	0.007	0.057	0.042
x		90.617%	-0.172	-0.088	90.735%	0.001	-0.001	0.037	0.031
σ		1.053%	0.214	0.227	0.830%	0.005	0.007	0.019	0.012
%RSD		1.163	124.600	256.300	0.914	473.900	749.500	50.650	39.990
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:16	90.028%	0.111	-0.101	-0.102	5.355	5.464	93.347%	93.752%
2	14:03:35	91.108%	0.177	-0.093	-0.080	5.370	5.282	94.606%	94.961%
3	14:03:54	91.158%	0.157	-0.085	-0.056	5.559	5.527	95.233%	95.735%
x		90.765%	0.148	-0.093	-0.079	5.428	5.424	94.395%	94.816%
σ		0.639%	0.034	0.008	0.023	0.114	0.127	0.960%	1.000%
%RSD		0.704	22.610	8.567	29.110	2.095	2.344	1.018	1.054
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:03:16	0.033	0.041	0.370	0.334	0.361	92.010%		
2	14:03:35	0.038	0.042	0.415	0.386	0.382	92.350%		
3	14:03:54	0.037	0.043	0.390	0.387	0.385	92.459%		
x		0.036	0.042	0.391	0.369	0.376	92.273%		
σ		0.003	0.001	0.023	0.030	0.013	0.234%		
%RSD		7.761	2.889	5.815	8.258	3.365	0.254		

180-44326-J-3-B MS 6/3/2015 2:06:44 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	14:07:03	93.367%	43.830	1015.000	1031.000	0.000	69940.000	53380.000	53960.000
2	14:07:22	90.522%	42.140	1054.000	1043.000	0.000	69850.000	54930.000	54790.000
3	14:07:42	88.387%	44.660	1028.000	1059.000	0.000	71740.000	53940.000	54760.000
x		90.758%	43.540	1032.000	1044.000	0.000	70510.000	54080.000	54500.000
σ		2.498%	1.280	19.960	13.930	0.000	1066.000	783.700	470.900
%RSD		2.753	2.940	1.934	1.334	0.000	1.512	1.449	0.864

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:03	1865.000	9929.000	0.000	47940.000	108700.000	108100.000	73.007%	981.800
2	14:07:22	1881.000	10100.000	0.000	48330.000	107400.000	107100.000	72.575%	999.600
3	14:07:42	1866.000	10170.000	0.000	47540.000	106700.000	104700.000	73.249%	982.500
x		1871.000	10070.000	0.000	47940.000	107600.000	106600.000	72.944%	988.000
σ		9.256	124.000	0.000	392.100	1010.000	1710.000	0.342%	10.050
%RSD		0.495	1.232	0.000	0.818	0.938	1.604	0.469	1.017

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:03	492.800	195.600	535.600	1321.000	1925.000	494.900	484.100	249.000
2	14:07:22	487.200	193.700	530.900	1301.000	1898.000	496.100	481.500	250.200
3	14:07:42	493.500	194.300	514.900	1250.000	1790.000	475.900	477.300	240.700
x		491.200	194.500	527.100	1291.000	1871.000	489.000	481.000	246.700
σ		3.466	0.986	10.840	36.450	71.500	11.330	3.437	5.151
%RSD		0.706	0.507	2.056	2.824	3.822	2.318	0.715	2.088

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:03	246.700	467.000	464.000	37.550	8.917	9.997	0.000	1496.000
2	14:07:22	247.700	476.300	472.900	37.260	9.231	9.965	0.000	1495.000
3	14:07:42	245.000	467.600	464.700	38.560	8.846	10.450	0.000	1478.000
x		246.500	470.300	467.200	37.790	8.998	10.140	0.000	1490.000
σ		1.365	5.242	4.935	0.682	0.205	0.273	0.000	10.300
%RSD		0.554	1.115	1.056	1.805	2.278	2.691	0.000	0.691

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:03	82.849%	994.900	1012.000	79.782%	45.760	46.260	47.560	40.200
2	14:07:22	83.692%	1000.000	1013.000	80.566%	45.860	45.990	46.050	39.130
3	14:07:42	84.667%	1001.000	1027.000	80.457%	46.440	46.270	46.270	40.110
x		83.736%	998.800	1018.000	80.269%	46.020	46.170	46.630	39.810
σ		0.910%	3.426	8.376	0.425%	0.371	0.164	0.816	0.596
%RSD		1.086	0.343	0.823	0.529	0.806	0.354	1.750	1.497

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:03	79.498%	1917.000	489.400	492.300	1820.000	1832.000	89.776%	90.307%
2	14:07:22	82.024%	1896.000	491.400	490.700	1823.000	1836.000	92.256%	93.705%
3	14:07:42	81.854%	1899.000	489.300	493.400	1827.000	1841.000	93.251%	94.929%
x		81.125%	1904.000	490.000	492.100	1823.000	1836.000	91.761%	92.981%
σ		1.412%	11.390	1.182	1.363	3.118	4.697	1.790%	2.395%
%RSD		1.740	0.598	0.241	0.277	0.171	0.256	1.950	2.575

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:03	50.970	51.200	23.010	23.260	23.090	78.193%
2	14:07:22	51.650	51.970	23.160	23.480	23.520	80.648%
3	14:07:42	51.510	51.760	23.700	23.170	23.380	83.493%
x		51.380	51.640	23.290	23.300	23.330	80.778%
σ		0.363	0.398	0.362	0.163	0.219	2.652%
%RSD		0.707	0.771	1.556	0.698	0.937	3.284

CCV 1594026 6/3/2015 2:10:39 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	14:10:39	91.699%	96.990	106.000	104.800	0.000	47480.000	47210.000	46800.000
2	14:10:59	95.345%	94.400	97.480	102.800	0.000	46960.000	47100.000	46480.000
3	14:11:18	92.104%	94.770	107.400	102.700	0.000	47040.000	47680.000	47060.000
x		93.050%	95.384%	103.618%	103.437%	0.000	94.322%	94.660%	93.558%
σ		1.998%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.148	1.467	5.178	1.154	0.000	0.584	0.647	0.625

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:39	459.700	5028.000	0.000	46360.000	46750.000	46360.000	92.668%	93.810
2	14:10:59	462.000	4893.000	0.000	46440.000	47190.000	48030.000	87.974%	96.860
3	14:11:18	452.100	4883.000	0.000	47460.000	47210.000	47570.000	89.048%	98.320
x		91.585%	98.694%	0.000	93.503%	94.102%	94.631%	89.897%	96.329%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.459%	n/a
%RSD		1.132	1.642	0.000	1.318	0.556	1.824	2.735	2.388

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:39	90.450	90.850	461.700	22830.000	22490.000	89.290	89.790	90.550
2	14:10:59	92.520	93.770	463.600	23400.000	23360.000	94.160	95.260	95.780
3	14:11:18	91.320	93.320	459.800	23640.000	23380.000	93.390	95.240	97.260
x		91.431%	92.647%	92.340%	93.160%	92.312%	92.281%	93.432%	94.531%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.137	1.695	0.418	1.800	2.194	2.839	3.373	3.728

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:39	91.840	88.000	88.080	93.580	94.970	98.480	0.000	92.560
2	14:10:59	98.720	92.140	93.570	92.520	95.500	94.660	0.000	92.400
3	14:11:18	98.550	92.860	92.800	94.240	94.330	96.000	0.000	93.630
x		96.367%	91.000%	91.484%	93.447%	94.933%	96.380%	0.000	92.861%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.074	2.886	3.250	0.933	0.615	2.009	0.000	0.721

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:39	90.432%	100.200	100.700	88.828%	94.540	96.010	96.900	96.660
2	14:10:59	91.711%	102.700	103.400	89.473%	95.120	95.690	96.440	97.090
3	14:11:18	91.843%	102.800	104.000	89.757%	96.000	97.720	96.740	99.080
x		91.329%	101.910%	102.671%	89.353%	95.218%	96.474%	96.691%	97.608%
σ		0.779%	n/a	n/a	0.476%	n/a	n/a	n/a	n/a
%RSD		0.853	1.487	1.715	0.532	0.769	1.132	0.241	1.320

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:39	84.307%	99.440	91.660	92.130	95.760	94.420	93.364%	94.399%
2	14:10:59	85.623%	99.900	92.030	92.390	95.110	95.860	95.419%	96.015%
3	14:11:18	85.933%	100.300	93.280	93.960	96.180	96.460	97.334%	97.369%
x		85.288%	99.882%	92.325%	92.827%	95.683%	95.582%	95.372%	95.928%
σ		0.863%	n/a	n/a	n/a	n/a	n/a	1.985%	1.487%
%RSD		1.012	0.432	0.921	1.069	0.565	1.098	2.081	1.550

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:10:39	100.700	100.000	101.300	100.700	101.000	90.272%
2	14:10:59	101.800	102.200	102.800	104.200	104.100	90.325%
3	14:11:18	106.600	106.500	106.600	107.400	107.700	89.116%
x		103.005%	102.909%	103.580%	104.106%	104.280%	89.904%
σ		n/a	n/a	n/a	n/a	n/a	0.683%
%RSD		3.039	3.182	2.650	3.260	3.183	0.759

CCB4 6/3/2015 2:17:06 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	14:17:25	105.296%	-0.005	2.523	2.938	0.000	1.373	0.653	0.543
2	14:17:44	95.785%	-0.023	3.844	3.041	0.000	1.069	0.402	0.280
3	14:18:03	97.077%	-0.018	3.127	3.189	0.000	0.980	0.328	0.328
x		99.386%	-0.015	3.165	3.056	0.000	1.141	0.461	0.384
σ		5.159%	0.009	0.661	0.126	0.000	0.206	0.170	0.140
%RSD		5.191	58.630	20.890	4.135	0.000	18.060	36.940	36.530
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:17:25	-0.146	-114.900	0.000	1.372	7.662	3.524	93.149%	-0.090
2	14:17:44	-0.118	-112.300	0.000	0.105	7.470	2.791	95.497%	-0.024
3	14:18:03	-0.107	-113.400	0.000	0.506	6.562	3.016	93.266%	-0.102
x		-0.124	-113.500	0.000	0.661	7.232	3.110	93.971%	-0.072
σ		0.020	1.326	0.000	0.648	0.587	0.376	1.323%	0.042
%RSD		16.300	1.168	0.000	98.030	8.122	12.070	1.408	58.480
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:17:25	-0.021	-0.087	0.034	-6.322	1.335	0.004	-0.019	-0.007
2	14:17:44	-0.017	-0.051	0.023	-10.110	-0.565	0.003	-0.030	-0.006
3	14:18:03	-0.004	-0.091	0.024	-8.991	1.172	0.004	-0.013	-0.008
x		-0.014	-0.076	0.027	-8.473	0.647	0.003	-0.021	-0.007
σ		0.009	0.022	0.006	1.945	1.053	0.000	0.008	0.001
%RSD		61.480	28.330	22.580	22.950	162.800	13.740	41.330	14.460
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:17:25	0.015	0.146	0.005	-0.014	-0.899	0.179	0.000	0.015
2	14:17:44	-0.016	0.020	0.027	0.115	-0.667	0.297	0.000	0.015
3	14:18:03	-0.021	0.107	0.085	0.124	-0.540	0.395	0.000	0.016
x		-0.007	0.091	0.039	0.075	-0.702	0.290	0.000	0.015
σ		0.019	0.065	0.042	0.077	0.182	0.108	0.000	0.001
%RSD		263.300	70.940	107.300	102.400	25.970	37.230	0.000	4.505
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:17:25	89.773%	-0.388	-0.459	90.322%	0.009	0.005	0.094	0.068
2	14:17:44	89.786%	-0.084	-0.074	90.327%	0.021	0.014	0.109	0.076
3	14:18:03	91.167%	-0.116	0.215	91.378%	0.016	0.033	0.018	0.021
x		90.242%	-0.196	-0.106	90.675%	0.015	0.017	0.074	0.055
σ		0.801%	0.167	0.338	0.608%	0.006	0.014	0.048	0.029
%RSD		0.888	85.160	317.600	0.671	38.660	82.240	65.650	53.460
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:17:25	87.587%	0.120	0.665	0.663	0.022	0.004	86.698%	86.536%
2	14:17:44	89.646%	0.154	0.671	0.715	0.004	0.010	89.530%	88.593%
3	14:18:03	89.485%	0.198	0.788	0.728	0.015	0.004	89.522%	89.279%
x		88.906%	0.157	0.708	0.702	0.014	0.006	88.583%	88.136%
σ		1.145%	0.039	0.069	0.034	0.009	0.004	1.633%	1.427%
%RSD		1.288	24.960	9.794	4.890	65.470	60.940	1.843	1.620
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:17:25	0.029	0.035	0.002	0.001	-0.001	88.626%		
2	14:17:44	0.035	0.037	0.001	0.002	-0.000	89.616%		
3	14:18:03	0.042	0.046	0.005	0.009	-0.001	89.309%		
x		0.035	0.039	0.003	0.004	-0.001	89.184%		
σ		0.006	0.006	0.002	0.004	0.001	0.507%		
%RSD		18.240	14.350	77.950	107.900	73.750	0.568		

180-44326-J-3-C MSD 6/3/2015 2:20:56 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	14:21:15	96.322%	41.040	971.600	988.000	0.000	63700.000	50480.000	51790.000
2	14:21:35	98.773%	40.740	912.000	928.800	0.000	66740.000	50800.000	50800.000
3	14:21:54	93.155%	43.260	993.100	962.600	0.000	65250.000	49580.000	51570.000
x		96.083%	41.680	958.900	959.800	0.000	65230.000	50290.000	51390.000
σ		2.816%	1.378	42.000	29.710	0.000	1523.000	634.500	524.100
%RSD		2.931	3.306	4.380	3.095	0.000	2.335	1.262	1.020
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:15	1737.000	9114.000	0.000	44610.000	95560.000	94730.000	80.604%	909.500
2	14:21:35	1736.000	9619.000	0.000	47560.000	101800.000	101600.000	73.486%	993.900
3	14:21:54	1774.000	9872.000	0.000	47430.000	100100.000	100100.000	74.057%	984.000
x		1749.000	9535.000	0.000	46530.000	99140.000	98830.000	76.049%	962.500
σ		21.770	385.900	0.000	1669.000	3214.000	3632.000	3.955%	46.160
%RSD		1.245	4.047	0.000	3.586	3.242	3.675	5.201	4.796
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:15	452.500	181.000	492.400	1289.000	1816.000	462.700	448.900	228.600
2	14:21:35	492.400	194.700	521.000	1404.000	1977.000	487.700	478.400	243.300
3	14:21:54	480.300	189.300	521.000	1352.000	1875.000	482.400	468.500	237.700
x		475.100	188.300	511.500	1348.000	1889.000	477.600	465.300	236.500
σ		20.450	6.938	16.490	57.410	81.800	13.190	14.980	7.373
%RSD		4.305	3.684	3.223	4.258	4.329	2.762	3.219	3.117
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:15	228.100	438.500	437.100	35.540	9.148	10.380	0.000	1444.000
2	14:21:35	240.500	456.900	454.700	37.000	9.174	10.960	0.000	1446.000
3	14:21:54	239.800	460.100	460.300	37.740	8.537	11.100	0.000	1443.000
x		236.100	451.800	450.700	36.760	8.953	10.810	0.000	1444.000
σ		6.991	11.640	12.110	1.123	0.361	0.379	0.000	1.931
%RSD		2.960	2.576	2.687	3.055	4.027	3.501	0.000	0.134
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:15	82.457%	968.600	988.200	78.951%	44.750	45.330	46.290	38.640
2	14:21:35	83.808%	966.800	994.800	80.502%	44.940	44.890	46.190	38.690
3	14:21:54	84.015%	977.700	1012.000	80.163%	45.340	45.550	46.390	39.660
x		83.427%	971.000	998.400	79.872%	45.010	45.260	46.290	39.000
σ		0.846%	5.804	12.360	0.815%	0.298	0.339	0.098	0.572
%RSD		1.014	0.598	1.238	1.020	0.662	0.748	0.212	1.466
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:15	78.989%	1890.000	483.600	481.100	1796.000	1799.000	87.331%	87.664%
2	14:21:35	80.923%	1883.000	484.600	484.900	1793.000	1805.000	89.555%	90.377%
3	14:21:54	81.750%	1883.000	483.400	483.300	1789.000	1793.000	91.871%	92.200%
x		80.554%	1885.000	483.900	483.100	1792.000	1799.000	89.586%	90.080%
σ		1.417%	3.812	0.607	1.920	3.413	5.555	2.270%	2.283%
%RSD		1.759	0.202	0.126	0.397	0.190	0.309	2.534	2.534
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:21:15	47.050	46.590	21.000	21.110	21.050	82.229%		
2	14:21:35	48.820	49.330	22.160	22.360	22.400	80.891%		
3	14:21:54	49.040	49.420	21.660	21.650	21.790	83.794%		
x		48.300	48.450	21.600	21.710	21.740	82.305%		
σ		1.091	1.609	0.582	0.628	0.673	1.453%		
%RSD		2.259	3.322	2.696	2.893	3.097	1.766		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	90.788%	43.030	1006.000	1033.000	0.000	68720.000	54120.000	53960.000
2	14:25:22	87.630%	44.600	999.200	1069.000	0.000	70950.000	54280.000	54170.000
3	14:25:41	90.315%	44.860	1028.000	1016.000	0.000	71810.000	54740.000	54040.000
x		89.577%	44.160	1011.000	1039.000	0.000	70490.000	54380.000	54060.000
σ		1.703%	0.989	14.730	26.700	0.000	1592.000	323.100	102.700
%RSD		1.902	2.239	1.457	2.569	0.000	2.259	0.594	0.190

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	1876.000	10370.000	0.000	49610.000	104000.000	99920.000	76.468%	1039.000
2	14:25:22	1872.000	10250.000	0.000	49270.000	105200.000	104200.000	74.140%	1010.000
3	14:25:41	1879.000	10210.000	0.000	50570.000	105300.000	103800.000	71.204%	1022.000
x		1875.000	10270.000	0.000	49820.000	104800.000	102700.000	73.937%	1023.000
σ		3.412	83.230	0.000	673.200	749.800	2385.000	2.638%	14.450
%RSD		0.182	0.810	0.000	1.351	0.715	2.323	3.568	1.412

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	503.400	197.200	531.700	1270.000	1807.000	494.100	478.600	241.500
2	14:25:22	507.200	201.500	537.300	1293.000	1851.000	503.500	482.900	247.800
3	14:25:41	500.300	200.400	543.100	1317.000	1853.000	506.800	502.100	259.800
x		503.600	199.700	537.400	1293.000	1837.000	501.500	487.800	249.700
σ		3.442	2.221	5.703	23.650	26.090	6.597	12.530	9.290
%RSD		0.683	1.112	1.061	1.828	1.420	1.316	2.569	3.720

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	239.500	466.300	471.400	39.390	9.744	10.820	0.000	1492.000
2	14:25:22	245.000	466.800	478.700	38.810	9.643	10.690	0.000	1475.000
3	14:25:41	259.300	489.900	492.000	38.670	9.353	10.570	0.000	1481.000
x		247.900	474.300	480.700	38.950	9.580	10.690	0.000	1483.000
σ		10.250	13.480	10.470	0.381	0.203	0.128	0.000	8.546
%RSD		4.133	2.843	2.179	0.979	2.121	1.195	0.000	0.576

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	83.089%	1021.000	1047.000	81.363%	42.820	43.430	48.910	40.280
2	14:25:22	85.915%	1025.000	1050.000	81.703%	42.340	43.020	47.010	40.780
3	14:25:41	85.903%	1029.000	1059.000	82.563%	42.950	42.990	47.830	41.650
x		84.969%	1025.000	1052.000	81.876%	42.710	43.150	47.920	40.900
σ		1.628%	3.856	6.588	0.619%	0.319	0.248	0.950	0.692
%RSD		1.916	0.376	0.626	0.756	0.747	0.575	1.984	1.692

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	81.940%	1961.000	487.400	489.000	1863.000	1879.000	91.775%	92.253%
2	14:25:22	83.130%	1956.000	493.600	492.400	1870.000	1870.000	92.931%	94.193%
3	14:25:41	83.893%	1943.000	490.400	494.500	1869.000	1881.000	94.485%	95.282%
x		82.988%	1953.000	490.500	492.000	1867.000	1877.000	93.063%	93.910%
σ		0.985%	9.157	3.115	2.753	3.563	5.801	1.360%	1.534%
%RSD		1.186	0.469	0.635	0.560	0.191	0.309	1.461	1.634

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:25:03	52.170	52.730	22.950	23.480	23.390	83.513%
2	14:25:22	53.260	53.570	23.750	23.710	23.920	84.118%
3	14:25:41	53.810	54.200	24.370	23.630	23.880	84.615%
x		53.080	53.500	23.690	23.600	23.730	84.082%
σ		0.835	0.738	0.713	0.118	0.297	0.552%
%RSD		1.574	1.380	3.008	0.502	1.250	0.656

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	58.240%	0.011	1938.000	2094.000	0.000	908400.000	34930.000	34480.000
2	14:29:10	55.836%	0.014	1906.000	2024.000	0.000	910800.000	34490.000	34750.000
3	14:29:29	61.464%	0.008	1805.000	1883.000	0.000	860900.000	32730.000	32670.000
x		58.514%	0.011	1883.000	2001.000	0.000	893400.000	34050.000	33970.000
σ		2.824%	0.003	69.470	107.300	0.000	28140.000	1162.000	1131.000
%RSD		4.826	23.910	3.689	5.364	0.000	3.150	3.412	3.329

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	16.160	3951.000	0.000	41890.000	427200.000	388400.000	68.399%	1.285
2	14:29:10	16.770	3908.000	0.000	42290.000	438300.000	395600.000	66.764%	1.075
3	14:29:29	15.200	3648.000	0.000	42120.000	436500.000	397700.000	65.472%	1.083
x		16.040	3835.000	0.000	42100.000	434000.000	393900.000	66.878%	1.148
σ		0.792	163.900	0.000	202.100	5948.000	4861.000	1.467%	0.119
%RSD		4.940	4.272	0.000	0.480	1.371	1.234	2.193	10.340

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	0.452	1.846	177.400	2623.000	4707.000	0.654	3.587	12.150
2	14:29:10	0.422	1.988	182.200	2628.000	4683.000	0.642	3.232	12.010
3	14:29:29	0.067	1.990	185.400	2724.000	4861.000	0.662	3.513	12.500
x		0.314	1.942	181.700	2659.000	4750.000	0.653	3.444	12.220
σ		0.214	0.082	4.028	56.950	97.030	0.010	0.188	0.252
%RSD		68.210	4.242	2.217	2.142	2.043	1.519	5.446	2.058

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	7.715	57.900	57.560	3.549	-0.488	16.120	0.000	5652.000
2	14:29:10	7.738	58.440	57.760	3.556	-0.826	16.170	0.000	5630.000
3	14:29:29	7.897	57.850	59.490	4.446	-0.983	16.180	0.000	5669.000
x		7.783	58.060	58.270	3.851	-0.765	16.150	0.000	5650.000
σ		0.099	0.328	1.058	0.516	0.253	0.030	0.000	19.490
%RSD		1.268	0.566	1.816	13.400	33.000	0.188	0.000	0.345

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	76.147%	6.629	6.884	71.364%	0.009	0.007	0.069	0.042
2	14:29:10	77.184%	7.783	8.057	70.903%	0.021	0.002	-0.026	-0.024
3	14:29:29	77.101%	7.293	7.242	71.363%	0.019	0.003	-0.081	-0.077
x		76.811%	7.235	7.394	71.210%	0.017	0.004	-0.013	-0.020
σ		0.576%	0.579	0.601	0.266%	0.006	0.003	0.076	0.059
%RSD		0.750	8.006	8.126	0.373	38.090	65.070	587.100	302.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	74.273%	2.415	5.505	5.751	19.140	19.500	83.302%	84.882%
2	14:29:10	74.674%	2.324	5.382	5.440	20.210	19.510	85.144%	86.879%
3	14:29:29	75.500%	2.126	4.607	4.831	19.280	20.040	85.761%	86.258%
x		74.816%	2.288	5.165	5.341	19.550	19.680	84.736%	86.006%
σ		0.626%	0.148	0.487	0.468	0.584	0.310	1.280%	1.022%
%RSD		0.836	6.448	9.425	8.761	2.986	1.577	1.510	1.189

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:51	0.139	0.123	1.191	1.176	1.189	70.647%
2	14:29:10	0.113	0.110	1.186	1.184	1.214	72.065%
3	14:29:29	0.102	0.087	1.231	1.200	1.215	73.103%
x		0.118	0.107	1.203	1.187	1.206	71.938%
σ		0.019	0.018	0.025	0.012	0.014	1.233%
%RSD		15.850	17.290	2.054	1.017	1.199	1.714

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	92.612%	0.029	9.831	8.821	0.000	1124.000	13820.000	13790.000
2	14:32:59	89.234%	0.090	8.641	8.479	0.000	1080.000	13260.000	13390.000
3	14:33:18	87.576%	0.057	8.151	9.034	0.000	1109.000	14100.000	13740.000
x		89.807%	0.059	8.874	8.778	0.000	1104.000	13730.000	13640.000
σ		2.567%	0.031	0.864	0.280	0.000	22.140	427.100	216.400
%RSD		2.858	51.920	9.732	3.191	0.000	2.005	3.111	1.586

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	83.130	2708.000	0.000	734.800	23170.000	22380.000	75.361%	1.651
2	14:32:59	78.690	2741.000	0.000	750.900	23920.000	22810.000	74.189%	1.270
3	14:33:18	87.160	2748.000	0.000	757.500	23740.000	22690.000	73.439%	1.387
x		82.990	2732.000	0.000	747.700	23610.000	22630.000	74.330%	1.436
σ		4.236	21.320	0.000	11.680	391.000	224.100	0.969%	0.195
%RSD		5.104	0.780	0.000	1.562	1.656	0.990	1.304	13.590

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	-0.471	1.220	36.510	106.100	250.300	0.301	1.182	4.557
2	14:32:59	1.023	1.230	36.820	106.000	237.100	0.345	1.058	4.391
3	14:33:18	1.600	1.068	36.960	101.600	226.900	0.302	1.126	4.302
x		0.717	1.173	36.760	104.600	238.100	0.316	1.122	4.417
σ		1.069	0.091	0.227	2.552	11.740	0.025	0.062	0.129
%RSD		149.000	7.759	0.616	2.441	4.929	7.862	5.533	2.930

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	4.664	361.200	368.600	0.323	-0.743	0.843	0.000	8.219
2	14:32:59	4.628	367.300	369.900	0.193	-0.779	1.077	0.000	8.123
3	14:33:18	4.722	366.700	372.200	-0.513	-1.008	0.934	0.000	8.124
x		4.672	365.000	370.300	0.001	-0.843	0.951	0.000	8.155
σ		0.047	3.385	1.851	0.450	0.144	0.118	0.000	0.055
%RSD		1.017	0.927	0.500	43780.000	17.060	12.360	0.000	0.678

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	83.466%	0.082	0.194	82.026%	-0.002	0.001	0.045	0.046
2	14:32:59	83.153%	0.572	0.950	81.083%	-0.001	0.004	0.098	0.060
3	14:33:18	83.836%	0.761	0.838	81.391%	0.001	0.002	0.048	0.019
x		83.485%	0.472	0.661	81.500%	-0.001	0.003	0.064	0.042
σ		0.342%	0.350	0.408	0.481%	0.002	0.002	0.030	0.021
%RSD		0.410	74.270	61.760	0.590	173.300	60.240	46.720	49.660

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	82.584%	0.482	1.096	1.021	51.160	50.610	89.685%	89.999%
2	14:32:59	83.622%	0.644	1.019	1.091	52.100	52.060	90.899%	91.480%
3	14:33:18	83.838%	0.701	1.027	1.077	52.070	51.190	92.954%	93.578%
x		83.348%	0.609	1.048	1.063	51.780	51.290	91.179%	91.686%
σ		0.670%	0.114	0.042	0.037	0.533	0.730	1.652%	1.798%
%RSD		0.804	18.640	4.038	3.502	1.030	1.424	1.812	1.961

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:32:40	0.077	0.069	6.197	6.113	6.159	82.543%
2	14:32:59	0.082	0.066	6.257	6.241	6.231	84.784%
3	14:33:18	0.078	0.074	6.234	6.068	6.200	85.419%
x		0.079	0.070	6.230	6.140	6.197	84.248%
σ		0.003	0.004	0.030	0.089	0.036	1.511%
%RSD		3.226	5.818	0.485	1.457	0.585	1.793

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	89.375%	0.003	16.780	16.990	0.000	24280.000	45130.000	44650.000
2	14:36:49	90.917%	0.008	17.690	16.220	0.000	23580.000	43820.000	43840.000
3	14:37:09	87.778%	0.010	14.460	16.720	0.000	23780.000	43270.000	43970.000
x		89.357%	0.007	16.310	16.650	0.000	23880.000	44070.000	44150.000
σ		1.570%	0.003	1.665	0.390	0.000	362.000	953.300	432.200
%RSD		1.756	51.220	10.210	2.345	0.000	1.516	2.163	0.979

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	74.190	2962.000	0.000	12490.000	201600.000	184700.000	73.018%	1.348
2	14:36:49	71.450	2814.000	0.000	12210.000	192700.000	180000.000	72.937%	1.423
3	14:37:09	73.020	2867.000	0.000	12570.000	198300.000	182800.000	74.980%	1.308
x		72.890	2881.000	0.000	12420.000	197500.000	182500.000	73.645%	1.360
σ		1.375	75.130	0.000	187.000	4482.000	2350.000	1.157%	0.058
%RSD		1.887	2.608	0.000	1.506	2.269	1.288	1.571	4.283

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	1.262	1.266	18700.000	4511.000	5526.000	135.600	2.646	1.544
2	14:36:49	-0.404	1.324	19060.000	4568.000	5739.000	137.900	3.161	1.700
3	14:37:09	0.432	1.326	18670.000	4413.000	5464.000	135.400	2.428	1.702
x		0.430	1.305	18810.000	4497.000	5576.000	136.300	2.745	1.648
σ		0.833	0.034	217.000	78.030	144.400	1.414	0.377	0.090
%RSD		193.800	2.607	1.154	1.735	2.590	1.037	13.720	5.481

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	2.101	12.700	12.920	0.422	-1.033	1.308	0.000	366.000
2	14:36:49	2.185	12.630	12.730	1.379	-1.117	0.794	0.000	364.100
3	14:37:09	2.102	13.020	12.430	0.508	-1.172	0.899	0.000	366.700
x		2.129	12.780	12.690	0.769	-1.107	1.001	0.000	365.600
σ		0.048	0.207	0.246	0.529	0.070	0.272	0.000	1.333
%RSD		2.247	1.618	1.937	68.770	6.313	27.140	0.000	0.365

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	88.515%	-0.808	-0.774	78.885%	-0.002	0.002	0.050	0.063
2	14:36:49	90.740%	-0.560	-0.527	80.091%	0.001	-0.006	0.078	0.066
3	14:37:09	90.642%	-0.449	-0.480	80.879%	0.006	0.000	0.166	0.148
x		89.966%	-0.606	-0.594	79.951%	0.002	-0.001	0.098	0.092
σ		1.258%	0.184	0.158	1.004%	0.004	0.004	0.060	0.048
%RSD		1.398	30.390	26.580	1.256	245.100	289.700	61.470	52.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	81.247%	0.359	0.621	0.574	43.780	46.050	89.031%	90.464%
2	14:36:49	83.169%	0.428	0.730	0.629	46.980	45.560	92.126%	93.038%
3	14:37:09	85.226%	0.355	0.572	0.678	45.340	45.030	93.368%	94.670%
x		83.214%	0.381	0.641	0.627	45.370	45.550	91.509%	92.724%
σ		1.990%	0.041	0.081	0.052	1.600	0.508	2.234%	2.121%
%RSD		2.391	10.760	12.670	8.274	3.526	1.116	2.441	2.287

