TestAmerica
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ANALYTICAL REPORT

Job Number: 180-41569-1

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
3/13/2015 11:41 AM

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03/13/2015

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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.
*	LCS or LCSD exceeds the control limits
E	Result exceeded calibration range.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Metals

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.

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: 180-41569-1

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 02/27/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.3 C.

VOLATILES

Several samples were diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

The laboratory control sample (LCS) for batch 135049 recovered outside control limits (low) for the following analytes: Trans-1,3-dichloropropene. A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS 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.

The laboratory control sample (LCS) for batch 135153 recovered outside control limits for the following analytes: Cis and Trans-1,3-dichloropropene. A low-level LCS (LLCS), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance limits; therefore, the LLCS 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 (ICP/MS)

Sodium was detected in method blank MB 180-134507/1-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.

GENERAL CHEMISTRY

Samples HD-QC2-0/1-1 (1), HD-MW-50D-0/1-0 (3) and HD-CW-18-0/1-0 (5) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-134684/2 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.

Chloride was detected in method blank MB 180-134413/6 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.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Client Sample ID: HD-QC2-0/1-1 — Lab Sample ID: 180-41569-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.95	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.7		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	29		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	7.4		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.51	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	0.051	J	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	230	B	5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	290		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	100000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	12000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	52000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	170000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC4-0/1-2 — Lab Sample ID: 180-41569-2

No Detections.

Client Sample ID: HD-MW-50D-0/1-0 — Lab Sample ID: 180-41569-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	46		40	9.1	ug/L	40		8260C	Total/NA
1,1-Dichloroethene	290		40	12	ug/L	40		8260C	Total/NA
1,1-Dichloroethane	720		40	4.7	ug/L	40		8260C	Total/NA
cis-1,2-Dichloroethene	5300	E	40	9.5	ug/L	40		8260C	Total/NA
1,1,1-Trichloroethane	16	J	40	11	ug/L	40		8260C	Total/NA
Trichloroethene	5000	E	40	5.7	ug/L	40		8260C	Total/NA
Tetrachloroethene	430		40	5.9	ug/L	40		8260C	Total/NA
1,1-Dichloroethene - DL	390	J	400	120	ug/L	400		8260C	Total/NA
1,1-Dichloroethane - DL	780		400	47	ug/L	400		8260C	Total/NA
cis-1,2-Dichloroethene - DL	5900		400	95	ug/L	400		8260C	Total/NA
Trichloroethene - DL	5700		400	57	ug/L	400		8260C	Total/NA
Tetrachloroethene - DL	410		400	59	ug/L	400		8260C	Total/NA
Chloride	100	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	270		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	160000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	2400		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	53000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	18000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	310	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	310	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-51S-0/1-0 — Lab Sample ID: 180-41569-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	59		50	15	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	16	J	50	5.8	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	820		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	130		50	14	ug/L	50		8260C	Total/NA
Trichloroethene	860		50	7.2	ug/L	50		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-51S-0/1-0 (Continued)

Lab Sample ID: 180-41569-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	520		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	2.9		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	54		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	130000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	9400		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	52000	B	100	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-CW-18-0/1-0

Lab Sample ID: 180-41569-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.99	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.8		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	30		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	7.4		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.45	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	0.065	J	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	230	B	5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	300		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	100000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	11000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	53000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	170000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

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

Lab Sample ID: 180-41569-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	23		13	2.8	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethene	22		13	3.7	ug/L	12.5		8260C	Total/NA
trans-1,2-Dichloroethene	14		13	2.1	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethane	24		13	1.5	ug/L	12.5		8260C	Total/NA
cis-1,2-Dichloroethene	2000	E	13	3.0	ug/L	12.5		8260C	Total/NA
Trichloroethene	1400	E	13	1.8	ug/L	12.5		8260C	Total/NA
Tetrachloroethene	570		13	1.9	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethane - DL	27	J	130	15	ug/L	125		8260C	Total/NA
cis-1,2-Dichloroethene - DL	2100		130	30	ug/L	125		8260C	Total/NA
Trichloroethene - DL	1500		130	18	ug/L	125		8260C	Total/NA
Tetrachloroethene - DL	610		130	19	ug/L	125		8260C	Total/NA
Nitrate as N	0.34		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	160	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	73		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	130000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	9900		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	25000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	42000	B	100	3.8	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-114-0/1-0 (Continued)

Lab Sample ID: 180-41569-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-7-0/1-0

Lab Sample ID: 180-41569-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	17		10	3.0	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	7.4	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	200		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	26		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	220		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	210		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	5.2		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	39		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	140000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	20000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	56000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	280	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-17-0/1-0

Lab Sample ID: 180-41569-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	6.2		5.0	1.5	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	2.7	J	5.0	0.58	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	73		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	10		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	69		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	42		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	2.3		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	41		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	8900		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	46000	B	100	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-96S-0/1-0

Lab Sample ID: 180-41569-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	4.7	J	10	3.0	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	2.0	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	130		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	9.8	J	10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	180		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	640	E	10	1.5	ug/L	10		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-96S-0/1-0 (Continued)

Lab Sample ID: 180-41569-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene - DL	140		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane - DL	13	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene - DL	200		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene - DL	690		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	4.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	160	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	55		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	140000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	11000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	24000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	66000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-96D-0/1-0

Lab Sample ID: 180-41569-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	7.3	J	10	3.0	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	2.4	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	150		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	13		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	300		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	190		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	4.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	49		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	130000		100	2.8	ug/L	1		6020A	Total/NA
Potassium	5900		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	22000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	53000	B	100	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

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-QC2-0/1-1
Date Collected: 02/26/15 08:00
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/09/15 18:32	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/09/15 18:32	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/09/15 18:32	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 18:32	1
1,1-Dichloroethene	**0.95**	**J**	1.0	0.30	ug/L			03/09/15 18:32	1
Acetone	5.0	U	5.0	2.5	ug/L			03/09/15 18:32	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/09/15 18:32	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/09/15 18:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/09/15 18:32	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/09/15 18:32	1
1,1-Dichloroethane	**1.7**		1.0	0.12	ug/L			03/09/15 18:32	1
cis-1,2-Dichloroethene	**29**		1.0	0.24	ug/L			03/09/15 18:32	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/09/15 18:32	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/09/15 18:32	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/09/15 18:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/09/15 18:32	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/09/15 18:32	1
Benzene	1.0	U	1.0	0.11	ug/L			03/09/15 18:32	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 18:32	1
Trichloroethene	**7.4**		1.0	0.14	ug/L			03/09/15 18:32	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/09/15 18:32	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/09/15 18:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/09/15 18:32	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/09/15 18:32	1
Toluene	1.0	U	1.0	0.15	ug/L			03/09/15 18:32	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.15	ug/L			03/09/15 18:32	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 18:32	1
Tetrachloroethene	**0.51**	**J**	1.0	0.15	ug/L			03/09/15 18:32	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/09/15 18:32	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/09/15 18:32	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/09/15 18:32	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/09/15 18:32	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/09/15 18:32	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/09/15 18:32	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/09/15 18:32	1
Styrene	1.0	U	1.0	0.097	ug/L			03/09/15 18:32	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/09/15 18:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 18:32	1
Acrylonitrile	20	U	20	0.55	ug/L			03/09/15 18:32	1
1,4-Dioxane	200	U	200	34	ug/L			03/09/15 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/09/15 18:32*	*1*
Toluene-d8 (Surr)	*100*		*71 - 118*		*03/09/15 18:32*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*03/09/15 18:32*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*03/09/15 18:32*	*1*

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

Client Sample ID: HD-QC4-0/1-2
Date Collected: 02/26/15 12:00
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/10/15 15:48	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/10/15 15:48	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/10/15 15:48	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/10/15 15:48	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/10/15 15:48	1
Acetone	5.0	U	5.0	2.5	ug/L			03/10/15 15:48	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/10/15 15:48	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/10/15 15:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/10/15 15:48	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/10/15 15:48	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/10/15 15:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/10/15 15:48	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/10/15 15:48	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/10/15 15:48	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/10/15 15:48	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/10/15 15:48	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/10/15 15:48	1
Benzene	1.0	U	1.0	0.11	ug/L			03/10/15 15:48	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/10/15 15:48	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/10/15 15:48	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/10/15 15:48	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/10/15 15:48	1
cis-1,3-Dichloropropene	1.0	U *	1.0	0.19	ug/L			03/10/15 15:48	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/10/15 15:48	1
Toluene	1.0	U	1.0	0.15	ug/L			03/10/15 15:48	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.15	ug/L			03/10/15 15:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/10/15 15:48	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/10/15 15:48	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/10/15 15:48	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/10/15 15:48	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/10/15 15:48	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/10/15 15:48	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/10/15 15:48	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/10/15 15:48	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/10/15 15:48	1
Styrene	1.0	U	1.0	0.097	ug/L			03/10/15 15:48	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/10/15 15:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/10/15 15:48	1
Acrylonitrile	20	U	20	0.55	ug/L			03/10/15 15:48	1
1,4-Dioxane	200	U	200	34	ug/L			03/10/15 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*03/10/15 15:48*	*1*
Toluene-d8 (Surr)	*104*		*71 - 118*		*03/10/15 15:48*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/10/15 15:48*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 128*		*03/10/15 15:48*	*1*

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

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 02/26/15 11:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	40	U	40	11	ug/L			03/09/15 19:20	40
Vinyl chloride	**46**		40	9.1	ug/L			03/09/15 19:20	40
Bromomethane	40	U	40	13	ug/L			03/09/15 19:20	40
Chloroethane	40	U	40	8.6	ug/L			03/09/15 19:20	40
1,1-Dichloroethene	**290**		40	12	ug/L			03/09/15 19:20	40
Acetone	200	U	200	100	ug/L			03/09/15 19:20	40
Carbon disulfide	40	U	40	8.5	ug/L			03/09/15 19:20	40
Methylene Chloride	40	U	40	5.0	ug/L			03/09/15 19:20	40
trans-1,2-Dichloroethene	40	U	40	6.8	ug/L			03/09/15 19:20	40
Methyl tert-butyl ether	40	U	40	7.3	ug/L			03/09/15 19:20	40
1,1-Dichloroethane	**720**		40	4.7	ug/L			03/09/15 19:20	40
cis-1,2-Dichloroethene	**5300**	**E**	40	9.5	ug/L			03/09/15 19:20	40
Bromochloromethane	40	U	40	7.2	ug/L			03/09/15 19:20	40
2-Butanone (MEK)	200	U	200	22	ug/L			03/09/15 19:20	40
Chloroform	40	U	40	6.8	ug/L			03/09/15 19:20	40
1,1,1-Trichloroethane	**16**	**J**	40	11	ug/L			03/09/15 19:20	40
Carbon tetrachloride	40	U	40	5.5	ug/L			03/09/15 19:20	40
Benzene	40	U	40	4.2	ug/L			03/09/15 19:20	40
1,2-Dichloroethane	40	U	40	8.5	ug/L			03/09/15 19:20	40
Trichloroethene	**5000**	**E**	40	5.7	ug/L			03/09/15 19:20	40
1,2-Dichloropropane	40	U	40	3.8	ug/L			03/09/15 19:20	40
Bromodichloromethane	40	U	40	5.2	ug/L			03/09/15 19:20	40
cis-1,3-Dichloropropene	40	U	40	7.5	ug/L			03/09/15 19:20	40
4-Methyl-2-pentanone (MIBK)	200	U	200	21	ug/L			03/09/15 19:20	40
Toluene	40	U	40	6.0	ug/L			03/09/15 19:20	40
trans-1,3-Dichloropropene	40	U *	40	5.9	ug/L			03/09/15 19:20	40
1,1,2-Trichloroethane	40	U	40	8.1	ug/L			03/09/15 19:20	40
Tetrachloroethene	**430**		40	5.9	ug/L			03/09/15 19:20	40
2-Hexanone	200	U	200	6.4	ug/L			03/09/15 19:20	40
Dibromochloromethane	40	U	40	5.5	ug/L			03/09/15 19:20	40
1,2-Dibromoethane (EDB)	40	U	40	7.2	ug/L			03/09/15 19:20	40
Chlorobenzene	40	U	40	5.4	ug/L			03/09/15 19:20	40
1,1,1,2-Tetrachloroethane	40	U	40	11	ug/L			03/09/15 19:20	40
Ethylbenzene	40	U	40	9.1	ug/L			03/09/15 19:20	40
Xylenes, Total	120	U	120	20	ug/L			03/09/15 19:20	40
Styrene	40	U	40	3.9	ug/L			03/09/15 19:20	40
Bromoform	40	U	40	7.7	ug/L			03/09/15 19:20	40
1,1,2,2-Tetrachloroethane	40	U	40	8.0	ug/L			03/09/15 19:20	40
Acrylonitrile	800	U	800	22	ug/L			03/09/15 19:20	40
1,4-Dioxane	8000	U	8000	1400	ug/L			03/09/15 19:20	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/09/15 19:20*	*40*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/09/15 19:20*	*40*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/09/15 19:20*	*40*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*03/09/15 19:20*	*40*

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

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 02/26/15 13:25
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			03/09/15 20:09	50
Vinyl chloride	50	U	50	11	ug/L			03/09/15 20:09	50
Bromomethane	50	U	50	16	ug/L			03/09/15 20:09	50
Chloroethane	50	U	50	11	ug/L			03/09/15 20:09	50
1,1-Dichloroethene	**59**		50	15	ug/L			03/09/15 20:09	50
Acetone	250	U	250	130	ug/L			03/09/15 20:09	50
Carbon disulfide	50	U	50	11	ug/L			03/09/15 20:09	50
Methylene Chloride	50	U	50	6.3	ug/L			03/09/15 20:09	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			03/09/15 20:09	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			03/09/15 20:09	50
1,1-Dichloroethane	**16**	**J**	50	5.8	ug/L			03/09/15 20:09	50
cis-1,2-Dichloroethene	**820**		50	12	ug/L			03/09/15 20:09	50
Bromochloromethane	50	U	50	9.0	ug/L			03/09/15 20:09	50
2-Butanone (MEK)	250	U	250	27	ug/L			03/09/15 20:09	50
Chloroform	50	U	50	8.5	ug/L			03/09/15 20:09	50
1,1,1-Trichloroethane	**130**		50	14	ug/L			03/09/15 20:09	50
Carbon tetrachloride	50	U	50	6.8	ug/L			03/09/15 20:09	50
Benzene	50	U	50	5.3	ug/L			03/09/15 20:09	50
1,2-Dichloroethane	50	U	50	11	ug/L			03/09/15 20:09	50
Trichloroethene	**860**		50	7.2	ug/L			03/09/15 20:09	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			03/09/15 20:09	50
Bromodichloromethane	50	U	50	6.5	ug/L			03/09/15 20:09	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			03/09/15 20:09	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			03/09/15 20:09	50
Toluene	50	U	50	7.5	ug/L			03/09/15 20:09	50
trans-1,3-Dichloropropene	50	U *	50	7.4	ug/L			03/09/15 20:09	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			03/09/15 20:09	50
Tetrachloroethene	**520**		50	7.4	ug/L			03/09/15 20:09	50
2-Hexanone	250	U	250	8.0	ug/L			03/09/15 20:09	50
Dibromochloromethane	50	U	50	6.8	ug/L			03/09/15 20:09	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			03/09/15 20:09	50
Chlorobenzene	50	U	50	6.8	ug/L			03/09/15 20:09	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			03/09/15 20:09	50
Ethylbenzene	50	U	50	11	ug/L			03/09/15 20:09	50
Xylenes, Total	150	U	150	24	ug/L			03/09/15 20:09	50
Styrene	50	U	50	4.8	ug/L			03/09/15 20:09	50
Bromoform	50	U	50	9.6	ug/L			03/09/15 20:09	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			03/09/15 20:09	50
Acrylonitrile	1000	U	1000	27	ug/L			03/09/15 20:09	50
1,4-Dioxane	10000	U	10000	1700	ug/L			03/09/15 20:09	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 135*		*03/09/15 20:09*	*50*
Toluene-d8 (Surr)	*104*		*71 - 118*		*03/09/15 20:09*	*50*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*03/09/15 20:09*	*50*
Dibromofluoromethane (Surr)	*98*		*70 - 128*		*03/09/15 20:09*	*50*

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

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 02/26/15 09:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/09/15 20:33	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/09/15 20:33	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/09/15 20:33	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 20:33	1
1,1-Dichloroethene	**0.99**	**J**	1.0	0.30	ug/L			03/09/15 20:33	1
Acetone	5.0	U	5.0	2.5	ug/L			03/09/15 20:33	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/09/15 20:33	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/09/15 20:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/09/15 20:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/09/15 20:33	1
1,1-Dichloroethane	**1.8**		1.0	0.12	ug/L			03/09/15 20:33	1
cis-1,2-Dichloroethene	**30**		1.0	0.24	ug/L			03/09/15 20:33	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/09/15 20:33	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/09/15 20:33	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/09/15 20:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/09/15 20:33	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/09/15 20:33	1
Benzene	1.0	U	1.0	0.11	ug/L			03/09/15 20:33	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 20:33	1
Trichloroethene	**7.4**		1.0	0.14	ug/L			03/09/15 20:33	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/09/15 20:33	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/09/15 20:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/09/15 20:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/09/15 20:33	1
Toluene	1.0	U	1.0	0.15	ug/L			03/09/15 20:33	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.15	ug/L			03/09/15 20:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 20:33	1
Tetrachloroethene	**0.45**	**J**	1.0	0.15	ug/L			03/09/15 20:33	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/09/15 20:33	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/09/15 20:33	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/09/15 20:33	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/09/15 20:33	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/09/15 20:33	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/09/15 20:33	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/09/15 20:33	1
Styrene	1.0	U	1.0	0.097	ug/L			03/09/15 20:33	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/09/15 20:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 20:33	1
Acrylonitrile	20	U	20	0.55	ug/L			03/09/15 20:33	1
1,4-Dioxane	200	U	200	34	ug/L			03/09/15 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*03/09/15 20:33*	*1*
Toluene-d8 (Surr)	*105*		*71 - 118*		*03/09/15 20:33*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*03/09/15 20:33*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*03/09/15 20:33*	*1*

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

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 02/26/15 11:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	13	U	13	3.5	ug/L			03/09/15 21:21	12.5
Vinyl chloride	**23**		13	2.8	ug/L			03/09/15 21:21	12.5
Bromomethane	13	U	13	3.9	ug/L			03/09/15 21:21	12.5
Chloroethane	13	U	13	2.7	ug/L			03/09/15 21:21	12.5
1,1-Dichloroethene	**22**		13	3.7	ug/L			03/09/15 21:21	12.5
Acetone	63	U	63	31	ug/L			03/09/15 21:21	12.5
Carbon disulfide	13	U	13	2.7	ug/L			03/09/15 21:21	12.5
Methylene Chloride	13	U	13	1.6	ug/L			03/09/15 21:21	12.5
trans-1,2-Dichloroethene	**14**		13	2.1	ug/L			03/09/15 21:21	12.5
Methyl tert-butyl ether	13	U	13	2.3	ug/L			03/09/15 21:21	12.5
1,1-Dichloroethane	**24**		13	1.5	ug/L			03/09/15 21:21	12.5
cis-1,2-Dichloroethene	**2000**	**E**	13	3.0	ug/L			03/09/15 21:21	12.5
Bromochloromethane	13	U	13	2.3	ug/L			03/09/15 21:21	12.5
2-Butanone (MEK)	63	U	63	6.8	ug/L			03/09/15 21:21	12.5
Chloroform	13	U	13	2.1	ug/L			03/09/15 21:21	12.5
1,1,1-Trichloroethane	13	U	13	3.6	ug/L			03/09/15 21:21	12.5
Carbon tetrachloride	13	U	13	1.7	ug/L			03/09/15 21:21	12.5
Benzene	13	U	13	1.3	ug/L			03/09/15 21:21	12.5
1,2-Dichloroethane	13	U	13	2.6	ug/L			03/09/15 21:21	12.5
Trichloroethene	**1400**	**E**	13	1.8	ug/L			03/09/15 21:21	12.5
1,2-Dichloropropane	13	U	13	1.2	ug/L			03/09/15 21:21	12.5
Bromodichloromethane	13	U	13	1.6	ug/L			03/09/15 21:21	12.5
cis-1,3-Dichloropropene	13	U	13	2.3	ug/L			03/09/15 21:21	12.5
4-Methyl-2-pentanone (MIBK)	63	U	63	6.6	ug/L			03/09/15 21:21	12.5
Toluene	13	U	13	1.9	ug/L			03/09/15 21:21	12.5
trans-1,3-Dichloropropene	13	U *	13	1.9	ug/L			03/09/15 21:21	12.5
1,1,2-Trichloroethane	13	U	13	2.5	ug/L			03/09/15 21:21	12.5
Tetrachloroethene	**570**		13	1.9	ug/L			03/09/15 21:21	12.5
2-Hexanone	63	U	63	2.0	ug/L			03/09/15 21:21	12.5
Dibromochloromethane	13	U	13	1.7	ug/L			03/09/15 21:21	12.5
1,2-Dibromoethane (EDB)	13	U	13	2.3	ug/L			03/09/15 21:21	12.5
Chlorobenzene	13	U	13	1.7	ug/L			03/09/15 21:21	12.5
1,1,1,2-Tetrachloroethane	13	U	13	3.5	ug/L			03/09/15 21:21	12.5
Ethylbenzene	13	U	13	2.8	ug/L			03/09/15 21:21	12.5
Xylenes, Total	38	U	38	6.1	ug/L			03/09/15 21:21	12.5
Styrene	13	U	13	1.2	ug/L			03/09/15 21:21	12.5
Bromoform	13	U	13	2.4	ug/L			03/09/15 21:21	12.5
1,1,2,2-Tetrachloroethane	13	U	13	2.5	ug/L			03/09/15 21:21	12.5
Acrylonitrile	250	U	250	6.8	ug/L			03/09/15 21:21	12.5
1,4-Dioxane	2500	U	2500	430	ug/L			03/09/15 21:21	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/09/15 21:21*	*12.5*
Toluene-d8 (Surr)	*105*		*71 - 118*		*03/09/15 21:21*	*12.5*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*03/09/15 21:21*	*12.5*
Dibromofluoromethane (Surr)	*98*		*70 - 128*		*03/09/15 21:21*	*12.5*

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

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 02/26/15 14:40
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			03/10/15 17:00	10
Vinyl chloride	10	U	10	2.3	ug/L			03/10/15 17:00	10
Bromomethane	10	U	10	3.1	ug/L			03/10/15 17:00	10
Chloroethane	10	U	10	2.1	ug/L			03/10/15 17:00	10
1,1-Dichloroethene	**17**		10	3.0	ug/L			03/10/15 17:00	10
Acetone	50	U	50	25	ug/L			03/10/15 17:00	10
Carbon disulfide	10	U	10	2.1	ug/L			03/10/15 17:00	10
Methylene Chloride	10	U	10	1.3	ug/L			03/10/15 17:00	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			03/10/15 17:00	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			03/10/15 17:00	10
1,1-Dichloroethane	**7.4**	**J**	10	1.2	ug/L			03/10/15 17:00	10
cis-1,2-Dichloroethene	**200**		10	2.4	ug/L			03/10/15 17:00	10
Bromochloromethane	10	U	10	1.8	ug/L			03/10/15 17:00	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			03/10/15 17:00	10
Chloroform	10	U	10	1.7	ug/L			03/10/15 17:00	10
1,1,1-Trichloroethane	**26**		10	2.9	ug/L			03/10/15 17:00	10
Carbon tetrachloride	10	U	10	1.4	ug/L			03/10/15 17:00	10
Benzene	10	U	10	1.1	ug/L			03/10/15 17:00	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			03/10/15 17:00	10
Trichloroethene	**220**		10	1.4	ug/L			03/10/15 17:00	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			03/10/15 17:00	10
Bromodichloromethane	10	U	10	1.3	ug/L			03/10/15 17:00	10
cis-1,3-Dichloropropene	10	U *	10	1.9	ug/L			03/10/15 17:00	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			03/10/15 17:00	10
Toluene	10	U	10	1.5	ug/L			03/10/15 17:00	10
trans-1,3-Dichloropropene	10	U *	10	1.5	ug/L			03/10/15 17:00	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			03/10/15 17:00	10
Tetrachloroethene	**210**		10	1.5	ug/L			03/10/15 17:00	10
2-Hexanone	50	U	50	1.6	ug/L			03/10/15 17:00	10
Dibromochloromethane	10	U	10	1.4	ug/L			03/10/15 17:00	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			03/10/15 17:00	10
Chlorobenzene	10	U	10	1.4	ug/L			03/10/15 17:00	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			03/10/15 17:00	10
Ethylbenzene	10	U	10	2.3	ug/L			03/10/15 17:00	10
Xylenes, Total	30	U	30	4.9	ug/L			03/10/15 17:00	10
Styrene	10	U	10	0.97	ug/L			03/10/15 17:00	10
Bromoform	10	U	10	1.9	ug/L			03/10/15 17:00	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			03/10/15 17:00	10
Acrylonitrile	200	U	200	5.5	ug/L			03/10/15 17:00	10
1,4-Dioxane	2000	U	2000	340	ug/L			03/10/15 17:00	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*03/10/15 17:00*	*10*
Toluene-d8 (Surr)	*103*		*71 - 118*		*03/10/15 17:00*	*10*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*03/10/15 17:00*	*10*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*03/10/15 17:00*	*10*

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

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 02/26/15 05:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			03/10/15 17:25	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			03/10/15 17:25	5
Bromomethane	5.0	U	5.0	1.6	ug/L			03/10/15 17:25	5
Chloroethane	5.0	U	5.0	1.1	ug/L			03/10/15 17:25	5
1,1-Dichloroethene	**6.2**		5.0	1.5	ug/L			03/10/15 17:25	5
Acetone	25	U	25	13	ug/L			03/10/15 17:25	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			03/10/15 17:25	5
Methylene Chloride	5.0	U	5.0	0.63	ug/L			03/10/15 17:25	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			03/10/15 17:25	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			03/10/15 17:25	5
1,1-Dichloroethane	**2.7**	**J**	5.0	0.58	ug/L			03/10/15 17:25	5
cis-1,2-Dichloroethene	**73**		5.0	1.2	ug/L			03/10/15 17:25	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			03/10/15 17:25	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			03/10/15 17:25	5
Chloroform	5.0	U	5.0	0.85	ug/L			03/10/15 17:25	5
1,1,1-Trichloroethane	**10**		5.0	1.4	ug/L			03/10/15 17:25	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			03/10/15 17:25	5
Benzene	5.0	U	5.0	0.53	ug/L			03/10/15 17:25	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			03/10/15 17:25	5
Trichloroethene	**69**		5.0	0.72	ug/L			03/10/15 17:25	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			03/10/15 17:25	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			03/10/15 17:25	5
cis-1,3-Dichloropropene	5.0	U *	5.0	0.93	ug/L			03/10/15 17:25	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			03/10/15 17:25	5
Toluene	5.0	U	5.0	0.75	ug/L			03/10/15 17:25	5
trans-1,3-Dichloropropene	5.0	U *	5.0	0.74	ug/L			03/10/15 17:25	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			03/10/15 17:25	5
Tetrachloroethene	**42**		5.0	0.74	ug/L			03/10/15 17:25	5
2-Hexanone	25	U	25	0.80	ug/L			03/10/15 17:25	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			03/10/15 17:25	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			03/10/15 17:25	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			03/10/15 17:25	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			03/10/15 17:25	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			03/10/15 17:25	5
Xylenes, Total	15	U	15	2.4	ug/L			03/10/15 17:25	5
Styrene	5.0	U	5.0	0.48	ug/L			03/10/15 17:25	5
Bromoform	5.0	U	5.0	0.96	ug/L			03/10/15 17:25	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			03/10/15 17:25	5
Acrylonitrile	100	U	100	2.7	ug/L			03/10/15 17:25	5
1,4-Dioxane	1000	U	1000	170	ug/L			03/10/15 17:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*		*03/10/15 17:25*	*5*
Toluene-d8 (Surr)	*100*		*71 - 118*		*03/10/15 17:25*	*5*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/10/15 17:25*	*5*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*03/10/15 17:25*	*5*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 02/26/15 15:10
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			03/09/15 22:33	10
Vinyl chloride	10	U	10	2.3	ug/L			03/09/15 22:33	10
Bromomethane	10	U	10	3.1	ug/L			03/09/15 22:33	10
Chloroethane	10	U	10	2.1	ug/L			03/09/15 22:33	10
1,1-Dichloroethene	**4.7**	**J**	10	3.0	ug/L			03/09/15 22:33	10
Acetone	50	U	50	25	ug/L			03/09/15 22:33	10
Carbon disulfide	10	U	10	2.1	ug/L			03/09/15 22:33	10
Methylene Chloride	10	U	10	1.3	ug/L			03/09/15 22:33	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			03/09/15 22:33	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			03/09/15 22:33	10
1,1-Dichloroethane	**2.0**	**J**	10	1.2	ug/L			03/09/15 22:33	10
cis-1,2-Dichloroethene	**130**		10	2.4	ug/L			03/09/15 22:33	10
Bromochloromethane	10	U	10	1.8	ug/L			03/09/15 22:33	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			03/09/15 22:33	10
Chloroform	10	U	10	1.7	ug/L			03/09/15 22:33	10
1,1,1-Trichloroethane	**9.8**	**J**	10	2.9	ug/L			03/09/15 22:33	10
Carbon tetrachloride	10	U	10	1.4	ug/L			03/09/15 22:33	10
Benzene	10	U	10	1.1	ug/L			03/09/15 22:33	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			03/09/15 22:33	10
Trichloroethene	**180**		10	1.4	ug/L			03/09/15 22:33	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			03/09/15 22:33	10
Bromodichloromethane	10	U	10	1.3	ug/L			03/09/15 22:33	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			03/09/15 22:33	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			03/09/15 22:33	10
Toluene	10	U	10	1.5	ug/L			03/09/15 22:33	10
trans-1,3-Dichloropropene	10	U *	10	1.5	ug/L			03/09/15 22:33	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			03/09/15 22:33	10
Tetrachloroethene	**640**	**E**	10	1.5	ug/L			03/09/15 22:33	10
2-Hexanone	50	U	50	1.6	ug/L			03/09/15 22:33	10
Dibromochloromethane	10	U	10	1.4	ug/L			03/09/15 22:33	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			03/09/15 22:33	10
Chlorobenzene	10	U	10	1.4	ug/L			03/09/15 22:33	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			03/09/15 22:33	10
Ethylbenzene	10	U	10	2.3	ug/L			03/09/15 22:33	10
Xylenes, Total	30	U	30	4.9	ug/L			03/09/15 22:33	10
Styrene	10	U	10	0.97	ug/L			03/09/15 22:33	10
Bromoform	10	U	10	1.9	ug/L			03/09/15 22:33	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			03/09/15 22:33	10
Acrylonitrile	200	U	200	5.5	ug/L			03/09/15 22:33	10
1,4-Dioxane	2000	U	2000	340	ug/L			03/09/15 22:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*		*03/09/15 22:33*	*10*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/09/15 22:33*	*10*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*03/09/15 22:33*	*10*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*03/09/15 22:33*	*10*

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

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 02/26/15 14:30
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			03/10/15 18:13	10
Vinyl chloride	10	U	10	2.3	ug/L			03/10/15 18:13	10
Bromomethane	10	U	10	3.1	ug/L			03/10/15 18:13	10
Chloroethane	10	U	10	2.1	ug/L			03/10/15 18:13	10
1,1-Dichloroethene	**7.3**	**J**	10	3.0	ug/L			03/10/15 18:13	10
Acetone	50	U	50	25	ug/L			03/10/15 18:13	10
Carbon disulfide	10	U	10	2.1	ug/L			03/10/15 18:13	10
Methylene Chloride	10	U	10	1.3	ug/L			03/10/15 18:13	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			03/10/15 18:13	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			03/10/15 18:13	10
1,1-Dichloroethane	**2.4**	**J**	10	1.2	ug/L			03/10/15 18:13	10
cis-1,2-Dichloroethene	**150**		10	2.4	ug/L			03/10/15 18:13	10
Bromochloromethane	10	U	10	1.8	ug/L			03/10/15 18:13	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			03/10/15 18:13	10
Chloroform	10	U	10	1.7	ug/L			03/10/15 18:13	10
1,1,1-Trichloroethane	**13**		10	2.9	ug/L			03/10/15 18:13	10
Carbon tetrachloride	10	U	10	1.4	ug/L			03/10/15 18:13	10
Benzene	10	U	10	1.1	ug/L			03/10/15 18:13	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			03/10/15 18:13	10
Trichloroethene	**300**		10	1.4	ug/L			03/10/15 18:13	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			03/10/15 18:13	10
Bromodichloromethane	10	U	10	1.3	ug/L			03/10/15 18:13	10
cis-1,3-Dichloropropene	10	U *	10	1.9	ug/L			03/10/15 18:13	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			03/10/15 18:13	10
Toluene	10	U	10	1.5	ug/L			03/10/15 18:13	10
trans-1,3-Dichloropropene	10	U *	10	1.5	ug/L			03/10/15 18:13	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			03/10/15 18:13	10
Tetrachloroethene	**190**		10	1.5	ug/L			03/10/15 18:13	10
2-Hexanone	50	U	50	1.6	ug/L			03/10/15 18:13	10
Dibromochloromethane	10	U	10	1.4	ug/L			03/10/15 18:13	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			03/10/15 18:13	10
Chlorobenzene	10	U	10	1.4	ug/L			03/10/15 18:13	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			03/10/15 18:13	10
Ethylbenzene	10	U	10	2.3	ug/L			03/10/15 18:13	10
Xylenes, Total	30	U	30	4.9	ug/L			03/10/15 18:13	10
Styrene	10	U	10	0.97	ug/L			03/10/15 18:13	10
Bromoform	10	U	10	1.9	ug/L			03/10/15 18:13	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			03/10/15 18:13	10
Acrylonitrile	200	U	200	5.5	ug/L			03/10/15 18:13	10
1,4-Dioxane	2000	U	2000	340	ug/L			03/10/15 18:13	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 135*		*03/10/15 18:13*	*10*
Toluene-d8 (Surr)	*105*		*71 - 118*		*03/10/15 18:13*	*10*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/10/15 18:13*	*10*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*03/10/15 18:13*	*10*

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

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 02/26/15 11:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	400	U	400	110	ug/L			03/10/15 16:12	400
Vinyl chloride	400	U	400	91	ug/L			03/10/15 16:12	400
Bromomethane	400	U	400	130	ug/L			03/10/15 16:12	400
Chloroethane	400	U	400	86	ug/L			03/10/15 16:12	400
1,1-Dichloroethene	**390**	**J**	400	120	ug/L			03/10/15 16:12	400
Acetone	2000	U	2000	1000	ug/L			03/10/15 16:12	400
Carbon disulfide	400	U	400	85	ug/L			03/10/15 16:12	400
Methylene Chloride	400	U	400	50	ug/L			03/10/15 16:12	400
trans-1,2-Dichloroethene	400	U	400	68	ug/L			03/10/15 16:12	400
Methyl tert-butyl ether	400	U	400	73	ug/L			03/10/15 16:12	400
1,1-Dichloroethane	**780**		400	47	ug/L			03/10/15 16:12	400
cis-1,2-Dichloroethene	**5900**		400	95	ug/L			03/10/15 16:12	400
Bromochloromethane	400	U	400	72	ug/L			03/10/15 16:12	400
2-Butanone (MEK)	2000	U	2000	220	ug/L			03/10/15 16:12	400
Chloroform	400	U	400	68	ug/L			03/10/15 16:12	400
1,1,1-Trichloroethane	400	U	400	110	ug/L			03/10/15 16:12	400
Carbon tetrachloride	400	U	400	55	ug/L			03/10/15 16:12	400
Benzene	400	U	400	42	ug/L			03/10/15 16:12	400
1,2-Dichloroethane	400	U	400	85	ug/L			03/10/15 16:12	400
Trichloroethene	**5700**		400	57	ug/L			03/10/15 16:12	400
1,2-Dichloropropane	400	U	400	38	ug/L			03/10/15 16:12	400
Bromodichloromethane	400	U	400	52	ug/L			03/10/15 16:12	400
cis-1,3-Dichloropropene	400	U *	400	75	ug/L			03/10/15 16:12	400
4-Methyl-2-pentanone (MIBK)	2000	U	2000	210	ug/L			03/10/15 16:12	400
Toluene	400	U	400	60	ug/L			03/10/15 16:12	400
trans-1,3-Dichloropropene	400	U *	400	59	ug/L			03/10/15 16:12	400
1,1,2-Trichloroethane	400	U	400	81	ug/L			03/10/15 16:12	400
Tetrachloroethene	**410**		400	59	ug/L			03/10/15 16:12	400
2-Hexanone	2000	U	2000	64	ug/L			03/10/15 16:12	400
Dibromochloromethane	400	U	400	55	ug/L			03/10/15 16:12	400
1,2-Dibromoethane (EDB)	400	U	400	72	ug/L			03/10/15 16:12	400
Chlorobenzene	400	U	400	54	ug/L			03/10/15 16:12	400
1,1,1,2-Tetrachloroethane	400	U	400	110	ug/L			03/10/15 16:12	400
Ethylbenzene	400	U	400	91	ug/L			03/10/15 16:12	400
Xylenes, Total	1200	U	1200	200	ug/L			03/10/15 16:12	400
Styrene	400	U	400	39	ug/L			03/10/15 16:12	400
Bromoform	400	U	400	77	ug/L			03/10/15 16:12	400
1,1,2,2-Tetrachloroethane	400	U	400	80	ug/L			03/10/15 16:12	400
Acrylonitrile	8000	U	8000	220	ug/L			03/10/15 16:12	400
1,4-Dioxane	80000	U	80000	14000	ug/L			03/10/15 16:12	400

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 135*		*03/10/15 16:12*	*400*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/10/15 16:12*	*400*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*03/10/15 16:12*	*400*
Dibromofluoromethane (Surr)	*99*		*70 - 128*		*03/10/15 16:12*	*400*

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

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 02/26/15 11:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	130	U	130	35	ug/L			03/10/15 16:36	125
Vinyl chloride	130	U	130	28	ug/L			03/10/15 16:36	125
Bromomethane	130	U	130	39	ug/L			03/10/15 16:36	125
Chloroethane	130	U	130	27	ug/L			03/10/15 16:36	125
1,1-Dichloroethene	130	U	130	37	ug/L			03/10/15 16:36	125
Acetone	630	U	630	310	ug/L			03/10/15 16:36	125
Carbon disulfide	130	U	130	27	ug/L			03/10/15 16:36	125
Methylene Chloride	130	U	130	16	ug/L			03/10/15 16:36	125
trans-1,2-Dichloroethene	130	U	130	21	ug/L			03/10/15 16:36	125
Methyl tert-butyl ether	130	U	130	23	ug/L			03/10/15 16:36	125
1,1-Dichloroethane	**27**	**J**	130	15	ug/L			03/10/15 16:36	125
cis-1,2-Dichloroethene	**2100**		130	30	ug/L			03/10/15 16:36	125
Bromochloromethane	130	U	130	23	ug/L			03/10/15 16:36	125
2-Butanone (MEK)	630	U	630	68	ug/L			03/10/15 16:36	125
Chloroform	130	U	130	21	ug/L			03/10/15 16:36	125
1,1,1-Trichloroethane	130	U	130	36	ug/L			03/10/15 16:36	125
Carbon tetrachloride	130	U	130	17	ug/L			03/10/15 16:36	125
Benzene	130	U	130	13	ug/L			03/10/15 16:36	125
1,2-Dichloroethane	130	U	130	26	ug/L			03/10/15 16:36	125
Trichloroethene	**1500**		130	18	ug/L			03/10/15 16:36	125
1,2-Dichloropropane	130	U	130	12	ug/L			03/10/15 16:36	125
Bromodichloromethane	130	U	130	16	ug/L			03/10/15 16:36	125
cis-1,3-Dichloropropene	130	U *	130	23	ug/L			03/10/15 16:36	125
4-Methyl-2-pentanone (MIBK)	630	U	630	66	ug/L			03/10/15 16:36	125
Toluene	130	U	130	19	ug/L			03/10/15 16:36	125
trans-1,3-Dichloropropene	130	U *	130	19	ug/L			03/10/15 16:36	125
1,1,2-Trichloroethane	130	U	130	25	ug/L			03/10/15 16:36	125
Tetrachloroethene	**610**		130	19	ug/L			03/10/15 16:36	125
2-Hexanone	630	U	630	20	ug/L			03/10/15 16:36	125
Dibromochloromethane	130	U	130	17	ug/L			03/10/15 16:36	125
1,2-Dibromoethane (EDB)	130	U	130	23	ug/L			03/10/15 16:36	125
Chlorobenzene	130	U	130	17	ug/L			03/10/15 16:36	125
1,1,1,2-Tetrachloroethane	130	U	130	35	ug/L			03/10/15 16:36	125
Ethylbenzene	130	U	130	28	ug/L			03/10/15 16:36	125
Xylenes, Total	380	U	380	61	ug/L			03/10/15 16:36	125
Styrene	130	U	130	12	ug/L			03/10/15 16:36	125
Bromoform	130	U	130	24	ug/L			03/10/15 16:36	125
1,1,2,2-Tetrachloroethane	130	U	130	25	ug/L			03/10/15 16:36	125
Acrylonitrile	2500	U	2500	68	ug/L			03/10/15 16:36	125
1,4-Dioxane	25000	U	25000	4300	ug/L			03/10/15 16:36	125

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 135*		*03/10/15 16:36*	*125*
Toluene-d8 (Surr)	*107*		*71 - 118*		*03/10/15 16:36*	*125*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*03/10/15 16:36*	*125*
Dibromofluoromethane (Surr)	*98*		*70 - 128*		*03/10/15 16:36*	*125*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 02/26/15 15:10
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			03/10/15 17:49	25
Vinyl chloride	25	U	25	5.7	ug/L			03/10/15 17:49	25
Bromomethane	25	U	25	7.8	ug/L			03/10/15 17:49	25
Chloroethane	25	U	25	5.4	ug/L			03/10/15 17:49	25
1,1-Dichloroethene	25	U	25	7.4	ug/L			03/10/15 17:49	25
Acetone	130	U	130	63	ug/L			03/10/15 17:49	25
Carbon disulfide	25	U	25	5.3	ug/L			03/10/15 17:49	25
Methylene Chloride	25	U	25	3.1	ug/L			03/10/15 17:49	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			03/10/15 17:49	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			03/10/15 17:49	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			03/10/15 17:49	25
cis-1,2-Dichloroethene	**140**		25	5.9	ug/L			03/10/15 17:49	25
Bromochloromethane	25	U	25	4.5	ug/L			03/10/15 17:49	25
2-Butanone (MEK)	130	U	130	14	ug/L			03/10/15 17:49	25
Chloroform	25	U	25	4.3	ug/L			03/10/15 17:49	25
1,1,1-Trichloroethane	**13**	**J**	25	7.2	ug/L			03/10/15 17:49	25
Carbon tetrachloride	25	U	25	3.4	ug/L			03/10/15 17:49	25
Benzene	25	U	25	2.6	ug/L			03/10/15 17:49	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			03/10/15 17:49	25
Trichloroethene	**200**		25	3.6	ug/L			03/10/15 17:49	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			03/10/15 17:49	25
Bromodichloromethane	25	U	25	3.3	ug/L			03/10/15 17:49	25
cis-1,3-Dichloropropene	25	U *	25	4.7	ug/L			03/10/15 17:49	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			03/10/15 17:49	25
Toluene	25	U	25	3.8	ug/L			03/10/15 17:49	25
trans-1,3-Dichloropropene	25	U *	25	3.7	ug/L			03/10/15 17:49	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			03/10/15 17:49	25
Tetrachloroethene	**690**		25	3.7	ug/L			03/10/15 17:49	25
2-Hexanone	130	U	130	4.0	ug/L			03/10/15 17:49	25
Dibromochloromethane	25	U	25	3.4	ug/L			03/10/15 17:49	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			03/10/15 17:49	25
Chlorobenzene	25	U	25	3.4	ug/L			03/10/15 17:49	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			03/10/15 17:49	25
Ethylbenzene	25	U	25	5.7	ug/L			03/10/15 17:49	25
Xylenes, Total	75	U	75	12	ug/L			03/10/15 17:49	25
Styrene	25	U	25	2.4	ug/L			03/10/15 17:49	25
Bromoform	25	U	25	4.8	ug/L			03/10/15 17:49	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			03/10/15 17:49	25
Acrylonitrile	500	U	500	14	ug/L			03/10/15 17:49	25
1,4-Dioxane	5000	U	5000	860	ug/L			03/10/15 17:49	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 135*		*03/10/15 17:49*	*25*
Toluene-d8 (Surr)	*99*		*71 - 118*		*03/10/15 17:49*	*25*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*03/10/15 17:49*	*25*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*03/10/15 17:49*	*25*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-QC2-0/1-1
Date Collected: 02/26/15 08:00
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.051	J	0.10	0.0062	mg/L			02/27/15 15:24	1
Chloride	230	B	5.0	0.98	mg/L			02/27/15 15:39	5
Sulfate	290		5.0	1.1	mg/L			02/27/15 15:39	5

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 02/26/15 11:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.10	0.0062	mg/L			02/27/15 12:46	1
Chloride	**100**	**B**	1.0	0.20	mg/L			02/27/15 12:46	1
Sulfate	**270**		5.0	1.1	mg/L			02/27/15 16:25	5

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 02/26/15 13:25
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9		0.10	0.0062	mg/L			02/27/15 13:01	1
Chloride	170	B	1.0	0.20	mg/L			02/27/15 13:01	1
Sulfate	54		1.0	0.21	mg/L			02/27/15 13:01	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 02/26/15 09:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.065	J	0.10	0.0062	mg/L			02/27/15 15:55	1
Chloride	230	B	5.0	0.98	mg/L			02/27/15 16:10	5
Sulfate	300		5.0	1.1	mg/L			02/27/15 16:10	5

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 02/26/15 11:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.34		0.10	0.0062	mg/L			02/27/15 14:33	1
Chloride	160	B	1.0	0.20	mg/L			02/27/15 14:33	1
Sulfate	73		1.0	0.21	mg/L			02/27/15 14:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 02/26/15 14:40
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	5.2		0.10	0.0062	mg/L			02/27/15 13:17	1
Chloride	170	B	1.0	0.20	mg/L			02/27/15 13:17	1
Sulfate	39		1.0	0.21	mg/L			02/27/15 13:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 02/26/15 05:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3		0.10	0.0062	mg/L			02/27/15 11:41	1
Chloride	120	B	1.0	0.20	mg/L			02/27/15 11:41	1
Sulfate	41		1.0	0.21	mg/L			02/27/15 11:41	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 02/26/15 15:10
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.1		0.10	0.0062	mg/L			02/27/15 13:32	1
Chloride	160	B	1.0	0.20	mg/L			02/27/15 13:32	1
Sulfate	55		1.0	0.21	mg/L			02/27/15 13:32	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 02/26/15 14:30
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.1		0.10	0.0062	mg/L			02/27/15 13:47	1
Chloride	140	B	1.0	0.20	mg/L			02/27/15 13:47	1
Sulfate	49		1.0	0.21	mg/L			02/27/15 13:47	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-QC2-0/1-1
Date Collected: 02/26/15 08:00
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		100	2.8	ug/L		03/02/15 09:08	03/03/15 09:47	1
Potassium	12000		100	5.8	ug/L		03/02/15 09:08	03/03/15 09:47	1
Magnesium	52000		100	1.2	ug/L		03/02/15 09:08	03/03/15 09:47	1
Sodium	170000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 09:47	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 02/26/15 11:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:09	1
Potassium	2400		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:09	1
Magnesium	53000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:09	1
Sodium	18000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:09	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 02/26/15 13:25
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:13	1
Potassium	9400		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:13	1
Magnesium	18000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:13	1
Sodium	52000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:13	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 02/26/15 09:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:17	1
Potassium	11000		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:17	1
Magnesium	53000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:17	1
Sodium	170000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 02/26/15 11:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:33	1
Potassium	9900		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:33	1
Magnesium	25000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:33	1
Sodium	42000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:33	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 02/26/15 14:40
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:37	1
Potassium	20000		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:37	1
Magnesium	21000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:37	1
Sodium	56000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:37	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 02/26/15 05:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:42	1
Potassium	8900		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:42	1
Magnesium	15000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:42	1
Sodium	46000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:42	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 02/26/15 15:10
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:46	1
Potassium	11000		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:46	1
Magnesium	24000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:46	1
Sodium	66000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:46	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 02/26/15 14:30
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000		100	2.8	ug/L		03/02/15 09:08	03/03/15 10:50	1
Potassium	5900		100	5.8	ug/L		03/02/15 09:08	03/03/15 10:50	1
Magnesium	22000		100	1.2	ug/L		03/02/15 09:08	03/03/15 10:50	1
Sodium	53000	B	100	3.8	ug/L		03/02/15 09:08	03/03/15 10:50	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-QC2-0/1-1
Date Collected: 02/26/15 08:00
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**280**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 02/26/15 11:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**310**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 02/26/15 13:25
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-4
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			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 02/26/15 09:35
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**300**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-MW-114-0/1-0
Date Collected: 02/26/15 11:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**210**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 02/26/15 14:40
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**280**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 02/26/15 05:50
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-8
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			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 02/26/15 15:10
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**300**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

General Chemistry

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 02/26/15 14:30
Date Received: 02/27/15 09:15

Lab Sample ID: 180-41569-10
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			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	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	100	2.8	ug/L	6020A

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

Analyte	RL	MDL	Units	Method
Magnesium	100	1.2	ug/L	6020A
Potassium	100	5.8	ug/L	6020A
Sodium	100	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: 180-41569-1

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)
180-41569-1	HD-QC2-0/1-1	99	100	98	100
180-41569-2	HD-QC4-0/1-2	101	104	102	98
180-41569-3	HD-MW-50D-0/1-0	99	102	102	97
180-41569-3 - DL	HD-MW-50D-0/1-0	102	102	102	99
180-41569-4	HD-MW-51S-0/1-0	102	104	106	98
180-41569-5	HD-CW-18-0/1-0	100	105	105	100
180-41569-6	HD-MW-114-0/1-0	99	105	103	98
180-41569-6 - DL	HD-MW-114-0/1-0	96	107	106	98
180-41569-7	HD-MW-7-0/1-0	100	103	101	103
180-41569-8	HD-CW-17-0/1-0	100	100	102	100
180-41569-9	HD-MW-96S-0/1-0	99	102	101	100
180-41569-9 - DL	HD-MW-96S-0/1-0	105	99	100	101
180-41569-10	HD-MW-96D-0/1-0	106	105	102	103
LCS 180-135049/7	Lab Control Sample	104	104	95	105
LCS 180-135153/7	Lab Control Sample	100	109	100	100
MB 180-135049/4	Method Blank	98	102	105	102
MB 180-135153/4	Method Blank	101	101	101	97

Surrogate Legend

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

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

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

Lab Sample ID: MB 180-135049/4
Matrix: Water
Analysis Batch: 135049

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			03/09/15 12:47	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/09/15 12:47	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/09/15 12:47	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 12:47	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/09/15 12:47	1
Acetone	5.0	U	5.0	2.5	ug/L			03/09/15 12:47	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/09/15 12:47	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/09/15 12:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/09/15 12:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/09/15 12:47	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/09/15 12:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/09/15 12:47	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/09/15 12:47	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/09/15 12:47	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/09/15 12:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/09/15 12:47	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
Benzene	1.0	U	1.0	0.11	ug/L			03/09/15 12:47	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/09/15 12:47	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/09/15 12:47	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/09/15 12:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/09/15 12:47	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/09/15 12:47	1
Toluene	1.0	U	1.0	0.15	ug/L			03/09/15 12:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/09/15 12:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 12:47	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/09/15 12:47	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/09/15 12:47	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/09/15 12:47	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/09/15 12:47	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/09/15 12:47	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/09/15 12:47	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/09/15 12:47	1
Styrene	1.0	U	1.0	0.097	ug/L			03/09/15 12:47	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/09/15 12:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/09/15 12:47	1
Acrylonitrile	20	U	20	0.55	ug/L			03/09/15 12:47	1
1,4-Dioxane	200	U	200	34	ug/L			03/09/15 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*03/09/15 12:47*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*03/09/15 12:47*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*		*03/09/15 12:47*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*03/09/15 12:47*	*1*

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

Lab Sample ID: LCS 180-135049/7
Matrix: Water
Analysis Batch: 135049

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	9.63		ug/L		96	50 - 139
Vinyl chloride	10.0	9.31		ug/L		93	53 - 138
Bromomethane	10.0	13.8		ug/L		138	33 - 150
Chloroethane	10.0	12.6		ug/L		126	36 - 142
1,1-Dichloroethene	10.0	10.7		ug/L		107	65 - 136
Acetone	20.0	20.2		ug/L		101	22 - 150
Carbon disulfide	10.0	10.8		ug/L		108	54 - 132
Methylene Chloride	10.0	10.5		ug/L		105	63 - 129
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	73 - 126
Methyl tert-butyl ether	10.0	8.12		ug/L		81	64 - 123
1,1-Dichloroethane	10.0	10.7		ug/L		107	73 - 126
cis-1,2-Dichloroethene	10.0	10.8		ug/L		108	70 - 120
Bromochloromethane	10.0	10.7		ug/L		107	70 - 127
2-Butanone (MEK)	20.0	19.4		ug/L		97	39 - 138
Chloroform	10.0	11.0		ug/L		110	72 - 127
1,1,1-Trichloroethane	10.0	8.93		ug/L		89	63 - 133
Carbon tetrachloride	10.0	10.2		ug/L		102	55 - 150
Benzene	10.0	10.8		ug/L		108	80 - 120
1,2-Dichloroethane	10.0	10.9		ug/L		109	68 - 132
Trichloroethene	10.0	10.9		ug/L		109	73 - 120
1,2-Dichloropropane	10.0	9.77		ug/L		98	76 - 124
Bromodichloromethane	10.0	10.5		ug/L		105	66 - 130
cis-1,3-Dichloropropene	10.0	7.29		ug/L		73	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.9		ug/L		90	45 - 145
Toluene	10.0	11.5		ug/L		115	80 - 123
trans-1,3-Dichloropropene	10.0	6.33	*	ug/L		63	65 - 125
1,1,2-Trichloroethane	10.0	11.2		ug/L		112	77 - 127
Tetrachloroethene	10.0	11.9		ug/L		119	70 - 135
2-Hexanone	20.0	16.4		ug/L		82	25 - 132
Dibromochloromethane	10.0	11.0		ug/L		110	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.66		ug/L		97	74 - 123
Chlorobenzene	10.0	11.1		ug/L		111	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	63 - 140
Ethylbenzene	10.0	11.3		ug/L		113	72 - 126
Xylenes, Total	20.0	22.2		ug/L		111	76 - 128
Styrene	10.0	10.7		ug/L		107	71 - 127
Bromoform	10.0	10.0		ug/L		100	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	62 - 125
1,4-Dioxane	200	155	J	ug/L		77	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*104*		*71 - 118*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*
Dibromofluoromethane (Surr)	*105*		*70 - 128*

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

Lab Sample ID: MB 180-135153/4
Matrix: Water
Analysis Batch: 135153

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			03/10/15 12:44	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/10/15 12:44	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/10/15 12:44	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/10/15 12:44	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/10/15 12:44	1
Acetone	5.0	U	5.0	2.5	ug/L			03/10/15 12:44	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/10/15 12:44	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/10/15 12:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/10/15 12:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/10/15 12:44	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/10/15 12:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/10/15 12:44	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/10/15 12:44	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/10/15 12:44	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/10/15 12:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/10/15 12:44	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/10/15 12:44	1
Benzene	1.0	U	1.0	0.11	ug/L			03/10/15 12:44	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/10/15 12:44	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/10/15 12:44	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/10/15 12:44	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/10/15 12:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/10/15 12:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/10/15 12:44	1
Toluene	1.0	U	1.0	0.15	ug/L			03/10/15 12:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/10/15 12:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/10/15 12:44	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/10/15 12:44	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/10/15 12:44	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/10/15 12:44	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/10/15 12:44	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/10/15 12:44	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/10/15 12:44	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/10/15 12:44	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/10/15 12:44	1
Styrene	1.0	U	1.0	0.097	ug/L			03/10/15 12:44	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/10/15 12:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/10/15 12:44	1
Acrylonitrile	20	U	20	0.55	ug/L			03/10/15 12:44	1
1,4-Dioxane	200	U	200	34	ug/L			03/10/15 12:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*03/10/15 12:44*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*03/10/15 12:44*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*03/10/15 12:44*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*03/10/15 12:44*	*1*

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

Lab Sample ID: LCS 180-135153/7
Matrix: Water
Analysis Batch: 135153

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	8.77		ug/L		88	50 - 139
Vinyl chloride	10.0	9.10		ug/L		91	53 - 138
Bromomethane	10.0	12.6		ug/L		126	33 - 150
Chloroethane	10.0	11.2		ug/L		112	36 - 142
1,1-Dichloroethene	10.0	9.96		ug/L		100	65 - 136
Acetone	20.0	19.9		ug/L		100	22 - 150
Carbon disulfide	10.0	9.92		ug/L		99	54 - 132
Methylene Chloride	10.0	9.53		ug/L		95	63 - 129
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	73 - 126
Methyl tert-butyl ether	10.0	6.36		ug/L		64	64 - 123
1,1-Dichloroethane	10.0	9.34		ug/L		93	73 - 126
cis-1,2-Dichloroethene	10.0	9.85		ug/L		99	70 - 120
Bromochloromethane	10.0	9.21		ug/L		92	70 - 127
2-Butanone (MEK)	20.0	17.5		ug/L		87	39 - 138
Chloroform	10.0	9.97		ug/L		100	72 - 127
1,1,1-Trichloroethane	10.0	7.66		ug/L		77	63 - 133
Carbon tetrachloride	10.0	9.07		ug/L		91	55 - 150
Benzene	10.0	9.95		ug/L		99	80 - 120
1,2-Dichloroethane	10.0	10.2		ug/L		102	68 - 132
Trichloroethene	10.0	10.3		ug/L		103	73 - 120
1,2-Dichloropropane	10.0	8.70		ug/L		87	76 - 124
Bromodichloromethane	10.0	10.1		ug/L		101	66 - 130
cis-1,3-Dichloropropene	10.0	6.54	*	ug/L		65	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.4		ug/L		87	45 - 145
Toluene	10.0	10.9		ug/L		109	80 - 123
trans-1,3-Dichloropropene	10.0	5.53	*	ug/L		55	65 - 125
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	77 - 127
Tetrachloroethene	10.0	11.1		ug/L		111	70 - 135
2-Hexanone	20.0	15.4		ug/L		77	25 - 132
Dibromochloromethane	10.0	10.7		ug/L		107	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.28		ug/L		93	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.41		ug/L		94	63 - 140
Ethylbenzene	10.0	11.0		ug/L		110	72 - 126
Xylenes, Total	20.0	21.8		ug/L		109	76 - 128
Styrene	10.0	10.3		ug/L		103	71 - 127
Bromoform	10.0	11.1		ug/L		111	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.6		ug/L		106	62 - 125
1,4-Dioxane	200	184	J	ug/L		92	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*
Toluene-d8 (Surr)	*109*		*71 - 118*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*
Dibromofluoromethane (Surr)	*100*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-134413/6
Matrix: Water
Analysis Batch: 134413

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	0.10	U	0.10	0.0062	mg/L			02/27/15 10:23	1
Chloride	0.273	J	1.0	0.20	mg/L			02/27/15 10:23	1
Sulfate	1.0	U	1.0	0.21	mg/L			02/27/15 10:23	1

Lab Sample ID: LCS 180-134413/5
Matrix: Water
Analysis Batch: 134413

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	2.71		mg/L		108	90 - 110
Chloride	50.0	50.3		mg/L		101	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: 180-41569-8 MS
Matrix: Water
Analysis Batch: 134413

Client Sample ID: HD-CW-17-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.3		1.25	3.58		mg/L		101	80 - 120
Chloride	120	B	25.0	141	4	mg/L		94	80 - 120
Sulfate	41		25.0	65.5		mg/L		97	80 - 120

Lab Sample ID: 180-41569-8 MSD
Matrix: Water
Analysis Batch: 134413

Client Sample ID: HD-CW-17-0/1-0
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	2.3		1.25	3.57		mg/L		101	80 - 120	0	20
Chloride	120	B	25.0	140	4	mg/L		92	80 - 120	0	20
Sulfate	41		25.0	65.6		mg/L		98	80 - 120	0	20

Lab Sample ID: 180-41569-10 MS
Matrix: Water
Analysis Batch: 134413

Client Sample ID: HD-MW-96D-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	4.1		1.25	5.19		mg/L		88	80 - 120
Chloride	140	B	25.0	161	4	mg/L		87	80 - 120
Sulfate	49		25.0	72.8		mg/L		94	80 - 120

Lab Sample ID: 180-41569-10 MSD
Matrix: Water
Analysis Batch: 134413

Client Sample ID: HD-MW-96D-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	4.1		1.25	5.23		mg/L		91	80 - 120	1	20
Chloride	140	B	25.0	163	4	mg/L		92	80 - 120	1	20
Sulfate	49		25.0	73.4		mg/L		96	80 - 120	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-41569-1 MS
Matrix: Water
Analysis Batch: 134662

Client Sample ID: HD-QC2-0/1-1
Prep Type: Total/NA
Prep Batch: 134507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	100000		50000	156000		ug/L		108	75 - 125
Potassium	12000		50000	61700		ug/L		100	75 - 125
Magnesium	52000		50000	105000		ug/L		107	75 - 125
Sodium	170000	B	50000	222000		ug/L		105	75 - 125

Lab Sample ID: 180-41569-1 MSD
Matrix: Water
Analysis Batch: 134662

Client Sample ID: HD-QC2-0/1-1
Prep Type: Total/NA
Prep Batch: 134507

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	100000		50000	154000		ug/L		103	75 - 125	1	20
Potassium	12000		50000	59000		ug/L		95	75 - 125	5	20
Magnesium	52000		50000	102000		ug/L		100	75 - 125	3	20
Sodium	170000	B	50000	215000		ug/L		92	75 - 125	3	20

Lab Sample ID: MB 180-134507/1-A
Matrix: Water
Analysis Batch: 134662

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 134507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100	U	100	2.8	ug/L		03/02/15 09:08	03/03/15 09:39	1
Potassium	100	U	100	5.8	ug/L		03/02/15 09:08	03/03/15 09:39	1
Magnesium	100	U	100	1.2	ug/L		03/02/15 09:08	03/03/15 09:39	1
Sodium	7.47	J	100	3.8	ug/L		03/02/15 09:08	03/03/15 09:39	1

Lab Sample ID: LCS 180-134507/2-A
Matrix: Water
Analysis Batch: 134662

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 134507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	51000		ug/L		102	80 - 120
Potassium	50000	49300		ug/L		99	80 - 120
Magnesium	50000	49500		ug/L		99	80 - 120
Sodium	50000	46600		ug/L		93	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-134684/2
Matrix: Water
Analysis Batch: 134684

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	2.04	J	5.0	0.41	mg/L			03/04/15 06:05	1
Bicarbonate Alkalinity as CaCO3	2.04	J	5.0	0.41	mg/L			03/04/15 06:05	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			03/04/15 06:05	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 180-134684/1
Matrix: Water
Analysis Batch: 134684

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	259		mg/L		104	80 - 120		

Lab Sample ID: 180-41569-1 DU
Matrix: Water
Analysis Batch: 134684

Client Sample ID: HD-QC2-0/1-1
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	280	B		290		mg/L				2	20
Bicarbonate Alkalinity as CaCO3	280	B		290		mg/L				2	20
Carbonate Alkalinity as CaCO3	5.0	U		5.0	U	mg/L				NC	20

GC/MS VOA

Analysis Batch: 135049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-1	HD-QC2-0/1-1	Total/NA	Water	8260C	
180-41569-3	HD-MW-50D-0/1-0	Total/NA	Water	8260C	
180-41569-4	HD-MW-51S-0/1-0	Total/NA	Water	8260C	
180-41569-5	HD-CW-18-0/1-0	Total/NA	Water	8260C	
180-41569-6	HD-MW-114-0/1-0	Total/NA	Water	8260C	
180-41569-9	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
LCS 180-135049/7	Lab Control Sample	Total/NA	Water	8260C	
MB 180-135049/4	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 135153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-2	HD-QC4-0/1-2	Total/NA	Water	8260C	
180-41569-3 - DL	HD-MW-50D-0/1-0	Total/NA	Water	8260C	
180-41569-6 - DL	HD-MW-114-0/1-0	Total/NA	Water	8260C	
180-41569-7	HD-MW-7-0/1-0	Total/NA	Water	8260C	
180-41569-8	HD-CW-17-0/1-0	Total/NA	Water	8260C	
180-41569-9 - DL	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
180-41569-10	HD-MW-96D-0/1-0	Total/NA	Water	8260C	
LCS 180-135153/7	Lab Control Sample	Total/NA	Water	8260C	
MB 180-135153/4	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 134413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-1	HD-QC2-0/1-1	Total/NA	Water	300.0	
180-41569-1	HD-QC2-0/1-1	Total/NA	Water	300.0	
180-41569-3	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
180-41569-3	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
180-41569-4	HD-MW-51S-0/1-0	Total/NA	Water	300.0	
180-41569-5	HD-CW-18-0/1-0	Total/NA	Water	300.0	
180-41569-5	HD-CW-18-0/1-0	Total/NA	Water	300.0	
180-41569-6	HD-MW-114-0/1-0	Total/NA	Water	300.0	
180-41569-7	HD-MW-7-0/1-0	Total/NA	Water	300.0	
180-41569-8	HD-CW-17-0/1-0	Total/NA	Water	300.0	
180-41569-8 MS	HD-CW-17-0/1-0	Total/NA	Water	300.0	
180-41569-8 MSD	HD-CW-17-0/1-0	Total/NA	Water	300.0	
180-41569-9	HD-MW-96S-0/1-0	Total/NA	Water	300.0	
180-41569-10	HD-MW-96D-0/1-0	Total/NA	Water	300.0	
180-41569-10 MS	HD-MW-96D-0/1-0	Total/NA	Water	300.0	
180-41569-10 MSD	HD-MW-96D-0/1-0	Total/NA	Water	300.0	
LCS 180-134413/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-134413/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 134507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-1	HD-QC2-0/1-1	Total/NA	Water	3005A	
180-41569-1 MS	HD-QC2-0/1-1	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 134507 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-1 MSD	HD-QC2-0/1-1	Total/NA	Water	3005A	
180-41569-1 PDS	HD-QC2-0/1-1	Total/NA	Water	3005A	
180-41569-1 SD	HD-QC2-0/1-1	Total/NA	Water	3005A	
180-41569-3	HD-MW-50D-0/1-0	Total/NA	Water	3005A	
180-41569-4	HD-MW-51S-0/1-0	Total/NA	Water	3005A	
180-41569-5	HD-CW-18-0/1-0	Total/NA	Water	3005A	
180-41569-6	HD-MW-114-0/1-0	Total/NA	Water	3005A	
180-41569-7	HD-MW-7-0/1-0	Total/NA	Water	3005A	
180-41569-8	HD-CW-17-0/1-0	Total/NA	Water	3005A	
180-41569-9	HD-MW-96S-0/1-0	Total/NA	Water	3005A	
180-41569-10	HD-MW-96D-0/1-0	Total/NA	Water	3005A	
LCS 180-134507/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-134507/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 134662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-1	HD-QC2-0/1-1	Total/NA	Water	6020A	134507
180-41569-1 MS	HD-QC2-0/1-1	Total/NA	Water	6020A	134507
180-41569-1 MSD	HD-QC2-0/1-1	Total/NA	Water	6020A	134507
180-41569-1 PDS	HD-QC2-0/1-1	Total/NA	Water	6020A	134507
180-41569-1 SD	HD-QC2-0/1-1	Total/NA	Water	6020A	134507
180-41569-3	HD-MW-50D-0/1-0	Total/NA	Water	6020A	134507
180-41569-4	HD-MW-51S-0/1-0	Total/NA	Water	6020A	134507
180-41569-5	HD-CW-18-0/1-0	Total/NA	Water	6020A	134507
180-41569-6	HD-MW-114-0/1-0	Total/NA	Water	6020A	134507
180-41569-7	HD-MW-7-0/1-0	Total/NA	Water	6020A	134507
180-41569-8	HD-CW-17-0/1-0	Total/NA	Water	6020A	134507
180-41569-9	HD-MW-96S-0/1-0	Total/NA	Water	6020A	134507
180-41569-10	HD-MW-96D-0/1-0	Total/NA	Water	6020A	134507
CRI 180-134662/54	DL		Water	6020A	
CRI 180-134662/8	DL		Water	6020A	
ICSA 180-134662/9	ICS		Water	6020A	
ICSAB 180-134662/10	ICS		Water	6020A	
LCS 180-134507/2-A	Lab Control Sample	Total Recoverable	Water	6020A	134507
MB 180-134507/1-A	Method Blank	Total Recoverable	Water	6020A	134507

General Chemistry

Analysis Batch: 134684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-41569-1	HD-QC2-0/1-1	Total/NA	Water	SM 2320B	
180-41569-1 DU	HD-QC2-0/1-1	Total/NA	Water	SM 2320B	
180-41569-3	HD-MW-50D-0/1-0	Total/NA	Water	SM 2320B	
180-41569-4	HD-MW-51S-0/1-0	Total/NA	Water	SM 2320B	
180-41569-5	HD-CW-18-0/1-0	Total/NA	Water	SM 2320B	
180-41569-6	HD-MW-114-0/1-0	Total/NA	Water	SM 2320B	
180-41569-7	HD-MW-7-0/1-0	Total/NA	Water	SM 2320B	
180-41569-8	HD-CW-17-0/1-0	Total/NA	Water	SM 2320B	
180-41569-9	HD-MW-96S-0/1-0	Total/NA	Water	SM 2320B	
180-41569-10	HD-MW-96D-0/1-0	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 134684 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-134684/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-134684/2	Method Blank	Total/NA	Water	SM 2320B	

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

Lab Sample ID: 180-41569-1

Date Collected: 02/26/15 08:00

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	135049	03/09/15 18:32	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 15:24	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL	1.0 mL	134413	02/27/15 15:39	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 09:47	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41569-2

Date Collected: 02/26/15 12:00

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	135153	03/10/15 15:48	DLF	TAL PIT
	Instrument ID: CHHP5									

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

Lab Sample ID: 180-41569-3

Date Collected: 02/26/15 11:35

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	5 mL	5 mL	135049	03/09/15 19:20	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	400	5 mL	5 mL	135153	03/10/15 16:12	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 12:46	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL	1.0 mL	134413	02/27/15 16:25	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:09	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41569-4

Date Collected: 02/26/15 13:25

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	5 mL	5 mL	135049	03/09/15 20:09	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 13:01	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:13	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-18-0/1-0

Lab Sample ID: 180-41569-5

Date Collected: 02/26/15 09:35

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	135049	03/09/15 20:33	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 15:55	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL	1.0 mL	134413	02/27/15 16:10	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:17	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-41569-6

Date Collected: 02/26/15 11:50

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		12.5	5 mL	5 mL	135049	03/09/15 21:21	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	125	5 mL	5 mL	135153	03/10/15 16:36	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 14:33	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:33	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-7-0/1-0

Lab Sample ID: 180-41569-7

Date Collected: 02/26/15 14:40

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	135153	03/10/15 17:00	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 13:17	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:37	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-CW-17-0/1-0

Lab Sample ID: 180-41569-8

Date Collected: 02/26/15 05:50

Matrix: Water

Date Received: 02/27/15 09:15

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	5 mL	5 mL	135153	03/10/15 17:25	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 11:41	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:42	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-96S-0/1-0

Lab Sample ID: 180-41569-9

Date Collected: 02/26/15 15:10

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	135049	03/09/15 22:33	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	25	5 mL	5 mL	135153	03/10/15 17:49	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 13:32	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:46	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-96D-0/1-0

Lab Sample ID: 180-41569-10

Date Collected: 02/26/15 14:30

Matrix: Water

Date Received: 02/27/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	135153	03/10/15 18:13	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	134413	02/27/15 13:47	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	134507	03/02/15 09:08	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	134662	03/03/15 10:50	WTR	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	134684	03/04/15 06:05	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

DLF = Donald Ferguson

MJH = Matthew Hartman

WTR = Bill Reinheimer

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

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	04-30-15

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-41569-1

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: 180-41569-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-41569-1	HD-QC2-0/1-1	Water	02/26/15 08:00	02/27/15 09:15
180-41569-2	HD-QC4-0/1-2	Water	02/26/15 12:00	02/27/15 09:15
180-41569-3	HD-MW-50D-0/1-0	Water	02/26/15 11:35	02/27/15 09:15
180-41569-4	HD-MW-51S-0/1-0	Water	02/26/15 13:25	02/27/15 09:15
180-41569-5	HD-CW-18-0/1-0	Water	02/26/15 09:35	02/27/15 09:15
180-41569-6	HD-MW-114-0/1-0	Water	02/26/15 11:50	02/27/15 09:15
180-41569-7	HD-MW-7-0/1-0	Water	02/26/15 14:40	02/27/15 09:15
180-41569-8	HD-CW-17-0/1-0	Water	02/26/15 05:50	02/27/15 09:15
180-41569-9	HD-MW-96S-0/1-0	Water	02/26/15 15:10	02/27/15 09:15
180-41569-10	HD-MW-96D-0/1-0	Water	02/26/15 14:30	02/27/15 09:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 134613

Lab Sample ID: IC 180-134613/8 Client Sample ID:

Date Analyzed: 03/03/15 14:28 Lab File ID: 50303008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.31	Peak Tail	fergusond	03/04/15 09:28
1,4-Dioxane	8.07	Peak Tail	fergusond	03/04/15 09:20

Lab Sample ID: ICIS 180-134613/9 Client Sample ID:

Date Analyzed: 03/03/15 14:52 Lab File ID: 50303009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.32	Peak Tail	fergusond	03/04/15 09:28
1,4-Dioxane	8.06	Peak Tail	fergusond	03/04/15 09:25

Lab Sample ID: IC 180-134613/10 Client Sample ID:

Date Analyzed: 03/03/15 15:16 Lab File ID: 50303010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.32	Peak Tail	fergusond	03/04/15 09:31

Lab Sample ID: IC 180-134613/11 Client Sample ID:

Date Analyzed: 03/03/15 15:40 Lab File ID: 50303011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.32	Peak Tail	fergusond	03/04/15 09:33
tert-Butyl alcohol	4.45	Peak Tail	fergusond	03/04/15 09:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 134613

Lab Sample ID: IC 180-134613/12 Client Sample ID:

Date Analyzed: 03/03/15 16:04 Lab File ID: 50303012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
tert-Butyl alcohol	4.45	Peak Tail	fergusond	03/04/15 09:37

Lab Sample ID: IC 180-134613/13 Client Sample ID:

Date Analyzed: 03/03/15 16:28 Lab File ID: 50303013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
tert-Butyl alcohol	4.45	Peak Tail	fergusond	03/04/15 09:39

Lab Sample ID: IC 180-134613/18 Client Sample ID:

Date Analyzed: 03/03/15 18:29 Lab File ID: 50303018.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Peak Tail	fergusond	03/04/15 09:45
Cyclohexane	6.59	Split Peak	fergusond	03/04/15 09:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 135049

Lab Sample ID: 180-41569-1 Client Sample ID: HD-QC2-0/1-1

Date Analyzed: 03/09/15 18:32 Lab File ID: 50309017.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Split Peak	fergusond	03/10/15 08:56
Chlorobenzene	10.38	Split Peak	fergusond	03/10/15 08:56

Lab Sample ID: 180-41569-5 Client Sample ID: HD-CW-18-0/1-0

Date Analyzed: 03/09/15 20:33 Lab File ID: 50309022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	6.97	Split Peak	fergusond	03/10/15 09:19

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01177	02/28/15	02/27/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00006	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 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
icicv_01208	02/28/15	02/27/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00004	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00004	03/01/15	inorganic ventures, Lot H2-MEB512078			(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_00155	02/18/15	02/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00200	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00200	02/18/15	02/17/15	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
							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
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00194	02/18/15	02/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00200	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_00200	02/18/15	02/17/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					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_00131	02/18/15	02/17/15	DI Water, Lot na	5 mL	ICSTDL7_00131	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_00131	02/18/15	02/17/15	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_00132	02/18/15	02/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00131	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_00131	02/18/15	02/17/15	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00200	02/18/15	02/17/15	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_00131	02/18/15	02/17/15	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_00101	02/19/15	02/18/15	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
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00106	02/19/15	02/18/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00073	04/19/15	02/19/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00005	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00061	02/26/15	01/26/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00004	1 mL	Calcium	0.1 ppm
							Magnesium	0.1 ppm
							Potassium	0.1 ppm
							Sodium	0.1 ppm
.MMSCRI-1B_00004	10/01/15	Inorganic Ventures, Lot H2-MEB549023			(Purchased Reagent)		Calcium	25 ppm
							Magnesium	25 ppm
							Potassium	25 ppm
							Sodium	25 ppm
MICSABX_00067	03/20/15	02/20/15	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
							Mn	0.0225 ppm
							Ni	0.02 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zn	0.025 ppm
					MMSICSAB-1_00007	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_00006	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_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524028			(Purchased Reagent)		Ba	10 ppm
							Be	10 ppm
							Pb	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm
							V	10 ppm
.MMSICSAB-2_00006	05/01/15	Inorganic Ventures, Lot G2-MEB467043			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm
							Se	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00063	03/20/15	02/20/15	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
							Potassium	100 ppm
							Sodium	100 ppm

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00029	02/23/15	01/23/15	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_00042	04/19/15	02/19/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(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
MTAPITTMSA_00023	12/01/15	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSC_00029	12/01/15	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_00029	03/13/15	02/13/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00090	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_00090	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_00031	03/13/15	02/13/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00062	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_00062	01/31/19	Restek, Lot A0100424			(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_00105	03/12/15	03/05/15	Methanol, Lot 85233	8 mL	VOA8260GAS2ND_00086	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00103	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00086	11/30/15		Restek, Lot A099261		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOA2ND_00103	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00027	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-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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00027	02/28/16		Restek, Lot A093733		(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-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	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
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00102	03/04/15	02/25/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00086	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_00101	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00086	09/30/16		Restek, Lot A0105755		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00101	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00036	0.2 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00027	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00036	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00027	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00104	03/12/15	03/05/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00088	0.08 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00101	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00088	09/30/16		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00101	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00027	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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00027	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-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	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
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
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_00003	03/12/15	02/12/15	Methanol, Lot 85233	20 mL	VOA8260VARES_00047	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00047	04/30/15		Restek, Lot A0106957		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
voaWEEpri Res_00003	03/30/15	03/02/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00008	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00008	02/28/15		Restek, Lot A097285		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKetpri Re_00003	03/26/15	02/24/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00037	0.125 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_00037	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
WALK125PPMCCV_00081	08/25/15	02/25/15	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_00090	08/25/15	02/25/15	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

ICSECONDSTD1_00004

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

CERTIFICATE OF ANALYSIS

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

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Ion Chromatography** **Custom Second Source Solution**

Catalog No.: TA-17

Lot Number: **H2-MEB512078**

Matrix: H2O

500 mg/L ea:
Chloride, Sulfate,

100 mg/L ea:
Bromide,

25 mg/L ea:
Fluoride, Nitrate as N, o-Phosphate as P

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ION	CERTIFIED VALUE	ION	CERTIFIED VALUE	ION	CERTIFIED VALUE
Bromide	100.0 ± 0.6 mg/L	Chloride	500.1 ± 3.1 mg/L	Fluoride	25.00 ± 0.13 mg/L
Nitrate as N	25.00 ± 0.15 mg/L	o-Phosphate as P	25.00 ± 0.20 mg/L	Sulfate	500.0 ± 2.6 mg/L

Certified Density: 1.002 g/mL (measured at 20 ± 1°C)

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

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

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements

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

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

4.0 **TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

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

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

- 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

ION	METHOD	NIST SRM#	SRM LOT#
Bromide	IC Assay	3184	020701
Bromide	Volhard	999b	999b
Chloride	IC Assay	3182	060925
Chloride	Volhard	999b	999b
Fluoride	Calculated		See Sec. 4.2
Fluoride	IC Assay	3183	050721
Nitrate_as_N	Calculated		See Sec. 4.2
Nitrate_as_N	IC Assay	3185	050517
oPhosphate_as_P	Calculated		See Sec. 4.2
oPhosphate_as_P	IC Assay	3186	090723
Sulfate	Calculated		See Sec. 4.2
Sulfate	IC Assay	3181	080603

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 Chromatogram - 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.

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.

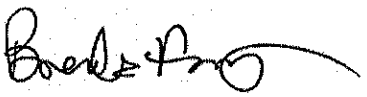
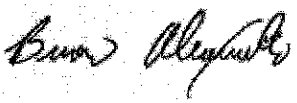
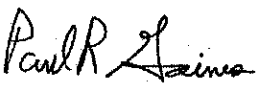
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations 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: February 05, 2014

Expiration Date: EXPIRES 01 MAR 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

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

Zachary Saunders

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Allyson Guilliams

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

Reagent

M6020ICS-0B_00006

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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_00005

INORGANIC VENTURES™
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CERTIFICATE OF ANALYSIS

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

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-CAL-SPECA-REV

Lot Number: **H2-MEB524026**

Matrix: 3% HNO3(v/v)

2,500 µg/mL ea:
Ca, K, Mg, Na,

1,250 µg/mL ea:
Fe,

25 µg/mL ea:
Al, Mn,

5 µg/mL ea:
Ag, As, Ba, Be, Cd, Co, Cr3, Cu, Ni,
Pb, Se, Sr, Tl, V, Zn

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	24.99 ± 0.18 µg/mL	Arsenic, As	4.998 ± 0.032 µg/mL	Barium, Ba	5.000 ± 0.032 µg/mL
Beryllium, Be	5.000 ± 0.028 µg/mL	Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2,500 ± 11 µg/mL
Chromium+3, Cr3	5.000 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.032 µg/mL	Copper, Cu	4.999 ± 0.032 µg/mL
Iron, Fe	1,250 ± 6 µg/mL	Lead, Pb	4.998 ± 0.025 µg/mL	Magnesium, Mg	2,500 ± 16 µg/mL
Manganese, Mn	24.99 ± 0.17 µg/mL	Nickel, Ni	5.003 ± 0.028 µg/mL	Potassium, K	2,500 ± 11 µg/mL
Selenium, Se	5.002 ± 0.028 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL	Sodium, Na	2,499 ± 11 µg/mL
Strontium, Sr	5.000 ± 0.032 µg/mL	Thallium, Tl	5.000 ± 0.032 µg/mL	Vanadium, V	5.000 ± 0.032 µg/mL
Zinc, Zn	5.004 ± 0.032 µg/mL				

Certified Density: 1.051 g/mL (measured at 20 ± 1° C)

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

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

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

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

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

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

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

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

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

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Brenda Francis
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

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®
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www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

MMSICSAB-1_00007

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

CERTIFICATE OF ANALYSIS

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

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-1

Lot Number: **H2-MEB524028**

Matrix: 3% HNO3(v/v)

10 µg/mL ea:

Ba, Be, Pb, Sr, Tl, V

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Barium, Ba	9.99 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL	Lead, Pb	10.01 ± 0.05 µg/mL
Strontium, Sr	10.00 ± 0.06 µg/mL	Thallium, Tl	10.00 ± 0.06 µg/mL	Vanadium, V	9.99 ± 0.06 µg/mL

Certified Density: 1.022 g/mL (measured at 20 ± 1° C)

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

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

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

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 **TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

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

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

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

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

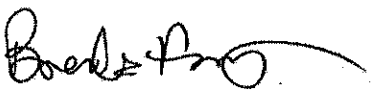
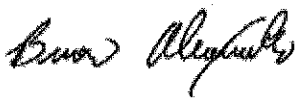
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations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

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

Certification Date: April 04, 2014

Expiration Date: EXPIRES 01 MAY 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:	Brenda Francis Product Documentation Technician	
Certificate Approved By:	Brian Alexander PhD., Technical Process Director	
Certifying Officer:	Paul Gaines PhD., Senior Technical Director	

Reagent

MMSICSAB-2_00006

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CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 **DESCRIPTION OF CRM** **Custom Solution**

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

Matrix: 3% HNO3(v/v), tr. HF

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.06 µg/mL	Boron, B	24.98 ± 0.17 µg/mL	Selenium, Se	25.01 ± 0.21 µg/mL
Silicon, Si	249.9 ± 1.6 µg/mL	Tin, Sn	50.04 ± 0.36 µg/mL		

Certified Density: 1.018 g/mL (measured at 20 ± 1° C)

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

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

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

HF Note: This standard should not be prepared or stored in glass.

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

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 08, 2013

Expiration Date: EXPIRES 01 May 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Donna Senn
Product Documentation Technician

Certificate Approved By: Brian Alexander
PhD., Technical Process Director

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTICPMS_00020

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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

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

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

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

4.0 TRACEABILITY TO NIST

- 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.

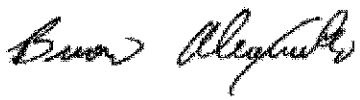
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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_00023

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

rec. 11/13/14 SLB

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-A
Lot Number:	H2-MEB532044
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Ca, K, Mg, Na

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium	5 000 ± 22 µg/mL	Magnesium	5 000 ± 23 µg/mL
Potassium	5 000 ± 22 µg/mL	Sodium	5 000 ± 22 µg/mL

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean

x_i = individual results

n = number of measurements

Uncertainty (±) = $2\ [\ \Sigma(s_i)^2\ ]^{1/2}$ 2 = the coverage factor.

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

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

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES
01 02 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSC_00029

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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

rec'd 11/3/14 SLB

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony	49.98 ± 0.38 µg/mL	Molybdenum	100.0 ± 0.5 µg/mL
Silicon	1 000 ± 7 µg/mL	Tin	200.0 ± 1.4 µg/mL
Titanium	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
Tl	ICP Assay	3162a	060808

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

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ ($\bar{x}$) = mean
x_i = individual results
n = number of measurements

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

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

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date EXPIRES 01 DEC 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

VOA8260GAS1ST_00086

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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. : 567645 **Lot No.:** A0105755

Description : 8260 List 1 / Std #3 Gases

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

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

Expiration Date : September 30, 2016 **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 Q16A-86) **Purity** 99%	1,996.9 µg/mL	+/- 16.4920 µg/mL +/- 25.3820 µg/mL +/- 28.4359 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,003.6 µg/mL	+/- 13.5945 µg/mL +/- 23.6556 µg/mL +/- 26.9268 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,001.1 µg/mL	+/- 27.3546 µg/mL +/- 33.4976 µg/mL +/- 35.8765 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBD5808V) **Purity** 99%	1,999.9 µg/mL	+/- 23.4547 µg/mL +/- 30.3891 µg/mL +/- 32.9901 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	1,998.7 µg/mL	+/- 30.0266 µg/mL +/- 35.7004 µg/mL +/- 37.9363 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,000.1 µg/mL	+/- 18.0935 µg/mL +/- 26.4730 µg/mL +/- 29.4228 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	1,999.1 µg/mL	+/- 17.9677 µg/mL +/- 26.3801 µg/mL +/- 29.3364 µg/mL	Gravimetric Unstressed Stressed
8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBD5121V) **Purity** 99%	2,001.1 µg/mL	+/- 24.2299 µg/mL +/- 30.9989 µg/mL +/- 33.5557 µg/mL	Gravimetric Unstressed Stressed

Reagent

VOA8260GAS1ST_00088

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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. : 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)

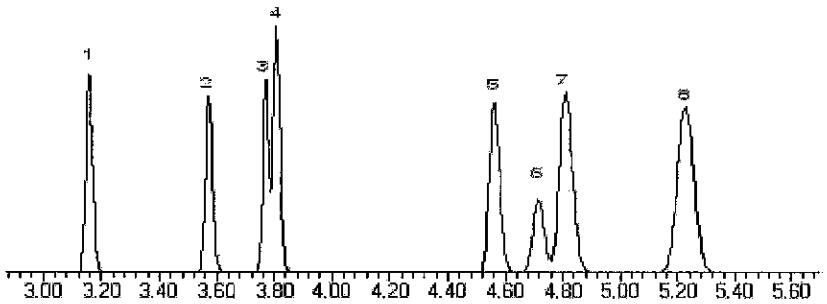
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

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VOA8260GAS2ND_00086

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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. : 567645.sec **Lot No.:** A099261

Description : 8260 List 1 / Std #3 Gases

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

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

Expiration Date : November 30, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,002.2 µg/mL	+/- 16.7616 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/- 21.2987 µg/mL	Unstressed
	Purity 99%		+/- 24.7536 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/- 15.8216 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 21.2729 µg/mL	Unstressed
	Purity 99%		+/- 24.7262 µg/mL	Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/- 14.6785 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 21.2759 µg/mL	Unstressed
	Purity 99%		+/- 24.7329 µg/mL	Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/- 16.7307 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/- 21.3051 µg/mL	Unstressed
	Purity 99%		+/- 24.7611 µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/- 16.2313 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 21.2671 µg/mL	Unstressed
	Purity 99%		+/- 24.7183 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/- 14.6721 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/- 21.2666 µg/mL	Unstressed
	Purity 99%		+/- 24.7221 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/- 15.1665 µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/- 21.3071 µg/mL	Unstressed
	Purity 99%		+/- 24.7678 µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/- 16.2157 µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/- 21.2894 µg/mL	Unstressed
	Purity 99%		+/- 24.7442 µg/mL	Stressed

Reagent

VOA8260INTRES_00090

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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	5,003.0 µg/mL	+/- 29.0879	µg/mL	Gravimetric
	CAS # 25725-11-5 (Lot I201P5)		+/- 106.1005	µg/mL	Unstressed
	Purity 99%		+/- 106.5713	µg/mL	Stressed
2	Fluorobenzene	250.8 µg/mL	+/- 1.4795	µg/mL	Gravimetric
	CAS # 462-06-6 (Lot 1380033)		+/- 5.3247	µg/mL	Unstressed
	Purity 99%		+/- 5.3483	µg/mL	Stressed
3	1,4-Dioxane-d8	5,009.6 µg/mL	+/- 29.1262	µg/mL	Gravimetric
	CAS # 17647-74-4 (Lot 11C-596)		+/- 106.2405	µg/mL	Unstressed
	Purity 99%		+/- 106.7119	µg/mL	Stressed
4	Chlorobenzene-d5	250.8 µg/mL	+/- 1.4795	µg/mL	Gravimetric
	CAS # 3114-55-4 (Lot PR-22736)		+/- 5.3247	µg/mL	Unstressed
	Purity 99%		+/- 5.3483	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.8 µg/mL	+/- 1.4795	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/- 5.3247	µg/mL	Unstressed
	Purity 99%		+/- 5.3483	µg/mL	Stressed

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

Reagent

VOA8260KET1ST_00036

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FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #2 Ketones

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00037

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Certificate of Analysis

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

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

Description : 8260 List 1 / Std #2 Ketones

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00027

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

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

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

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

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

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

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

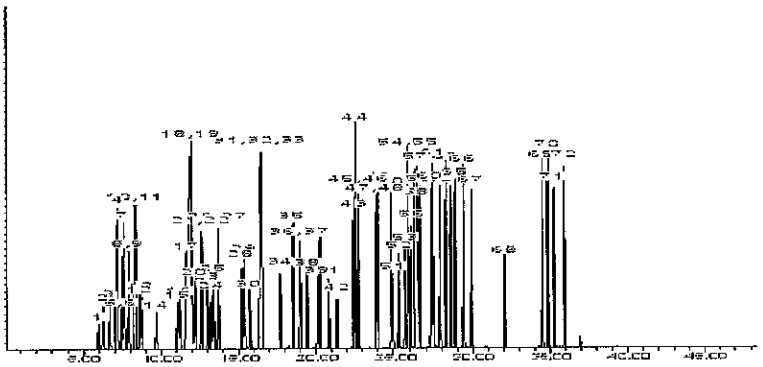
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

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

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

Reagent

VOA8260MEGA2_00027

RESTEK

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Bellefonte, PA 16823-8812
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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641.sec **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC **Purity** 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9.SEC **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

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

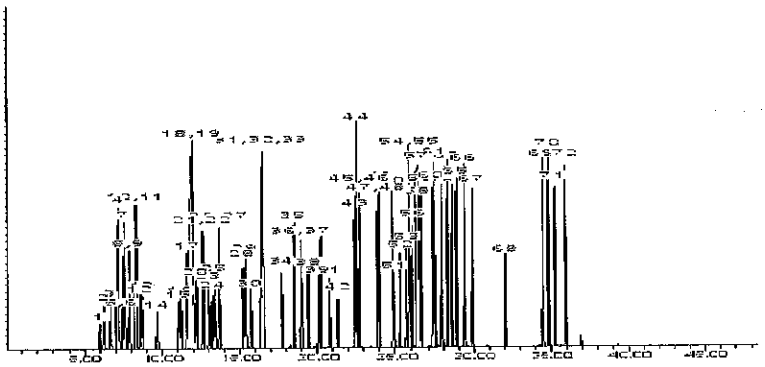
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

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

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

Reagent

VOA8260SURRES_00062

RESTEK® CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
Tel: (800)356-1688
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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. : 567650 **Lot No.:** A0100424

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 : January 31, 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%	2,502.2 µg/mL	+/- 14.5480 µg/mL +/- 28.2159 µg/mL +/- 32.4683 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 12K-027) **Purity** 99%	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 28.2046 µg/mL +/- 32.4554 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.8 µg/mL	+/- 14.5399 µg/mL +/- 28.2001 µg/mL +/- 32.4502 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,501.4 µg/mL	+/- 14.5434 µg/mL +/- 28.2069 µg/mL +/- 32.4580 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260VARES_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. : 567646 **Lot No.:** A0106957

Description : 8260 List 1 / Std #6 Vinyl Acetate

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

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

Expiration Date : April 30, 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	4,027.0 µg/mL	+/- 23.6327	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBC8935V)		+/- 214.3321	µg/mL	Unstressed
	Purity 99%		+/- 214.5684	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 #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

VOARESEE1ST_00008

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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. : 568363-FL **Lot No.:** A097285

Description : Custom EE Standard

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

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

Expiration Date : February 28, 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3-Chlorobenzotrifluoride		5,001.0 µg/mL	+/- 29.3487	µg/mL	Gravimetric
	CAS # 98-15-7	(Lot 21324DO)		+/- 53.0822	µg/mL	Unstressed
	Purity 99%			+/- 61.7282	µg/mL	Stressed
2	4-Chlorobenzotrifluoride		5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric
	CAS # 98-56-6	(Lot 08507BO)		+/- 53.1034	µg/mL	Unstressed
	Purity 99%			+/- 61.7529	µg/mL	Stressed
3	2-Chlorobenzotrifluoride		5,005.0 µg/mL	+/- 29.3721	µg/mL	Gravimetric
	CAS # 88-16-4	(Lot I0316DQ)		+/- 53.1247	µg/mL	Unstressed
	Purity 99%			+/- 61.7775	µg/mL	Stressed
4	3-Chlorotoluene		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 108-41-8	(Lot 13528LX)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride		5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
	CAS # 320-60-5	(Lot MKBL3552V)		+/- 53.0928	µg/mL	Unstressed
	Purity 99%			+/- 61.7405	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 328-84-7	(Lot 11105EJV)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride		5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 320-50-3	(Lot 04415DSV)		+/- 53.0716	µg/mL	Unstressed
	Purity 99%			+/- 61.7158	µg/mL	Stressed
8	2,4-Dichlorotoluene		5,002.0 µg/mL	+/- 29.3545	µg/mL	Gravimetric
	CAS # 95-73-8	(Lot 07715JS)		+/- 53.0928	µg/mL	Unstressed
	Purity 99%			+/- 61.7405	µg/mL	Stressed

9	2,5-Dichlorotoluene		5,000.0	µg/mL	+/-	29.3428	µg/mL	Gravimetric
	CAS # 19398-61-9	(Lot 10119CU)			+/-	53.0716	µg/mL	Unstressed
	Purity 99%				+/-	61.7158	µg/mL	Stressed
10	2,6-Dichlorotoluene		5,001.0	µg/mL	+/-	29.3487	µg/mL	Gravimetric
	CAS # 118-69-4	(Lot 16921JS)			+/-	53.0822	µg/mL	Unstressed
	Purity 99%				+/-	61.7282	µg/mL	Stressed
11	3,4-Dichlorotoluene		5,003.0	µg/mL	+/-	29.3604	µg/mL	Gravimetric
	CAS # 95-75-0	(Lot 09419AS)			+/-	53.1034	µg/mL	Unstressed
	Purity 99%				+/-	61.7529	µg/mL	Stressed
12	2,3-Dichlorotoluene		5,008.0	µg/mL	+/-	29.3897	µg/mL	Gravimetric
	CAS # 32768-54-0	(Lot 00317)			+/-	53.1565	µg/mL	Unstressed
	Purity 99%				+/-	61.8146	µg/mL	Stressed
13	2,4,5-Trichlorotoluene		5,001.0	µg/mL	+/-	29.3487	µg/mL	Gravimetric
	CAS # 6639-30-1	(Lot 1767300)			+/-	53.0822	µg/mL	Unstressed
	Purity 99%				+/-	61.7282	µg/mL	Stressed
14	2,3,6-Trichlorotoluene		5,001.0	µg/mL	+/-	29.3487	µg/mL	Gravimetric
	CAS # 2077-46-5	(Lot RM01250)			+/-	53.0822	µg/mL	Unstressed
	Purity 99%				+/-	61.7282	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
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.: 180-41569-1

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-QC2-0/1-1	180-41569-1	100	99	100	98
HD-QC4-0/1-2	180-41569-2	98	101	104	102
HD-MW-50D-0/1-0	180-41569-3	97	99	102	102
HD-MW-50D-0/1-0 DL	180-41569-3 DL	99	102	102	102
HD-MW-51S-0/1-0	180-41569-4	98	102	104	106
HD-CW-18-0/1-0	180-41569-5	100	100	105	105
HD-MW-114-0/1-0	180-41569-6	98	99	105	103
HD-MW-114-0/1-0 DL	180-41569-6 DL	98	96	107	106
HD-MW-7-0/1-0	180-41569-7	103	100	103	101
HD-CW-17-0/1-0	180-41569-8	100	100	100	102
HD-MW-96S-0/1-0	180-41569-9	100	99	102	101
HD-MW-96S-0/1-0 DL	180-41569-9 DL	101	105	99	100
HD-MW-96D-0/1-0	180-41569-10	103	106	105	102
	MB 180-135049/4	102	98	102	105
	MB 180-135153/4	97	101	101	101
	LCS 180-135049/7	105	104	104	95
	LCS 180-135153/7	100	100	109	100

	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.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50309007.D

Lab ID: LCS 180-135049/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.63	96	50-139	
Vinyl chloride	10.0	9.31	93	53-138	
Bromomethane	10.0	13.8	138	33-150	
Chloroethane	10.0	12.6	126	36-142	
1,1-Dichloroethene	10.0	10.7	107	65-136	
Acetone	20.0	20.2	101	22-150	
Carbon disulfide	10.0	10.8	108	54-132	
Methylene Chloride	10.0	10.5	105	63-129	
trans-1,2-Dichloroethene	10.0	11.0	110	73-126	
Methyl tert-butyl ether	10.0	8.12	81	64-123	
1,1-Dichloroethane	10.0	10.7	107	73-126	
cis-1,2-Dichloroethene	10.0	10.8	108	70-120	
Bromochloromethane	10.0	10.7	107	70-127	
2-Butanone (MEK)	20.0	19.4	97	39-138	
Chloroform	10.0	11.0	110	72-127	
1,1,1-Trichloroethane	10.0	8.93	89	63-133	
Carbon tetrachloride	10.0	10.2	102	55-150	
Benzene	10.0	10.8	108	80-120	
1,2-Dichloroethane	10.0	10.9	109	68-132	
Trichloroethene	10.0	10.9	109	73-120	
1,2-Dichloropropane	10.0	9.77	98	76-124	
Bromodichloromethane	10.0	10.5	105	66-130	
cis-1,3-Dichloropropene	10.0	7.29	73	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.9	90	45-145	
Toluene	10.0	11.5	115	80-123	
trans-1,3-Dichloropropene	10.0	6.33	63	65-125	*
1,1,2-Trichloroethane	10.0	11.2	112	77-127	
Tetrachloroethene	10.0	11.9	119	70-135	
2-Hexanone	20.0	16.4	82	25-132	
Dibromochloromethane	10.0	11.0	110	60-140	
1,2-Dibromoethane (EDB)	10.0	9.66	97	74-123	
Chlorobenzene	10.0	11.1	111	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	63-140	
Ethylbenzene	10.0	11.3	113	72-126	
Xylenes, Total	20.0	22.2	111	76-128	
Styrene	10.0	10.7	107	71-127	
Bromoform	10.0	10.0	100	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.8	108	62-125	
1,4-Dioxane	200	155 J	77	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.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50310007.D

Lab ID: LCS 180-135153/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	8.77	88	50-139	
Vinyl chloride	10.0	9.10	91	53-138	
Bromomethane	10.0	12.6	126	33-150	
Chloroethane	10.0	11.2	112	36-142	
1,1-Dichloroethene	10.0	9.96	100	65-136	
Acetone	20.0	19.9	100	22-150	
Carbon disulfide	10.0	9.92	99	54-132	
Methylene Chloride	10.0	9.53	95	63-129	
trans-1,2-Dichloroethene	10.0	10.3	103	73-126	
Methyl tert-butyl ether	10.0	6.36	64	64-123	
1,1-Dichloroethane	10.0	9.34	93	73-126	
cis-1,2-Dichloroethene	10.0	9.85	99	70-120	
Bromochloromethane	10.0	9.21	92	70-127	
2-Butanone (MEK)	20.0	17.5	87	39-138	
Chloroform	10.0	9.97	100	72-127	
1,1,1-Trichloroethane	10.0	7.66	77	63-133	
Carbon tetrachloride	10.0	9.07	91	55-150	
Benzene	10.0	9.95	99	80-120	
1,2-Dichloroethane	10.0	10.2	102	68-132	
Trichloroethene	10.0	10.3	103	73-120	
1,2-Dichloropropane	10.0	8.70	87	76-124	
Bromodichloromethane	10.0	10.1	101	66-130	
cis-1,3-Dichloropropene	10.0	6.54	65	66-120	*
4-Methyl-2-pentanone (MIBK)	20.0	17.4	87	45-145	
Toluene	10.0	10.9	109	80-123	
trans-1,3-Dichloropropene	10.0	5.53	55	65-125	*
1,1,2-Trichloroethane	10.0	10.4	104	77-127	
Tetrachloroethene	10.0	11.1	111	70-135	
2-Hexanone	20.0	15.4	77	25-132	
Dibromochloromethane	10.0	10.7	107	60-140	
1,2-Dibromoethane (EDB)	10.0	9.28	93	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.41	94	63-140	
Ethylbenzene	10.0	11.0	110	72-126	
Xylenes, Total	20.0	21.8	109	76-128	
Styrene	10.0	10.3	103	71-127	
Bromoform	10.0	11.1	111	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.6	106	62-125	
1,4-Dioxane	200	184 J	92	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.: 180-41569-1

SDG No.:

Lab File ID: 50309004.D Lab Sample ID: MB 180-135049/4

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

Instrument ID: CHHP5 Date Analyzed: 03/09/2015 12:47

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 180-135049/7	50309007.D	03/09/2015 14:31
HD-QC2-0/1-1	180-41569-1	50309017.D	03/09/2015 18:32
HD-MW-50D-0/1-0	180-41569-3	50309019.D	03/09/2015 19:20
HD-MW-51S-0/1-0	180-41569-4	50309021.D	03/09/2015 20:09
HD-CW-18-0/1-0	180-41569-5	50309022.D	03/09/2015 20:33
HD-MW-114-0/1-0	180-41569-6	50309024.D	03/09/2015 21:21
HD-MW-96S-0/1-0	180-41569-9	50309027.D	03/09/2015 22:33

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab File ID: 50310004.D Lab Sample ID: MB 180-135153/4

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

Instrument ID: CHHP5 Date Analyzed: 03/10/2015 12:44

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 180-135153/7	50310007.D	03/10/2015 14:12
HD-QC4-0/1-2	180-41569-2	50310011.D	03/10/2015 15:48
HD-MW-50D-0/1-0 DL	180-41569-3 DL	50310012.D	03/10/2015 16:12
HD-MW-114-0/1-0 DL	180-41569-6 DL	50310013.D	03/10/2015 16:36
HD-MW-7-0/1-0	180-41569-7	50310014.D	03/10/2015 17:00
HD-CW-17-0/1-0	180-41569-8	50310015.D	03/10/2015 17:25
HD-MW-96S-0/1-0 DL	180-41569-9 DL	50310016.D	03/10/2015 17:49
HD-MW-96D-0/1-0	180-41569-10	50310017.D	03/10/2015 18:13

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab File ID: 50303006.D BFB Injection Date: 03/03/2015

Instrument ID: CHHP5 BFB Injection Time: 12:21

Analysis Batch No.: 134613

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.6	
75	30.0 - 60.0 % of mass 95	46.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	73.0	
175	5.0 - 9.0 % of mass 174	5.5	(7.5)1
176	95.0 - 101.0 % of mass 174	72.9	(99.8)1
177	5.0 - 9.0 % of mass 176	4.6	(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
	IC 180-134613/8	50303008.D	03/03/2015	14:28
	ICIS 180-134613/9	50303009.D	03/03/2015	14:52
	IC 180-134613/10	50303010.D	03/03/2015	15:16
	IC 180-134613/11	50303011.D	03/03/2015	15:40
	IC 180-134613/12	50303012.D	03/03/2015	16:04
	IC 180-134613/13	50303013.D	03/03/2015	16:28
	IC 180-134613/14	50303014.D	03/03/2015	16:52
	IC 180-134613/18	50303018.D	03/03/2015	18:29

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab File ID: 50309001.D BFB Injection Date: 03/09/2015

Instrument ID: CHHP5 BFB Injection Time: 10:37

Analysis Batch No.: 135049

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	45.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.1	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	80.8	
175	5.0 - 9.0 % of mass 174	6.6	(8.2)1
176	95.0 - 101.0 % of mass 174	79.9	(98.8)1
177	5.0 - 9.0 % of mass 176	4.9	(6.2)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-135049/2	50309002.D	03/09/2015	11:37
	MB 180-135049/4	50309004.D	03/09/2015	12:47
	LCS 180-135049/7	50309007.D	03/09/2015	14:31
HD-QC2-0/1-1	180-41569-1	50309017.D	03/09/2015	18:32
HD-MW-50D-0/1-0	180-41569-3	50309019.D	03/09/2015	19:20
HD-MW-51S-0/1-0	180-41569-4	50309021.D	03/09/2015	20:09
HD-CW-18-0/1-0	180-41569-5	50309022.D	03/09/2015	20:33
HD-MW-114-0/1-0	180-41569-6	50309024.D	03/09/2015	21:21
HD-MW-96S-0/1-0	180-41569-9	50309027.D	03/09/2015	22:33

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab File ID: 50310001.D BFB Injection Date: 03/10/2015

Instrument ID: CHHP5 BFB Injection Time: 10:55

Analysis Batch No.: 135153

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.7	
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	6.7	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	84.5	
175	5.0 - 9.0 % of mass 174	7.3	(8.6)1
176	95.0 - 101.0 % of mass 174	84.4	(99.9)1
177	5.0 - 9.0 % of mass 176	6.0	(7.1)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-135153/2	50310002.D	03/10/2015	11:37
	MB 180-135153/4	50310004.D	03/10/2015	12:44
	LCS 180-135153/7	50310007.D	03/10/2015	14:12
HD-QC4-0/1-2	180-41569-2	50310011.D	03/10/2015	15:48
HD-MW-50D-0/1-0 DL	180-41569-3 DL	50310012.D	03/10/2015	16:12
HD-MW-114-0/1-0 DL	180-41569-6 DL	50310013.D	03/10/2015	16:36
HD-MW-7-0/1-0	180-41569-7	50310014.D	03/10/2015	17:00
HD-CW-17-0/1-0	180-41569-8	50310015.D	03/10/2015	17:25
HD-MW-96S-0/1-0 DL	180-41569-9 DL	50310016.D	03/10/2015	17:49
HD-MW-96D-0/1-0	180-41569-10	50310017.D	03/10/2015	18:13

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Sample No.: CCVIS 180-135049/2 Date Analyzed: 03/09/2015 11:37

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

Lab File ID (Standard): 50309002.D Heated Purge: (Y/N) N

Calibration ID: 22321

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		104748	4.33	419520	7.28	96744	10.36
UPPER LIMIT		209496	4.83	839040	7.78	193488	10.86
LOWER LIMIT		52374	3.83	209760	6.78	48372	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-135049/4		107819	4.30	424671	7.28	96438	10.37
LCS 180-135049/7		78530	4.31	375106	7.28	90079	10.37
180-41569-1	HD-QC2-0/1-1	82924	4.30	397968	7.28	93808	10.37
180-41569-3	HD-MW-50D-0/1-0	71111	4.30	400615	7.28	92454	10.36
180-41569-4	HD-MW-51S-0/1-0	70638	4.31	387258	7.27	87413	10.36
180-41569-5	HD-CW-18-0/1-0	69870	4.31	366632	7.28	83394	10.36
180-41569-6	HD-MW-114-0/1-0	68732	4.30	393155	7.28	87883	10.37
180-41569-9	HD-MW-96S-0/1-0	62146	4.30	372541	7.28	86718	10.36

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.: 180-41569-1

SDG No.:

Sample No.: CCVIS 180-135049/2 Date Analyzed: 03/09/2015 11:37

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

Lab File ID (Standard): 50309002.D Heated Purge: (Y/N) N

Calibration ID: 22321

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		140304	12.69				
UPPER LIMIT		280608	13.19				
LOWER LIMIT		70152	12.19				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-135049/4		157080	12.69				
LCS 180-135049/7		126667	12.69				
180-41569-1	HD-QC2-0/1-1	145013	12.68				
180-41569-3	HD-MW-50D-0/1-0	138161	12.69				
180-41569-4	HD-MW-51S-0/1-0	143046	12.68				
180-41569-5	HD-CW-18-0/1-0	130030	12.69				
180-41569-6	HD-MW-114-0/1-0	145102	12.69				
180-41569-9	HD-MW-96S-0/1-0	132121	12.69				

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.: 180-41569-1

SDG No.:

Sample No.: CCVIS 180-135153/2 Date Analyzed: 03/10/2015 11:37

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

Lab File ID (Standard): 50310002.D Heated Purge: (Y/N) N

Calibration ID: 22321

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		68961	4.30	383152	7.27	86796	10.37
UPPER LIMIT		137922	4.80	766304	7.77	173592	10.87
LOWER LIMIT		34481	3.80	191576	6.77	43398	9.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-135153/4		86833	4.30	432295	7.27	100617	10.36
LCS 180-135153/7		64251	4.32	376237	7.27	85792	10.37
180-41569-2	HD-QC4-0/1-2	84435	4.31	404110	7.28	91246	10.36
180-41569-3 DL	HD-MW-50D-0/1-0 DL	76142	4.30	392601	7.28	92520	10.37
180-41569-6 DL	HD-MW-114-0/1-0 DL	76740	4.30	383314	7.28	84904	10.36
180-41569-7	HD-MW-7-0/1-0	74111	4.29	387256	7.28	89027	10.36
180-41569-8	HD-CW-17-0/1-0	76061	4.30	386036	7.27	89264	10.36
180-41569-9 DL	HD-MW-96S-0/1-0 DL	72203	4.29	376069	7.27	91234	10.36
180-41569-10	HD-MW-96D-0/1-0	65416	4.30	366573	7.27	84507	10.36

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.: 180-41569-1

SDG No.:

Sample No.: CCVIS 180-135153/2 Date Analyzed: 03/10/2015 11:37

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

Lab File ID (Standard): 50310002.D Heated Purge: (Y/N) N

Calibration ID: 22321

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		130106	12.69				
UPPER LIMIT		260212	13.19				
LOWER LIMIT		65053	12.19				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-135153/4		161434	12.68				
LCS 180-135153/7		119827	12.69				
180-41569-2	HD-QC4-0/1-2	151583	12.69				
180-41569-3 DL	HD-MW-50D-0/1-0 DL	143202	12.69				
180-41569-6 DL	HD-MW-114-0/1-0 DL	139253	12.69				
180-41569-7	HD-MW-7-0/1-0	139698	12.69				
180-41569-8	HD-CW-17-0/1-0	140693	12.68				
180-41569-9 DL	HD-MW-96S-0/1-0 DL	138067	12.68				
180-41569-10	HD-MW-96D-0/1-0	138302	12.68				

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.: 180-41569-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 | Lab Sample ID: 180-41569-1

Matrix: Water | Lab File ID: 50309017.D

Analysis Method: 8260C | Date Collected: 02/26/2015 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/09/2015 18:32

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.: 135049 | 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	0.95	J	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	1.7		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	29		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	7.4		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	0.51	J	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.: 180-41569-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-41569-1

Matrix: Water Lab File ID: 50309017.D

Analysis Method: 8260C Date Collected: 02/26/2015 08:00

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 18:32

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.: 135049 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)	99		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D
Lims ID: 180-41569-E-1 Lab Sample ID: 180-41569-1
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 09-Mar-2015 18:32:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41569-E-1
Misc. Info.: 180-0005947-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 08:56:22 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 08:56:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.301	4.327	-0.026	82	82924	1000.0	
* 2 Fluorobenzene (IS)	96	7.276	7.277	-0.001	99	397968	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.362	0.005	100	93808	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.684	12.685	-0.001	98	145013	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.534	6.529	0.005	54	84794	49.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.905	6.906	-0.001	99	103838	49.3	
$ 7 Toluene-d8 (Surr)	98	8.925	8.926	-0.001	100	367416	50.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.535	11.530	0.005	96	133936	49.2	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.389	3.384	0.005	96	11020	4.76	
24 Acetone	43	3.517	3.499	0.018	75	3244	3.88	M
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.601				ND	
37 1,1-Dichloroethane	63	5.177	5.172	0.005	100	38124	8.26	
45 cis-1,2-Dichloroethene	96	5.944	5.939	0.005	76	370252	142.9	
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97	6.534	6.529	0.005	54	2300	0.9201	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78	6.960	6.955	0.005	36	1773	0.1764	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.672	7.667	0.005	100	87783	37.1	
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.539	9.540	-0.001	94	4551	2.55	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112	10.379	10.392	-0.013	24	2381	0.3840	M
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

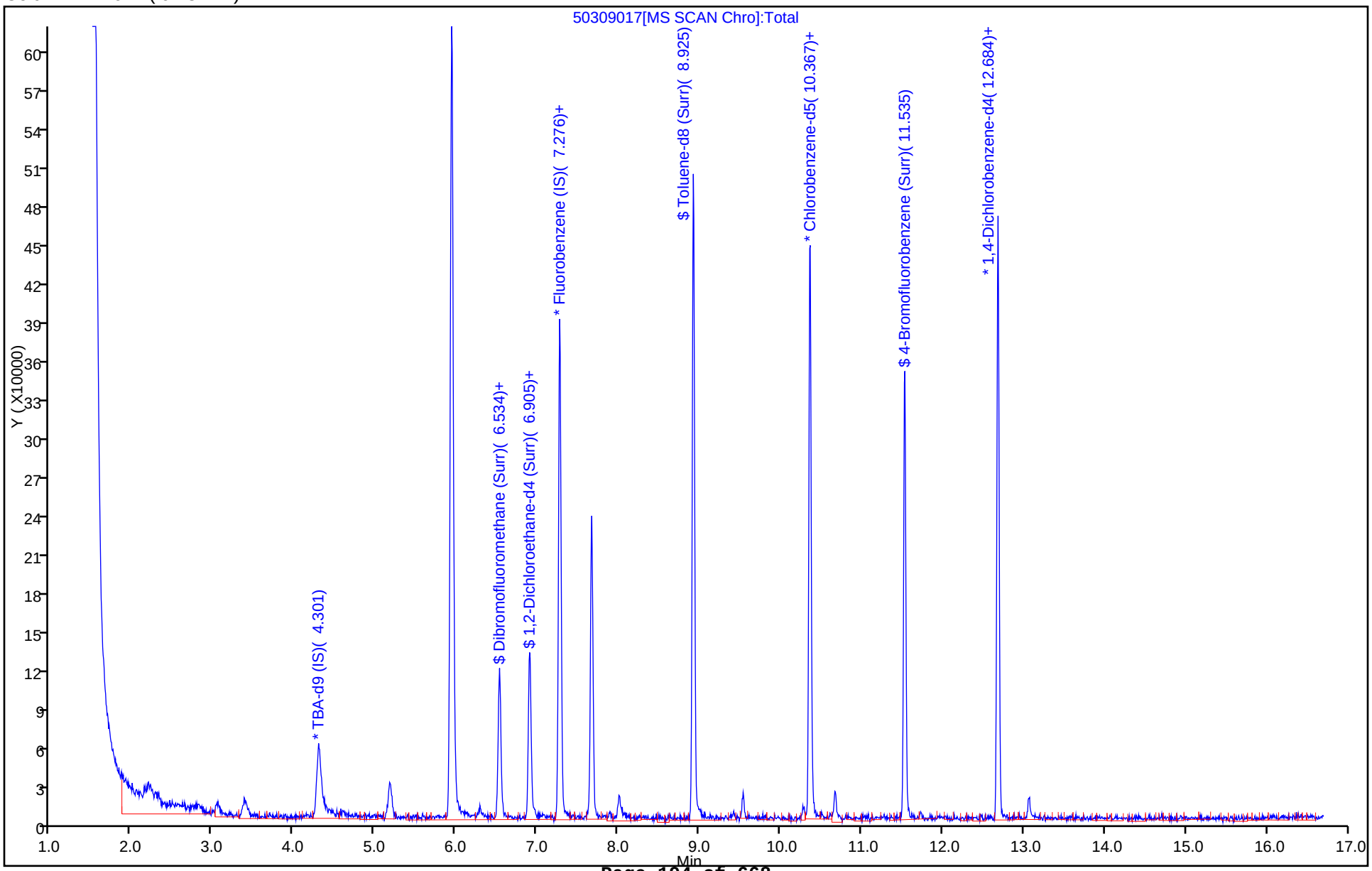
Report Date: 10-Mar-2015 08:56:22 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D

Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1	Worklist Smp#:	17
Client ID:	HD-QC2-0/1-1				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



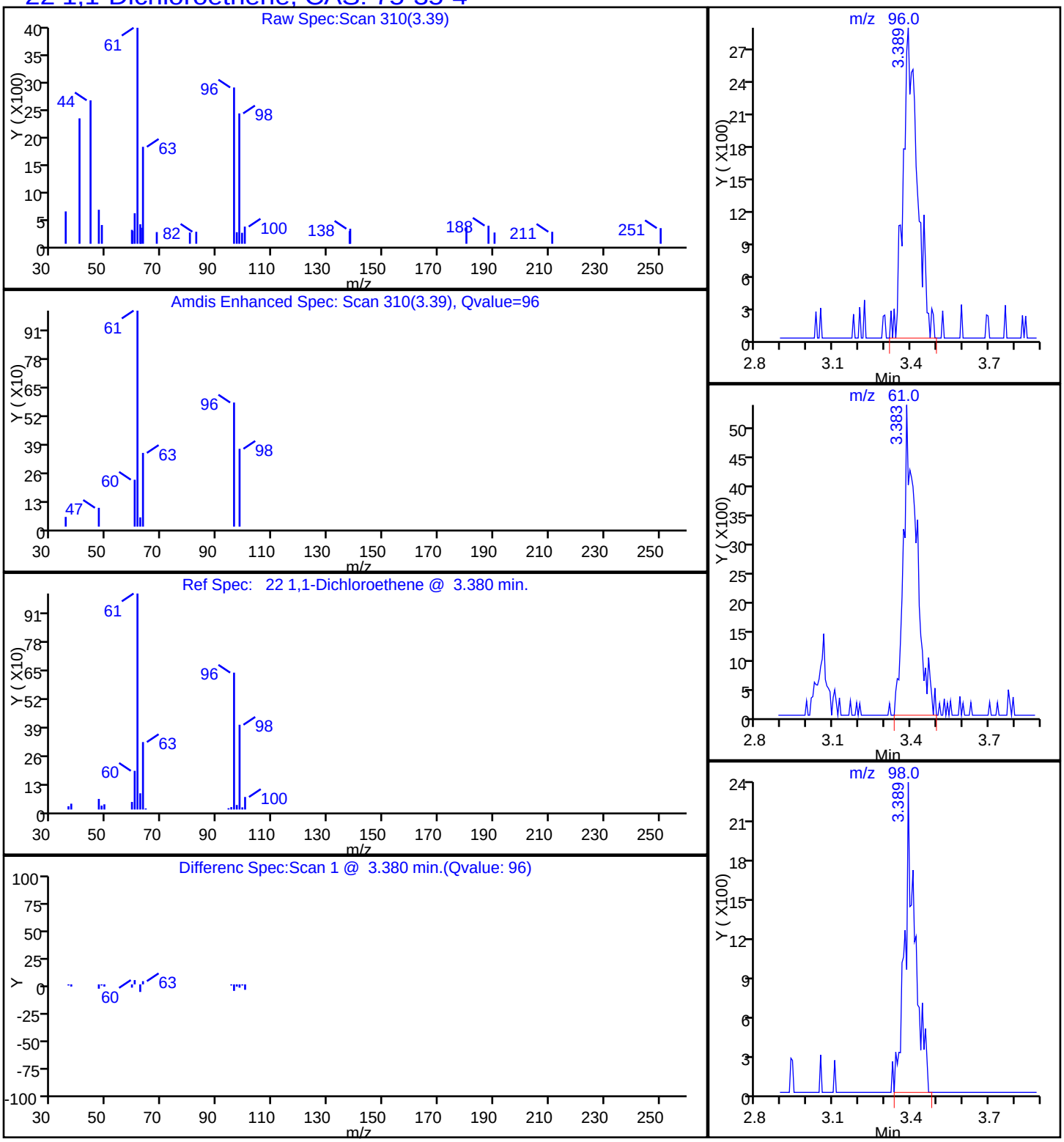
Report Date: 10-Mar-2015 08:56:22 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D

Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1
Client ID:	HD-QC2-0/1-1		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

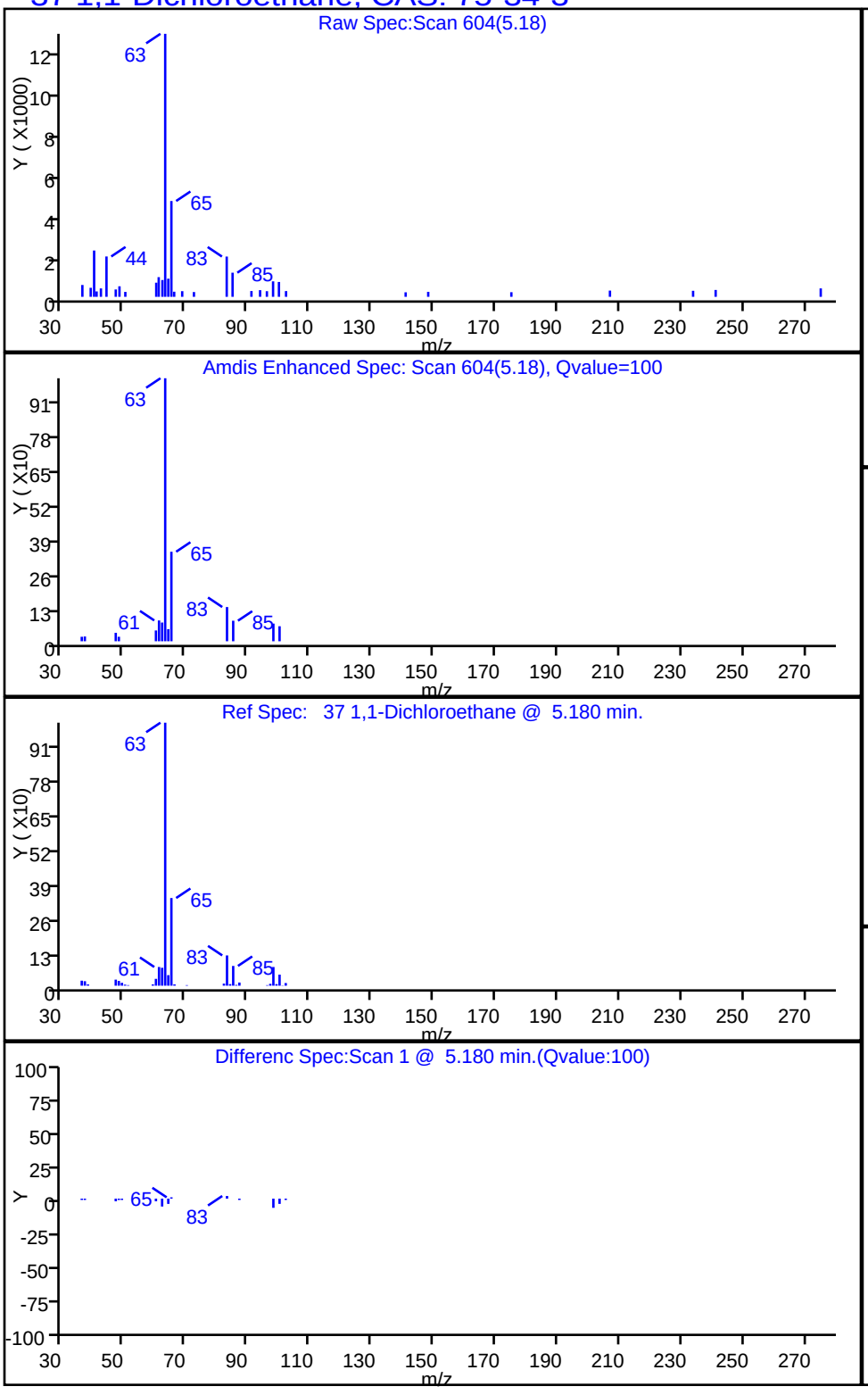


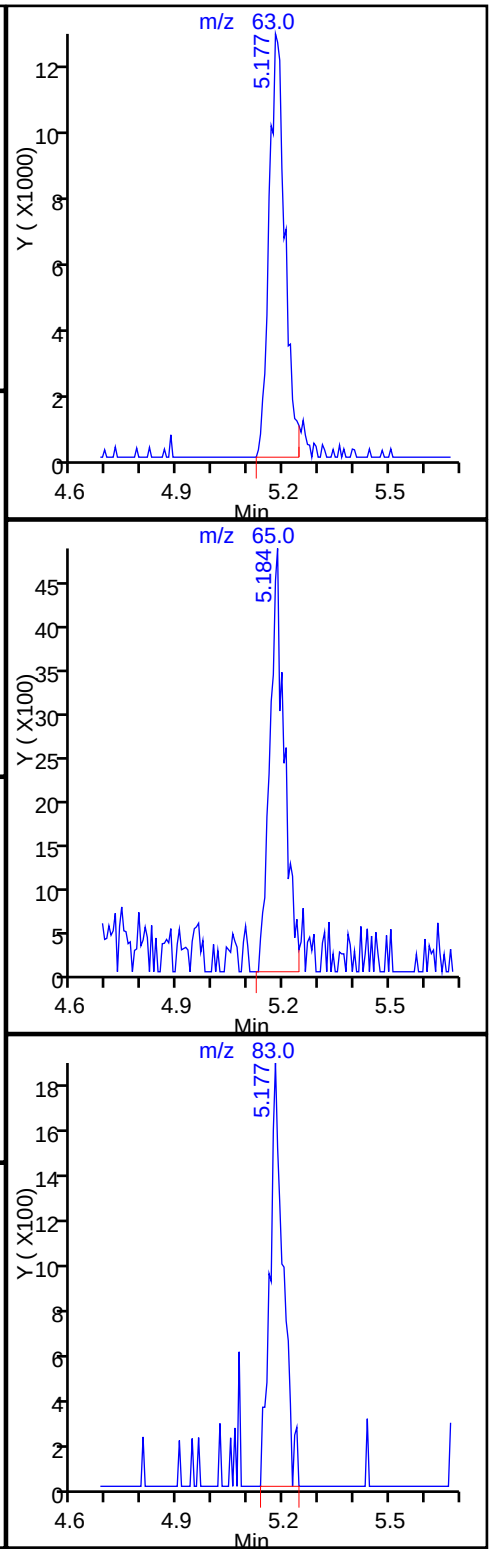
Report Date: 10-Mar-2015 08:56:22 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D				
Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1		
Client ID:	HD-QC2-0/1-1				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3



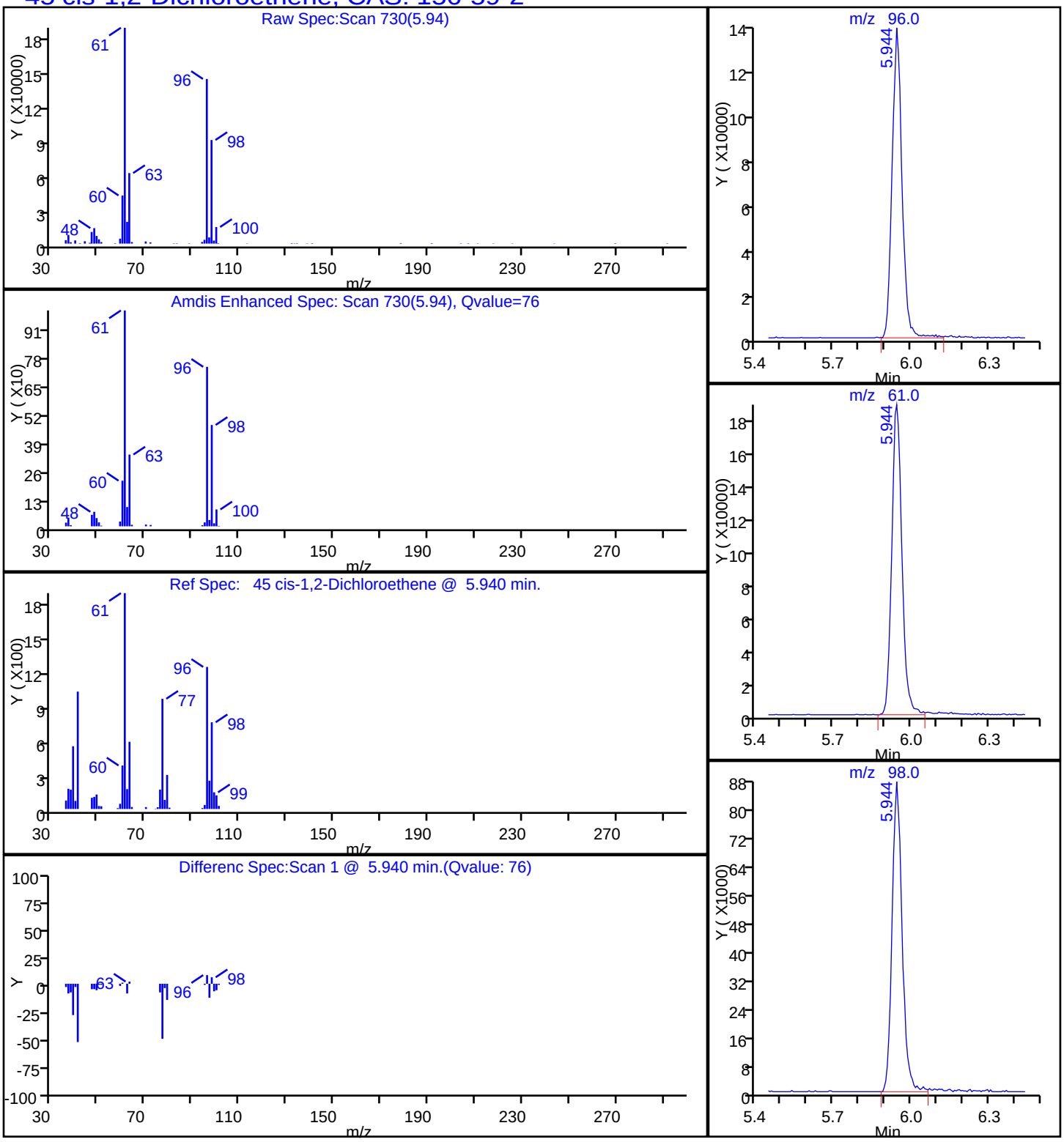


Report Date: 10-Mar-2015 08:56:22 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D				
Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1		
Client ID:	HD-QC2-0/1-1				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

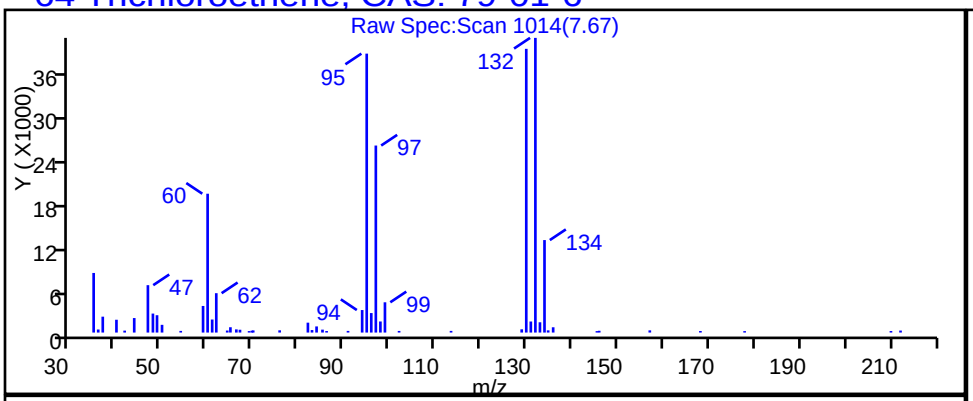


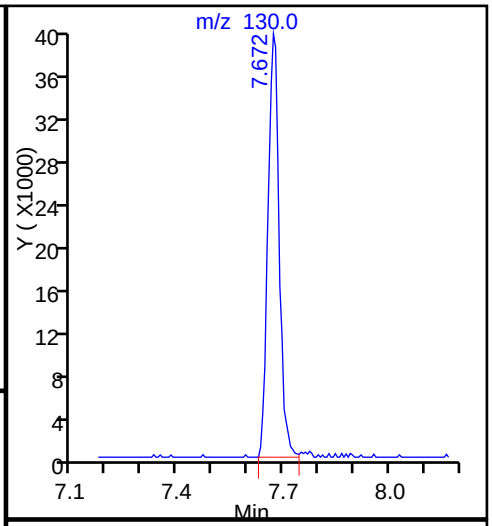
Report Date: 10-Mar-2015 08:56:22 Chrom Revision: 2.2 15-Jan-2015 13:05:58

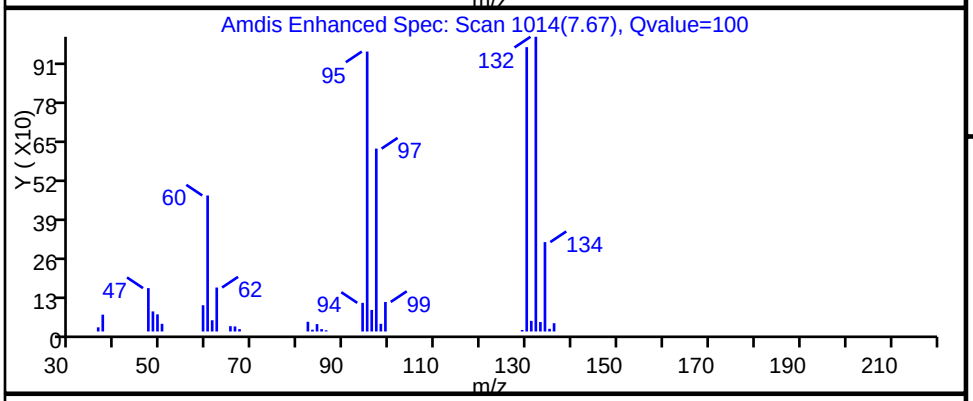
TestAmerica Pittsburgh

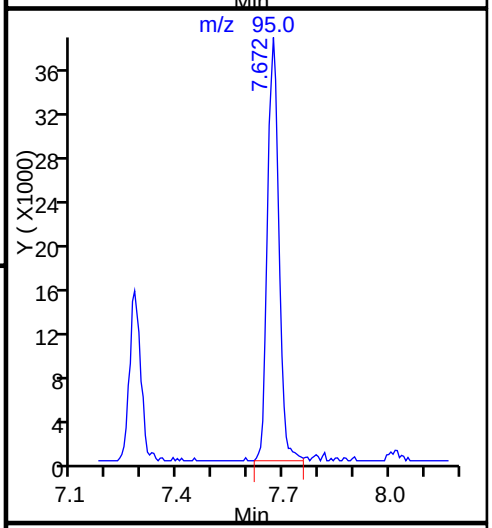
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D		
Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1
Client ID:	HD-QC2-0/1-1		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

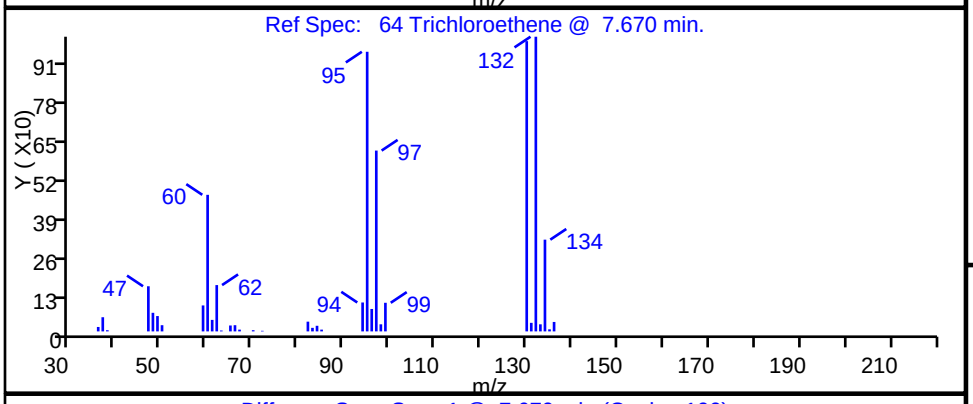
64 Trichloroethene, CAS: 79-01-6

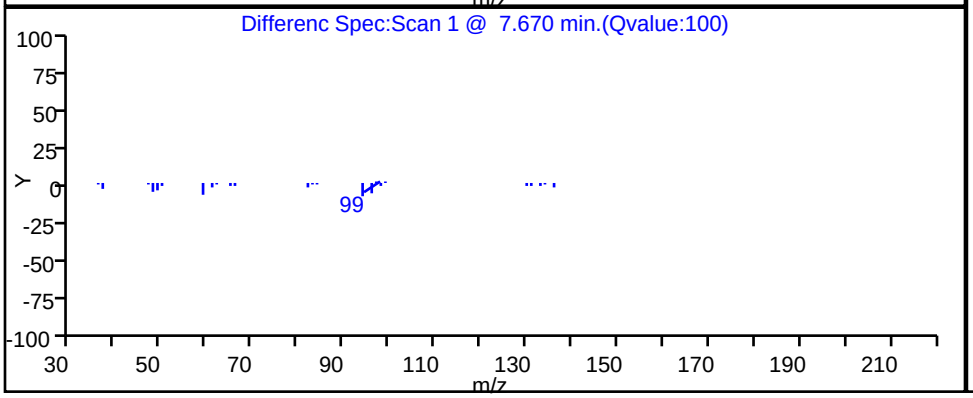


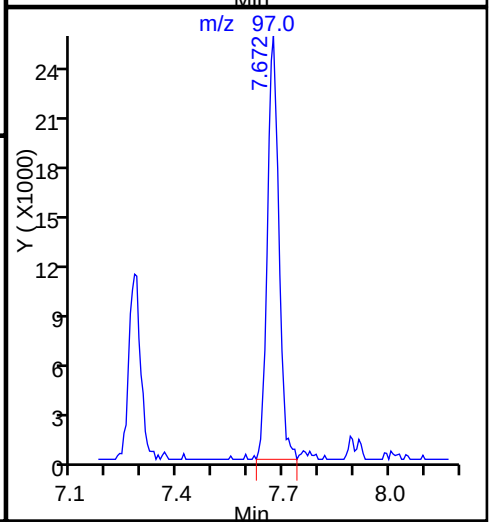










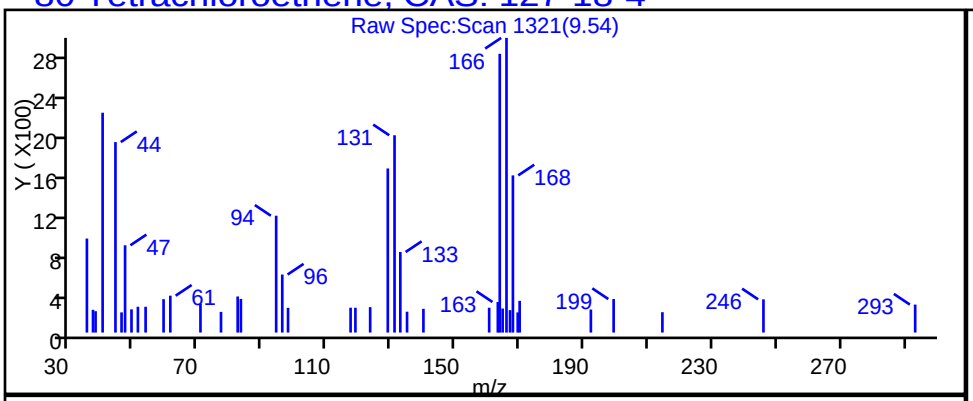


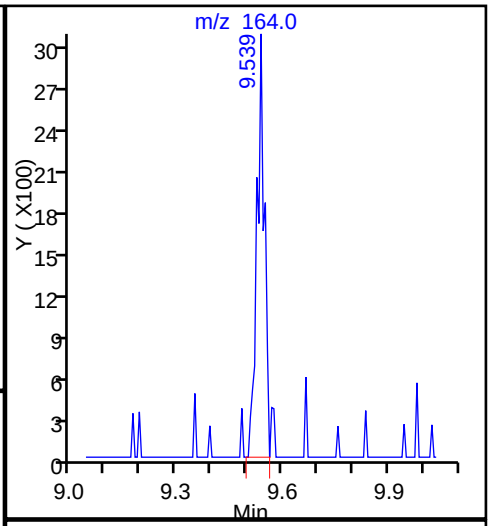
Report Date: 10-Mar-2015 08:56:23 Chrom Revision: 2.2 15-Jan-2015 13:05:58

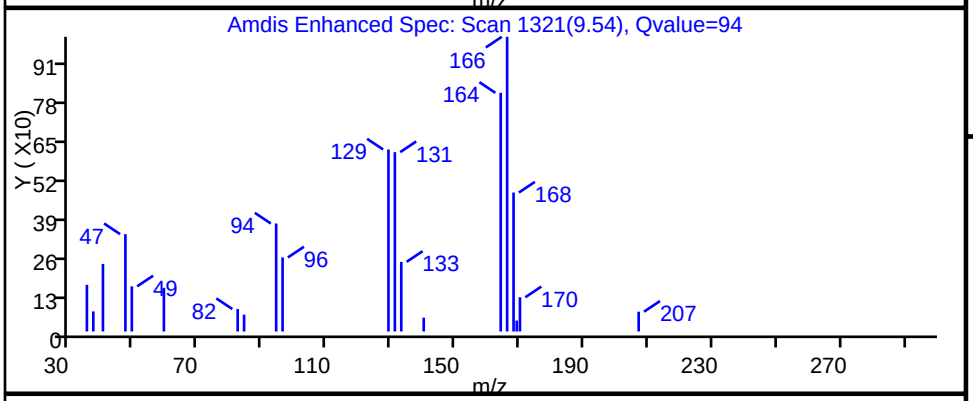
TestAmerica Pittsburgh

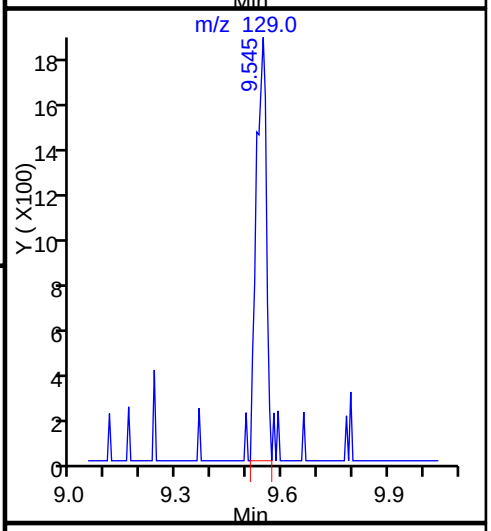
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D		
Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1
Client ID:	HD-QC2-0/1-1		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

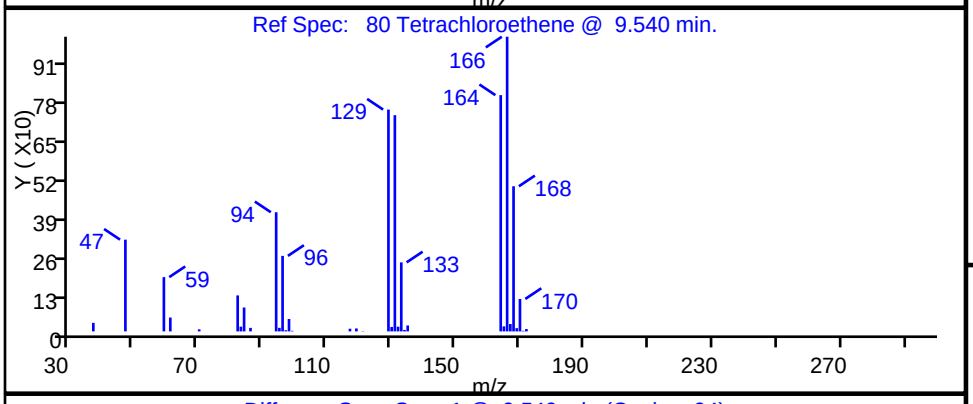
80 Tetrachloroethene, CAS: 127-18-4

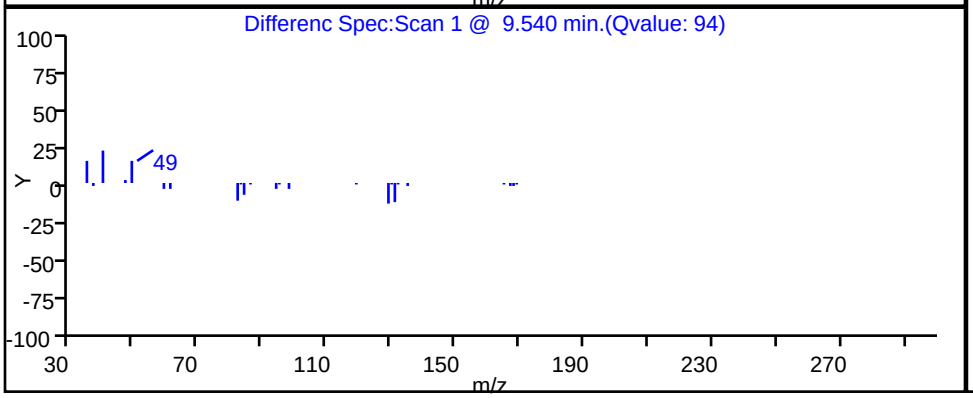


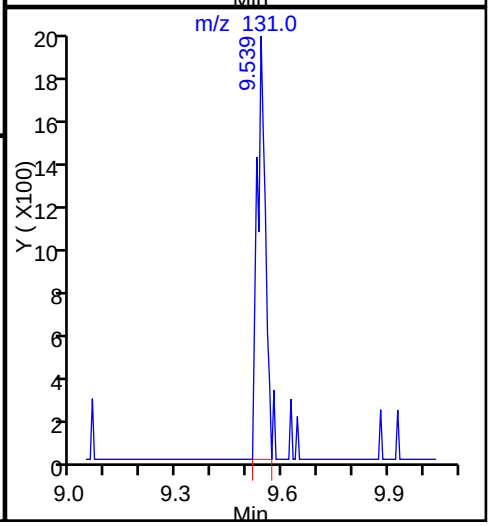












Manual Integration/User Assign Peak Report

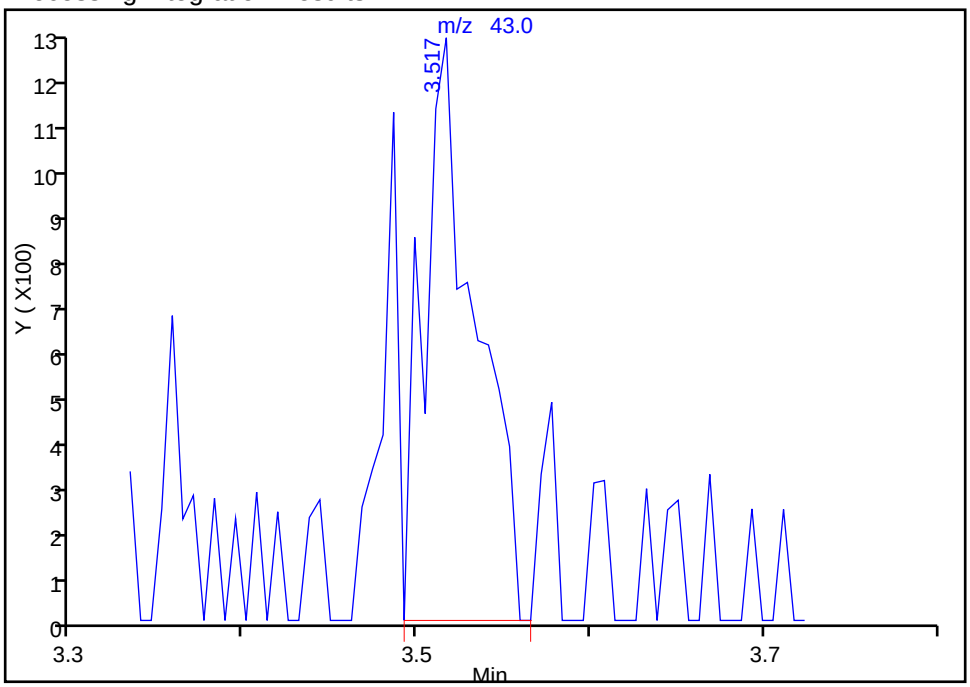
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D				
Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1		
Client ID:	HD-QC2-0/1-1				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

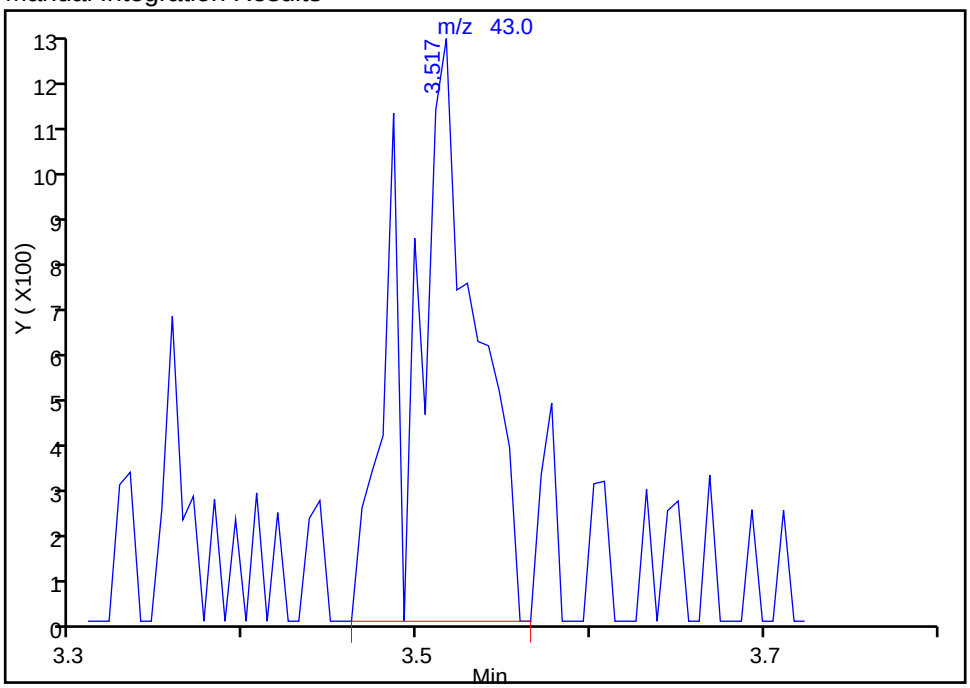
Processing Integration Results

RT: 3.52
Area: 2516
Amount: 3.010265
Amount Units: ng



Manual Integration Results

RT: 3.52
Area: 3244
Amount: 3.881279
Amount Units: ng



Reviewer: fergusond, 10-Mar-2015 08:56:22
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

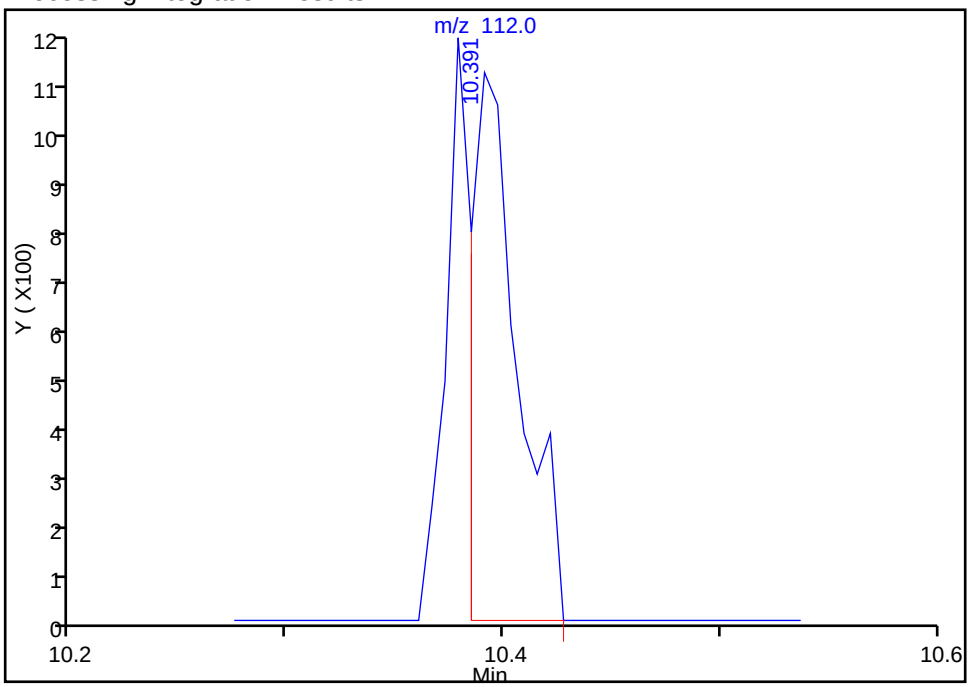
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309017.D				
Injection Date:	09-Mar-2015 18:32:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-E-1	Lab Sample ID:	180-41569-1		
Client ID:	HD-QC2-0/1-1				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

87 Chlorobenzene, CAS: 108-90-7

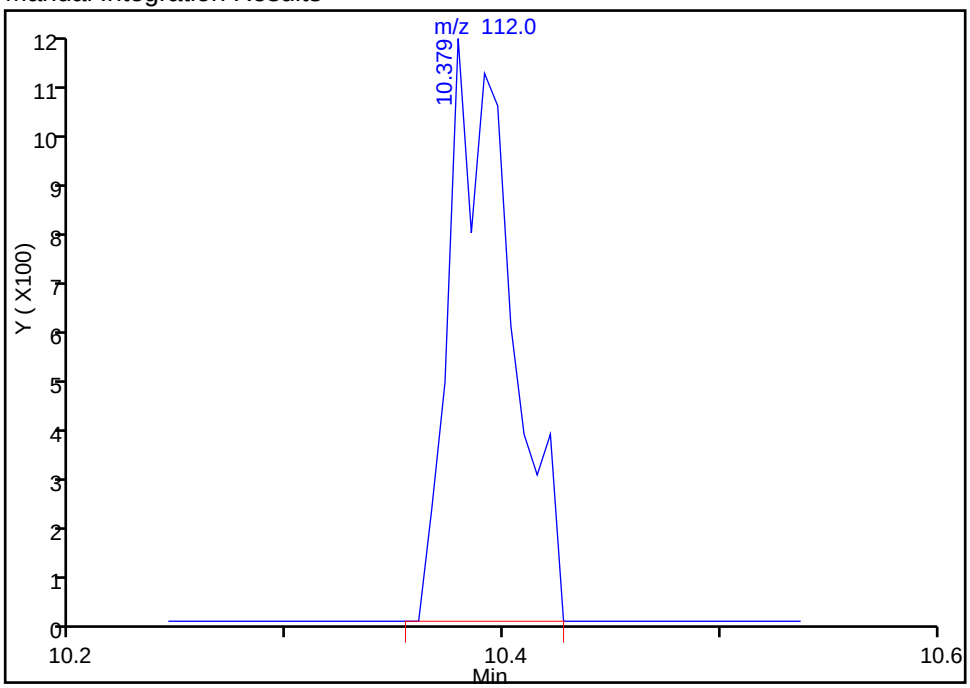
Processing Integration Results

RT: 10.39
Area: 1686
Amount: 0.271886
Amount Units: ng



Manual Integration Results

RT: 10.38
Area: 2381
Amount: 0.383962
Amount Units: ng



Reviewer: fergusond, 10-Mar-2015 08:56:22
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 | Lab Sample ID: 180-41569-2

Matrix: Water | Lab File ID: 50310011.D

Analysis Method: 8260C | Date Collected: 02/26/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 15:48

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.: 135153 | 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.: 180-41569-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 Lab Sample ID: 180-41569-2

Matrix: Water Lab File ID: 50310011.D

Analysis Method: 8260C Date Collected: 02/26/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 15:48