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:36:30	0.527	0.542	0.462	0.414	0.390	78.066%
2	14:36:49	0.572	0.543	0.437	0.394	0.400	80.015%
3	14:37:09	0.547	0.537	0.385	0.372	0.390	82.845%
x		0.549	0.541	0.428	0.393	0.393	80.309%
σ		0.023	0.004	0.039	0.021	0.006	2.403%
%RSD		4.102	0.690	9.108	5.465	1.557	2.993

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	99.195%	-0.018	32.100	33.540	0.000	44.220	3.203	2.795
2	14:40:38	94.175%	-0.022	33.800	34.110	0.000	44.460	2.440	2.654
3	14:40:58	99.165%	-0.002	32.900	33.740	0.000	42.920	2.478	2.055
x		97.512%	-0.014	32.930	33.800	0.000	43.870	2.707	2.502
σ		2.890%	0.011	0.855	0.288	0.000	0.825	0.430	0.393
%RSD		2.963	76.680	2.597	0.854	0.000	1.880	15.890	15.710

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	8.758	-14.220	0.000	12.540	15.380	30.850	75.847%	0.008
2	14:40:38	8.664	-14.210	0.000	8.899	22.090	29.600	76.459%	0.105
3	14:40:58	8.695	-13.550	0.000	11.810	20.350	26.130	72.880%	0.149
x		8.706	-13.990	0.000	11.080	19.270	28.860	75.062%	0.087
σ		0.048	0.385	0.000	1.927	3.486	2.446	1.915%	0.073
%RSD		0.547	2.752	0.000	17.390	18.090	8.476	2.551	83.110

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	-1.130	0.569	1.178	-2.161	3.648	0.010	0.012	0.061
2	14:40:38	-0.383	0.596	1.031	-3.587	0.467	0.009	0.026	0.066
3	14:40:58	0.354	0.568	0.948	-4.513	0.333	0.005	0.018	0.041
x		-0.386	0.578	1.052	-3.421	1.483	0.008	0.019	0.056
σ		0.742	0.016	0.116	1.185	1.877	0.003	0.007	0.013
%RSD		192.100	2.754	11.040	34.630	126.600	37.520	37.490	23.170

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	0.044	1.371	1.412	-0.863	-1.530	0.112	0.000	0.082
2	14:40:38	0.043	1.191	1.345	-0.178	-1.505	0.238	0.000	0.061
3	14:40:58	0.064	1.314	1.364	-0.318	-1.410	0.108	0.000	0.063
x		0.050	1.292	1.374	-0.453	-1.482	0.153	0.000	0.069
σ		0.012	0.092	0.034	0.361	0.063	0.074	0.000	0.012
%RSD		22.860	7.111	2.491	79.820	4.285	48.530	0.000	16.720

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	85.656%	-1.301	-1.220	87.405%	-0.004	-0.006	-0.011	-0.012
2	14:40:38	85.994%	-1.144	-1.020	86.910%	-0.004	-0.004	0.031	0.015
3	14:40:58	86.873%	-0.946	-0.952	87.210%	-0.003	-0.004	-0.012	-0.015
x		86.174%	-1.130	-1.064	87.175%	-0.003	-0.005	0.003	-0.004
σ		0.628%	0.178	0.140	0.249%	0.001	0.001	0.025	0.017
%RSD		0.729	15.750	13.110	0.286	15.760	22.410	885.400	412.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	86.248%	0.234	0.122	0.107	0.067	0.056	91.116%	92.002%
2	14:40:38	86.747%	0.256	0.160	0.123	0.044	0.049	92.352%	94.043%
3	14:40:58	87.298%	0.330	0.157	0.130	0.037	0.048	94.595%	94.058%
x		86.765%	0.273	0.146	0.120	0.050	0.051	92.687%	93.368%
σ		0.525%	0.051	0.021	0.012	0.016	0.004	1.764%	1.183%
%RSD		0.605	18.500	14.270	9.883	31.750	8.620	1.903	1.267

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:40:18	0.009	0.012	0.007	0.018	0.010	90.625%
2	14:40:38	0.019	0.018	0.032	0.026	0.025	91.110%
3	14:40:58	0.014	0.015	0.012	0.007	0.006	91.807%
x		0.014	0.015	0.017	0.017	0.014	91.181%
σ		0.005	0.003	0.013	0.010	0.010	0.594%
%RSD		32.940	19.040	78.050	58.000	71.540	0.652

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:06	99.033%	-0.023	29.860	29.870	0.000	96.950	12.190	11.790
2	14:44:25	97.621%	-0.023	31.380	33.730	0.000	101.500	12.930	12.990
3	14:44:44	96.343%	-0.011	32.700	31.990	0.000	104.000	13.660	12.860
x		97.666%	-0.019	31.320	31.860	0.000	100.800	12.920	12.550
σ		1.345%	0.007	1.420	1.934	0.000	3.586	0.735	0.660
%RSD		1.377	35.070	4.535	6.069	0.000	3.557	5.690	5.264
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:06	11.540	-28.750	0.000	19.020	43.650	60.040	81.453%	0.141
2	14:44:25	12.760	-21.310	0.000	22.390	68.450	64.560	77.874%	0.142
3	14:44:44	13.390	-17.000	0.000	26.430	73.690	67.430	72.338%	0.302
x		12.560	-22.350	0.000	22.610	61.930	64.010	77.222%	0.195
σ		0.942	5.943	0.000	3.708	16.050	3.725	4.592%	0.093
%RSD		7.498	26.590	0.000	16.400	25.910	5.819	5.947	47.660
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:06	-1.855	0.961	1.257	9.380	13.990	0.019	0.294	0.517
2	14:44:25	0.611	0.836	1.239	5.453	14.730	0.014	0.308	0.452
3	14:44:44	0.597	0.947	1.264	9.555	15.380	0.032	0.312	0.507
x		-0.215	0.914	1.253	8.129	14.700	0.022	0.304	0.492
σ		1.420	0.069	0.013	2.320	0.696	0.009	0.010	0.035
%RSD		659.100	7.522	1.043	28.530	4.737	43.130	3.175	7.176
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:06	0.515	1.772	1.872	0.345	-1.344	0.279	0.000	0.248
2	14:44:25	0.415	1.711	1.760	-0.181	-1.290	0.176	0.000	0.226
3	14:44:44	0.477	2.034	1.876	-0.485	-1.562	0.197	0.000	0.254
x		0.469	1.839	1.836	-0.107	-1.399	0.217	0.000	0.243
σ		0.050	0.172	0.066	0.420	0.144	0.054	0.000	0.015
%RSD		10.760	9.329	3.591	393.900	10.320	24.950	0.000	6.130
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:06	83.688%	-1.329	-1.292	83.809%	0.005	0.000	0.070	0.035
2	14:44:25	84.469%	-1.033	-0.984	85.091%	-0.002	-0.005	0.066	0.042
3	14:44:44	84.958%	-1.062	-0.961	84.630%	0.000	-0.000	0.093	0.068
x		84.372%	-1.141	-1.079	84.510%	0.001	-0.002	0.076	0.048
σ		0.641%	0.163	0.185	0.649%	0.004	0.003	0.014	0.017
%RSD		0.759	14.290	17.160	0.768	249.600	166.700	18.950	35.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:06	83.892%	0.313	0.186	0.180	0.181	0.132	89.414%	89.611%
2	14:44:25	84.168%	0.511	0.248	0.273	0.149	0.154	91.322%	92.385%
3	14:44:44	85.034%	0.503	0.268	0.265	0.119	0.166	91.871%	92.456%
x		84.365%	0.442	0.234	0.239	0.150	0.151	90.869%	91.484%
σ		0.596%	0.112	0.042	0.052	0.031	0.017	1.290%	1.622%
%RSD		0.707	25.340	18.160	21.590	20.440	11.260	1.419	1.774
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:44:06	0.021	0.011	0.094	0.058	0.070	86.943%		
2	14:44:25	0.021	0.010	0.082	0.069	0.065	88.070%		
3	14:44:44	0.011	0.014	0.071	0.069	0.070	88.399%		
x		0.018	0.012	0.082	0.066	0.068	87.804%		
σ		0.006	0.002	0.011	0.006	0.003	0.763%		
%RSD		33.960	15.230	13.800	9.640	3.780	0.869		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	88.860%	-0.009	28.340	28.490	0.000	28330.000	12310.000	12160.000
2	14:48:12	89.101%	-0.003	29.200	30.880	0.000	29530.000	12690.000	12380.000
3	14:48:31	87.778%	-0.014	30.460	31.210	0.000	28570.000	12810.000	13050.000
x		88.580%	-0.009	29.330	30.190	0.000	28810.000	12600.000	12530.000
σ		0.705%	0.005	1.065	1.486	0.000	635.000	264.000	464.100
%RSD		0.796	63.680	3.630	4.921	0.000	2.204	2.095	3.704

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	42.720	4772.000	0.000	6058.000	101500.000	99200.000	80.079%	1.317
2	14:48:12	42.510	4689.000	0.000	6215.000	103800.000	100900.000	76.579%	1.368
3	14:48:31	44.020	4838.000	0.000	6563.000	111600.000	105900.000	72.954%	1.517
x		43.080	4767.000	0.000	6279.000	105600.000	102000.000	76.537%	1.401
σ		0.816	74.540	0.000	258.400	5311.000	3479.000	3.563%	0.104
%RSD		1.893	1.564	0.000	4.116	5.029	3.410	4.655	7.442

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	-0.254	2.877	12.970	108.000	703.300	0.360	0.792	0.530
2	14:48:12	0.655	2.877	13.260	116.500	684.700	0.323	1.094	0.609
3	14:48:31	-0.594	2.987	13.990	118.300	714.700	0.347	0.753	0.613
x		-0.065	2.914	13.410	114.300	700.900	0.343	0.879	0.584
σ		0.646	0.063	0.528	5.467	15.100	0.019	0.187	0.047
%RSD		999.400	2.170	3.941	4.784	2.155	5.594	21.200	8.009

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	0.657	4.788	4.738	-0.729	-1.116	0.406	0.000	205.900
2	14:48:12	0.575	4.929	4.846	-0.529	-1.099	0.541	0.000	207.700
3	14:48:31	0.617	5.041	5.244	0.064	-1.213	0.502	0.000	205.600
x		0.616	4.919	4.943	-0.398	-1.143	0.483	0.000	206.400
σ		0.041	0.127	0.266	0.413	0.062	0.069	0.000	1.097
%RSD		6.699	2.579	5.390	103.700	5.389	14.330	0.000	0.531

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	81.591%	-1.022	-0.991	79.850%	0.007	-0.003	0.044	0.041
2	14:48:12	82.369%	-0.923	-0.815	80.468%	0.004	0.011	-0.036	-0.019
3	14:48:31	82.627%	-0.903	-0.699	80.539%	0.004	0.005	0.087	0.048
x		82.196%	-0.950	-0.835	80.285%	0.005	0.004	0.031	0.024
σ		0.539%	0.064	0.147	0.379%	0.002	0.007	0.063	0.037
%RSD		0.656	6.723	17.550	0.472	38.420	160.200	198.800	156.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	80.450%	0.233	0.142	0.197	43.900	44.020	88.170%	89.181%
2	14:48:12	82.955%	0.223	0.145	0.221	43.750	42.630	91.317%	91.875%
3	14:48:31	83.875%	0.243	0.206	0.203	43.350	43.610	91.913%	93.013%
x		82.427%	0.233	0.164	0.207	43.670	43.420	90.467%	91.356%
σ		1.773%	0.010	0.036	0.013	0.287	0.712	2.011%	1.968%
%RSD		2.151	4.217	22.050	6.044	0.657	1.641	2.223	2.154

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:53	0.008	0.013	0.342	0.250	0.300	82.265%
2	14:48:12	0.002	0.022	0.344	0.277	0.300	83.138%
3	14:48:31	0.012	0.010	0.367	0.293	0.327	84.673%
x		0.007	0.015	0.351	0.273	0.309	83.359%
σ		0.005	0.006	0.014	0.021	0.015	1.219%
%RSD		74.750	41.260	3.998	7.865	5.010	1.462

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:40	92.926%	0.012	25.240	24.500	0.000	27580.000	10910.000	11220.000
2	14:51:59	90.629%	0.008	23.630	25.460	0.000	29210.000	11620.000	11640.000
3	14:52:18	87.323%	-0.020	25.940	25.600	0.000	29910.000	11860.000	12220.000
x		90.293%	0.000	24.940	25.190	0.000	28900.000	11460.000	11700.000
σ		2.817%	0.017	1.185	0.601	0.000	1193.000	494.500	503.600
%RSD		3.119	13760.000	4.750	2.387	0.000	4.128	4.314	4.306
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:40	71.170	4867.000	0.000	3332.000	87440.000	85600.000	73.601%	1.738
2	14:51:59	70.300	5044.000	0.000	3396.000	90590.000	88230.000	73.858%	1.921
3	14:52:18	73.540	5171.000	0.000	3527.000	91910.000	90470.000	72.635%	2.030
x		71.670	5027.000	0.000	3418.000	89980.000	88100.000	73.365%	1.896
σ		1.678	152.500	0.000	99.050	2296.000	2438.000	0.645%	0.148
%RSD		2.341	3.034	0.000	2.898	2.551	2.767	0.879	7.803
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:40	-1.538	3.828	16.870	163.100	698.300	0.307	1.313	0.548
2	14:51:59	-0.732	3.886	16.740	155.300	634.600	0.279	0.962	0.509
3	14:52:18	0.548	4.033	16.700	156.600	623.900	0.270	1.027	0.528
x		-0.574	3.916	16.770	158.300	652.300	0.285	1.100	0.528
σ		1.052	0.106	0.088	4.183	40.210	0.019	0.187	0.019
%RSD		183.400	2.710	0.523	2.642	6.165	6.738	16.960	3.637
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:40	0.602	3.652	3.578	0.605	-1.102	0.292	0.000	155.800
2	14:51:59	0.530	3.772	3.578	-0.205	-0.738	0.672	0.000	156.100
3	14:52:18	0.501	3.797	3.639	0.235	-1.091	0.482	0.000	157.000
x		0.544	3.740	3.599	0.212	-0.977	0.482	0.000	156.300
σ		0.052	0.077	0.035	0.405	0.207	0.190	0.000	0.626
%RSD		9.490	2.072	0.980	191.400	21.220	39.380	0.000	0.400
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:40	83.927%	-0.087	-0.174	81.342%	0.011	-0.001	-0.042	-0.017
2	14:51:59	84.383%	-0.043	-0.044	82.428%	-0.000	-0.001	0.032	0.026
3	14:52:18	84.513%	0.020	0.140	82.331%	0.002	0.000	0.039	0.011
x		84.274%	-0.037	-0.026	82.034%	0.004	-0.001	0.009	0.007
σ		0.308%	0.053	0.158	0.601%	0.006	0.001	0.045	0.022
%RSD		0.365	145.700	606.300	0.733	148.500	89.240	476.800	322.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:40	82.747%	0.056	0.032	0.058	33.800	34.270	90.923%	92.379%
2	14:51:59	84.654%	0.162	0.058	0.095	34.710	34.160	93.632%	95.148%
3	14:52:18	85.397%	0.173	0.049	0.054	34.610	34.560	93.814%	94.877%
x		84.266%	0.130	0.046	0.069	34.370	34.330	92.790%	94.135%
σ		1.367%	0.064	0.013	0.022	0.501	0.208	1.619%	1.527%
%RSD		1.622	49.400	28.420	32.370	1.457	0.605	1.745	1.622
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:51:40	0.008	0.006	0.268	0.260	0.263	87.489%		
2	14:51:59	0.007	0.009	0.301	0.284	0.272	86.743%		
3	14:52:18	0.010	0.008	0.277	0.265	0.260	91.822%		
x		0.008	0.008	0.282	0.270	0.265	88.685%		
σ		0.002	0.002	0.017	0.013	0.006	2.742%		
%RSD		18.630	24.590	6.061	4.696	2.342	3.092		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	95.615%	-0.017	14.000	14.700	0.000	26180.000	17950.000	17590.000
2	14:55:46	94.973%	-0.011	15.850	15.350	0.000	27030.000	18510.000	18760.000
3	14:56:05	90.452%	-0.009	15.930	16.090	0.000	27080.000	18560.000	19430.000
x		93.680%	-0.012	15.260	15.380	0.000	26770.000	18340.000	18590.000
σ		2.814%	0.004	1.094	0.692	0.000	504.400	337.300	931.700
%RSD		3.004	32.600	7.168	4.501	0.000	1.885	1.839	5.010

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	15.970	5314.000	0.000	3577.000	88010.000	85500.000	83.963%	0.663
2	14:55:46	27.510	5485.000	0.000	3865.000	97080.000	94450.000	75.333%	0.758
3	14:56:05	16.480	5730.000	0.000	3849.000	97250.000	94940.000	75.280%	0.874
x		19.990	5509.000	0.000	3764.000	94110.000	91630.000	78.192%	0.765
σ		6.519	209.200	0.000	162.100	5288.000	5314.000	4.998%	0.106
%RSD		32.610	3.797	0.000	4.306	5.619	5.800	6.392	13.790

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	-0.017	1.678	10.130	42.360	568.600	0.242	0.932	0.871
2	14:55:46	-0.838	1.812	11.000	49.910	599.600	0.255	1.291	0.963
3	14:56:05	0.199	1.892	10.840	47.290	576.900	0.245	1.012	0.787
x		-0.219	1.794	10.650	46.520	581.700	0.247	1.078	0.874
σ		0.547	0.108	0.465	3.837	16.070	0.007	0.189	0.088
%RSD		250.300	6.033	4.361	8.248	2.762	2.807	17.510	10.040

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	0.781	11.450	11.100	-0.429	-1.224	0.321	0.000	153.200
2	14:55:46	0.915	11.520	12.290	-0.053	-1.050	0.429	0.000	154.300
3	14:56:05	0.889	11.650	12.870	-0.297	-1.289	0.593	0.000	153.900
x		0.862	11.540	12.090	-0.259	-1.188	0.447	0.000	153.800
σ		0.071	0.101	0.900	0.191	0.123	0.137	0.000	0.589
%RSD		8.200	0.872	7.447	73.600	10.390	30.600	0.000	0.383

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	83.388%	-1.572	-1.485	82.222%	0.007	0.003	0.039	0.006
2	14:55:46	84.652%	-1.389	-1.339	82.628%	0.003	0.002	0.060	0.032
3	14:56:05	84.517%	-1.359	-1.308	82.195%	-0.000	0.004	-0.019	-0.009
x		84.186%	-1.440	-1.377	82.348%	0.003	0.003	0.027	0.010
σ		0.694%	0.115	0.095	0.242%	0.004	0.001	0.041	0.021
%RSD		0.824	7.997	6.870	0.294	115.200	30.750	151.800	212.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	81.814%	0.182	0.016	0.021	32.730	30.630	88.999%	89.155%
2	14:55:46	82.485%	0.152	0.018	0.046	31.600	31.790	89.871%	90.304%
3	14:56:05	83.226%	0.182	0.023	0.030	31.450	31.970	91.161%	91.825%
x		82.509%	0.172	0.019	0.032	31.930	31.460	90.010%	90.428%
σ		0.706%	0.017	0.004	0.012	0.698	0.726	1.088%	1.340%
%RSD		0.856	10.010	18.380	38.360	2.187	2.307	1.208	1.482

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:27	0.002	0.007	0.258	0.270	0.242	79.662%
2	14:55:46	0.012	0.012	0.281	0.262	0.252	78.480%
3	14:56:05	0.006	0.006	0.242	0.232	0.241	79.683%
x		0.006	0.008	0.260	0.255	0.245	79.275%
σ		0.005	0.003	0.019	0.021	0.006	0.689%
%RSD		74.500	35.590	7.397	8.047	2.421	0.869

CCV 1594026 6/3/2015 2:59:03 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	14:59:03	98.961%	95.730	96.950	95.890	0.000	45710.000	44340.000	44660.000
2	14:59:23	92.413%	94.250	98.470	100.400	0.000	48390.000	48280.000	48190.000
3	14:59:42	98.895%	90.970	93.490	94.620	0.000	45420.000	46900.000	48520.000
x		96.756%	93.650%	96.305%	96.968%	0.000	93.008%	93.016%	94.252%
σ		3.761%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.888	2.604	2.647	3.130	0.000	3.520	4.293	4.537

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:03	439.800	4791.000	0.000	46040.000	46390.000	45710.000	90.203%	98.870
2	14:59:23	484.800	5199.000	0.000	49690.000	50500.000	50730.000	83.428%	105.600
3	14:59:42	477.700	4957.000	0.000	50710.000	51760.000	50930.000	78.302%	107.800
x		93.484%	99.646%	0.000	97.625%	99.098%	98.250%	83.978%	104.089%
σ		n/a	n/a	0.000	n/a	n/a	n/a	5.969%	n/a
%RSD		5.180	4.116	0.000	5.026	5.665	6.024	7.108	4.466

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:03	93.810	96.450	477.100	24090.000	23960.000	95.270	96.420	95.760
2	14:59:23	99.810	101.500	497.700	24710.000	24480.000	96.880	98.580	98.870
3	14:59:42	101.500	104.800	511.400	25800.000	26330.000	102.500	104.100	105.600
x		98.371%	100.925%	99.079%	99.468%	99.702%	98.230%	99.711%	100.061%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.108	4.170	3.490	3.483	4.991	3.887	3.986	5.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:03	97.420	90.920	91.980	95.820	96.860	97.810	0.000	92.790
2	14:59:23	99.850	94.640	95.700	98.240	98.480	99.640	0.000	94.880
3	14:59:42	104.800	98.830	100.200	98.100	100.100	98.020	0.000	93.390
x		100.698%	94.797%	95.955%	97.385%	98.491%	98.490%	0.000	93.687%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.748	4.173	4.279	1.396	1.665	1.018	0.000	1.148

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:03	87.561%	93.790	95.530	84.514%	94.610	96.440	99.130	98.740
2	14:59:23	87.620%	94.250	95.430	85.331%	95.900	97.260	99.750	99.420
3	14:59:42	89.953%	95.960	95.200	86.418%	95.330	98.510	97.850	98.420
x		88.378%	94.664%	95.385%	85.421%	95.280%	97.403%	98.910%	98.863%
σ		1.364%	n/a	n/a	0.956%	n/a	n/a	n/a	n/a
%RSD		1.544	1.211	0.178	1.119	0.683	1.073	0.979	0.518

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:03	80.000%	97.750	92.380	92.910	94.070	95.190	89.314%	88.658%
2	14:59:23	81.559%	99.120	92.800	92.500	94.070	94.070	90.944%	90.845%
3	14:59:42	82.088%	99.530	94.470	94.160	94.450	94.420	92.719%	93.130%
x		81.216%	98.799%	93.219%	93.193%	94.198%	94.561%	90.992%	90.878%
σ		1.085%	n/a	n/a	n/a	n/a	n/a	1.703%	2.236%
%RSD		1.336	0.944	1.187	0.929	0.236	0.604	1.872	2.461

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:03	100.300	100.500	100.700	100.900	100.900	81.979%
2	14:59:23	103.300	102.200	103.700	104.600	104.700	83.352%
3	14:59:42	106.700	106.300	107.000	107.200	106.900	82.217%
x		103.428%	103.030%	103.770%	104.222%	104.181%	82.516%
σ		n/a	n/a	n/a	n/a	n/a	0.734%
%RSD		3.093	2.889	3.057	3.022	2.919	0.889

CCB5 6/3/2015 3:05:31 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	15:05:50	106.794%	-0.006	2.003	1.706	0.000	1.769	0.869	0.422
2	15:06:09	99.737%	-0.029	1.361	1.370	0.000	1.413	0.558	0.615
3	15:06:28	106.558%	-0.020	1.450	1.640	0.000	1.342	0.695	0.571
x		104.363%	-0.018	1.605	1.572	0.000	1.508	0.707	0.536
σ		4.008%	0.012	0.348	0.178	0.000	0.229	0.156	0.101
%RSD		3.841	63.010	21.690	11.320	0.000	15.180	22.020	18.820

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:50	-0.113	-113.100	0.000	2.382	8.694	2.826	93.887%	-0.126
2	15:06:09	-0.117	-110.100	0.000	1.638	9.793	2.425	94.323%	-0.126
3	15:06:28	-0.137	-110.700	0.000	0.693	4.363	1.471	92.080%	-0.148
x		-0.123	-111.300	0.000	1.571	7.617	2.241	93.430%	-0.133
σ		0.013	1.567	0.000	0.847	2.871	0.696	1.189%	0.013
%RSD		10.230	1.408	0.000	53.900	37.690	31.060	1.273	9.537

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:50	-0.024	-0.078	0.037	-7.733	1.276	0.005	-0.011	-0.013
2	15:06:09	-0.032	-0.111	0.034	-10.580	-0.781	-0.001	-0.030	-0.004
3	15:06:28	-0.039	-0.085	0.053	-10.510	-0.214	-0.002	-0.020	-0.013
x		-0.032	-0.091	0.041	-9.604	0.094	0.001	-0.020	-0.010
σ		0.008	0.017	0.011	1.621	1.062	0.004	0.010	0.005
%RSD		24.310	18.880	25.530	16.880	1134.000	680.400	48.370	50.660

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:50	-0.005	0.115	0.080	-0.024	-0.905	0.259	0.000	0.013
2	15:06:09	-0.031	0.153	0.123	0.077	-0.889	0.269	0.000	0.016
3	15:06:28	0.002	0.099	0.126	0.101	-0.709	0.266	0.000	0.007
x		-0.011	0.123	0.109	0.051	-0.834	0.265	0.000	0.012
σ		0.017	0.028	0.025	0.066	0.109	0.005	0.000	0.005
%RSD		151.400	22.680	23.280	129.200	13.080	1.815	0.000	38.410

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:50	92.880%	-1.262	-1.171	93.106%	0.004	0.008	0.051	0.041
2	15:06:09	93.236%	-1.081	-0.998	93.084%	0.014	0.011	0.063	0.038
3	15:06:28	94.057%	-1.095	-1.025	94.053%	0.023	0.016	-0.005	-0.008
x		93.391%	-1.146	-1.065	93.414%	0.014	0.012	0.036	0.024
σ		0.603%	0.101	0.093	0.553%	0.010	0.004	0.036	0.028
%RSD		0.646	8.771	8.733	0.592	70.950	31.300	99.650	117.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:50	90.833%	-0.036	0.667	0.687	0.004	0.003	90.814%	91.025%
2	15:06:09	92.935%	-0.015	0.605	0.670	0.014	0.013	91.963%	92.690%
3	15:06:28	92.459%	-0.015	0.721	0.652	0.003	0.019	92.746%	93.362%
x		92.076%	-0.022	0.664	0.669	0.007	0.012	91.841%	92.359%
σ		1.102%	0.012	0.058	0.017	0.006	0.008	0.972%	1.203%
%RSD		1.197	56.400	8.775	2.603	86.250	66.860	1.058	1.303

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:50	0.009	0.012	0.004	-0.001	-0.002	92.913%
2	15:06:09	0.017	0.015	-0.003	-0.001	-0.003	94.236%
3	15:06:28	0.008	0.011	0.008	-0.002	-0.002	92.934%
x		0.011	0.013	0.003	-0.002	-0.002	93.361%
σ		0.005	0.002	0.005	0.001	0.001	0.758%
%RSD		42.730	17.260	169.000	45.860	41.480	0.812

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:40	101.168%	-0.003	122.800	132.300	0.000	36040.000	21380.000	21770.000
2	15:09:59	97.658%	-0.001	112.300	118.900	0.000	35240.000	20140.000	20170.000
3	15:10:18	91.818%	-0.027	127.600	132.800	0.000	36590.000	21320.000	21690.000
x		96.881%	-0.010	120.900	128.000	0.000	35960.000	20950.000	21210.000
σ		4.723%	0.014	7.845	7.888	0.000	680.100	700.800	899.000
%RSD		4.875	136.500	6.488	6.163	0.000	1.892	3.346	4.239
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:40	2.771	4531.000	0.000	7798.000	119800.000	114800.000	78.409%	0.513
2	15:09:59	2.594	4471.000	0.000	7789.000	119100.000	117400.000	77.890%	0.336
3	15:10:18	2.890	4692.000	0.000	7995.000	119300.000	117300.000	77.965%	0.614
x		2.752	4564.000	0.000	7861.000	119400.000	116500.000	78.088%	0.488
σ		0.149	114.300	0.000	116.600	357.300	1482.000	0.281%	0.141
%RSD		5.410	2.503	0.000	1.484	0.299	1.272	0.359	28.840
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:40	-0.356	1.196	119.100	361.400	1056.000	0.620	2.261	0.497
2	15:09:59	0.698	1.122	123.200	368.100	1062.000	0.597	2.148	0.502
3	15:10:18	-0.272	1.078	121.100	353.800	989.300	0.560	2.161	0.463
x		0.024	1.132	121.100	361.100	1036.000	0.592	2.190	0.487
σ		0.586	0.060	2.038	7.121	40.350	0.030	0.062	0.021
%RSD		2485.000	5.299	1.682	1.972	3.896	5.078	2.827	4.302
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:40	0.603	10.200	10.340	0.141	-1.099	0.611	0.000	283.000
2	15:09:59	0.517	10.040	10.160	0.247	-0.818	0.829	0.000	285.300
3	15:10:18	0.518	10.370	10.120	-0.443	-0.929	0.633	0.000	287.000
x		0.546	10.200	10.210	-0.019	-0.949	0.691	0.000	285.100
σ		0.050	0.164	0.119	0.371	0.141	0.120	0.000	2.004
%RSD		9.081	1.605	1.162	2004.000	14.920	17.380	0.000	0.703
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:40	85.841%	-1.155	-1.094	83.358%	0.010	0.005	0.074	0.058
2	15:09:59	86.865%	-0.883	-0.911	83.707%	0.007	0.003	0.052	0.038
3	15:10:18	86.521%	-0.924	-0.898	84.724%	0.006	0.008	0.001	-0.017
x		86.409%	-0.987	-0.968	83.930%	0.008	0.005	0.042	0.026
σ		0.521%	0.147	0.110	0.710%	0.002	0.002	0.037	0.039
%RSD		0.603	14.880	11.320	0.846	22.640	44.640	88.440	147.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:09:40	83.218%	0.400	2.701	2.773	44.670	44.560	90.067%	90.412%
2	15:09:59	85.152%	0.499	2.549	2.677	44.660	45.380	93.640%	93.074%
3	15:10:18	87.104%	0.546	2.401	2.452	44.080	44.620	93.744%	94.573%
x		85.158%	0.481	2.550	2.634	44.470	44.850	92.484%	92.687%
σ		1.943%	0.075	0.150	0.165	0.339	0.458	2.094%	2.107%
%RSD		2.281	15.520	5.889	6.255	0.762	1.020	2.264	2.274
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:09:40	0.121	0.121	0.103	0.112	0.097	82.454%		
2	15:09:59	0.130	0.119	0.089	0.095	0.084	83.810%		
3	15:10:18	0.132	0.135	0.085	0.068	0.079	86.106%		
x		0.128	0.125	0.092	0.092	0.087	84.123%		
σ		0.005	0.009	0.010	0.022	0.009	1.846%		
%RSD		4.285	6.878	10.710	23.990	10.530	2.194		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	92.891%	-0.016	7.433	7.757	0.000	4916.000	4245.000	4401.000
2	15:13:47	99.427%	-0.013	6.601	7.598	0.000	4606.000	4203.000	4168.000
3	15:14:06	89.829%	0.008	6.426	6.719	0.000	4573.000	4028.000	4073.000
x		94.049%	-0.007	6.820	7.358	0.000	4698.000	4158.000	4214.000
σ		4.903%	0.013	0.538	0.559	0.000	189.300	115.200	168.800
%RSD		5.213	187.800	7.884	7.599	0.000	4.030	2.771	4.006

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	15.130	4626.000	0.000	1695.000	60800.000	60130.000	76.967%	0.584
2	15:13:47	17.940	4317.000	0.000	1695.000	61870.000	60470.000	74.274%	1.719
3	15:14:06	13.990	4275.000	0.000	1584.000	56240.000	55920.000	80.958%	0.586
x		15.690	4406.000	0.000	1658.000	59640.000	58840.000	77.400%	0.963
σ		2.033	191.900	0.000	63.950	2989.000	2535.000	3.363%	0.655
%RSD		12.960	4.354	0.000	3.857	5.011	4.308	4.345	68.010

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	1.507	1.374	16.700	29.940	389.200	0.131	0.505	0.152
2	15:13:47	0.200	1.252	16.850	30.320	387.000	0.167	0.543	0.228
3	15:14:06	-0.200	1.210	16.420	24.730	362.000	0.138	0.581	0.164
x		0.502	1.279	16.660	28.330	379.400	0.145	0.543	0.181
σ		0.893	0.085	0.219	3.125	15.090	0.019	0.038	0.040
%RSD		177.700	6.656	1.312	11.030	3.979	13.380	7.014	22.310

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	0.187	4.182	3.974	0.029	-1.321	0.504	0.000	107.900
2	15:13:47	0.277	4.145	4.375	0.260	-1.001	0.528	0.000	106.900
3	15:14:06	0.241	4.030	3.873	-0.360	-1.072	0.462	0.000	110.200
x		0.235	4.119	4.074	-0.024	-1.132	0.498	0.000	108.300
σ		0.046	0.079	0.266	0.313	0.168	0.034	0.000	1.717
%RSD		19.430	1.923	6.521	1306.000	14.860	6.729	0.000	1.585

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	82.873%	-1.360	-1.231	82.729%	-0.006	-0.002	0.046	0.030
2	15:13:47	85.241%	-1.134	-1.104	84.974%	0.003	-0.004	0.075	0.043
3	15:14:06	84.420%	-1.102	-1.021	83.194%	-0.000	-0.003	0.011	0.014
x		84.178%	-1.199	-1.119	83.632%	-0.001	-0.003	0.044	0.029
σ		1.203%	0.140	0.106	1.185%	0.005	0.001	0.032	0.014
%RSD		1.429	11.710	9.447	1.417	422.100	36.930	73.160	49.360

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	82.870%	0.204	0.772	0.798	16.620	16.980	88.749%	88.683%
2	15:13:47	84.670%	0.258	0.776	0.784	16.670	17.100	92.330%	92.545%
3	15:14:06	85.778%	0.284	0.719	0.673	16.980	16.900	93.091%	94.018%
x		84.439%	0.248	0.756	0.752	16.760	16.990	91.390%	91.749%
σ		1.468%	0.041	0.032	0.068	0.195	0.103	2.319%	2.755%
%RSD		1.738	16.370	4.238	9.063	1.163	0.608	2.537	3.003

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:27	0.006	0.005	0.071	0.052	0.061	82.605%
2	15:13:47	0.010	0.009	0.060	0.074	0.061	84.280%
3	15:14:06	0.012	0.009	0.080	0.080	0.075	86.726%
x		0.009	0.008	0.070	0.069	0.066	84.537%
σ		0.003	0.002	0.010	0.015	0.008	2.073%
%RSD		34.550	31.020	14.580	21.620	12.550	2.452

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	91.230%	-0.010	109.400	115.100	0.000	39580.000	20850.000	21390.000
2	15:17:35	89.671%	-0.015	108.600	108.500	0.000	38830.000	20220.000	20870.000
3	15:17:54	90.031%	-0.027	102.200	110.100	0.000	39170.000	20690.000	20590.000
x		90.311%	-0.017	106.700	111.200	0.000	39190.000	20580.000	20950.000
σ		0.816%	0.009	3.928	3.446	0.000	373.900	325.400	407.500
%RSD		0.904	51.090	3.680	3.098	0.000	0.954	1.581	1.945

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	23.260	3798.000	0.000	20130.000	74170.000	72910.000	75.437%	0.714
2	15:17:35	21.460	3667.000	0.000	19950.000	72290.000	71530.000	75.620%	1.085
3	15:17:54	21.060	3627.000	0.000	19070.000	67700.000	67200.000	81.010%	0.814
x		21.930	3697.000	0.000	19720.000	71390.000	70550.000	77.355%	0.871
σ		1.172	89.550	0.000	569.700	3324.000	2979.000	3.166%	0.192
%RSD		5.345	2.422	0.000	2.889	4.656	4.223	4.093	22.030

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	1.656	4.425	6.197	33.810	462.700	0.326	1.918	1.067
2	15:17:35	0.931	4.382	6.246	30.850	419.000	0.297	1.550	1.050
3	15:17:54	2.021	3.925	5.789	23.950	390.900	0.320	1.648	1.034
x		1.536	4.244	6.077	29.540	424.200	0.315	1.705	1.051
σ		0.555	0.277	0.251	5.055	36.190	0.015	0.191	0.017
%RSD		36.130	6.528	4.127	17.120	8.530	4.825	11.170	1.573

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	1.058	3.970	3.776	-0.323	-1.035	0.112	0.000	467.300
2	15:17:35	0.908	3.942	3.758	-0.125	-0.908	0.477	0.000	465.500
3	15:17:54	1.018	3.796	4.199	-0.001	-0.989	0.297	0.000	460.000
x		0.995	3.902	3.911	-0.150	-0.977	0.295	0.000	464.300
σ		0.078	0.093	0.249	0.162	0.064	0.182	0.000	3.833
%RSD		7.818	2.391	6.377	108.400	6.587	61.760	0.000	0.826

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	83.724%	2.192	2.175	82.702%	0.003	-0.006	0.052	0.025
2	15:17:35	84.239%	2.310	2.169	82.862%	-0.003	-0.004	0.015	-0.011
3	15:17:54	84.953%	2.054	2.261	83.407%	-0.000	-0.005	0.025	0.027
x		84.306%	2.185	2.202	82.991%	-0.000	-0.005	0.031	0.014
σ		0.617%	0.128	0.052	0.370%	0.003	0.001	0.019	0.021
%RSD		0.732	5.875	2.347	0.445	761.000	19.270	61.980	155.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	83.425%	0.300	0.791	0.805	44.450	44.080	91.329%	92.425%
2	15:17:35	85.244%	0.349	0.866	0.907	44.470	43.860	92.968%	95.314%
3	15:17:54	85.477%	0.352	0.800	0.861	44.020	44.790	93.508%	95.803%
x		84.716%	0.334	0.819	0.857	44.310	44.240	92.602%	94.514%
σ		1.124%	0.029	0.041	0.051	0.253	0.485	1.135%	1.826%
%RSD		1.326	8.697	4.960	5.961	0.570	1.097	1.226	1.932

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:16	0.053	0.041	0.143	0.117	0.125	83.084%
2	15:17:35	0.036	0.042	0.128	0.132	0.132	85.919%
3	15:17:54	0.050	0.039	0.130	0.119	0.118	87.733%
x		0.046	0.041	0.133	0.123	0.125	85.579%
σ		0.009	0.001	0.008	0.008	0.007	2.343%
%RSD		19.000	3.629	6.136	6.503	5.544	2.738

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:04	88.245%	-0.014	268.800	284.600	0.000	50090.000	15430.000	15430.000
2	15:21:23	91.068%	-0.027	261.000	274.500	0.000	44900.000	14040.000	14460.000
3	15:21:43	92.806%	-0.016	261.700	273.800	0.000	46490.000	14510.000	14780.000
x		90.706%	-0.019	263.800	277.600	0.000	47160.000	14660.000	14890.000
σ		2.302%	0.007	4.368	6.038	0.000	2656.000	708.400	492.800
%RSD		2.538	35.970	1.656	2.175	0.000	5.633	4.832	3.310
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:04	2.073	5015.000	0.000	8893.000	127000.000	127300.000	76.948%	0.484
2	15:21:23	1.561	4713.000	0.000	8237.000	117100.000	116500.000	82.935%	0.660
3	15:21:43	1.890	4709.000	0.000	8546.000	125500.000	122900.000	75.146%	0.601
x		1.841	4813.000	0.000	8558.000	123200.000	122200.000	78.343%	0.582
σ		0.259	175.400	0.000	328.000	5348.000	5418.000	4.078%	0.090
%RSD		14.070	3.644	0.000	3.832	4.341	4.433	5.205	15.380
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:04	0.446	54.760	0.377	7.076	714.200	0.772	1.578	0.398
2	15:21:23	0.819	50.950	0.349	0.928	637.600	0.669	1.608	0.436
3	15:21:43	-4.117	55.870	0.442	7.933	720.900	0.753	1.762	0.473
x		-0.951	53.860	0.389	5.312	690.900	0.731	1.649	0.436
σ		2.749	2.580	0.048	3.821	46.260	0.055	0.099	0.038
%RSD		289.000	4.790	12.210	71.930	6.696	7.520	5.985	8.633
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:04	0.401	9.057	8.981	-0.531	-1.404	0.599	0.000	222.700
2	15:21:23	0.316	8.577	8.759	0.219	-1.062	0.437	0.000	228.000
3	15:21:43	0.375	9.435	9.411	0.234	-1.062	0.461	0.000	225.500
x		0.364	9.023	9.050	-0.026	-1.176	0.499	0.000	225.400
σ		0.044	0.430	0.332	0.438	0.197	0.087	0.000	2.657
%RSD		11.990	4.769	3.665	1676.000	16.760	17.530	0.000	1.179
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:04	84.797%	-1.543	-1.431	82.924%	0.009	-0.001	0.036	0.032
2	15:21:23	83.642%	-1.375	-1.295	82.356%	0.007	0.014	-0.030	-0.016
3	15:21:43	85.823%	-1.376	-1.333	83.773%	0.007	0.016	-0.004	0.019
x		84.754%	-1.431	-1.353	83.018%	0.008	0.010	0.001	0.012
σ		1.091%	0.097	0.070	0.713%	0.001	0.009	0.033	0.025
%RSD		1.287	6.752	5.198	0.859	12.900	96.520	5131.000	216.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:04	84.244%	0.104	0.142	0.157	46.050	47.010	91.117%	91.436%
2	15:21:23	84.345%	0.191	0.195	0.242	45.890	47.090	92.630%	93.668%
3	15:21:43	85.822%	0.147	0.169	0.232	47.090	46.410	93.214%	95.128%
x		84.804%	0.147	0.169	0.210	46.340	46.840	92.320%	93.411%
σ		0.884%	0.043	0.026	0.047	0.649	0.369	1.082%	1.859%
%RSD		1.042	29.410	15.640	22.150	1.402	0.788	1.172	1.991
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:21:04	0.008	0.008	0.044	0.043	0.040	83.222%		
2	15:21:23	0.003	0.006	0.042	0.031	0.030	84.479%		
3	15:21:43	0.000	0.010	0.038	0.029	0.034	86.350%		
x		0.004	0.008	0.041	0.034	0.035	84.684%		
σ		0.004	0.002	0.003	0.008	0.005	1.574%		
%RSD		97.290	29.150	7.095	22.590	13.630	1.859		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:24:53	100.055%	0.023	27.380	27.030	0.000	102.900	5.821	5.131
2	15:25:12	98.437%	0.003	24.740	25.490	0.000	96.590	5.349	5.243
3	15:25:31	98.488%	-0.028	24.220	24.900	0.000	98.660	5.231	5.180
x		98.993%	-0.001	25.440	25.810	0.000	99.380	5.467	5.185
σ		0.920%	0.026	1.696	1.098	0.000	3.209	0.312	0.056
%RSD		0.929	4721.000	6.664	4.255	0.000	3.229	5.714	1.082
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:24:53	8.669	-37.280	0.000	17.560	115.700	111.600	79.315%	0.163
2	15:25:12	8.504	-39.440	0.000	11.510	105.500	96.710	83.176%	0.081
3	15:25:31	8.416	-36.450	0.000	13.760	105.800	104.600	77.948%	0.099
x		8.529	-37.720	0.000	14.280	109.000	104.300	80.146%	0.114
σ		0.128	1.544	0.000	3.060	5.822	7.463	2.711%	0.043
%RSD		1.505	4.092	0.000	21.430	5.341	7.156	3.383	37.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:24:53	-0.030	0.943	0.369	3.909	9.284	0.009	0.029	0.242
2	15:25:12	-1.494	0.884	0.348	0.641	7.614	0.014	0.064	0.213
3	15:25:31	0.521	0.914	0.405	3.206	6.652	0.009	0.027	0.277
x		-0.334	0.914	0.374	2.585	7.850	0.010	0.040	0.244
σ		1.041	0.029	0.029	1.720	1.331	0.003	0.021	0.032
%RSD		311.700	3.174	7.677	66.520	16.960	26.670	51.500	13.160
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:24:53	0.265	2.382	2.548	-0.357	-0.925	0.142	0.000	0.227
2	15:25:12	0.276	2.536	2.449	0.029	-1.322	0.242	0.000	0.209
3	15:25:31	0.218	2.459	2.643	0.199	-1.174	0.296	0.000	0.204
x		0.253	2.459	2.547	-0.043	-1.141	0.227	0.000	0.213
σ		0.031	0.077	0.097	0.285	0.201	0.078	0.000	0.012
%RSD		12.140	3.134	3.819	665.200	17.590	34.480	0.000	5.666
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:24:53	86.552%	-1.669	-1.631	87.873%	0.007	0.005	0.086	0.061
2	15:25:12	87.415%	-1.627	-1.588	88.883%	0.005	0.006	-0.003	0.004
3	15:25:31	87.225%	-1.559	-1.478	88.410%	0.001	-0.002	-0.005	0.007
x		87.064%	-1.619	-1.566	88.389%	0.004	0.003	0.026	0.024
σ		0.453%	0.055	0.079	0.505%	0.003	0.004	0.052	0.032
%RSD		0.521	3.418	5.060	0.572	70.480	129.400	198.500	135.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:24:53	87.492%	3.577	0.059	0.038	0.128	0.140	92.197%	92.206%
2	15:25:12	88.308%	3.510	0.116	0.055	0.104	0.177	93.795%	94.229%
3	15:25:31	88.449%	3.703	0.141	0.157	0.175	0.188	95.294%	95.161%
x		88.083%	3.596	0.106	0.083	0.136	0.168	93.762%	93.865%
σ		0.517%	0.098	0.042	0.064	0.036	0.025	1.549%	1.511%
%RSD		0.586	2.727	39.690	76.710	26.540	14.820	1.652	1.609
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:24:53	-0.002	-0.002	0.098	0.074	0.099	90.524%		
2	15:25:12	-0.004	0.003	0.110	0.090	0.096	90.168%		
3	15:25:31	0.003	0.001	0.105	0.099	0.107	91.286%		
x		-0.001	0.001	0.104	0.087	0.101	90.659%		
σ		0.003	0.002	0.006	0.013	0.005	0.571%		
%RSD		358.700	416.400	5.323	14.510	5.450	0.630		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:41	95.420%	-0.022	32.970	37.640	0.000	79.510	1.010	1.392
2	15:29:01	98.322%	-0.002	36.430	38.660	0.000	80.910	1.030	0.669
3	15:29:20	94.906%	-0.033	36.360	36.940	0.000	80.190	0.763	0.831
x		96.216%	-0.019	35.260	37.750	0.000	80.200	0.935	0.964
σ		1.842%	0.016	1.977	0.864	0.000	0.699	0.149	0.379
%RSD		1.914	82.460	5.607	2.288	0.000	0.871	15.910	39.330
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:41	12.180	7.839	0.000	7.191	28.270	31.240	85.194%	0.126
2	15:29:01	11.300	7.394	0.000	7.151	19.230	30.160	81.832%	0.045
3	15:29:20	11.960	12.320	0.000	11.630	12.370	38.270	77.408%	0.017
x		11.810	9.183	0.000	8.659	19.960	33.220	81.478%	0.063
σ		0.457	2.722	0.000	2.577	7.976	4.405	3.905%	0.056
%RSD		3.865	29.650	0.000	29.770	39.970	13.260	4.793	89.770
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:41	-0.154	0.739	0.112	-9.780	-1.318	0.006	-0.031	0.061
2	15:29:01	-0.257	0.754	0.112	-10.010	-1.463	0.002	0.003	0.066
3	15:29:20	-0.402	0.797	0.100	-5.202	-0.740	0.006	0.002	0.084
x		-0.271	0.763	0.108	-8.330	-1.173	0.005	-0.009	0.070
σ		0.124	0.030	0.007	2.712	0.383	0.002	0.019	0.012
%RSD		45.980	3.984	6.366	32.550	32.620	44.730	225.200	16.930
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:41	0.061	1.862	1.666	-0.514	-1.581	0.031	0.000	0.087
2	15:29:01	0.037	1.734	1.862	0.486	-1.248	-0.065	0.000	0.079
3	15:29:20	0.133	1.720	2.014	-0.201	-1.504	0.134	0.000	0.077
x		0.077	1.772	1.847	-0.076	-1.444	0.033	0.000	0.081
σ		0.050	0.078	0.174	0.512	0.174	0.099	0.000	0.005
%RSD		64.410	4.417	9.442	669.200	12.060	298.100	0.000	6.142
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:41	84.864%	-1.800	-1.771	87.507%	-0.006	-0.003	0.057	0.041
2	15:29:01	87.134%	-1.687	-1.616	88.832%	-0.005	0.000	0.037	0.029
3	15:29:20	88.116%	-1.701	-1.639	88.931%	-0.003	-0.009	0.001	-0.005
x		86.705%	-1.730	-1.675	88.424%	-0.004	-0.004	0.032	0.022
σ		1.668%	0.062	0.084	0.795%	0.001	0.004	0.028	0.024
%RSD		1.923	3.576	5.006	0.899	30.860	114.000	88.690	109.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:41	87.163%	0.154	0.028	0.034	0.015	0.098	92.546%	93.034%
2	15:29:01	88.346%	0.120	0.041	0.048	0.065	0.074	94.603%	95.421%
3	15:29:20	89.292%	0.141	0.028	0.047	0.080	0.095	96.057%	96.584%
x		88.267%	0.138	0.032	0.043	0.053	0.089	94.402%	95.013%
σ		1.067%	0.017	0.008	0.008	0.034	0.013	1.764%	1.810%
%RSD		1.208	12.360	23.970	18.730	63.260	14.850	1.869	1.905
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:28:41	-0.005	-0.002	0.019	0.020	0.024	92.434%		
2	15:29:01	-0.005	-0.001	0.032	0.034	0.028	93.663%		
3	15:29:20	-0.004	-0.002	0.035	0.030	0.024	93.984%		
x		-0.004	-0.002	0.029	0.028	0.025	93.360%		
σ		0.001	0.001	0.009	0.008	0.002	0.818%		
%RSD		11.560	34.260	30.980	27.180	9.658	0.877		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:30	98.120%	-0.018	106.700	109.200	0.000	31910.000	11590.000	11700.000
2	15:32:49	101.130%	0.002	107.600	108.400	0.000	31040.000	11500.000	11770.000
3	15:33:09	93.924%	0.000	114.600	114.200	0.000	32940.000	12310.000	11980.000
x		97.725%	-0.005	109.600	110.600	0.000	31960.000	11800.000	11820.000
σ		3.620%	0.011	4.295	3.156	0.000	949.100	444.500	146.700
%RSD		3.704	213.500	3.918	2.853	0.000	2.969	3.767	1.241
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:30	124.600	919.200	0.000	2382.000	67090.000	67780.000	77.070%	1.766
2	15:32:49	119.900	866.800	0.000	2288.000	64400.000	62790.000	82.552%	2.047
3	15:33:09	123.500	900.900	0.000	2410.000	67930.000	66850.000	75.717%	2.099
x		122.700	895.600	0.000	2360.000	66470.000	65800.000	78.446%	1.971
σ		2.463	26.610	0.000	63.900	1842.000	2656.000	3.619%	0.179
%RSD		2.008	2.971	0.000	2.707	2.771	4.036	4.614	9.081
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:30	0.294	0.921	61.110	285.700	684.600	0.306	1.388	1.981
2	15:32:49	-0.753	0.813	58.350	259.100	637.700	0.314	1.152	1.808
3	15:33:09	-1.403	0.986	61.430	291.100	683.000	0.303	1.574	2.053
x		-0.621	0.907	60.300	278.700	668.400	0.308	1.371	1.947
σ		0.856	0.087	1.694	17.130	26.620	0.006	0.211	0.126
%RSD		138.000	9.611	2.809	6.146	3.983	1.881	15.420	6.453
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:30	1.995	6.395	6.389	0.316	-1.193	0.359	0.000	701.500
2	15:32:49	1.881	6.149	6.394	0.314	-1.139	0.661	0.000	691.300
3	15:33:09	1.930	6.401	6.172	1.463	-0.865	0.548	0.000	697.500
x		1.936	6.315	6.318	0.698	-1.066	0.523	0.000	696.800
σ		0.057	0.144	0.127	0.663	0.176	0.153	0.000	5.155
%RSD		2.964	2.284	2.002	94.960	16.510	29.160	0.000	0.740
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:30	83.846%	-0.491	-0.358	83.050%	-0.000	-0.005	0.142	0.112
2	15:32:49	86.649%	-0.389	-0.365	83.930%	-0.001	-0.004	0.080	0.055
3	15:33:09	85.657%	-0.377	-0.306	84.204%	0.010	-0.002	0.102	0.068
x		85.384%	-0.419	-0.343	83.728%	0.003	-0.004	0.108	0.078
σ		1.421%	0.062	0.032	0.603%	0.006	0.002	0.031	0.030
%RSD		1.664	14.900	9.460	0.720	231.400	39.810	28.840	37.960
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:30	84.079%	0.161	0.112	0.140	33.260	33.130	89.089%	89.839%
2	15:32:49	84.659%	0.171	0.099	0.191	32.760	33.250	91.114%	91.066%
3	15:33:09	85.021%	0.214	0.149	0.190	33.220	32.910	92.379%	92.645%
x		84.586%	0.182	0.120	0.174	33.080	33.100	90.861%	91.183%
σ		0.475%	0.028	0.026	0.029	0.278	0.170	1.660%	1.407%
%RSD		0.562	15.340	21.880	16.890	0.840	0.514	1.826	1.543
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:32:30	0.007	0.006	0.789	0.693	0.757	80.229%		
2	15:32:49	0.011	0.003	0.816	0.789	0.777	81.661%		
3	15:33:09	0.011	0.006	0.688	0.683	0.730	82.939%		
x		0.010	0.005	0.764	0.722	0.755	81.610%		
σ		0.002	0.002	0.068	0.059	0.024	1.356%		
%RSD		22.630	29.660	8.882	8.124	3.136	1.662		

180-44437-G-4-A 6/3/2015 3:35:59 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	15:36:18	96.576%	-0.012	113.400	121.800	0.000	34000.000	11640.000	11910.000
2	15:36:38	91.685%	-0.027	123.100	122.700	0.000	34320.000	11900.000	12030.000
3	15:36:57	99.371%	0.014	122.900	126.200	0.000	36010.000	12140.000	12100.000
x		95.877%	-0.008	119.800	123.500	0.000	34770.000	11890.000	12010.000
σ		3.890%	0.021	5.562	2.318	0.000	1083.000	248.900	93.510
%RSD		4.058	245.300	4.643	1.876	0.000	3.114	2.093	0.779

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:18	124.200	881.600	0.000	2338.000	72010.000	71520.000	86.927%	2.459
2	15:36:38	121.900	866.200	0.000	2376.000	72800.000	70740.000	83.448%	2.327
3	15:36:57	124.200	863.000	0.000	2496.000	76590.000	75680.000	74.232%	2.933
x		123.500	870.300	0.000	2403.000	73800.000	72650.000	81.536%	2.573
σ		1.343	9.940	0.000	82.230	2448.000	2657.000	6.560%	0.319
%RSD		1.088	1.142	0.000	3.422	3.317	3.658	8.046	12.390

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:18	0.263	1.172	47.830	309.600	767.600	0.344	1.371	2.339
2	15:36:38	2.225	1.092	48.360	339.200	758.300	0.324	1.313	2.445
3	15:36:57	1.307	0.975	54.500	375.000	807.300	0.358	1.620	2.738
x		1.265	1.080	50.230	341.300	777.700	0.342	1.435	2.507
σ		0.982	0.099	3.705	32.750	25.980	0.017	0.163	0.207
%RSD		77.590	9.163	7.376	9.597	3.340	5.072	11.370	8.246

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:18	2.274	6.970	6.763	1.545	-1.252	0.338	0.000	967.800
2	15:36:38	2.462	6.873	7.682	0.766	-1.024	0.447	0.000	949.600
3	15:36:57	2.788	7.559	7.570	0.810	-0.806	0.593	0.000	957.600
x		2.508	7.134	7.338	1.040	-1.027	0.459	0.000	958.300
σ		0.260	0.371	0.501	0.438	0.223	0.128	0.000	9.164
%RSD		10.380	5.202	6.830	42.070	21.710	27.780	0.000	0.956

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:18	82.546%	0.277	0.252	81.953%	0.003	0.002	0.013	0.023
2	15:36:38	83.939%	0.326	0.493	82.461%	0.006	0.010	0.044	0.024
3	15:36:57	84.751%	0.343	0.413	83.634%	0.001	-0.003	0.031	0.015
x		83.745%	0.315	0.386	82.682%	0.003	0.003	0.029	0.021
σ		1.115%	0.034	0.123	0.862%	0.003	0.006	0.016	0.004
%RSD		1.332	10.890	31.820	1.043	85.050	213.900	53.980	21.780

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:18	81.677%	0.184	0.173	0.289	34.570	34.210	85.776%	86.923%
2	15:36:38	83.152%	0.245	0.168	0.260	34.420	34.270	89.083%	89.419%
3	15:36:57	84.060%	0.313	0.163	0.257	34.590	33.960	90.247%	90.851%
x		82.963%	0.247	0.168	0.269	34.530	34.150	88.368%	89.064%
σ		1.203%	0.065	0.005	0.018	0.094	0.162	2.320%	1.988%
%RSD		1.450	26.070	2.980	6.652	0.272	0.473	2.625	2.232

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:18	0.010	0.007	2.348	2.254	2.349	76.283%
2	15:36:38	0.013	0.009	2.425	2.266	2.344	79.507%
3	15:36:57	0.015	0.011	2.497	2.346	2.432	80.433%
x		0.013	0.009	2.424	2.288	2.375	78.741%
σ		0.003	0.002	0.075	0.050	0.049	2.178%
%RSD		21.290	20.350	3.083	2.189	2.080	2.767

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:05	98.955%	-0.013	14.290	13.960	0.000	259.000	50.930	52.500
2	15:40:24	100.205%	-0.023	12.090	13.740	0.000	256.800	48.290	51.170
3	15:40:43	96.654%	0.010	13.700	14.200	0.000	277.800	49.550	52.260
x		98.605%	-0.009	13.360	13.960	0.000	264.500	49.590	51.970
σ		1.801%	0.017	1.140	0.231	0.000	11.520	1.319	0.708
%RSD		1.827	190.900	8.533	1.651	0.000	4.353	2.660	1.363
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:05	38.260	143.900	0.000	26.900	259.600	256.200	81.208%	0.718
2	15:40:24	38.300	136.800	0.000	23.850	278.100	262.500	80.230%	0.511
3	15:40:43	41.710	159.500	0.000	24.800	263.700	267.100	79.550%	0.503
x		39.430	146.700	0.000	25.180	267.100	261.900	80.329%	0.577
σ		1.979	11.630	0.000	1.563	9.704	5.448	0.834%	0.122
%RSD		5.020	7.929	0.000	6.205	3.633	2.080	1.038	21.090
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:05	0.118	0.870	3.908	60.790	66.200	0.040	0.135	1.772
2	15:40:24	-0.900	0.845	3.912	60.840	63.530	0.046	0.077	1.740
3	15:40:43	0.591	0.673	3.888	53.320	64.120	0.039	0.154	1.718
x		-0.064	0.796	3.903	58.320	64.620	0.042	0.122	1.743
σ		0.762	0.107	0.013	4.329	1.402	0.004	0.040	0.027
%RSD		1196.000	13.460	0.329	7.423	2.169	8.731	33.020	1.534
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:05	1.855	5.703	5.888	0.296	-1.350	0.079	0.000	1.319
2	15:40:24	1.786	5.700	5.521	0.042	-1.446	-0.034	0.000	1.302
3	15:40:43	1.738	5.767	6.227	0.172	-1.299	0.024	0.000	1.362
x		1.793	5.723	5.879	0.170	-1.365	0.023	0.000	1.328
σ		0.059	0.038	0.353	0.127	0.074	0.056	0.000	0.031
%RSD		3.276	0.657	6.006	74.800	5.444	245.900	0.000	2.339
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:05	85.021%	-1.785	-1.665	87.444%	-0.001	-0.008	49.330	49.600
2	15:40:24	87.111%	-1.683	-1.644	88.182%	-0.008	-0.002	48.720	48.980
3	15:40:43	86.992%	-1.666	-1.571	89.115%	0.001	-0.003	49.700	49.450
x		86.375%	-1.711	-1.627	88.247%	-0.002	-0.004	49.250	49.340
σ		1.174%	0.065	0.049	0.837%	0.004	0.004	0.492	0.324
%RSD		1.359	3.770	3.017	0.948	178.300	88.630	0.998	0.656
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:40:05	84.453%	0.228	0.010	0.000	0.744	0.628	89.734%	90.425%
2	15:40:24	86.840%	0.183	0.011	-0.004	0.718	0.647	93.820%	94.704%
3	15:40:43	87.826%	0.215	-0.006	-0.021	0.791	0.717	95.588%	95.456%
x		86.373%	0.208	0.005	-0.008	0.751	0.664	93.048%	93.528%
σ		1.735%	0.023	0.009	0.011	0.037	0.047	3.002%	2.714%
%RSD		2.008	11.060	180.500	135.900	4.888	7.083	3.227	2.901
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:40:05	-0.002	0.001	0.300	0.287	0.292	86.434%		
2	15:40:24	-0.001	0.000	0.339	0.312	0.310	88.834%		
3	15:40:43	-0.000	-0.001	0.343	0.279	0.302	92.006%		
x		-0.001	0.000	0.328	0.293	0.301	89.091%		
σ		0.001	0.001	0.024	0.017	0.009	2.795%		
%RSD		92.380	507.700	7.190	5.834	2.935	3.137		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	100.760%	-0.029	38.470	37.780	0.000	556.100	18.720	17.820
2	15:44:11	97.033%	-0.028	40.180	38.980	0.000	584.500	17.180	19.680
3	15:44:30	90.684%	-0.004	37.850	40.650	0.000	555.300	18.410	18.490
x		96.159%	-0.020	38.830	39.140	0.000	565.300	18.100	18.660
σ		5.095%	0.014	1.206	1.442	0.000	16.650	0.813	0.942
%RSD		5.298	70.490	3.106	3.683	0.000	2.944	4.490	5.046

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	14.680	38.200	0.000	32.020	103.700	112.700	79.445%	0.121
2	15:44:11	15.440	50.140	0.000	33.910	118.500	120.300	75.730%	0.208
3	15:44:30	15.400	44.150	0.000	32.490	127.000	121.400	76.631%	0.104
x		15.170	44.160	0.000	32.810	116.400	118.100	77.269%	0.145
σ		0.430	5.970	0.000	0.984	11.790	4.730	1.938%	0.056
%RSD		2.837	13.520	0.000	3.001	10.130	4.005	2.508	38.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	-1.147	1.071	0.673	2.225	4.866	0.015	0.045	0.327
2	15:44:11	1.328	0.968	0.695	0.483	6.447	0.015	0.014	0.289
3	15:44:30	1.566	0.977	0.663	0.001	5.209	0.008	0.084	0.352
x		0.582	1.005	0.677	0.903	5.507	0.013	0.048	0.323
σ		1.502	0.057	0.016	1.170	0.832	0.004	0.035	0.032
%RSD		258.000	5.716	2.372	129.600	15.110	30.720	73.410	9.875

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	0.234	2.658	2.931	-0.276	-1.465	0.022	0.000	0.408
2	15:44:11	0.293	2.662	2.726	-0.555	-1.548	0.186	0.000	0.402
3	15:44:30	0.344	2.609	2.929	-0.243	-1.199	0.214	0.000	0.388
x		0.290	2.643	2.862	-0.358	-1.404	0.141	0.000	0.399
σ		0.055	0.029	0.118	0.171	0.183	0.104	0.000	0.010
%RSD		18.880	1.110	4.124	47.830	13.000	73.510	0.000	2.608