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.: 135153 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)	101		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310011.D
Lims ID: 180-41569-B-2 Lab Sample ID: 180-41569-2
Client ID: HD-QC4-0/1-2
Sample Type: Client
Inject. Date: 10-Mar-2015 15:48:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41569-B-2
Misc. Info.: 180-0005958-011
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:33:03 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:33:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.308	4.296	0.012	81	84435	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	404110	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.367	-0.006	99	91246	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	99	151583	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.529	-0.001	52	84431	48.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.900	0.006	99	107916	50.5	
$ 7 Toluene-d8 (Surr)	98	8.925	8.926	-0.001	100	370144	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	97	134477	50.8	
12 Chloromethane	50		1.771				ND	
13 Vinyl chloride	62		1.899				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.371				ND	
24 Acetone	43	3.499	3.493	0.006	38	3943	4.65	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.552				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63		5.166				ND	
45 cis-1,2-Dichloroethene	96		5.933				ND	
46 2-Butanone (MEK)	43		5.981				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.979				ND	
64 Trichloroethene	130		7.660				ND	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.201	8.196	0.005	1	581	0.2575	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164		9.540				ND	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

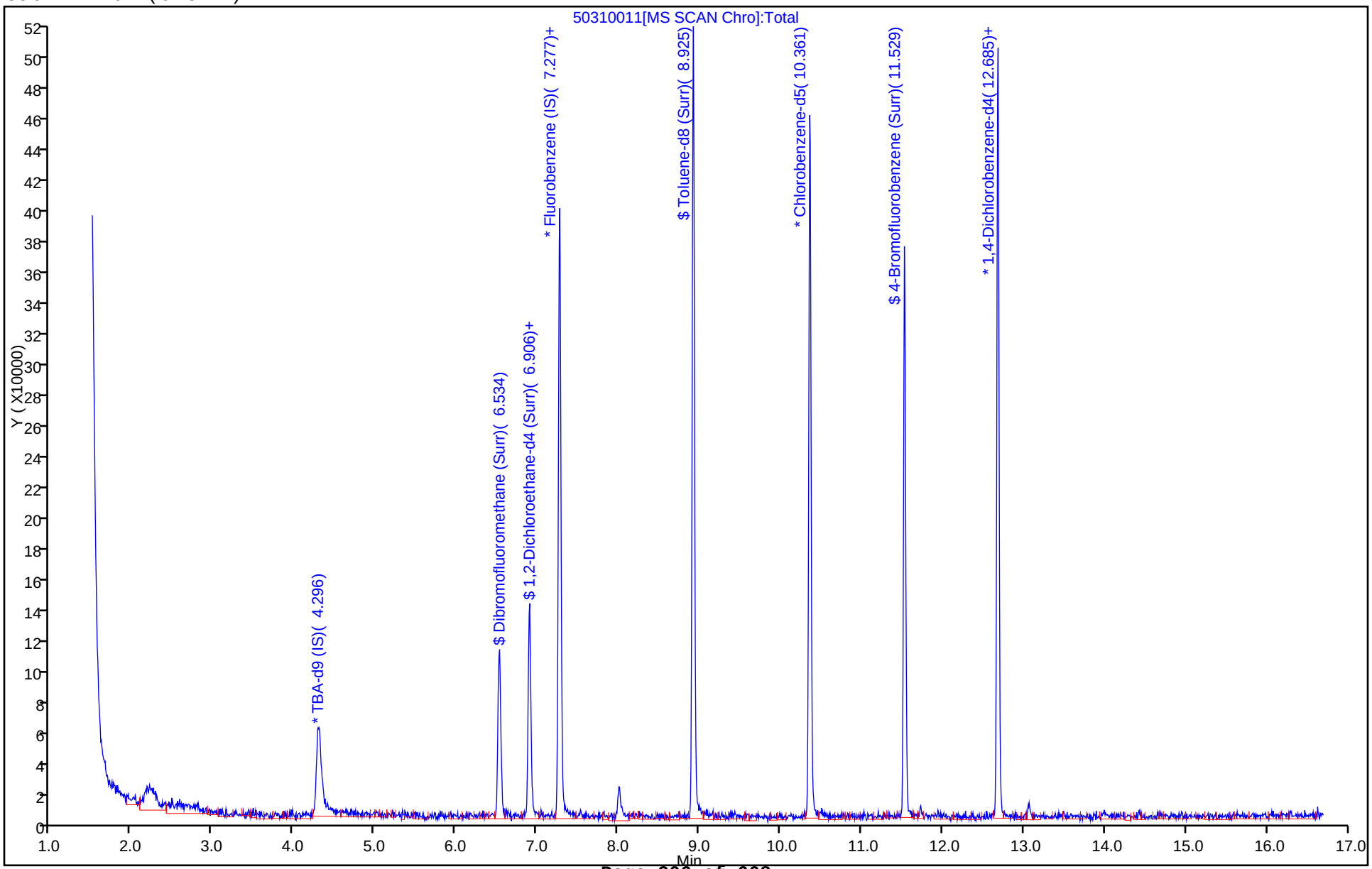
Report Date: 11-Mar-2015 07:33:03 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310011.D

Injection Date:	10-Mar-2015 15:48:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-B-2	Lab Sample ID:	180-41569-2	Worklist Smp#:	11
Client ID:	HD-QC4-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 | Lab Sample ID: 180-41569-3

Matrix: Water | Lab File ID: 50309019.D

Analysis Method: 8260C | Date Collected: 02/26/2015 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/09/2015 19:20

Soil Aliquot Vol: | Dilution Factor: 40

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

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

Analysis Batch No.: 135049 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	40	U	40	11
75-01-4	Vinyl chloride	46		40	9.1
74-83-9	Bromomethane	40	U	40	13
75-00-3	Chloroethane	40	U	40	8.6
75-35-4	1,1-Dichloroethene	290		40	12
67-64-1	Acetone	200	U	200	100
75-15-0	Carbon disulfide	40	U	40	8.5
75-09-2	Methylene Chloride	40	U	40	5.0
156-60-5	trans-1,2-Dichloroethene	40	U	40	6.8
1634-04-4	Methyl tert-butyl ether	40	U	40	7.3
75-34-3	1,1-Dichloroethane	720		40	4.7
156-59-2	*cis-1,2-Dichloroethene*	*5300*	*E*	*40*	*9.5*
74-97-5	Bromochloromethane	40	U	40	7.2
78-93-3	2-Butanone (MEK)	200	U	200	22
67-66-3	Chloroform	40	U	40	6.8
71-55-6	1,1,1-Trichloroethane	16	J	40	11
56-23-5	Carbon tetrachloride	40	U	40	5.5
71-43-2	Benzene	40	U	40	4.2
107-06-2	1,2-Dichloroethane	40	U	40	8.5
79-01-6	*Trichloroethene*	*5000*	*E*	*40*	*5.7*
78-87-5	1,2-Dichloropropane	40	U	40	3.8
75-27-4	Bromodichloromethane	40	U	40	5.2
10061-01-5	cis-1,3-Dichloropropene	40	U	40	7.5
108-10-1	4-Methyl-2-pentanone (MIBK)	200	U	200	21
108-88-3	Toluene	40	U	40	6.0
10061-02-6	trans-1,3-Dichloropropene	40	U *	40	5.9
79-00-5	1,1,2-Trichloroethane	40	U	40	8.1
127-18-4	Tetrachloroethene	430		40	5.9
591-78-6	2-Hexanone	200	U	200	6.4
124-48-1	Dibromochloromethane	40	U	40	5.5
106-93-4	1,2-Dibromoethane (EDB)	40	U	40	7.2
108-90-7	Chlorobenzene	40	U	40	5.4
630-20-6	1,1,1,2-Tetrachloroethane	40	U	40	11
100-41-4	Ethylbenzene	40	U	40	9.1
1330-20-7	Xylenes, Total	120	U	120	20
100-42-5	Styrene	40	U	40	3.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-41569-3

Matrix: Water Lab File ID: 50309019.D

Analysis Method: 8260C Date Collected: 02/26/2015 11:35

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 19:20

Soil Aliquot Vol: Dilution Factor: 40

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	40	U	40	7.7
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	8.0
107-13-1	Acrylonitrile	800	U	800	22
123-91-1	1,4-Dioxane	8000	U	8000	1400

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D
Lims ID: 180-41569-D-3 Lab Sample ID: 180-41569-3
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 09-Mar-2015 19:20:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 40.0000
Sample Info: 180-41569-D-3, 40x
Misc. Info.: 180-0005947-019
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 09:01:19 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 09:01:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.327	-0.025	80	71111	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	400615	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	100	92454	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	99	138161	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	55	82882	48.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.906	0.000	98	105240	49.6	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	367445	51.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	97	136474	50.9	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62	1.912	1.912	0.000	93	17834	5.77	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.378	3.384	-0.006	98	85402	36.6	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96	4.576	4.558	0.018	1	1998	0.8192	
35 Methyl tert-butyl ether	73		4.601				ND	
37 1,1-Dichloroethane	63	5.185	5.172	0.013	100	416088	89.5	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	75	1717363	658.5	E
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	55	4998	1.99	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.673	7.667	0.006	98	1475768	619.2	E
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.540	9.540	0.000	97	93867	53.3	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

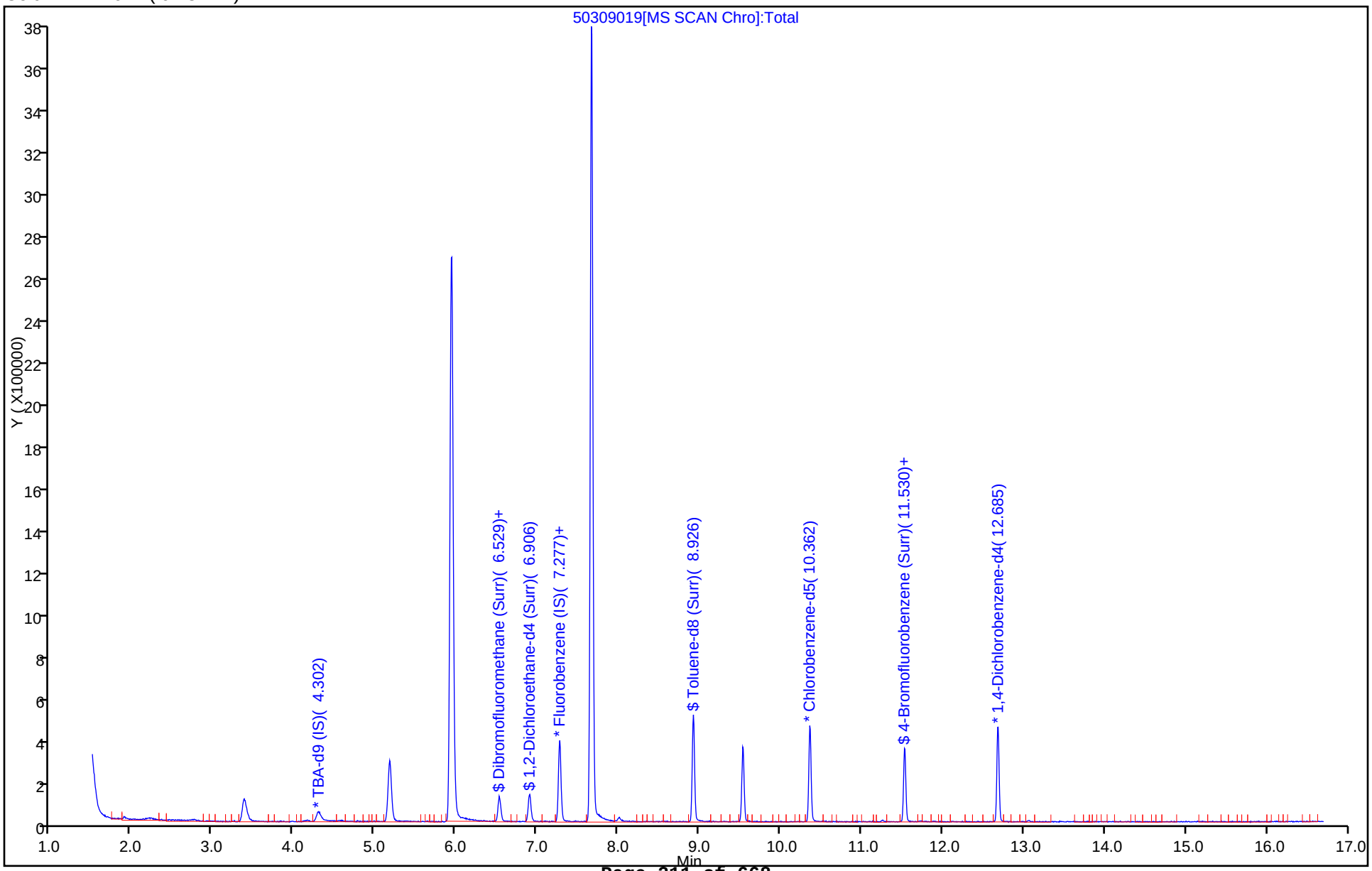
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D				
Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3	Worklist Smp#:	19
Client ID:	HD-MW-50D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	40.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

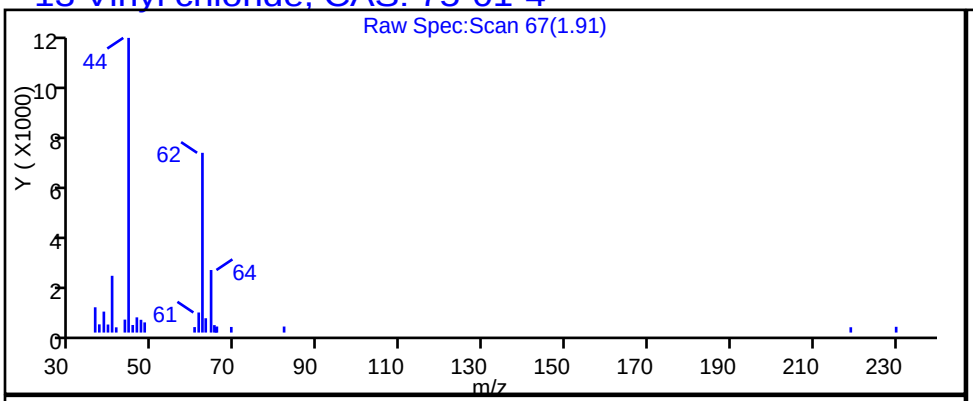


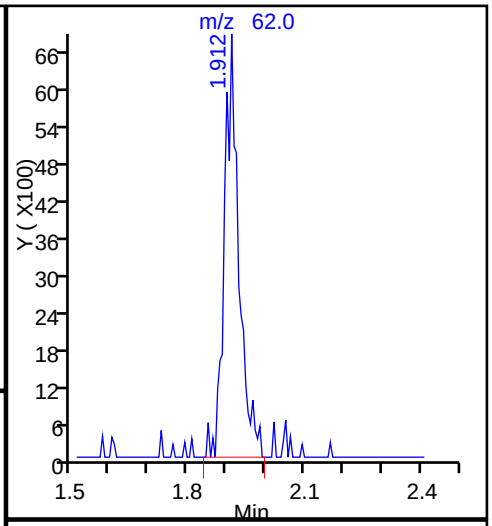
Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

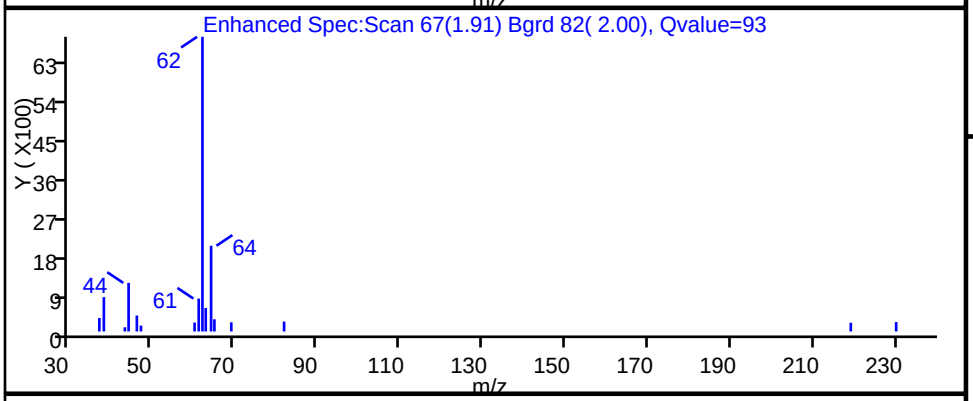
TestAmerica Pittsburgh

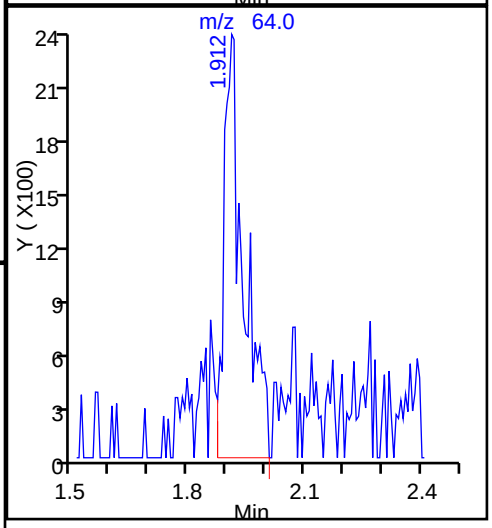
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D		
Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

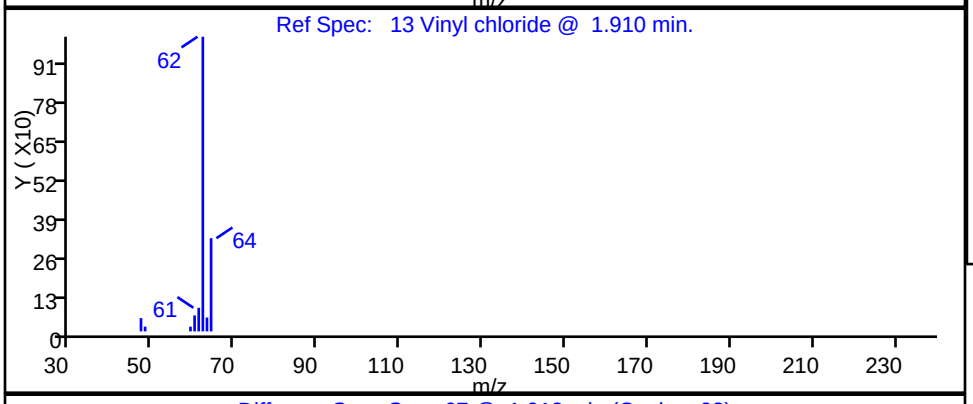
13 Vinyl chloride, CAS: 75-01-4

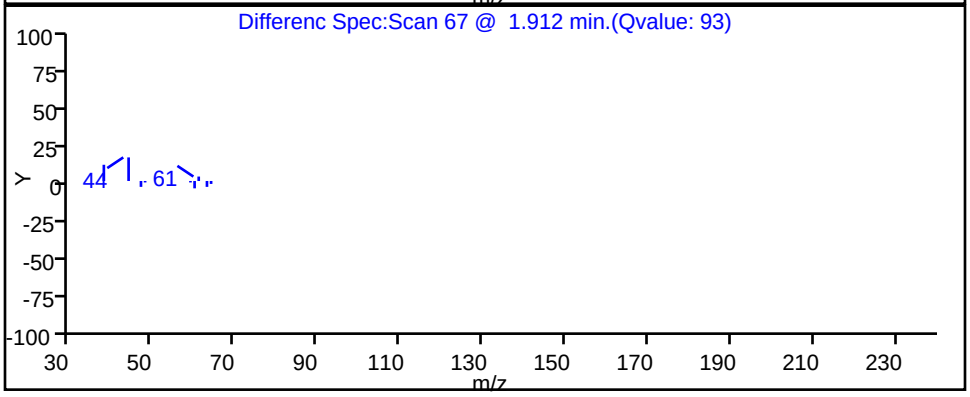












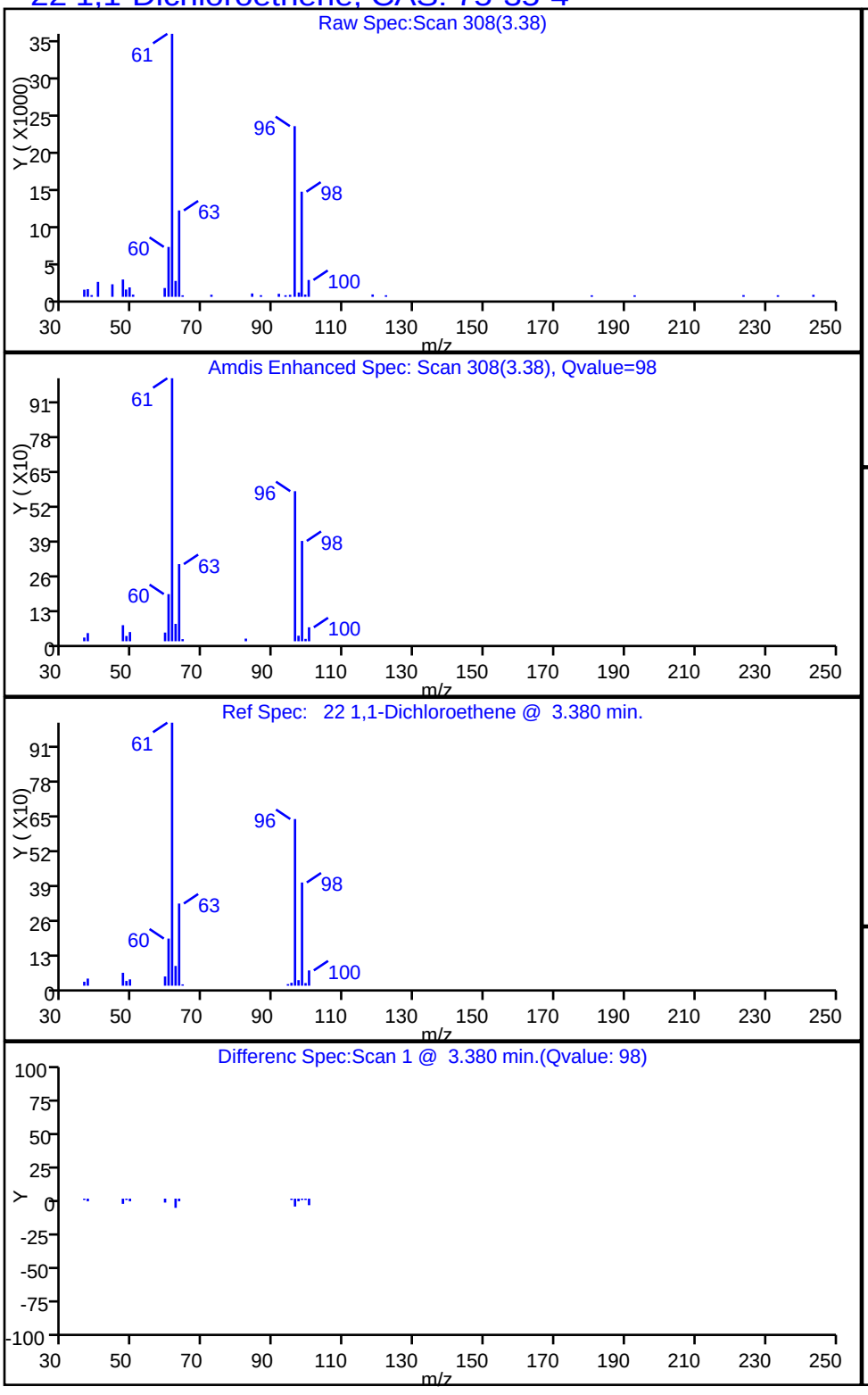
Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

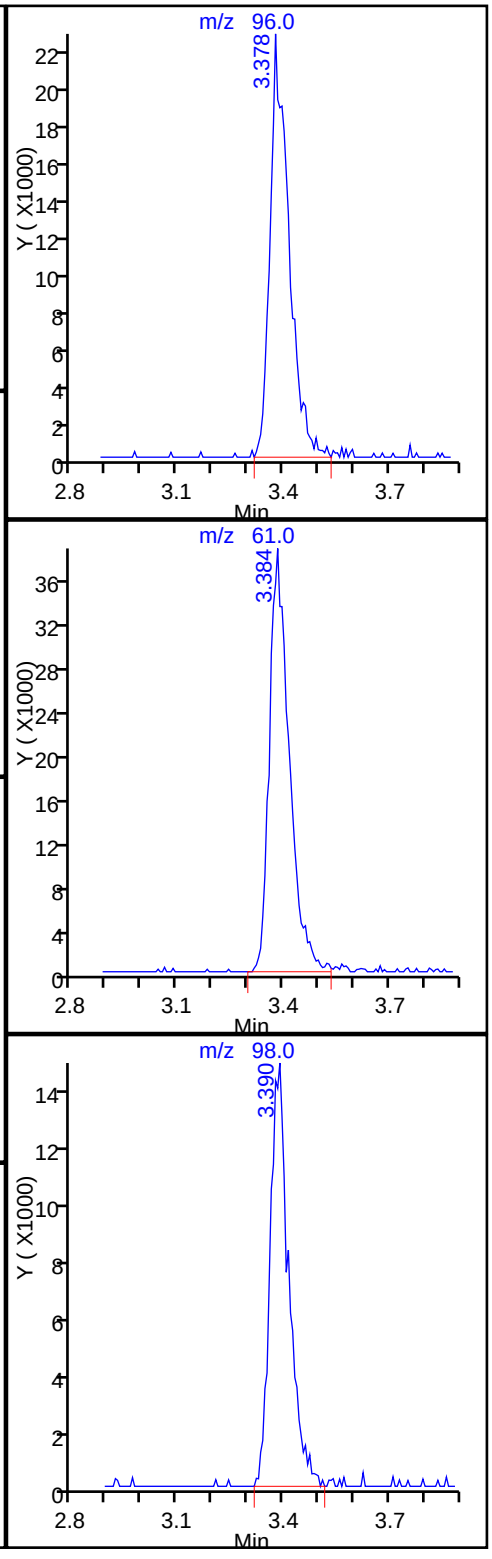
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D

Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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





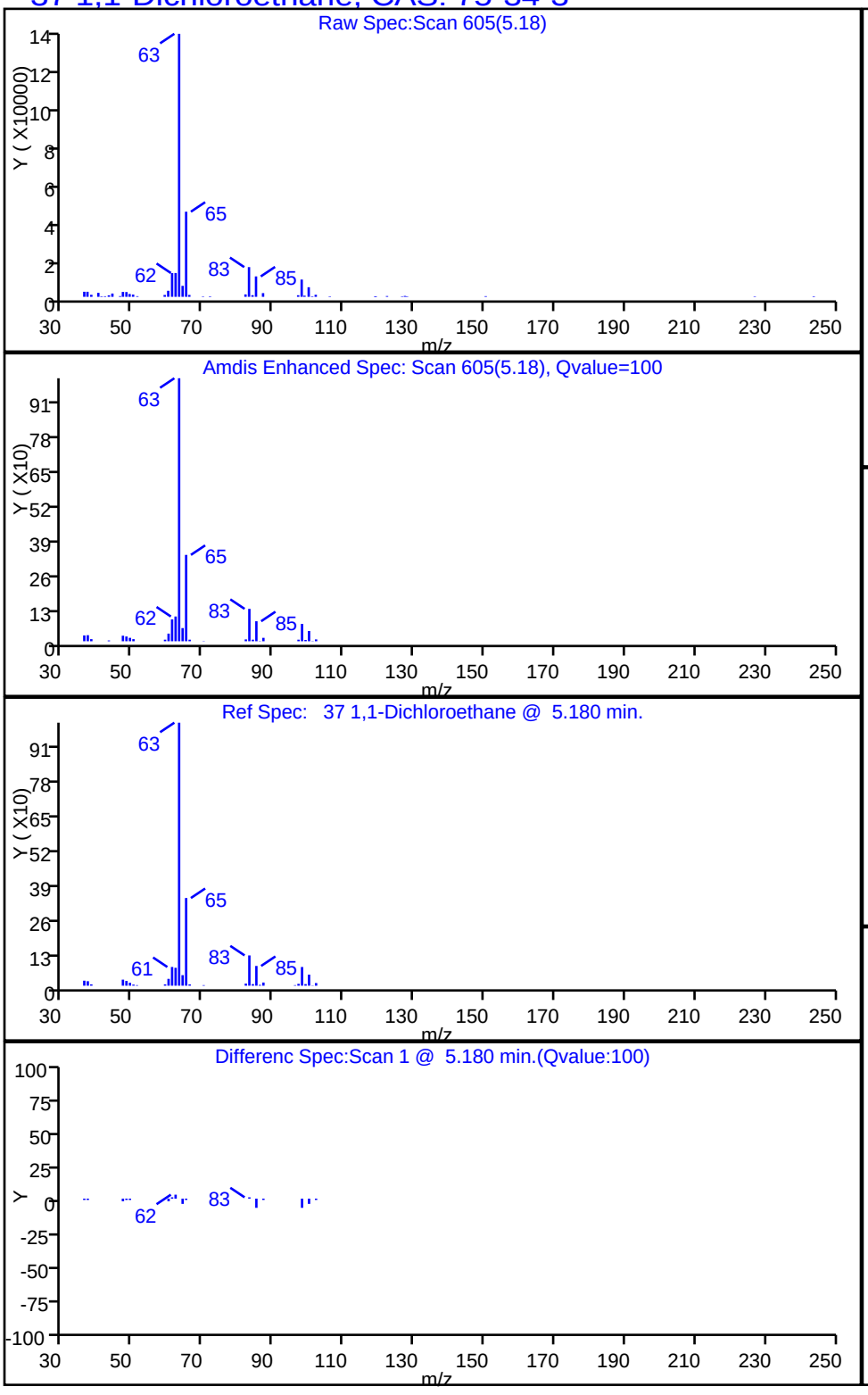
Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

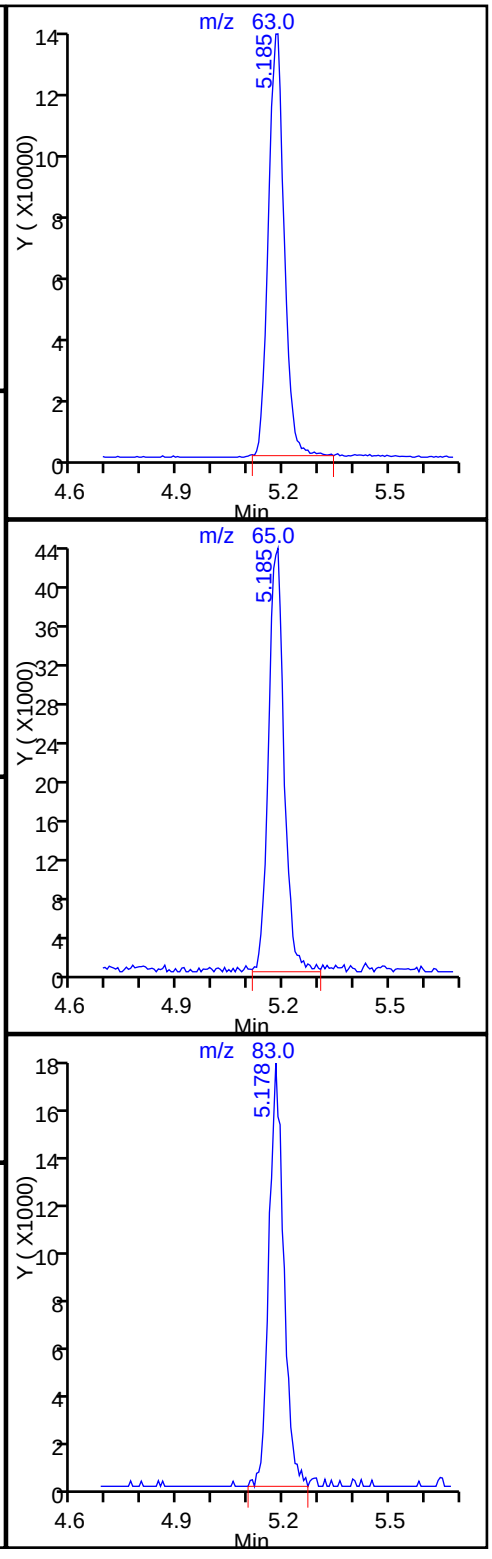
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D

Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3





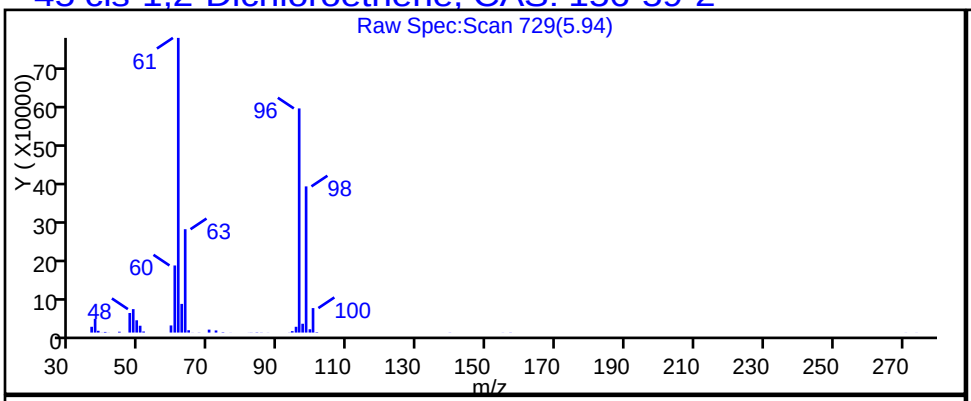
Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

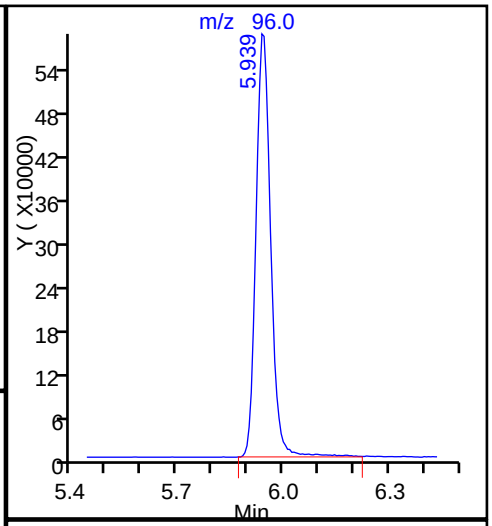
TestAmerica Pittsburgh

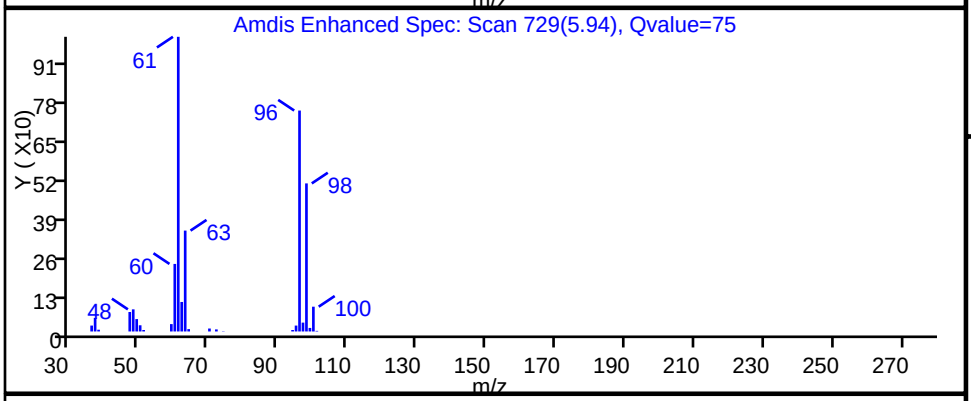
Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D

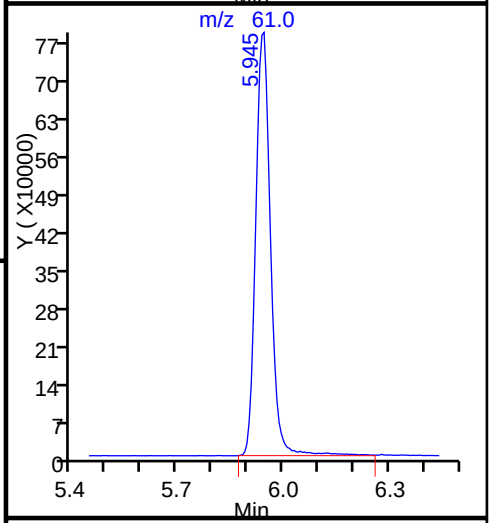
Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

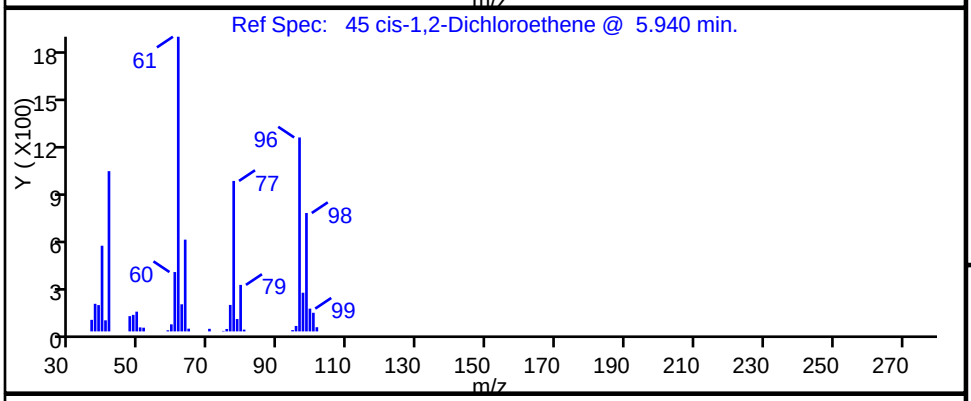
45 cis-1,2-Dichloroethene, CAS: 156-59-2

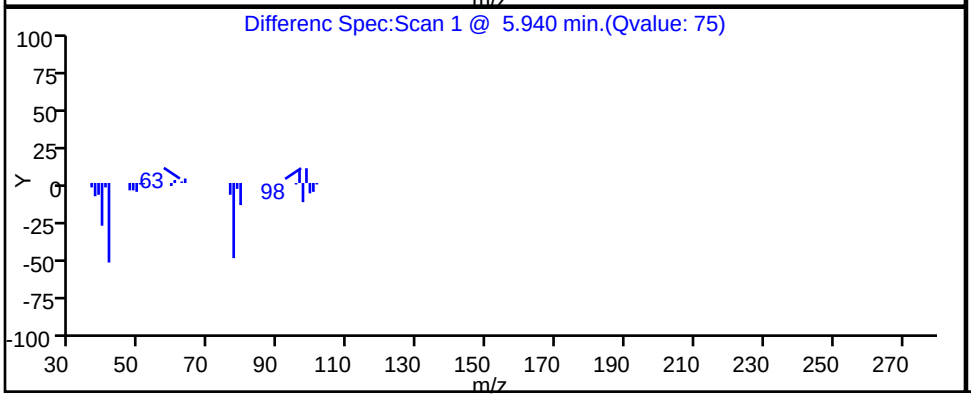


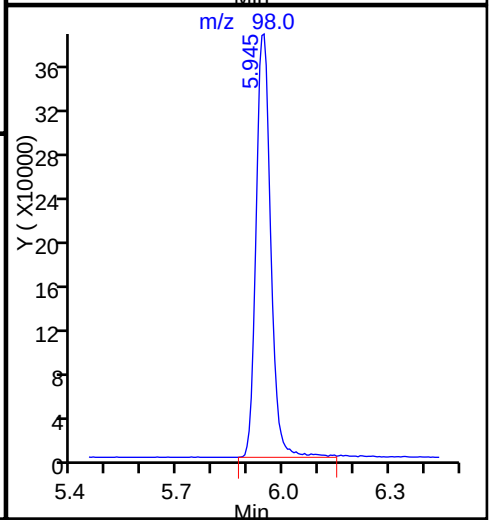










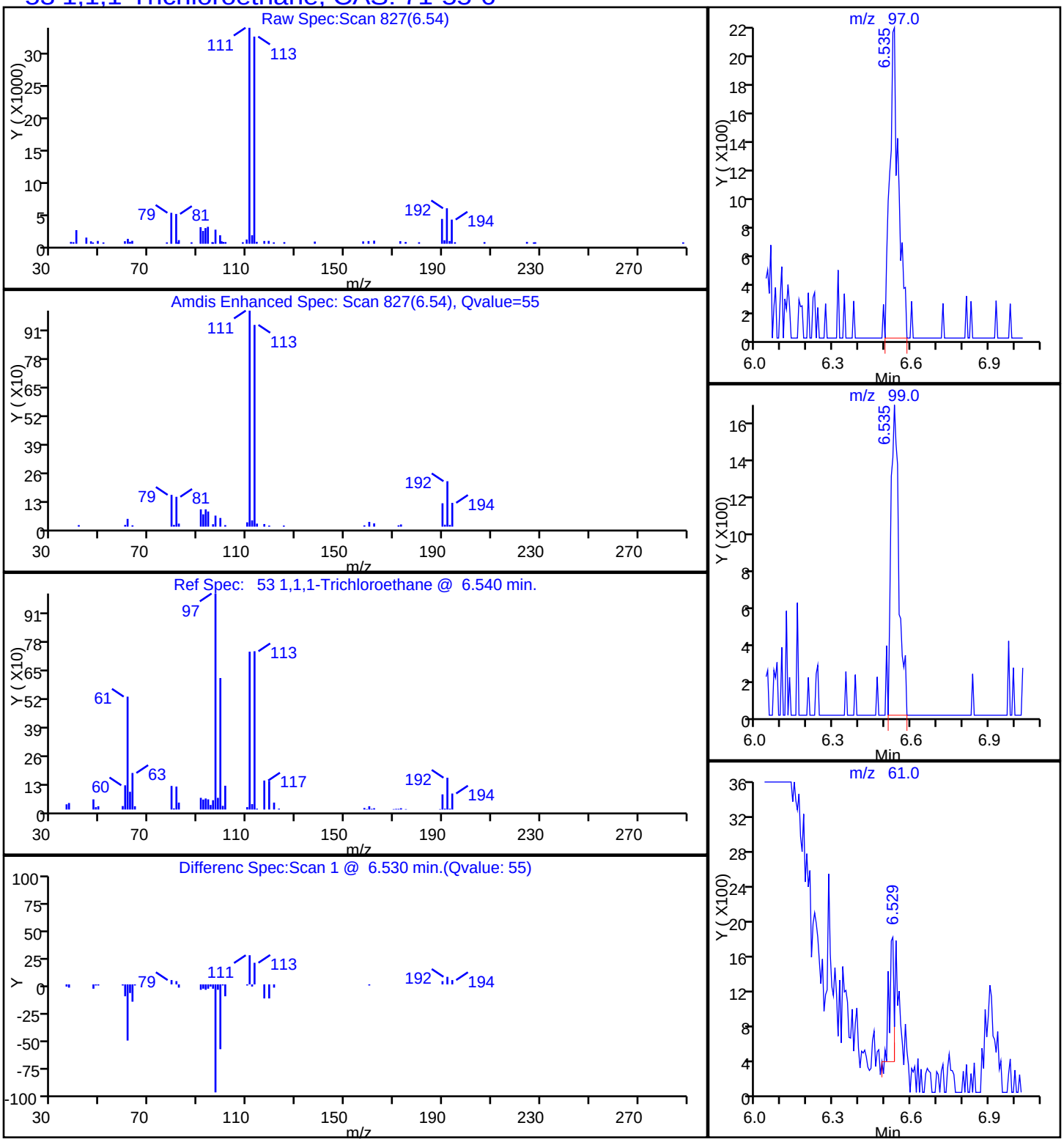


Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D				
Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

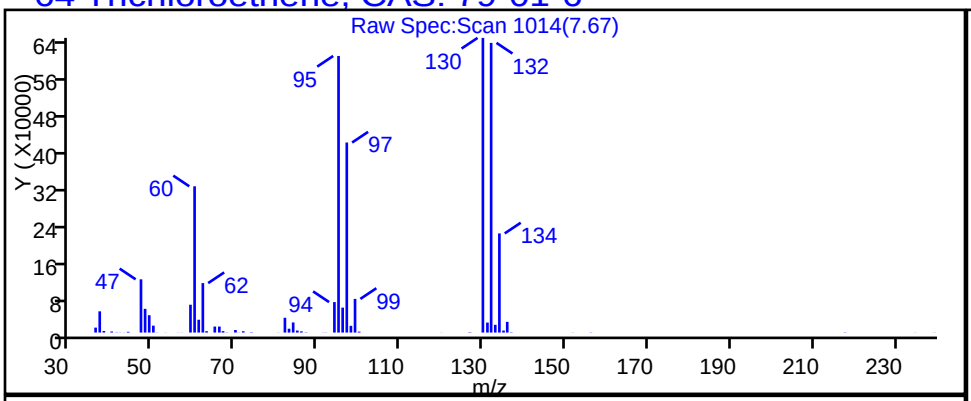


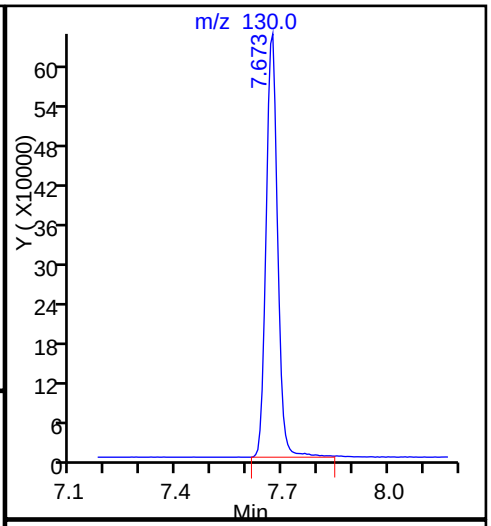
Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

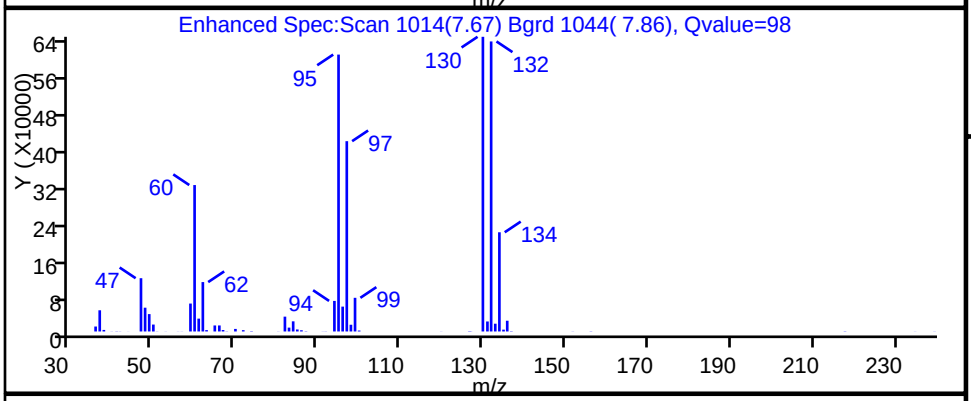
TestAmerica Pittsburgh

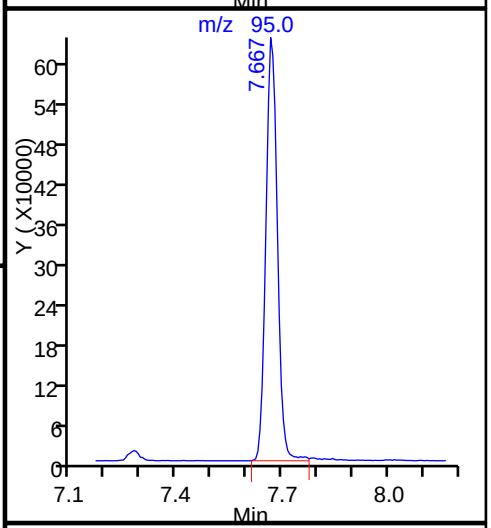
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D				
Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

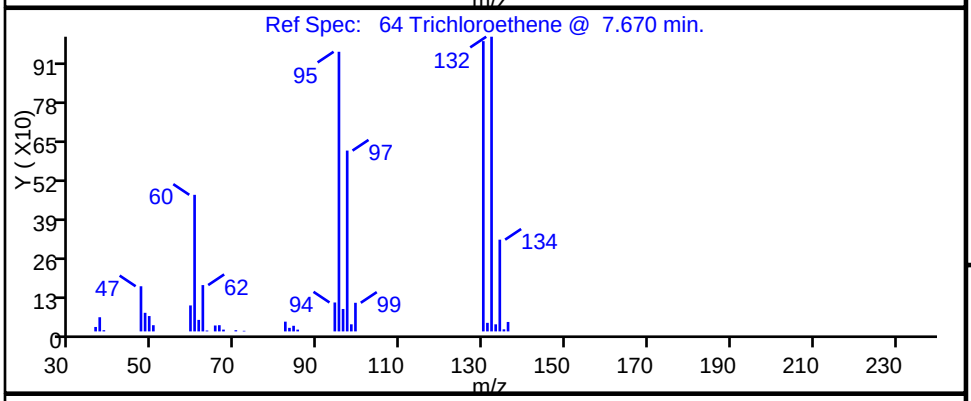
64 Trichloroethene, CAS: 79-01-6

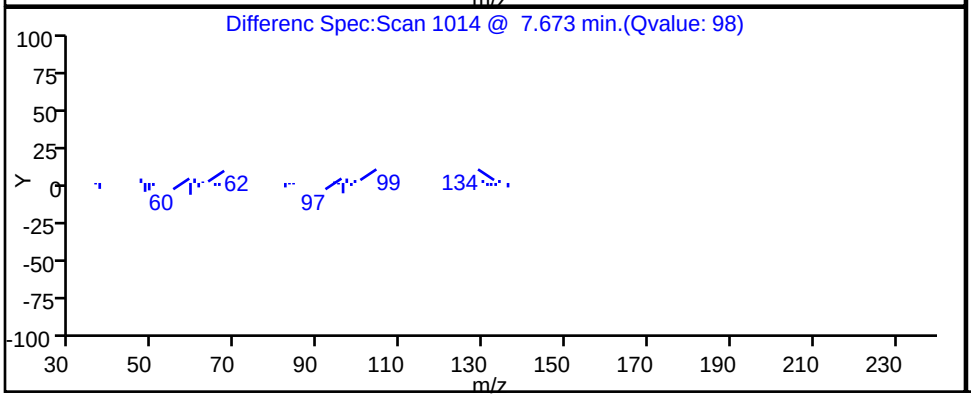


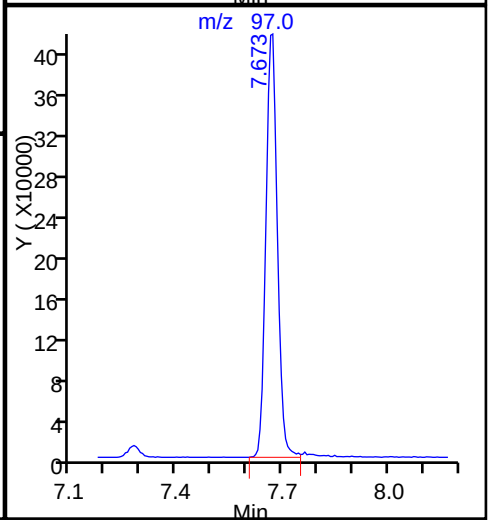










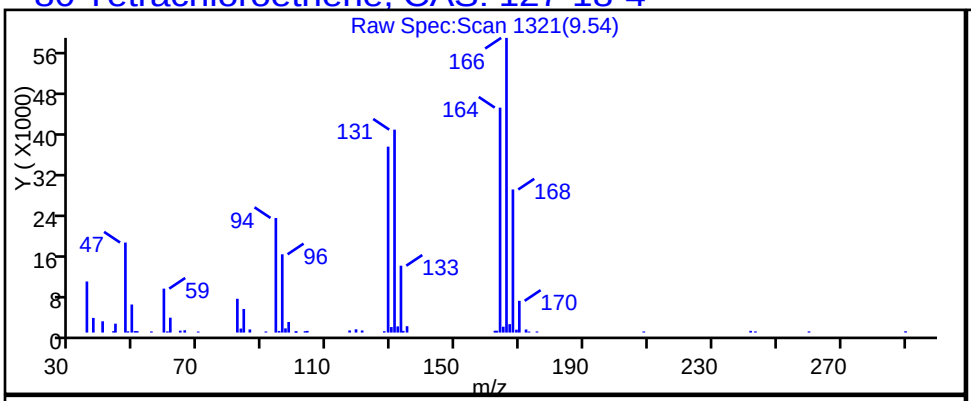


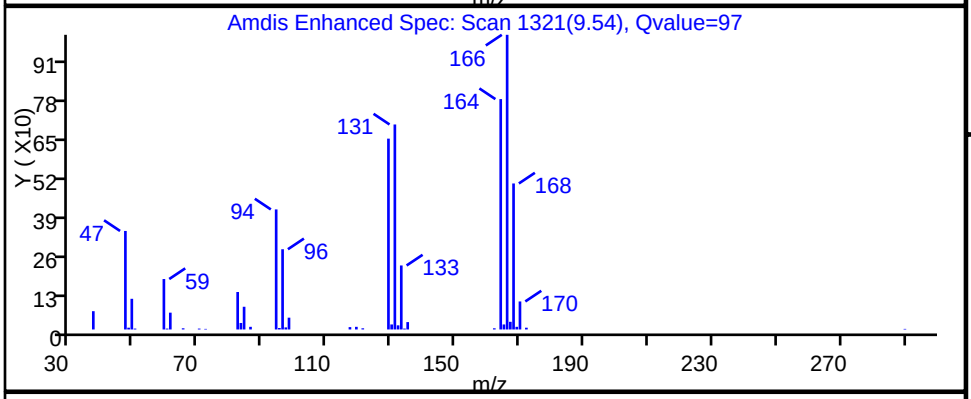
Report Date: 10-Mar-2015 09:01:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

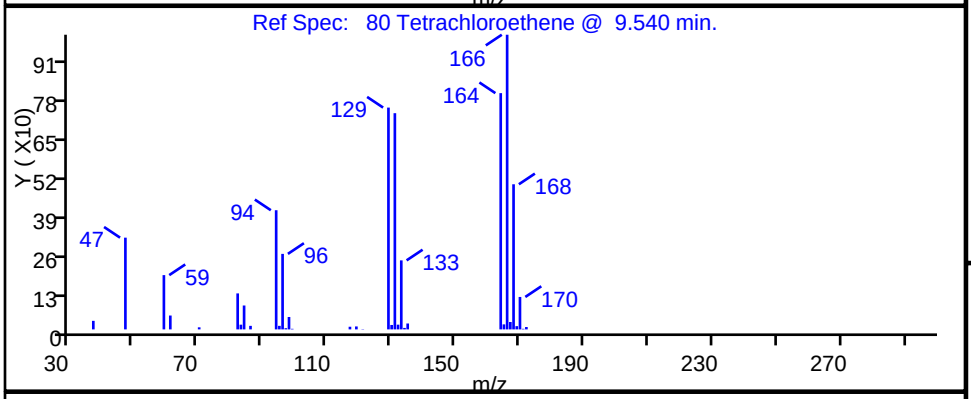
TestAmerica Pittsburgh

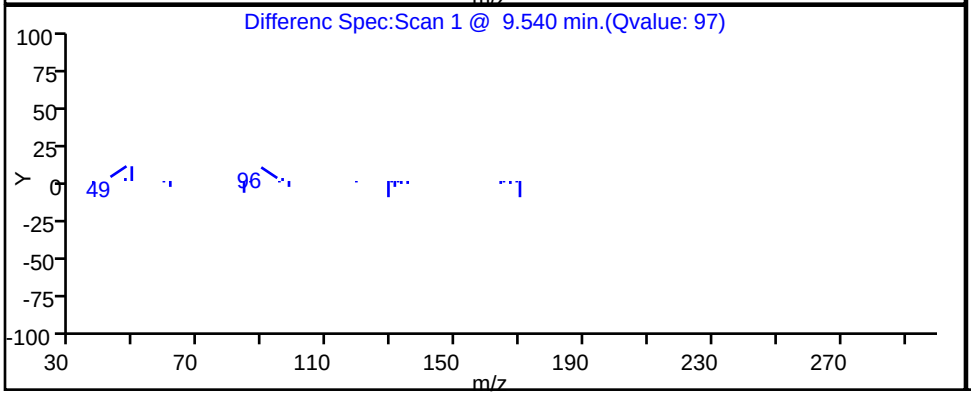
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309019.D		
Injection Date:	09-Mar-2015 19:20:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	40.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

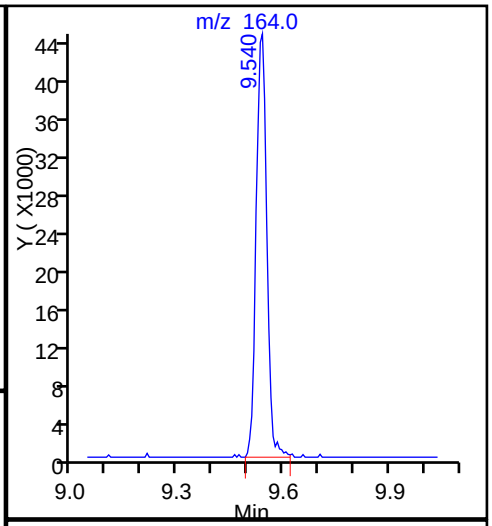
80 Tetrachloroethene, CAS: 127-18-4

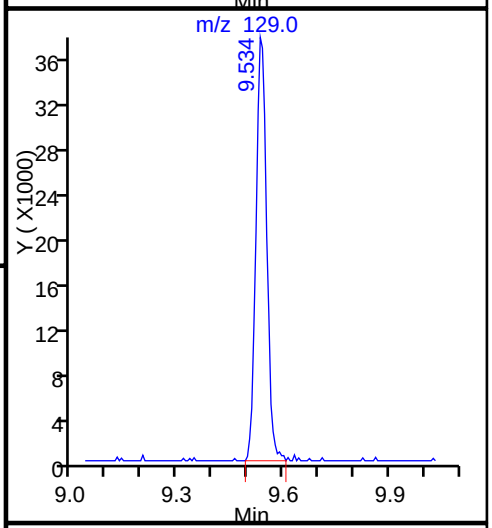


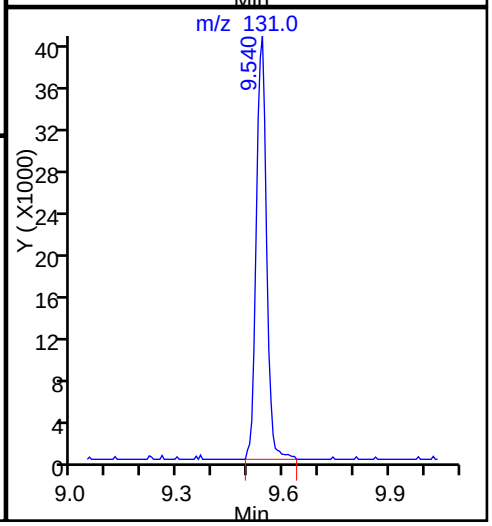












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 DL | Lab Sample ID: 180-41569-3 DL

Matrix: Water | Lab File ID: 50310012.D

Analysis Method: 8260C | Date Collected: 02/26/2015 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 16:12

Soil Aliquot Vol: | Dilution Factor: 400

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

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

Analysis Batch No.: 135153 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	400	U	400	110
75-01-4	Vinyl chloride	400	U	400	91
74-83-9	Bromomethane	400	U	400	130
75-00-3	Chloroethane	400	U	400	86
75-35-4	1,1-Dichloroethene	390	J	400	120
67-64-1	Acetone	2000	U	2000	1000
75-15-0	Carbon disulfide	400	U	400	85
75-09-2	Methylene Chloride	400	U	400	50
156-60-5	trans-1,2-Dichloroethene	400	U	400	68
1634-04-4	Methyl tert-butyl ether	400	U	400	73
75-34-3	1,1-Dichloroethane	780		400	47
156-59-2	cis-1,2-Dichloroethene	5900		400	95
74-97-5	Bromochloromethane	400	U	400	72
78-93-3	2-Butanone (MEK)	2000	U	2000	220
67-66-3	Chloroform	400	U	400	68
71-55-6	1,1,1-Trichloroethane	400	U	400	110
56-23-5	Carbon tetrachloride	400	U	400	55
71-43-2	Benzene	400	U	400	42
107-06-2	1,2-Dichloroethane	400	U	400	85
79-01-6	Trichloroethene	5700		400	57
78-87-5	1,2-Dichloropropane	400	U	400	38
75-27-4	Bromodichloromethane	400	U	400	52
10061-01-5	cis-1,3-Dichloropropene	400	U *	400	75
108-10-1	4-Methyl-2-pentanone (MIBK)	2000	U	2000	210
108-88-3	Toluene	400	U	400	60
10061-02-6	trans-1,3-Dichloropropene	400	U *	400	59
79-00-5	1,1,2-Trichloroethane	400	U	400	81
127-18-4	Tetrachloroethene	410		400	59
591-78-6	2-Hexanone	2000	U	2000	64
124-48-1	Dibromochloromethane	400	U	400	55
106-93-4	1,2-Dibromoethane (EDB)	400	U	400	72
108-90-7	Chlorobenzene	400	U	400	54
630-20-6	1,1,1,2-Tetrachloroethane	400	U	400	110
100-41-4	Ethylbenzene	400	U	400	91
1330-20-7	Xylenes, Total	1200	U	1200	200
100-42-5	Styrene	400	U	400	39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 DL Lab Sample ID: 180-41569-3 DL

Matrix: Water Lab File ID: 50310012.D

Analysis Method: 8260C Date Collected: 02/26/2015 11:35

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 16:12

Soil Aliquot Vol: Dilution Factor: 400

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*400*	*U*	*400*	*77*
79-34-5	*1,1,2,2-Tetrachloroethane*	*400*	*U*	*400*	*80*
107-13-1	*Acrylonitrile*	*8000*	*U*	*8000*	*220*
123-91-1	*1,4-Dioxane*	*80000*	*U*	*80000*	*14000*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D
Lims ID: 180-41569-E-3 Lab Sample ID: 180-41569-3
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 10-Mar-2015 16:12:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 400.0000
Sample Info: 180-41569-E-3, 400x
Misc. Info.: 180-0005958-012
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:34:26 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:34:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.296	4.296	0.000	82	76142	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	392601	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.367	0.000	99	92520	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	99	143202	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.529	-0.001	53	83351	49.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	98	105730	50.9	
$ 7 Toluene-d8 (Surr)	98	8.925	8.926	-0.001	100	367024	50.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	95	136768	51.0	
12 Chloromethane	50		1.771				ND	
13 Vinyl chloride	62		1.899				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.377	3.371	0.006	98	11172	4.89	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.552				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.184	5.166	0.018	99	44540	9.78	
45 cis-1,2-Dichloroethene	96	5.944	5.933	0.012	76	189095	74.0	
46 2-Butanone (MEK)	43		5.981				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.979				ND	
64 Trichloroethene	130	7.666	7.660	0.006	98	167456	71.7	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.196				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.540	9.540	0.000	94	9095	5.16	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

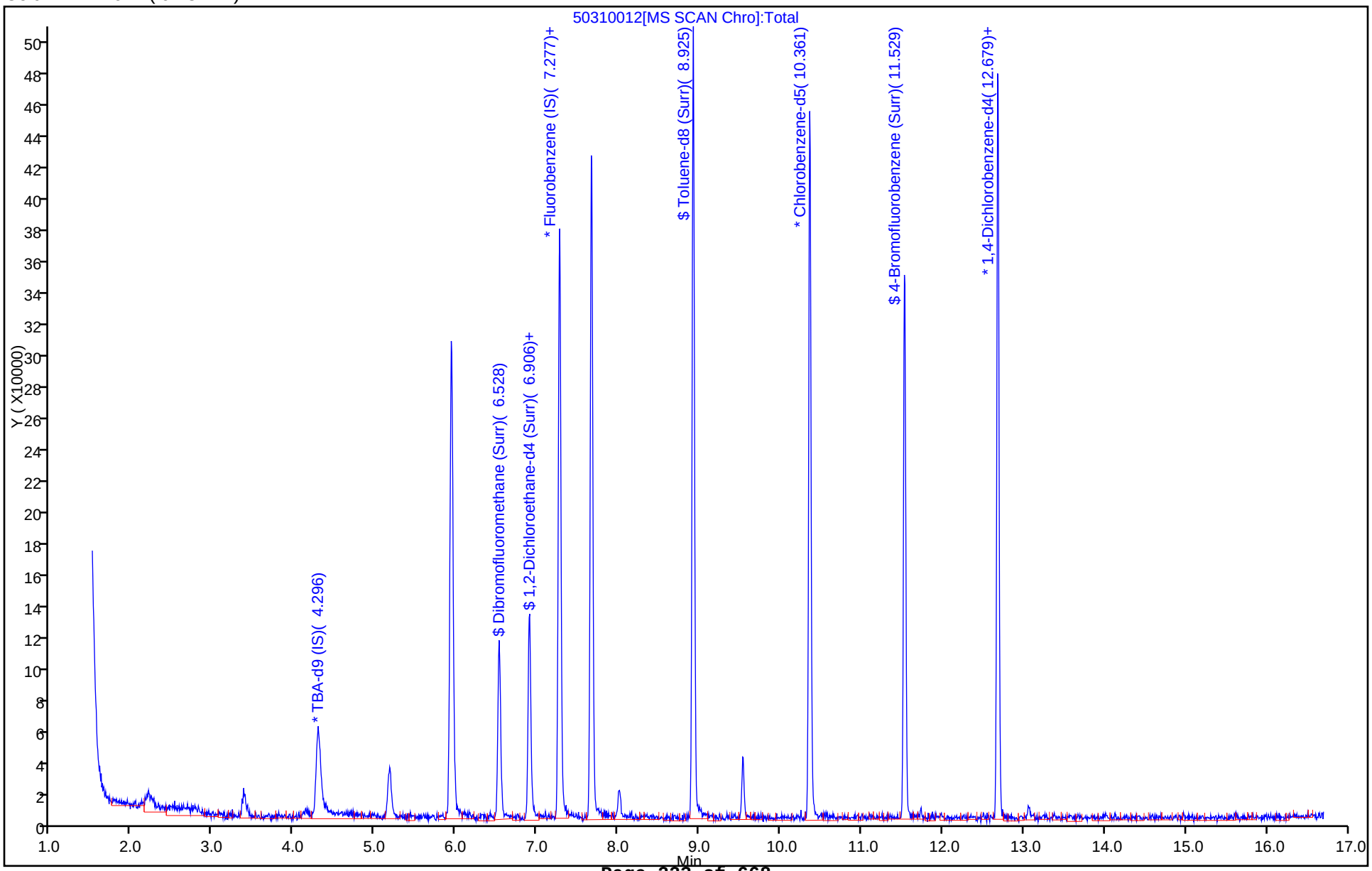
Report Date: 11-Mar-2015 07:34:26 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D

Injection Date:	10-Mar-2015 16:12:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-E-3	Lab Sample ID:	180-41569-3	Worklist Smp#:	12
Client ID:	HD-MW-50D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	400.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



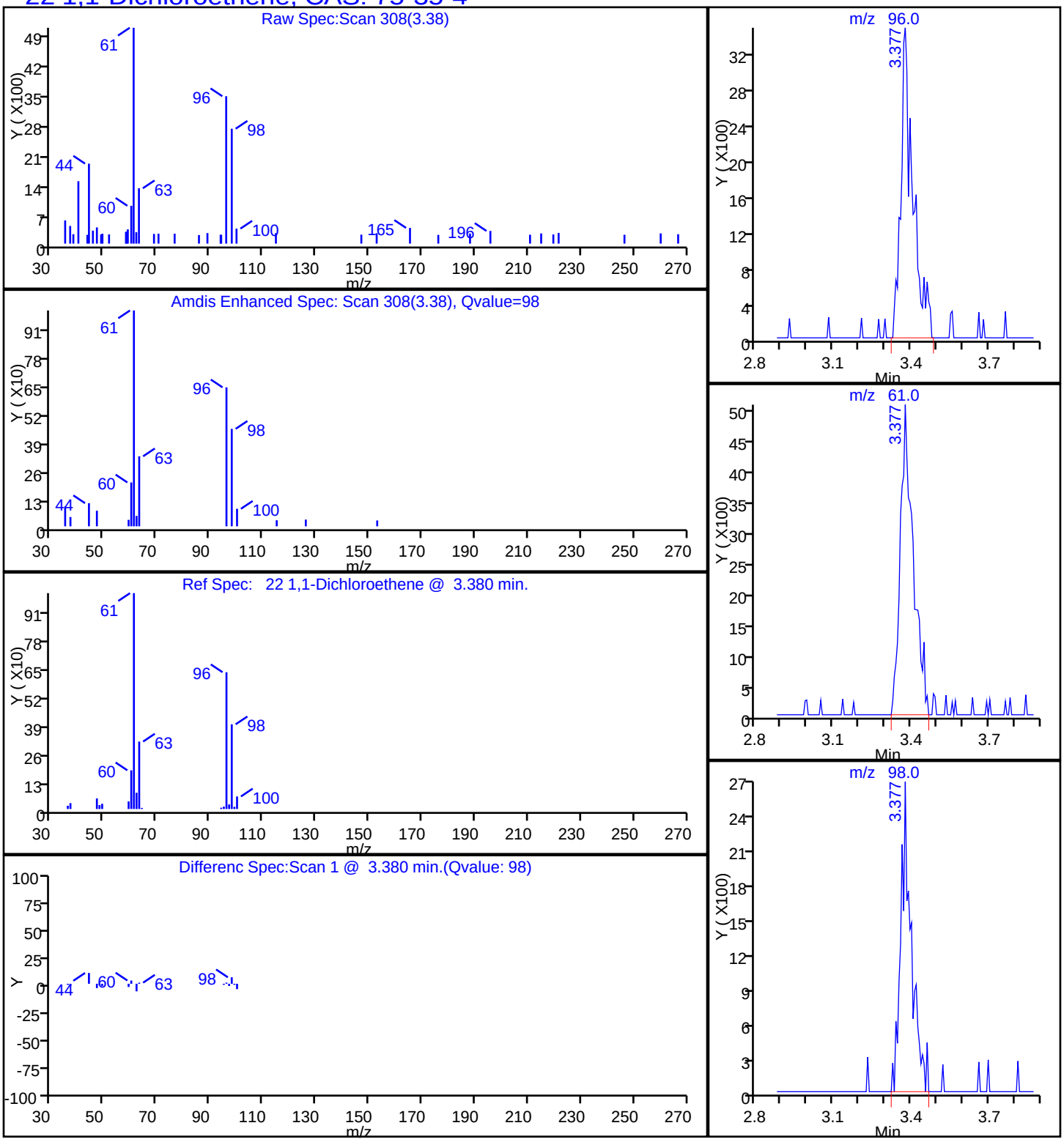
Report Date: 11-Mar-2015 07:34:26 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D

Injection Date:	10-Mar-2015 16:12:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



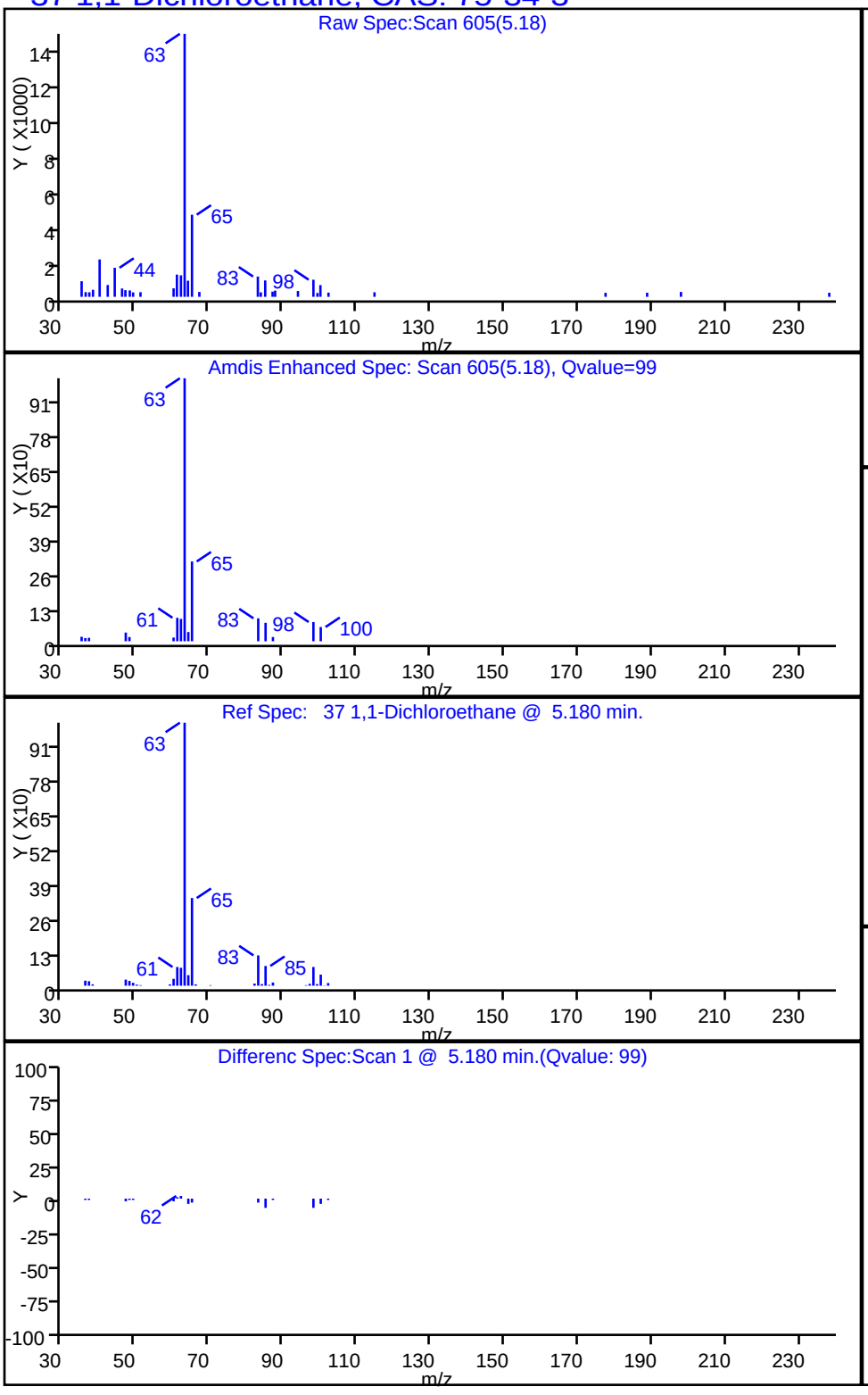
Report Date: 11-Mar-2015 07:34:26 Chrom Revision: 2.2 15-Jan-2015 13:05:58

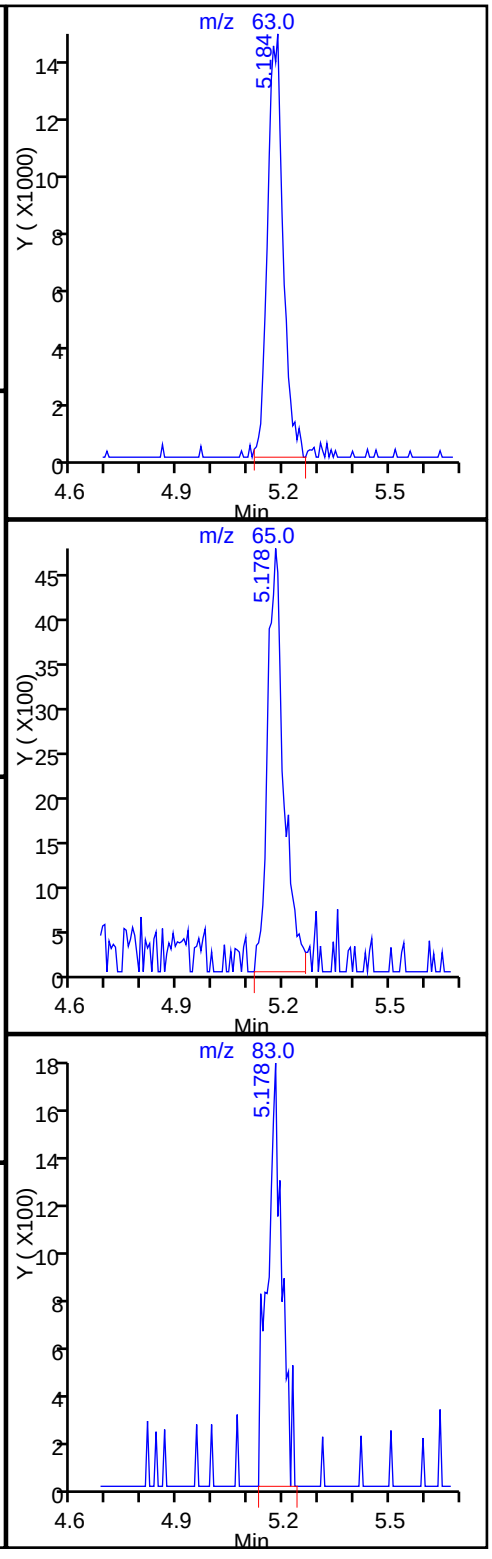
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D

Injection Date:	10-Mar-2015 16:12:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3





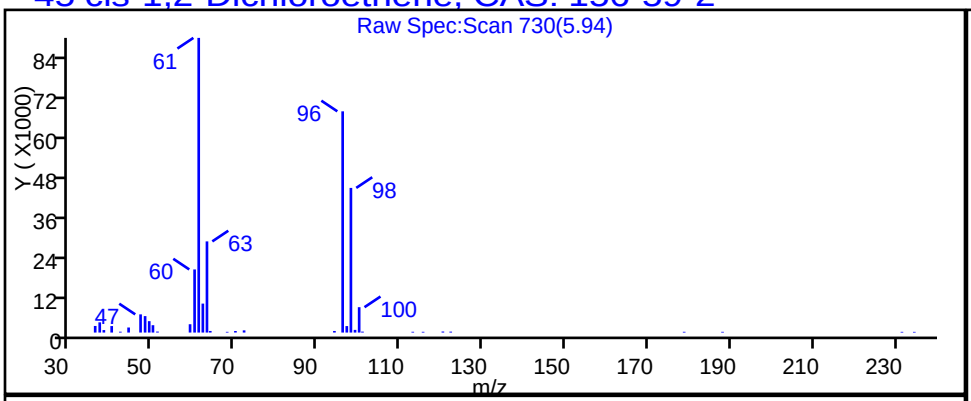
Report Date: 11-Mar-2015 07:34:26 Chrom Revision: 2.2 15-Jan-2015 13:05:58

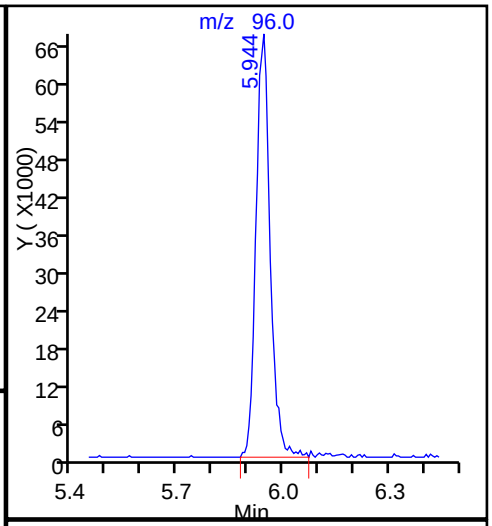
TestAmerica Pittsburgh

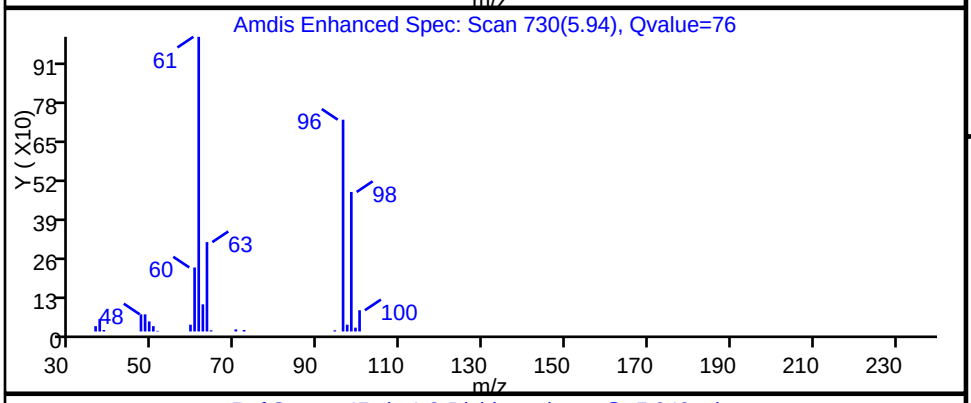
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D

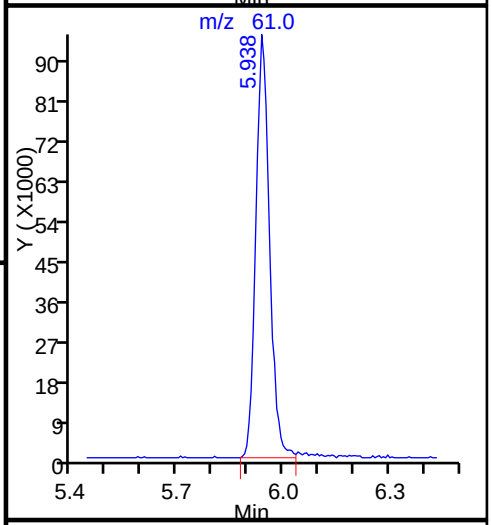
Injection Date:	10-Mar-2015 16:12:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

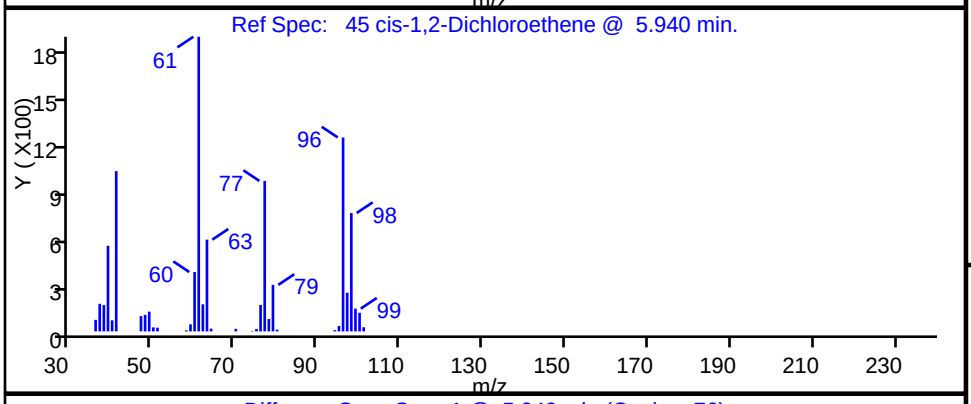
45 cis-1,2-Dichloroethene, CAS: 156-59-2

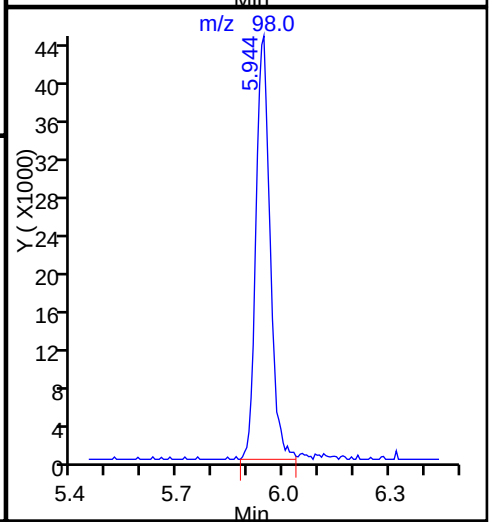


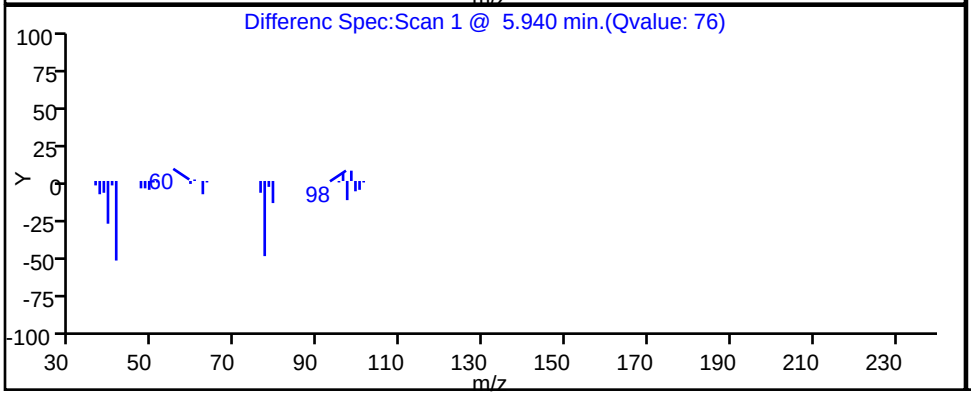










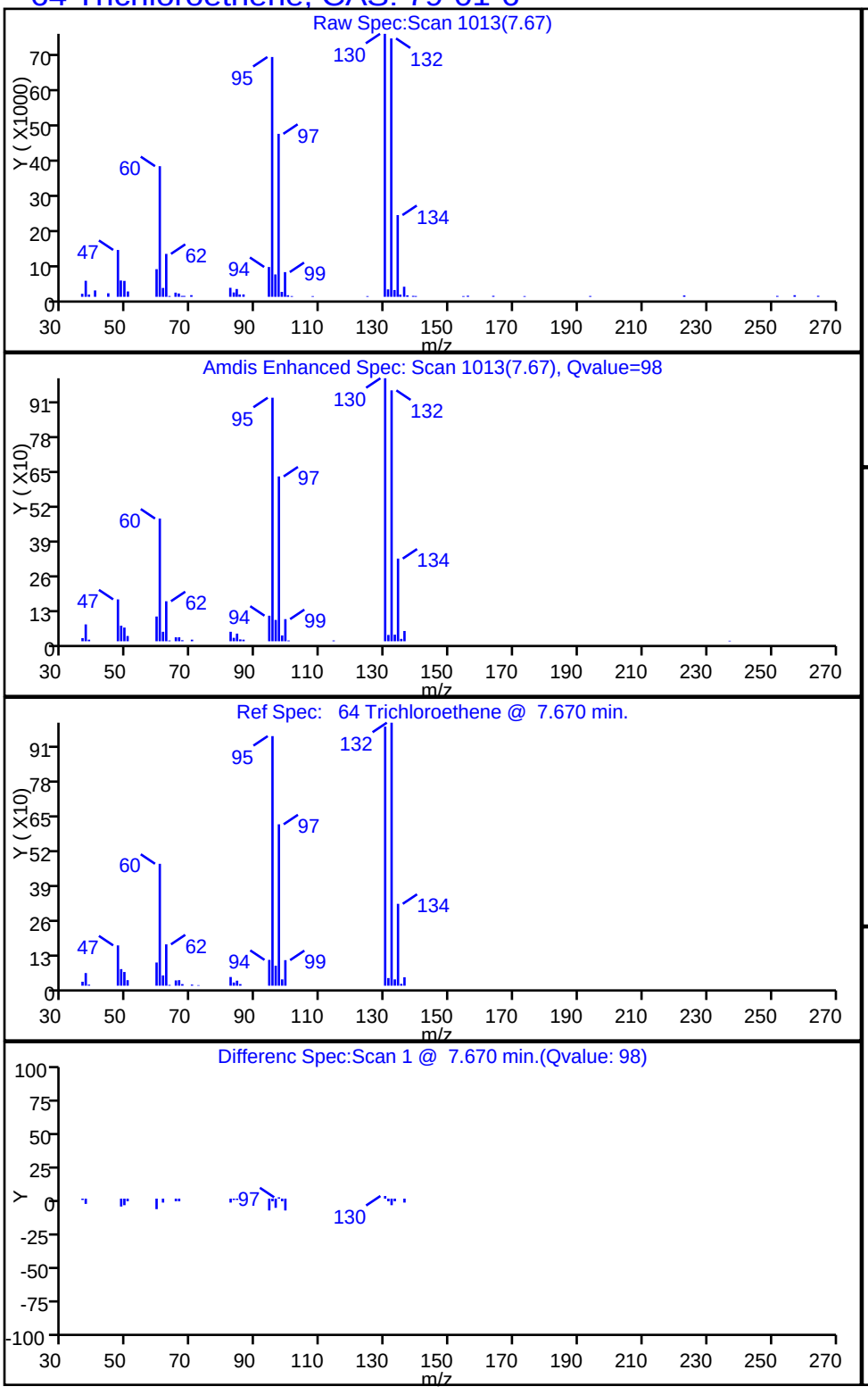


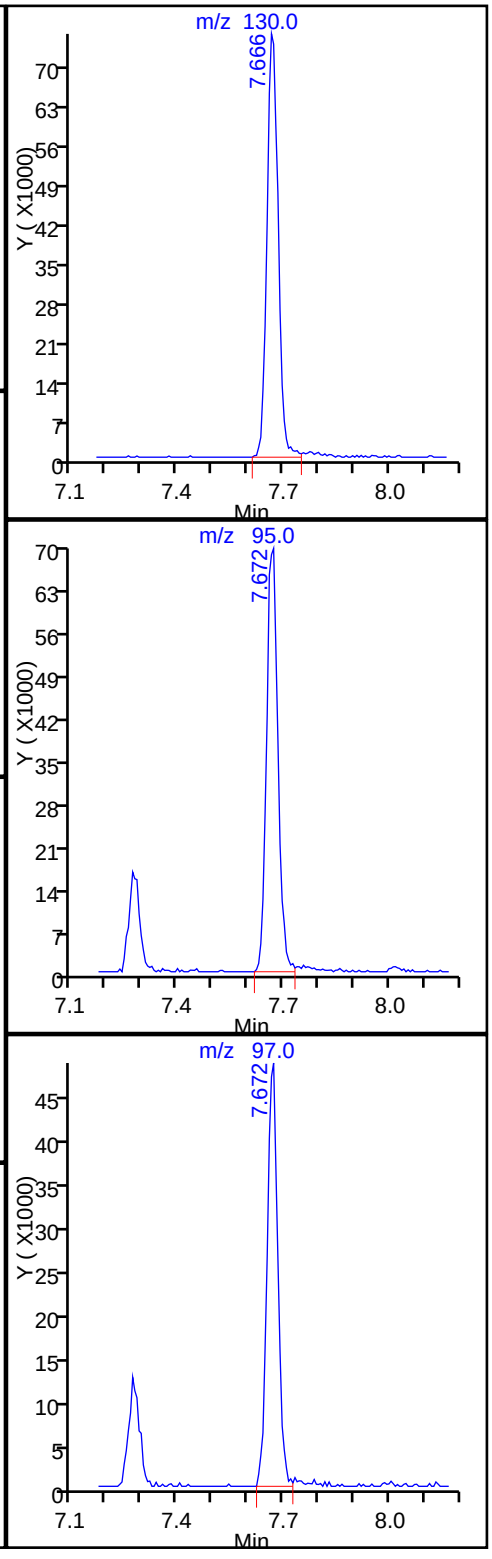
Report Date: 11-Mar-2015 07:34:26 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D		
Injection Date:	10-Mar-2015 16:12:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



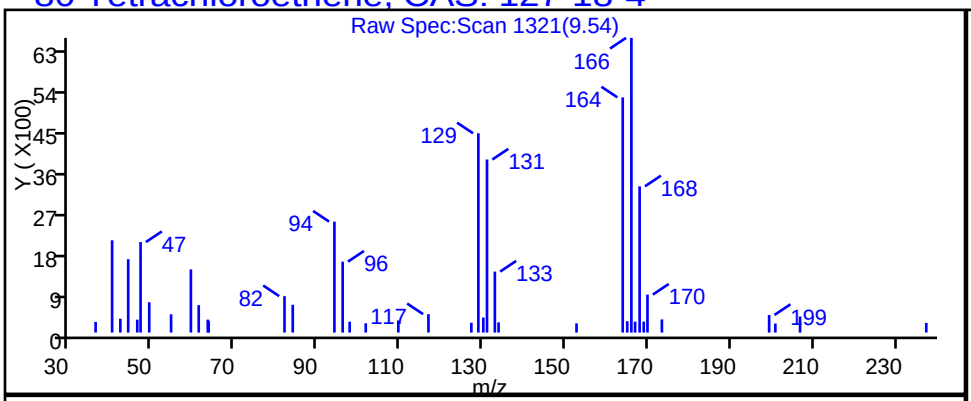


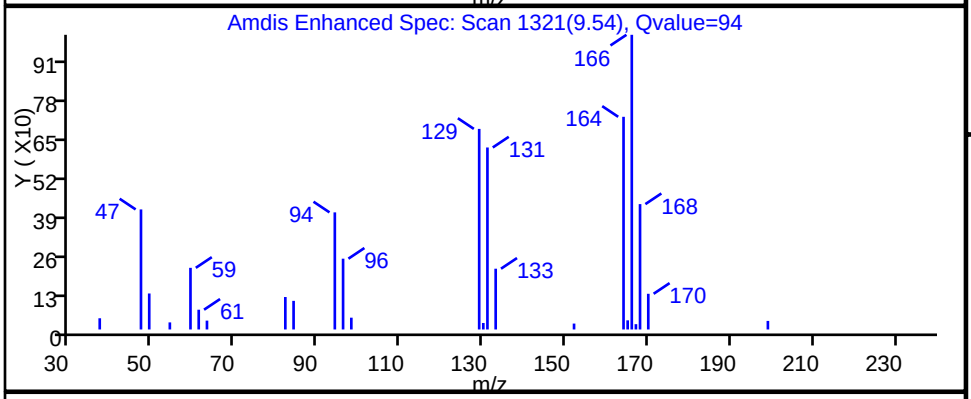
Report Date: 11-Mar-2015 07:34:26 Chrom Revision: 2.2 15-Jan-2015 13:05:58

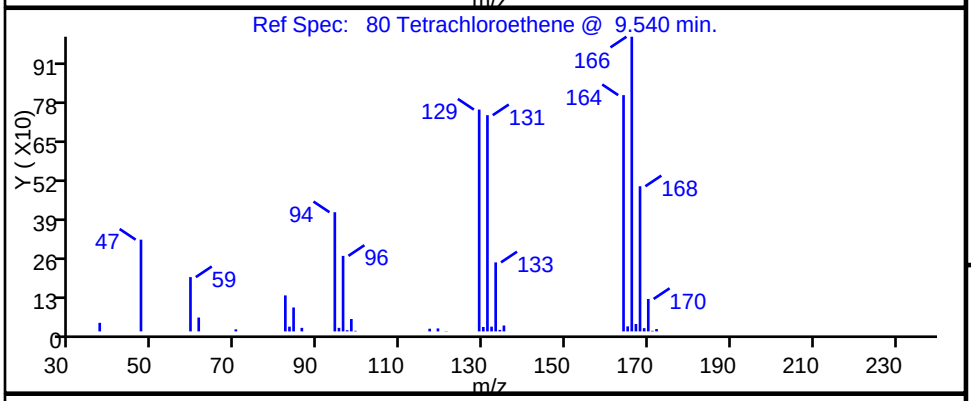
TestAmerica Pittsburgh

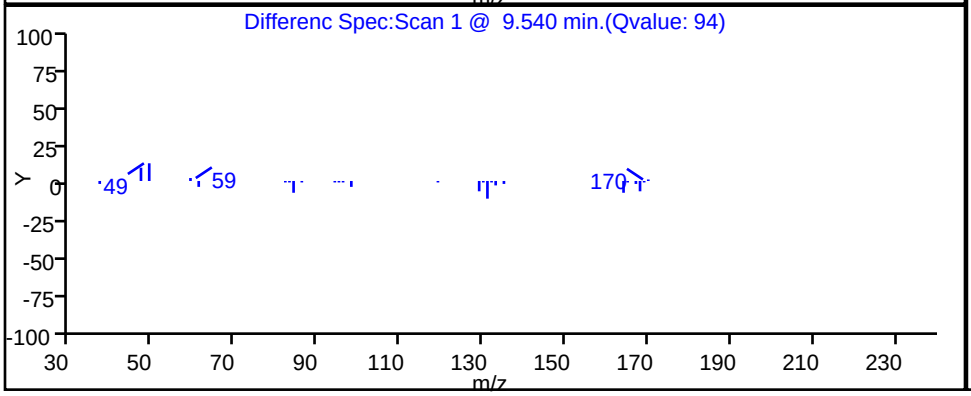
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310012.D		
Injection Date:	10-Mar-2015 16:12:30	Instrument ID:	CHHP5
Lims ID:	180-41569-E-3	Lab Sample ID:	180-41569-3
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

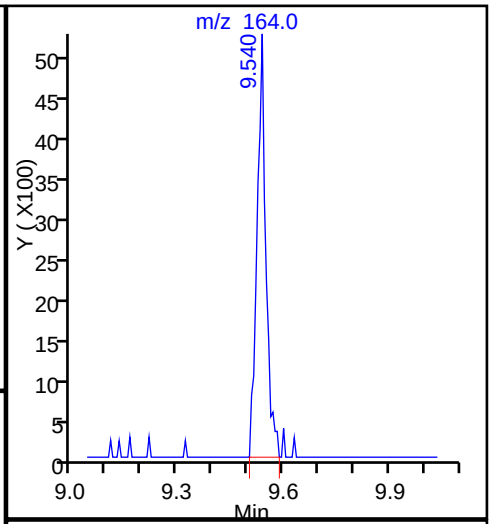
80 Tetrachloroethene, CAS: 127-18-4

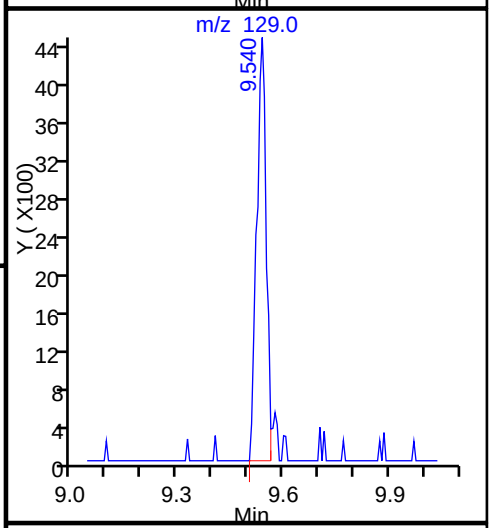


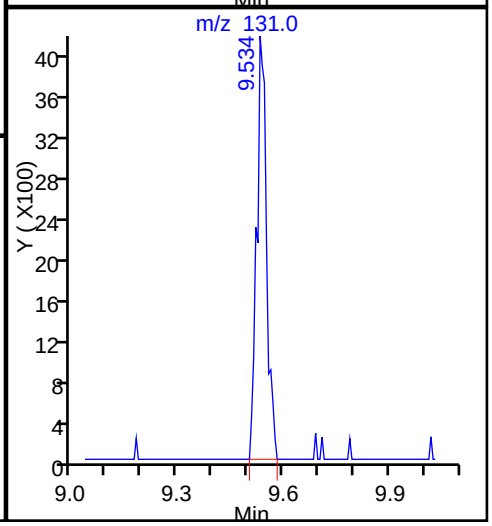












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 | Lab Sample ID: 180-41569-4

Matrix: Water | Lab File ID: 50309021.D

Analysis Method: 8260C | Date Collected: 02/26/2015 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 03/09/2015 20:09

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 135049 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	14
75-01-4	Vinyl chloride	50	U	50	11
74-83-9	Bromomethane	50	U	50	16
75-00-3	Chloroethane	50	U	50	11
75-35-4	1,1-Dichloroethene	59		50	15
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	50	U	50	6.3
156-60-5	trans-1,2-Dichloroethene	50	U	50	8.5
1634-04-4	Methyl tert-butyl ether	50	U	50	9.2
75-34-3	1,1-Dichloroethane	16	J	50	5.8
156-59-2	cis-1,2-Dichloroethene	820		50	12
74-97-5	Bromochloromethane	50	U	50	9.0
78-93-3	2-Butanone (MEK)	250	U	250	27
67-66-3	Chloroform	50	U	50	8.5
71-55-6	1,1,1-Trichloroethane	130		50	14
56-23-5	Carbon tetrachloride	50	U	50	6.8
71-43-2	Benzene	50	U	50	5.3
107-06-2	1,2-Dichloroethane	50	U	50	11
79-01-6	Trichloroethene	860		50	7.2
78-87-5	1,2-Dichloropropane	50	U	50	4.7
75-27-4	Bromodichloromethane	50	U	50	6.5
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	26
108-88-3	Toluene	50	U	50	7.5
10061-02-6	trans-1,3-Dichloropropene	50	U *	50	7.4
79-00-5	1,1,2-Trichloroethane	50	U	50	10
127-18-4	Tetrachloroethene	520		50	7.4
591-78-6	2-Hexanone	250	U	250	8.0
124-48-1	Dibromochloromethane	50	U	50	6.8
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	9.0
108-90-7	Chlorobenzene	50	U	50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	14
100-41-4	Ethylbenzene	50	U	50	11
1330-20-7	Xylenes, Total	150	U	150	24
100-42-5	Styrene	50	U	50	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-41569-4

Matrix: Water Lab File ID: 50309021.D

Analysis Method: 8260C Date Collected: 02/26/2015 13:25

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 20:09

Soil Aliquot Vol: Dilution Factor: 50

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	50	U	50	9.6
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	10
107-13-1	Acrylonitrile	1000	U	1000	27
123-91-1	1,4-Dioxane	10000	U	10000	1700

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D
Lims ID: 180-41569-D-4 Lab Sample ID: 180-41569-4
Client ID: HD-MW-51S-0/1-0
Sample Type: Client
Inject. Date: 09-Mar-2015 20:09:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-41569-D-4, 50x
Misc. Info.: 180-0005947-021
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 09:18:06 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 09:18:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.327	-0.022	83	70638	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	99	387258	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.362	0.002	99	87413	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.685	-0.003	99	143046	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.529	0.002	69	81558	49.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.908	6.906	0.002	99	104505	51.0	
$ 7 Toluene-d8 (Surr)	98	8.928	8.926	0.002	99	354427	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.530	0.002	98	134702	53.1	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.386	3.384	0.002	98	13386	5.94	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.601				ND	
37 1,1-Dichloroethane	63	5.175	5.172	0.003	33	7380	1.64	
45 cis-1,2-Dichloroethene	96	5.941	5.939	0.002	75	205892	81.7	
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.349	6.340	0.009	1	901	0.2516	
53 1,1,1-Trichloroethane	97	6.537	6.529	0.008	69	32314	13.3	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.669	7.667	0.002	99	197895	85.9	
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.543	9.540	0.003	99	86120	51.7	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

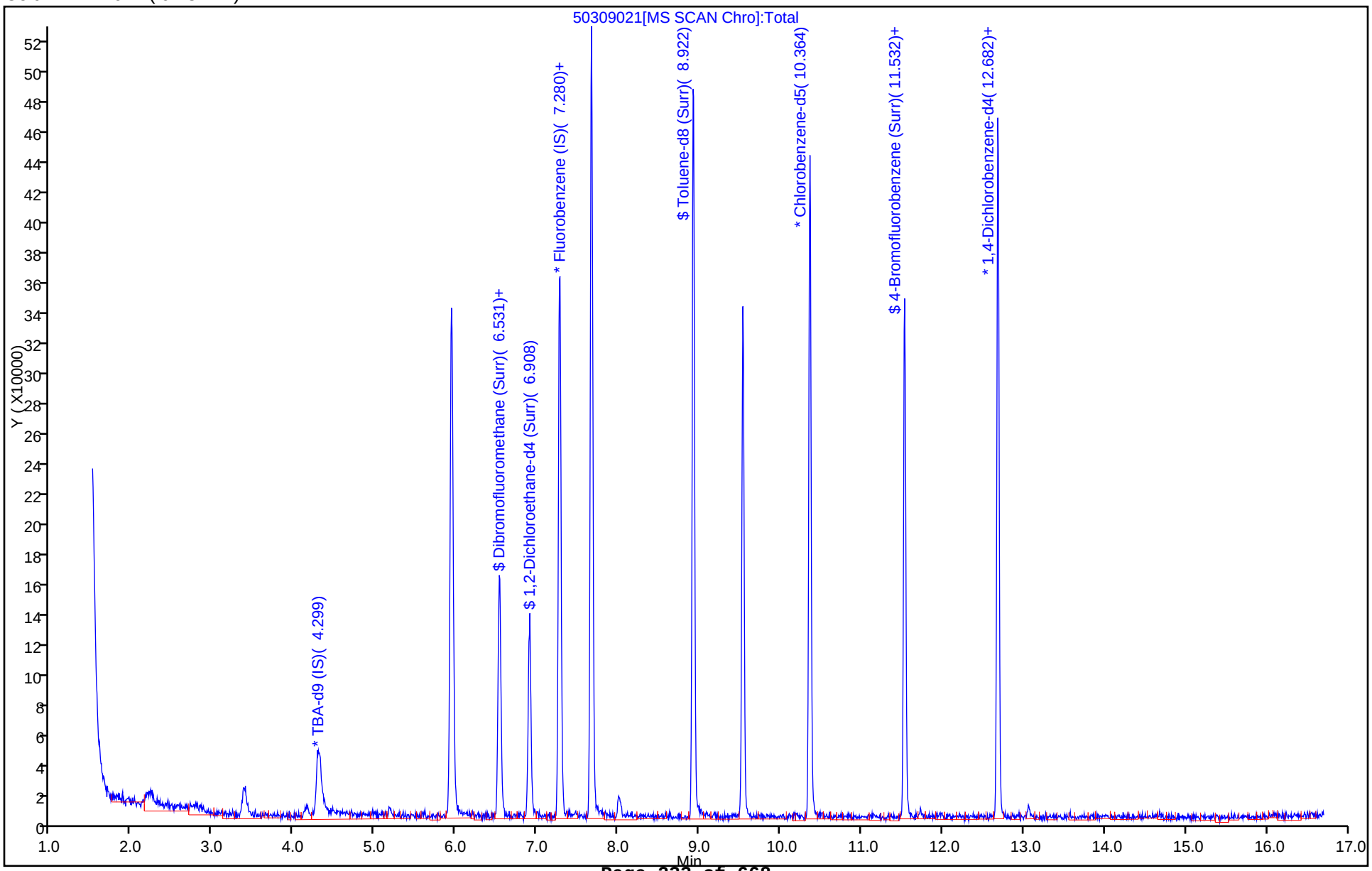
Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D

Injection Date:	09-Mar-2015 20:09:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4	Worklist Smp#:	21
Client ID:	HD-MW-51S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

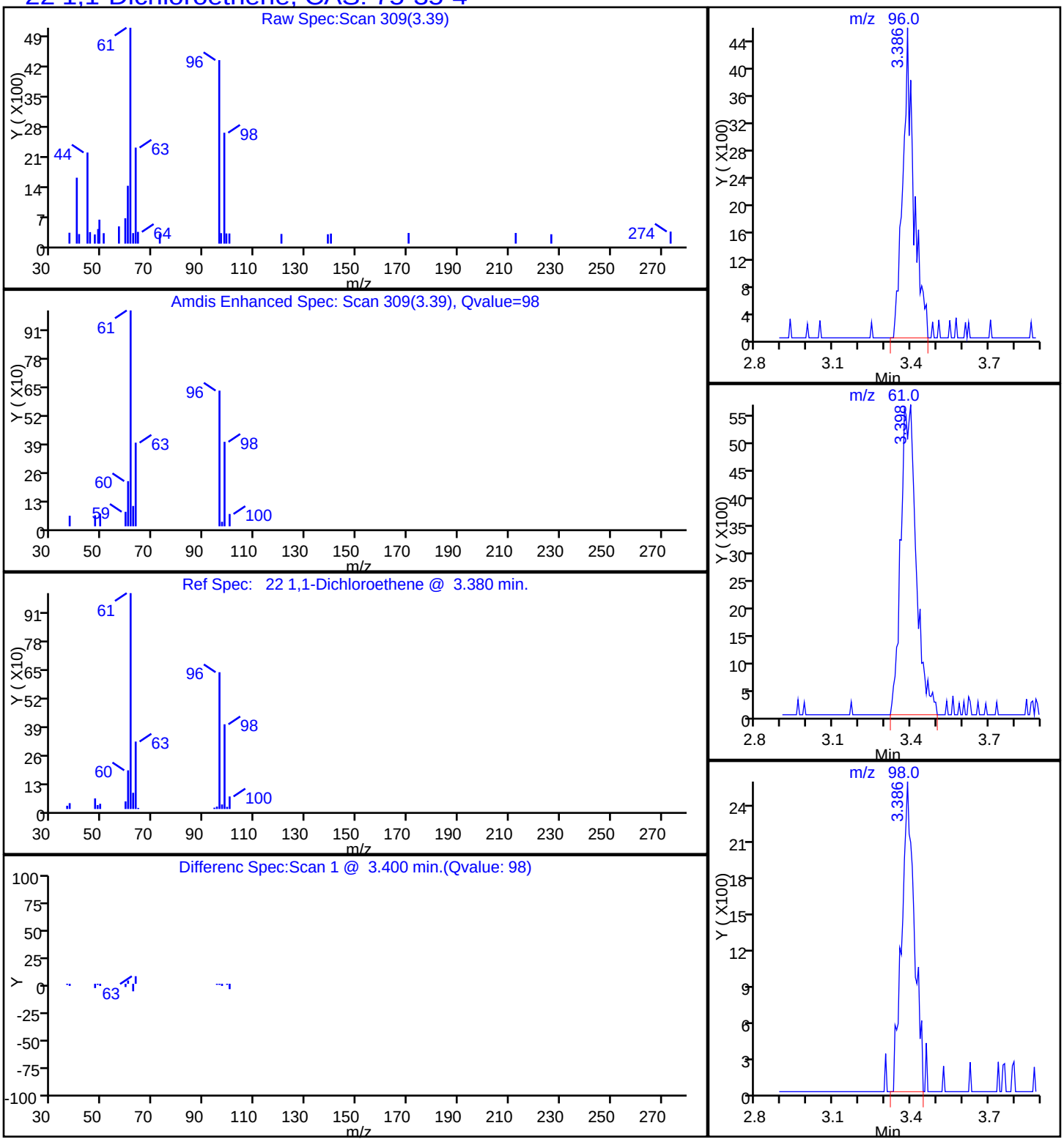


Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D		
Injection Date:	09-Mar-2015 20:09:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



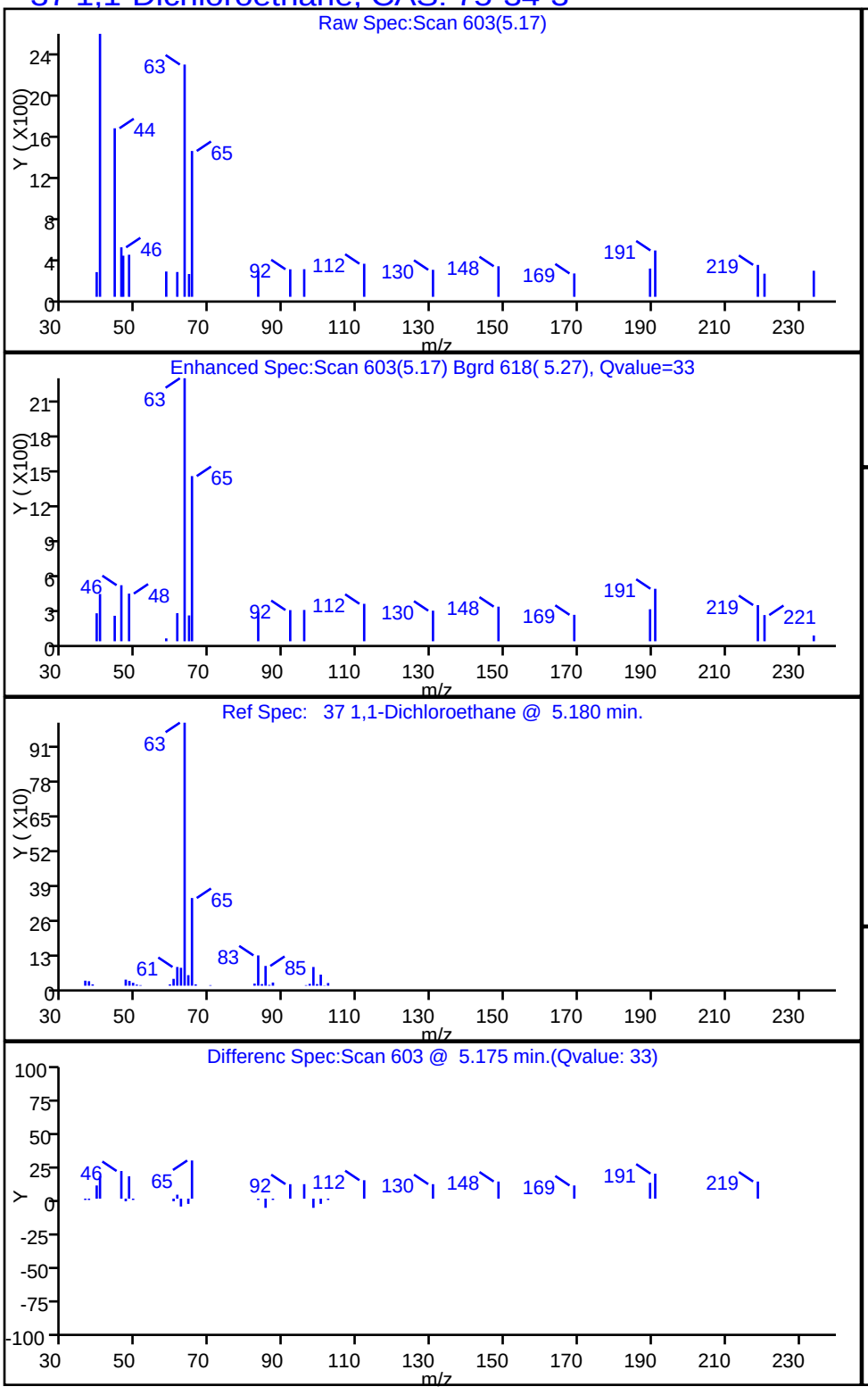
Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

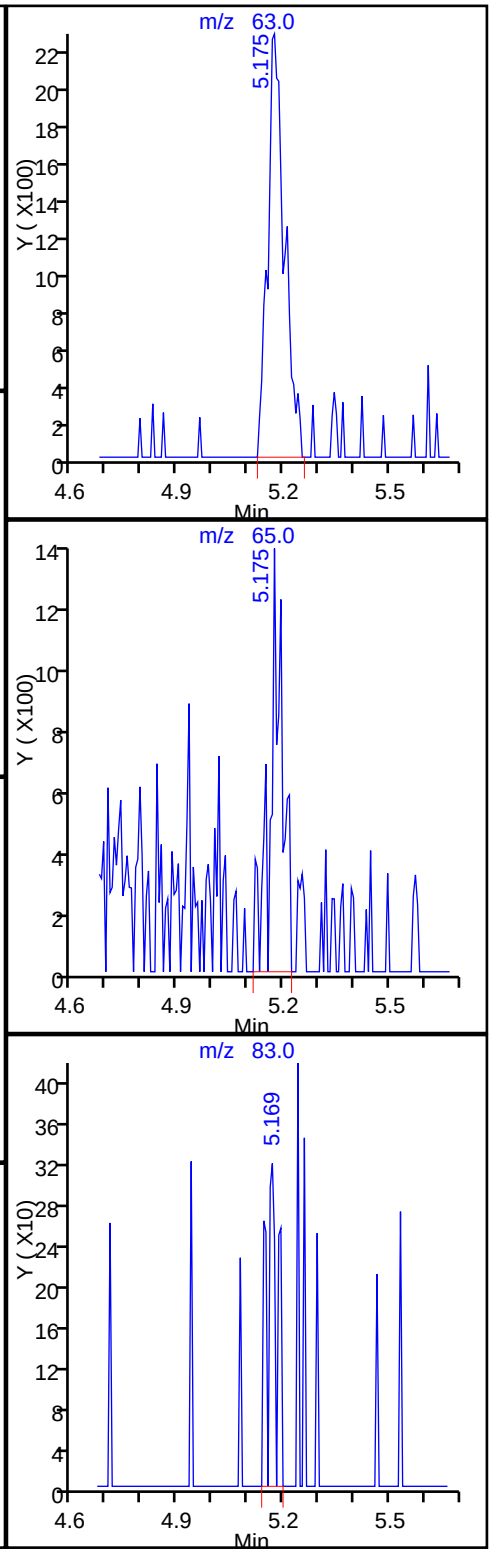
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D

Injection Date:	09-Mar-2015 20:09:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



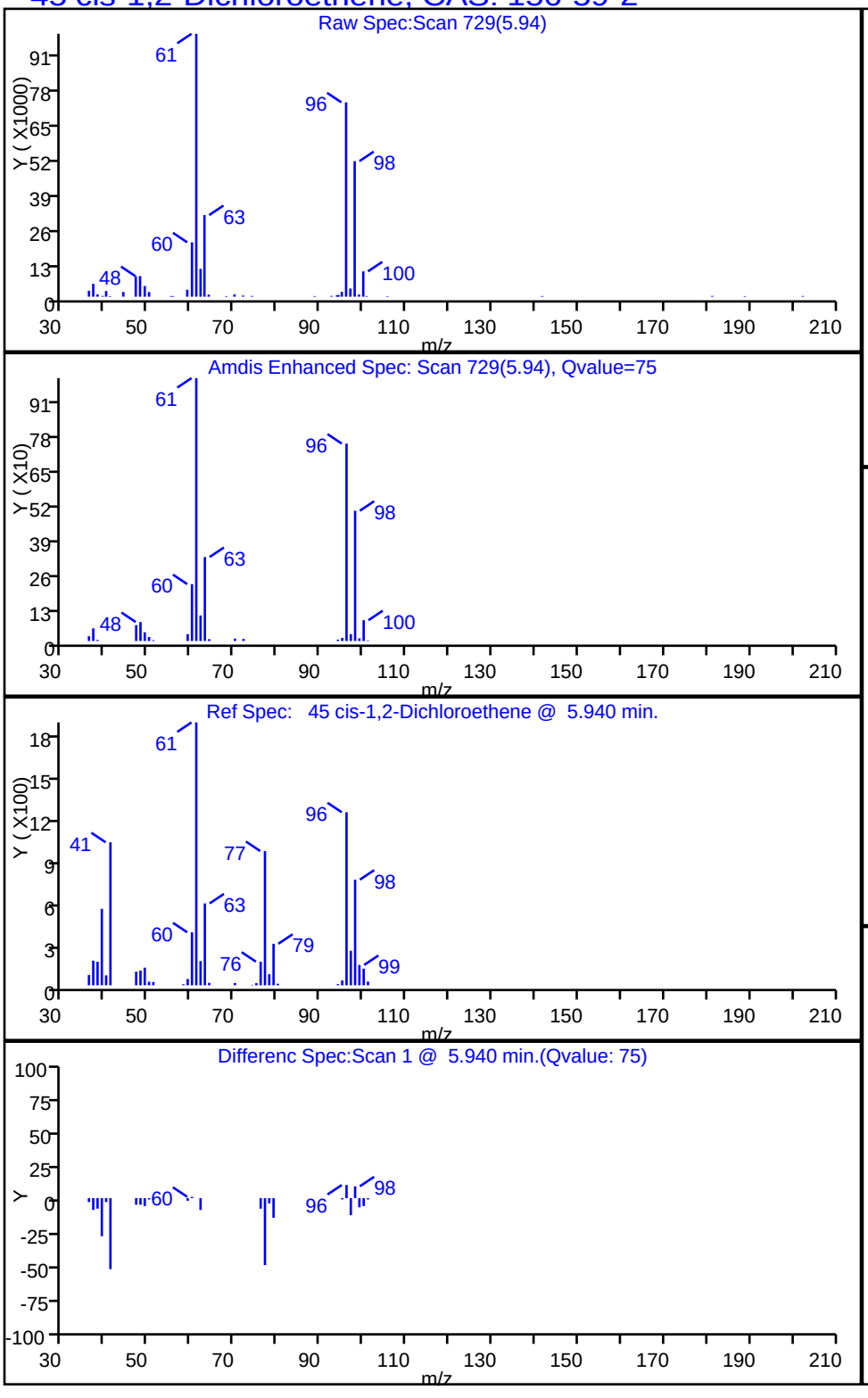


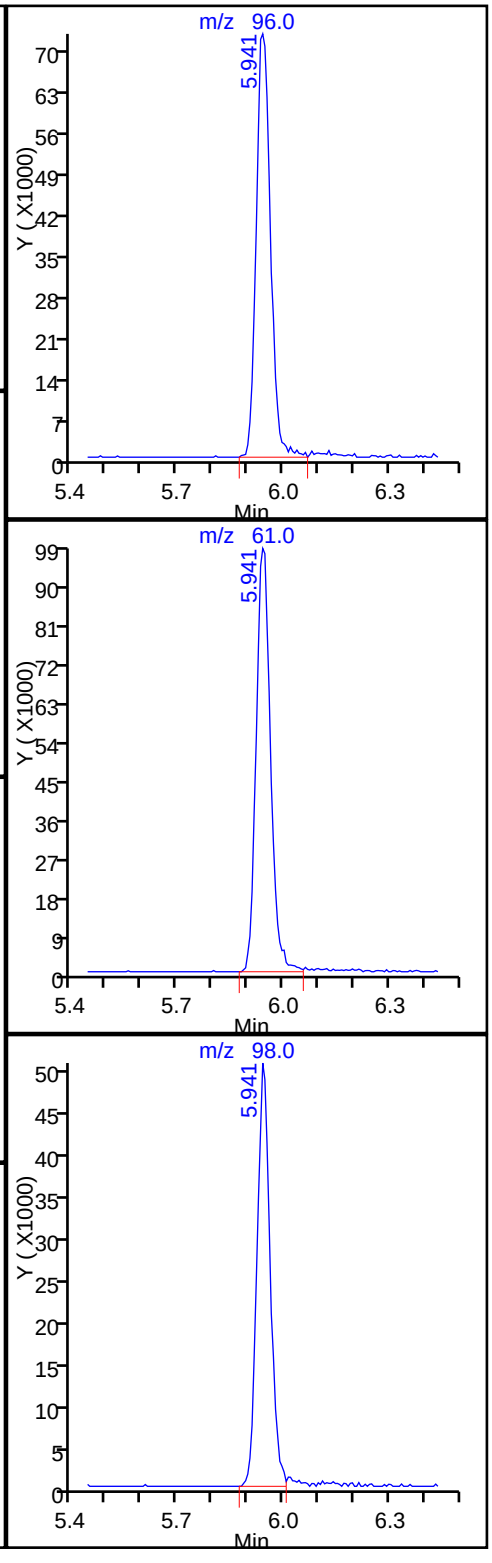
Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D				
Injection Date:	09-Mar-2015 20:09:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



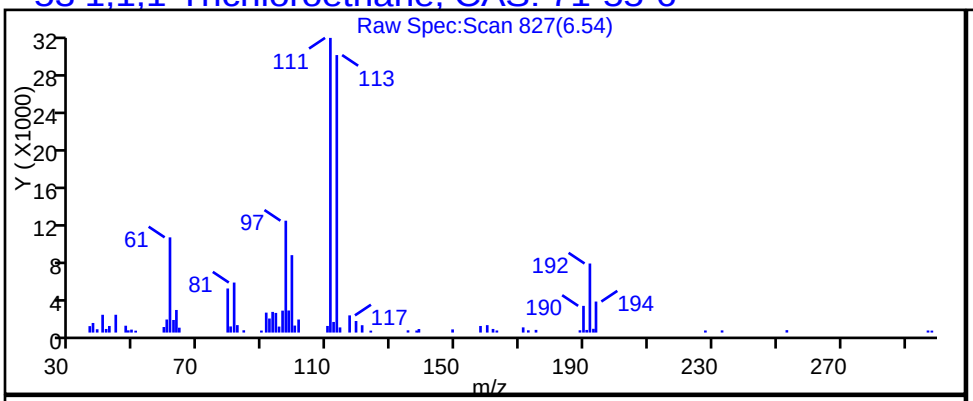


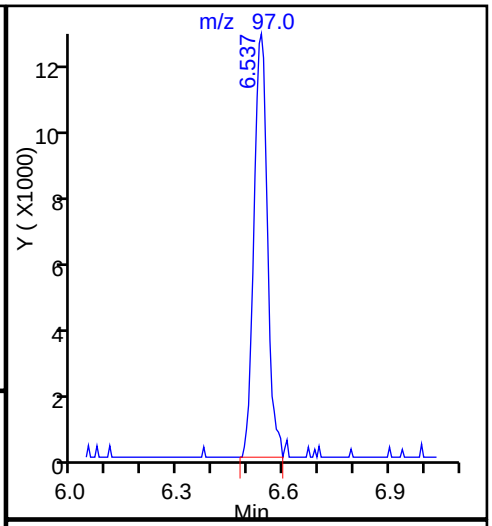
Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

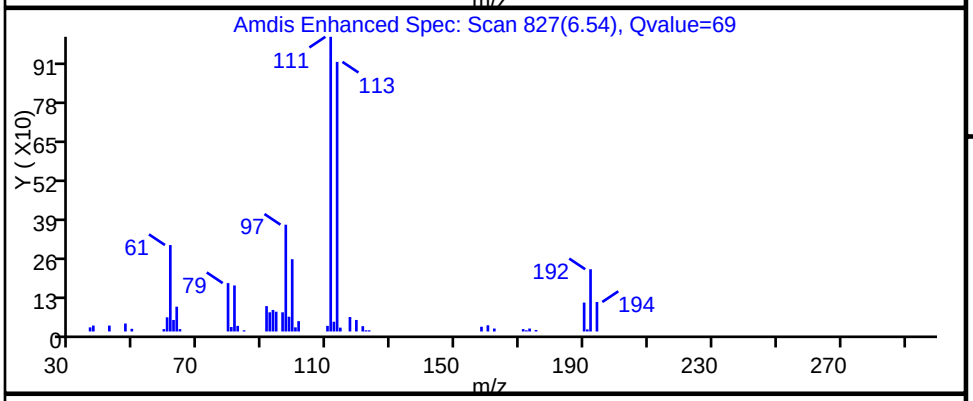
TestAmerica Pittsburgh

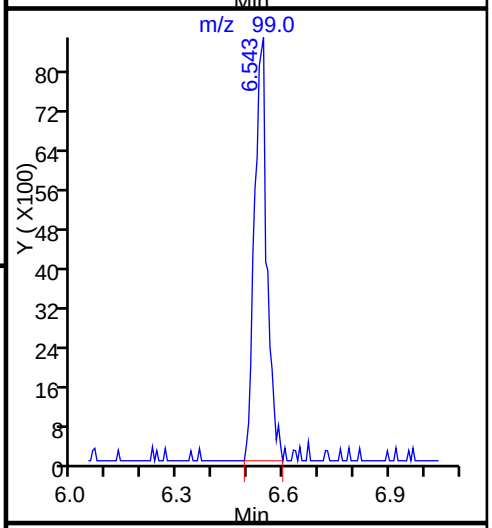
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D				
Injection Date:	09-Mar-2015 20:09:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

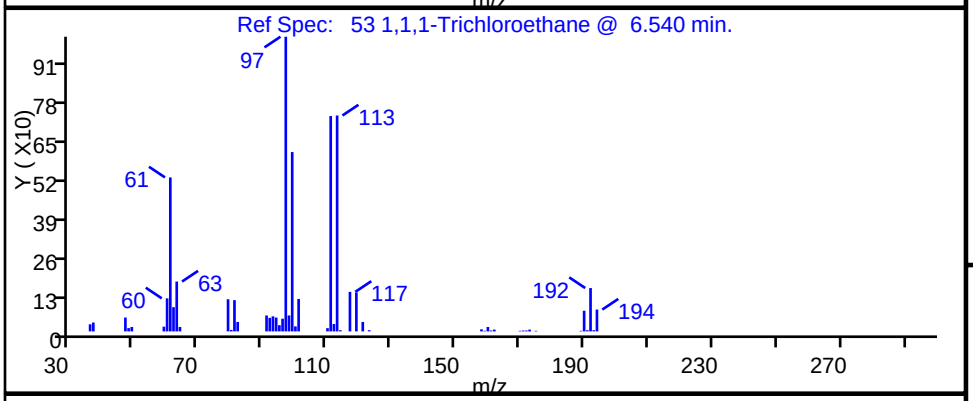
53 1,1,1-Trichloroethane, CAS: 71-55-6

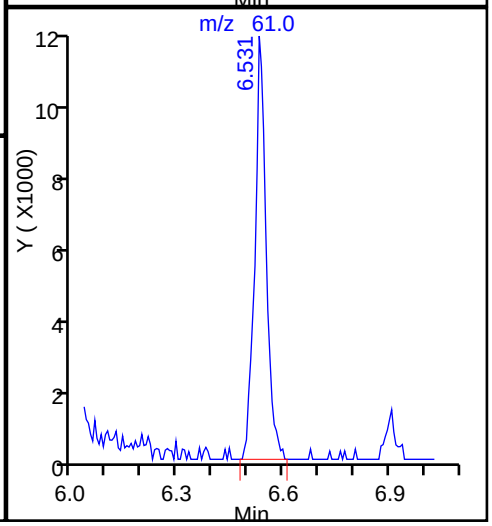


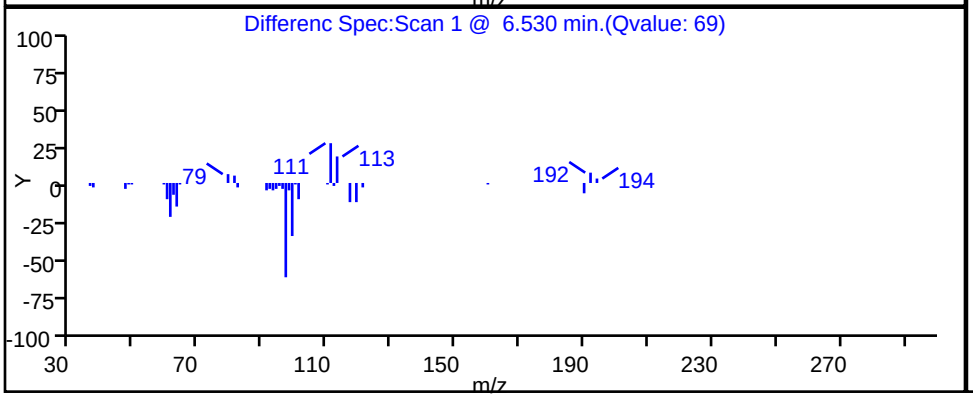












Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D		
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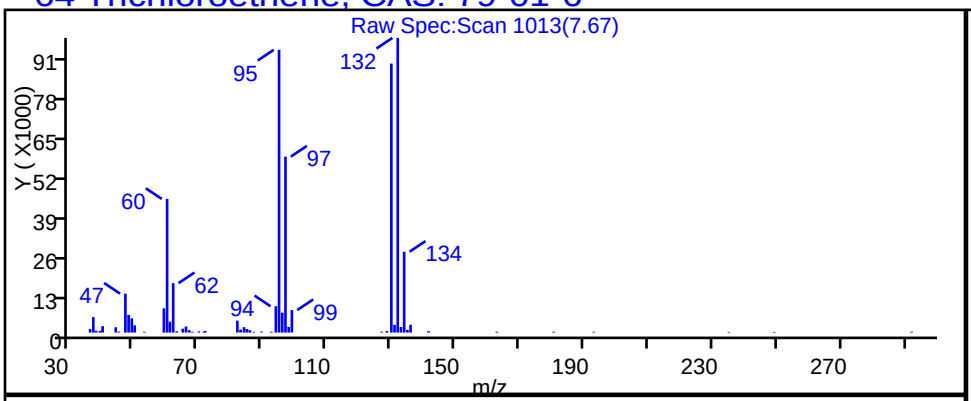
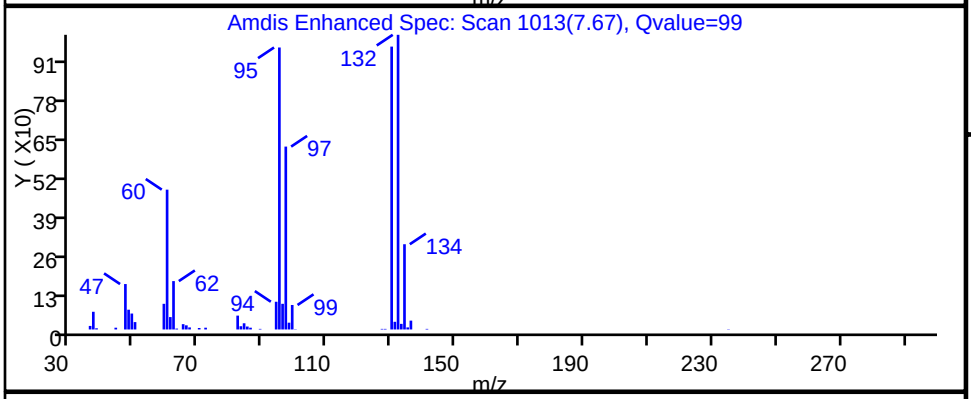
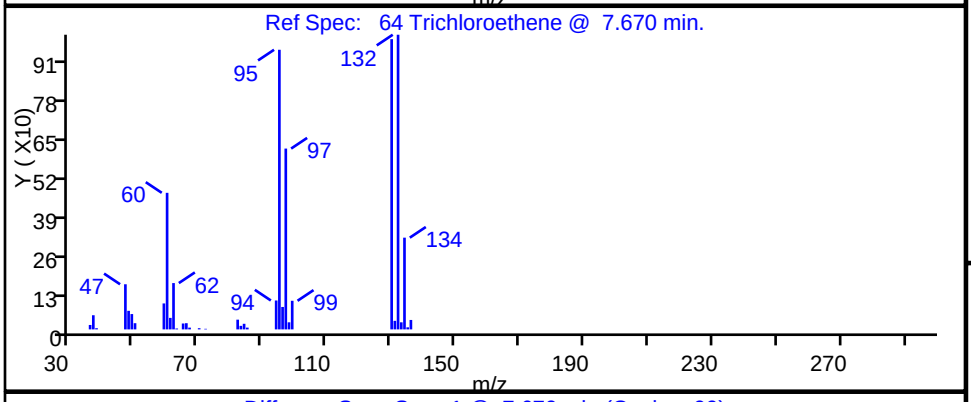
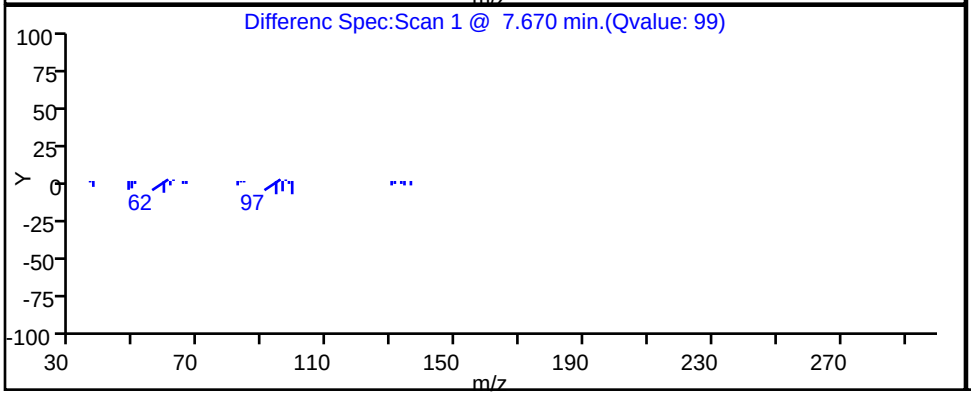
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

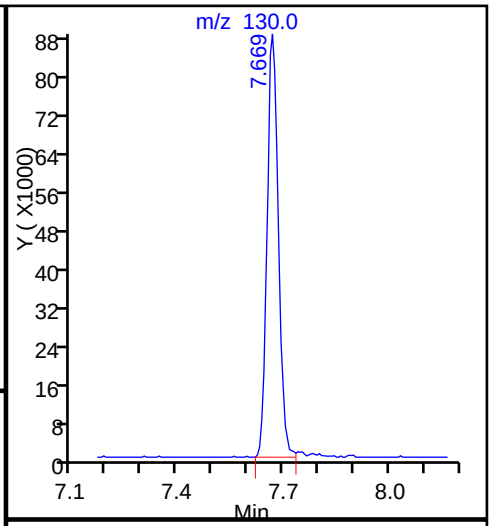
64 Trichloroethene, CAS: 79-01-6

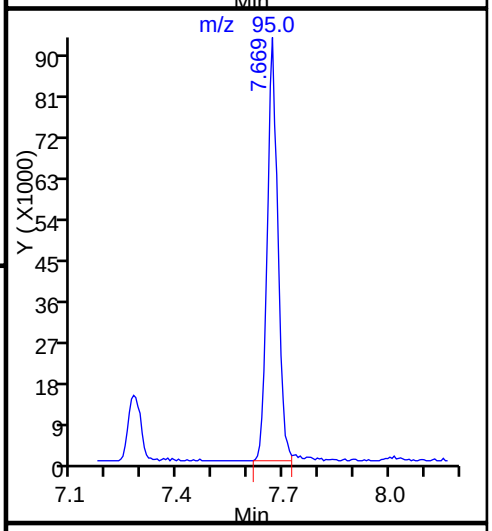


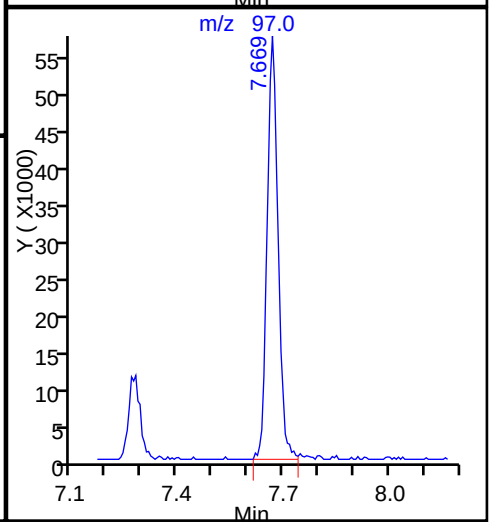










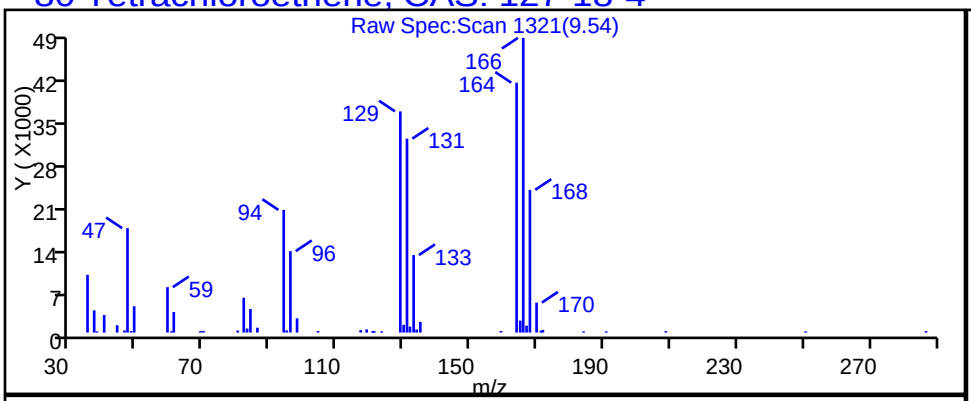


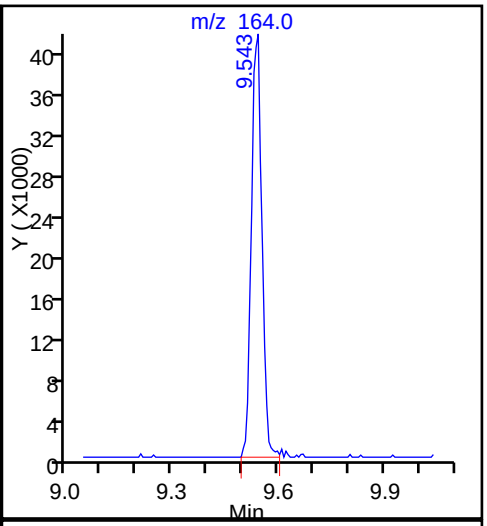
Report Date: 10-Mar-2015 09:18:07 Chrom Revision: 2.2 15-Jan-2015 13:05:58

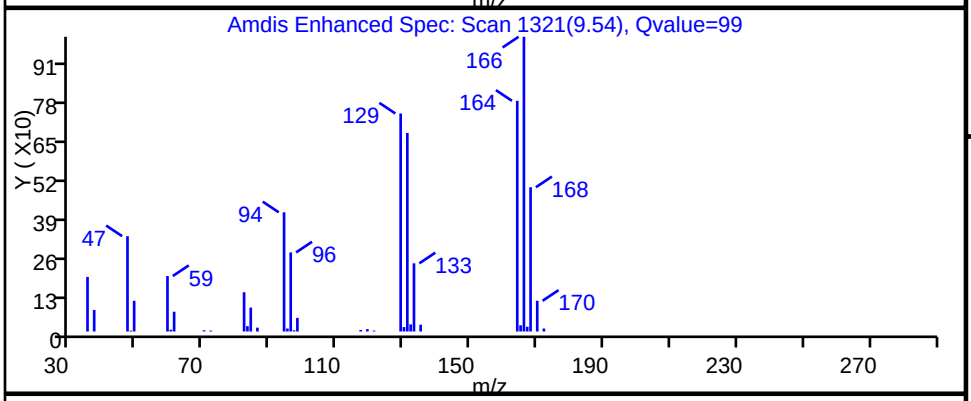
TestAmerica Pittsburgh

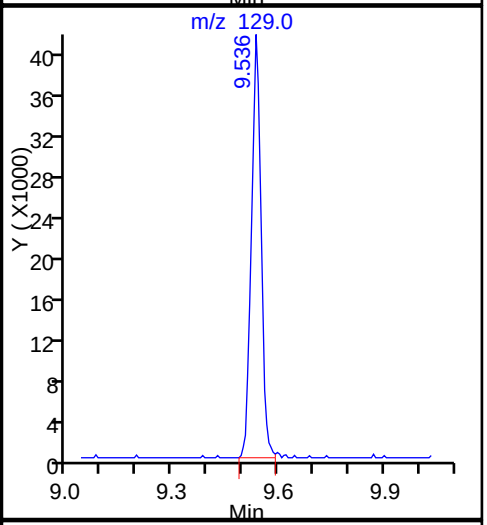
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309021.D		
Injection Date:	09-Mar-2015 20:09:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-4	Lab Sample ID:	180-41569-4
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

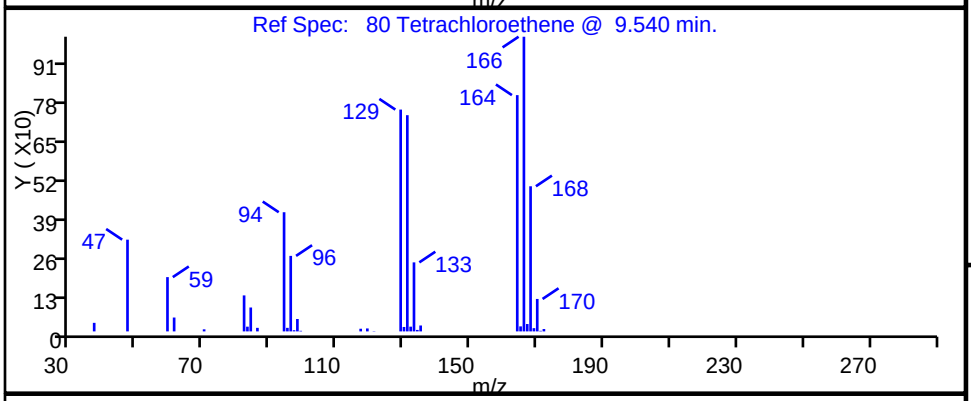
80 Tetrachloroethene, CAS: 127-18-4

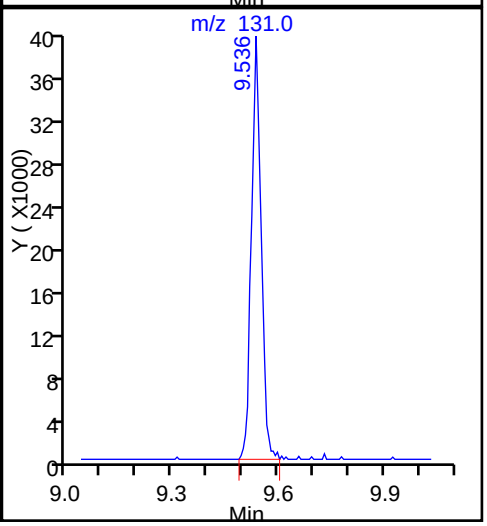


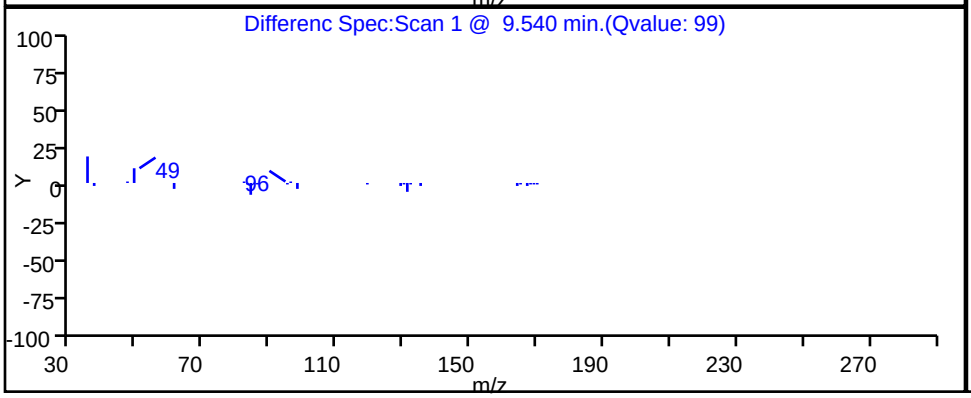












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 | Lab Sample ID: 180-41569-5

Matrix: Water | Lab File ID: 50309022.D

Analysis Method: 8260C | Date Collected: 02/26/2015 09:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/09/2015 20:33

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 135049 | 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	0.99	J	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	1.8		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	30		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	7.4		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	0.45	J	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.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-41569-5

Matrix: Water Lab File ID: 50309022.D

Analysis Method: 8260C Date Collected: 02/26/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 20:33

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 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)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D
Lims ID: 180-41569-D-5 Lab Sample ID: 180-41569-5
Client ID: HD-CW-18-0/1-0
Sample Type: Client
Inject. Date: 09-Mar-2015 20:33:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-41569-D-5
Misc. Info.: 180-0005947-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 09:19:29 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 09:19:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.309	4.327	-0.018	84	69870	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	366632	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	100	83394	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	130030	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	53	78876	50.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.906	-0.006	98	97136	50.1	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	340304	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	96	126605	52.4	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	78	10579	4.96	
24 Acetone	43	3.524	3.499	0.025	68	4631	6.01	
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96	4.576	4.558	0.018	1	1077	0.4825	
35 Methyl tert-butyl ether	73		4.601				ND	
37 1,1-Dichloroethane	63	5.172	5.172	0.000	98	37596	8.84	
45 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	76	352659	147.8	
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	53	2197	0.9540	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78	6.973	6.955	0.018	1	2641	0.2852	M
59 1,2-Dichloroethane	62	7.004	6.985	0.019	10	531	0.1985	
64 Trichloroethene	130	7.673	7.667	0.006	98	80991	37.1	
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.546	9.540	0.006	94	3609	2.27	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112	10.392	10.392	0.000	15	1823	0.3307	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

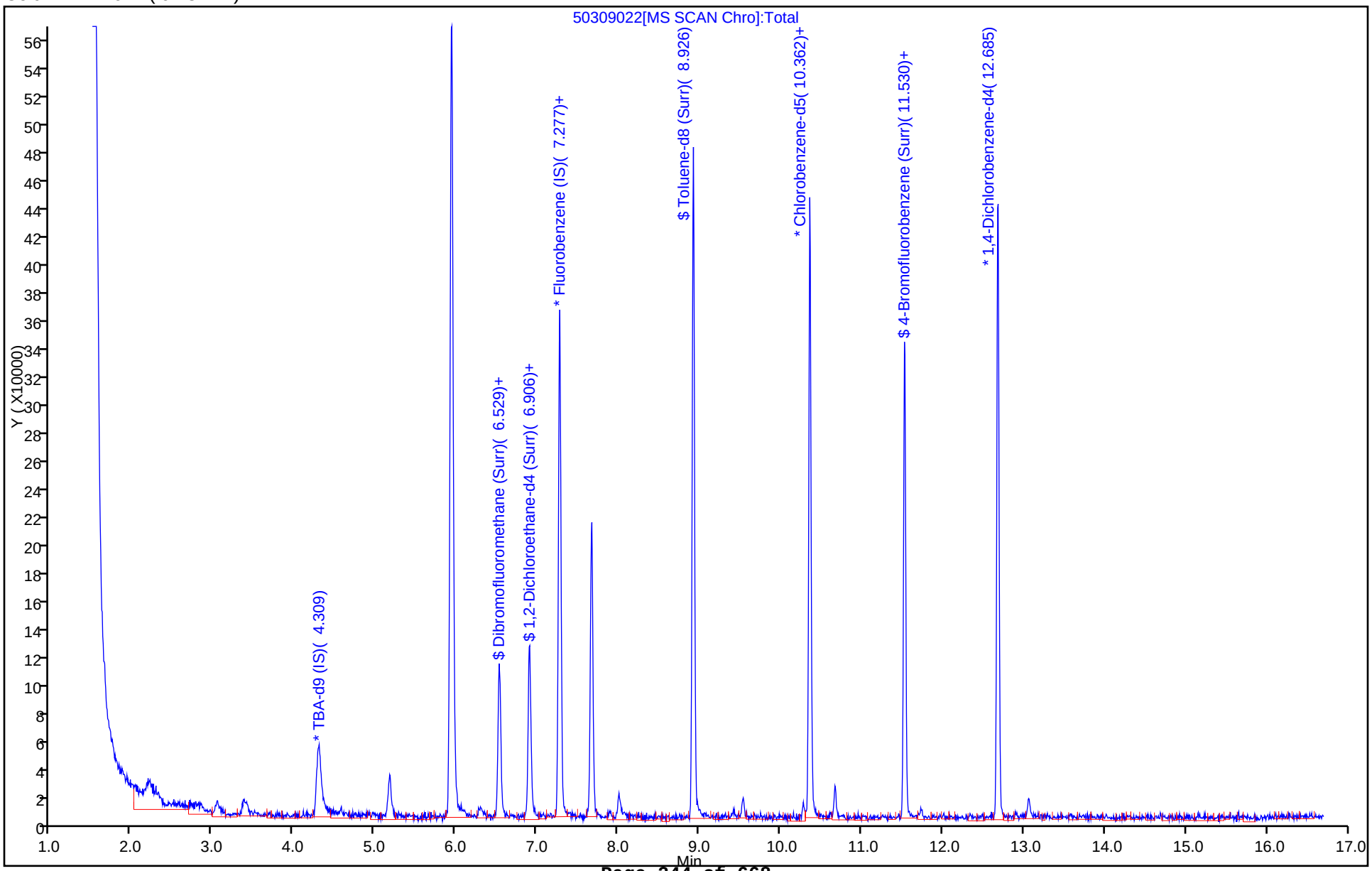
Report Date: 10-Mar-2015 09:19:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D

Injection Date:	09-Mar-2015 20:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5	Worklist Smp#:	22
Client ID:	HD-CW-18-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



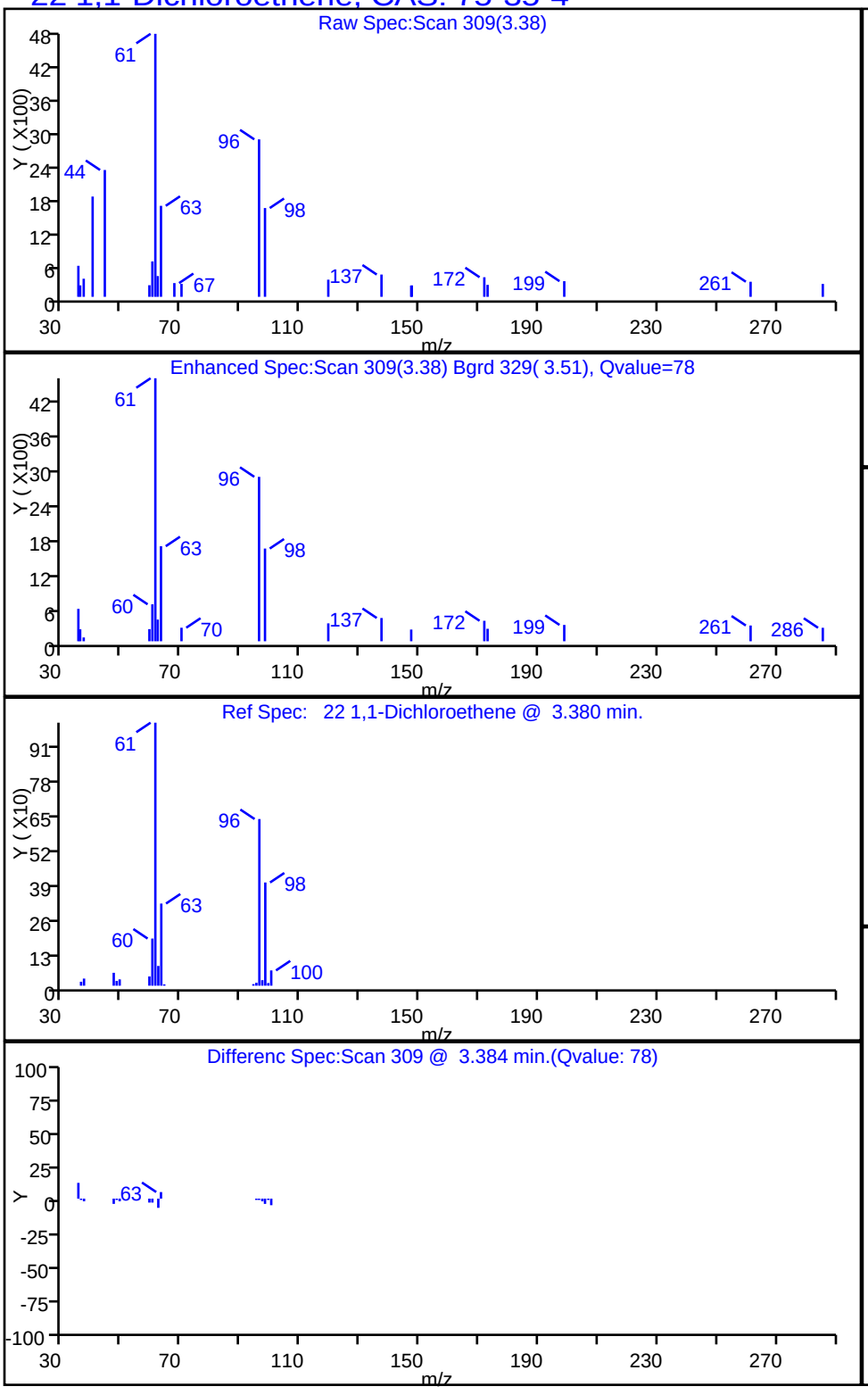
Report Date: 10-Mar-2015 09:19:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

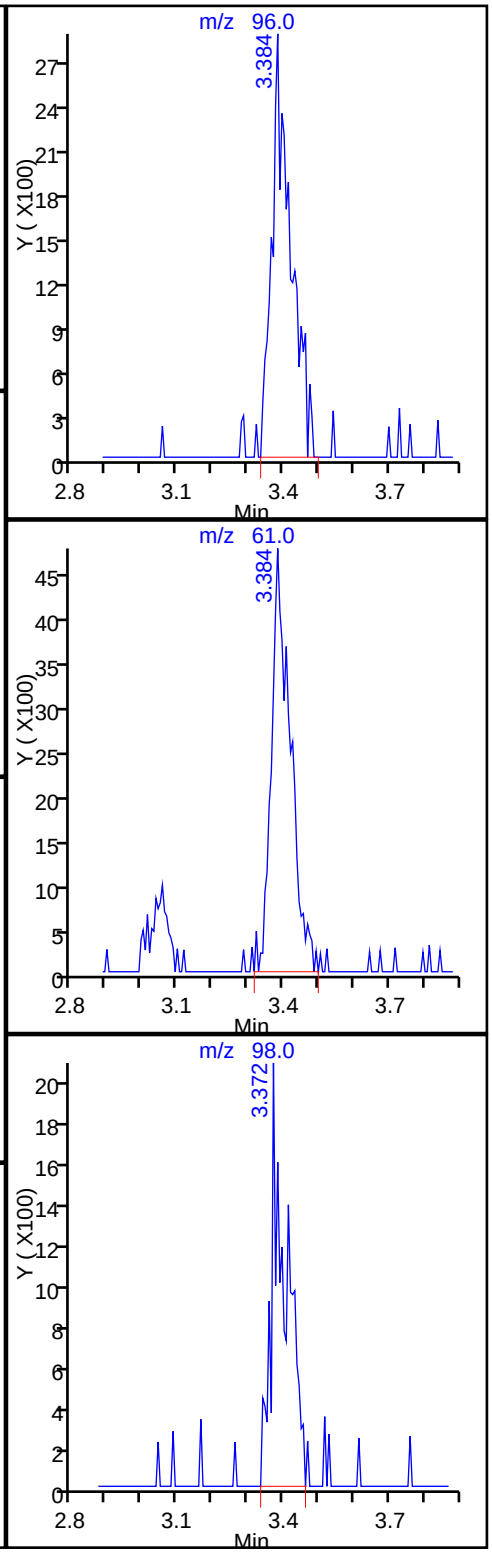
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D

Injection Date:	09-Mar-2015 20:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5
Client ID:	HD-CW-18-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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