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	85.134%	-1.752	-1.715	88.096%	-0.005	0.004	0.063	0.046
2	15:44:11	87.232%	-1.740	-1.670	89.852%	-0.003	-0.004	0.008	0.009
3	15:44:30	87.088%	-1.707	-1.648	88.340%	-0.005	-0.007	-0.064	-0.041
x		86.485%	-1.733	-1.678	88.763%	-0.004	-0.002	0.002	0.005
σ		1.172%	0.023	0.034	0.951%	0.001	0.006	0.064	0.044
%RSD		1.355	1.338	2.042	1.072	24.890	297.900	2641.000	945.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	87.117%	0.275	-0.033	-0.037	0.106	0.186	92.482%	93.416%
2	15:44:11	87.649%	0.242	-0.033	-0.064	0.227	0.206	94.032%	94.138%
3	15:44:30	88.320%	0.262	-0.053	-0.023	0.197	0.191	95.686%	96.306%
x		87.695%	0.260	-0.040	-0.042	0.177	0.194	94.067%	94.620%
σ		0.603%	0.017	0.012	0.021	0.063	0.011	1.602%	1.504%
%RSD		0.687	6.428	29.490	50.160	35.800	5.457	1.703	1.589

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:52	0.001	-0.002	0.069	0.070	0.078	87.871%
2	15:44:11	0.004	-0.001	0.081	0.073	0.074	90.200%
3	15:44:30	-0.006	0.001	0.085	0.087	0.075	91.553%
x		-0.000	-0.001	0.078	0.076	0.076	89.875%
σ		0.005	0.002	0.008	0.009	0.002	1.862%
%RSD		2328.000	181.000	10.330	12.090	2.789	2.072

CCV 1594026 6/3/2015 3:47:28 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	15:47:28	99.184%	89.460	95.150	96.870	0.000	46150.000	46820.000	45030.000
2	15:47:48	94.069%	99.250	100.700	103.100	0.000	49410.000	49180.000	48380.000
3	15:48:07	87.540%	98.080	97.940	104.900	0.000	46280.000	45660.000	46260.000
x		93.598%	95.596%	97.925%	101.621%	0.000	94.558%	94.447%	93.109%
σ		5.836%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.235	5.593	2.823	4.146	0.000	3.899	3.800	3.645

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:28	442.500	4742.000	0.000	44770.000	45650.000	46160.000	92.340%	95.280
2	15:47:48	475.900	5022.000	0.000	47440.000	48920.000	48630.000	87.554%	97.920
3	15:48:07	471.900	4973.000	0.000	47460.000	48510.000	48360.000	88.905%	98.440
x		92.688%	98.243%	0.000	93.116%	95.390%	95.437%	89.599%	97.213%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.467%	n/a
%RSD		3.933	3.049	0.000	3.322	3.743	2.836	2.754	1.742

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:28	90.100	91.980	457.700	23130.000	22920.000	91.450	93.550	92.960
2	15:47:48	94.170	96.430	475.700	23950.000	23580.000	93.140	94.220	96.810
3	15:48:07	95.070	97.380	481.100	23690.000	24370.000	94.700	94.960	96.770
x		93.111%	95.262%	94.300%	94.359%	94.499%	93.096%	94.240%	95.511%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.845	3.027	2.603	1.784	3.063	1.745	0.749	2.316

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:28	93.430	90.260	91.000	93.600	95.020	97.090	0.000	92.900
2	15:47:48	98.100	92.210	92.220	94.510	93.940	95.100	0.000	93.400
3	15:48:07	96.680	92.640	92.790	93.370	95.710	95.460	0.000	94.040
x		96.070%	91.702%	92.006%	93.825%	94.889%	95.883%	0.000	93.446%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.490	1.385	0.995	0.639	0.942	1.103	0.000	0.615

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:28	89.201%	92.320	94.310	87.698%	94.020	94.740	97.030	97.820
2	15:47:48	91.603%	93.300	95.770	89.161%	94.830	96.670	96.480	98.960
3	15:48:07	90.945%	94.650	95.350	88.114%	95.220	97.380	97.870	98.110
x		90.583%	93.425%	95.140%	88.324%	94.691%	96.261%	97.127%	98.298%
σ		1.241%	n/a	n/a	0.754%	n/a	n/a	n/a	n/a
%RSD		1.370	1.254	0.791	0.854	0.643	1.417	0.721	0.601

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:28	83.184%	97.450	91.870	91.220	94.870	94.910	90.724%	91.622%
2	15:47:48	84.466%	98.660	92.480	92.230	95.930	94.250	93.578%	93.311%
3	15:48:07	86.224%	99.000	91.370	92.020	95.120	96.000	94.933%	96.252%
x		84.625%	98.372%	91.908%	91.825%	95.310%	95.054%	93.078%	93.729%
σ		1.526%	n/a	n/a	n/a	n/a	n/a	2.148%	2.343%
%RSD		1.803	0.827	0.606	0.580	0.582	0.931	2.308	2.500

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:28	94.510	94.450	95.430	96.510	96.100	92.430%
2	15:47:48	99.280	99.860	101.500	102.300	102.400	90.630%
3	15:48:07	101.700	102.100	103.700	104.200	104.100	90.819%
x		98.506%	98.822%	100.201%	101.009%	100.882%	91.293%
σ		n/a	n/a	n/a	n/a	n/a	0.989%
%RSD		3.728	4.000	4.261	3.963	4.183	1.084

CCB6 6/3/2015 3:53:57 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	15:54:16	106.315%	0.004	0.567	0.709	0.000	1.190	0.600	0.584
2	15:54:35	100.057%	-0.034	0.932	0.755	0.000	1.073	0.201	0.049
3	15:54:54	100.845%	-0.024	0.660	0.885	0.000	0.958	0.429	0.220
x		102.406%	-0.018	0.719	0.783	0.000	1.074	0.410	0.284
σ		3.408%	0.020	0.190	0.091	0.000	0.116	0.200	0.273
%RSD		3.328	107.800	26.390	11.660	0.000	10.790	48.780	96.110
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:16	-0.128	-114.800	0.000	1.788	3.887	3.410	99.352%	-0.130
2	15:54:35	-0.083	-114.200	0.000	1.151	0.767	2.295	98.123%	-0.151
3	15:54:54	-0.091	-112.000	0.000	2.820	6.359	2.604	95.343%	-0.138
x		-0.100	-113.700	0.000	1.920	3.671	2.770	97.606%	-0.140
σ		0.024	1.474	0.000	0.842	2.803	0.576	2.054%	0.011
%RSD		23.730	1.297	0.000	43.880	76.340	20.780	2.105	7.714
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:16	0.009	-0.048	0.031	-11.390	0.820	0.003	-0.029	-0.025
2	15:54:35	0.066	-0.056	0.030	-8.243	0.523	0.001	-0.031	-0.034
3	15:54:54	-0.065	-0.060	0.033	-10.360	0.098	0.005	-0.021	-0.015
x		0.004	-0.054	0.031	-9.996	0.480	0.003	-0.027	-0.024
σ		0.065	0.006	0.001	1.603	0.363	0.002	0.005	0.010
%RSD		1853.000	11.390	4.712	16.030	75.530	62.280	19.130	39.300
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:16	-0.010	0.141	-0.019	0.039	-0.518	0.289	0.000	0.011
2	15:54:35	-0.013	0.119	0.226	-0.010	-0.883	0.291	0.000	0.009
3	15:54:54	-0.009	0.043	0.141	0.139	-0.777	0.448	0.000	0.014
x		-0.010	0.101	0.116	0.056	-0.726	0.343	0.000	0.011
σ		0.002	0.052	0.124	0.076	0.188	0.091	0.000	0.003
%RSD		17.650	51.160	106.900	135.100	25.870	26.560	0.000	22.860
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:16	91.506%	-1.406	-1.309	92.476%	0.017	-0.000	0.087	0.055
2	15:54:35	93.025%	-1.182	-1.129	93.748%	0.013	0.007	0.068	0.044
3	15:54:54	94.754%	-1.073	-1.121	94.513%	0.018	0.012	0.144	0.102
x		93.095%	-1.221	-1.186	93.579%	0.016	0.006	0.100	0.067
σ		1.626%	0.170	0.106	1.029%	0.003	0.006	0.039	0.031
%RSD		1.746	13.930	8.942	1.100	17.050	94.560	39.340	46.310
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:16	90.333%	-0.115	0.635	0.608	0.010	0.020	89.520%	89.983%
2	15:54:35	92.273%	-0.095	0.640	0.696	0.014	0.019	92.677%	92.288%
3	15:54:54	93.163%	-0.057	0.694	0.677	0.009	0.016	92.419%	92.620%
x		91.923%	-0.089	0.656	0.660	0.011	0.018	91.539%	91.630%
σ		1.447%	0.030	0.033	0.047	0.003	0.002	1.753%	1.436%
%RSD		1.574	33.270	4.977	7.047	27.430	12.050	1.915	1.567
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:54:16	0.011	0.004	-0.002	-0.001	-0.004	96.126%		
2	15:54:35	0.015	0.008	0.009	-0.000	0.000	95.678%		
3	15:54:54	0.008	0.007	0.005	-0.006	-0.001	95.830%		
x		0.011	0.006	0.004	-0.003	-0.002	95.878%		
σ		0.004	0.002	0.005	0.003	0.002	0.228%		
%RSD		31.620	35.880	131.900	123.700	149.800	0.238		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	109.684%	-0.021	0.586	0.488	0.000	0.985	-0.283	-0.290
2	15:58:24	109.972%	-0.017	0.669	0.459	0.000	1.090	-0.496	-0.665
3	15:58:44	114.534%	-0.036	0.310	0.459	0.000	0.832	-0.483	-0.454
x		111.397%	-0.025	0.521	0.469	0.000	0.969	-0.421	-0.470
σ		2.721%	0.010	0.188	0.017	0.000	0.130	0.119	0.188
%RSD		2.443	40.740	36.000	3.534	0.000	13.400	28.320	40.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	0.485	-111.800	0.000	0.762	12.080	8.962	101.009%	-0.164
2	15:58:24	0.408	-110.700	0.000	1.315	11.420	5.202	98.119%	-0.185
3	15:58:44	0.472	-110.900	0.000	1.753	8.484	5.449	95.465%	-0.173
x		0.455	-111.100	0.000	1.277	10.660	6.537	98.198%	-0.174
σ		0.041	0.624	0.000	0.497	1.915	2.103	2.773%	0.011
%RSD		9.073	0.561	0.000	38.910	17.960	32.170	2.824	6.084

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	-0.026	-0.071	0.060	-11.690	-1.636	0.003	0.028	-0.006
2	15:58:24	-0.069	-0.071	0.062	-11.050	-2.138	0.005	0.045	-0.008
3	15:58:44	0.004	-0.080	0.058	-8.780	-0.039	0.002	0.025	-0.000
x		-0.030	-0.074	0.060	-10.510	-1.271	0.003	0.033	-0.005
σ		0.037	0.005	0.002	1.528	1.096	0.002	0.011	0.004
%RSD		120.500	7.024	3.875	14.540	86.240	47.120	32.820	85.330

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	0.027	0.881	0.716	-0.102	-1.212	-0.106	0.000	0.017
2	15:58:24	-0.010	0.760	0.806	-0.029	-1.099	0.161	0.000	0.020
3	15:58:44	0.027	0.894	0.866	-0.038	-1.113	0.226	0.000	0.018
x		0.015	0.845	0.796	-0.057	-1.141	0.094	0.000	0.018
σ		0.022	0.074	0.075	0.040	0.062	0.176	0.000	0.002
%RSD		148.400	8.778	9.478	70.410	5.403	187.600	0.000	8.157

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	93.777%	-1.676	-1.630	93.918%	-0.005	-0.003	0.104	0.077
2	15:58:24	94.708%	-1.634	-1.509	94.698%	0.003	0.001	0.135	0.096
3	15:58:44	95.142%	-1.602	-1.571	94.816%	0.004	-0.004	0.102	0.075
x		94.542%	-1.637	-1.570	94.477%	0.000	-0.002	0.114	0.082
σ		0.697%	0.037	0.060	0.488%	0.005	0.002	0.018	0.011
%RSD		0.738	2.273	3.853	0.517	1048.000	109.800	16.250	13.850

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	90.283%	-0.117	0.396	0.363	0.060	0.052	88.935%	89.302%
2	15:58:24	93.265%	-0.106	0.412	0.361	0.042	0.016	90.997%	91.266%
3	15:58:44	92.352%	-0.087	0.420	0.395	0.042	0.076	92.809%	93.096%
x		91.967%	-0.103	0.409	0.373	0.048	0.048	90.914%	91.221%
σ		1.528%	0.015	0.012	0.019	0.011	0.030	1.938%	1.897%
%RSD		1.662	14.350	2.988	5.055	22.550	62.790	2.132	2.080

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:05	-0.001	0.002	0.004	0.007	0.006	98.597%
2	15:58:24	-0.000	-0.002	0.001	0.006	0.006	97.664%
3	15:58:44	0.001	0.003	0.021	0.008	0.010	96.911%
x		-0.000	0.001	0.009	0.007	0.007	97.724%
σ		0.001	0.002	0.011	0.001	0.002	0.845%
%RSD		2117.000	239.100	122.900	18.810	30.530	0.864

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	102.967%	42.830	903.500	903.100	0.000	44300.000	43930.000	44150.000
2	16:02:09	100.366%	42.200	958.500	918.400	0.000	41900.000	42040.000	42310.000
3	16:02:29	98.353%	41.090	869.800	868.100	0.000	40850.000	41150.000	42030.000
x		100.562%	42.040	910.600	896.500	0.000	42350.000	42370.000	42830.000
σ		2.313%	0.877	44.750	25.760	0.000	1767.000	1419.000	1153.000
%RSD		2.300	2.087	4.915	2.874	0.000	4.171	3.349	2.692

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	1697.000	9351.000	0.000	47150.000	49610.000	48570.000	77.118%	993.400
2	16:02:09	1606.000	8673.000	0.000	45150.000	47510.000	45640.000	81.058%	937.300
3	16:02:29	1571.000	8622.000	0.000	42620.000	44940.000	44480.000	83.529%	900.800
x		1625.000	8882.000	0.000	44970.000	47350.000	46230.000	80.568%	943.800
σ		64.720	407.200	0.000	2271.000	2342.000	2105.000	3.234%	46.630
%RSD		3.984	4.584	0.000	5.049	4.946	4.553	4.014	4.940

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	497.900	190.600	475.600	976.900	1256.000	492.200	480.900	242.300
2	16:02:09	463.300	182.800	446.800	919.200	1168.000	462.100	456.700	229.500
3	16:02:29	443.300	177.000	432.200	879.700	1133.000	439.800	432.600	225.900
x		468.200	183.400	451.500	925.300	1186.000	464.700	456.700	232.600
σ		27.580	6.828	22.080	48.880	63.460	26.340	24.180	8.641
%RSD		5.892	3.723	4.890	5.283	5.351	5.667	5.293	3.715

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	244.500	459.100	458.200	36.150	8.600	9.876	0.000	899.400
2	16:02:09	232.400	451.100	450.300	34.860	9.040	9.682	0.000	893.100
3	16:02:29	225.000	437.600	443.400	34.750	7.877	9.687	0.000	892.500
x		234.000	449.300	450.700	35.250	8.506	9.748	0.000	895.000
σ		9.822	10.850	7.392	0.782	0.587	0.110	0.000	3.832
%RSD		4.198	2.415	1.640	2.217	6.902	1.132	0.000	0.428

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	84.891%	977.100	989.200	83.100%	45.090	45.330	45.850	39.140
2	16:02:09	86.219%	991.800	1004.000	83.419%	45.360	45.820	46.620	39.490
3	16:02:29	85.935%	982.100	993.800	84.277%	45.280	45.350	45.430	39.500
x		85.682%	983.700	995.800	83.599%	45.240	45.500	45.970	39.380
σ		0.699%	7.454	7.807	0.609%	0.141	0.277	0.603	0.205
%RSD		0.816	0.758	0.784	0.728	0.311	0.609	1.311	0.521

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	82.725%	1875.000	477.800	476.100	1734.000	1747.000	88.752%	90.118%
2	16:02:09	83.902%	1876.000	483.800	481.300	1732.000	1747.000	92.313%	93.065%
3	16:02:29	84.190%	1869.000	482.000	484.300	1747.000	1761.000	93.960%	94.806%
x		83.606%	1873.000	481.200	480.600	1738.000	1752.000	91.675%	92.663%
σ		0.776%	3.825	3.079	4.147	7.777	7.828	2.662%	2.370%
%RSD		0.929	0.204	0.640	0.863	0.448	0.447	2.904	2.557

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:01:50	49.600	49.620	20.780	21.060	20.850	79.642%
2	16:02:09	50.550	50.920	20.970	21.140	21.120	81.132%
3	16:02:29	50.500	50.860	21.210	20.680	20.960	82.775%
x		50.220	50.470	20.990	20.960	20.980	81.183%
σ		0.535	0.737	0.214	0.249	0.134	1.567%
%RSD		1.066	1.460	1.020	1.187	0.638	1.930

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:38	106.006%	-0.000	31.790	34.410	0.000	56.150	1.935	2.002
2	16:05:57	101.231%	0.028	32.030	36.370	0.000	56.040	1.947	1.233
3	16:06:17	106.031%	-0.005	29.790	32.710	0.000	52.030	1.127	1.262
x		104.422%	0.007	31.210	34.500	0.000	54.740	1.670	1.499
σ		2.764%	0.018	1.228	1.833	0.000	2.347	0.470	0.436
%RSD		2.647	236.500	3.934	5.314	0.000	4.287	28.140	29.110
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:38	10.080	-8.397	0.000	12.330	11.520	34.660	81.910%	0.444
2	16:05:57	9.735	-2.668	0.000	10.650	27.750	31.520	82.872%	0.437
3	16:06:17	9.946	-4.111	0.000	8.390	24.560	30.450	80.838%	0.412
x		9.920	-5.059	0.000	10.460	21.280	32.210	81.874%	0.431
σ		0.173	2.980	0.000	1.975	8.599	2.187	1.017%	0.017
%RSD		1.742	58.910	0.000	18.890	40.410	6.792	1.243	3.925
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:38	0.188	0.799	0.142	-5.387	2.279	0.024	0.017	0.212
2	16:05:57	0.894	0.729	0.125	-10.200	-0.306	0.023	0.044	0.206
3	16:06:17	0.683	0.696	0.137	-8.745	-2.792	0.013	0.032	0.231
x		0.588	0.741	0.135	-8.111	-0.273	0.020	0.031	0.216
σ		0.362	0.052	0.009	2.469	2.536	0.006	0.014	0.013
%RSD		61.570	7.057	6.398	30.440	929.300	29.510	43.040	5.886
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:38	0.176	1.533	1.501	0.339	-1.885	0.701	0.000	0.065
2	16:05:57	0.231	1.340	1.529	-0.262	-1.118	0.549	0.000	0.066
3	16:06:17	0.206	1.571	1.634	0.114	-1.209	0.126	0.000	0.061
x		0.204	1.481	1.555	0.064	-1.404	0.459	0.000	0.064
σ		0.027	0.124	0.070	0.304	0.419	0.298	0.000	0.003
%RSD		13.400	8.361	4.513	477.900	29.860	64.980	0.000	4.241
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:38	85.900%	3.482	3.796	87.905%	0.004	-0.001	0.023	0.033
2	16:05:57	86.463%	4.253	4.272	88.473%	0.004	-0.005	0.066	0.060
3	16:06:17	86.458%	3.914	3.801	88.612%	0.002	-0.002	0.006	0.007
x		86.274%	3.883	3.956	88.330%	0.003	-0.002	0.032	0.033
σ		0.324%	0.386	0.273	0.374%	0.001	0.002	0.031	0.026
%RSD		0.375	9.951	6.905	0.424	36.610	70.840	98.410	79.810
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:38	84.857%	1.788	0.500	0.500	0.191	0.155	89.472%	90.291%
2	16:05:57	86.527%	1.667	0.500	0.484	0.135	0.115	92.490%	93.295%
3	16:06:17	87.217%	1.476	0.463	0.466	0.116	0.081	93.792%	94.143%
x		86.200%	1.644	0.487	0.483	0.147	0.117	91.918%	92.576%
σ		1.213%	0.158	0.021	0.017	0.039	0.037	2.216%	2.024%
%RSD		1.408	9.580	4.351	3.538	26.440	31.660	2.411	2.187
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:05:38	0.282	0.262	0.032	0.014	0.021	89.323%		
2	16:05:57	0.169	0.182	0.034	0.037	0.032	90.427%		
3	16:06:17	0.126	0.145	0.038	0.025	0.031	91.596%		
x		0.193	0.197	0.034	0.025	0.028	90.449%		
σ		0.081	0.060	0.003	0.012	0.006	1.137%		
%RSD		41.930	30.420	8.903	45.650	20.530	1.257		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:26	84.555%	3.838	151.900	160.500	0.000	39740.000	56390.000	56670.000
2	16:09:45	87.022%	3.824	156.000	166.700	0.000	40240.000	56390.000	57230.000
3	16:10:04	86.270%	3.894	167.000	161.100	0.000	40460.000	57100.000	56210.000
x		85.949%	3.852	158.300	162.800	0.000	40150.000	56630.000	56700.000
σ		1.265%	0.037	7.784	3.406	0.000	365.200	408.400	509.000
%RSD		1.471	0.963	4.917	2.093	0.000	0.910	0.721	0.898
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:26	39680.000	40200.000	0.000	9590.000	445500.000	413700.000	78.133%	9.489
2	16:09:45	39040.000	39560.000	0.000	9687.000	450800.000	414700.000	75.743%	8.812
3	16:10:04	38470.000	38700.000	0.000	8964.000	414400.000	381500.000	85.298%	8.527
x		39060.000	39490.000	0.000	9414.000	436900.000	403300.000	79.725%	8.943
σ		607.000	755.400	0.000	392.600	19670.000	18900.000	4.972%	0.494
%RSD		1.554	1.913	0.000	4.171	4.502	4.686	6.236	5.529
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:26	53.900	150.600	10030.000	303500.000	309400.000	47.250	192.200	242.500
2	16:09:45	51.870	150.000	10140.000	315800.000	317300.000	49.480	199.700	252.900
3	16:10:04	48.980	135.500	9367.000	281200.000	288900.000	44.830	179.700	229.800
x		51.580	145.400	9847.000	300200.000	305200.000	47.190	190.500	241.700
σ		2.473	8.543	419.000	17540.000	14680.000	2.327	10.080	11.610
%RSD		4.794	5.878	4.255	5.844	4.809	4.931	5.293	4.803
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:26	249.700	322200.000	322000.000	2.778	5.109	23.470	0.000	966.900
2	16:09:45	262.900	333400.000	331800.000	3.527	5.219	22.370	0.000	980.100
3	16:10:04	240.500	310800.000	312700.000	2.698	4.667	21.670	0.000	965.500
x		251.000	322100.000	322200.000	3.001	4.999	22.510	0.000	970.800
σ		11.250	11310.000	9578.000	0.457	0.292	0.907	0.000	8.039
%RSD		4.481	3.512	2.973	15.240	5.840	4.032	0.000	0.828
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:26	0.000	-0.338	-0.379	78.968%	0.167	0.029	57.640	56.100
2	16:09:45	0.000	-0.182	-0.091	81.409%	0.182	0.047	57.260	56.950
3	16:10:04	0.000	-0.064	-0.039	81.301%	0.175	0.069	57.950	56.440
x		0.000	-0.195	-0.170	80.559%	0.175	0.048	57.610	56.500
σ		0.000	0.137	0.183	1.379%	0.008	0.020	0.347	0.431
%RSD		0.000	70.530	107.800	1.712	4.299	41.360	0.602	0.763
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:26	81.315%	0.547	0.377	0.402	7.511	7.571	98.363%	97.739%
2	16:09:45	82.194%	0.651	0.341	0.398	7.586	7.419	102.128%	100.754%
3	16:10:04	83.984%	0.631	0.333	0.379	7.519	7.585	102.806%	100.020%
x		82.498%	0.610	0.350	0.393	7.539	7.525	101.099%	99.504%
σ		1.360%	0.055	0.023	0.013	0.041	0.092	2.393%	1.572%
%RSD		1.649	9.094	6.619	3.188	0.546	1.219	2.367	1.580
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:09:26	0.612	0.567	120.800	113.500	117.700	80.131%		
2	16:09:45	0.611	0.610	127.100	118.800	122.800	79.327%		
3	16:10:04	0.561	0.578	118.100	111.100	114.800	87.573%		
x		0.595	0.585	122.000	114.500	118.500	82.344%		
σ		0.029	0.023	4.581	3.959	4.051	4.547%		
%RSD		4.871	3.878	3.754	3.459	3.420	5.522		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	111.418%	0.760	31.120	31.180	0.000	7707.000	10890.000	10940.000
2	16:13:32	112.076%	0.680	27.700	31.210	0.000	7668.000	10660.000	10860.000
3	16:13:52	99.414%	0.640	30.740	34.680	0.000	8480.000	11680.000	11540.000
x		107.636%	0.693	29.850	32.360	0.000	7952.000	11080.000	11120.000
σ		7.128%	0.061	1.872	2.014	0.000	457.700	534.600	367.800
%RSD		6.622	8.812	6.272	6.225	0.000	5.756	4.826	3.309

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	7349.000	7318.000	0.000	1751.000	73960.000	74610.000	100.514%	1.414
2	16:13:32	7494.000	7515.000	0.000	1790.000	75200.000	76180.000	97.031%	1.650
3	16:13:52	7858.000	7840.000	0.000	1808.000	78030.000	77620.000	98.167%	1.395
x		7567.000	7558.000	0.000	1783.000	75730.000	76140.000	98.571%	1.486
σ		262.100	263.600	0.000	29.000	2084.000	1510.000	1.776%	0.142
%RSD		3.464	3.487	0.000	1.626	2.752	1.984	1.802	9.543

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	9.381	27.810	1903.000	58660.000	59530.000	9.469	37.520	48.970
2	16:13:32	9.114	27.790	1893.000	59560.000	59680.000	9.350	38.180	49.880
3	16:13:52	9.701	27.430	1876.000	56990.000	57190.000	8.961	36.210	47.490
x		9.399	27.680	1891.000	58400.000	58800.000	9.260	37.310	48.780
σ		0.293	0.211	13.460	1303.000	1398.000	0.265	1.004	1.209
%RSD		3.122	0.764	0.712	2.232	2.378	2.865	2.691	2.479

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	50.190	64400.000	63990.000	0.832	0.001	5.531	0.000	176.100
2	16:13:32	52.320	65830.000	65590.000	0.861	-0.005	5.095	0.000	179.100
3	16:13:52	49.780	64420.000	64710.000	0.357	0.236	4.752	0.000	177.900
x		50.760	64880.000	64760.000	0.683	0.077	5.126	0.000	177.700
σ		1.364	821.500	799.800	0.283	0.137	0.390	0.000	1.531
%RSD		2.687	1.266	1.235	41.390	178.100	7.617	0.000	0.862

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	0.000	-1.313	-1.235	93.093%	0.025	0.008	11.850	11.180
2	16:13:32	0.000	-1.082	-1.095	93.311%	0.031	0.007	11.730	11.560
3	16:13:52	0.000	-1.066	-1.050	93.264%	0.035	0.006	11.920	11.780
x		0.000	-1.153	-1.126	93.223%	0.030	0.007	11.840	11.510
σ		0.000	0.138	0.097	0.115%	0.005	0.001	0.096	0.303
%RSD		0.000	11.990	8.572	0.123	17.440	14.310	0.812	2.633

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	90.585%	-0.057	-0.096	-0.081	1.600	1.562	94.071%	94.415%
2	16:13:32	91.794%	-0.035	-0.077	-0.064	1.539	1.510	96.972%	95.007%
3	16:13:52	92.363%	0.028	-0.070	-0.072	1.616	1.688	96.766%	96.502%
x		91.580%	-0.021	-0.081	-0.072	1.585	1.587	95.936%	95.308%
σ		0.908%	0.044	0.013	0.009	0.040	0.092	1.619%	1.076%
%RSD		0.991	204.400	16.470	11.800	2.542	5.799	1.687	1.129

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:13	0.119	0.140	22.740	21.290	22.090	88.939%
2	16:13:32	0.129	0.116	23.810	22.290	23.000	86.842%
3	16:13:52	0.141	0.117	24.280	22.340	23.360	86.895%
x		0.130	0.124	23.610	21.970	22.820	87.559%
σ		0.011	0.013	0.787	0.590	0.654	1.195%
%RSD		8.270	10.840	3.334	2.684	2.867	1.365

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	91.604%	44.400	988.600	1035.000	0.000	76450.000	87850.000	90120.000
2	16:17:20	89.555%	45.170	1029.000	1024.000	0.000	75150.000	85970.000	85240.000
3	16:17:40	86.468%	45.240	1008.000	1023.000	0.000	81740.000	90130.000	91270.000
x		89.209%	44.940	1008.000	1027.000	0.000	77780.000	87980.000	88880.000
σ		2.585%	0.471	20.140	6.426	0.000	3492.000	2086.000	3199.000
%RSD		2.898	1.048	1.997	0.625	0.000	4.489	2.371	3.600

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	32020.000	47030.000	0.000	54790.000	481200.000	436700.000	77.831%	945.900
2	16:17:20	30320.000	45370.000	0.000	50650.000	437400.000	398000.000	86.002%	860.900
3	16:17:40	33140.000	47490.000	0.000	56300.000	483700.000	441500.000	76.655%	963.900
x		31830.000	46630.000	0.000	53910.000	467400.000	425400.000	80.162%	923.600
σ		1421.000	1114.000	0.000	2926.000	26080.000	23850.000	5.091%	55.040
%RSD		4.463	2.389	0.000	5.428	5.579	5.606	6.351	5.959

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	535.000	298.800	8520.000	236600.000	241200.000	527.200	610.300	414.100
2	16:17:20	478.800	276.300	7903.000	218600.000	220000.000	485.200	574.000	390.100
3	16:17:40	532.500	299.900	8670.000	232800.000	239100.000	521.200	601.600	416.600
x		515.400	291.700	8364.000	229300.000	233400.000	511.200	595.300	406.900
σ		31.780	13.350	406.200	9507.000	11660.000	22.740	18.990	14.630
%RSD		6.165	4.577	4.856	4.146	4.995	4.448	3.189	3.595

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	424.600	253500.000	253600.000	41.610	15.130	31.230	0.000	1916.000
2	16:17:20	402.600	239800.000	240000.000	39.220	14.890	28.830	0.000	1891.000
3	16:17:40	425.000	256600.000	257400.000	40.110	17.010	29.650	0.000	1907.000
x		417.400	250000.000	250300.000	40.310	15.680	29.900	0.000	1905.000
σ		12.800	8895.000	9139.000	1.211	1.163	1.219	0.000	12.340
%RSD		3.068	3.559	3.651	3.004	7.420	4.077	0.000	0.648

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	0.000	1007.000	1012.000	79.043%	43.650	43.370	92.330	85.820
2	16:17:20	0.000	1005.000	1026.000	79.171%	43.610	43.740	94.060	85.610
3	16:17:40	0.000	1012.000	1023.000	79.719%	43.610	43.880	94.620	87.260
x		0.000	1008.000	1020.000	79.311%	43.620	43.660	93.670	86.230
σ		0.000	3.480	7.430	0.359%	0.022	0.263	1.195	0.899
%RSD		0.000	0.345	0.728	0.453	0.051	0.602	1.276	1.043

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	78.528%	1881.000	466.900	467.600	1710.000	1711.000	93.727%	92.351%
2	16:17:20	80.601%	1871.000	463.600	463.200	1714.000	1704.000	96.101%	94.235%
3	16:17:40	80.691%	1868.000	464.600	462.700	1714.000	1709.000	97.602%	96.194%
x		79.940%	1873.000	465.000	464.500	1713.000	1708.000	95.810%	94.260%
σ		1.224%	6.891	1.689	2.695	2.297	3.667	1.954%	1.922%
%RSD		1.531	0.368	0.363	0.580	0.134	0.215	2.039	2.039

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:17:01	50.250	50.870	151.300	143.000	148.400	69.468%
2	16:17:20	51.280	51.690	156.200	145.700	151.800	70.512%
3	16:17:40	51.540	51.730	156.800	147.700	152.500	72.222%
x		51.020	51.430	154.800	145.500	150.900	70.734%
σ		0.682	0.487	3.005	2.355	2.196	1.390%
%RSD		1.337	0.948	1.942	1.619	1.455	1.965

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	85.437%	46.890	1051.000	1075.000	0.000	80320.000	88560.000	88630.000
2	16:21:09	86.836%	45.700	989.400	1022.000	0.000	78560.000	87010.000	88200.000
3	16:21:28	84.094%	43.330	1024.000	1036.000	0.000	78370.000	87780.000	88310.000
x		85.456%	45.310	1021.000	1044.000	0.000	79080.000	87790.000	88380.000
σ		1.371%	1.811	30.900	27.240	0.000	1076.000	772.700	226.000
%RSD		1.605	3.998	3.026	2.609	0.000	1.361	0.880	0.256

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	29740.000	49340.000	0.000	57460.000	491800.000	451600.000	76.853%	993.500
2	16:21:09	29230.000	47760.000	0.000	56770.000	491000.000	448400.000	76.827%	981.000
3	16:21:28	29600.000	48160.000	0.000	56600.000	483700.000	448400.000	76.485%	967.100
x		29520.000	48420.000	0.000	56940.000	488800.000	449500.000	76.721%	980.500
σ		264.300	823.400	0.000	458.300	4479.000	1857.000	0.206%	13.230
%RSD		0.895	1.701	0.000	0.805	0.916	0.413	0.268	1.350

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	534.200	294.700	8225.000	217800.000	223200.000	521.100	612.900	406.700
2	16:21:09	537.100	298.600	8309.000	218600.000	220500.000	522.900	608.500	412.200
3	16:21:28	521.400	291.200	8279.000	222100.000	223200.000	529.700	615.600	414.500
x		530.900	294.900	8271.000	219500.000	222300.000	524.600	612.300	411.100
σ		8.367	3.695	42.710	2277.000	1564.000	4.524	3.584	4.038
%RSD		1.576	1.253	0.516	1.037	0.704	0.863	0.585	0.982

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	412.500	238500.000	238900.000	42.320	16.830	30.000	0.000	1994.000
2	16:21:09	412.300	239200.000	239900.000	42.770	16.410	30.000	0.000	1983.000
3	16:21:28	416.500	239700.000	240200.000	42.300	16.840	28.090	0.000	2007.000
x		413.700	239200.000	239600.000	42.470	16.690	29.360	0.000	1995.000
σ		2.380	582.700	689.800	0.266	0.246	1.103	0.000	12.270
%RSD		0.575	0.244	0.288	0.626	1.473	3.758	0.000	0.615

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	0.000	1048.000	1055.000	79.970%	43.990	44.550	93.980	86.120
2	16:21:09	0.000	1051.000	1061.000	81.015%	44.740	44.910	94.540	87.290
3	16:21:28	0.000	1060.000	1078.000	80.983%	45.120	44.670	94.330	85.280
x		0.000	1053.000	1065.000	80.656%	44.610	44.710	94.280	86.230
σ		0.000	6.397	11.960	0.594%	0.574	0.182	0.281	1.008
%RSD		0.000	0.607	1.124	0.737	1.286	0.406	0.298	1.169

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	81.239%	1902.000	477.200	481.200	1741.000	1746.000	97.485%	96.087%
2	16:21:09	82.594%	1904.000	481.900	479.300	1758.000	1762.000	100.475%	100.030%
3	16:21:28	84.418%	1874.000	479.400	473.700	1740.000	1740.000	102.054%	101.130%
x		82.750%	1893.000	479.500	478.100	1746.000	1749.000	100.004%	99.082%
σ		1.595%	16.770	2.351	3.929	10.400	11.290	2.321%	2.651%
%RSD		1.928	0.886	0.490	0.822	0.595	0.645	2.320	2.676

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:50	51.550	52.090	157.900	148.400	153.600	74.041%
2	16:21:09	53.000	53.210	157.100	148.500	153.600	75.790%
3	16:21:28	52.900	52.730	157.700	148.200	153.600	77.821%
x		52.480	52.680	157.600	148.300	153.600	75.884%
σ		0.809	0.565	0.411	0.152	0.008	1.892%
%RSD		1.541	1.073	0.261	0.102	0.005	2.493

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	83.378%	51.690	1108.000	1136.000	0.000	86570.000	101300.000	103100.000
2	16:24:57	80.438%	48.990	1038.000	1072.000	0.000	87270.000	103000.000	103900.000
3	16:25:17	84.660%	46.490	1029.000	1034.000	0.000	82330.000	95990.000	97900.000
x		82.825%	49.060	1058.000	1080.000	0.000	85390.000	100100.000	101600.000
σ		2.165%	2.603	43.480	51.480	0.000	2677.000	3672.000	3256.000
%RSD		2.614	5.306	4.108	4.765	0.000	3.135	3.668	3.203

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	41790.000	50450.000	0.000	57850.000	491100.000	449500.000	80.107%	1001.000
2	16:24:57	41590.000	50430.000	0.000	58110.000	497900.000	453100.000	79.061%	1022.000
3	16:25:17	39250.000	47720.000	0.000	57390.000	483200.000	446800.000	76.284%	1029.000
x		40880.000	49530.000	0.000	57780.000	490800.000	449800.000	78.484%	1017.000
σ		1412.000	1573.000	0.000	363.800	7360.000	3170.000	1.976%	14.640
%RSD		3.454	3.176	0.000	0.629	1.500	0.705	2.517	1.439

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	560.800	339.500	10150.000	292600.000	298300.000	553.000	687.300	479.000
2	16:24:57	566.000	339.300	10300.000	300300.000	301800.000	556.900	676.300	475.300
3	16:25:17	572.700	349.700	10560.000	305100.000	309800.000	562.000	687.100	496.600
x		566.500	342.800	10340.000	299300.000	303300.000	557.300	683.600	483.600
σ		5.967	5.951	206.900	6324.000	5909.000	4.517	6.282	11.360
%RSD		1.053	1.736	2.002	2.113	1.948	0.811	0.919	2.349

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	493.200	308800.000	308900.000	45.960	16.550	35.070	0.000	1970.000
2	16:24:57	487.600	310400.000	311200.000	44.120	16.980	34.510	0.000	1994.000
3	16:25:17	499.800	315700.000	316000.000	45.440	17.500	34.550	0.000	2008.000
x		493.500	311600.000	312000.000	45.170	17.010	34.710	0.000	1991.000
σ		6.103	3576.000	3591.000	0.947	0.474	0.312	0.000	19.410
%RSD		1.237	1.148	1.151	2.097	2.790	0.898	0.000	0.975

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	0.000	1088.000	1107.000	80.842%	41.760	41.580	101.700	95.810
2	16:24:57	0.000	1091.000	1115.000	80.834%	42.280	42.190	101.100	93.720
3	16:25:17	0.000	1113.000	1120.000	80.620%	41.630	41.490	102.300	95.100
x		0.000	1097.000	1114.000	80.766%	41.890	41.750	101.700	94.880
σ		0.000	13.600	7.006	0.126%	0.344	0.378	0.612	1.062
%RSD		0.000	1.239	0.629	0.156	0.821	0.905	0.602	1.120

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	82.166%	1968.000	495.500	492.300	1800.000	1807.000	101.033%	99.167%
2	16:24:57	83.797%	1965.000	493.000	494.600	1804.000	1800.000	103.604%	101.519%
3	16:25:17	84.063%	1959.000	494.200	493.700	1804.000	1799.000	104.852%	102.848%
x		83.342%	1964.000	494.200	493.500	1802.000	1802.000	103.163%	101.178%
σ		1.027%	4.644	1.248	1.163	2.273	4.373	1.947%	1.864%
%RSD		1.233	0.236	0.253	0.236	0.126	0.243	1.888	1.842

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:38	52.300	52.470	141.600	132.900	137.900	78.922%
2	16:24:57	52.900	53.670	146.100	136.900	141.700	79.166%
3	16:25:17	54.520	55.030	147.200	139.500	144.100	79.049%
x		53.240	53.720	145.000	136.400	141.300	79.046%
σ		1.149	1.281	2.984	3.340	3.125	0.122%
%RSD		2.159	2.385	2.058	2.448	2.212	0.155

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:27	94.302%	0.875	197.100	203.300	0.000	63200.000	22710.000	22870.000
2	16:28:47	93.934%	0.978	204.700	205.400	0.000	65850.000	23130.000	23190.000
3	16:29:06	94.692%	0.962	194.500	196.600	0.000	64550.000	22910.000	22860.000
x		94.309%	0.938	198.800	201.700	0.000	64530.000	22920.000	22970.000
σ		0.379%	0.056	5.337	4.614	0.000	1326.000	209.000	190.700
%RSD		0.402	5.925	2.685	2.287	0.000	2.055	0.912	0.830
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:27	5780.000	35430.000	0.000	4726.000	156500.000	152100.000	90.678%	4.285
2	16:28:47	5849.000	34680.000	0.000	4700.000	165400.000	153100.000	88.932%	4.408
3	16:29:06	5782.000	33740.000	0.000	4518.000	165000.000	152300.000	86.055%	4.152
x		5804.000	34620.000	0.000	4648.000	162300.000	152500.000	88.555%	4.281
σ		39.400	849.900	0.000	113.300	5017.000	527.400	2.334%	0.128
%RSD		0.679	2.455	0.000	2.437	3.092	0.346	2.636	2.991
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:27	-0.397	17.690	3222.000	50820.000	51120.000	13.640	51.790	22.450
2	16:28:47	-1.091	17.540	3220.000	51060.000	51540.000	13.460	52.930	22.980
3	16:29:06	0.075	18.200	3381.000	53740.000	53390.000	14.330	55.840	23.880
x		-0.471	17.810	3274.000	51870.000	52020.000	13.810	53.520	23.110
σ		0.587	0.345	92.570	1620.000	1210.000	0.461	2.089	0.720
%RSD		124.500	1.939	2.827	3.124	2.327	3.337	3.904	3.116
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:27	23.060	21650.000	21470.000	0.323	-0.268	2.926	0.000	136.500
2	16:28:47	23.890	22190.000	22140.000	0.300	-0.021	2.666	0.000	139.700
3	16:29:06	24.600	22550.000	22640.000	0.789	0.217	2.913	0.000	141.300
x		23.850	22130.000	22090.000	0.471	-0.024	2.835	0.000	139.200
σ		0.770	450.800	585.900	0.276	0.243	0.146	0.000	2.438
%RSD		3.228	2.037	2.653	58.720	1015.000	5.161	0.000	1.752
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:27	0.000	5.481	5.582	86.853%	0.035	0.004	5.445	5.516
2	16:28:47	0.000	5.887	6.374	86.512%	0.024	0.010	5.516	5.844
3	16:29:06	0.000	5.429	5.899	86.158%	0.021	0.008	5.702	5.648
x		0.000	5.599	5.952	86.508%	0.027	0.007	5.554	5.669
σ		0.000	0.251	0.399	0.347%	0.008	0.003	0.133	0.165
%RSD		0.000	4.477	6.703	0.402	28.130	43.840	2.387	2.914
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:28:27	86.768%	2.030	0.470	0.524	4.993	5.000	96.324%	96.146%
2	16:28:47	87.801%	2.033	0.514	0.619	5.032	5.422	98.767%	99.039%
3	16:29:06	87.618%	1.805	0.503	0.587	5.071	5.171	98.241%	99.343%
x		87.396%	1.956	0.496	0.577	5.032	5.198	97.777%	98.176%
σ		0.551%	0.131	0.023	0.049	0.039	0.212	1.286%	1.765%
%RSD		0.631	6.685	4.617	8.431	0.779	4.086	1.315	1.798
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:28:27	0.576	0.572	0.601	0.605	0.610	85.596%		
2	16:28:47	0.488	0.515	0.660	0.588	0.616	86.884%		
3	16:29:06	0.445	0.506	0.652	0.604	0.612	86.590%		
x		0.503	0.531	0.638	0.599	0.612	86.357%		
σ		0.066	0.036	0.032	0.009	0.003	0.675%		
%RSD		13.200	6.757	4.992	1.535	0.532	0.782		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:16	94.129%	1.831	256.900	259.600	0.000	56270.000	18990.000	18700.000
2	16:32:35	93.156%	1.735	258.400	264.700	0.000	58180.000	19040.000	18830.000
3	16:32:55	95.220%	1.680	250.400	252.300	0.000	54880.000	18420.000	18520.000
x		94.168%	1.749	255.200	258.900	0.000	56440.000	18820.000	18680.000
σ		1.033%	0.077	4.276	6.191	0.000	1658.000	344.300	154.900
%RSD		1.097	4.387	1.675	2.392	0.000	2.938	1.830	0.829
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:16	6614.000	39590.000	0.000	1086.000	246600.000	227700.000	89.430%	11.580
2	16:32:35	6809.000	40200.000	0.000	1110.000	258300.000	242900.000	85.555%	12.390
3	16:32:55	6532.000	38280.000	0.000	1117.000	259500.000	235700.000	81.330%	13.090
x		6651.000	39360.000	0.000	1105.000	254800.000	235400.000	85.438%	12.350
σ		142.400	981.100	0.000	16.280	7137.000	7593.000	4.051%	0.757
%RSD		2.141	2.493	0.000	1.474	2.801	3.225	4.741	6.126
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:16	2.442	3.866	2674.000	62360.000	63190.000	16.680	65.900	53.120
2	16:32:35	1.638	4.039	2770.000	64590.000	64820.000	17.560	66.320	55.030
3	16:32:55	0.753	4.185	2950.000	68790.000	70580.000	19.040	72.130	59.050
x		1.611	4.030	2798.000	65250.000	66200.000	17.760	68.120	55.740
σ		0.845	0.160	140.300	3266.000	3884.000	1.194	3.484	3.028
%RSD		52.420	3.971	5.015	5.005	5.867	6.720	5.115	5.433
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:16	55.340	30170.000	30220.000	2.158	1.757	4.623	0.000	89.270
2	16:32:35	57.780	31060.000	31020.000	0.822	1.929	4.857	0.000	92.630
3	16:32:55	59.640	32260.000	32300.000	2.622	2.131	4.942	0.000	94.130
x		57.580	31160.000	31180.000	1.867	1.939	4.807	0.000	92.010
σ		2.157	1047.000	1046.000	0.934	0.187	0.165	0.000	2.488
%RSD		3.746	3.361	3.355	50.030	9.657	3.430	0.000	2.704
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:16	0.000	0.363	0.424	85.871%	0.024	-0.001	5.088	4.737
2	16:32:35	0.000	0.930	0.968	84.669%	0.011	0.008	4.750	4.638
3	16:32:55	0.000	1.065	1.221	84.753%	0.027	-0.001	4.810	4.650
x		0.000	0.786	0.871	85.098%	0.021	0.002	4.883	4.675
σ		0.000	0.372	0.407	0.671%	0.009	0.005	0.181	0.054
%RSD		0.000	47.340	46.780	0.789	41.570	294.700	3.698	1.150
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:32:16	85.144%	0.616	0.131	0.145	4.569	4.536	93.332%	93.313%
2	16:32:35	85.916%	0.788	0.207	0.171	4.861	4.500	96.258%	95.755%
3	16:32:55	86.674%	0.713	0.183	0.189	4.615	4.366	97.822%	97.103%
x		85.911%	0.706	0.174	0.169	4.681	4.468	95.804%	95.390%
σ		0.765%	0.086	0.039	0.022	0.157	0.090	2.279%	1.921%
%RSD		0.890	12.220	22.290	12.940	3.347	2.007	2.379	2.014
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:32:16	0.246	0.226	3.262	3.006	3.137	83.179%		
2	16:32:35	0.266	0.240	3.341	3.103	3.232	83.590%		
3	16:32:55	0.261	0.231	3.326	3.093	3.234	84.965%		
x		0.258	0.232	3.310	3.067	3.201	83.912%		
σ		0.010	0.007	0.042	0.053	0.055	0.936%		
%RSD		4.021	2.990	1.275	1.737	1.733	1.115		

CCV 1594026 6/3/2015 4:35:53 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	16:35:53	104.786%	93.280	100.600	101.600	0.000	45860.000	45640.000	45480.000
2	16:36:12	104.980%	92.910	92.960	92.180	0.000	45550.000	47100.000	46360.000
3	16:36:32	99.999%	93.670	94.030	94.710	0.000	45630.000	46010.000	45680.000
x		103.255%	93.286%	95.861%	96.172%	0.000	91.363%	92.497%	91.682%
σ		2.821%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.732	0.412	4.309	5.083	0.000	0.341	1.636	1.009
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:53	449.000	5003.000	0.000	48090.000	47350.000	47510.000	93.330%	99.020
2	16:36:12	451.800	5066.000	0.000	48060.000	48430.000	47870.000	90.394%	103.000
3	16:36:32	453.400	5055.000	0.000	48190.000	49620.000	49750.000	91.363%	104.100
x		90.286%	100.827%	0.000	96.229%	96.941%	96.757%	91.695%	102.034%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.496%	n/a
%RSD		0.494	0.667	0.000	0.142	2.345	2.479	1.631	2.617
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:53	96.740	97.500	479.000	24360.000	23850.000	96.550	96.450	97.330
2	16:36:12	97.480	100.500	487.300	24890.000	24430.000	97.800	99.630	99.100
3	16:36:32	97.640	98.790	476.100	24090.000	24030.000	96.380	96.240	97.560
x		97.285%	98.924%	96.156%	97.793%	96.412%	96.909%	97.441%	97.994%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.494	1.514	1.205	1.663	1.217	0.801	1.952	0.980
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:53	96.820	94.780	95.850	96.010	96.690	97.110	0.000	93.510
2	16:36:12	100.400	97.170	95.460	97.390	96.100	97.510	0.000	94.500
3	16:36:32	99.850	97.050	96.900	95.860	96.700	97.640	0.000	95.770
x		99.027%	96.332%	96.072%	96.420%	96.494%	97.420%	0.000	94.592%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.949	1.396	0.775	0.877	0.356	0.282	0.000	1.195
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:53	94.305%	95.320	96.310	92.253%	94.710	95.650	95.340	96.240
2	16:36:12	96.086%	95.590	97.060	92.267%	94.670	96.360	95.290	97.410
3	16:36:32	96.545%	99.280	99.490	92.517%	95.960	96.560	98.640	98.090
x		95.645%	96.727%	97.623%	92.346%	95.113%	96.190%	96.425%	97.245%
σ		1.183%	n/a	n/a	0.149%	n/a	n/a	n/a	n/a
%RSD		1.237	2.288	1.703	0.161	0.771	0.497	1.989	0.963
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:35:53	87.104%	99.130	93.150	93.010	96.740	96.140	93.766%	93.630%
2	16:36:12	88.669%	99.340	92.590	92.910	97.140	96.370	96.158%	97.545%
3	16:36:32	89.575%	99.210	93.070	92.300	96.890	97.170	97.776%	97.959%
x		88.449%	99.228%	92.936%	92.739%	96.920%	96.561%	95.900%	96.378%
σ		1.250%	n/a	n/a	n/a	n/a	n/a	2.018%	2.389%
%RSD		1.413	0.110	0.323	0.409	0.209	0.557	2.104	2.478
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:35:53	94.300	95.490	96.840	96.690	96.920	93.534%		
2	16:36:12	99.400	100.900	102.700	102.200	102.700	92.571%		
3	16:36:32	103.200	103.400	103.900	105.000	105.100	91.895%		
x		98.967%	99.945%	101.169%	101.276%	101.576%	92.667%		
σ		n/a	n/a	n/a	n/a	n/a	0.824%		
%RSD		4.506	4.057	3.754	4.156	4.149	0.889		

CCB7 6/3/2015 4:42:22 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	16:42:41	111.694%	-0.036	1.052	1.382	0.000	2.112	1.082	0.833
2	16:43:00	106.009%	-0.006	1.498	1.389	0.000	1.818	1.057	0.763
3	16:43:19	108.879%	-0.007	1.343	1.198	0.000	1.754	0.801	0.532
x		108.861%	-0.016	1.298	1.323	0.000	1.895	0.980	0.709
σ		2.842%	0.017	0.226	0.108	0.000	0.191	0.156	0.158
%RSD		2.611	105.000	17.440	8.190	0.000	10.070	15.910	22.230

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:41	-0.039	-112.900	0.000	6.360	5.992	4.195	99.197%	-0.174
2	16:43:00	-0.071	-111.700	0.000	4.379	4.945	4.194	99.337%	-0.097
3	16:43:19	-0.057	-112.500	0.000	3.976	9.439	4.584	96.853%	-0.106
x		-0.055	-112.300	0.000	4.905	6.792	4.324	98.462%	-0.126
σ		0.016	0.615	0.000	1.276	2.351	0.225	1.395%	0.042
%RSD		28.520	0.548	0.000	26.010	34.620	5.204	1.417	33.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:41	-0.042	-0.015	0.068	5.480	7.038	0.004	-0.029	0.009
2	16:43:00	-0.033	-0.043	0.064	0.686	5.592	0.005	-0.035	-0.020
3	16:43:19	0.012	-0.056	0.050	2.161	5.113	0.005	-0.025	-0.004
x		-0.021	-0.038	0.061	2.776	5.914	0.005	-0.030	-0.005
σ		0.029	0.021	0.010	2.456	1.003	0.001	0.005	0.015
%RSD		136.500	54.060	16.170	88.470	16.950	16.270	16.960	284.500

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:41	-0.035	1.349	1.303	0.007	-0.265	0.380	0.000	0.013
2	16:43:00	-0.008	1.355	1.211	0.053	-0.103	0.446	0.000	0.019
3	16:43:19	-0.007	1.166	1.098	0.068	-0.246	0.377	0.000	0.009
x		-0.017	1.290	1.204	0.043	-0.204	0.401	0.000	0.014
σ		0.016	0.108	0.102	0.032	0.088	0.039	0.000	0.005
%RSD		94.720	8.329	8.506	75.470	43.240	9.659	0.000	38.270

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:41	93.068%	-1.007	-0.917	94.003%	0.013	0.008	0.095	0.074
2	16:43:00	94.265%	-0.688	-0.669	94.560%	0.005	0.007	0.066	0.041
3	16:43:19	95.150%	-0.600	-0.616	95.537%	0.016	0.006	0.040	0.029
x		94.161%	-0.765	-0.734	94.700%	0.011	0.007	0.067	0.048
σ		1.045%	0.214	0.161	0.777%	0.006	0.001	0.028	0.023
%RSD		1.110	27.990	21.930	0.820	52.500	15.620	41.390	47.560

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:41	90.474%	0.002	0.636	0.701	0.015	0.017	88.922%	87.669%
2	16:43:00	91.969%	-0.000	0.797	0.772	0.015	0.013	90.386%	89.685%
3	16:43:19	92.446%	0.020	0.847	0.713	-0.002	0.031	93.578%	91.904%
x		91.629%	0.007	0.760	0.729	0.009	0.020	90.962%	89.753%
σ		1.029%	0.012	0.111	0.038	0.010	0.010	2.381%	2.118%
%RSD		1.123	160.000	14.540	5.216	106.300	47.780	2.617	2.360

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:42:41	0.031	0.040	0.008	0.008	0.004	87.849%
2	16:43:00	0.036	0.041	0.011	0.010	0.004	88.343%
3	16:43:19	0.034	0.046	0.006	0.003	0.004	89.514%
x		0.034	0.042	0.008	0.007	0.004	88.569%
σ		0.002	0.003	0.003	0.004	0.000	0.855%
%RSD		6.781	7.953	31.180	48.980	7.468	0.966

180-44362-C-3-A 6/3/2015 4:46:12 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	16:46:31	100.060%	1.531	234.100	246.400	0.000	57850.000	19150.000	18980.000
2	16:46:50	92.336%	1.564	263.100	274.700	0.000	60730.000	20020.000	20030.000
3	16:47:09	89.266%	1.688	250.200	256.700	0.000	59950.000	20010.000	19960.000
x		93.887%	1.594	249.100	259.300	0.000	59510.000	19720.000	19660.000
σ		5.562%	0.083	14.510	14.340	0.000	1489.000	499.100	585.900
%RSD		5.924	5.196	5.825	5.533	0.000	2.502	2.530	2.981

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	6564.000	41160.000	0.000	1093.000	278200.000	252900.000	78.640%	4.540
2	16:46:50	6956.000	42260.000	0.000	1096.000	287200.000	262600.000	76.865%	4.306
3	16:47:09	6590.000	40880.000	0.000	1124.000	279500.000	255300.000	77.745%	4.341
x		6703.000	41430.000	0.000	1104.000	281600.000	256900.000	77.750%	4.396
σ		219.400	727.800	0.000	17.020	4862.000	5102.000	0.887%	0.126
%RSD		3.272	1.757	0.000	1.541	1.727	1.986	1.141	2.871

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	1.414	3.271	3067.000	69760.000	69940.000	19.120	74.810	57.570
2	16:46:50	2.056	3.264	3049.000	69200.000	70580.000	19.130	72.910	58.590
3	16:47:09	1.670	3.489	3035.000	69610.000	69600.000	18.810	71.080	55.960
x		1.713	3.341	3051.000	69520.000	70040.000	19.020	72.940	57.370
σ		0.323	0.128	16.000	292.700	497.700	0.181	1.867	1.324
%RSD		18.870	3.825	0.524	0.421	0.711	0.952	2.559	2.308

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	59.540	33310.000	33130.000	0.411	2.068	5.559	0.000	93.550
2	16:46:50	60.220	33680.000	33750.000	0.589	2.410	5.154	0.000	93.690
3	16:47:09	58.690	33370.000	33320.000	0.728	2.319	5.417	0.000	93.680
x		59.490	33450.000	33400.000	0.576	2.266	5.377	0.000	93.640
σ		0.767	201.600	315.700	0.159	0.177	0.205	0.000	0.074
%RSD		1.290	0.603	0.945	27.540	7.826	3.819	0.000	0.079

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	0.000	-0.907	-1.003	83.173%	0.015	0.002	4.705	4.639
2	16:46:50	0.000	-0.734	-0.723	83.292%	0.022	0.002	4.632	4.755
3	16:47:09	0.000	-0.645	-0.576	83.244%	0.023	0.002	4.915	4.716
x		0.000	-0.762	-0.767	83.236%	0.020	0.002	4.751	4.703
σ		0.000	0.133	0.217	0.060%	0.005	0.000	0.147	0.059
%RSD		0.000	17.480	28.290	0.072	23.660	5.176	3.095	1.254

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	82.626%	0.540	2.440	2.458	1.086	1.051	90.547%	90.479%
2	16:46:50	83.712%	0.543	2.355	2.422	0.997	0.996	93.911%	93.422%
3	16:47:09	85.107%	0.540	1.984	2.067	0.914	0.965	95.198%	95.022%
x		83.815%	0.541	2.259	2.316	0.999	1.004	93.219%	92.974%
σ		1.244%	0.002	0.242	0.216	0.086	0.044	2.402%	2.304%
%RSD		1.484	0.283	10.730	9.336	8.588	4.360	2.576	2.478

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:46:31	0.193	0.184	1.549	1.400	1.442	78.059%
2	16:46:50	0.166	0.166	1.569	1.400	1.485	80.386%
3	16:47:09	0.180	0.178	1.548	1.401	1.459	82.257%
x		0.180	0.176	1.555	1.400	1.462	80.234%
σ		0.013	0.009	0.012	0.001	0.021	2.103%
%RSD		7.379	5.158	0.767	0.045	1.469	2.621

180-44362-B-4-A 6/3/2015 4:49:59 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	16:50:18	93.035%	3.059	145.000	153.500	0.000	35930.000	47020.000	47350.000
2	16:50:38	87.077%	2.850	142.900	151.700	0.000	35960.000	47190.000	47380.000
3	16:50:58	85.210%	3.199	146.300	155.000	0.000	36410.000	48730.000	49940.000
x		88.441%	3.036	144.700	153.400	0.000	36100.000	47650.000	48220.000
σ		4.087%	0.176	1.702	1.681	0.000	270.400	945.100	1488.000
%RSD		4.621	5.799	1.176	1.096	0.000	0.749	1.984	3.087

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:18	32450.000	38190.000	0.000	9180.000	418400.000	392900.000	80.227%	8.799
2	16:50:38	31750.000	36340.000	0.000	8731.000	402900.000	371000.000	85.093%	7.926
3	16:50:58	33180.000	38620.000	0.000	9424.000	438800.000	401100.000	78.379%	8.989
x		32460.000	37720.000	0.000	9112.000	420100.000	388300.000	81.233%	8.571
σ		716.100	1212.000	0.000	351.600	18040.000	15520.000	3.468%	0.567
%RSD		2.206	3.213	0.000	3.858	4.294	3.997	4.270	6.612

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:18	42.670	125.400	8909.000	259500.000	262300.000	41.900	171.200	203.800
2	16:50:38	41.310	115.000	8256.000	239400.000	244000.000	38.840	157.600	193.800
3	16:50:58	43.310	127.400	8917.000	258900.000	264300.000	41.730	165.900	203.200
x		42.430	122.600	8694.000	252600.000	256900.000	40.830	164.900	200.200
σ		1.022	6.637	379.200	11470.000	11170.000	1.721	6.883	5.621
%RSD		2.408	5.413	4.362	4.540	4.348	4.215	4.174	2.807

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:18	214.100	274000.000	273600.000	3.439	4.929	22.410	0.000	956.700
2	16:50:38	200.900	261200.000	263500.000	1.448	5.007	20.380	0.000	930.700
3	16:50:58	212.500	277500.000	275600.000	2.342	4.957	19.670	0.000	954.400
x		209.200	270900.000	270900.000	2.410	4.964	20.820	0.000	947.300
σ		7.187	8554.000	6516.000	0.997	0.039	1.420	0.000	14.400
%RSD		3.436	3.158	2.405	41.380	0.789	6.819	0.000	1.520

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:18	0.000	-1.320	-1.273	81.746%	0.151	0.033	52.640	51.550
2	16:50:38	0.000	-1.072	-1.035	82.524%	0.138	0.045	52.350	50.910
3	16:50:58	0.000	-0.968	-0.976	81.990%	0.170	0.035	51.300	51.390
x		0.000	-1.120	-1.095	82.086%	0.153	0.038	52.100	51.280
σ		0.000	0.181	0.157	0.398%	0.016	0.006	0.704	0.333
%RSD		0.000	16.170	14.360	0.485	10.540	16.580	1.352	0.649

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:18	83.347%	0.552	0.657	0.816	7.495	7.699	99.194%	98.109%
2	16:50:38	85.091%	0.484	0.692	0.769	7.738	7.816	101.785%	100.349%
3	16:50:58	85.908%	0.550	0.677	0.674	7.786	7.701	103.050%	101.348%
x		84.782%	0.529	0.675	0.753	7.673	7.739	101.343%	99.935%
σ		1.308%	0.039	0.018	0.072	0.156	0.067	1.966%	1.659%
%RSD		1.543	7.323	2.592	9.560	2.034	0.869	1.940	1.660

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:18	0.537	0.523	127.900	119.900	123.600	77.620%
2	16:50:38	0.541	0.582	128.300	119.400	124.400	80.917%
3	16:50:58	0.536	0.588	128.500	119.900	124.500	81.578%
x		0.538	0.565	128.200	119.700	124.200	80.038%
σ		0.002	0.036	0.302	0.278	0.532	2.120%
%RSD		0.439	6.408	0.236	0.232	0.428	2.649