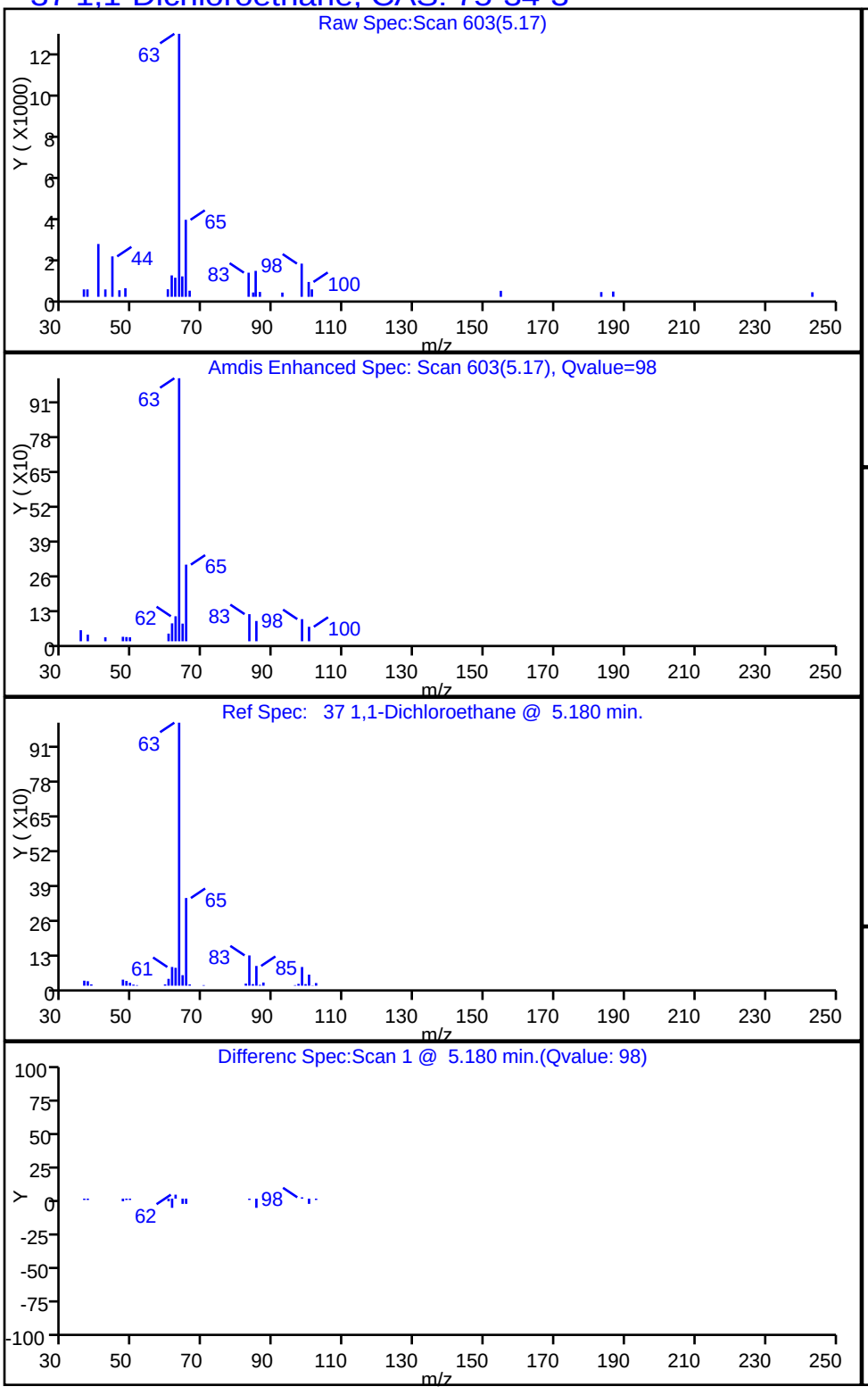
Report Date: 10-Mar-2015 09:19:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

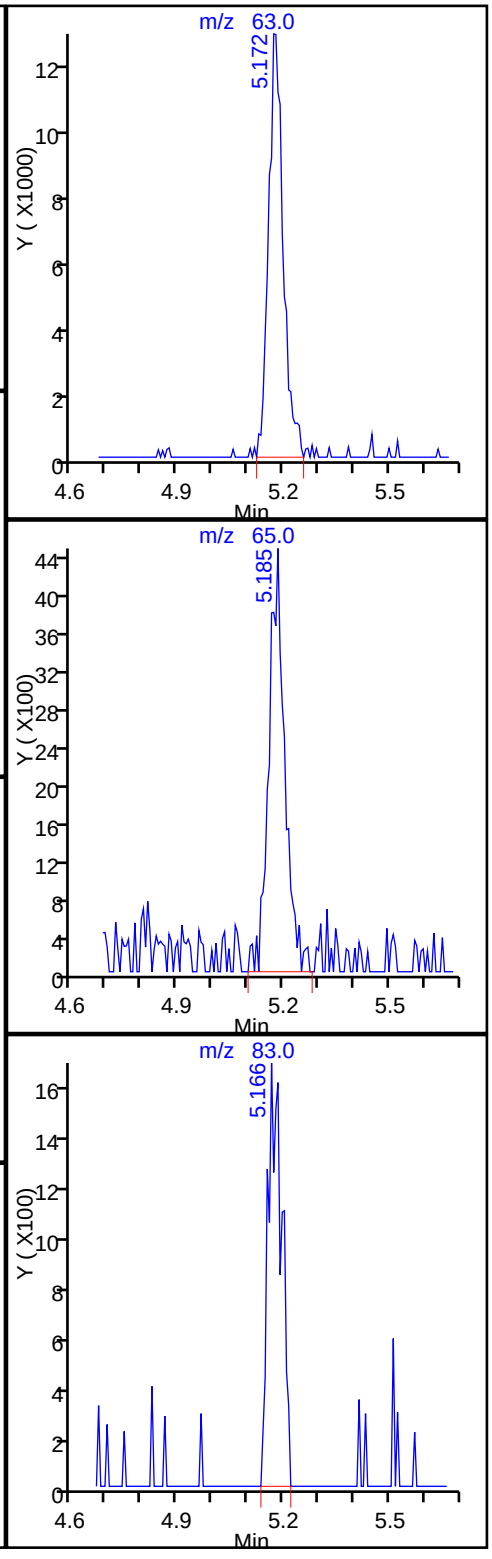
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D

Injection Date:	09-Mar-2015 20:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5
Client ID:	HD-CW-18-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3





Report Date: 10-Mar-2015 09:19:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D				
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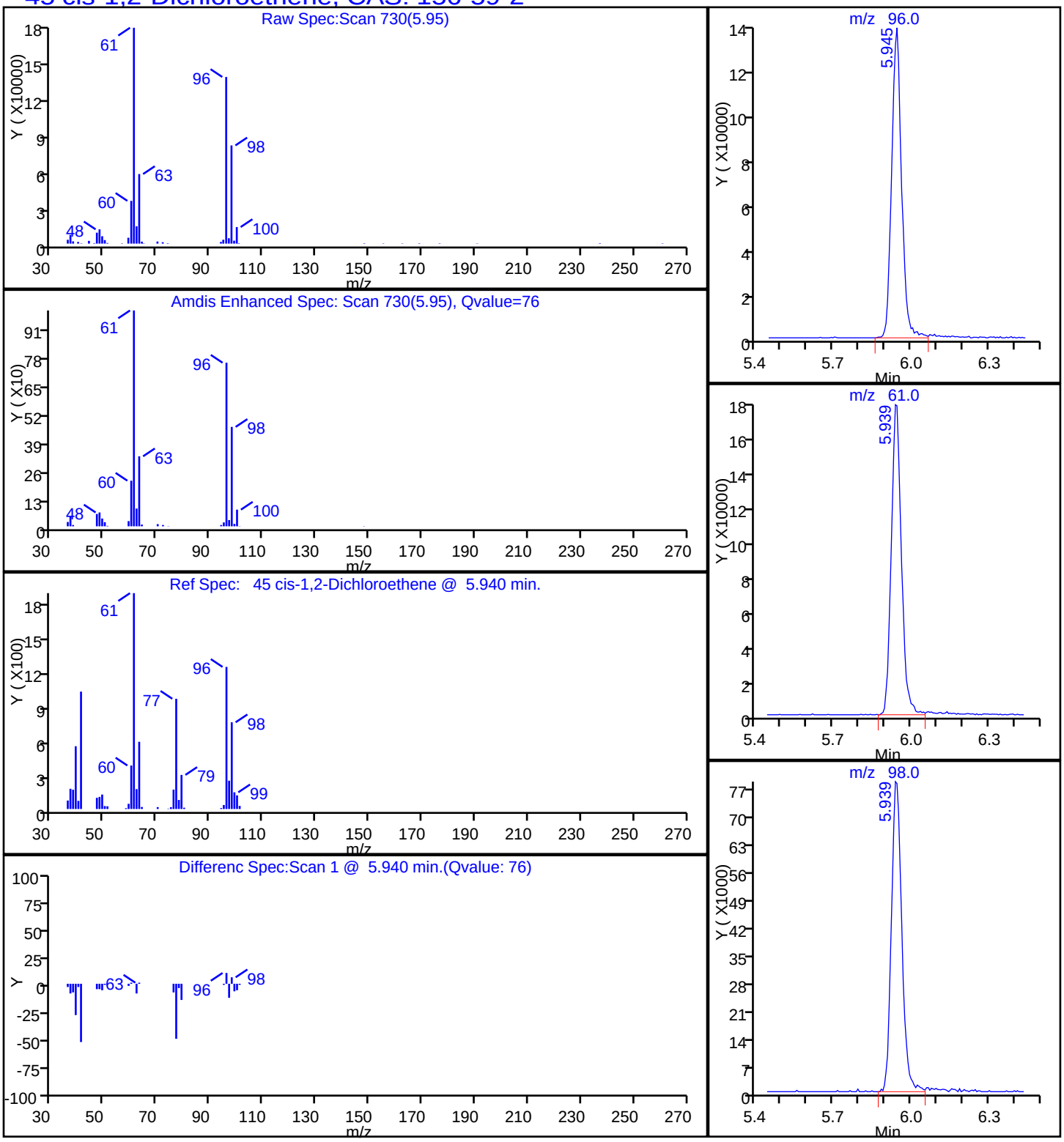
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

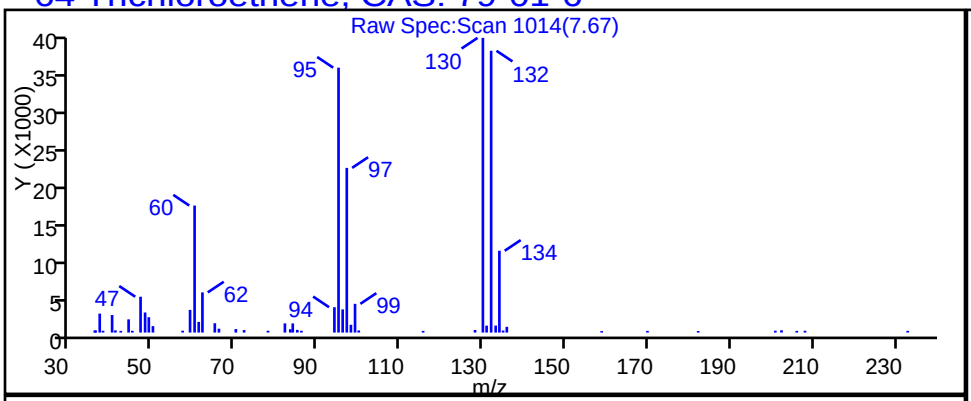


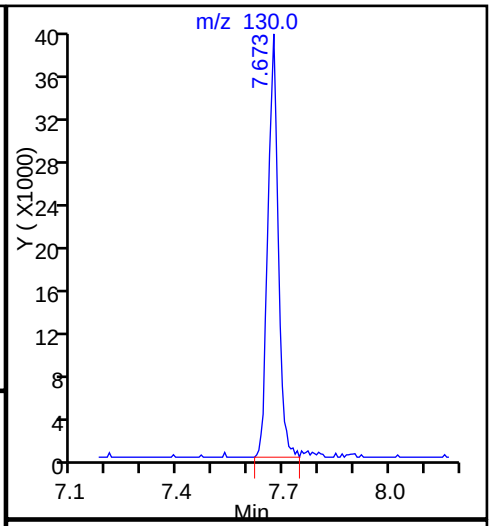
Report Date: 10-Mar-2015 09:19:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

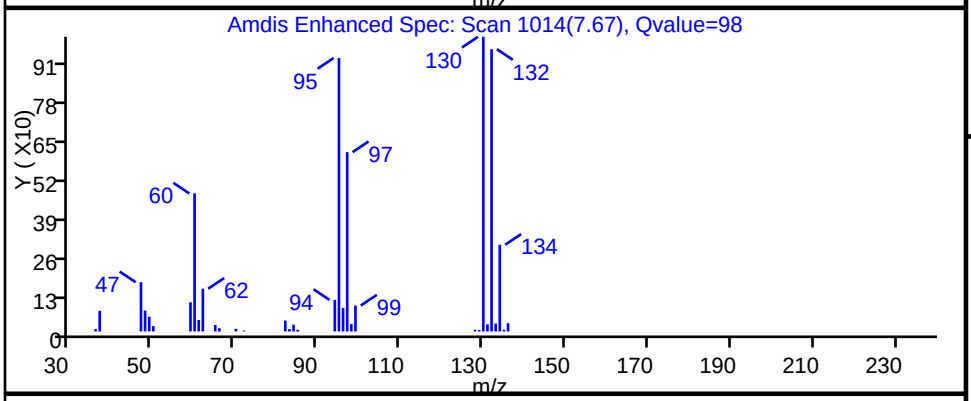
TestAmerica Pittsburgh

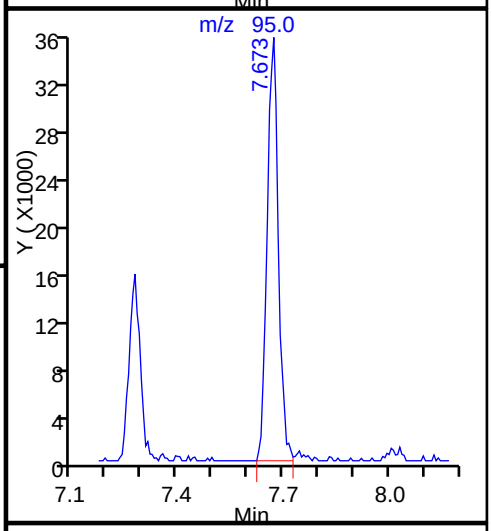
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D		
Injection Date:	09-Mar-2015 20:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5
Client ID:	HD-CW-18-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

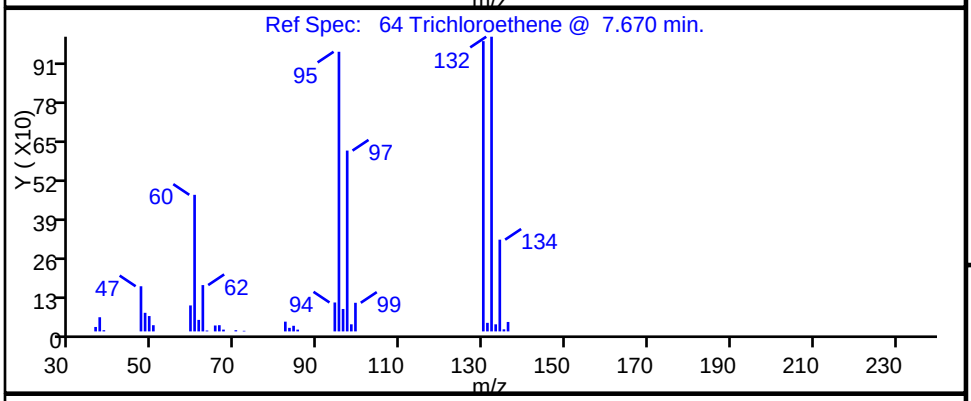
64 Trichloroethene, CAS: 79-01-6

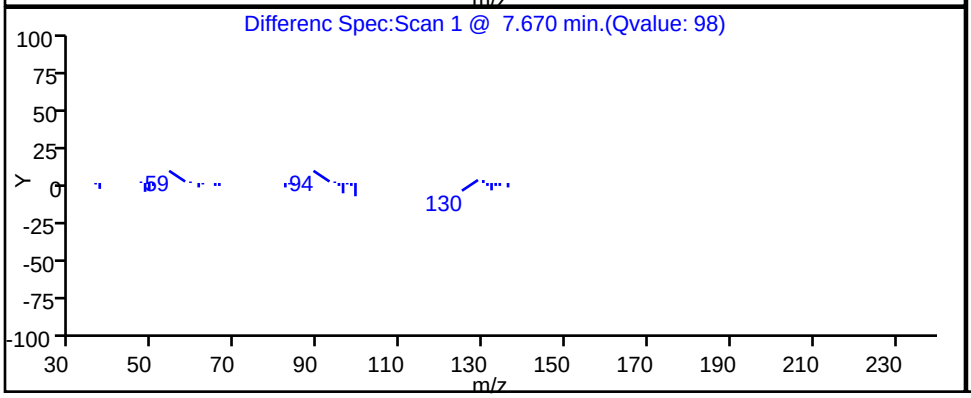


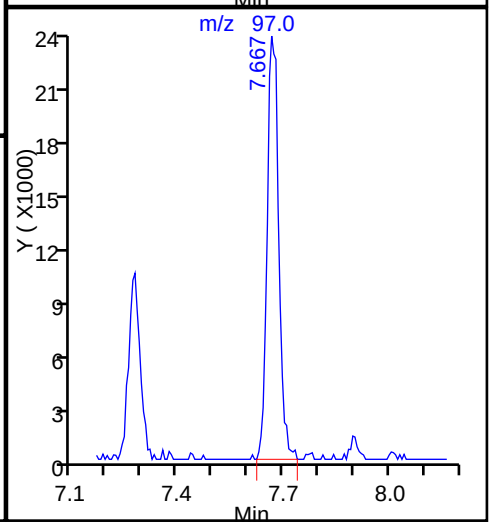










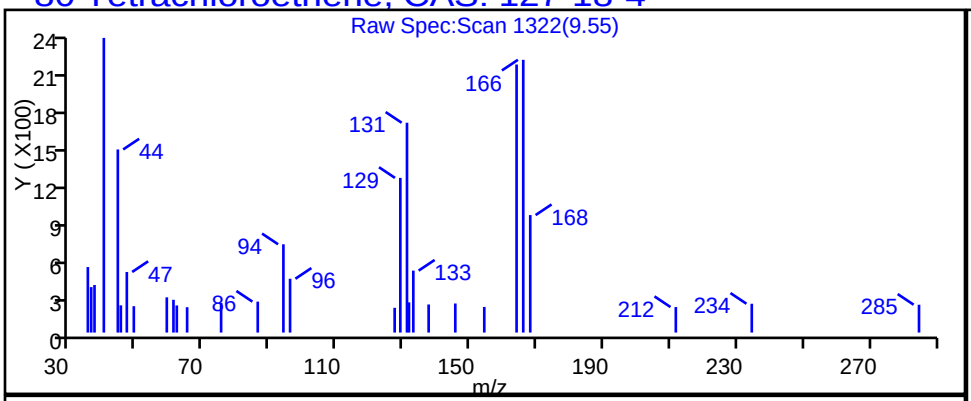


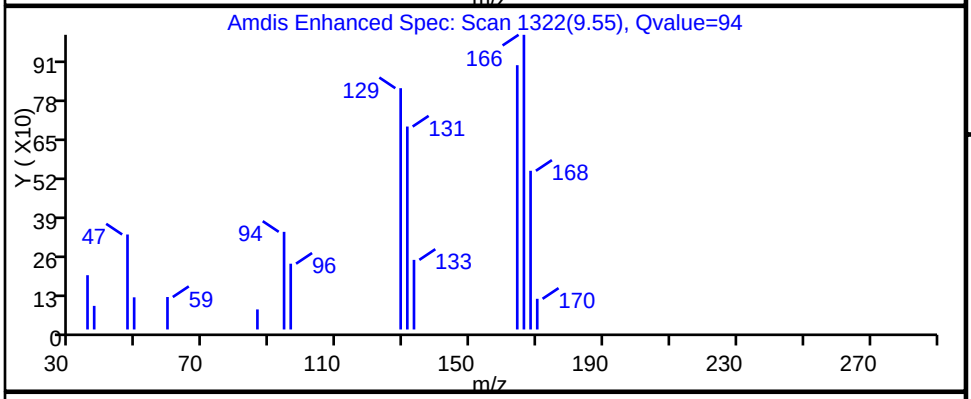
Report Date: 10-Mar-2015 09:19:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

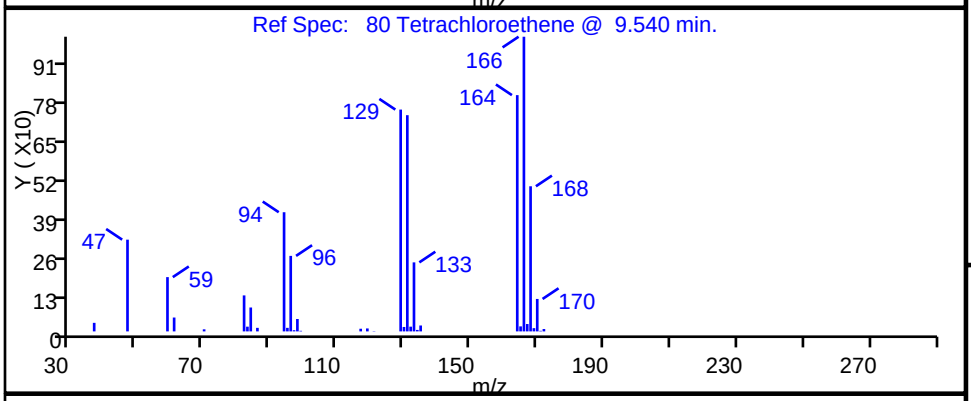
TestAmerica Pittsburgh

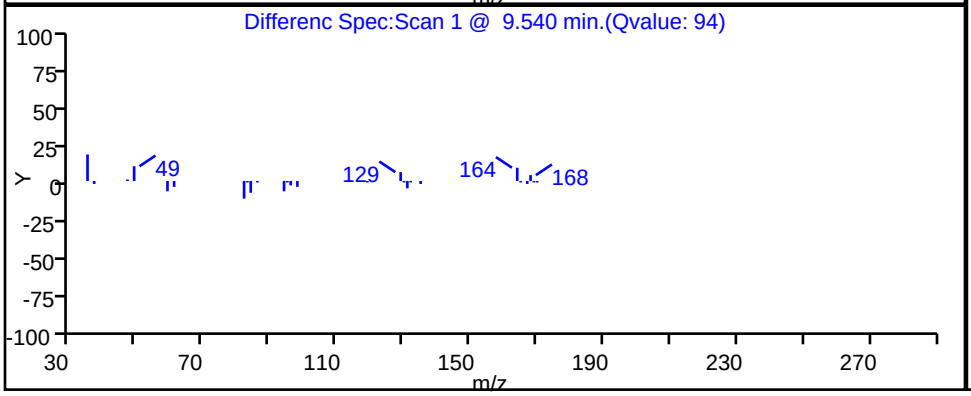
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D		
Injection Date:	09-Mar-2015 20:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5
Client ID:	HD-CW-18-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

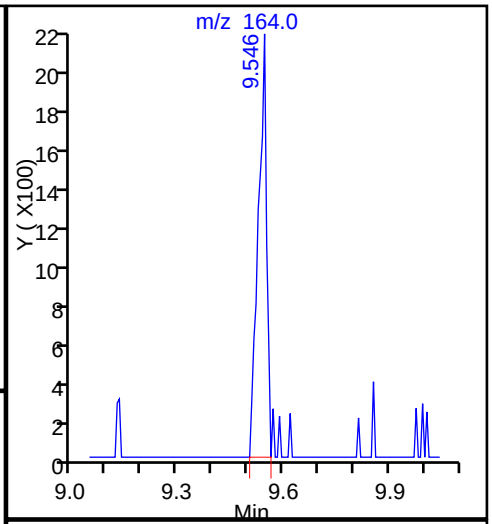
80 Tetrachloroethene, CAS: 127-18-4

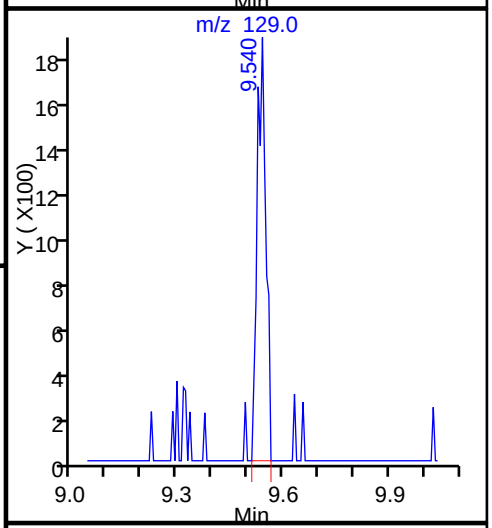


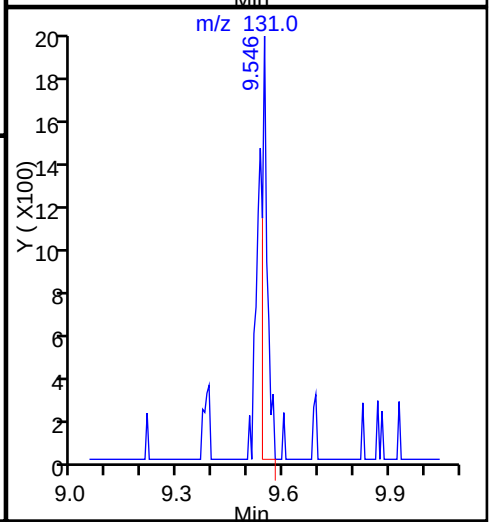












Manual Integration/User Assign Peak Report

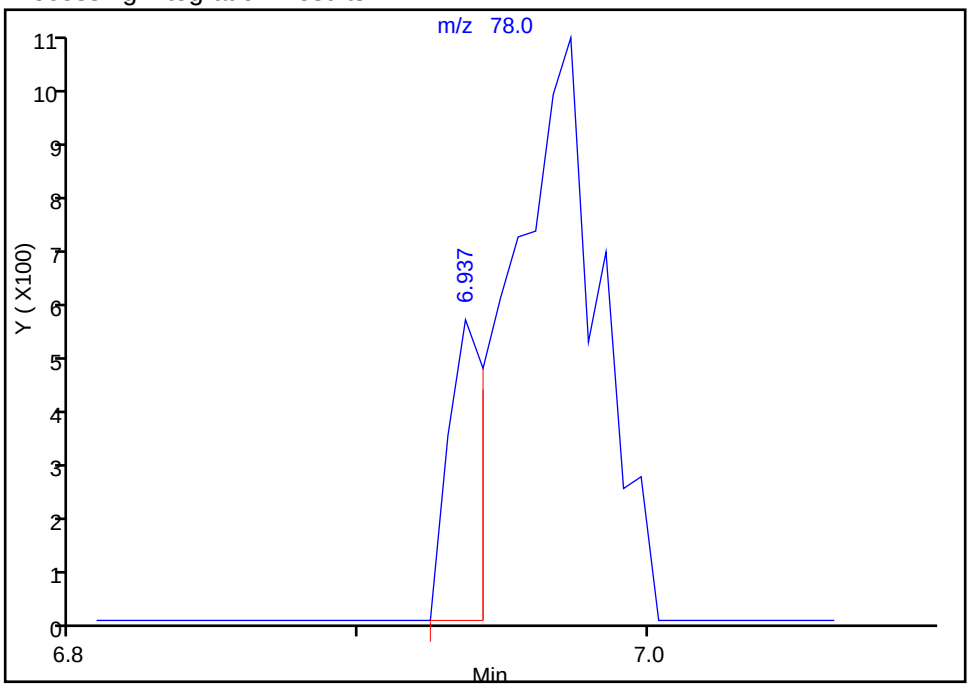
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309022.D				
Injection Date:	09-Mar-2015 20:33:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-5	Lab Sample ID:	180-41569-5		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

58 Benzene, CAS: 71-43-2

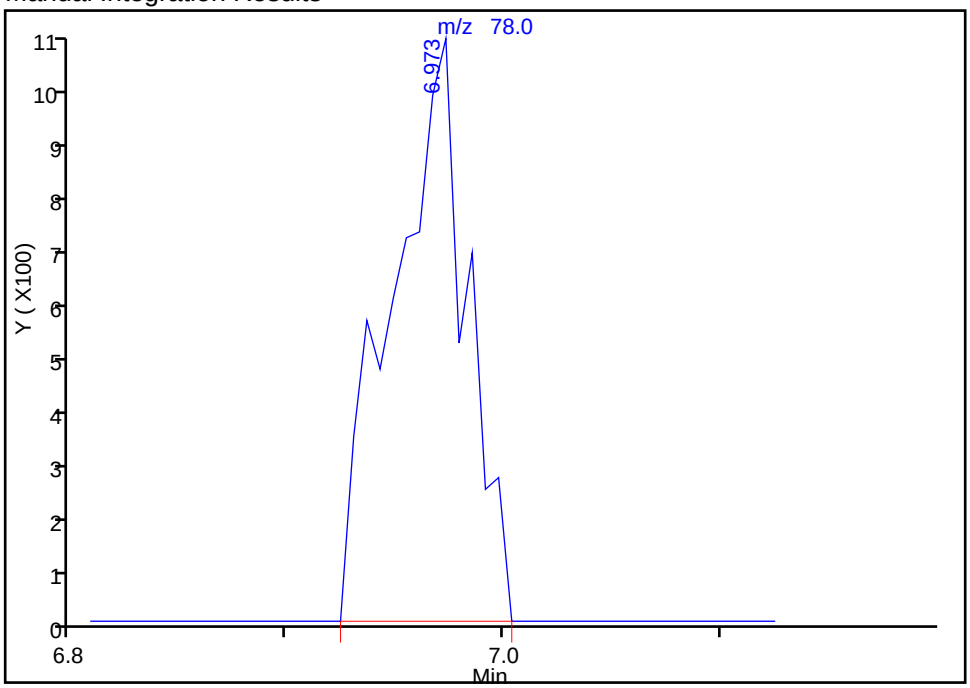
Processing Integration Results

RT: 6.94
Area: 504
Amount: 0.054425
Amount Units: ng



Manual Integration Results

RT: 6.97
Area: 2641
Amount: 0.285190
Amount Units: ng



Reviewer: fergusond, 10-Mar-2015 09:19:29
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-41569-6

Matrix: Water Lab File ID: 50309024.D

Analysis Method: 8260C Date Collected: 02/26/2015 11:50

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 21:21

Soil Aliquot Vol: Dilution Factor: 12.5

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13	U	13	3.5
75-01-4	Vinyl chloride	23		13	2.8
74-83-9	Bromomethane	13	U	13	3.9
75-00-3	Chloroethane	13	U	13	2.7
75-35-4	1,1-Dichloroethene	22		13	3.7
67-64-1	Acetone	63	U	63	31
75-15-0	Carbon disulfide	13	U	13	2.7
75-09-2	Methylene Chloride	13	U	13	1.6
156-60-5	trans-1,2-Dichloroethene	14		13	2.1
1634-04-4	Methyl tert-butyl ether	13	U	13	2.3
75-34-3	1,1-Dichloroethane	24		13	1.5
156-59-2	*cis-1,2-Dichloroethene*	*2000*	*E*	*13*	*3.0*
74-97-5	Bromochloromethane	13	U	13	2.3
78-93-3	2-Butanone (MEK)	63	U	63	6.8
67-66-3	Chloroform	13	U	13	2.1
71-55-6	1,1,1-Trichloroethane	13	U	13	3.6
56-23-5	Carbon tetrachloride	13	U	13	1.7
71-43-2	Benzene	13	U	13	1.3
107-06-2	1,2-Dichloroethane	13	U	13	2.6
79-01-6	*Trichloroethene*	*1400*	*E*	*13*	*1.8*
78-87-5	1,2-Dichloropropane	13	U	13	1.2
75-27-4	Bromodichloromethane	13	U	13	1.6
10061-01-5	cis-1,3-Dichloropropene	13	U	13	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	63	U	63	6.6
108-88-3	Toluene	13	U	13	1.9
10061-02-6	trans-1,3-Dichloropropene	13	U *	13	1.9
79-00-5	1,1,2-Trichloroethane	13	U	13	2.5
127-18-4	Tetrachloroethene	570		13	1.9
591-78-6	2-Hexanone	63	U	63	2.0
124-48-1	Dibromochloromethane	13	U	13	1.7
106-93-4	1,2-Dibromoethane (EDB)	13	U	13	2.3
108-90-7	Chlorobenzene	13	U	13	1.7
630-20-6	1,1,1,2-Tetrachloroethane	13	U	13	3.5
100-41-4	Ethylbenzene	13	U	13	2.8
1330-20-7	Xylenes, Total	38	U	38	6.1
100-42-5	Styrene	13	U	13	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-41569-6

Matrix: Water Lab File ID: 50309024.D

Analysis Method: 8260C Date Collected: 02/26/2015 11:50

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 21:21

Soil Aliquot Vol: Dilution Factor: 12.5

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	13	U	13	2.4
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	2.5
107-13-1	Acrylonitrile	250	U	250	6.8
123-91-1	1,4-Dioxane	2500	U	2500	430

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D
Lims ID: 180-41569-C-6 Lab Sample ID: 180-41569-6
Client ID: HD-MW-114-0/1-0
Sample Type: Client
Inject. Date: 09-Mar-2015 21:21:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-41569-C-6, 12.5x
Misc. Info.: 180-0005947-024
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 09:22:20 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 09:22:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.297	4.327	-0.030	88	68732	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	393155	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.362	0.006	100	87883	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	145102	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	54	82727	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.906	0.000	98	102648	49.3	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	99	358059	52.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	98	131185	51.5	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62	1.912	1.912	0.000	99	27608	9.10	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.390	3.384	0.006	98	20510	8.96	
24 Acetone	43		3.499				ND	
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96	4.583	4.558	0.025	25	13600	5.68	
35 Methyl tert-butyl ether	73		4.601				ND	
37 1,1-Dichloroethane	63	5.173	5.172	0.001	99	43185	9.47	
45 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	74	2025478	791.4	E
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.529				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.667	7.667	0.000	97	1275090	545.2	E
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.541	9.540	0.001	98	381521	227.9	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

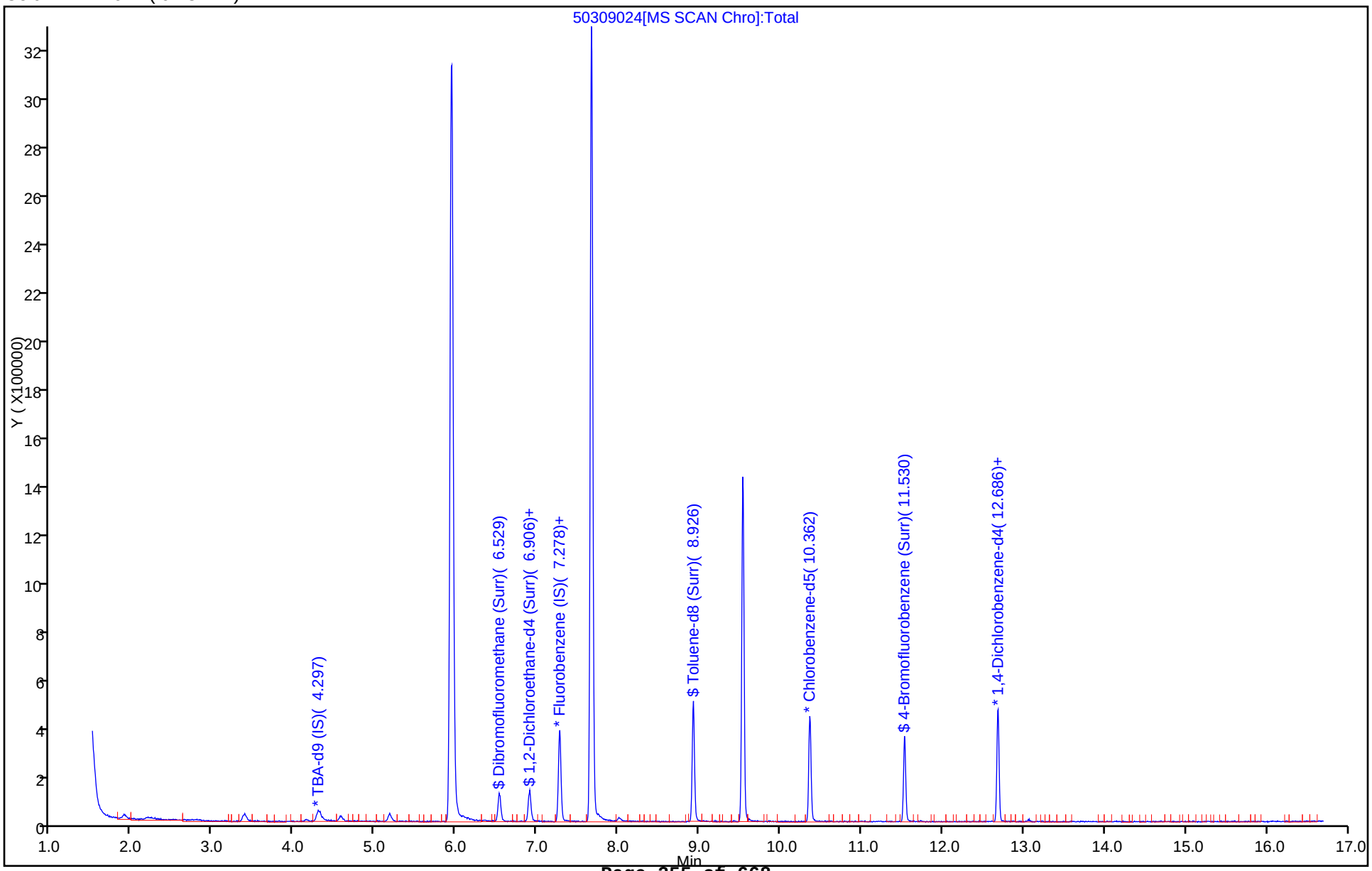
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D				
Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6	Worklist Smp#:	24
Client ID:	HD-MW-114-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



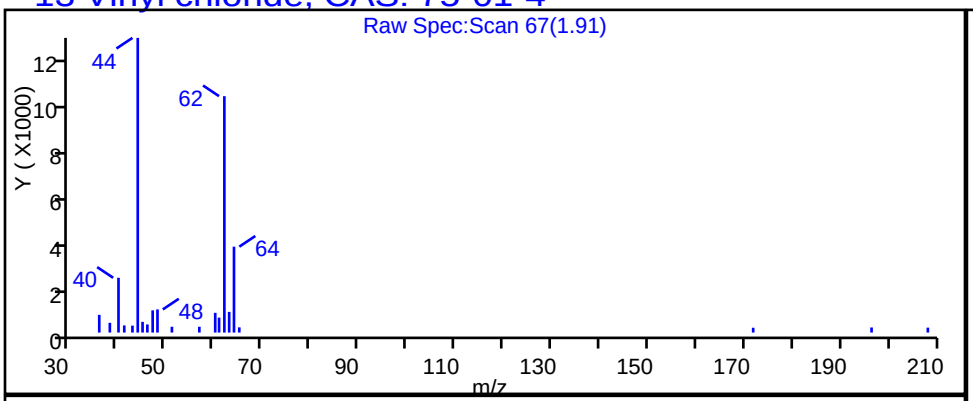
Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

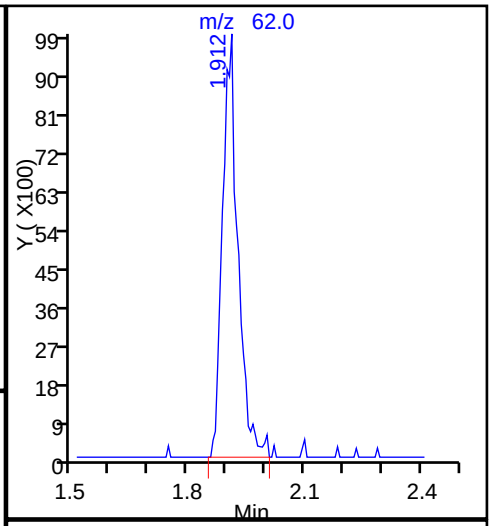
TestAmerica Pittsburgh

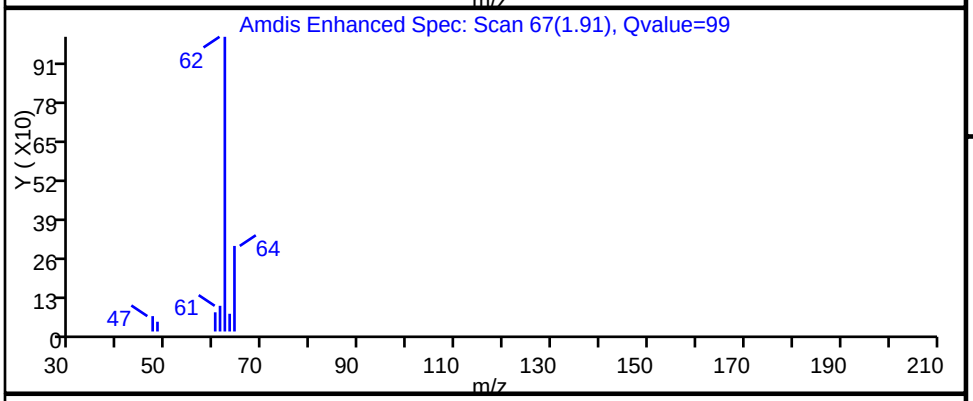
Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D

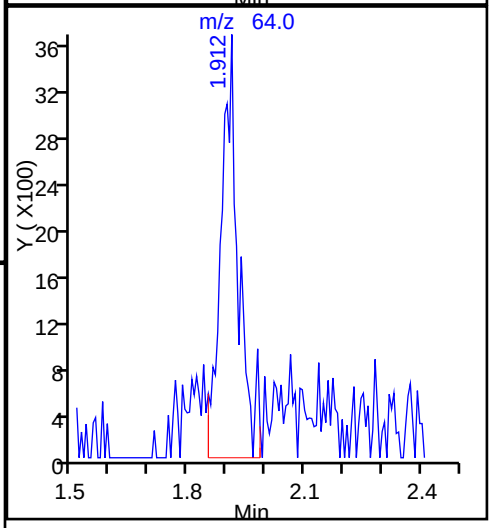
Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6
Client ID:	HD-MW-114-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

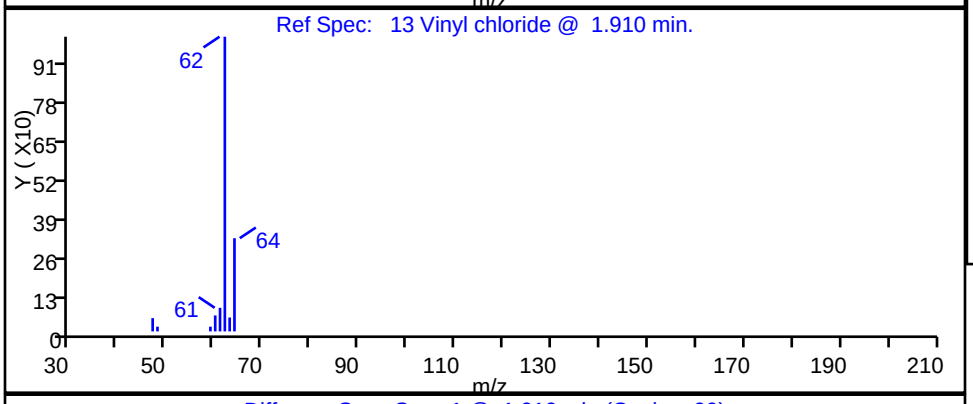
13 Vinyl chloride, CAS: 75-01-4

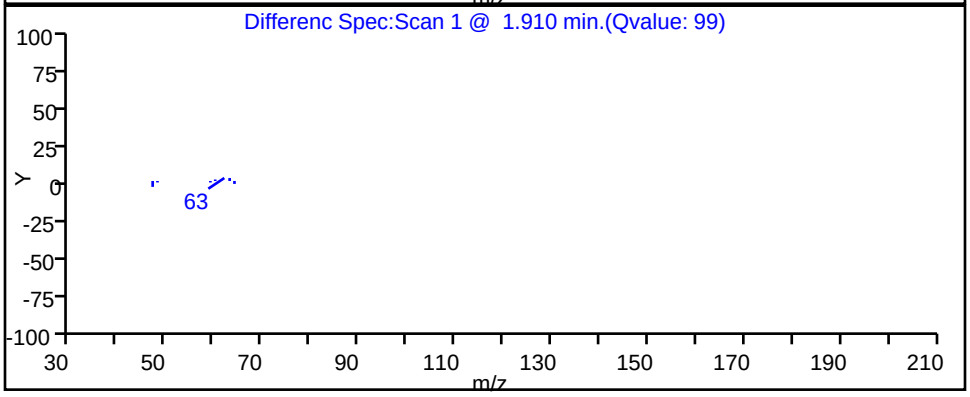










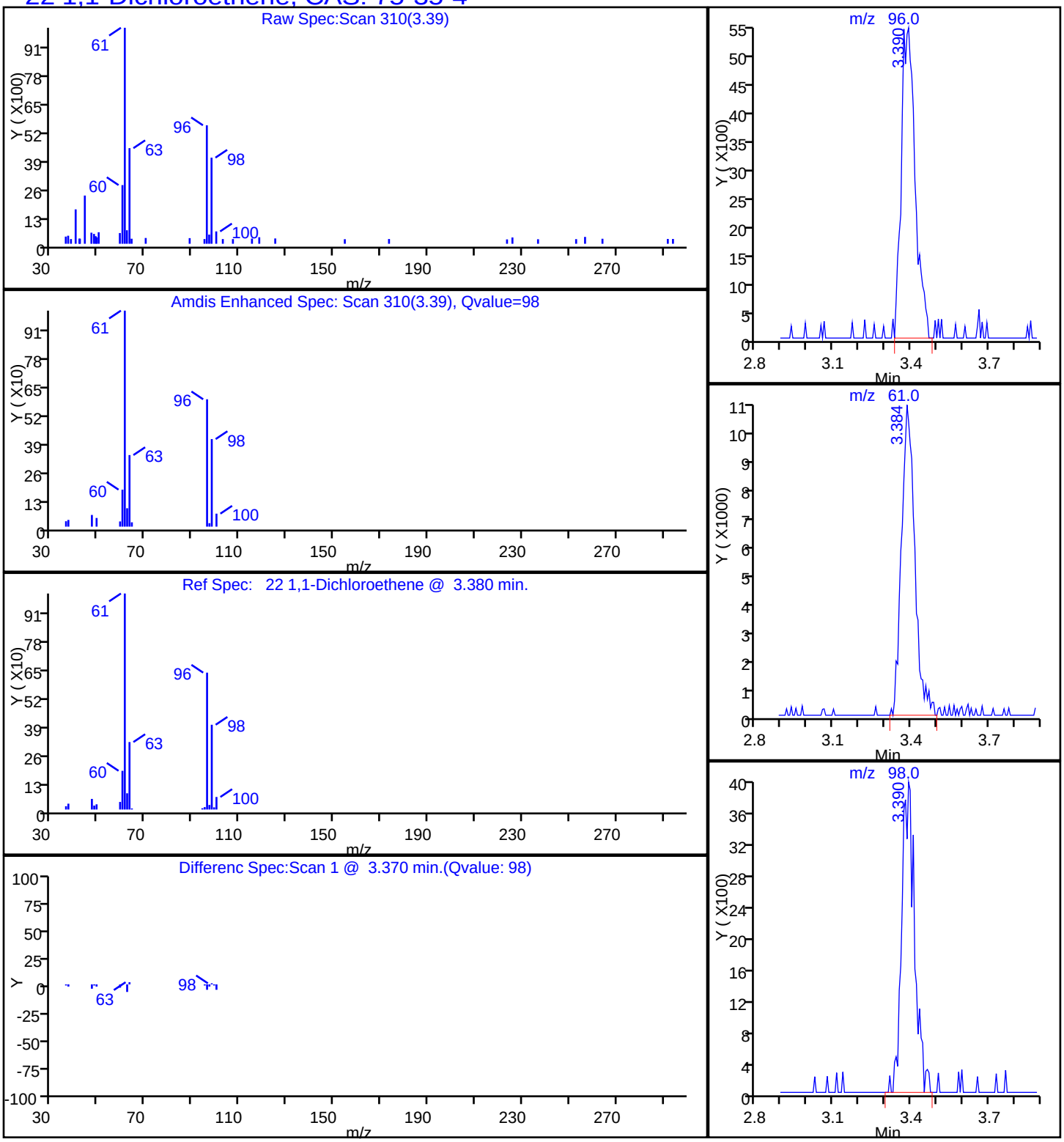


Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D				
Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

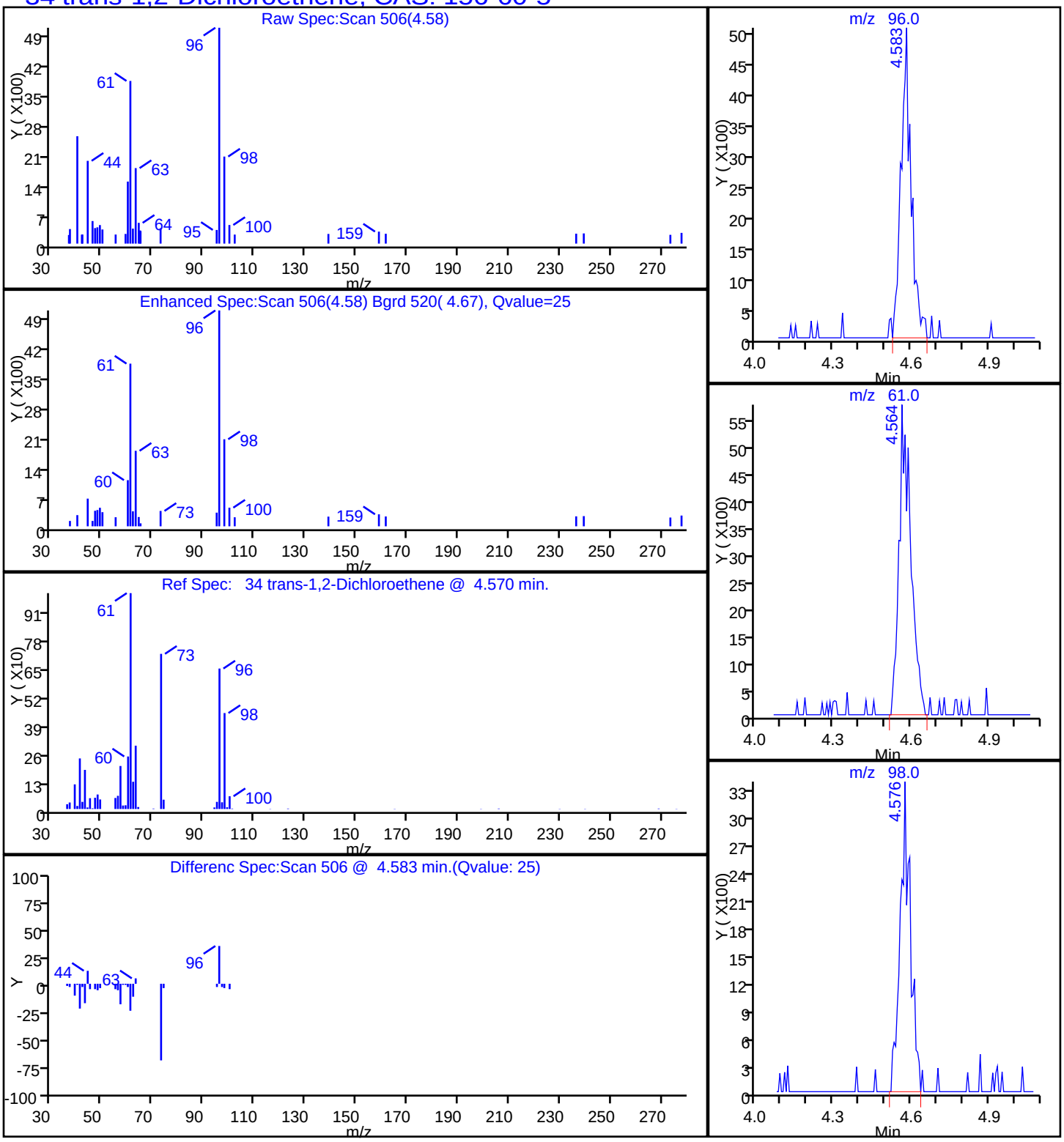


Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D				
Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

34 trans-1,2-Dichloroethene, CAS: 156-60-5



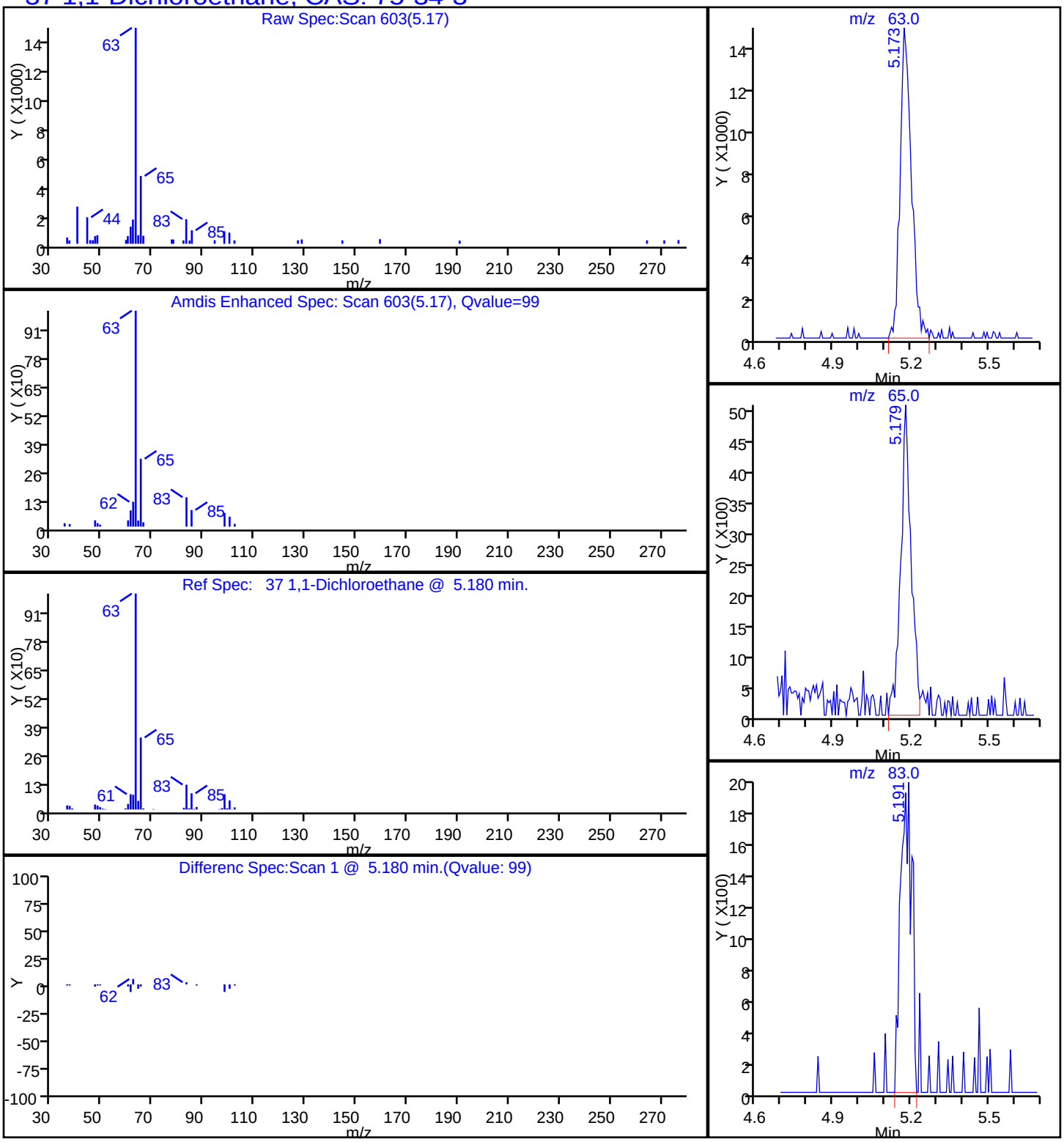
Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D

Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6
Client ID:	HD-MW-114-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



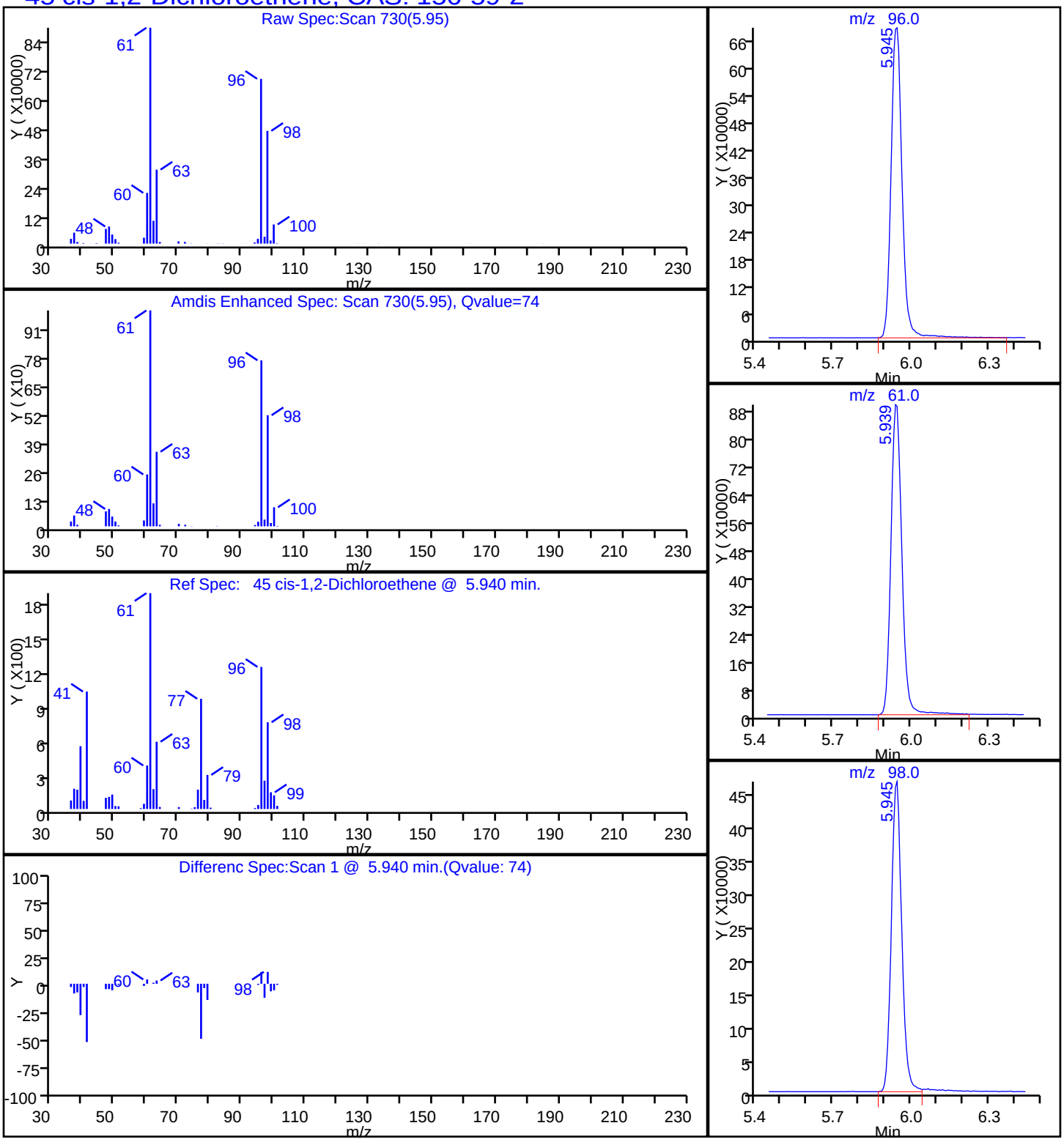
Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D

Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D		
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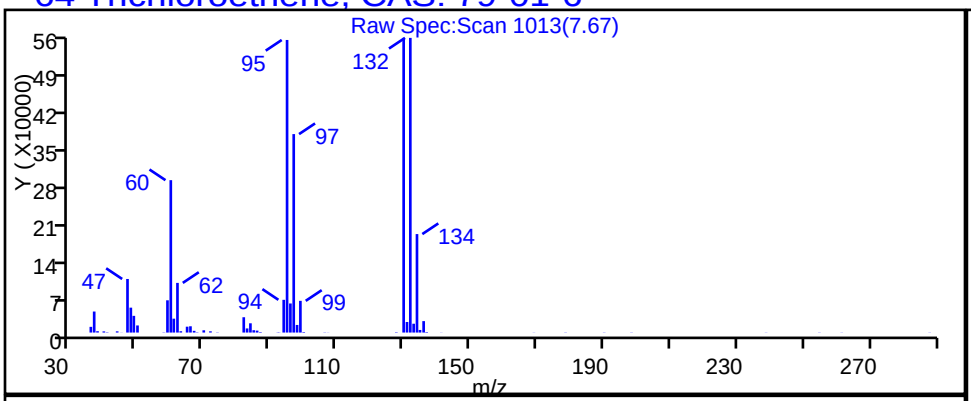
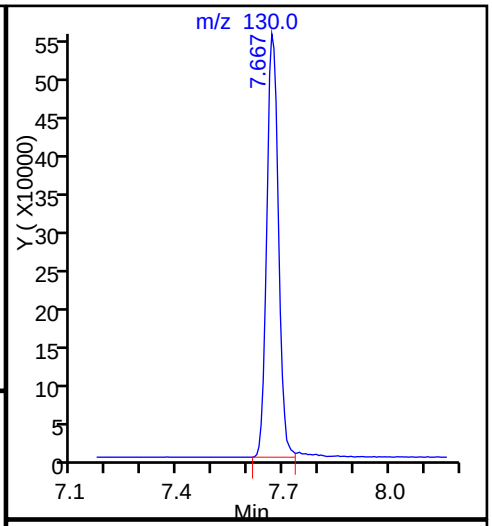
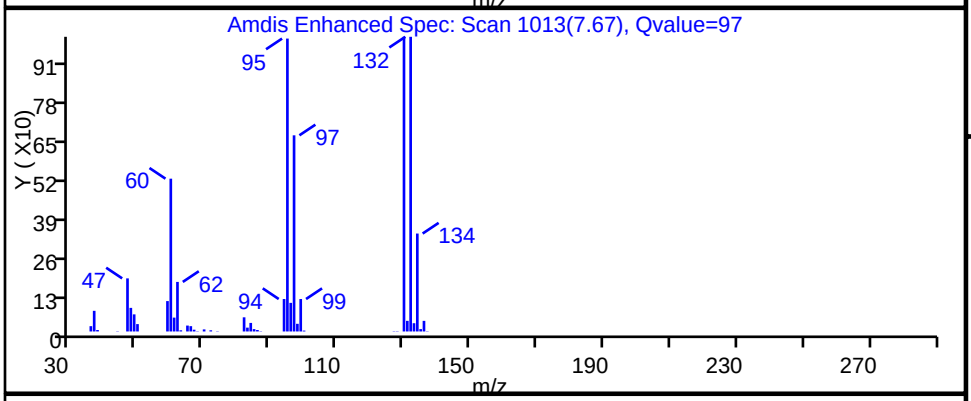
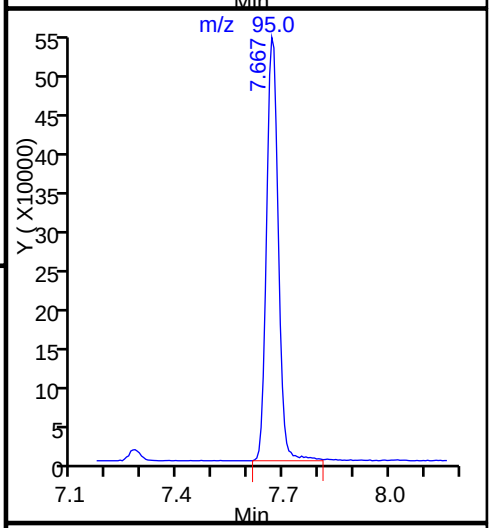
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6
Client ID:	HD-MW-114-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

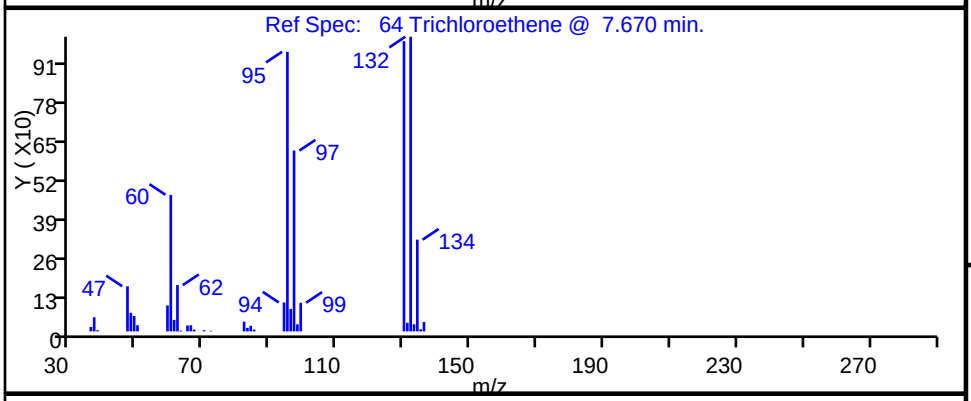
64 Trichloroethene, CAS: 79-01-6

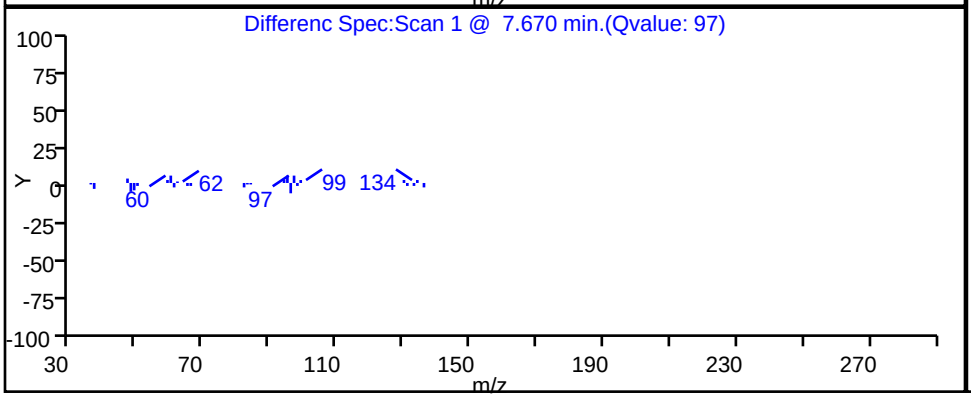


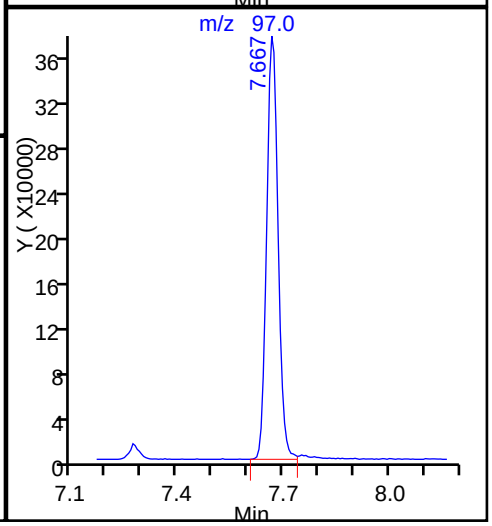












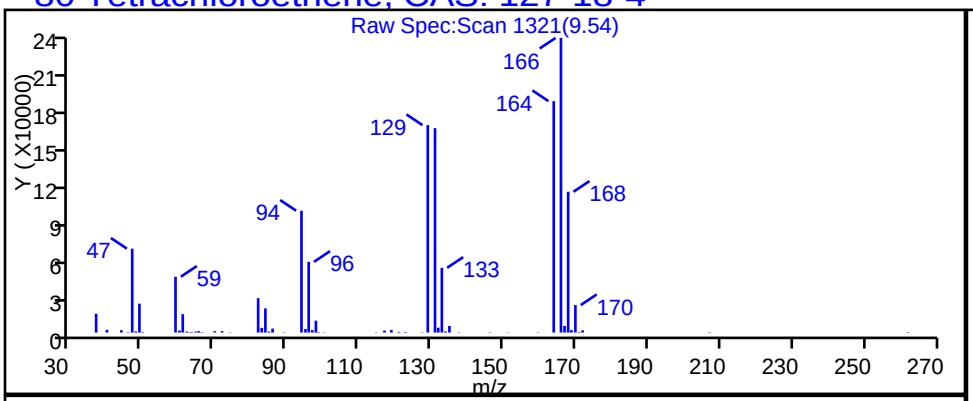
Report Date: 10-Mar-2015 09:22:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

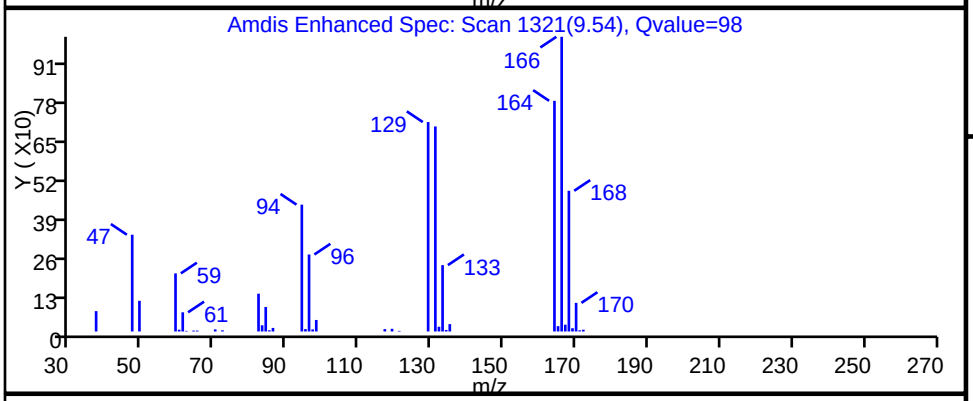
TestAmerica Pittsburgh

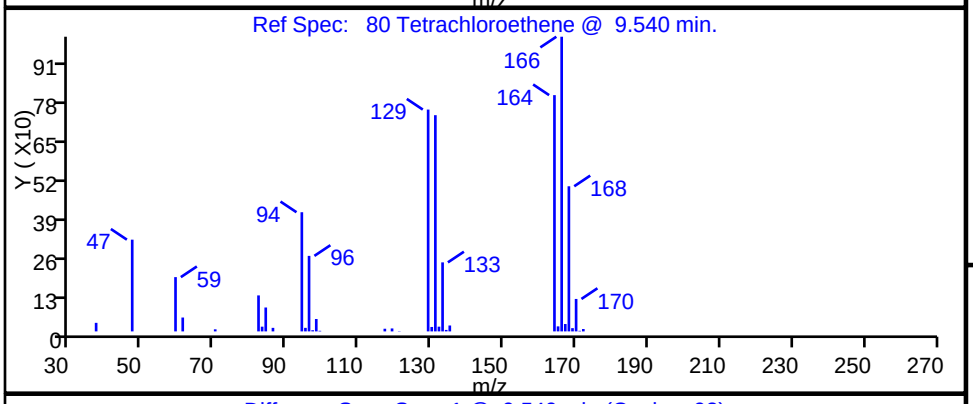
Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309024.D

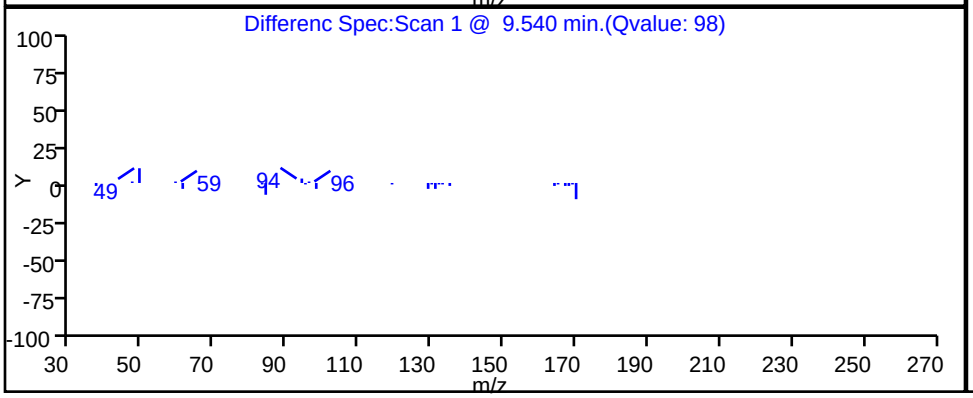
Injection Date:	09-Mar-2015 21:21:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-6	Lab Sample ID:	180-41569-6
Client ID:	HD-MW-114-0/1-0		
Operator ID:	001562	ALS Bottle#:	24 Worklist Smp#: 24
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

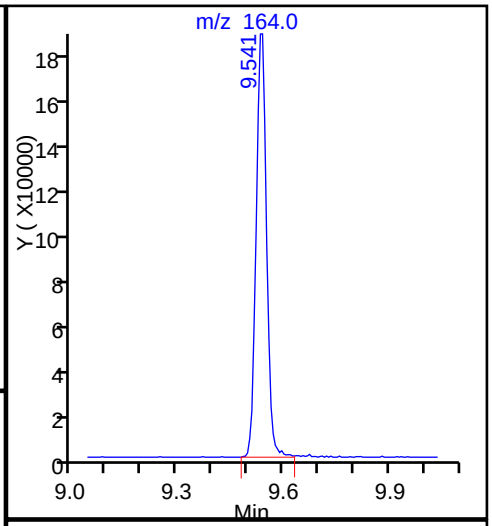
80 Tetrachloroethene, CAS: 127-18-4

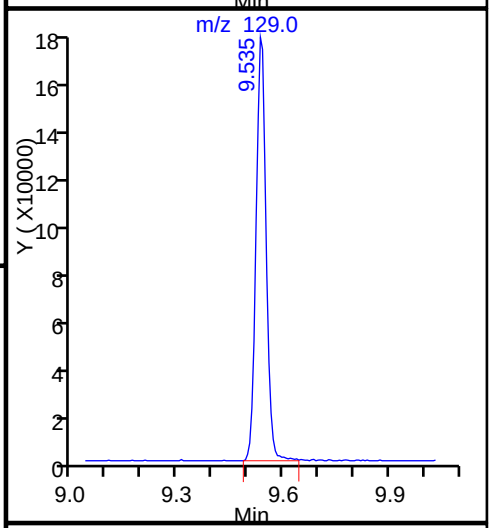


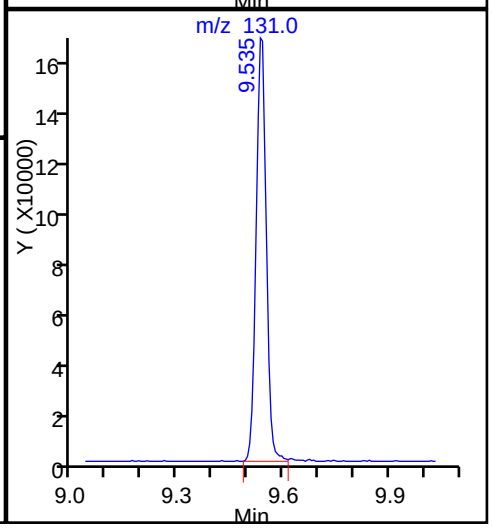












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 DL | Lab Sample ID: 180-41569-6 DL

Matrix: Water | Lab File ID: 50310013.D

Analysis Method: 8260C | Date Collected: 02/26/2015 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 16:36

Soil Aliquot Vol: | Dilution Factor: 125

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

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

Analysis Batch No.: 135153 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	130	U	130	35
75-01-4	Vinyl chloride	130	U	130	28
74-83-9	Bromomethane	130	U	130	39
75-00-3	Chloroethane	130	U	130	27
75-35-4	1,1-Dichloroethene	130	U	130	37
67-64-1	Acetone	630	U	630	310
75-15-0	Carbon disulfide	130	U	130	27
75-09-2	Methylene Chloride	130	U	130	16
156-60-5	trans-1,2-Dichloroethene	130	U	130	21
1634-04-4	Methyl tert-butyl ether	130	U	130	23
75-34-3	1,1-Dichloroethane	27	J	130	15
156-59-2	cis-1,2-Dichloroethene	2100		130	30
74-97-5	Bromochloromethane	130	U	130	23
78-93-3	2-Butanone (MEK)	630	U	630	68
67-66-3	Chloroform	130	U	130	21
71-55-6	1,1,1-Trichloroethane	130	U	130	36
56-23-5	Carbon tetrachloride	130	U	130	17
71-43-2	Benzene	130	U	130	13
107-06-2	1,2-Dichloroethane	130	U	130	26
79-01-6	Trichloroethene	1500		130	18
78-87-5	1,2-Dichloropropane	130	U	130	12
75-27-4	Bromodichloromethane	130	U	130	16
10061-01-5	cis-1,3-Dichloropropene	130	U *	130	23
108-10-1	4-Methyl-2-pentanone (MIBK)	630	U	630	66
108-88-3	Toluene	130	U	130	19
10061-02-6	trans-1,3-Dichloropropene	130	U *	130	19
79-00-5	1,1,2-Trichloroethane	130	U	130	25
127-18-4	Tetrachloroethene	610		130	19
591-78-6	2-Hexanone	630	U	630	20
124-48-1	Dibromochloromethane	130	U	130	17
106-93-4	1,2-Dibromoethane (EDB)	130	U	130	23
108-90-7	Chlorobenzene	130	U	130	17
630-20-6	1,1,1,2-Tetrachloroethane	130	U	130	35
100-41-4	Ethylbenzene	130	U	130	28
1330-20-7	Xylenes, Total	380	U	380	61
100-42-5	Styrene	130	U	130	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 DL Lab Sample ID: 180-41569-6 DL

Matrix: Water Lab File ID: 50310013.D

Analysis Method: 8260C Date Collected: 02/26/2015 11:50

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 16:36

Soil Aliquot Vol: Dilution Factor: 125

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*130*	*U*	*130*	*24*
79-34-5	*1,1,2,2-Tetrachloroethane*	*130*	*U*	*130*	*25*
107-13-1	*Acrylonitrile*	*2500*	*U*	*2500*	*68*
123-91-1	*1,4-Dioxane*	*25000*	*U*	*25000*	*4300*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310013.D
Lims ID: 180-41569-D-6 Lab Sample ID: 180-41569-6
Client ID: HD-MW-114-0/1-0
Sample Type: Client
Inject. Date: 10-Mar-2015 16:36:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 125.0000
Sample Info: 180-41569-D-6, 125x
Misc. Info.: 180-0005958-013
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:35:24 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:35:24

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.303	4.296	0.007	83	76740	1000.0	
*	2 Fluorobenzene (IS)	96	7.278	7.271	0.007	99	383314	50.0	
*	3 Chlorobenzene-d5	119	10.362	10.367	-0.005	100	84904	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	139253	50.0	
$	5 Dibromofluoromethane (Surr	113	6.530	6.529	0.001	53	80051	48.8	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.900	0.007	99	97187	47.9	
$	7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	99	352744	53.3	
$	8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	97	130545	53.0	
	12 Chloromethane	50		1.771				ND	
	13 Vinyl chloride	62	1.906	1.899	0.007	73	2513	0.8494	
	15 Bromomethane	94		2.252				ND	
	16 Chloroethane	64		2.374				ND	
	22 1,1-Dichloroethene	96	3.390	3.371	0.019	39	2651	1.19	
	24 Acetone	43		3.493				ND	
	26 Carbon disulfide	76		3.651				ND	
	31 Methylene Chloride	84		4.126				ND	
	33 Acrylonitrile	53		4.545				ND	
	34 trans-1,2-Dichloroethene	96		4.552				ND	
	35 Methyl tert-butyl ether	73		4.594				ND	
	37 1,1-Dichloroethane	63	5.173	5.166	0.007	23	4877	1.10	
	45 cis-1,2-Dichloroethene	96	5.939	5.933	0.007	76	213565	85.6	
	46 2-Butanone (MEK)	43		5.981				ND	
	49 Chlorobromomethane	128		6.218				ND	
	52 Chloroform	83		6.340				ND	
	53 1,1,1-Trichloroethane	97		6.523				ND	
	56 Carbon tetrachloride	117		6.717				ND	
	58 Benzene	78		6.955				ND	
	59 1,2-Dichloroethane	62		6.979				ND	
	64 Trichloroethene	130	7.673	7.660	0.013	98	138091	60.6	
	67 1,2-Dichloropropane	63		7.897				ND	
	70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.196				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.535	9.540	-0.005	95	39775	24.6	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

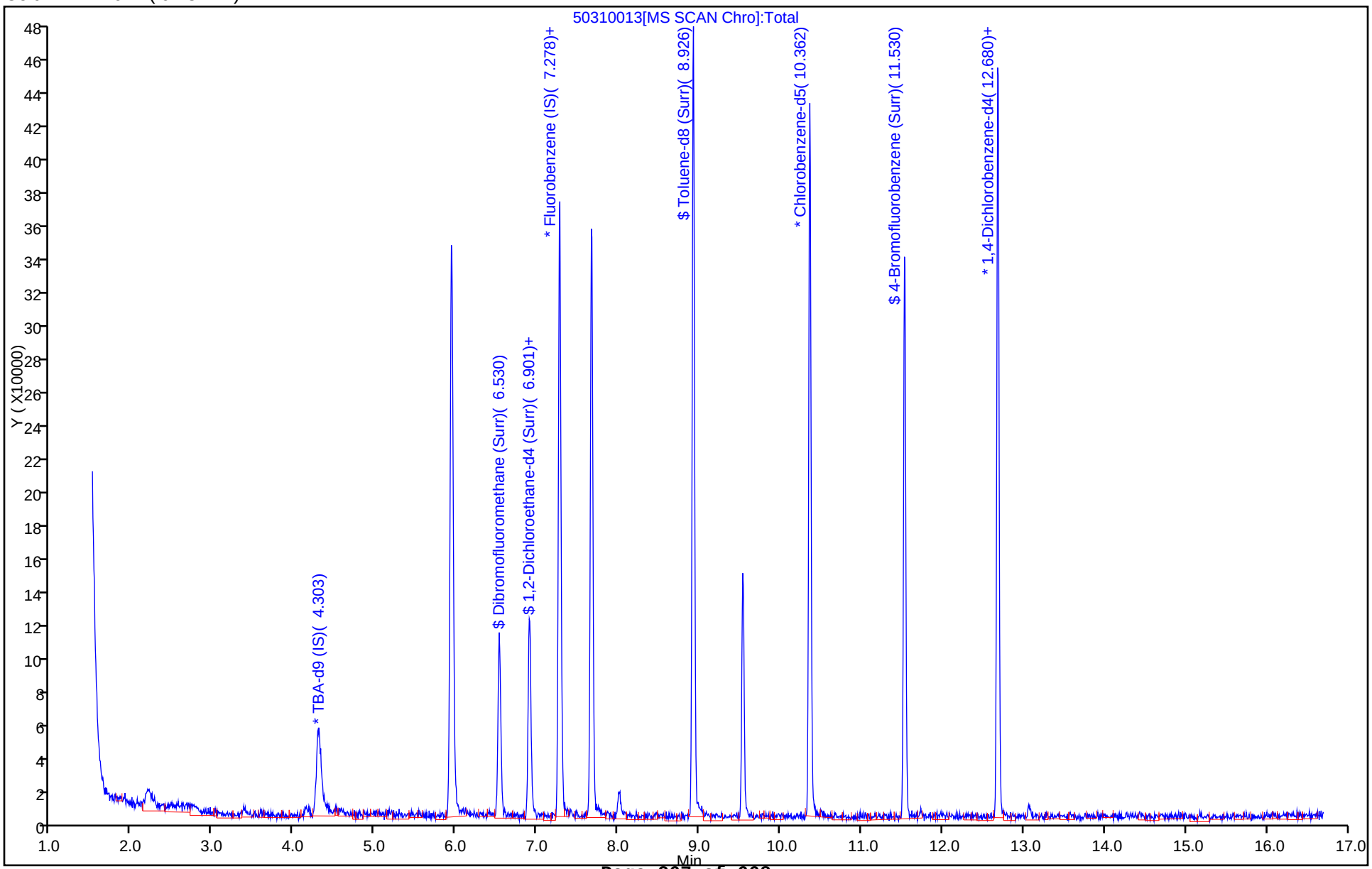
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 11-Mar-2015 07:35:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310013.D				
Injection Date:	10-Mar-2015 16:36:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-D-6	Lab Sample ID:	180-41569-6	Worklist Smp#:	13
Client ID:	HD-MW-114-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	125.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



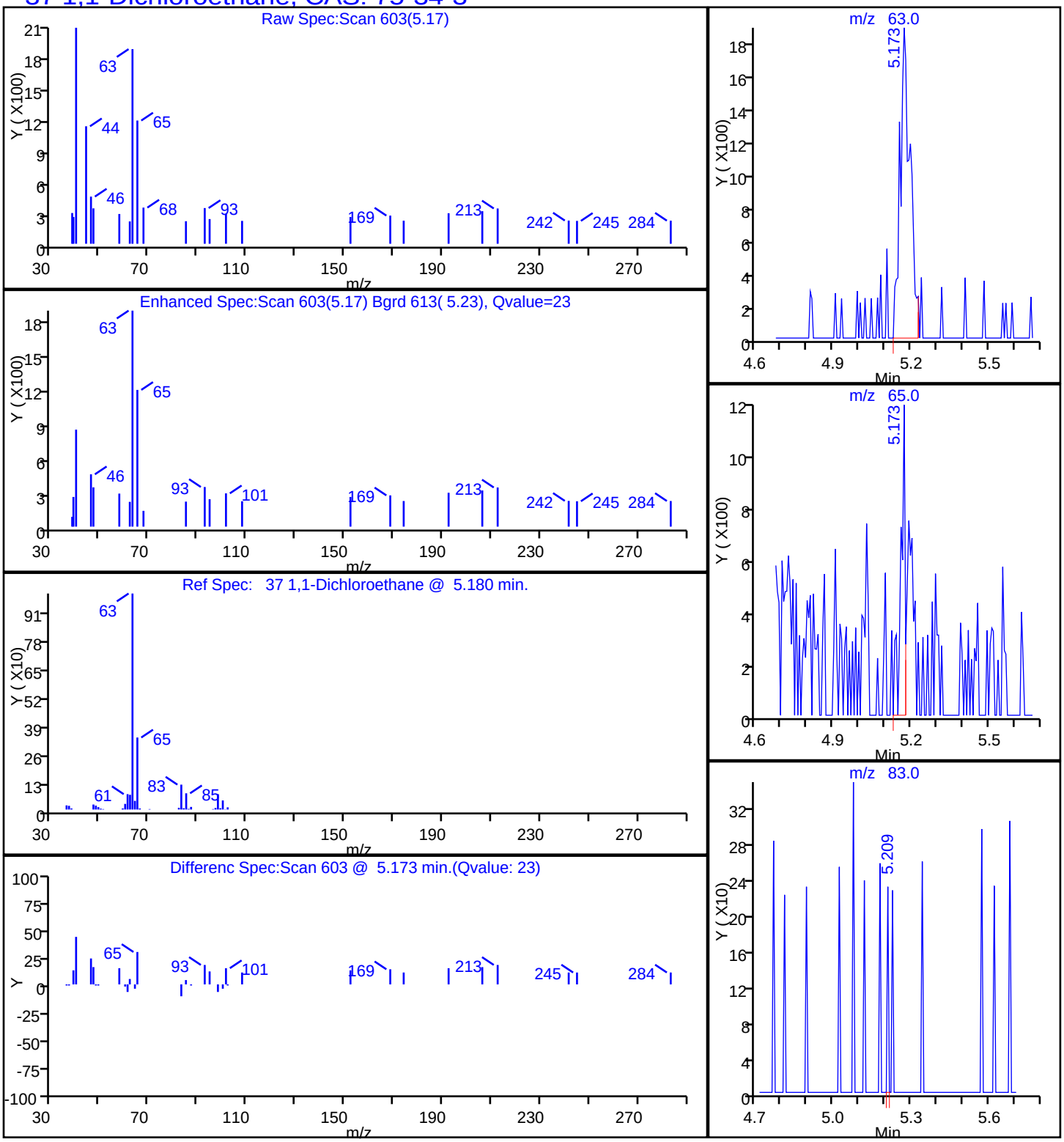
Report Date: 11-Mar-2015 07:35:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310013.D

Injection Date:	10-Mar-2015 16:36:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-6	Lab Sample ID:	180-41569-6		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

37 1,1-Dichloroethane, CAS: 75-34-3



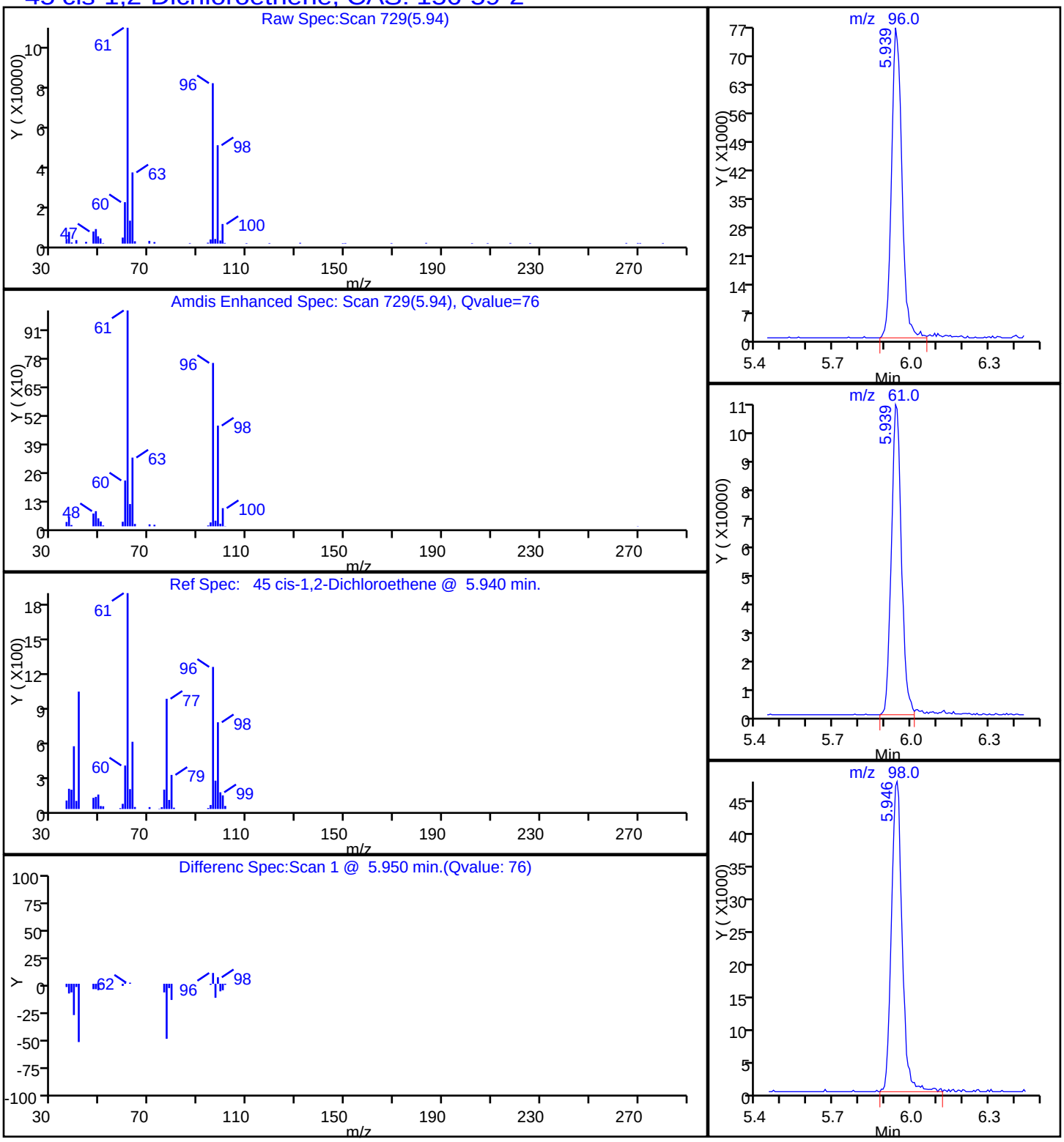
Report Date: 11-Mar-2015 07:35:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310013.D

Injection Date:	10-Mar-2015 16:36:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-6	Lab Sample ID:	180-41569-6		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

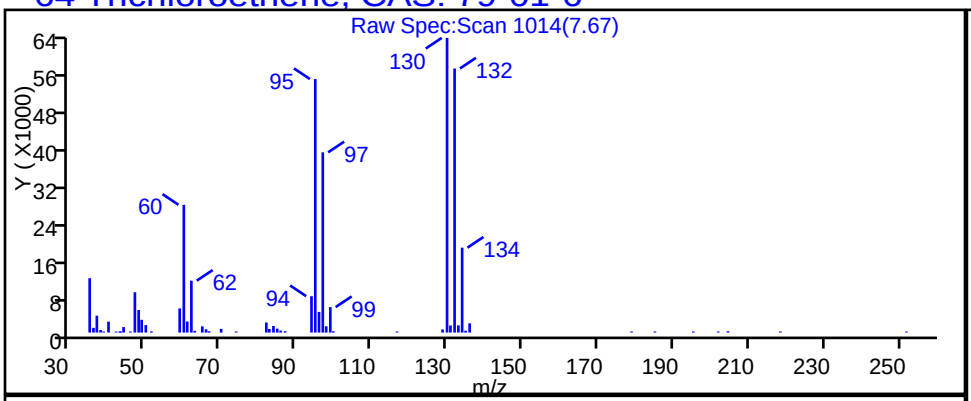


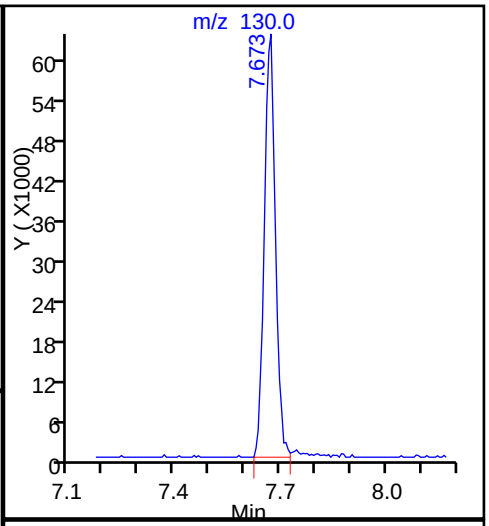
Report Date: 11-Mar-2015 07:35:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

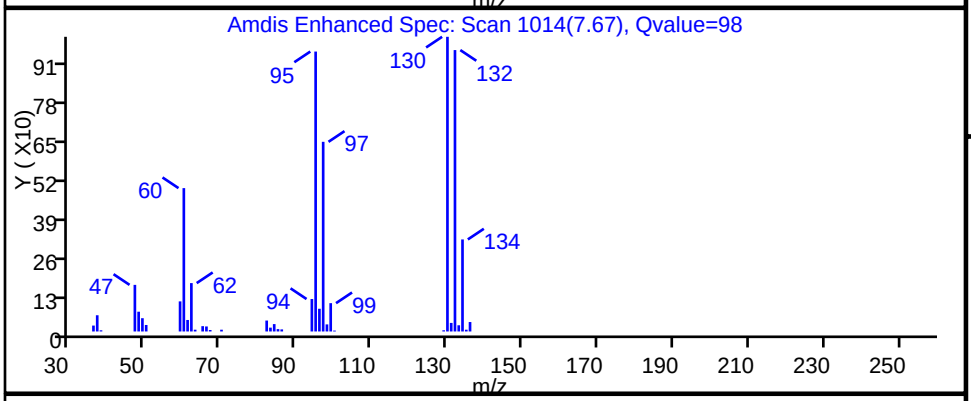
TestAmerica Pittsburgh

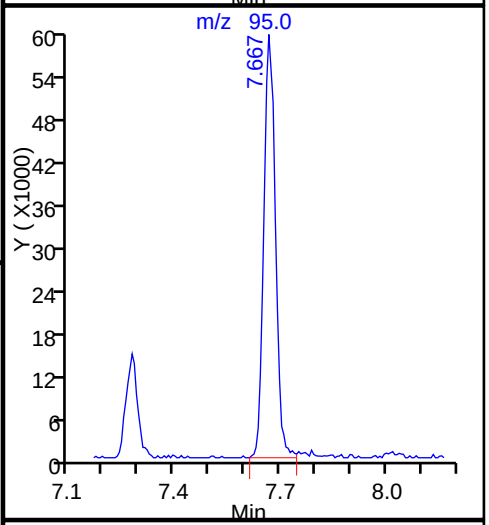
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310013.D				
Injection Date:	10-Mar-2015 16:36:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-D-6	Lab Sample ID:	180-41569-6		
Client ID:	HD-MW-114-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

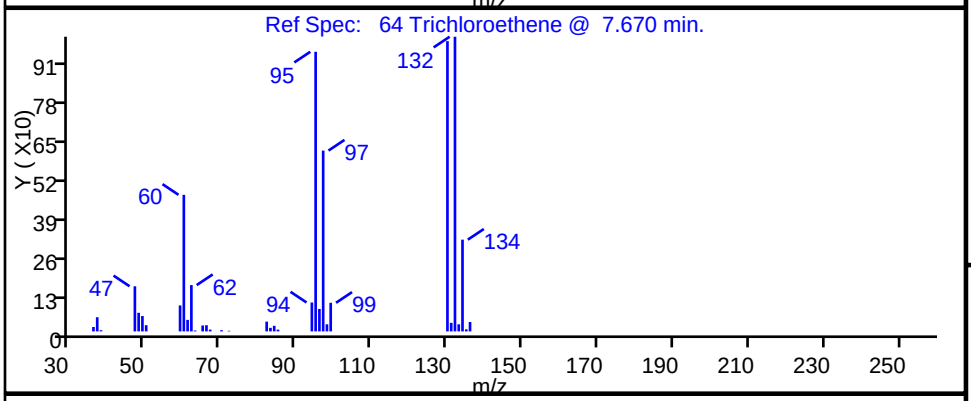
64 Trichloroethene, CAS: 79-01-6

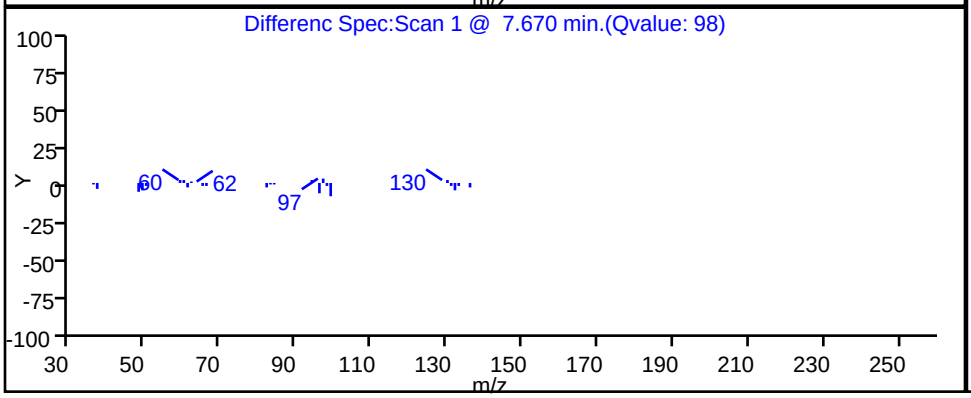


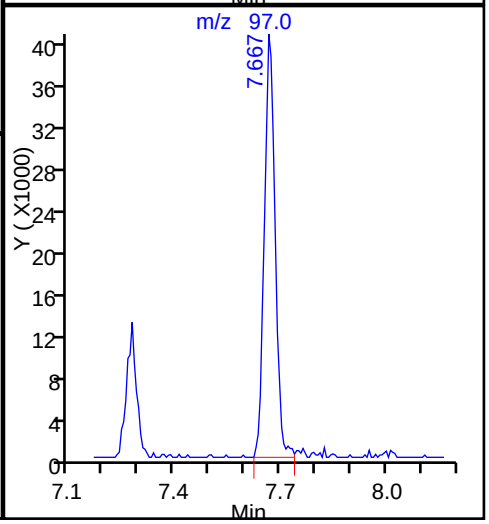












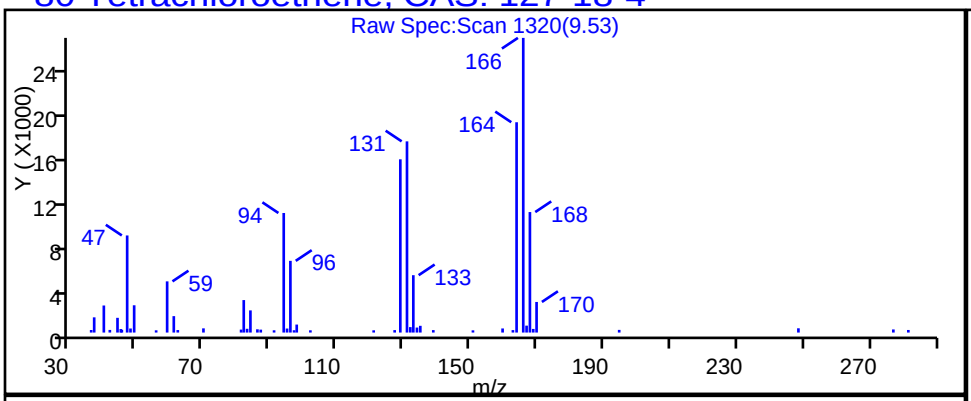
Report Date: 11-Mar-2015 07:35:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

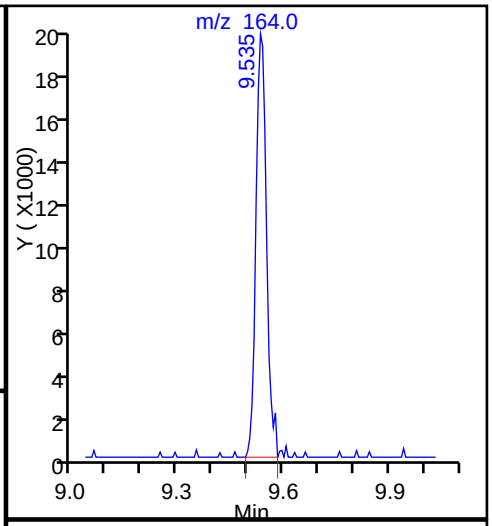
TestAmerica Pittsburgh

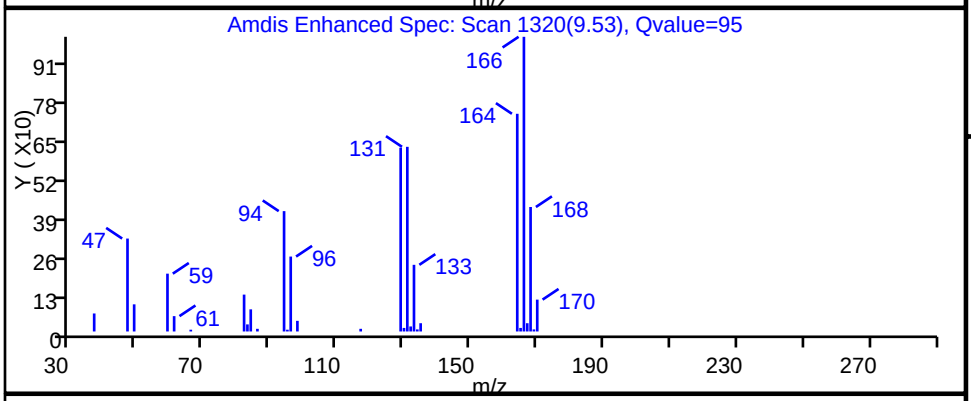
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310013.D

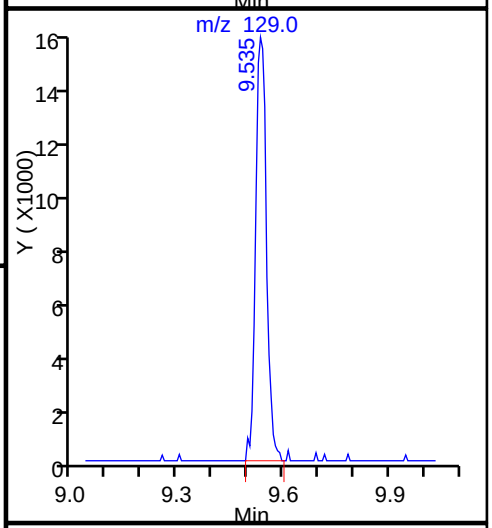
Injection Date:	10-Mar-2015 16:36:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-6	Lab Sample ID:	180-41569-6
Client ID:	HD-MW-114-0/1-0		
Operator ID:	001562	ALS Bottle#:	13 Worklist Smp#: 13
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

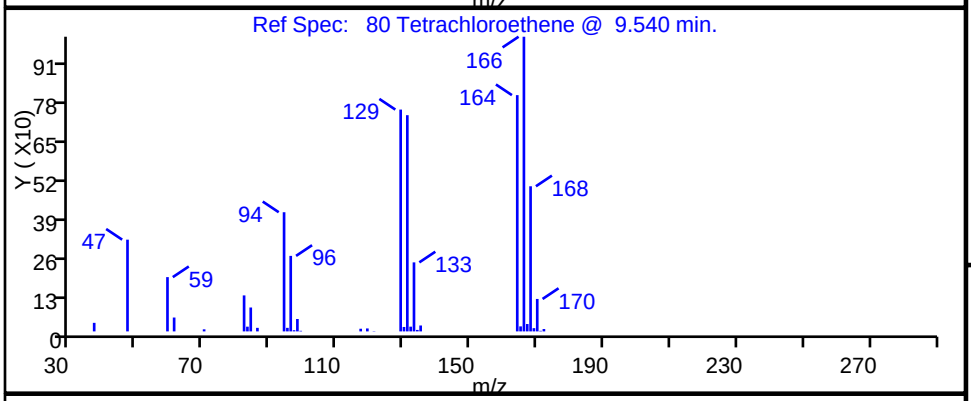
80 Tetrachloroethene, CAS: 127-18-4

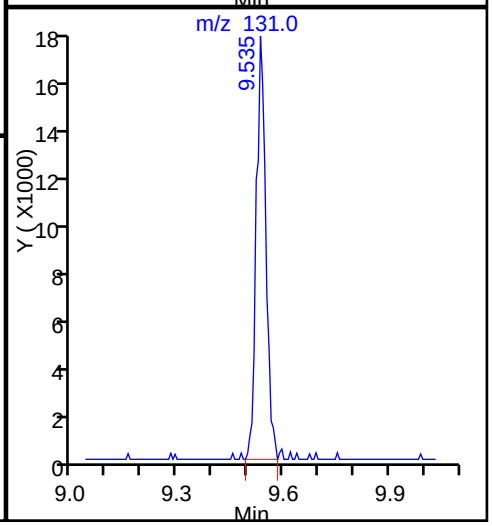


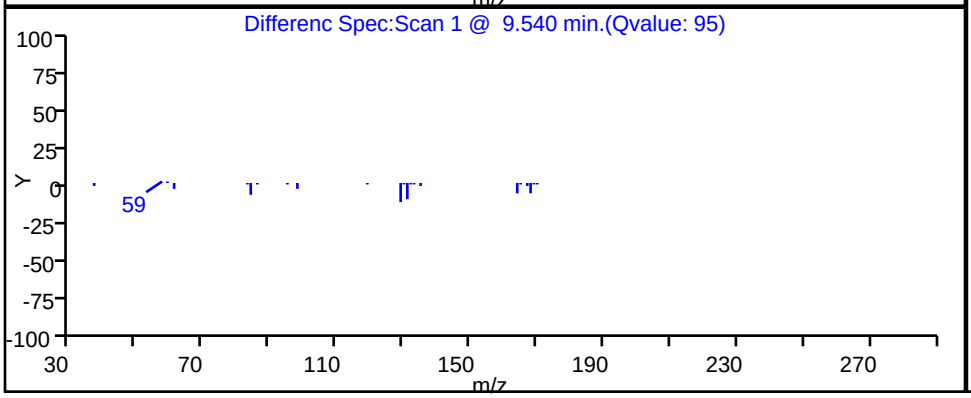












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-41569-7

Matrix: Water Lab File ID: 50310014.D

Analysis Method: 8260C Date Collected: 02/26/2015 14:40

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 17:00

Soil Aliquot Vol: Dilution Factor: 10

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	17		10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	7.4	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	200		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	26		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	220		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U *	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U *	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	210		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-41569-7

Matrix: Water Lab File ID: 50310014.D

Analysis Method: 8260C Date Collected: 02/26/2015 14:40

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 17:00

Soil Aliquot Vol: Dilution Factor: 10

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D
Lims ID: 180-41569-C-7 Lab Sample ID: 180-41569-7
Client ID: HD-MW-7-0/1-0
Sample Type: Client
Inject. Date: 10-Mar-2015 17:00:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-41569-C-7, 10x
Misc. Info.: 180-0005958-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:36:24 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:36:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.296	-0.006	80	74111	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.271	0.006	99	387256	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.367	-0.006	99	89027	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	139698	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.529	0.006	68	85078	51.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.900	0.006	97	102358	50.0	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	358839	51.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	97	129791	50.3	
12 Chloromethane	50		1.771				ND	
13 Vinyl chloride	62		1.899				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.378	3.371	0.007	94	19229	8.53	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.552				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.184	5.166	0.018	98	16538	3.68	
45 cis-1,2-Dichloroethene	96	5.945	5.933	0.013	76	251320	99.7	
46 2-Butanone (MEK)	43		5.981				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83	6.346	6.340	0.006	1	994	0.2775	
53 1,1,1-Trichloroethane	97	6.529	6.523	0.006	68	32157	13.2	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.979				ND	
64 Trichloroethene	130	7.667	7.660	0.007	99	251874	109.3	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.196				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.534	9.540	-0.006	97	180543	106.5	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

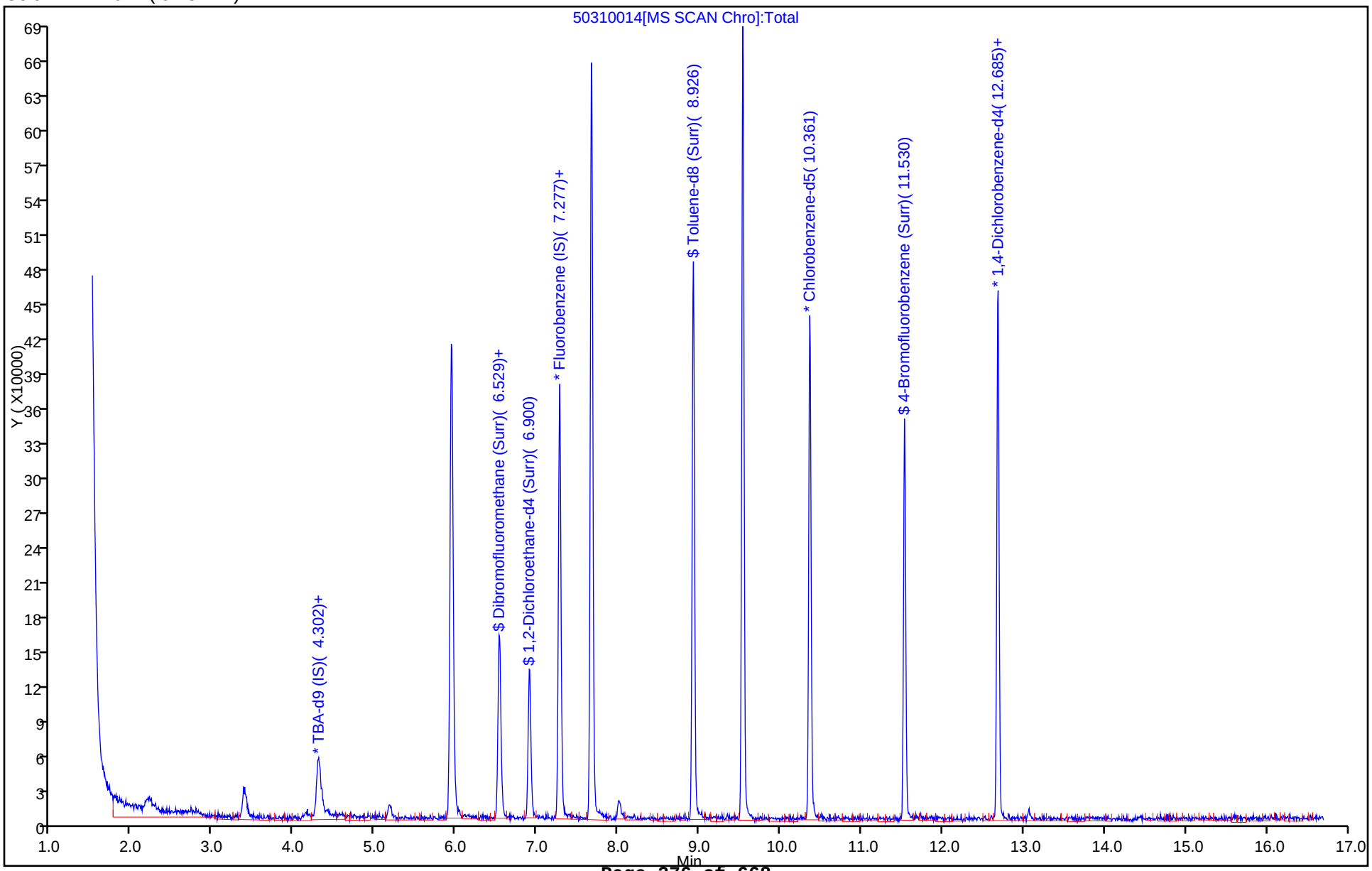
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D

Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7	Worklist Smp#:	14
Client ID:	HD-MW-7-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



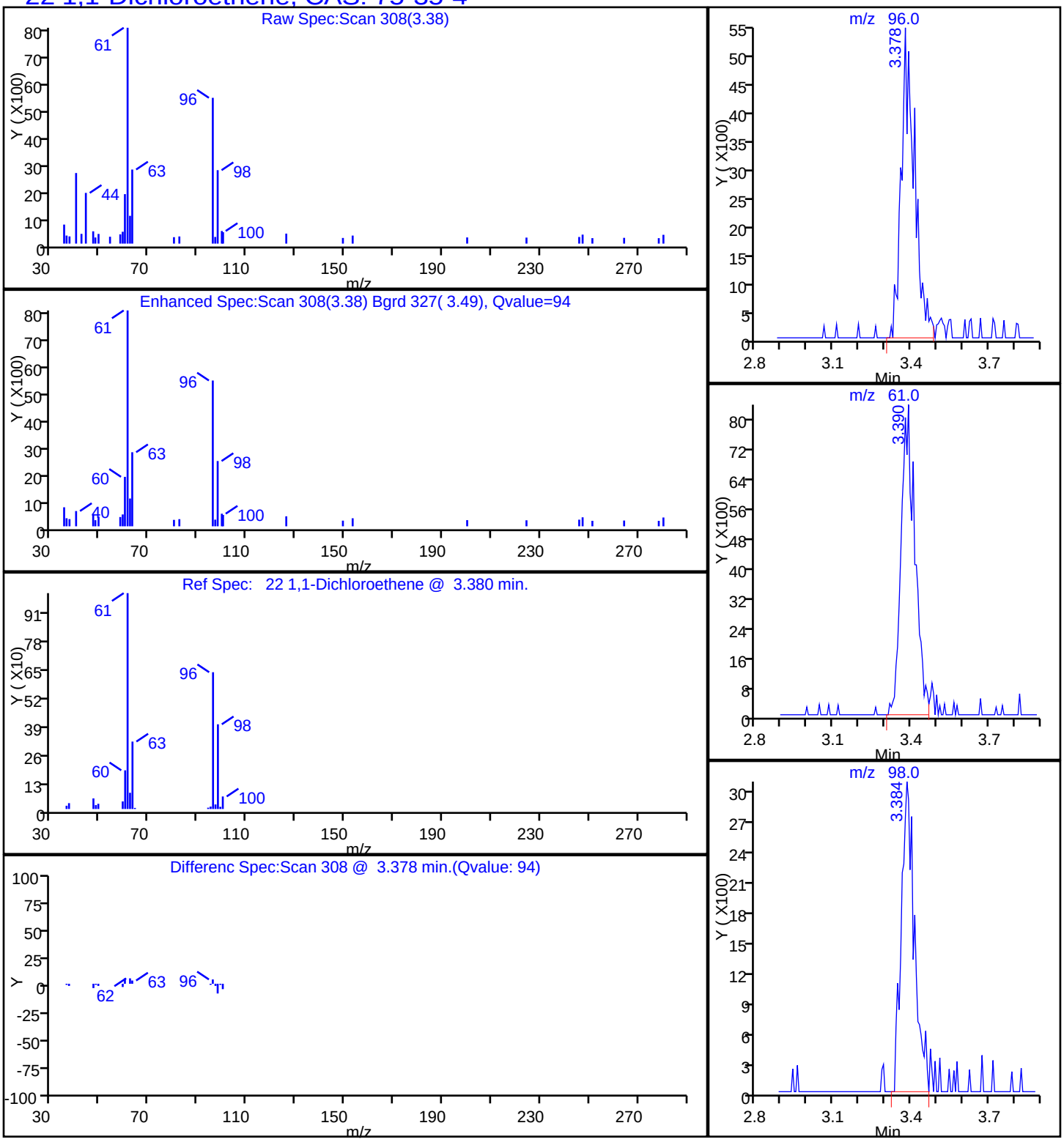
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D

Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



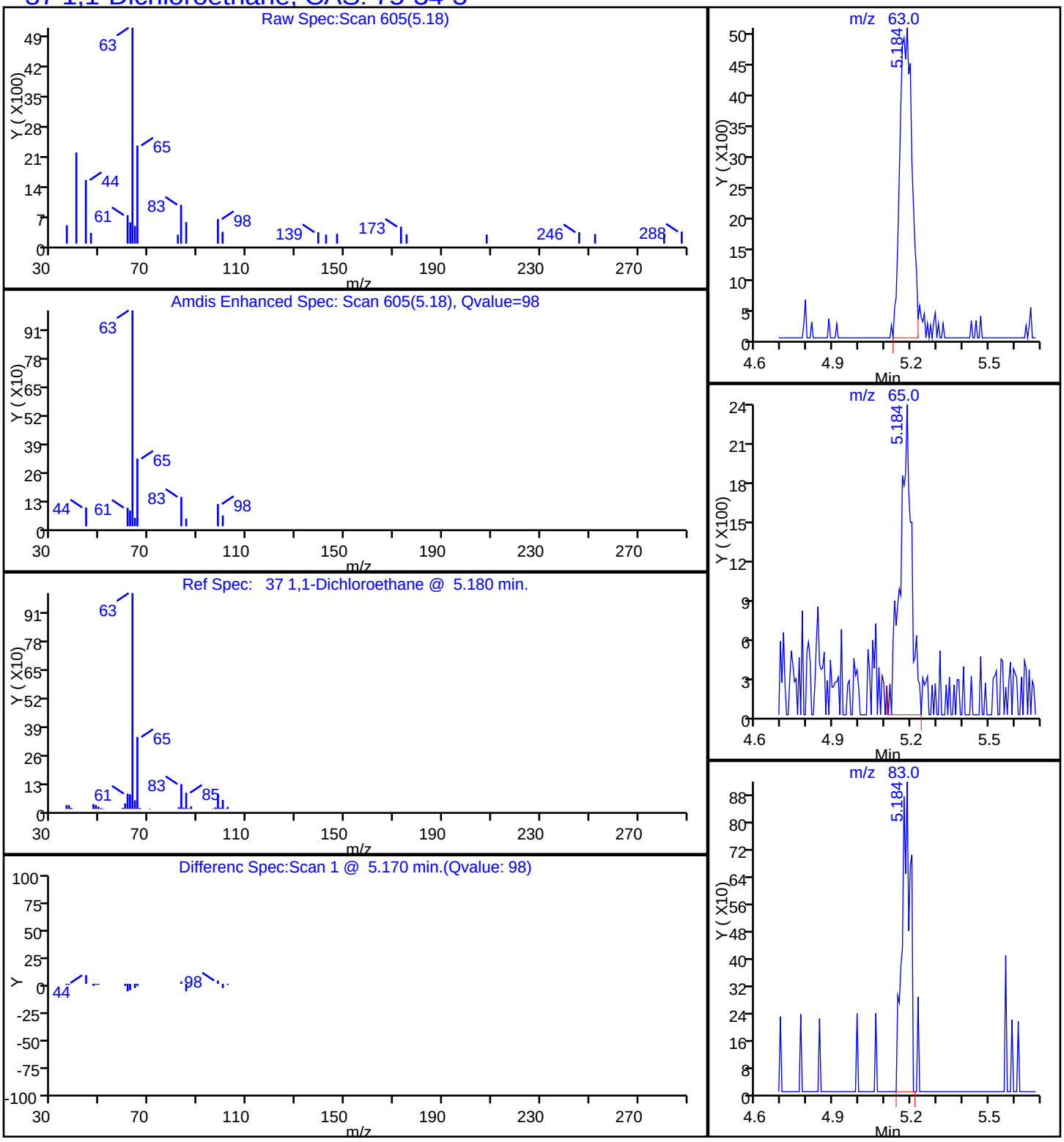
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D

Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

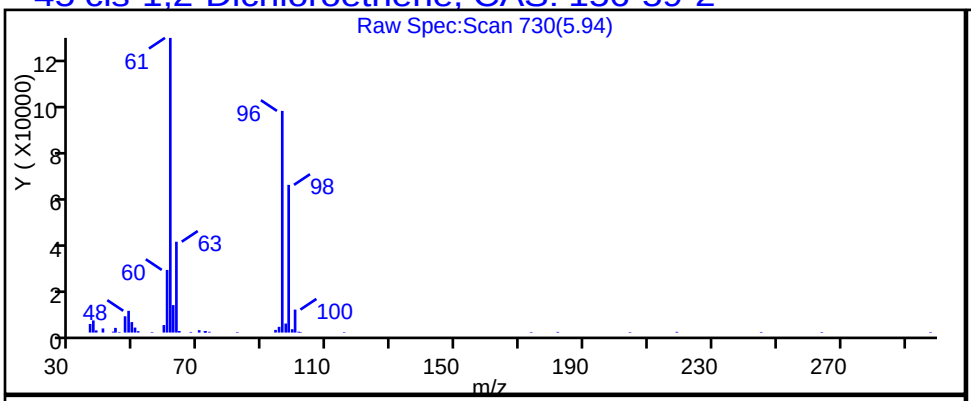


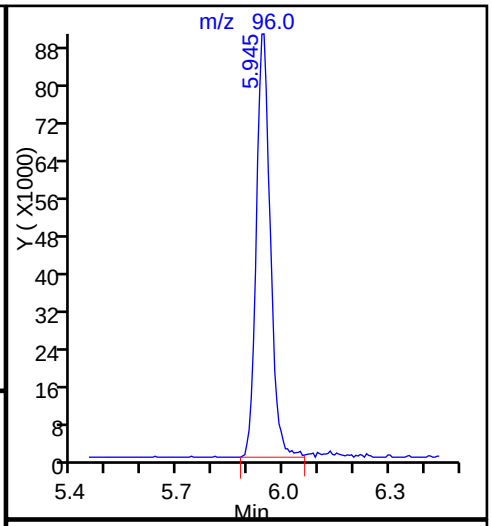
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

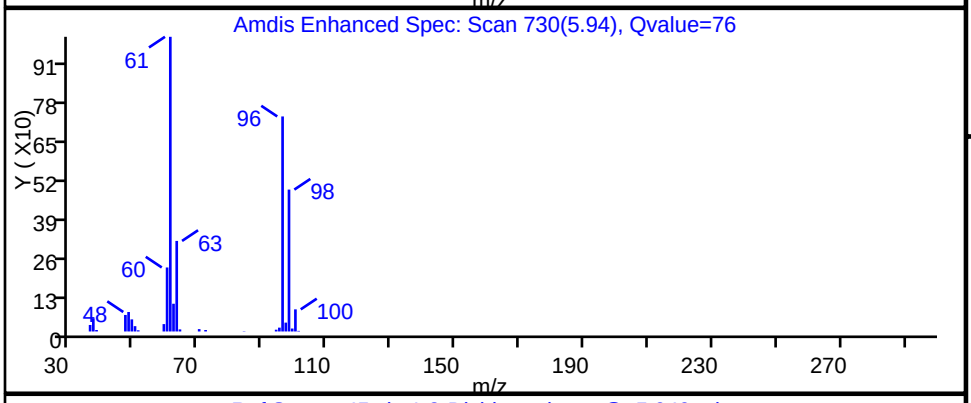
TestAmerica Pittsburgh

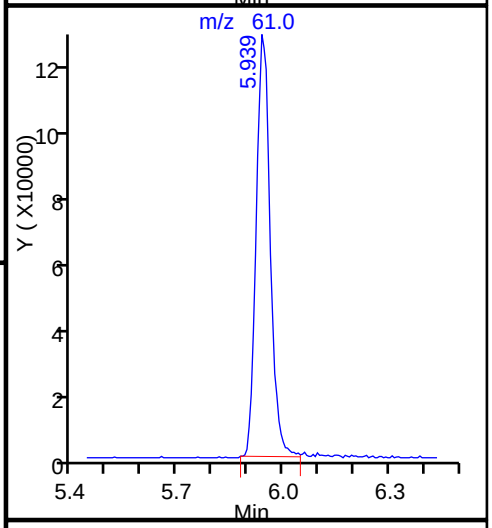
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D				
Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

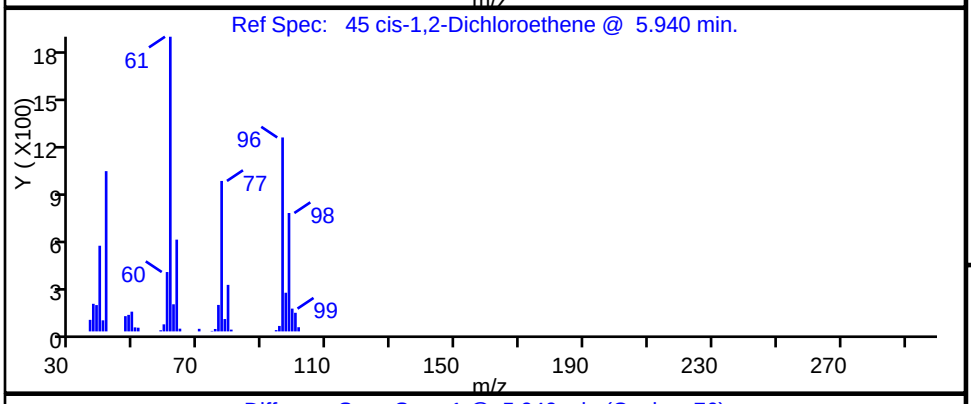
45 cis-1,2-Dichloroethene, CAS: 156-59-2

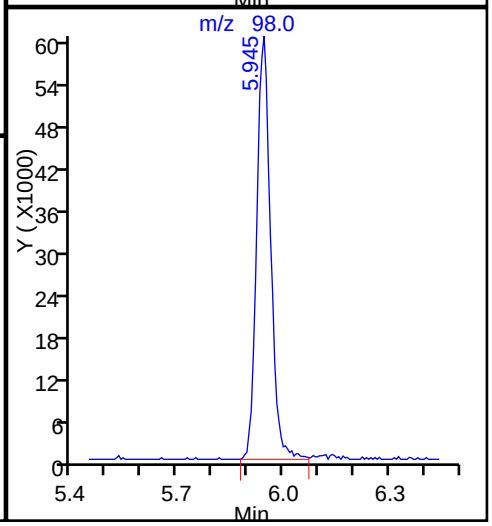


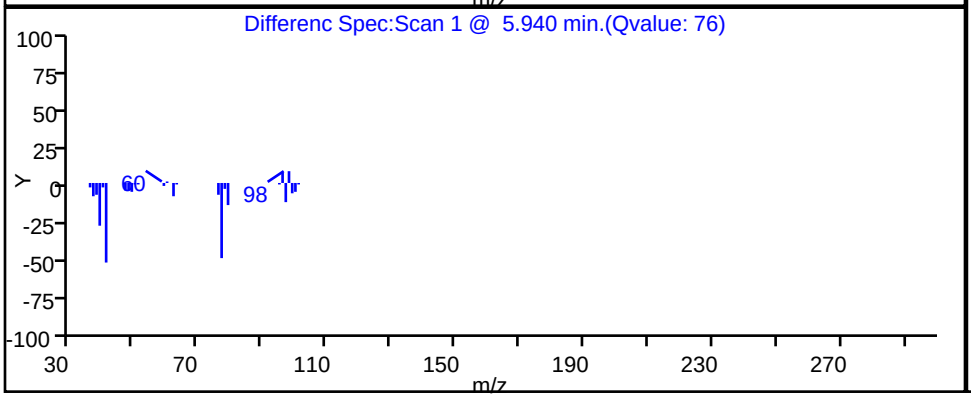










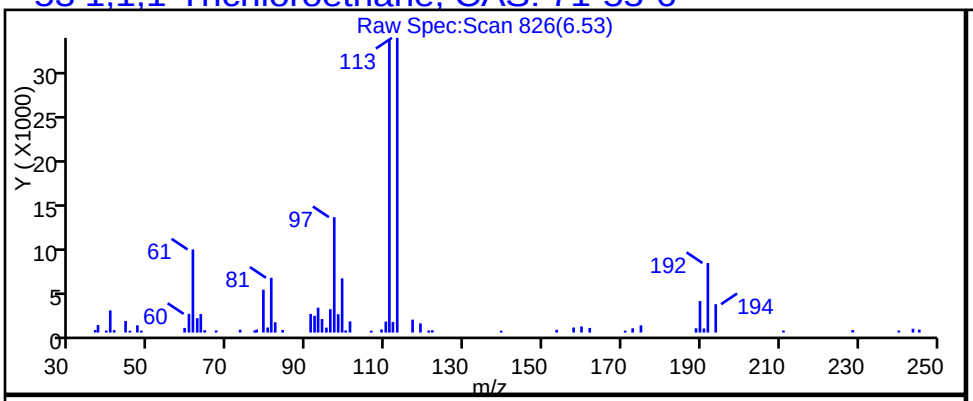


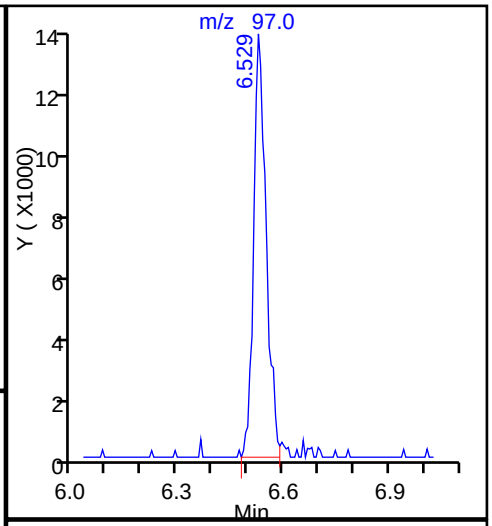
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

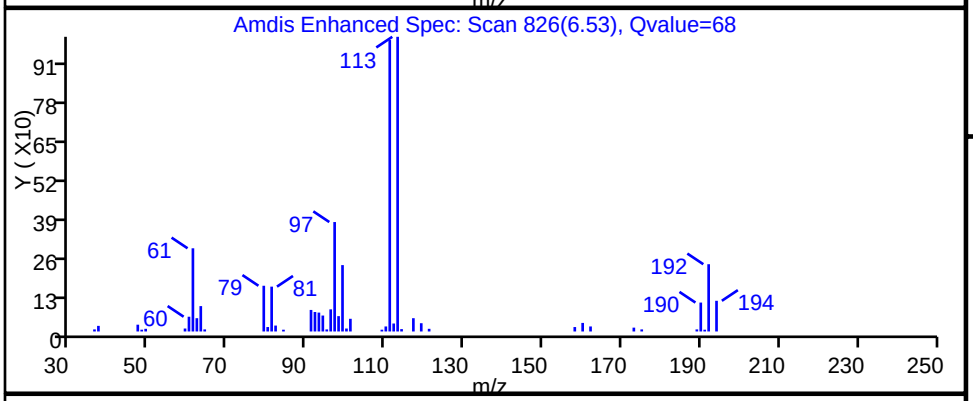
TestAmerica Pittsburgh

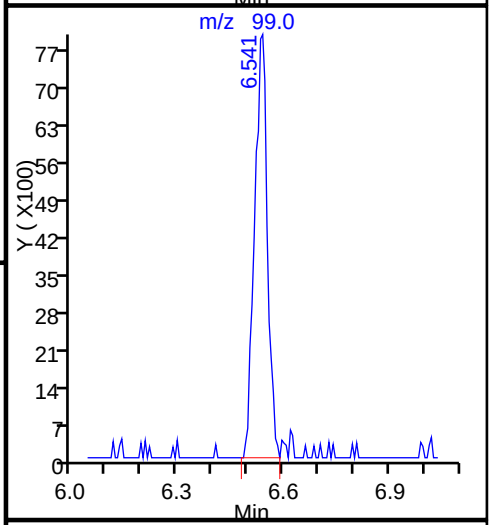
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D		
Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

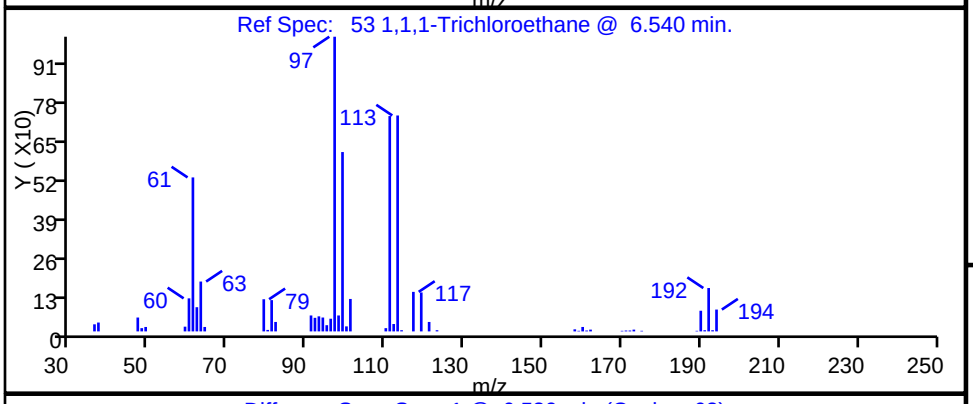
53 1,1,1-Trichloroethane, CAS: 71-55-6

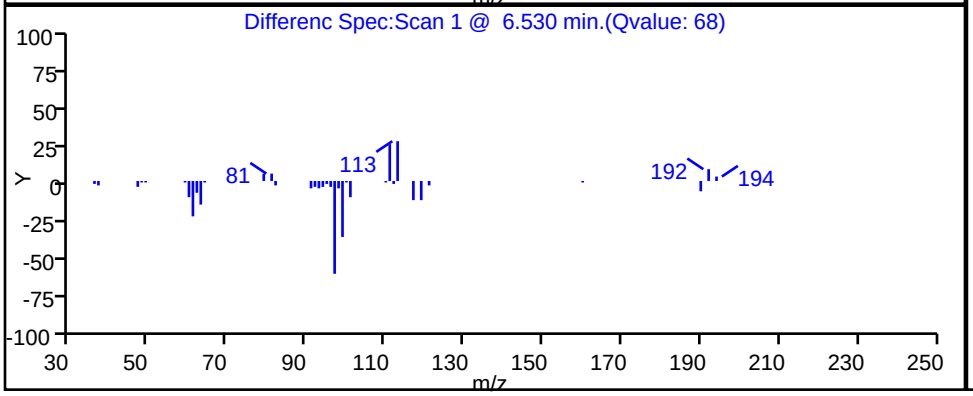


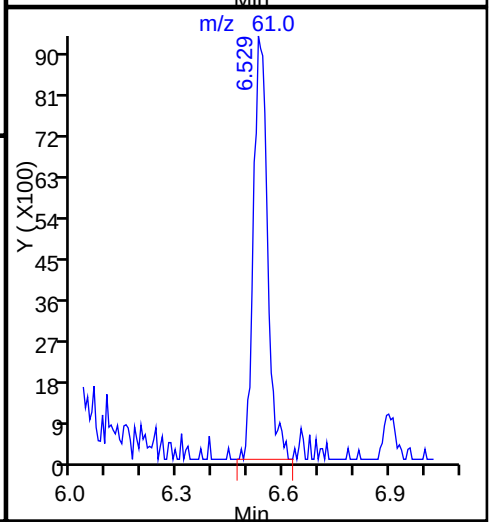












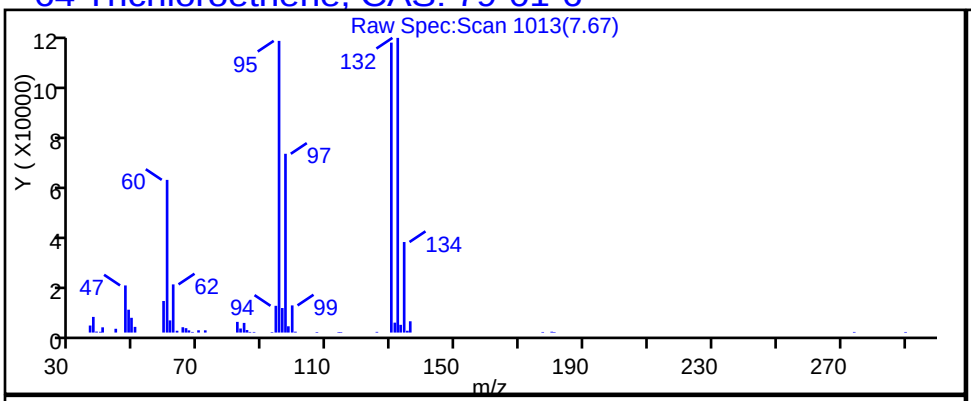
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

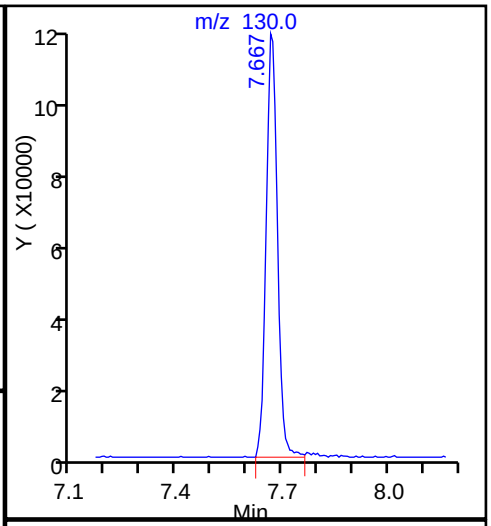
TestAmerica Pittsburgh

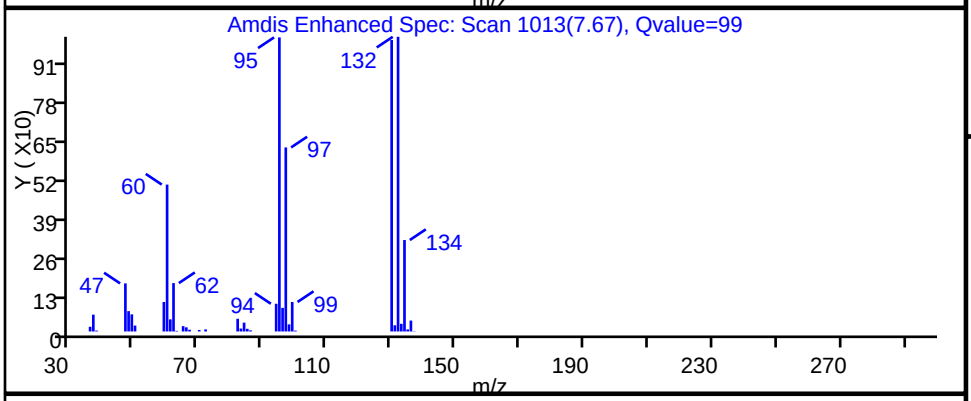
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D

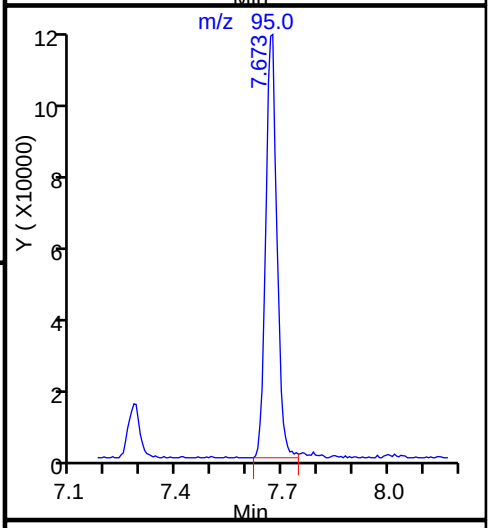
Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

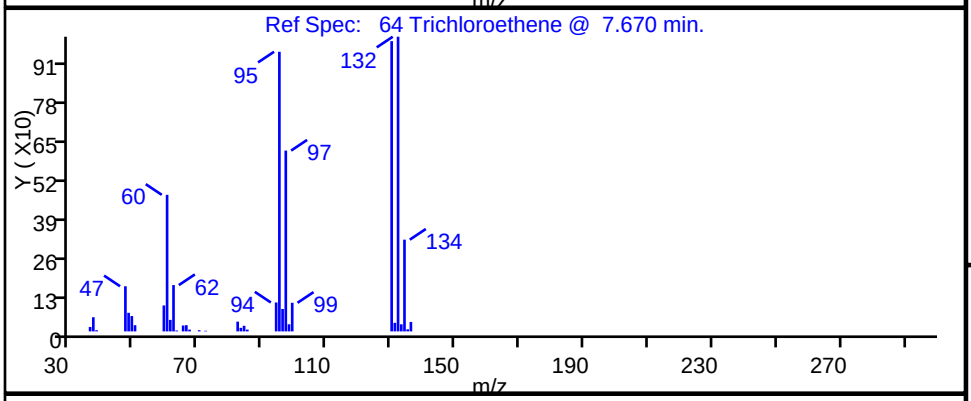
64 Trichloroethene, CAS: 79-01-6

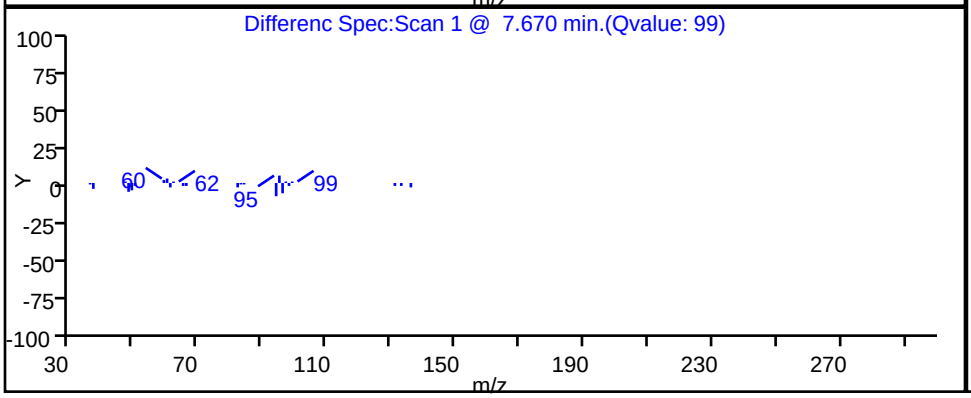


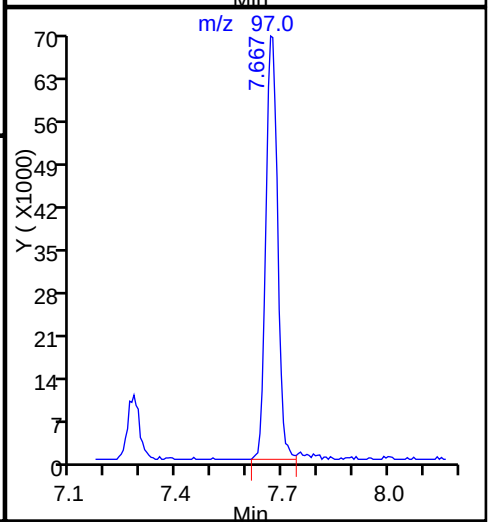










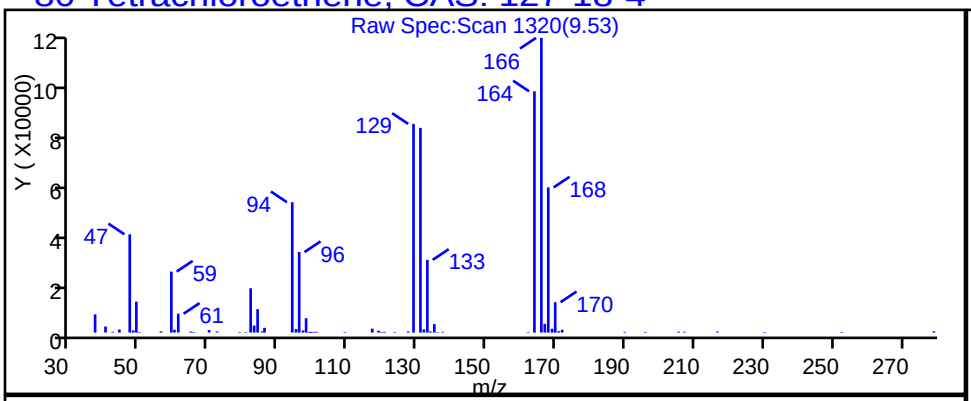


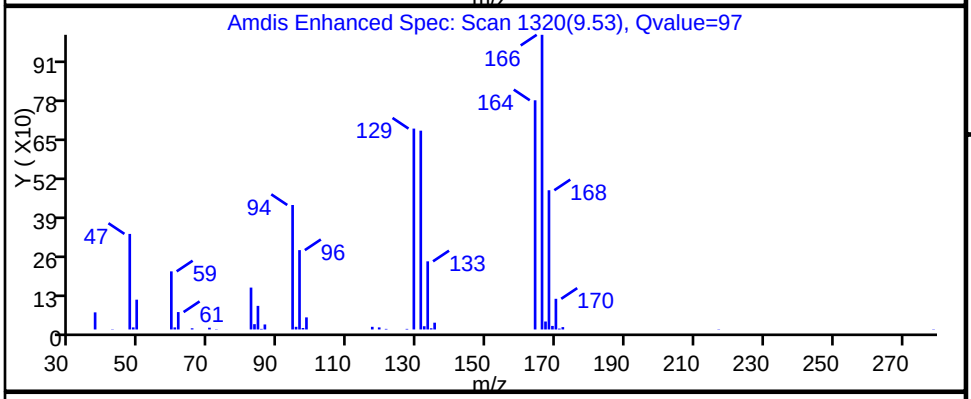
Report Date: 11-Mar-2015 07:36:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

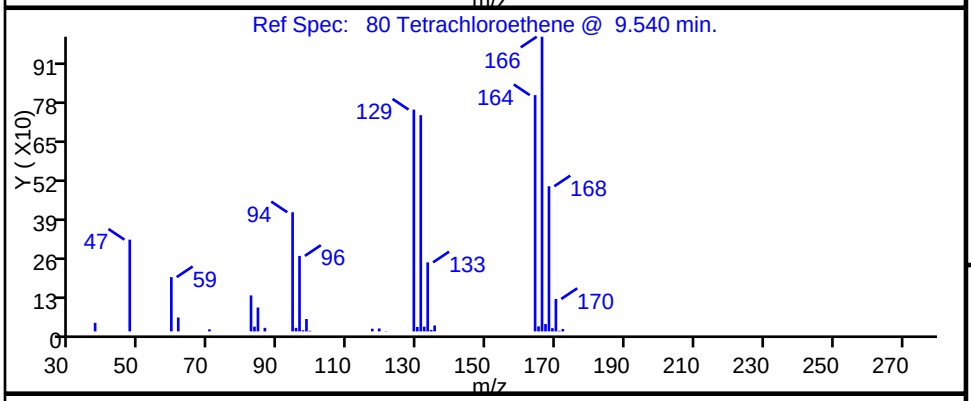
TestAmerica Pittsburgh

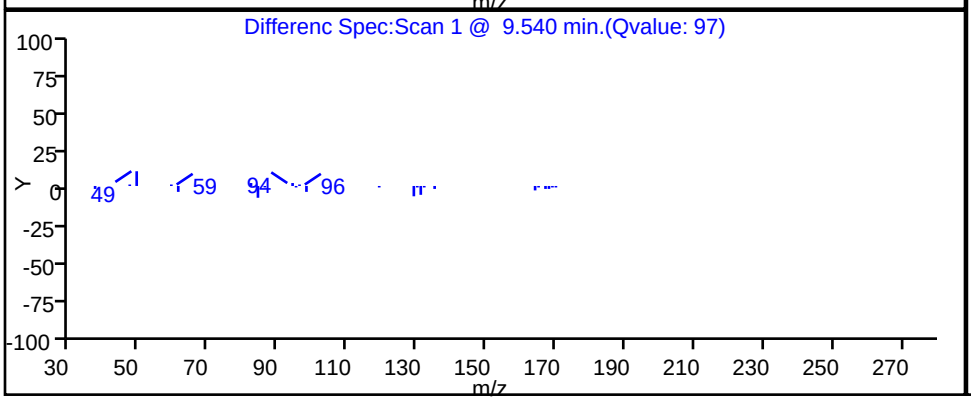
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310014.D		
Injection Date:	10-Mar-2015 17:00:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-7	Lab Sample ID:	180-41569-7
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

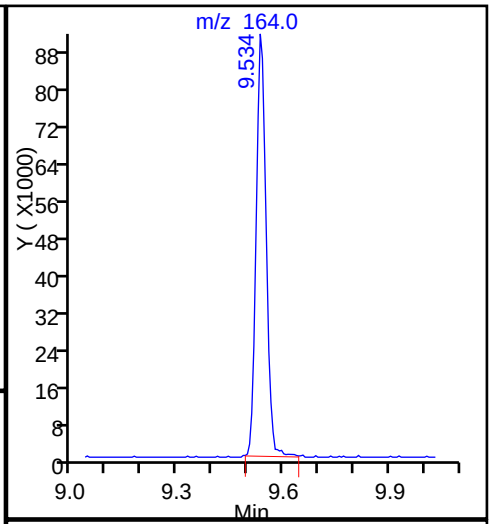
80 Tetrachloroethene, CAS: 127-18-4

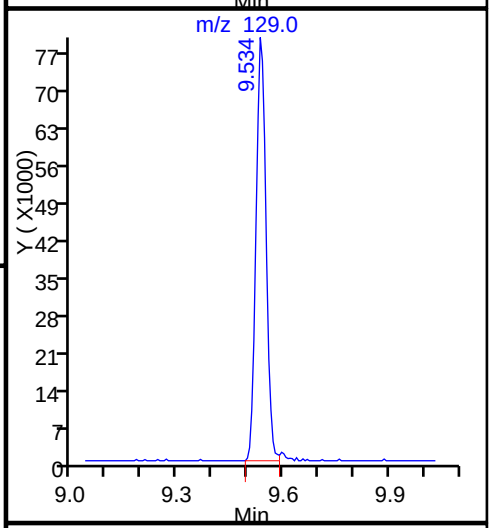


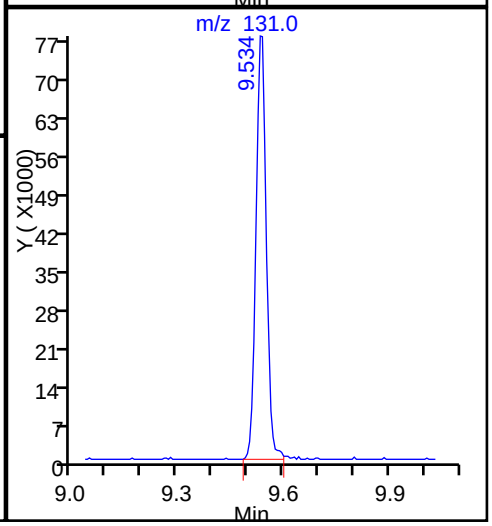












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 | Lab Sample ID: 180-41569-8

Matrix: Water | Lab File ID: 50310015.D

Analysis Method: 8260C | Date Collected: 02/26/2015 05:50

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 17:25

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.: 135153 | 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	6.2		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	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	2.7	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	73		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	10		5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	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	69		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	42		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.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-41569-8

Matrix: Water Lab File ID: 50310015.D

Analysis Method: 8260C Date Collected: 02/26/2015 05:50

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 17:25

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.: 135153 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)	100		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D
Lims ID: 180-41569-C-8 Lab Sample ID: 180-41569-8
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 10-Mar-2015 17:25:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-41569-C-8, 5x
Misc. Info.: 180-0005958-015
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:37:25 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:37:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.299	4.296	0.003	85	76061	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.271	0.002	99	386036	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.367	-0.003	99	89264	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.685	-0.003	99	140693	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.529	0.002	65	82727	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.900	0.002	97	102202	50.0	
$ 7 Toluene-d8 (Surr)	98	8.922	8.926	-0.004	100	347459	49.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.529	0.003	97	132152	51.1	
12 Chloromethane	50		1.771				ND	
13 Vinyl chloride	62		1.899				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.398	3.371	0.027	79	13892	6.18	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.552				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.187	5.166	0.021	96	12183	2.72	
45 cis-1,2-Dichloroethene	96	5.941	5.933	0.009	76	183767	73.1	
46 2-Butanone (MEK)	43		5.981				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83	6.343	6.340	0.003	1	1384	0.3877	
53 1,1,1-Trichloroethane	97	6.537	6.523	0.014	65	25030	10.3	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.979				ND	
64 Trichloroethene	130	7.669	7.660	0.009	99	157672	68.7	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.196				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.543	9.540	0.003	96	70838	41.7	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

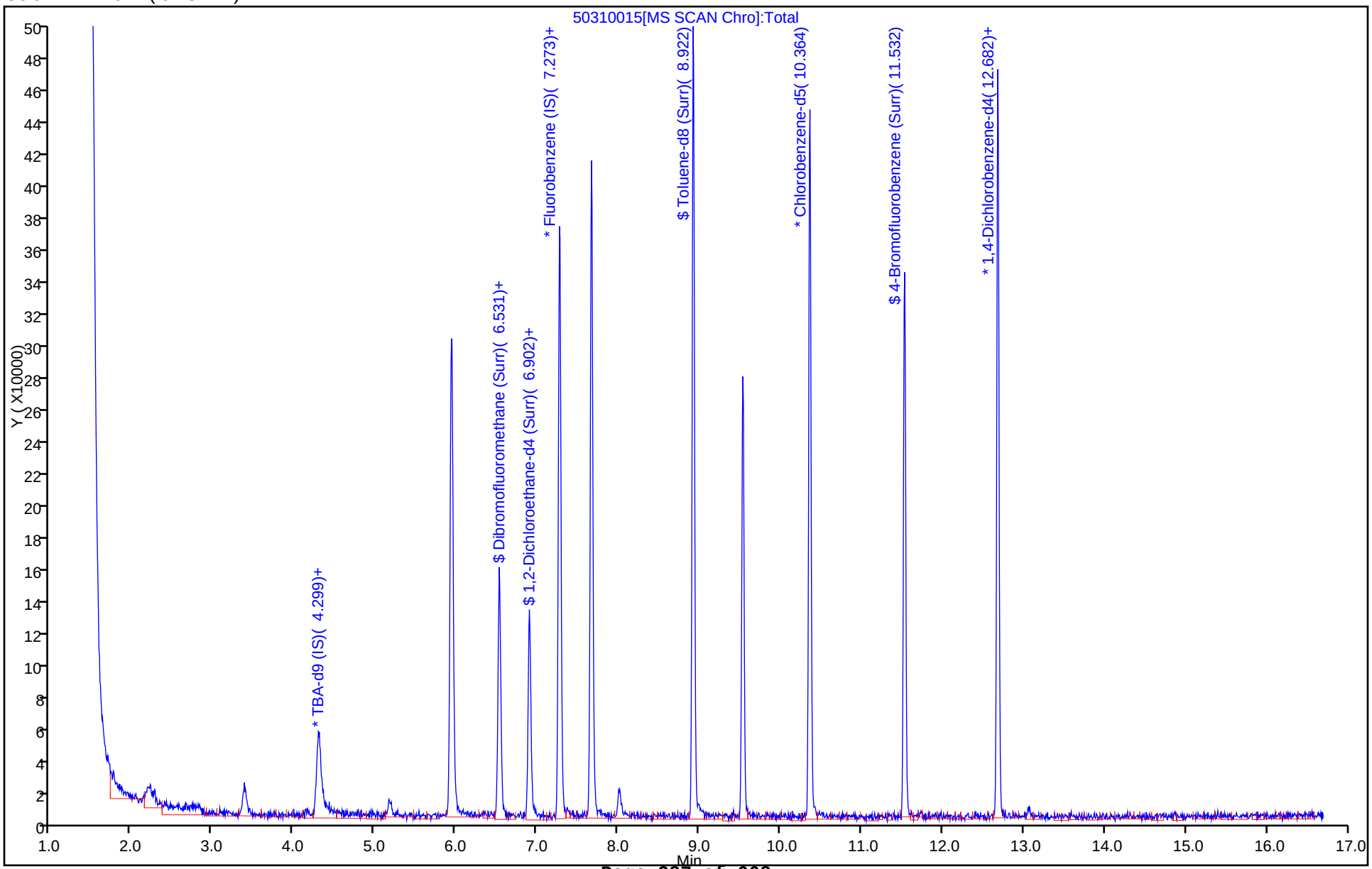
Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D

Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8	Worklist Smp#:	15
Client ID:	HD-CW-17-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



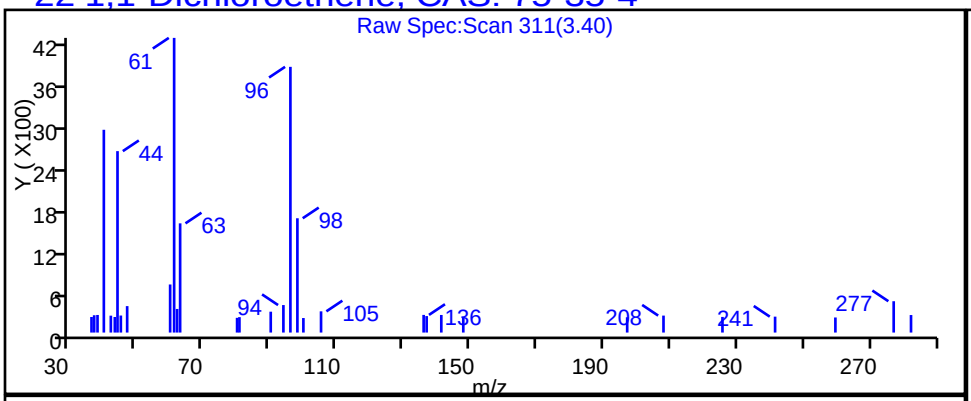
Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

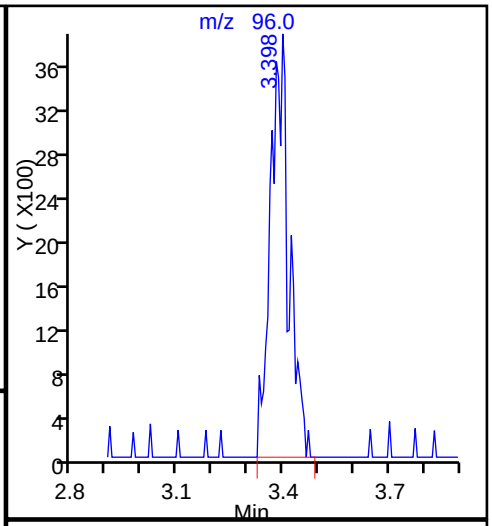
TestAmerica Pittsburgh

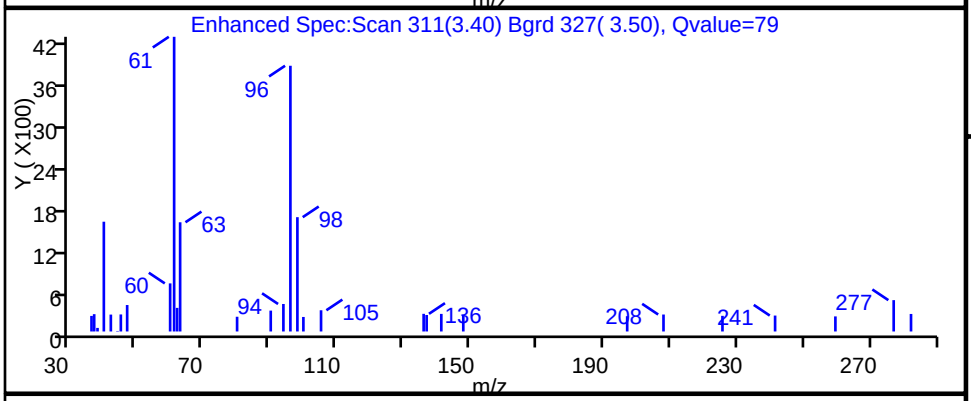
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D

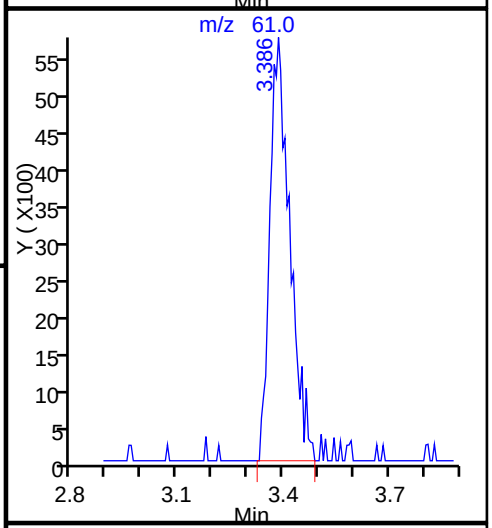
Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8
Client ID:	HD-CW-17-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

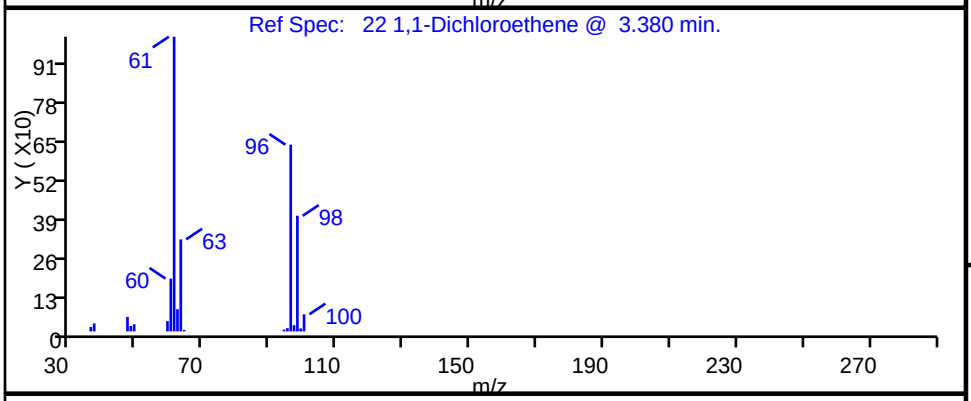
22 1,1-Dichloroethene, CAS: 75-35-4

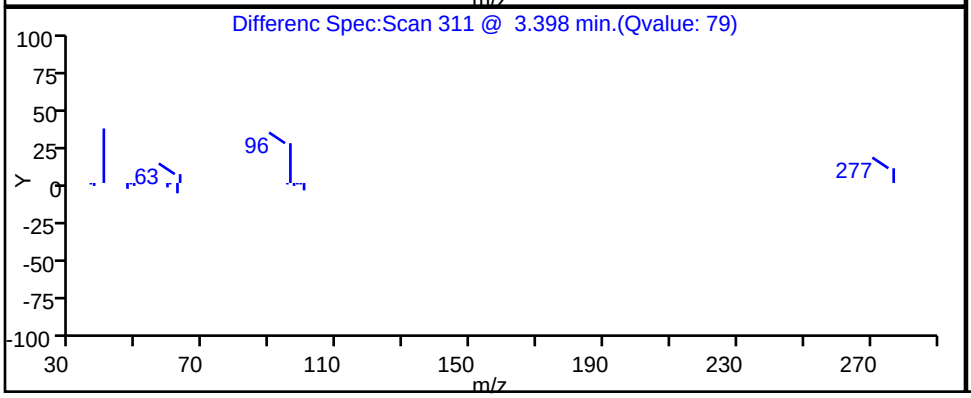


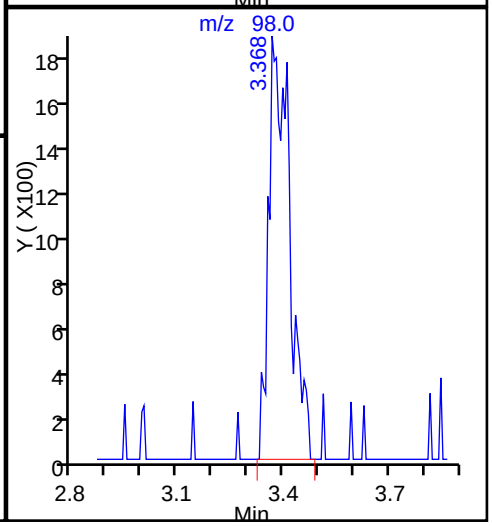












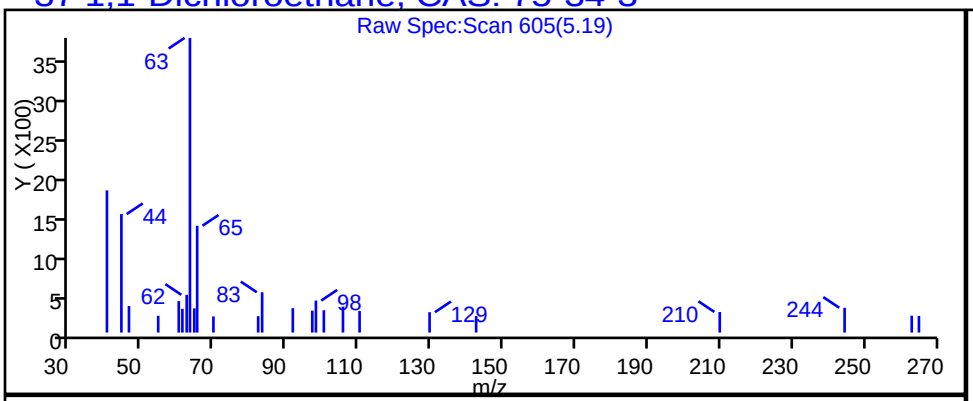
Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

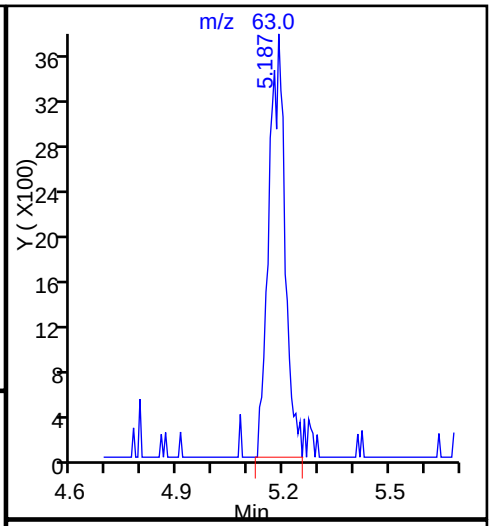
TestAmerica Pittsburgh

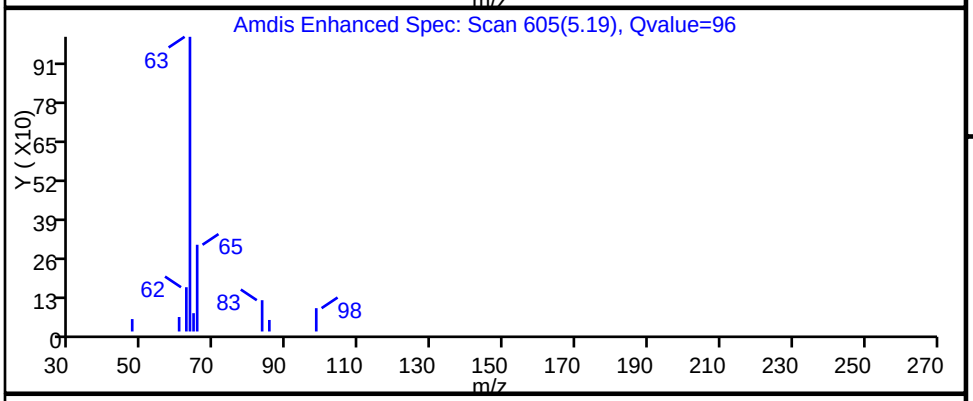
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D

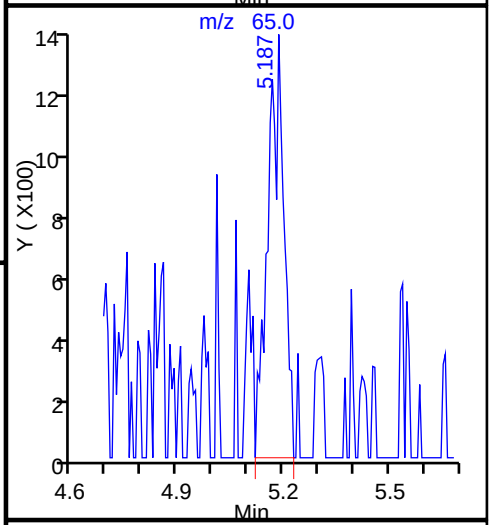
Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8
Client ID:	HD-CW-17-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

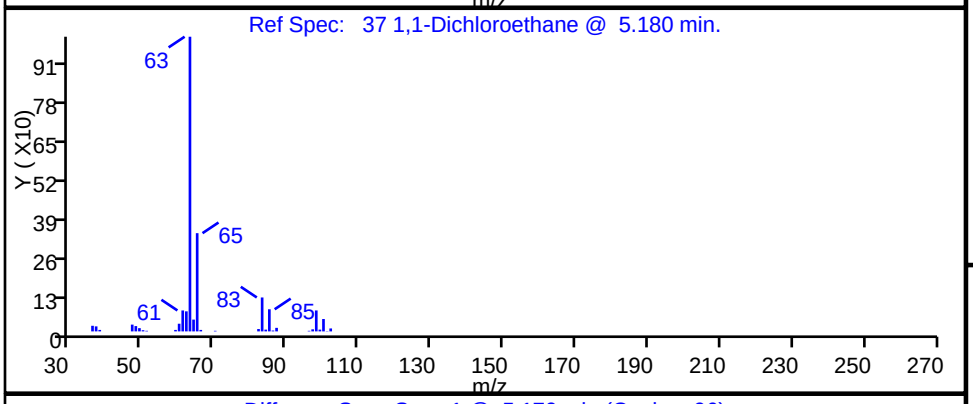
37 1,1-Dichloroethane, CAS: 75-34-3

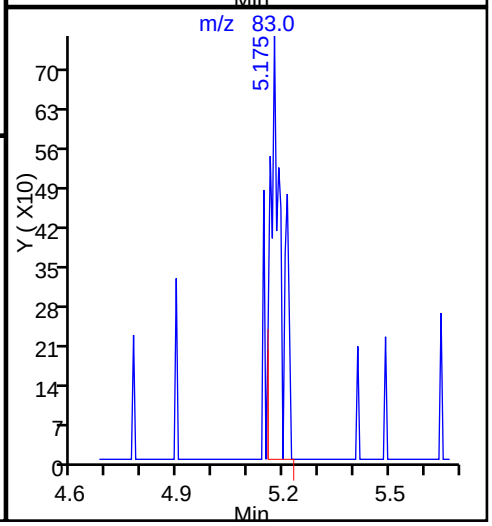


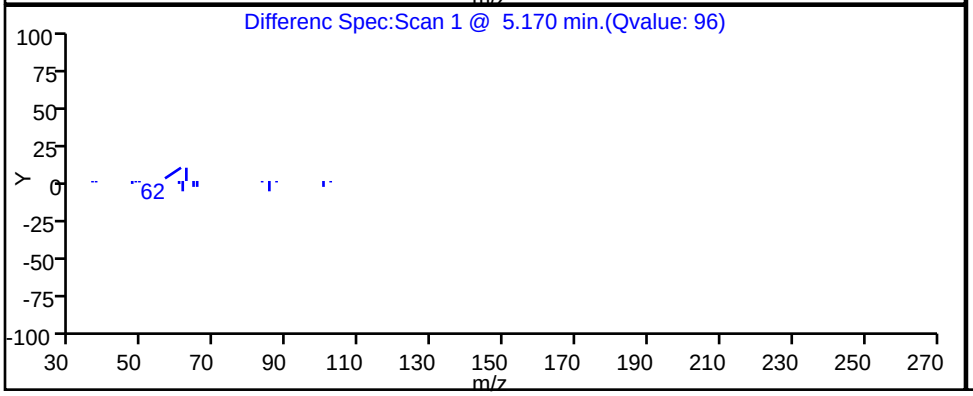












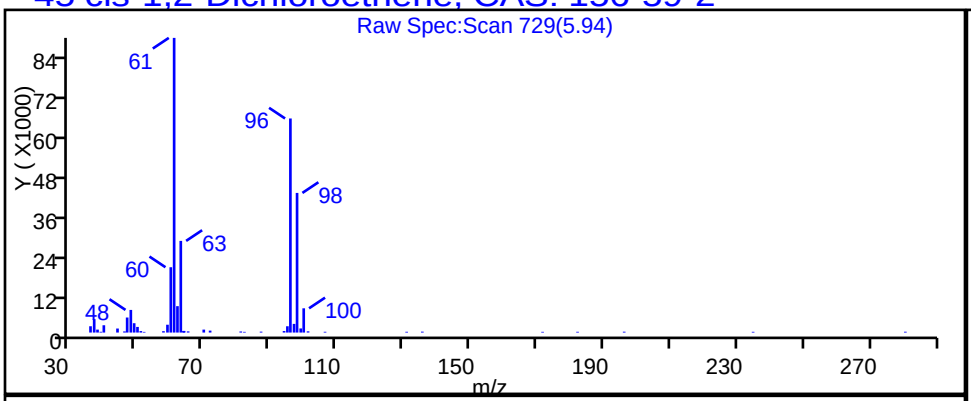
Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

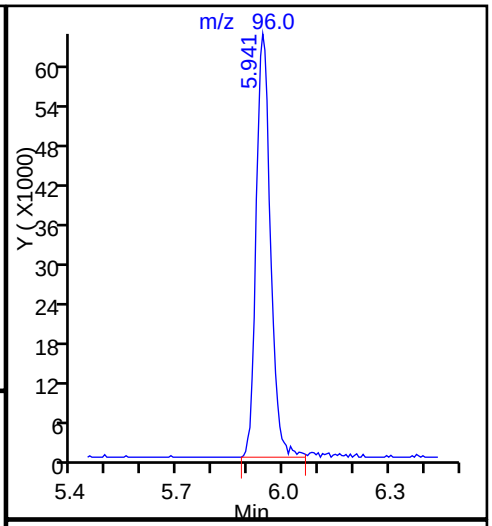
TestAmerica Pittsburgh

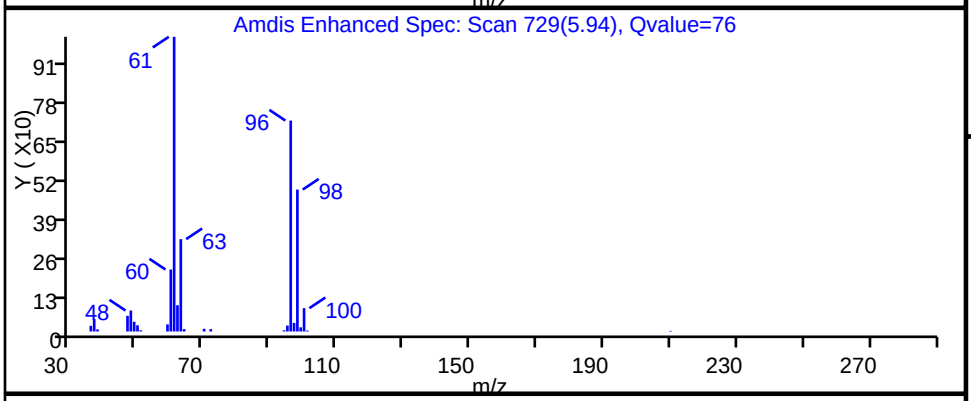
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D

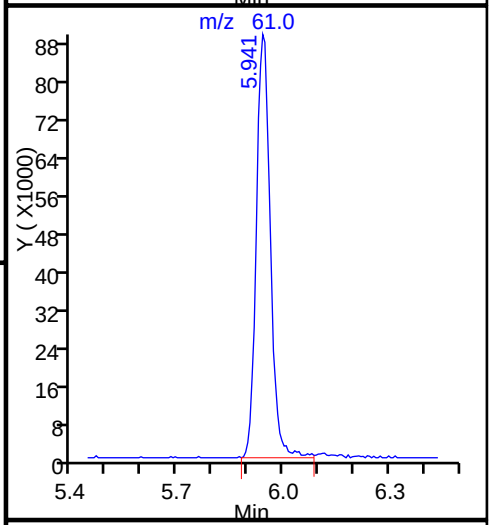
Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

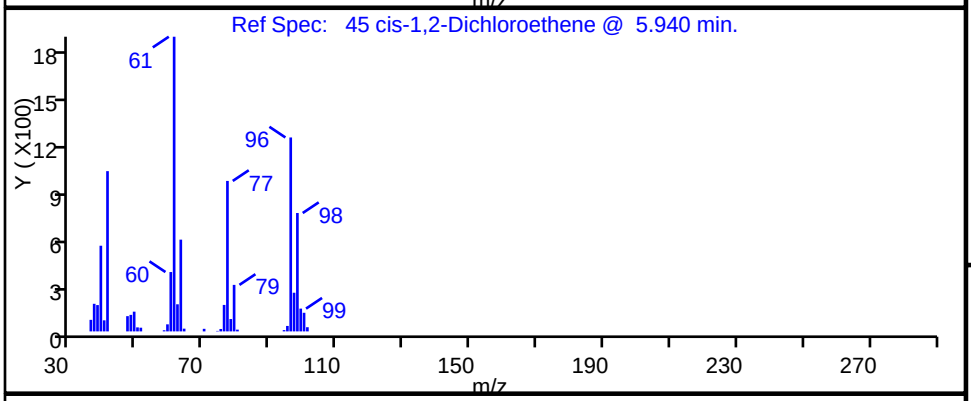
45 cis-1,2-Dichloroethene, CAS: 156-59-2

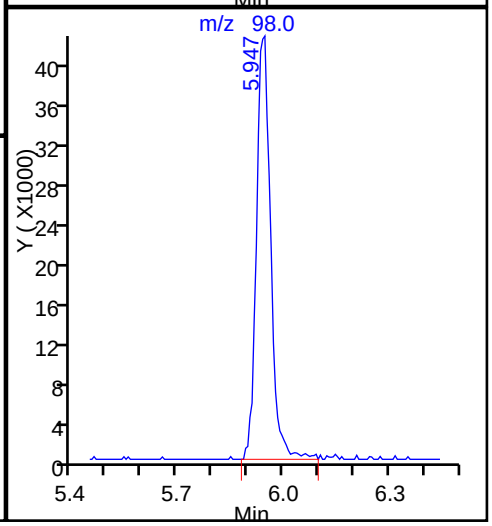


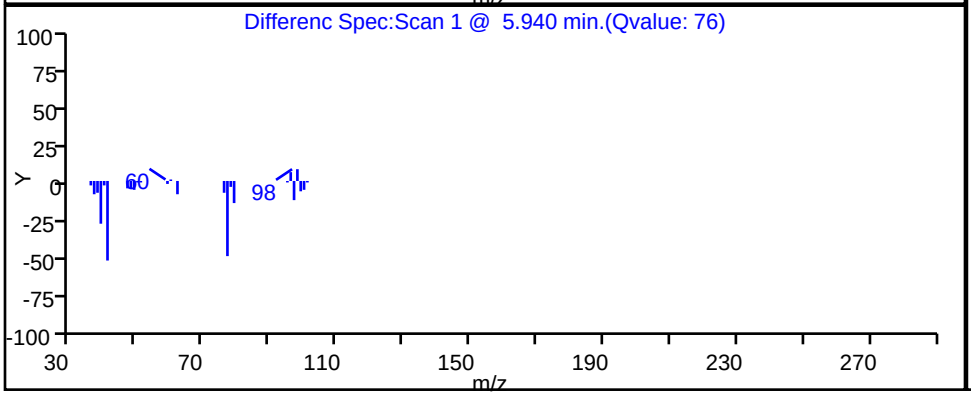










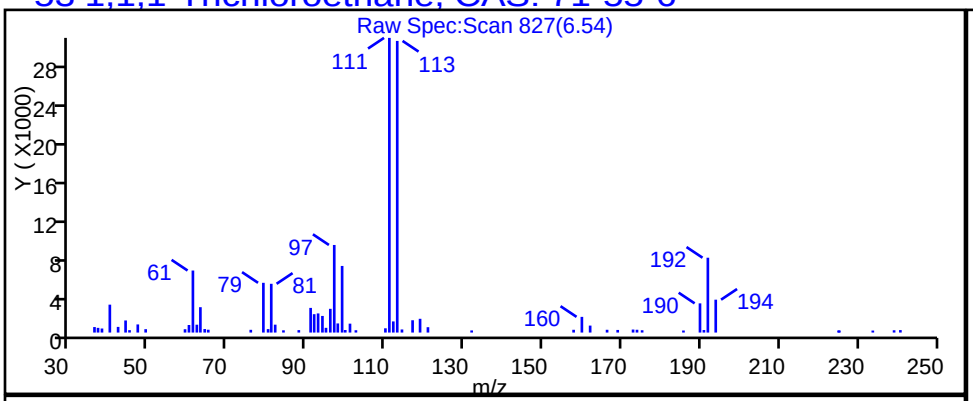


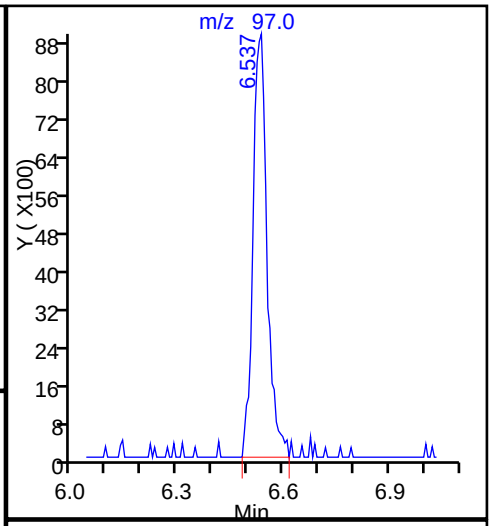
Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

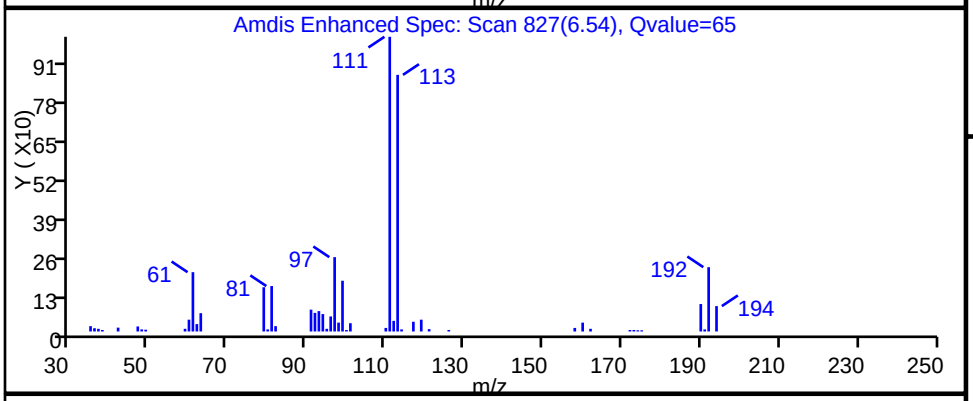
TestAmerica Pittsburgh

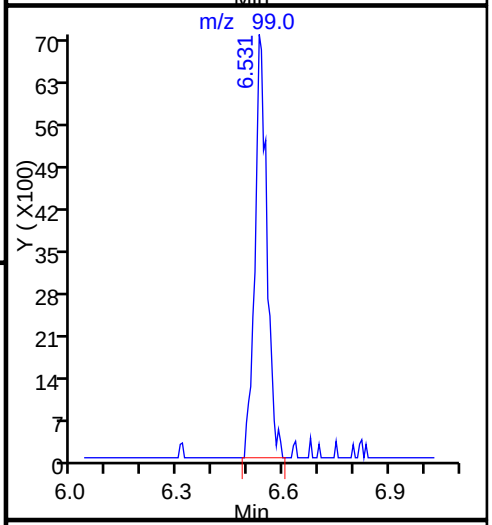
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D				
Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

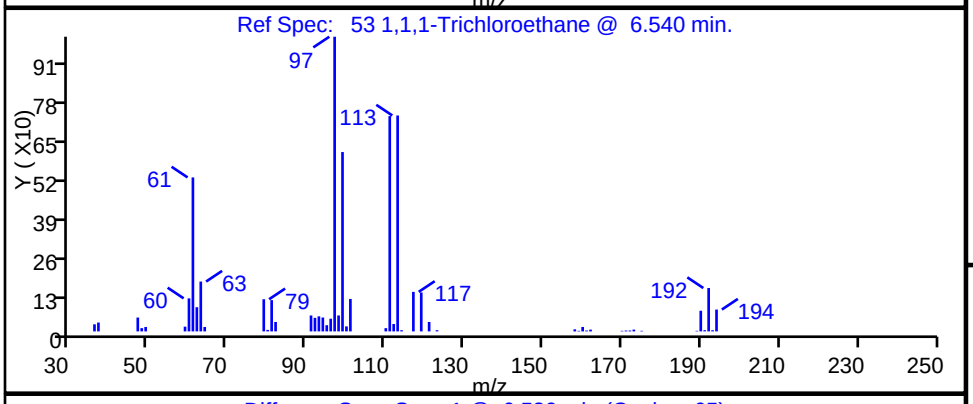
53 1,1,1-Trichloroethane, CAS: 71-55-6

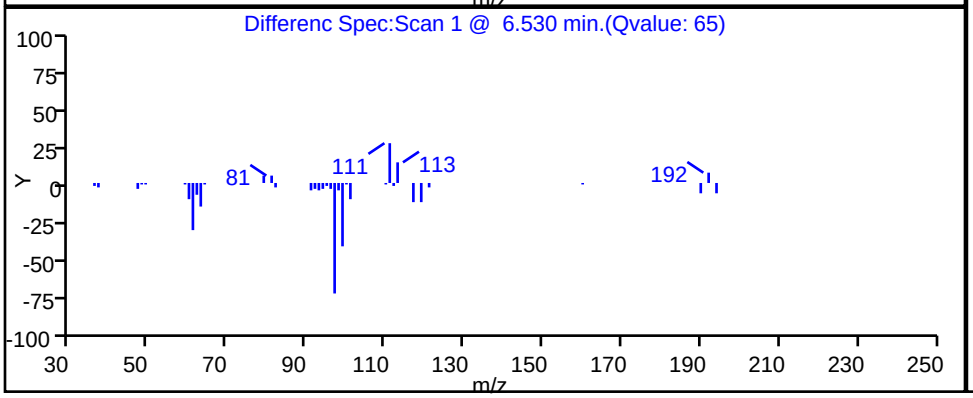


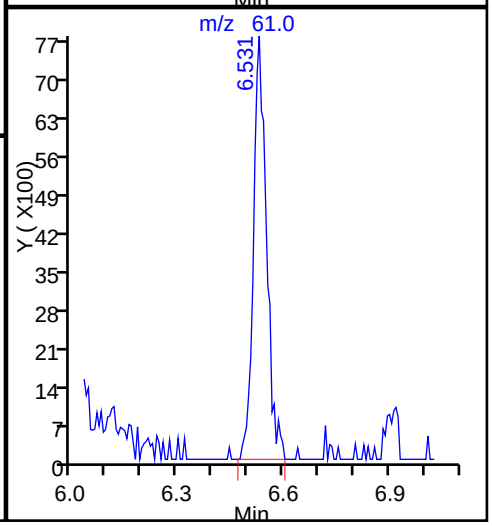










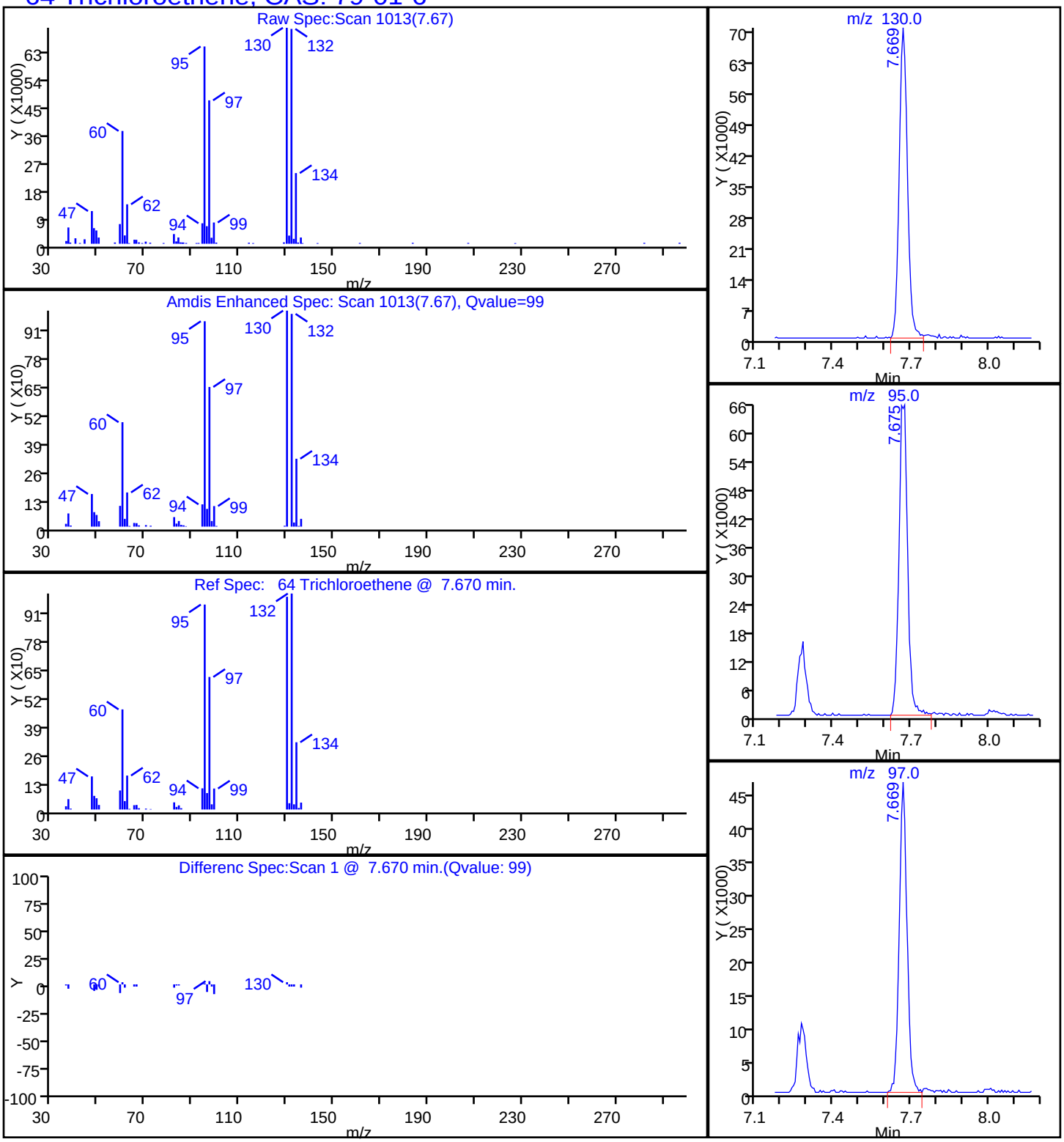


Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D		
Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8
Client ID:	HD-CW-17-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



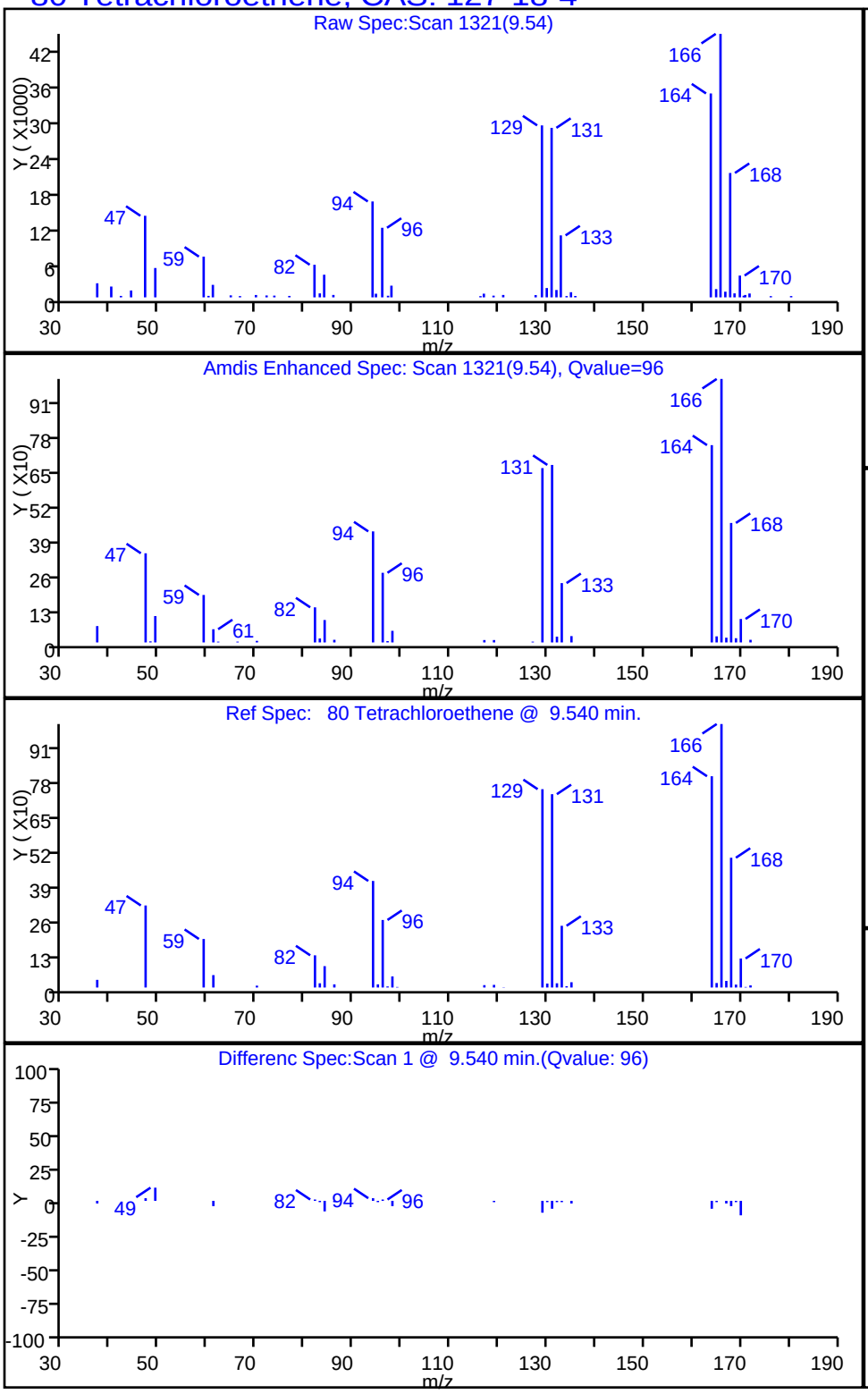
Report Date: 11-Mar-2015 07:37:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

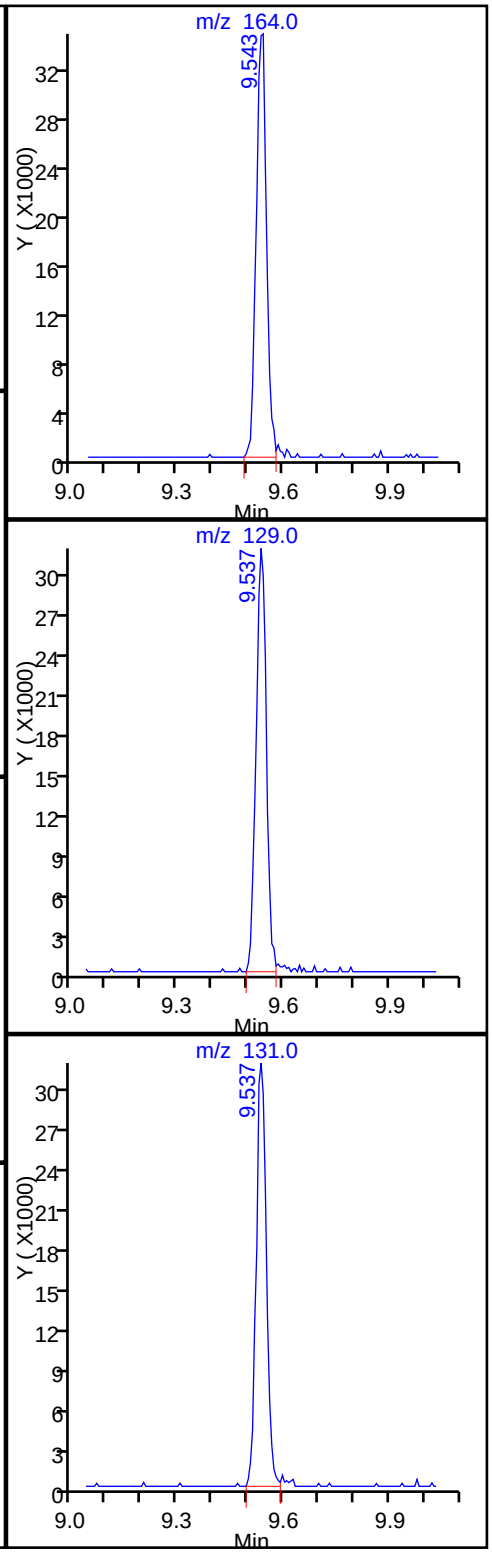
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310015.D

Injection Date:	10-Mar-2015 17:25:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-8	Lab Sample ID:	180-41569-8
Client ID:	HD-CW-17-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-41569-9

Matrix: Water Lab File ID: 50309027.D

Analysis Method: 8260C Date Collected: 02/26/2015 15:10

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 22:33

Soil Aliquot Vol: Dilution Factor: 10

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	4.7	J	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	2.0	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	130		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	9.8	J	10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	180		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U *	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	*Tetrachloroethene*	*640*	*E*	*10*	*1.5*
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-41569-9

Matrix: Water Lab File ID: 50309027.D

Analysis Method: 8260C Date Collected: 02/26/2015 15:10

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 22:33

Soil Aliquot Vol: Dilution Factor: 10

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D
Lims ID: 180-41569-C-9 Lab Sample ID: 180-41569-9
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 09-Mar-2015 22:33:30 ALS Bottle#: 27 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-41569-C-9, 10x
Misc. Info.: 180-0005947-027
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 10-Mar-2015 09:26:51 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 10-Mar-2015 09:27:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.297	4.327	-0.030	82	62146	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	372541	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	99	86718	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	132121	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.529	0.006	58	79570	49.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.906	-0.006	99	97527	49.5	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	344610	51.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	97	126393	50.3	
12 Chloromethane	50		1.778				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.396	3.384	0.012	78	5134	2.37	
24 Acetone	43	3.518	3.499	0.019	38	1911	2.44	
26 Carbon disulfide	76		3.658				ND	
31 Methylene Chloride	84		4.150				ND	
33 Acrylonitrile	53		4.552				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.601				ND	
37 1,1-Dichloroethane	63	5.197	5.172	0.025	34	4384	1.01	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	75	154141	63.6	
46 2-Butanone (MEK)	43		5.988				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	58	11434	4.89	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.667	7.667	0.000	98	199159	89.9	
67 1,2-Dichloropropane	63		7.904				ND	
70 1,4-Dioxane	88		8.062				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.202				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.993				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.535	9.540	-0.005	98	525221	318.0	E
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.790				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.477				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.025				ND	
94 Bromoform	173		11.207				ND	
99 1,1,2,2-Tetrachloroethane	83		11.676				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

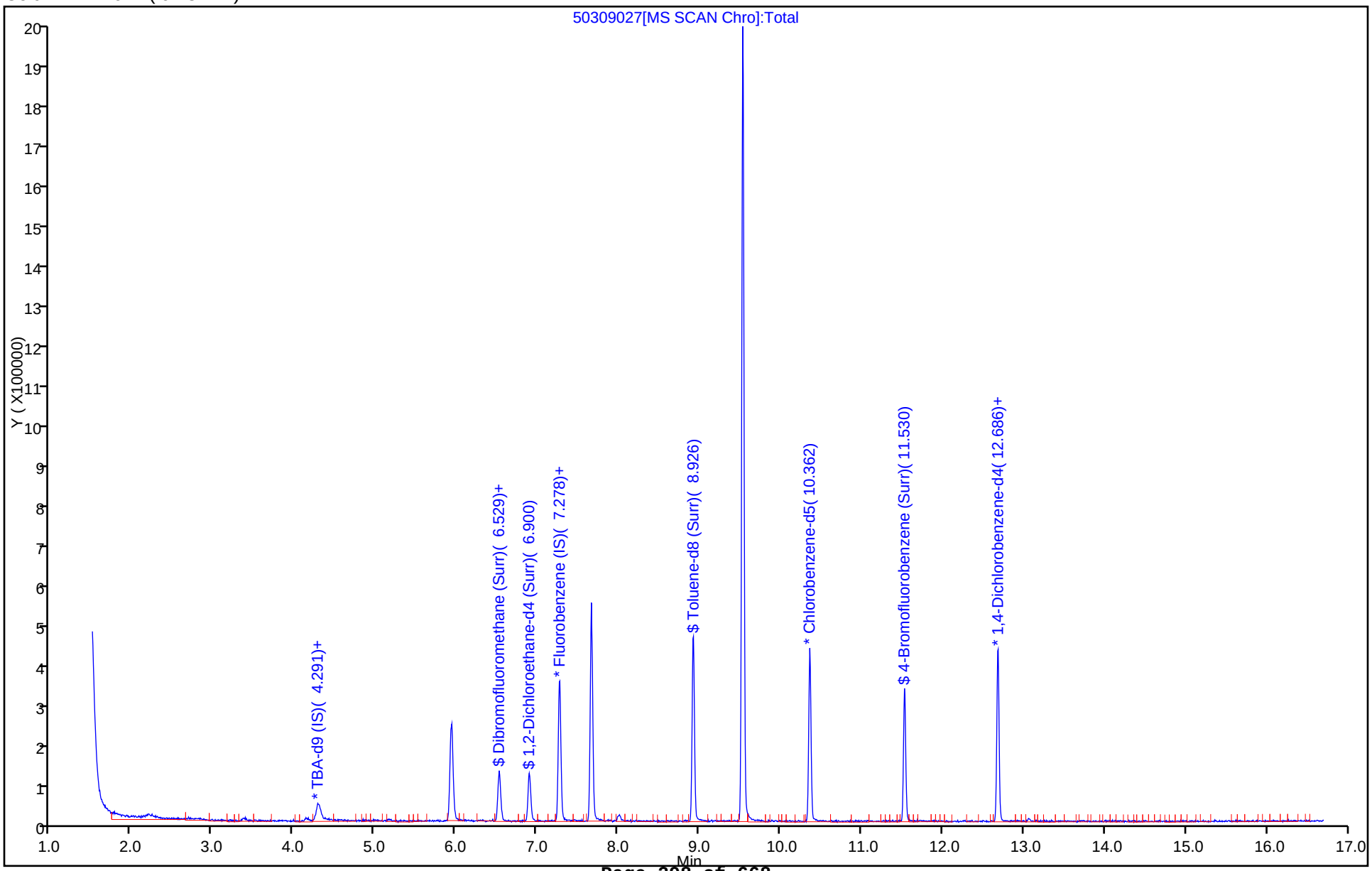
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 10-Mar-2015 09:27:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D				
Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9	Worklist Smp#:	27
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	27
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

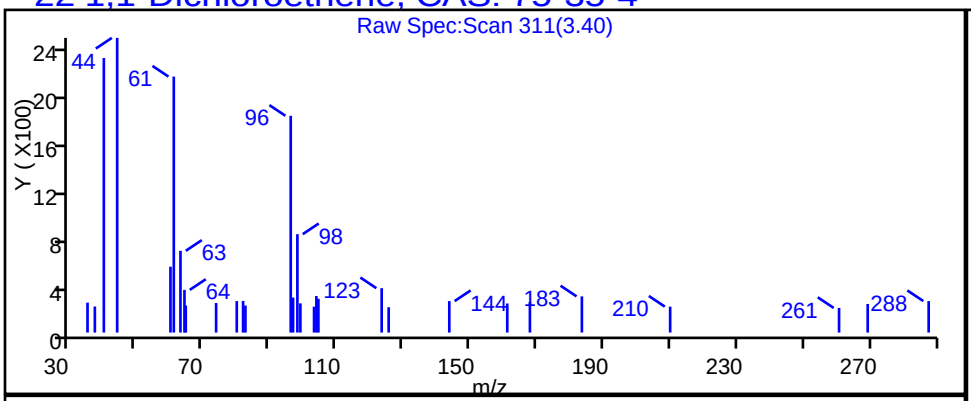


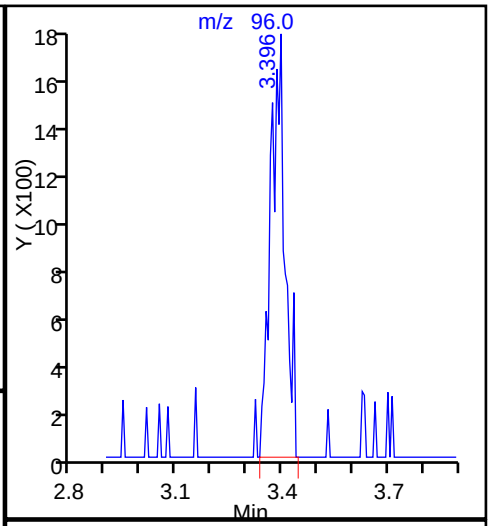
Report Date: 10-Mar-2015 09:27:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

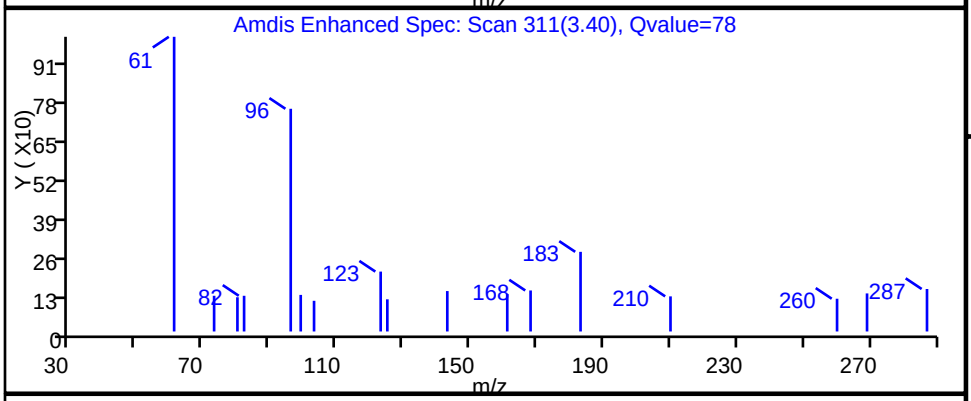
TestAmerica Pittsburgh

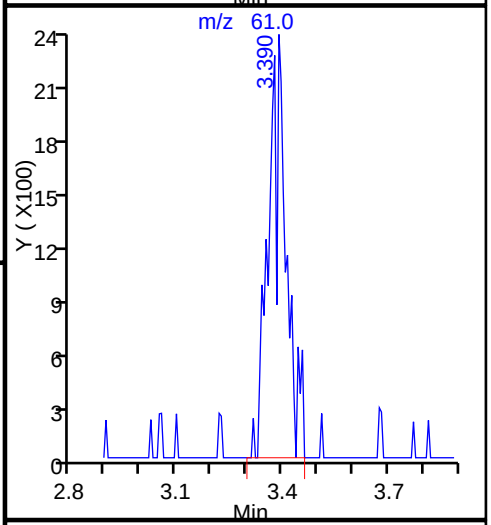
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D				
Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

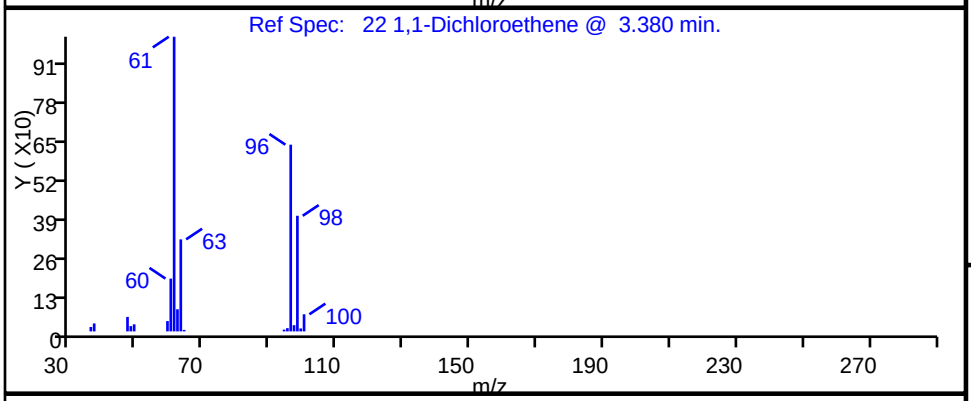
22 1,1-Dichloroethene, CAS: 75-35-4

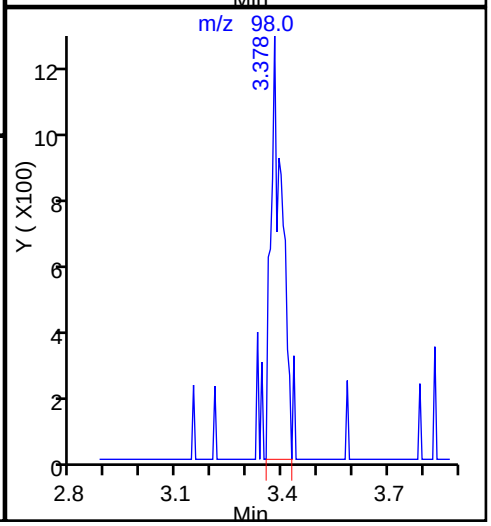


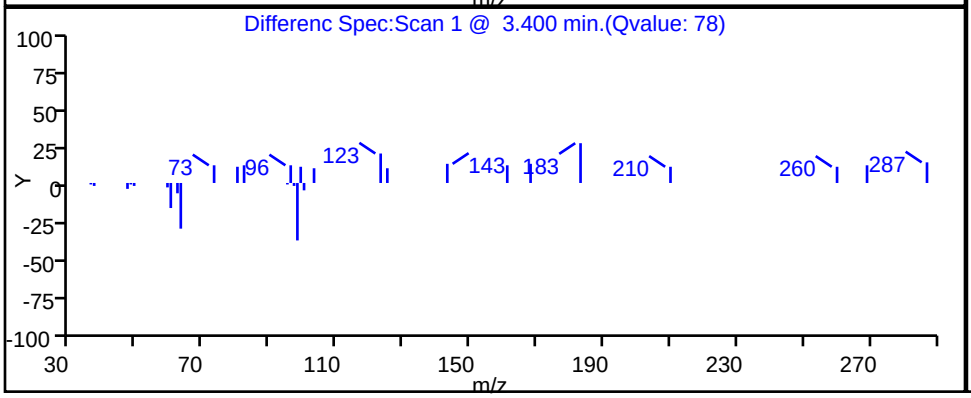












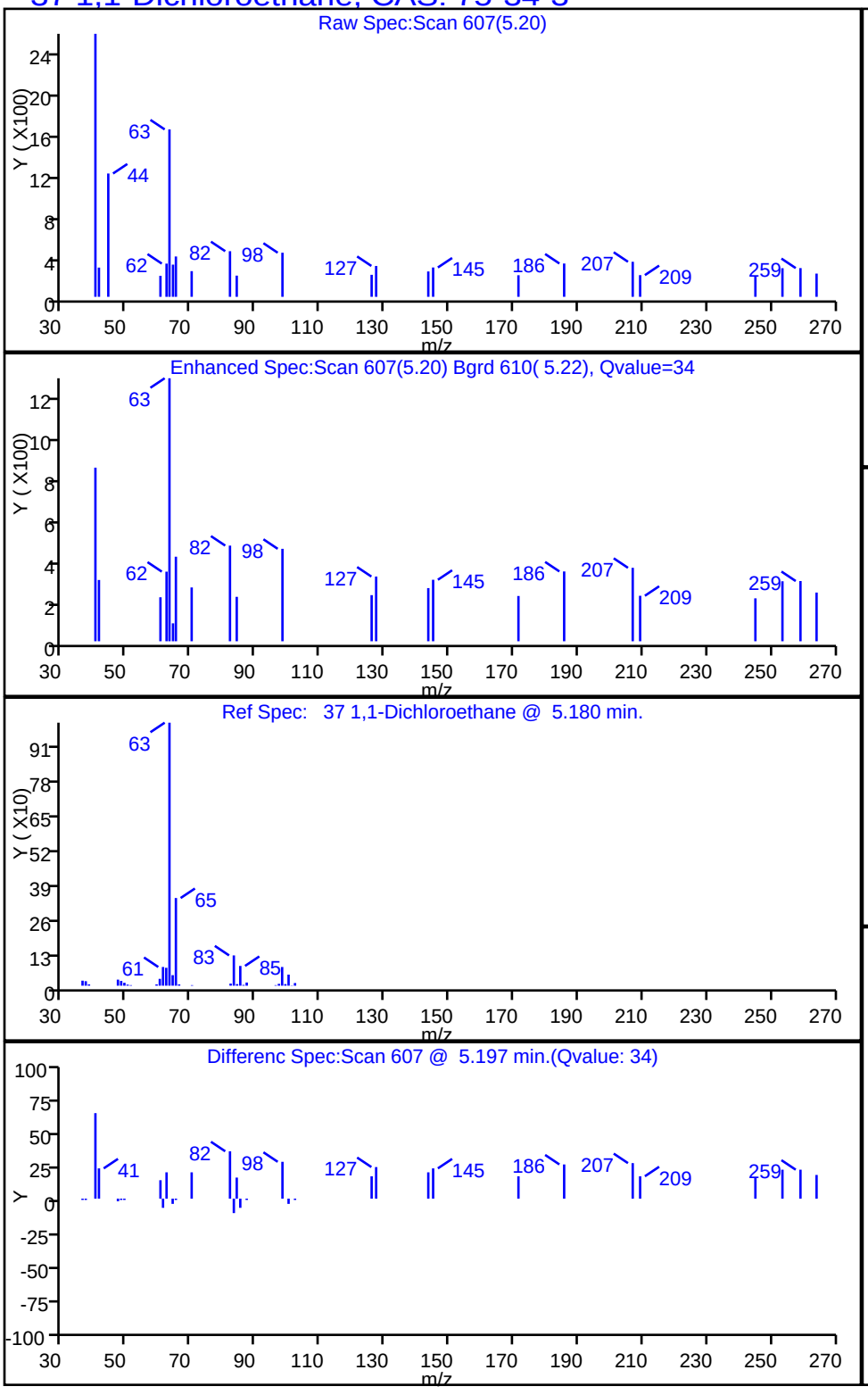
Report Date: 10-Mar-2015 09:27:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

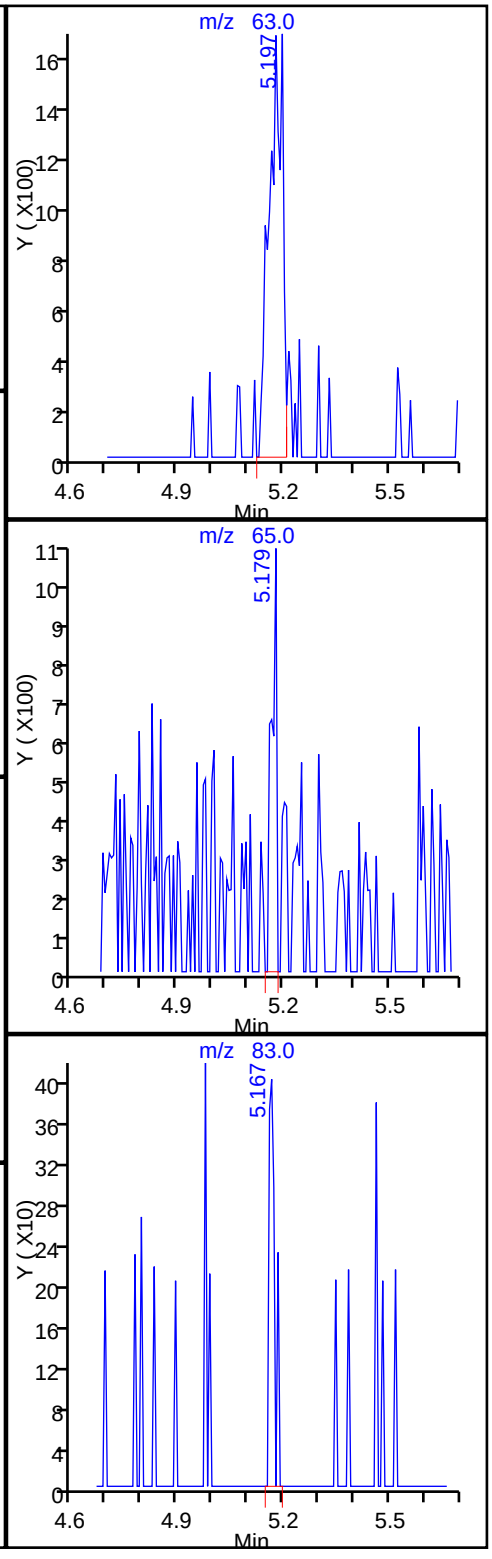
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D

Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



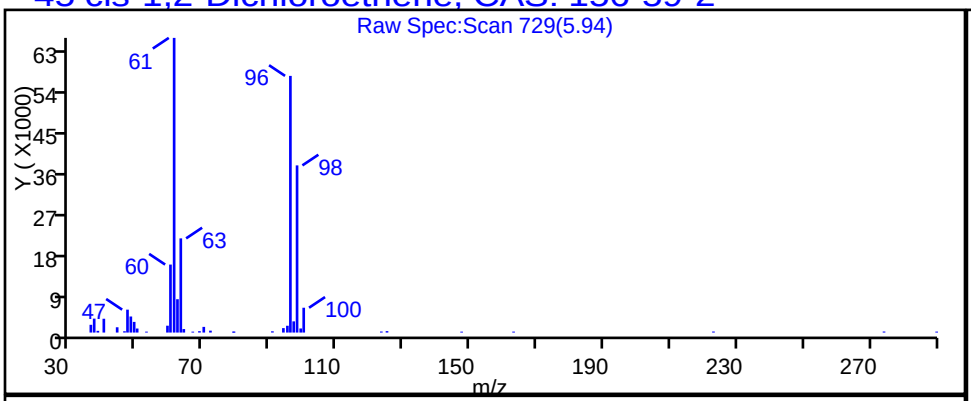


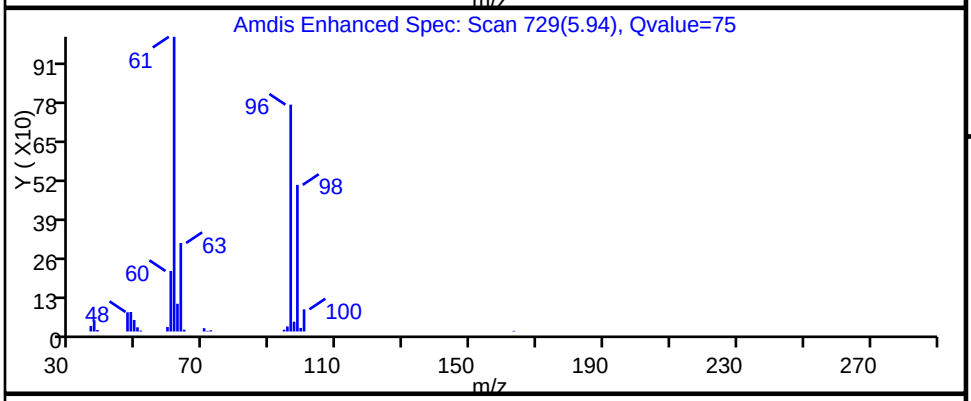
Report Date: 10-Mar-2015 09:27:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

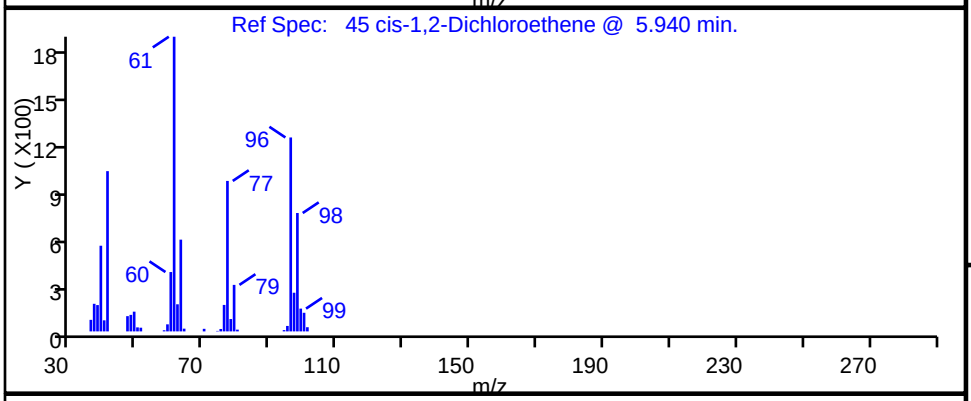
TestAmerica Pittsburgh

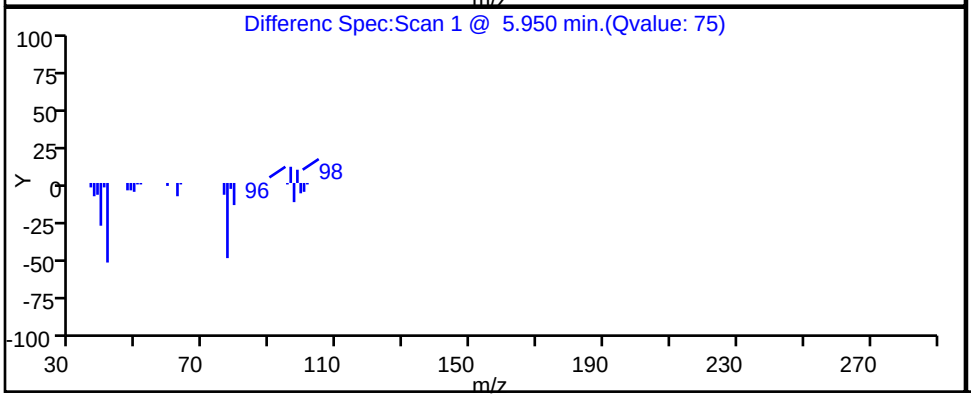
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D				
Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

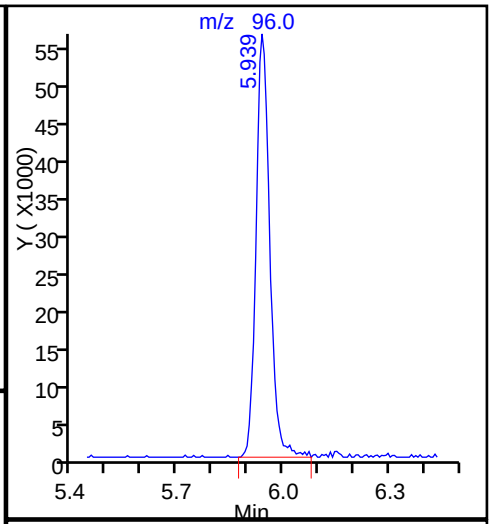
45 cis-1,2-Dichloroethene, CAS: 156-59-2

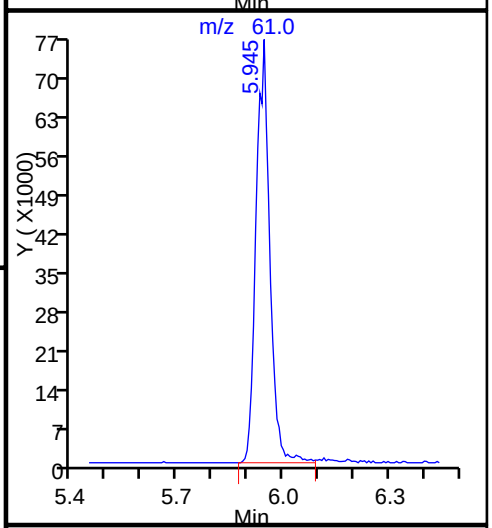


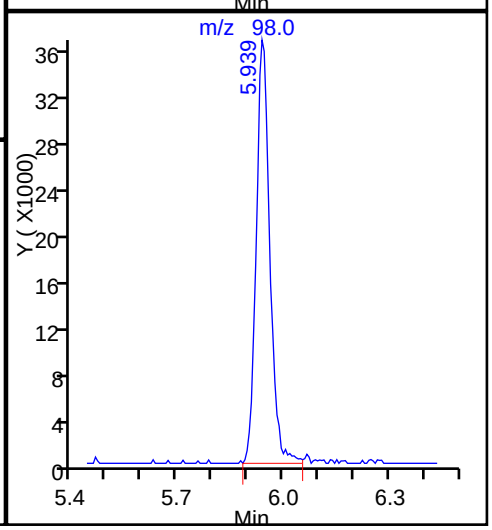










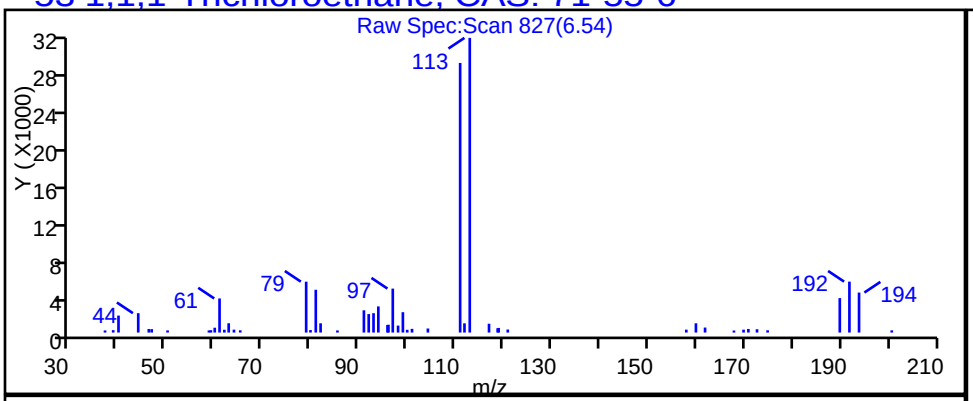


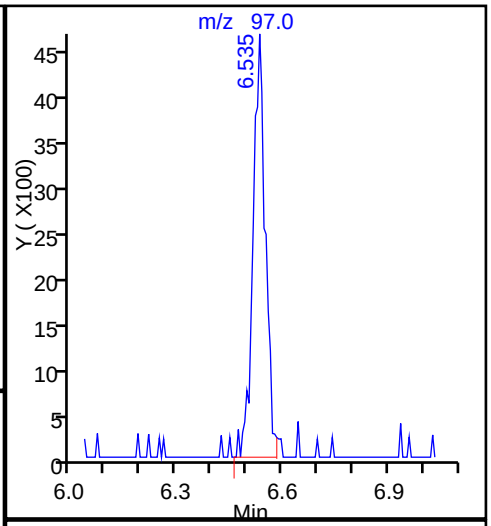
Report Date: 10-Mar-2015 09:27:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

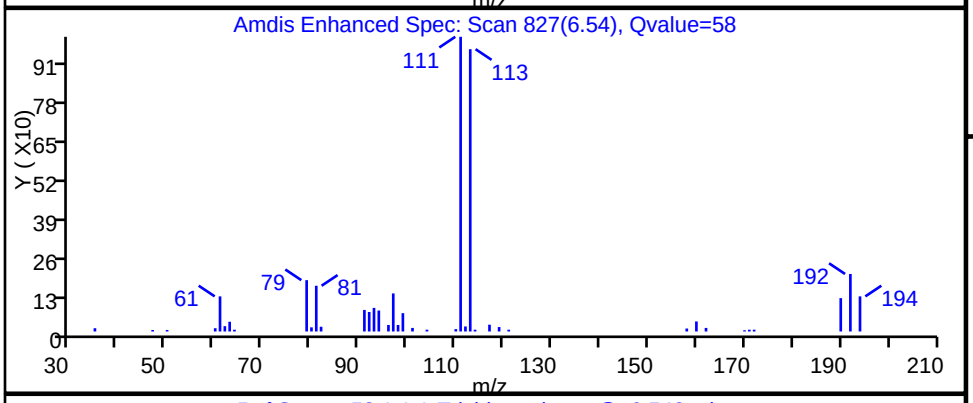
TestAmerica Pittsburgh

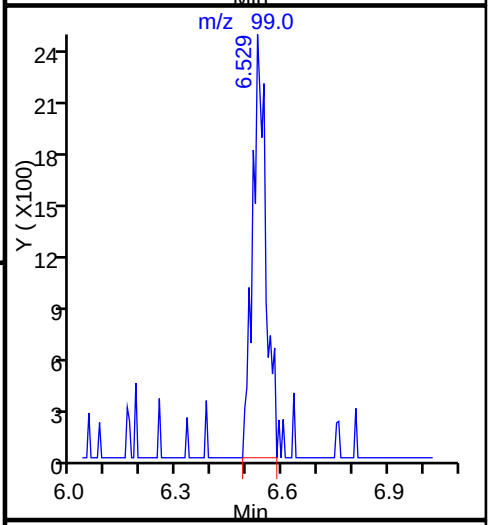
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D				
Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	27	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

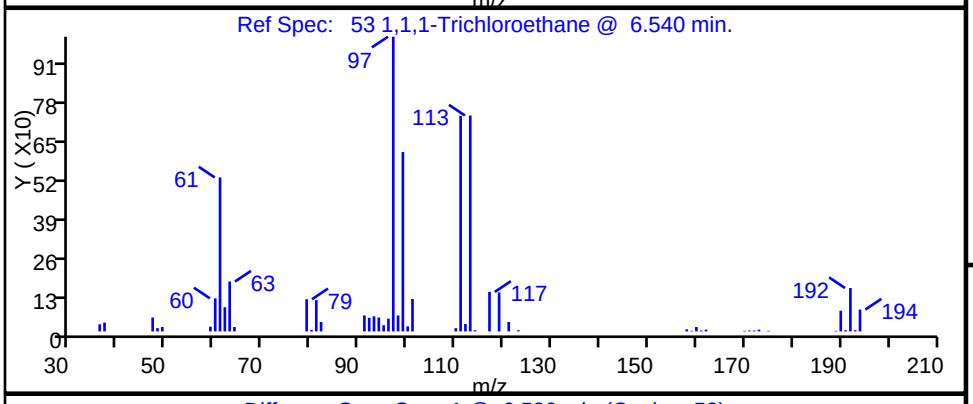
53 1,1,1-Trichloroethane, CAS: 71-55-6

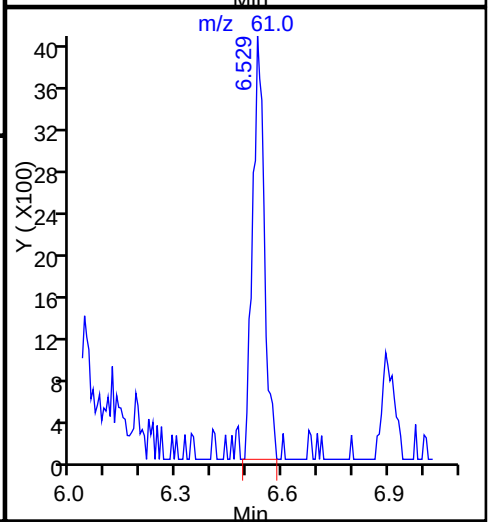


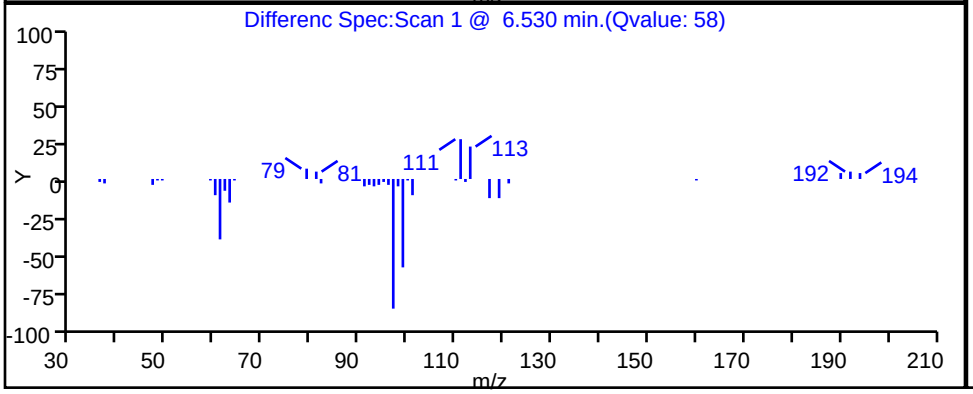












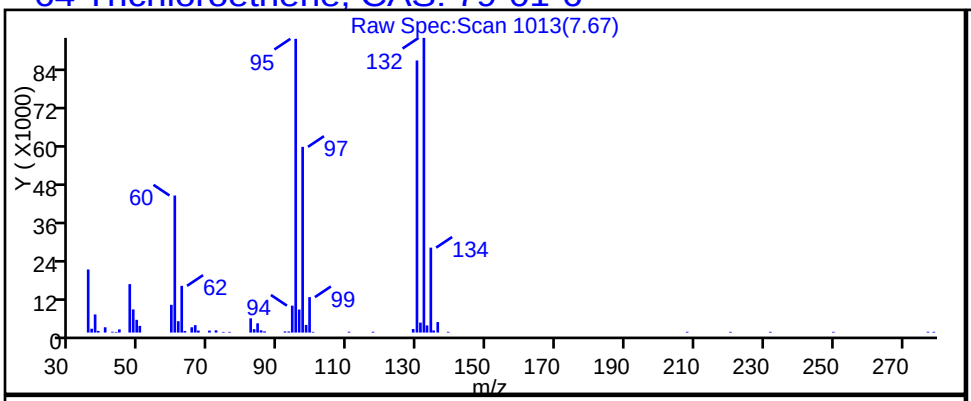
Report Date: 10-Mar-2015 09:27:15 Chrom Revision: 2.2 15-Jan-2015 13:05:58

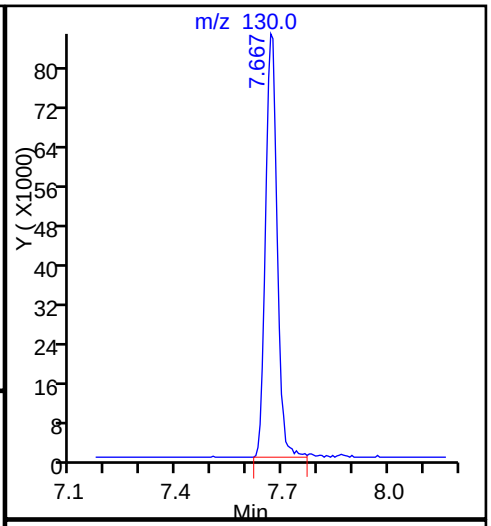
TestAmerica Pittsburgh

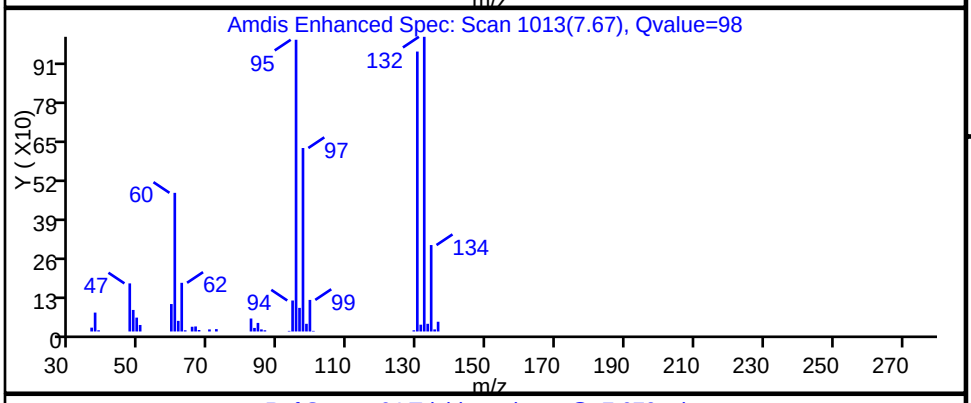
Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D

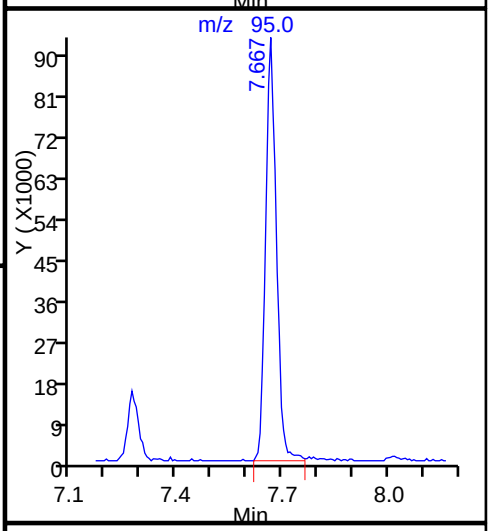
Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

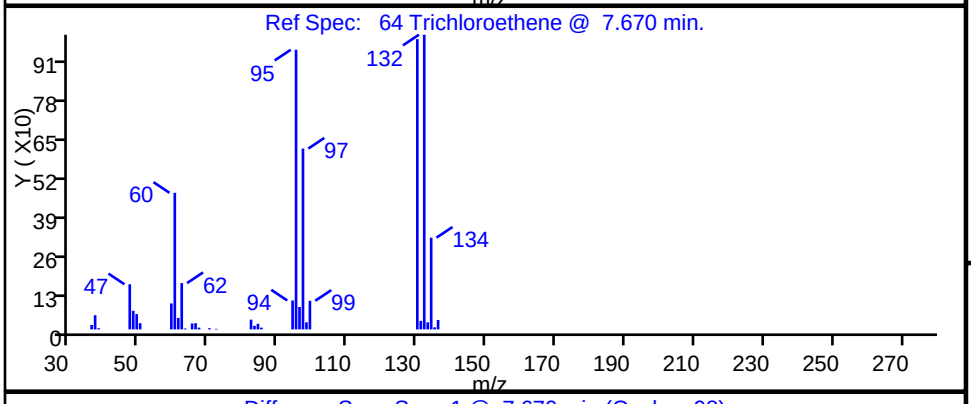
64 Trichloroethene, CAS: 79-01-6

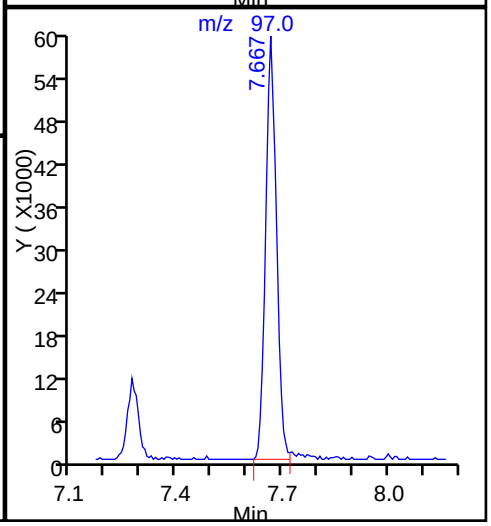


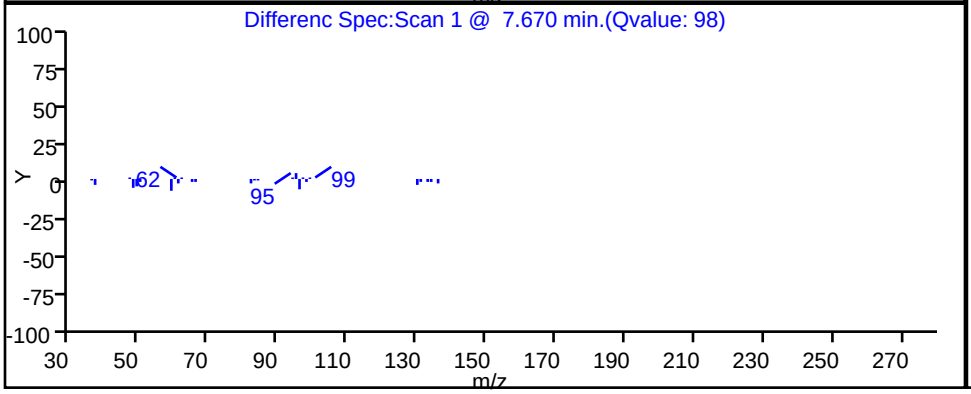










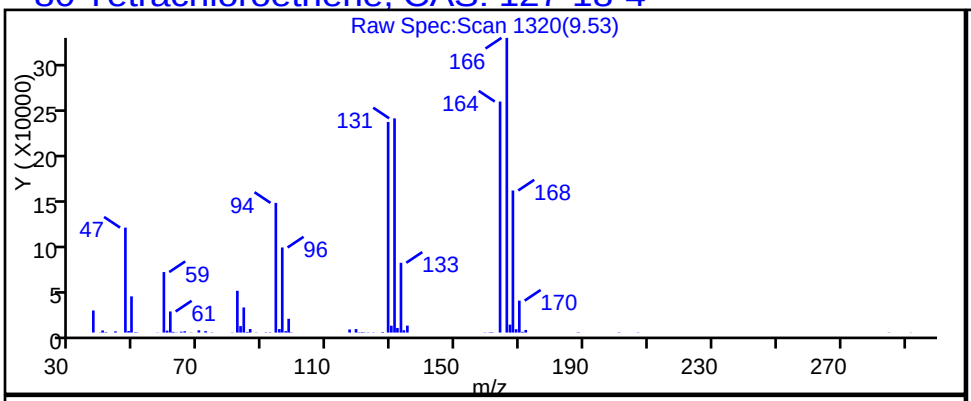


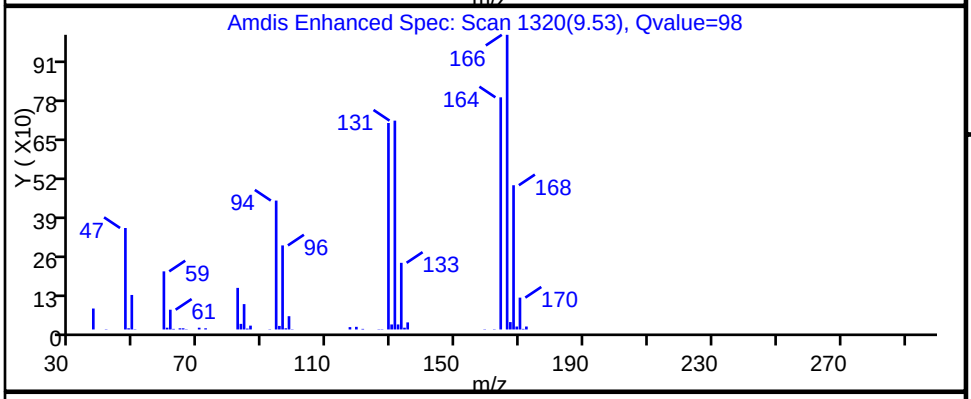
Report Date: 10-Mar-2015 09:27:15 Chrom Revision: 2.2 15-Jan-2015 13:05:58

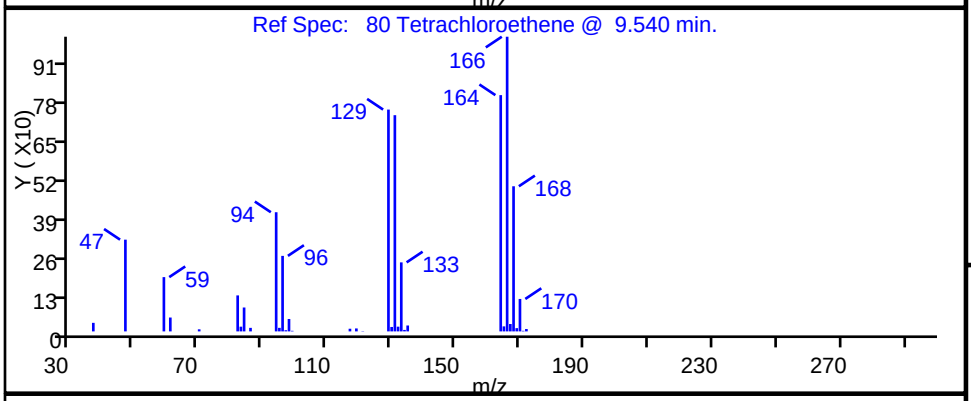
TestAmerica Pittsburgh

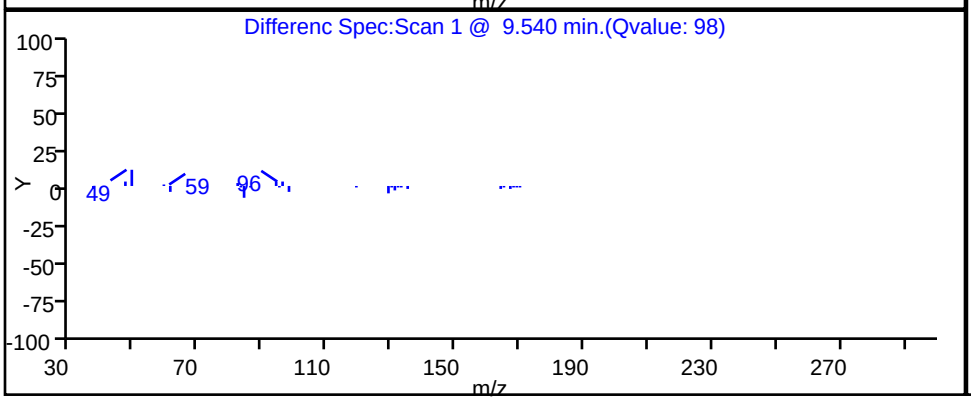
Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309027.D		
Injection Date:	09-Mar-2015 22:33:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	27 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

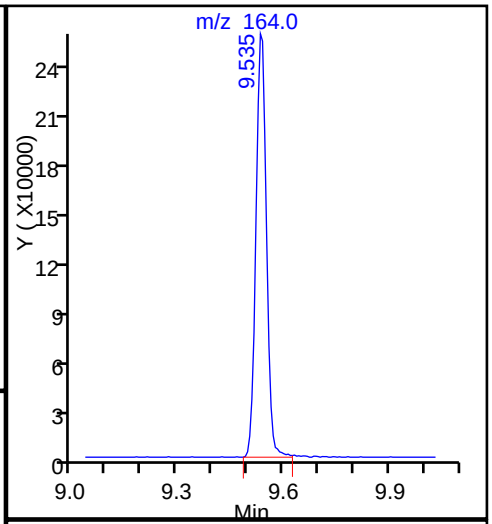
80 Tetrachloroethene, CAS: 127-18-4

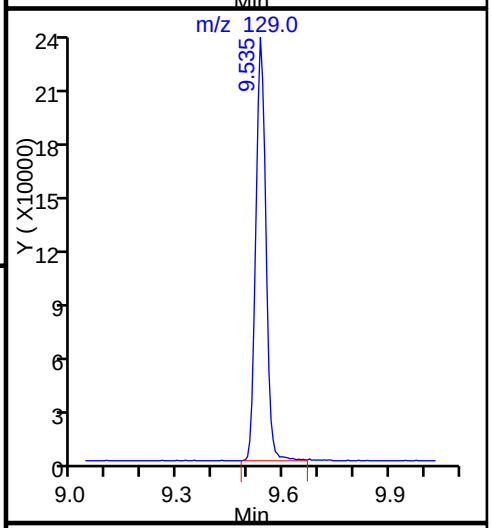


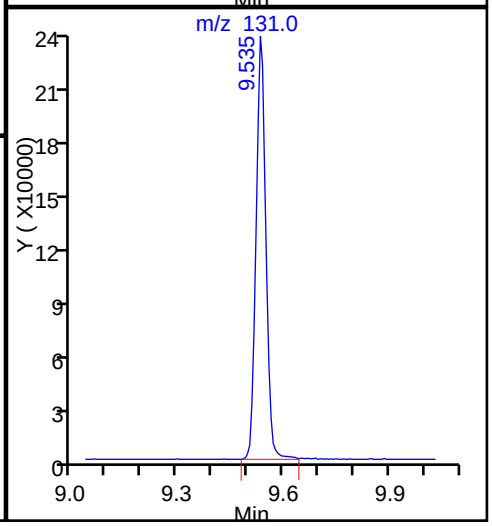












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL | Lab Sample ID: 180-41569-9 DL

Matrix: Water | Lab File ID: 50310016.D

Analysis Method: 8260C | Date Collected: 02/26/2015 15:10

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 17:49

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.: 135153 | 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	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	140		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	13	J	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	200		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	690		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.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL Lab Sample ID: 180-41569-9 DL

Matrix: Water Lab File ID: 50310016.D

Analysis Method: 8260C Date Collected: 02/26/2015 15:10

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 17:49

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.: 135153 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)	105		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310016.D
Lims ID: 180-41569-D-9 Lab Sample ID: 180-41569-9
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 10-Mar-2015 17:49:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-41569-D-9, 25x
Misc. Info.: 180-0005958-016
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 08:18:10 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 08:18:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.292	4.296	-0.004	82	72203	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.271	0.001	99	376069	50.0	
* 3 Chlorobenzene-d5	119	10.357	10.367	-0.010	99	91234	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.685	-0.004	98	138067	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.530	6.529	0.001	54	81712	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.900	0.001	99	104688	52.6	
$ 7 Toluene-d8 (Surr)	98	8.927	8.926	0.001	100	350768	49.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.529	0.002	94	132298	50.0	
12 Chloromethane	50		1.771				ND	
13 Vinyl chloride	62		1.899				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.397	3.371	0.026	29	2031	0.9276	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.552				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.168	5.166	0.002	1	2168	0.4968	
45 cis-1,2-Dichloroethene	96	5.940	5.933	0.008	75	67642	27.6	
46 2-Butanone (MEK)	43		5.981				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97	6.536	6.523	0.013	54	5978	2.53	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.979				ND	
64 Trichloroethene	130	7.662	7.660	0.002	99	89849	40.2	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.196				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.535	9.540	-0.005	97	238472	137.2	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

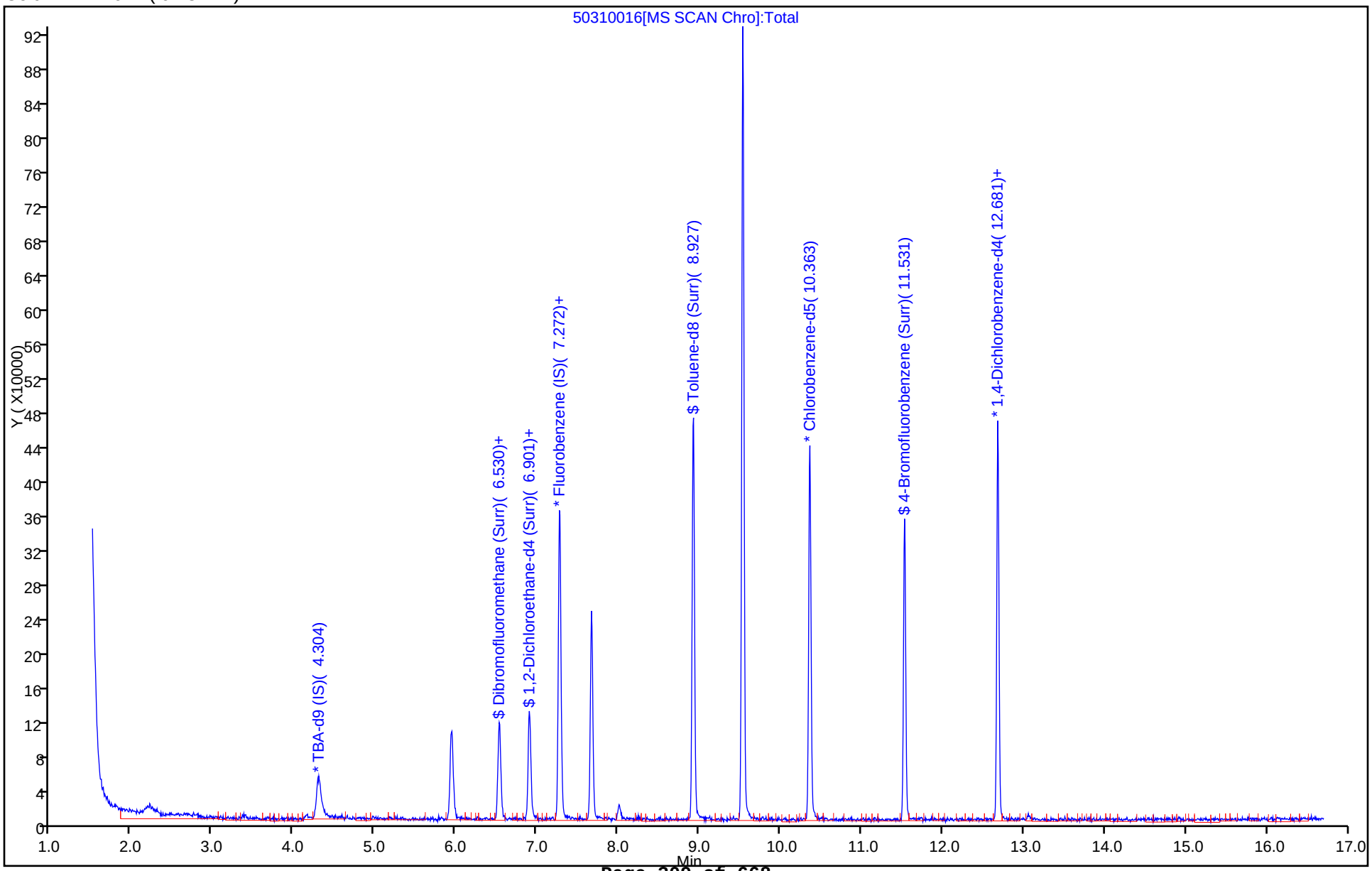
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 11-Mar-2015 08:18:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310016.D				
Injection Date:	10-Mar-2015 17:49:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-D-9	Lab Sample ID:	180-41569-9	Worklist Smp#:	16
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



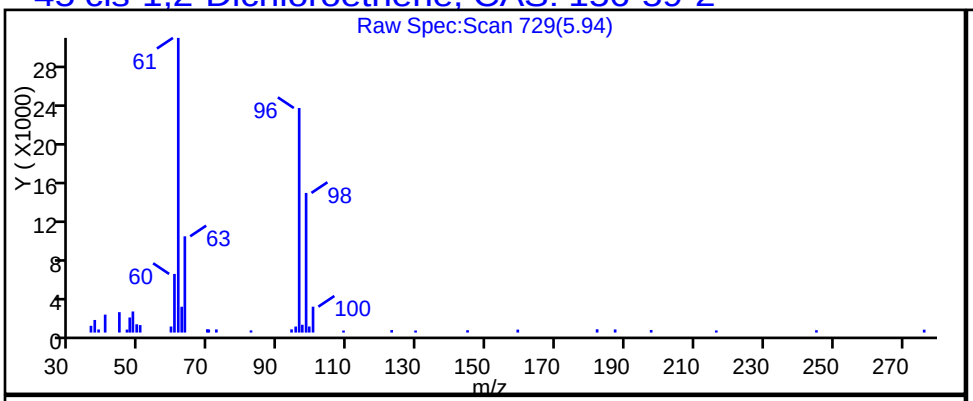
Report Date: 11-Mar-2015 08:18:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

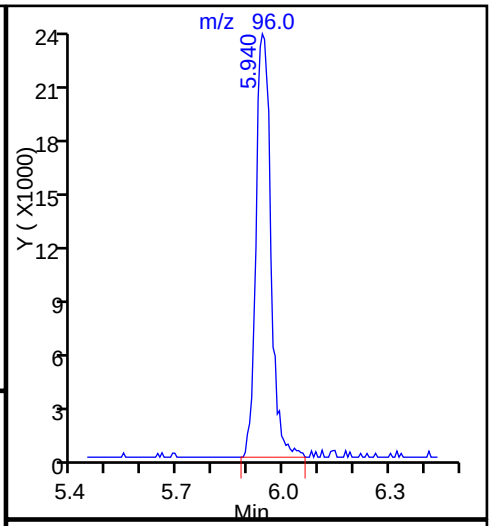
TestAmerica Pittsburgh

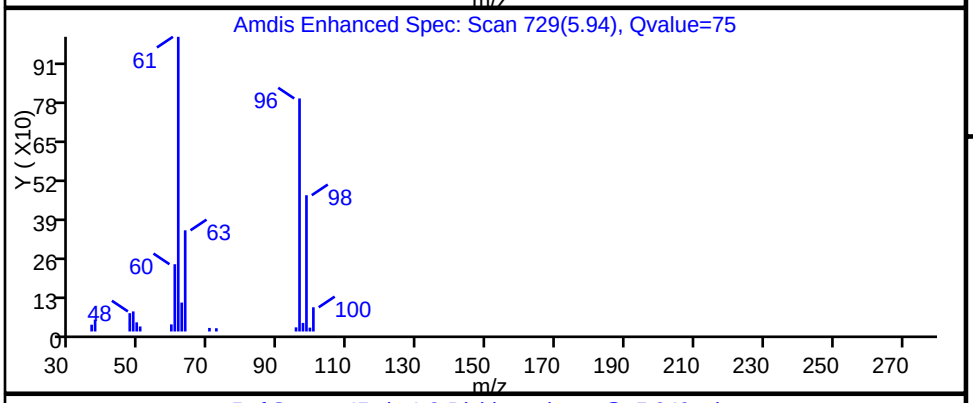
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310016.D

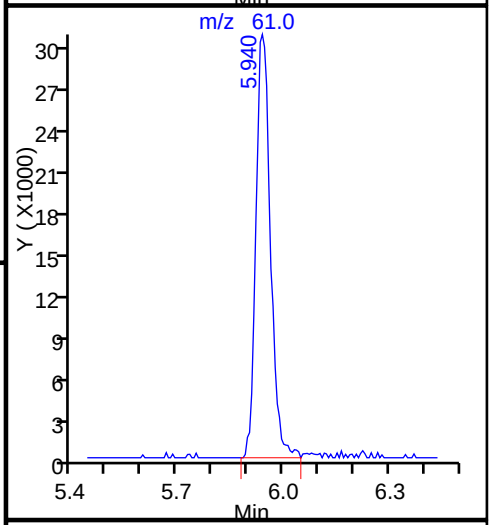
Injection Date:	10-Mar-2015 17:49:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

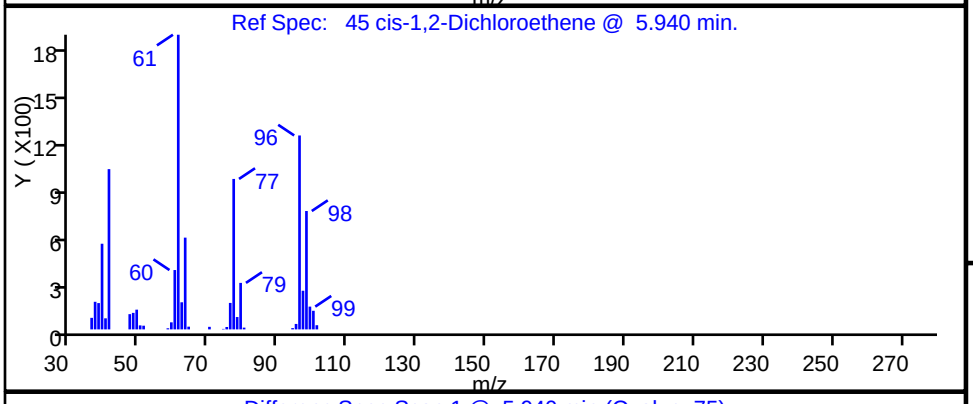
45 cis-1,2-Dichloroethene, CAS: 156-59-2

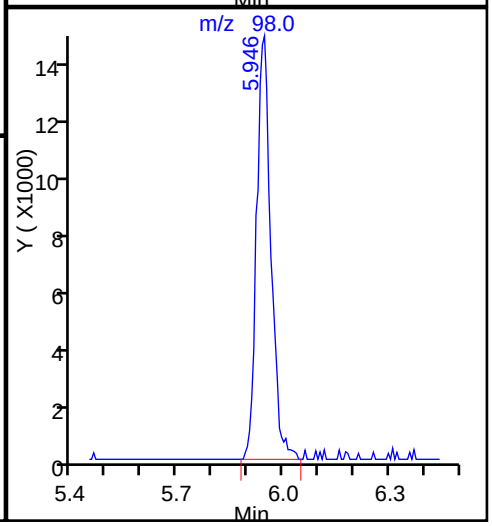


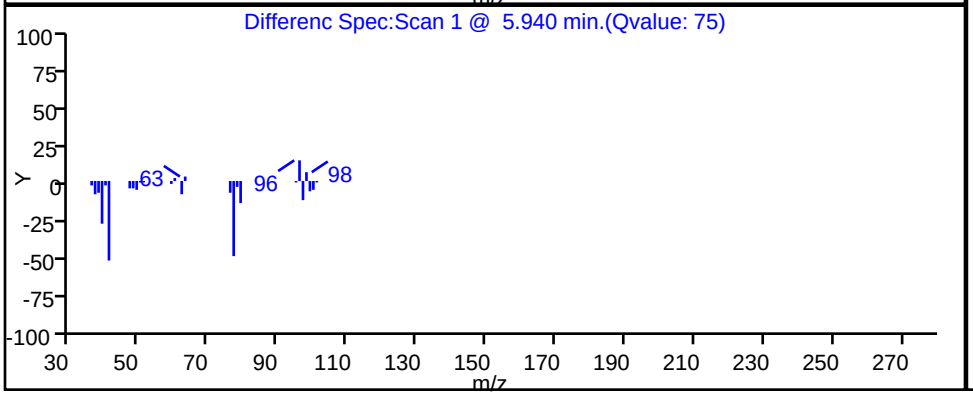












Report Date: 11-Mar-2015 08:18:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310016.D		
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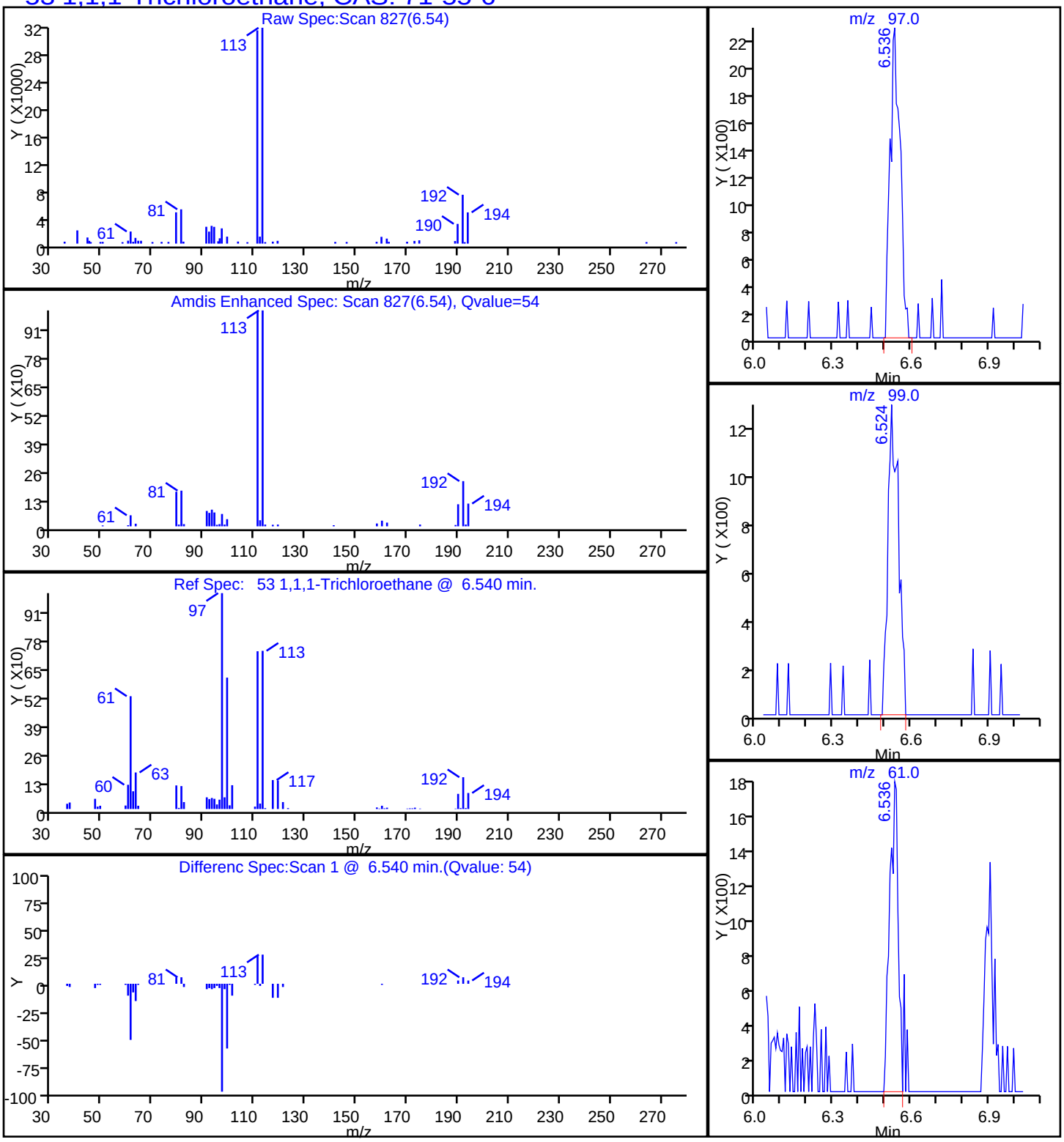
Lims ID:	180-41569-D-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

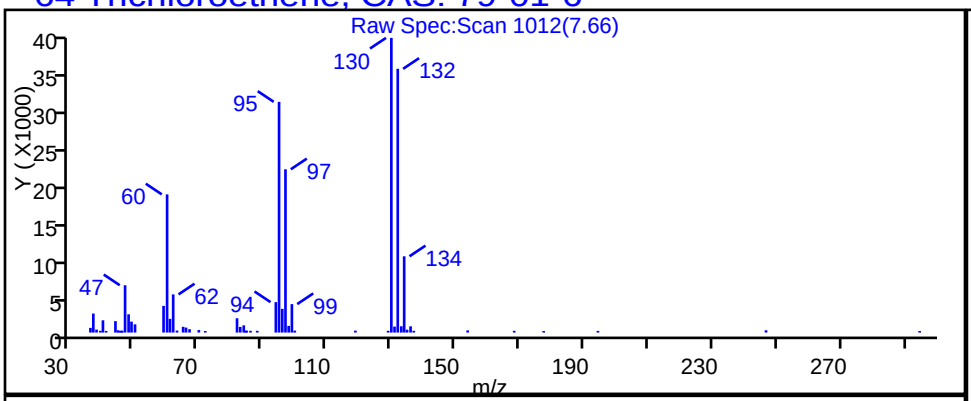


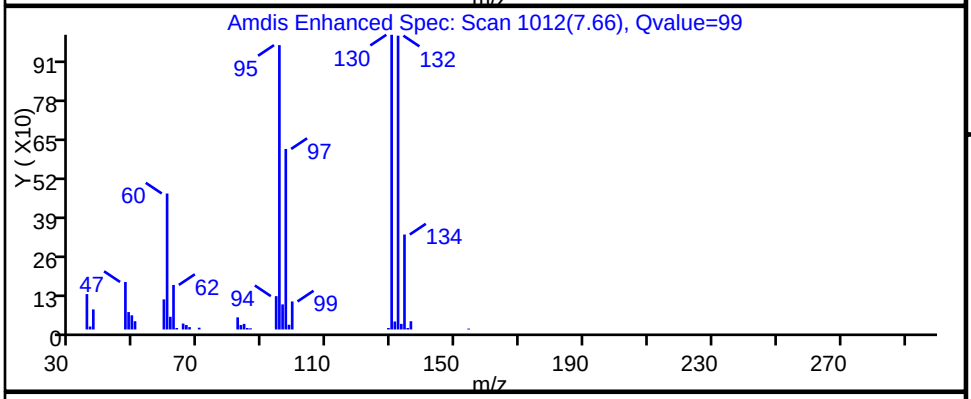
Report Date: 11-Mar-2015 08:18:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

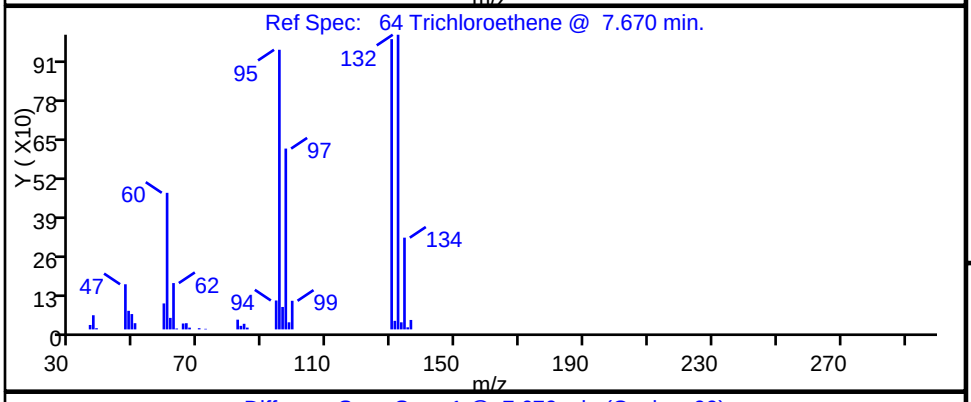
TestAmerica Pittsburgh

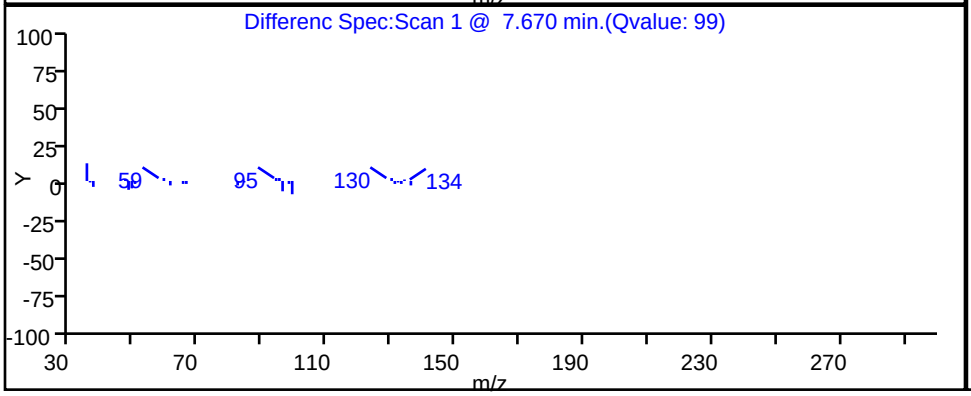
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310016.D		
Injection Date:	10-Mar-2015 17:49:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

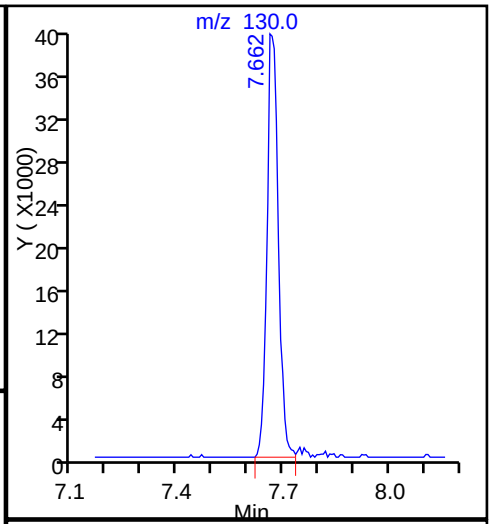
64 Trichloroethene, CAS: 79-01-6

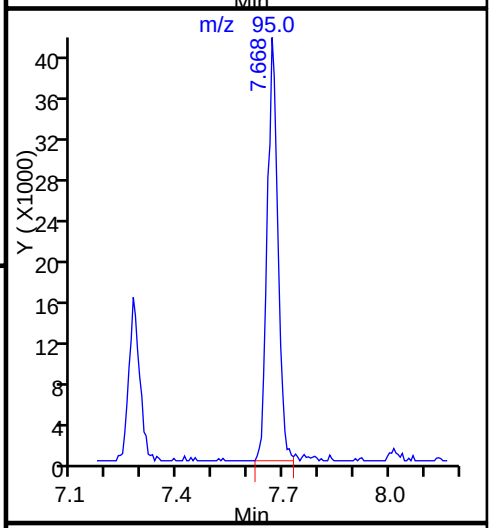


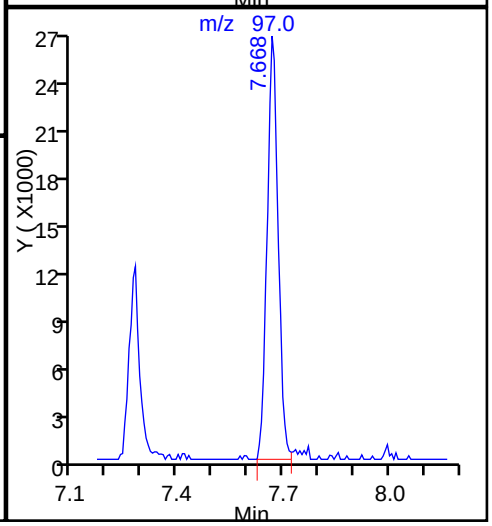












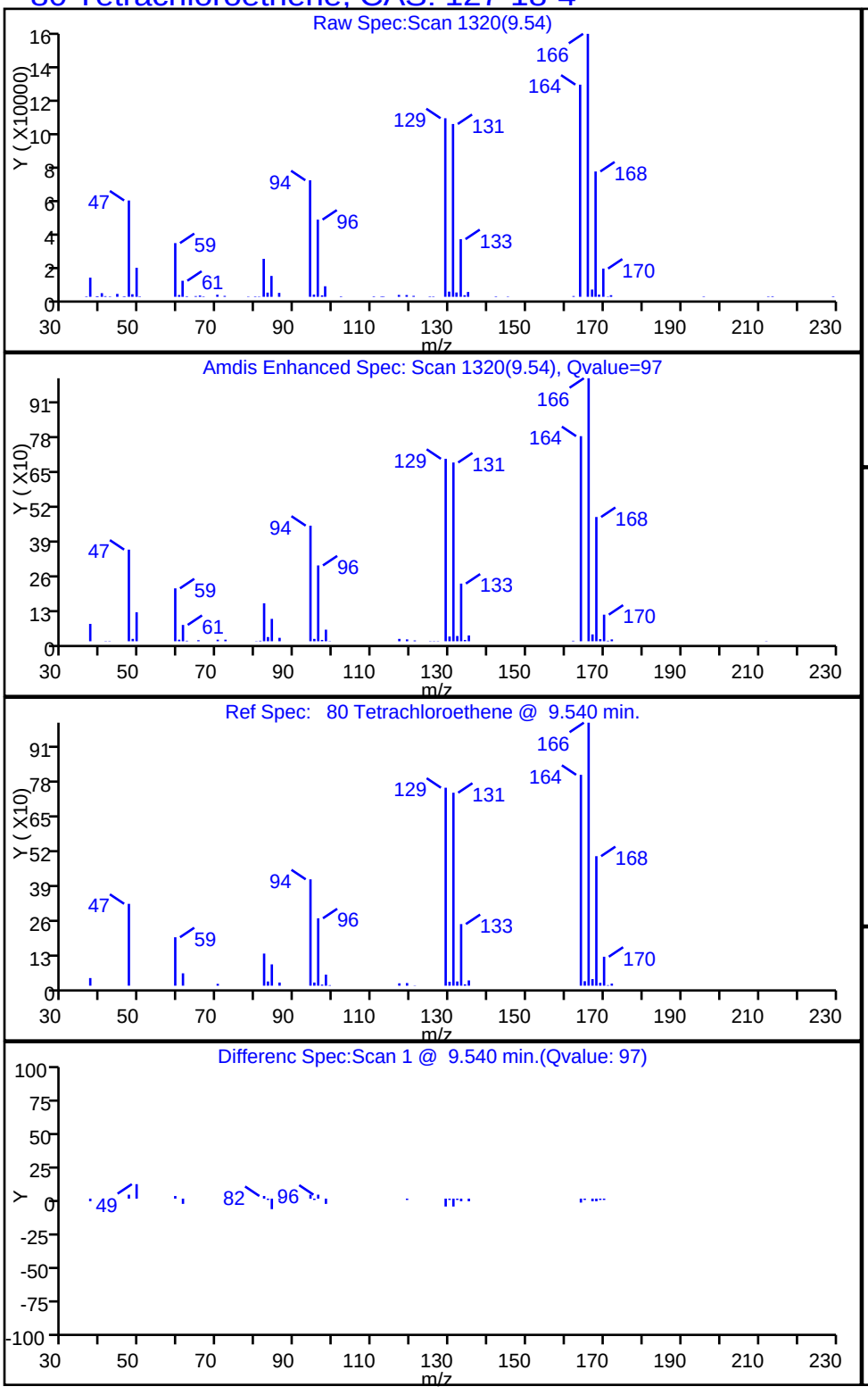
Report Date: 11-Mar-2015 08:18:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

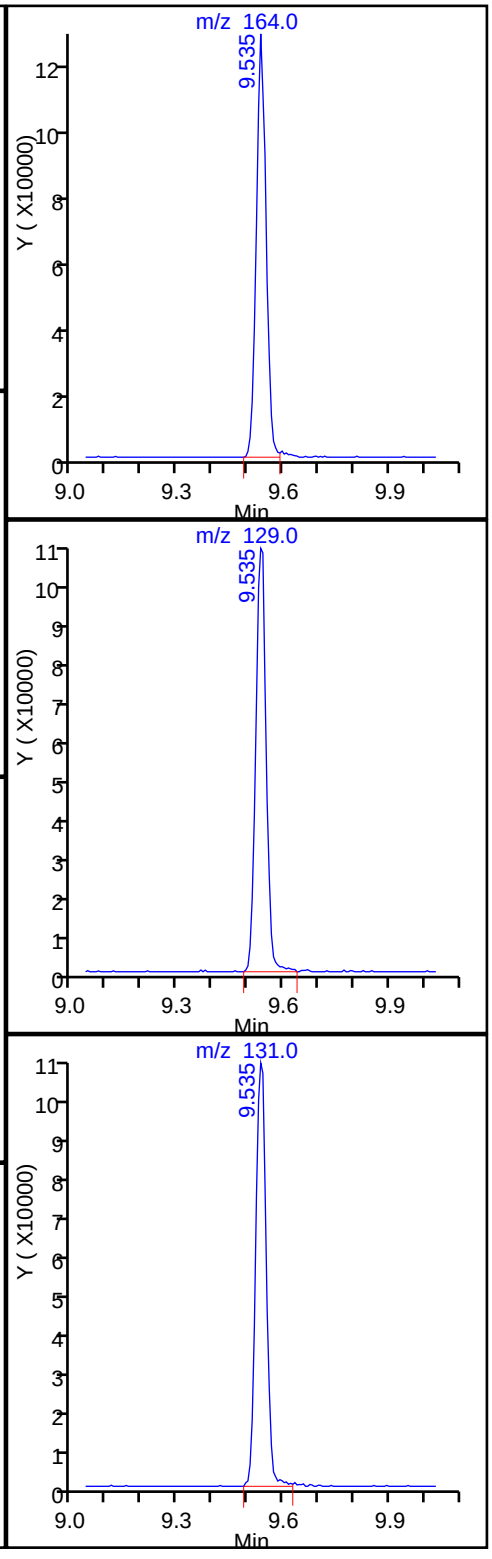
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310016.D

Injection Date:	10-Mar-2015 17:49:30	Instrument ID:	CHHP5
Lims ID:	180-41569-D-9	Lab Sample ID:	180-41569-9
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 | Lab Sample ID: 180-41569-10

Matrix: Water | Lab File ID: 50310017.D

Analysis Method: 8260C | Date Collected: 02/26/2015 14:30

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 18:13

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 135153 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	7.3	J	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	2.4	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	150		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	13		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	300		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U *	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U *	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	190		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-41569-10

Matrix: Water Lab File ID: 50310017.D

Analysis Method: 8260C Date Collected: 02/26/2015 14:30

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 18:13

Soil Aliquot Vol: Dilution Factor: 10

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 135153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D
Lims ID: 180-41569-C-10 Lab Sample ID: 180-41569-10
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 10-Mar-2015 18:13:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-41569-C-10, 10x
Misc. Info.: 180-0005958-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 08:19:24 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 08:19:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.304	4.296	0.008	76	65416	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.271	0.002	99	366573	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.367	-0.004	100	84507	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.685	-0.004	99	138302	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.537	6.529	0.008	59	81122	51.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.900	0.002	97	103275	53.2	
$ 7 Toluene-d8 (Surr)	98	8.928	8.926	0.002	100	347389	52.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.529	0.003	96	125058	51.0	
12 Chloromethane	50		1.771				ND	
13 Vinyl chloride	62		1.899				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.392	3.371	0.021	80	7779	3.64	
24 Acetone	43	3.514	3.493	0.021	37	1722	2.24	
26 Carbon disulfide	76		3.651				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.552				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63	5.199	5.166	0.033	52	5136	1.21	
45 cis-1,2-Dichloroethene	96	5.941	5.933	0.009	76	173883	72.9	
46 2-Butanone (MEK)	43		5.981				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83	6.330	6.340	-0.010	1	1297	0.3826	
53 1,1,1-Trichloroethane	97	6.537	6.523	0.014	59	15480	6.72	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.955				ND	
59 1,2-Dichloroethane	62		6.979				ND	
64 Trichloroethene	130	7.669	7.660	0.009	99	330637	151.6	
67 1,2-Dichloropropane	63		7.897				ND	
70 1,4-Dioxane	88		8.068				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.196				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		8.992				ND	
77 trans-1,3-Dichloropropene	75		9.224				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.536	9.540	-0.004	97	156233	97.1	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.905				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

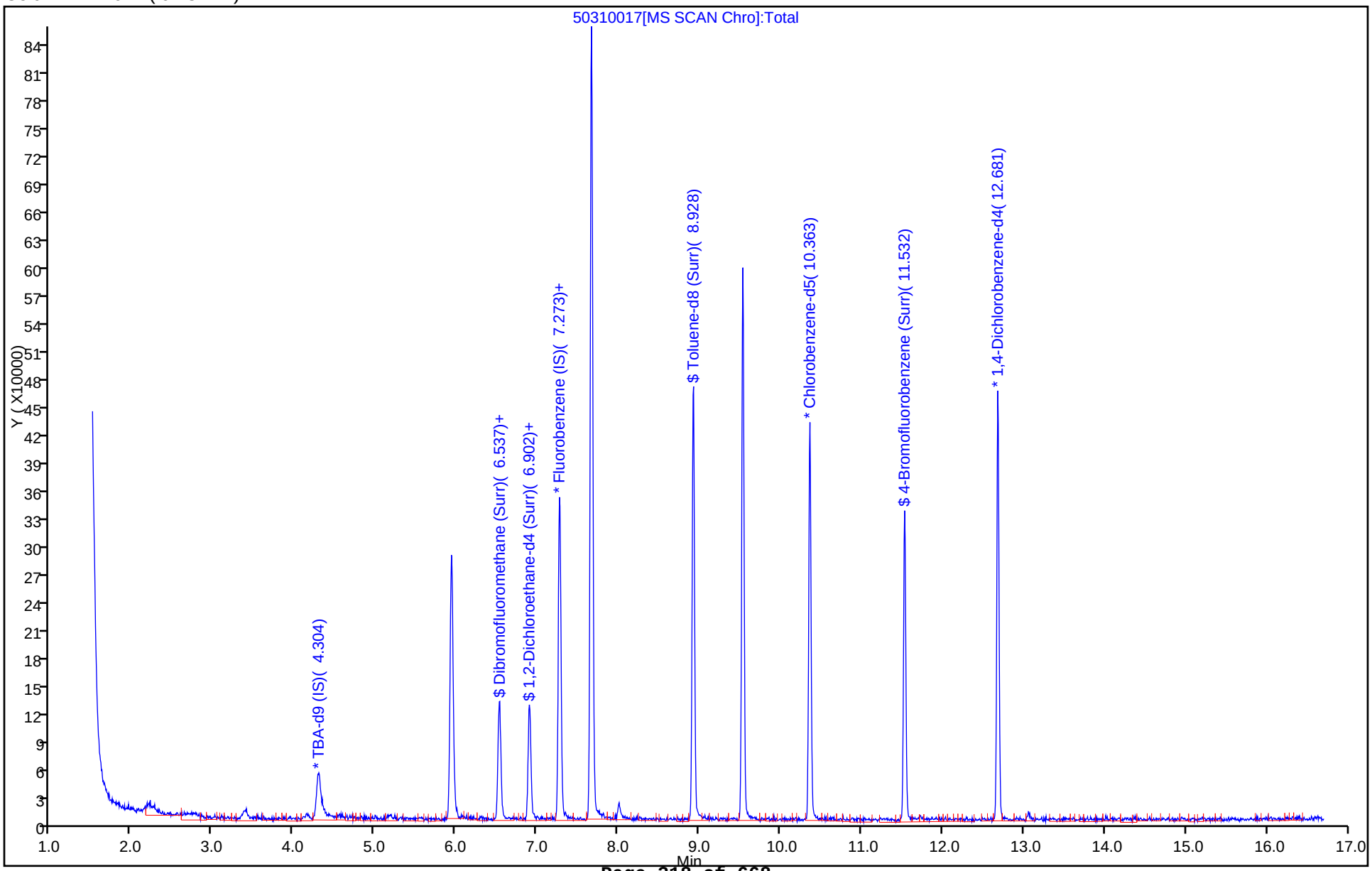
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D				
Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10	Worklist Smp#:	17
Client ID:	HD-MW-96D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



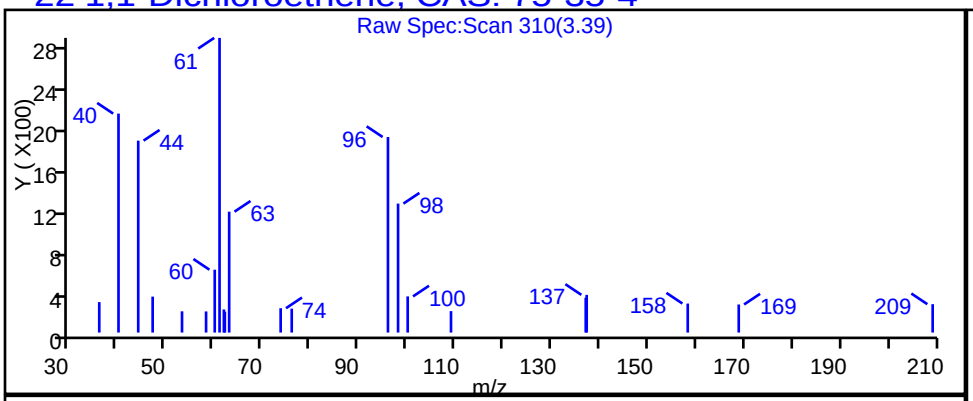
Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

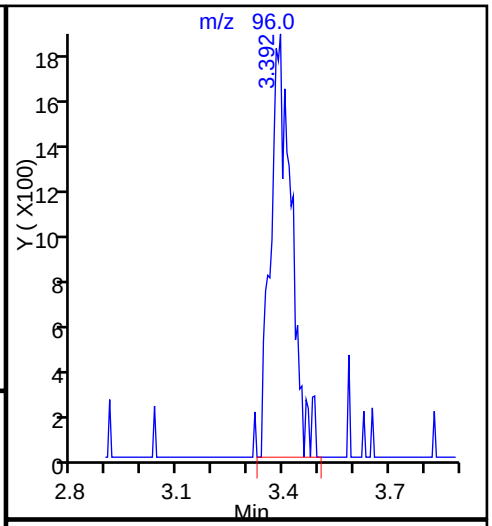
TestAmerica Pittsburgh

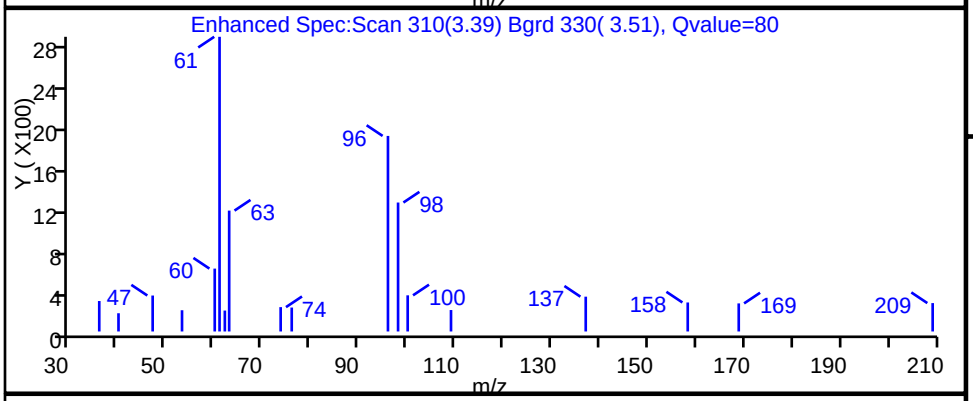
Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D

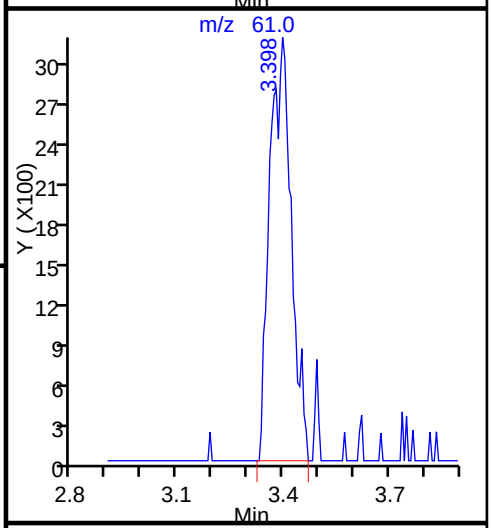
Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10
Client ID:	HD-MW-96D-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

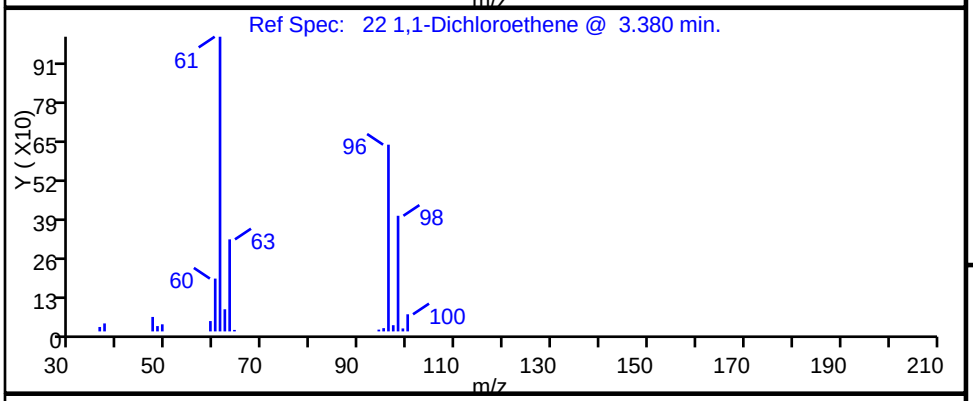
22 1,1-Dichloroethene, CAS: 75-35-4

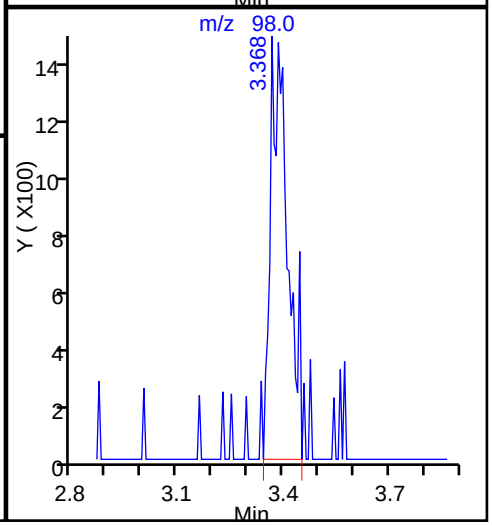


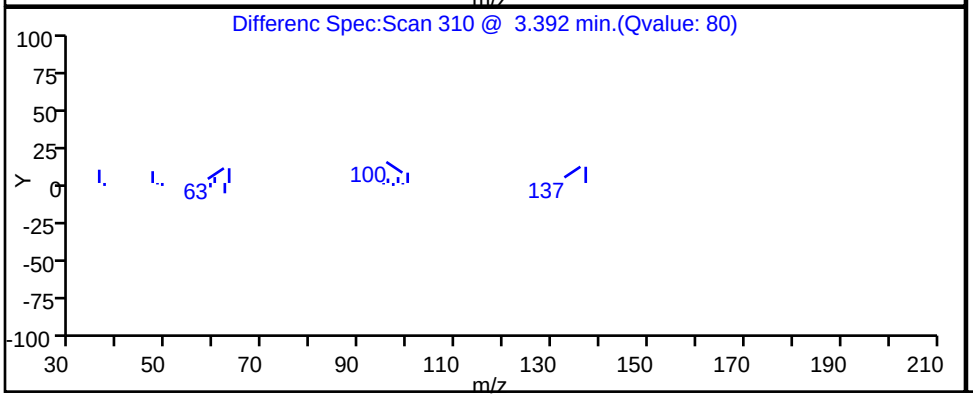












Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

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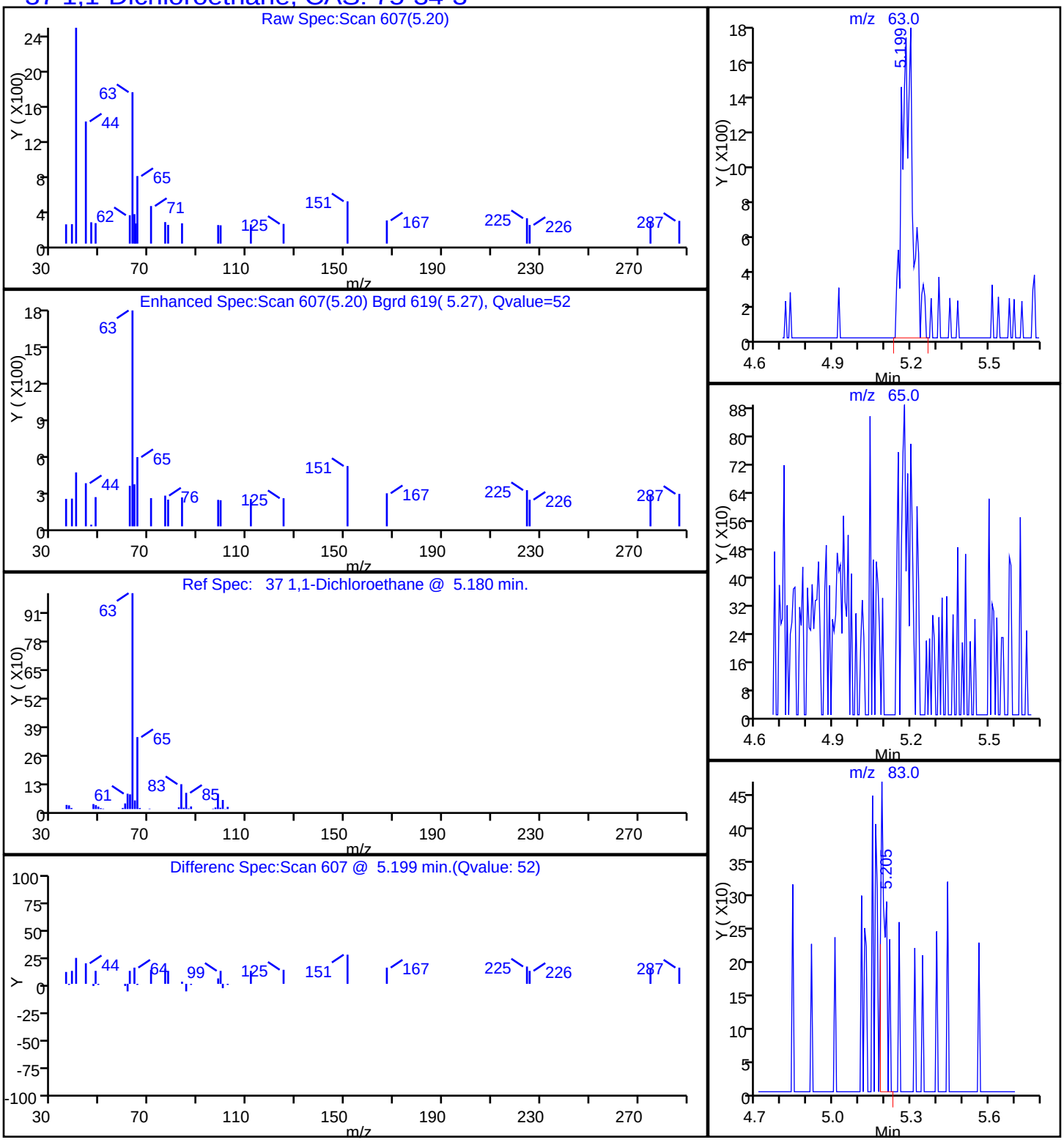
Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10
Client ID:	HD-MW-96D-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3

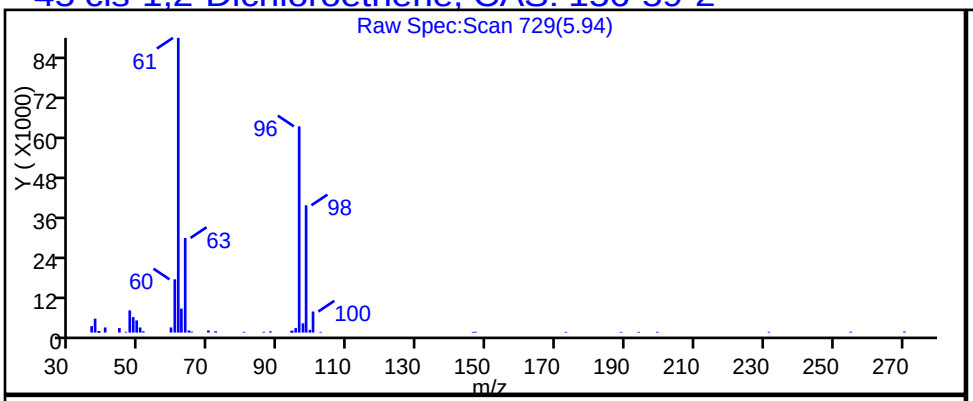


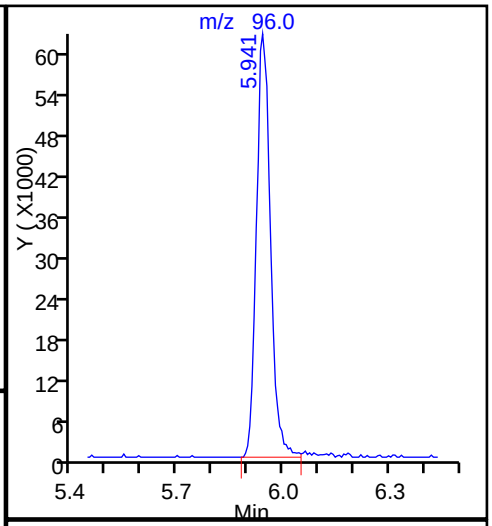
Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

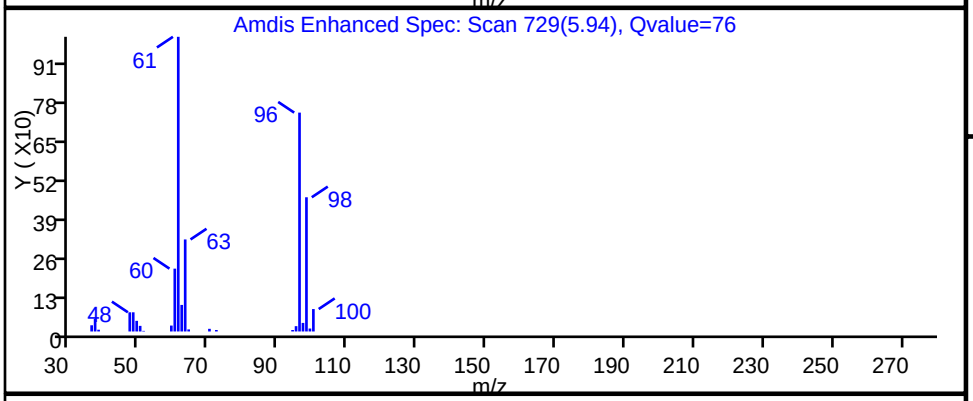
TestAmerica Pittsburgh

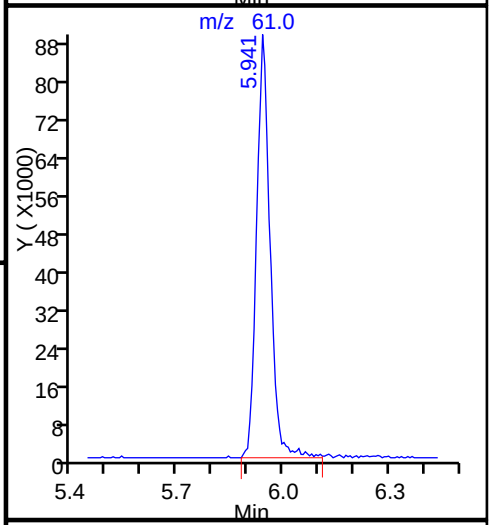
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D				
Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

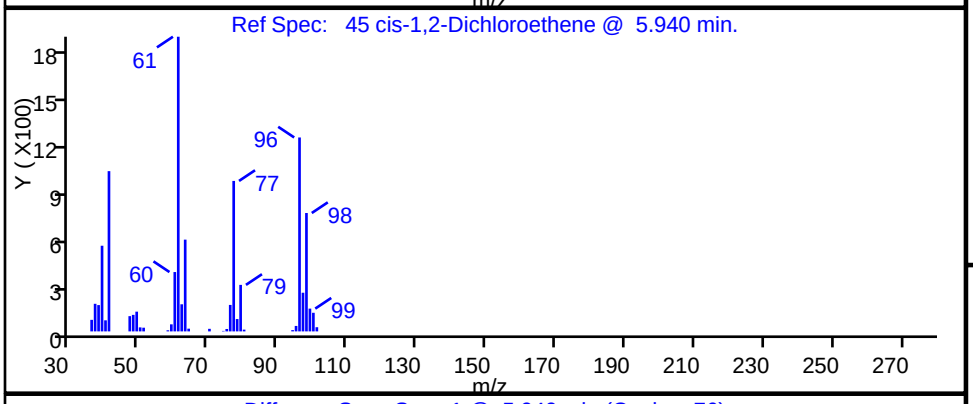
45 cis-1,2-Dichloroethene, CAS: 156-59-2

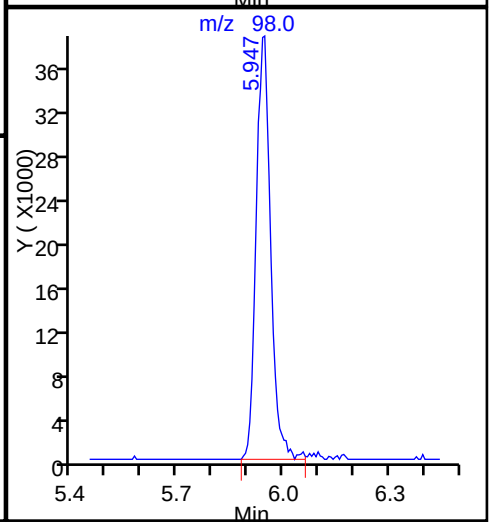


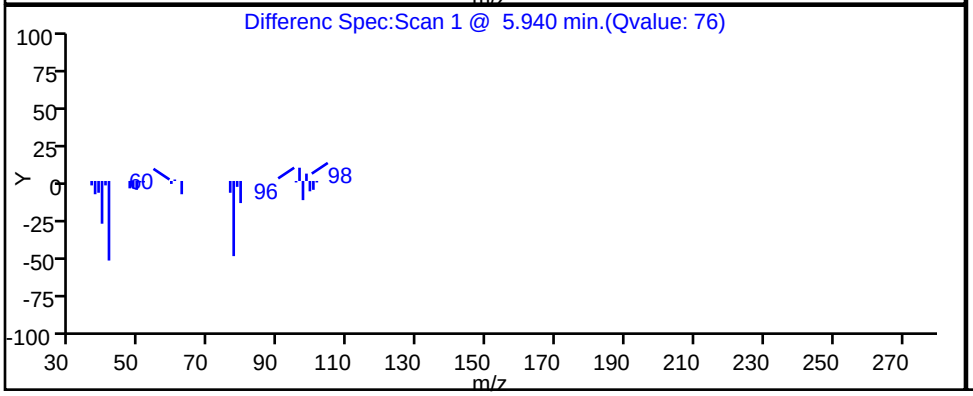










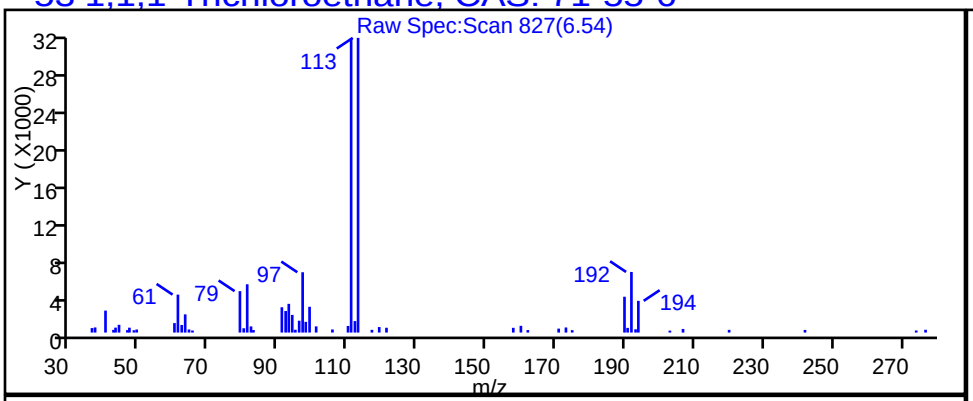


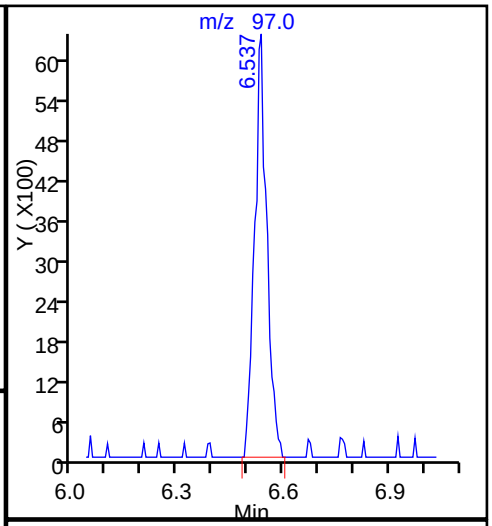
Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

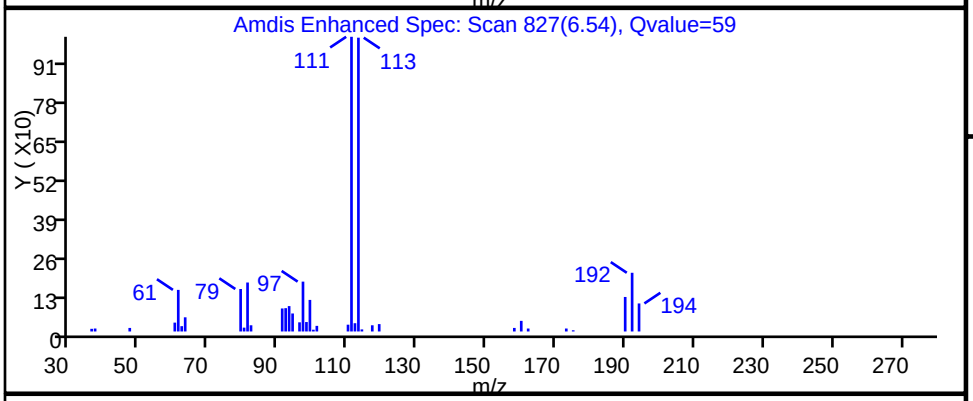
TestAmerica Pittsburgh

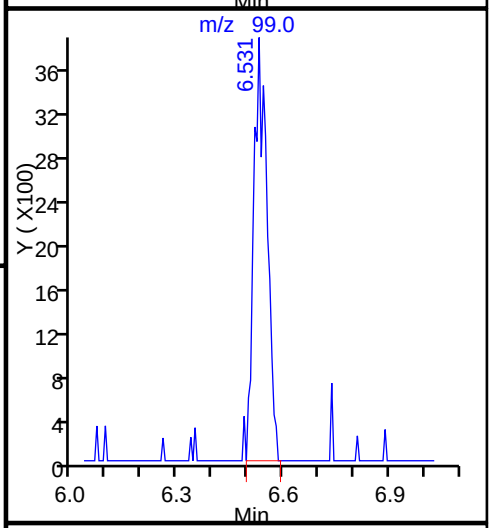
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D				
Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

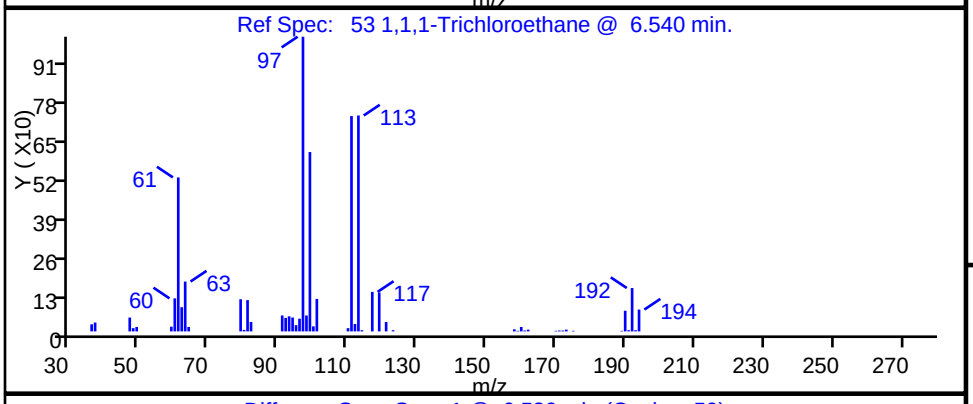
53 1,1,1-Trichloroethane, CAS: 71-55-6

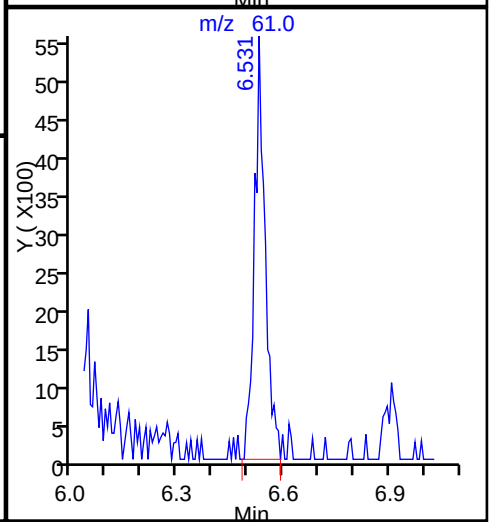


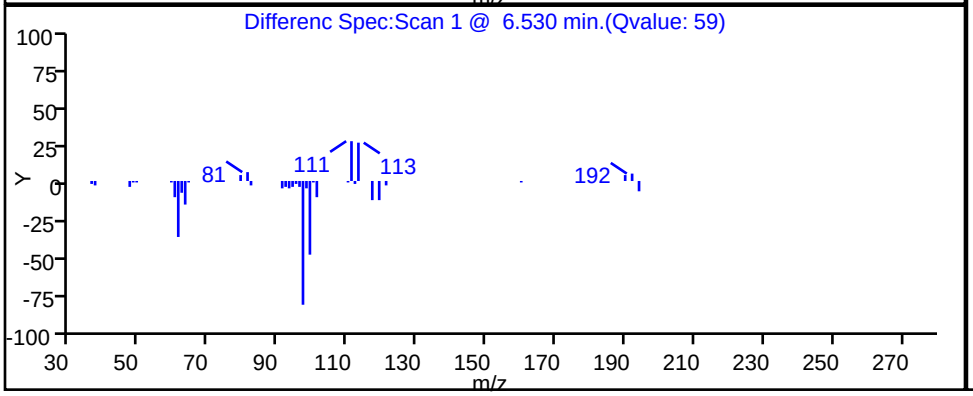










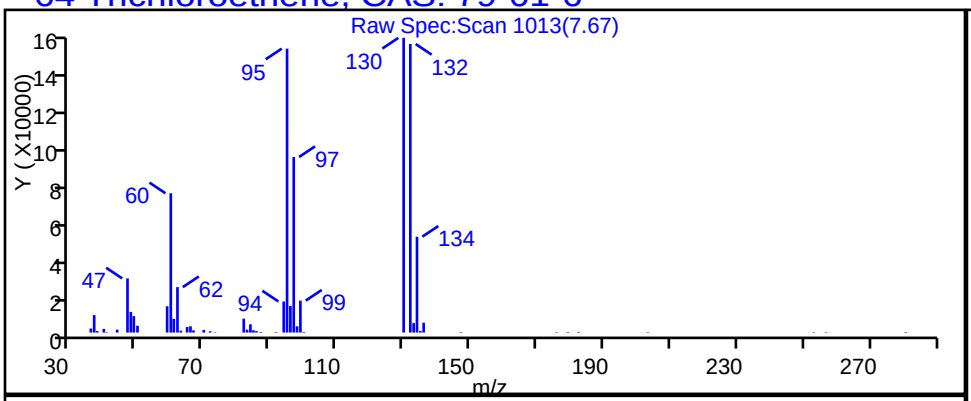


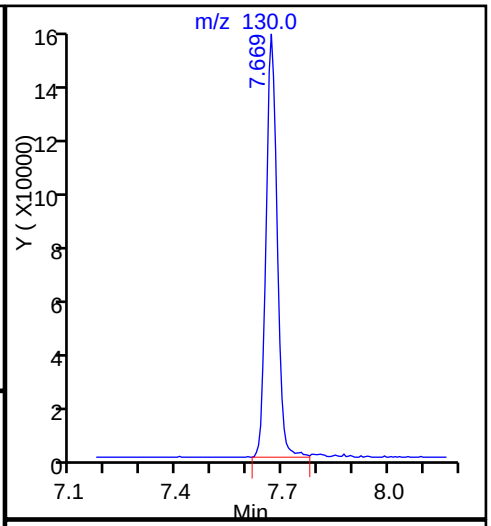
Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