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:06	114.044%	-0.004	11.360	12.130	0.000	234.300	5.183	4.153
2	16:54:26	110.331%	0.017	11.140	11.220	0.000	228.900	3.717	3.911
3	16:54:45	107.661%	-0.040	10.770	11.360	0.000	228.100	3.485	3.598
x		110.679%	-0.009	11.090	11.570	0.000	230.400	4.129	3.887
σ		3.206%	0.029	0.297	0.491	0.000	3.354	0.921	0.278
%RSD		2.896	318.100	2.683	4.245	0.000	1.455	22.300	7.156
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:06	6.802	-24.000	0.000	11.330	86.290	92.840	90.367%	0.190
2	16:54:26	6.150	-24.730	0.000	11.640	67.230	96.920	88.212%	0.089
3	16:54:45	6.444	-20.800	0.000	11.250	80.190	83.990	87.028%	0.092
x		6.465	-23.180	0.000	11.410	77.900	91.250	88.535%	0.124
σ		0.326	2.094	0.000	0.207	9.732	6.607	1.693%	0.058
%RSD		5.046	9.033	0.000	1.814	12.490	7.241	1.912	46.530
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:06	-0.430	0.645	0.768	60.780	63.460	0.017	0.036	0.214
2	16:54:26	0.479	0.689	0.719	61.860	59.610	0.013	0.028	0.199
3	16:54:45	-0.321	0.657	0.651	54.080	55.570	0.014	0.042	0.200
x		-0.090	0.664	0.713	58.900	59.550	0.014	0.035	0.204
σ		0.497	0.023	0.059	4.213	3.945	0.002	0.007	0.008
%RSD		548.800	3.410	8.252	7.152	6.625	13.950	19.720	4.128
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:06	0.244	26.550	26.030	0.046	-0.473	0.202	0.000	0.195
2	16:54:26	0.222	22.550	23.130	-0.648	-0.719	0.230	0.000	0.164
3	16:54:45	0.170	21.560	21.810	-0.533	-0.772	0.081	0.000	0.177
x		0.212	23.550	23.660	-0.379	-0.655	0.171	0.000	0.179
σ		0.038	2.645	2.155	0.372	0.160	0.079	0.000	0.015
%RSD		18.040	11.230	9.111	98.300	24.370	46.150	0.000	8.536
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:06	94.229%	-1.631	-1.522	95.335%	0.007	-0.007	0.021	0.019
2	16:54:26	94.458%	-1.409	-1.410	95.716%	-0.001	0.007	-0.015	-0.025
3	16:54:45	95.420%	-1.474	-1.370	96.078%	0.006	-0.002	-0.025	-0.031
x		94.702%	-1.505	-1.434	95.710%	0.004	-0.001	-0.006	-0.012
σ		0.632%	0.114	0.079	0.371%	0.004	0.007	0.024	0.027
%RSD		0.667	7.596	5.526	0.388	105.800	1286.000	381.100	220.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:06	93.187%	0.484	0.196	0.203	0.156	0.155	98.387%	98.719%
2	16:54:26	94.051%	0.437	0.237	0.244	0.097	0.117	99.774%	100.309%
3	16:54:45	94.900%	0.408	0.196	0.254	0.086	0.113	100.084%	100.450%
x		94.046%	0.443	0.209	0.234	0.113	0.128	99.415%	99.826%
σ		0.857%	0.038	0.024	0.027	0.038	0.023	0.904%	0.961%
%RSD		0.911	8.640	11.320	11.450	33.670	18.040	0.909	0.963
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:54:06	0.011	0.016	0.063	0.068	0.066	95.479%		
2	16:54:26	0.012	0.016	0.086	0.079	0.073	96.027%		
3	16:54:45	0.018	0.016	0.070	0.059	0.066	96.867%		
x		0.014	0.016	0.073	0.069	0.068	96.125%		
σ		0.004	0.000	0.012	0.010	0.004	0.699%		
%RSD		26.870	1.717	16.370	13.930	6.191	0.728		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	114.609%	-0.018	10.180	11.390	0.000	218.600	3.657	3.478
2	16:58:14	103.048%	-0.004	10.830	10.500	0.000	214.600	3.575	3.229
3	16:58:33	106.754%	-0.011	9.782	11.880	0.000	224.500	2.929	3.390
x		108.137%	-0.011	10.260	11.260	0.000	219.200	3.387	3.366
σ		5.903%	0.007	0.527	0.701	0.000	4.988	0.399	0.126
%RSD		5.459	61.420	5.136	6.223	0.000	2.275	11.780	3.747

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	2.922	-35.370	0.000	12.480	94.030	81.050	89.544%	0.109
2	16:58:14	2.798	-32.430	0.000	12.510	73.390	78.110	89.622%	0.085
3	16:58:33	2.806	-28.100	0.000	12.740	69.760	80.490	86.624%	0.119
x		2.842	-31.970	0.000	12.570	79.060	79.880	88.597%	0.104
σ		0.069	3.654	0.000	0.143	13.090	1.562	1.709%	0.018
%RSD		2.432	11.430	0.000	1.138	16.560	1.956	1.929	17.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	-0.085	1.201	0.523	18.650	20.510	0.024	0.526	0.823
2	16:58:14	-0.866	1.137	0.531	17.130	18.870	0.014	0.509	0.795
3	16:58:33	1.132	1.131	0.481	13.950	18.570	0.012	0.496	0.865
x		0.060	1.156	0.511	16.580	19.320	0.017	0.510	0.828
σ		1.007	0.039	0.027	2.400	1.047	0.006	0.015	0.035
%RSD		1664.000	3.372	5.212	14.480	5.419	38.520	2.942	4.203

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	0.864	17.100	16.280	-0.213	-0.782	0.077	0.000	0.155
2	16:58:14	0.850	14.700	14.480	-0.553	-0.722	0.292	0.000	0.154
3	16:58:33	0.739	14.920	14.810	-0.816	-0.631	0.016	0.000	0.147
x		0.818	15.580	15.190	-0.527	-0.712	0.128	0.000	0.152
σ		0.068	1.325	0.959	0.302	0.076	0.145	0.000	0.005
%RSD		8.366	8.507	6.310	57.370	10.680	113.000	0.000	2.985

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	91.555%	-1.587	-1.515	93.236%	-0.002	-0.006	0.068	0.077
2	16:58:14	91.426%	-1.396	-1.377	93.034%	-0.004	-0.004	-0.005	-0.004
3	16:58:33	93.326%	-1.340	-1.290	93.647%	-0.004	0.002	-0.058	-0.035
x		92.102%	-1.441	-1.394	93.306%	-0.004	-0.003	0.002	0.012
σ		1.062%	0.130	0.114	0.312%	0.001	0.004	0.063	0.058
%RSD		1.153	9.000	8.150	0.335	30.520	138.700	3513.000	465.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	89.690%	0.227	0.115	0.129	0.174	0.130	95.097%	95.076%
2	16:58:14	92.381%	0.259	0.129	0.130	0.116	0.121	96.025%	97.333%
3	16:58:33	93.037%	0.290	0.118	0.145	0.093	0.085	97.588%	97.539%
x		91.703%	0.259	0.121	0.135	0.128	0.112	96.236%	96.649%
σ		1.774%	0.032	0.007	0.009	0.041	0.023	1.259%	1.366%
%RSD		1.934	12.280	5.984	7.035	32.500	20.890	1.308	1.414

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:53	0.009	0.009	0.094	0.069	0.076	91.757%
2	16:58:14	0.008	0.009	0.076	0.058	0.068	92.616%
3	16:58:33	0.024	0.014	0.081	0.070	0.076	93.692%
x		0.014	0.011	0.084	0.065	0.073	92.688%
σ		0.009	0.003	0.010	0.007	0.004	0.970%
%RSD		65.160	24.890	11.570	10.120	5.930	1.046

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:42	105.916%	-0.020	156.300	162.200	0.000	77350.000	2780.000	2742.000
2	17:02:02	102.070%	-0.019	156.700	162.100	0.000	80690.000	2843.000	2823.000
3	17:02:21	93.423%	-0.022	151.400	167.200	0.000	80350.000	2859.000	2890.000
x		100.470%	-0.021	154.800	163.800	0.000	79460.000	2828.000	2818.000
σ		6.399%	0.001	2.909	2.907	0.000	1838.000	42.010	74.080
%RSD		6.369	7.237	1.879	1.774	0.000	2.312	1.486	2.629
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:42	1.417	215.400	0.000	3784.000	35590.000	35130.000	97.551%	-0.095
2	17:02:02	1.347	235.800	0.000	3877.000	37000.000	36030.000	89.268%	-0.097
3	17:02:21	1.467	240.100	0.000	4046.000	37670.000	37270.000	90.499%	-0.063
x		1.410	230.400	0.000	3902.000	36750.000	36140.000	92.439%	-0.085
σ		0.060	13.200	0.000	133.000	1061.000	1075.000	4.470%	0.019
%RSD		4.275	5.729	0.000	3.409	2.887	2.974	4.835	22.880
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:42	0.208	0.149	17.020	276.400	499.800	0.075	0.416	1.260
2	17:02:02	0.123	0.128	18.010	263.700	496.700	0.066	0.442	1.401
3	17:02:21	0.078	0.093	17.360	262.500	499.900	0.069	0.448	1.343
x		0.136	0.123	17.460	267.500	498.800	0.070	0.435	1.335
σ		0.066	0.028	0.503	7.681	1.842	0.005	0.017	0.071
%RSD		48.490	23.140	2.878	2.871	0.369	6.603	3.865	5.329
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:42	0.887	8.462	8.792	0.213	-1.016	1.249	0.000	583.400
2	17:02:02	0.933	8.447	8.200	0.220	-0.523	1.138	0.000	582.800
3	17:02:21	0.737	8.422	8.158	0.308	-0.281	1.341	0.000	578.000
x		0.852	8.444	8.384	0.247	-0.607	1.243	0.000	581.400
σ		0.102	0.020	0.354	0.053	0.375	0.102	0.000	2.968
%RSD		12.020	0.240	4.226	21.570	61.790	8.188	0.000	0.510
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:42	91.938%	-1.649	-1.594	89.986%	-0.001	-0.006	0.023	0.011
2	17:02:02	92.986%	-1.579	-1.527	90.244%	0.006	0.002	0.070	0.053
3	17:02:21	91.731%	-1.547	-1.482	90.351%	-0.000	-0.010	0.045	0.028
x		92.218%	-1.592	-1.534	90.193%	0.002	-0.004	0.046	0.030
σ		0.673%	0.052	0.056	0.187%	0.004	0.006	0.024	0.021
%RSD		0.730	3.269	3.674	0.208	258.300	133.900	51.720	69.760
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:01:42	89.222%	-0.182	-0.109	-0.119	2.073	2.074	92.316%	92.428%
2	17:02:02	90.222%	-0.158	-0.121	-0.121	1.943	2.108	95.372%	95.039%
3	17:02:21	91.010%	-0.144	-0.131	-0.116	2.011	2.048	95.774%	96.319%
x		90.151%	-0.162	-0.120	-0.119	2.009	2.077	94.487%	94.595%
σ		0.896%	0.019	0.011	0.002	0.065	0.030	1.891%	1.983%
%RSD		0.994	11.850	9.410	1.830	3.240	1.464	2.002	2.097
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:01:42	0.008	0.007	0.095	0.101	0.099	94.833%		
2	17:02:02	0.004	0.006	0.127	0.113	0.118	91.089%		
3	17:02:21	0.012	0.007	0.126	0.103	0.112	92.067%		
x		0.008	0.007	0.116	0.106	0.110	92.663%		
σ		0.004	0.000	0.018	0.007	0.010	1.942%		
%RSD		52.180	2.737	15.790	6.192	8.680	2.095		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	106.705%	0.935	18.110	19.750	0.000	436.400	429.000	441.000
2	17:12:38	102.651%	0.966	19.660	19.500	0.000	453.600	454.100	451.800
3	17:12:57	97.053%	0.994	20.840	21.440	0.000	465.400	457.000	467.100
x		102.136%	96.494%	97.684%	101.149%	0.000	90.364%	89.336%	90.660%
σ		4.846%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.745	3.073	7.000	5.227	0.000	3.228	3.444	2.891

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	27.990	357.800	0.000	457.900	434.900	420.400	110.197%	4.253
2	17:12:38	28.940	349.200	0.000	457.400	489.000	430.800	103.059%	4.505
3	17:12:57	30.150	396.700	0.000	467.900	482.100	456.500	102.637%	4.672
x		96.755%	73.584%	0.000	92.218%	93.735%	87.179%	105.298%	89.530%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.248%	n/a
%RSD		3.731	6.884	0.000	1.288	6.286	4.261	4.034	4.713

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	0.900	1.715	4.262	33.030	44.260	0.399	0.856	1.835
2	17:12:38	0.870	1.767	4.544	35.590	46.900	0.481	0.920	1.936
3	17:12:57	0.809	1.778	4.472	37.660	45.490	0.458	0.949	1.836
x		85.977%	87.677%	88.524%	70.856%	91.102%	89.221%	90.843%	93.451%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.379	1.909	3.311	6.546	2.901	9.507	5.246	3.108

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	1.725	6.559	6.825	0.781	2.997	4.454	0.000	4.088
2	17:12:38	1.924	6.503	7.208	0.878	3.062	4.341	0.000	4.080
3	17:12:57	1.887	6.289	6.474	0.875	3.529	4.525	0.000	4.042
x		92.263%	129.011%	136.713%	84.475%	63.920%	88.804%	0.000	81.391%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.746	2.212	5.368	6.579	9.086	2.091	0.000	0.604

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	111.751%	1.917	2.072	91.467%	1.011	1.087	1.020	1.103
2	17:12:38	112.439%	1.942	2.011	90.671%	1.045	1.021	1.141	1.074
3	17:12:57	112.039%	1.924	2.183	90.778%	1.044	1.129	1.094	1.100
x		112.076%	38.552%	41.777%	90.972%	103.320%	107.908%	108.494%	109.254%
σ		0.346%	n/a	n/a	0.432%	n/a	n/a	n/a	n/a
%RSD		0.309	0.668	4.187	0.475	1.846	5.080	5.649	1.489

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	88.731%	4.284	1.957	1.907	10.120	9.978	87.304%	87.724%
2	17:12:38	89.908%	4.177	1.893	2.014	10.440	9.933	90.019%	89.491%
3	17:12:57	90.352%	4.146	2.029	2.046	10.200	10.270	90.814%	91.035%
x		89.664%	84.040%	97.979%	99.456%	102.542%	100.611%	89.379%	89.417%
σ		0.838%	n/a	n/a	n/a	n/a	n/a	1.841%	1.656%
%RSD		0.934	1.725	3.478	3.663	1.605	1.827	2.059	1.853

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:18	1.018	1.037	1.091	1.044	1.047	87.578%
2	17:12:38	1.061	1.016	1.108	1.071	1.072	89.927%
3	17:12:57	1.121	1.026	1.097	1.126	1.105	89.296%
x		106.642%	102.612%	109.862%	108.044%	107.453%	88.934%
σ		n/a	n/a	n/a	n/a	n/a	1.215%
%RSD		4.844	1.026	0.763	3.884	2.700	1.367

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	102.509%	0.001	38.370	38.360	0.000	24260.000	6322.000	6229.000
2	17:16:27	94.523%	-0.028	41.850	40.050	0.000	25920.000	6634.000	6581.000
3	17:16:46	91.341%	-0.010	40.230	42.890	0.000	26030.000	6798.000	6899.000
x		96.125%	-0.012	40.150	40.430	0.000	25400.000	6585.000	6570.000
σ		5.754%	0.015	1.738	2.290	0.000	992.700	241.600	335.300
%RSD		5.986	120.600	4.328	5.663	0.000	3.908	3.669	5.104

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	14.960	4053.000	0.000	1717.000	50970.000	51030.000	82.657%	0.623
2	17:16:27	16.420	4354.000	0.000	1806.000	53450.000	51850.000	79.840%	0.665
3	17:16:46	16.330	4337.000	0.000	1800.000	52990.000	52270.000	80.727%	0.804
x		15.900	4248.000	0.000	1774.000	52470.000	51720.000	81.075%	0.697
σ		0.818	169.100	0.000	49.500	1319.000	632.900	1.440%	0.095
%RSD		5.141	3.980	0.000	2.790	2.515	1.224	1.776	13.580

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	1.944	1.036	7.574	342.300	647.000	0.155	0.775	2.203
2	17:16:27	1.907	1.110	7.341	322.800	624.900	0.151	0.576	2.214
3	17:16:46	1.280	0.942	7.373	329.400	615.600	0.137	0.581	2.283
x		1.710	1.029	7.429	331.500	629.200	0.147	0.644	2.234
σ		0.373	0.084	0.126	9.894	16.120	0.009	0.114	0.043
%RSD		21.820	8.164	1.700	2.985	2.563	6.342	17.630	1.940

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	2.197	27.120	27.190	0.339	-0.800	1.061	0.000	1113.000
2	17:16:27	2.290	25.590	25.600	0.246	-0.497	0.882	0.000	1123.000
3	17:16:46	2.271	25.040	23.860	1.039	-0.530	0.874	0.000	1115.000
x		2.253	25.920	25.550	0.541	-0.609	0.939	0.000	1117.000
σ		0.049	1.079	1.665	0.434	0.166	0.106	0.000	5.488
%RSD		2.175	4.164	6.518	80.120	27.310	11.250	0.000	0.491

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	84.804%	-0.976	-0.904	83.386%	0.012	0.005	-0.076	-0.052
2	17:16:27	83.838%	-0.882	-0.826	83.082%	0.009	0.002	0.086	0.064
3	17:16:46	84.163%	-0.874	-0.780	82.874%	0.006	0.002	-0.003	0.000
x		84.268%	-0.911	-0.836	83.114%	0.009	0.003	0.002	0.004
σ		0.491%	0.057	0.063	0.258%	0.003	0.002	0.081	0.058
%RSD		0.583	6.250	7.490	0.310	35.070	57.950	3762.000	1442.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	82.434%	0.660	0.231	0.332	145.100	144.300	89.027%	90.279%
2	17:16:27	83.659%	0.708	0.254	0.328	145.000	145.000	91.082%	91.759%
3	17:16:46	84.171%	0.594	0.218	0.327	142.800	144.300	91.474%	93.027%
x		83.421%	0.654	0.235	0.329	144.300	144.600	90.528%	91.688%
σ		0.893%	0.057	0.018	0.002	1.318	0.411	1.314%	1.376%
%RSD		1.070	8.767	7.662	0.712	0.914	0.284	1.452	1.500

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:16:08	0.014	0.016	0.544	0.494	0.517	85.135%
2	17:16:27	0.019	0.013	0.489	0.527	0.520	85.350%
3	17:16:46	0.016	0.013	0.566	0.515	0.534	85.011%
x		0.016	0.014	0.533	0.512	0.524	85.165%
σ		0.002	0.002	0.039	0.017	0.009	0.171%
%RSD		14.730	14.230	7.407	3.261	1.747	0.201

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:55	102.542%	0.006	7.818	7.427	0.000	5023.000	1238.000	1258.000
2	17:20:15	93.722%	-0.022	6.871	8.191	0.000	5282.000	1320.000	1351.000
3	17:20:34	103.668%	-0.014	7.070	7.188	0.000	4892.000	1250.000	1266.000
x		99.977%	-0.010	7.253	7.602	0.000	5066.000	1270.000	1292.000
σ		5.447%	0.014	0.499	0.524	0.000	198.200	44.340	51.880
%RSD		5.448	141.900	6.884	6.896	0.000	3.913	3.492	4.016
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:55	7.024	746.800	0.000	344.900	10030.000	9398.000	90.561%	0.070
2	17:20:15	7.666	806.900	0.000	341.300	10530.000	9813.000	87.423%	-0.020
3	17:20:34	7.588	719.200	0.000	327.400	10310.000	9632.000	84.958%	0.049
x		7.426	757.700	0.000	337.900	10290.000	9614.000	87.647%	0.033
σ		0.350	44.850	0.000	9.282	246.800	207.700	2.808%	0.047
%RSD		4.715	5.919	0.000	2.747	2.398	2.160	3.204	143.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:55	0.181	0.205	1.520	62.130	126.200	0.040	0.208	0.510
2	17:20:15	0.343	0.163	1.578	59.580	119.900	0.036	0.149	0.475
3	17:20:34	-0.467	0.164	1.613	63.270	129.300	0.032	0.131	0.495
x		0.019	0.177	1.570	61.660	125.100	0.036	0.163	0.493
σ		0.428	0.024	0.047	1.888	4.801	0.004	0.041	0.018
%RSD		2241.000	13.370	2.978	3.063	3.838	11.170	24.890	3.557
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:55	0.584	6.098	6.344	-0.138	-0.787	0.010	0.000	220.400
2	17:20:15	0.576	6.210	5.799	0.148	-0.806	-0.031	0.000	219.000
3	17:20:34	0.424	5.845	5.652	0.167	-0.558	0.224	0.000	219.200
x		0.528	6.051	5.932	0.059	-0.717	0.068	0.000	219.500
σ		0.090	0.187	0.364	0.171	0.138	0.137	0.000	0.741
%RSD		17.040	3.091	6.143	289.000	19.270	202.600	0.000	0.337
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:55	89.111%	-1.670	-1.571	90.485%	0.004	-0.012	0.039	0.017
2	17:20:15	89.849%	-1.590	-1.535	91.182%	-0.003	-0.000	0.015	0.021
3	17:20:34	90.880%	-1.633	-1.511	90.932%	-0.001	-0.007	0.006	0.006
x		89.947%	-1.631	-1.539	90.866%	-0.000	-0.006	0.020	0.015
σ		0.888%	0.040	0.030	0.353%	0.004	0.006	0.017	0.008
%RSD		0.987	2.441	1.951	0.389	6620.000	96.370	83.130	54.460
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:55	89.920%	-0.112	-0.115	-0.135	29.480	29.210	93.282%	94.017%
2	17:20:15	91.858%	-0.113	-0.129	-0.122	28.550	28.480	95.933%	96.135%
3	17:20:34	91.250%	-0.098	-0.128	-0.129	28.250	28.510	96.900%	97.638%
x		91.010%	-0.108	-0.124	-0.128	28.760	28.730	95.371%	95.930%
σ		0.992%	0.008	0.008	0.006	0.639	0.416	1.873%	1.819%
%RSD		1.089	7.818	6.096	5.031	2.221	1.449	1.964	1.896
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:19:55	0.003	-0.001	0.116	0.104	0.106	96.981%		
2	17:20:15	0.005	0.002	0.116	0.104	0.109	94.403%		
3	17:20:34	0.005	0.004	0.117	0.103	0.117	95.369%		
x		0.004	0.002	0.116	0.103	0.111	95.584%		
σ		0.001	0.002	0.000	0.001	0.006	1.303%		
%RSD		25.030	127.600	0.405	0.599	4.992	1.363		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	111.186%	92.480	96.030	96.030	0.000	44230.000	44340.000	44910.000
2	17:23:51	111.180%	93.650	96.050	94.980	0.000	45860.000	45020.000	45400.000
3	17:24:10	111.696%	94.860	99.920	98.290	0.000	47490.000	46860.000	45590.000
x		111.354%	93.665%	97.331%	96.435%	0.000	91.718%	90.818%	90.601%
σ		0.296%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.266	1.271	2.301	1.758	0.000	3.556	2.871	0.779

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	449.300	4830.000	0.000	45740.000	45730.000	44970.000	102.820%	92.920
2	17:23:51	447.500	4890.000	0.000	46090.000	47170.000	45460.000	97.765%	98.230
3	17:24:10	453.600	4859.000	0.000	46870.000	48340.000	47130.000	97.672%	95.610
x		90.022%	97.200%	0.000	92.466%	94.158%	91.701%	99.419%	95.587%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.946%	n/a
%RSD		0.699	0.616	0.000	1.256	2.779	2.468	2.963	2.779

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	89.850	92.420	451.700	22990.000	22800.000	90.550	91.240	92.470
2	17:23:51	90.960	94.560	469.000	23870.000	23780.000	94.680	97.480	97.120
3	17:24:10	92.870	92.550	465.000	23340.000	23180.000	93.330	93.920	96.350
x		91.227%	93.177%	92.379%	93.600%	93.019%	92.855%	94.214%	95.314%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.674	1.283	1.959	1.882	2.127	2.266	3.319	2.618

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	91.710	89.290	91.130	93.110	96.050	97.320	0.000	93.100
2	17:23:51	96.940	92.090	92.430	93.850	94.910	96.880	0.000	93.960
3	17:24:10	98.080	92.300	93.030	94.950	94.810	95.530	0.000	94.230
x		95.577%	91.228%	92.198%	93.970%	95.258%	96.577%	0.000	93.764%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.551	1.840	1.059	0.987	0.725	0.965	0.000	0.629

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	92.210%	92.920	93.950	90.214%	94.000	95.790	94.640	96.960
2	17:23:51	94.461%	94.370	95.960	91.923%	95.080	96.460	96.300	97.960
3	17:24:10	96.184%	94.690	94.910	92.902%	96.050	96.590	97.030	98.410
x		94.285%	93.995%	94.938%	91.680%	95.044%	96.280%	95.992%	97.777%
σ		1.993%	n/a	n/a	1.361%	n/a	n/a	n/a	n/a
%RSD		2.114	1.009	1.059	1.484	1.081	0.447	1.279	0.758

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	84.570%	96.970	90.930	90.750	95.260	95.720	89.083%	89.702%
2	17:23:51	86.223%	98.300	91.880	91.250	96.300	96.490	92.112%	92.237%
3	17:24:10	86.748%	98.070	93.320	92.680	96.710	96.420	94.275%	93.920%
x		85.847%	97.783%	92.044%	91.561%	96.092%	96.209%	91.823%	91.953%
σ		1.137%	n/a	n/a	n/a	n/a	n/a	2.608%	2.123%
%RSD		1.324	0.728	1.307	1.094	0.777	0.439	2.840	2.309

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:31	93.090	92.550	93.690	93.530	93.720	91.334%
2	17:23:51	98.110	98.500	99.660	99.670	99.720	89.315%
3	17:24:10	99.940	99.910	101.000	102.300	102.300	89.430%
x		97.046%	96.984%	98.112%	98.512%	98.569%	90.027%
σ		n/a	n/a	n/a	n/a	n/a	1.134%
%RSD		3.651	4.027	3.960	4.586	4.455	1.259

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:19	110.346%	0.016	0.666	0.364	0.000	1.576	0.838	0.779
2	17:30:39	109.253%	-0.007	0.573	0.486	0.000	1.377	0.702	0.725
3	17:30:58	102.182%	-0.029	0.822	0.604	0.000	1.431	0.846	0.910
x		107.261%	-0.007	0.687	0.485	0.000	1.461	0.795	0.805
σ		4.432%	0.023	0.126	0.120	0.000	0.103	0.081	0.095
%RSD		4.132	338.000	18.330	24.720	0.000	7.046	10.180	11.840
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:19	-0.043	-114.100	0.000	6.871	0.781	4.737	97.179%	-0.083
2	17:30:39	-0.020	-112.000	0.000	6.517	-0.218	4.109	93.703%	-0.114
3	17:30:58	-0.100	-110.900	0.000	5.787	9.845	3.095	93.790%	-0.161
x		-0.054	-112.300	0.000	6.392	3.470	3.980	94.891%	-0.119
σ		0.041	1.627	0.000	0.553	5.544	0.829	1.982%	0.039
%RSD		75.360	1.449	0.000	8.651	159.800	20.820	2.089	32.560
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:19	-0.025	-0.064	0.045	-0.909	2.965	0.003	-0.056	-0.009
2	17:30:39	-0.044	-0.082	0.039	-1.694	3.735	0.007	-0.014	0.006
3	17:30:58	-0.037	-0.067	0.042	-2.197	3.488	0.001	0.008	-0.001
x		-0.035	-0.071	0.042	-1.600	3.396	0.004	-0.021	-0.001
σ		0.010	0.010	0.003	0.649	0.393	0.003	0.032	0.007
%RSD		27.680	13.620	7.868	40.570	11.580	71.370	154.500	617.800
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:19	-0.026	1.000	1.137	0.014	-0.199	0.143	0.000	0.022
2	17:30:39	0.008	0.989	0.834	0.008	-0.205	0.363	0.000	0.011
3	17:30:58	0.034	0.748	0.745	0.046	-0.130	0.486	0.000	0.014
x		0.005	0.912	0.906	0.023	-0.178	0.331	0.000	0.016
σ		0.030	0.142	0.205	0.020	0.042	0.174	0.000	0.006
%RSD		572.700	15.620	22.700	88.810	23.530	52.600	0.000	36.540
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:19	93.860%	-1.366	-1.303	95.134%	0.010	0.001	0.111	0.082
2	17:30:39	95.909%	-1.254	-1.103	95.918%	0.004	0.004	0.072	0.057
3	17:30:58	95.077%	-1.164	-1.056	96.590%	0.009	0.013	0.007	0.012
x		94.949%	-1.261	-1.154	95.881%	0.008	0.006	0.063	0.051
σ		1.030%	0.101	0.131	0.729%	0.004	0.006	0.053	0.036
%RSD		1.085	8.024	11.360	0.760	46.260	96.950	83.800	70.690
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:19	92.200%	-0.118	0.604	0.584	0.031	0.006	91.732%	91.468%
2	17:30:39	92.708%	-0.052	0.636	0.706	-0.008	0.015	94.801%	94.329%
3	17:30:58	94.795%	-0.062	0.701	0.649	-0.008	0.015	95.488%	95.654%
x		93.234%	-0.077	0.647	0.646	0.005	0.012	94.007%	93.817%
σ		1.375%	0.036	0.049	0.061	0.022	0.005	2.000%	2.139%
%RSD		1.475	46.390	7.587	9.412	430.900	41.440	2.127	2.280
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:30:19	0.015	0.015	-0.001	0.001	0.000	95.574%		
2	17:30:39	0.022	0.017	0.009	0.003	0.000	97.079%		
3	17:30:58	0.016	0.019	0.005	0.003	-0.000	97.152%		
x		0.018	0.017	0.005	0.003	0.000	96.601%		
σ		0.004	0.002	0.005	0.001	0.000	0.891%		
%RSD		19.990	9.742	109.100	49.240	408.100	0.922		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:09	104.697%	41.370	904.500	913.100	0.000	64920.000	48650.000	47880.000
2	17:34:29	91.870%	43.120	891.700	927.300	0.000	67520.000	49560.000	49680.000
3	17:34:48	92.872%	42.680	966.200	940.700	0.000	65000.000	47680.000	47460.000
x		96.480%	42.390	920.800	927.000	0.000	65810.000	48630.000	48340.000
σ		7.134%	0.911	39.840	13.780	0.000	1477.000	942.100	1181.000
%RSD		7.394	2.149	4.327	1.486	0.000	2.244	1.937	2.443
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:09	1681.000	13490.000	0.000	46680.000	100200.000	99610.000	77.070%	963.500
2	17:34:29	1729.000	13810.000	0.000	48050.000	102900.000	101500.000	77.762%	1011.000
3	17:34:48	1627.000	12910.000	0.000	45560.000	96230.000	93880.000	84.012%	926.800
x		1679.000	13400.000	0.000	46760.000	99770.000	98340.000	79.615%	967.000
σ		50.940	452.500	0.000	1247.000	3337.000	3980.000	3.824%	41.980
%RSD		3.034	3.376	0.000	2.668	3.345	4.047	4.803	4.341
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:09	483.200	192.400	484.600	1345.000	1968.000	496.800	478.200	242.400
2	17:34:29	487.900	192.100	479.400	1306.000	1839.000	472.400	461.900	232.700
3	17:34:48	469.200	181.100	449.700	1237.000	1788.000	454.500	436.200	227.900
x		480.100	188.600	471.200	1296.000	1865.000	474.600	458.800	234.300
σ		9.723	6.459	18.830	55.040	92.790	21.230	21.170	7.361
%RSD		2.025	3.425	3.995	4.247	4.975	4.474	4.614	3.141
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:09	245.900	464.000	467.200	37.930	9.500	10.400	0.000	2031.000
2	17:34:29	230.900	456.900	461.400	38.180	9.610	9.851	0.000	2023.000
3	17:34:48	224.400	448.100	443.800	36.100	9.167	10.700	0.000	2024.000
x		233.700	456.300	457.500	37.400	9.426	10.320	0.000	2026.000
σ		11.030	7.968	12.200	1.138	0.231	0.430	0.000	4.077
%RSD		4.719	1.746	2.666	3.044	2.447	4.168	0.000	0.201
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:09	85.549%	979.100	997.900	82.499%	45.450	45.800	45.620	38.770
2	17:34:29	85.123%	983.800	1003.000	81.721%	45.390	46.710	45.930	39.070
3	17:34:48	84.834%	987.300	1007.000	81.777%	45.110	45.880	46.410	38.870
x		85.169%	983.400	1003.000	81.999%	45.320	46.130	45.990	38.900
σ		0.359%	4.103	4.559	0.434%	0.183	0.504	0.401	0.152
%RSD		0.422	0.417	0.455	0.529	0.405	1.093	0.871	0.392
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:09	82.192%	1921.000	490.900	489.300	1944.000	1962.000	90.827%	90.833%
2	17:34:29	83.328%	1910.000	483.700	485.000	1949.000	1954.000	91.385%	91.851%
3	17:34:48	82.555%	1937.000	489.000	489.800	1951.000	1971.000	92.254%	93.004%
x		82.692%	1923.000	487.900	488.000	1948.000	1962.000	91.489%	91.896%
σ		0.580%	13.200	3.692	2.647	3.434	8.683	0.719%	1.086%
%RSD		0.702	0.686	0.757	0.542	0.176	0.443	0.786	1.182
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:34:09	48.160	47.550	20.280	20.320	20.350	83.404%		
2	17:34:29	48.900	49.490	20.960	20.810	21.000	83.548%		
3	17:34:48	49.910	49.620	21.250	21.270	21.370	82.294%		
x		48.990	48.890	20.830	20.800	20.910	83.082%		
σ		0.879	1.159	0.501	0.474	0.514	0.686%		
%RSD		1.795	2.370	2.404	2.281	2.458	0.826		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	95.822%	44.340	932.600	959.700	0.000	63580.000	46560.000	46790.000
2	17:38:16	97.062%	43.930	981.700	988.900	0.000	70890.000	51280.000	50920.000
3	17:38:36	94.689%	43.360	963.800	1004.000	0.000	71230.000	51950.000	51240.000
x		95.858%	43.880	959.400	984.300	0.000	68570.000	49930.000	49650.000
σ		1.187%	0.494	24.860	22.590	0.000	4318.000	2938.000	2483.000
%RSD		1.238	1.125	2.592	2.295	0.000	6.298	5.885	5.001

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	1665.000	13180.000	0.000	44140.000	93780.000	92900.000	83.463%	928.600
2	17:38:16	1729.000	14360.000	0.000	49700.000	105700.000	103100.000	73.792%	994.100
3	17:38:36	1835.000	14400.000	0.000	48650.000	104900.000	104000.000	75.782%	982.000
x		1743.000	13980.000	0.000	47490.000	101500.000	99970.000	77.679%	968.200
σ		85.830	694.000	0.000	2953.000	6666.000	6145.000	5.107%	34.860
%RSD		4.924	4.963	0.000	6.218	6.570	6.146	6.575	3.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	472.700	182.200	474.900	1335.000	1947.000	484.100	452.100	229.800
2	17:38:16	494.300	195.500	490.300	1412.000	1944.000	508.500	488.700	245.300
3	17:38:36	502.100	194.200	482.400	1377.000	1947.000	492.700	470.600	240.000
x		489.700	190.600	482.500	1375.000	1946.000	495.100	470.500	238.400
σ		15.230	7.315	7.712	38.180	1.845	12.400	18.290	7.880
%RSD		3.110	3.837	1.598	2.777	0.095	2.505	3.888	3.306

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	230.600	446.700	450.700	36.550	9.222	10.550	0.000	2048.000
2	17:38:16	248.000	476.000	475.000	38.230	8.713	10.540	0.000	2029.000
3	17:38:36	246.200	467.800	467.200	38.430	9.772	10.380	0.000	2054.000
x		241.600	463.500	464.300	37.730	9.235	10.490	0.000	2044.000
σ		9.541	15.100	12.440	1.031	0.530	0.096	0.000	12.880
%RSD		3.949	3.259	2.679	2.732	5.734	0.917	0.000	0.630

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	81.247%	998.200	1017.000	78.646%	45.750	46.200	45.980	38.610
2	17:38:16	83.347%	1001.000	1023.000	79.734%	46.160	46.470	46.580	38.480
3	17:38:36	82.990%	1007.000	1027.000	80.261%	46.400	47.080	46.030	40.050
x		82.528%	1002.000	1022.000	79.547%	46.110	46.580	46.200	39.050
σ		1.124%	4.481	5.233	0.824%	0.330	0.448	0.331	0.874
%RSD		1.362	0.447	0.512	1.035	0.716	0.962	0.716	2.237

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	77.437%	1982.000	488.100	485.600	1961.000	1974.000	84.837%	84.980%
2	17:38:16	78.835%	1971.000	487.300	489.300	1973.000	1970.000	86.690%	87.204%
3	17:38:36	78.967%	1984.000	493.900	494.600	1972.000	1976.000	88.313%	88.564%
x		78.413%	1979.000	489.800	489.800	1969.000	1973.000	86.613%	86.916%
σ		0.848%	7.332	3.609	4.551	6.419	3.056	1.740%	1.809%
%RSD		1.081	0.371	0.737	0.929	0.326	0.155	2.008	2.082

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:37:57	51.800	51.270	21.460	21.560	21.660	71.651%
2	17:38:16	52.030	52.650	22.050	21.770	21.990	72.567%
3	17:38:36	51.170	51.080	21.650	21.560	21.520	75.344%
x		51.670	51.660	21.720	21.630	21.720	73.187%
σ		0.448	0.854	0.301	0.123	0.238	1.923%
%RSD		0.868	1.654	1.387	0.566	1.096	2.627

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:45	105.901%	0.020	18.510	19.100	0.000	33330.000	5228.000	5319.000
2	17:42:04	100.160%	-0.023	20.310	19.780	0.000	34020.000	5495.000	5465.000
3	17:42:24	97.702%	-0.007	19.840	19.660	0.000	34400.000	5558.000	5528.000
x		101.254%	-0.003	19.550	19.510	0.000	33920.000	5427.000	5437.000
σ		4.207%	0.022	0.937	0.362	0.000	543.200	175.400	107.100
%RSD		4.155	645.700	4.790	1.857	0.000	1.601	3.231	1.970
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:45	25.850	3725.000	0.000	1547.000	37640.000	37850.000	78.440%	1.236
2	17:42:04	25.910	3848.000	0.000	1549.000	39050.000	39490.000	76.614%	1.324
3	17:42:24	25.380	3859.000	0.000	1578.000	39610.000	38470.000	75.439%	1.476
x		25.720	3811.000	0.000	1558.000	38770.000	38600.000	76.831%	1.345
σ		0.292	74.740	0.000	17.270	1014.000	826.900	1.512%	0.122
%RSD		1.136	1.961	0.000	1.109	2.615	2.142	1.968	9.036
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:45	0.298	1.056	34.290	6488.000	6473.000	0.270	0.855	2.167
2	17:42:04	-0.718	1.089	34.840	6456.000	6514.000	0.254	0.823	2.096
3	17:42:24	-1.867	1.101	34.960	6468.000	6585.000	0.261	0.978	2.267
x		-0.762	1.082	34.700	6471.000	6524.000	0.261	0.885	2.176
σ		1.083	0.023	0.358	15.980	56.590	0.008	0.082	0.086
%RSD		142.100	2.135	1.032	0.247	0.868	3.011	9.234	3.938
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:45	2.123	24.400	24.070	-0.029	-1.045	0.724	0.000	197.800
2	17:42:04	2.101	23.730	21.820	0.588	-0.403	0.362	0.000	195.900
3	17:42:24	1.960	23.280	22.620	0.235	-0.559	0.556	0.000	195.700
x		2.061	23.800	22.840	0.265	-0.669	0.547	0.000	196.400
σ		0.089	0.566	1.138	0.309	0.335	0.181	0.000	1.143
%RSD		4.296	2.378	4.981	116.900	49.990	33.160	0.000	0.582
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:45	81.710%	4.003	4.139	82.501%	0.009	0.003	0.109	0.083
2	17:42:04	83.720%	4.806	4.961	81.236%	0.006	0.009	0.070	0.020
3	17:42:24	83.861%	4.530	4.505	82.424%	0.005	0.004	0.052	-0.002
x		83.097%	4.446	4.535	82.054%	0.007	0.006	0.077	0.034
σ		1.203%	0.408	0.412	0.709%	0.002	0.003	0.029	0.044
%RSD		1.448	9.172	9.076	0.864	32.090	51.150	37.880	131.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:45	81.376%	1.918	0.253	0.314	118.300	116.400	86.014%	85.897%
2	17:42:04	82.053%	1.880	0.285	0.345	118.300	118.300	88.053%	88.812%
3	17:42:24	82.168%	1.664	0.284	0.280	120.200	120.400	89.499%	89.528%
x		81.866%	1.821	0.274	0.313	118.900	118.400	87.855%	88.079%
σ		0.428%	0.137	0.018	0.032	1.119	1.975	1.751%	1.923%
%RSD		0.522	7.528	6.586	10.370	0.941	1.668	1.993	2.183
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:41:45	0.301	0.274	0.165	0.149	0.151	78.350%		
2	17:42:04	0.233	0.237	0.188	0.138	0.154	79.927%		
3	17:42:24	0.195	0.187	0.171	0.144	0.155	81.667%		
x		0.243	0.233	0.174	0.144	0.153	79.981%		
σ		0.054	0.044	0.012	0.005	0.002	1.659%		
%RSD		22.050	18.750	6.960	3.719	1.447	2.074		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	95.601%	-0.001	95.510	98.120	0.000	52710.000	4010.000	4074.000
2	17:45:53	89.364%	0.020	94.700	93.950	0.000	53470.000	3991.000	4022.000
3	17:46:12	94.441%	-0.011	96.840	97.490	0.000	54960.000	4143.000	4365.000
x		93.135%	0.003	95.680	96.520	0.000	53710.000	4048.000	4153.000
σ		3.318%	0.015	1.084	2.246	0.000	1145.000	82.420	184.800
%RSD		3.562	585.700	1.133	2.327	0.000	2.132	2.036	4.449

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	25.800	3477.000	0.000	2409.000	34150.000	33890.000	84.340%	0.634
2	17:45:53	27.300	3632.000	0.000	2464.000	35130.000	34320.000	82.547%	0.559
3	17:46:12	27.060	3645.000	0.000	2580.000	37010.000	36280.000	73.766%	0.851
x		26.720	3585.000	0.000	2484.000	35430.000	34830.000	80.218%	0.681
σ		0.808	93.220	0.000	87.700	1457.000	1274.000	5.659%	0.152
%RSD		3.025	2.600	0.000	3.530	4.112	3.659	7.054	22.320

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	-1.662	0.752	56.310	604.600	774.800	0.138	0.352	0.949
2	17:45:53	-1.053	0.808	56.260	601.200	762.700	0.120	0.277	0.925
3	17:46:12	-0.924	0.745	61.900	648.900	850.600	0.143	0.355	0.908
x		-1.213	0.768	58.160	618.300	796.100	0.134	0.328	0.927
σ		0.394	0.035	3.244	26.620	47.660	0.012	0.044	0.021
%RSD		32.500	4.498	5.577	4.306	5.987	9.169	13.420	2.220

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	0.825	12.360	13.360	3.743	-0.784	0.505	0.000	2210.000
2	17:45:53	0.803	11.270	11.670	3.403	-1.096	0.172	0.000	2193.000
3	17:46:12	0.816	12.020	11.730	4.334	-0.932	0.303	0.000	2193.000
x		0.815	11.880	12.250	3.827	-0.937	0.327	0.000	2199.000
σ		0.011	0.556	0.961	0.471	0.156	0.168	0.000	9.926
%RSD		1.378	4.681	7.841	12.310	16.670	51.450	0.000	0.451

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	83.767%	0.152	0.222	83.385%	0.005	-0.005	0.034	0.017
2	17:45:53	83.976%	0.543	0.645	84.087%	0.003	-0.008	0.036	0.048
3	17:46:12	84.338%	0.325	0.579	83.608%	-0.002	-0.001	0.051	0.037
x		84.027%	0.340	0.482	83.693%	0.002	-0.005	0.041	0.034
σ		0.289%	0.196	0.228	0.358%	0.004	0.004	0.009	0.015
%RSD		0.344	57.600	47.200	0.428	198.400	76.080	23.350	45.790

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	82.682%	0.459	0.227	0.382	1034.000	1039.000	87.459%	89.303%
2	17:45:53	84.025%	0.467	0.257	0.414	1038.000	1039.000	90.466%	91.983%
3	17:46:12	83.717%	0.571	0.234	0.372	1038.000	1038.000	91.652%	93.103%
x		83.474%	0.499	0.239	0.390	1037.000	1039.000	89.859%	91.463%
σ		0.704%	0.063	0.015	0.022	2.267	0.665	2.162%	1.953%
%RSD		0.843	12.550	6.467	5.649	0.219	0.064	2.405	2.135

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:34	0.065	0.061	0.259	0.226	0.261	82.277%
2	17:45:53	0.060	0.048	0.278	0.261	0.257	83.608%
3	17:46:12	0.040	0.058	0.280	0.262	0.256	85.219%
x		0.055	0.056	0.272	0.250	0.258	83.701%
σ		0.013	0.007	0.012	0.021	0.003	1.473%
%RSD		24.220	12.170	4.235	8.274	1.046	1.760

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:23	108.005%	-0.001	8.045	8.257	0.000	32040.000	7694.000	7691.000
2	17:49:42	100.182%	-0.002	8.885	8.606	0.000	32810.000	7899.000	7879.000
3	17:50:01	99.853%	-0.018	7.983	8.240	0.000	34370.000	7996.000	8072.000
x		102.680%	-0.007	8.304	8.368	0.000	33070.000	7863.000	7881.000
σ		4.615%	0.009	0.504	0.207	0.000	1186.000	154.100	190.800
%RSD		4.494	131.800	6.065	2.471	0.000	3.585	1.960	2.421
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:23	65.570	4519.000	0.000	2975.000	59670.000	59530.000	82.344%	0.904
2	17:49:42	70.800	4716.000	0.000	3209.000	63330.000	63580.000	75.829%	0.881
3	17:50:01	69.850	4761.000	0.000	3165.000	63770.000	64080.000	76.547%	1.098
x		68.740	4665.000	0.000	3116.000	62260.000	62400.000	78.240%	0.961
σ		2.788	128.600	0.000	124.500	2252.000	2498.000	3.572%	0.119
%RSD		4.056	2.756	0.000	3.995	3.617	4.004	4.566	12.420
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:23	-1.722	1.465	12.760	126.700	537.800	0.293	0.618	0.892
2	17:49:42	0.572	1.466	13.820	139.400	529.800	0.335	0.699	0.928
3	17:50:01	-0.029	1.533	13.950	142.000	541.900	0.337	0.645	1.044
x		-0.393	1.488	13.510	136.000	536.500	0.322	0.654	0.955
σ		1.189	0.039	0.650	8.144	6.161	0.025	0.041	0.080
%RSD		302.800	2.638	4.812	5.987	1.148	7.782	6.328	8.355
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:23	0.830	10.720	10.910	0.041	-1.340	0.349	0.000	143.900
2	17:49:42	0.928	9.758	9.712	0.643	-1.055	0.399	0.000	143.200
3	17:50:01	0.715	9.648	8.912	0.178	-0.794	0.295	0.000	144.100
x		0.825	10.040	9.843	0.287	-1.063	0.348	0.000	143.700
σ		0.107	0.591	1.003	0.316	0.273	0.052	0.000	0.478
%RSD		12.960	5.887	10.190	109.800	25.690	15.060	0.000	0.333
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:23	85.223%	-0.928	-0.914	84.945%	-0.002	-0.004	0.368	0.426
2	17:49:42	84.551%	-0.757	-0.714	83.007%	-0.003	0.003	0.400	0.425
3	17:50:01	84.576%	-0.720	-0.629	83.599%	-0.001	0.002	0.421	0.452
x		84.783%	-0.802	-0.752	83.850%	-0.002	0.000	0.396	0.434
σ		0.381%	0.111	0.146	0.993%	0.001	0.004	0.027	0.015
%RSD		0.449	13.820	19.460	1.184	39.410	1084.000	6.754	3.465
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:23	82.396%	0.206	0.201	0.246	98.600	100.300	89.317%	89.368%
2	17:49:42	83.842%	0.316	0.212	0.241	99.250	99.090	90.440%	90.504%
3	17:50:01	84.813%	0.299	0.203	0.205	100.600	98.600	91.410%	92.397%
x		83.683%	0.274	0.205	0.231	99.470	99.340	90.389%	90.756%
σ		1.216%	0.059	0.006	0.022	1.005	0.892	1.047%	1.530%
%RSD		1.453	21.560	3.116	9.607	1.010	0.898	1.159	1.686
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:49:23	0.036	0.042	0.489	0.414	0.458	82.021%		
2	17:49:42	0.032	0.039	0.397	0.483	0.462	82.710%		
3	17:50:01	0.040	0.037	0.484	0.417	0.451	83.871%		
x		0.036	0.039	0.457	0.438	0.457	82.867%		
σ		0.004	0.002	0.052	0.039	0.005	0.935%		
%RSD		11.610	5.786	11.310	8.927	1.199	1.128		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	110.617%	0.003	37.590	39.420	0.000	24790.000	6073.000	6089.000
2	17:53:30	99.069%	0.003	37.810	40.060	0.000	26490.000	6587.000	6434.000
3	17:53:49	99.953%	-0.018	36.310	37.610	0.000	23760.000	5896.000	6010.000
x		103.213%	-0.004	37.230	39.030	0.000	25010.000	6185.000	6178.000
σ		6.427%	0.012	0.810	1.268	0.000	1379.000	358.900	225.200
%RSD		6.227	312.100	2.176	3.248	0.000	5.513	5.802	3.645

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	60.640	4644.000	0.000	9568.000	50810.000	52170.000	76.748%	1.336
2	17:53:30	65.620	4968.000	0.000	9864.000	52960.000	51770.000	76.259%	1.630
3	17:53:49	62.150	4648.000	0.000	9339.000	49610.000	48500.000	81.610%	1.369
x		62.800	4754.000	0.000	9590.000	51130.000	50810.000	78.206%	1.445
σ		2.553	186.100	0.000	263.200	1699.000	2016.000	2.958%	0.161
%RSD		4.066	3.914	0.000	2.745	3.323	3.968	3.783	11.130

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	-0.967	1.476	39.410	149.900	500.000	0.333	1.739	2.078
2	17:53:30	1.047	1.532	38.450	140.100	452.800	0.376	1.712	2.033
3	17:53:49	-0.012	1.429	37.510	131.600	466.300	0.337	1.692	1.992
x		0.023	1.479	38.450	140.500	473.000	0.349	1.714	2.034
σ		1.007	0.052	0.952	9.151	24.310	0.024	0.023	0.043
%RSD		4407.000	3.507	2.475	6.513	5.139	6.782	1.369	2.122

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	2.093	128.700	126.900	0.282	-1.222	0.543	0.000	1036.000
2	17:53:30	1.985	128.600	129.900	0.756	-0.724	0.491	0.000	1038.000
3	17:53:49	2.042	124.400	123.500	0.382	-0.883	0.277	0.000	1042.000
x		2.040	127.200	126.800	0.473	-0.943	0.437	0.000	1039.000
σ		0.054	2.423	3.181	0.250	0.254	0.141	0.000	3.000
%RSD		2.658	1.905	2.509	52.820	26.980	32.270	0.000	0.289

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	83.362%	0.685	0.438	83.502%	0.008	-0.001	0.477	0.536
2	17:53:30	84.117%	0.715	0.747	83.356%	-0.000	0.000	0.668	0.636
3	17:53:49	82.243%	0.986	0.814	82.819%	-0.002	0.001	0.558	0.554
x		83.241%	0.795	0.666	83.226%	0.002	0.000	0.568	0.575
σ		0.943%	0.166	0.201	0.359%	0.005	0.001	0.096	0.053
%RSD		1.133	20.850	30.120	0.432	319.000	720.900	16.920	9.216

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	81.568%	0.314	0.102	0.217	267.400	268.800	86.932%	87.652%
2	17:53:30	82.971%	0.364	0.169	0.228	267.300	268.100	89.258%	90.399%
3	17:53:49	83.388%	0.424	0.154	0.218	269.100	270.300	89.495%	90.491%
x		82.643%	0.367	0.141	0.221	267.900	269.100	88.562%	89.514%
σ		0.954%	0.055	0.035	0.006	1.031	1.126	1.417%	1.613%
%RSD		1.154	15.060	24.830	2.886	0.385	0.418	1.600	1.802

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:11	0.028	0.033	0.426	0.352	0.384	79.696%
2	17:53:30	0.022	0.031	0.362	0.358	0.364	81.115%
3	17:53:49	0.034	0.029	0.410	0.344	0.375	81.872%
x		0.028	0.031	0.400	0.351	0.375	80.894%
σ		0.006	0.002	0.033	0.007	0.010	1.104%
%RSD		21.250	6.004	8.338	2.118	2.697	1.365

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	100.461%	-0.034	49.930	50.330	0.000	15050.000	8265.000	8130.000
2	17:57:18	103.149%	-0.004	49.970	52.300	0.000	14260.000	8244.000	8180.000
3	17:57:37	100.527%	-0.018	45.740	46.440	0.000	13800.000	7646.000	7550.000
x		101.379%	-0.019	48.550	49.690	0.000	14370.000	8052.000	7953.000
σ		1.533%	0.015	2.431	2.980	0.000	636.800	351.200	350.300
%RSD		1.512	81.870	5.007	5.998	0.000	4.432	4.362	4.404

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	48.720	4827.000	0.000	1391.000	54240.000	54850.000	75.750%	0.926
2	17:57:18	48.920	4777.000	0.000	1422.000	55770.000	55030.000	73.908%	1.173
3	17:57:37	46.070	4613.000	0.000	1339.000	53160.000	53650.000	74.875%	0.909
x		47.900	4739.000	0.000	1384.000	54390.000	54510.000	74.845%	1.002
σ		1.586	112.100	0.000	41.970	1311.000	752.600	0.921%	0.148
%RSD		3.312	2.366	0.000	3.032	2.410	1.381	1.231	14.740

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	1.549	0.770	16.980	192.200	551.400	0.399	0.414	1.472
2	17:57:18	-0.281	0.823	16.840	192.400	523.800	0.375	0.519	1.490
3	17:57:37	0.172	0.781	16.940	186.300	500.600	0.429	0.304	1.469
x		0.480	0.791	16.920	190.300	525.200	0.401	0.412	1.477
σ		0.953	0.028	0.069	3.467	25.430	0.027	0.108	0.011
%RSD		198.500	3.515	0.411	1.822	4.841	6.729	26.160	0.754

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	1.597	12.570	12.770	1.783	-0.422	0.705	0.000	658.000
2	17:57:18	1.469	11.560	12.350	2.242	-0.702	0.616	0.000	653.900
3	17:57:37	1.408	11.400	11.340	1.621	-0.544	0.629	0.000	651.300
x		1.491	11.840	12.150	1.882	-0.556	0.650	0.000	654.400
σ		0.096	0.632	0.731	0.322	0.140	0.048	0.000	3.391
%RSD		6.445	5.338	6.016	17.120	25.250	7.380	0.000	0.518

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	82.629%	-1.257	-1.185	82.883%	0.015	-0.002	0.017	0.011
2	17:57:18	82.985%	-1.029	-0.993	83.178%	0.005	0.005	0.048	0.050
3	17:57:37	84.035%	-1.053	-1.051	82.619%	0.003	0.012	0.080	0.069
x		83.216%	-1.113	-1.076	82.893%	0.007	0.005	0.048	0.043
σ		0.731%	0.125	0.098	0.279%	0.007	0.007	0.031	0.029
%RSD		0.878	11.230	9.142	0.337	88.010	133.200	64.960	67.980

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	81.135%	0.078	0.028	0.050	114.900	117.300	86.804%	87.729%
2	17:57:18	82.598%	0.145	0.007	0.048	116.400	117.900	88.649%	90.510%
3	17:57:37	82.775%	0.176	0.010	0.050	117.100	116.000	90.569%	91.489%
x		82.169%	0.133	0.015	0.049	116.100	117.100	88.674%	89.909%
σ		0.900%	0.050	0.012	0.001	1.108	0.968	1.882%	1.951%
%RSD		1.095	37.590	78.880	2.892	0.954	0.827	2.123	2.170

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:59	0.027	0.021	0.263	0.248	0.265	80.408%
2	17:57:18	0.022	0.015	0.287	0.269	0.267	82.937%
3	17:57:37	0.014	0.015	0.304	0.243	0.261	84.699%
x		0.021	0.017	0.284	0.253	0.265	82.681%
σ		0.006	0.003	0.021	0.014	0.003	2.157%
%RSD		30.070	19.960	7.287	5.620	1.129	2.608

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:46	104.162%	0.021	23.170	24.410	0.000	6785.000	6823.000	6867.000
2	18:01:07	104.129%	0.011	24.680	24.660	0.000	6898.000	6861.000	6703.000
3	18:01:26	97.127%	0.004	21.760	23.020	0.000	7144.000	6934.000	6912.000
x		101.806%	0.012	23.200	24.030	0.000	6942.000	6872.000	6827.000
σ		4.052%	0.008	1.459	0.882	0.000	183.900	56.330	109.900
%RSD		3.980	69.190	6.288	3.670	0.000	2.648	0.820	1.610
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:46	78.140	4487.000	0.000	1144.000	33300.000	33550.000	80.515%	3.915
2	18:01:07	73.920	4378.000	0.000	1123.000	32610.000	33040.000	80.279%	1.704
3	18:01:26	78.610	4461.000	0.000	1182.000	35180.000	35600.000	74.836%	1.952
x		76.890	4442.000	0.000	1150.000	33700.000	34060.000	78.543%	2.524
σ		2.583	56.670	0.000	30.010	1328.000	1356.000	3.213%	1.212
%RSD		3.359	1.276	0.000	2.611	3.941	3.981	4.090	48.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:46	-0.692	1.041	53.580	171.000	383.000	1.317	1.057	1.917
2	18:01:07	0.860	1.058	52.690	169.900	391.400	1.374	1.129	1.715
3	18:01:26	0.530	1.177	57.010	193.100	383.300	1.328	1.183	1.805
x		0.233	1.092	54.420	178.000	385.900	1.339	1.123	1.812
σ		0.818	0.074	2.281	13.100	4.799	0.030	0.063	0.101
%RSD		351.600	6.748	4.190	7.361	1.244	2.259	5.630	5.563
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:46	1.807	8.759	8.152	3.972	-1.067	0.465	0.000	268.000
2	18:01:07	1.899	8.158	7.931	2.993	-1.065	0.302	0.000	271.700
3	18:01:26	2.024	7.810	8.263	3.813	-1.143	0.249	0.000	272.500
x		1.910	8.243	8.115	3.592	-1.091	0.339	0.000	270.700
σ		0.109	0.480	0.169	0.525	0.045	0.113	0.000	2.421
%RSD		5.693	5.827	2.083	14.620	4.081	33.240	0.000	0.894
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:46	84.200%	7.464	7.448	84.576%	0.013	0.010	0.011	0.020
2	18:01:07	84.495%	7.547	7.581	84.361%	0.008	0.011	-0.082	-0.040
3	18:01:26	85.154%	7.470	7.858	83.717%	0.021	0.009	0.047	0.052
x		84.616%	7.494	7.629	84.218%	0.014	0.010	-0.008	0.011
σ		0.488%	0.046	0.209	0.447%	0.006	0.001	0.066	0.047
%RSD		0.577	0.615	2.735	0.531	45.160	10.340	808.200	433.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:00:46	82.789%	0.070	-0.030	0.029	150.300	150.100	89.452%	89.380%
2	18:01:07	83.467%	0.128	0.011	0.063	150.600	152.400	91.078%	91.248%
3	18:01:26	84.623%	0.062	0.020	0.016	148.900	150.800	92.028%	92.292%
x		83.626%	0.087	0.000	0.036	149.900	151.100	90.853%	90.973%
σ		0.927%	0.036	0.027	0.024	0.931	1.174	1.302%	1.475%
%RSD		1.109	41.730	49490.000	67.280	0.621	0.777	1.434	1.622
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:00:46	0.017	0.011	0.445	0.379	0.412	83.667%		
2	18:01:07	0.014	0.014	0.428	0.426	0.424	85.468%		
3	18:01:26	0.016	0.010	0.437	0.402	0.434	86.658%		
x		0.016	0.012	0.437	0.402	0.423	85.264%		
σ		0.001	0.002	0.009	0.024	0.011	1.506%		
%RSD		8.060	18.180	1.973	5.847	2.541	1.766		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	101.788%	-0.019	12.230	12.660	0.000	14540.000	15580.000	15900.000
2	18:04:54	100.468%	0.039	12.040	12.780	0.000	13550.000	14350.000	14380.000
3	18:05:14	96.466%	0.015	12.020	11.510	0.000	13430.000	14250.000	14390.000
x		99.574%	0.012	12.100	12.310	0.000	13840.000	14720.000	14890.000
σ		2.772%	0.029	0.114	0.701	0.000	610.600	741.000	870.300
%RSD		2.783	246.300	0.942	5.690	0.000	4.411	5.033	5.844

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	14.530	5678.000	0.000	1653.000	124100.000	121800.000	76.570%	1.000
2	18:04:54	13.180	5127.000	0.000	1532.000	112000.000	111000.000	80.904%	0.587
3	18:05:14	13.700	5395.000	0.000	1526.000	114300.000	110300.000	81.594%	0.554
x		13.800	5400.000	0.000	1570.000	116800.000	114400.000	79.690%	0.714
σ		0.681	275.700	0.000	71.660	6418.000	6454.000	2.723%	0.249
%RSD		4.936	5.105	0.000	4.563	5.495	5.642	3.417	34.820

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	2.341	1.026	10.160	55.440	822.600	0.478	0.532	0.758
2	18:04:54	-0.626	0.907	9.365	50.140	772.100	0.459	0.603	0.737
3	18:05:14	-1.712	0.957	9.472	49.060	723.000	0.462	0.572	0.718
x		0.001	0.963	9.667	51.550	772.600	0.466	0.569	0.737
σ		2.098	0.060	0.434	3.411	49.810	0.010	0.035	0.020
%RSD		235300.000	6.198	4.486	6.617	6.447	2.183	6.233	2.769

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	0.990	12.730	13.220	0.383	-0.888	0.612	0.000	597.700
2	18:04:54	1.002	11.850	11.380	1.580	-0.818	0.620	0.000	596.100
3	18:05:14	0.926	11.850	10.630	1.009	-1.066	0.650	0.000	594.300
x		0.973	12.140	11.740	0.990	-0.924	0.627	0.000	596.000
σ		0.041	0.507	1.330	0.598	0.128	0.020	0.000	1.687
%RSD		4.195	4.173	11.330	60.420	13.810	3.178	0.000	0.283

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	81.496%	-1.360	-1.329	81.859%	0.014	0.018	0.023	0.015
2	18:04:54	83.423%	-1.219	-1.171	82.080%	0.018	0.026	0.090	0.052
3	18:05:14	83.268%	-1.240	-1.093	81.053%	0.019	0.026	0.018	0.022
x		82.729%	-1.273	-1.198	81.664%	0.017	0.023	0.044	0.030
σ		1.071%	0.076	0.120	0.541%	0.003	0.005	0.041	0.019
%RSD		1.294	5.998	10.010	0.662	15.390	20.610	93.190	65.770

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	80.646%	0.107	-0.015	0.057	395.700	398.700	85.612%	87.500%
2	18:04:54	82.134%	0.136	-0.003	0.089	396.900	397.000	88.422%	89.000%
3	18:05:14	82.722%	0.081	0.022	0.063	399.100	400.100	89.373%	90.586%
x		81.834%	0.108	0.001	0.070	397.300	398.600	87.802%	89.029%
σ		1.070%	0.027	0.019	0.017	1.747	1.547	1.955%	1.543%
%RSD		1.308	25.430	1331.000	24.310	0.440	0.388	2.227	1.734