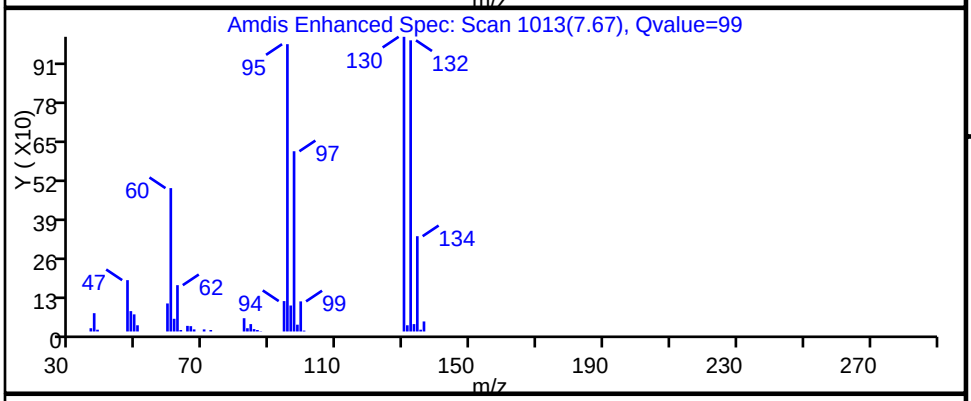
TestAmerica Pittsburgh

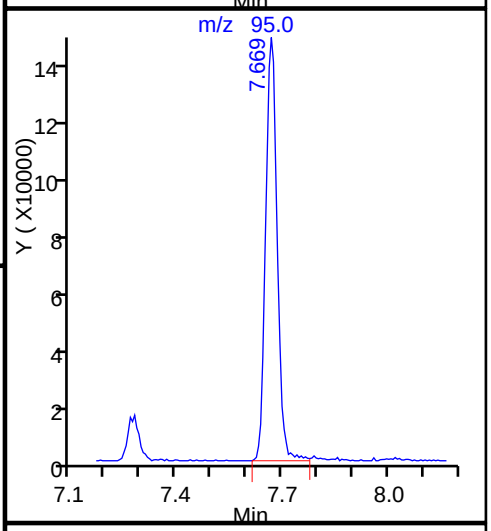
Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D				
Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5		
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

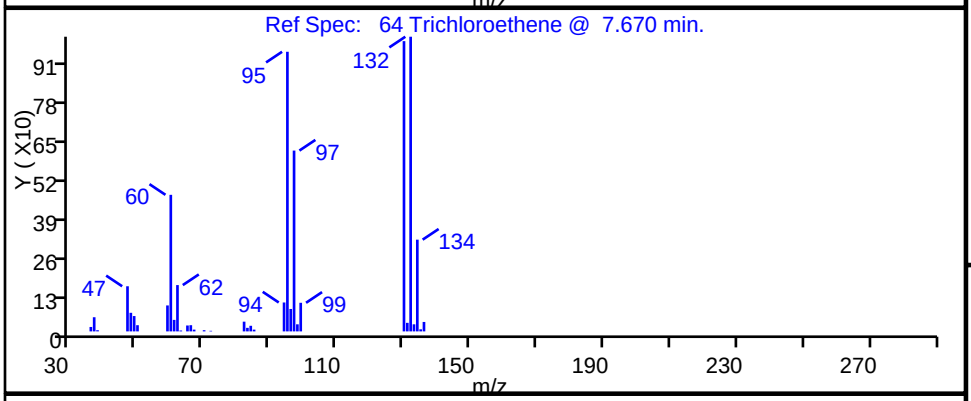
64 Trichloroethene, CAS: 79-01-6

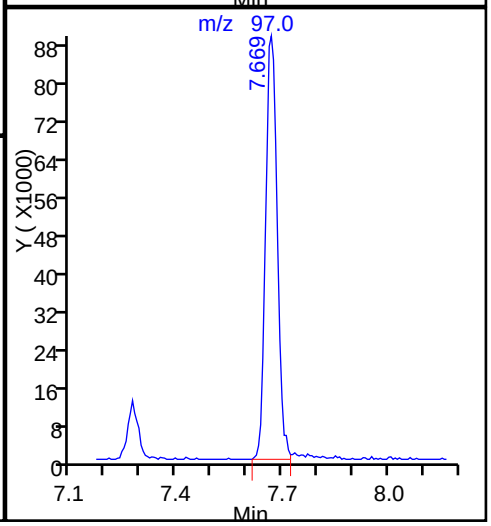


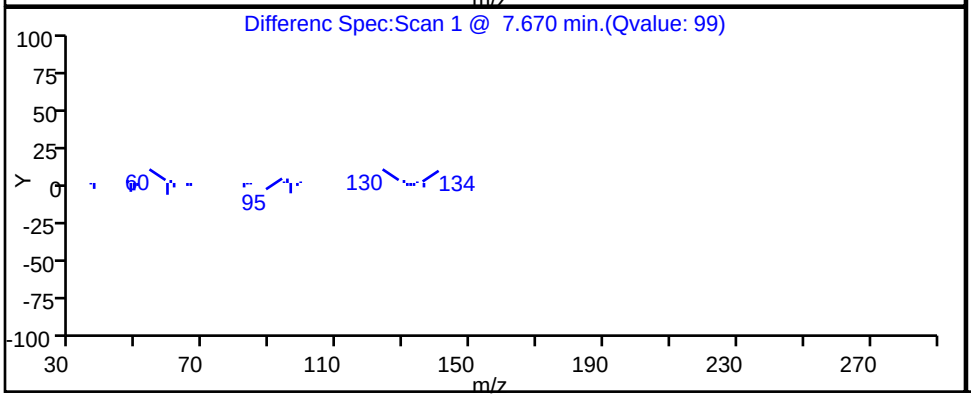












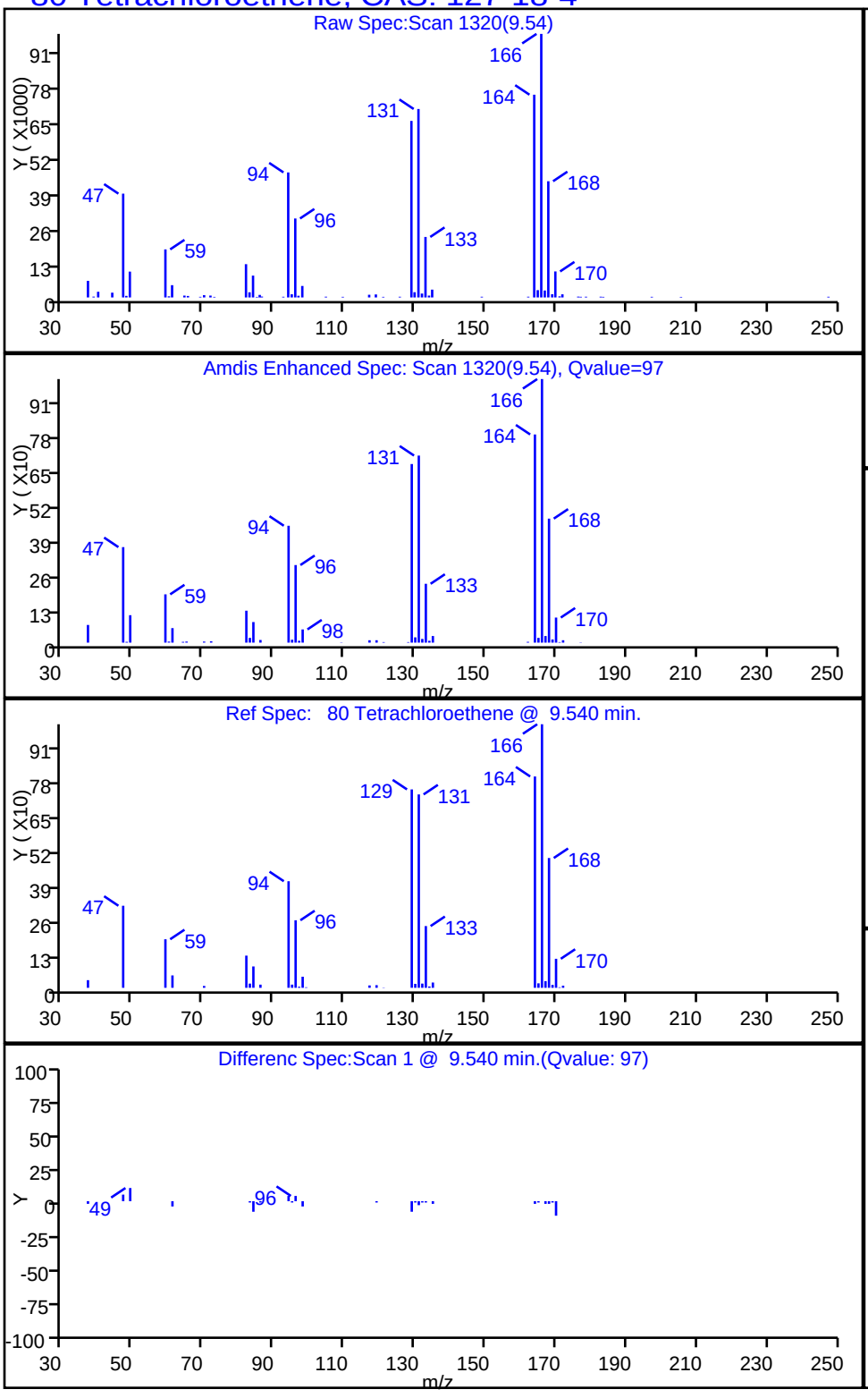
Report Date: 11-Mar-2015 08:19:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

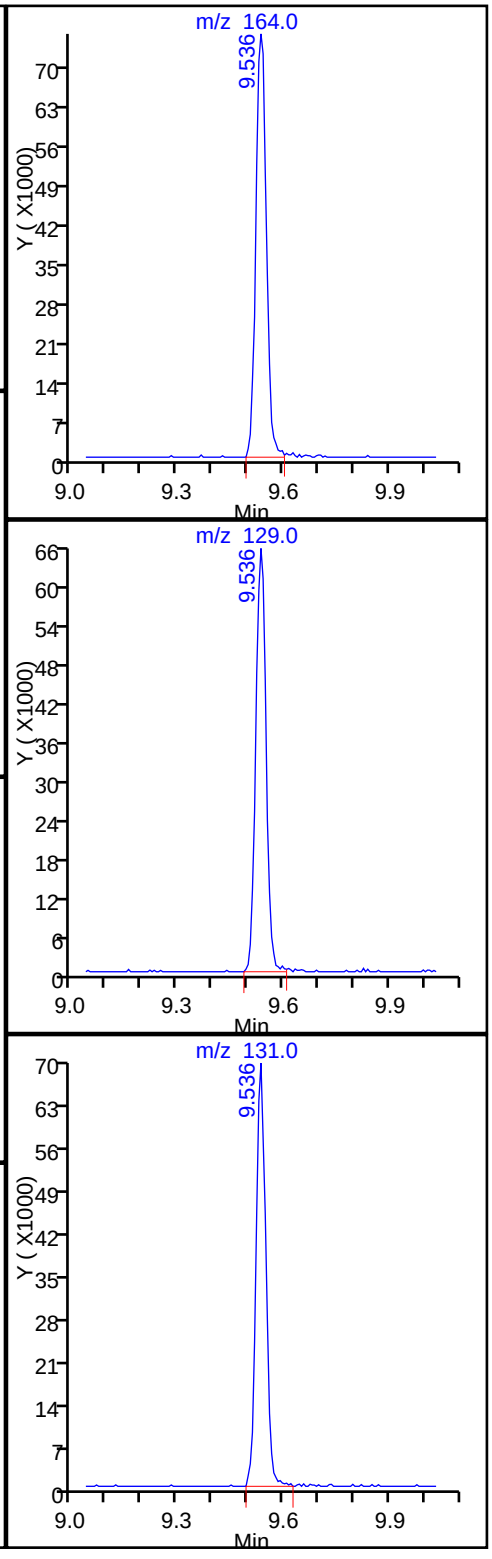
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310017.D

Injection Date:	10-Mar-2015 18:13:30	Instrument ID:	CHHP5
Lims ID:	180-41569-C-10	Lab Sample ID:	180-41569-10
Client ID:	HD-MW-96D-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-134613/18	50303018.D
Level 2	IC 180-134613/8	50303008.D
Level 3	ICIS 180-134613/9	50303009.D
Level 4	IC 180-134613/10	50303010.D
Level 5	IC 180-134613/11	50303011.D
Level 6	IC 180-134613/12	50303012.D
Level 7	IC 180-134613/13	50303013.D
Level 8	IC 180-134613/14	50303014.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	0.2690 0.2315	0.2475 0.2504	0.2293 0.2519	0.2623	0.2680	Ave		0.2512			0.1000	6.0		20.0			
Chloromethane	0.4680 0.3696	0.3882 0.4086	0.3655 0.4050	0.4008	0.4067	Ave		0.4015			0.1000	7.9		20.0			
Vinyl chloride	0.4208 0.3539	0.3727 0.3911	0.3674 0.3929	0.3892	0.3994	Ave		0.3859			0.1000	5.4		20.0			
1,3-Butadiene	0.5877 0.3874	0.4356 0.4336	0.4089 0.4363	0.4396	0.4507	Ave		0.4475			0.0100	13.0		20.0			
Bromomethane	0.2102 0.0967	0.1328 0.1105	0.1305 0.0997	0.1176	0.1084	Lin2	0.5322	0.1060			0.0500				0.9930		0.9900
Chloroethane	0.2042 0.1423	0.1531 0.1639	0.1454 0.1403	0.1542	0.1526	Ave		0.1570			0.0500	13.0		20.0			
Dichlorofluoromethane	0.4250 0.3125	0.3499 0.3829	0.3794 0.3280	0.3555	0.3456	Ave		0.3598			0.0100	9.8		20.0			
Trichlorofluoromethane	0.3357 0.2560	0.2761 0.3432	0.3149 0.2839	0.2982	0.2961	Ave		0.3005			0.1000	9.9		20.0			
Ethyl ether	0.3462 0.2756	0.2799 0.2862	0.2559 0.3022	0.2863	0.2877	Ave		0.2900			0.0100	9.0		20.0			
Acrolein	0.0381 0.0352	0.0397 0.0387	0.0353 0.0396	0.0401	0.0397	Ave		0.0383			0.0100	5.1		20.0			
1,1-Dichloroethene	0.3310 0.2752	0.2698 0.2934	0.2608 0.2973	0.2971	0.3045	Ave		0.2911			0.1000	7.7		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3119 0.2752	0.2867 0.3077	0.2648 0.2991	0.3034	0.3054	Ave		0.2943			0.1000	5.8		20.0			
Acetone	0.1272 0.0999	0.1070 0.0981	0.0956 0.1093	0.1023	0.1006	Ave		0.1050			0.0500	9.5		20.0			
Iodomethane	0.4701 0.3888	0.3781 0.4191	0.3659 0.4254	0.4071	0.4219	Ave		0.4096			0.0100	8.0		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.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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								
Carbon disulfide	0.7278 0.6896	0.6311 0.7798	0.6350 0.7889	0.7235	0.7569	Ave		0.7166			0.1000	8.5		20.0			
Allyl chloride	0.1767 0.1804	0.1687 0.1929	0.1597 0.2039	0.1828	0.1896	Ave		0.1818			0.0100	7.7		20.0			
Methyl acetate	0.3135 0.2835	0.2688 0.2970	0.2547 0.3078	0.2918	0.2933	Ave		0.2888			0.1000	6.7		20.0			
Methylene Chloride	0.5303 0.3048	0.3340 0.3171	0.3002 0.3296	0.3199	0.3150	Lin2	1.1200	0.3021			0.1000				0.9970		0.9900
tert-Butyl alcohol	1.0728 1.1874	1.1850 1.2108	1.0775 1.3423	1.2805	1.2306	Ave		1.1984			0.0100	7.7		20.0			
Acrylonitrile	0.1522 0.1402	0.1370 0.1445	0.1317 0.1514	0.1426	0.1458	Ave		0.1432			0.0100	4.8		20.0			
trans-1,2-Dichloroethene	0.3284 0.2932	0.2930 0.3077	0.2772 0.3241	0.3005	0.3112	Ave		0.3044			0.1000	5.6		20.0			
Methyl tert-butyl ether	0.8077 0.7491	0.7066 0.7930	0.6816 0.8220	0.7507	0.7733	Ave		0.7605			0.1000	6.4		20.0			
Hexane	0.6242 0.5039	0.5149 0.5384	0.5008 0.5460	0.5396	0.5552	Ave		0.5404			0.0100	7.3		20.0			
1,1-Dichloroethane	0.6587 0.5578	0.5463 0.5868	0.5240 0.6027	0.5806	0.5849	Ave		0.5802			0.2000	7.0		20.0			
Vinyl acetate	0.1554 0.2042	0.1712 0.2248	0.1846 0.2374	0.1922	0.2159	Ave		0.1982			0.0100	14.0		20.0			
2,2-Dichloropropane	0.2089 0.2094	0.1923 0.2380	0.1918 0.2406	0.2153	0.2221	Ave		0.2148			0.0100	8.5		20.0			
cis-1,2-Dichloroethene	0.3752 0.3124	0.3118 0.3268	0.2893 0.3375	0.3247	0.3263	Ave		0.3255			0.1000	7.6		20.0			
2-Butanone (MEK)	0.1805 0.1692	0.1656 0.1804	0.1533 0.1823	0.1632	0.1743	Ave		0.1711			0.0500	5.9		20.0			
Bromochloromethane	0.1602 0.1300	0.1227 0.1367	0.1187 0.1453	0.1320	0.1397	Ave		0.1357			0.0100	9.7		20.0			
Tetrahydrofuran	0.1465 0.1140	0.1197 0.1221	0.1051 0.1283	0.1156	0.1227	Ave		0.1218			0.0100	10.0		20.0			
Chloroform	0.5305 0.4435	0.4372 0.4691	0.4040 0.4864	0.4580	0.4705	Ave		0.4624			0.2000	8.1		20.0			
1,1,1-Trichloroethane	0.3408 0.3041	0.2781 0.3311	0.2786 0.3337	0.3135	0.3326	Ave		0.3141			0.1000	8.0		20.0			
Cyclohexane	0.7553 0.6547	0.7067 0.7163	0.6518 0.7113	0.7195	0.7234	Ave		0.7049			0.1000	5.0		20.0			
Carbon tetrachloride	0.2188 0.2137	0.1783 0.2421	0.1756 0.2456	0.2093	0.2208	Ave		0.2130			0.1000	12.0		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.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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	0.4190 0.3837	0.3836 0.4120	0.3653 0.4171	0.4094	0.4159	Ave		0.4007			0.0100	5.1		20.0			
Isobutyl alcohol	0.0062 0.0076	0.0051 0.0082	0.0049 0.0094	0.0062	0.0072	Ave		0.0069		*	0.0100	23.0	*	20.0			
Benzene	1.4277 1.1958	1.2285 1.2459	1.1487 1.2779	1.2764	1.3023	Ave		1.2629			0.5000	6.6		20.0			
1,2-Dichloroethane	0.3936 0.3555	0.3377 0.3701	0.3255 0.4002	0.3674	0.3684	Ave		0.3648			0.1000	6.9		20.0			
n-Heptane	0.5428 0.4760	0.4383 0.5130	0.4485 0.5151	0.4948	0.4996	Ave		0.4910			0.0100	7.2		20.0			
Trichloroethene	0.2973 0.2860	0.2875 0.3057	0.2716 0.3157	0.3042	0.3116	Ave		0.2974			0.2000	5.0		20.0			
Methylcyclohexane	0.5952 0.5306	0.5402 0.5732	0.5146 0.5770	0.5673	0.5970	Ave		0.5619			0.1000	5.4		20.0			
1,2-Dichloropropane	0.3666 0.3252	0.3035 0.3418	0.2998 0.3537	0.3291	0.3338	Ave		0.3317			0.1000	6.9		20.0			
Dibromomethane	0.1544 0.1493	0.1379 0.1557	0.1316 0.1667	0.1493	0.1534	Ave		0.1498			0.0100	7.3		20.0			
1,4-Dioxane	0.0032 0.0032	0.0026 0.0030	0.0024 0.0034	0.0029	0.0030	Ave		0.0030		*	0.0100	11.0		20.0			
Bromodichloromethane	0.2516 0.2918	0.2511 0.3052	0.2361 0.3279	0.2772	0.2930	Ave		0.2792			0.2000	11.0		20.0			
cis-1,3-Dichloropropene	0.3080 0.3953	0.3071 0.4172	0.3282 0.4415	0.3733	0.3881	Ave		0.3698			0.2000	14.0		20.0			
4-Methyl-2-pentanone (MIBK)	1.5509 1.4938	1.5302 1.5109	1.3735 1.4677	1.5874	1.5632	Ave		1.5097			0.1000	4.4		20.0			
Toluene	6.2344 4.6779	5.4647 4.8614	4.8117 4.5935	5.3452	5.2977	Ave		5.1608			0.4000	11.0		20.0			
trans-1,3-Dichloropropene	0.9390 1.1640	0.9614 1.2251	0.9301 1.2704	1.0789	1.1369	Ave		1.0882			0.1000	12.0		20.0			
Ethyl methacrylate	1.1441 1.2928	0.9998 1.3638	1.0308 1.3853	1.2627	1.3088	Ave		1.2235			0.0100	12.0		20.0			
1,1,2-Trichloroethane	1.0940 0.8884	0.9633 0.9132	0.8597 0.9115	0.9757	0.9363	Ave		0.9428			0.1000	7.6		20.0			
Tetrachloroethene	1.1157 0.8701	0.9938 0.9281	0.8738 0.8743	0.9857	0.9770	Ave		0.9523			0.2000	8.9		20.0			
1,3-Dichloropropane	1.9802 1.6858	1.8629 1.7187	1.6343 1.6897	1.8293	1.7741	Ave		1.7719			0.0100	6.4		20.0			
2-Hexanone	1.0477 1.0339	1.0431 1.0684	0.9679 1.0449	1.1247	1.1004	Ave		1.0539			0.1000	4.5		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.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.5658 0.6599	0.5280 0.7119	0.5067 0.7217	0.6199	0.6460	Ave		0.6200			0.1000	13.0		20.0			
1,2-Dibromoethane (EDB)	0.9524 0.9044	0.8836 0.9137	0.8153 0.9237	0.9263	0.9441	Ave		0.9079			0.1000	4.8		20.0			
3-Chlorobenzotrifluoride	1.9226 1.4974	1.6501 1.5076	1.5454 1.3370	1.6222	1.5811	Ave		1.5829			0.0100	11.0		20.0			
Chlorobenzene	4.0215 3.0327	3.4837 3.1544	3.0203 3.0023	3.3643	3.3626	Ave		3.3052			0.5000	10.0		20.0			
4-Chlorobenzotrifluoride	1.7532 1.4334	1.5607 1.4283	1.5227 1.2996	1.5809	1.5247	Ave		1.5129			0.0100	8.8		20.0			
1,1,1,2-Tetrachloroethane	0.8054 0.7937	0.6270 0.8576	0.6290 0.8548	0.7520	0.7784	Ave		0.7622			0.0100	12.0		20.0			
Ethylbenzene	2.1162 1.8003	1.9583 1.8639	1.7671 1.7871	1.9934	2.0020	Ave		1.9111			0.1000	6.6		20.0			
m-Xylene & p-Xylene	2.6982 2.2243	2.3435 2.3081	2.1594 2.2145	2.4436	2.4413	Ave		2.3541			0.1000	7.4		20.0			
o-Xylene	2.6404 2.1191	2.3559 2.2160	2.1315 2.1144	2.3759	2.3231	Ave		2.2845			0.3000	7.9		20.0			
Styrene	4.3797 3.4898	3.7333 3.6111	3.4486 3.4638	3.9065	3.8442	Ave		3.7346			0.3000	8.4		20.0			
Bromoform	0.2653 0.3657	0.2684 0.4014	0.2412 0.4171	0.3168	0.3442	Ave		0.3275			0.1000	20.0		20.0			
2-Chlorobenzotrifluoride	1.8187 1.4793	1.6992 1.5053	1.5228 1.3486	1.6018	1.5787	Ave		1.5693			0.0100	9.1		20.0			
Isopropylbenzene	6.6841 5.0501	5.9488 5.3239	5.2815 4.8448	5.9350	5.7977	Ave		5.6082			0.1000	11.0		20.0			
1,1,2,2-Tetrachloroethane	1.2994 1.2807	1.3075 1.3493	1.2094 1.3104	1.3458	1.3524	Ave		1.3069			0.3000	3.6		20.0			
Bromobenzene	1.0162 0.8475	0.8667 0.8518	0.8177 0.8692	0.8652	0.8533	Ave		0.8735			0.0100	6.9		20.0			
1,2,3-Trichloropropane	0.3627 0.2773	0.2931 0.2821	0.2728 0.2922	0.2800	0.2812	Ave		0.2927			0.0100	10.0		20.0			
trans-1,4-Dichloro-2-butene	0.2945 0.2859	0.2754 0.3162	0.2472 0.3267	0.2688	0.2602	Ave		0.2844			0.0100	9.6		20.0			
N-Propylbenzene	1.2166 1.1118	1.1732 1.1670	1.1362 1.1460	1.1729	1.1590	Ave		1.1604			0.0100	2.7		20.0			
2-Chlorotoluene	1.1065 0.9256	0.9581 0.9475	0.8975 0.9360	0.9513	0.9430	Ave		0.9582			0.0100	6.6		20.0			
3-Chlorotoluene	1.1820 0.9566	0.9980 0.9593	0.9643 0.9127	0.9261	0.9364	Ave		0.9794			0.0100	8.8		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.6478 3.0305	3.2397 3.1239	3.1299 3.0311	3.2594	3.2246	Ave		3.2109			0.0100	6.2		20.0			
4-Chlorotoluene	1.1560 0.9823	0.9826 1.0361	0.9918 1.0330	1.0376	1.0526	Ave		1.0340			0.0100	5.5		20.0			
tert-Butylbenzene	3.1191 2.5612	2.8481 2.6780	2.7134 2.6395	2.8302	2.7808	Ave		2.7713			0.0100	6.2		20.0			
1,2,4-Trimethylbenzene	3.6951 3.1036	3.3863 3.2221	3.2100 3.1692	3.3631	3.3623	Ave		3.3140			0.0100	5.6		20.0			
3,4-Dichlorobenzotrifluoride	0.7760 0.7222	0.8131 0.7485	0.7548 0.6963	0.7399	0.7344	Ave		0.7482			0.0100	4.7		20.0			
sec-Butylbenzene	4.7250 3.6615	4.1212 3.7973	3.8832 3.6388	4.0747	4.0112	Ave		3.9891			0.0100	8.7		20.0			
1,3-Dichlorobenzene	2.0686 1.6213	1.7447 1.6705	1.6238 1.6741	1.6987	1.7072	Ave		1.7261			0.6000	8.4		20.0			
4-Isopropyltoluene	3.7034 3.0652	3.3375 3.2100	3.1450 3.0900	3.3337	3.2665	Ave		3.2689			0.0100	6.2		20.0			
1,4-Dichlorobenzene	2.0020 1.6465	1.7449 1.6908	1.6438 1.7119	1.7346	1.7242	Ave		1.7373			0.5000	6.5		20.0			
2,4-Dichlorobenzotrifluoride	0.7973 0.6761	0.7429 0.6931	0.7301 0.6448	0.6927	0.7117	Ave		0.7111			0.0100	6.5		20.0			
2,5-Dichlorobenzotrifluoride	0.8019 0.7607	0.8189 0.7865	0.7792 0.7420	0.7522	0.7608	Ave		0.7753			0.0100	3.4		20.0			
n-Butylbenzene	3.2542 2.7311	2.9123 2.8828	2.7781 2.8096	2.9485	2.9341	Ave		2.9063			0.0100	5.5		20.0			
1,2-Dichlorobenzene	1.8289 1.5040	1.5633 1.5462	1.4970 1.5487	1.5655	1.5779	Ave		1.5789			0.4000	6.7		20.0			
1,2-Dibromo-3-Chloropropane	0.0849 0.1157	0.0814 0.1305	0.0843 0.1353	0.0954	0.1047	Ave		0.1040			0.0500	20.0		20.0			
1,2,4-Trichlorobenzene	0.8675 0.7733	0.7499 0.7923	0.7387 0.7989	0.8082	0.7890	Ave		0.7897			0.2000	5.0		20.0			
Hexachlorobutadiene	0.3817 0.3102	0.3469 0.3430	0.3138 0.3383	0.3301	0.3340	Ave		0.3373			0.0100	6.6		20.0			
Naphthalene	2.5167 2.2552	2.2494 2.2646	2.0797 2.3040	2.3468	2.3135	Ave		2.2912			0.0100	5.3		20.0			
1,2,3-Trichlorobenzene	0.7593 0.6559	0.6685 0.6729	0.5998 0.6937	0.6946	0.6725	Ave		0.6771			0.0100	6.6		20.0			
2,4,5-Trichlorotoluene	0.4218 0.3329	0.3284 0.3441	0.3044 0.3502	0.3314	0.3274	Ave		0.3426			0.0100	10.0		20.0			
2,3,6-Trichlorotoluene	0.3897 0.3029	0.3072 0.3055	0.2791 0.3183	0.3175	0.3065	Ave		0.3158			0.0100	10.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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								
Dibromofluoromethane (Surr)	0.2143 0.2131	0.2130 0.2223	0.2086 0.2061	0.2196	0.2156	Ave		0.2141				2.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2838 0.2624	0.2484 0.2700	0.2554 0.2655	0.2610	0.2699	Ave		0.2646				4.0		20.0			
Toluene-d8 (Surr)	4.5146 3.6171	4.2502 3.7635	3.8828 3.1038	4.0750	3.9724	Ave		3.8974				11.0		20.0			
4-Bromofluorobenzene (Surr)	1.7106 1.3934	1.4785 1.4322	1.3831 1.2832	1.4890	1.4299	Ave		1.4500				8.5		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 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-134613/18	50303018.D
Level 2	IC 180-134613/8	50303008.D
Level 3	ICIS 180-134613/9	50303009.D
Level 4	IC 180-134613/10	50303010.D
Level 5	IC 180-134613/11	50303011.D
Level 6	IC 180-134613/12	50303012.D
Level 7	IC 180-134613/13	50303013.D
Level 8	IC 180-134613/14	50303014.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	11738 392329	61161 459101	120251 555245	186155	248600	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	20422 626420	95934 749194	191737 892689	284435	377346	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	18364 599809	92094 717244	192697 866068	276203	370529	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	25646 656586	107650 795057	214505 961606	311986	418091	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	9174 163842	32814 202557	68450 219710	83485	100603	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	8910 241114	37829 300539	76259 309302	109418	141570	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	18545 529735	86469 702217	199002 722968	252307	320590	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	14651 433936	68228 629405	165171 625870	211640	274680	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	15110 467174	69164 524790	134232 666037	203184	266877	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	33215 76799	49025 88701	55616 95898	66477	73636	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	14445 466370	66672 537938	136777 655372	210842	282447	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	13613 466462	70857 564199	138904 659263	215323	283308	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	27756 338711	52872 359769	100332 482030	145165	186722	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	20517 658969	93450 768602	191906 937612	288929	391404	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	31759 1168823	155959 1429882	333091 1738988	513502	702207	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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	7709 305734	41688 353770	83771 449430	129734	175910	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	68405 2402270	332118 2723193	667992 3392163	1035670	1360573	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	23143 516693	82531 581573	157472 726477	227072	292219	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	8526 407341	47518 473360	88451 611565	166475	219266	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	66409 2376546	338546 2649598	691056 3337128	1012388	1352445	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	14331 496919	72412 564166	145422 714392	213264	288749	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	35247 1269630	174611 1454209	357516 1811989	532783	717429	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	27239 854071	127250 987257	262665 1203451	382955	515034	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	28747 945361	134994 1076133	274871 1328543	412070	542610	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	6783 346138	42316 412211	96814 523307	136421	200290	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9115 354872	47512 436442	100580 530241	152789	206033	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	16372 529478	77048 599342	151771 743970	230462	302735	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	39378 573542	81869 661664	160864 803658	231681	323375	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	6992 220291	30321 250607	62252 320382	93661	129587	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	12789 386544	59174 447707	110296 565784	164028	227621	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	23149 751712	108043 860226	211933 1072109	325101	436474	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	14873 515456	68728 607230	146155 735465	222478	308574	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	32962 1109737	174651 1313560	341881 1567791	510634	671150	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	9550 362211	44069 443952	92122 541326	148555	204809	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	18284 650285	94793 755478	191632 919340	290552	385796	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	6766 324042	31713 374911	64264 519953	110778	166120	125 4375	625 5000	1250 6250	1875	2500

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

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
Benzene	FB	Ave	62303 2026853	303591 2284771	602514 2816860	905954	1208197	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	17175 602602	83451 678619	170712 882169	260776	341780	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	23686 806729	108328 940701	235230 1135342	351211	463470	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	12976 484743	71046 560499	142439 695890	215876	289114	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25976 899256	133492 1051065	269904 1271791	402645	553839	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	15999 551216	75001 626785	157237 779651	233558	309721	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	6736 252976	34073 285467	69033 367478	105949	142348	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2785 107243	12787 108953	25299 148650	41693	56031	100 3500	500 4000	1000 5000	1500	2000
Bromodichloromethane	FB	Ave	10980 494496	62048 559625	123848 722661	196712	271870	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	13441 670035	75900 764955	172126 973151	264977	360087	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	75647 1293845	171096 1424348	349805 1780762	535170	716953	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	60820 2025808	305509 2291440	612731 2786685	901036	1214867	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	9160 504089	53750 577469	118446 770673	181868	260722	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	11161 559868	55893 642835	131269 840399	212852	300128	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10673 384751	53855 430453	109481 552961	164474	214719	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	10884 376799	55560 437446	111273 530396	166159	224037	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	19318 730064	104148 810109	208110 1025068	308357	406834	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	51105 895448	116636 1007219	246507 1267784	379170	504684	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	5520 285792	29519 335537	64530 437822	104491	148140	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	9291 391652	49397 430697	103819 560401	156151	216491	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	18756 648455	92250 710605	196791 811123	273444	362586	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	39232 1313352	194761 1486822	384609 1821377	567114	771107	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	17103 620760	87255 673239	193901 788386	266494	349632	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	7857 343717	35053 404254	80096 518562	126760	178500	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	20645 779624	109479 878562	225030 1084192	336025	459104	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	26322 963277	131016 1087938	274985 1343425	411920	559842	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	25758 917689	131707 1044535	271432 1282744	400497	532728	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	42726 1511299	208713 1702135	439152 2101328	658511	881546	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	2588 158386	15007 189179	30710 253039	53409	78926	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	17742 640624	94998 709528	193920 818132	270017	362034	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	65207 2186986	332572 2509471	672554 2939157	1000450	1329527	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	12676 554635	73095 635984	154009 794942	226865	310127	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	14051 509283	68608 564181	141042 712137	214072	285408	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	5015 166640	23201 186872	47052 239368	69273	94067	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	4072 171777	21797 209408	42637 267698	66494	87031	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	16822 668080	92868 772940	195976 938881	290195	387657	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	15299 556210	75841 627560	154797 766804	235369	315400	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	16343 574840	78996 635360	166326 747748	229133	313196	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	50437 1821042	256444 2069067	539843 2483271	806423	1078510	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	15984 590273	77780 686264	171070 846300	256729	352063	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	43127 1538995	225443 1773732	468002 2162487	700240	930079	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	51091 1864947	268049 2134132	553643 2596483	832074	1124585	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	10729 433987	64362 495775	130185 570450	183065	245627	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	65330 2200188	326221 2515133	669756 2981190	1008135	1341600	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	28602 974213	138101 1106407	280066 1371526	420272	570988	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	51205 1841892	264184 2126114	542443 2531591	824816	1092513	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	27681 989384	138120 1119886	283523 1402521	429154	576692	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	11024 406260	58806 459072	125921 528265	171372	238033	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	11088 457073	64824 520914	134395 607921	186097	254456	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	44994 1641091	230526 1909418	479164 2301855	729499	981363	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	25288 903766	123743 1024132	258190 1268840	387327	527759	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1174 69537	6441 86409	14541 110818	23597	35031	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	11994 464683	59357 524775	127415 654550	199956	263899	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	5277 186416	27458 227215	54129 277147	81675	111717	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	34798 1355121	178051 1499909	358706 1887643	580632	773789	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	10498 394157	52915 445662	103456 568326	171850	224922	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	5832 200009	25992 227883	52505 286878	81997	109488	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	5388 182005	24319 202347	48130 260759	78544	102526	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9351 361120	52645 407623	109435 454279	155860	199995	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	12383 444667	61392 495199	133978 585333	185233	250369	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	44042 1566428	237614 1773929	494434 1882951	686909	910944	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	16688 603450	82659 675059	176122 778464	251005	327893	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 134613

SDG No.:

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

Calibration Start Date: 03/03/2015 14:28 Calibration End Date: 03/03/2015 18:29 Calibration ID: 22321

Curve Type Legend:

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2015 14:28:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0005873-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:04 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 03-Mar-2015 15:51:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.314	4.321	-0.007	94	160393	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.277	7.278	-0.001	98	494254	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.368	-0.001	96	111812	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.691	12.686	0.005	96	158312	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.535	-0.007	84	52645	25.0	24.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.899	6.907	-0.007	95	61392	25.0	23.5	
$ 7 Toluene-d8 (Surr)	98	8.931	8.926	0.005	94	237614	25.0	27.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.535	11.536	-0.001	88	82659	25.0	25.5	
11 Dichlorodifluoromethane	85	1.625	1.626	-0.001	98	61161	25.0	24.6	
12 Chloromethane	50	1.777	1.772	0.005	99	95934	25.0	24.2	
13 Vinyl chloride	62	1.899	1.906	-0.007	98	92094	25.0	24.1	
14 Butadiene	39	1.941	1.948	-0.007	97	107650	25.0	24.3	
15 Bromomethane	94	2.252	2.253	-0.001	92	32814	25.0	26.3	
16 Chloroethane	64	2.379	2.386	-0.007	97	37829	25.0	24.4	
17 Dichlorofluoromethane	67	2.653	2.654	-0.001	97	86469	25.0	24.3	
18 Trichlorofluoromethane	101	2.720	2.709	0.011	95	68228	25.0	23.0	
20 Ethyl ether	59	3.085	3.098	-0.013	94	69164	25.0	24.1	
21 Acrolein	56	3.261	3.263	-0.001	98	49025	125.0	129.5	
22 1,1-Dichloroethene	96	3.371	3.384	-0.013	96	66672	25.0	23.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.427	-0.007	94	70857	25.0	24.4	
24 Acetone	43	3.493	3.500	-0.007	98	52872	50.0	50.9	
25 Iodomethane	142	3.584	3.585	-0.001	98	93450	25.0	23.1	
26 Carbon disulfide	76	3.663	3.664	-0.001	99	155959	25.0	22.0	
28 3-Chloro-1-propene	76	3.943	3.950	-0.007	90	41688	25.0	23.2	
30 Methyl acetate	43	4.022	4.023	-0.001	99	332118	125.0	116.3	
31 Methylene Chloride	84	4.150	4.151	-0.001	99	82531	25.0	23.9	
32 2-Methyl-2-propanol	59	4.454	4.437	0.017	96	47518	250.0	247.2	
33 Acrylonitrile	53	4.557	4.558	-0.001	98	338546	250.0	239.2	
34 trans-1,2-Dichloroethene	96	4.569	4.577	-0.008	56	72412	25.0	24.1	
35 Methyl tert-butyl ether	73	4.600	4.601	-0.001	98	174611	25.0	23.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.990	-0.001	96	127250	25.0	23.8	
37 1,1-Dichloroethane	63	5.178	5.179	-0.001	96	134994	25.0	23.5	
38 Vinyl acetate	43	5.299	5.307	-0.008	96	42316	25.0	21.6	
44 2,2-Dichloropropane	77	5.926	5.933	-0.007	77	47512	25.0	22.4	
45 cis-1,2-Dichloroethene	96	5.938	5.939	-0.001	83	77048	25.0	23.9	
46 2-Butanone (MEK)	43	5.993	5.994	-0.001	99	81869	50.0	48.4	
49 Chlorobromomethane	128	6.230	6.231	-0.001	92	30321	25.0	22.6	
51 Tetrahydrofuran	42	6.297	6.298	-0.001	95	59174	50.0	49.2	
52 Chloroform	83	6.340	6.347	-0.007	97	108043	25.0	23.6	
53 1,1,1-Trichloroethane	97	6.534	6.541	-0.007	96	68728	25.0	22.1	
54 Cyclohexane	56	6.589	6.596	-0.007	92	174651	25.0	25.1	
56 Carbon tetrachloride	117	6.723	6.724	-0.001	58	44069	25.0	20.9	
55 1,1-Dichloropropene	75	6.729	6.730	-0.001	92	94793	25.0	23.9	
57 Isobutyl alcohol	41	6.954	6.955	-0.001	36	31713	625.0	467.5	
58 Benzene	78	6.960	6.961	-0.001	98	303591	25.0	24.3	
59 1,2-Dichloroethane	62	6.991	6.992	-0.001	95	83451	25.0	23.1	
62 n-Heptane	43	7.283	7.284	-0.001	96	108328	25.0	22.3	
64 Trichloroethene	130	7.672	7.673	-0.001	97	71046	25.0	24.2	
66 Methylcyclohexane	83	7.867	7.868	-0.001	94	133492	25.0	24.0	
67 1,2-Dichloropropane	63	7.909	7.910	-0.001	91	75001	25.0	22.9	
68 Dibromomethane	93	8.025	8.026	-0.001	95	34073	25.0	23.0	
70 1,4-Dioxane	88	8.067	8.056	0.011	89	12787	500.0	437.5	M
71 Dichlorobromomethane	83	8.201	8.202	-0.001	97	62048	25.0	22.5	
74 cis-1,3-Dichloropropene	75	8.664	8.665	-0.001	91	75900	25.0	20.8	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.829	-0.001	98	171096	50.0	50.7	
76 Toluene	91	8.992	8.993	-0.001	97	305509	25.0	26.5	
77 trans-1,3-Dichloropropene	75	9.223	9.224	-0.001	99	53750	25.0	22.1	
78 Ethyl methacrylate	69	9.321	9.322	-0.001	93	55893	25.0	20.4	
79 1,1,2-Trichloroethane	97	9.400	9.407	-0.007	91	53855	25.0	25.5	
80 Tetrachloroethene	164	9.540	9.541	-0.001	96	55560	25.0	26.1	
81 1,3-Dichloropropane	76	9.570	9.571	-0.001	98	104148	25.0	26.3	
82 2-Hexanone	43	9.661	9.662	-0.001	99	116636	50.0	49.5	
84 Chlorodibromomethane	129	9.795	9.796	-0.001	89	29519	25.0	21.3	
85 Ethylene Dibromide	107	9.905	9.906	-0.001	96	49397	25.0	24.3	
86 3-Chlorobenzotrifluoride	180	10.379	10.374	0.005	94	92250	25.0	26.1	
87 Chlorobenzene	112	10.397	10.398	-0.001	95	194761	25.0	26.4	
88 4-Chlorobenzotrifluoride	180	10.434	10.435	-0.001	94	87255	25.0	25.8	
89 1,1,1,2-Tetrachloroethane	131	10.483	10.477	0.006	86	35053	25.0	20.6	
90 Ethylbenzene	106	10.507	10.508	-0.001	98	109479	25.0	25.6	
91 m-Xylene & p-Xylene	106	10.622	10.624	-0.002	99	131016	25.0	24.9	
92 o-Xylene	106	11.018	11.013	0.005	96	131707	25.0	25.8	
93 Styrene	104	11.030	11.031	-0.001	95	208713	25.0	25.0	
94 Bromoform	173	11.219	11.214	0.005	96	15007	25.0	20.5	
96 2-Chlorobenzotrifluoride	180	11.279	11.274	0.005	97	94998	25.0	27.1	
97 Isopropylbenzene	105	11.383	11.384	-0.001	96	332572	25.0	26.5	
99 1,1,2,2-Tetrachloroethane	83	11.681	11.676	0.005	95	73095	25.0	25.0	
100 Bromobenzene	156	11.693	11.682	0.011	97	68608	25.0	24.8	
101 1,2,3-Trichloropropane	110	11.730	11.725	0.005	87	23201	25.0	25.0	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.737	-0.007	68	21797	25.0	24.2	
103 N-Propylbenzene	120	11.790	11.792	-0.002	99	92868	25.0	25.3	
104 2-Chlorotoluene	126	11.876	11.883	-0.007	96	75841	25.0	25.0	
105 3-Chlorotoluene	126	11.936	11.938	-0.002	95	78996	25.0	25.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.967	11.968	-0.001	95	256444	25.0	25.2	
107 4-Chlorotoluene	126	11.991	11.986	0.005	97	77780	25.0	23.8	
108 tert-Butylbenzene	119	12.289	12.290	-0.001	93	225443	25.0	25.7	
110 1,2,4-Trimethylbenzene	105	12.344	12.339	0.005	95	268049	25.0	25.5	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.406	-0.001	97	64362	25.0	27.2	
112 sec-Butylbenzene	105	12.514	12.509	0.005	94	326221	25.0	25.8	
113 1,3-Dichlorobenzene	146	12.624	12.625	-0.001	97	138101	25.0	25.3	
114 4-Isopropyltoluene	119	12.654	12.655	-0.001	97	264184	25.0	25.5	
115 1,4-Dichlorobenzene	146	12.715	12.710	0.005	95	138120	25.0	25.1	
116 2,4-Dichloro-1-(triflourom	214	12.764	12.765	-0.001	96	58806	25.0	26.1	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.807	0.005	97	64824	25.0	26.4	
120 n-Butylbenzene	91	13.068	13.069	-0.001	98	230526	25.0	25.1	
121 1,2-Dichlorobenzene	146	13.086	13.087	-0.001	95	123743	25.0	24.8	
122 1,2-Dibromo-3-Chloropropan	75	13.865	13.866	-0.001	63	6441	25.0	19.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.006	-0.001	98	259963	75.0	76.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.431	14.432	-0.001	99	168108	50.0	49.8	
126 1,2,4-Trichlorobenzene	180	14.698	14.693	0.005	94	59357	25.0	23.7	
127 Hexachlorobutadiene	225	14.869	14.870	-0.001	96	27458	25.0	25.7	
128 Naphthalene	128	14.948	14.943	0.005	97	178051	25.0	24.5	
129 1,2,3-Trichlorobenzene	180	15.191	15.186	0.005	95	52915	25.0	24.7	
131 2,4,5-Trichlorotoluene	159	15.970	15.971	-0.001	97	25992	25.0	24.0	
130 2,3,6-Trichlorotoluene	159	16.067	16.068	-0.001	97	24319	25.0	24.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		50.0	50.7	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.0	
S 135 1,3-Dichloropropene, Total	1				0		50.0	42.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	5.00	Units: uL	
VOA8260SURR_00031	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	1.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	1.00	Units: uL	
VOAVAPRI_00003	Amount Added:	1.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	1.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

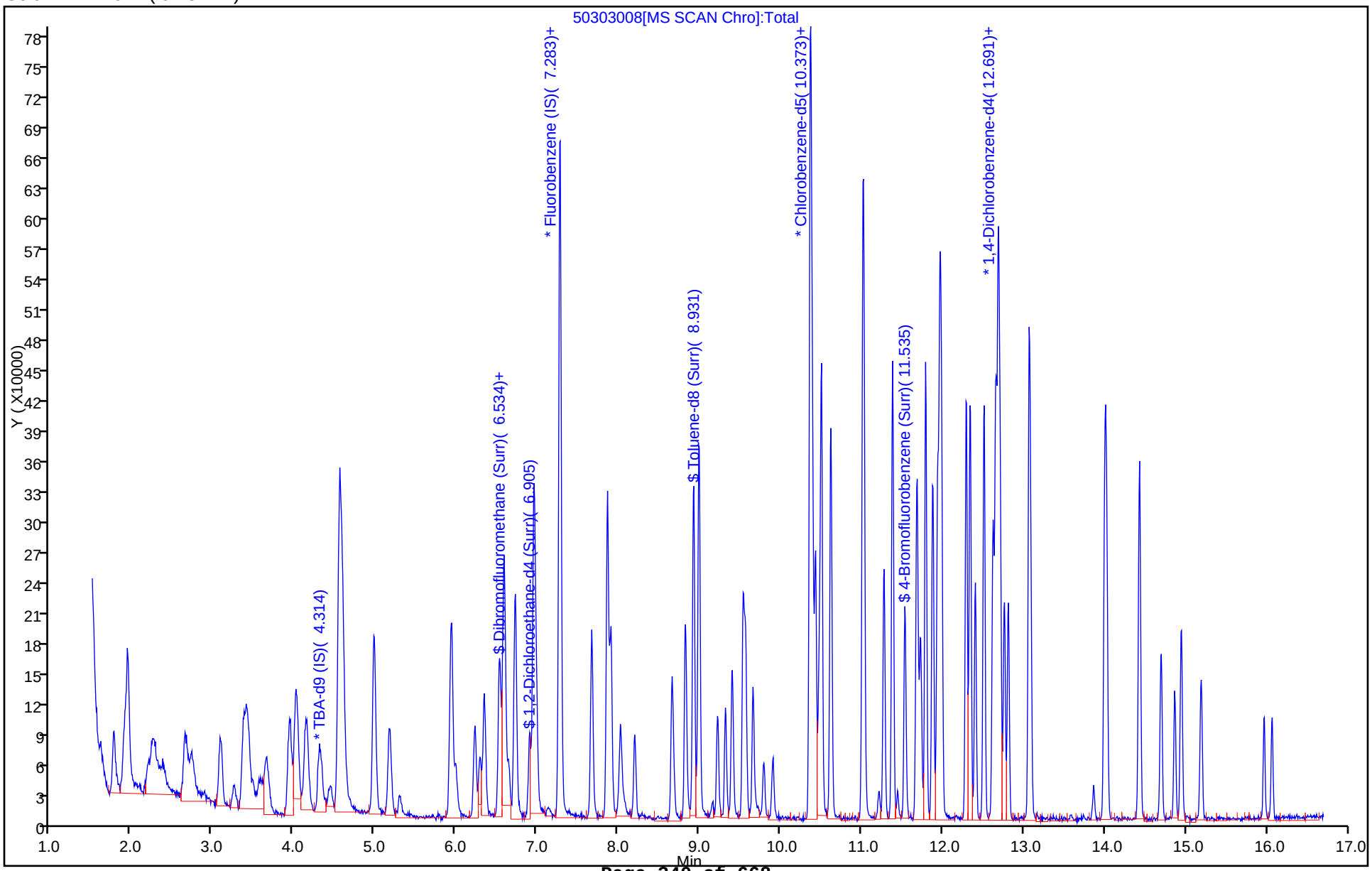
Report Date: 04-Mar-2015 10:13:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D

Injection Date:	03-Mar-2015 14:28:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

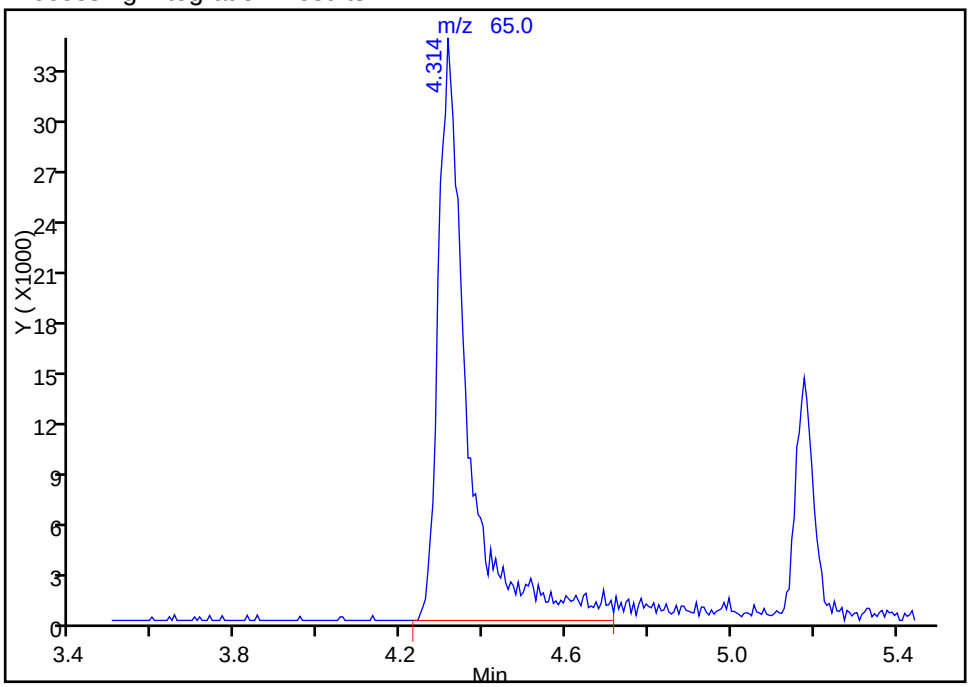
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D				
Injection Date:	03-Mar-2015 14:28:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

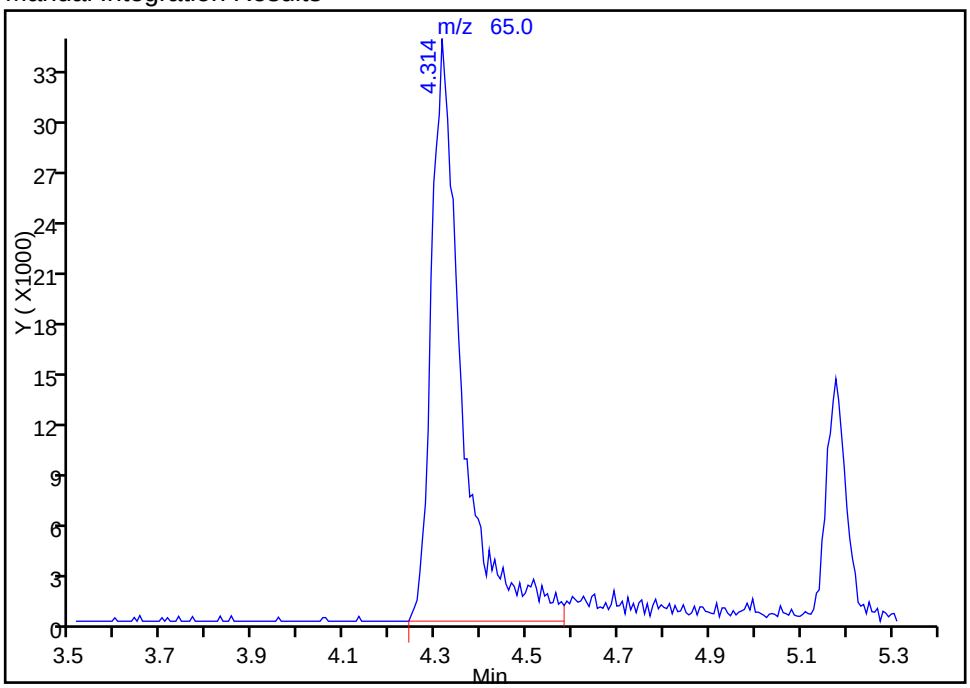
Processing Integration Results

RT: 4.31
Area: 169293
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.31
Area: 160393
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:28:28
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

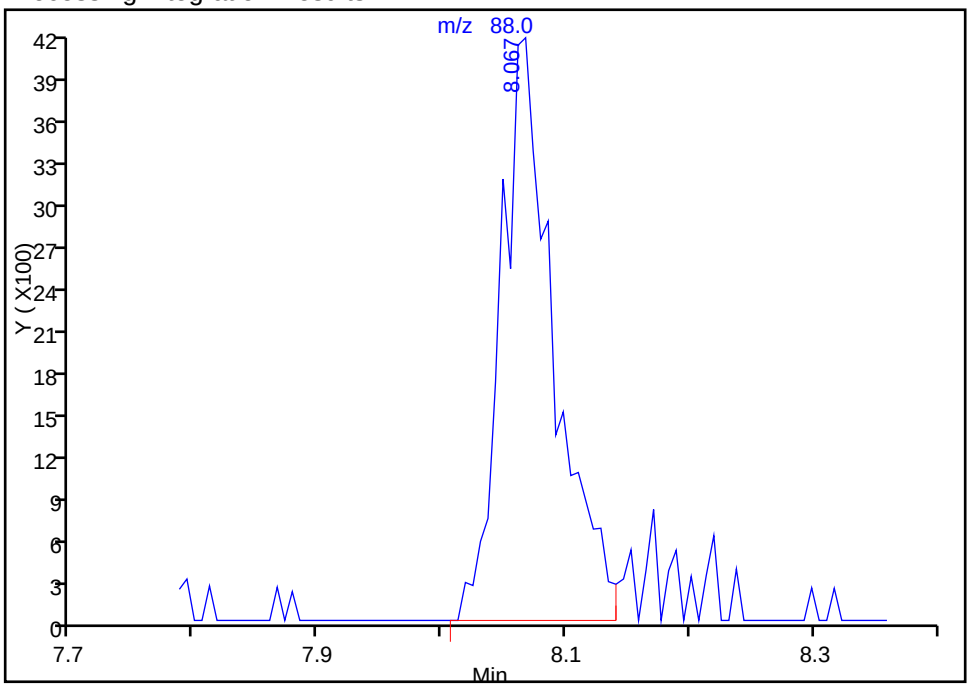
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303008.D
Injection Date: 03-Mar-2015 14:28:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

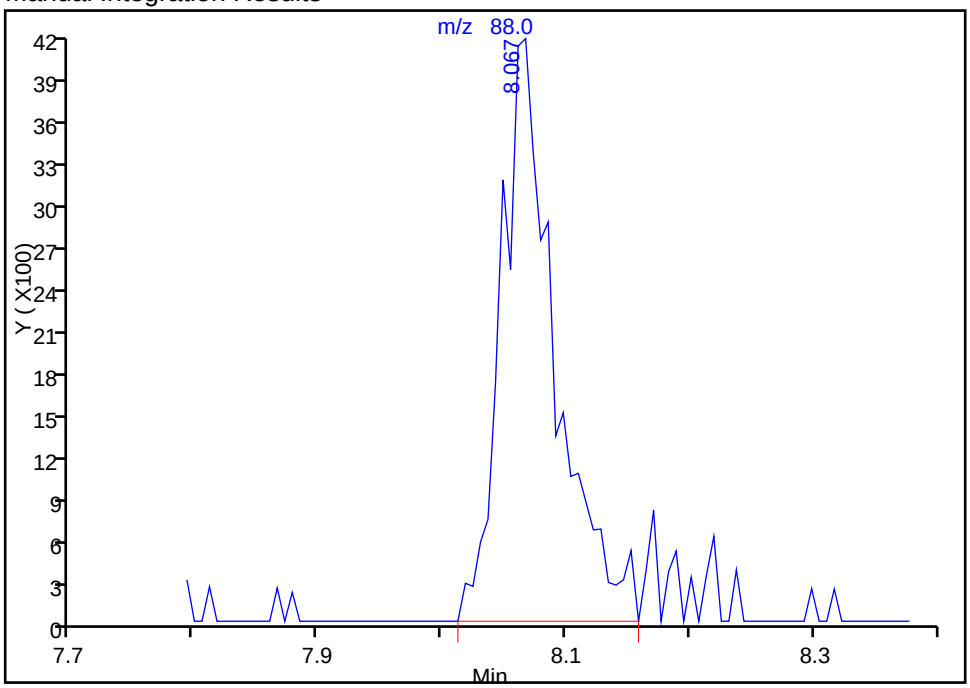
Processing Integration Results

RT: 8.07
Area: 12493
Amount: 432.4578
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 12787
Amount: 437.5160
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:20:09
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 03-Mar-2015 14:52:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0005873-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:28:23 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 10:28:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.321	0.000	75	164184	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.278	7.278	0.000	95	524529	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	94	127341	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.686	0.000	92	172477	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	49	109435	50.0	48.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.907	0.000	67	133978	50.0	48.3	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	80	494434	50.0	49.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	89	176122	50.0	47.7	
11 Dichlorodifluoromethane	85	1.626	1.626	0.000	97	120251	50.0	45.6	
12 Chloromethane	50	1.772	1.772	0.000	87	191737	50.0	45.5	
13 Vinyl chloride	62	1.906	1.906	0.000	83	192697	50.0	47.6	
14 Butadiene	39	1.948	1.948	0.000	97	214505	50.0	45.7	
15 Bromomethane	94	2.253	2.253	0.000	89	68450	50.0	56.6	
16 Chloroethane	64	2.386	2.386	0.000	93	76259	50.0	46.3	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	96	199002	50.0	52.7	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	81	165171	50.0	52.4	
20 Ethyl ether	59	3.098	3.098	0.000	86	134232	50.0	44.1	
21 Acrolein	56	3.263	3.263	0.000	88	55616	150.0	138.4	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	98	136777	50.0	44.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.427	0.000	93	138904	50.0	45.0	
24 Acetone	43	3.500	3.500	0.000	96	100332	100.0	91.1	
25 Iodomethane	142	3.585	3.585	0.000	94	191906	50.0	44.7	
26 Carbon disulfide	76	3.664	3.664	0.000	99	333091	50.0	44.3	
28 3-Chloro-1-propene	76	3.950	3.950	0.000	88	83771	50.0	43.9	
30 Methyl acetate	43	4.023	4.023	0.000	99	667992	250.0	220.5	
31 Methylene Chloride	84	4.151	4.151	0.000	92	157472	50.0	46.0	
32 2-Methyl-2-propanol	59	4.437	4.437	0.000	71	88451	500.0	449.6	
33 Acrylonitrile	53	4.558	4.558	0.000	100	691056	500.0	460.1	
34 trans-1,2-Dichloroethene	96	4.577	4.577	0.000	59	145422	50.0	45.5	
35 Methyl tert-butyl ether	73	4.601	4.601	0.000	92	357516	50.0	44.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	262665	50.0	46.3	
37 1,1-Dichloroethane	63	5.179	5.179	0.000	85	274871	50.0	45.2	
38 Vinyl acetate	43	5.307	5.307	0.000	96	96814	50.0	46.6	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	63	100580	50.0	44.6	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	71	151771	50.0	44.4	
46 2-Butanone (MEK)	43	5.994	5.994	0.000	93	160864	100.0	89.6	
49 Chlorobromomethane	128	6.231	6.231	0.000	87	62252	50.0	43.7	
51 Tetrahydrofuran	42	6.298	6.298	0.000	92	110296	100.0	86.4	
52 Chloroform	83	6.347	6.347	0.000	84	211933	50.0	43.7	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	89	146155	50.0	44.4	
54 Cyclohexane	56	6.596	6.596	0.000	94	341881	50.0	46.2	
56 Carbon tetrachloride	117	6.724	6.724	0.000	61	92122	50.0	41.2	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	90	191632	50.0	45.6	
57 Isobutyl alcohol	41	6.955	6.955	0.000	39	64264	1250.0	892.6	
58 Benzene	78	6.961	6.961	0.000	97	602514	50.0	45.5	
59 1,2-Dichloroethane	62	6.992	6.992	0.000	87	170712	50.0	44.6	
62 n-Heptane	43	7.284	7.284	0.000	71	235230	50.0	45.7	
64 Trichloroethene	130	7.673	7.673	0.000	93	142439	50.0	45.6	
66 Methylcyclohexane	83	7.868	7.868	0.000	92	269904	50.0	45.8	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	90	157237	50.0	45.2	
68 Dibromomethane	93	8.026	8.026	0.000	91	69033	50.0	43.9	
70 1,4-Dioxane	88	8.056	8.056	0.000	94	25299	1000.0	815.7	M
71 Dichlorobromomethane	83	8.202	8.202	0.000	90	123848	50.0	42.3	
74 cis-1,3-Dichloropropene	75	8.665	8.665	0.000	90	172126	50.0	44.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	96	349805	100.0	91.0	
76 Toluene	91	8.993	8.993	0.000	91	612731	50.0	46.6	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	82	118446	50.0	42.7	
78 Ethyl methacrylate	69	9.322	9.322	0.000	94	131269	50.0	42.1	
79 1,1,2-Trichloroethane	97	9.407	9.407	0.000	85	109481	50.0	45.6	
80 Tetrachloroethene	164	9.541	9.541	0.000	97	111273	50.0	45.9	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	95	208110	50.0	46.1	
82 2-Hexanone	43	9.662	9.662	0.000	98	246507	100.0	91.8	
84 Chlorodibromomethane	129	9.796	9.796	0.000	88	64530	50.0	40.9	
85 Ethylene Dibromide	107	9.906	9.906	0.000	99	103819	50.0	44.9	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	74	196791	50.0	48.8	
87 Chlorobenzene	112	10.398	10.398	0.000	90	384609	50.0	45.7	
88 4-Chlorobenzotrifluoride	180	10.435	10.435	0.000	78	193901	50.0	50.3	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	79	80096	50.0	41.3	
90 Ethylbenzene	106	10.508	10.508	0.000	98	225030	50.0	46.2	
91 m-Xylene & p-Xylene	106	10.624	10.624	0.000	99	274985	50.0	45.9	
92 o-Xylene	106	11.013	11.013	0.000	92	271432	50.0	46.7	
93 Styrene	104	11.031	11.031	0.000	91	439152	50.0	46.2	
94 Bromoform	173	11.214	11.214	0.000	69	30710	50.0	36.8	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	95	193920	50.0	48.5	
97 Isopropylbenzene	105	11.384	11.384	0.000	96	672554	50.0	47.1	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.676	0.000	76	154009	50.0	46.3	
100 Bromobenzene	156	11.682	11.682	0.000	94	141042	50.0	46.8	
101 1,2,3-Trichloropropane	110	11.725	11.725	0.000	57	47052	50.0	46.6	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.737	0.000	60	42637	50.0	43.5	
103 N-Propylbenzene	120	11.792	11.792	0.000	93	195976	50.0	49.0	
104 2-Chlorotoluene	126	11.883	11.883	0.000	96	154797	50.0	46.8	
105 3-Chlorotoluene	126	11.938	11.938	0.000	55	166326	50.0	49.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	94	539843	50.0	48.7	
107 4-Chlorotoluene	126	11.986	11.986	0.000	98	171070	50.0	48.0	
108 tert-Butylbenzene	119	12.290	12.290	0.000	63	468002	50.0	49.0	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	98	553643	50.0	48.4	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	96	130185	50.0	50.4	
112 sec-Butylbenzene	105	12.509	12.509	0.000	94	669756	50.0	48.7	
113 1,3-Dichlorobenzene	146	12.625	12.625	0.000	82	280066	50.0	47.0	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	91	542443	50.0	48.1	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	92	283523	50.0	47.3	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.765	0.000	89	125921	50.0	51.3	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	97	134395	50.0	50.3	
120 n-Butylbenzene	91	13.069	13.069	0.000	95	479164	50.0	47.8	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	94	258190	50.0	47.4	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	51	14541	50.0	40.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.006	0.000	96	553886	150.0	148.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.432	0.000	98	360944	100.0	98.1	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	91	127415	50.0	46.8	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	90	54129	50.0	46.5	
128 Naphthalene	128	14.943	14.943	0.000	97	358706	50.0	45.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.186	0.000	95	103456	50.0	44.3	
131 2,4,5-Trichlorotoluene	159	15.971	15.971	0.000	93	52505	50.0	44.4	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	94	48130	50.0	44.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	92.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	87.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	6.00	Units: uL	
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL	
VOAVAPRI_00003	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

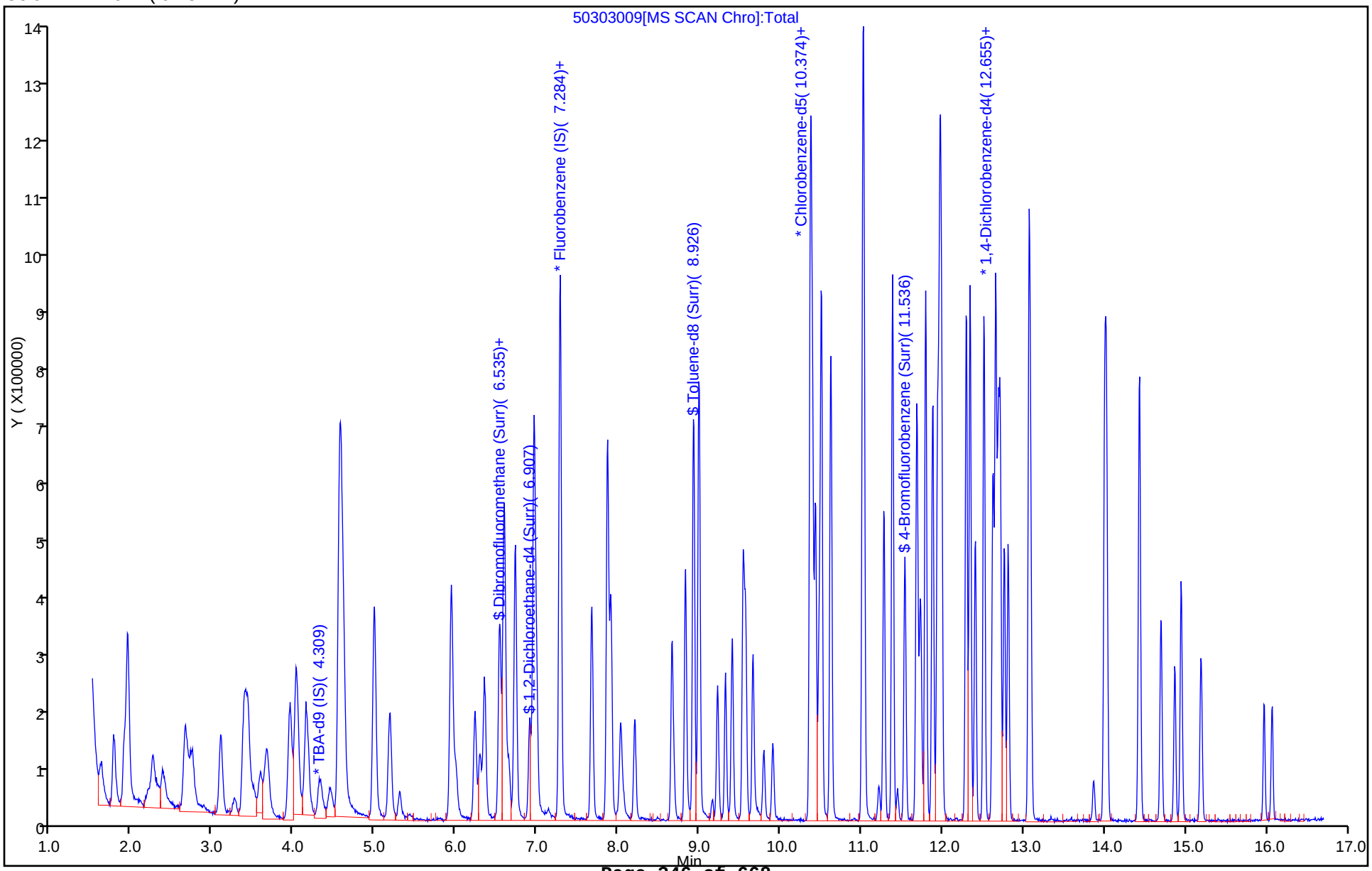
Report Date: 04-Mar-2015 10:28:24 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D

Injection Date:	03-Mar-2015 14:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

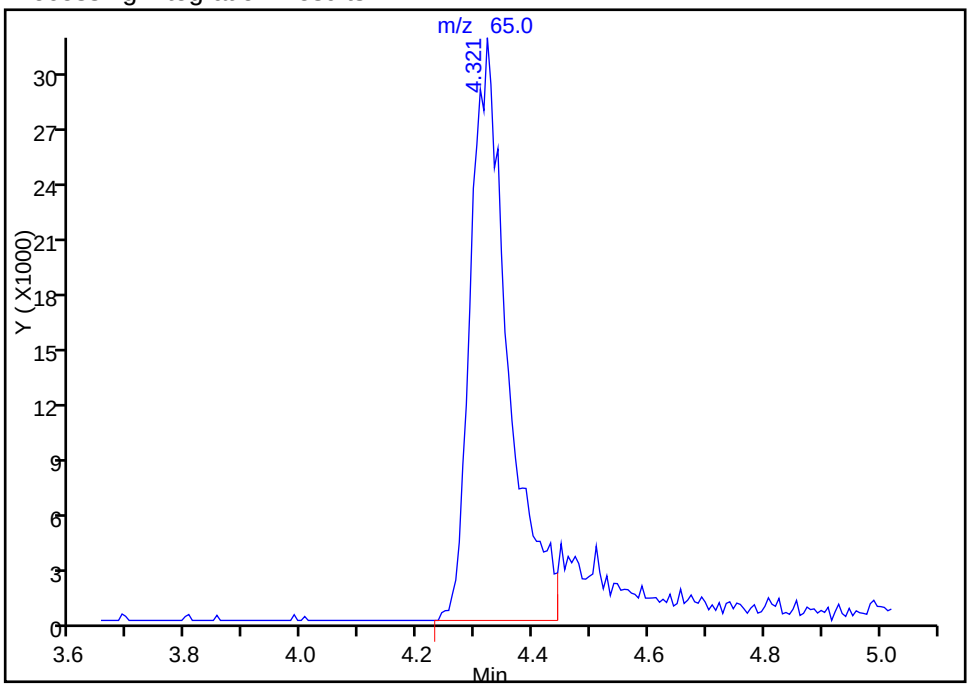
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D
Injection Date: 03-Mar-2015 14:52:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

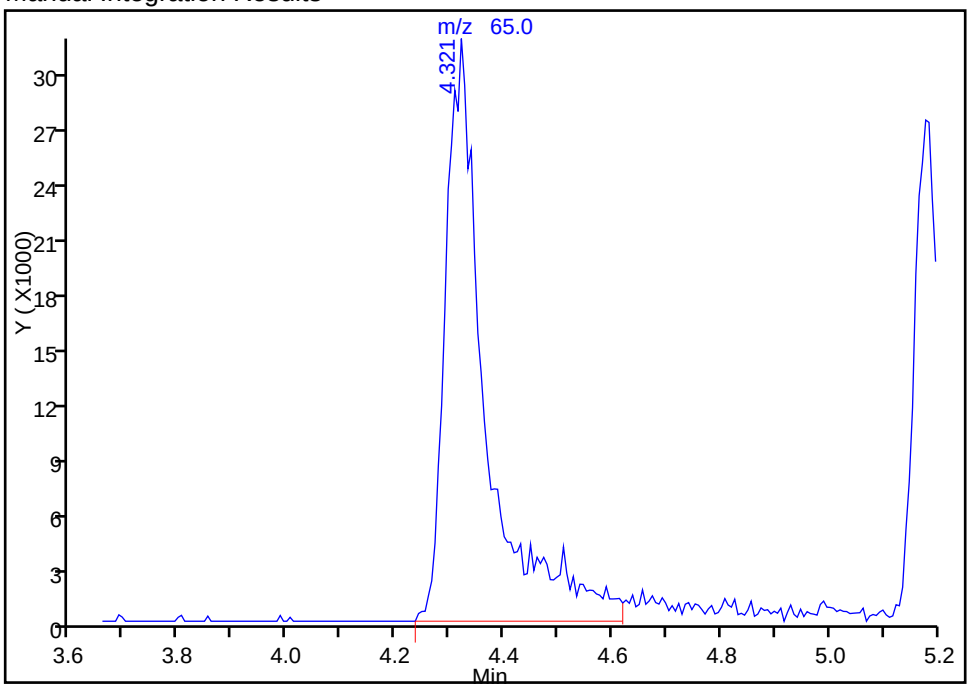
Processing Integration Results

RT: 4.32
Area: 141522
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 164184
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:28:59
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

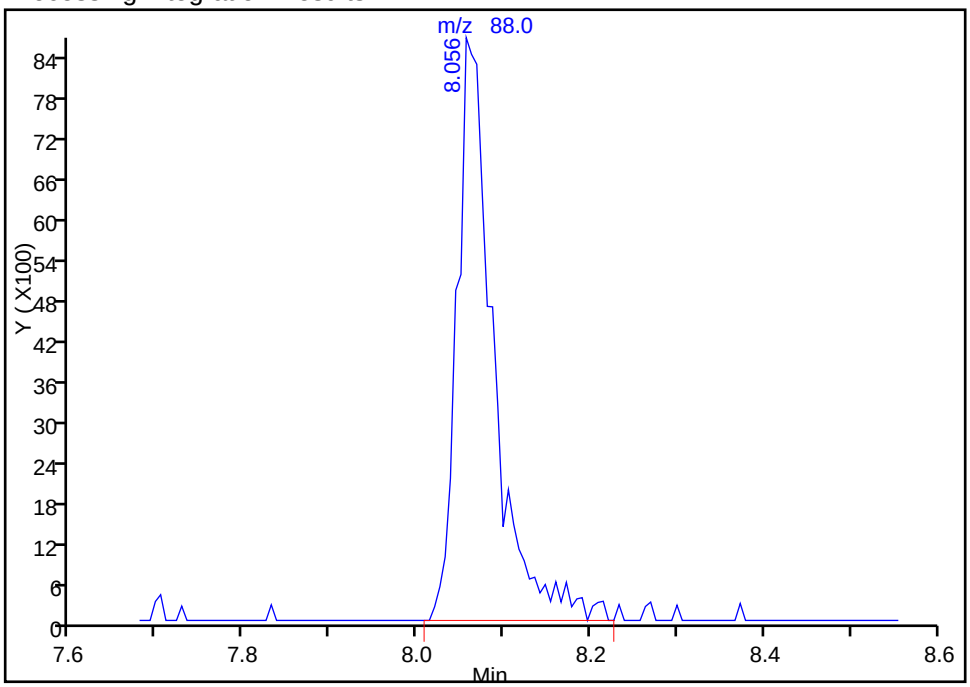
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303009.D
Injection Date: 03-Mar-2015 14:52:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

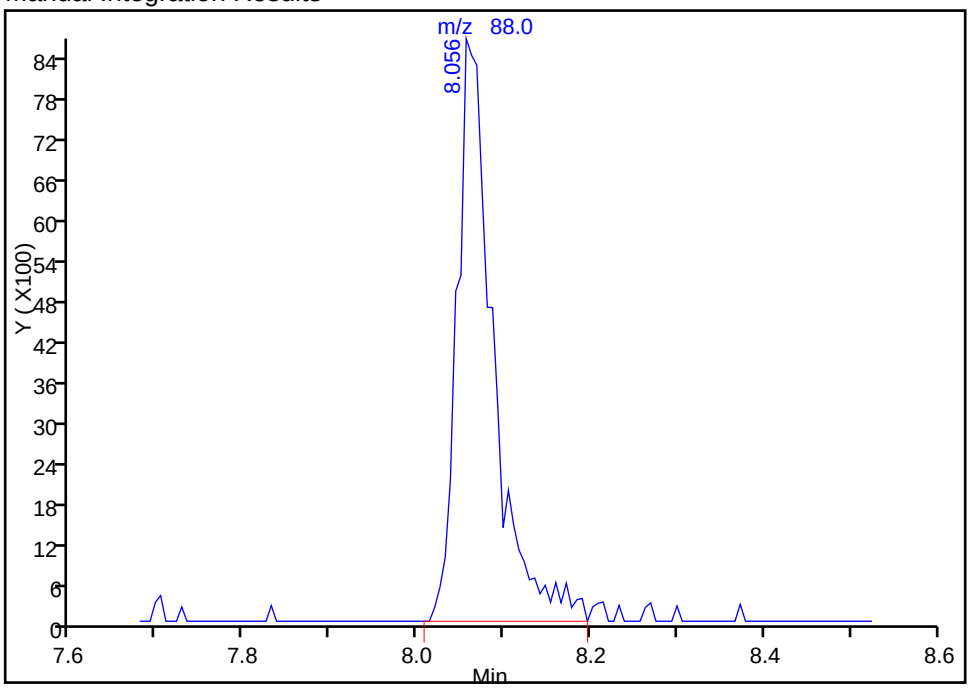
Processing Integration Results

RT: 8.06
Area: 25579
Amount: 832.2190
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 25299
Amount: 815.6604
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:25:43
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303010.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2015 15:16:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0005873-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:08 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:26:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.321	0.000	94	173343	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	96	473168	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	95	112379	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	95	164943	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	79	155860	75.0	76.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.912	6.912	0.000	96	185233	75.0	74.0	
$ 7 Toluene-d8 (Surr)	98	8.932	8.932	0.000	94	686909	75.0	78.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	86	251005	75.0	77.0	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	98	186155	75.0	78.3	
12 Chloromethane	50	1.778	1.778	0.000	99	284435	75.0	74.9	
13 Vinyl chloride	62	1.912	1.912	0.000	98	276203	75.0	75.6	
14 Butadiene	39	1.948	1.948	0.000	98	311986	75.0	73.7	
15 Bromomethane	94	2.258	2.258	0.000	89	83485	75.0	78.2	
16 Chloroethane	64	2.380	2.380	0.000	97	109418	75.0	73.7	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	97	252307	75.0	74.1	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	97	211640	75.0	74.4	
20 Ethyl ether	59	3.092	3.092	0.000	100	203184	75.0	74.0	
21 Acrolein	56	3.274	3.274	0.000	100	66477	175.0	183.4	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	100	210842	75.0	76.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	100	215323	75.0	77.3	
24 Acetone	43	3.505	3.505	0.000	100	145165	150.0	146.1	
25 Iodomethane	142	3.585	3.585	0.000	100	288929	75.0	74.5	
26 Carbon disulfide	76	3.664	3.664	0.000	100	513502	75.0	75.7	
28 3-Chloro-1-propene	76	3.956	3.956	0.000	100	129734	75.0	75.4	
30 Methyl acetate	43	4.029	4.029	0.000	100	1035670	375.0	378.9	
31 Methylene Chloride	84	4.150	4.150	0.000	100	227072	75.0	75.7	
32 2-Methyl-2-propanol	59	4.454	4.454	0.000	100	166475	750.0	801.4	
33 Acrylonitrile	53	4.564	4.564	0.000	100	1012388	750.0	747.2	
34 trans-1,2-Dichloroethene	96	4.576	4.576	0.000	100	213264	75.0	74.0	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	100	532783	75.0	74.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	100	382955	75.0	74.9	
37 1,1-Dichloroethane	63	5.178	5.178	0.000	100	412070	75.0	75.0	
38 Vinyl acetate	43	5.306	5.306	0.000	100	136421	75.0	72.7	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	100	152789	75.0	75.2	
45 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	100	230462	75.0	74.8	
46 2-Butanone (MEK)	43	6.000	6.000	0.000	100	231681	150.0	143.1	
49 Chlorobromomethane	128	6.237	6.237	0.000	100	93661	75.0	73.0	
51 Tetrahydrofuran	42	6.292	6.292	0.000	100	164028	150.0	142.4	
52 Chloroform	83	6.346	6.346	0.000	100	325101	75.0	74.3	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	100	222478	75.0	74.9	
54 Cyclohexane	56	6.590	6.590	0.000	100	510634	75.0	76.6	
56 Carbon tetrachloride	117	6.724	6.724	0.000	100	148555	75.0	73.7	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	100	290552	75.0	76.6	
57 Isobutyl alcohol	41	6.949	6.949	0.000	100	110778	1875.0	1705.7	
58 Benzene	78	6.967	6.967	0.000	100	905954	75.0	75.8	
59 1,2-Dichloroethane	62	6.991	6.991	0.000	100	260776	75.0	75.5	
62 n-Heptane	43	7.283	7.283	0.000	100	351211	75.0	75.6	
64 Trichloroethene	130	7.673	7.673	0.000	100	215876	75.0	76.7	
66 Methylcyclohexane	83	7.867	7.867	0.000	100	402645	75.0	75.7	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	100	233558	75.0	74.4	
68 Dibromomethane	93	8.025	8.025	0.000	100	105949	75.0	74.8	
70 1,4-Dioxane	88	8.068	8.068	0.000	100	41693	1500.0	1490.1	
71 Dichlorobromomethane	83	8.202	8.202	0.000	100	196712	75.0	74.4	
74 cis-1,3-Dichloropropene	75	8.664	8.664	0.000	100	264977	75.0	75.7	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	100	535170	150.0	157.7	
76 Toluene	91	8.999	8.999	0.000	100	901036	75.0	77.7	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	100	181868	75.0	74.4	
78 Ethyl methacrylate	69	9.321	9.321	0.000	100	212852	75.0	77.4	
79 1,1,2-Trichloroethane	97	9.406	9.406	0.000	100	164474	75.0	77.6	
80 Tetrachloroethene	164	9.540	9.540	0.000	100	166159	75.0	77.6	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	100	308357	75.0	77.4	
82 2-Hexanone	43	9.662	9.662	0.000	100	379170	150.0	160.1	
84 Chlorodibromomethane	129	9.796	9.796	0.000	100	104491	75.0	75.0	
85 Ethylene Dibromide	107	9.905	9.905	0.000	100	156151	75.0	76.5	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	100	273444	75.0	76.9	
87 Chlorobenzene	112	10.398	10.398	0.000	100	567114	75.0	76.3	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	100	266494	75.0	78.4	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	100	126760	75.0	74.0	
90 Ethylbenzene	106	10.508	10.508	0.000	100	336025	75.0	78.2	
91 m-Xylene & p-Xylene	106	10.623	10.623	0.000	100	411920	75.0	77.9	
92 o-Xylene	106	11.019	11.019	0.000	100	400497	75.0	78.0	
93 Styrene	104	11.031	11.031	0.000	100	658511	75.0	78.5	
94 Bromoform	173	11.213	11.213	0.000	100	53409	75.0	72.6	
96 2-Chlorobenzotrifluoride	180	11.280	11.280	0.000	100	270017	75.0	76.6	
97 Isopropylbenzene	105	11.384	11.384	0.000	100	1000450	75.0	79.4	
99 1,1,2,2-Tetrachloroethane	83	11.682	11.682	0.000	100	226865	75.0	77.2	
100 Bromobenzene	156	11.688	11.688	0.000	100	214072	75.0	74.3	
101 1,2,3-Trichloropropane	110	11.724	11.724	0.000	100	69273	75.0	71.7	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	100	66494	75.0	70.9	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	290195	75.0	75.8	
104 2-Chlorotoluene	126	11.882	11.882	0.000	100	235369	75.0	74.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	100	229133	75.0	70.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	100	806423	75.0	76.1	
107 4-Chlorotoluene	126	11.986	11.986	0.000	100	256729	75.0	75.3	
108 tert-Butylbenzene	119	12.296	12.296	0.000	100	700240	75.0	76.6	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	100	832074	75.0	76.1	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	100	183065	75.0	74.2	
112 sec-Butylbenzene	105	12.515	12.515	0.000	100	1008135	75.0	76.6	
113 1,3-Dichlorobenzene	146	12.625	12.625	0.000	100	420272	75.0	73.8	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	824816	75.0	76.5	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	100	429154	75.0	74.9	
116 2,4-Dichloro-1-(triflourom	214	12.764	12.764	0.000	100	171372	75.0	73.1	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.813	0.000	100	186097	75.0	72.8	
120 n-Butylbenzene	91	13.069	13.069	0.000	100	729499	75.0	76.1	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	100	387327	75.0	74.4	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	100	23597	75.0	68.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.012	14.012	0.000	100	813805	225.0	228.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.431	14.431	0.000	100	529936	150.0	150.7	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	100	199956	75.0	76.8	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	100	81675	75.0	73.4	
128 Naphthalene	128	14.942	14.942	0.000	100	580632	75.0	76.8	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	100	171850	75.0	76.9	
131 2,4,5-Trichlorotoluene	159	15.970	15.970	0.000	100	81997	75.0	72.6	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	100	78544	75.0	75.4	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		150.0	155.9	
S 134 1,2-Dichloroethene, Total	96				0		150.0	148.8	
S 135 1,3-Dichloropropene, Total	1				0		150.0	150.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWKetpri Re_00003	Amount Added:	3.00	Units: uL	
VOA8260SURR_00031	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	3.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	3.00	Units: uL	
VOAVAPRI_00003	Amount Added:	3.00	Units: uL	
VOAACRPRI_00003	Amount Added:	7.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

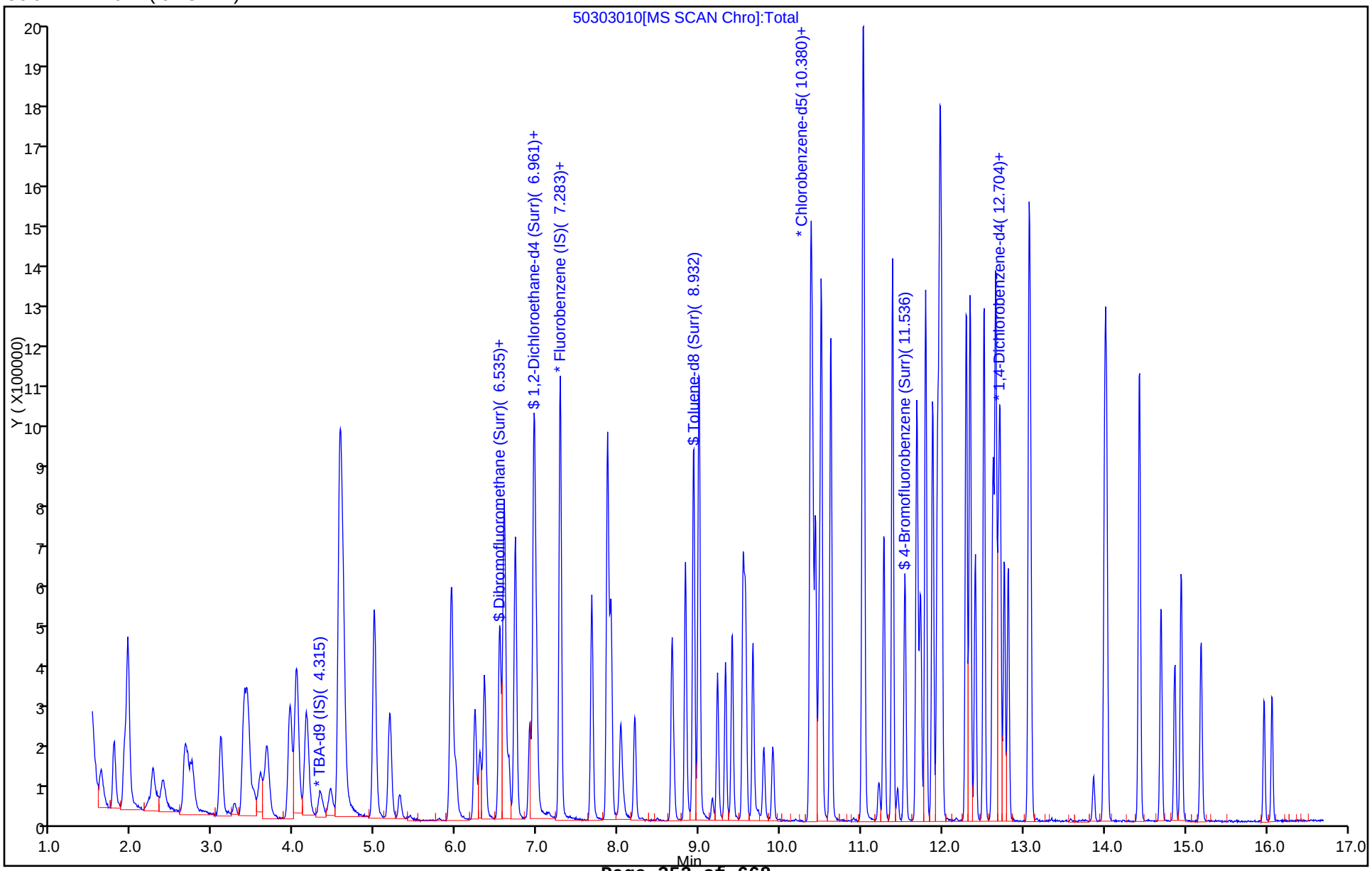
Report Date: 04-Mar-2015 10:13:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303010.D

Injection Date:	03-Mar-2015 15:16:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

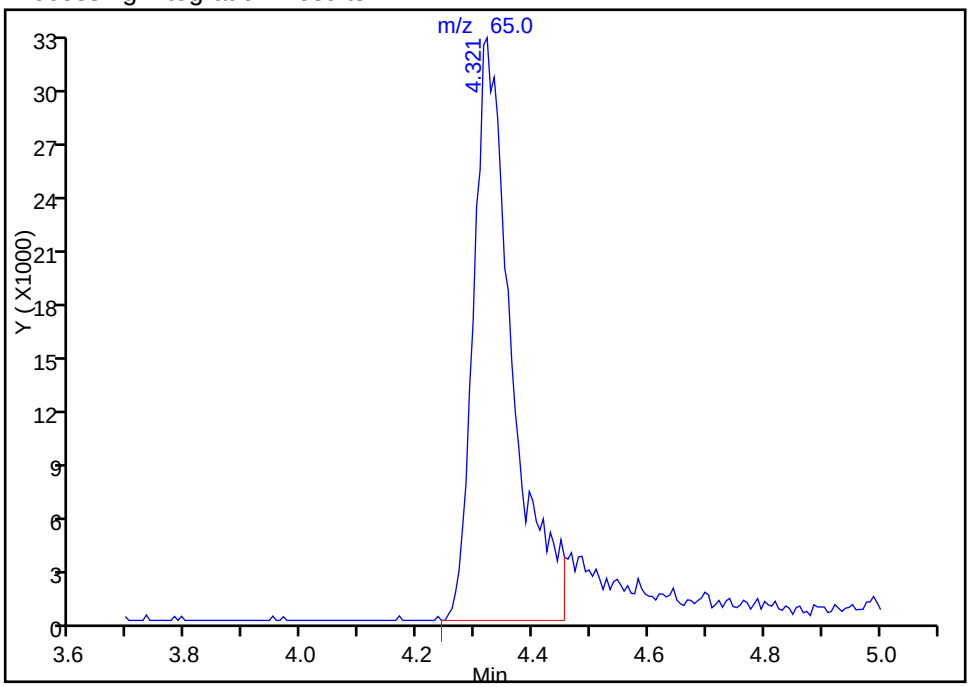
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303010.D				
Injection Date:	03-Mar-2015 15:16:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 1 TBA-d9 (IS), CAS: 25725-11-5

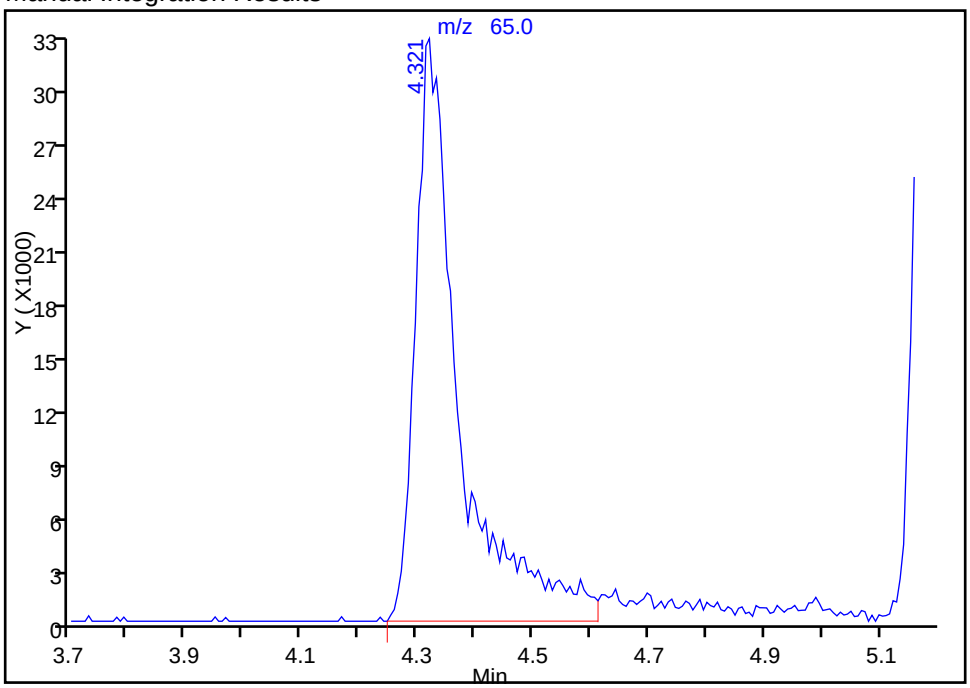
Processing Integration Results

RT: 4.32
Area: 152021
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 173343
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:31:26
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Mar-2015 15:40:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0005873-011
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:10 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:33:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.321	0.000	95	178184	1000.0	1000.0	M
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	90	463863	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	97	114659	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	96	167232	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	98	199995	100.0	100.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.912	-0.006	99	250369	100.0	102.0	
$ 7 Toluene-d8 (Surr)	98	8.926	8.932	-0.006	100	910944	100.0	101.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	99	327893	100.0	98.6	
11 Dichlorodifluoromethane	85	1.626	1.620	0.006	71	248600	100.0	106.7	
12 Chloromethane	50	1.778	1.778	0.000	94	377346	100.0	101.3	
13 Vinyl chloride	62	1.906	1.912	-0.006	100	370529	100.0	103.5	
14 Butadiene	39	1.948	1.948	0.000	98	418091	100.0	100.7	
15 Bromomethane	94	2.252	2.258	-0.006	70	100603	100.0	97.3	
16 Chloroethane	64	2.386	2.380	0.006	78	141570	100.0	97.2	
17 Dichlorofluoromethane	67	2.654	2.648	0.006	99	320590	100.0	96.0	
18 Trichlorofluoromethane	101	2.703	2.708	-0.005	97	274680	100.0	98.5	
20 Ethyl ether	59	3.092	3.092	0.000	99	266877	100.0	99.2	
21 Acrolein	56	3.262	3.274	-0.012	84	73636	200.0	207.2	
22 1,1-Dichloroethene	96	3.378	3.384	-0.006	99	282447	100.0	104.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	98	283308	100.0	103.8	
24 Acetone	43	3.506	3.505	0.001	99	186722	200.0	191.7	
25 Iodomethane	142	3.573	3.585	-0.012	96	391404	100.0	103.0	
26 Carbon disulfide	76	3.658	3.664	-0.006	100	702207	100.0	105.6	
28 3-Chloro-1-propene	76	3.944	3.956	-0.012	91	175910	100.0	104.3	
30 Methyl acetate	43	4.023	4.029	-0.006	100	1360573	500.0	507.8	
31 Methylene Chloride	84	4.144	4.150	-0.006	99	292219	100.0	100.5	
32 2-Methyl-2-propanol	59	4.449	4.454	-0.005	74	219266	1000.0	1026.9	M
33 Acrylonitrile	53	4.558	4.564	-0.006	99	1352445	1000.0	1018.2	
34 trans-1,2-Dichloroethene	96	4.564	4.576	-0.012	56	288749	100.0	102.2	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	100	717429	100.0	101.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	99	515034	100.0	102.7	
37 1,1-Dichloroethane	63	5.173	5.178	-0.005	100	542610	100.0	100.8	
38 Vinyl acetate	43	5.300	5.306	-0.006	95	200290	100.0	108.9	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	65	206033	100.0	103.4	
45 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	92	302735	100.0	100.2	
46 2-Butanone (MEK)	43	5.994	6.000	-0.006	100	323375	200.0	203.7	
49 Chlorobromomethane	128	6.225	6.237	-0.012	79	129587	100.0	103.0	
51 Tetrahydrofuran	42	6.286	6.292	-0.006	98	227621	200.0	201.5	
52 Chloroform	83	6.347	6.346	0.001	98	436474	100.0	101.7	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	75	308574	100.0	105.9	
54 Cyclohexane	56	6.590	6.590	0.000	83	671150	100.0	102.6	
56 Carbon tetrachloride	117	6.724	6.724	0.000	68	204809	100.0	103.6	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	96	385796	100.0	103.8	
57 Isobutyl alcohol	41	6.949	6.949	0.000	41	166120	2500.0	2609.2	
58 Benzene	78	6.961	6.967	-0.006	99	1208197	100.0	103.1	
59 1,2-Dichloroethane	62	6.985	6.991	-0.006	93	341780	100.0	101.0	
62 n-Heptane	43	7.284	7.283	0.001	96	463470	100.0	101.7	
64 Trichloroethene	130	7.673	7.673	0.000	98	289114	100.0	104.8	
66 Methylcyclohexane	83	7.868	7.867	0.001	95	553839	100.0	106.2	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	99	309721	100.0	100.7	
68 Dibromomethane	93	8.026	8.025	0.001	98	142348	100.0	102.4	
70 1,4-Dioxane	88	8.062	8.068	-0.006	93	56031	2000.0	2042.7	
71 Dichlorobromomethane	83	8.202	8.202	0.000	99	271870	100.0	105.0	
74 cis-1,3-Dichloropropene	75	8.658	8.664	-0.006	99	360087	100.0	104.9	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.828	0.001	72	716953	200.0	207.1	
76 Toluene	91	8.993	8.999	-0.006	98	1214867	100.0	102.7	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	80	260722	100.0	104.5	
78 Ethyl methacrylate	69	9.321	9.321	0.000	93	300128	100.0	107.0	
79 1,1,2-Trichloroethane	97	9.407	9.406	0.001	93	214719	100.0	99.3	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	224037	100.0	102.6	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	94	406834	100.0	100.1	
82 2-Hexanone	43	9.662	9.662	0.000	99	504684	200.0	208.8	
84 Chlorodibromomethane	129	9.796	9.796	0.000	93	148140	100.0	104.2	
85 Ethylene Dibromide	107	9.905	9.905	0.000	98	216491	100.0	104.0	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	99	362586	100.0	99.9	
87 Chlorobenzene	112	10.392	10.398	-0.006	89	771107	100.0	101.7	
88 4-Chlorobenzotrifluoride	180	10.435	10.428	0.007	97	349632	100.0	100.8	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	96	178500	100.0	102.1	
90 Ethylbenzene	106	10.508	10.508	0.000	100	459104	100.0	104.8	
91 m-Xylene & p-Xylene	106	10.623	10.623	0.000	100	559842	100.0	103.7	
92 o-Xylene	106	11.013	11.019	-0.005	93	532728	100.0	101.7	
93 Styrene	104	11.031	11.031	0.000	96	881546	100.0	102.9	
94 Bromoform	173	11.213	11.213	0.000	90	78926	100.0	105.1	
96 2-Chlorobenzotrifluoride	180	11.280	11.280	0.000	96	362034	100.0	100.6	
97 Isopropylbenzene	105	11.384	11.384	0.000	97	1329527	100.0	103.4	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.682	-0.006	76	310127	100.0	103.5	
100 Bromobenzene	156	11.688	11.688	0.000	95	285408	100.0	97.7	
101 1,2,3-Trichloropropane	110	11.724	11.724	0.000	70	94067	100.0	96.1	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.736	0.001	79	87031	100.0	91.5	
103 N-Propylbenzene	120	11.791	11.791	0.000	98	387657	100.0	99.9	
104 2-Chlorotoluene	126	11.877	11.882	-0.005	99	315400	100.0	98.4	
105 3-Chlorotoluene	126	11.937	11.937	0.000	75	313196	100.0	95.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	99	1078510	100.0	100.4	
107 4-Chlorotoluene	126	11.986	11.986	0.000	99	352063	100.0	101.8	
108 tert-Butylbenzene	119	12.290	12.296	-0.006	66	930079	100.0	100.3	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	100	1124585	100.0	101.5	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	98	245627	100.0	98.2	
112 sec-Butylbenzene	105	12.509	12.515	-0.006	92	1341600	100.0	100.6	
113 1,3-Dichlorobenzene	146	12.625	12.625	0.000	88	570988	100.0	98.9	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	99	1092513	100.0	99.9	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	97	576692	100.0	99.2	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.764	0.001	94	238033	100.0	100.1	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.813	0.000	97	254456	100.0	98.1	
120 n-Butylbenzene	91	13.069	13.069	0.000	100	981363	100.0	101.0	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	99	527759	100.0	99.9	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.866	-0.006	94	35031	100.0	100.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.012	14.012	0.000	99	1079107	300.0	299.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.431	-0.005	99	704089	200.0	197.4	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	98	263899	100.0	99.9	
127 Hexachlorobutadiene	225	14.864	14.869	-0.005	94	111717	100.0	99.0	
128 Naphthalene	128	14.943	14.942	0.001	100	773789	100.0	101.0	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	98	224922	100.0	99.3	
131 2,4,5-Trichlorotoluene	159	15.971	15.970	0.001	96	109488	100.0	95.6	
130 2,3,6-Trichlorotoluene	159	16.062	16.068	-0.006	97	102526	100.0	97.1	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	205.4	
S 134 1,2-Dichloroethene, Total	96				0		200.0	202.5	
S 135 1,3-Dichloropropene, Total	1				0		200.0	209.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	4.00	Units: uL	
VOAVAPRI_00003	Amount Added:	4.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	4.00	Units: uL	
VOA8260SURR_00031	Amount Added:	4.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

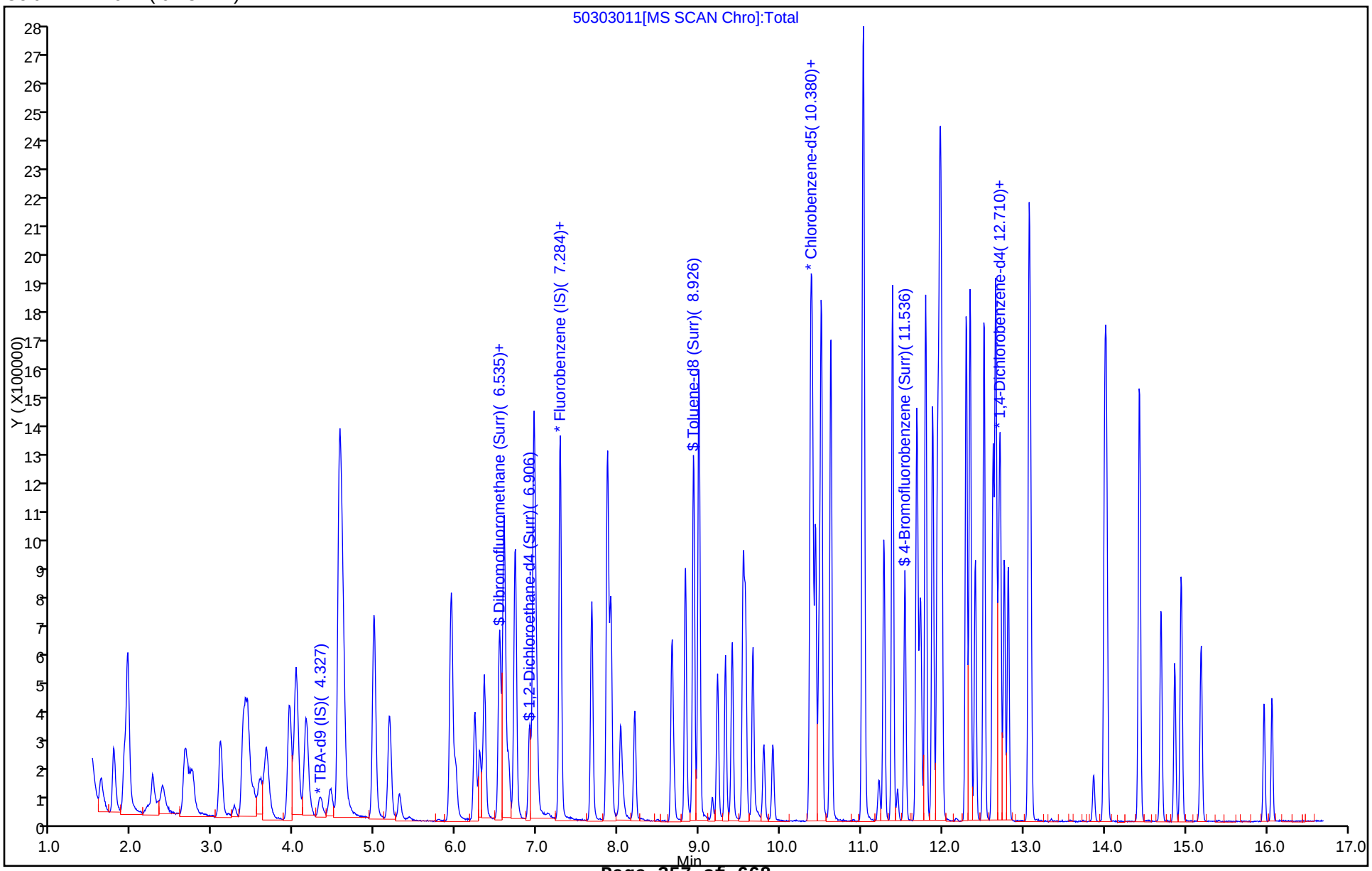
Report Date: 04-Mar-2015 10:13:10 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D

Injection Date:	03-Mar-2015 15:40:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

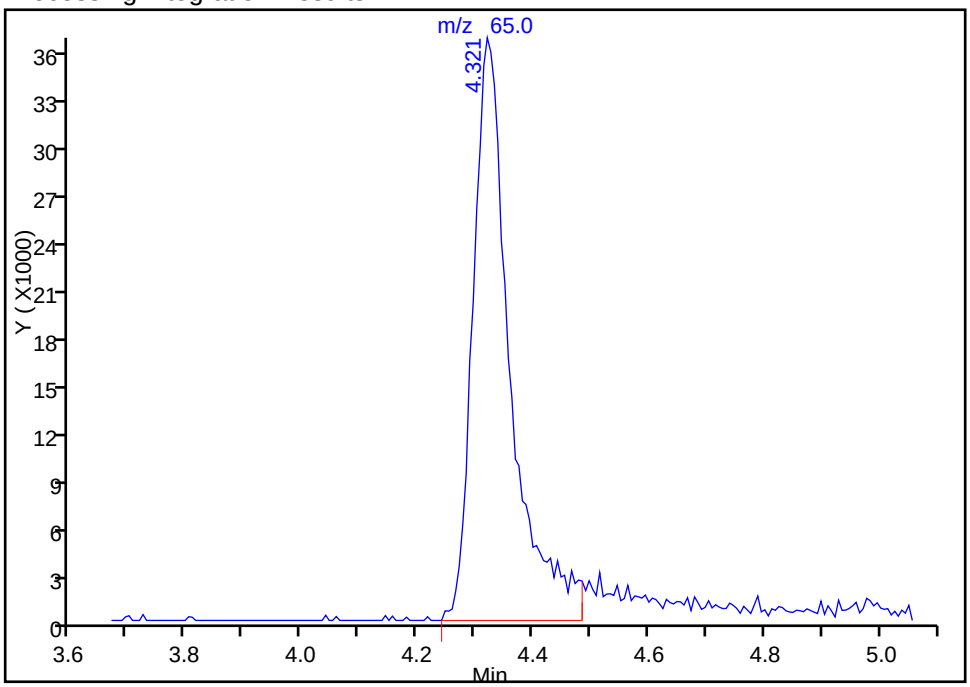
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D
Injection Date: 03-Mar-2015 15:40:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

* 1 TBA-d9 (IS), CAS: 25725-11-5

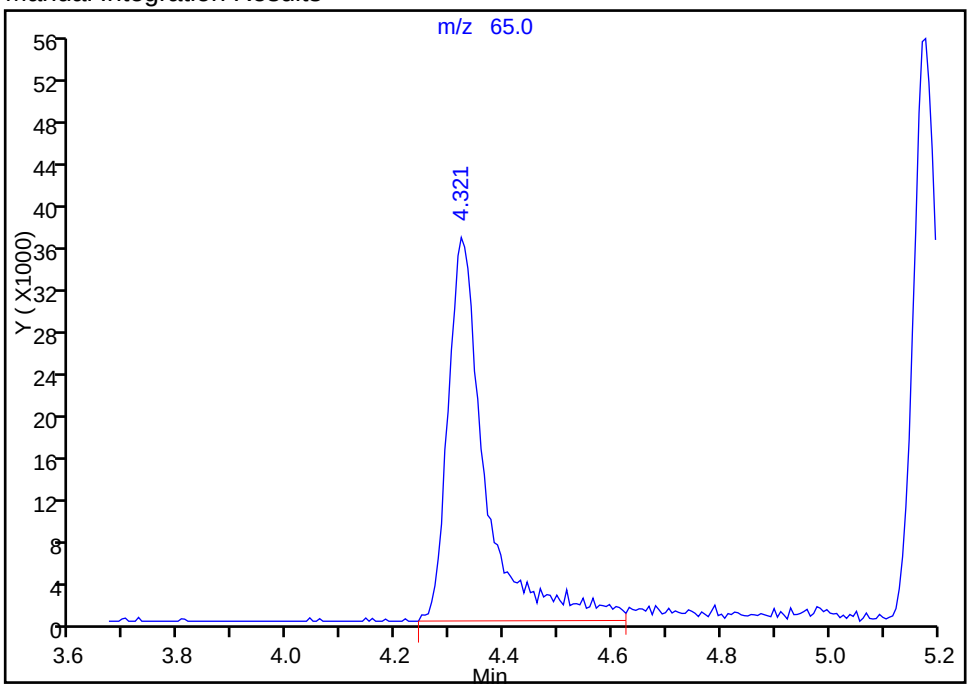
Processing Integration Results

RT: 4.32
Area: 165569
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 178184
Amount: 1000.0000
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:33:10
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

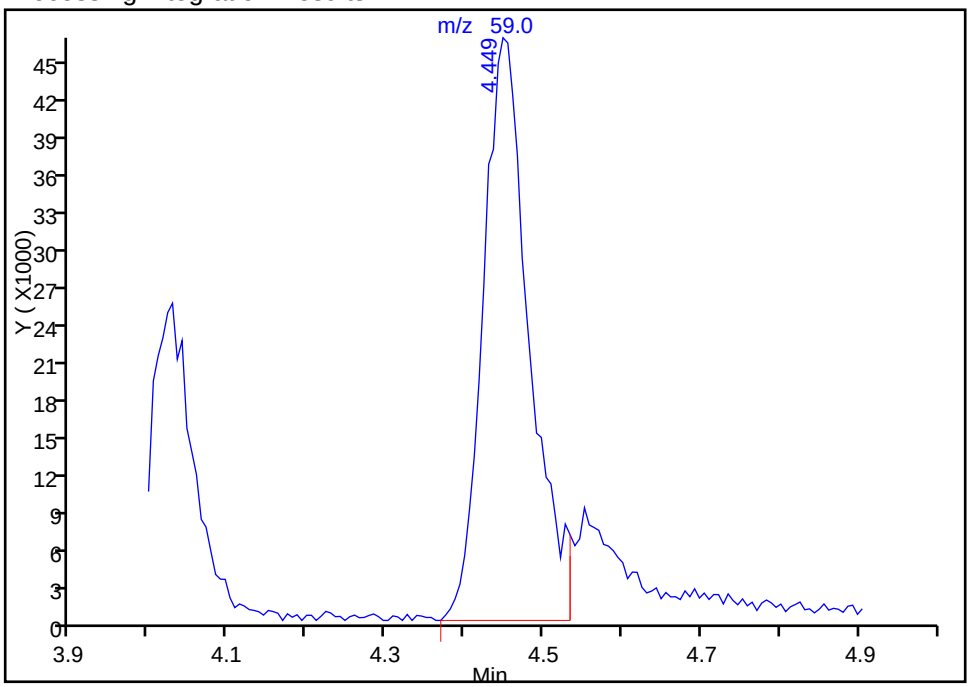
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303011.D
Injection Date: 03-Mar-2015 15:40:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

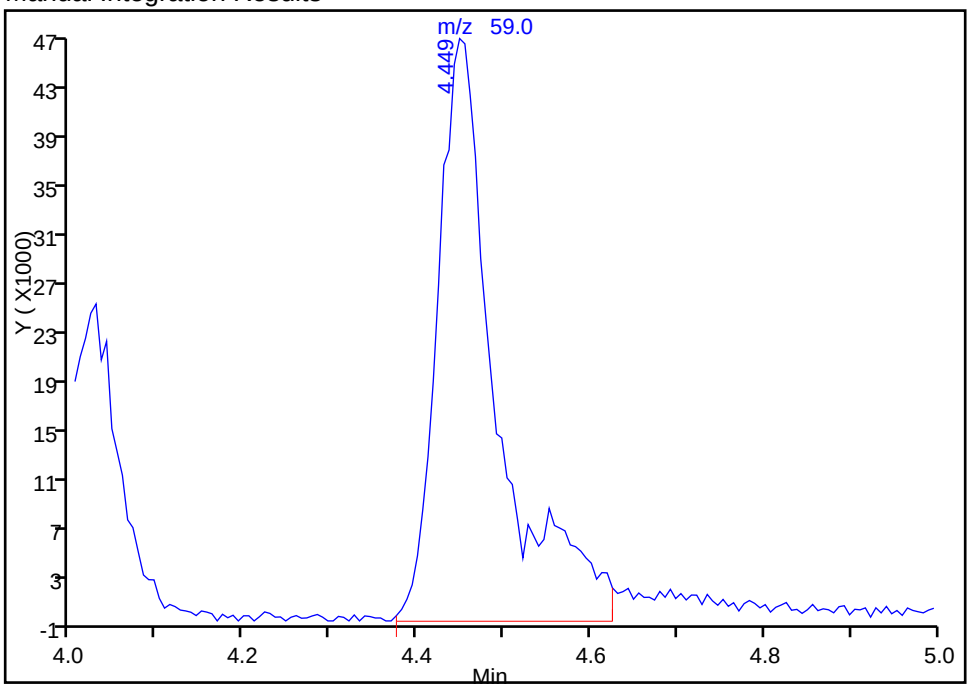
Processing Integration Results

RT: 4.45
Area: 188329
Amount: 911.3747
Amount Units: ng



Manual Integration Results

RT: 4.45
Area: 219266
Amount: 1026.8689
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:35:16
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303012.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Mar-2015 16:04:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0005873-012
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:11 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:37:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.323	4.321	0.002	87	196024	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.280	7.277	0.003	72	484263	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.370	10.368	0.002	80	123732	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.688	12.685	0.003	94	171685	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.535	-0.004	98	361120	175.0	174.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.908	6.912	-0.004	99	444667	175.0	173.5	
$ 7 Toluene-d8 (Surr)	98	8.928	8.932	-0.004	100	1566428	175.0	162.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.538	11.536	0.002	99	603450	175.0	168.2	
11 Dichlorodifluoromethane	85	1.622	1.620	0.002	98	392329	175.0	161.2	
12 Chloromethane	50	1.780	1.778	0.002	94	626420	175.0	161.1	
13 Vinyl chloride	62	1.908	1.912	-0.004	99	599809	175.0	160.5	
14 Butadiene	39	1.950	1.948	0.002	98	656586	175.0	151.5	
15 Bromomethane	94	2.255	2.258	-0.003	75	163842	175.0	154.6	
16 Chloroethane	64	2.376	2.380	-0.004	83	241114	175.0	158.6	
17 Dichlorofluoromethane	67	2.650	2.648	0.002	99	529735	175.0	152.0	
18 Trichlorofluoromethane	101	2.717	2.708	0.009	98	433936	175.0	149.1	
20 Ethyl ether	59	3.094	3.092	0.002	100	467174	175.0	166.3	
21 Acrolein	56	3.258	3.274	-0.016	81	76799	225.0	207.0	
22 1,1-Dichloroethene	96	3.374	3.384	-0.010	99	466370	175.0	165.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.420	0.009	98	466462	175.0	163.7	
24 Acetone	43	3.508	3.505	0.003	98	338711	350.0	333.0	
25 Iodomethane	142	3.581	3.585	-0.004	96	658969	175.0	166.1	
26 Carbon disulfide	76	3.654	3.664	-0.010	100	1168823	175.0	168.4	
28 3-Chloro-1-propene	76	3.946	3.956	-0.010	92	305734	175.0	173.6	
30 Methyl acetate	43	4.025	4.029	-0.004	100	2402270	875.0	858.8	
31 Methylene Chloride	84	4.147	4.150	-0.003	99	516693	175.0	172.9	
32 2-Methyl-2-propanol	59	4.451	4.454	-0.003	90	407341	1750.0	1734.0	M
33 Acrylonitrile	53	4.554	4.564	-0.010	98	2376546	1750.0	1713.8	
34 trans-1,2-Dichloroethene	96	4.566	4.576	-0.010	57	496919	175.0	168.5	
35 Methyl tert-butyl ether	73	4.609	4.607	0.002	100	1269630	175.0	172.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	98	854071	175.0	163.2	
37 1,1-Dichloroethane	63	5.175	5.178	-0.003	100	945361	175.0	168.2	
38 Vinyl acetate	43	5.296	5.306	-0.010	98	346138	175.0	180.3	
44 2,2-Dichloropropane	77	5.929	5.933	-0.004	65	354872	175.0	170.6	
45 cis-1,2-Dichloroethene	96	5.941	5.945	-0.004	87	529478	175.0	167.9	
46 2-Butanone (MEK)	43	5.990	6.000	-0.010	100	573542	350.0	346.1	
49 Chlorobromomethane	128	6.227	6.237	-0.010	75	220291	175.0	167.7	
51 Tetrahydrofuran	42	6.288	6.292	-0.004	99	386544	350.0	327.8	
52 Chloroform	83	6.349	6.346	0.003	85	751712	175.0	167.8	
53 1,1,1-Trichloroethane	97	6.531	6.535	-0.004	98	515456	175.0	169.5	
54 Cyclohexane	56	6.592	6.590	0.002	94	1109737	175.0	162.6	
56 Carbon tetrachloride	117	6.720	6.724	-0.004	66	362211	175.0	175.6	
55 1,1-Dichloropropene	75	6.726	6.730	-0.004	96	650285	175.0	167.5	
57 Isobutyl alcohol	41	6.951	6.949	0.002	45	324042	4375.0	4875.2	
58 Benzene	78	6.963	6.967	-0.004	98	2026853	175.0	165.7	
59 1,2-Dichloroethane	62	6.994	6.991	0.003	98	602602	175.0	170.6	
62 n-Heptane	43	7.286	7.283	0.003	89	806729	175.0	169.6	
64 Trichloroethene	130	7.669	7.673	-0.004	99	484743	175.0	168.3	
66 Methylcyclohexane	83	7.864	7.867	-0.003	95	899256	175.0	165.2	
67 1,2-Dichloropropane	63	7.906	7.910	-0.004	95	551216	175.0	171.6	
68 Dibromomethane	93	8.028	8.025	0.003	98	252976	175.0	174.4	
70 1,4-Dioxane	88	8.064	8.068	-0.004	96	107243	3500.0	3745.1	
71 Dichlorobromomethane	83	8.204	8.202	0.002	100	494496	175.0	182.9	
74 cis-1,3-Dichloropropene	75	8.660	8.664	-0.004	100	670035	175.0	187.1	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.828	-0.003	98	1293845	350.0	346.3	
76 Toluene	91	8.995	8.999	-0.004	98	2025808	175.0	158.6	
77 trans-1,3-Dichloropropene	75	9.226	9.224	0.002	93	504089	175.0	187.2	
78 Ethyl methacrylate	69	9.324	9.321	0.003	99	559868	175.0	184.9	
79 1,1,2-Trichloroethane	97	9.403	9.406	-0.003	98	384751	175.0	164.9	
80 Tetrachloroethene	164	9.543	9.540	0.003	99	376799	175.0	159.9	
81 1,3-Dichloropropane	76	9.567	9.571	-0.004	98	730064	175.0	166.5	
82 2-Hexanone	43	9.658	9.662	-0.004	99	895448	350.0	343.4	
84 Chlorodibromomethane	129	9.792	9.796	-0.004	96	285792	175.0	186.3	
85 Ethylene Dibromide	107	9.901	9.905	-0.004	99	391652	175.0	174.3	
86 3-Chlorobenzotrifluoride	180	10.376	10.374	0.002	90	648455	175.0	165.5	
87 Chlorobenzene	112	10.394	10.398	-0.004	98	1313352	175.0	160.6	
88 4-Chlorobenzotrifluoride	180	10.431	10.428	0.003	97	620760	175.0	165.8	
89 1,1,1,2-Tetrachloroethane	131	10.479	10.477	0.002	93	343717	175.0	182.2	
90 Ethylbenzene	106	10.504	10.508	-0.004	99	779624	175.0	164.9	
91 m-Xylene & p-Xylene	106	10.625	10.623	0.002	99	963277	175.0	165.4	
92 o-Xylene	106	11.015	11.019	-0.003	90	917689	175.0	162.3	
93 Styrene	104	11.027	11.031	-0.004	91	1511299	175.0	163.5	
94 Bromoform	173	11.216	11.213	0.003	91	158386	175.0	195.4	
96 2-Chlorobenzotrifluoride	180	11.276	11.280	-0.004	91	640624	175.0	165.0	
97 Isopropylbenzene	105	11.380	11.384	-0.004	99	2186986	175.0	157.6	
99 1,1,2,2-Tetrachloroethane	83	11.678	11.682	-0.004	69	554635	175.0	171.5	
100 Bromobenzene	156	11.684	11.688	-0.004	89	509283	175.0	169.8	
101 1,2,3-Trichloropropane	110	11.727	11.724	0.003	69	166640	175.0	165.8	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.736	-0.003	84	171777	175.0	175.9	
103 N-Propylbenzene	120	11.793	11.791	0.002	98	668080	175.0	167.7	
104 2-Chlorotoluene	126	11.879	11.882	-0.003	98	556210	175.0	169.1	
105 3-Chlorotoluene	126	11.939	11.937	0.002	73	574840	175.0	170.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.964	11.968	-0.004	99	1821042	175.0	165.2	
107 4-Chlorotoluene	126	11.988	11.986	0.002	97	590273	175.0	166.2	
108 tert-Butylbenzene	119	12.292	12.296	-0.004	89	1538995	175.0	161.7	
110 1,2,4-Trimethylbenzene	105	12.341	12.339	0.002	98	1864947	175.0	163.9	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.406	0.002	99	433987	175.0	168.9	
112 sec-Butylbenzene	105	12.511	12.515	-0.004	93	2200188	175.0	160.6	
113 1,3-Dichlorobenzene	146	12.621	12.625	-0.004	91	974213	175.0	164.4	
114 4-Isopropyltoluene	119	12.657	12.655	0.002	98	1841892	175.0	164.1	
115 1,4-Dichlorobenzene	146	12.712	12.710	0.002	97	989384	175.0	165.9	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.764	-0.003	93	406260	175.0	166.4	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.813	-0.004	95	457073	175.0	171.7	
120 n-Butylbenzene	91	13.065	13.069	-0.004	99	1641091	175.0	164.4	
121 1,2-Dichlorobenzene	146	13.083	13.087	-0.004	98	903766	175.0	166.7	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.866	-0.004	92	69537	175.0	194.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.012	-0.004	99	1903055	525.0	514.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.431	-0.003	99	1260859	350.0	344.4	
126 1,2,4-Trichlorobenzene	180	14.695	14.693	0.002	98	464683	175.0	171.4	
127 Hexachlorobutadiene	225	14.866	14.869	-0.003	94	186416	175.0	161.0	
128 Naphthalene	128	14.945	14.942	0.003	100	1355121	175.0	172.2	
129 1,2,3-Trichlorobenzene	180	15.188	15.192	-0.004	99	394157	175.0	169.5	
131 2,4,5-Trichlorotoluene	159	15.967	15.970	-0.003	98	200009	175.0	170.0	
130 2,3,6-Trichlorotoluene	159	16.064	16.068	-0.004	97	182005	175.0	167.8	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	327.7	
S 134 1,2-Dichloroethene, Total	96				0		350.0	336.5	
S 135 1,3-Dichloropropene, Total	1				0		350.0	374.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00031	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	7.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	7.00	Units: uL	
VOAVAPRI_00003	Amount Added:	7.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	7.00	Units: uL	
VOAACRPRI_00003	Amount Added:	9.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

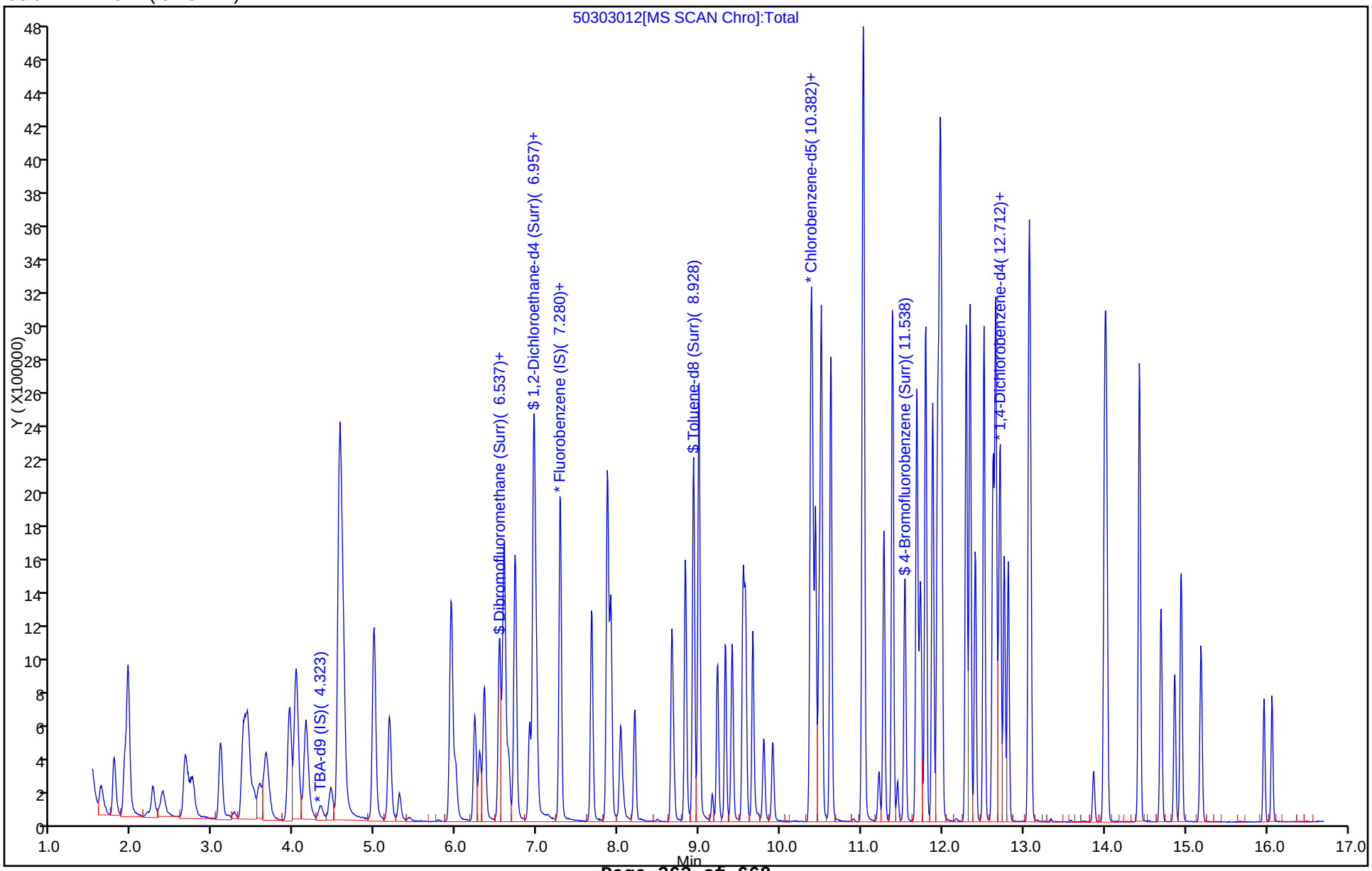
Report Date: 04-Mar-2015 10:13:12 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303012.D

Injection Date:	03-Mar-2015 16:04:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

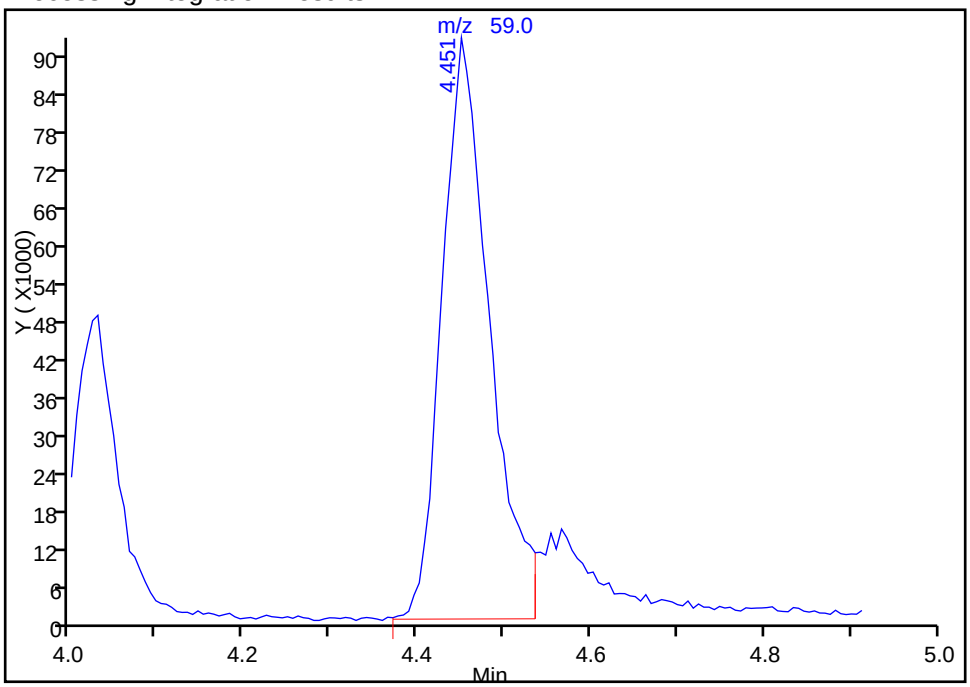
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303012.D
Injection Date: 03-Mar-2015 16:04:30 Instrument ID: CHHP5
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

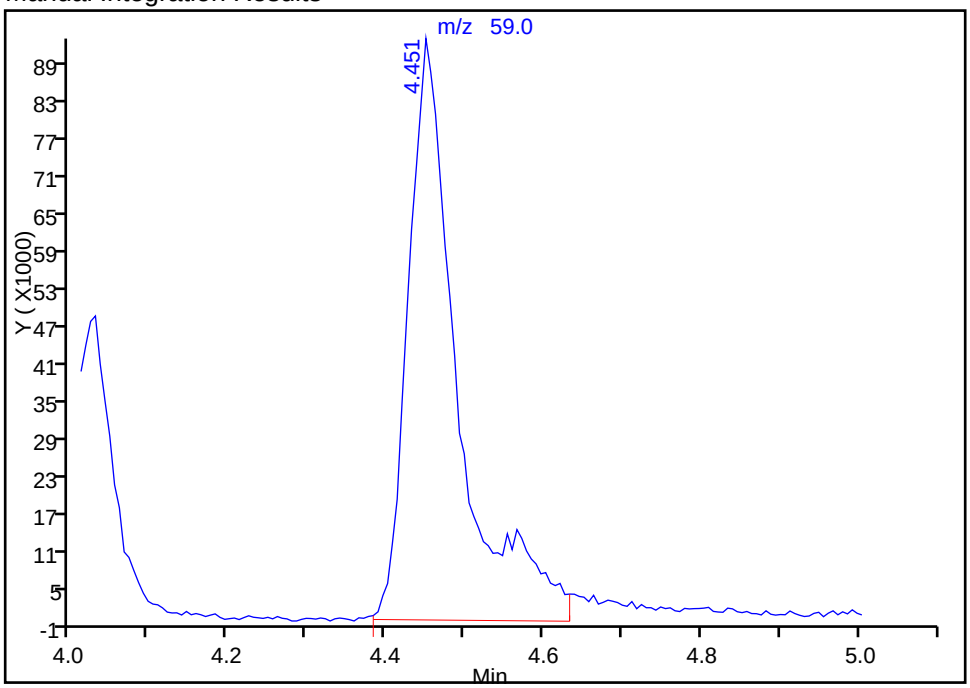
Processing Integration Results

RT: 4.45
Area: 353645
Amount: 1527.0542
Amount Units: ng



Manual Integration Results

RT: 4.45
Area: 407341
Amount: 1734.0487
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:37:20
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303013.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 03-Mar-2015 16:28:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0005873-013
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:13 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:39:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.329	4.321	0.007	99	195478	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.277	-0.004	99	458440	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.369	10.368	0.001	99	117839	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.687	12.685	0.002	94	165585	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.535	-0.004	99	407623	200.0	207.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.912	-0.010	99	495199	200.0	204.2	
$ 7 Toluene-d8 (Surr)	98	8.928	8.932	-0.004	100	1773929	200.0	193.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.537	11.536	0.001	99	675059	200.0	197.5	
11 Dichlorodifluoromethane	85	1.621	1.620	0.001	100	459101	200.0	199.3	
12 Chloromethane	50	1.773	1.778	-0.005	100	749194	200.0	203.5	
13 Vinyl chloride	62	1.907	1.912	-0.005	100	717244	200.0	202.7	
14 Butadiene	39	1.944	1.948	-0.004	99	795057	200.0	193.8	
15 Bromomethane	94	2.254	2.258	-0.004	92	202557	200.0	203.5	
16 Chloroethane	64	2.370	2.380	-0.010	98	300539	200.0	208.8	
17 Dichlorofluoromethane	67	2.649	2.648	0.001	99	702217	200.0	212.8	
18 Trichlorofluoromethane	101	2.698	2.708	-0.010	99	629405	200.0	228.4	
20 Ethyl ether	59	3.094	3.092	0.002	99	524790	200.0	197.4	
21 Acrolein	56	3.264	3.274	-0.010	98	88701	250.0	252.6	
22 1,1-Dichloroethene	96	3.373	3.384	-0.011	99	537938	200.0	201.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.420	0.008	100	564199	200.0	209.1	
24 Acetone	43	3.495	3.505	-0.010	100	359769	400.0	373.7	
25 Iodomethane	142	3.574	3.585	-0.011	98	768602	200.0	204.7	
26 Carbon disulfide	76	3.659	3.664	-0.005	100	1429882	200.0	217.6	
28 3-Chloro-1-propene	76	3.939	3.956	-0.017	100	353770	200.0	212.2	
30 Methyl acetate	43	4.024	4.029	-0.005	100	2723193	1000.0	1028.4	
31 Methylene Chloride	84	4.146	4.150	-0.004	99	581573	200.0	206.2	
32 2-Methyl-2-propanol	59	4.450	4.454	-0.004	99	473360	2000.0	2020.7	M
33 Acrylonitrile	53	4.554	4.564	-0.010	100	2649598	2000.0	2018.3	
34 trans-1,2-Dichloroethene	96	4.566	4.576	-0.010	94	564166	200.0	202.1	
35 Methyl tert-butyl ether	73	4.602	4.607	-0.005	100	1454209	200.0	208.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	99	987257	200.0	199.3	
37 1,1-Dichloroethane	63	5.174	5.178	-0.004	100	1076133	200.0	202.3	
38 Vinyl acetate	43	5.296	5.306	-0.010	100	412211	200.0	226.8	
44 2,2-Dichloropropane	77	5.935	5.933	0.002	95	436442	200.0	221.6	
45 cis-1,2-Dichloroethene	96	5.941	5.945	-0.004	98	599342	200.0	200.8	
46 2-Butanone (MEK)	43	5.989	6.000	-0.011	100	661664	400.0	421.8	
49 Chlorobromomethane	128	6.233	6.237	-0.004	99	250607	200.0	201.5	
51 Tetrahydrofuran	42	6.287	6.292	-0.005	99	447707	400.0	401.0	
52 Chloroform	83	6.348	6.346	0.002	96	860226	200.0	202.9	
53 1,1,1-Trichloroethane	97	6.537	6.535	0.002	99	607230	200.0	210.9	
54 Cyclohexane	56	6.592	6.590	0.002	98	1313560	200.0	203.2	
56 Carbon tetrachloride	117	6.725	6.724	0.001	94	443952	200.0	227.3	
55 1,1-Dichloropropene	75	6.725	6.730	-0.005	98	755478	200.0	205.6	
57 Isobutyl alcohol	41	6.950	6.949	0.001	98	374911	5000.0	5958.2	
58 Benzene	78	6.957	6.967	-0.010	98	2284771	200.0	197.3	
59 1,2-Dichloroethane	62	6.987	6.991	-0.004	98	678619	200.0	202.9	
62 n-Heptane	43	7.285	7.283	0.002	89	940701	200.0	209.0	
64 Trichloroethene	130	7.668	7.673	-0.005	99	560499	200.0	205.5	
66 Methylcyclohexane	83	7.869	7.867	0.002	99	1051065	200.0	204.0	
67 1,2-Dichloropropane	63	7.906	7.910	-0.004	97	626785	200.0	206.1	
68 Dibromomethane	93	8.027	8.025	0.002	99	285467	200.0	207.9	
70 1,4-Dioxane	88	8.064	8.068	-0.004	96	108953	4000.0	4019.1	
71 Dichlorobromomethane	83	8.204	8.202	0.002	100	559625	200.0	218.6	
74 cis-1,3-Dichloropropene	75	8.660	8.664	-0.004	100	764955	200.0	225.6	
75 4-Methyl-2-pentanone (MIBK	43	8.824	8.828	-0.004	99	1424348	400.0	400.3	
76 Toluene	91	8.995	8.999	-0.004	99	2291440	200.0	188.4	
77 trans-1,3-Dichloropropene	75	9.220	9.224	-0.004	99	577469	200.0	225.2	
78 Ethyl methacrylate	69	9.317	9.321	-0.004	100	642835	200.0	222.9	
79 1,1,2-Trichloroethane	97	9.402	9.406	-0.004	99	430453	200.0	193.7	
80 Tetrachloroethene	164	9.536	9.540	-0.004	99	437446	200.0	194.9	
81 1,3-Dichloropropane	76	9.566	9.571	-0.005	100	810109	200.0	194.0	
82 2-Hexanone	43	9.658	9.662	-0.004	100	1007219	400.0	405.5	
84 Chlorodibromomethane	129	9.791	9.796	-0.005	99	335537	200.0	229.6	
85 Ethylene Dibromide	107	9.907	9.905	0.002	100	430697	200.0	201.3	
86 3-Chlorobenzotrifluoride	180	10.375	10.374	0.001	92	710605	200.0	190.5	
87 Chlorobenzene	112	10.394	10.398	-0.004	99	1486822	200.0	190.9	
88 4-Chlorobenzotrifluoride	180	10.430	10.428	0.002	99	673239	200.0	188.8	
89 1,1,1,2-Tetrachloroethane	131	10.479	10.477	0.002	94	404254	200.0	225.0	
90 Ethylbenzene	106	10.503	10.508	-0.005	99	878562	200.0	195.1	
91 m-Xylene & p-Xylene	106	10.619	10.623	-0.004	99	1087938	200.0	196.1	
92 o-Xylene	106	11.014	11.019	-0.004	95	1044535	200.0	194.0	
93 Styrene	104	11.026	11.031	-0.005	100	1702135	200.0	193.4	
94 Bromoform	173	11.215	11.213	0.002	99	189179	200.0	245.1	
96 2-Chlorobenzotrifluoride	180	11.276	11.280	-0.004	99	709528	200.0	191.8	
97 Isopropylbenzene	105	11.385	11.384	0.001	99	2509471	200.0	189.9	
99 1,1,2,2-Tetrachloroethane	83	11.677	11.682	-0.005	99	635984	200.0	206.5	
100 Bromobenzene	156	11.690	11.688	0.002	99	564181	200.0	195.0	
101 1,2,3-Trichloropropane	110	11.726	11.724	0.002	96	186872	200.0	192.8	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.736	0.002	91	209408	200.0	222.4	
103 N-Propylbenzene	120	11.793	11.791	0.002	99	772940	200.0	201.1	
104 2-Chlorotoluene	126	11.878	11.882	-0.004	99	627560	200.0	197.8	
105 3-Chlorotoluene	126	11.939	11.937	0.002	99	635360	200.0	195.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.969	11.968	0.001	99	2069067	200.0	194.6	
107 4-Chlorotoluene	126	11.988	11.986	0.002	98	686264	200.0	200.4	
108 tert-Butylbenzene	119	12.292	12.296	-0.004	98	1773732	200.0	193.3	
110 1,2,4-Trimethylbenzene	105	12.340	12.339	0.001	98	2134132	200.0	194.5	
111 1,2-dichloro-4-(trifluorom	214	12.407	12.406	0.001	99	495775	200.0	200.1	
112 sec-Butylbenzene	105	12.511	12.515	-0.004	99	2515133	200.0	190.4	
113 1,3-Dichlorobenzene	146	12.620	12.625	-0.005	98	1106407	200.0	193.6	
114 4-Isopropyltoluene	119	12.657	12.655	0.002	98	2126114	200.0	196.4	
115 1,4-Dichlorobenzene	146	12.712	12.710	0.002	96	1119886	200.0	194.6	
116 2,4-Dichloro-1-(triflourom	214	12.760	12.764	-0.004	95	459072	200.0	194.9	
118 2,5-Dichlorobenzotrifluori	214	12.815	12.813	0.002	98	520914	200.0	202.9	
120 n-Butylbenzene	91	13.064	13.069	-0.005	99	1909418	200.0	198.4	
121 1,2-Dichlorobenzene	146	13.083	13.087	-0.004	99	1024132	200.0	195.9	
122 1,2-Dibromo-3-Chloropropan	75	13.861	13.866	-0.005	89	86409	200.0	250.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.007	14.012	-0.005	99	2106510	600.0	589.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.427	14.431	-0.004	99	1383564	400.0	391.9	
126 1,2,4-Trichlorobenzene	180	14.695	14.693	0.002	99	524775	200.0	200.7	
127 Hexachlorobutadiene	225	14.865	14.869	-0.004	98	227215	200.0	203.4	
128 Naphthalene	128	14.944	14.942	0.002	100	1499909	200.0	197.7	
129 1,2,3-Trichlorobenzene	180	15.194	15.192	0.002	99	445662	200.0	198.7	
131 2,4,5-Trichlorotoluene	159	15.966	15.970	-0.004	98	227883	200.0	200.9	
130 2,3,6-Trichlorotoluene	159	16.064	16.068	-0.004	97	202347	200.0	193.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		400.0	390.1	
S 134 1,2-Dichloroethene, Total	96				0		400.0	402.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	450.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	10.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	8.00	Units: uL	
VOAVAPRI_00003	Amount Added:	8.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	8.00	Units: uL	
VOA8260SURR_00031	Amount Added:	8.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

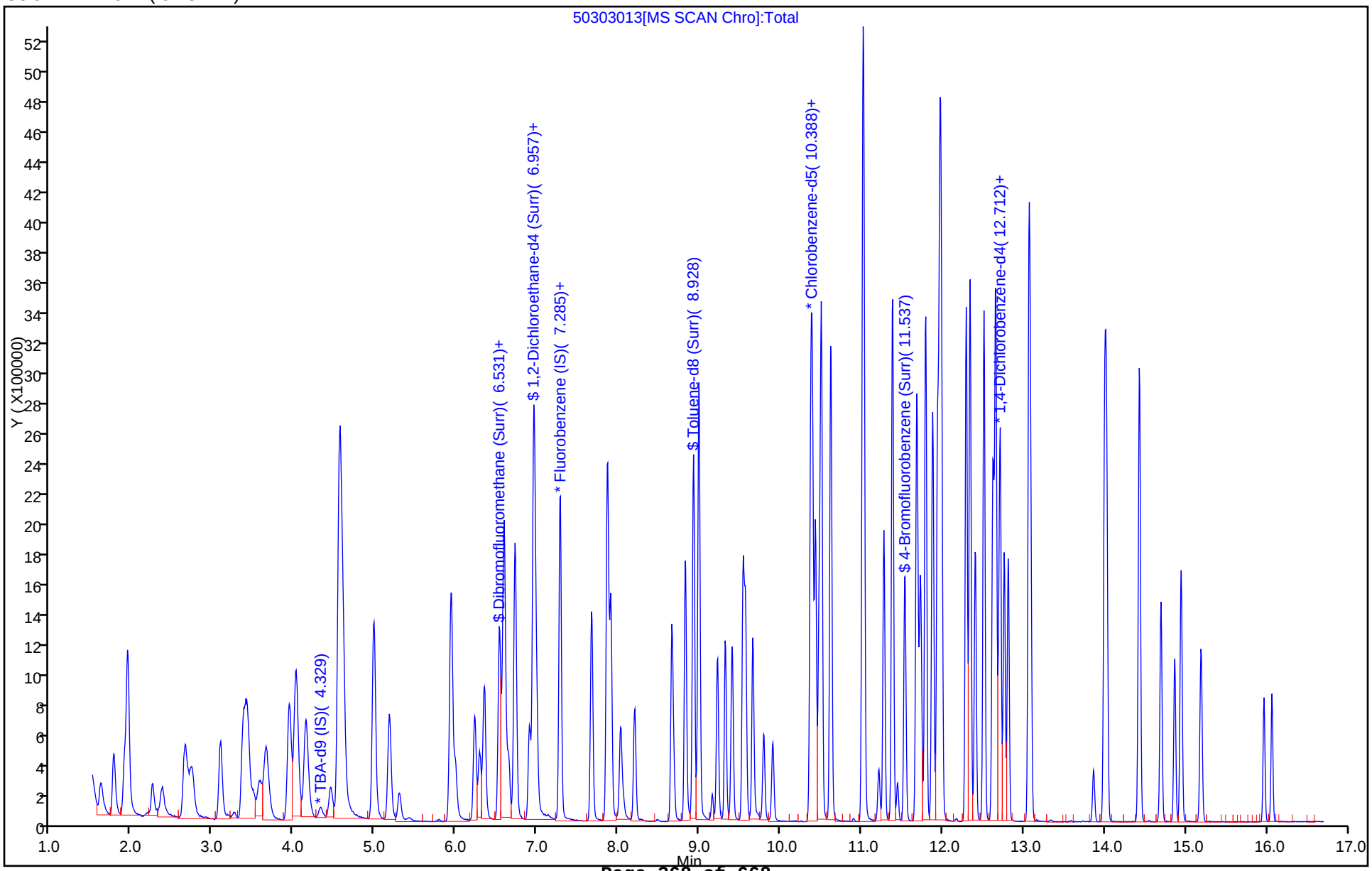
Report Date: 04-Mar-2015 10:13:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303013.D

Injection Date:	03-Mar-2015 16:28:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

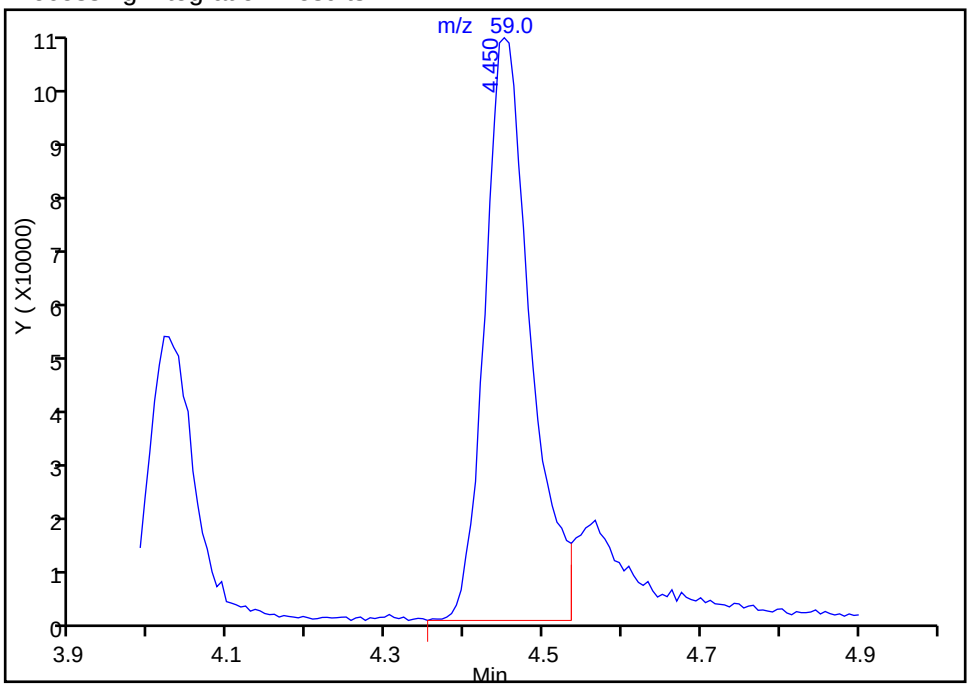
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303013.D				
Injection Date:	03-Mar-2015 16:28:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD40				
Client ID:					
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

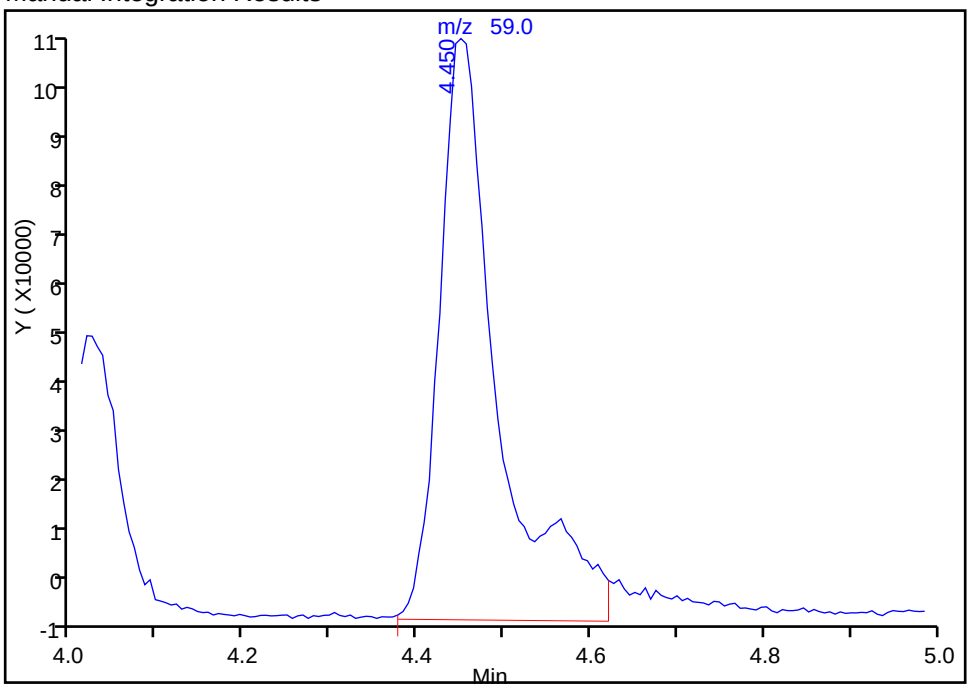
Processing Integration Results

RT: 4.45
Area: 405922
Amount: 1729.0486
Amount Units: ng



Manual Integration Results

RT: 4.45
Area: 473360
Amount: 2020.7198
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:39:19
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303014.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 03-Mar-2015 16:52:30 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0005873-014
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:14 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:40:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.321	0.006	97	182249	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	440848	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.368	0.000	97	121332	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	91	163855	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.535	0.000	98	454279	250.0	240.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.912	-0.006	100	585333	250.0	250.9	
$ 7 Toluene-d8 (Surr)	98	8.926	8.932	-0.006	99	1882951	250.0	199.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	99	778464	250.0	221.2	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	100	555245	250.0	250.7	
12 Chloromethane	50	1.778	1.778	0.000	100	892689	250.0	252.1	
13 Vinyl chloride	62	1.912	1.912	0.000	100	866068	250.0	254.5	
14 Butadiene	39	1.948	1.948	0.000	99	961606	250.0	243.7	
15 Bromomethane	94	2.253	2.258	-0.005	92	219710	250.0	230.1	
16 Chloroethane	64	2.374	2.380	-0.006	98	309302	250.0	223.5	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	100	722968	250.0	227.9	
18 Trichlorofluoromethane	101	2.697	2.708	-0.011	99	625870	250.0	236.2	
20 Ethyl ether	59	3.092	3.092	0.000	100	666037	250.0	260.5	
21 Acrolein	56	3.262	3.274	-0.012	99	95898	275.0	284.0	
22 1,1-Dichloroethene	96	3.372	3.384	-0.012	99	655372	250.0	255.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	97	659263	250.0	254.1	
24 Acetone	43	3.500	3.505	-0.005	100	482030	500.0	520.6	
25 Iodomethane	142	3.573	3.585	-0.012	98	937612	250.0	259.7	
26 Carbon disulfide	76	3.658	3.664	-0.006	100	1738988	250.0	275.2	
28 3-Chloro-1-propene	76	3.944	3.956	-0.012	100	449430	250.0	280.3	
30 Methyl acetate	43	4.023	4.029	-0.006	100	3392163	1250.0	1332.2	
31 Methylene Chloride	84	4.145	4.150	-0.005	100	726477	250.0	269.0	
32 2-Methyl-2-propanol	59	4.461	4.454	0.007	99	611565	2500.0	2800.2	
33 Acrylonitrile	53	4.558	4.564	-0.006	99	3337128	2500.0	2643.5	
34 trans-1,2-Dichloroethene	96	4.570	4.576	-0.006	93	714392	250.0	266.2	
35 Methyl tert-butyl ether	73	4.601	4.607	-0.006	100	1811989	250.0	270.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	100	1203451	250.0	252.6	
37 1,1-Dichloroethane	63	5.179	5.178	0.001	100	1328543	250.0	259.7	
38 Vinyl acetate	43	5.300	5.306	-0.006	100	523307	250.0	299.4	
44 2,2-Dichloropropane	77	5.927	5.933	-0.006	97	530241	250.0	280.0	
45 cis-1,2-Dichloroethene	96	5.939	5.945	-0.006	98	743970	250.0	259.2	
46 2-Butanone (MEK)	43	5.988	6.000	-0.012	100	803658	500.0	532.7	
49 Chlorobromomethane	128	6.231	6.237	-0.006	98	320382	250.0	267.9	
51 Tetrahydrofuran	42	6.286	6.292	-0.006	99	565784	500.0	527.0	
52 Chloroform	83	6.347	6.346	0.001	96	1072109	250.0	263.0	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	98	735465	250.0	265.6	
54 Cyclohexane	56	6.590	6.590	0.000	97	1567791	250.0	252.3	
56 Carbon tetrachloride	117	6.724	6.724	0.000	96	541326	250.0	288.2	
55 1,1-Dichloropropene	75	6.724	6.730	-0.006	98	919340	250.0	260.2	
57 Isobutyl alcohol	41	6.955	6.949	0.006	98	519953	6250.0	8593.0	
58 Benzene	78	6.961	6.967	-0.006	98	2816860	250.0	253.0	
59 1,2-Dichloroethane	62	6.986	6.991	-0.005	99	882169	250.0	274.3	
62 n-Heptane	43	7.284	7.283	0.001	87	1135342	250.0	262.3	
64 Trichloroethene	130	7.673	7.673	0.000	99	695890	250.0	265.3	
66 Methylcyclohexane	83	7.868	7.867	0.001	99	1271791	250.0	256.7	
67 1,2-Dichloropropane	63	7.904	7.910	-0.006	97	779651	250.0	266.6	
68 Dibromomethane	93	8.026	8.025	0.001	99	367478	250.0	278.3	
70 1,4-Dioxane	88	8.062	8.068	-0.006	96	148650	5000.0	5702.3	
71 Dichlorobromomethane	83	8.202	8.202	0.000	100	722661	250.0	293.5	
74 cis-1,3-Dichloropropene	75	8.659	8.664	-0.005	99	973151	250.0	298.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.828	0.001	99	1780762	500.0	486.1	
76 Toluene	91	8.993	8.999	-0.006	99	2786685	250.0	222.5	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	100	770673	250.0	291.8	
78 Ethyl methacrylate	69	9.322	9.321	0.001	100	840399	250.0	283.1	
79 1,1,2-Trichloroethane	97	9.407	9.406	0.001	99	552961	250.0	241.7	
80 Tetrachloroethene	164	9.541	9.540	0.001	99	530396	250.0	229.5	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	99	1025068	250.0	238.4	
82 2-Hexanone	43	9.656	9.662	-0.006	100	1267784	500.0	495.7	
84 Chlorodibromomethane	129	9.796	9.796	0.000	99	437822	250.0	291.0	
85 Ethylene Dibromide	107	9.906	9.905	0.001	100	560401	250.0	254.4	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	92	811123	250.0	211.2	
87 Chlorobenzene	112	10.392	10.398	-0.006	98	1821377	250.0	227.1	
88 4-Chlorobenzotrifluoride	180	10.435	10.428	0.007	98	788386	250.0	214.7	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	94	518562	250.0	280.4	
90 Ethylbenzene	106	10.502	10.508	-0.006	98	1084192	250.0	233.8	
91 m-Xylene & p-Xylene	106	10.623	10.623	0.000	98	1343425	250.0	235.2	
92 o-Xylene	106	11.013	11.019	-0.005	96	1282744	250.0	231.4	
93 Styrene	104	11.031	11.031	0.000	96	2101328	250.0	231.9	
94 Bromoform	173	11.214	11.213	0.001	98	253039	250.0	318.4	
96 2-Chlorobenzotrifluoride	180	11.274	11.280	-0.006	99	818132	250.0	214.8	
97 Isopropylbenzene	105	11.384	11.384	0.000	98	2939157	250.0	216.0	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.682	-0.006	98	794942	250.0	250.7	
100 Bromobenzene	156	11.688	11.688	0.000	99	712137	250.0	248.8	
101 1,2,3-Trichloropropane	110	11.725	11.724	0.001	97	239368	250.0	249.6	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.736	0.001	92	267698	250.0	287.3	
103 N-Propylbenzene	120	11.792	11.791	0.001	98	938881	250.0	246.9	
104 2-Chlorotoluene	126	11.877	11.882	-0.005	98	766804	250.0	244.2	
105 3-Chlorotoluene	126	11.938	11.937	0.001	99	747748	250.0	233.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.968	11.968	0.000	98	2483271	250.0	236.0	
107 4-Chlorotoluene	126	11.986	11.986	0.000	98	846300	250.0	249.7	
108 tert-Butylbenzene	119	12.290	12.296	-0.006	98	2162487	250.0	238.1	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	98	2596483	250.0	239.1	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	99	570450	250.0	232.7	
112 sec-Butylbenzene	105	12.509	12.515	-0.006	98	2981190	250.0	228.0	
113 1,3-Dichlorobenzene	146	12.619	12.625	-0.006	97	1371526	250.0	242.5	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	98	2531591	250.0	236.3	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	97	1402521	250.0	246.3	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.764	0.001	95	528265	250.0	226.7	
118 2,5-Dichlorobenzotrifluori	214	12.814	12.813	0.001	98	607921	250.0	239.3	
120 n-Butylbenzene	91	13.063	13.069	-0.006	98	2301855	250.0	241.7	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	98	1268840	250.0	245.2	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	88	110818	250.0	325.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.012	-0.006	99	2522600	750.0	713.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.431	0.001	99	1703909	500.0	487.7	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	98	654550	250.0	252.9	
127 Hexachlorobutadiene	225	14.864	14.869	-0.005	98	277147	250.0	250.8	
128 Naphthalene	128	14.943	14.942	0.001	99	1887643	250.0	251.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.192	-0.006	100	568326	250.0	256.1	
131 2,4,5-Trichlorotoluene	159	15.965	15.970	-0.005	98	286878	250.0	255.6	
130 2,3,6-Trichlorotoluene	159	16.062	16.068	-0.006	98	260759	250.0	251.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	466.6	
S 134 1,2-Dichloroethene, Total	96				0		500.0	525.4	
S 135 1,3-Dichloropropene, Total	1				0		500.0	590.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00031	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	10.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	10.00	Units: uL	
VOAVAPRI_00003	Amount Added:	10.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	10.00	Units: uL	
VOAACRPRI_00003	Amount Added:	11.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

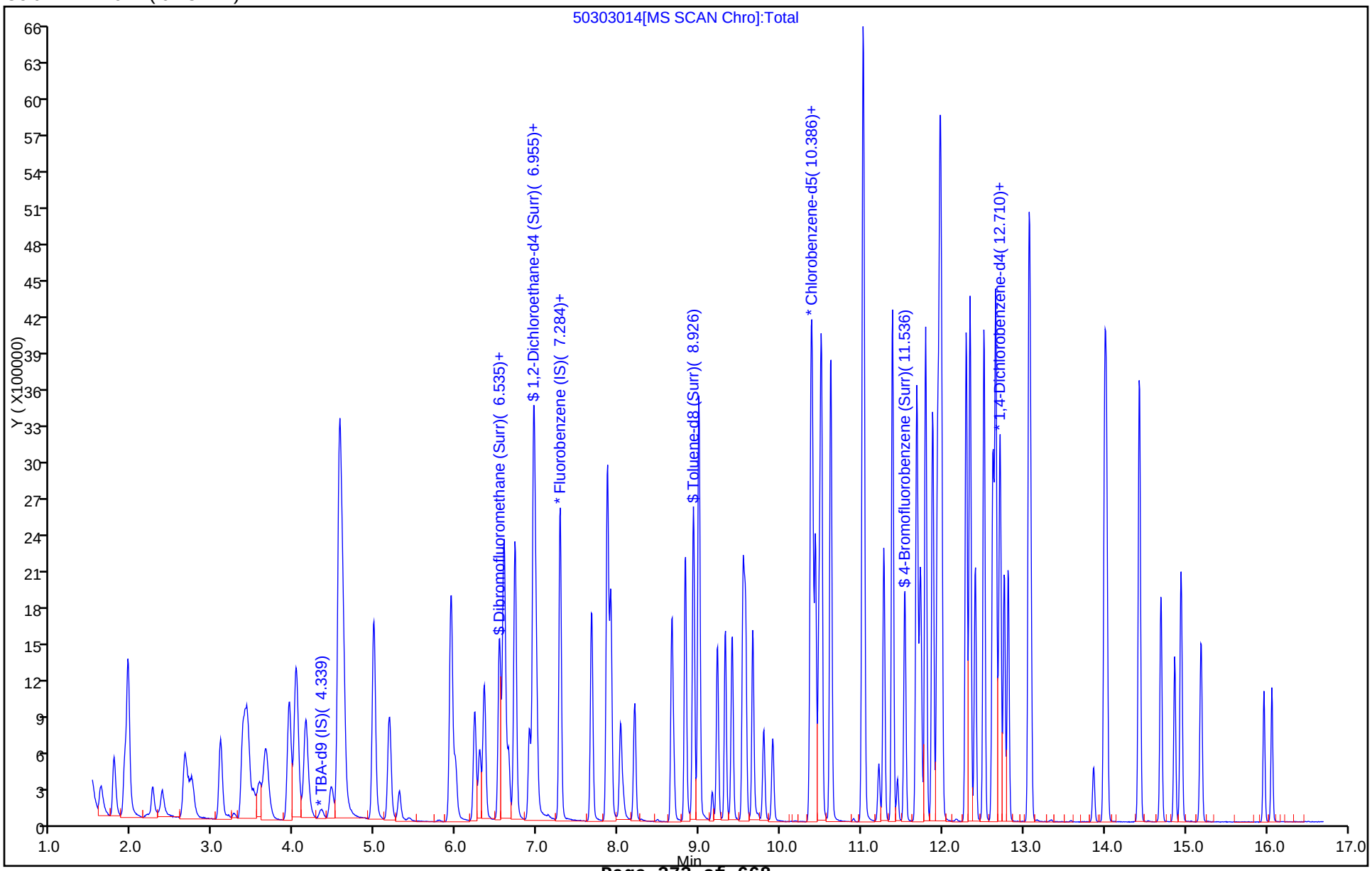
Report Date: 04-Mar-2015 10:13:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303014.D

Injection Date:	03-Mar-2015 16:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2015 18:29:30 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0005873-018
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Mar-2015 10:13:25 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 04-Mar-2015 09:08:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.321	0.006	97	158942	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	436397	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.368	-0.006	99	97555	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	138266	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.536	6.535	0.001	97	9351	5.00	5.00	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.912	-0.011	98	12383	5.00	5.36	
$ 7 Toluene-d8 (Surr)	98	8.926	8.932	-0.006	99	44042	5.00	5.79	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.536	0.000	98	16688	5.00	5.90	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	1	11738	5.00	5.35	
12 Chloromethane	50	1.778	1.778	0.000	99	20422	5.00	5.83	
13 Vinyl chloride	62	1.906	1.912	-0.006	98	18364	5.00	5.45	
14 Butadiene	39	1.949	1.948	0.001	99	25646	5.00	6.57	
15 Bromomethane	94	2.253	2.258	-0.005	49	9174	5.00	4.90	
16 Chloroethane	64	2.393	2.380	0.013	46	8910	5.00	6.50	
17 Dichlorofluoromethane	67	2.654	2.648	0.006	97	18545	5.00	5.90	
18 Trichlorofluoromethane	101	2.703	2.708	-0.005	78	14651	5.00	5.59	
20 Ethyl ether	59	3.098	3.092	0.006	92	15110	5.00	5.97	
21 Acrolein	56	3.263	3.274	-0.011	95	33215	100.0	99.4	
22 1,1-Dichloroethene	96	3.390	3.384	0.006	99	14445	5.00	5.69	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	95	13613	5.00	5.30	
24 Acetone	43	3.518	3.505	0.013	85	27756	25.0	30.3	M
25 Iodomethane	142	3.591	3.585	0.006	94	20517	5.00	5.74	
26 Carbon disulfide	76	3.658	3.664	-0.006	96	31759	5.00	5.08	
28 3-Chloro-1-propene	76	3.944	3.956	-0.012	96	7709	5.00	4.86	
30 Methyl acetate	43	4.029	4.029	0.000	99	68405	25.0	27.1	
31 Methylene Chloride	84	4.145	4.150	-0.005	97	23143	5.00	5.07	
32 2-Methyl-2-propanol	59	4.449	4.454	-0.005	57	8526	50.0	44.8	
33 Acrylonitrile	53	4.564	4.564	0.000	98	66409	50.0	53.1	
34 trans-1,2-Dichloroethene	96	4.571	4.576	-0.005	51	14331	5.00	5.39	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	99	35247	5.00	5.31	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	94	27239	5.00	5.78	
37 1,1-Dichloroethane	63	5.179	5.178	0.001	98	28747	5.00	5.68	
38 Vinyl acetate	43	5.307	5.306	0.001	58	6783	5.00	3.92	
44 2,2-Dichloropropane	77	5.939	5.933	0.006	64	9115	5.00	4.86	
45 cis-1,2-Dichloroethene	96	5.952	5.945	0.007	96	16372	5.00	5.76	
46 2-Butanone (MEK)	43	6.000	6.000	0.000	99	39378	25.0	26.4	
49 Chlorobromomethane	128	6.237	6.237	0.000	91	6992	5.00	5.91	
51 Tetrahydrofuran	42	6.298	6.292	0.006	94	12789	10.0	12.0	
52 Chloroform	83	6.341	6.346	-0.005	96	23149	5.00	5.74	
53 1,1,1-Trichloroethane	97	6.536	6.535	0.001	97	14873	5.00	5.43	
54 Cyclohexane	56	6.590	6.590	0.000	94	32962	5.00	5.36	M
56 Carbon tetrachloride	117	6.724	6.724	0.000	67	9550	5.00	5.14	
55 1,1-Dichloropropene	75	6.736	6.730	0.006	97	18284	5.00	5.23	
57 Isobutyl alcohol	41	6.955	6.949	0.006	34	6766	125.0	113.0	
58 Benzene	78	6.955	6.967	-0.012	98	62303	5.00	5.65	
59 1,2-Dichloroethane	62	6.998	6.991	0.007	97	17175	5.00	5.39	
62 n-Heptane	43	7.278	7.283	-0.005	57	23686	5.00	5.53	
64 Trichloroethene	130	7.679	7.673	0.006	96	12976	5.00	5.00	
66 Methylcyclohexane	83	7.862	7.867	-0.005	98	25976	5.00	5.30	
67 1,2-Dichloropropane	63	7.910	7.910	0.000	93	15999	5.00	5.53	
68 Dibromomethane	93	8.026	8.025	0.001	97	6736	5.00	5.15	
70 1,4-Dioxane	88	8.081	8.068	0.013	40	2785	100.0	107.9	
71 Dichlorobromomethane	83	8.202	8.202	0.000	98	10980	5.00	4.51	
74 cis-1,3-Dichloropropene	75	8.659	8.664	-0.005	97	13441	5.00	4.16	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.828	0.001	99	75647	25.0	25.7	
76 Toluene	91	8.993	8.999	-0.006	99	60820	5.00	6.04	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	94	9160	5.00	4.31	
78 Ethyl methacrylate	69	9.328	9.321	0.007	95	11161	5.00	4.68	
79 1,1,2-Trichloroethane	97	9.407	9.406	0.001	93	10673	5.00	5.80	
80 Tetrachloroethene	164	9.541	9.540	0.001	96	10884	5.00	5.86	
81 1,3-Dichloropropane	76	9.571	9.571	0.000	96	19318	5.00	5.59	
82 2-Hexanone	43	9.669	9.662	0.006	99	51105	25.0	24.9	
84 Chlorodibromomethane	129	9.796	9.796	0.000	96	5520	5.00	4.56	
85 Ethylene Dibromide	107	9.912	9.905	0.007	98	9291	5.00	5.24	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	64	18756	5.00	6.07	
87 Chlorobenzene	112	10.399	10.398	0.000	98	39232	5.00	6.08	
88 4-Chlorobenzotrifluoride	180	10.435	10.428	0.007	97	17103	5.00	5.79	
89 1,1,1,2-Tetrachloroethane	131	10.484	10.477	0.007	94	7857	5.00	5.28	
90 Ethylbenzene	106	10.502	10.508	-0.006	99	20645	5.00	5.54	
91 m-Xylene & p-Xylene	106	10.624	10.623	0.001	99	26322	5.00	5.73	
92 o-Xylene	106	11.019	11.019	0.001	96	25758	5.00	5.78	
93 Styrene	104	11.031	11.031	0.000	96	42726	5.00	5.86	
94 Bromoform	173	11.220	11.213	0.007	52	2588	5.00	4.05	
96 2-Chlorobenzotrifluoride	180	11.275	11.280	-0.005	97	17742	5.00	5.79	
97 Isopropylbenzene	105	11.384	11.384	0.000	99	65207	5.00	5.96	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.682	-0.006	91	12676	5.00	4.97	
100 Bromobenzene	156	11.688	11.688	0.000	97	14051	5.00	5.82	
101 1,2,3-Trichloropropane	110	11.725	11.724	0.001	95	5015	5.00	6.20	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.736	0.007	90	4072	5.00	5.18	
103 N-Propylbenzene	120	11.792	11.791	0.001	100	16822	5.00	5.24	
104 2-Chlorotoluene	126	11.877	11.882	-0.005	99	15299	5.00	5.77	
105 3-Chlorotoluene	126	11.944	11.937	0.007	98	16343	5.00	6.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.962	11.968	-0.006	100	50437	5.00	5.68	
107 4-Chlorotoluene	126	11.986	11.986	0.000	95	15984	5.00	5.59	
108 tert-Butylbenzene	119	12.290	12.296	-0.006	98	43127	5.00	5.63	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	96	51091	5.00	5.58	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	97	10729	5.00	5.19	
112 sec-Butylbenzene	105	12.509	12.515	-0.006	99	65330	5.00	5.92	
113 1,3-Dichlorobenzene	146	12.619	12.625	-0.006	97	28602	5.00	5.99	
114 4-Isopropyltoluene	119	12.662	12.655	0.007	98	51205	5.00	5.66	
115 1,4-Dichlorobenzene	146	12.716	12.710	0.006	98	27681	5.00	5.76	
116 2,4-Dichloro-1-(triflourom	214	12.765	12.764	0.001	93	11024	5.00	5.61	
118 2,5-Dichlorobenzotrifluori	214	12.814	12.813	0.001	95	11088	5.00	5.17	
120 n-Butylbenzene	91	13.063	13.069	-0.006	99	44994	5.00	5.60	
121 1,2-Dichlorobenzene	146	13.087	13.087	0.000	97	25288	5.00	5.79	
122 1,2-Dibromo-3-Chloropropan	75	13.854	13.866	-0.012	89	1174	5.00	4.08	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.012	-0.006	99	47582	15.0	16.0	M
125 2,3- & 3,4- Dichlorotoluen	125	14.432	14.431	0.001	98	32193	10.0	10.9	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	96	11994	5.00	5.49	
127 Hexachlorobutadiene	225	14.864	14.869	-0.005	93	5277	5.00	5.66	
128 Naphthalene	128	14.943	14.942	0.001	99	34798	5.00	5.49	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	95	10498	5.00	5.61	
131 2,4,5-Trichlorotoluene	159	15.965	15.970	-0.005	93	5832	5.00	6.16	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	93	5388	5.00	6.17	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	11.5	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.2	
S 135 1,3-Dichloropropene, Total	1				0		10.0	8.48	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00031	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00102	Amount Added:	0.20	Units: uL	
voaWEEpri Res_00003	Amount Added:	0.20	Units: uL	
voaWKetpri Re_00003	Amount Added:	0.80	Units: uL	
VOAVAPRI_00003	Amount Added:	0.20	Units: uL	
VOAACRPRI_00003	Amount Added:	4.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent

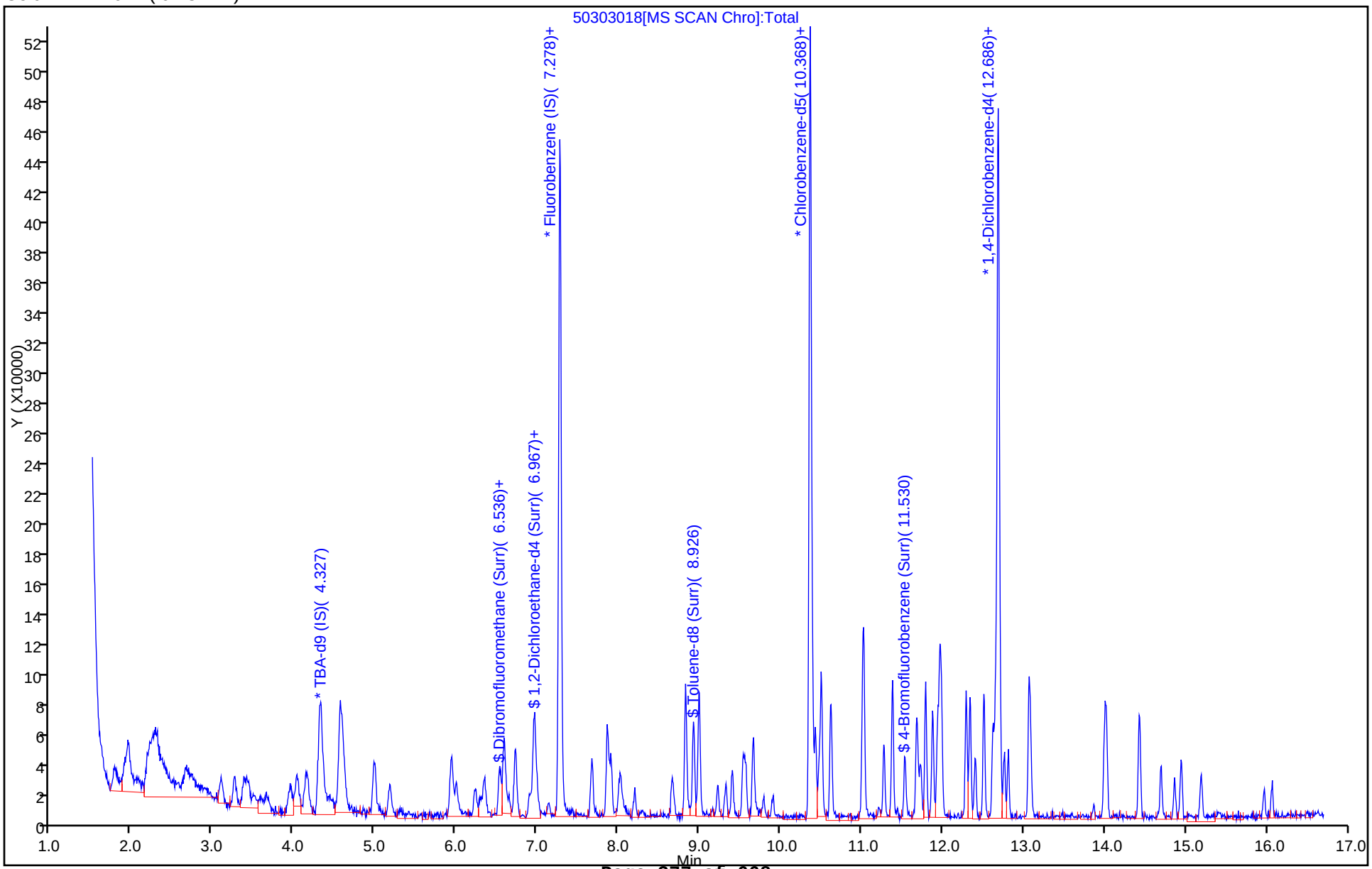
Report Date: 04-Mar-2015 10:13:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Injection Date:	03-Mar-2015 18:29:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	18
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

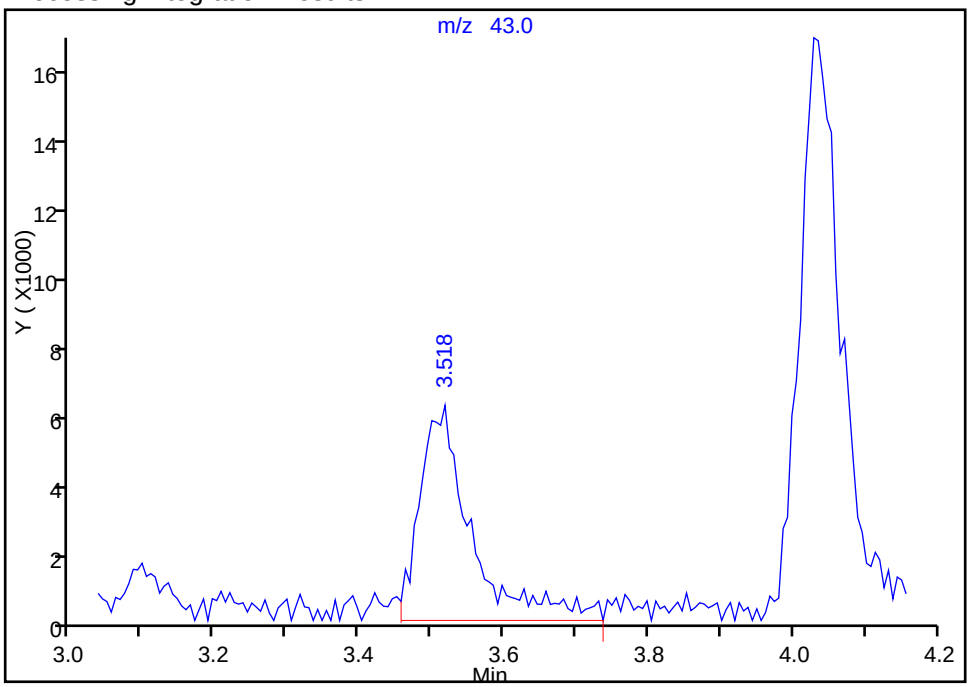
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D
Injection Date: 03-Mar-2015 18:29:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

24 Acetone, CAS: 67-64-1

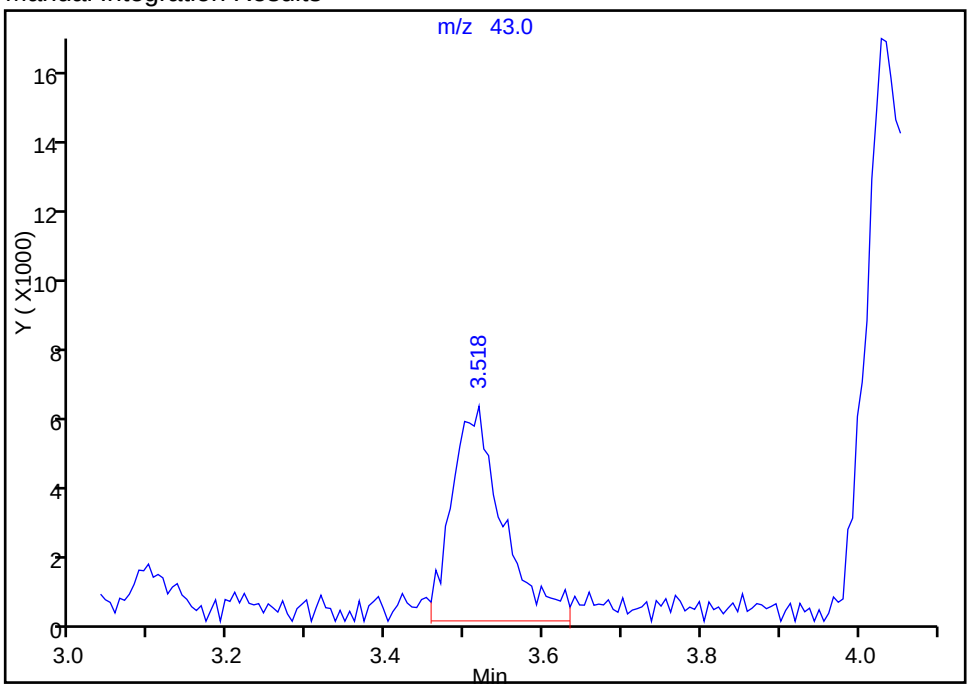
Processing Integration Results

RT: 3.52
Area: 30678
Amount: 34.064759
Amount Units: ng



Manual Integration Results

RT: 3.52
Area: 27756
Amount: 30.284284
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:45:02
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

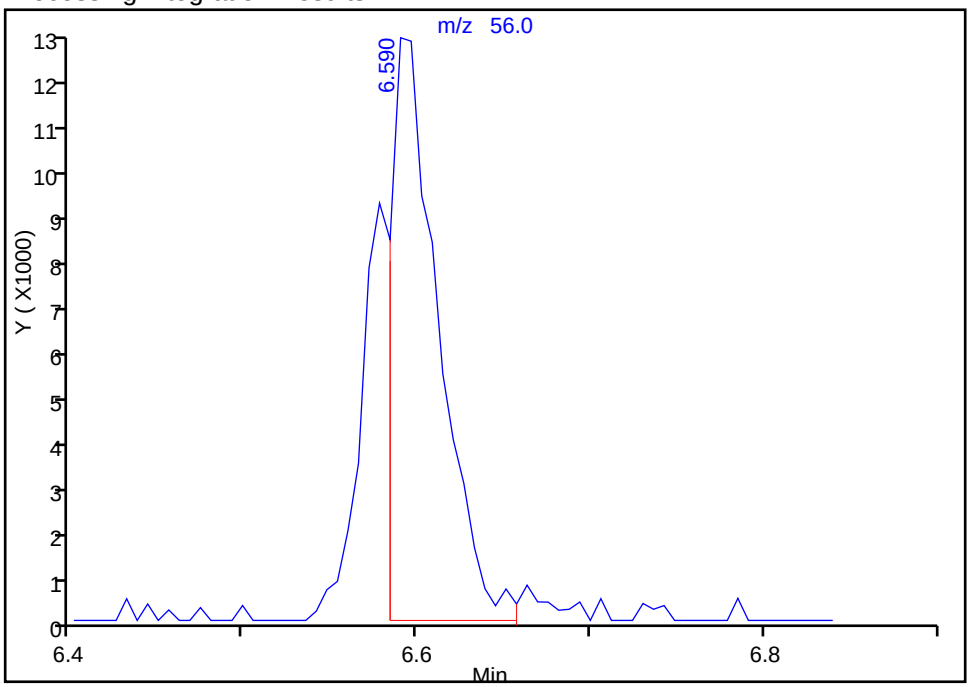
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D				
Injection Date:	03-Mar-2015 18:29:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

54 Cyclohexane, CAS: 110-82-7

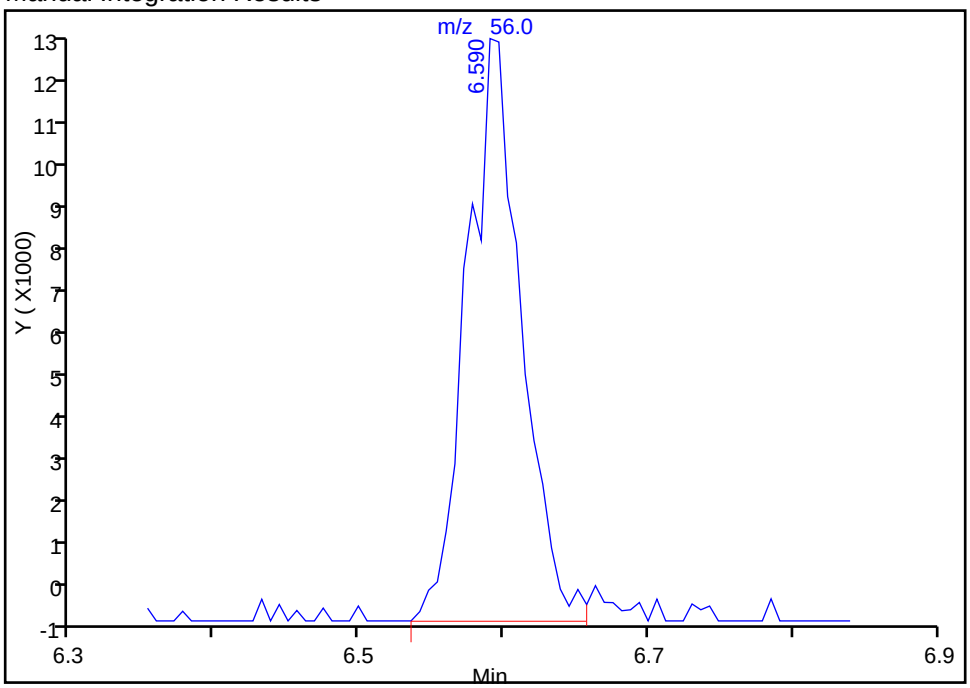
Processing Integration Results

RT: 6.59
Area: 24266
Amount: 3.949469
Amount Units: ng



Manual Integration Results

RT: 6.59
Area: 32962
Amount: 5.357794
Amount Units: ng



Reviewer: fergusond, 04-Mar-2015 09:45:02
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCVIS 180-135049/2 Calibration Date: 03/09/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50309002.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	0.2512	0.2591	0.1000	10.3	10.0	3.1	20.0
Chloromethane	Ave	0.4015	0.4015	0.1000	10.0	10.0	0.0	20.0
Vinyl chloride	Ave	0.3859	0.3994	0.1000	10.3	10.0	3.5	20.0
Bromomethane	Lin2		0.1474	0.0500	12.9	10.0	29.1*	20.0
Chloroethane	Ave	0.1570	0.2083	0.0500	13.3	10.0	32.7*	20.0
Dichlorofluoromethane	Ave	0.3598	0.4870	0.0100	13.5	10.0	35.3*	20.0
Trichlorofluoromethane	Ave	0.3005	0.3921	0.1000	13.0	10.0	30.5*	20.0
Ethyl ether	Ave	0.2900	0.2581	0.0100	8.90	10.0	-11.0	20.0
Acrolein	Ave	0.0383	0.0322	0.0100	25.2	30.0	-15.9	20.0
1,1-Dichloroethene	Ave	0.2911	0.3102	0.1000	10.7	10.0	6.6	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2943	0.3058	0.1000	10.4	10.0	3.9	20.0
Acetone	Ave	0.1050	0.1051	0.0500	20.0	20.0	0.1	20.0
Iodomethane	Ave	0.4096	0.4306	0.0100	10.5	10.0	5.1	20.0
Carbon disulfide	Ave	0.7166	0.7584	0.1000	10.6	10.0	5.8	20.0
Allyl chloride	Ave	0.1818	0.1448	0.0100	7.96	10.0	-20.4*	20.0
Methyl acetate	Ave	0.2888	0.2653	0.1000	45.9	50.0	-8.1	20.0
Methylene Chloride	Lin2		0.3129	0.1000	9.61	10.0	-3.9	20.0
tert-Butyl alcohol	Ave	1.198	1.201	0.0100	100	100	0.2	20.0
Acrylonitrile	Ave	0.1432	0.1389	0.0100	97.0	100	-3.0	20.0
trans-1,2-Dichloroethene	Ave	0.3044	0.2984	0.1000	9.80	10.0	-2.0	20.0
Methyl tert-butyl ether	Ave	0.7605	0.5927	0.1000	7.79	10.0	-22.1*	20.0
Hexane	Ave	0.5404	0.5092	0.0100	9.42	10.0	-5.8	20.0
1,1-Dichloroethane	Ave	0.5802	0.5467	0.2000	9.42	10.0	-5.8	20.0
Vinyl acetate	Ave	0.1982	0.1948	0.0100	9.83	10.0	-1.7	20.0
2,2-Dichloropropane	Ave	0.2148	0.1169	0.0100	5.44	10.0	-45.6*	20.0
cis-1,2-Dichloroethene	Ave	0.3255	0.3148	0.1000	9.67	10.0	-3.3	20.0
2-Butanone (MEK)	Ave	0.1711	0.1673	0.0500	19.6	20.0	-2.2	20.0
Bromochloromethane	Ave	0.1357	0.1366	0.0100	10.1	10.0	0.7	20.0
Tetrahydrofuran	Ave	0.1218	0.1172	0.0100	19.3	20.0	-3.7	20.0
Chloroform	Ave	0.4624	0.4535	0.2000	9.81	10.0	-1.9	20.0
1,1,1-Trichloroethane	Ave	0.3141	0.2667	0.1000	8.49	10.0	-15.1	20.0
Cyclohexane	Ave	0.7049	0.6868	0.1000	9.74	10.0	-2.6	20.0
Carbon tetrachloride	Ave	0.2130	0.2159	0.1000	10.1	10.0	1.4	20.0
1,1-Dichloropropene	Ave	0.4007	0.3905	0.0100	9.74	10.0	-2.6	20.0
Isobutyl alcohol	Ave	0.0069	0.0055*	0.0100	198	250	-20.7*	20.0
Benzene	Ave	1.263	1.242	0.5000	9.83	10.0	-1.7	20.0
1,2-Dichloroethane	Ave	0.3648	0.3747	0.1000	10.3	10.0	2.7	20.0
n-Heptane	Ave	0.4910	0.4716	0.0100	9.60	10.0	-4.0	20.0
Trichloroethene	Ave	0.2974	0.3058	0.2000	10.3	10.0	2.8	20.0
Methylcyclohexane	Ave	0.5619	0.5438	0.1000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCVIS 180-135049/2 Calibration Date: 03/09/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50309002.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	0.3317	0.3128	0.1000	9.43	10.0	-5.7	20.0
Dibromomethane	Ave	0.1498	0.1501	0.0100	10.0	10.0	0.2	20.0
1,4-Dioxane	Ave	0.0030	0.0029*	0.0100	193	200	-3.6	20.0
Bromodichloromethane	Ave	0.2792	0.2811	0.2000	10.1	10.0	0.7	20.0
cis-1,3-Dichloropropene	Ave	0.3698	0.2652	0.2000	7.17	10.0	-28.3*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.510	1.469	0.1000	19.5	20.0	-2.7	20.0
Toluene	Ave	5.161	5.468	0.4000	10.6	10.0	6.0	20.0
trans-1,3-Dichloropropene	Ave	1.088	0.7458	0.1000	6.85	10.0	-31.5*	20.0
Ethyl methacrylate	Ave	1.224	0.8964	0.0100	7.33	10.0	-26.7*	20.0
1,1,2-Trichloroethane	Ave	0.9428	0.9889	0.1000	10.5	10.0	4.9	20.0
Tetrachloroethene	Ave	0.9523	1.054	0.2000	11.1	10.0	10.7	20.0
1,3-Dichloropropane	Ave	1.772	1.800	0.0100	10.2	10.0	1.6	20.0
2-Hexanone	Ave	1.054	1.041	0.1000	19.8	20.0	-1.2	20.0
Dibromochloromethane	Ave	0.6200	0.7056	0.1000	11.4	10.0	13.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.9079	0.9024	0.1000	9.94	10.0	-0.6	20.0
3-Chlorobenzotrifluoride	Ave	1.583	1.797	0.0100	11.4	10.0	13.5	20.0
Chlorobenzene	Ave	3.305	3.468	0.5000	10.5	10.0	4.9	20.0
4-Chlorobenzotrifluoride	Ave	1.513	1.700	0.0100	11.2	10.0	12.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7622	0.7552	0.0100	9.91	10.0	-0.9	20.0
Ethylbenzene	Ave	1.911	2.065	0.1000	10.8	10.0	8.1	20.0
m-Xylene & p-Xylene	Ave	2.354	2.572	0.1000	10.9	10.0	9.2	20.0
o-Xylene	Ave	2.285	2.428	0.3000	10.6	10.0	6.3	20.0
Styrene	Ave	3.735	3.979	0.3000	10.7	10.0	6.6	20.0
Bromoform	Ave	0.3275	0.4054	0.1000	12.4	10.0	23.8*	20.0
2-Chlorobenzotrifluoride	Ave	1.569	1.758	0.0100	11.2	10.0	12.0	20.0
Isopropylbenzene	Ave	5.608	6.261	0.1000	11.2	10.0	11.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.307	1.396	0.3000	10.7	10.0	6.8	20.0
Bromobenzene	Ave	0.8735	0.9489	0.0100	10.9	10.0	8.6	20.0
1,2,3-Trichloropropane	Ave	0.2927	0.2935	0.0100	10.0	10.0	0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2844	0.2107	0.0100	7.41	10.0	-25.9*	20.0
N-Propylbenzene	Ave	1.160	1.239	0.0100	10.7	10.0	6.8	20.0
2-Chlorotoluene	Ave	0.9582	0.9647	0.0100	10.1	10.0	0.7	20.0
3-Chlorotoluene	Ave	0.9794	0.9885	0.0100	10.1	10.0	0.9	20.0
1,3,5-Trimethylbenzene	Ave	3.211	3.404	0.0100	10.6	10.0	6.0	20.0
4-Chlorotoluene	Ave	1.034	1.085	0.0100	10.5	10.0	4.9	20.0
tert-Butylbenzene	Ave	2.771	2.893	0.0100	10.4	10.0	4.4	20.0
1,2,4-Trimethylbenzene	Ave	3.314	3.458	0.0100	10.4	10.0	4.4	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7482	0.8804	0.0100	11.8	10.0	17.7	20.0
sec-Butylbenzene	Ave	3.989	4.261	0.0100	10.7	10.0	6.8	20.0
1,3-Dichlorobenzene	Ave	1.726	1.804	0.6000	10.5	10.0	4.5	20.0
4-Isopropyltoluene	Ave	3.269	3.511	0.0100	10.7	10.0	7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCVIS 180-135049/2 Calibration Date: 03/09/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50309002.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
1,4-Dichlorobenzene	Ave	1.737	1.811	0.5000	10.4	10.0	4.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7111	0.7960	0.0100	11.2	10.0	11.9	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7753	0.9373	0.0100	12.1	10.0	20.9*	20.0
n-Butylbenzene	Ave	2.906	3.053	0.0100	10.5	10.0	5.0	20.0
1,2-Dichlorobenzene	Ave	1.579	1.635	0.4000	10.4	10.0	3.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1040	0.0824	0.0500	7.92	10.0	-20.8*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.078	1.067	0.0100	29.7	30.0	-1.0	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.066	1.001	0.0100	18.8	20.0	-6.1	20.0
1,2,4-Trichlorobenzene	Ave	0.7897	0.7373	0.2000	9.34	10.0	-6.6	20.0
Hexachlorobutadiene	Ave	0.3373	0.3683	0.0100	10.9	10.0	9.2	20.0
Naphthalene	Ave	2.291	2.029	0.0100	8.86	10.0	-11.4	20.0
1,2,3-Trichlorobenzene	Ave	0.6771	0.6084	0.0100	8.98	10.0	-10.2	20.0
2,4,5-Trichlorotoluene	Ave	0.3426	0.2656	0.0100	7.75	10.0	-22.5*	20.0
2,3,6-Trichlorotoluene	Ave	0.3158	0.2589	0.0100	8.20	10.0	-18.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2141	0.2172		10.1	10.0	1.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2646	0.2603		9.84	10.0	-1.6	20.0
Toluene-d8 (Surr)	Ave	3.897	4.054		10.4	10.0	4.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.450	1.426		9.83	10.0	-1.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 09-Mar-2015 11:37:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005947-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 15:52:39 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

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

First Level Reviewer: fergusond Date: 09-Mar-2015 12:10:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.327	0.000	93	104748	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	419520	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.362	0.000	99	96744	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	140304	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	90	91122	50.0	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.906	0.000	97	109201	50.0	49.2	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	392235	50.0	52.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.530	0.000	97	137934	50.0	49.2	
11 Dichlorodifluoromethane	85	1.620	1.620	0.000	100	108682	50.0	51.6	
12 Chloromethane	50	1.778	1.778	0.000	100	168450	50.0	50.0	
13 Vinyl chloride	62	1.912	1.912	0.000	100	167564	50.0	51.7	
14 Butadiene	39	1.954	1.954	0.000	99	209408	50.0	55.8	
15 Bromomethane	94	2.252	2.252	0.000	90	61853	50.0	64.5	
16 Chloroethane	64	2.386	2.386	0.000	98	87399	50.0	66.4	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	99	204325	50.0	67.7	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	99	164496	50.0	65.2	
20 Ethyl ether	59	3.086	3.086	0.000	98	108269	50.0	44.5	
21 Acrolein	56	3.256	3.256	0.000	99	40556	150.0	126.2	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	100	130144	50.0	53.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.445	3.445	0.000	97	128270	50.0	52.0	
24 Acetone	43	3.499	3.499	0.000	99	88215	100.0	100.1	
25 Iodomethane	142	3.579	3.579	0.000	96	180650	50.0	52.6	
26 Carbon disulfide	76	3.658	3.658	0.000	100	318150	50.0	52.9	
28 3-Chloro-1-propene	76	3.944	3.944	0.000	99	60758	50.0	39.8	
30 Methyl acetate	43	4.023	4.023	0.000	100	556516	250.0	229.7	
31 Methylene Chloride	84	4.150	4.150	0.000	99	131253	50.0	48.1	
32 2-Methyl-2-propanol	59	4.436	4.436	0.000	89	62912	500.0	501.2	
33 Acrylonitrile	53	4.552	4.552	0.000	99	582733	500.0	485.1	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	95	125165	50.0	49.0	
35 Methyl tert-butyl ether	73	4.601	4.601	0.000	94	248651	50.0	39.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	99	213620	50.0	47.1	
37 1,1-Dichloroethane	63	5.172	5.172	0.000	99	229347	50.0	47.1	
38 Vinyl acetate	43	5.294	5.294	0.000	100	81737	50.0	49.1	
44 2,2-Dichloropropane	77	5.933	5.933	0.000	84	49054	50.0	27.2	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	93	132073	50.0	48.4	
46 2-Butanone (MEK)	43	5.988	5.988	0.000	100	140362	100.0	97.8	
49 Chlorobromomethane	128	6.231	6.231	0.000	98	57285	50.0	50.3	
51 Tetrahydrofuran	42	6.292	6.292	0.000	99	98348	100.0	96.3	
52 Chloroform	83	6.340	6.340	0.000	96	190253	50.0	49.0	
53 1,1,1-Trichloroethane	97	6.529	6.529	0.000	90	111888	50.0	42.5	
54 Cyclohexane	56	6.590	6.590	0.000	97	288136	50.0	48.7	
56 Carbon tetrachloride	117	6.718	6.718	0.000	69	90586	50.0	50.7	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	97	163809	50.0	48.7	
57 Isobutyl alcohol	41	6.949	6.949	0.000	34	57110	1250.0	991.8	
58 Benzene	78	6.955	6.955	0.000	99	520970	50.0	49.2	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	99	157207	50.0	51.4	
62 n-Heptane	43	7.283	7.283	0.000	83	197831	50.0	48.0	
64 Trichloroethene	130	7.667	7.667	0.000	99	128291	50.0	51.4	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	228144	50.0	48.4	
67 1,2-Dichloropropane	63	7.904	7.904	0.000	97	131220	50.0	47.2	
68 Dibromomethane	93	8.026	8.026	0.000	96	62956	50.0	50.1	
70 1,4-Dioxane	88	8.062	8.062	0.000	97	23904	1000.0	963.6	
71 Dichlorobromomethane	83	8.202	8.202	0.000	99	117939	50.0	50.3	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	97	111244	50.0	35.8	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.822	0.000	99	284293	100.0	97.3	
76 Toluene	91	8.993	8.993	0.000	100	528987	50.0	53.0	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	97	72156	50.0	34.3	
78 Ethyl methacrylate	69	9.321	9.321	0.000	98	86717	50.0	36.6	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	95674	50.0	52.4	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	101959	50.0	55.3	
81 1,3-Dichloropropane	76	9.565	9.565	0.000	99	174162	50.0	50.8	
82 2-Hexanone	43	9.656	9.656	0.000	99	201449	100.0	98.8	
84 Chlorodibromomethane	129	9.790	9.790	0.000	99	68258	50.0	56.9	
85 Ethylene Dibromide	107	9.899	9.899	0.000	99	87299	50.0	49.7	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	92	173863	50.0	56.8	
87 Chlorobenzene	112	10.392	10.392	0.000	100	335556	50.0	52.5	
88 4-Chlorobenzotrifluoride	180	10.429	10.429	0.000	99	164501	50.0	56.2	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	95	73059	50.0	49.5	
90 Ethylbenzene	106	10.502	10.502	0.000	100	199775	50.0	54.0	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	248786	50.0	54.6	
92 o-Xylene	106	11.013	11.013	0.000	97	234899	50.0	53.1	
93 Styrene	104	11.025	11.025	0.000	97	384981	50.0	53.3	
94 Bromoform	173	11.207	11.207	0.000	97	39224	50.0	61.9	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	170058	50.0	56.0	
97 Isopropylbenzene	105	11.378	11.378	0.000	100	605679	50.0	55.8	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.676	0.000	98	135062	50.0	53.4	
100 Bromobenzene	156	11.682	11.682	0.000	98	133127	50.0	54.3	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	94	41176	50.0	50.1	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	83	29558	50.0	37.0	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	173888	50.0	53.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	135354	50.0	50.3	
105 3-Chlorotoluene	126	11.937	11.937	0.000	100	138695	50.0	50.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.962	11.962	0.000	99	477611	50.0	53.0	
107 4-Chlorotoluene	126	11.980	11.980	0.000	94	152237	50.0	52.5	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	405842	50.0	52.2	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	100	485212	50.0	52.2	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	98	123523	50.0	58.8	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	597832	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.619	12.619	0.000	99	253175	50.0	52.3	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	492545	50.0	53.7	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	98	254028	50.0	52.1	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	94	111686	50.0	56.0	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	98	131504	50.0	60.4	
120 n-Butylbenzene	91	13.063	13.063	0.000	100	428323	50.0	52.5	
121 1,2-Dichlorobenzene	146	13.081	13.081	0.000	99	229346	50.0	51.8	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.866	0.000	92	11557	50.0	39.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.012	14.012	0.000	100	449267	150.0	148.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.431	14.431	0.000	99	281015	100.0	93.9	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	99	103449	50.0	46.7	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	94	51677	50.0	54.6	
128 Naphthalene	128	14.942	14.942	0.000	100	284676	50.0	44.3	
129 1,2,3-Trichlorobenzene	180	15.192	15.192	0.000	98	85354	50.0	44.9	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	37262	50.0	38.8	
130 2,3,6-Trichlorotoluene	159	16.062	16.062	0.000	98	36319	50.0	41.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	107.8	
S 134 1,2-Dichloroethene, Total	96				0		100.0	97.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	70.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00104	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL	
VOAVAPRI_00003	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOAACRPRI_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

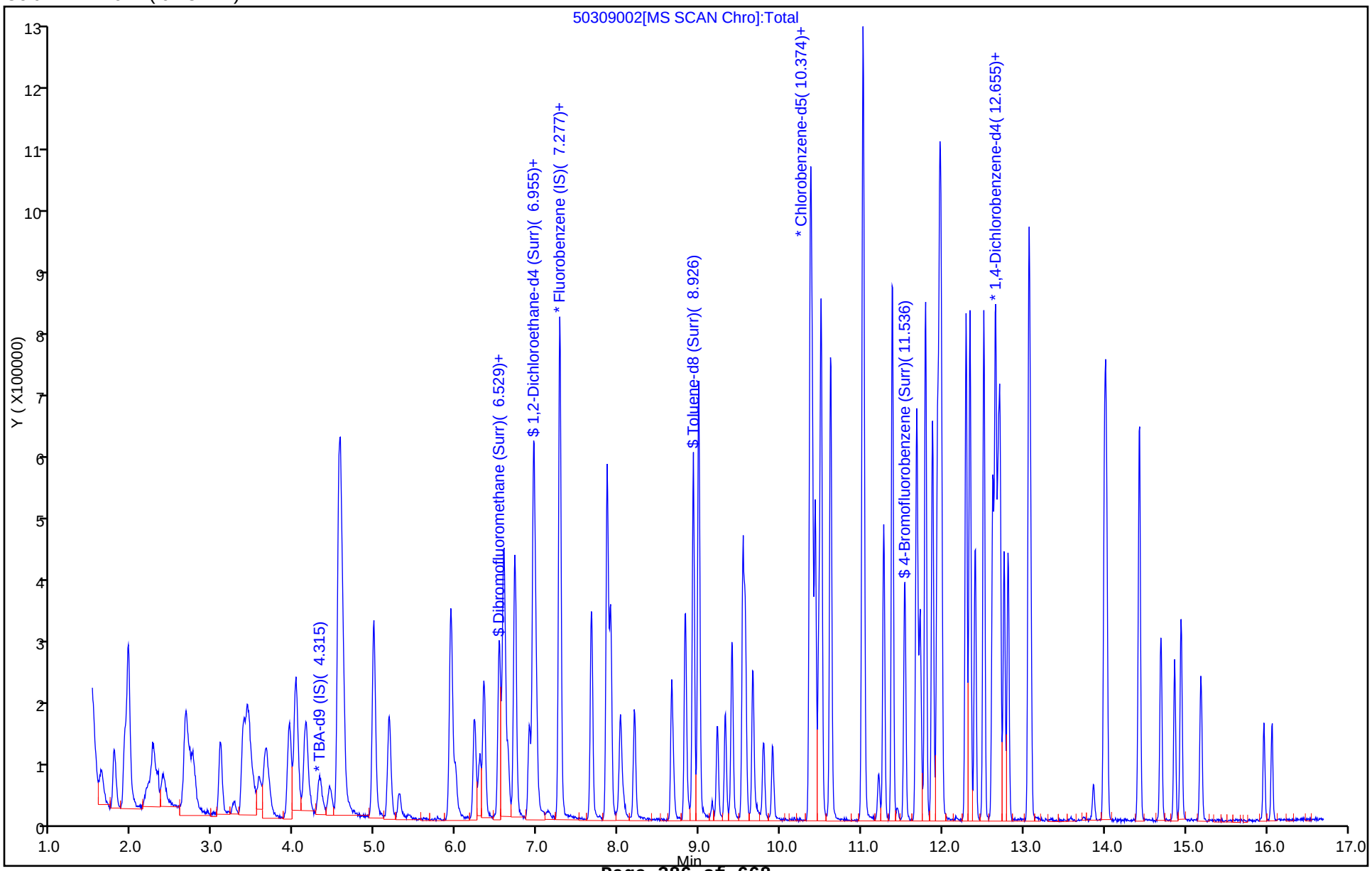
Report Date: 09-Mar-2015 15:52:40 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309002.D

Injection Date:	09-Mar-2015 11:37:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCVIS 180-135153/2 Calibration Date: 03/10/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50310002.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	0.2512	0.2616	0.1000	10.4	10.0	4.1	20.0
Chloromethane	Ave	0.4015	0.4050	0.1000	10.1	10.0	0.8	20.0
Vinyl chloride	Ave	0.3859	0.4058	0.1000	10.5	10.0	5.2	20.0
Bromomethane	Lin2		0.1589	0.0500	14.0	10.0	39.9*	20.0
Chloroethane	Ave	0.1570	0.2145	0.0500	13.7	10.0	36.6*	20.0
Dichlorofluoromethane	Ave	0.3598	0.5000	0.0100	13.9	10.0	38.9*	20.0
Trichlorofluoromethane	Ave	0.3005	0.4493	0.1000	15.0	10.0	49.5*	20.0
Ethyl ether	Ave	0.2900	0.2813	0.0100	9.70	10.0	-3.0	20.0
Acrolein	Ave	0.0383	0.0337	0.0100	26.4	30.0	-12.1	20.0
1,1-Dichloroethene	Ave	0.2911	0.2964	0.1000	10.2	10.0	1.8	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2943	0.3183	0.1000	10.8	10.0	8.1	20.0
Acetone	Ave	0.1050	0.1443	0.0500	27.5	20.0	37.5*	20.0
Iodomethane	Ave	0.4096	0.4181	0.0100	10.2	10.0	2.1	20.0
Carbon disulfide	Ave	0.7166	0.7643	0.1000	10.7	10.0	6.7	20.0
Allyl chloride	Ave	0.1818	0.1362	0.0100	7.49	10.0	-25.1*	20.0
Methyl acetate	Ave	0.2888	0.2645	0.1000	45.8	50.0	-8.4	20.0
Methylene Chloride	Lin2		0.3302	0.1000	10.2	10.0	1.9	20.0
tert-Butyl alcohol	Ave	1.198	1.183	0.0100	98.7	100	-1.3	20.0
Acrylonitrile	Ave	0.1432	0.1369	0.0100	95.6	100	-4.4	20.0
trans-1,2-Dichloroethene	Ave	0.3044	0.3056	0.1000	10.0	10.0	0.4	20.0
Methyl tert-butyl ether	Ave	0.7605	0.5065	0.1000	6.66	10.0	-33.4*	20.0
Hexane	Ave	0.5404	0.5240	0.0100	9.70	10.0	-3.0	20.0
1,1-Dichloroethane	Ave	0.5802	0.5476	0.2000	9.44	10.0	-5.6	20.0
Vinyl acetate	Ave	0.1982	0.1093	0.0100	5.51	10.0	-44.9*	20.0
2,2-Dichloropropane	Ave	0.2148	0.0960	0.0100	4.47	10.0	-55.3*	20.0
cis-1,2-Dichloroethene	Ave	0.3255	0.3298	0.1000	10.1	10.0	1.3	20.0
2-Butanone (MEK)	Ave	0.1711	0.1867	0.0500	21.8	20.0	9.1	20.0
Bromochloromethane	Ave	0.1357	0.1345	0.0100	9.91	10.0	-0.9	20.0
Tetrahydrofuran	Ave	0.1218	0.1126	0.0100	18.5	20.0	-7.6	20.0
Chloroform	Ave	0.4624	0.4686	0.2000	10.1	10.0	1.3	20.0
1,1,1-Trichloroethane	Ave	0.3141	0.2620	0.1000	8.34	10.0	-16.6	20.0
Cyclohexane	Ave	0.7049	0.7147	0.1000	10.1	10.0	1.4	20.0
1,1-Dichloropropene	Ave	0.4007	0.4031	0.0100	10.1	10.0	0.6	20.0
Carbon tetrachloride	Ave	0.2130	0.2198	0.1000	10.3	10.0	3.2	20.0
Isobutyl alcohol	Ave	0.0069	0.0043*	0.0100	155	250	-37.8*	20.0
Benzene	Ave	1.263	1.284	0.5000	10.2	10.0	1.7	20.0
1,2-Dichloroethane	Ave	0.3648	0.3795	0.1000	10.4	10.0	4.0	20.0
n-Heptane	Ave	0.4910	0.4697	0.0100	9.57	10.0	-4.3	20.0
Trichloroethene	Ave	0.2974	0.2929	0.2000	9.85	10.0	-1.5	20.0
Methylcyclohexane	Ave	0.5619	0.5710	0.1000	10.2	10.0	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCVIS 180-135153/2 Calibration Date: 03/10/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50310002.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	0.3317	0.2929	0.1000	8.83	10.0	-11.7	20.0
Dibromomethane	Ave	0.1498	0.1524	0.0100	10.2	10.0	1.8	20.0
1,4-Dioxane	Ave	0.0030	0.0027*	0.0100	185	200	-7.4	20.0
Bromodichloromethane	Ave	0.2792	0.2804	0.2000	10.0	10.0	0.4	20.0
cis-1,3-Dichloropropene	Ave	0.3698	0.2433	0.2000	6.58	10.0	-34.2*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.510	1.419	0.1000	18.8	20.0	-6.0	20.0
Toluene	Ave	5.161	5.756	0.4000	11.2	10.0	11.5	20.0
trans-1,3-Dichloropropene	Ave	1.088	0.6168	0.1000	5.67	10.0	-43.3*	20.0
Ethyl methacrylate	Ave	1.224	0.8216	0.0100	6.71	10.0	-32.9*	20.0
1,1,2-Trichloroethane	Ave	0.9428	0.9658	0.1000	10.2	10.0	2.4	20.0
Tetrachloroethene	Ave	0.9523	1.091	0.2000	11.5	10.0	14.5	20.0
1,3-Dichloropropane	Ave	1.772	1.797	0.0100	10.1	10.0	1.4	20.0
2-Hexanone	Ave	1.054	1.076	0.1000	20.4	20.0	2.1	20.0
Dibromochloromethane	Ave	0.6200	0.6974	0.1000	11.2	10.0	12.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9079	0.8732	0.1000	9.62	10.0	-3.8	20.0
3-Chlorobenzotrifluoride	Ave	1.583	1.838	0.0100	11.6	10.0	16.1	20.0
Chlorobenzene	Ave	3.305	3.637	0.5000	11.0	10.0	10.0	20.0
4-Chlorobenzotrifluoride	Ave	1.513	1.664	0.0100	11.0	10.0	10.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.7622	0.7655	0.0100	10.0	10.0	0.4	20.0
Ethylbenzene	Ave	1.911	2.116	0.1000	11.1	10.0	10.7	20.0
m-Xylene & p-Xylene	Ave	2.354	2.558	0.1000	10.9	10.0	8.7	20.0
o-Xylene	Ave	2.285	2.481	0.3000	10.9	10.0	8.6	20.0
Styrene	Ave	3.735	4.123	0.3000	11.0	10.0	10.4	20.0
Bromoform	Ave	0.3275	0.3746	0.1000	11.4	10.0	14.4	20.0
2-Chlorobenzotrifluoride	Ave	1.569	1.720	0.0100	11.0	10.0	9.6	20.0
Isopropylbenzene	Ave	5.608	6.575	0.1000	11.7	10.0	17.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.307	1.432	0.3000	11.0	10.0	9.6	20.0
Bromobenzene	Ave	0.8735	0.9189	0.0100	10.5	10.0	5.2	20.0
1,2,3-Trichloropropane	Ave	0.2927	0.2887	0.0100	9.86	10.0	-1.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2844	0.2334	0.0100	8.21	10.0	-17.9	20.0
N-Propylbenzene	Ave	1.160	1.229	0.0100	10.6	10.0	5.9	20.0
2-Chlorotoluene	Ave	0.9582	0.9715	0.0100	10.1	10.0	1.4	20.0
3-Chlorotoluene	Ave	0.9794	1.013	0.0100	10.3	10.0	3.4	20.0
1,3,5-Trimethylbenzene	Ave	3.211	3.428	0.0100	10.7	10.0	6.8	20.0
4-Chlorotoluene	Ave	1.034	1.036	0.0100	10.0	10.0	0.1	20.0
tert-Butylbenzene	Ave	2.771	2.904	0.0100	10.5	10.0	4.8	20.0
1,2,4-Trimethylbenzene	Ave	3.314	3.515	0.0100	10.6	10.0	6.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7482	0.8449	0.0100	11.3	10.0	12.9	20.0
sec-Butylbenzene	Ave	3.989	4.362	0.0100	10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.726	1.789	0.6000	10.4	10.0	3.6	20.0
4-Isopropyltoluene	Ave	3.269	3.538	0.0100	10.8	10.0	8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCVIS 180-135153/2 Calibration Date: 03/10/2015 11:37

Instrument ID: CHHP5 Calib Start Date: 03/03/2015 14:28

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 18:29

Lab File ID: 50310002.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
1,4-Dichlorobenzene	Ave	1.737	1.830	0.5000	10.5	10.0	5.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7111	0.8080	0.0100	11.4	10.0	13.6	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7753	0.9313	0.0100	12.0	10.0	20.1*	20.0
n-Butylbenzene	Ave	2.906	3.175	0.0100	10.9	10.0	9.2	20.0
1,2-Dichlorobenzene	Ave	1.579	1.672	0.4000	10.6	10.0	5.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1040	0.0887	0.0500	8.53	10.0	-14.7	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.078	1.124	0.0100	31.3	30.0	4.2	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.066	1.077	0.0100	20.2	20.0	1.0	20.0
1,2,4-Trichlorobenzene	Ave	0.7897	0.8382	0.2000	10.6	10.0	6.1	20.0
Hexachlorobutadiene	Ave	0.3373	0.4115	0.0100	12.2	10.0	22.0*	20.0
Naphthalene	Ave	2.291	2.265	0.0100	9.88	10.0	-1.2	20.0
1,2,3-Trichlorobenzene	Ave	0.6771	0.6869	0.0100	10.1	10.0	1.4	20.0
2,4,5-Trichlorotoluene	Ave	0.3426	0.3299	0.0100	9.63	10.0	-3.7	20.0
2,3,6-Trichlorotoluene	Ave	0.3158	0.3135	0.0100	9.93	10.0	-0.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2141	0.2142		10.0	10.0	0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2646	0.2565		9.70	10.0	-3.0	20.0
Toluene-d8 (Surr)	Ave	3.897	4.097		10.5	10.0	5.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.450	1.386		9.56	10.0	-4.4	20.0

Report Date: 11-Mar-2015 07:20:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 10-Mar-2015 11:37:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0005958-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:20:56 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 10-Mar-2015 12:18:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.296	4.296	0.000	85	68961	1000.0	1000.0	s
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	383152	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.367	0.000	99	86796	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	97	130106	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	88	82077	50.0	50.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	99	98279	50.0	48.5	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	355628	50.0	52.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	94	120296	50.0	47.8	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	99	100221	50.0	52.1	
12 Chloromethane	50	1.771	1.771	0.000	100	155159	50.0	50.4	
13 Vinyl chloride	62	1.899	1.899	0.000	100	155500	50.0	52.6	
14 Butadiene	39	1.948	1.948	0.000	99	188682	50.0	55.0	
15 Bromomethane	94	2.252	2.252	0.000	93	60865	50.0	69.9	
16 Chloroethane	64	2.374	2.374	0.000	96	82179	50.0	68.3	
17 Dichlorofluoromethane	67	2.641	2.641	0.000	99	191557	50.0	69.5	
18 Trichlorofluoromethane	101	2.684	2.684	0.000	97	172166	50.0	74.8	
20 Ethyl ether	59	3.073	3.073	0.000	99	107764	50.0	48.5	
21 Acrolein	56	3.250	3.250	0.000	97	38683	150.0	131.8	
22 1,1-Dichloroethene	96	3.371	3.371	0.000	99	113578	50.0	50.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	98	121938	50.0	54.1	
24 Acetone	43	3.493	3.493	0.000	99	110609	100.0	137.5	
25 Iodomethane	142	3.566	3.566	0.000	99	160201	50.0	51.0	
26 Carbon disulfide	76	3.651	3.651	0.000	100	292825	50.0	53.3	
28 3-Chloro-1-propene	76	3.925	3.925	0.000	99	52201	50.0	37.5	
30 Methyl acetate	43	4.016	4.016	0.000	100	506638	250.0	228.9	
31 Methylene Chloride	84	4.126	4.126	0.000	99	126531	50.0	50.9	
32 2-Methyl-2-propanol	59	4.436	4.436	0.000	84	40792	500.0	493.6	
33 Acrylonitrile	53	4.545	4.545	0.000	99	524694	500.0	478.2	
34 trans-1,2-Dichloroethene	96	4.552	4.552	0.000	54	117105	50.0	50.2	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	89	194055	50.0	33.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.977	4.977	0.000	98	200786	50.0	48.5	
37 1,1-Dichloroethane	63	5.166	5.166	0.000	100	209820	50.0	47.2	
38 Vinyl acetate	43	5.294	5.294	0.000	100	41883	50.0	27.6	
44 2,2-Dichloropropane	77	5.926	5.926	0.000	59	36792	50.0	22.4	
45 cis-1,2-Dichloroethene	96	5.933	5.933	0.000	91	126358	50.0	50.7	
46 2-Butanone (MEK)	43	5.981	5.981	0.000	100	143045	100.0	109.1	
49 Chlorobromomethane	128	6.218	6.218	0.000	98	51514	50.0	49.6	
51 Tetrahydrofuran	42	6.285	6.285	0.000	97	86255	100.0	92.4	
52 Chloroform	83	6.340	6.340	0.000	96	179542	50.0	50.7	
53 1,1,1-Trichloroethane	97	6.523	6.523	0.000	89	100400	50.0	41.7	
54 Cyclohexane	56	6.577	6.577	0.000	98	273840	50.0	50.7	
56 Carbon tetrachloride	117	6.717	6.717	0.000	67	84208	50.0	51.6	
55 1,1-Dichloropropene	75	6.717	6.717	0.000	95	154453	50.0	50.3	
57 Isobutyl alcohol	41	6.948	6.948	0.000	34	40871	1250.0	777.2	
58 Benzene	78	6.955	6.955	0.000	99	492104	50.0	50.8	
59 1,2-Dichloroethane	62	6.979	6.979	0.000	98	145394	50.0	52.0	
62 n-Heptane	43	7.277	7.277	0.000	82	179951	50.0	47.8	
64 Trichloroethene	130	7.660	7.660	0.000	99	112206	50.0	49.2	
66 Methylcyclohexane	83	7.861	7.861	0.000	100	218761	50.0	50.8	
67 1,2-Dichloropropane	63	7.897	7.897	0.000	93	112220	50.0	44.2	
68 Dibromomethane	93	8.019	8.019	0.000	96	58400	50.0	50.9	
70 1,4-Dioxane	88	8.068	8.068	0.000	94	20971	1000.0	925.6	
71 Dichlorobromomethane	83	8.196	8.196	0.000	99	107432	50.0	50.2	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	98	93226	50.0	32.9	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	99	246272	100.0	94.0	
76 Toluene	91	8.992	8.992	0.000	100	499560	50.0	55.8	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	98	53534	50.0	28.3	
78 Ethyl methacrylate	69	9.321	9.321	0.000	99	71307	50.0	33.6	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	98	83828	50.0	51.2	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	94655	50.0	57.3	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	99	156004	50.0	50.7	
82 2-Hexanone	43	9.662	9.662	0.000	98	186845	100.0	102.1	
84 Chlorodibromomethane	129	9.789	9.789	0.000	97	60527	50.0	56.2	
85 Ethylene Dibromide	107	9.905	9.905	0.000	100	75789	50.0	48.1	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	95	159537	50.0	58.1	
87 Chlorobenzene	112	10.392	10.392	0.000	100	315668	50.0	55.0	
88 4-Chlorobenzotrifluoride	180	10.434	10.434	0.000	99	144391	50.0	55.0	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.471	0.000	95	66445	50.0	50.2	
90 Ethylbenzene	106	10.501	10.501	0.000	100	183671	50.0	55.4	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	99	222026	50.0	54.3	
92 o-Xylene	106	11.012	11.012	0.000	96	215329	50.0	54.3	
93 Styrene	104	11.024	11.024	0.000	97	357881	50.0	55.2	
94 Bromoform	173	11.213	11.213	0.000	97	32512	50.0	57.2	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	149282	50.0	54.8	
97 Isopropylbenzene	105	11.377	11.377	0.000	100	570723	50.0	58.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	97	124269	50.0	54.8	
100 Bromobenzene	156	11.681	11.681	0.000	98	119549	50.0	52.6	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	94	37565	50.0	49.3	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	85	30362	50.0	41.0	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	159892	50.0	53.0	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	126395	50.0	50.7	
105 3-Chlorotoluene	126	11.937	11.937	0.000	100	131750	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.961	11.961	0.000	99	446060	50.0	53.4	
107 4-Chlorotoluene	126	11.986	11.986	0.000	97	134734	50.0	50.1	
108 tert-Butylbenzene	119	12.290	12.290	0.000	100	377860	50.0	52.4	
110 1,2,4-Trimethylbenzene	105	12.338	12.338	0.000	100	457313	50.0	53.0	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.405	0.000	99	109921	50.0	56.5	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	567532	50.0	54.7	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	99	232739	50.0	51.8	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	460347	50.0	54.1	
115 1,4-Dichlorobenzene	146	12.709	12.709	0.000	98	238084	50.0	52.7	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.758	0.000	94	105128	50.0	56.8	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	97	121171	50.0	60.1	
120 n-Butylbenzene	91	13.062	13.062	0.000	100	413090	50.0	54.6	
121 1,2-Dichlorobenzene	146	13.081	13.081	0.000	98	217500	50.0	52.9	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	96	11545	50.0	42.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.005	0.000	100	438618	150.0	156.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	99	280172	100.0	101.0	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	99	109053	50.0	53.1	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	95	53544	50.0	61.0	
128 Naphthalene	128	14.936	14.936	0.000	100	294648	50.0	49.4	
129 1,2,3-Trichlorobenzene	180	15.185	15.185	0.000	99	89366	50.0	50.7	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	96	42925	50.0	48.2	
130 2,3,6-Trichlorotoluene	159	16.068	16.068	0.000	96	40788	50.0	49.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.9	
S 133 Xylenes, Total	106				0		100.0	108.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	61.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

s - Failed ISTD Recovery Test

Reagents:

VOA8260VOAPRI_00104	Amount Added:	2.00	Units: uL		
voaWEEpri Res_00003	Amount Added:	2.00	Units: uL		
VOAVAPRI_00003	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL		
VOAACRPRI_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent	

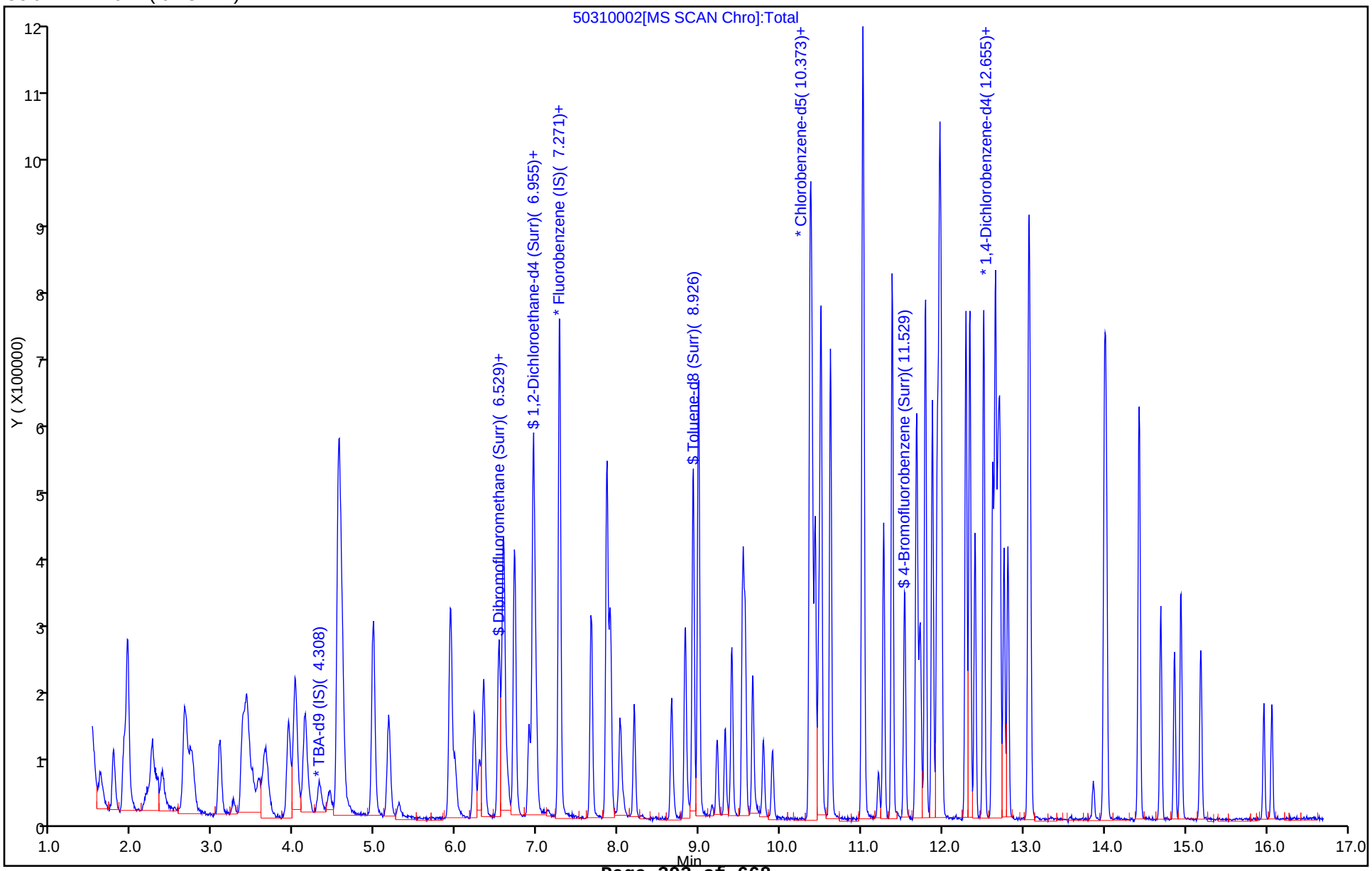
Report Date: 11-Mar-2015 07:20:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310002.D

Injection Date:	10-Mar-2015 11:37:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-Mar-2015 12:21:30	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0005873-006				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	04-Mar-2015 10:13:03	Calib Date:	03-Mar-2015 18:29:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				
First Level Reviewer: fergusond		Date:	03-Mar-2015 12:34:40		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.342	8.342	0.000	0	147446	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

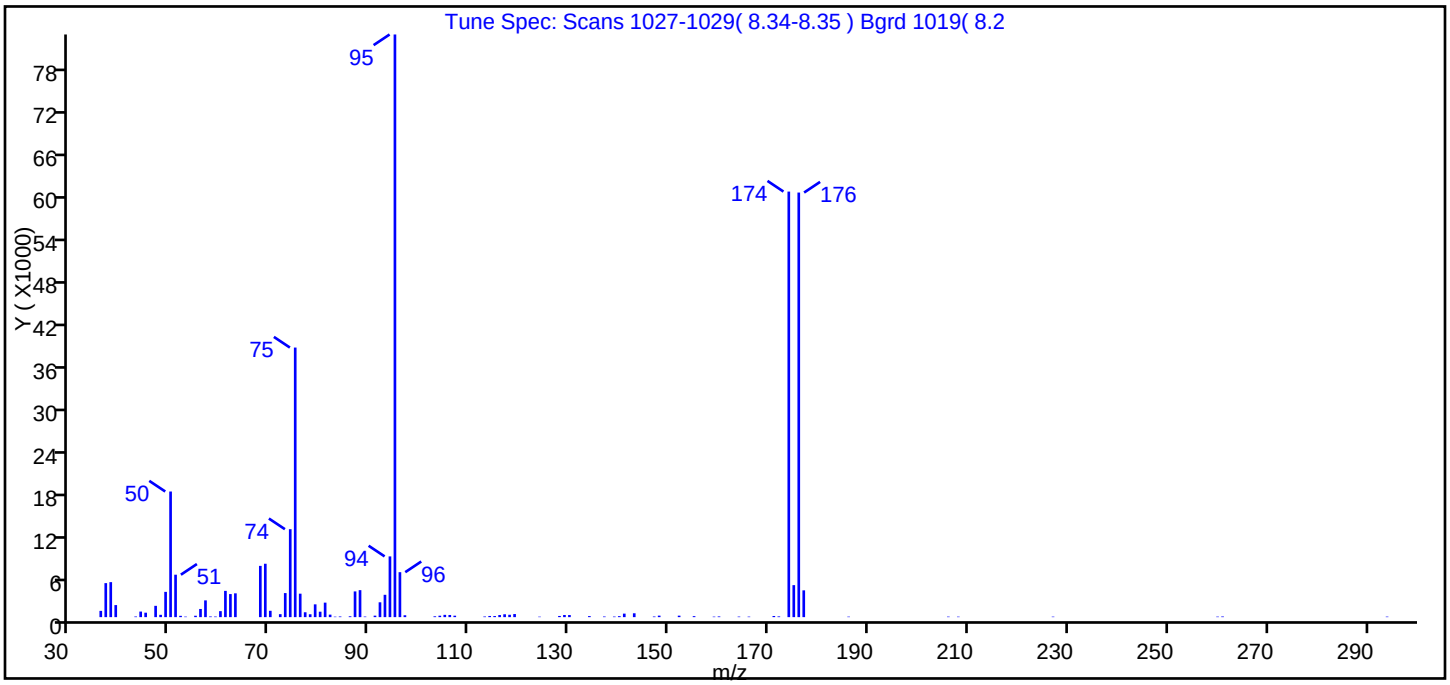
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D				
Injection Date:	03-Mar-2015 12:21:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.6
75	30 to 60% of m/z 95	46.3
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	73.0
175	5 to 9% of m/z 174	5.5 (7.5)
176	Greater than 95% but less than 101% of m/z 174	72.9 (99.8)
177	5 to 9% of m/z 176	4.6 (6.3)

Data File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 03-Mar-2015 12:21:30
Spectrum: Tune Spec: Scans 1027-1029(8.34-8.35) Bgrd 1019(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 93

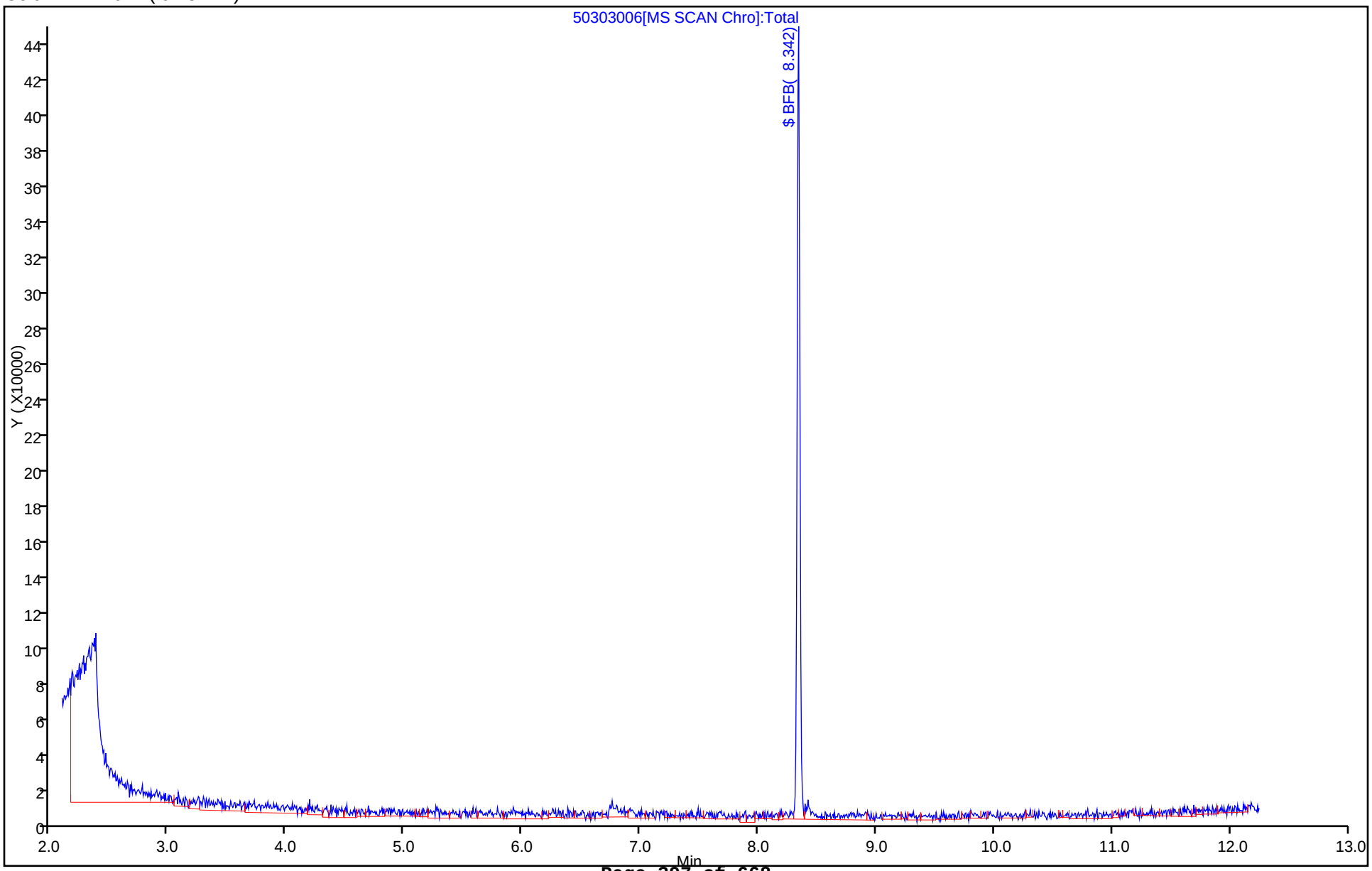
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	884	69.00	7531	96.00	6342	147.00	90
37.00	4798	70.00	895	97.00	267	148.00	212
38.00	4937	72.00	420	103.00	118	152.00	208
39.00	1701	73.00	3394	104.00	203	155.00	140
43.00	90	74.00	12405	105.00	323	159.00	71
44.00	787	75.00	38024	106.00	305	160.00	100
45.00	628	76.00	3310	107.00	205	164.00	78
47.00	1594	77.00	688	113.00	90	166.00	74
48.00	327	78.00	405	114.00	165	171.00	160
49.00	3565	79.00	1805	115.00	156	172.00	105
50.00	17720	80.00	768	116.00	297	174.00	60024
51.00	5986	81.00	2046	117.00	405	175.00	4514
52.00	186	82.00	354	118.00	334	176.00	59888
53.00	74	83.00	67	119.00	437	177.00	3780
55.00	198	84.00	93	124.00	67	186.00	69
56.00	1152	86.00	120	128.00	166	206.00	73
57.00	2364	87.00	3629	129.00	302	208.00	68
58.00	96	88.00	3807	130.00	296	227.00	70
59.00	84	89.00	81	134.00	146	260.00	73
60.00	846	91.00	210	137.00	89	261.00	93
61.00	3705	92.00	2094	139.00	81	294.00	74
62.00	3255	93.00	3151	140.00	139		
63.00	3358	94.00	8567	141.00	495		
68.00	7231	95.00	82184	143.00	545		

Report Date: 04-Mar-2015 10:13:03 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303006.D				
Injection Date:	03-Mar-2015 12:21:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 09-Mar-2015 10:37:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005947-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 15:52:38 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

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

First Level Reviewer: fergusond Date: 09-Mar-2015 11:14:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.344	8.344	0.000	0	103133	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

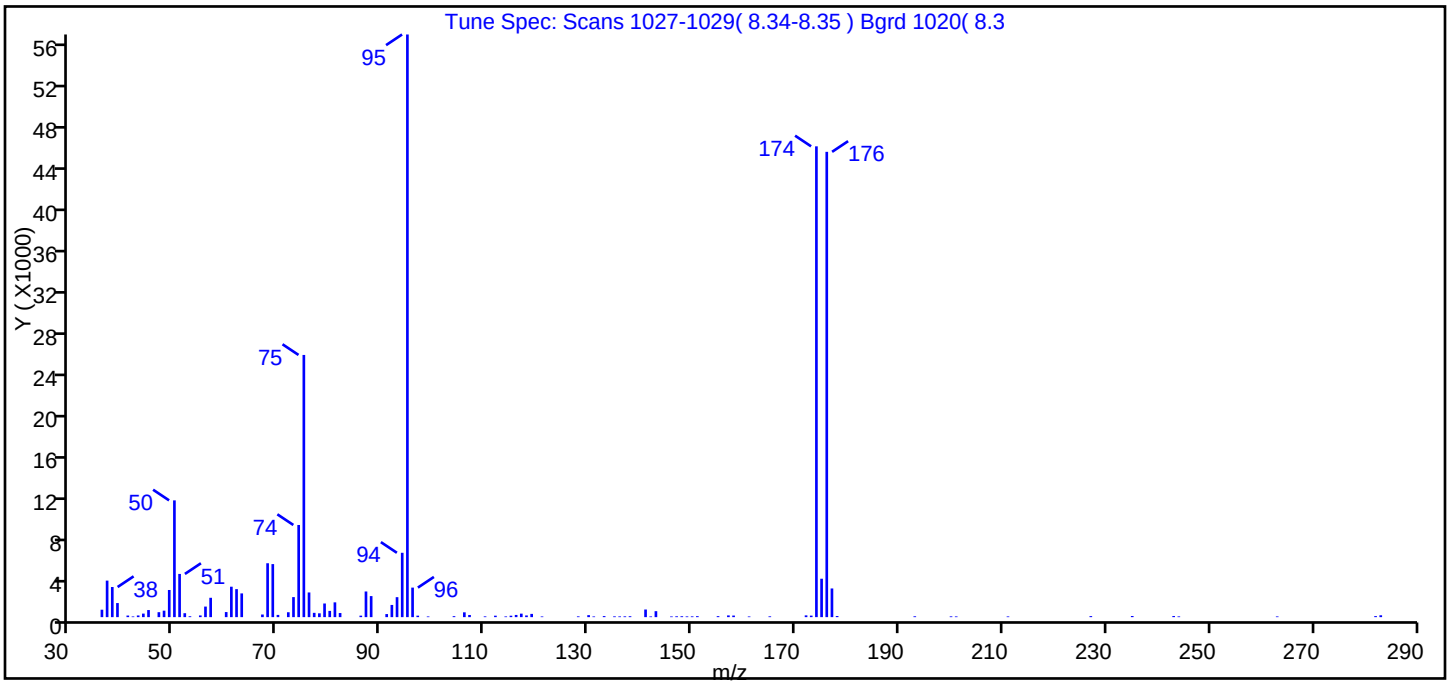
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D				
Injection Date:	09-Mar-2015 10:37:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.0
75	30 to 60% of m/z 95	45.0
96	5 to 9% of m/z 95	5.1
173	Less than 2% of m/z 174	0.3 (0.3)
174	50 to 120% of m/z 95	80.8
175	5 to 9% of m/z 174	6.6 (8.2)
176	Greater than 95% but less than 101% of m/z 174	79.9 (98.8)
177	5 to 9% of m/z 176	4.9 (6.2)

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 09-Mar-2015 10:37:30
Spectrum: Tune Spec: Scans 1027-1029(8.34-8.35) Bgrd 1020(8.3
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 101

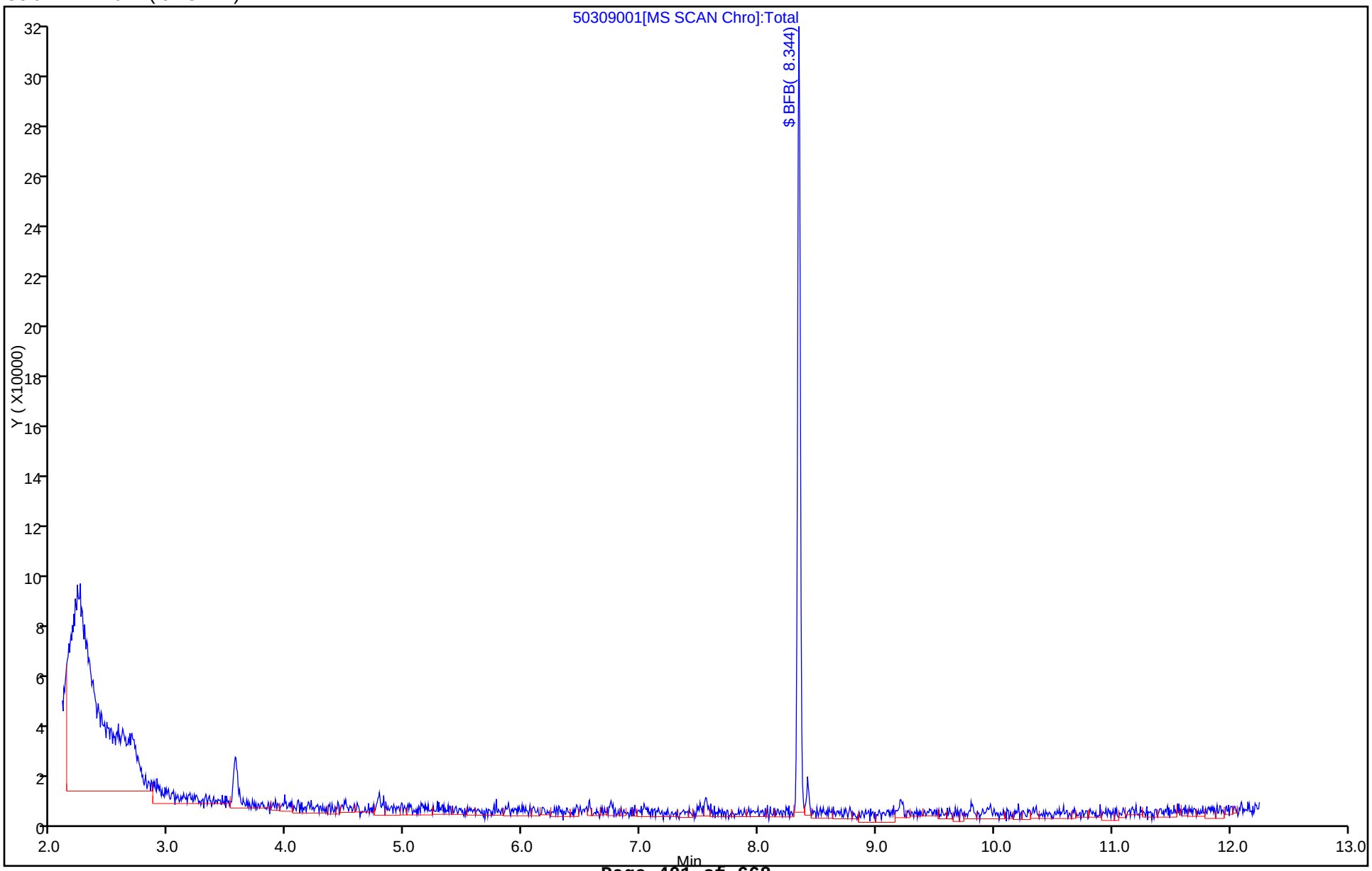
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	725	70.00	218	110.00	74	155.00	96
37.00	3561	72.00	477	112.00	142	157.00	169
38.00	2937	73.00	1953	114.00	70	158.00	155
39.00	1373	74.00	8984	115.00	140	161.00	66
41.00	155	75.00	25560	116.00	214	165.00	78
42.00	67	76.00	2407	117.00	342	172.00	173
43.00	164	77.00	419	118.00	166	173.00	148
44.00	346	78.00	373	119.00	317	174.00	45896
45.00	691	79.00	1330	121.00	67	175.00	3745
47.00	482	80.00	609	128.00	75	176.00	45360
48.00	632	81.00	1442	130.00	194	177.00	2796
49.00	2647	82.00	401	131.00	68	178.00	108
50.00	11383	86.00	145	133.00	102	193.00	83
51.00	4212	87.00	2502	135.00	76	200.00	76
52.00	384	88.00	2052	136.00	72	201.00	70
53.00	84	91.00	300	137.00	77	211.00	69
55.00	165	92.00	1189	138.00	88	227.00	100
56.00	1030	93.00	1947	141.00	744	235.00	110
57.00	1887	94.00	6274	142.00	69	243.00	108
60.00	496	95.00	56800	143.00	582	244.00	72
61.00	2967	96.00	2879	146.00	68	263.00	70
62.00	2731	97.00	144	147.00	83	282.00	102
63.00	2314	99.00	67	148.00	87	283.00	181
67.00	257	104.00	94	149.00	72		
68.00	5254	106.00	470	150.00	75		
69.00	5171	107.00	211	151.00	94		

Report Date: 09-Mar-2015 15:52:39 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309001.D				
Injection Date:	09-Mar-2015 10:37:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 10-Mar-2015 10:55:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005958-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:20:54 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 10-Mar-2015 11:23:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.341	8.341	0.000	0	79704	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

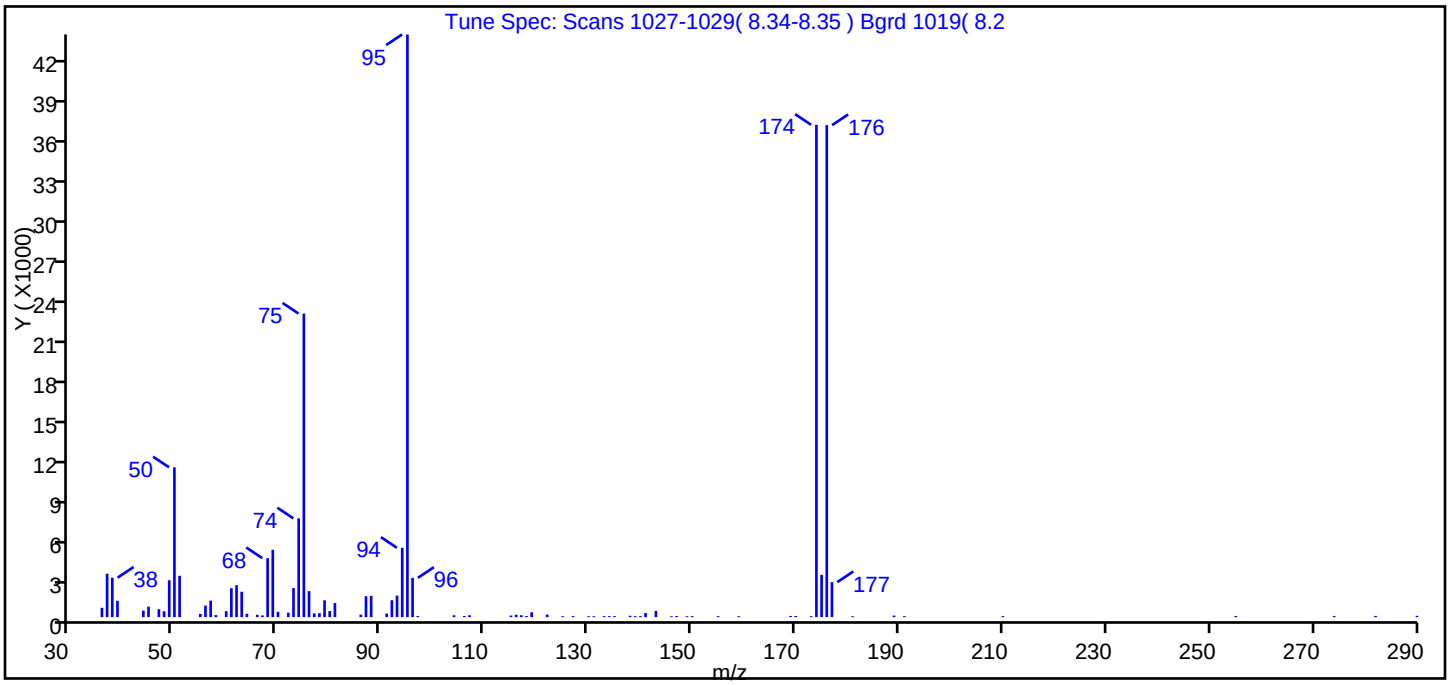
VOA BFB 25_00001 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310001.D				
Injection Date:	10-Mar-2015 10:55:30	Instrument ID:	CHHP5		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	25.7
75	30 to 60% of m/z 95	52.1
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	84.5
175	5 to 9% of m/z 174	7.3 (8.6)
176	Greater than 95% but less than 101% of m/z 174	84.4 (99.9)
177	5 to 9% of m/z 176	6.0 (7.1)

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 10-Mar-2015 10:55:30
Spectrum: Tune Spec: Scans 1027-1029(8.34-8.35) Bgrd 1019(8.2
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	700	68.00	4424	97.00	84	146.00	66
37.00	3254	69.00	5054	104.00	140	147.00	85
38.00	2961	70.00	399	106.00	84	149.00	69
39.00	1229	72.00	329	107.00	145	150.00	79
44.00	494	73.00	2179	115.00	117	155.00	78
45.00	789	74.00	7408	116.00	180	159.00	72
47.00	597	75.00	22768	117.00	143	169.00	89
48.00	438	76.00	1953	118.00	83	170.00	87
49.00	2767	77.00	283	119.00	362	173.00	73
50.00	11236	78.00	298	122.00	188	174.00	36928
51.00	3102	79.00	1263	125.00	70	175.00	3176
55.00	238	80.00	456	127.00	82	176.00	36904
56.00	866	81.00	1057	130.00	67	177.00	2626
57.00	1239	86.00	188	131.00	68	181.00	70
58.00	155	87.00	1571	133.00	78	189.00	118
60.00	447	88.00	1597	134.00	76	191.00	79
61.00	2169	91.00	273	135.00	79	210.00	79
62.00	2400	92.00	1269	138.00	102	255.00	88
63.00	1906	93.00	1616	139.00	75	274.00	89
64.00	251	94.00	5202	140.00	77	282.00	91
66.00	178	95.00	43704	141.00	308	290.00	98
67.00	129	96.00	2948	143.00	465		

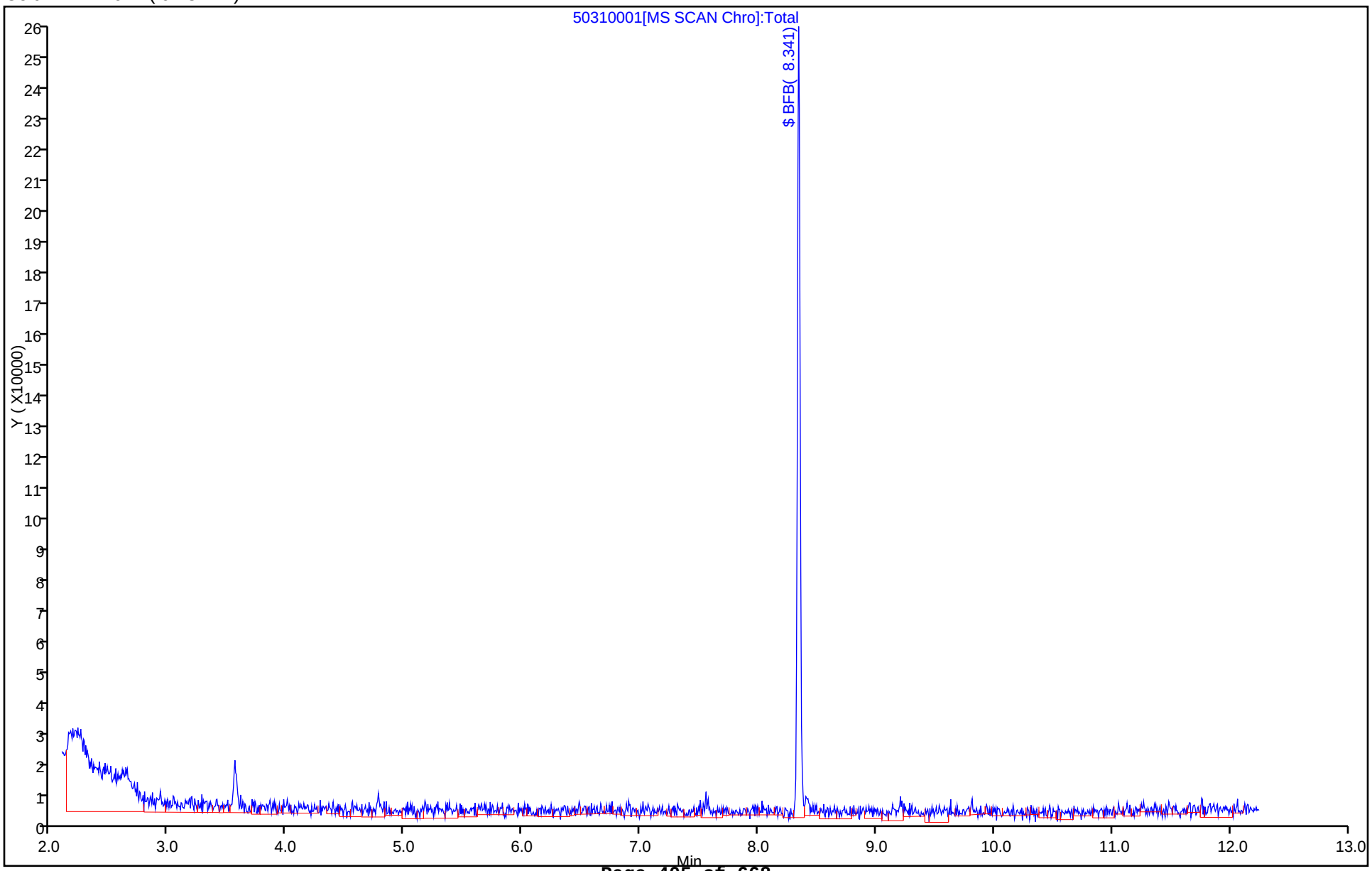
Report Date: 11-Mar-2015 07:20:55 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310001.D

Injection Date:	10-Mar-2015 10:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-135049/4

Matrix: Water Lab File ID: 50309004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 12:47

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.: 135049 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.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-135049/4

Matrix: Water Lab File ID: 50309004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 12:47

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.: 135049 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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309004.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 09-Mar-2015 12:47:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005947-004
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 15:52:39 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

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

First Level Reviewer: fergusond Date: 09-Mar-2015 15:52:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.303	4.327	-0.024	88	107819	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.277	0.001	99	424671	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.362	0.006	100	96438	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	98	157080	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.536	6.529	0.007	52	93146	50.0	51.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.906	0.001	100	109987	50.0	48.9	
$ 7 Toluene-d8 (Surr)	98	8.927	8.926	0.001	100	384366	50.0	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.530	0.006	97	147011	50.0	52.6	
11 Dichlorodifluoromethane	85		1.620					ND	
12 Chloromethane	50		1.778					ND	
13 Vinyl chloride	62		1.912					ND	
14 Butadiene	39		1.954					ND	
15 Bromomethane	94		2.252					ND	
16 Chloroethane	64		2.386					ND	
17 Dichlorofluoromethane	67		2.660					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		3.012					ND	
20 Ethyl ether	59		3.086					ND	
21 Acrolein	56		3.256					ND	
22 1,1-Dichloroethene	96		3.384					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.445					ND	
24 Acetone	43	3.512	3.499	0.013	59	2424		2.72	
25 Iodomethane	142		3.579					ND	
26 Carbon disulfide	76		3.658					ND	
27 Isopropyl alcohol	45		3.736					ND	
29 Acetonitrile	40		3.943					ND	
28 3-Chloro-1-propene	76		3.944					ND	
30 Methyl acetate	43		4.023					ND	
31 Methylene Chloride	84		4.150					ND	
32 2-Methyl-2-propanol	59		4.436					ND	
33 Acrylonitrile	53		4.552					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		4.558					ND	
35 Methyl tert-butyl ether	73		4.601					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.172					ND	
38 Vinyl acetate	43		5.294					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.799					ND	
44 2,2-Dichloropropane	77		5.933					ND	
45 cis-1,2-Dichloroethene	96		5.939					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.988					ND	
48 Ethyl acetate	43		5.993					ND	
47 Propionitrile	54		6.024					ND	
49 Chlorobromomethane	128		6.231					ND	
51 Tetrahydrofuran	42		6.292					ND	
52 Chloroform	83		6.340					ND	
50 Methacrylonitrile	41		6.389					ND	
53 1,1,1-Trichloroethane	97		6.529					ND	
54 Cyclohexane	56		6.590					ND	
56 Carbon tetrachloride	117		6.718					ND	
55 1,1-Dichloropropene	75		6.724					ND	
57 Isobutyl alcohol	41		6.949					ND	
58 Benzene	78		6.955					ND	
59 1,2-Dichloroethane	62		6.985					ND	
61 Tert-amyl methyl ether	73		7.143					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.283					ND	
63 n-Butanol	56		7.654					ND	
64 Trichloroethene	130		7.667					ND	
66 Methylcyclohexane	83		7.861					ND	
65 Ethyl acrylate	55		7.867					ND	
69 Methyl methacrylate	69		7.867					ND	
67 1,2-Dichloropropane	63		7.904					ND	
68 Dibromomethane	93		8.026					ND	
70 1,4-Dioxane	88		8.062					ND	
71 Dichlorobromomethane	83		8.202					ND	
72 2-Nitropropane	41		8.427					ND	
73 2-Chloroethyl vinyl ether	63		8.506					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
76 Toluene	91		8.993					ND	
77 trans-1,3-Dichloropropene	75		9.224					ND	
78 Ethyl methacrylate	69		9.321					ND	
79 1,1,2-Trichloroethane	97		9.400					ND	
80 Tetrachloroethene	164		9.540					ND	
81 1,3-Dichloropropane	76		9.565					ND	
82 2-Hexanone	43		9.656					ND	
83 n-Butyl acetate	43		9.662					ND	
84 Chlorodibromomethane	129		9.790					ND	
85 Ethylene Dibromide	107		9.899					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.374					ND	
87 Chlorobenzene	112		10.392					ND	
88 4-Chlorobenzotrifluoride	180		10.429					ND	
89 1,1,1,2-Tetrachloroethane	131		10.477					ND	
90 Ethylbenzene	106		10.502					ND	
91 m-Xylene & p-Xylene	106		10.617					ND	
92 o-Xylene	106		11.013					ND	
93 Styrene	104		11.025					ND	
94 Bromoform	173		11.207					ND	
96 2-Chlorobenzotrifluoride	180		11.274					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.378					ND	
98 Cyclohexanone	55		11.450					ND	
99 1,1,2,2-Tetrachloroethane	83		11.676					ND	
100 Bromobenzene	156		11.682					ND	
101 1,2,3-Trichloropropane	110		11.718					ND	
102 trans-1,4-Dichloro-2-buten	53		11.736					ND	
103 N-Propylbenzene	120		11.791					ND	
104 2-Chlorotoluene	126		11.876					ND	
105 3-Chlorotoluene	126		11.937					ND	
106 1,3,5-Trimethylbenzene	105		11.962					ND	
107 4-Chlorotoluene	126		11.980					ND	
108 tert-Butylbenzene	119		12.290					ND	
109 Pentachloroethane	167		12.314					ND	
110 1,2,4-Trimethylbenzene	105		12.339					ND	
111 1,2-dichloro-4-(trifluorom	214		12.406					ND	
112 sec-Butylbenzene	105		12.509					ND	
113 1,3-Dichlorobenzene	146		12.619					ND	
119 Benzyl chloride	91		12.655					ND	
114 4-Isopropyltoluene	119		12.655					ND	
115 1,4-Dichlorobenzene	146		12.710					ND	
117 1,2,3-Trimethylbenzene	105		12.758					ND	
116 2,4-Dichloro-1-(triflourom	214		12.758					ND	
118 2,5-Dichlorobenzotrifluori	214		12.807					ND	
120 n-Butylbenzene	91		13.063					ND	
121 1,2-Dichlorobenzene	146		13.081					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.866					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.012					ND	
124 1,3,5-Trichlorobenzene	180		14.078					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.431					ND	
126 1,2,4-Trichlorobenzene	180		14.693					ND	
127 Hexachlorobutadiene	225		14.863					ND	
128 Naphthalene	128		14.942					ND	
129 1,2,3-Trichlorobenzene	180		15.192					ND	
131 2,4,5-Trichlorotoluene	159		15.964					ND	
130 2,3,6-Trichlorotoluene	159		16.062					ND	
132 2-Methylnaphthalene	142		16.080					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		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:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

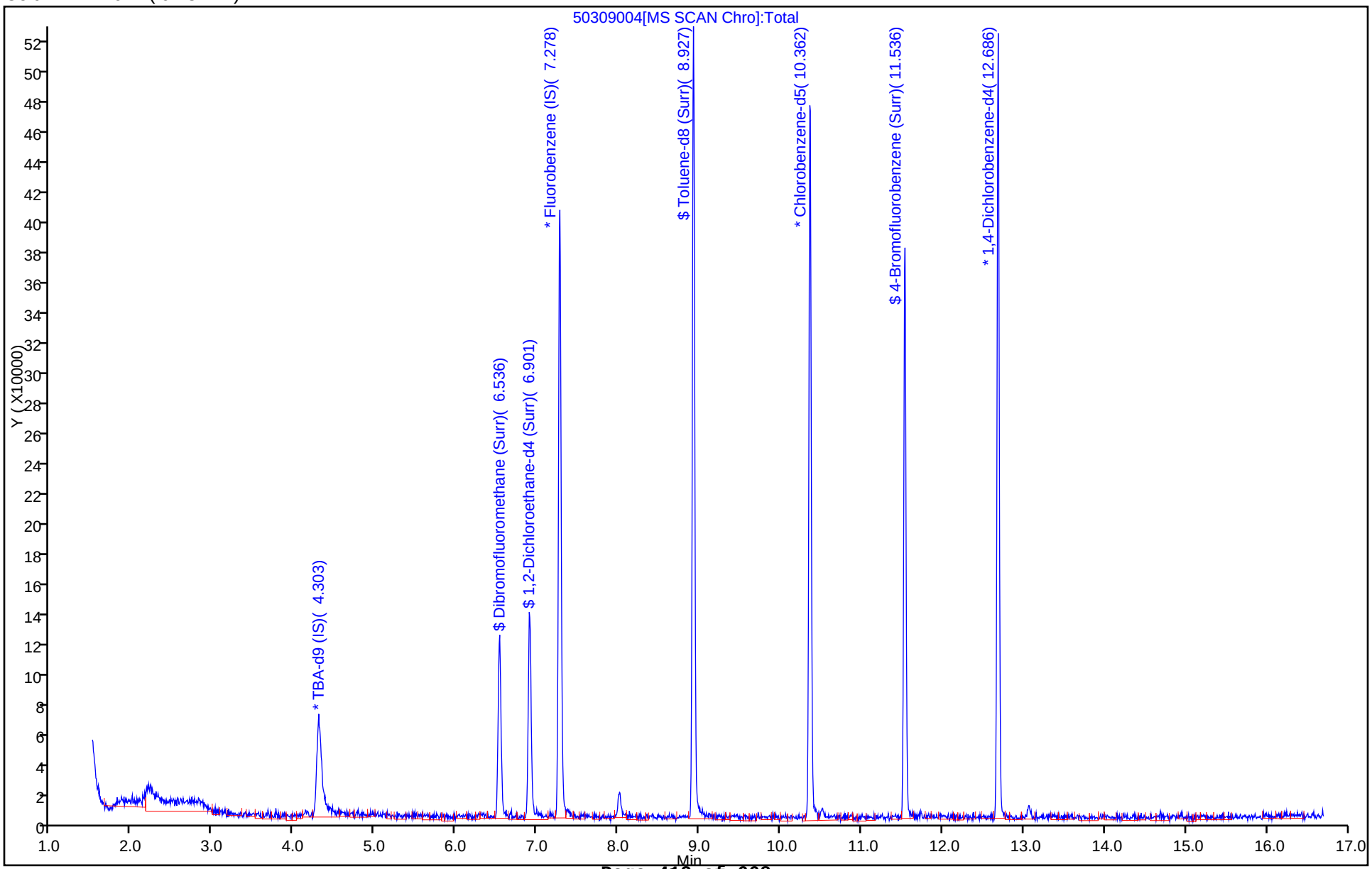
Report Date: 09-Mar-2015 15:52:58 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309004.D

Injection Date:	09-Mar-2015 12:47:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-135153/4

Matrix: Water Lab File ID: 50310004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 12:44

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.: 135153 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.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-135153/4

Matrix: Water Lab File ID: 50310004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 12:44

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.: 135153 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)	101		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310004.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 10-Mar-2015 12:44:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0005958-004
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:20:56 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:21:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.304	4.296	0.008	96	86833	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.271	0.002	99	432295	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.367	-0.004	99	100617	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.685	-0.004	99	161434	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.537	6.529	0.008	52	89936	50.0	48.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.900	0.002	98	114939	50.0	50.3	
$ 7 Toluene-d8 (Surr)	98	8.922	8.926	-0.004	100	397513	50.0	50.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.529	0.002	97	147203	50.0	50.4	
11 Dichlorodifluoromethane	85		1.607					ND	
12 Chloromethane	50		1.771					ND	
13 Vinyl chloride	62		1.899					ND	
14 Butadiene	39		1.948					ND	
15 Bromomethane	94		2.252					ND	
16 Chloroethane	64		2.374					ND	
17 Dichlorofluoromethane	67		2.641					ND	
18 Trichlorofluoromethane	101		2.684					ND	
19 Ethanol	45		3.012					ND	
20 Ethyl ether	59		3.073					ND	
21 Acrolein	56		3.250					ND	
22 1,1-Dichloroethene	96		3.371					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.414					ND	
24 Acetone	43		3.493					ND	
25 Iodomethane	142		3.566					ND	
26 Carbon disulfide	76		3.651					ND	
27 Isopropyl alcohol	45		3.736					ND	
28 3-Chloro-1-propene	76		3.925					ND	
29 Acetonitrile	40		3.943					ND	
30 Methyl acetate	43		4.016					ND	
31 Methylene Chloride	84		4.126					ND	
32 2-Methyl-2-propanol	59		4.436					ND	
33 Acrylonitrile	53		4.545					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		4.552					ND	
35 Methyl tert-butyl ether	73		4.594					ND	
36 Hexane	57		4.977					ND	
37 1,1-Dichloroethane	63		5.166					ND	
38 Vinyl acetate	43		5.294					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.799					ND	
44 2,2-Dichloropropane	77		5.926					ND	
45 cis-1,2-Dichloroethene	96		5.933					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.981					ND	
48 Ethyl acetate	43		5.993					ND	
47 Propionitrile	54		6.024					ND	
49 Chlorobromomethane	128		6.218					ND	
51 Tetrahydrofuran	42		6.285					ND	
52 Chloroform	83		6.340					ND	
50 Methacrylonitrile	41		6.389					ND	
53 1,1,1-Trichloroethane	97		6.523					ND	
54 Cyclohexane	56		6.577					ND	
56 Carbon tetrachloride	117		6.717					ND	
55 1,1-Dichloropropene	75		6.717					ND	
57 Isobutyl alcohol	41		6.948					ND	
58 Benzene	78		6.955					ND	
59 1,2-Dichloroethane	62		6.979					ND	
61 Tert-amyl methyl ether	73		7.143					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.277					ND	
63 n-Butanol	56		7.654					ND	
64 Trichloroethene	130		7.660					ND	
66 Methylcyclohexane	83		7.861					ND	
65 Ethyl acrylate	55		7.867					ND	
69 Methyl methacrylate	69		7.867					ND	
67 1,2-Dichloropropane	63		7.897					ND	
68 Dibromomethane	93		8.019					ND	
70 1,4-Dioxane	88		8.068					ND	
71 Dichlorobromomethane	83		8.196					ND	
72 2-Nitropropane	41		8.427					ND	
73 2-Chloroethyl vinyl ether	63		8.506					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828					ND	
76 Toluene	91		8.992					ND	
77 trans-1,3-Dichloropropene	75		9.224					ND	
78 Ethyl methacrylate	69		9.321					ND	
79 1,1,2-Trichloroethane	97		9.400					ND	
80 Tetrachloroethene	164		9.540					ND	
81 1,3-Dichloropropane	76		9.564					ND	
83 n-Butyl acetate	43		9.662					ND	
82 2-Hexanone	43		9.662					ND	
84 Chlorodibromomethane	129		9.789					ND	
85 Ethylene Dibromide	107		9.905					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.373					ND	
87 Chlorobenzene	112		10.392					ND	
88 4-Chlorobenzotrifluoride	180		10.434					ND	
89 1,1,1,2-Tetrachloroethane	131		10.471					ND	
90 Ethylbenzene	106		10.501					ND	
91 m-Xylene & p-Xylene	106		10.617					ND	
92 o-Xylene	106		11.012					ND	
93 Styrene	104		11.024					ND	
94 Bromoform	173		11.213					ND	
96 2-Chlorobenzotrifluoride	180		11.274					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.377					ND	
98 Cyclohexanone	55		11.450					ND	
99 1,1,2,2-Tetrachloroethane	83		11.675					ND	
100 Bromobenzene	156		11.681					ND	
101 1,2,3-Trichloropropane	110		11.718					ND	
102 trans-1,4-Dichloro-2-buten	53		11.736					ND	
103 N-Propylbenzene	120		11.791					ND	
104 2-Chlorotoluene	126		11.876					ND	
105 3-Chlorotoluene	126		11.937					ND	
106 1,3,5-Trimethylbenzene	105		11.961					ND	
107 4-Chlorotoluene	126		11.986					ND	
108 tert-Butylbenzene	119		12.290					ND	
109 Pentachloroethane	167		12.314					ND	
110 1,2,4-Trimethylbenzene	105		12.338					ND	
111 1,2-dichloro-4-(trifluorom	214		12.405					ND	
112 sec-Butylbenzene	105		12.509					ND	
113 1,3-Dichlorobenzene	146		12.618					ND	
119 Benzyl chloride	91		12.655					ND	
114 4-Isopropyltoluene	119		12.655					ND	
115 1,4-Dichlorobenzene	146		12.709					ND	
117 1,2,3-Trimethylbenzene	105		12.758					ND	
116 2,4-Dichloro-1-(triflourom	214		12.758					ND	
118 2,5-Dichlorobenzotrifluori	214		12.807					ND	
120 n-Butylbenzene	91		13.062					ND	
121 1,2-Dichlorobenzene	146		13.081					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.859					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.005					ND	
124 1,3,5-Trichlorobenzene	180		14.078					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.425					ND	
126 1,2,4-Trichlorobenzene	180		14.693					ND	
127 Hexachlorobutadiene	225		14.863					ND	
128 Naphthalene	128		14.936					ND	
129 1,2,3-Trichlorobenzene	180		15.185					ND	
131 2,4,5-Trichlorotoluene	159		15.964					ND	
130 2,3,6-Trichlorotoluene	159		16.068					ND	
132 2-Methylnaphthalene	142		16.080					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	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 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

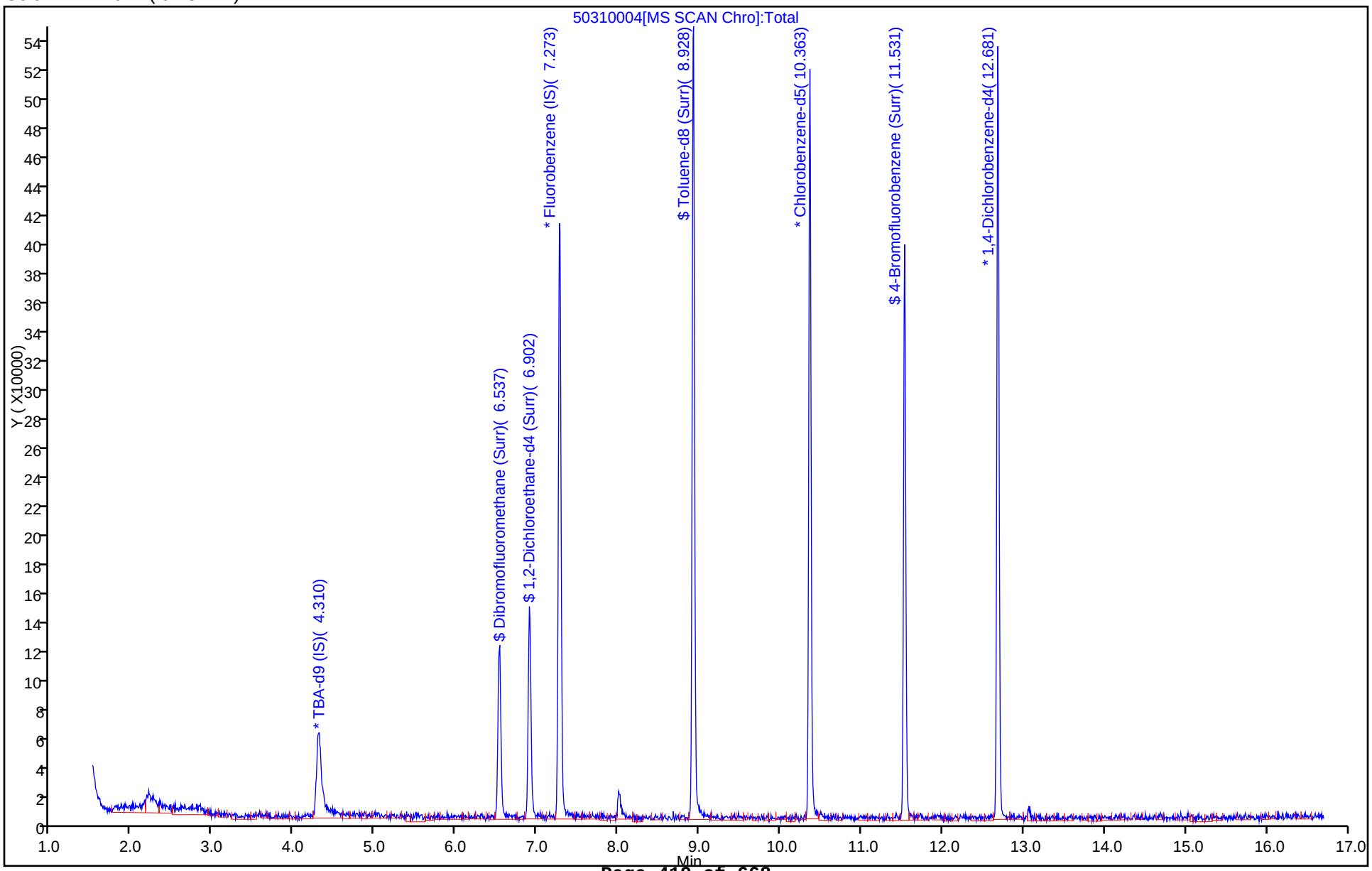
Report Date: 11-Mar-2015 07:21:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310004.D

Injection Date:	10-Mar-2015 12:44:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-135049/7

Matrix: Water | Lab File ID: 50309007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/09/2015 14:31

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.: 135049 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.63		1.0	0.28
75-01-4	Vinyl chloride	9.31		1.0	0.23
74-83-9	Bromomethane	13.8		1.0	0.31
75-00-3	Chloroethane	12.6		1.0	0.21
75-35-4	1,1-Dichloroethene	10.7		1.0	0.30
67-64-1	Acetone	20.2		5.0	2.5
75-15-0	Carbon disulfide	10.8		1.0	0.21
75-09-2	Methylene Chloride	10.5		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.0		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.12		1.0	0.18
75-34-3	1,1-Dichloroethane	10.7		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.8		1.0	0.24
74-97-5	Bromochloromethane	10.7		1.0	0.18
78-93-3	2-Butanone (MEK)	19.4		5.0	0.55
67-66-3	Chloroform	11.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.93		1.0	0.29
56-23-5	Carbon tetrachloride	10.2		1.0	0.14
71-43-2	Benzene	10.8		1.0	0.11
107-06-2	1,2-Dichloroethane	10.9		1.0	0.21
79-01-6	Trichloroethene	10.9		1.0	0.14
78-87-5	1,2-Dichloropropane	9.77		1.0	0.095
75-27-4	Bromodichloromethane	10.5		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.29		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.9		5.0	0.53
108-88-3	Toluene	11.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	6.33		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.2		1.0	0.20
127-18-4	Tetrachloroethene	11.9		1.0	0.15
591-78-6	2-Hexanone	16.4		5.0	0.16
124-48-1	Dibromochloromethane	11.0		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.66		1.0	0.18
108-90-7	Chlorobenzene	11.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	11.3		1.0	0.23
1330-20-7	Xylenes, Total	22.2		3.0	0.49
100-42-5	Styrene	10.7		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-135049/7

Matrix: Water Lab File ID: 50309007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/09/2015 14:31

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.: 135049 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.0		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.8		1.0	0.20
107-13-1	Acrylonitrile	103		20	0.55
123-91-1	1,4-Dioxane	155	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)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309007.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 09-Mar-2015 14:31:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005947-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 09-Mar-2015 16:04:45 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

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

First Level Reviewer: fergusond Date: 09-Mar-2015 16:04:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.314	4.327	-0.013	88	78530	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.277	0.000	99	375106	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.362	0.006	99	90079	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	98	126667	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.529	0.006	89	84235	50.0	52.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.906	-0.006	99	103693	50.0	52.2	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	363555	50.0	51.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.536	11.530	0.006	97	123889	50.0	47.4	
11 Dichlorodifluoromethane	85	1.626	1.620	0.006	100	98685	50.0	52.4	
12 Chloromethane	50	1.778	1.778	0.000	99	144980	50.0	48.1	
13 Vinyl chloride	62	1.899	1.912	-0.013	100	134737	50.0	46.5	
14 Butadiene	39	1.948	1.954	-0.006	99	182781	50.0	54.4	
15 Bromomethane	94	2.252	2.252	0.000	94	59018	50.0	69.2	
16 Chloroethane	64	2.386	2.386	0.000	98	74306	50.0	63.1	
17 Dichlorofluoromethane	67	2.654	2.660	-0.006	100	177346	50.0	65.7	
18 Trichlorofluoromethane	101	2.708	2.703	0.005	98	153489	50.0	68.1	
20 Ethyl ether	59	3.092	3.086	0.006	98	111136	50.0	51.1	
21 Acrolein	56	3.268	3.256	0.012	100	40971	150.0	142.6	
22 1,1-Dichloroethene	96	3.384	3.384	0.000	99	116519	50.0	53.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.445	-0.013	98	120272	50.0	54.5	
24 Acetone	43	3.505	3.499	0.006	99	79598	100.0	101.0	
25 Iodomethane	142	3.578	3.579	-0.001	97	169942	50.0	55.3	
26 Carbon disulfide	76	3.664	3.658	0.006	100	291065	50.0	54.1	
28 3-Chloro-1-propene	76	3.949	3.944	0.005	99	52654	50.0	38.6	
30 Methyl acetate	43	4.022	4.023	-0.001	100	536309	250.0	247.5	
31 Methylene Chloride	84	4.144	4.150	-0.006	99	126924	50.0	52.3	
32 2-Methyl-2-propanol	59	4.442	4.436	0.006	86	47895	500.0	508.9	
33 Acrylonitrile	53	4.558	4.552	0.006	100	552383	500.0	514.3	
34 trans-1,2-Dichloroethene	96	4.570	4.558	0.012	93	126000	50.0	55.2	
35 Methyl tert-butyl ether	73	4.606	4.601	0.005	92	231566	50.0	40.6	
36 Hexane	57	4.990	4.984	0.006	99	209175	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.178	5.172	0.006	99	232039	50.0	53.3	
38 Vinyl acetate	43	5.306	5.294	0.012	100	45473	50.0	30.6	
44 2,2-Dichloropropane	77	5.927	5.933	-0.006	81	39526	50.0	24.5	
45 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	91	132024	50.0	54.1	
46 2-Butanone (MEK)	43	5.993	5.988	0.005	99	124719	100.0	97.2	
49 Chlorobromomethane	128	6.225	6.231	-0.006	99	54374	50.0	53.4	
51 Tetrahydrofuran	42	6.292	6.292	0.000	98	83538	100.0	91.5	
52 Chloroform	83	6.346	6.340	0.006	96	190174	50.0	54.8	
53 1,1,1-Trichloroethane	97	6.535	6.529	0.006	89	105228	50.0	44.7	
54 Cyclohexane	56	6.590	6.590	0.000	98	269963	50.0	51.1	
56 Carbon tetrachloride	117	6.724	6.718	0.006	94	81863	50.0	51.2	
55 1,1-Dichloropropene	75	6.730	6.724	0.006	97	174613	50.0	58.1	
57 Isobutyl alcohol	41	6.949	6.949	0.000	33	44142	1250.0	857.4	
58 Benzene	78	6.961	6.955	0.006	99	510502	50.0	53.9	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	99	149074	50.0	54.5	
62 n-Heptane	43	7.283	7.283	0.000	85	184671	50.0	50.1	
64 Trichloroethene	130	7.673	7.667	0.006	97	122122	50.0	54.7	
66 Methylcyclohexane	83	7.867	7.861	0.006	99	227560	50.0	54.0	
67 1,2-Dichloropropane	63	7.904	7.904	0.000	94	121593	50.0	48.9	
68 Dibromomethane	93	8.025	8.026	-0.001	99	60602	50.0	53.9	
70 1,4-Dioxane	88	8.068	8.062	0.006	93	17156	1000.0	773.5	
71 Dichlorobromomethane	83	8.196	8.202	-0.006	98	110428	50.0	52.7	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	98	101083	50.0	36.4	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.822	0.006	99	243468	100.0	89.5	
76 Toluene	91	8.993	8.993	0.000	99	533902	50.0	57.4	
77 trans-1,3-Dichloropropene	75	9.218	9.224	-0.006	97	62025	50.0	31.6	
78 Ethyl methacrylate	69	9.321	9.321	0.000	99	84057	50.0	38.1	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	94718	50.0	55.8	
80 Tetrachloroethene	164	9.540	9.540	0.000	98	102185	50.0	59.6	
81 1,3-Dichloropropane	76	9.571	9.565	0.006	100	171964	50.0	53.9	
82 2-Hexanone	43	9.662	9.656	0.006	100	156048	100.0	82.2	
84 Chlorodibromomethane	129	9.796	9.790	0.006	99	61302	50.0	54.9	
85 Ethylene Dibromide	107	9.905	9.899	0.006	98	78979	50.0	48.3	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	94	156005	50.0	54.7	
87 Chlorobenzene	112	10.392	10.392	0.000	100	330936	50.0	55.6	
88 4-Chlorobenzotrifluoride	180	10.428	10.429	-0.001	99	145801	50.0	53.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.477	0.000	95	70080	50.0	51.0	
90 Ethylbenzene	106	10.507	10.502	0.005	100	195028	50.0	56.6	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	235145	50.0	55.4	
92 o-Xylene	106	11.012	11.013	-0.001	97	228135	50.0	55.4	
93 Styrene	104	11.025	11.025	0.000	98	361315	50.0	53.7	
94 Bromoform	173	11.213	11.207	0.006	96	29580	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	154321	50.0	54.6	
97 Isopropylbenzene	105	11.383	11.378	0.005	100	582948	50.0	57.7	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.676	-0.001	98	127688	50.0	54.2	
100 Bromobenzene	156	11.682	11.682	0.000	98	121471	50.0	54.9	
101 1,2,3-Trichloropropane	110	11.724	11.718	0.006	95	39131	50.0	52.8	
102 trans-1,4-Dichloro-2-buten	53	11.736	11.736	0.000	82	22176	50.0	30.8	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	161318	50.0	54.9	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	129966	50.0	53.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	99	127976	50.0	51.6	
106 1,3,5-Trimethylbenzene	105	11.967	11.962	0.005	100	451756	50.0	55.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.986	11.980	0.006	98	144697	50.0	55.2	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	389474	50.0	55.5	
110 1,2,4-Trimethylbenzene	105	12.339	12.339	0.000	98	449436	50.0	53.5	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.406	-0.001	98	104318	50.0	55.0	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	576089	50.0	57.0	
113 1,3-Dichlorobenzene	146	12.618	12.619	-0.001	99	239984	50.0	54.9	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	461912	50.0	55.8	
115 1,4-Dichlorobenzene	146	12.710	12.710	0.000	98	244850	50.0	55.6	
116 2,4-Dichloro-1-(triflourom	214	12.764	12.758	0.006	94	93016	50.0	51.6	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	98	111266	50.0	56.7	
120 n-Butylbenzene	91	13.062	13.063	-0.001	100	405579	50.0	55.1	
121 1,2-Dichlorobenzene	146	13.087	13.081	0.006	99	220407	50.0	55.1	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.866	-0.007	96	9940	50.0	37.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.012	-0.007	99	397935	150.0	145.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.431	-0.006	99	253759	100.0	94.0	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	98	101588	50.0	50.8	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	95	45979	50.0	53.8	
128 Naphthalene	128	14.942	14.942	0.000	100	272009	50.0	46.9	
129 1,2,3-Trichlorobenzene	180	15.186	15.192	-0.006	96	77345	50.0	45.1	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	35727	50.0	41.2	
130 2,3,6-Trichlorotoluene	159	16.062	16.062	0.000	97	33039	50.0	41.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	110.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	109.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	68.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL	
VOAEE2ND_00001	Amount Added:	2.00	Units: uL	
VOAVA2ND_00002	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent

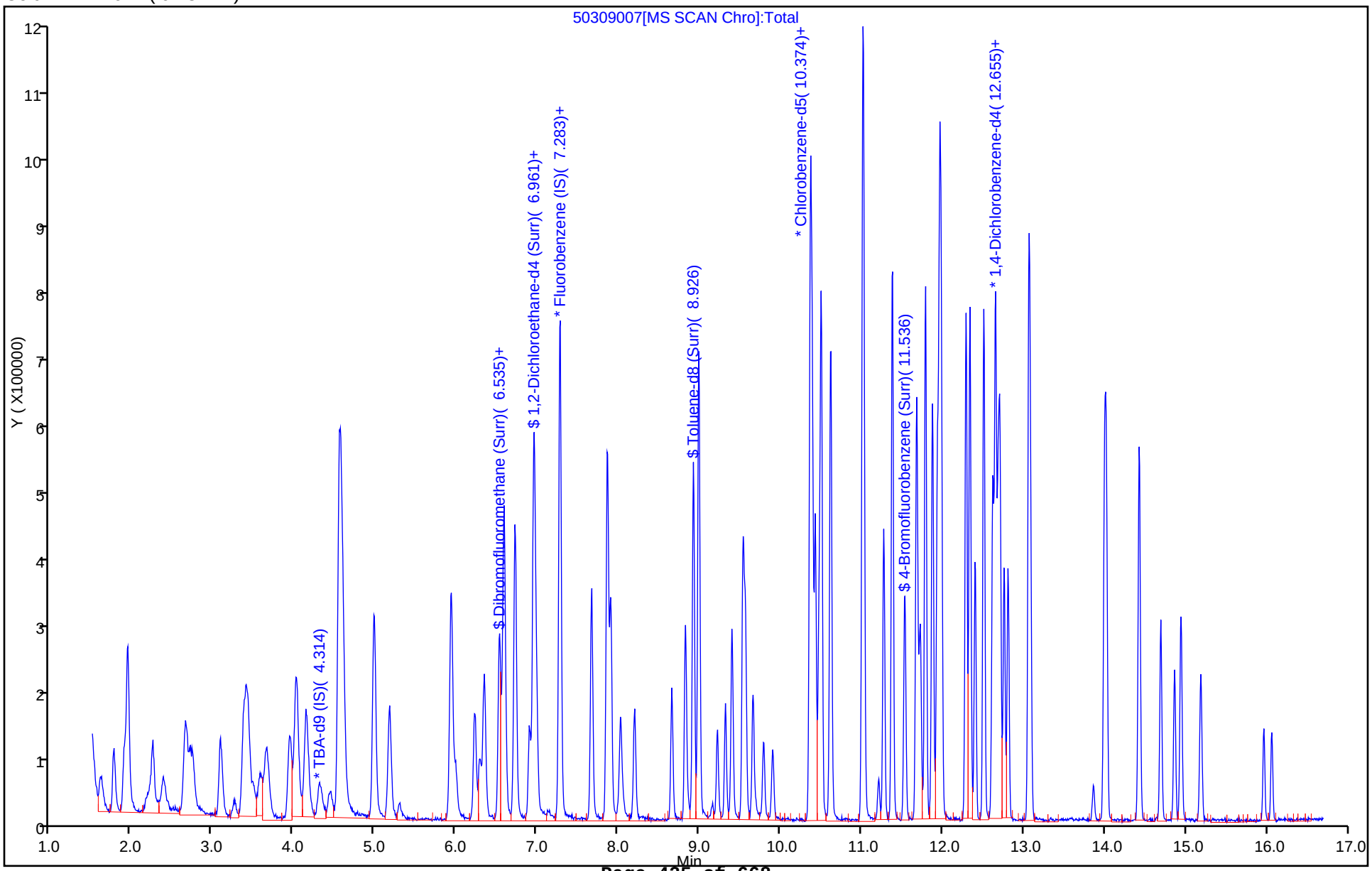
Report Date: 09-Mar-2015 16:04:53 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150309-5947.b\50309007.D

Injection Date:	09-Mar-2015 14:31:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-41569-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-135153/7

Matrix: Water | Lab File ID: 50310007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/10/2015 14:12

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.: 135153 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.77		1.0	0.28
75-01-4	Vinyl chloride	9.10		1.0	0.23
74-83-9	Bromomethane	12.6		1.0	0.31
75-00-3	Chloroethane	11.2		1.0	0.21
75-35-4	1,1-Dichloroethene	9.96		1.0	0.30
67-64-1	Acetone	19.9		5.0	2.5
75-15-0	Carbon disulfide	9.92		1.0	0.21
75-09-2	Methylene Chloride	9.53		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	6.36		1.0	0.18
75-34-3	1,1-Dichloroethane	9.34		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.85		1.0	0.24
74-97-5	Bromochloromethane	9.21		1.0	0.18
78-93-3	2-Butanone (MEK)	17.5		5.0	0.55
67-66-3	Chloroform	9.97		1.0	0.17
71-55-6	1,1,1-Trichloroethane	7.66		1.0	0.29
56-23-5	Carbon tetrachloride	9.07		1.0	0.14
71-43-2	Benzene	9.95		1.0	0.11
107-06-2	1,2-Dichloroethane	10.2		1.0	0.21
79-01-6	Trichloroethene	10.3		1.0	0.14
78-87-5	1,2-Dichloropropane	8.70		1.0	0.095
75-27-4	Bromodichloromethane	10.1		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	6.54		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.4		5.0	0.53
108-88-3	Toluene	10.9		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	5.53		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.4		1.0	0.20
127-18-4	Tetrachloroethene	11.1		1.0	0.15
591-78-6	2-Hexanone	15.4		5.0	0.16
124-48-1	Dibromochloromethane	10.7		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.28		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.41		1.0	0.28
100-41-4	Ethylbenzene	11.0		1.0	0.23
1330-20-7	Xylenes, Total	21.8		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.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-135153/7

Matrix: Water Lab File ID: 50310007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/10/2015 14:12

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.: 135153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.1		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.6		1.0	0.20
107-13-1	Acrylonitrile	96.5		20	0.55
123-91-1	1,4-Dioxane	184	J	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)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310007.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 10-Mar-2015 14:12:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0005958-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 11-Mar-2015 07:28:12 Calib Date: 03-Mar-2015 18:29:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150303-5873.b\50303018.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK049

First Level Reviewer: fergusond Date: 11-Mar-2015 07:28:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.321	4.296	0.025	79	64251	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	376237	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.367	0.001	99	85792	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.685	0.001	96	119827	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.529	0.000	88	80469	50.0	50.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	98	99496	50.0	50.0	
$ 7 Toluene-d8 (Surr)	98	8.926	8.926	0.000	100	364571	50.0	54.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	95	124588	50.0	50.1	
11 Dichlorodifluoromethane	85	1.620	1.607	0.013	98	93247	50.0	49.3	
12 Chloromethane	50	1.772	1.771	0.001	100	132524	50.0	43.9	
13 Vinyl chloride	62	1.906	1.899	0.007	100	132059	50.0	45.5	
14 Butadiene	39	1.954	1.948	0.006	99	160452	50.0	47.7	
15 Bromomethane	94	2.252	2.252	0.000	90	54347	50.0	63.1	
16 Chloroethane	64	2.386	2.374	0.012	97	66269	50.0	56.1	
17 Dichlorofluoromethane	67	2.654	2.641	0.013	98	169228	50.0	62.5	
18 Trichlorofluoromethane	101	2.691	2.684	0.006	97	142123	50.0	62.8	
20 Ethyl ether	59	3.086	3.073	0.013	99	99817	50.0	45.7	
21 Acrolein	56	3.262	3.250	0.012	98	36167	150.0	125.5	
22 1,1-Dichloroethene	96	3.372	3.371	0.001	98	109062	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.414	0.007	99	113748	50.0	51.4	
24 Acetone	43	3.494	3.493	0.001	97	78808	100.0	99.7	
25 Iodomethane	142	3.567	3.566	0.001	98	159243	50.0	51.7	
26 Carbon disulfide	76	3.652	3.651	0.001	100	267310	50.0	49.6	
28 3-Chloro-1-propene	76	3.944	3.925	0.019	98	47939	50.0	35.0	
30 Methyl acetate	43	4.023	4.016	0.007	100	499454	250.0	229.8	
31 Methylene Chloride	84	4.138	4.126	0.012	99	116772	50.0	47.7	
32 2-Methyl-2-propanol	59	4.443	4.436	0.007	83	39034	500.0	507.0	
33 Acrylonitrile	53	4.552	4.545	0.007	99	519620	500.0	482.3	
34 trans-1,2-Dichloroethene	96	4.564	4.552	0.012	89	118240	50.0	51.6	
35 Methyl tert-butyl ether	73	4.601	4.594	0.007	88	181931	50.0	31.8	
36 Hexane	57	4.984	4.977	0.007	98	197136	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.179	5.166	0.013	99	203959	50.0	46.7	
38 Vinyl acetate	43	5.288	5.294	-0.006	100	38307	50.0	25.7	
44 2,2-Dichloropropane	77	5.927	5.926	0.001	61	32427	50.0	20.1	
45 cis-1,2-Dichloroethene	96	5.933	5.933	0.001	90	120654	50.0	49.3	
46 2-Butanone (MEK)	43	5.982	5.981	0.001	99	112611	100.0	87.5	
49 Chlorobromomethane	128	6.225	6.218	0.007	97	47009	50.0	46.1	
51 Tetrahydrofuran	42	6.292	6.285	0.007	98	80332	100.0	87.7	
52 Chloroform	83	6.347	6.340	0.007	95	173433	50.0	49.8	
53 1,1,1-Trichloroethane	97	6.529	6.523	0.006	88	90504	50.0	38.3	
54 Cyclohexane	56	6.584	6.577	0.007	99	251370	50.0	47.4	
56 Carbon tetrachloride	117	6.718	6.717	0.001	61	72667	50.0	45.3	
55 1,1-Dichloropropene	75	6.724	6.717	0.007	97	166067	50.0	55.1	
57 Isobutyl alcohol	41	6.955	6.948	0.007	33	41965	1250.0	812.6	
58 Benzene	78	6.955	6.955	0.000	99	472564	50.0	49.7	
59 1,2-Dichloroethane	62	6.985	6.979	0.006	99	140009	50.0	51.0	
62 n-Heptane	43	7.277	7.277	0.000	84	178126	50.0	48.2	
64 Trichloroethene	130	7.667	7.660	0.007	100	115281	50.0	51.5	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	210536	50.0	49.8	
67 1,2-Dichloropropane	63	7.904	7.897	0.007	90	108590	50.0	43.5	
68 Dibromomethane	93	8.026	8.019	0.007	96	56831	50.0	50.4	
70 1,4-Dioxane	88	8.062	8.068	-0.006	95	20509	1000.0	921.8	
71 Dichlorobromomethane	83	8.202	8.196	0.006	98	105842	50.0	50.4	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	98	90940	50.0	32.7	
75 4-Methyl-2-pentanone (MIBK	43	8.823	8.828	-0.005	100	225362	100.0	87.0	
76 Toluene	91	8.993	8.992	0.001	100	484640	50.0	54.7	
77 trans-1,3-Dichloropropene	75	9.224	9.224	0.000	96	51653	50.0	27.7	
78 Ethyl methacrylate	69	9.321	9.321	0.000	99	72830	50.0	34.7	
79 1,1,2-Trichloroethane	97	9.401	9.400	0.001	99	83788	50.0	51.8	
80 Tetrachloroethene	164	9.534	9.540	-0.006	97	90922	50.0	55.6	
81 1,3-Dichloropropane	76	9.565	9.564	0.001	99	156853	50.0	51.6	
82 2-Hexanone	43	9.656	9.662	-0.006	99	138842	100.0	76.8	
84 Chlorodibromomethane	129	9.790	9.789	0.001	98	57026	50.0	53.6	
85 Ethylene Dibromide	107	9.905	9.905	0.000	98	72287	50.0	46.4	
86 3-Chlorobenzotrifluoride	180	10.368	10.373	-0.005	95	144139	50.0	53.1	
87 Chlorobenzene	112	10.392	10.392	0.000	100	299465	50.0	52.8	
88 4-Chlorobenzotrifluoride	180	10.429	10.434	-0.005	99	132478	50.0	51.0	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.471	0.000	93	61545	50.0	47.1	
90 Ethylbenzene	106	10.502	10.501	0.001	100	180093	50.0	54.9	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	219713	50.0	54.4	
92 o-Xylene	106	11.013	11.012	0.001	96	213500	50.0	54.5	
93 Styrene	104	11.025	11.024	0.001	99	331361	50.0	51.7	
94 Bromoform	173	11.213	11.213	0.000	97	31255	50.0	55.6	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	99	141711	50.0	52.6	
97 Isopropylbenzene	105	11.378	11.377	0.001	99	561921	50.0	58.4	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.675	0.001	97	118724	50.0	52.9	
100 Bromobenzene	156	11.682	11.681	0.001	98	117951	50.0	56.3	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	97	38996	50.0	55.6	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.736	0.001	84	28544	50.0	41.9	
103 N-Propylbenzene	120	11.785	11.791	-0.006	100	155860	50.0	56.0	
104 2-Chlorotoluene	126	11.877	11.876	0.001	100	128903	50.0	56.1	
105 3-Chlorotoluene	126	11.937	11.937	0.000	40	118982	50.0	50.7	
106 1,3,5-Trimethylbenzene	105	11.962	11.961	0.001	100	437270	50.0	56.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.986	11.986	0.000	96	127974	50.0	51.6	
108 tert-Butylbenzene	119	12.290	12.290	0.000	99	376008	50.0	56.6	
110 1,2,4-Trimethylbenzene	105	12.339	12.338	0.001	98	440296	50.0	55.4	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.405	-0.005	98	100727	50.0	56.2	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	553750	50.0	57.9	
113 1,3-Dichlorobenzene	146	12.619	12.618	0.001	99	221162	50.0	53.5	
114 4-Isopropyltoluene	119	12.649	12.655	-0.006	100	440354	50.0	56.2	
115 1,4-Dichlorobenzene	146	12.710	12.709	0.001	98	230294	50.0	55.3	
116 2,4-Dichloro-1-(triflourom	214	12.759	12.758	0.001	95	92580	50.0	54.3	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	97	104270	50.0	56.1	
120 n-Butylbenzene	91	13.063	13.062	0.001	100	396390	50.0	56.9	
121 1,2-Dichlorobenzene	146	13.081	13.081	0.000	98	209172	50.0	55.3	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.859	0.001	96	10258	50.0	41.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.005	0.001	99	380399	150.0	147.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.425	0.001	100	235147	100.0	92.0	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	99	95316	50.0	50.4	
127 Hexachlorobutadiene	225	14.864	14.863	0.001	96	47275	50.0	58.5	
128 Naphthalene	128	14.937	14.936	0.001	100	259579	50.0	47.3	
129 1,2,3-Trichlorobenzene	180	15.180	15.185	-0.005	98	76964	50.0	47.4	
131 2,4,5-Trichlorotoluene	159	15.965	15.964	0.001	97	33252	50.0	40.5	
130 2,3,6-Trichlorotoluene	159	16.062	16.068	-0.006	97	30887	50.0	40.8	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.9	
S 133 Xylenes, Total	106				0		100.0	108.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	60.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00105	Amount Added:	2.00	Units: uL		
VOAEE2ND_00001	Amount Added:	2.00	Units: uL		
VOAVA2ND_00002	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00003	Amount Added:	2.00	Units: uL		
VOAACRO2ND_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00029	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00031	Amount Added:	2.00	Units: uL	Run Reagent	

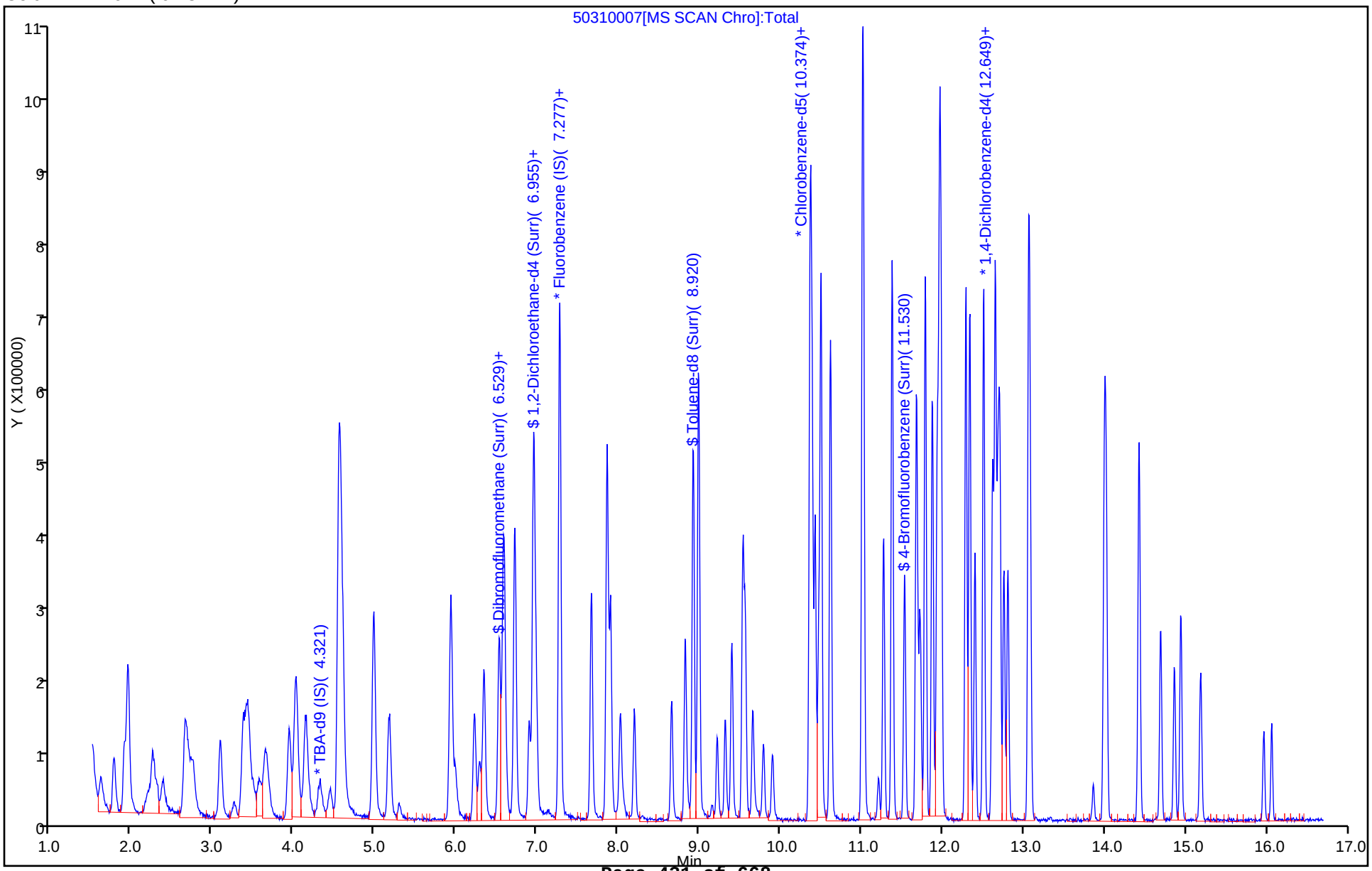
Report Date: 11-Mar-2015 07:28:19 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150310-5958.b\50310007.D

Injection Date:	10-Mar-2015 14:12:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/03/2015 12:21

Analysis Batch Number: 134613 End Date: 03/03/2015 19:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-134613/6		03/03/2015 12:21	1	50303006.D	DB-624 0.18(mm)
IC 180-134613/8		03/03/2015 14:28	1	50303008.D	DB-624 0.18(mm)
ICIS 180-134613/9		03/03/2015 14:52	1	50303009.D	DB-624 0.18(mm)
IC 180-134613/10		03/03/2015 15:16	1	50303010.D	DB-624 0.18(mm)
IC 180-134613/11		03/03/2015 15:40	1	50303011.D	DB-624 0.18(mm)
IC 180-134613/12		03/03/2015 16:04	1	50303012.D	DB-624 0.18(mm)
IC 180-134613/13		03/03/2015 16:28	1	50303013.D	DB-624 0.18(mm)
IC 180-134613/14		03/03/2015 16:52	1	50303014.D	DB-624 0.18(mm)
IC 180-134613/18		03/03/2015 18:29	1	50303018.D	DB-624 0.18(mm)
ICV 180-134613/20		03/03/2015 19:17	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/09/2015 10:37

Analysis Batch Number: 135049 End Date: 03/09/2015 22:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-135049/1		03/09/2015 10:37	1	50309001.D	DB-624 0.18(mm)
CCVIS 180-135049/2		03/09/2015 11:37	1	50309002.D	DB-624 0.18(mm)
MB 180-135049/4		03/09/2015 12:47	1	50309004.D	DB-624 0.18(mm)
ZZZZZ		03/09/2015 13:42	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 14:06	1		DB-624 0.18(mm)
LCS 180-135049/7		03/09/2015 14:31	1	50309007.D	DB-624 0.18(mm)
ZZZZZ		03/09/2015 14:55	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 15:19	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 16:07	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 16:31	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 16:55	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 17:19	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 17:44	1		DB-624 0.18(mm)
ZZZZZ		03/09/2015 18:08	1		DB-624 0.18(mm)
180-41569-1	HD-QC2-0/1-1	03/09/2015 18:32	1	50309017.D	DB-624 0.18(mm)
ZZZZZ		03/09/2015 18:56	1		DB-624 0.18(mm)
180-41569-3	HD-MW-50D-0/1-0	03/09/2015 19:20	40	50309019.D	DB-624 0.18(mm)
180-41569-4	HD-MW-51S-0/1-0	03/09/2015 20:09	50	50309021.D	DB-624 0.18(mm)
180-41569-5	HD-CW-18-0/1-0	03/09/2015 20:33	1	50309022.D	DB-624 0.18(mm)
180-41569-6	HD-MW-114-0/1-0	03/09/2015 21:21	12.5	50309024.D	DB-624 0.18(mm)
180-41569-9	HD-MW-96S-0/1-0	03/09/2015 22:33	10	50309027.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/10/2015 10:55

Analysis Batch Number: 135153 End Date: 03/10/2015 22:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-135153/1		03/10/2015 10:55	1	50310001.D	DB-624 0.18(mm)
CCVIS 180-135153/2		03/10/2015 11:37	1	50310002.D	DB-624 0.18(mm)
MB 180-135153/4		03/10/2015 12:44	1	50310004.D	DB-624 0.18(mm)
ZZZZZ		03/10/2015 13:23	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 13:48	1		DB-624 0.18(mm)
LCS 180-135153/7		03/10/2015 14:12	1	50310007.D	DB-624 0.18(mm)
ZZZZZ		03/10/2015 14:36	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 15:00	1		DB-624 0.18(mm)
180-41569-2	HD-QC4-0/1-2	03/10/2015 15:48	1	50310011.D	DB-624 0.18(mm)
180-41569-3 DL	HD-MW-50D-0/1-0 DL	03/10/2015 16:12	400	50310012.D	DB-624 0.18(mm)
180-41569-6 DL	HD-MW-114-0/1-0 DL	03/10/2015 16:36	125	50310013.D	DB-624 0.18(mm)
180-41569-7	HD-MW-7-0/1-0	03/10/2015 17:00	10	50310014.D	DB-624 0.18(mm)
180-41569-8	HD-CW-17-0/1-0	03/10/2015 17:25	5	50310015.D	DB-624 0.18(mm)
180-41569-9 DL	HD-MW-96S-0/1-0 DL	03/10/2015 17:49	25	50310016.D	DB-624 0.18(mm)
180-41569-10	HD-MW-96D-0/1-0	03/10/2015 18:13	10	50310017.D	DB-624 0.18(mm)
ZZZZZ		03/10/2015 18:37	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 19:01	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 19:26	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 19:50	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 20:14	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 20:38	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 21:02	50		DB-624 0.18(mm)
ZZZZZ		03/10/2015 21:26	50		DB-624 0.18(mm)
ZZZZZ		03/10/2015 21:50	1		DB-624 0.18(mm)
ZZZZZ		03/10/2015 22:14	12.5		DB-624 0.18(mm)
ZZZZZ		03/10/2015 22:38	1		DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-27-2015-5.d

Lab ID: LCS 180-134413/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.71	108	90-110	
Chloride	50.0	50.3	101	90-110	
Sulfate	50.0	50.0	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.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-27-2015-8.d

Lab ID: 180-41569-8 MS Client ID: HD-CW-17-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	2.3	3.58	101	80-120	
Chloride	25.0	120	141	94	80-120	4
Sulfate	25.0	41	65.5	97	80-120	

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.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-27-2015-18.d

Lab ID: 180-41569-10 MS Client ID: HD-MW-96D-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	4.1	5.19	88	80-120	
Chloride	25.0	140	161	87	80-120	4
Sulfate	25.0	49	72.8	94	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.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-27-2015-9.d

Lab ID: 180-41569-8 MSD Client ID: HD-CW-17-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	3.57	101	0	20	80-120	
Chloride	25.0	140	92	0	20	80-120	4
Sulfate	25.0	65.6	98	0	20	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.: 180-41569-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 02-27-2015-19.d