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:35	0.015	0.010	1.181	1.078	1.112	79.395%
2	18:04:54	0.010	0.013	1.164	1.067	1.099	81.015%
3	18:05:14	0.011	0.016	1.217	1.032	1.128	82.377%
x		0.012	0.013	1.187	1.059	1.113	80.929%
σ		0.002	0.003	0.027	0.024	0.015	1.493%
%RSD		20.660	22.810	2.266	2.293	1.334	1.845

CCV 1594026 6/3/2015 6:08:12 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	18:08:12	106.353%	99.530	102.300	106.800	0.000	47740.000	47030.000	46730.000
2	18:08:31	102.292%	93.840	95.580	95.080	0.000	44370.000	45260.000	45370.000
3	18:08:51	106.540%	95.620	103.600	97.380	0.000	46520.000	46620.000	45550.000
x		105.061%	96.330%	100.519%	99.765%	0.000	92.423%	92.611%	91.771%
σ		2.401%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.285	3.021	4.301	6.244	0.000	3.691	1.998	1.613

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:12	467.000	4922.000	0.000	46620.000	45910.000	46320.000	98.769%	91.090
2	18:08:31	445.500	4968.000	0.000	46370.000	47040.000	47070.000	97.001%	97.670
3	18:08:51	441.200	4851.000	0.000	48010.000	47730.000	47240.000	91.839%	99.710
x		90.249%	98.274%	0.000	94.004%	93.787%	93.758%	95.870%	96.157%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.601%	n/a
%RSD		3.065	1.196	0.000	1.885	1.969	1.039	3.756	4.683

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:12	89.400	89.140	449.700	22350.000	22320.000	87.490	89.420	91.490
2	18:08:31	90.880	93.660	464.200	23120.000	23020.000	90.710	91.920	92.910
3	18:08:51	93.470	95.950	475.300	24290.000	24140.000	95.180	95.740	97.390
x		91.251%	92.915%	92.619%	92.996%	92.643%	91.126%	92.360%	93.929%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.260	3.729	2.771	4.201	3.963	4.241	3.446	3.280

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:12	93.760	88.850	90.230	94.000	96.620	98.390	0.000	92.810
2	18:08:31	94.360	90.760	91.170	93.650	96.280	97.130	0.000	95.410
3	18:08:51	96.900	93.880	94.550	93.950	93.670	95.520	0.000	94.310
x		95.005%	91.161%	91.980%	93.866%	95.525%	97.015%	0.000	94.178%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.753	2.787	2.469	0.197	1.688	1.479	0.000	1.387

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:12	87.099%	94.020	95.040	87.231%	94.220	95.370	96.690	96.240
2	18:08:31	88.099%	95.150	96.080	86.162%	95.670	96.540	98.780	98.230
3	18:08:51	91.147%	96.730	96.740	87.911%	95.290	96.110	98.410	99.730
x		88.782%	95.301%	95.954%	87.101%	95.057%	96.007%	97.962%	98.066%
σ		2.109%	n/a	n/a	0.882%	n/a	n/a	n/a	n/a
%RSD		2.375	1.423	0.895	1.012	0.787	0.615	1.141	1.787

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:12	80.553%	98.290	91.780	91.280	95.130	95.810	85.387%	84.784%
2	18:08:31	80.902%	98.430	90.730	91.530	97.890	97.700	87.921%	87.298%
3	18:08:51	81.221%	100.100	93.720	95.550	98.790	98.440	89.592%	90.103%
x		80.892%	98.941%	92.076%	92.785%	97.270%	97.317%	87.633%	87.395%
σ		0.334%	n/a	n/a	n/a	n/a	n/a	2.117%	2.661%
%RSD		0.413	1.018	1.645	2.585	1.964	1.398	2.416	3.045

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:12	93.890	94.470	95.170	95.460	95.150	85.507%
2	18:08:31	99.610	98.970	100.100	100.700	100.800	84.319%
3	18:08:51	102.300	102.600	102.300	102.800	103.200	83.156%
x		98.614%	98.686%	99.198%	99.665%	99.742%	84.327%
σ		n/a	n/a	n/a	n/a	n/a	1.176%
%RSD		4.370	4.140	3.689	3.801	4.165	1.394

CCB9 6/3/2015 6:14:40 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	18:15:00	117.825%	-0.027	0.413	0.375	0.000	1.458	1.527	0.955
2	18:15:19	103.909%	-0.030	0.737	0.525	0.000	1.730	1.268	1.234
3	18:15:38	109.296%	-0.021	0.348	0.436	0.000	1.497	0.966	0.630
x		110.343%	-0.026	0.499	0.445	0.000	1.561	1.254	0.940
σ		7.017%	0.004	0.208	0.076	0.000	0.147	0.281	0.303
%RSD		6.359	16.980	41.720	16.990	0.000	9.415	22.400	32.190

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:00	-0.045	-111.600	0.000	6.015	2.902	4.635	97.495%	-0.185
2	18:15:19	-0.025	-108.800	0.000	4.996	1.838	4.071	97.943%	-0.118
3	18:15:38	-0.041	-110.100	0.000	4.332	1.854	3.562	97.306%	-0.083
x		-0.037	-110.100	0.000	5.114	2.198	4.089	97.581%	-0.129
σ		0.011	1.401	0.000	0.848	0.610	0.537	0.327%	0.051
%RSD		29.280	1.272	0.000	16.580	27.740	13.130	0.335	40.030

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:00	0.016	-0.108	0.053	-5.611	2.321	0.003	-0.025	-0.033
2	18:15:19	-0.033	-0.099	0.047	-6.428	2.006	0.013	-0.028	-0.022
3	18:15:38	-0.009	-0.069	0.052	-7.151	4.326	0.005	-0.034	-0.008
x		-0.009	-0.092	0.051	-6.397	2.885	0.007	-0.029	-0.021
σ		0.025	0.020	0.003	0.770	1.258	0.005	0.005	0.013
%RSD		278.000	22.070	5.895	12.040	43.620	69.170	16.680	59.290

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:00	-0.048	0.725	0.766	0.001	-0.538	0.240	0.000	0.032
2	18:15:19	0.008	0.630	0.513	0.039	-0.286	0.338	0.000	0.021
3	18:15:38	0.017	0.704	0.601	0.050	-0.784	0.339	0.000	0.015
x		-0.008	0.686	0.627	0.030	-0.536	0.306	0.000	0.023
σ		0.035	0.050	0.129	0.026	0.249	0.057	0.000	0.009
%RSD		452.000	7.293	20.530	85.940	46.450	18.730	0.000	38.650

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:00	91.447%	-1.234	-1.159	92.717%	0.011	0.008	0.043	0.030
2	18:15:19	90.718%	-1.086	-1.003	92.192%	0.016	0.006	0.213	0.157
3	18:15:38	92.122%	-0.947	-0.978	93.325%	0.008	0.020	0.036	0.023
x		91.429%	-1.089	-1.047	92.745%	0.012	0.011	0.097	0.070
σ		0.702%	0.143	0.098	0.567%	0.004	0.008	0.100	0.075
%RSD		0.768	13.180	9.389	0.612	36.210	67.660	103.000	107.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:00	87.445%	-0.051	0.665	0.594	0.034	0.031	86.569%	85.838%
2	18:15:19	87.864%	-0.084	0.719	0.734	0.010	0.007	87.493%	86.776%
3	18:15:38	89.306%	-0.055	0.685	0.734	-0.001	0.014	88.413%	87.311%
x		88.205%	-0.063	0.689	0.687	0.014	0.017	87.492%	86.641%
σ		0.976%	0.018	0.027	0.081	0.018	0.012	0.922%	0.745%
%RSD		1.107	27.780	3.957	11.750	125.500	70.770	1.054	0.860

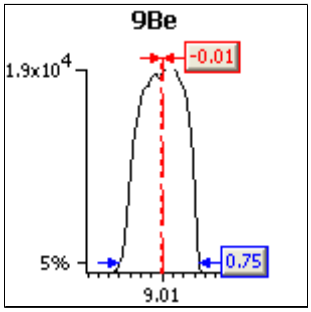
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:00	0.022	0.018	0.004	-0.007	-0.002	88.656%
2	18:15:19	0.013	0.015	-0.003	0.004	-0.002	88.486%
3	18:15:38	0.012	0.016	0.003	-0.002	-0.000	87.137%
x		0.016	0.016	0.001	-0.002	-0.002	88.093%
σ		0.006	0.002	0.004	0.005	0.001	0.832%
%RSD		36.790	9.768	326.700	319.200	59.830	0.945

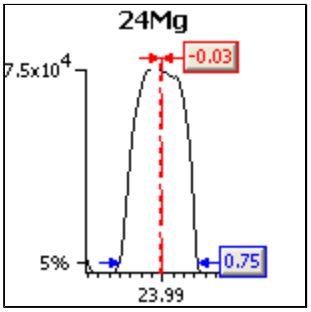
Performance Report

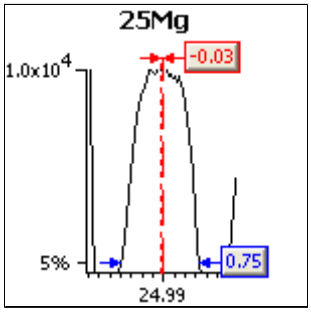
Sample details
Sample name : ITUNE
Acquired at : 6/3/2015 7:53:42 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

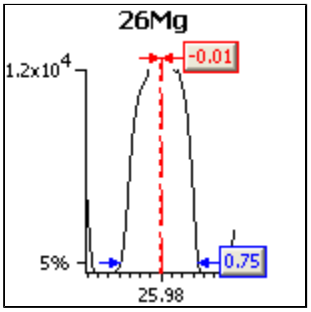
Mass Calibration verification

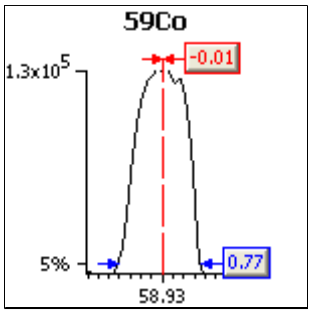
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

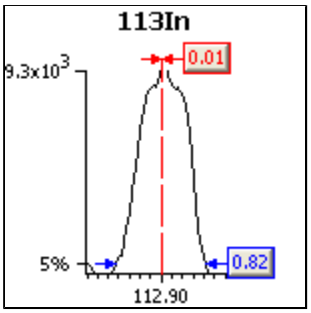


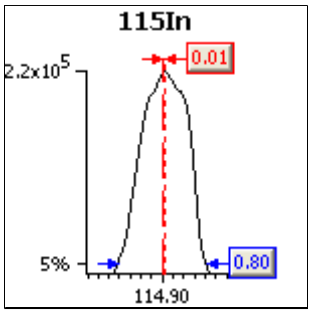


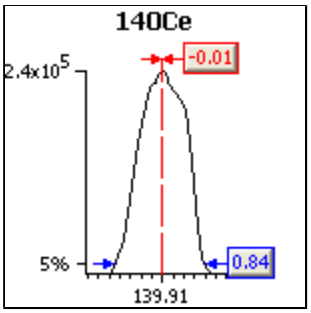


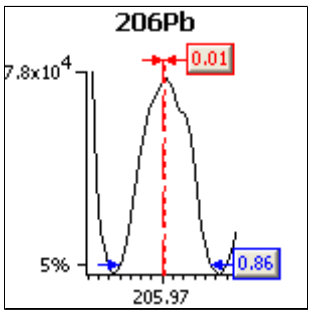


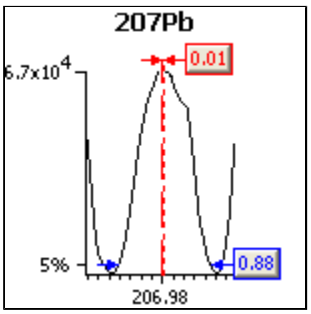


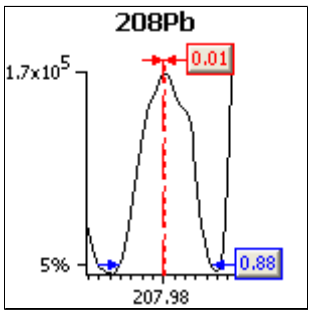












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.75	-0.01
24Mg	0.90	0.45	0.10	0.75	-0.03
25Mg	0.90	0.45	0.10	0.75	-0.03
26Mg	0.90	0.45	0.10	0.75	-0.01
59Co	0.90	0.45	0.10	0.77	-0.01
113In	0.90	0.45	0.10	0.82	0.01
115In	0.90	0.45	0.10	0.80	0.01
140Ce	0.90	0.45	0.10	0.84	-0.01
206Pb	0.90	0.45	0.10	0.86	0.01
207Pb	0.90	0.45	0.10	0.88	0.01
208Pb	0.90	0.45	0.10	0.88	0.01

Sample details
Sample name : ITUNE
Acquired at : 6/3/2015 7:53:42 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-129
Lens 1	0.3
Focus	26.7
D1	-42.4
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.89
Sampling Depth	150

Minor	
Lens 2	-32.2
Lens 3	-163.9
Forward power	1404
Horizontal	74
Vertical	405
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	7:54:30 AM	0	18412	73490	9775	11545	468285	130437	4
2	7:55:56 AM	0	18085	72687	9633	11310	456014	129487	6
3	7:57:21 AM	0	18042	72480	9436	11208	453288	129412	5
4	7:58:46 AM	0	18106	73387	9592	11416	460874	130941	9
5	8:00:11 AM	0	18303	72587	9811	11424	455649	130685	5
x		0	18190	72926	9649	11381	458822	130192	6
σ		0.03	159.71	474.87	151.03	127.55	5965.36	701.83	2.14
%RSD		55.902	0.878	0.651	1.565	1.121	1.300	0.539	37.318

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	7:54:30 AM	45	0	9725	220194	2029	247991	3363	77940
2	7:55:56 AM	39	0	9607	220607	1819	249226	3373	78533
3	7:57:21 AM	36	0	9620	219836	1802	248638	3381	78478
4	7:58:46 AM	40	0	9764	221828	1954	251573	3431	79757
5	8:00:11 AM	44	0	9663	222321	1891	251708	3445	79696
x		41	0	9676	220957	1899	249827	3399	78881
σ		3.63	0.08	67.57	1070.12	94.44	1712.54	36.94	806.16
%RSD		8.872	81.441	0.698	0.484	4.973	0.685	1.087	1.022

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:54:30 AM	71705	169220	0
2	7:55:56 AM	71330	170485	0
3	7:57:21 AM	71883	170498	0
4	7:58:46 AM	73674	173182	0
5	8:00:11 AM	73000	172739	0
x		72318	171225	0
σ		980.62	1674.73	0.06
%RSD		1.356	0.978	46.481

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:54:30 AM	0
2	7:55:56 AM	0

3	7:57:21 AM	0
4	7:58:46 AM	0
5	8:00:11 AM	0
x		0.0136
σ		0.00
%RSD		0.4488

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Batch Number: 142877 Batch Start Date: 05/27/15 12:25 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/27/15 16:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-142877/1		3005A, 6020A		50 mL	50 mL				
LCS 180-142877/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44401-B-1	HD-MW-39D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44401-B-2	HD-MW-74S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44401-B-3	HD-MW-127-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44401-B-4	HD-MW-114-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44401-B-5	HD-MW-132-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44401-B-6	HD-MW-51D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44401-B-7	HD-MW-50S-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals A3
First End time	16:25
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	12:25
ID number of the thermometer	IP1-14 CF=0.0 D3
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	95 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.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-44401-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-39D-0/1-0	180-44401-1
HD-MW-74S-0/1-0	180-44401-2
HD-MW-127-0/1-0	180-44401-3
HD-MW-114-0/1-0	180-44401-4
HD-MW-132-0/1-0	180-44401-5
HD-MW-51D-0/1-0	180-44401-6
HD-MW-50S-0/1-0	180-44401-7

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-39D-0/1-0 Lab Sample ID: 180-44401-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 10:55

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	250	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	250	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-44401-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 09:25

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-127-0/1-0 Lab Sample ID: 180-44401-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 12:15

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-44401-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 09:56

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-132-0/1-0 Lab Sample ID: 180-44401-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 11:41

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	170	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	170	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-51D-0/1-0 Lab Sample ID: 180-44401-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 08:20

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-50S-0/1-0 Lab Sample ID: 180-44401-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2015 08:10

Reporting Basis: WET Date Received: 05/22/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Analyst: CLL Batch Start Date: 06/03/2015

Reporting Units: mg/L Analytical Batch No.: 143606

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:25	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00085
14	CCB	05:25	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
25	CCV	05:25	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00085
26	CCB	05:25	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				J	
			Carbonate Alkalinity as CaCO3	5.0				U	

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.: 180-44401-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 143606 Date: 06/03/2015 05:25							
SM 2320B	MB 180-143606/2	Total Alkalinity as CaCO3 to pH 4.5	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-143606/2	Bicarbonate Alkalinity as CaCO3	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-143606/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1

FORM III-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 143606 Date: 06/03/2015 05:25								
SM 2320B	HD-MW-39D-0/1-0	180-44401-1	Total Alkalinity as CaCO3 to pH 4.5	250	mg/L			
SM 2320B	HD-MW-39D-0/1-0	180-44401-1 DU	Total Alkalinity as CaCO3 to pH 4.5	253	mg/L	2	20	
SM 2320B	HD-MW-39D-0/1-0	180-44401-1	Bicarbonate Alkalinity as CaCO3	250	mg/L			
SM 2320B	HD-MW-39D-0/1-0	180-44401-1 DU	Bicarbonate Alkalinity as CaCO3	253	mg/L	2	20	
SM 2320B	HD-MW-39D-0/1-0	180-44401-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-39D-0/1-0	180-44401-1 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 143606	Date: 06/03/2015 05:25										
						LCS Source: WALK250PPMPi_00094					
SM 2320B	LCS 180-143606/1	Total Alkalinity as CaCO3 to pH 4.5	261		mg/L	250	105	80-120			

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: 180-44401-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B MDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-44401-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B XMDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 06/03/2015 05:25 End Date: 06/03/2015 05:25

Lab Sample Id	D/F	Type	Time	Analytes																										
				Alk	BALKCC	CarAlk																								
LCS 180-143606/1	1	T	05:25	X																										
MB 180-143606/2	1	T	05:25	X	X	X																								
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
180-44401-1	1	T	05:25	X	X	X																								
180-44401-1 DU	1	T	05:25	X	X	X																								
180-44401-2	1	T	05:25	X	X	X																								
180-44401-3	1	T	05:25	X	X	X																								
CCV 180-143606/13	1		05:25	X																										
CCB 180-143606/14	1		05:25	X	X	X																								
180-44401-4	1	T	05:25	X	X	X																								
180-44401-5	1	T	05:25	X	X	X																								
180-44401-6	1	T	05:25	X	X	X																								
180-44401-7	1	T	05:25	X	X	X																								
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
ZZZZZZ			05:25																											
CCV 180-143606/25	1		05:25	X																										
CCB 180-143606/26	1		05:25	X	X	X																								

Prep Types:
T = Total/NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lab# 060315AK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-024

Analyst: CLLahuyde
Date: 6-3-15
Reviewed By: SeDRa
Date: 6-3-15
pH Meter ID: Accumet XL S/N#94102132
AD Batch: 143606
pH 4 Start: 4.03
pH 4 End: 4.04

Job Number(s): 44390-44401-44448

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{\text{(mL of } H_2SO_4\text{) (N)(50,000)}}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

$CO_3^{\ 2}$ = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	$CO_3^{\ 2}$	HCO_3	Results	OH^-	$CO_3^{\ 2}$	HCO_3
P = 0	0	0	T	P = ½T	0	2P	0
P < ½T	0	2P	T-2P	P > ½T	2P-T	2(T-P)	0
				P = T	T	0	0

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.87	50	6.3	13.2	0198	261.36				
MB	5.14		0	0.1		1.98				
180-44390-1	6.53		0	3.0		59.4				
2	6.30		0	2.0		39.6				
3	6.49		0	1.8		35.64				
4	6.13		0	1.5		29.7				
5	6.60		0	2.3		45.54				
6	7.04		0	3.5		69.3				
180-44401-1	7.98		0	12.5		247.5				
1X	8.03		0	12.8		253.44				
2	7.76		0	11.9		235.62				
3	7.73		0	13.2		261.36				
CCV	10.41		3.5	6.7		132.66				
CCB	5.27		0	0.1		1.98				
180-44401-4	7.63		0	12.9		255.42				
5	7.75		0	8.4		166.32				
6	8.08		0	12.2		241.56				
7	7.71		0	11.0		217.8				
180-44448-1	~~5.38~~					CMB-3-15				
2	7.29		0	10.1		199.98				
2X	7.33		0	9.9		196.02				
3	7.21		0	9.4		186.12				
4	11.99		42.6	46.2		914.76				
5	~~7.06~~					CMB-3-15				
CCV	10.48		3.4	6.7		132.66				
CCB	5.20		0	0.1		1.98				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44401-1

SDG No.:

Batch Number: 143606 Batch Start Date: 06/03/15 05:25 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-143606/1		SM 2320B		50 mL	10.87 SU	0 mL	6.3 mL	6.3 mL	0 mL
MB 180-143606/2		SM 2320B		50 mL	5.14 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-1	HD-MW-39D-0/1-0	SM 2320B	T	50 mL	7.98 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-1 DU	HD-MW-39D-0/1-0	SM 2320B	T	50 mL	8.03 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-2	HD-MW-74S-0/1-0	SM 2320B	T	50 mL	7.76 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-3	HD-MW-127-0/1-0	SM 2320B	T	50 mL	7.73 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-143606/13		SM 2320B		50 mL	10.41 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-143606/14		SM 2320B		50 mL	5.27 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-4	HD-MW-114-0/1-0	SM 2320B	T	50 mL	7.63 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-5	HD-MW-132-0/1-0	SM 2320B	T	50 mL	7.75 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-6	HD-MW-51D-0/1-0	SM 2320B	T	50 mL	8.08 SU	0 mL	0 mL	0 mL	0 mL
180-44401-A-7	HD-MW-50S-0/1-0	SM 2320B	T	50 mL	7.71 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-143606/25		SM 2320B		50 mL	10.48 SU	0 mL	3.4 mL	3.4 mL	0 mL
CCB 180-143606/26		SM 2320B		50 mL	5.20 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-143606/1		SM 2320B		6.9 mL	6.9 mL	Case 2	249.48 mg/L	0 mg/L	11.88 mg/L
MB 180-143606/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-44401-A-1	HD-MW-39D-0/1-0	SM 2320B	T	12.5 mL	12.5 mL	Case 1	0 mg/L	0 mg/L	247.5 mg/L
180-44401-A-1 DU	HD-MW-39D-0/1-0	SM 2320B	T	12.8 mL	12.8 mL	Case 1	0 mg/L	0 mg/L	253.44 mg/L
180-44401-A-2	HD-MW-74S-0/1-0	SM 2320B	T	11.9 mL	11.9 mL	Case 1	0 mg/L	0 mg/L	235.62 mg/L
180-44401-A-3	HD-MW-127-0/1-0	SM 2320B	T	13.2 mL	13.2 mL	Case 1	0 mg/L	0 mg/L	261.36 mg/L
CCV 180-143606/13		SM 2320B		3.2 mL	3.2 mL	Case 4	126.72 mg/L	5.94 mg/L	0 mg/L
CCB 180-143606/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-44401-A-4	HD-MW-114-0/1-0	SM 2320B	T	12.9 mL	12.9 mL	Case 1	0 mg/L	0 mg/L	255.42 mg/L
180-44401-A-5	HD-MW-132-0/1-0	SM 2320B	T	8.4 mL	8.4 mL	Case 1	0 mg/L	0 mg/L	166.32 mg/L

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.: 180-44401-1

SDG No.:

Batch Number: 143606 Batch Start Date: 06/03/15 05:25 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-44401-A-6	HD-MW-51D-0/1-0	SM 2320B	T	12.2 mL	12.2 mL	Case 1	0 mg/L	0 mg/L	241.56 mg/L
180-44401-A-7	HD-MW-50S-0/1-0	SM 2320B	T	11.0 mL	11 mL	Case 1	0 mg/L	0 mg/L	217.8 mg/L
CCV 180-143606/25		SM 2320B		3.3 mL	3.3 mL	Case 4	130.68 mg/L	1.9799999999999 mg/L	0 mg/L
CCB 180-143606/26		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
LCS 180-143606/1		SM 2320B		124.74 mg/L	261.36 mg/L	50 mL		50 mL	
MB 180-143606/2		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-44401-A-1	HD-MW-39D-0/1-0	SM 2320B	T	0 mg/L	247.5 mg/L	50 mL			
180-44401-A-1 DU	HD-MW-39D-0/1-0	SM 2320B	T	0 mg/L	253.44 mg/L	50 mL			
180-44401-A-2	HD-MW-74S-0/1-0	SM 2320B	T	0 mg/L	235.62 mg/L	50 mL			
180-44401-A-3	HD-MW-127-0/1-0	SM 2320B	T	0 mg/L	261.36 mg/L	50 mL			
CCV 180-143606/13		SM 2320B		69.3 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-143606/14		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-44401-A-4	HD-MW-114-0/1-0	SM 2320B	T	0 mg/L	255.42 mg/L	50 mL			
180-44401-A-5	HD-MW-132-0/1-0	SM 2320B	T	0 mg/L	166.32 mg/L	50 mL			
180-44401-A-6	HD-MW-51D-0/1-0	SM 2320B	T	0 mg/L	241.56 mg/L	50 mL			
180-44401-A-7	HD-MW-50S-0/1-0	SM 2320B	T	0 mg/L	217.8 mg/L	50 mL			
CCV 180-143606/25		SM 2320B		67.32 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-143606/26		SM 2320B		0 mg/L	1.98 mg/L	50 mL			

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.: 180-44401-1

SDG No.:

Batch Number: 143606 Batch Start Date: 06/03/15 05:25 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.03 PH 4 END: 4.04
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1568035
pH Buffer 3 ID	1524103
pH Buffer 4 ID	1538765
pH Buffer 5 ID	1535729
Sulfuric Acid Lot Number	1594371
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0198 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 5/21/2015	COC No: TAP2015052101
Groundwater Sciences Corporation	Tel/Fax: 717-901-8181 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	1 of 1 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No: 10012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W)			
(717) 901-8180 Phone	TAT if different from Below: Standard			Container No. 1
(717) 657-1611 FAX	■ 2 weeks			SDG No.
Project Name: Restart Event 4	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, CL, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Sample Specific Notes:
HD-MW-39D-0/1-0	5/21/15	1055	Groundwater	Water	5	X	X	X	
HD-MW-74S-0/1-0	5/21/15	0925	Groundwater	Water	5	X	X	X	
HD-MW-127-0/1-0	5/21/15	1215	Groundwater	Water	5	X	X	X	
HD-MW-114-0/1-0	5/21/15	0956	Groundwater	Water	5	X	X	X	
HD-MW-132-0/1-0	5/21/15	1141	Groundwater	Water	5	X	X	X	
HD-MW-51D-0/1-0	5/21/15	0820	Groundwater	Water	5	X	X	X	
HD-MW-50S-0/1-0	5/21/15	0810	Groundwater	Water	5	X	X	X	
HD-QC5-0/1-2	5/21/15	1200	Trip Blank	Water	2	X			
					15	3	1	1	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved, 7=Zinc Acetate & NaOH						2	1	4	
Field Filter						N	N	N	

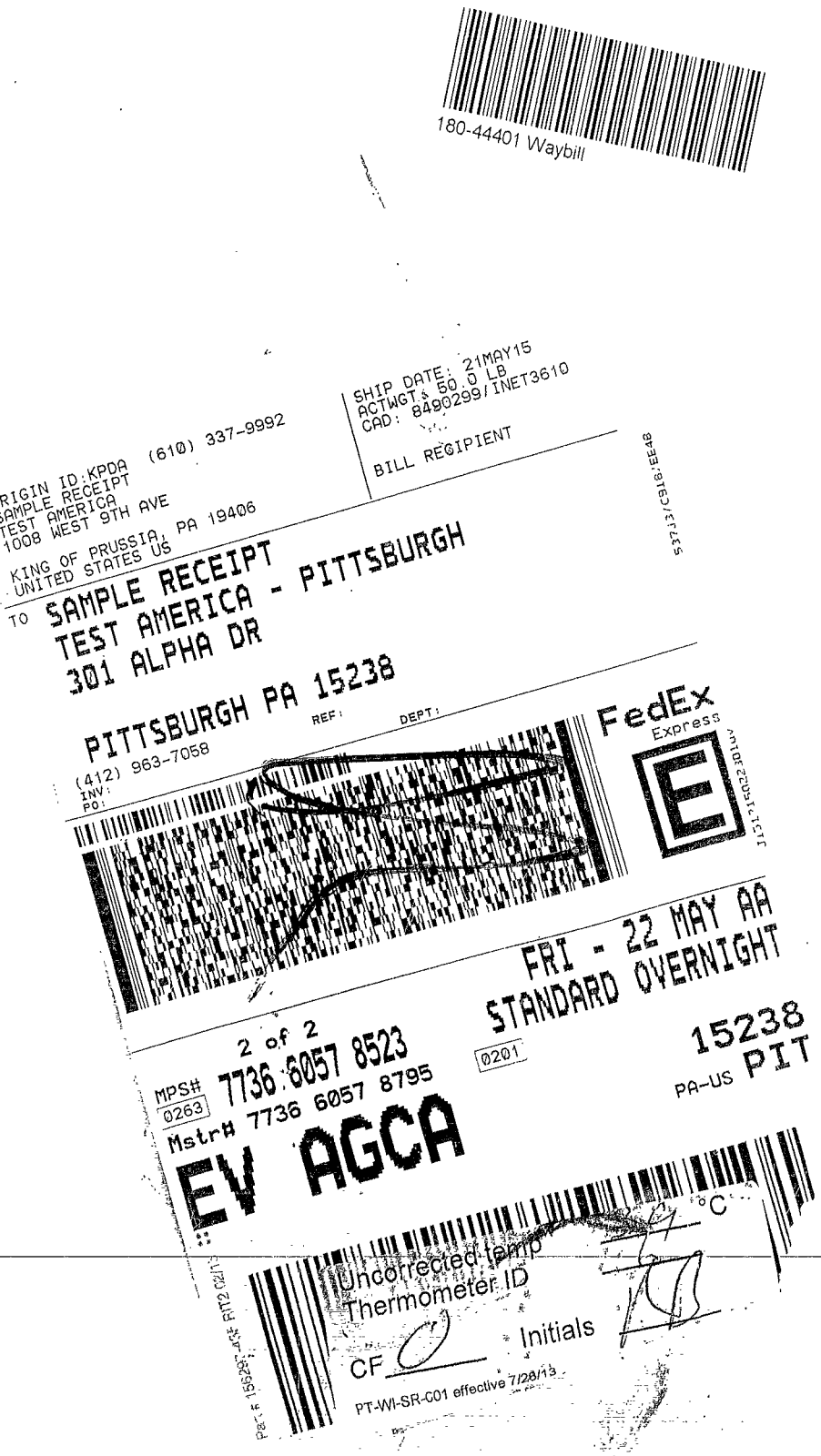
180-44401 Chain of Custody

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

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

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables**

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 5/21/15	Received by:	Company: TA	Date/Time: 5/21/15 1402
Relinquished by:	Company: TA	Date/Time: 5/21/15 1600	Received by: Debbie Watson	Company: TA	Date/Time: 5/22/15 9:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:


180-44401 Waybill
ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US
SHIP DATE: 21MAY15
ACTWGT: 50.0 LB
CAD: 8490299/INET3610
BILL RECIPIENT
TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
REF:
DEPT:
INV:
PO:
FedEx
Express
FRI - 22 MAY AA
STANDARD OVERNIGHT
2 of 2
MPS# 7736 6057 8523
Mstr# 7736 6057 8795
0263
0201
15238
PA-US PIT
EV AGCA
°C
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-C01 effective 7/28/13

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-44401-1

Login Number: 44401
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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	