Lab ID: 180-41569-10 MSD Client ID: HD-MW-96D-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	5.23	91	1	20	80-120	
Chloride	25.0	163	92	1	20	80-120	4
Sulfate	25.0	73.4	96	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.: 180-41569-1

SDG No.:

Lab File ID: A-ICS2100 A 02-27-2015-6.d Lab Sample ID: MB 180-134413/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 02/27/2015 10:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-134413/4	A-ICS2100 A 02-27-2015-4.d	02/27/2015 09:52
	LCS 180-134413/5	A-ICS2100 A 02-27-2015-5.d	02/27/2015 10:08
HD-CW-17-0/1-0	180-41569-8	A-ICS2100 A 02-27-2015-7.d	02/27/2015 11:41
HD-CW-17-0/1-0 MS	180-41569-8 MS	A-ICS2100 A 02-27-2015-8.d	02/27/2015 12:08
HD-CW-17-0/1-0 MSD	180-41569-8 MSD	A-ICS2100 A 02-27-2015-9.d	02/27/2015 12:24
HD-MW-50D-0/1-0	180-41569-3	A-ICS2100 A 02-27-2015-10.d	02/27/2015 12:46
HD-MW-51S-0/1-0	180-41569-4	A-ICS2100 A 02-27-2015-11.d	02/27/2015 13:01
HD-MW-7-0/1-0	180-41569-7	A-ICS2100 A 02-27-2015-12.d	02/27/2015 13:17
HD-MW-96S-0/1-0	180-41569-9	A-ICS2100 A 02-27-2015-13.d	02/27/2015 13:32
HD-MW-96D-0/1-0	180-41569-10	A-ICS2100 A 02-27-2015-14.d	02/27/2015 13:47
	CCB 180-134413/16	A-ICS2100 A 02-27-2015-16.d	02/27/2015 14:18
HD-MW-114-0/1-0	180-41569-6	A-ICS2100 A 02-27-2015-17.d	02/27/2015 14:33
HD-MW-96D-0/1-0 MS	180-41569-10 MS	A-ICS2100 A 02-27-2015-18.d	02/27/2015 14:48
HD-MW-96D-0/1-0 MSD	180-41569-10 MSD	A-ICS2100 A 02-27-2015-19.d	02/27/2015 15:04
HD-QC2-0/1-1	180-41569-1	A-ICS2100 A 02-27-2015-20.d	02/27/2015 15:24

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab File ID: A-ICS2100 A 02-27-2015-6.d Lab Sample ID: MB 180-134413/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 02/27/2015 10:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-QC2-0/1-1	180-41569-1	A-ICS2100 A 02-27-2015-21.d	02/27/2015 15:39
HD-CW-18-0/1-0	180-41569-5	A-ICS2100 A 02-27-2015-22.d	02/27/2015 15:55
HD-CW-18-0/1-0	180-41569-5	A-ICS2100 A 02-27-2015-23.d	02/27/2015 16:10
HD-MW-50D-0/1-0	180-41569-3	A-ICS2100 A 02-27-2015-24.d	02/27/2015 16:25
	CCB 180-134413/28	A-ICS2100 A 02-27-2015-28.d	02/27/2015 17:27

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-41569-1

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-20.d

Analysis Method: 300.0 Date Collected: 02/26/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 15:24

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.051	J	0.10	0.0062

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-20.d
Lims ID: 180-41569-A-1 Lab Sample ID: 180-41569-1
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 27-Feb-2015 15:24:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-020
Misc. Info.: 20 180-41569-a-1
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.000	-0.017	538154266H	212.2	E
3 Sulfate	5.342	5.525	-0.183	4240934679	270.9	E
5 Nitrate as N	7.275	7.225	0.050	162334H	0.0508	

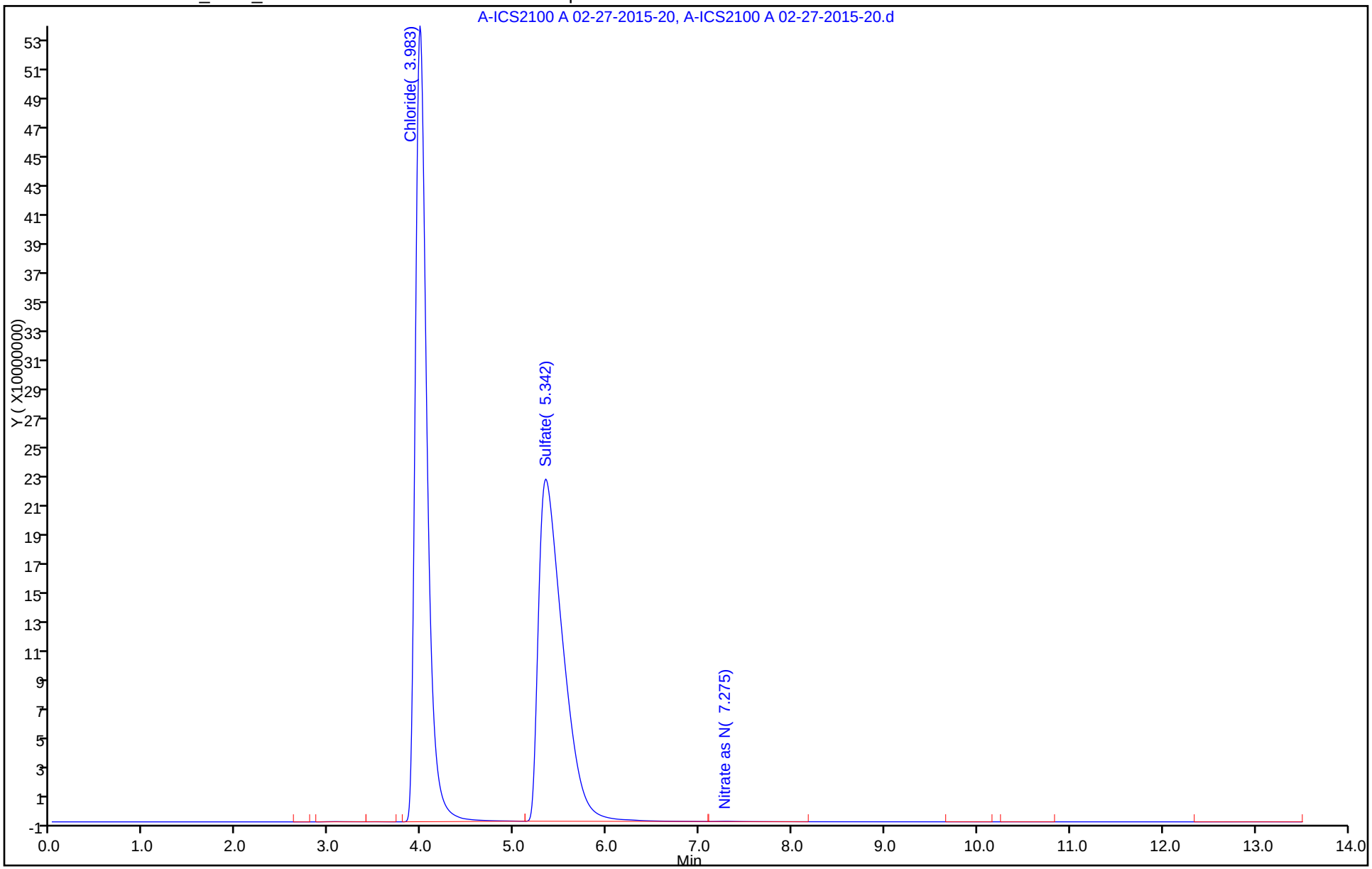
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

Report Date: 10-Mar-2015 09:08:01 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-20.d				
Injection Date:	27-Feb-2015 15:24:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-1	Lab Sample ID:	180-41569-1	Worklist Smp#:	20
Client ID:	HD-QC2-0/1-1				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-41569-1

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-21.d

Analysis Method: 300.0 Date Collected: 02/26/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 15:39

Con. Extract Vol.: 1.0(mL) Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	230	B	5.0	0.98
14808-79-8	Sulfate	290		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-21.d
Lims ID: 180-41569-A-1 Lab Sample ID: 180-41569-1
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 27-Feb-2015 15:39:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0005844-021
Misc. Info.: 21 180-41569-a-1 5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

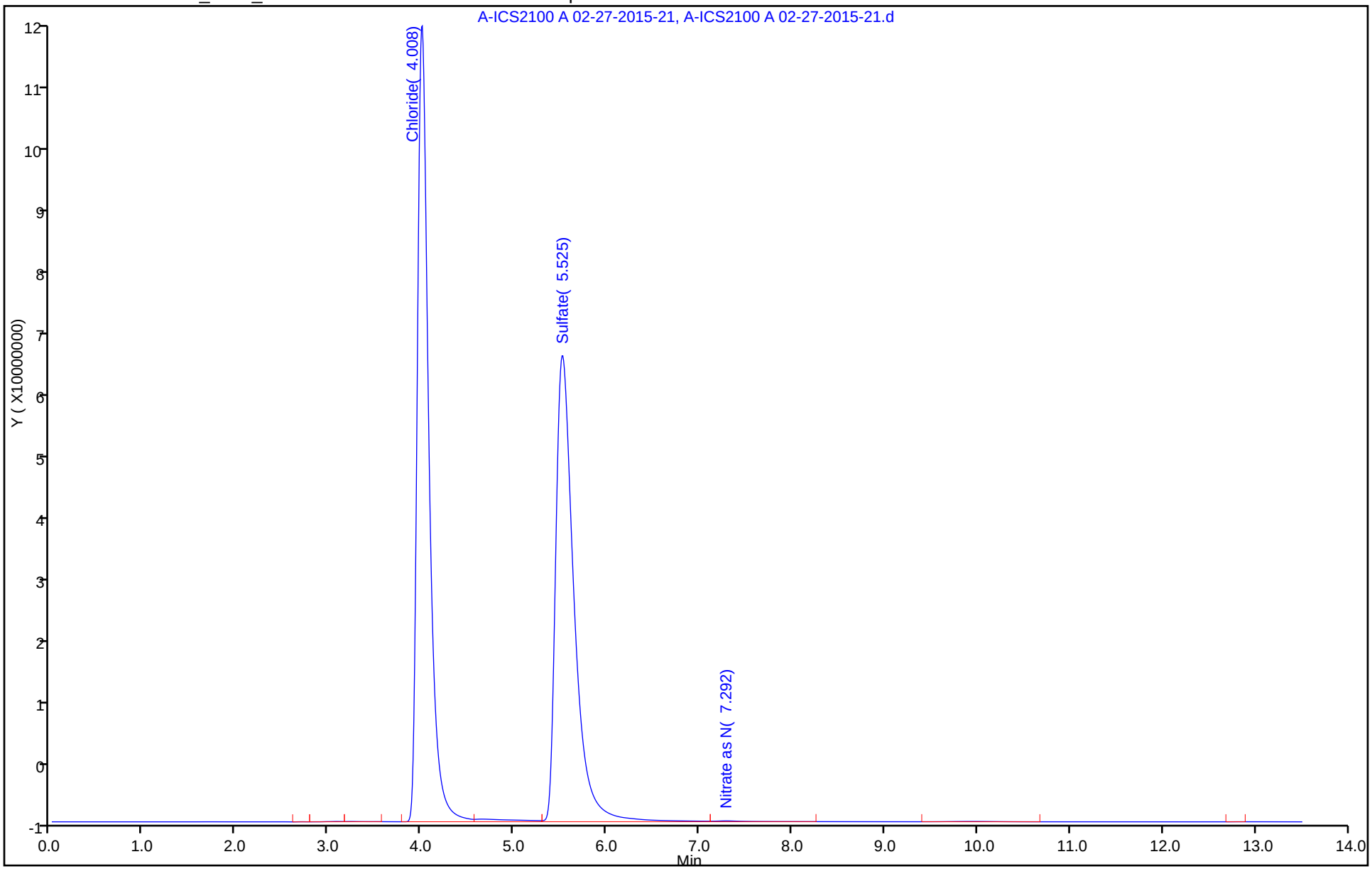
Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.000	0.008	114407060	H 45.3	
3 Sulfate	5.525	5.525	0.000	924177871	59.0	
5 Nitrate as N	7.292	7.225	0.067	112805	H 0.0382	

Report Date: 10-Mar-2015 09:08:02 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-21.d				
Injection Date:	27-Feb-2015 15:39:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-1	Lab Sample ID:	180-41569-1	Worklist Smp#:	21
Client ID:	HD-QC2-0/1-1				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-41569-3

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-10.d

Analysis Method: 300.0 Date Collected: 02/26/2015 11:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 12:46

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 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	100	B	1.0	0.20

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-10.d
Lims ID: 180-41569-A-3 Lab Sample ID: 180-41569-3
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 27-Feb-2015 12:46:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-010
Misc. Info.: 10 180-41569-a-3
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	254748279H	100.6	
3 Sulfate	5.342	5.533	-0.191	4095384982	261.6	E
5 Nitrate as N		7.217		ND		

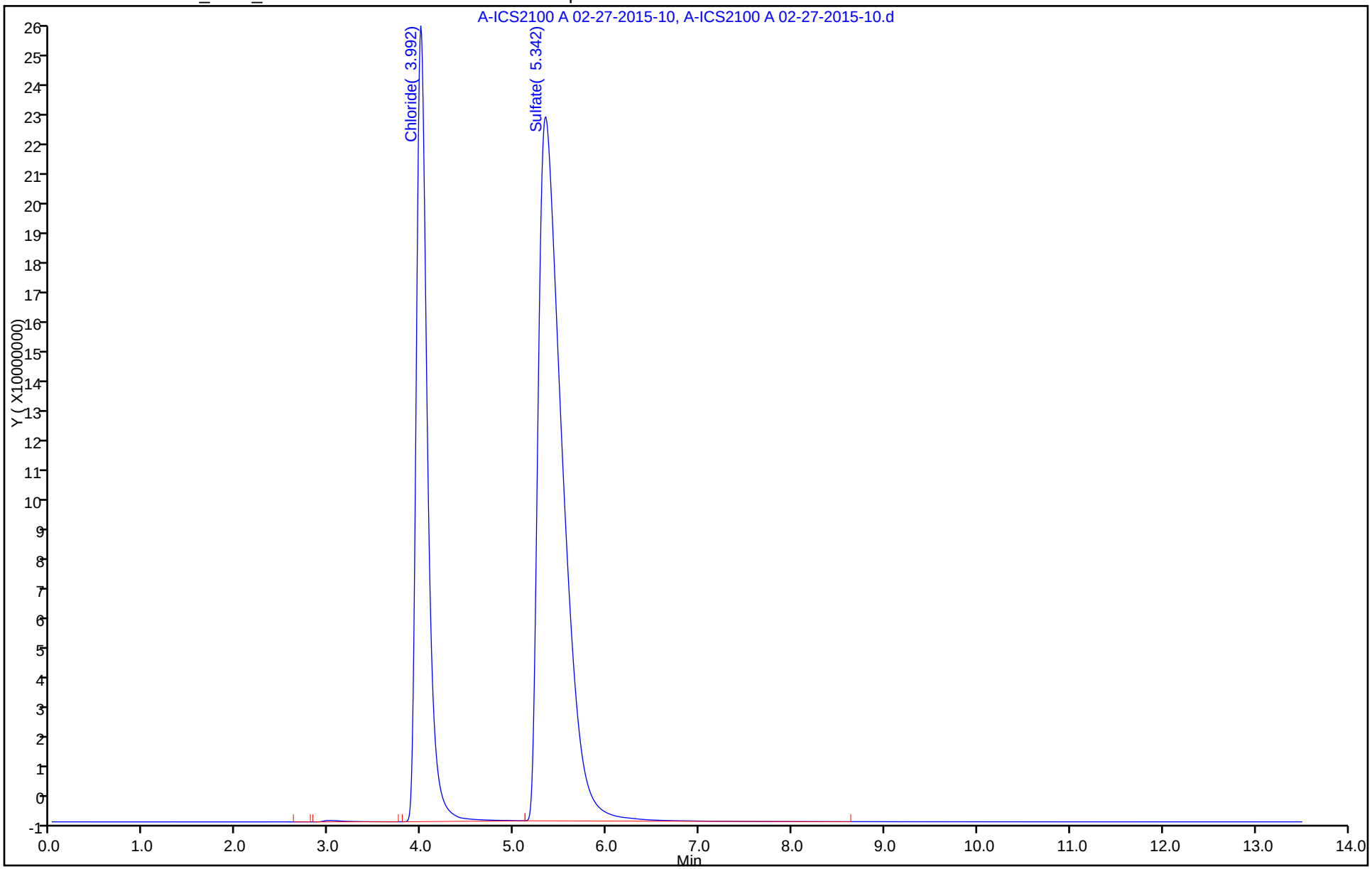
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

Report Date: 10-Mar-2015 09:07:57 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-10.d				
Injection Date:	27-Feb-2015 12:46:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-3	Lab Sample ID:	180-41569-3	Worklist Smp#:	10
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-41569-3

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-24.d

Analysis Method: 300.0 Date Collected: 02/26/2015 11:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 16:25

Con. Extract Vol.: 1.0(mL) Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	270		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

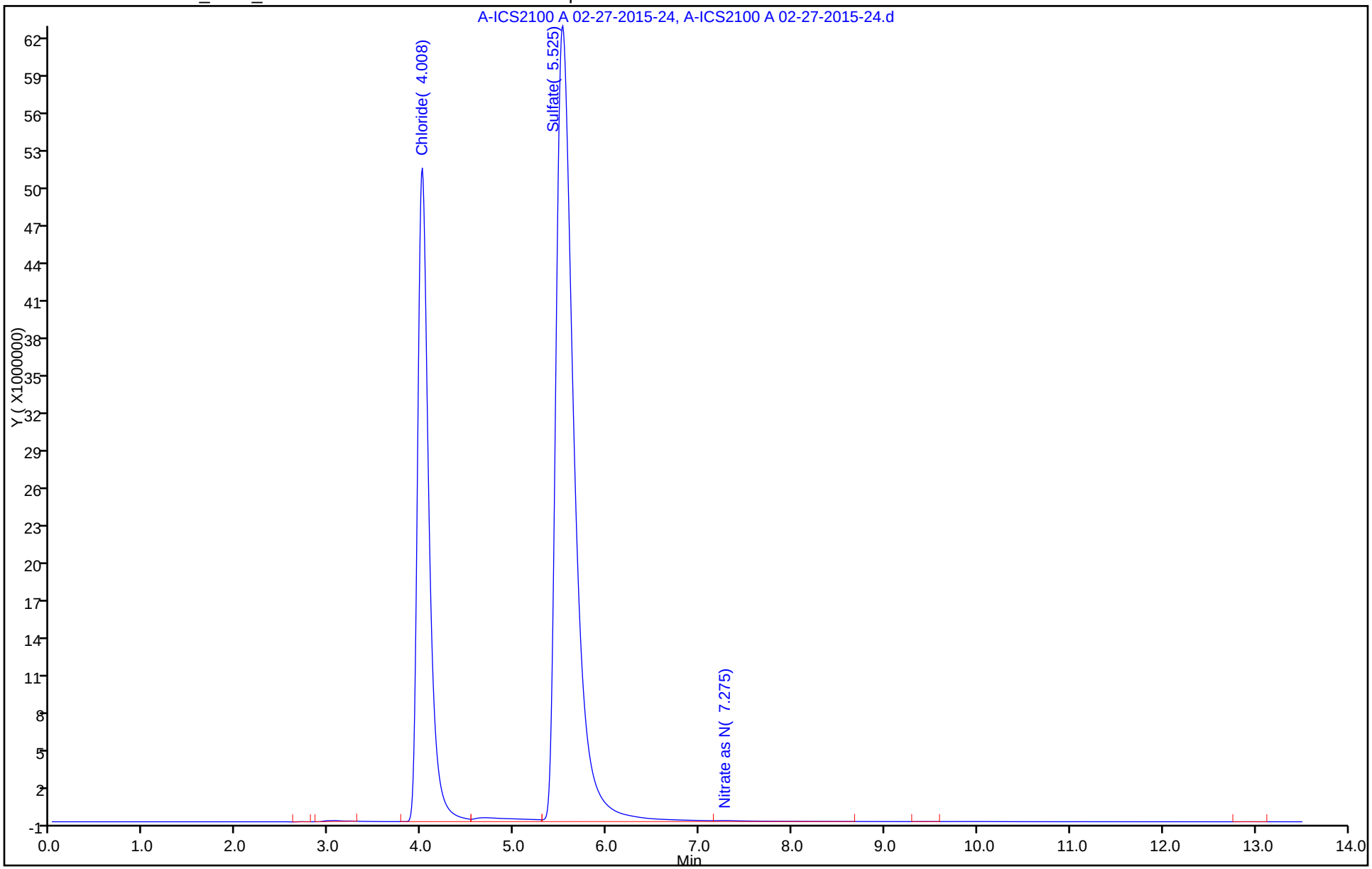
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-24.d				
Lims ID:	180-41569-A-3	Lab Sample ID:	180-41569-3		
Client ID:	HD-MW-50D-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Feb-2015 16:25:00	ALS Bottle#:	0	Worklist Smp#:	24
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0005844-024				
Misc. Info.:	28496 180-41569-a-3 5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	10-Mar-2015 09:07:59	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK032				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.000	0.008	51291130H	20.5	
3 Sulfate	5.525	5.525	0.000	858750210	54.8	
5 Nitrate as N	7.275	7.225	0.050	78417H	0.0295	

Report Date: 10-Mar-2015 09:08:03 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-24.d				
Injection Date:	27-Feb-2015 16:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-3	Lab Sample ID:	180-41569-3	Worklist Smp#:	24
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-41569-4

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-11.d

Analysis Method: 300.0 Date Collected: 02/26/2015 13:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 13:01

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.9		0.10	0.0062
16887-00-6	Chloride	170	B	1.0	0.20
14808-79-8	Sulfate	54		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-11.d
Lims ID: 180-41569-A-4 Lab Sample ID: 180-41569-4
Client ID: HD-MW-51S-0/1-0
Sample Type: Client
Inject. Date: 27-Feb-2015 13:01:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-011
Misc. Info.: 11 180-41569-a-4
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

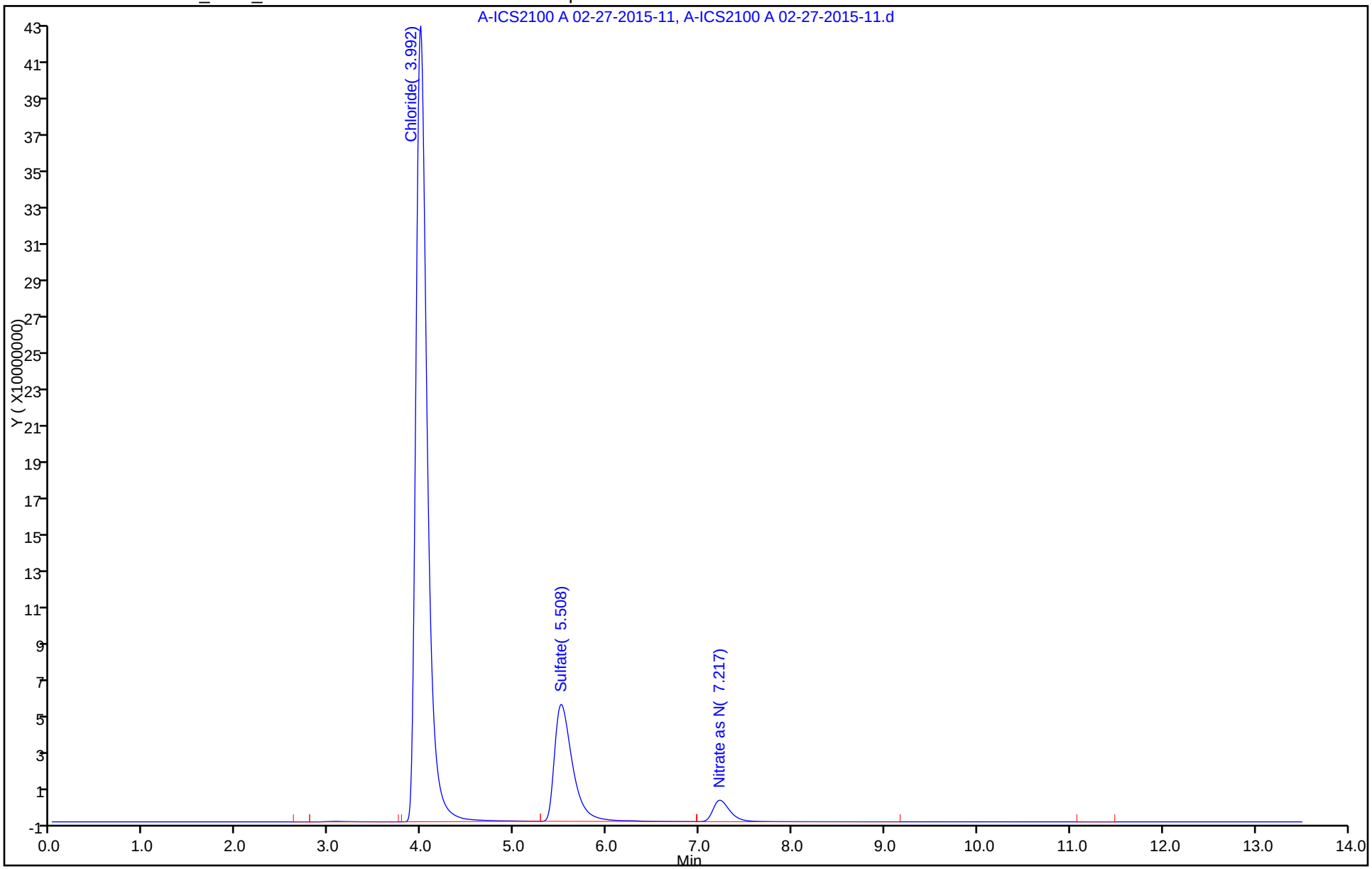
Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	425379094	H 167.8	
3 Sulfate	5.508	5.533	-0.025	849964436	54.2	
5 Nitrate as N	7.217	7.217	0.000	11430129	H 2.92	

Report Date: 10-Mar-2015 09:07:58 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-11.d				
Injection Date:	27-Feb-2015 13:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-4	Lab Sample ID:	180-41569-4	Worklist Smp#:	11
Client ID:	HD-MW-51S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-41569-5

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-22.d

Analysis Method: 300.0 Date Collected: 02/26/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 15:55

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.065	J	0.10	0.0062

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-22.d
Lims ID: 180-41569-A-5 Lab Sample ID: 180-41569-5
Client ID: HD-CW-18-0/1-0
Sample Type: Client
Inject. Date: 27-Feb-2015 15:55:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-022
Misc. Info.: 22 180-41569-a-5
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.000	-0.017	554926875H	218.8	E
3 Sulfate	5.333	5.525	-0.192	4440406920	283.7	E
5 Nitrate as N	7.275	7.225	0.050	219678H	0.0654	

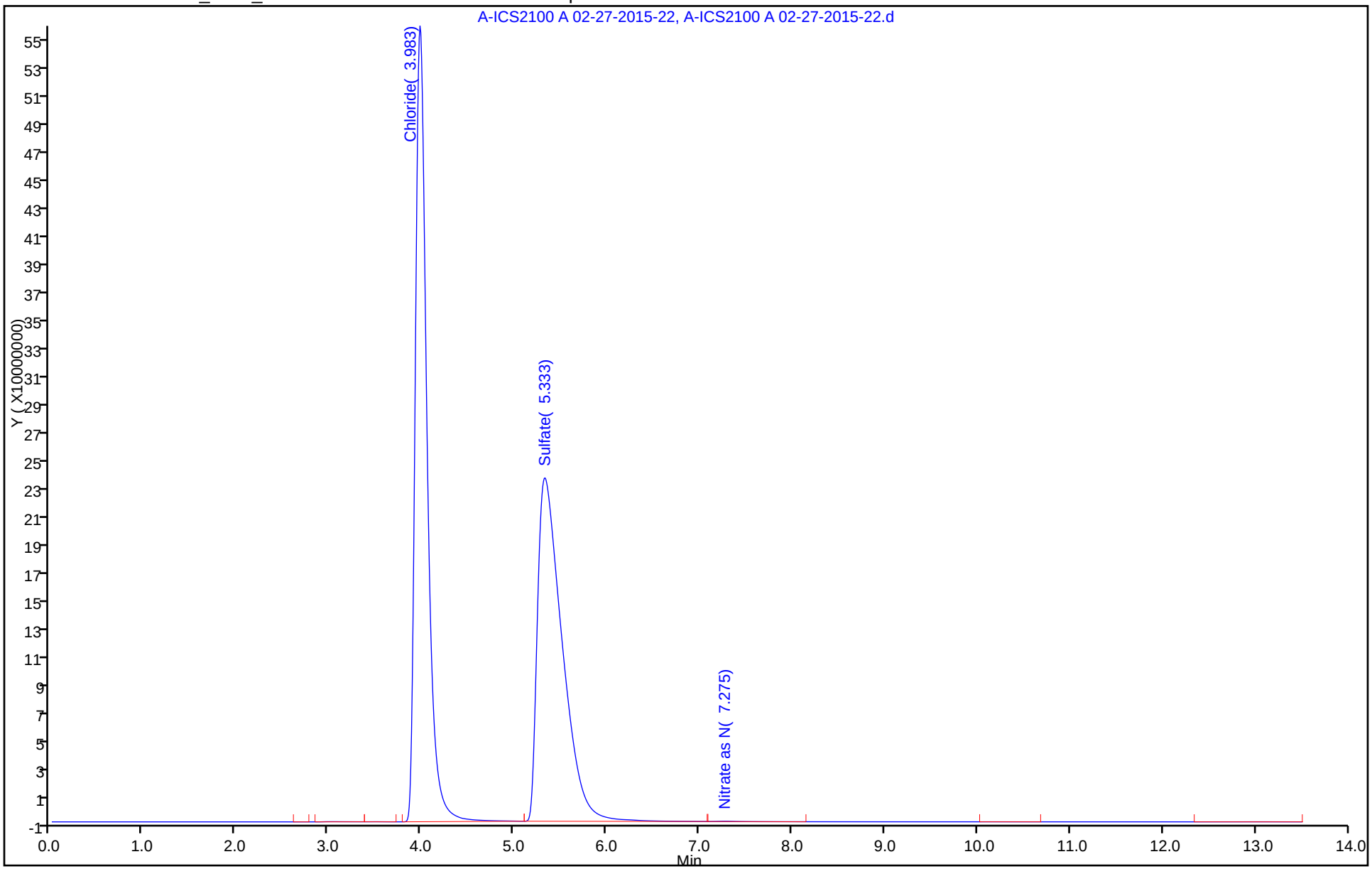
QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

Report Date: 10-Mar-2015 09:08:02 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-22.d				
Injection Date:	27-Feb-2015 15:55:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-5	Lab Sample ID:	180-41569-5	Worklist Smp#:	22
Client ID:	HD-CW-18-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-41569-5

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-23.d

Analysis Method: 300.0 Date Collected: 02/26/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 16:10

Con. Extract Vol.: 1.0(mL) Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	230	B	5.0	0.98
14808-79-8	Sulfate	300		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

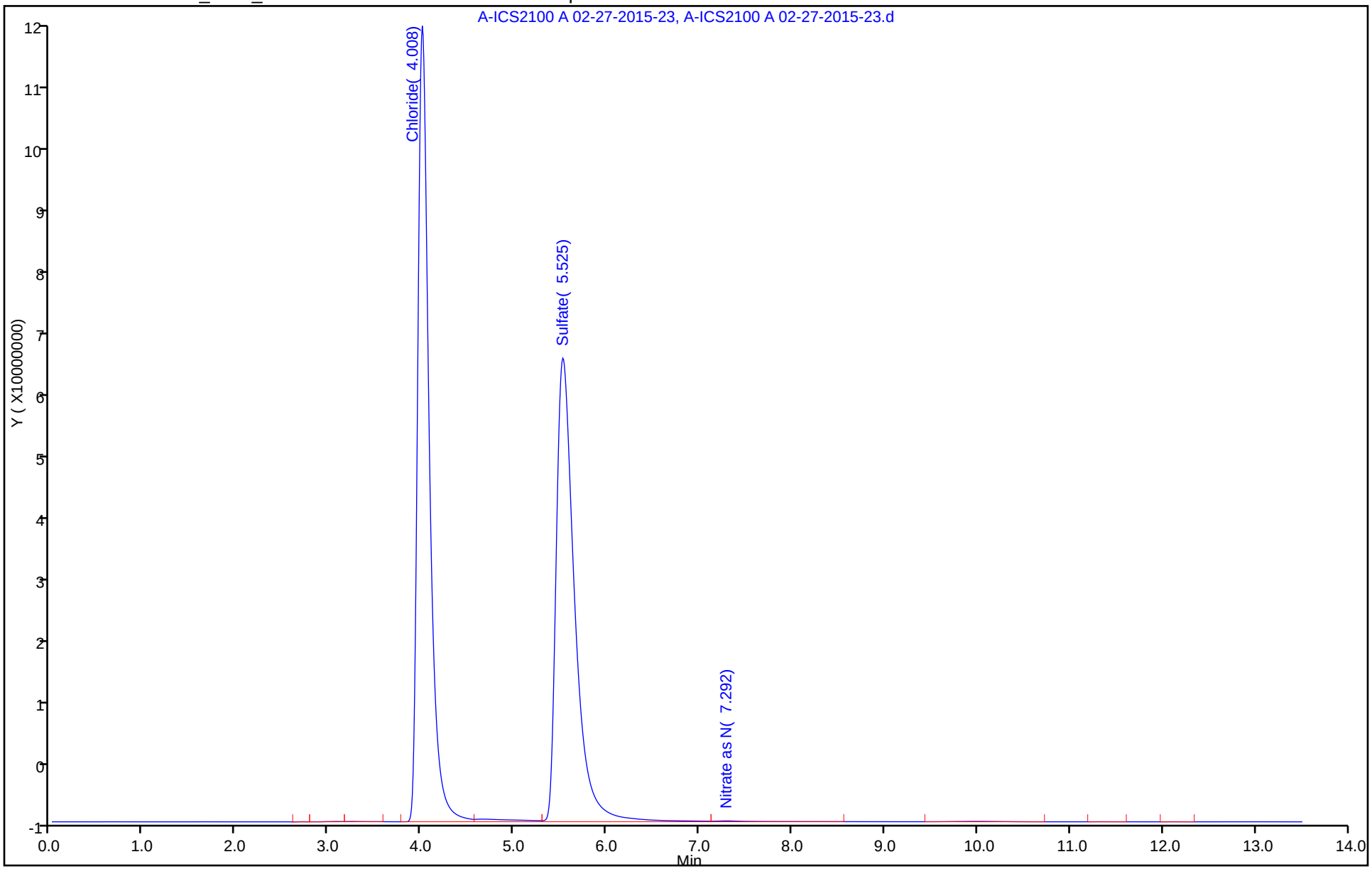
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-23.d				
Lims ID:	180-41569-A-5	Lab Sample ID:	180-41569-5		
Client ID:	HD-CW-18-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Feb-2015 16:10:00	ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0005844-023				
Misc. Info.:	23 180-41569-a-5 5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	10-Mar-2015 09:07:59	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK032				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.000	0.008	114461096H	45.3	
3 Sulfate	5.525	5.525	0.000	926357807	59.1	
5 Nitrate as N	7.292	7.225	0.067	109505H	0.0374	

Report Date: 10-Mar-2015 09:08:03 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-23.d				
Injection Date:	27-Feb-2015 16:10:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-5	Lab Sample ID:	180-41569-5	Worklist Smp#:	23
Client ID:	HD-CW-18-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-41569-6

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-17.d

Analysis Method: 300.0 Date Collected: 02/26/2015 11:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 14:33

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.34		0.10	0.0062
16887-00-6	Chloride	160	B	1.0	0.20
14808-79-8	Sulfate	73		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-17.d
Lims ID: 180-41569-A-6 Lab Sample ID: 180-41569-6
Client ID: HD-MW-114-0/1-0
Sample Type: Client
Inject. Date: 27-Feb-2015 14:33:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-017
Misc. Info.: 17 180-41569-a-6
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

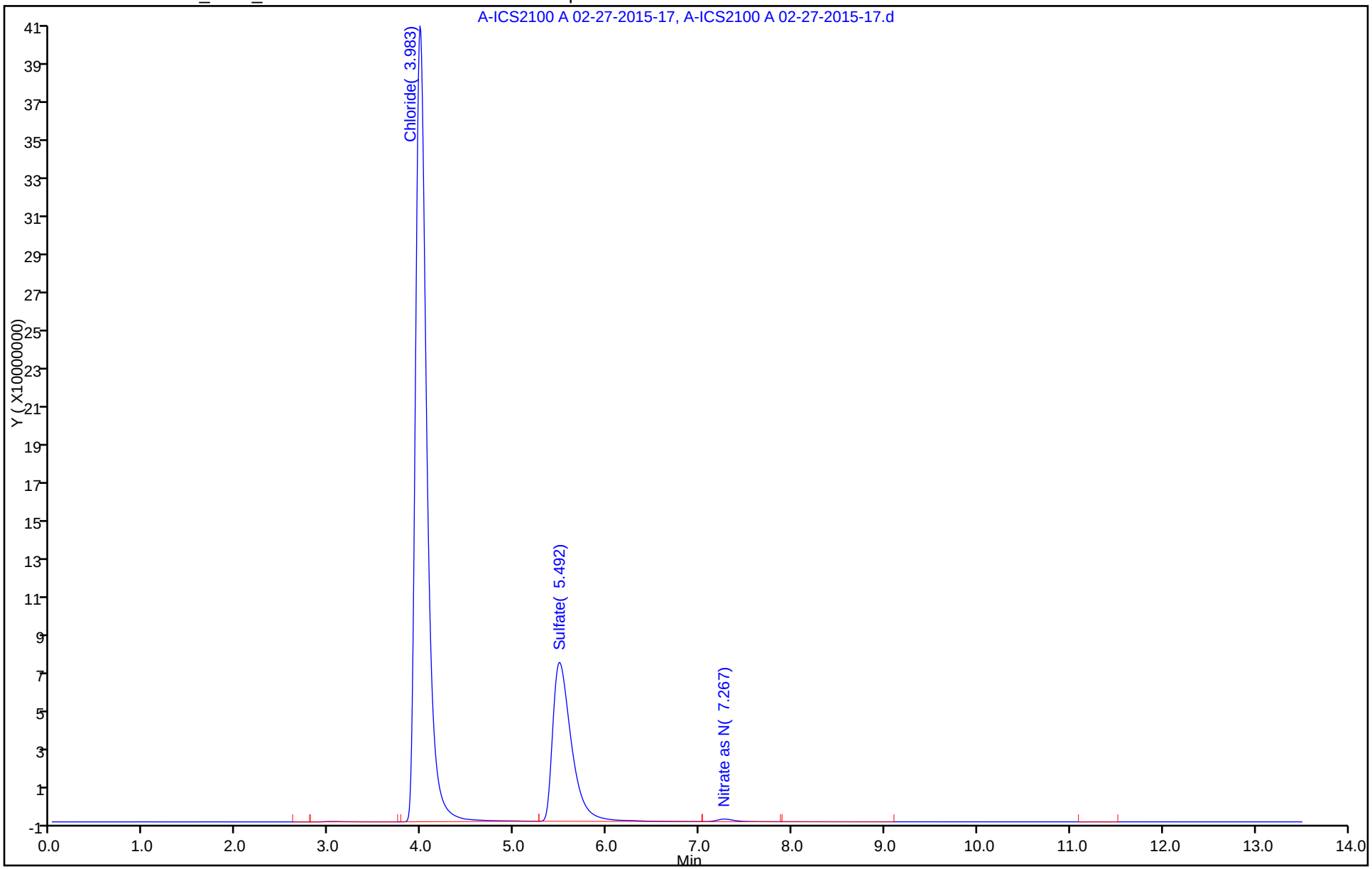
Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.000	-0.017	405754694	H 160.1	
3 Sulfate	5.492	5.525	-0.033	1141627330	72.9	
5 Nitrate as N	7.267	7.225	0.042	1279485	H 0.3353	

Report Date: 10-Mar-2015 09:08:00 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-17.d				
Injection Date:	27-Feb-2015 14:33:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-6	Lab Sample ID:	180-41569-6	Worklist Smp#:	17
Client ID:	HD-MW-114-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-41569-7

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-12.d

Analysis Method: 300.0 Date Collected: 02/26/2015 14:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 13:17

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.2		0.10	0.0062
16887-00-6	Chloride	170	B	1.0	0.20
14808-79-8	Sulfate	39		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

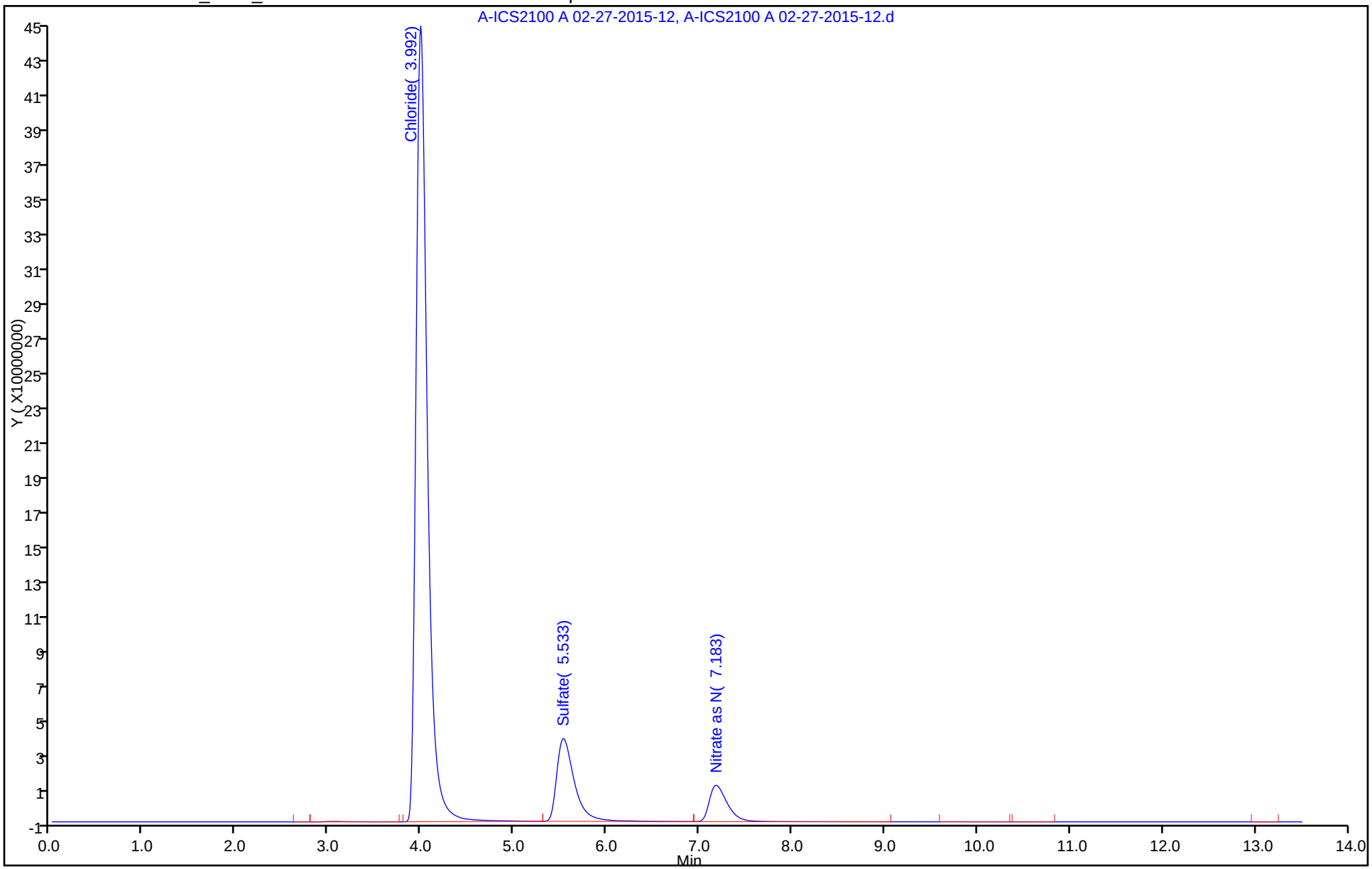
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-12.d				
Lims ID:	180-41569-A-7	Lab Sample ID:	180-41569-7		
Client ID:	HD-MW-7-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Feb-2015 13:17:00	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005844-012				
Misc. Info.:	12 180-41569-a-7				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	10-Mar-2015 09:07:54	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK032				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	443496794	H 174.9	
3 Sulfate	5.533	5.533	0.000	611520921	39.0	
5 Nitrate as N	7.183	7.217	-0.034	20205788	H 5.15	

Report Date: 10-Mar-2015 09:07:58 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-12.d				
Injection Date:	27-Feb-2015 13:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-7	Lab Sample ID:	180-41569-7	Worklist Smp#:	12
Client ID:	HD-MW-7-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-41569-8

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-7.d

Analysis Method: 300.0 Date Collected: 02/26/2015 05:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 11:41

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3		0.10	0.0062
16887-00-6	Chloride	120	B	1.0	0.20
14808-79-8	Sulfate	41		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-7.d
Lims ID: 180-41569-A-8 Lab Sample ID: 180-41569-8
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 27-Feb-2015 11:41:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-007
Misc. Info.: 7 180-41569-a-8
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

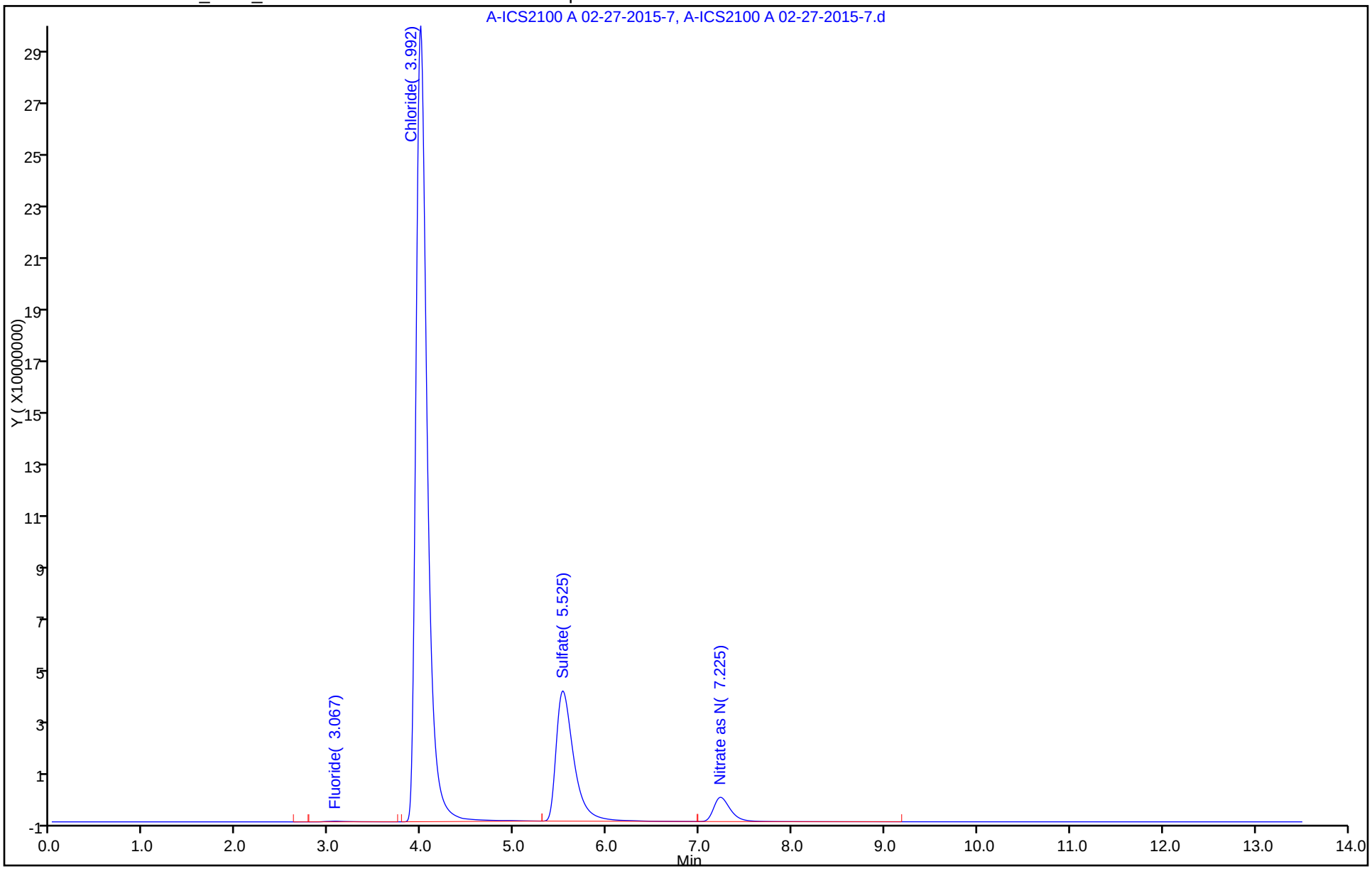
Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	2.992	0.075	233209	H 0.0931	
2 Chloride	3.992	4.000	-0.008	296986762	H 117.2	
7 Nitrite as N		4.692			ND	
3 Sulfate	5.525	5.533	-0.008	646472294	41.2	
4 Bromide		6.242			ND	
5 Nitrate as N	7.225	7.217	0.008	9039575	H 2.31	
6 Orthophosphate as P		10.417			ND	

Report Date: 10-Mar-2015 09:07:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-7.d				
Injection Date:	27-Feb-2015 11:41:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-8	Lab Sample ID:	180-41569-8	Worklist Smp#:	7
Client ID:	HD-CW-17-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-41569-9

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-13.d

Analysis Method: 300.0 Date Collected: 02/26/2015 15:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 13:32

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.1		0.10	0.0062
16887-00-6	Chloride	160	B	1.0	0.20
14808-79-8	Sulfate	55		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

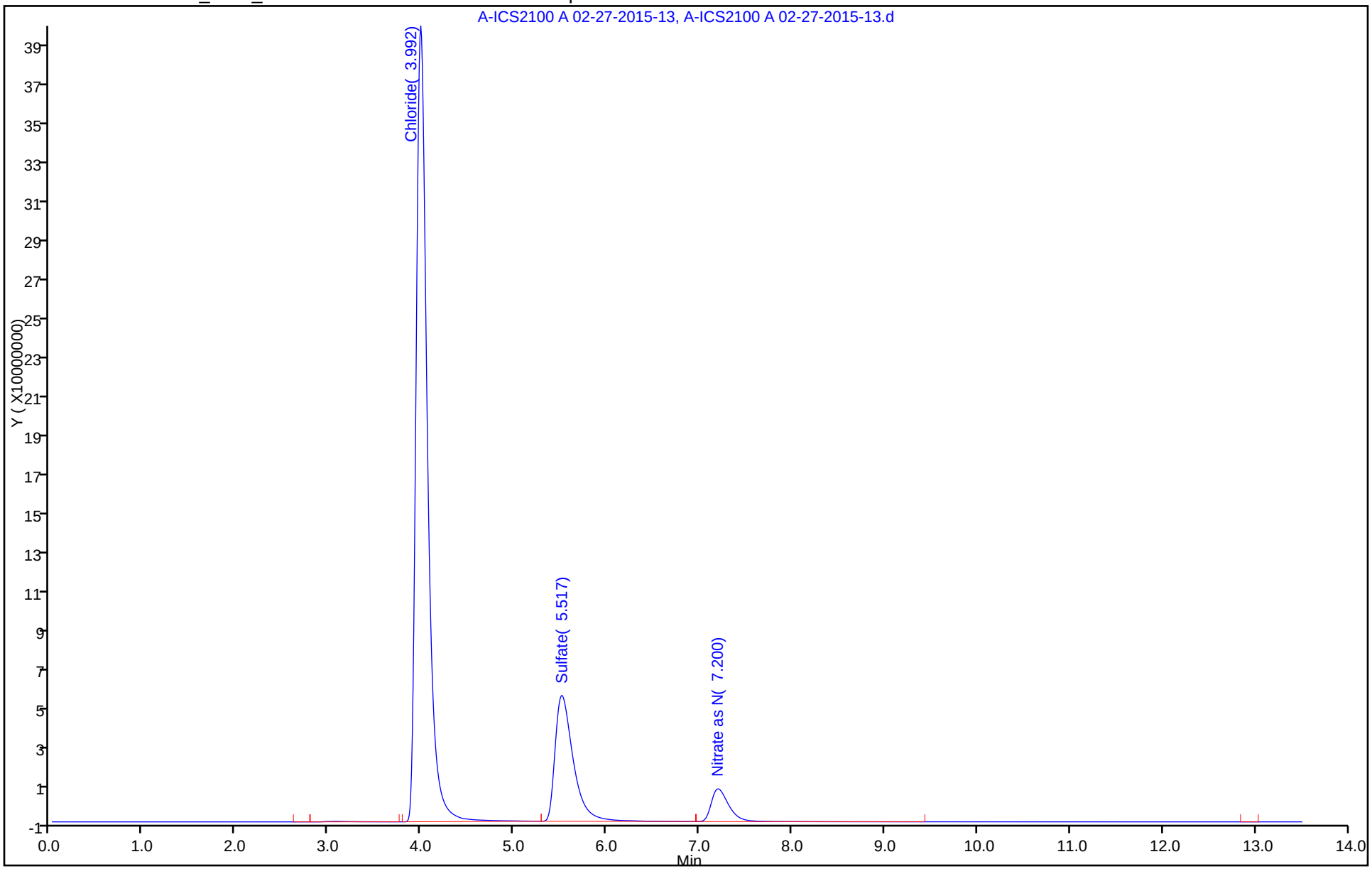
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-13.d				
Lims ID:	180-41569-A-9	Lab Sample ID:	180-41569-9		
Client ID:	HD-MW-96S-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Feb-2015 13:32:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0005844-013				
Misc. Info.:	13 180-41569-a-9				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	10-Mar-2015 09:07:54	Calib Date:	18-Feb-2015 18:25:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK032				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	395501479	H 156.0	
3 Sulfate	5.517	5.533	-0.016	855713168	54.6	
5 Nitrate as N	7.200	7.217	-0.017	16252441	H 4.15	

Report Date: 10-Mar-2015 09:07:58 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-13.d				
Injection Date:	27-Feb-2015 13:32:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-9	Lab Sample ID:	180-41569-9	Worklist Smp#:	13
Client ID:	HD-MW-96S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-41569-10

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-14.d

Analysis Method: 300.0 Date Collected: 02/26/2015 14:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 13:47

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.1		0.10	0.0062
16887-00-6	Chloride	140	B	1.0	0.20
14808-79-8	Sulfate	49		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-14.d
Lims ID: 180-41569-A-10 Lab Sample ID: 180-41569-10
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 27-Feb-2015 13:47:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-014
Misc. Info.: 14 180-41569-a-10
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

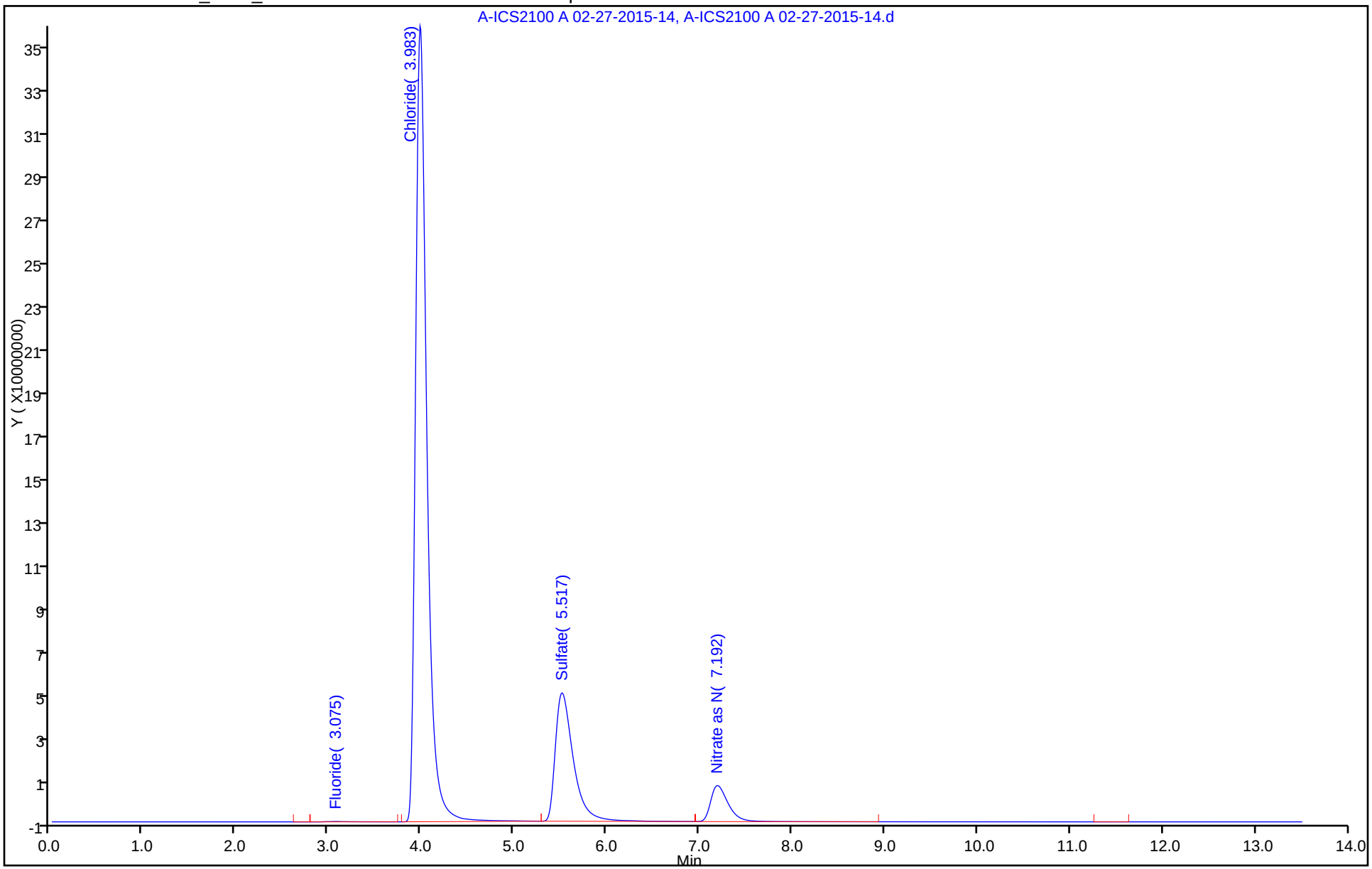
Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	2.992	0.083	159206	H 0.0685	
2 Chloride	3.983	4.000	-0.017	354190057	H 139.8	
7 Nitrite as N		4.692			ND	
3 Sulfate	5.517	5.533	-0.016	772871448	49.3	
4 Bromide		6.242			ND	
5 Nitrate as N	7.192	7.217	-0.025	16018846	H 4.09	
6 Orthophosphate as P		10.417			ND	

Report Date: 10-Mar-2015 09:07:59 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-14.d				
Injection Date:	27-Feb-2015 13:47:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-10	Lab Sample ID:	180-41569-10	Worklist Smp#:	14
Client ID:	HD-MW-96D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 133779

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 02/18/2015 16:38 Calibration End Date: 02/18/2015 18:25 Calibration ID: 21971

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-133779/2	A-ICS2100 A 02-18A-2015-2.d
Level 2	IC 180-133779/3	A-ICS2100 A 02-18A-2015-3.d
Level 3	ICRT 180-133779/4	A-ICS2100 A 02-18A-2015-4.d
Level 4	IC 180-133779/5	A-ICS2100 A 02-18A-2015-5.d
Level 5	IC 180-133779/6	A-ICS2100 A 02-18A-2015-6.d
Level 6	IC 180-133779/7	A-ICS2100 A 02-18A-2015-7.d
Level 7	IC 180-133779/8	A-ICS2100 A 02-18A-2015-8.d
Level 8	IC 180-133779/9	A-ICS2100 A 02-18A-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	3.008	3.000	3.000	3.000	2.992	2.992	2.992	2.983			2.650 - 3.350	2.996
Chloride	4.042	4.033	4.017	4.008	4.000	4.000	3.992	3.983			3.667 - 4.367	4.009
Nitrite as N	4.733	4.725	4.717	4.717	4.700	4.700	4.683	4.675			4.467 - 4.967	4.706
Sulfate	5.567	5.550	5.550	5.533	5.467	5.425	5.367	5.342			5.200 - 5.900	5.475
Bromide	6.325	6.317	6.300	6.292	6.283	6.258	6.225	6.217			5.950 - 6.650	6.277
Nitrate as N	7.350	7.333	7.317	7.300	7.267	7.217	7.175	7.142			7.067 - 7.567	7.263
Orthophosphate as P		+++++	10.458	10.375	10.200	10.117	10.000	9.942			10.208 - 10.708	10.182

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1 Analy Batch No.: 133779

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 02/18/2015 16:38 Calibration End Date: 02/18/2015 18:25 Calibration ID: 21971

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-133779/2	A-ICS2100 A 02-18A-2015-2.d
Level 2	IC 180-133779/3	A-ICS2100 A 02-18A-2015-3.d
Level 3	ICRT 180-133779/4	A-ICS2100 A 02-18A-2015-4.d
Level 4	IC 180-133779/5	A-ICS2100 A 02-18A-2015-5.d
Level 5	IC 180-133779/6	A-ICS2100 A 02-18A-2015-6.d
Level 6	IC 180-133779/7	A-ICS2100 A 02-18A-2015-7.d
Level 7	IC 180-133779/8	A-ICS2100 A 02-18A-2015-8.d
Level 8	IC 180-133779/9	A-ICS2100 A 02-18A-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	2163200 3165843	2445916 3212839	2684732 3169919	2963388 2965770	Lin2	-46911.187	3009662.85							0.9950		0.9900
Chloride	1881673 2567721	2349794 2575536	2454915 2548766	2585728 2421631	Lin2	-665487.98	2538987.66							0.9990		0.9900
Nitrite as N	4289940 4114648	3721616 3759856	3877108 3530822	4108169 3257069	Lin2	27970.5648	3735089.23							0.9940		0.9900
Sulfate	16949742 16074169	15515894 15891053	15500606 15836712	16166879 14968109	Lin2	1228486.84	15649189.8							0.9990		0.9900
Bromide	746315 868610	769310 868188	797174 854789	854312 810309	Lin2	-20794.475	839212.726							0.9980		0.9900
Nitrate as N	3199060 4205984	3604280 4022596	3833744 3807690	4201889 3504135	Lin2	-37245.802	3927006.52							0.9960		0.9900
Orthophosphate as P	 12849501	+++++ 16235438	5311680 16994054	10345730 16850946	Lin2	-6082562.0	16983972.7							0.9950		0.9900

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.: 180-41569-1 Analy Batch No.: 133779

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 02/18/2015 16:38 Calibration End Date: 02/18/2015 18:25 Calibration ID: 21971

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-133779/2	A-ICS2100 A 02-18A-2015-2.d
Level 2	IC 180-133779/3	A-ICS2100 A 02-18A-2015-3.d
Level 3	ICRT 180-133779/4	A-ICS2100 A 02-18A-2015-4.d
Level 4	IC 180-133779/5	A-ICS2100 A 02-18A-2015-5.d
Level 5	IC 180-133779/6	A-ICS2100 A 02-18A-2015-6.d
Level 6	IC 180-133779/7	A-ICS2100 A 02-18A-2015-7.d
Level 7	IC 180-133779/8	A-ICS2100 A 02-18A-2015-8.d
Level 8	IC 180-133779/9	A-ICS2100 A 02-18A-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	108160 16064197	611479 23774396	1342366 29657700	2963388	7914608	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	1881673 257553603	11748971 382314941	24549148 484326140	51714566	128386026	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	214497 18799281	930404 26481163	1938554 32570690	4108169	10286620	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Sulfate	Lin2	16949742 1589105343	77579469 2375506786	155006056 2993621710	323337576	803708435	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	149263 17363768	769310 25643657	1594349 32412358	3417246	8686100	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	159953 20112979	901070 28557676	1916872 35041348	4201889	10514959	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	 81177192	+++++ 127455403	2655840 168509455	10345730	32123753	 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\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Feb-2015 16:38:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:48 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:28:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.000	0.008	108160H	0.0500	0.0515	
2 Chloride	4.042	4.017	0.025	1881673H	1.00	1.00	
7 Nitrite as N	4.733	4.717	0.016	214497H	0.0500	0.0499	
3 Sulfate	5.567	5.550	0.017	16949742	1.00	1.00	
4 Bromide	6.325	6.300	0.025	149263H	0.2000	0.2026	
5 Nitrate as N	7.350	7.317	0.033	159953H	0.0500	0.0502	
6 Orthophosphate as P		10.458			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

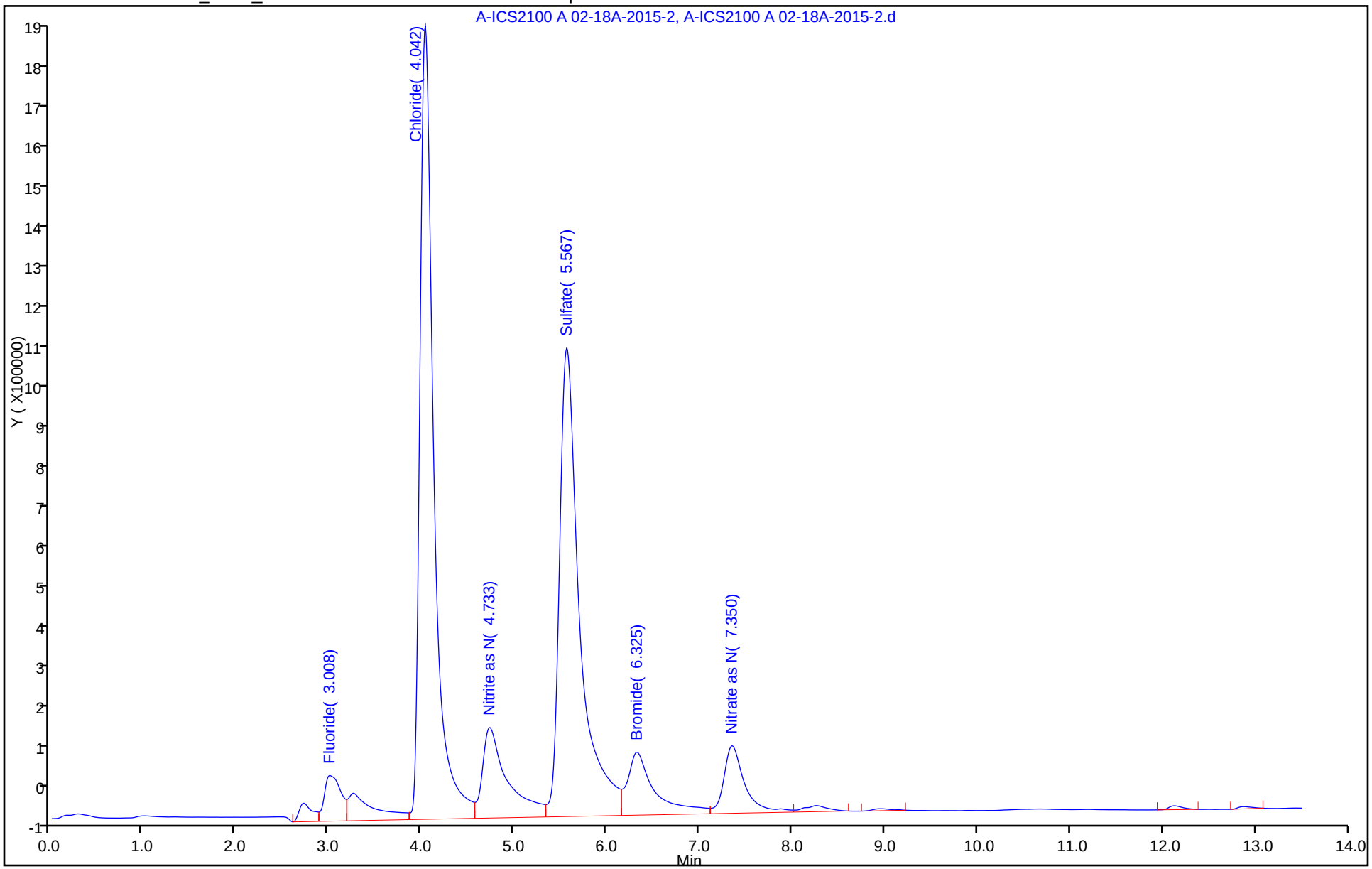
Reagents:

ICSTDL2_00155 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-2.d				
Injection Date:	18-Feb-2015 16:38:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Feb-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:49 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:28:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	611479H	0.2500	0.2188	
2 Chloride	4.033	4.017	0.016	11748971H	5.00	4.89	
7 Nitrite as N	4.725	4.717	0.008	930404H	0.2500	0.2416	
3 Sulfate	5.550	5.550	0.000	77579469	5.00	4.88	
4 Bromide	6.317	6.300	0.017	769310H	1.00	0.9415	
5 Nitrate as N	7.333	7.317	0.016	901070H	0.2500	0.2389	
6 Orthophosphate as P	10.467	10.458	0.009	686387	0.2500	0.3985	

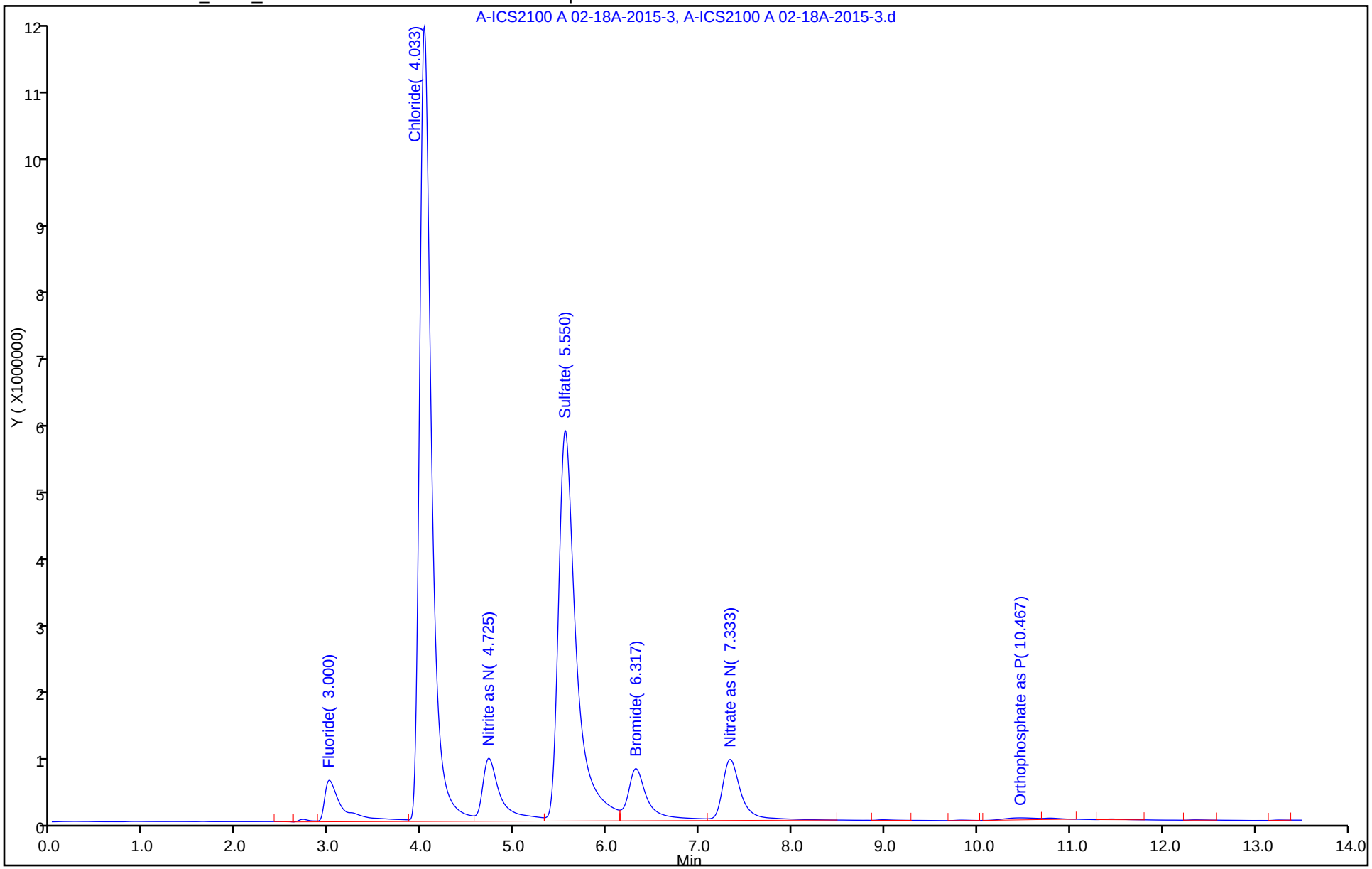
Reagents:

ICSTDL3_00194 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-3.d				
Injection Date:	18-Feb-2015 16:53:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 18-Feb-2015 17:08:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:49 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: hartmanm Date: 03-Mar-2015 13:48:26

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	1342366H	0.5000	0.4616	
2 Chloride	4.017	4.017	0.000	24549148H	10.0	9.93	
7 Nitrite as N	4.717	4.717	0.000	1938554H	0.5000	0.5115	
3 Sulfate	5.550	5.550	0.000	155006056	10.0	9.83	
4 Bromide	6.300	6.300	0.000	1594349H	2.00	1.92	
5 Nitrate as N	7.317	7.317	0.000	1916872H	0.5000	0.4976	
6 Orthophosphate as P	10.458	10.458	0.000	2655840	0.5000	0.5145	

Reagents:

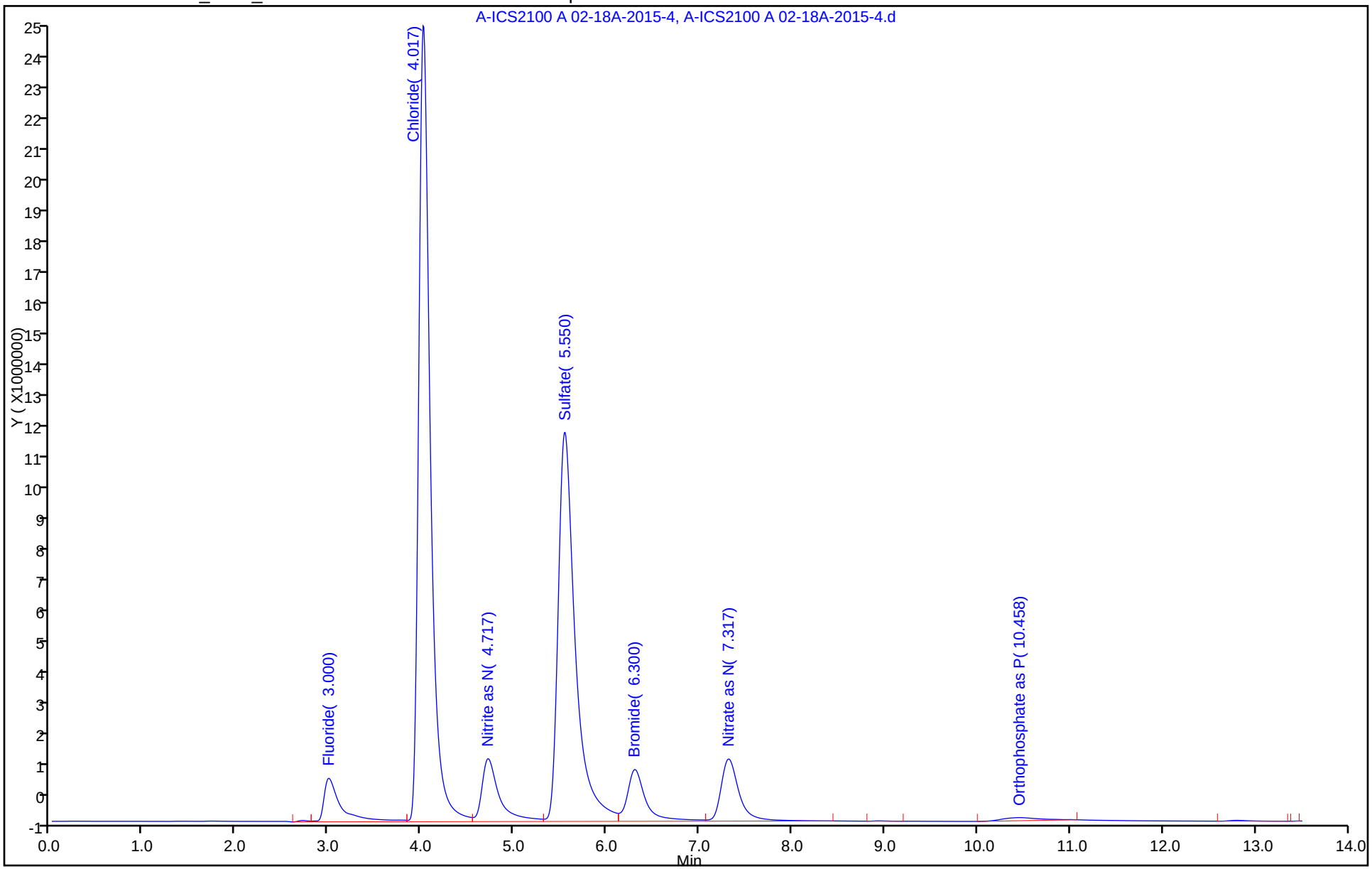
ICSTDL4_00131 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-4.d

Injection Date:	18-Feb-2015 17:08:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Feb-2015 17:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:49 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	2963388H	1.00	1.00	
2 Chloride	4.008	4.017	-0.009	51714566H	20.0	20.6	
7 Nitrite as N	4.717	4.717	0.000	4108169H	1.00	1.09	
3 Sulfate	5.533	5.550	-0.017	323337576	20.0	20.6	
4 Bromide	6.292	6.300	-0.008	3417246H	4.00	4.10	
5 Nitrate as N	7.300	7.317	-0.017	4201889H	1.00	1.08	
6 Orthophosphate as P	10.375	10.458	-0.083	10345730	1.00	0.9673	

Reagents:

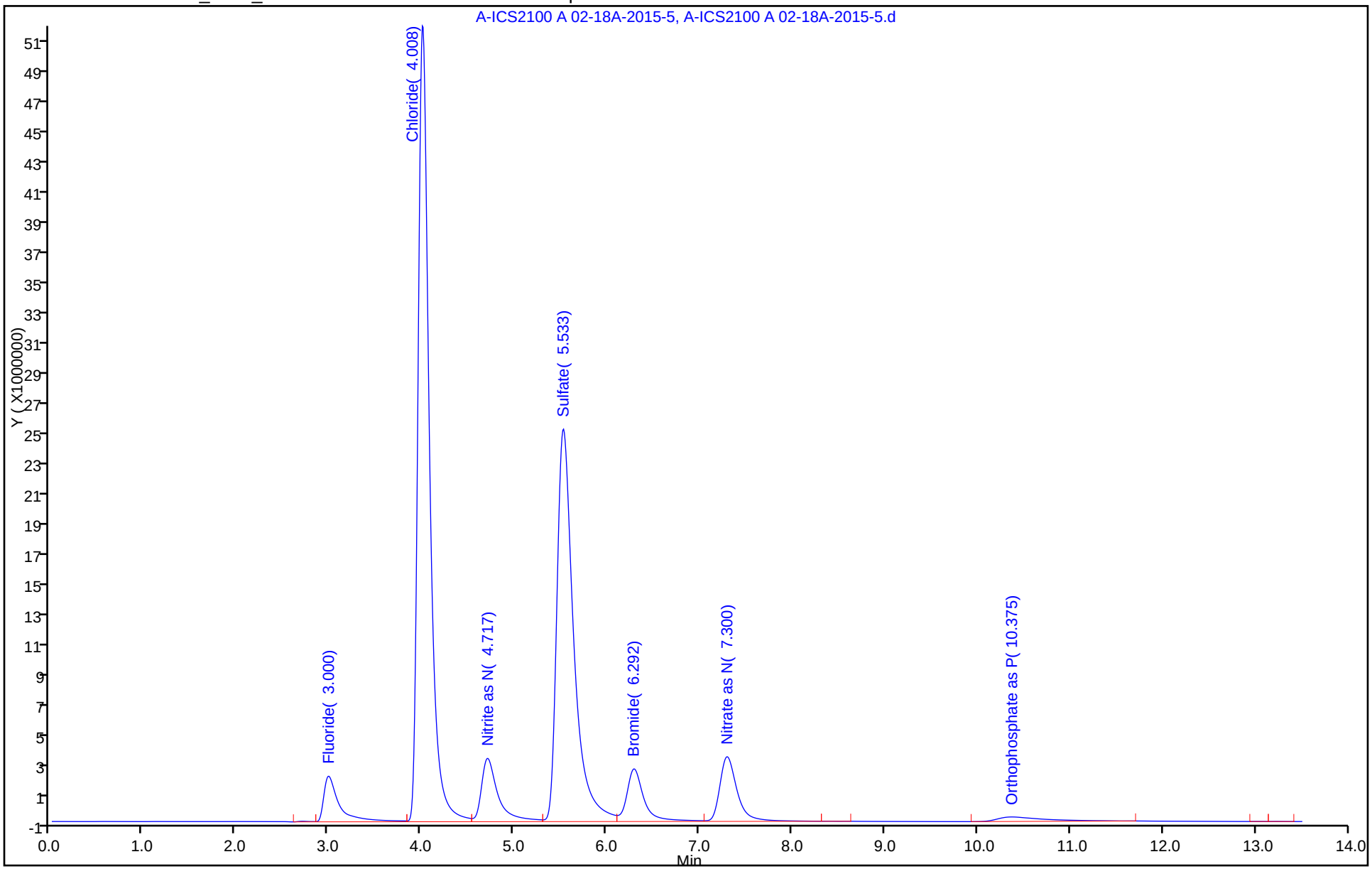
ICSTDL5_00132 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-5.d

Injection Date:	18-Feb-2015 17:24:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Feb-2015 17:39:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:50 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:29:36

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	7914608H	2.50	2.65	
2 Chloride	4.000	4.017	-0.017	128386026H	50.0	50.8	
7 Nitrite as N	4.700	4.717	-0.017	10286620H	2.50	2.75	
3 Sulfate	5.467	5.550	-0.083	803708435	50.0	51.3	
4 Bromide	6.283	6.300	-0.017	8686100H	10.0	10.4	
5 Nitrate as N	7.267	7.317	-0.050	10514959H	2.50	2.69	
6 Orthophosphate as P	10.200	10.458	-0.258	32123753	2.50	2.25	

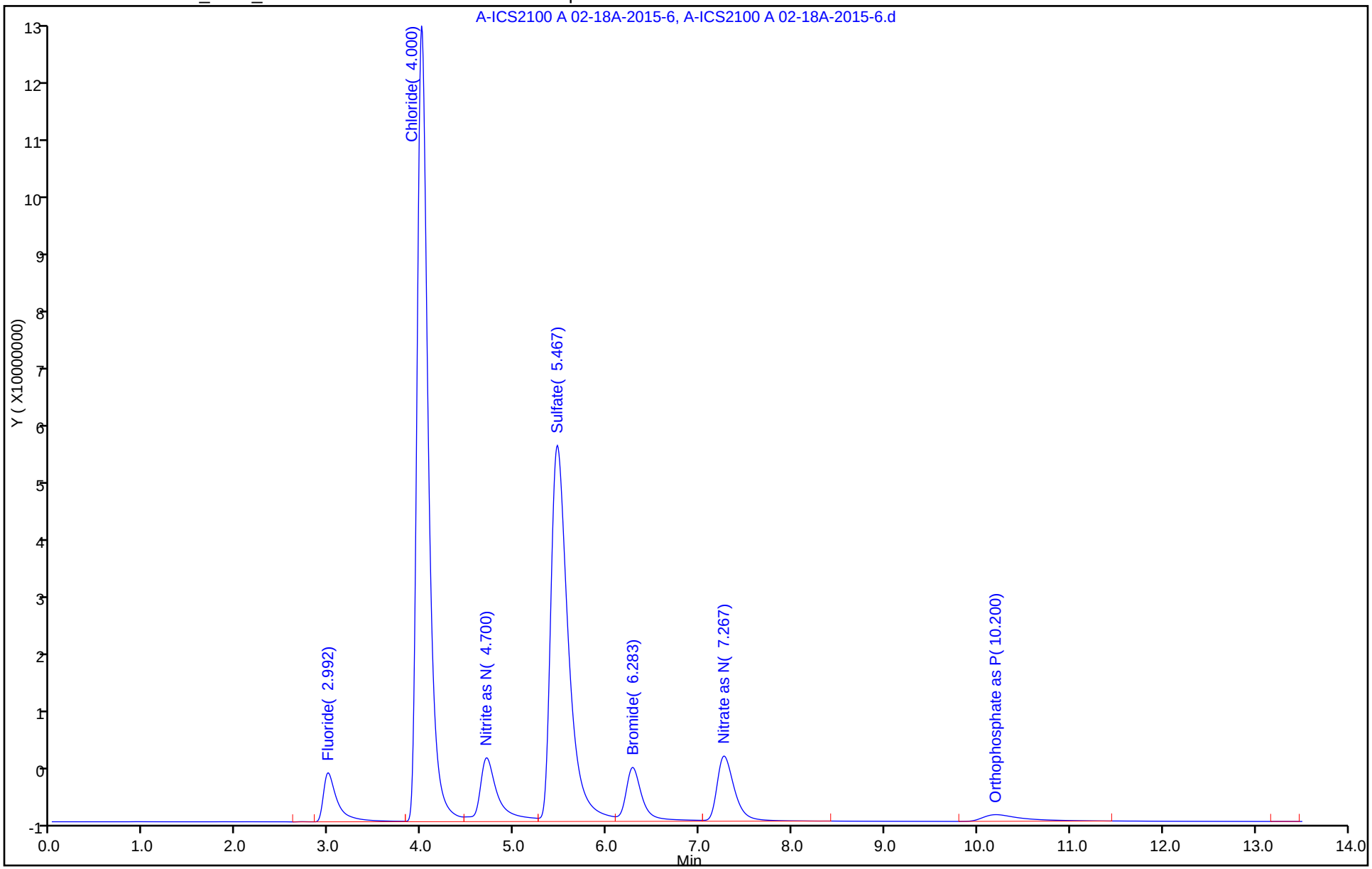
Reagents:

ICSTDL6_00200 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-6.d				
Injection Date:	18-Feb-2015 17:39:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Feb-2015 17:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-007
Misc. Info.: 7 IC L7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:50 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:29:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	16064197H	5.00	5.35	
2 Chloride	4.000	4.017	-0.017	257553603H	100.0	101.7	
7 Nitrite as N	4.700	4.717	-0.017	18799281H	5.00	5.03	
3 Sulfate	5.425	5.550	-0.125	1589105343	100.0	101.5	
4 Bromide	6.258	6.300	-0.042	17363768H	20.0	20.7	
5 Nitrate as N	7.217	7.317	-0.100	20112979H	5.00	5.13	
6 Orthophosphate as P	10.117	10.458	-0.341	81177192	5.00	5.14	

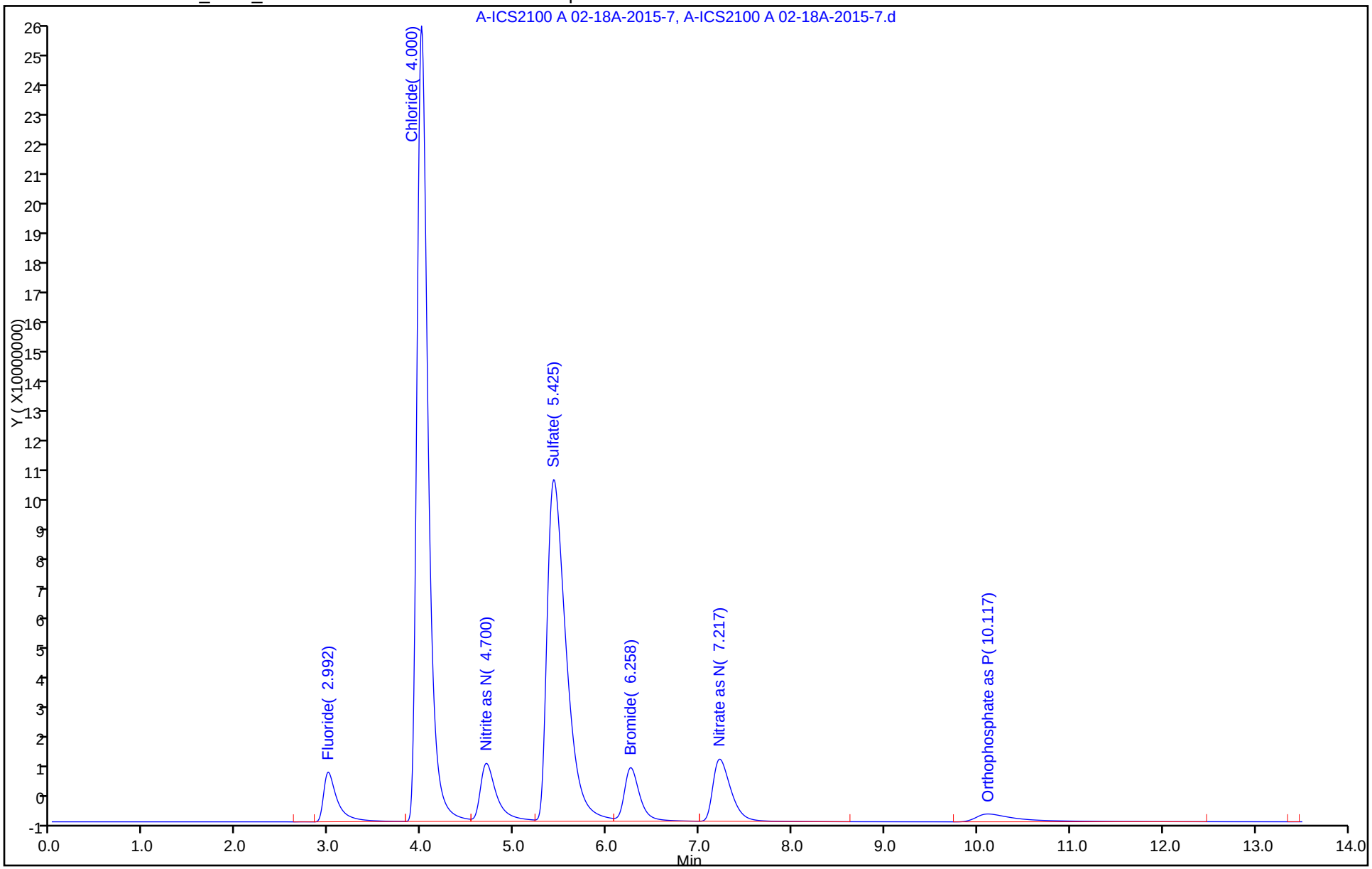
Reagents:

ICSTDL7_00131 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:50 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-7.d				
Injection Date:	18-Feb-2015 17:54:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 03-Mar-2015 14:01:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Feb-2015 18:09:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:01:50 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: reaglec Date: 18-Feb-2015 19:29:21

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.000	-0.008	23774396H	7.50	7.91	
2 Chloride	3.992	4.017	-0.025	382314941H	150.0	150.8	
7 Nitrite as N	4.683	4.717	-0.034	26481163H	7.50	7.08	
3 Sulfate	5.367	5.550	-0.183	2375506786	150.0	151.7	
4 Bromide	6.225	6.300	-0.075	25643657H	30.0	30.6	
5 Nitrate as N	7.175	7.317	-0.142	28557676H	7.50	7.28	
6 Orthophosphate as P	10.000	10.458	-0.458	127455403	7.50	7.86	

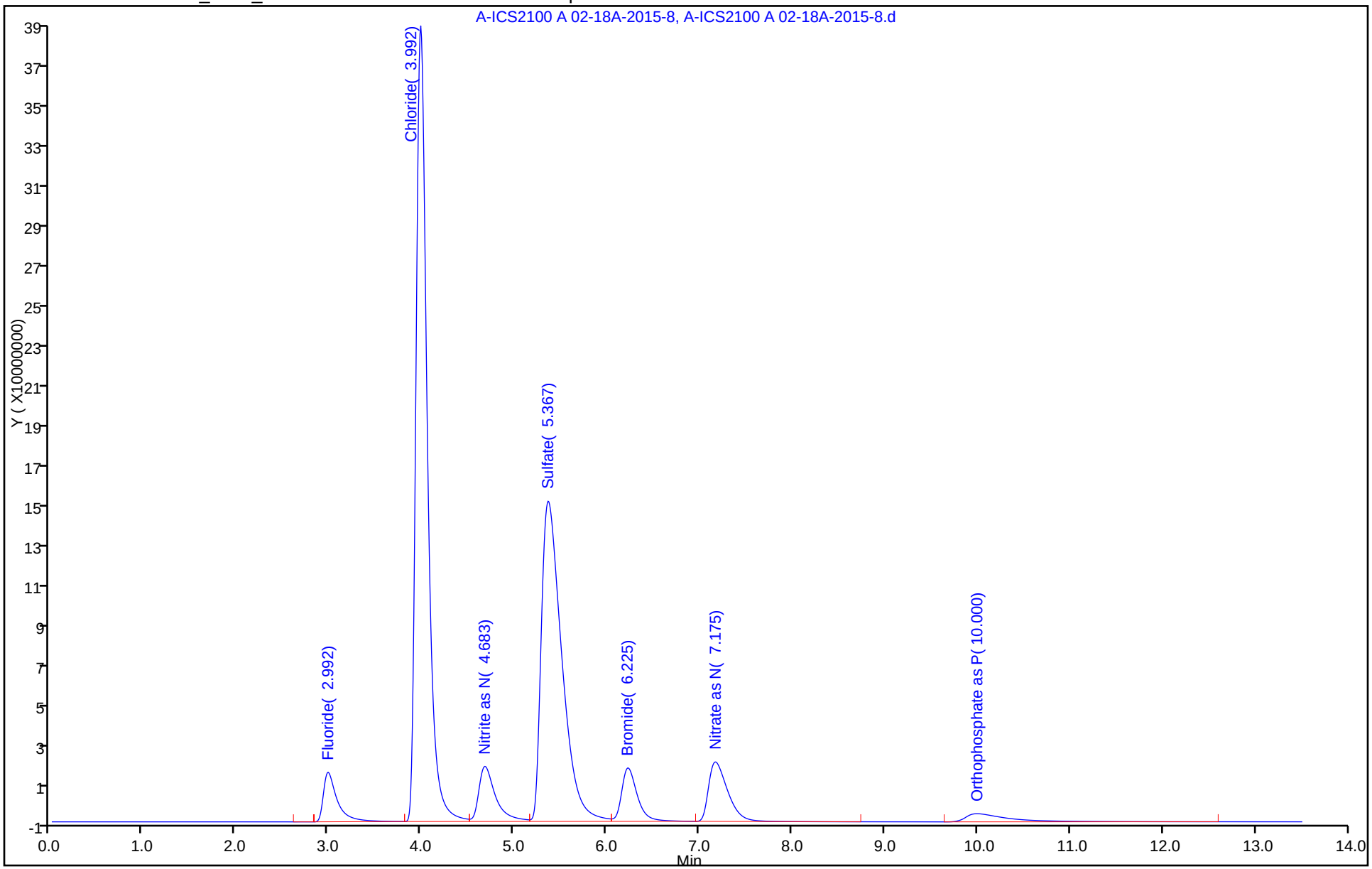
Reagents:

ICSTDL8_00101 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:01:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-8.d				
Injection Date:	18-Feb-2015 18:09:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 03-Mar-2015 14:02:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 18-Feb-2015 18:25:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005751-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 03-Mar-2015 14:02:05 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK026

First Level Reviewer: hartmanm Date: 03-Mar-2015 14:01:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	3.000	-0.017	29657700H	10.0	9.87	
2 Chloride	3.983	4.017	-0.034	484326140H	200.0	191.0	
7 Nitrite as N	4.675	4.717	-0.042	32570690H	10.0	8.71	
3 Sulfate	5.342	5.550	-0.208	2993621710	200.0	191.2	
4 Bromide	6.217	6.300	-0.083	32412358H	40.0	38.6	
5 Nitrate as N	7.142	7.317	-0.175	35041348H	10.0	8.93	
6 Orthophosphate as P	9.942	10.458	-0.516	168509455	10.0	10.3	

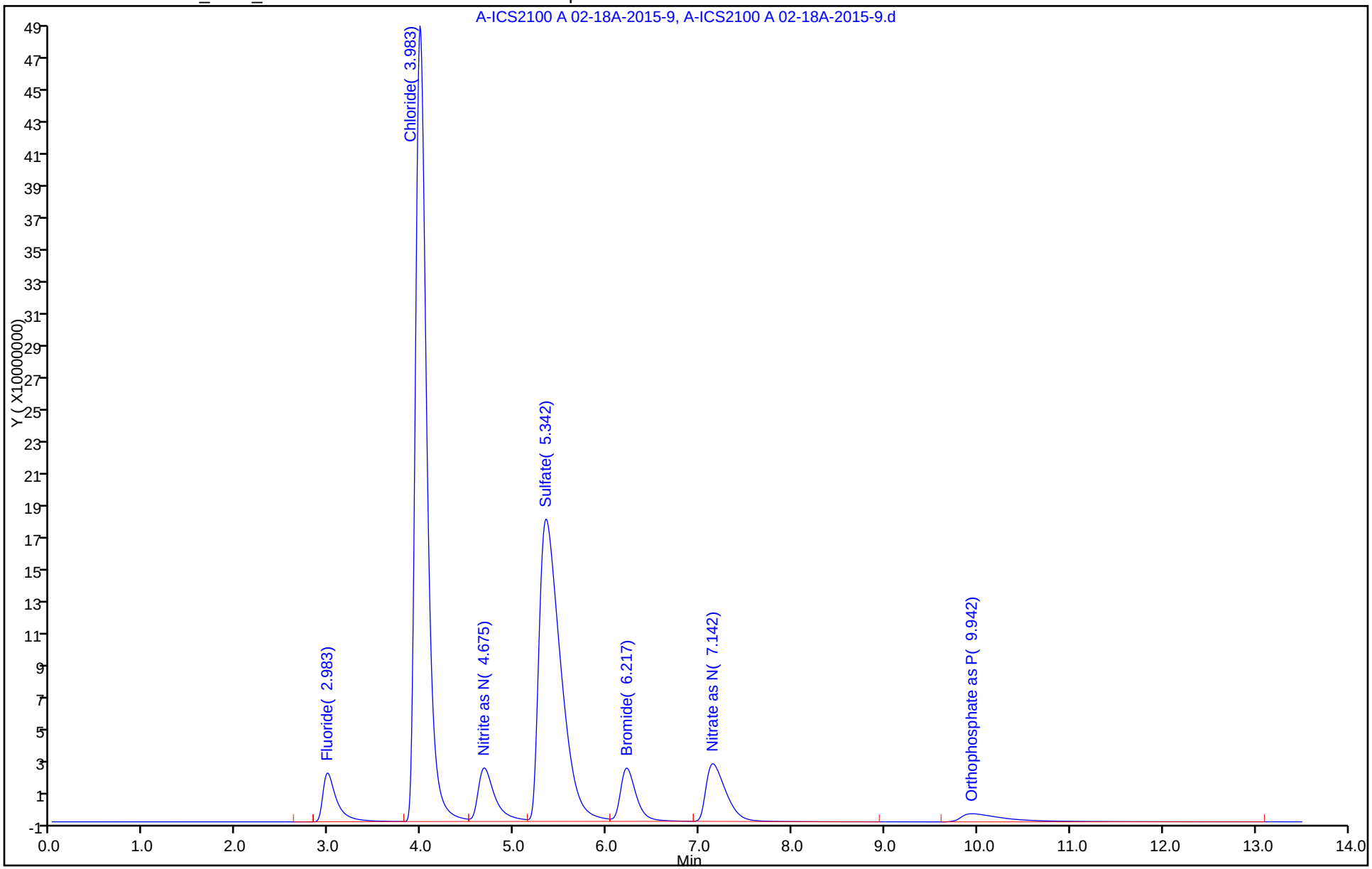
Reagents:

ICSTDL9_00106 Amount Added: 1.00 Units: mL

Report Date: 03-Mar-2015 14:02:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d				
Injection Date:	18-Feb-2015 18:25:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: ICV 180-134413/2 Calibration Date: 02/27/2015 09:22

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3089459		3.10	3.00	3.2	10.0
Chloride	Lin2		2559903		60.8	60.0	1.3	10.0
Nitrite as N	Lin2		3759618		3.01	3.00	0.4	10.0
Sulfate	Lin2		15891518		60.9	60.0	1.4	10.0
Bromide	Lin2		888443		12.7	12.0	6.1	10.0
Nitrate as N	Lin2		4170760		3.20	3.00	6.5	10.0
Orthophosphate as P	Lin2		14869081		2.98	3.00	-0.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: ICV 180-134413/2 Calibration Date: 02/27/2015 09:22

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.00	3.65	4.35
Nitrite as N	4.68	4.44	4.94
Sulfate	5.51	5.18	5.88
Bromide	6.23	5.89	6.59
Nitrate as N	7.21	6.97	7.47
Orthophosphate as P	10.38	10.17	10.67

Report Date: 10-Mar-2015 09:07:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Feb-2015 09:22:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:06:00 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	9268378H	3.00	3.10	
2 Chloride	4.000	4.000	0.000	153594195H	60.0	60.8	
7 Nitrite as N	4.675	4.692	-0.017	11283365H	3.00	3.01	
3 Sulfate	5.508	5.533	-0.025	953491068	60.0	60.9	
4 Bromide	6.233	6.242	-0.009	10661318H	12.0	12.7	
5 Nitrate as N	7.208	7.217	-0.009	12512279H	3.00	3.20	
6 Orthophosphate as P	10.375	10.417	-0.042	44607243	3.00	2.98	

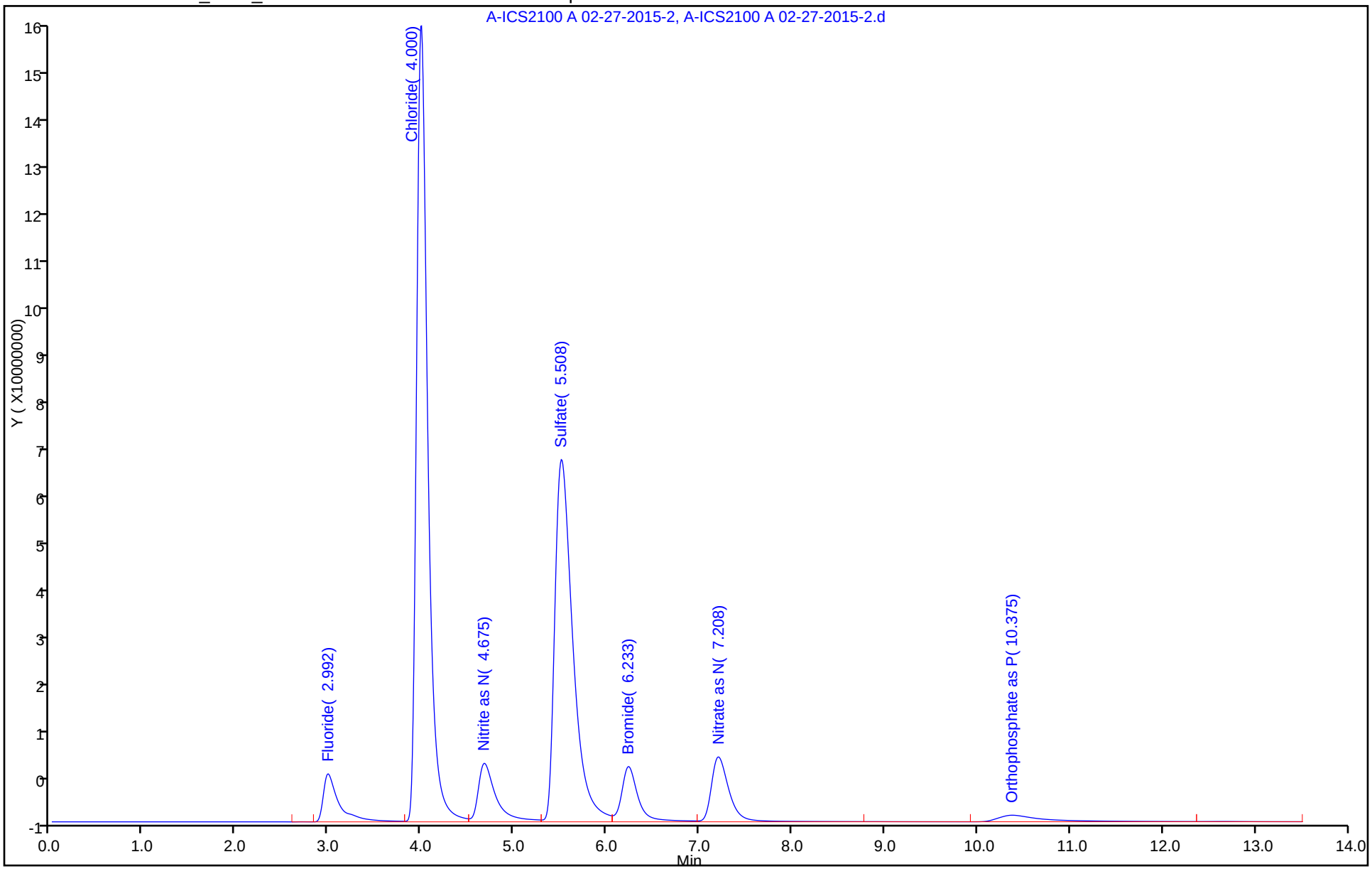
Reagents:

icicv_01208 Amount Added: 1.00 Units: mL

Report Date: 10-Mar-2015 09:07:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-2.d				
Injection Date:	27-Feb-2015 09:22:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCV 180-134413/3 Calibration Date: 02/27/2015 09:37

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3097828		2.59	2.50	3.6	10.0
Chloride	Lin2		2558157		50.6	50.0	1.3	10.0
Nitrite as N	Lin2		3928786		2.62	2.50	4.9	10.0
Sulfate	Lin2		15741181		50.2	50.0	0.4	10.0
Bromide	Lin2		882421		10.5	10.0	5.4	10.0
Nitrate as N	Lin2		4256566		2.72	2.50	8.8	10.0
Orthophosphate as P	Lin2		14868016		2.55	2.50	1.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCV 180-134413/3 Calibration Date: 02/27/2015 09:37

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.00	3.65	4.35
Nitrite as N	4.69	4.44	4.94
Sulfate	5.53	5.18	5.88
Bromide	6.24	5.89	6.59
Nitrate as N	7.22	6.97	7.47
Orthophosphate as P	10.42	10.17	10.67

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Feb-2015 09:37:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	7744569H	2.50	2.59	
2 Chloride	4.000	4.000	0.000	127907860H	50.0	50.6	
7 Nitrite as N	4.692	4.692	0.000	9821964H	2.50	2.62	
3 Sulfate	5.533	5.533	0.000	787059068	50.0	50.2	
4 Bromide	6.242	6.242	0.000	8824208H	10.0	10.5	
5 Nitrate as N	7.217	7.217	0.000	10641414H	2.50	2.72	
6 Orthophosphate as P	10.417	10.417	0.000	37170039	2.50	2.55	

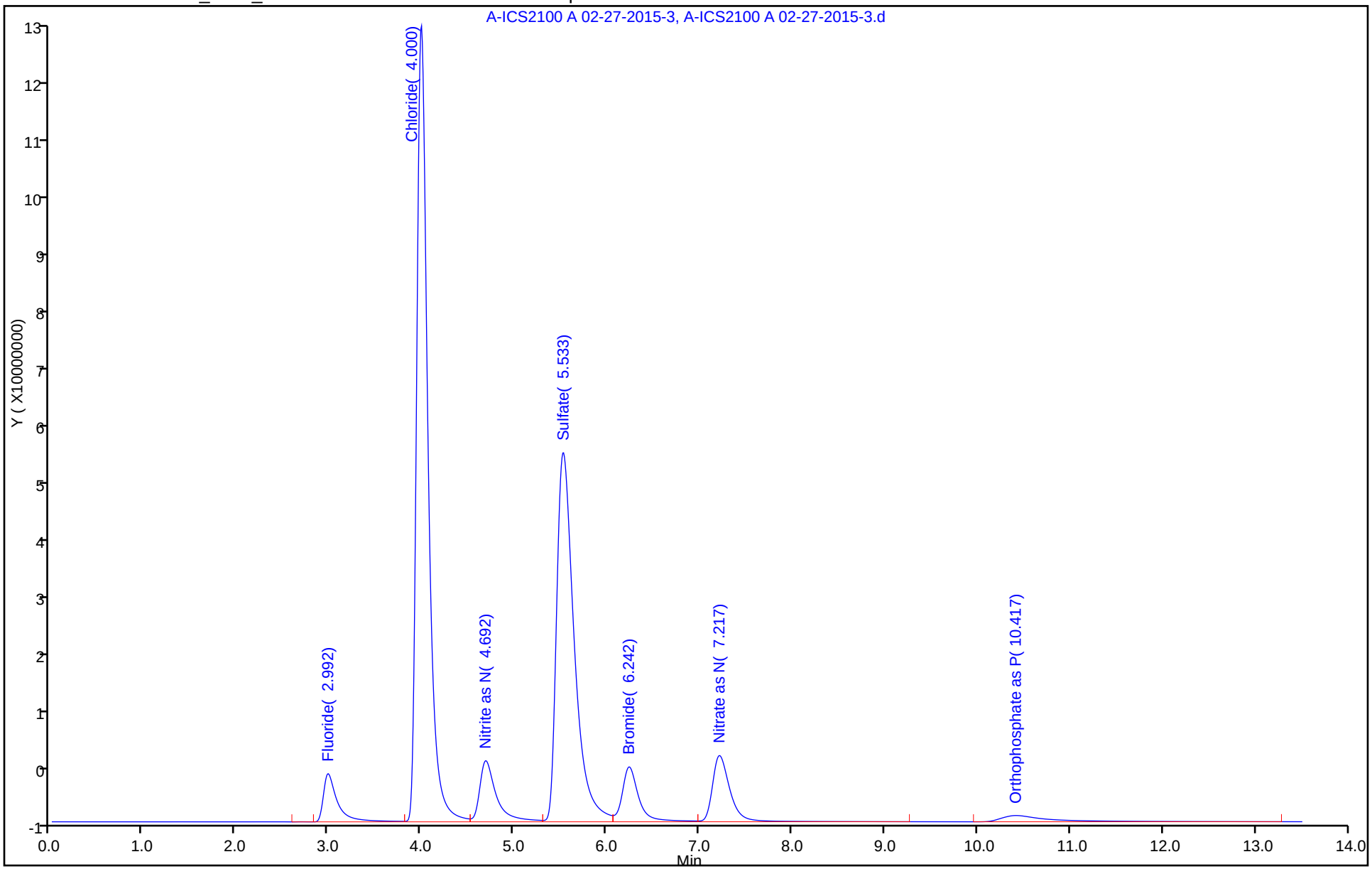
Reagents:

icccv_01177 Amount Added: 1.00 Units: mL

Report Date: 10-Mar-2015 09:07:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-3.d				
Injection Date:	27-Feb-2015 09:37:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCV 180-134413/15 Calibration Date: 02/27/2015 14:02

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3036120		2.54	2.50	1.5	10.0
Chloride	Lin2		2549439		50.5	50.0	0.9	10.0
Nitrite as N	Lin2		3894687		2.60	2.50	4.0	10.0
Sulfate	Lin2		15681330		50.0	50.0	0.0	10.0
Bromide	Lin2		875439		10.5	10.0	4.6	10.0
Nitrate as N	Lin2		4239783		2.71	2.50	8.3	10.0
Orthophosphate as P	Lin2		10891294		1.96	2.50	-21.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCV 180-134413/15 Calibration Date: 02/27/2015 14:02

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.99	2.64	3.34
Chloride	4.00	3.65	4.35
Nitrite as N	4.70	4.45	4.95
Sulfate	5.53	5.18	5.88
Bromide	6.25	5.90	6.60
Nitrate as N	7.23	6.98	7.48
Orthophosphate as P	10.48	10.23	10.73

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Feb-2015 14:02:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-015
Misc. Info.: 15 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	7590299H	2.50	2.54	
2 Chloride	4.000	4.000	0.000	127471961H	50.0	50.5	
7 Nitrite as N	4.700	4.700	0.000	9736718H	2.50	2.60	
3 Sulfate	5.525	5.525	0.000	784066517	50.0	50.0	
4 Bromide	6.250	6.250	0.000	8754386H	10.0	10.5	
5 Nitrate as N	7.225	7.225	0.000	10599457H	2.50	2.71	
6 Orthophosphate as P	10.483	10.483	0.000	27228235	2.50	1.96	

Reagents:

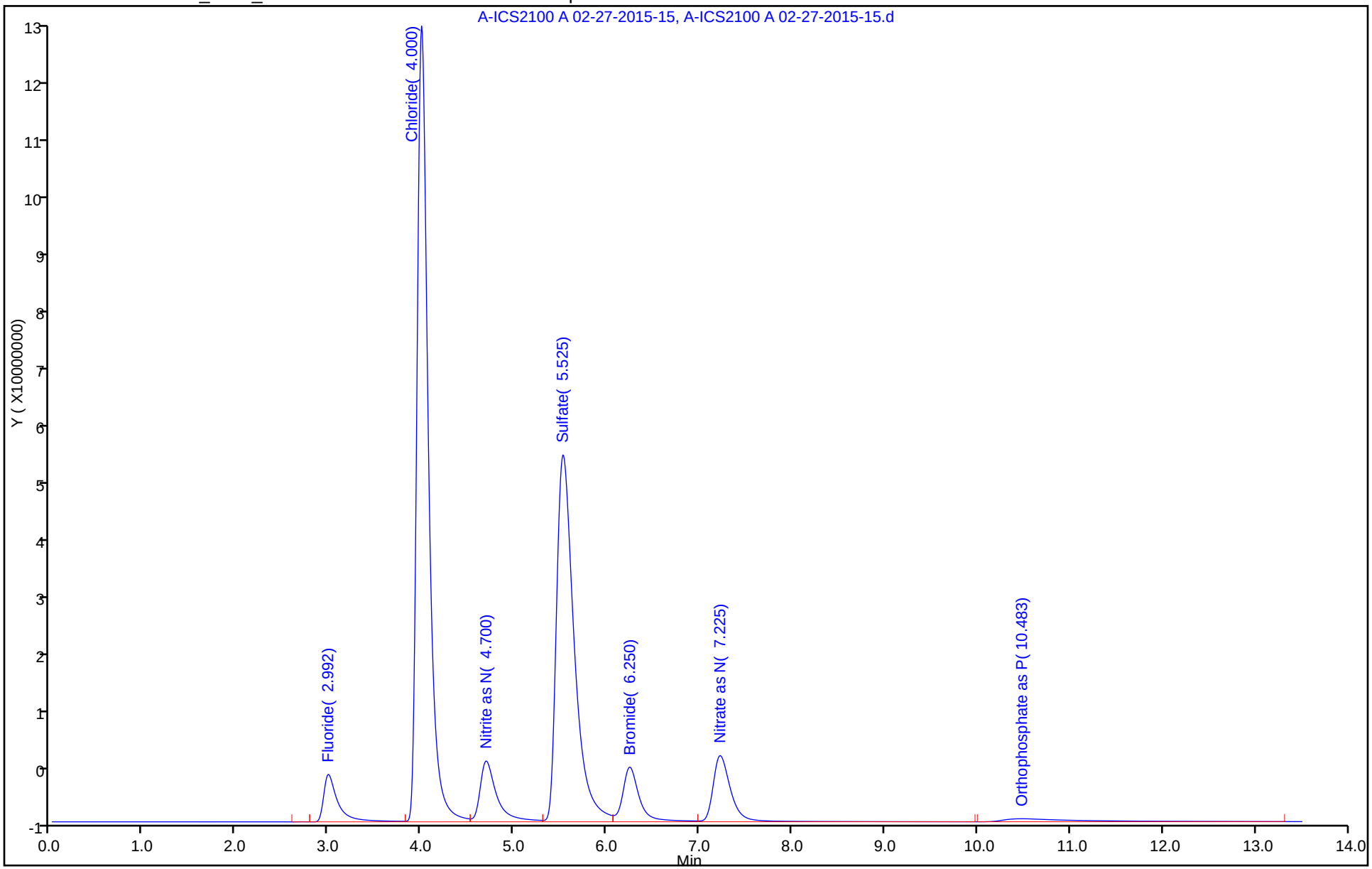
icccv_01177 Amount Added: 1.00 Units: mL

Report Date: 10-Mar-2015 09:07:59 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-15.d

Injection Date:	27-Feb-2015 14:02:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCV 180-134413/27 Calibration Date: 02/27/2015 17:11

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		3073371		2.57	2.50	2.7	10.0
Chloride	Lin2		2571446		50.9	50.0	1.8	10.0
Nitrite as N	Lin2		3904136		2.61	2.50	4.2	10.0
Sulfate	Lin2		15751735		50.2	50.0	0.5	10.0
Bromide	Lin2		876392		10.5	10.0	4.7	10.0
Nitrate as N	Lin2		4232799		2.70	2.50	8.2	10.0
Orthophosphate as P	Lin2		9878028		1.81	2.50	-27.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: CCV 180-134413/27 Calibration Date: 02/27/2015 17:11

Instrument ID: CHIC2100A Calib Start Date: 02/18/2015 16:38

GC Column: AS-18 ID: Calib End Date: 02/18/2015 18:25

Lab File ID: A-ICS2100 A 02-27-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.00	2.65	3.35
Chloride	4.00	3.65	4.35
Nitrite as N	4.70	4.45	4.95
Sulfate	5.53	5.18	5.88
Bromide	6.25	5.90	6.60
Nitrate as N	7.23	6.98	7.48
Orthophosphate as P	10.57	10.32	10.82

Report Date: 10-Mar-2015 09:08:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Feb-2015 17:11:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:08:05 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

First Level Reviewer: hartmanm Date: 27-Feb-2015 17:31:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	7683428H	2.50	2.57	
2 Chloride	4.000	4.000	0.000	128572307H	50.0	50.9	
7 Nitrite as N	4.700	4.700	0.000	9760340H	2.50	2.61	
3 Sulfate	5.525	5.525	0.000	787586734	50.0	50.2	
4 Bromide	6.250	6.250	0.000	8763922H	10.0	10.5	
5 Nitrate as N	7.225	7.225	0.000	10581997H	2.50	2.70	
6 Orthophosphate as P	10.567	10.567	0.000	24695070	2.50	1.81	

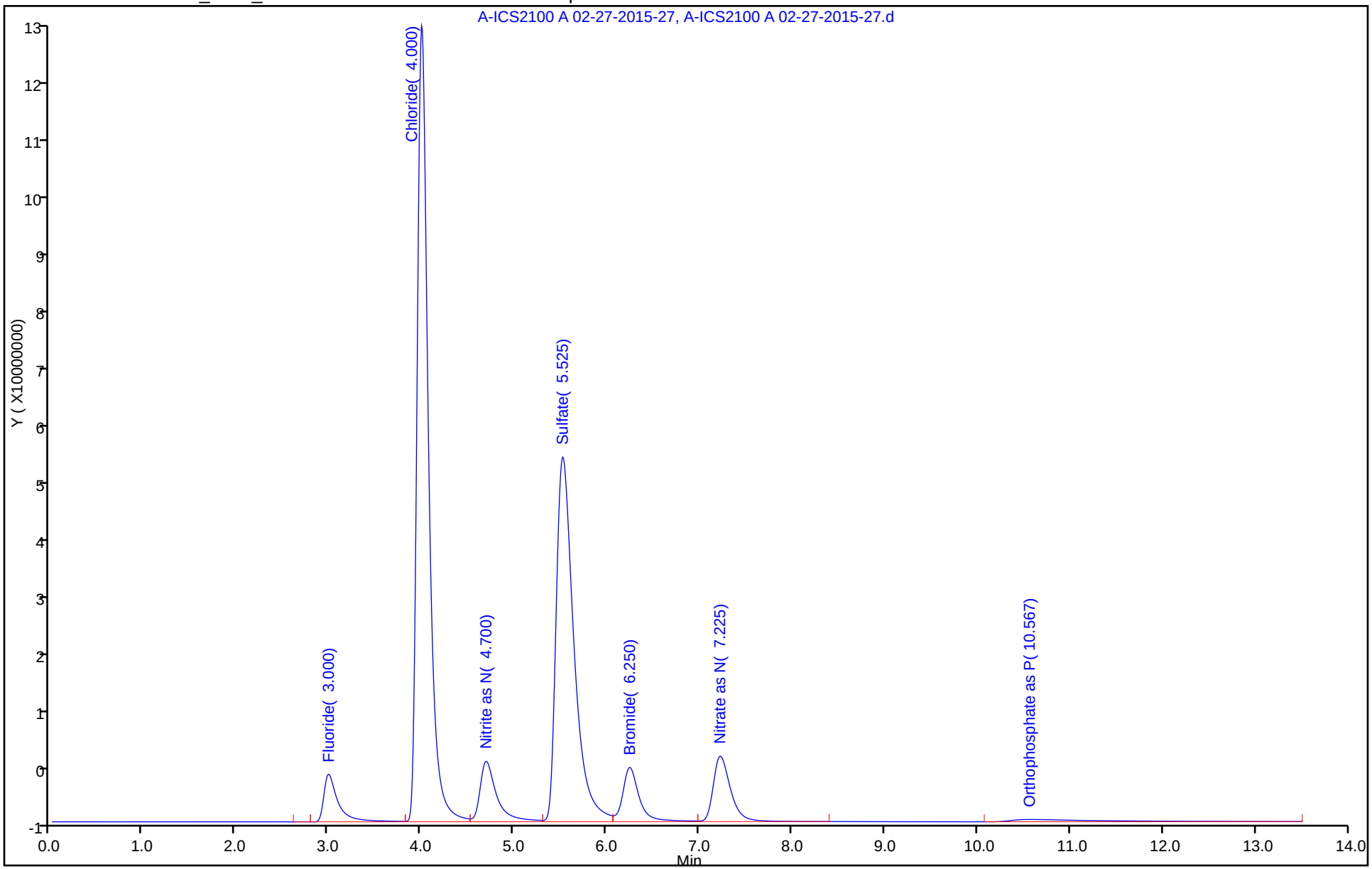
Reagents:

icccv_01177 Amount Added: 1.00 Units: mL

Report Date: 10-Mar-2015 09:08:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-27.d				
Injection Date:	27-Feb-2015 17:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-134413/6

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 10:23

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 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	0.273	J	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\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 27-Feb-2015 10:23:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

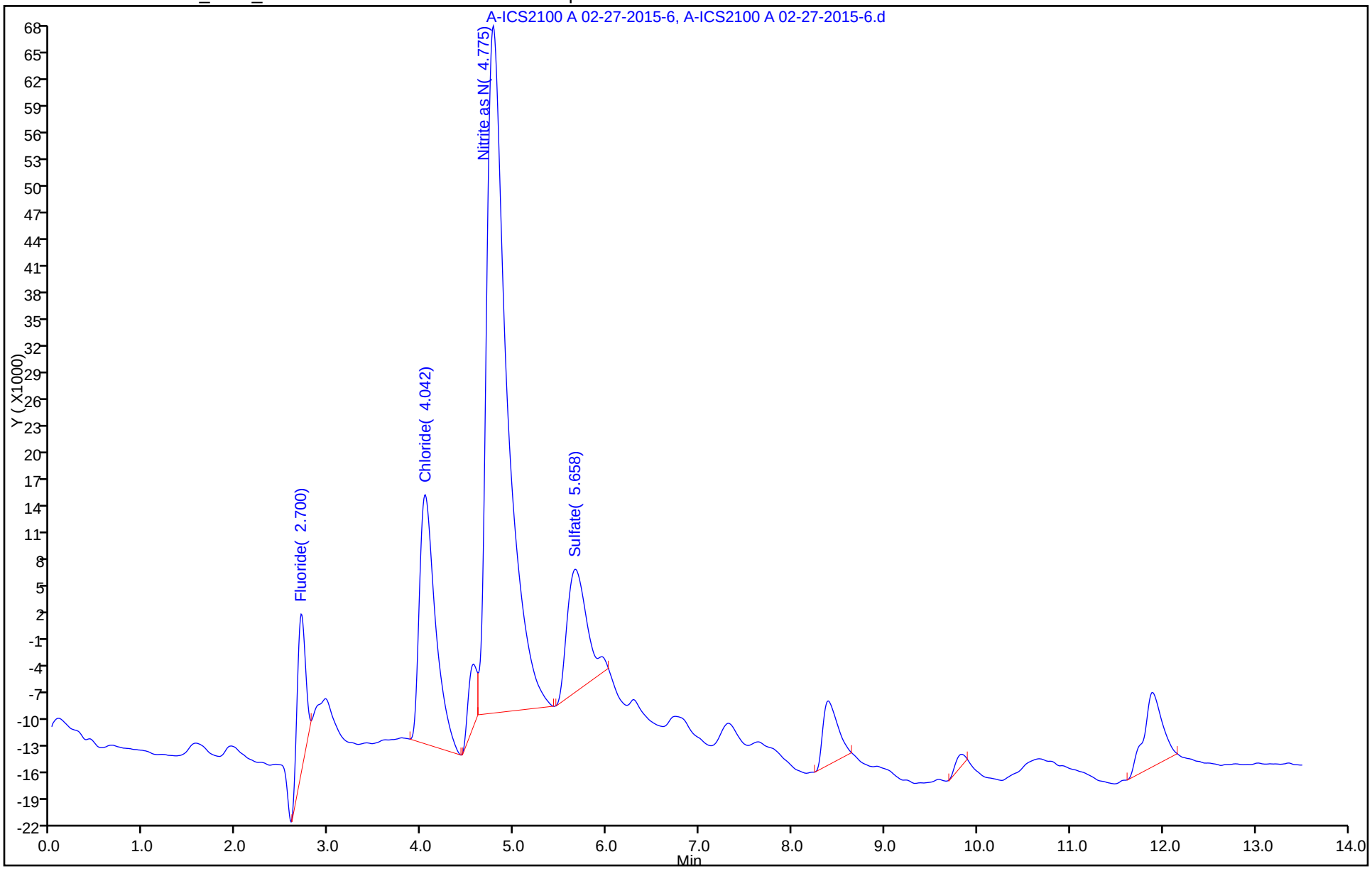
First Level Reviewer: hartmanm Date: 27-Feb-2015 10:52:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.700	2.992	-0.292	17885H		0.0215	
2 Chloride	4.042	4.000	0.042	27973H		0.2731	
7 Nitrite as N	4.775	4.692	0.083	77169H		0.0132	
3 Sulfate	5.658	5.533	0.125	205438		-0.0654	
4 Bromide		6.242				ND	
5 Nitrate as N		7.217				ND	
6 Orthophosphate as P		10.417				ND	

Report Date: 10-Mar-2015 09:07:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-6.d				
Injection Date:	27-Feb-2015 10:23:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134413/4

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 09:52

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 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	0.273	J	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\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Feb-2015 09:52:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

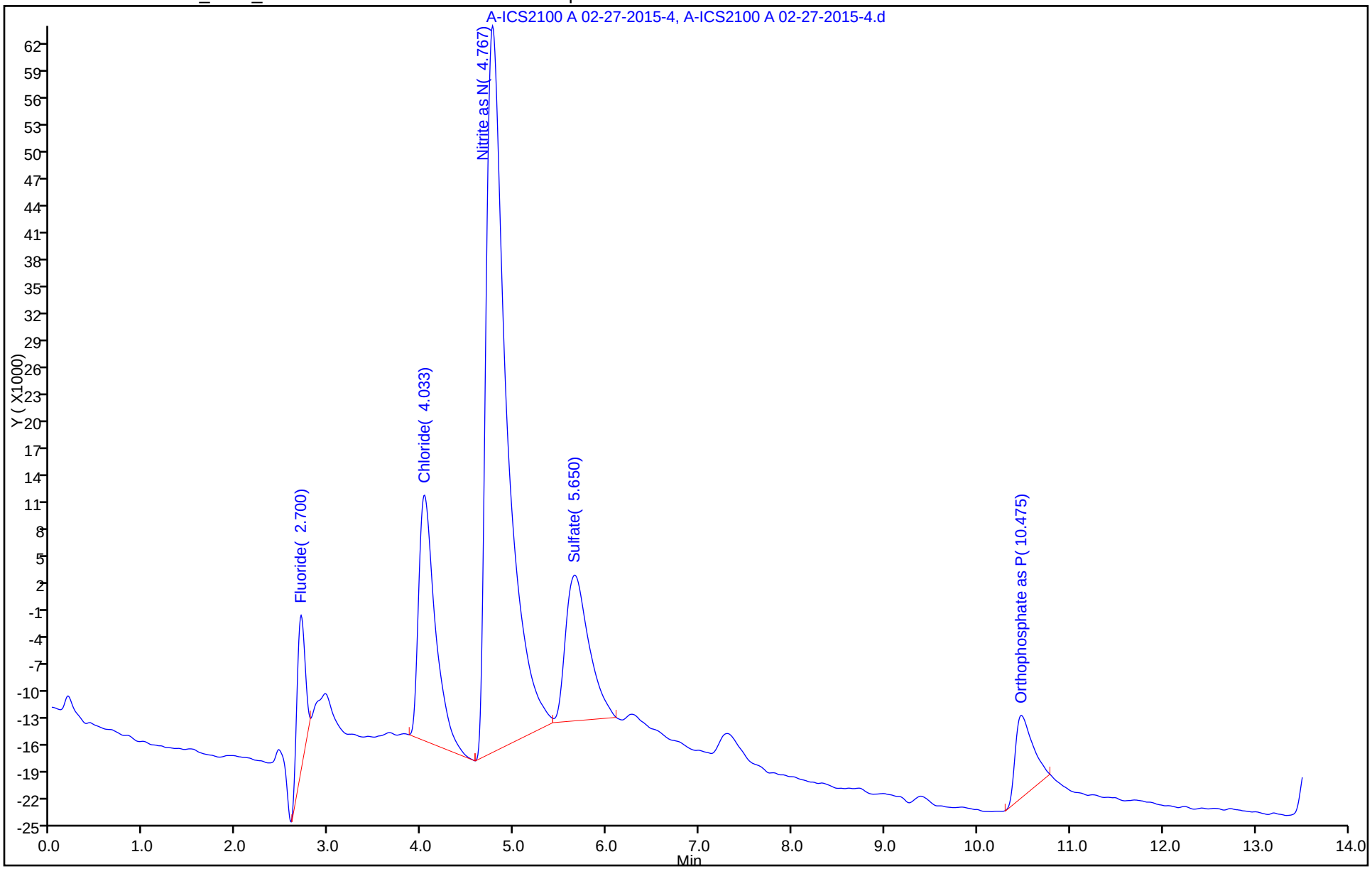
First Level Reviewer: hartmanm Date: 27-Feb-2015 10:52:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.700	2.992	-0.292	17100H		0.0213	
2 Chloride	4.033	4.000	0.033	27158H		0.2728	
7 Nitrite as N	4.767	4.692	0.075	80320H		0.0140	
3 Sulfate	5.650	5.533	0.117	283612		-0.0604	
4 Bromide		6.242				ND	
5 Nitrate as N		7.217				ND	
6 Orthophosphate as P	10.475	10.417	0.058	118582		0.3651	

Report Date: 10-Mar-2015 09:07:55 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-4.d				
Injection Date:	27-Feb-2015 09:52:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134413/16

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 14:18

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0111	J	0.10	0.0062
16887-00-6	Chloride	0.307	J	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\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Feb-2015 14:18:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-016
Misc. Info.: 16 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

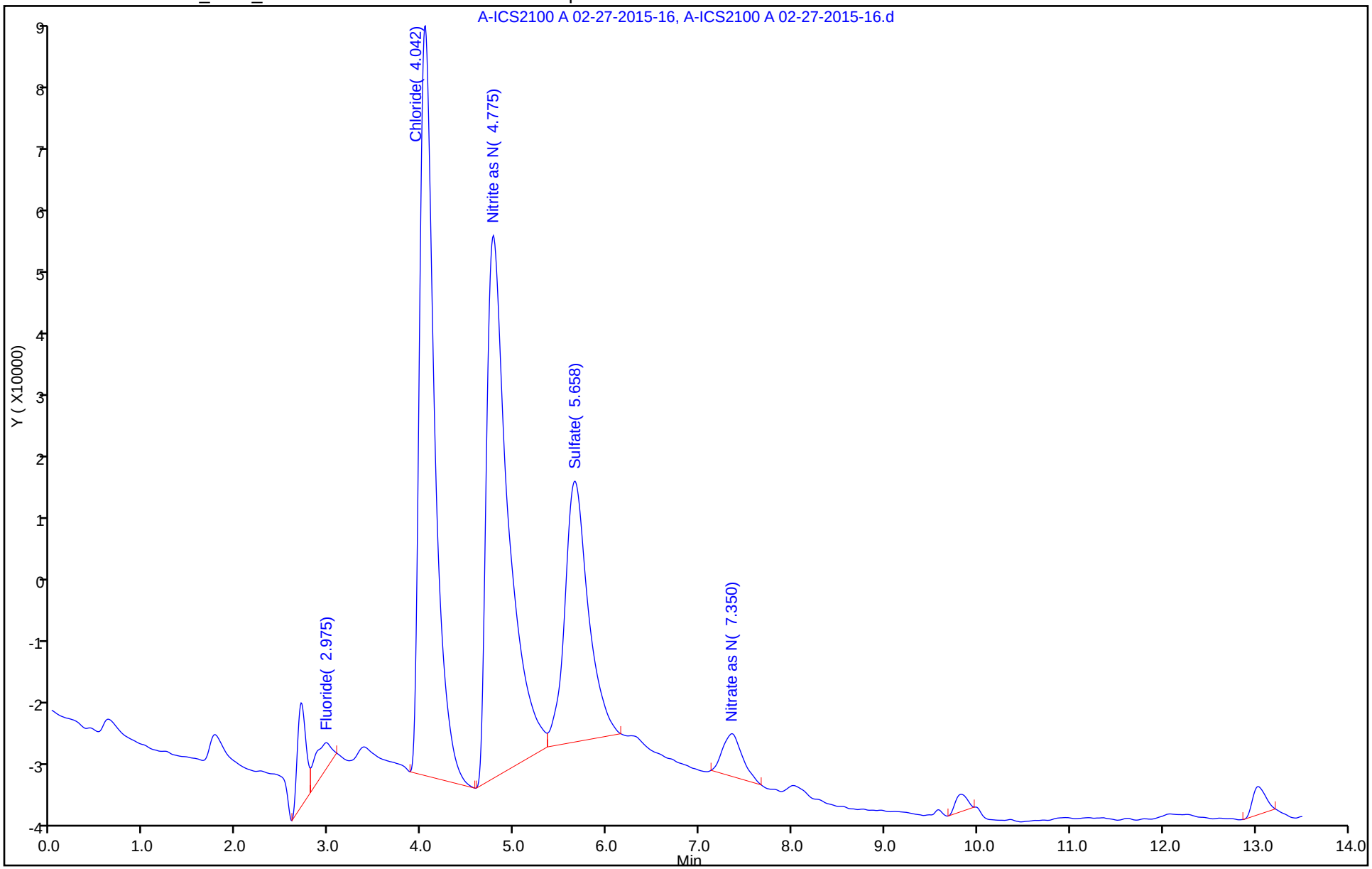
Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.975	2.992	-0.017	3879H		0.0169	
2 Chloride	4.042	4.000	0.042	114104H		0.3070	
7 Nitrite as N	4.775	4.700	0.075	82607H		0.0146	
3 Sulfate	5.658	5.525	0.133	706219		-0.0334	
4 Bromide		6.250				ND	
5 Nitrate as N	7.350	7.225	0.125	6492H		0.0111	
6 Orthophosphate as P		10.483				ND	

Report Date: 10-Mar-2015 09:07:59 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-16.d				
Injection Date:	27-Feb-2015 14:18:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-134413/28

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 17:27

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 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	0.377	J	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\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Feb-2015 17:27:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:08:05 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

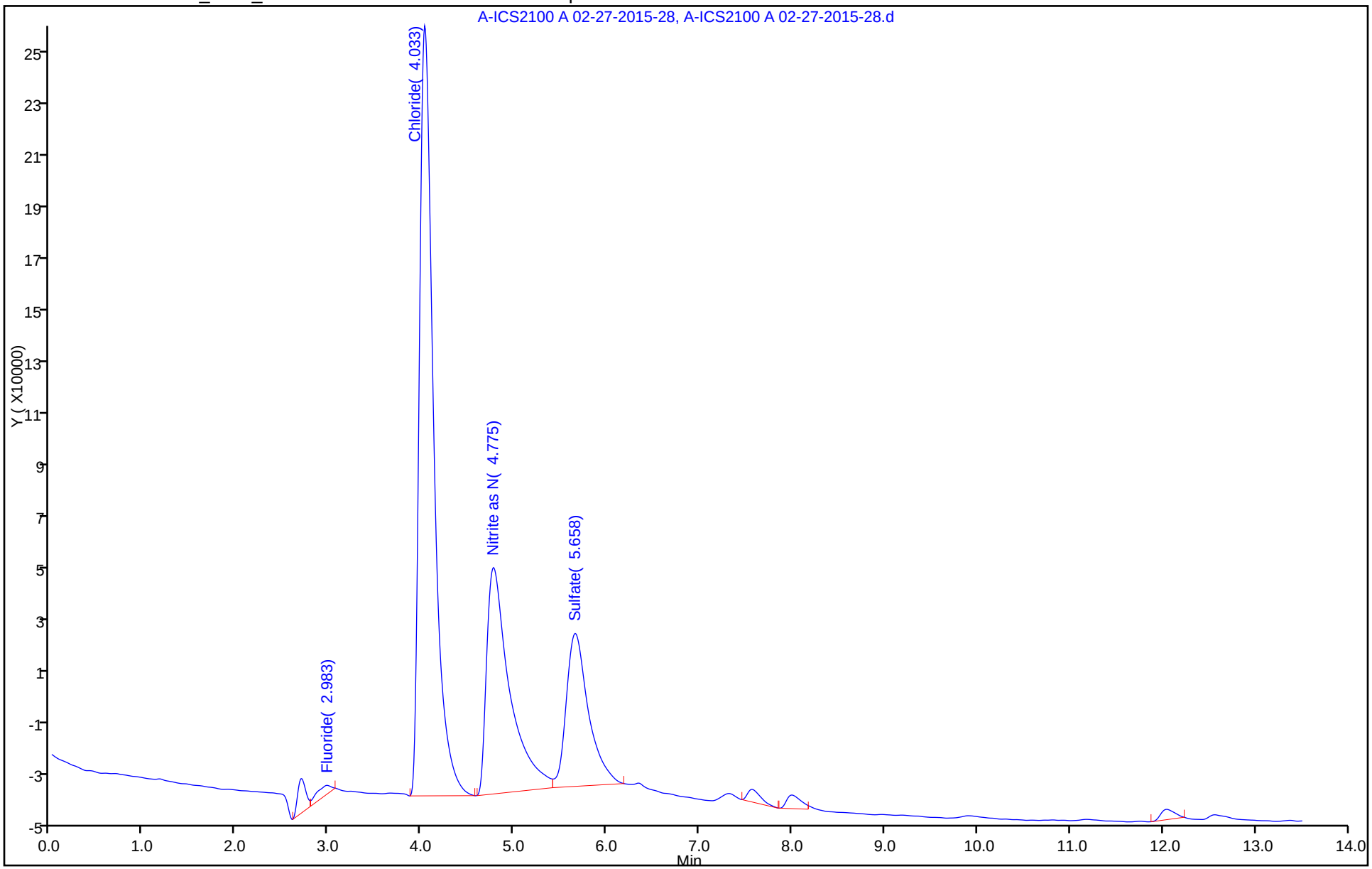
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.983	3.000	-0.017	3204H		0.0167	
2 Chloride	4.033	4.000	0.033	291037H		0.3767	
7 Nitrite as N	4.775	4.700	0.075	85568H		0.0154	
3 Sulfate	5.658	5.525	0.133	966102		-0.0168	
4 Bromide		6.250				ND	
5 Nitrate as N		7.225				ND	
6 Orthophosphate as P		10.567				ND	

Report Date: 10-Mar-2015 09:08:05 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-28.d

Injection Date:	27-Feb-2015 17:27:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-134413/5

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 10:08

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.71		0.10	0.0062
16887-00-6	Chloride	50.3		1.0	0.20
14808-79-8	Sulfate	50.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 27-Feb-2015 10:08:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	2.992	0.008	7682107H	2.50	2.57	
2 Chloride	4.000	4.000	0.000	127001759H	50.0	50.3	
7 Nitrite as N	4.700	4.692	0.008	9790702H	2.50	2.61	
3 Sulfate	5.525	5.533	-0.008	783591969	50.0	50.0	
4 Bromide	6.250	6.242	0.008	8754250H	10.0	10.5	
5 Nitrate as N	7.225	7.217	0.008	10599376H	2.50	2.71	
6 Orthophosphate as P	10.383	10.417	-0.034	36880603	2.50	2.53	

Reagents:

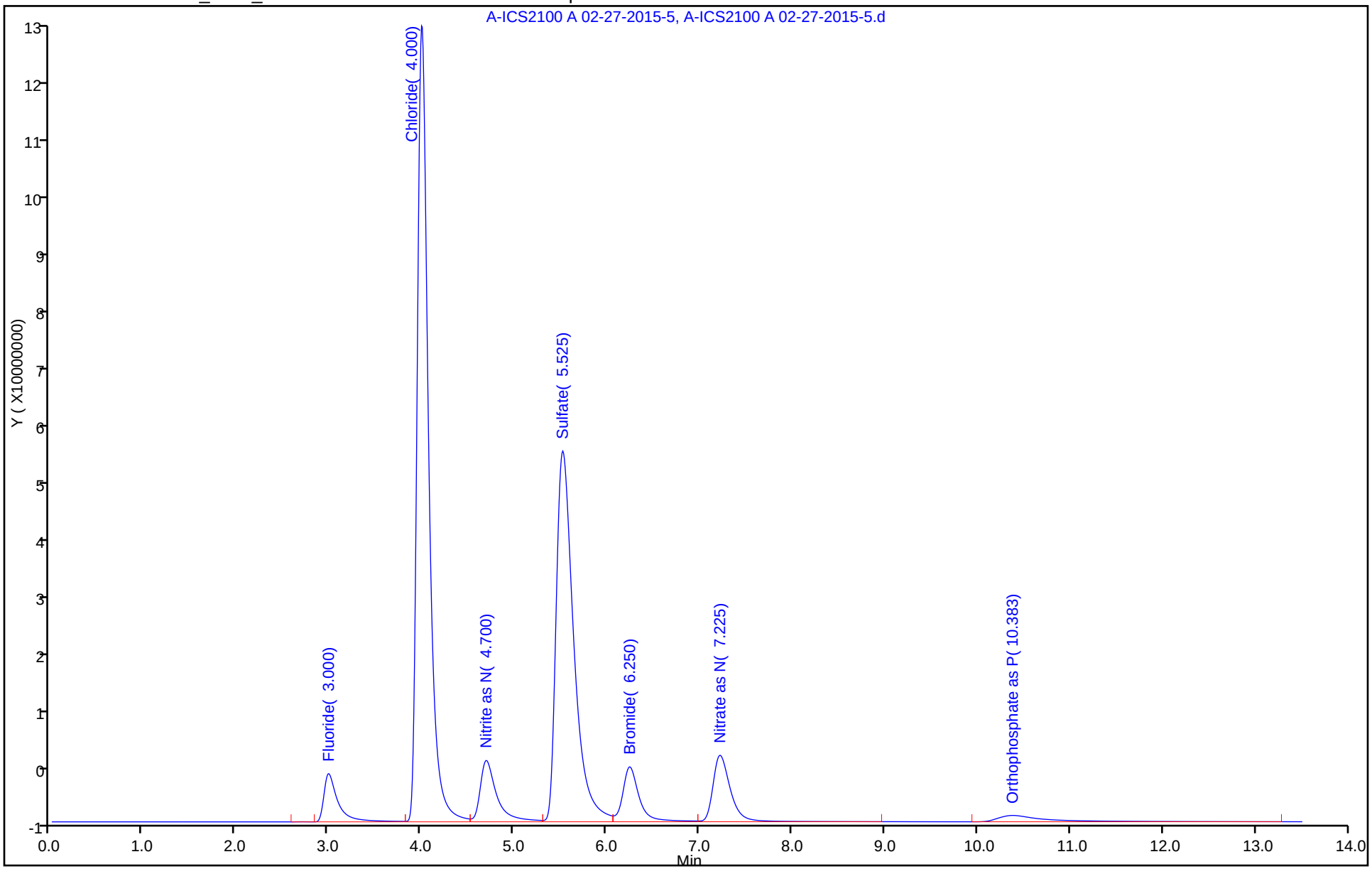
icccv_01177 Amount Added: 1.00 Units: mL

Report Date: 10-Mar-2015 09:07:55 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-5.d

Injection Date:	27-Feb-2015 10:08:00	Instrument ID:	CHIC2100A	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_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 MS Lab Sample ID: 180-41569-8 MS

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-8.d

Analysis Method: 300.0 Date Collected: 02/26/2015 05:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 12:08

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.58		0.10	0.0062
16887-00-6	Chloride	141		1.0	0.20
14808-79-8	Sulfate	65.5		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-8.d
Lims ID: 180-41569-A-8 MS
Client ID:
Sample Type: MS
Inject. Date: 27-Feb-2015 12:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-008
Misc. Info.: 8 180-41569-a-8 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3565205H	1.25	1.20	
2 Chloride	3.983	4.000	-0.017	356444164H	25.0	140.7	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.492	5.533	-0.041	1025873620	25.0	65.5	
4 Bromide	6.258	6.242	0.016	4414284H	5.00	5.28	
5 Nitrate as N	7.208	7.217	-0.009	14005162H	1.25	3.58	
6 Orthophosphate as P		10.417			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

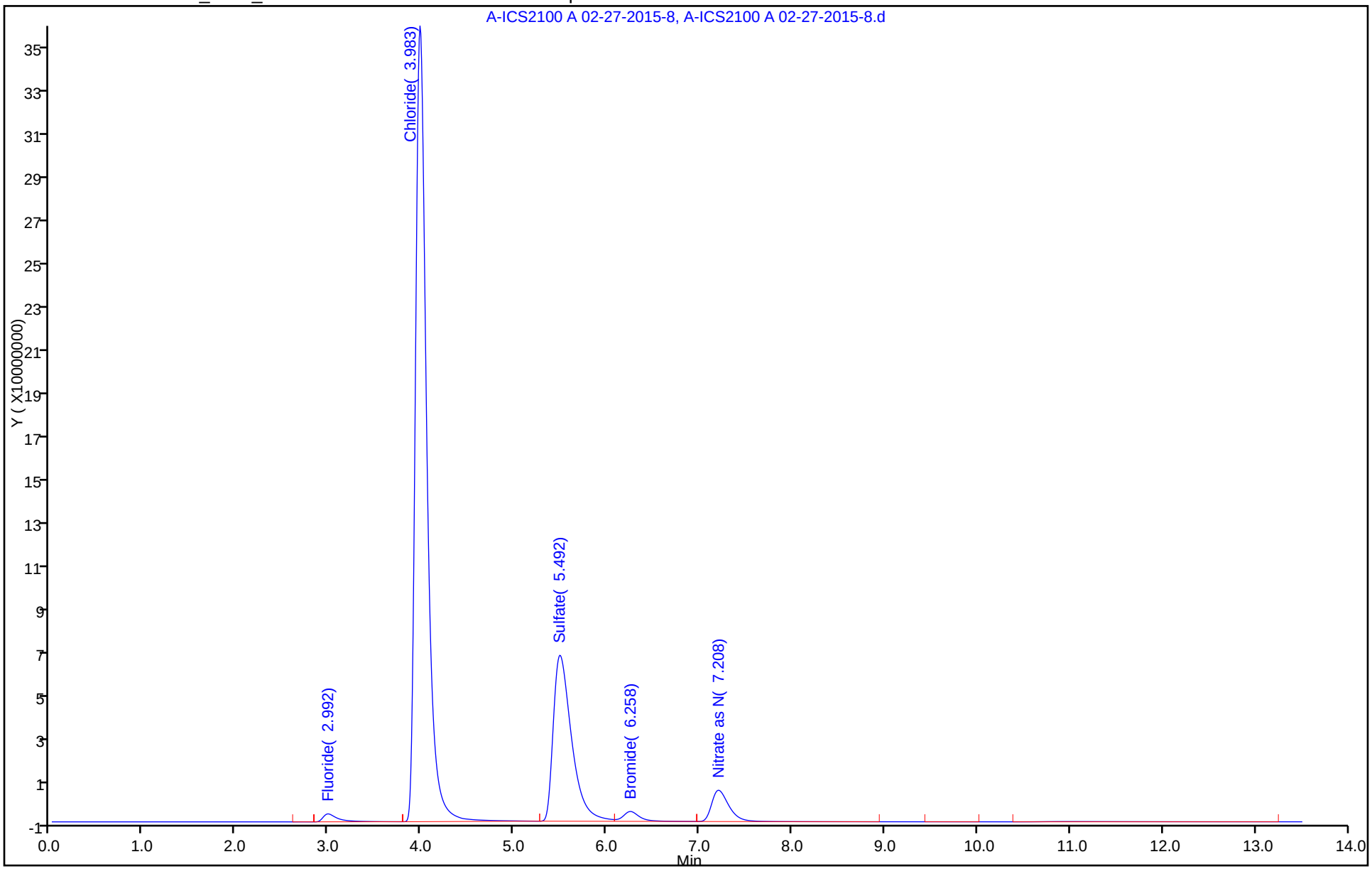
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 10-Mar-2015 09:07:57 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-8.d				
Injection Date:	27-Feb-2015 12:08:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-8 MS			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 MS Lab Sample ID: 180-41569-10 MS

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-18.d

Analysis Method: 300.0 Date Collected: 02/26/2015 14:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 14:48

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.19		0.10	0.0062
16887-00-6	Chloride	161		1.0	0.20
14808-79-8	Sulfate	72.8		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-18.d
Lims ID: 180-41569-A-10 MS
Client ID:
Sample Type: MS
Inject. Date: 27-Feb-2015 14:48:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-018
Misc. Info.: 18 180-41569-a-10 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3384516H	1.25	1.14	
2 Chloride	3.983	4.000	-0.017	409290829H	25.0	161.5	
7 Nitrite as N		4.700				ND	
3 Sulfate	5.492	5.525	-0.033	1140444567	25.0	72.8	
4 Bromide	6.250	6.250	0.000	4434326H	5.00	5.31	
5 Nitrate as N	7.175	7.225	-0.050	20355566H	1.25	5.19	
6 Orthophosphate as P		10.483			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

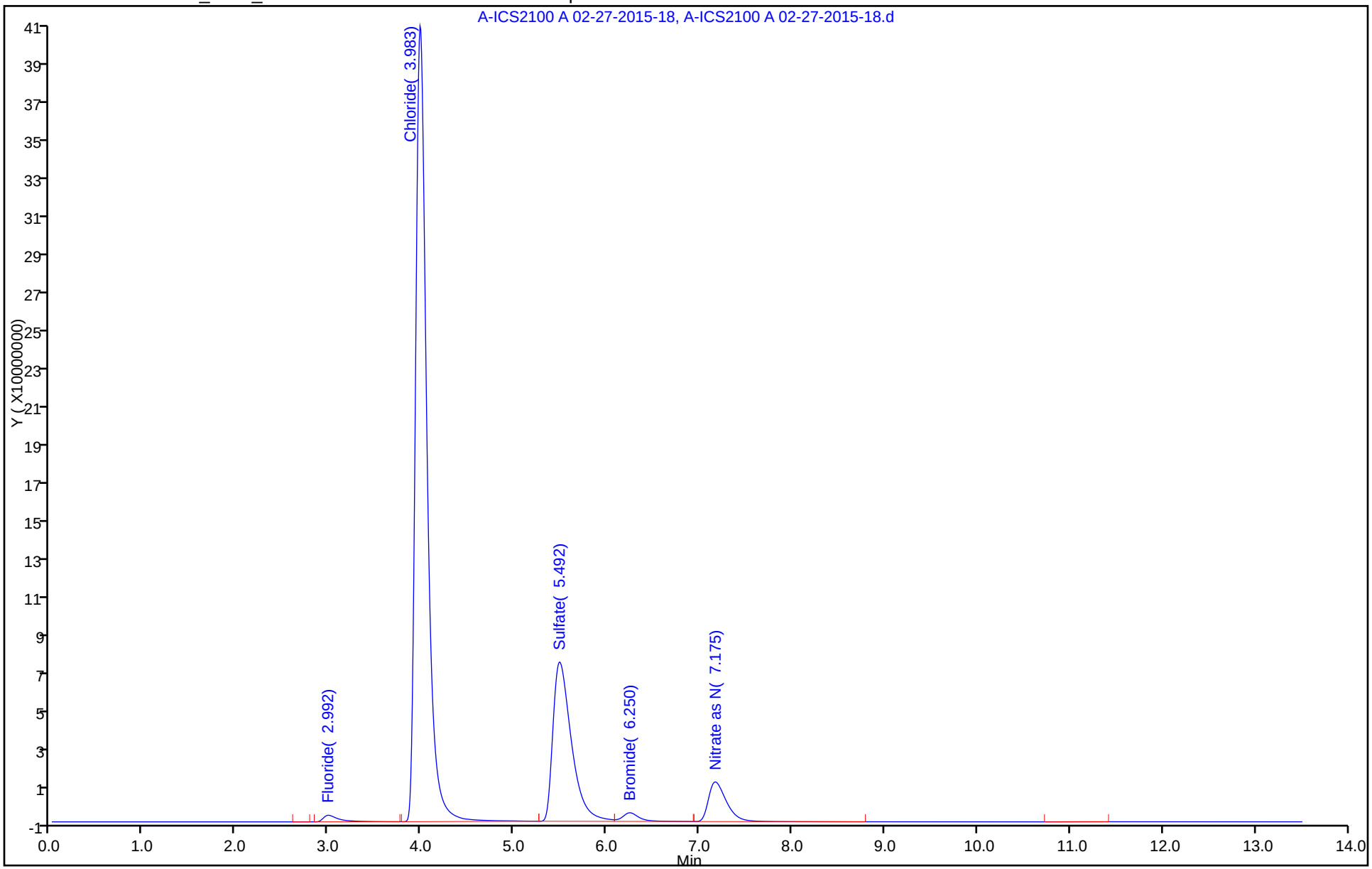
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 10-Mar-2015 09:08:00 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-18.d				
Injection Date:	27-Feb-2015 14:48:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-10 MS			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 MSD Lab Sample ID: 180-41569-8 MSD

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-9.d

Analysis Method: 300.0 Date Collected: 02/26/2015 05:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 12:24

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.57		0.10	0.0062
16887-00-6	Chloride	140		1.0	0.20
14808-79-8	Sulfate	65.6		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-9.d
Lims ID: 180-41569-A-8 MSD
Client ID:
Sample Type: MSD
Inject. Date: 27-Feb-2015 12:24:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-009
Misc. Info.: 9 180-41569-a-8 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:54 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3563401H	1.25	1.20	
2 Chloride	3.992	4.000	-0.008	355293118H	25.0	140.2	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.492	5.533	-0.041	1028462463	25.0	65.6	
4 Bromide	6.258	6.242	0.016	4398722H	5.00	5.27	
5 Nitrate as N	7.208	7.217	-0.009	13987798H	1.25	3.57	
6 Orthophosphate as P		10.417			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

Reagents:

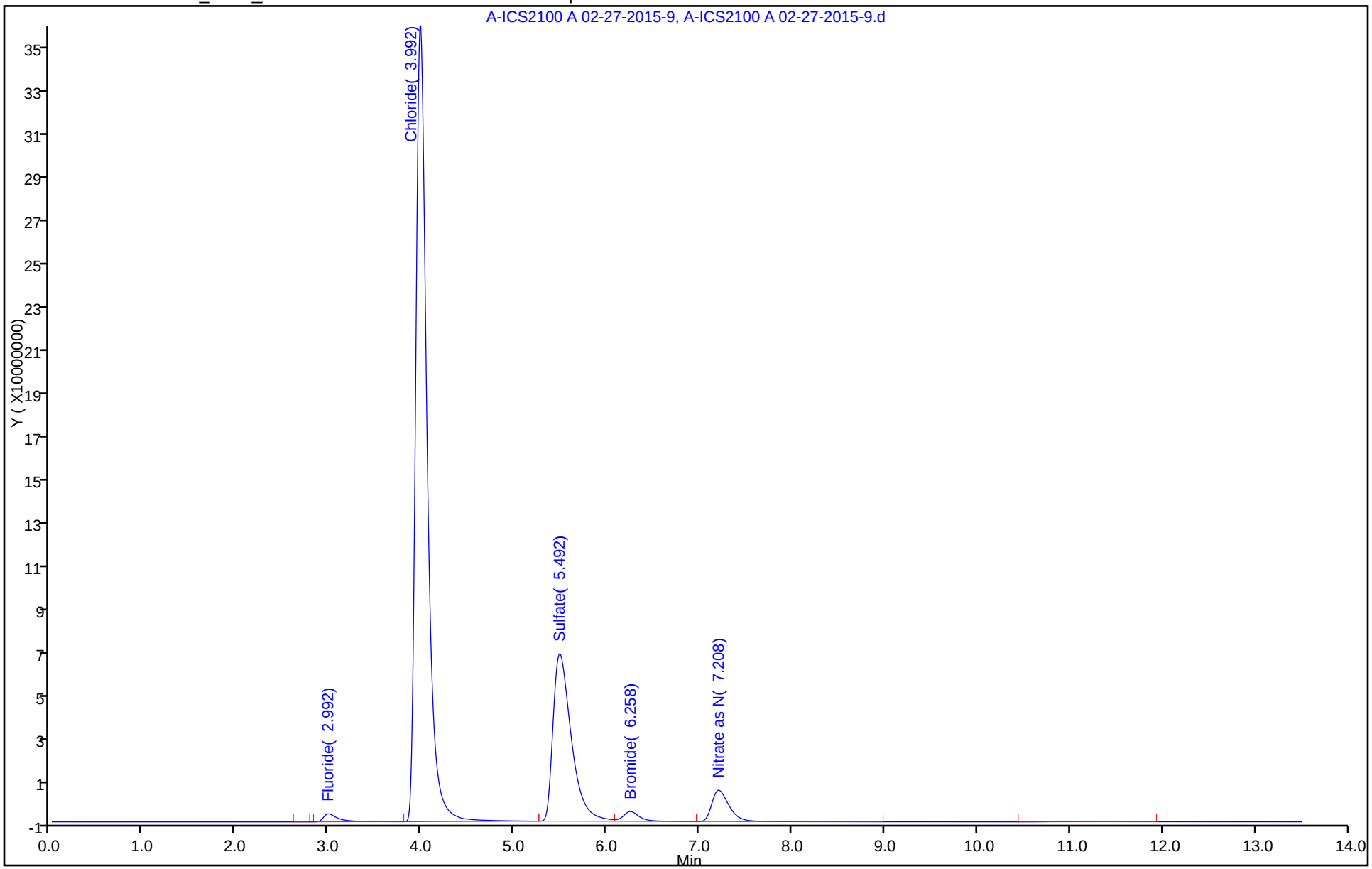
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 10-Mar-2015 09:07:57 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-9.d

Injection Date:	27-Feb-2015 12:24:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-8 MSD			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 MSD Lab Sample ID: 180-41569-10 MSD

Matrix: Water Lab File ID: A-ICS2100 A 02-27-2015-19.d

Analysis Method: 300.0 Date Collected: 02/26/2015 14:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 02/27/2015 15:04

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 134413 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	5.23		0.10	0.0062
16887-00-6	Chloride	163		1.0	0.20
14808-79-8	Sulfate	73.4		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-19.d
Lims ID: 180-41569-A-10 MSD
Client ID:
Sample Type: MSD
Inject. Date: 27-Feb-2015 15:04:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0005844-019
Misc. Info.: 19 180-41569-a-10 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 10-Mar-2015 09:07:59 Calib Date: 18-Feb-2015 18:25:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150218-5751.b\A-ICS2100 A 02-18A-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK032

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	2.992	0.000	3352258H	1.25	1.13	
2 Chloride	3.983	4.000	-0.017	412440106H	25.0	162.7	
7 Nitrite as N		4.700				ND	
3 Sulfate	5.483	5.525	-0.042	1149340769	25.0	73.4	
4 Bromide	6.250	6.250	0.000	4448718H	5.00	5.33	
5 Nitrate as N	7.175	7.225	-0.050	20504008H	1.25	5.23	
6 Orthophosphate as P		10.483			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

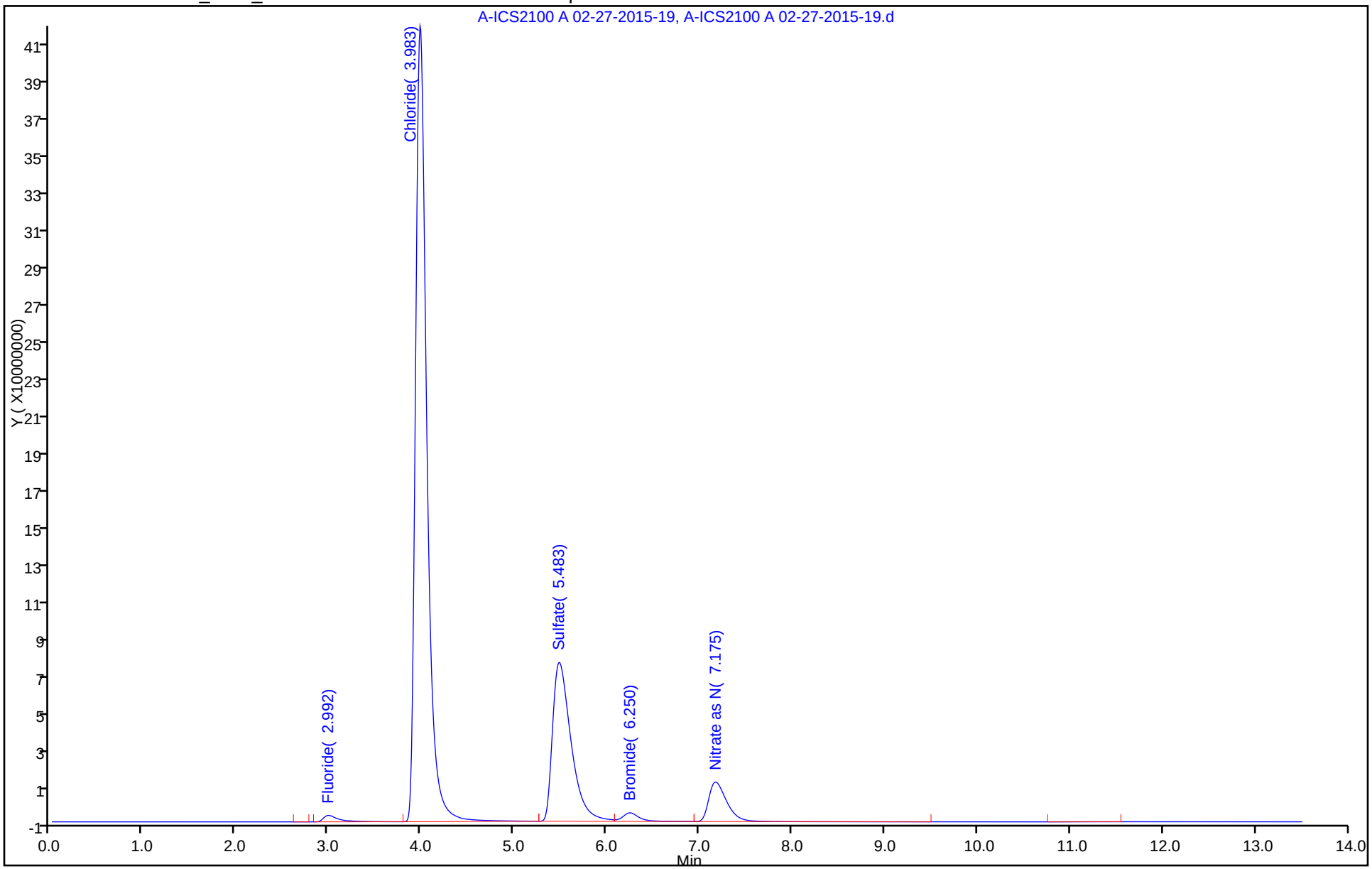
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 10-Mar-2015 09:08:01 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150227-5844.b\A-ICS2100 A 02-27-2015-19.d				
Injection Date:	27-Feb-2015 15:04:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-41569-A-10 MSD			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/18/2015 16:38

Analysis Batch Number: 133779 End Date: 02/19/2015 10:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-133779/2		02/18/2015 16:38	1	A-ICS2100 A 02-18A-2015-2.d	AS-18
IC 180-133779/3		02/18/2015 16:53	1	A-ICS2100 A 02-18A-2015-3.d	AS-18
ICRT 180-133779/4		02/18/2015 17:08	1	A-ICS2100 A 02-18A-2015-4.d	AS-18
IC 180-133779/5		02/18/2015 17:24	1	A-ICS2100 A 02-18A-2015-5.d	AS-18
IC 180-133779/6		02/18/2015 17:39	1	A-ICS2100 A 02-18A-2015-6.d	AS-18
IC 180-133779/7		02/18/2015 17:54	1	A-ICS2100 A 02-18A-2015-7.d	AS-18
IC 180-133779/8		02/18/2015 18:09	1	A-ICS2100 A 02-18A-2015-8.d	AS-18
IC 180-133779/9		02/18/2015 18:25	1	A-ICS2100 A 02-18A-2015-9.d	AS-18
ZZZZZ		02/18/2015 18:40	1		AS-18
ZZZZZ		02/18/2015 18:55	1		AS-18
ZZZZZ		02/18/2015 19:11	1		AS-18
ICV 180-133779/13		02/18/2015 19:49	1		AS-18
CCV 180-133779/14		02/18/2015 20:04	1		AS-18
CCB 180-133779/15		02/18/2015 20:20	1		AS-18
ZZZZZ		02/18/2015 20:35	1		AS-18
ZZZZZ		02/18/2015 20:50	1		AS-18
ZZZZZ		02/18/2015 21:06	1		AS-18
ZZZZZ		02/18/2015 21:21	1		AS-18
ZZZZZ		02/18/2015 21:36	1		AS-18
ZZZZZ		02/18/2015 21:52	1		AS-18
ZZZZZ		02/18/2015 22:07	1		AS-18
ZZZZZ		02/18/2015 22:22	1		AS-18
ZZZZZ		02/18/2015 22:38	1		AS-18
ZZZZZ		02/18/2015 22:53	1		AS-18
CCV 180-133779/26		02/18/2015 23:08	1		AS-18
CCB 180-133779/27		02/18/2015 23:23	1		AS-18
ZZZZZ		02/18/2015 23:39	1		AS-18
ZZZZZ		02/18/2015 23:54	5		AS-18
ZZZZZ		02/19/2015 00:09	5		AS-18
ZZZZZ		02/19/2015 00:25	50		AS-18
ZZZZZ		02/19/2015 00:40	1		AS-18
ZZZZZ		02/19/2015 00:55	5		AS-18
ZZZZZ		02/19/2015 01:11	10		AS-18
ZZZZZ		02/19/2015 01:26	100		AS-18
ZZZZZ		02/19/2015 01:41	2.5		AS-18
ZZZZZ		02/19/2015 01:56	25		AS-18
CCV 180-133779/38		02/19/2015 02:12	1		AS-18
CCB 180-133779/39		02/19/2015 02:27	1		AS-18
ZZZZZ		02/19/2015 02:42	10		AS-18
ZZZZZ		02/19/2015 02:58	100		AS-18
ZZZZZ		02/19/2015 03:13	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/18/2015 16:38

Analysis Batch Number: 133779 End Date: 02/19/2015 10:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/19/2015 03:28	10		AS-18
ZZZZZ		02/19/2015 03:44	1		AS-18
ZZZZZ		02/19/2015 03:59	1		AS-18
ZZZZZ		02/19/2015 04:14	1		AS-18
ZZZZZ		02/19/2015 04:29	1		AS-18
ZZZZZ		02/19/2015 04:45	1		AS-18
ZZZZZ		02/19/2015 05:00	1		AS-18
CCV 180-133779/50		02/19/2015 05:15	1		AS-18
CCB 180-133779/51		02/19/2015 05:31	1		AS-18
ZZZZZ		02/19/2015 05:46	1		AS-18
ZZZZZ		02/19/2015 06:01	1		AS-18
ZZZZZ		02/19/2015 06:17	1		AS-18
ZZZZZ		02/19/2015 06:32	1		AS-18
ZZZZZ		02/19/2015 06:47	1		AS-18
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ZZZZZ		02/19/2015 07:33	1		AS-18
ZZZZZ		02/19/2015 07:48	1		AS-18
ZZZZZ		02/19/2015 08:04	10		AS-18
CCV 180-133779/62		02/19/2015 08:19	1		AS-18
CCB 180-133779/63		02/19/2015 08:34	1		AS-18
ZZZZZ		02/19/2015 08:49	1		AS-18
ZZZZZ		02/19/2015 09:05	10		AS-18
ZZZZZ		02/19/2015 09:20	1		AS-18
ZZZZZ		02/19/2015 09:35	10		AS-18
CCV 180-133779/68		02/19/2015 09:51	1		AS-18
CCB 180-133779/69		02/19/2015 10:06	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/27/2015 09:06

Analysis Batch Number: 134413 End Date: 02/28/2015 03:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/27/2015 09:06	1		AS-18
ICV 180-134413/2		02/27/2015 09:22	1	A-ICS2100 A 02-27-2015-2.d	AS-18
CCV 180-134413/3		02/27/2015 09:37	1	A-ICS2100 A 02-27-2015-3.d	AS-18
CCB 180-134413/4		02/27/2015 09:52	1	A-ICS2100 A 02-27-2015-4.d	AS-18
LCS 180-134413/5		02/27/2015 10:08	1	A-ICS2100 A 02-27-2015-5.d	AS-18
MB 180-134413/6		02/27/2015 10:23	1	A-ICS2100 A 02-27-2015-6.d	AS-18
180-41569-8	HD-CW-17-0/1-0	02/27/2015 11:41	1	A-ICS2100 A 02-27-2015-7.d	AS-18
180-41569-8 MS	HD-CW-17-0/1-0 MS	02/27/2015 12:08	1	A-ICS2100 A 02-27-2015-8.d	AS-18
180-41569-8 MSD	HD-CW-17-0/1-0 MSD	02/27/2015 12:24	1	A-ICS2100 A 02-27-2015-9.d	AS-18
180-41569-3	HD-MW-50D-0/1-0	02/27/2015 12:46	1	A-ICS2100 A 02-27-2015-10.d	AS-18
180-41569-4	HD-MW-51S-0/1-0	02/27/2015 13:01	1	A-ICS2100 A 02-27-2015-11.d	AS-18
180-41569-7	HD-MW-7-0/1-0	02/27/2015 13:17	1	A-ICS2100 A 02-27-2015-12.d	AS-18
180-41569-9	HD-MW-96S-0/1-0	02/27/2015 13:32	1	A-ICS2100 A 02-27-2015-13.d	AS-18
180-41569-10	HD-MW-96D-0/1-0	02/27/2015 13:47	1	A-ICS2100 A 02-27-2015-14.d	AS-18
CCV 180-134413/15		02/27/2015 14:02	1	A-ICS2100 A 02-27-2015-15.d	AS-18
CCB 180-134413/16		02/27/2015 14:18	1	A-ICS2100 A 02-27-2015-16.d	AS-18
180-41569-6	HD-MW-114-0/1-0	02/27/2015 14:33	1	A-ICS2100 A 02-27-2015-17.d	AS-18
180-41569-10 MS	HD-MW-96D-0/1-0 MS	02/27/2015 14:48	1	A-ICS2100 A 02-27-2015-18.d	AS-18
180-41569-10 MSD	HD-MW-96D-0/1-0 MSD	02/27/2015 15:04	1	A-ICS2100 A 02-27-2015-19.d	AS-18
180-41569-1	HD-QC2-0/1-1	02/27/2015 15:24	1	A-ICS2100 A 02-27-2015-20.d	AS-18
180-41569-1	HD-QC2-0/1-1	02/27/2015 15:39	5	A-ICS2100 A 02-27-2015-21.d	AS-18
180-41569-5	HD-CW-18-0/1-0	02/27/2015 15:55	1	A-ICS2100 A 02-27-2015-22.d	AS-18
180-41569-5	HD-CW-18-0/1-0	02/27/2015 16:10	5	A-ICS2100 A 02-27-2015-23.d	AS-18
180-41569-3	HD-MW-50D-0/1-0	02/27/2015 16:25	5	A-ICS2100 A 02-27-2015-24.d	AS-18
ZZZZZ		02/27/2015 16:41	100		AS-18
ZZZZZ		02/27/2015 16:56	1000		AS-18
CCV 180-134413/27		02/27/2015 17:11	1	A-ICS2100 A 02-27-2015-27.d	AS-18
CCB 180-134413/28		02/27/2015 17:27	1	A-ICS2100 A 02-27-2015-28.d	AS-18
ZZZZZ		02/27/2015 17:42	25		AS-18
ZZZZZ		02/27/2015 17:57	25		AS-18
ZZZZZ		02/27/2015 18:13	25		AS-18
ZZZZZ		02/27/2015 18:28	25		AS-18
ZZZZZ		02/27/2015 18:43	50		AS-18
ZZZZZ		02/27/2015 18:58	500		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 02/27/2015 09:06

Analysis Batch Number: 134413 End Date: 02/28/2015 03:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		02/27/2015 19:14	250		AS-18
ZZZZZ		02/27/2015 19:29	2500		AS-18
ZZZZZ		02/27/2015 19:44	250		AS-18
ZZZZZ		02/27/2015 20:00	2500		AS-18
CCV 180-134413/39		02/27/2015 20:15	1		AS-18
CCB 180-134413/40		02/27/2015 20:30	1		AS-18
ZZZZZ		02/27/2015 20:46	1		AS-18
ZZZZZ		02/27/2015 21:01	1		AS-18
ZZZZZ		02/27/2015 21:16	1		AS-18
ZZZZZ		02/27/2015 21:32	1		AS-18
ZZZZZ		02/27/2015 21:47	1		AS-18
ZZZZZ		02/27/2015 22:02	1		AS-18
ZZZZZ		02/27/2015 22:17	1		AS-18
ZZZZZ		02/27/2015 22:33	1		AS-18
ZZZZZ		02/27/2015 22:48	1		AS-18
ZZZZZ		02/27/2015 23:03	1		AS-18
CCV 180-134413/51		02/27/2015 23:19	1		AS-18
CCB 180-134413/52		02/27/2015 23:34	1		AS-18
ZZZZZ		02/27/2015 23:49	1		AS-18
ZZZZZ		02/28/2015 00:05	1		AS-18
ZZZZZ		02/28/2015 00:20	10		AS-18
ZZZZZ		02/28/2015 00:35	100		AS-18
ZZZZZ		02/28/2015 00:50	1		AS-18
ZZZZZ		02/28/2015 01:06	1		AS-18
ZZZZZ		02/28/2015 01:21	1		AS-18
ZZZZZ		02/28/2015 01:36	1		AS-18
ZZZZZ		02/28/2015 01:52	1		AS-18
CCV 180-134413/63		02/28/2015 02:07	1		AS-18
CCB 180-134413/64		02/28/2015 02:22	1		AS-18
ZZZZZ		02/28/2015 03:08	1		AS-18
ZZZZZ		02/28/2015 03:23	1		AS-18
CCV 180-134413/67		02/28/2015 03:39	1		AS-18
CCB 180-134413/68		02/28/2015 03:54	1		AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-41569-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-QC2-0/1-1	180-41569-1
HD-MW-50D-0/1-0	180-41569-3
HD-MW-51S-0/1-0	180-41569-4
HD-CW-18-0/1-0	180-41569-5
HD-MW-114-0/1-0	180-41569-6
HD-MW-7-0/1-0	180-41569-7
HD-CW-17-0/1-0	180-41569-8
HD-MW-96S-0/1-0	180-41569-9
HD-MW-96D-0/1-0	180-41569-10

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-41569-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 08:00

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	12000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	52000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	170000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-41569-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 11:35

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	160000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	2400	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	53000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	18000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-41569-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 13:25

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	130000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	9400	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	52000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-41569-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 09:35

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	11000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	53000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	170000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-114-0/1-0 Lab Sample ID: 180-41569-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 11:50

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	130000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	9900	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	25000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	42000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-41569-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 14:40

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	140000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	20000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	21000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	56000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-41569-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 05:50

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	8900	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	15000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	46000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-41569-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 15:10

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	140000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	11000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	24000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	66000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-41569-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 14:30

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	130000	100	2.8	ug/L			1	6020A
7440-09-7	Potassium	5900	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	22000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	53000	100	3.8	ug/L		B	1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

ICV Source: MICVX_00029 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	ICV 180-134662/5 03/03/2015 08:58				CCV 180-134662/11 03/03/2015 09:27				CCV 180-134662/23 03/03/2015 10:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	42400		40000	106	50400		50000	101	51700		50000	103
Magnesium	40100		40000	100	50600		50000	101	50500		50000	101
Potassium	41600		40000	104	50700		50000	101	51200		50000	102
Sodium	40500		40000	101	49900		50000	100	49800		50000	100

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.: 180-41569-1

SDG No.:

ICV Source: MICVX_00029 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	CCV 180-134662/35 03/03/2015 11:19											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49000		50000	98								
Magnesium	50200		50000	100								
Potassium	49800		50000	100								
Sodium	50000		50000	100								

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.: 180-41569-1

SDG No.:

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-134662/8 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00061

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	113		113	70-130
Potassium	100	108		108	70-130
Magnesium	100	110		110	70-130
Sodium	100	113		113	70-130

Lab Sample ID: CRI 180-134662/54 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00061

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	116		116	70-130
Potassium	100	102		102	70-130
Magnesium	100	114		114	70-130
Sodium	100	110		110	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.: 180-41569-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-134662/7 03/03/2015 09:07		CCB1 180-134662/12 03/03/2015 09:34		CCB2 180-134662/24 03/03/2015 10:29		CCB3 180-134662/36 03/03/2015 11:26	
		Found	C	Found	C	Found	C	Found	C
Calcium	100	100	U	100	U	5.59	J	3.31	J
Magnesium	100	100	U	100	U	1.49	J	1.57	J
Potassium	100	100	U	100	U	100	U	100	U
Sodium	100	100	U	7.29	J	100	U	100	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-134507/1-A

Instrument Code: X Batch No.: 134662

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	100	U		6020A
7440-09-7	Potassium	100	U		6020A
7439-95-4	Magnesium	100	U		6020A
7440-23-5	Sodium	7.47	J		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Lab Sample ID: ICSA 180-134662/9 Instrument ID: X

Lab File ID: X50303A.xml ICS Source: MICSAX_00063

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**101800**	**102**
Magnesium	**100000**	**103300**	**103**
Potassium	**100000**	**102200**	**102**
Sodium	**100000**	**102300**	**102**
Aluminum	*100000*	*98260*	*98*
Antimony		*0.0110*	
Arsenic		*0.234*	
Barium		*0.112*	
Beryllium		*0.0180*	
Boron		*0.781*	
Cadmium		*0.276*	
Chromium		*0.242*	
Cobalt		*0.0900*	
Copper		*1.77*	
Iron	*100000*	*97030*	*97*
Lead		*0.220*	
Manganese		*0.663*	
Molybdenum	*2000*	*2185*	*109*
Nickel		*-0.567*	
Selenium		*0.270*	
Silicon		*17.9*	
Silver		*0.0120*	
Strontium		*0.648*	
Thallium		*0.0180*	
Tin		*0.0230*	
Titanium	*2000*	*2117*	*106*
Vanadium		*-0.325*	
Zinc		*2.21*	

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.: 180-41569-1

SDG No.:

Lab Sample ID: ICSAB 180-134662/10 Instrument ID: X

Lab File ID: X50303A.xml ICS Source: MICSABX_00067

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**100000**	**103533**	**104**
Magnesium	**100000**	**104333**	**104**
Potassium	**100000**	**103000**	**103**
Sodium	**100000**	**101100**	**101**
Aluminum	*100000*	*98367*	*98*
Antimony	*20.0*	*19.8*	*99*
Arsenic	*20.0*	*21.2*	*106*
Barium	*20.0*	*19.5*	*97*
Beryllium	*20.0*	*18.7*	*93*
Boron	*50.0*	*51.5*	*103*
Cadmium	*20.0*	*20.1*	*100*
Chromium	*20.0*	*19.1*	*95*
Cobalt	*20.0*	*19.8*	*99*
Copper	*20.0*	*22.2*	*111*
Iron	*100000*	*98720*	*99*
Lead	*20.0*	*20.4*	*102*
Manganese	*22.5*	*19.8*	*88*
Molybdenum	*2000*	*2260*	*113*
Nickel	*20.0*	*18.9*	*94*
Selenium	*50.0*	*54.9*	*110*
Silicon	*500*	*557*	*111*
Silver	*20.0*	*18.9*	*94*
Strontium	*25.0*	*21.0*	*84*
Thallium	*20.0*	*19.3*	*96*
Tin	*100*	*100*	*100*
Titanium	*2000*	*2142*	*107*
Vanadium	*20.0*	*18.7*	*93*
Zinc	*25.0*	*22.7*	*91*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-QC2-0/1-1 MS
Lab ID: 180-41569-1 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-41569-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	156000		100000		50000	108	75-125		6020A
Potassium	61700		12000		50000	100	75-125		6020A
Magnesium	105000		52000		50000	107	75-125		6020A
Sodium	222000		170000		50000	105	75-125		6020A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-QC2-0/1-1 MSD Lab ID: 180-41569-1 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	154000		50000	103	75-125	1	20		6020A
Potassium	59000		50000	95	75-125	5	20		6020A
Magnesium	102000		50000	100	75-125	3	20		6020A
Sodium	215000		50000	92	75-125	3	20		6020A

SDR = Sample Duplicate Result

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

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-QC2-0/1-1 PDS Lab ID: 180-41569-1 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	151000		100000		50000	96	75-125		6020A
Potassium	61400		12000		50000	100	75-125		6020A
Magnesium	103000		52000		50000	102	75-125		6020A
Sodium	210000		170000		50000	82	75-125		6020A

SSR = Spiked Sample Result

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

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-134507/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	51000		102	80	120		6020A
Potassium	50000	49300		99	80	120		6020A
Magnesium	50000	49500		99	80	120		6020A
Sodium	50000	46600		93	80	120		6020A

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-41569-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-41569-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	100000		94900		7.3		6020A
Potassium	12000		11100		3.3		6020A
Magnesium	52000		50200		2.6		6020A
Sodium	170000		166000		1.6		6020A

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

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-41569-1

SDG Number:

Matrix: Water Instrument ID: X

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	44	100	2.8374
Magnesium	26	100	1.1665
Potassium	39	100	5.823
Sodium	23	100	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-41569-1

SDG Number:

Matrix: Water Instrument ID: X

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	44	100	2.8374
Magnesium	26	100	1.1665
Potassium	39	100	5.823
Sodium	23	100	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-41569-1

SDG No.:

Instrument ID: X 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.: 180-41569-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-134507/1-A	03/02/2015 09:08	134507		50	50
LCS 180-134507/2-A	03/02/2015 09:08	134507		50	50
180-41569-1	03/02/2015 09:08	134507		50	50
180-41569-1 MS	03/02/2015 09:08	134507		50	50
180-41569-1 MSD	03/02/2015 09:08	134507		50	50
180-41569-3	03/02/2015 09:08	134507		50	50
180-41569-4	03/02/2015 09:08	134507		50	50
180-41569-5	03/02/2015 09:08	134507		50	50
180-41569-6	03/02/2015 09:08	134507		50	50
180-41569-7	03/02/2015 09:08	134507		50	50
180-41569-8	03/02/2015 09:08	134507		50	50
180-41569-9	03/02/2015 09:08	134507		50	50
180-41569-10	03/02/2015 09:08	134507		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 03/03/2015 06:53 End Date: 03/03/2015 13:39

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na																							
ITUNE 180-134662/1			06:53																											
STD1 180-134662/2 IC	1		08:45	X	X	X	X																							
STD2 180-134662/3 IC	1		08:50	X	X	X	X																							
STD3 180-134662/4 IC	1		08:54	X	X	X	X																							
ICV 180-134662/5	1		08:58	X	X	X	X																							
ICV 180-134662/6	1		09:02	X	X	X	X																							
ICB 180-134662/7	1		09:07	X	X	X	X																							
CRI 180-134662/8	1		09:11	X	X	X	X																							
ICSA 180-134662/9	1		09:15	X	X	X	X																							
ICSAB 180-134662/10	1		09:20	X	X	X	X																							
CCV 180-134662/11	1		09:27	X	X	X	X																							
CCB1 180-134662/12	1		09:34	X	X	X	X																							
MB 180-134507/1-A	1	R	09:39	X	X	X	X																							
LCS 180-134507/2-A	1	R	09:43	X	X	X	X																							
180-41569-1	1	T	09:47	X	X	X	X																							
180-41569-1 SD	5	T	09:51	X	X	X	X																							
180-41569-1 MS	1	T	09:56	X	X	X	X																							
180-41569-1 MSD	1	T	10:00	X	X	X	X																							
180-41569-1 PDS	1	T	10:04	X	X	X	X																							
180-41569-3	1	T	10:09	X	X	X	X																							
180-41569-4	1	T	10:13	X	X	X	X																							
180-41569-5	1	T	10:17	X	X	X	X																							
CCV 180-134662/23	1		10:21	X	X	X	X																							
CCB2 180-134662/24	1		10:29	X	X	X	X																							
180-41569-6	1	T	10:33	X	X	X	X																							
180-41569-7	1	T	10:37	X	X	X	X																							
180-41569-8	1	T	10:42	X	X	X	X																							
180-41569-9	1	T	10:46	X	X	X	X																							
180-41569-10	1	T	10:50	X	X	X	X																							
ZZZZZZ			10:54																											
ZZZZZZ			11:02																											
ZZZZZZ			11:06																											
ZZZZZZ			11:10																											
ZZZZZZ			11:15																											
CCV 180-134662/35	1		11:19	X	X	X	X																							
CCB3 180-134662/36	1		11:26	X	X	X	X																							
ZZZZZZ			11:31																											
ZZZZZZ			11:35																											
ZZZZZZ			11:39																											
ZZZZZZ			11:44																											
ZZZZZZ			11:48																											
ZZZZZZ			11:52																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 03/03/2015 06:53 End Date: 03/03/2015 13:39

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			11:56																										
CCV 180-134662/44			12:01																										
CCB4 180-134662/45			12:08																										
ZZZZZZ			12:13																										
ZZZZZZ			12:17																										
ZZZZZZ			12:21																										
ZZZZZZ			12:25																										
ZZZZZZ			12:30																										
ZZZZZZ			12:34																										
ZZZZZZ			12:38																										
ZZZZZZ			12:42																										
CRI 180-134662/54	1		12:50	X	X	X	X																						
CCV 180-134662/55			12:54																										
CCB5 180-134662/56			13:02																										
ZZZZZZ			13:06																										
ZZZZZZ			13:10																										
ZZZZZZ			13:14																										
ZZZZZZ			13:19																										
ZZZZZZ			13:23																										
ZZZZZZ			13:27																										
CCV 180-134662/63			13:31																										
CCB6 180-134662/64			13:39																										

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.: 180-41569-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 03/03/2015 End Date: 03/03/2015

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 180-134662/2 IC	08:45	100		100		100		100		100	
STD2 180-134662/3 IC	08:50	91		94		90		86		85	
STD3 180-134662/4 IC	08:54	100		102		97		97		96	
ICV 180-134662/5	08:58	101		100		96		93		93	
ICV 180-134662/6	09:02	103		107		99		98		98	
ICB 180-134662/7	09:07	100		101		98		98		98	
CRI 180-134662/8	09:11	100		100		97		97		96	
ICSA 180-134662/9	09:15	86		92		93		87		90	
ICSAB 180-134662/10	09:20	82		87		85		86		91	
CCV 180-134662/11	09:27	86		89		90		87		90	
CCB1 180-134662/12	09:34	92		91		93		94		94	
MB 180-134507/1-A	09:39	92		91		93		93		93	
LCS 180-134507/2-A	09:43	79		77		85		84		85	
180-41569-1	09:47	75		73		81		81		83	
180-41569-1 SD	09:51	85		82		85		85		87	
180-41569-1 MS	09:56	72		71		80		79		79	
180-41569-1 MSD	10:00	72		70		79		78		78	
180-41569-1 PDS	10:04	71		70		78		79		78	
180-41569-3	10:09	74		71		80		80		81	
180-41569-4	10:13	75		71		80		80		82	
180-41569-5	10:17	71		71		77		79		79	
CCV 180-134662/23	10:21	86		87		87		86		86	
CCB2 180-134662/24	10:29	94		92		90		91		90	
180-41569-6	10:33	76		74		83		83		84	
180-41569-7	10:37	74		72		81		81		83	
180-41569-8	10:42	74		72		81		82		84	
180-41569-9	10:46	73		71		82		82		84	
180-41569-10	10:50	75		73		83		82		84	
CCV 180-134662/35	11:19	91		95		90		88		88	
CCB3 180-134662/36	11:26	101		98		94		95		93	
CRI 180-134662/54	12:50	100		96		101		94		93	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 03/03/2015 End Date: 03/03/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-134662/2 IC	08:45	100		100		100					
STD2 180-134662/3 IC	08:50	90		89		87					
STD3 180-134662/4 IC	08:54	97		97		99					
ICV 180-134662/5	08:58	96		95		95					
ICV 180-134662/6	09:02	98		98		95					
ICB 180-134662/7	09:07	98		98		98					
CRI 180-134662/8	09:11	97		97		98					
ICSA 180-134662/9	09:15	96		96		94					
ICSAB 180-134662/10	09:20	97		97		88					
CCV 180-134662/11	09:27	95		95		89					
CCB1 180-134662/12	09:34	97		97		97					
MB 180-134507/1-A	09:39	96		96		97					
LCS 180-134507/2-A	09:43	94		95		85					
180-41569-1	09:47	91		92		80					
180-41569-1 SD	09:51	92		93		85					
180-41569-1 MS	09:56	90		91		77					
180-41569-1 MSD	10:00	90		90		77					
180-41569-1 PDS	10:04	89		90		77					
180-41569-3	10:09	91		92		83					
180-41569-4	10:13	91		92		81					
180-41569-5	10:17	89		90		79					
CCV 180-134662/23	10:21	91		92		85					
CCB2 180-134662/24	10:29	93		93		91					
180-41569-6	10:33	93		94		84					
180-41569-7	10:37	91		93		81					
180-41569-8	10:42	93		94		83					
180-41569-9	10:46	94		95		84					
180-41569-10	10:50	94		95		83					
CCV 180-134662/35	11:19	92		93		86					
CCB3 180-134662/36	11:26	95		95		93					
CRI 180-134662/54	12:50	95		95		93					

Dilution Corrected Concentrations

STD1 1490881 3/3/2015 8:45:50 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:17	99.946%	0.012	0.027	-0.019	0.000	-0.125	-0.162	-0.023
2	08:46:44	99.221%	-0.011	0.114	-0.115	0.000	-0.056	-0.028	0.032
3	08:47:10	100.833%	-0.000	-0.142	0.134	0.000	0.181	0.189	-0.009
x		100.000%	-0.000	0.000	0.000	0.000	0.000	-0.000	-0.000
σ		0.807%	0.012	0.130	0.126	0.000	0.160	0.177	0.029
%RSD		0.807	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	08:46:17	-0.076	0.289	0.000	1.297	-0.977	0.559	99.731%	-0.104
2	08:46:44	-0.030	-0.307	0.000	-0.037	0.478	0.331	100.371%	0.020
3	08:47:10	0.106	0.018	0.000	-1.260	0.499	-0.890	99.898%	0.084
x		0.000	0.000	0.000	0.000	-0.000	0.000	100.000%	-0.000
σ		0.095	0.298	0.000	1.279	0.846	0.779	0.332%	0.096
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.332	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:17	-0.022	-0.002	-0.004	0.526	-0.788	-0.003	0.000	-0.009
2	08:46:44	0.023	-0.010	0.007	-0.539	0.540	0.002	0.024	-0.008
3	08:47:10	-0.001	0.012	-0.002	0.013	0.248	0.000	-0.024	0.016
x		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ		0.023	0.011	0.006	0.532	0.698	0.002	0.024	0.014
%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	08:46:17	0.011	0.016	0.102	-0.065	-0.034	-0.424	0.000	0.002
2	08:46:44	0.022	0.022	-0.055	0.024	-0.452	0.059	0.000	0.002
3	08:47:10	-0.034	-0.038	-0.048	0.041	0.486	0.365	0.000	-0.003
x		0.000	-0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
σ		0.030	0.033	0.089	0.057	0.470	0.398	0.000	0.003
%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	08:46:17	99.470%	-0.006	-0.011	99.123%	-0.012	-0.015	-0.013	-0.015
2	08:46:44	100.165%	-0.001	0.006	100.108%	-0.007	0.009	0.041	0.027
3	08:47:10	100.365%	0.007	0.006	100.769%	0.019	0.006	-0.029	-0.013
x		100.000%	0.000	0.000	100.000%	0.000	0.000	-0.000	0.000
σ		0.470%	0.007	0.010	0.829%	0.017	0.013	0.037	0.024
%RSD		0.470	0.000	0.000	0.829	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	08:46:17	99.367%	-0.039	-0.008	-0.018	-0.007	0.001	99.013%	99.047%
2	08:46:44	100.050%	-0.013	0.009	0.004	0.001	-0.006	100.749%	100.615%
3	08:47:10	100.583%	0.052	-0.001	0.014	0.005	0.005	100.238%	100.339%
x		100.000%	0.000	0.000	-0.000	0.000	0.000	100.000%	100.000%
σ		0.610%	0.047	0.008	0.016	0.006	0.006	0.892%	0.837%
%RSD		0.610	0.000	0.000	0.000	0.000	0.000	0.892	0.837

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:46:17	0.001	0.001	0.001	-0.007	0.000	99.963%
2	08:46:44	-0.001	-0.001	-0.003	0.006	-0.001	99.695%
3	08:47:10	0.001	0.000	0.002	0.001	0.001	100.342%
x		-0.000	0.000	-0.000	0.000	0.000	100.000%
σ		0.001	0.001	0.002	0.007	0.001	0.325%
%RSD		0.000	0.000	0.000	0.000	0.000	0.325

STD2 1487947 3/3/2015 8:50:00 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	08:50:26	90.927%	197.300	-0.083	0.299	0.000	99040.000	98250.000	98040.000
2	08:50:53	91.113%	198.300	0.636	0.278	0.000	100100.000	100100.000	100200.000
3	08:51:19	91.224%	204.400	0.634	0.212	0.000	100900.000	101700.000	101700.000
x		91.088%	200.000	0.396	0.263	0.000	100000.000	100000.000	100000.000
σ		0.150%	3.861	0.414	0.046	0.000	920.600	1708.000	1848.000
%RSD		0.165	1.931	104.700	17.370	0.000	0.921	1.708	1.848

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	983.800	4.152	0.000	98390.000	98120.000	97560.000	94.652%	0.203
2	08:50:53	1005.000	5.129	0.000	100700.000	100400.000	100100.000	93.687%	0.257
3	08:51:19	1011.000	3.933	0.000	100900.000	101500.000	102300.000	94.487%	0.104
x		1000.000	4.405	0.000	100000.000	100000.000	100000.000	94.275%	0.188
σ		14.290	0.637	0.000	1396.000	1713.000	2396.000	0.516%	0.078
%RSD		1.429	14.460	0.000	1.396	1.713	2.396	0.547	41.480

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	195.600	195.200	975.300	48610.000	48650.000	195.400	193.000	195.600
2	08:50:53	201.100	200.700	1011.000	50440.000	50420.000	201.600	203.800	199.800
3	08:51:19	203.300	204.000	1014.000	50950.000	50930.000	203.000	203.200	204.600
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		3.965	4.433	21.400	1229.000	1195.000	4.060	6.053	4.478
%RSD		1.983	2.216	2.140	2.459	2.390	2.030	3.027	2.239

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	196.400	198.600	198.100	197.000	198.300	198.800	0.000	198.500
2	08:50:53	200.500	198.200	199.200	202.100	201.800	201.600	0.000	200.800
3	08:51:19	203.200	203.100	202.700	200.900	199.900	199.600	0.000	200.600
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		3.402	2.731	2.442	2.674	1.732	1.419	0.000	1.261
%RSD		1.701	1.366	1.221	1.337	0.866	0.710	0.000	0.631

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	89.375%	0.080	0.090	85.420%	199.100	198.400	197.200	197.900
2	08:50:53	89.908%	0.111	0.071	86.230%	200.700	200.700	203.100	201.700
3	08:51:19	90.367%	0.095	0.114	85.778%	200.200	200.900	199.600	200.400
x		89.883%	0.095	0.092	85.809%	200.000	200.000	200.000	200.000
σ		0.496%	0.016	0.021	0.406%	0.803	1.348	2.982	1.895
%RSD		0.552	16.450	23.300	0.473	0.402	0.674	1.491	0.947

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	84.648%	0.178	0.182	0.195	199.400	197.600	89.251%	89.377%
2	08:50:53	84.029%	0.213	0.228	0.215	201.000	201.600	89.277%	89.129%
3	08:51:19	85.628%	0.231	0.208	0.236	199.600	200.800	89.856%	88.774%
x		84.768%	0.208	0.206	0.215	200.000	200.000	89.461%	89.093%
σ		0.806%	0.027	0.023	0.021	0.892	2.085	0.342%	0.303%
%RSD		0.951	12.870	11.200	9.526	0.446	1.043	0.383	0.340

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:50:26	191.900	191.200	190.700	191.200	190.700	91.126%
2	08:50:53	203.000	202.900	202.700	202.100	202.100	86.566%
3	08:51:19	205.200	205.900	206.600	206.700	207.200	84.572%
x		200.000	200.000	200.000	200.000	200.000	87.421%
σ		7.129	7.743	8.265	7.944	8.465	3.360%
%RSD		3.564	3.872	4.133	3.972	4.232	3.843

STD3 1487948 3/3/2015 8:54:15 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	100.115%	0.059	203.100	200.500	0.000	59.480	49.160	47.360
2	08:55:08	101.278%	0.104	193.400	195.900	0.000	59.590	48.210	47.620
3	08:55:35	99.426%	0.048	203.600	203.600	0.000	61.130	48.910	47.200
x		100.273%	0.070	200.000	200.000	0.000	60.070	48.760	47.390
σ		0.936%	0.030	5.755	3.881	0.000	0.922	0.491	0.211
%RSD		0.934	42.590	2.878	1.940	0.000	1.534	1.007	0.445

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	8.230	9861.000	0.000	43.740	57.520	95.060	101.424%	196.100
2	08:55:08	7.677	9997.000	0.000	42.970	51.540	93.950	101.591%	201.700
3	08:55:35	7.589	10140.000	0.000	45.520	66.360	91.880	101.383%	202.200
x		7.832	10000.000	0.000	44.080	58.480	93.630	101.466%	200.000
σ		0.347	140.400	0.000	1.306	7.455	1.614	0.110%	3.347
%RSD		4.435	1.404	0.000	2.963	12.750	1.724	0.108	1.674

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	0.086	0.084	0.682	72.400	72.400	0.112	0.256	0.266
2	08:55:08	0.085	0.057	0.661	48.360	50.090	0.107	0.288	0.328
3	08:55:35	0.106	0.104	0.638	37.280	36.830	0.098	0.248	0.265
x		0.093	0.082	0.660	52.680	53.110	0.106	0.264	0.286
σ		0.012	0.024	0.022	17.950	17.970	0.007	0.021	0.036
%RSD		12.730	29.040	3.378	34.080	33.840	6.351	7.941	12.560

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	0.370	0.942	0.732	0.220	0.034	0.370	0.000	0.128
2	08:55:08	0.316	0.704	0.739	0.323	0.796	1.107	0.000	0.128
3	08:55:35	0.318	0.911	0.804	0.195	1.061	0.518	0.000	0.144
x		0.335	0.852	0.759	0.246	0.630	0.665	0.000	0.133
σ		0.030	0.129	0.040	0.068	0.533	0.390	0.000	0.009
%RSD		9.080	15.180	5.231	27.640	84.530	58.680	0.000	6.904

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	95.758%	194.000	194.000	95.153%	0.297	0.254	0.119	-0.259
2	08:55:08	97.364%	202.800	202.000	97.116%	0.301	0.251	0.199	-0.419
3	08:55:35	98.678%	203.200	204.000	98.302%	0.292	0.307	0.185	-0.567
x		97.266%	200.000	200.000	96.857%	0.297	0.271	0.167	-0.415
σ		1.462%	5.169	5.258	1.591%	0.004	0.032	0.042	0.154
%RSD		1.504	2.584	2.629	1.642	1.451	11.680	25.370	37.090

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	93.939%	196.000	197.000	197.600	0.143	0.292	94.599%	94.688%
2	08:55:08	96.851%	201.200	201.400	200.600	0.155	0.234	97.463%	96.830%
3	08:55:35	97.474%	202.700	201.600	201.800	0.171	0.280	98.070%	97.835%
x		96.088%	200.000	200.000	200.000	0.156	0.269	96.711%	96.451%
σ		1.887%	3.511	2.611	2.160	0.014	0.031	1.854%	1.607%
%RSD		1.964	1.756	1.306	1.080	8.863	11.510	1.917	1.666

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:54:42	0.124	0.138	0.119	0.098	0.114	99.008%
2	08:55:08	0.129	0.136	0.119	0.106	0.119	98.631%
3	08:55:35	0.137	0.122	0.114	0.104	0.116	98.244%
x		0.130	0.132	0.117	0.103	0.117	98.627%
σ		0.007	0.009	0.003	0.004	0.003	0.382%
%RSD		5.037	6.465	2.451	4.053	2.462	0.388

ICV 1470870 3/3/2015 8:58:30 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	100.385%	79.930	81.390	86.100	0.000	39710.000	38500.000	38900.000
2	08:59:23	99.506%	83.100	90.310	87.610	0.000	40930.000	40400.000	40680.000
3	08:59:49	101.652%	79.760	86.630	87.530	0.000	40910.000	40760.000	40800.000
x		100.514%	101.165%	107.635%	108.851%	0.000	101.295%	99.720%	100.319%
σ		1.079%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.073	2.326	5.207	0.974	0.000	1.732	3.043	2.653

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	388.900	4808.000	0.000	41050.000	39480.000	41150.000	99.834%	82.400
2	08:59:23	409.600	4491.000	0.000	41990.000	40810.000	42900.000	100.612%	87.320
3	08:59:49	410.600	4578.000	0.000	41760.000	41430.000	43030.000	99.881%	88.770
x		100.761%	115.643%	0.000	103.997%	101.435%	105.900%	100.109%	107.707%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.436%	n/a
%RSD		3.032	3.546	0.000	1.172	2.462	2.472	0.436	3.880

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	79.830	80.450	412.600	19850.000	20560.000	80.460	80.020	80.750
2	08:59:23	81.680	83.440	427.300	20530.000	21340.000	82.720	84.780	82.760
3	08:59:49	82.580	83.810	429.600	20620.000	21440.000	83.480	84.080	83.520
x		101.705%	103.208%	105.793%	101.675%	105.571%	102.776%	103.699%	102.934%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.727	2.228	2.178	2.078	2.276	1.909	3.101	1.737

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	83.210	79.860	81.430	81.730	84.070	82.520	0.000	79.830
2	08:59:23	83.980	83.190	83.600	82.630	83.100	84.050	0.000	81.950
3	08:59:49	84.060	83.420	83.170	82.770	82.540	83.610	0.000	82.350
x		104.683%	102.697%	103.414%	102.969%	104.045%	104.244%	0.000	101.724%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.561	2.425	1.385	0.682	0.932	0.947	0.000	1.665

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	95.610%	84.300	84.240	92.311%	80.830	80.810	80.570	79.120
2	08:59:23	96.095%	86.770	87.810	92.754%	81.810	81.870	82.840	80.870
3	08:59:49	97.092%	87.420	88.940	93.105%	82.410	81.990	81.830	81.530
x		96.266%	107.705%	108.741%	92.723%	102.107%	101.951%	102.184%	100.634%
σ		0.756%	n/a	n/a	0.398%	n/a	n/a	n/a	n/a
%RSD		0.785	1.911	2.820	0.429	0.975	0.795	1.393	1.549

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	92.951%	82.500	82.480	83.640	79.550	79.930	94.766%	94.818%
2	08:59:23	93.187%	85.060	83.680	84.830	82.520	81.850	95.638%	95.686%
3	08:59:49	93.789%	86.360	83.660	84.150	82.310	81.960	96.666%	95.521%
x		93.309%	105.801%	104.088%	105.257%	101.826%	101.557%	95.690%	95.342%
σ		0.432%	n/a	n/a	n/a	n/a	n/a	0.951%	0.461%
%RSD		0.463	2.317	0.822	0.710	2.034	1.401	0.994	0.483

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	08:58:56	80.830	79.610	78.020	76.940	76.690	97.311%
2	08:59:23	82.670	82.830	82.730	79.850	80.710	95.376%
3	08:59:49	84.470	83.500	83.630	81.390	82.140	93.662%
x		103.323%	102.479%	101.823%	99.241%	99.807%	95.450%
σ		n/a	n/a	n/a	n/a	n/a	1.826%
%RSD		2.203	2.536	3.694	2.851	3.539	1.913

ICV 3/3/2015 9:02:47 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	102.492%	-0.002	1.204	0.885	0.000	20.250	14.300	14.180
2	09:03:40	104.287%	-0.014	0.937	0.676	0.000	19.580	14.480	13.350
3	09:04:07	103.141%	-0.002	0.318	1.122	0.000	20.170	12.530	13.440
x		103.306%	-0.006	0.820	0.894	0.000	20.000	13.770	13.660
σ		0.909%	0.007	0.454	0.223	0.000	0.366	1.081	0.457
%RSD		0.880	120.100	55.420	24.970	0.000	1.832	7.849	3.343
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	1.351	4249.000	0.000	14.850	15.480	29.680	106.651%	0.330
2	09:03:40	1.495	4312.000	0.000	8.647	13.900	30.040	107.585%	0.310
3	09:04:07	1.618	4327.000	0.000	6.372	20.750	28.760	107.904%	0.280
x		1.488	4296.000	0.000	9.955	16.710	29.490	107.380%	0.307
σ		0.134	41.730	0.000	4.387	3.588	0.656	0.651%	0.026
%RSD		8.973	0.971	0.000	44.060	21.470	2.226	0.606	8.323
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	0.036	0.272	0.145	28.010	26.540	0.019	0.054	0.091
2	09:03:40	0.018	0.272	0.098	18.180	21.750	0.014	0.048	0.083
3	09:04:07	0.010	0.265	0.115	12.690	14.600	0.031	0.020	0.132
x		0.021	0.270	0.119	19.630	20.960	0.021	0.041	0.102
σ		0.013	0.004	0.023	7.759	6.006	0.009	0.018	0.026
%RSD		60.330	1.462	19.680	39.530	28.650	41.290	44.170	25.830
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	0.106	0.961	0.848	0.049	0.972	0.315	0.000	0.031
2	09:03:40	0.118	0.964	1.011	-0.039	-0.979	-0.060	0.000	0.025
3	09:04:07	0.098	1.013	1.133	-0.232	0.613	-0.751	0.000	0.023
x		0.107	0.979	0.997	-0.074	0.202	-0.165	0.000	0.026
σ		0.010	0.029	0.143	0.143	1.038	0.540	0.000	0.004
%RSD		9.210	2.972	14.360	193.500	514.200	327.000	0.000	16.580
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	97.272%	0.964	0.958	97.260%	0.119	0.077	0.063	0.054
2	09:03:40	99.486%	0.779	0.789	97.338%	0.103	0.112	0.066	0.037
3	09:04:07	99.265%	0.568	0.579	98.356%	0.119	0.093	-0.010	0.009
x		98.674%	0.770	0.775	97.651%	0.114	0.094	0.040	0.033
σ		1.219%	0.198	0.190	0.612%	0.009	0.017	0.043	0.022
%RSD		1.236	25.740	24.500	0.627	8.001	18.370	107.700	67.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:03:14	96.069%	0.061	0.009	0.014	0.041	0.034	97.012%	96.886%
2	09:03:40	98.522%	0.091	0.017	0.011	0.023	0.004	98.920%	97.777%
3	09:04:07	99.246%	0.106	0.040	0.015	0.031	0.016	98.316%	98.576%
x		97.946%	0.086	0.022	0.013	0.031	0.018	98.083%	97.746%
σ		1.665%	0.023	0.016	0.002	0.009	0.015	0.975%	0.845%
%RSD		1.700	26.580	71.990	14.840	28.980	86.290	0.994	0.865
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:03:14	0.047	0.035	0.042	0.017	0.031	93.253%		
2	09:03:40	0.034	0.035	0.025	0.007	0.017	94.848%		
3	09:04:07	0.033	0.031	0.019	0.010	0.018	95.646%		
x		0.038	0.034	0.029	0.012	0.022	94.582%		
σ		0.008	0.002	0.012	0.005	0.008	1.219%		
%RSD		20.390	6.359	42.510	44.260	35.070	1.288		

ICB 3/3/2015 9:07:07 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	100.335%	-0.012	0.105	0.507	0.000	1.430	0.096	0.237
2	09:08:00	99.592%	0.036	-0.054	0.317	0.000	1.971	0.856	0.046
3	09:08:27	99.716%	-0.035	-0.219	0.099	0.000	2.164	0.189	-0.029
x		99.881%	-0.004	-0.056	0.308	0.000	1.855	0.380	0.085
σ		0.398%	0.036	0.162	0.204	0.000	0.381	0.415	0.137
%RSD		0.398	936.600	290.200	66.270	0.000	20.530	109.100	161.500

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	-0.647	4.496	0.000	0.358	1.860	1.113	101.717%	-0.184
2	09:08:00	-0.645	1.886	0.000	1.411	0.452	3.544	100.804%	-0.152
3	09:08:27	-0.623	0.982	0.000	-1.543	0.429	1.164	101.228%	-0.152
x		-0.639	2.455	0.000	0.075	0.914	1.940	101.250%	-0.163
σ		0.013	1.825	0.000	1.497	0.820	1.389	0.457%	0.018
%RSD		2.049	74.320	0.000	1989.000	89.720	71.590	0.452	11.160

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	-0.002	0.014	-0.000	2.000	2.038	0.004	0.024	0.014
2	09:08:00	0.001	0.023	0.015	1.046	-0.912	0.003	0.024	0.024
3	09:08:27	-0.014	0.021	0.019	0.530	2.604	0.004	0.048	-0.021
x		-0.005	0.019	0.011	1.192	1.243	0.004	0.032	0.006
σ		0.008	0.005	0.010	0.746	1.888	0.001	0.014	0.024
%RSD		166.700	25.720	88.100	62.590	151.800	13.730	43.320	409.100

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	0.019	0.136	0.049	0.257	0.710	1.567	0.000	0.006
2	09:08:00	-0.013	0.052	0.055	0.218	0.379	1.222	0.000	0.001
3	09:08:27	-0.022	0.079	0.114	0.135	0.480	0.912	0.000	0.008
x		-0.005	0.089	0.073	0.204	0.523	1.234	0.000	0.005
σ		0.022	0.043	0.036	0.062	0.170	0.328	0.000	0.004
%RSD		408.500	47.920	49.570	30.700	32.450	26.580	0.000	75.130

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	97.780%	0.065	0.110	97.487%	-0.025	-0.051	0.046	0.022
2	09:08:00	98.713%	0.134	0.103	98.514%	-0.033	-0.052	0.053	0.042
3	09:08:27	98.604%	0.078	0.093	98.620%	-0.025	-0.053	-0.013	-0.008
x		98.366%	0.092	0.102	98.207%	-0.028	-0.052	0.029	0.018
σ		0.510%	0.036	0.009	0.626%	0.005	0.001	0.036	0.025
%RSD		0.519	39.290	8.779	0.637	16.330	1.359	126.800	137.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	96.896%	-0.210	-0.049	-0.046	0.015	-0.003	96.740%	96.789%
2	09:08:00	98.329%	-0.158	-0.036	-0.059	-0.006	-0.011	98.126%	97.962%
3	09:08:27	97.387%	-0.113	-0.029	-0.038	-0.006	-0.018	98.957%	98.434%
x		97.537%	-0.160	-0.038	-0.048	0.001	-0.011	97.941%	97.728%
σ		0.728%	0.049	0.010	0.011	0.012	0.007	1.120%	0.847%
%RSD		0.747	30.480	26.650	22.210	1697.000	69.620	1.143	0.867

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:07:34	0.002	0.004	-0.004	-0.009	-0.002	98.079%
2	09:08:00	0.009	0.002	0.009	0.004	0.002	98.049%
3	09:08:27	0.004	0.005	-0.002	0.009	-0.003	98.063%
x		0.005	0.004	0.001	0.002	-0.001	98.064%
σ		0.004	0.002	0.007	0.009	0.003	0.015%
%RSD		69.560	41.750	892.000	570.900	361.100	0.015

CRI 1470869 3/3/2015 9:11:28 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	99.543%	1.133	5.554	4.932	0.000	111.400	108.600	109.400
2	09:12:21	101.012%	0.908	5.313	5.335	0.000	111.900	111.800	107.400
3	09:12:48	100.201%	0.880	5.360	5.753	0.000	115.900	109.900	112.000
x		100.252%	97.375%	108.183%	106.802%	0.000	141.366%	110.077%	109.614%
σ		0.736%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.734	14.240	2.364	7.692	0.000	2.188	1.472	2.109
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	29.440	524.100	0.000	106.100	111.000	116.000	100.766%	5.710
2	09:12:21	30.150	534.900	0.000	106.100	108.500	113.800	100.230%	5.720
3	09:12:48	30.960	538.400	0.000	110.800	125.600	108.300	99.624%	4.952
x		100.623%	106.496%	0.000	107.679%	115.046%	112.715%	100.207%	109.214%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.571%	n/a
%RSD		2.519	1.407	0.000	2.540	8.030	3.535	0.570	8.068
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	0.965	1.958	5.101	51.120	52.210	0.496	1.343	2.220
2	09:12:21	1.012	2.064	5.167	52.450	56.810	0.486	1.161	2.159
3	09:12:48	0.980	2.073	5.185	52.860	54.730	0.531	1.278	2.332
x		98.585%	101.581%	103.019%	104.287%	109.169%	100.841%	126.087%	111.868%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.451	3.156	0.862	1.748	4.217	4.705	7.303	3.919
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	2.153	5.102	5.182	1.253	5.519	6.208	0.000	5.081
2	09:12:21	2.397	5.142	5.493	1.164	5.840	5.329	0.000	5.076
3	09:12:48	2.181	5.406	5.338	1.120	5.256	5.693	0.000	5.033
x		112.184%	104.334%	106.758%	117.871%	110.764%	114.869%	0.000	101.269%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.949	3.158	2.916	5.741	5.281	7.691	0.000	0.518
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	96.158%	5.031	5.022	96.240%	1.006	0.937	1.011	0.988
2	09:12:21	97.611%	5.119	5.329	96.432%	0.963	0.997	0.993	0.958
3	09:12:48	97.458%	5.216	5.085	97.290%	0.929	0.938	1.056	1.030
x		97.076%	102.441%	102.907%	96.654%	96.574%	95.740%	102.023%	99.181%
σ		0.798%	n/a	n/a	0.559%	n/a	n/a	n/a	n/a
%RSD		0.822	1.806	3.153	0.578	3.987	3.556	3.164	3.631
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:11:55	94.727%	4.772	1.931	1.845	9.932	10.320	95.727%	96.221%
2	09:12:21	97.007%	4.765	1.933	1.995	10.040	10.170	97.568%	97.833%
3	09:12:48	96.322%	5.167	2.017	1.926	10.350	10.020	97.800%	97.028%
x		96.019%	98.029%	98.022%	96.103%	101.079%	101.736%	97.032%	97.028%
σ		1.170%	n/a	n/a	n/a	n/a	n/a	1.136%	0.806%
%RSD		1.218	4.699	2.494	3.920	2.145	1.477	1.170	0.831
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:11:55	1.073	1.017	1.083	0.976	1.025	97.370%		
2	09:12:21	1.018	1.029	1.032	1.011	1.006	98.908%		
3	09:12:48	1.093	1.038	1.105	1.041	1.070	96.451%		
x		106.123%	102.822%	107.341%	100.922%	103.344%	97.577%		
σ		n/a	n/a	n/a	n/a	n/a	1.242%		
%RSD		3.683	1.021	3.498	3.196	3.161	1.272		

ICSA 1488332 3/3/2015 9:15:45 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	87.759%	-0.019	0.125	0.591	0.000	100500.000	99520.000	99670.000
2	09:16:38	85.895%	0.050	-0.333	0.930	0.000	103600.000	104900.000	104900.000
3	09:17:05	85.647%	0.023	0.050	0.821	0.000	102800.000	104700.000	105500.000
x		86.434%	0.018	-0.052	0.781	0.000	102300.000	103000.000	103300.000
σ		1.154%	0.035	0.246	0.173	0.000	1647.000	3048.000	3198.000
%RSD		1.336	190.500	468.900	22.140	0.000	1.610	2.958	3.094

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	94930.000	19.580	0.000	100100.000	96790.000	99000.000	92.745%	2066.000
2	09:16:38	99800.000	17.180	0.000	103800.000	102800.000	102300.000	91.728%	2133.000
3	09:17:05	100100.000	16.810	0.000	102700.000	102900.000	104200.000	90.901%	2154.000
x		98260.000	17.850	0.000	102200.000	100800.000	101800.000	91.792%	2117.000
σ		2888.000	1.502	0.000	1880.000	3517.000	2628.000	0.924%	46.280
%RSD		2.939	8.412	0.000	1.839	3.488	2.580	1.006	2.186

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	-0.277	0.266	0.626	94470.000	94930.000	0.099	-0.434	1.571
2	09:16:38	-0.300	0.230	0.701	98100.000	98140.000	0.079	-0.677	1.510
3	09:17:05	-0.398	0.229	0.662	98510.000	98470.000	0.093	-0.590	1.593
x		-0.325	0.242	0.663	97030.000	97180.000	0.090	-0.567	1.558
σ		0.064	0.021	0.037	2223.000	1958.000	0.010	0.123	0.043
%RSD		19.720	8.801	5.650	2.291	2.015	11.590	21.710	2.758

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	1.722	2.185	1.266	0.161	0.305	0.338	0.000	0.593
2	09:16:38	1.779	2.260	1.385	0.168	0.298	0.296	0.000	0.642
3	09:17:05	1.820	2.197	1.170	0.373	0.206	1.068	0.000	0.709
x		1.773	2.214	1.274	0.234	0.270	0.567	0.000	0.648
σ		0.049	0.040	0.108	0.121	0.056	0.434	0.000	0.058
%RSD		2.768	1.829	8.449	51.540	20.590	76.420	0.000	8.946

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	91.950%	2111.000	2106.000	85.885%	0.017	0.011	0.197	0.207
2	09:16:38	92.740%	2247.000	2206.000	86.689%	0.003	-0.011	0.298	0.324
3	09:17:05	93.160%	2287.000	2243.000	87.168%	0.015	0.020	0.332	0.211
x		92.617%	2215.000	2185.000	86.580%	0.012	0.007	0.276	0.247
σ		0.614%	92.600	70.760	0.648%	0.008	0.016	0.070	0.067
%RSD		0.663	4.180	3.238	0.749	65.800	236.300	25.530	26.940

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	89.111%	-0.024	-0.010	0.001	0.095	0.138	93.727%	95.031%
2	09:16:38	89.515%	0.032	0.030	-0.004	0.124	0.108	95.893%	96.310%
3	09:17:05	91.788%	0.059	0.014	-0.001	0.143	0.088	96.866%	97.888%
x		90.138%	0.023	0.011	-0.001	0.121	0.112	95.495%	96.410%
σ		1.443%	0.042	0.020	0.003	0.025	0.025	1.607%	1.431%
%RSD		1.601	187.400	180.300	230.000	20.380	22.750	1.683	1.485

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:11	0.022	0.023	0.225	0.193	0.206	100.046%
2	09:16:38	0.015	0.014	0.246	0.234	0.225	91.034%
3	09:17:05	0.011	0.015	0.242	0.239	0.228	90.457%
x		0.016	0.018	0.237	0.222	0.220	93.846%
σ		0.006	0.005	0.011	0.025	0.012	5.378%
%RSD		36.280	28.130	4.648	11.450	5.440	5.730

ICSAB 1488333 3/3/2015 9:20:05 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	82.619%	17.700	46.070	51.260	0.000	100100.000	101300.000	101600.000
2	09:20:59	81.783%	19.300	42.620	51.930	0.000	101700.000	104800.000	105300.000
3	09:21:25	81.558%	18.990	54.120	51.340	0.000	101500.000	105700.000	106100.000
x		81.986%	93.313%	95.210%	103.017%	0.000	101.121%	103.910%	104.326%
σ		0.559%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.682	4.551	12.400	0.712	0.000	0.849	2.231	2.330
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	95670.000	551.300	0.000	101700.000	100400.000	101800.000	87.589%	2087.000
2	09:20:59	99620.000	560.800	0.000	103500.000	103700.000	103900.000	87.335%	2159.000
3	09:21:25	99810.000	560.000	0.000	103800.000	105100.000	104900.000	85.994%	2179.000
x		98.366%	111.466%	0.000	102.988%	103.076%	103.530%	86.973%	107.098%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.857%	n/a
%RSD		2.378	0.947	0.000	1.120	2.324	1.509	0.985	2.256
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	17.970	18.490	19.460	96040.000	95890.000	19.510	18.560	20.580
2	09:20:59	19.000	19.200	20.090	99620.000	99480.000	19.710	18.960	21.210
3	09:21:25	19.030	19.530	19.960	100500.000	100100.000	20.140	19.140	21.450
x		93.334%	95.362%	99.188%	98.735%	98.507%	98.929%	94.427%	105.399%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.231	2.784	1.674	2.412	2.321	1.619	1.585	2.151
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	20.860	22.060	20.990	20.960	55.900	54.870	0.000	20.390
2	09:20:59	22.940	23.030	21.620	21.160	54.510	56.350	0.000	21.220
3	09:21:25	22.660	23.020	21.900	21.510	54.180	55.860	0.000	21.250
x		110.769%	90.812%	86.014%	106.043%	109.726%	111.387%	0.000	104.767%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.087	2.459	2.161	1.313	1.664	1.355	0.000	2.348
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	85.196%	2220.000	2201.000	85.473%	18.660	18.710	19.710	18.440
2	09:20:59	85.273%	2334.000	2278.000	86.418%	18.980	18.710	20.230	18.880
3	09:21:25	85.596%	2368.000	2301.000	86.788%	18.950	18.810	20.260	18.840
x		85.355%	115.365%	113.001%	86.226%	94.314%	93.717%	100.329%	93.604%
σ		0.212%	n/a	n/a	0.678%	n/a	n/a	n/a	n/a
%RSD		0.248	3.362	2.303	0.786	0.956	0.322	1.536	1.323
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:20:32	89.920%	96.370	19.320	19.890	19.630	18.950	96.433%	96.309%
2	09:20:59	90.925%	101.700	20.000	19.950	19.530	19.580	96.513%	96.740%
3	09:21:25	91.293%	102.300	20.180	20.080	19.860	19.890	97.964%	98.333%
x		90.713%	100.111%	99.159%	99.871%	98.377%	97.366%	96.970%	97.127%
σ		0.711%	n/a	n/a	n/a	n/a	n/a	0.862%	1.066%
%RSD		0.784	3.250	2.277	0.492	0.865	2.458	0.889	1.098
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:20:32	18.490	18.320	19.760	20.060	19.630	89.542%		
2	09:20:59	20.040	19.570	20.800	20.960	20.600	87.351%		
3	09:21:25	20.620	19.990	21.090	21.340	20.940	86.772%		
x		98.585%	96.461%	102.758%	103.927%	101.951%	87.888%		
σ		n/a	n/a	n/a	n/a	n/a	1.461%		
%RSD		5.608	4.515	3.404	3.162	3.339	1.662		

CCV 1487954 3/3/2015 9:27:31 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	86.390%	94.880	97.770	101.900	0.000	49550.000	49560.000	49500.000
2	09:28:23	84.971%	99.220	95.790	103.800	0.000	50670.000	51330.000	51770.000
3	09:28:50	86.215%	97.710	103.200	103.200	0.000	49500.000	50820.000	50580.000
x		85.858%	97.271%	98.924%	102.968%	0.000	99.808%	101.141%	101.231%
σ		0.774%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.901	2.267	3.881	0.912	0.000	1.324	1.800	2.238
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	482.300	5129.000	0.000	50910.000	50500.000	50030.000	88.092%	100.800
2	09:28:23	503.900	5238.000	0.000	51340.000	50420.000	51210.000	87.941%	106.400
3	09:28:50	491.800	5118.000	0.000	49990.000	50640.000	49910.000	90.343%	102.600
x		98.541%	103.233%	0.000	101.487%	101.038%	100.768%	88.792%	103.286%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.345%	n/a
%RSD		2.199	1.291	0.000	1.360	0.223	1.426	1.515	2.765
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	94.760	94.160	503.100	24040.000	24930.000	96.350	96.250	97.170
2	09:28:23	96.680	97.810	516.000	24750.000	25750.000	98.580	99.030	99.580
3	09:28:50	95.120	95.770	506.200	24280.000	25350.000	96.740	97.830	97.580
x		95.520%	95.915%	101.687%	97.427%	101.369%	97.225%	97.704%	98.109%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.067	1.905	1.332	1.474	1.618	1.226	1.429	1.312
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	96.320	97.780	99.320	98.120	97.040	101.400	0.000	95.960
2	09:28:23	99.040	99.930	102.500	98.370	104.200	99.120	0.000	100.100
3	09:28:50	98.170	100.200	102.200	97.690	98.410	99.970	0.000	99.400
x		97.842%	99.301%	101.353%	98.059%	99.896%	100.168%	0.000	98.491%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.419	1.336	1.743	0.352	3.824	1.157	0.000	2.255
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	89.769%	98.930	101.600	86.619%	97.890	97.810	97.050	95.410
2	09:28:23	90.157%	105.100	105.300	87.414%	97.890	96.870	98.410	96.290
3	09:28:50	90.466%	106.800	107.900	86.771%	98.910	99.130	100.100	98.700
x		90.131%	103.608%	104.918%	86.935%	98.231%	97.937%	98.523%	96.802%
σ		0.349%	n/a	n/a	0.422%	n/a	n/a	n/a	n/a
%RSD		0.388	3.988	3.033	0.486	0.599	1.160	1.556	1.760
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:27:57	88.673%	98.170	97.050	97.790	97.210	96.550	95.158%	93.910%
2	09:28:23	90.982%	99.590	99.470	99.130	98.000	97.210	94.287%	94.916%
3	09:28:50	89.003%	102.200	101.100	102.800	99.310	99.680	95.433%	94.616%
x		89.553%	99.975%	99.194%	99.896%	98.172%	97.810%	94.960%	94.481%
σ		1.249%	n/a	n/a	n/a	n/a	n/a	0.598%	0.517%
%RSD		1.394	2.031	2.033	2.577	1.085	1.685	0.630	0.547
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:27:57	99.700	98.980	99.200	99.590	99.200	89.749%		
2	09:28:23	99.940	99.470	99.580	101.200	99.670	90.787%		
3	09:28:50	102.800	102.800	105.000	104.900	104.700	87.702%		
x		100.803%	100.400%	101.266%	101.881%	101.203%	89.413%		
σ		n/a	n/a	n/a	n/a	n/a	1.570%		
%RSD		1.687	2.048	3.213	2.666	3.037	1.756		

CCB1 3/3/2015 9:34:55 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	92.517%	-0.008	-0.001	0.292	0.000	7.263	1.094	1.228
2	09:35:48	91.541%	-0.020	0.005	0.127	0.000	7.626	1.202	1.121
3	09:36:14	92.901%	0.043	-0.270	0.290	0.000	6.983	1.048	0.675
x		92.320%	0.005	-0.088	0.236	0.000	7.290	1.114	1.008
σ		0.701%	0.033	0.157	0.095	0.000	0.322	0.079	0.293
%RSD		0.759	687.500	177.200	40.150	0.000	4.419	7.105	29.080
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	-0.629	2.503	0.000	2.657	5.909	2.556	91.480%	-0.108
2	09:35:48	-0.486	-0.437	0.000	1.495	2.679	2.480	91.377%	-0.057
3	09:36:14	-0.388	-1.176	0.000	0.037	4.347	2.447	90.880%	-0.125
x		-0.501	0.297	0.000	1.396	4.312	2.494	91.246%	-0.097
σ		0.121	1.946	0.000	1.313	1.615	0.056	0.321%	0.035
%RSD		24.170	656.500	0.000	94.030	37.460	2.243	0.352	36.630
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	-0.018	0.008	0.009	5.472	4.580	-0.010	-0.006	-0.016
2	09:35:48	0.014	-0.011	-0.003	5.084	3.487	0.001	0.031	-0.020
3	09:36:14	0.010	0.016	0.002	3.918	3.093	-0.007	0.020	0.007
x		0.002	0.004	0.003	4.825	3.720	-0.005	0.015	-0.010
σ		0.017	0.014	0.006	0.809	0.770	0.006	0.019	0.015
%RSD		800.900	331.200	204.700	16.760	20.700	106.100	124.600	154.300
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	0.018	-0.079	0.083	-0.044	0.713	-0.171	0.000	0.002
2	09:35:48	-0.005	0.064	0.021	0.171	-0.044	0.824	0.000	0.005
3	09:36:14	-0.027	0.109	0.056	0.187	0.270	0.887	0.000	0.003
x		-0.005	0.031	0.053	0.105	0.313	0.513	0.000	0.003
σ		0.023	0.098	0.031	0.129	0.381	0.593	0.000	0.002
%RSD		477.700	316.600	58.820	123.200	121.700	115.500	0.000	53.060
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	92.110%	0.587	0.606	93.015%	-0.037	-0.060	0.024	0.008
2	09:35:48	93.408%	0.613	0.596	93.785%	-0.031	-0.050	-0.000	0.008
3	09:36:14	94.154%	0.589	0.609	93.731%	-0.044	-0.061	0.013	0.033
x		93.224%	0.596	0.604	93.510%	-0.037	-0.057	0.012	0.016
σ		1.034%	0.015	0.007	0.430%	0.006	0.006	0.012	0.014
%RSD		1.110	2.451	1.171	0.460	16.890	10.780	99.220	87.750
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:35:21	93.522%	-0.247	0.009	0.011	-0.010	-0.005	96.017%	95.547%
2	09:35:48	94.679%	-0.234	0.007	-0.000	-0.019	0.017	97.350%	97.272%
3	09:36:14	94.839%	-0.176	-0.002	0.003	-0.010	0.012	97.463%	97.309%
x		94.347%	-0.219	0.005	0.005	-0.013	0.008	96.943%	96.709%
σ		0.719%	0.038	0.006	0.006	0.005	0.012	0.804%	1.007%
%RSD		0.762	17.390	118.100	129.500	38.480	147.100	0.829	1.041
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:35:21	0.004	0.004	0.008	-0.012	0.001	97.940%		
2	09:35:48	0.004	0.004	0.003	-0.006	0.000	95.817%		
3	09:36:14	0.004	0.002	0.009	-0.006	0.001	95.874%		
x		0.004	0.003	0.007	-0.008	0.001	96.544%		
σ		0.000	0.001	0.003	0.004	0.000	1.210%		
%RSD		9.504	25.740	42.880	45.210	46.330	1.253		

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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	09:39:39	91.819%	-0.046	-0.265	-0.046	0.000	7.106	0.765	0.044
2	09:40:06	91.846%	0.031	-0.086	0.083	0.000	7.595	0.088	-0.092
3	09:40:32	91.389%	-0.033	-0.173	0.107	0.000	7.712	0.433	0.292
x		91.685%	-0.016	-0.174	0.048	0.000	7.471	0.429	0.081
σ		0.256%	0.041	0.090	0.082	0.000	0.321	0.338	0.195
%RSD		0.280	257.200	51.450	172.200	0.000	4.297	78.950	239.800

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	-0.707	1.021	0.000	0.427	-2.185	1.126	91.139%	-0.194
2	09:40:06	-0.663	-0.469	0.000	2.200	2.751	1.474	90.521%	-0.107
3	09:40:32	-0.691	-0.004	0.000	-0.010	4.416	1.503	90.290%	-0.072
x		-0.687	0.183	0.000	0.872	1.661	1.368	90.650%	-0.124
σ		0.022	0.762	0.000	1.170	3.433	0.210	0.439%	0.063
%RSD		3.212	417.400	0.000	134.100	206.700	15.340	0.484	50.420

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	0.003	-0.002	-0.019	1.172	-1.157	0.001	0.047	-0.022
2	09:40:06	-0.016	-0.014	-0.014	0.617	-2.880	-0.004	0.042	0.007
3	09:40:32	-0.021	-0.010	0.002	0.941	-2.587	0.009	0.042	-0.009
x		-0.011	-0.009	-0.011	0.910	-2.208	0.002	0.044	-0.008
σ		0.013	0.006	0.011	0.279	0.922	0.007	0.003	0.014
%RSD		110.700	71.820	102.600	30.690	41.760	369.200	6.677	179.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	0.023	0.053	-0.054	0.086	0.521	0.428	0.000	0.006
2	09:40:06	0.001	0.039	0.193	-0.106	-0.014	-0.486	0.000	0.004
3	09:40:32	0.032	0.099	0.148	0.105	0.662	0.465	0.000	0.010
x		0.018	0.064	0.096	0.028	0.390	0.136	0.000	0.006
σ		0.016	0.031	0.132	0.117	0.357	0.538	0.000	0.003
%RSD		85.730	48.810	137.600	414.900	91.540	396.900	0.000	44.580

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	92.196%	0.257	0.270	91.672%	-0.058	-0.065	-0.075	-0.057
2	09:40:06	92.531%	0.267	0.271	92.691%	-0.044	-0.069	-0.023	-0.011
3	09:40:32	93.171%	0.268	0.340	93.008%	-0.041	-0.074	-0.006	-0.006
x		92.633%	0.264	0.294	92.457%	-0.048	-0.069	-0.035	-0.025
σ		0.496%	0.006	0.040	0.698%	0.009	0.005	0.036	0.028
%RSD		0.535	2.383	13.580	0.755	18.920	6.922	103.500	115.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	92.831%	-0.260	-0.033	-0.039	0.012	-0.013	95.633%	95.234%
2	09:40:06	92.895%	-0.253	-0.045	-0.045	0.016	0.020	96.538%	96.376%
3	09:40:32	94.172%	-0.235	-0.036	-0.039	-0.010	0.020	96.874%	96.708%
x		93.299%	-0.249	-0.038	-0.041	0.006	0.009	96.348%	96.106%
σ		0.757%	0.013	0.006	0.003	0.014	0.019	0.642%	0.773%
%RSD		0.811	5.034	16.020	8.308	236.200	208.200	0.666	0.804

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:39:39	0.004	-0.000	0.006	0.004	0.005	97.395%
2	09:40:06	0.003	0.002	0.008	0.008	0.007	96.291%
3	09:40:32	0.004	0.002	0.013	0.008	0.009	95.922%
x		0.004	0.001	0.009	0.007	0.007	96.536%
σ		0.001	0.001	0.004	0.002	0.002	0.766%
%RSD		19.130	95.030	41.260	29.280	30.680	0.794

LCS 180-134507/2-A 3/3/2015 9:43:27 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	79.924%	41.790	926.100	983.200	0.000	46200.000	47450.000	47940.000
2	09:44:20	79.531%	41.630	927.800	1004.000	0.000	47090.000	49480.000	49950.000
3	09:44:47	78.863%	41.370	948.100	1015.000	0.000	46620.000	50540.000	50510.000
x		79.439%	41.600	934.000	1001.000	0.000	46640.000	49160.000	49470.000
σ		0.536%	0.212	12.260	16.080	0.000	447.600	1572.000	1348.000
%RSD		0.675	0.509	1.312	1.606	0.000	0.960	3.198	2.725
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	1866.000	9727.000	0.000	48920.000	48530.000	49480.000	77.336%	969.500
2	09:44:20	1929.000	10030.000	0.000	49880.000	50760.000	51280.000	77.275%	1011.000
3	09:44:47	1931.000	10010.000	0.000	49170.000	49960.000	52110.000	76.197%	1011.000
x		1909.000	9922.000	0.000	49330.000	49750.000	50960.000	76.936%	997.400
σ		36.920	169.400	0.000	493.900	1133.000	1343.000	0.641%	24.140
%RSD		1.934	1.707	0.000	1.001	2.278	2.636	0.833	2.421
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	468.000	182.100	473.500	984.700	1007.000	473.000	460.300	230.600
2	09:44:20	482.300	189.300	490.700	1021.000	1036.000	486.700	475.900	236.500
3	09:44:47	485.100	190.500	495.900	1033.000	1032.000	493.200	484.000	237.000
x		478.400	187.300	486.700	1013.000	1025.000	484.300	473.400	234.700
σ		9.182	4.538	11.710	25.230	15.540	10.340	12.020	3.529
%RSD		1.919	2.423	2.407	2.490	1.516	2.135	2.538	1.504
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	238.100	463.800	469.200	37.350	9.751	9.255	0.000	957.500
2	09:44:20	243.300	475.100	483.400	37.110	9.653	11.180	0.000	985.200
3	09:44:47	244.000	480.400	483.200	37.410	8.704	11.350	0.000	983.900
x		241.800	473.100	478.600	37.290	9.369	10.600	0.000	975.500
σ		3.216	8.499	8.147	0.161	0.578	1.165	0.000	15.620
%RSD		1.330	1.797	1.702	0.433	6.169	11.000	0.000	1.602
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	83.753%	1003.000	1031.000	82.931%	46.610	46.360	46.630	38.460
2	09:44:20	84.752%	1042.000	1066.000	84.531%	46.580	47.150	48.430	40.760
3	09:44:47	85.358%	1057.000	1091.000	84.154%	46.480	46.260	48.530	39.150
x		84.621%	1034.000	1063.000	83.872%	46.560	46.590	47.860	39.460
σ		0.810%	27.810	29.950	0.836%	0.067	0.485	1.068	1.179
%RSD		0.958	2.689	2.818	0.997	0.145	1.041	2.231	2.987
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:43:54	84.535%	1978.000	501.100	499.700	1894.000	1950.000	92.793%	94.010%
2	09:44:20	84.604%	2054.000	520.100	519.100	1956.000	2048.000	94.154%	95.213%
3	09:44:47	86.349%	2025.000	514.700	509.300	1948.000	2014.000	94.730%	96.381%
x		85.163%	2019.000	512.000	509.400	1933.000	2004.000	93.893%	95.201%
σ		1.028%	38.580	9.771	9.706	33.640	49.780	0.995%	1.186%
%RSD		1.207	1.911	1.908	1.905	1.741	2.484	1.059	1.245
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:43:54	47.690	46.610	20.110	20.560	20.080	83.864%		
2	09:44:20	50.560	49.450	21.060	21.070	20.890	83.256%		
3	09:44:47	49.700	49.160	20.090	20.560	20.040	86.603%		
x		49.310	48.410	20.420	20.730	20.330	84.575%		
σ		1.474	1.562	0.552	0.290	0.481	1.783%		
%RSD		2.988	3.226	2.705	1.401	2.368	2.108		

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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	09:48:09	76.654%	0.034	6982.000	7720.000	0.000	164900.000	49500.000	49720.000
2	09:48:36	74.311%	0.036	7201.000	7948.000	0.000	169800.000	51610.000	52050.000
3	09:49:02	73.402%	-0.043	7054.000	7955.000	0.000	171900.000	52700.000	52840.000
x		74.789%	0.009	7079.000	7874.000	0.000	168900.000	51270.000	51540.000
σ		1.678%	0.045	111.400	133.700	0.000	3606.000	1624.000	1626.000
%RSD		2.243	496.300	1.574	1.698	0.000	2.135	3.167	3.156
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	46.010	5318.000	0.000	11330.000	98960.000	100100.000	73.752%	2.146
2	09:48:36	46.580	5491.000	0.000	11560.000	102800.000	102500.000	73.117%	1.845
3	09:49:02	46.660	5548.000	0.000	11650.000	104900.000	104500.000	71.986%	3.048
x		46.420	5452.000	0.000	11510.000	102200.000	102400.000	72.952%	2.346
σ		0.359	120.000	0.000	164.600	2996.000	2206.000	0.895%	0.626
%RSD		0.773	2.201	0.000	1.430	2.932	2.155	1.226	26.670
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	0.477	3.752	4007.000	4887.000	4968.000	1.957	314.700	2.590
2	09:48:36	0.836	3.742	4114.000	5037.000	5065.000	1.918	320.000	2.654
3	09:49:02	0.669	3.900	4174.000	5111.000	5122.000	2.067	325.300	2.588
x		0.661	3.798	4098.000	5012.000	5052.000	1.981	320.000	2.611
σ		0.179	0.089	84.600	113.800	78.290	0.077	5.290	0.037
%RSD		27.140	2.331	2.064	2.270	1.550	3.901	1.653	1.427
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	2.070	7.027	6.928	0.370	-0.182	1.144	0.000	137.400
2	09:48:36	1.775	7.171	7.379	0.008	0.512	1.185	0.000	140.500
3	09:49:02	1.799	7.498	7.198	0.213	-0.429	0.680	0.000	142.300
x		1.881	7.232	7.168	0.197	-0.033	1.003	0.000	140.100
σ		0.164	0.242	0.227	0.181	0.488	0.281	0.000	2.512
%RSD		8.717	3.344	3.164	92.090	1477.000	27.970	0.000	1.793
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	81.562%	6.752	6.876	80.741%	-0.017	-0.022	0.094	0.069
2	09:48:36	81.585%	4.581	4.947	81.699%	-0.006	-0.015	8.946	5.954
3	09:49:02	80.938%	3.774	3.686	81.273%	0.033	-0.004	11.570	7.727
x		81.361%	5.035	5.170	81.238%	0.003	-0.014	6.869	4.583
σ		0.367%	1.540	1.607	0.480%	0.027	0.009	6.013	4.009
%RSD		0.451	30.580	31.080	0.591	803.400	65.430	87.530	87.460
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:48:09	82.993%	5.864	0.259	0.360	65.370	65.050	91.232%	91.784%
2	09:48:36	82.804%	4.901	0.265	0.339	67.340	67.630	91.183%	93.049%
3	09:49:02	81.604%	4.204	0.238	0.412	69.480	68.200	91.559%	92.418%
x		82.467%	4.990	0.254	0.370	67.400	66.960	91.325%	92.417%
σ		0.753%	0.833	0.014	0.038	2.054	1.680	0.204%	0.633%
%RSD		0.914	16.700	5.665	10.140	3.048	2.509	0.224	0.684
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:48:09	0.312	0.292	1.469	1.299	1.364	81.581%		
2	09:48:36	0.146	0.136	1.521	1.410	1.408	80.655%		
3	09:49:02	0.087	0.090	1.611	1.399	1.444	78.976%		
x		0.181	0.173	1.534	1.369	1.405	80.404%		
σ		0.117	0.106	0.072	0.061	0.040	1.320%		
%RSD		64.310	61.150	4.681	4.457	2.850	1.642		

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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	09:52:24	86.018%	-0.018	1347.000	1417.000	0.000	32460.000	9650.000	9650.000
2	09:52:50	83.339%	-0.016	1436.000	1507.000	0.000	33740.000	10210.000	10200.000
3	09:53:17	84.718%	0.011	1369.000	1469.000	0.000	33540.000	10200.000	10270.000
x		84.692%	-0.008	1384.000	1464.000	0.000	33250.000	10020.000	10040.000
σ		1.339%	0.016	45.970	45.530	0.000	687.600	321.100	339.200
%RSD		1.581	209.000	3.322	3.109	0.000	2.068	3.204	3.379

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	7.841	934.200	0.000	2183.000	18730.000	18530.000	82.507%	0.210
2	09:52:50	7.988	982.300	0.000	2259.000	19320.000	18940.000	81.173%	0.371
3	09:53:17	7.932	975.100	0.000	2240.000	19590.000	19480.000	81.006%	0.179
x		7.921	963.900	0.000	2227.000	19220.000	18980.000	81.562%	0.253
σ		0.074	25.920	0.000	39.250	439.700	475.100	0.823%	0.103
%RSD		0.933	2.689	0.000	1.762	2.288	2.502	1.009	40.690

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	0.383	0.699	827.100	1016.000	987.300	0.346	62.690	0.496
2	09:52:50	0.000	0.847	861.000	1058.000	1005.000	0.366	63.440	0.522
3	09:53:17	-0.165	0.690	866.900	1063.000	1007.000	0.370	65.840	0.466
x		0.073	0.745	851.700	1046.000	999.600	0.361	63.990	0.494
σ		0.281	0.088	21.490	26.130	10.700	0.013	1.647	0.028
%RSD		387.500	11.870	2.523	2.499	1.070	3.555	2.574	5.703

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	0.410	1.522	1.677	0.411	-0.753	1.623	0.000	26.810
2	09:52:50	0.439	1.871	1.763	-0.303	0.639	0.016	0.000	27.320
3	09:53:17	0.461	1.750	1.771	0.423	0.270	1.132	0.000	27.400
x		0.437	1.714	1.737	0.177	0.052	0.924	0.000	27.180
σ		0.025	0.177	0.052	0.416	0.721	0.823	0.000	0.320
%RSD		5.785	10.330	2.994	234.800	1385.000	89.130	0.000	1.177

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	84.485%	0.472	0.466	84.382%	-0.064	-0.082	0.089	0.060
2	09:52:50	85.005%	0.515	0.489	85.182%	-0.060	-0.086	-0.034	-0.011
3	09:53:17	85.875%	0.418	0.468	85.208%	-0.049	-0.077	-0.047	-0.030
x		85.122%	0.469	0.474	84.924%	-0.058	-0.081	0.002	0.006
σ		0.702%	0.049	0.013	0.469%	0.007	0.005	0.075	0.048
%RSD		0.825	10.390	2.644	0.553	12.930	5.798	3182.000	785.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	86.123%	-0.097	-0.038	-0.033	13.320	12.560	91.777%	92.087%
2	09:52:50	86.425%	-0.140	-0.026	-0.020	13.420	13.270	91.739%	93.367%
3	09:53:17	87.984%	-0.100	-0.039	-0.008	13.340	13.290	93.148%	93.546%
x		86.844%	-0.113	-0.034	-0.020	13.360	13.040	92.221%	93.000%
σ		0.998%	0.024	0.007	0.012	0.053	0.415	0.803%	0.796%
%RSD		1.150	21.220	21.900	61.230	0.397	3.185	0.871	0.855

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:24	0.018	0.021	0.295	0.246	0.274	85.181%
2	09:52:50	0.021	0.022	0.312	0.271	0.275	84.474%
3	09:53:17	0.022	0.020	0.277	0.287	0.270	86.486%
x		0.021	0.021	0.295	0.268	0.273	85.381%
σ		0.002	0.001	0.018	0.021	0.003	1.021%
%RSD		11.310	5.187	5.977	7.721	0.942	1.196

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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	09:56:38	73.876%	40.780	8188.000	9122.000	0.000	217300.000	100600.000	101300.000
2	09:57:05	71.628%	42.850	8396.000	9367.000	0.000	223700.000	105400.000	106100.000
3	09:57:31	70.329%	41.040	8536.000	9459.000	0.000	223600.000	108200.000	107300.000
x		71.944%	41.560	8373.000	9316.000	0.000	221500.000	104700.000	104900.000
σ		1.794%	1.123	175.300	174.000	0.000	3630.000	3846.000	3204.000
%RSD		2.494	2.702	2.094	1.867	0.000	1.639	3.672	3.054

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	1948.000	15040.000	0.000	61110.000	153600.000	151300.000	72.101%	995.700
2	09:57:05	2020.000	15470.000	0.000	62170.000	160100.000	157700.000	70.808%	1035.000
3	09:57:31	2034.000	15530.000	0.000	61920.000	161500.000	160400.000	69.827%	1036.000
x		2001.000	15350.000	0.000	61730.000	158400.000	156400.000	70.912%	1022.000
σ		46.180	271.500	0.000	554.800	4215.000	4693.000	1.140%	23.010
%RSD		2.308	1.769	0.000	0.899	2.661	3.000	1.608	2.251

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	469.200	185.900	4577.000	6024.000	6154.000	472.800	779.900	227.900
2	09:57:05	488.600	193.700	4733.000	6269.000	6379.000	489.100	813.100	233.000
3	09:57:31	494.600	196.500	4763.000	6310.000	6462.000	492.400	819.300	234.600
x		484.100	192.000	4691.000	6201.000	6332.000	484.800	804.100	231.800
σ		13.260	5.516	99.650	155.100	159.500	10.490	21.200	3.473
%RSD		2.738	2.873	2.124	2.501	2.519	2.164	2.637	1.498

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	232.000	468.100	471.900	37.580	9.492	11.730	0.000	1110.000
2	09:57:05	242.000	483.000	487.200	36.950	9.668	10.230	0.000	1137.000
3	09:57:31	239.000	487.200	489.900	37.430	9.819	10.220	0.000	1143.000
x		237.700	479.400	483.000	37.320	9.660	10.730	0.000	1130.000
σ		5.120	10.050	9.667	0.329	0.163	0.870	0.000	17.690
%RSD		2.154	2.096	2.002	0.880	1.691	8.106	0.000	1.566

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	79.585%	1032.000	1052.000	78.719%	45.890	45.960	47.210	38.750
2	09:57:05	79.674%	1063.000	1093.000	78.399%	46.460	46.590	49.170	39.920
3	09:57:31	79.789%	1080.000	1114.000	78.776%	46.590	46.180	49.490	40.730
x		79.683%	1058.000	1086.000	78.631%	46.310	46.240	48.620	39.800
σ		0.102%	24.650	31.120	0.203%	0.372	0.321	1.232	0.992
%RSD		0.128	2.330	2.864	0.259	0.804	0.694	2.534	2.493

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	79.279%	2050.000	517.300	517.400	1983.000	2051.000	88.821%	90.586%
2	09:57:05	78.230%	2128.000	538.600	537.400	2049.000	2126.000	89.874%	91.133%
3	09:57:31	79.247%	2118.000	536.200	533.700	2047.000	2126.000	89.694%	91.492%
x		78.919%	2099.000	530.700	529.500	2026.000	2101.000	89.463%	91.070%
σ		0.597%	42.240	11.640	10.660	37.180	43.210	0.564%	0.456%
%RSD		0.756	2.013	2.193	2.013	1.835	2.057	0.630	0.501

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:38	49.330	48.350	22.570	22.280	22.030	76.855%
2	09:57:05	51.660	50.560	23.360	22.560	22.700	76.983%
3	09:57:31	52.110	50.730	22.910	22.580	22.740	77.873%
x		51.030	49.880	22.950	22.470	22.490	77.237%
σ		1.492	1.327	0.395	0.166	0.400	0.554%
%RSD		2.923	2.660	1.721	0.740	1.776	0.718

180-41569-B-1-C MSD 3/3/2015 10:00:27 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	72.503%	39.020	8049.000	9014.000	0.000	211000.000	98730.000	98920.000
2	10:01:20	71.480%	40.490	8325.000	9183.000	0.000	218200.000	104000.000	103200.000
3	10:01:47	72.489%	39.010	8106.000	9092.000	0.000	215200.000	102800.000	103000.000
x		72.158%	39.500	8160.000	9096.000	0.000	214800.000	101800.000	101700.000
σ		0.587%	0.850	145.600	84.590	0.000	3588.000	2748.000	2434.000
%RSD		0.813	2.152	1.784	0.930	0.000	1.670	2.698	2.392

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	1911.000	14610.000	0.000	58090.000	149800.000	150500.000	70.447%	954.800
2	10:01:20	1991.000	15060.000	0.000	59400.000	156400.000	155300.000	70.128%	993.500
3	10:01:47	1958.000	14990.000	0.000	59450.000	158600.000	156500.000	70.008%	990.200
x		1953.000	14890.000	0.000	58980.000	154900.000	154100.000	70.194%	979.500
σ		39.810	238.800	0.000	770.700	4577.000	3177.000	0.227%	21.460
%RSD		2.038	1.604	0.000	1.307	2.954	2.062	0.323	2.191

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	461.400	183.200	4493.000	5994.000	6163.000	462.400	775.900	221.900
2	10:01:20	479.600	190.100	4674.000	6209.000	6388.000	475.700	802.000	227.100
3	10:01:47	483.300	192.800	4701.000	6263.000	6340.000	481.900	809.200	229.400
x		474.800	188.700	4623.000	6155.000	6297.000	473.300	795.700	226.100
σ		11.730	4.971	113.000	142.300	118.800	9.976	17.520	3.876
%RSD		2.471	2.634	2.445	2.313	1.886	2.108	2.202	1.714

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	227.800	457.900	465.500	36.670	9.742	11.560	0.000	1080.000
2	10:01:20	232.200	474.800	478.000	37.070	9.410	10.040	0.000	1107.000
3	10:01:47	236.400	476.700	481.300	37.430	10.500	11.650	0.000	1116.000
x		232.100	469.800	474.900	37.060	9.885	11.090	0.000	1101.000
σ		4.274	10.360	8.330	0.381	0.561	0.906	0.000	18.550
%RSD		1.841	2.205	1.754	1.029	5.675	8.177	0.000	1.685

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	78.437%	973.100	991.300	79.778%	43.090	43.180	46.630	36.820
2	10:01:20	79.142%	1021.000	1068.000	76.893%	45.340	46.140	48.180	39.630
3	10:01:47	78.837%	1038.000	1074.000	76.804%	45.550	45.510	47.720	38.520
x		78.805%	1011.000	1045.000	77.825%	44.660	44.940	47.510	38.320
σ		0.354%	33.670	46.240	1.692%	1.361	1.562	0.795	1.413
%RSD		0.449	3.331	4.427	2.174	3.048	3.476	1.674	3.687

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	78.794%	1953.000	496.300	490.000	1917.000	1973.000	89.007%	90.119%
2	10:01:20	77.822%	2036.000	515.200	511.600	1984.000	2047.000	90.373%	90.006%
3	10:01:47	77.379%	2063.000	520.100	517.600	1997.000	2081.000	89.703%	90.325%
x		77.998%	2017.000	510.500	506.400	1966.000	2034.000	89.694%	90.150%
σ		0.724%	57.060	12.580	14.490	42.900	55.370	0.683%	0.162%
%RSD		0.929	2.828	2.463	2.861	2.182	2.723	0.761	0.180

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:00:53	47.310	46.910	21.720	21.550	21.360	76.821%
2	10:01:20	48.980	48.780	22.640	21.830	22.040	76.572%
3	10:01:47	50.440	49.750	22.640	22.140	22.210	75.979%
x		48.910	48.480	22.340	21.840	21.870	76.457%
σ		1.569	1.443	0.530	0.293	0.454	0.432%
%RSD		3.208	2.977	2.374	1.341	2.074	0.566

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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	10:05:11	72.276%	42.910	7733.000	8613.000	0.000	207500.000	100100.000	100200.000
2	10:05:38	70.944%	43.600	7903.000	8780.000	0.000	211600.000	103900.000	103600.000
3	10:06:04	69.950%	43.640	7945.000	8756.000	0.000	210800.000	104100.000	104100.000
x		71.057%	43.380	7860.000	8716.000	0.000	210000.000	102700.000	102600.000
σ		1.167%	0.414	112.400	90.400	0.000	2176.000	2237.000	2128.000
%RSD		1.642	0.953	1.431	1.037	0.000	1.036	2.177	2.073
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	2031.000	15390.000	0.000	60600.000	147400.000	147800.000	70.625%	1064.000
2	10:05:38	2087.000	15720.000	0.000	61820.000	154600.000	151700.000	70.194%	1090.000
3	10:06:04	2015.000	15740.000	0.000	61640.000	153600.000	152500.000	70.142%	1106.000
x		2044.000	15620.000	0.000	61350.000	151900.000	150600.000	70.321%	1087.000
σ		37.850	193.600	0.000	661.200	3917.000	2529.000	0.265%	20.960
%RSD		1.852	1.240	0.000	1.078	2.579	1.679	0.377	1.929
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	497.800	196.300	4372.000	5735.000	5857.000	498.800	789.000	237.900
2	10:05:38	511.000	203.200	4475.000	5880.000	6013.000	514.900	813.900	245.000
3	10:06:04	517.400	206.000	4525.000	5935.000	6019.000	519.100	815.000	245.300
x		508.700	201.800	4457.000	5850.000	5963.000	510.900	806.000	242.700
σ		10.040	5.002	77.810	103.400	92.000	10.720	14.690	4.206
%RSD		1.973	2.478	1.746	1.767	1.543	2.097	1.822	1.733
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	246.700	490.300	495.500	39.300	8.706	10.280	0.000	1156.000
2	10:05:38	252.400	507.600	510.400	37.920	11.960	11.240	0.000	1186.000
3	10:06:04	253.800	511.700	514.100	37.680	8.460	11.160	0.000	1199.000
x		251.000	503.200	506.700	38.300	9.709	10.890	0.000	1181.000
σ		3.798	11.350	9.853	0.872	1.953	0.536	0.000	22.010
%RSD		1.513	2.255	1.945	2.277	20.120	4.916	0.000	1.865
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	77.761%	1106.000	1135.000	78.874%	44.670	45.250	49.380	40.430
2	10:05:38	78.133%	1163.000	1204.000	76.617%	47.210	47.110	51.080	42.810
3	10:06:04	77.617%	1148.000	1178.000	80.320%	45.630	45.820	51.120	42.430
x		77.837%	1139.000	1173.000	78.604%	45.840	46.060	50.530	41.890
σ		0.266%	29.370	35.080	1.867%	1.286	0.948	0.994	1.279
%RSD		0.342	2.577	2.992	2.375	2.806	2.059	1.967	3.053
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:05:11	78.168%	2177.000	560.100	553.600	2089.000	2162.000	88.471%	89.521%
2	10:05:38	76.457%	2298.000	580.300	579.900	2170.000	2273.000	89.487%	89.670%
3	10:06:04	77.867%	2274.000	577.700	573.000	2157.000	2253.000	89.484%	90.426%
x		77.497%	2249.000	572.700	568.900	2139.000	2230.000	89.147%	89.872%
σ		0.913%	63.980	11.010	13.620	43.990	59.110	0.586%	0.485%
%RSD		1.179	2.844	1.922	2.395	2.057	2.651	0.657	0.540
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:05:11	52.220	52.060	23.070	23.440	22.980	76.698%		
2	10:05:38	55.280	54.790	24.320	24.260	24.110	75.396%		
3	10:06:04	54.410	53.840	24.090	23.680	23.520	77.636%		
x		53.970	53.560	23.830	23.790	23.540	76.577%		
σ		1.574	1.385	0.663	0.420	0.563	1.125%		
%RSD		2.917	2.587	2.781	1.765	2.393	1.469		

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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	10:09:29	75.058%	0.020	57.370	63.610	0.000	18060.000	51210.000	51290.000
2	10:09:55	74.359%	0.037	52.450	57.410	0.000	18400.000	53500.000	53820.000
3	10:10:21	73.288%	-0.010	54.070	59.690	0.000	18670.000	54410.000	54590.000
x		74.235%	0.015	54.630	60.240	0.000	18380.000	53040.000	53240.000
σ		0.892%	0.024	2.505	3.134	0.000	302.500	1648.000	1724.000
%RSD		1.201	155.700	4.586	5.202	0.000	1.646	3.107	3.239

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	74.440	6089.000	0.000	2356.000	152700.000	151300.000	71.928%	2.293
2	10:09:55	81.820	6300.000	0.000	2422.000	160300.000	159100.000	70.146%	2.666
3	10:10:21	79.570	6346.000	0.000	2422.000	161200.000	160800.000	69.828%	2.499
x		78.610	6245.000	0.000	2400.000	158100.000	157100.000	70.634%	2.486
σ		3.781	136.800	0.000	38.100	4693.000	5047.000	1.132%	0.187
%RSD		4.809	2.190	0.000	1.588	2.969	3.213	1.602	7.504

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	0.630	5.891	174.000	705.000	1037.000	0.911	3.156	1.424
2	10:09:55	0.360	5.913	183.600	740.000	1059.000	0.930	3.119	1.277
3	10:10:21	-0.013	6.263	185.300	750.900	1062.000	0.877	3.399	1.348
x		0.326	6.022	181.000	732.000	1053.000	0.906	3.225	1.350
σ		0.323	0.209	6.095	23.970	13.820	0.027	0.152	0.073
%RSD		99.080	3.464	3.368	3.275	1.313	3.000	4.723	5.416

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	1.850	6.477	6.788	0.675	-0.559	0.352	0.000	1061.000
2	10:09:55	1.776	6.672	6.477	1.295	-0.465	0.621	0.000	1091.000
3	10:10:21	1.887	7.206	6.857	0.073	0.174	0.678	0.000	1096.000
x		1.837	6.785	6.707	0.681	-0.283	0.550	0.000	1083.000
σ		0.056	0.378	0.203	0.611	0.399	0.174	0.000	18.790
%RSD		3.055	5.566	3.020	89.730	140.800	31.630	0.000	1.735

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	79.273%	5.642	5.835	79.719%	-0.061	-0.075	0.025	-0.009
2	10:09:55	79.662%	4.594	4.260	79.835%	-0.042	-0.091	0.000	-0.006
3	10:10:21	80.062%	3.290	3.480	80.270%	-0.051	-0.070	6.692	4.435
x		79.666%	4.508	4.525	79.941%	-0.052	-0.079	2.239	1.473
σ		0.395%	1.178	1.200	0.291%	0.010	0.011	3.856	2.565
%RSD		0.496	26.140	26.510	0.364	18.660	14.290	172.200	174.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	81.115%	3.744	0.061	0.195	44.350	44.760	90.400%	91.609%
2	10:09:55	81.243%	2.777	0.057	0.181	47.300	46.570	92.452%	92.329%
3	10:10:21	81.644%	2.292	0.081	0.155	46.790	47.170	90.988%	92.908%
x		81.334%	2.938	0.066	0.177	46.150	46.170	91.280%	92.282%
σ		0.276%	0.739	0.013	0.020	1.578	1.251	1.057%	0.651%
%RSD		0.339	25.150	19.200	11.560	3.421	2.709	1.158	0.705

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:29	0.270	0.260	0.721	0.586	0.615	83.016%
2	10:09:55	0.141	0.138	0.716	0.587	0.634	83.087%
3	10:10:21	0.090	0.089	0.636	0.624	0.626	83.104%
x		0.167	0.162	0.691	0.599	0.625	83.069%
σ		0.092	0.088	0.048	0.022	0.009	0.047%
%RSD		55.380	54.140	6.910	3.597	1.494	0.056

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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	10:13:43	75.433%	0.004	345.600	369.600	0.000	51340.000	17380.000	17620.000
2	10:14:10	74.547%	-0.043	336.800	369.900	0.000	52200.000	18270.000	18440.000
3	10:14:37	74.461%	0.005	346.200	368.100	0.000	52290.000	18720.000	18680.000
x		74.814%	-0.011	342.900	369.200	0.000	51940.000	18120.000	18250.000
σ		0.538%	0.027	5.246	0.961	0.000	525.000	681.900	555.400
%RSD		0.719	238.000	1.530	0.260	0.000	1.011	3.762	3.044
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	3.109	5707.000	0.000	9335.000	124400.000	126200.000	71.410%	0.651
2	10:14:10	3.649	5906.000	0.000	9476.000	132500.000	131800.000	70.777%	0.658
3	10:14:37	3.635	5922.000	0.000	9478.000	134600.000	134100.000	69.884%	0.691
x		3.464	5845.000	0.000	9430.000	130500.000	130700.000	70.690%	0.667
σ		0.308	119.400	0.000	81.950	5368.000	4078.000	0.767%	0.022
%RSD		8.886	2.043	0.000	0.869	4.114	3.120	1.085	3.247
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	-0.203	56.790	9.836	15.460	325.000	1.714	9.067	1.338
2	10:14:10	-0.742	59.310	10.190	14.670	319.000	1.776	9.368	1.392
3	10:14:37	-0.274	60.080	10.410	14.620	316.300	1.728	9.662	1.311
x		-0.406	58.730	10.150	14.920	320.100	1.740	9.366	1.347
σ		0.293	1.718	0.292	0.475	4.451	0.033	0.298	0.041
%RSD		72.040	2.926	2.875	3.181	1.390	1.872	3.178	3.061
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	1.270	2.150	1.901	0.391	0.378	1.157	0.000	245.800
2	10:14:10	1.235	1.974	2.157	-0.490	-0.147	0.691	0.000	252.100
3	10:14:37	1.248	2.100	1.888	0.178	-1.134	0.482	0.000	255.100
x		1.251	2.075	1.982	0.026	-0.301	0.777	0.000	251.000
σ		0.018	0.091	0.152	0.460	0.767	0.346	0.000	4.721
%RSD		1.427	4.382	7.656	1734.000	255.200	44.510	0.000	1.881
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	78.945%	1.355	1.347	79.454%	-0.046	-0.075	0.066	0.111
2	10:14:10	79.542%	1.275	1.359	79.661%	-0.053	-0.072	0.208	0.231
3	10:14:37	79.877%	1.383	1.345	79.753%	-0.048	-0.068	0.145	0.107
x		79.455%	1.338	1.350	79.623%	-0.049	-0.072	0.140	0.150
σ		0.472%	0.056	0.008	0.153%	0.004	0.004	0.071	0.070
%RSD		0.594	4.168	0.561	0.192	7.328	5.380	50.980	47.030
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:43	81.164%	0.746	0.036	0.088	65.290	65.530	89.660%	90.822%
2	10:14:10	80.851%	0.882	0.026	0.106	66.800	68.070	91.355%	91.925%
3	10:14:37	82.444%	0.829	0.040	0.132	66.910	67.800	91.449%	91.778%
x		81.486%	0.819	0.034	0.109	66.330	67.130	90.821%	91.508%
σ		0.844%	0.068	0.007	0.022	0.906	1.392	1.007%	0.599%
%RSD		1.036	8.339	20.990	20.120	1.366	2.074	1.109	0.655
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:13:43	0.057	0.044	0.055	0.055	0.052	81.201%		
2	10:14:10	0.060	0.048	0.069	0.051	0.056	79.759%		
3	10:14:37	0.044	0.035	0.064	0.052	0.061	82.115%		
x		0.054	0.042	0.063	0.053	0.057	81.025%		
σ		0.009	0.007	0.007	0.002	0.005	1.188%		
%RSD		16.330	15.380	11.150	3.630	8.124	1.466		

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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	10:18:01	71.515%	0.023	7172.000	7998.000	0.000	167500.000	51190.000	51630.000
2	10:18:28	71.213%	-0.026	7230.000	8063.000	0.000	171900.000	53510.000	53700.000
3	10:18:54	69.720%	0.026	7284.000	8101.000	0.000	172100.000	54820.000	54550.000
x		70.816%	0.008	7228.000	8054.000	0.000	170500.000	53170.000	53300.000
σ		0.961%	0.029	55.870	52.090	0.000	2608.000	1838.000	1501.000
%RSD		1.358	374.300	0.773	0.647	0.000	1.530	3.458	2.816
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	46.320	5482.000	0.000	11330.000	101500.000	100600.000	71.505%	1.678
2	10:18:28	46.170	5652.000	0.000	11490.000	105800.000	104800.000	70.159%	2.802
3	10:18:54	47.550	5709.000	0.000	11460.000	105800.000	106700.000	70.266%	1.931
x		46.680	5614.000	0.000	11430.000	104400.000	104000.000	70.643%	2.137
σ		0.757	118.000	0.000	82.850	2472.000	3103.000	0.748%	0.590
%RSD		1.622	2.102	0.000	0.725	2.368	2.982	1.059	27.610
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	0.240	6.872	4092.000	5132.000	5146.000	1.760	268.300	2.691
2	10:18:28	-0.096	6.925	4248.000	5358.000	5337.000	1.735	279.500	2.563
3	10:18:54	0.743	6.925	4290.000	5412.000	5363.000	1.691	278.600	2.660
x		0.296	6.907	4210.000	5301.000	5282.000	1.729	275.500	2.638
σ		0.422	0.030	104.600	148.700	118.500	0.035	6.223	0.067
%RSD		142.800	0.442	2.484	2.805	2.244	2.028	2.259	2.522
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	2.247	9.571	9.668	1.129	-1.253	0.781	0.000	143.300
2	10:18:28	2.006	9.761	9.553	1.536	0.000	0.897	0.000	148.400
3	10:18:54	2.363	9.860	10.690	0.536	-0.410	1.729	0.000	148.200
x		2.206	9.731	9.969	1.067	-0.554	1.136	0.000	146.600
σ		0.182	0.146	0.623	0.503	0.639	0.517	0.000	2.866
%RSD		8.253	1.505	6.251	47.110	115.200	45.520	0.000	1.954
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	76.757%	0.756	0.779	77.916%	-0.057	-0.078	0.141	0.082
2	10:18:28	77.253%	1.011	0.863	81.848%	-0.058	-0.072	-0.050	-0.031
3	10:18:54	77.680%	0.860	0.950	78.102%	-0.069	-0.085	-0.003	0.041
x		77.230%	0.876	0.864	79.289%	-0.061	-0.078	0.029	0.031
σ		0.462%	0.128	0.086	2.219%	0.007	0.007	0.100	0.057
%RSD		0.598	14.670	9.930	2.798	10.650	8.629	343.000	186.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:01	78.631%	0.324	0.034	0.118	68.950	69.770	87.676%	89.778%
2	10:18:28	78.734%	0.411	0.035	0.123	71.110	71.190	89.185%	90.363%
3	10:18:54	79.971%	0.414	0.048	0.127	70.490	70.520	90.047%	91.021%
x		79.112%	0.383	0.039	0.123	70.180	70.490	88.969%	90.387%
σ		0.745%	0.051	0.008	0.004	1.111	0.710	1.200%	0.622%
%RSD		0.942	13.270	20.280	3.598	1.583	1.007	1.349	0.688
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:18:01	0.021	0.021	1.630	1.415	1.495	78.733%		
2	10:18:28	0.027	0.024	1.670	1.374	1.503	78.088%		
3	10:18:54	0.018	0.020	1.679	1.436	1.506	80.891%		
x		0.022	0.022	1.660	1.409	1.501	79.237%		
σ		0.005	0.002	0.026	0.032	0.006	1.468%		
%RSD		21.460	8.356	1.575	2.260	0.395	1.852		

CCV 1487954 3/3/2015 10:21:52 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	85.943%	98.560	140.200	139.400	0.000	49150.000	49070.000	49090.000
2	10:22:45	84.318%	102.800	142.100	143.900	0.000	50560.000	51360.000	51350.000
3	10:23:11	88.091%	99.160	135.700	134.800	0.000	49630.000	50740.000	50960.000
x		86.117%	100.162%	139.327%	139.361%	0.000	99.566%	100.783%	100.937%
σ		1.892%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.198	2.272	2.355	3.237	0.000	1.439	2.357	2.388
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	475.900	5101.000	0.000	50730.000	49270.000	50820.000	86.136%	98.820
2	10:22:45	502.000	5276.000	0.000	51860.000	51140.000	53040.000	86.177%	100.100
3	10:23:11	498.200	5228.000	0.000	50880.000	50420.000	51340.000	87.094%	103.000
x		98.407%	104.029%	0.000	102.320%	100.552%	103.471%	86.469%	100.628%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.541%	n/a
%RSD		2.861	1.740	0.000	1.197	1.879	2.240	0.626	2.129
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	94.580	94.240	496.500	23960.000	24620.000	96.360	96.280	96.040
2	10:22:45	97.730	97.600	514.900	24810.000	25670.000	98.620	99.090	99.420
3	10:23:11	97.630	97.440	517.200	24900.000	25980.000	99.150	98.920	99.910
x		96.647%	96.426%	101.909%	98.238%	101.694%	98.044%	98.093%	98.454%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.851	1.969	2.235	2.114	2.817	1.509	1.607	2.142
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	96.690	98.420	98.720	97.740	100.300	99.750	0.000	96.570
2	10:22:45	98.740	100.900	102.000	99.340	100.100	102.800	0.000	98.810
3	10:23:11	99.020	100.300	100.400	99.050	101.800	100.600	0.000	98.950
x		98.147%	99.862%	100.399%	98.712%	100.713%	101.080%	0.000	98.108%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.293	1.290	1.651	0.862	0.933	1.574	0.000	1.361
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	86.078%	97.110	96.300	85.586%	97.620	97.580	97.340	97.620
2	10:22:45	86.973%	100.700	102.000	85.590%	99.130	98.950	100.000	99.400
3	10:23:11	88.463%	104.400	105.300	86.714%	98.560	97.280	100.600	96.810
x		87.171%	100.737%	101.184%	85.963%	98.436%	97.934%	99.319%	97.944%
σ		1.205%	n/a	n/a	0.650%	n/a	n/a	n/a	n/a
%RSD		1.382	3.604	4.494	0.756	0.778	0.910	1.751	1.350
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:18	84.118%	99.370	99.630	99.770	97.450	97.780	90.397%	90.320%
2	10:22:45	85.685%	102.200	101.000	101.000	97.690	99.060	91.585%	91.618%
3	10:23:11	87.702%	99.940	99.530	100.500	99.420	98.940	91.208%	92.507%
x		85.835%	100.497%	100.068%	100.420%	98.186%	98.592%	91.063%	91.482%
σ		1.797%	n/a	n/a	n/a	n/a	n/a	0.607%	1.100%
%RSD		2.093	1.479	0.849	0.624	1.094	0.716	0.666	1.202
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:22:18	105.200	102.700	104.700	103.800	103.900	83.845%		
2	10:22:45	107.800	105.700	108.800	108.100	108.100	82.908%		
3	10:23:11	103.100	103.500	103.900	106.000	104.300	86.967%		
x		105.366%	103.977%	105.830%	105.964%	105.443%	84.573%		
σ		n/a	n/a	n/a	n/a	n/a	2.125%		
%RSD		2.243	1.522	2.488	2.007	2.165	2.513		

CCB2 3/3/2015 10:29:18 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	10:29:44	94.571%	-0.034	18.370	19.200	0.000	-0.079	1.164	1.492
2	10:30:11	94.193%	0.054	15.400	19.990	0.000	0.250	1.941	1.704
3	10:30:37	93.861%	-0.021	15.530	18.510	0.000	0.529	1.416	1.272
x		94.208%	-0.000	16.430	19.230	0.000	0.233	1.507	1.489
σ		0.355%	0.047	1.683	0.739	0.000	0.304	0.397	0.216
%RSD		0.377	12890.000	10.240	3.844	0.000	130.400	26.310	14.490
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	-0.528	1.187	0.000	-3.352	23.560	7.416	91.995%	-0.126
2	10:30:11	-0.466	-1.496	0.000	-4.934	30.280	4.879	91.263%	-0.125
3	10:30:37	-0.603	-0.652	0.000	-4.824	14.010	4.484	91.456%	-0.177
x		-0.532	-0.320	0.000	-4.370	22.610	5.593	91.571%	-0.143
σ		0.068	1.372	0.000	0.883	8.177	1.591	0.379%	0.030
%RSD		12.820	428.600	0.000	20.210	36.160	28.450	0.414	20.750
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	0.008	-0.013	0.105	3.541	5.280	0.004	0.037	0.005
2	10:30:11	0.001	-0.020	0.101	3.070	1.387	-0.003	0.021	-0.018
3	10:30:37	0.010	-0.000	0.137	1.934	-0.081	-0.002	-0.006	0.020
x		0.006	-0.011	0.114	2.848	2.195	-0.000	0.017	0.002
σ		0.005	0.010	0.020	0.826	2.770	0.004	0.021	0.019
%RSD		80.140	91.390	17.280	29.010	126.200	1169.000	123.200	828.700
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	0.020	0.137	0.034	-0.048	0.312	-0.111	0.000	0.010
2	10:30:11	0.007	0.081	0.033	0.150	1.175	1.181	0.000	0.009
3	10:30:37	0.055	0.017	0.075	0.146	-0.107	1.414	0.000	0.009
x		0.027	0.079	0.047	0.083	0.460	0.828	0.000	0.010
σ		0.025	0.060	0.024	0.113	0.654	0.822	0.000	0.001
%RSD		91.350	76.540	50.430	136.500	142.100	99.220	0.000	7.664
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	89.241%	0.233	0.266	90.100%	-0.054	-0.054	-0.021	-0.009
2	10:30:11	89.975%	0.215	0.273	91.124%	-0.042	-0.073	-0.043	-0.024
3	10:30:37	90.457%	0.194	0.226	91.653%	-0.050	-0.059	-0.036	-0.022
x		89.891%	0.214	0.255	90.959%	-0.049	-0.062	-0.033	-0.018
σ		0.612%	0.020	0.025	0.789%	0.006	0.010	0.012	0.008
%RSD		0.681	9.129	9.832	0.868	12.220	15.710	34.500	43.960
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:44	89.567%	-0.316	0.016	-0.016	-0.009	0.009	91.928%	91.300%
2	10:30:11	89.673%	-0.326	-0.001	-0.028	-0.014	-0.009	92.512%	92.943%
3	10:30:37	91.276%	-0.309	-0.016	0.010	0.008	-0.005	93.079%	93.183%
x		90.172%	-0.317	-0.001	-0.012	-0.005	-0.002	92.506%	92.475%
σ		0.958%	0.008	0.016	0.020	0.012	0.010	0.576%	1.025%
%RSD		1.062	2.667	3067.000	166.800	238.300	566.100	0.622	1.109
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:29:44	0.011	0.008	0.029	0.000	0.006	91.628%		
2	10:30:11	0.005	0.007	0.011	-0.003	0.006	90.813%		
3	10:30:37	0.012	0.009	0.014	-0.001	0.012	91.287%		
x		0.009	0.008	0.018	-0.001	0.008	91.243%		
σ		0.004	0.001	0.010	0.001	0.003	0.410%		
%RSD		37.550	12.610	53.550	164.800	40.760	0.449		

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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	10:34:02	77.285%	-0.028	158.200	171.000	0.000	40760.000	25720.000	23610.000
2	10:34:28	75.835%	-0.012	166.600	175.900	0.000	42260.000	27150.000	24970.000
3	10:34:55	74.516%	-0.027	163.900	173.500	0.000	41610.000	27660.000	25190.000
x		75.879%	-0.023	162.900	173.500	0.000	41540.000	26840.000	24590.000
σ		1.385%	0.009	4.296	2.423	0.000	750.300	1004.000	852.900
%RSD		1.825	39.910	2.637	1.397	0.000	1.806	3.739	3.469

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	4.526	5234.000	0.000	9755.000	120300.000	120800.000	75.860%	0.228
2	10:34:28	4.821	5425.000	0.000	9998.000	126700.000	126300.000	74.173%	0.638
3	10:34:55	11.670	5438.000	0.000	9932.000	126400.000	128100.000	72.708%	0.527
x		7.005	5366.000	0.000	9895.000	124500.000	125100.000	74.247%	0.464
σ		4.042	114.300	0.000	125.500	3614.000	3829.000	1.577%	0.212
%RSD		57.700	2.131	0.000	1.268	2.904	3.062	2.125	45.670

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	0.623	4.143	181.000	1041.000	1231.000	1.088	3.061	1.179
2	10:34:28	0.384	4.349	189.700	1096.000	1294.000	1.048	3.564	1.309
3	10:34:55	0.499	4.405	191.700	1114.000	1272.000	1.171	2.984	1.281
x		0.502	4.299	187.500	1083.000	1266.000	1.102	3.203	1.256
σ		0.119	0.138	5.706	38.070	31.820	0.062	0.315	0.069
%RSD		23.790	3.208	3.044	3.514	2.514	5.661	9.827	5.461

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	1.387	7.999	8.182	0.669	-0.046	0.091	0.000	321.000
2	10:34:28	1.210	8.079	8.619	1.107	0.331	-0.041	0.000	330.800
3	10:34:55	1.530	8.222	8.452	1.851	-0.038	0.558	0.000	335.500
x		1.376	8.100	8.418	1.209	0.082	0.203	0.000	329.100
σ		0.160	0.113	0.220	0.597	0.215	0.315	0.000	7.381
%RSD		11.650	1.392	2.619	49.410	262.000	155.100	0.000	2.243

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	82.984%	0.772	0.911	82.938%	-0.034	-0.079	6.062	4.031
2	10:34:28	82.916%	0.871	0.869	83.179%	-0.045	-0.061	6.471	4.289
3	10:34:55	81.810%	0.710	0.776	82.766%	-0.042	-0.050	-0.032	-0.022
x		82.570%	0.784	0.852	82.961%	-0.040	-0.063	4.167	2.766
σ		0.659%	0.081	0.069	0.207%	0.006	0.014	3.642	2.418
%RSD		0.798	10.390	8.109	0.250	14.390	22.650	87.400	87.410

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	83.164%	0.467	0.340	0.421	48.240	48.820	92.658%	93.642%
2	10:34:28	84.088%	0.615	0.336	0.363	49.950	50.120	92.900%	93.719%
3	10:34:55	85.126%	0.506	0.284	0.371	50.100	50.530	94.575%	95.328%
x		84.126%	0.529	0.320	0.385	49.430	49.820	93.378%	94.230%
σ		0.982%	0.077	0.031	0.031	1.031	0.895	1.044%	0.952%
%RSD		1.167	14.520	9.803	8.097	2.086	1.796	1.118	1.010

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:02	0.104	0.108	0.129	0.105	0.115	82.074%
2	10:34:28	0.109	0.102	0.128	0.114	0.123	82.802%
3	10:34:55	0.093	0.110	0.126	0.108	0.114	86.323%
x		0.102	0.107	0.128	0.109	0.117	83.733%
σ		0.008	0.004	0.001	0.005	0.005	2.272%
%RSD		8.002	3.664	1.049	4.267	4.297	2.714

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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	10:38:17	75.369%	-0.043	78.520	85.080	0.000	56100.000	20120.000	20240.000
2	10:38:44	73.597%	0.005	86.130	88.060	0.000	56630.000	20990.000	21130.000
3	10:39:11	73.288%	0.054	88.010	86.560	0.000	56250.000	21060.000	21200.000
x		74.085%	0.005	84.220	86.570	0.000	56330.000	20730.000	20860.000
σ		1.123%	0.048	5.027	1.490	0.000	275.500	527.200	538.400
%RSD		1.516	907.700	5.969	1.721	0.000	0.489	2.543	2.582

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	36.720	5590.000	0.000	19690.000	132700.000	133200.000	72.946%	1.338
2	10:38:44	38.270	5706.000	0.000	20060.000	138200.000	138800.000	71.346%	1.503
3	10:39:11	37.530	5709.000	0.000	20120.000	139700.000	139100.000	70.623%	1.189
x		37.510	5668.000	0.000	19960.000	136800.000	137000.000	71.638%	1.343
σ		0.776	67.810	0.000	234.700	3657.000	3313.000	1.189%	0.157
%RSD		2.068	1.196	0.000	1.176	2.672	2.418	1.659	11.670

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	0.134	53.770	9.209	55.370	376.200	0.640	0.609	2.854
2	10:38:44	1.290	56.630	9.911	56.750	384.300	0.646	0.393	2.770
3	10:39:11	-0.354	56.920	9.940	56.430	373.200	0.685	0.350	2.729
x		0.357	55.770	9.687	56.180	377.900	0.657	0.451	2.784
σ		0.844	1.743	0.414	0.725	5.751	0.024	0.139	0.064
%RSD		236.600	3.125	4.276	1.290	1.522	3.706	30.740	2.290

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	2.801	7.556	7.218	0.306	0.470	0.694	0.000	355.300
2	10:38:44	2.772	7.772	7.499	0.831	-0.041	0.857	0.000	368.600
3	10:39:11	2.949	7.537	7.426	0.609	-0.828	0.337	0.000	370.600
x		2.841	7.622	7.381	0.582	-0.133	0.629	0.000	364.800
σ		0.095	0.130	0.146	0.264	0.654	0.266	0.000	8.332
%RSD		3.333	1.708	1.979	45.270	491.400	42.280	0.000	2.284

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	80.645%	1.863	1.762	80.854%	-0.054	-0.057	0.003	-0.004
2	10:38:44	80.819%	1.828	1.897	80.624%	-0.039	-0.083	0.029	0.010
3	10:39:11	80.332%	1.887	1.851	80.347%	-0.047	-0.068	5.212	3.487
x		80.599%	1.859	1.837	80.608%	-0.047	-0.069	1.748	1.164
σ		0.247%	0.030	0.069	0.254%	0.007	0.013	3.000	2.011
%RSD		0.306	1.605	3.742	0.315	15.630	18.990	171.600	172.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	82.500%	0.195	0.044	0.113	63.000	62.560	90.880%	92.313%
2	10:38:44	82.724%	0.266	0.044	0.123	64.630	65.370	91.376%	92.817%
3	10:39:11	82.722%	0.281	0.041	0.106	64.010	66.680	91.356%	92.914%
x		82.648%	0.247	0.043	0.114	63.880	64.870	91.204%	92.681%
σ		0.129%	0.046	0.002	0.008	0.825	2.107	0.281%	0.323%
%RSD		0.156	18.580	3.687	7.221	1.292	3.248	0.308	0.348

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:17	0.030	0.026	0.469	0.435	0.441	80.676%
2	10:38:44	0.040	0.035	0.458	0.466	0.444	80.906%
3	10:39:11	0.036	0.034	0.427	0.444	0.434	81.181%
x		0.035	0.032	0.451	0.448	0.440	80.921%
σ		0.005	0.005	0.022	0.016	0.005	0.253%
%RSD		14.300	15.350	4.901	3.641	1.104	0.312

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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	10:42:32	75.517%	-0.012	55.700	62.250	0.000	45600.000	14300.000	14320.000
2	10:42:58	74.216%	0.052	59.440	62.750	0.000	46030.000	14950.000	15060.000
3	10:43:25	71.484%	-0.009	60.760	64.330	0.000	46740.000	15220.000	15350.000
x		73.739%	0.010	58.640	63.110	0.000	46120.000	14820.000	14910.000
σ		2.058%	0.036	2.627	1.088	0.000	578.200	470.900	531.400
%RSD		2.791	350.700	4.480	1.725	0.000	1.254	3.177	3.565
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	2.444	5729.000	0.000	8825.000	116000.000	117100.000	72.384%	0.487
2	10:42:58	2.784	5839.000	0.000	8926.000	120800.000	121300.000	71.444%	0.605
3	10:43:25	2.678	5997.000	0.000	9052.000	121700.000	122900.000	70.642%	0.659
x		2.636	5855.000	0.000	8934.000	119500.000	120400.000	71.490%	0.584
σ		0.174	134.300	0.000	113.500	3045.000	3023.000	0.872%	0.088
%RSD		6.601	2.294	0.000	1.270	2.548	2.510	1.220	15.030
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	0.119	7.167	9.891	10.550	283.300	0.299	19.150	10.710
2	10:42:58	-0.427	7.369	10.220	10.580	284.100	0.333	19.500	11.680
3	10:43:25	0.162	7.771	10.200	11.210	280.900	0.316	19.980	11.890
x		-0.049	7.436	10.100	10.780	282.800	0.316	19.540	11.430
σ		0.328	0.307	0.185	0.376	1.657	0.017	0.416	0.627
%RSD		674.100	4.133	1.827	3.489	0.586	5.461	2.128	5.488
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	11.360	58.200	58.800	0.390	0.351	1.623	0.000	203.000
2	10:42:58	11.800	59.070	60.700	0.848	-0.784	1.029	0.000	208.100
3	10:43:25	11.720	61.090	62.370	0.461	-0.882	1.026	0.000	209.800
x		11.630	59.450	60.620	0.566	-0.439	1.226	0.000	207.000
σ		0.234	1.481	1.785	0.246	0.685	0.344	0.000	3.546
%RSD		2.012	2.490	2.945	43.510	156.200	28.050	0.000	1.713
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	80.757%	0.771	0.855	81.197%	-0.035	-0.066	10.820	7.167
2	10:42:58	81.579%	0.846	0.979	81.563%	-0.042	-0.059	7.281	4.824
3	10:43:25	81.498%	0.833	0.870	82.071%	-0.032	-0.054	5.709	3.760
x		81.278%	0.817	0.902	81.610%	-0.037	-0.060	7.936	5.250
σ		0.453%	0.040	0.068	0.439%	0.005	0.006	2.618	1.743
%RSD		0.558	4.877	7.507	0.538	13.390	9.909	32.980	33.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:32	83.557%	0.068	0.008	0.040	47.350	47.870	92.544%	92.609%
2	10:42:58	83.379%	0.114	-0.007	0.022	48.830	49.400	92.917%	94.466%
3	10:43:25	84.400%	0.158	-0.002	0.062	49.630	48.880	93.353%	94.084%
x		83.779%	0.113	-0.000	0.041	48.610	48.720	92.938%	93.720%
σ		0.545%	0.045	0.008	0.020	1.156	0.776	0.405%	0.980%
%RSD		0.651	39.490	2584.000	49.220	2.378	1.592	0.435	1.046
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:42:32	0.019	0.019	2.297	2.111	2.153	82.237%		
2	10:42:58	0.018	0.019	2.340	2.141	2.218	83.387%		
3	10:43:25	0.017	0.016	2.280	2.183	2.221	84.184%		
x		0.018	0.018	2.306	2.145	2.197	83.269%		
σ		0.001	0.001	0.031	0.036	0.038	0.978%		
%RSD		8.100	8.317	1.360	1.672	1.750	1.175		

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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	10:46:47	73.454%	0.069	63.200	68.750	0.000	64730.000	22860.000	23270.000
2	10:47:14	72.893%	-0.010	67.950	70.460	0.000	67300.000	24270.000	24310.000
3	10:47:40	73.878%	-0.027	58.610	71.890	0.000	65030.000	24450.000	24320.000
x		73.408%	0.011	63.250	70.370	0.000	65680.000	23860.000	23970.000
σ		0.494%	0.051	4.668	1.570	0.000	1408.000	870.900	599.200
%RSD		0.673	477.100	7.380	2.230	0.000	2.144	3.650	2.500
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	60.480	6406.000	0.000	11200.000	130700.000	132100.000	72.049%	1.681
2	10:47:14	63.250	6609.000	0.000	11420.000	138900.000	138600.000	70.765%	1.934
3	10:47:40	62.330	5845.000	0.000	11380.000	137700.000	139500.000	71.009%	2.014
x		62.020	6287.000	0.000	11330.000	135800.000	136700.000	71.275%	1.876
σ		1.411	395.600	0.000	118.200	4420.000	4041.000	0.682%	0.174
%RSD		2.275	6.292	0.000	1.043	3.256	2.956	0.957	9.266
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	1.011	8.493	82.260	118.800	417.400	0.699	0.988	1.459
2	10:47:14	1.245	8.849	84.940	124.900	423.700	0.785	0.685	1.657
3	10:47:40	0.966	9.087	86.120	126.100	425.200	0.742	0.574	1.554
x		1.074	8.810	84.440	123.300	422.100	0.742	0.749	1.557
σ		0.150	0.299	1.978	3.924	4.132	0.043	0.214	0.099
%RSD		13.960	3.397	2.343	3.183	0.979	5.791	28.630	6.346
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	1.344	138.900	141.300	0.904	0.188	1.231	0.000	300.300
2	10:47:14	1.310	144.100	145.200	0.442	-0.843	1.909	0.000	307.600
3	10:47:40	1.471	144.300	147.100	-0.395	1.133	1.066	0.000	309.600
x		1.375	142.400	144.500	0.317	0.159	1.402	0.000	305.800
σ		0.085	3.053	2.949	0.658	0.988	0.447	0.000	4.884
%RSD		6.182	2.144	2.041	207.700	620.200	31.860	0.000	1.597
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	80.897%	1.381	1.393	80.946%	-0.060	-0.081	0.005	0.004
2	10:47:14	81.795%	1.359	1.457	82.180%	-0.054	-0.075	7.873	5.230
3	10:47:40	82.020%	1.363	1.517	81.859%	-0.060	-0.077	0.050	0.056
x		81.570%	1.367	1.456	81.662%	-0.058	-0.077	2.643	1.764
σ		0.594%	0.012	0.062	0.640%	0.003	0.003	4.530	3.002
%RSD		0.728	0.856	4.282	0.784	5.507	3.728	171.400	170.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:47	84.112%	0.044	0.114	0.105	58.450	59.260	92.419%	93.930%
2	10:47:14	83.040%	0.011	0.083	0.154	59.300	60.520	94.641%	95.002%
3	10:47:40	85.324%	0.073	0.091	0.142	60.150	60.370	94.566%	95.764%
x		84.159%	0.043	0.096	0.134	59.300	60.050	93.875%	94.899%
σ		1.143%	0.031	0.016	0.026	0.851	0.691	1.262%	0.921%
%RSD		1.358	72.990	16.730	19.070	1.435	1.151	1.344	0.971
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:46:47	0.033	0.031	0.182	0.203	0.182	84.552%		
2	10:47:14	0.047	0.038	0.196	0.168	0.187	82.807%		
3	10:47:40	0.049	0.040	0.198	0.170	0.194	85.449%		
x		0.043	0.036	0.192	0.180	0.188	84.269%		
σ		0.009	0.004	0.009	0.019	0.006	1.344%		
%RSD		19.730	12.130	4.549	10.780	3.151	1.595		

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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	10:51:04	76.836%	-0.013	66.600	66.400	0.000	52080.000	21340.000	21320.000
2	10:51:31	74.266%	-0.027	66.280	73.690	0.000	54000.000	22350.000	22630.000
3	10:51:57	74.715%	-0.027	67.250	70.090	0.000	53080.000	22500.000	22670.000
x		75.272%	-0.022	66.710	70.060	0.000	53050.000	22060.000	22210.000
σ		1.373%	0.008	0.493	3.645	0.000	958.700	631.800	767.100
%RSD		1.824	37.400	0.739	5.203	0.000	1.807	2.864	3.454
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	33.060	5968.000	0.000	5799.000	130500.000	131400.000	73.179%	1.012
2	10:51:31	33.290	6217.000	0.000	5923.000	133100.000	134600.000	72.761%	1.318
3	10:51:57	34.320	6176.000	0.000	5875.000	134700.000	136700.000	72.713%	1.341
x		33.560	6121.000	0.000	5866.000	132800.000	134200.000	72.884%	1.224
σ		0.671	133.600	0.000	62.710	2124.000	2685.000	0.257%	0.184
%RSD		2.001	2.182	0.000	1.069	1.600	2.001	0.352	15.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	0.596	12.050	18.240	84.780	387.600	0.495	0.193	1.405
2	10:51:31	1.336	12.190	18.860	87.510	392.800	0.550	0.326	1.295
3	10:51:57	0.976	12.520	19.040	88.520	383.200	0.543	0.027	1.303
x		0.969	12.250	18.720	86.940	387.900	0.529	0.182	1.334
σ		0.370	0.240	0.418	1.932	4.819	0.030	0.150	0.061
%RSD		38.180	1.961	2.236	2.222	1.242	5.648	82.310	4.596
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	1.262	26.790	27.310	0.752	0.384	0.404	0.000	257.000
2	10:51:31	1.124	26.300	26.860	0.626	0.302	1.573	0.000	265.400
3	10:51:57	1.493	27.310	28.580	0.177	-0.488	0.723	0.000	267.300
x		1.293	26.800	27.580	0.518	0.066	0.900	0.000	263.200
σ		0.186	0.505	0.892	0.302	0.481	0.604	0.000	5.458
%RSD		14.400	1.885	3.234	58.380	731.000	67.100	0.000	2.073
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	82.317%	0.995	0.972	81.510%	-0.062	-0.082	8.849	5.832
2	10:51:31	83.103%	1.102	0.989	82.437%	-0.050	-0.084	10.410	6.923
3	10:51:57	83.069%	1.137	0.999	83.001%	-0.062	-0.081	5.768	3.835
x		82.830%	1.078	0.987	82.316%	-0.058	-0.082	8.343	5.530
σ		0.444%	0.074	0.014	0.753%	0.007	0.002	2.363	1.566
%RSD		0.536	6.846	1.396	0.914	11.930	2.038	28.330	28.310
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:04	84.035%	-0.044	0.012	0.023	61.400	61.670	92.950%	93.228%
2	10:51:31	84.257%	-0.032	-0.012	0.104	64.030	64.200	93.646%	95.232%
3	10:51:57	84.340%	-0.007	0.034	0.052	62.650	64.310	94.649%	95.234%
x		84.210%	-0.027	0.011	0.060	62.690	63.390	93.748%	94.565%
σ		0.158%	0.019	0.023	0.041	1.317	1.493	0.854%	1.158%
%RSD		0.187	68.960	203.200	68.770	2.100	2.355	0.911	1.224
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:51:04	0.009	0.011	0.160	0.163	0.156	82.104%		
2	10:51:31	0.012	0.014	0.197	0.171	0.176	82.667%		
3	10:51:57	0.013	0.009	0.201	0.186	0.175	83.496%		
x		0.012	0.012	0.186	0.173	0.169	82.756%		
σ		0.002	0.002	0.023	0.012	0.012	0.700%		
%RSD		17.070	21.500	12.290	6.752	6.834	0.846		

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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	10:55:22	80.374%	0.044	14.100	17.460	0.000	244.700	4.487	4.193
2	10:55:48	78.415%	-0.029	13.920	17.220	0.000	251.400	4.294	4.000
3	10:56:14	77.867%	0.002	14.110	17.190	0.000	247.200	3.888	3.593
x		78.885%	0.006	14.040	17.290	0.000	247.800	4.223	3.929
σ		1.318%	0.037	0.105	0.151	0.000	3.405	0.306	0.306
%RSD		1.671	637.600	0.749	0.872	0.000	1.374	7.245	7.795
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	2.186	148.500	0.000	5.889	78.380	74.570	75.914%	-0.102
2	10:55:48	2.288	152.400	0.000	5.223	79.420	78.270	75.038%	0.087
3	10:56:14	2.441	151.500	0.000	5.075	92.560	71.190	75.605%	0.146
x		2.305	150.800	0.000	5.395	83.450	74.680	75.519%	0.044
σ		0.128	2.033	0.000	0.434	7.904	3.539	0.445%	0.129
%RSD		5.561	1.348	0.000	8.036	9.471	4.739	0.589	295.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	0.157	0.799	0.213	9.397	0.827	0.002	0.129	0.778
2	10:55:48	0.343	0.898	0.244	9.402	-1.744	0.007	0.118	0.793
3	10:56:14	-0.047	0.904	0.213	8.863	0.783	0.004	0.104	0.897
x		0.151	0.867	0.223	9.221	-0.045	0.004	0.117	0.823
σ		0.195	0.059	0.018	0.310	1.472	0.003	0.013	0.065
%RSD		128.900	6.781	8.088	3.362	3305.000	61.290	10.700	7.902
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	0.884	1.114	1.512	-0.154	-0.441	-0.585	0.000	0.225
2	10:55:48	0.939	0.997	1.388	-0.610	-0.234	1.106	0.000	0.222
3	10:56:14	1.015	1.173	1.065	-0.090	-0.606	1.414	0.000	0.227
x		0.946	1.095	1.322	-0.285	-0.427	0.645	0.000	0.225
σ		0.066	0.089	0.231	0.283	0.186	1.076	0.000	0.002
%RSD		6.940	8.168	17.460	99.540	43.600	166.900	0.000	0.997
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	84.856%	-0.004	0.033	88.789%	-0.061	-0.080	-0.050	-0.041
2	10:55:48	85.353%	0.009	0.034	89.230%	-0.062	-0.084	-0.053	-0.037
3	10:56:14	86.409%	0.037	0.041	90.331%	-0.065	-0.090	0.048	0.038
x		85.539%	0.014	0.036	89.450%	-0.063	-0.085	-0.018	-0.013
σ		0.793%	0.021	0.004	0.794%	0.002	0.005	0.057	0.044
%RSD		0.927	154.100	12.390	0.888	3.794	5.905	309.500	332.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:55:22	88.073%	0.193	-0.049	-0.035	0.081	0.131	95.066%	96.424%
2	10:55:48	89.849%	0.217	-0.052	-0.019	0.061	0.120	96.915%	97.279%
3	10:56:14	90.748%	0.309	-0.045	-0.018	0.096	0.129	97.197%	98.592%
x		89.557%	0.240	-0.048	-0.024	0.079	0.126	96.392%	97.432%
σ		1.361%	0.061	0.003	0.009	0.017	0.006	1.158%	1.092%
%RSD		1.520	25.550	7.035	39.120	21.880	4.573	1.201	1.121
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:55:22	0.006	0.002	0.046	0.026	0.037	88.782%		
2	10:55:48	0.001	0.002	0.035	0.058	0.037	92.037%		
3	10:56:14	0.002	0.000	0.044	0.025	0.033	93.153%		
x		0.003	0.002	0.042	0.037	0.036	91.324%		
σ		0.003	0.001	0.006	0.019	0.003	2.271%		
%RSD		89.640	74.050	13.670	51.440	7.471	2.487		

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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	11:02:46	99.823%	0.012	5.462	5.714	0.000	-3.939	0.328	-0.297
2	11:03:12	100.891%	-0.012	5.409	5.292	0.000	-3.510	-0.029	-0.352
3	11:03:39	101.796%	-0.036	4.794	5.753	0.000	-3.195	0.278	-0.191
x		100.837%	-0.012	5.222	5.586	0.000	-3.548	0.192	-0.280
σ		0.987%	0.024	0.372	0.255	0.000	0.374	0.193	0.082
%RSD		0.979	199.200	7.115	4.570	0.000	10.530	100.400	29.290
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	-0.729	1.684	0.000	-4.766	4.973	2.663	99.763%	-0.135
2	11:03:12	-0.676	-0.290	0.000	-5.856	11.040	3.608	98.932%	-0.230
3	11:03:39	-0.710	-0.751	0.000	-6.198	8.049	2.083	98.869%	-0.182
x		-0.705	0.214	0.000	-5.606	8.022	2.785	99.188%	-0.182
σ		0.026	1.294	0.000	0.748	3.036	0.769	0.499%	0.047
%RSD		3.748	604.200	0.000	13.340	37.850	27.630	0.503	25.920
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	0.014	0.010	0.027	0.871	-0.625	-0.008	-0.008	-0.019
2	11:03:12	0.004	-0.027	0.037	0.933	0.956	-0.009	0.056	-0.017
3	11:03:39	0.045	-0.029	0.016	0.193	-2.598	-0.013	0.041	0.015
x		0.021	-0.015	0.027	0.665	-0.756	-0.010	0.029	-0.007
σ		0.021	0.022	0.010	0.411	1.781	0.002	0.034	0.019
%RSD		102.600	145.500	38.710	61.720	235.700	21.200	114.600	272.100
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	0.089	0.037	0.025	0.228	0.127	1.625	0.000	0.007
2	11:03:12	-0.017	0.111	0.056	-0.036	0.152	0.130	0.000	0.005
3	11:03:39	0.020	0.146	0.073	-0.029	0.491	0.179	0.000	0.008
x		0.031	0.098	0.051	0.054	0.256	0.645	0.000	0.006
σ		0.054	0.056	0.025	0.151	0.203	0.850	0.000	0.001
%RSD		175.200	57.090	47.860	278.200	79.240	131.800	0.000	23.150
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	92.844%	-0.021	-0.003	94.959%	-0.065	-0.085	0.016	0.015
2	11:03:12	94.542%	-0.034	-0.021	95.367%	-0.057	-0.088	0.040	0.033
3	11:03:39	95.357%	-0.025	-0.019	95.213%	-0.063	-0.081	-0.019	-0.019
x		94.248%	-0.027	-0.014	95.180%	-0.062	-0.085	0.012	0.010
σ		1.282%	0.006	0.009	0.206%	0.004	0.003	0.030	0.027
%RSD		1.360	24.340	65.820	0.216	7.201	3.875	240.800	275.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:46	92.879%	-0.447	-0.090	-0.099	-0.001	-0.012	93.356%	93.705%
2	11:03:12	92.409%	-0.450	-0.080	-0.099	0.003	0.013	94.885%	94.132%
3	11:03:39	94.941%	-0.450	-0.093	-0.092	0.020	0.010	94.618%	95.153%
x		93.409%	-0.449	-0.087	-0.097	0.008	0.003	94.287%	94.330%
σ		1.347%	0.002	0.007	0.004	0.011	0.014	0.817%	0.744%
%RSD		1.442	0.381	7.711	4.543	147.400	400.800	0.866	0.789
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:02:46	0.002	0.000	0.007	-0.006	0.006	91.358%		
2	11:03:12	0.001	0.002	0.019	-0.005	0.006	89.157%		
3	11:03:39	0.001	0.002	0.010	0.007	0.009	91.612%		
x		0.001	0.001	0.012	-0.001	0.007	90.709%		
σ		0.001	0.001	0.007	0.007	0.002	1.350%		
%RSD		61.640	67.730	55.330	469.100	24.130	1.488		

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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	11:07:03	74.732%	44.350	1008.000	1088.000	0.000	50220.000	52370.000	52430.000
2	11:07:30	74.532%	44.120	1003.000	1075.000	0.000	49700.000	53600.000	53870.000
3	11:07:56	72.626%	43.320	1020.000	1107.000	0.000	50270.000	54870.000	54740.000
x		73.963%	43.930	1010.000	1090.000	0.000	50060.000	53610.000	53680.000
σ		1.162%	0.539	8.652	15.960	0.000	317.100	1252.000	1167.000
%RSD		1.571	1.226	0.856	1.464	0.000	0.634	2.335	2.174

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	2030.000	10530.000	0.000	51230.000	51020.000	52200.000	73.368%	1032.000
2	11:07:30	2052.000	10640.000	0.000	51300.000	52600.000	54070.000	71.636%	1052.000
3	11:07:56	2070.000	10730.000	0.000	51640.000	52990.000	54160.000	71.175%	1064.000
x		2051.000	10640.000	0.000	51390.000	52200.000	53480.000	72.060%	1049.000
σ		20.010	100.400	0.000	220.700	1044.000	1107.000	1.156%	15.940
%RSD		0.976	0.944	0.000	0.429	2.001	2.070	1.605	1.519

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	498.500	196.200	513.600	1059.000	1062.000	508.500	495.300	242.400
2	11:07:30	512.900	201.000	528.200	1093.000	1088.000	519.800	509.300	248.600
3	11:07:56	519.600	203.900	536.800	1105.000	1109.000	524.200	508.500	248.100
x		510.300	200.400	526.200	1086.000	1087.000	517.500	504.400	246.400
σ		10.780	3.907	11.740	24.400	23.610	8.115	7.894	3.471
%RSD		2.113	1.950	2.232	2.247	2.173	1.568	1.565	1.409

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	248.400	504.700	509.200	38.660	9.697	9.931	0.000	1029.000
2	11:07:30	255.400	515.600	517.700	38.360	9.588	10.450	0.000	1051.000
3	11:07:56	259.200	522.700	519.900	38.690	10.190	9.830	0.000	1061.000
x		254.300	514.300	515.600	38.570	9.824	10.070	0.000	1047.000
σ		5.445	9.058	5.611	0.184	0.319	0.335	0.000	16.610
%RSD		2.141	1.761	1.088	0.478	3.250	3.323	0.000	1.586

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	80.358%	1046.000	1070.000	80.616%	48.760	48.500	50.070	41.730
2	11:07:30	81.143%	1081.000	1109.000	80.987%	48.510	49.010	59.280	47.200
3	11:07:56	80.498%	1093.000	1125.000	81.262%	48.310	48.770	59.230	45.970
x		80.666%	1073.000	1102.000	80.955%	48.530	48.760	56.190	44.970
σ		0.419%	24.490	28.490	0.324%	0.224	0.253	5.303	2.868
%RSD		0.519	2.282	2.586	0.401	0.462	0.518	9.437	6.378

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	81.314%	2081.000	530.800	523.700	2006.000	2084.000	91.834%	92.921%
2	11:07:30	81.456%	2148.000	545.400	539.800	2050.000	2137.000	92.981%	93.953%
3	11:07:56	82.176%	2158.000	546.700	536.100	2051.000	2135.000	93.734%	95.301%
x		81.649%	2129.000	540.900	533.200	2036.000	2119.000	92.850%	94.058%
σ		0.462%	41.830	8.820	8.438	25.810	29.750	0.957%	1.193%
%RSD		0.566	1.965	1.630	1.583	1.268	1.404	1.030	1.269

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:03	51.490	49.650	21.840	21.710	21.640	80.831%
2	11:07:30	52.540	51.410	21.970	22.160	21.810	82.463%
3	11:07:56	52.620	51.980	21.770	22.390	21.780	83.452%
x		52.220	51.010	21.860	22.090	21.740	82.249%
σ		0.631	1.210	0.105	0.343	0.090	1.324%
%RSD		1.207	2.372	0.480	1.555	0.412	1.609

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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	11:11:20	74.641%	0.020	39.770	44.560	0.000	30140.000	14510.000	14520.000
2	11:11:47	73.589%	-0.011	38.810	43.870	0.000	30690.000	15210.000	15230.000
3	11:12:13	72.337%	0.006	39.250	45.170	0.000	31010.000	15320.000	15340.000
x		73.522%	0.005	39.280	44.530	0.000	30610.000	15010.000	15030.000
σ		1.154%	0.015	0.483	0.647	0.000	440.800	436.300	444.000
%RSD		1.569	290.900	1.231	1.453	0.000	1.440	2.907	2.955

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	28.020	5779.000	0.000	3457.000	119300.000	119000.000	71.457%	1.282
2	11:11:47	32.800	5959.000	0.000	3515.000	124200.000	125300.000	70.009%	1.401
3	11:12:13	30.930	6026.000	0.000	3512.000	124600.000	124800.000	70.968%	1.642
x		30.580	5921.000	0.000	3495.000	122700.000	123000.000	70.811%	1.442
σ		2.407	128.200	0.000	32.480	2933.000	3495.000	0.736%	0.183
%RSD		7.869	2.164	0.000	0.929	2.390	2.840	1.040	12.720

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	0.245	2.900	13.460	97.000	366.700	0.219	-0.139	1.228
2	11:11:47	0.266	3.123	14.060	100.500	363.500	0.274	-0.144	1.292
3	11:12:13	0.357	3.122	14.300	101.900	372.500	0.301	-0.463	1.280
x		0.289	3.048	13.940	99.830	367.600	0.265	-0.249	1.267
σ		0.060	0.128	0.433	2.541	4.527	0.042	0.186	0.034
%RSD		20.620	4.213	3.109	2.546	1.232	15.850	74.770	2.667

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	1.499	3.208	2.902	1.160	0.395	1.167	0.000	234.100
2	11:11:47	1.187	3.262	3.481	-0.379	1.008	1.869	0.000	239.900
3	11:12:13	1.404	3.020	3.166	0.627	-0.091	0.718	0.000	241.000
x		1.363	3.163	3.183	0.469	0.438	1.251	0.000	238.300
σ		0.160	0.127	0.290	0.781	0.551	0.580	0.000	3.704
%RSD		11.710	4.007	9.108	166.600	125.900	46.380	0.000	1.554

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	80.622%	6.887	6.790	82.272%	-0.060	-0.069	10.170	6.737
2	11:11:47	81.326%	4.847	5.229	82.766%	-0.058	-0.078	11.250	7.426
3	11:12:13	82.417%	3.805	3.889	83.170%	-0.065	-0.082	7.437	4.911
x		81.455%	5.179	5.302	82.736%	-0.061	-0.076	9.620	6.358
σ		0.904%	1.568	1.452	0.450%	0.003	0.006	1.966	1.300
%RSD		1.110	30.270	27.380	0.544	5.674	8.445	20.440	20.440

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	83.113%	3.864	0.075	0.125	46.090	46.000	92.054%	93.543%
2	11:11:47	84.144%	2.793	0.083	0.118	46.410	47.570	93.621%	94.962%
3	11:12:13	84.844%	2.048	0.107	0.110	47.100	47.050	95.845%	96.258%
x		84.033%	2.902	0.088	0.118	46.530	46.870	93.840%	94.921%
σ		0.871%	0.913	0.016	0.008	0.515	0.803	1.905%	1.358%
%RSD		1.036	31.460	18.540	6.535	1.106	1.713	2.030	1.431

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:20	0.382	0.374	0.178	0.136	0.154	82.474%
2	11:11:47	0.194	0.173	0.159	0.128	0.146	84.780%
3	11:12:13	0.098	0.094	0.159	0.148	0.157	86.446%
x		0.225	0.213	0.166	0.137	0.152	84.567%
σ		0.145	0.144	0.011	0.010	0.006	1.995%
%RSD		64.450	67.640	6.574	7.420	3.621	2.359

180-41508-B-1-A SD@5 3/3/2015 11:15:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	83.821%	-0.002	15.130	13.710	0.000	6343.000	2814.000	2803.000
2	11:16:04	84.238%	0.011	12.430	13.910	0.000	6400.000	2897.000	2887.000
3	11:16:31	84.088%	-0.031	10.490	13.970	0.000	6396.000	2930.000	2909.000
x		84.049%	-0.007	12.690	13.860	0.000	6379.000	2880.000	2866.000
σ		0.211%	0.021	2.332	0.138	0.000	31.830	59.420	55.760
%RSD		0.252	293.600	18.390	0.992	0.000	0.499	2.063	1.945
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	6.222	1099.000	0.000	712.000	23560.000	23040.000	80.846%	0.218
2	11:16:04	5.927	1128.000	0.000	731.500	24570.000	24290.000	79.867%	0.204
3	11:16:31	6.859	1123.000	0.000	720.200	24630.000	24640.000	79.941%	-0.050
x		6.336	1117.000	0.000	721.200	24250.000	23990.000	80.218%	0.124
σ		0.476	15.160	0.000	9.807	599.800	839.900	0.545%	0.151
%RSD		7.516	1.358	0.000	1.360	2.473	3.501	0.680	122.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	0.022	0.659	2.715	23.300	84.140	0.062	-0.038	0.333
2	11:16:04	0.181	0.586	2.815	24.500	79.080	0.056	0.011	0.342
3	11:16:31	0.268	0.604	2.933	22.870	75.740	0.052	-0.002	0.293
x		0.157	0.616	2.821	23.560	79.650	0.057	-0.010	0.323
σ		0.125	0.038	0.109	0.848	4.230	0.005	0.025	0.026
%RSD		79.520	6.223	3.864	3.598	5.310	9.539	261.700	8.095
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	0.386	0.722	0.752	-0.109	0.069	-0.129	0.000	45.250
2	11:16:04	0.249	0.756	0.984	-0.750	0.160	-0.967	0.000	46.120
3	11:16:31	0.347	0.682	0.642	0.183	-0.271	-0.314	0.000	45.950
x		0.327	0.720	0.793	-0.225	-0.014	-0.470	0.000	45.780
σ		0.071	0.037	0.174	0.477	0.227	0.440	0.000	0.459
%RSD		21.650	5.137	21.990	211.900	1640.000	93.730	0.000	1.003
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	88.504%	0.669	0.579	89.928%	-0.062	-0.084	0.035	0.010
2	11:16:04	88.869%	0.586	0.616	89.450%	-0.062	-0.083	-0.026	-0.018
3	11:16:31	89.911%	0.655	0.600	90.211%	-0.058	-0.087	-0.047	-0.034
x		89.095%	0.637	0.598	89.863%	-0.061	-0.085	-0.012	-0.014
σ		0.730%	0.045	0.018	0.385%	0.002	0.002	0.043	0.022
%RSD		0.819	7.041	3.083	0.428	3.522	2.760	344.600	161.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:38	90.656%	-0.114	-0.056	-0.054	9.433	9.276	94.393%	95.449%
2	11:16:04	89.685%	-0.109	-0.056	-0.061	9.384	9.384	96.608%	96.203%
3	11:16:31	92.182%	-0.144	-0.062	-0.042	9.203	9.151	96.877%	96.013%
x		90.841%	-0.123	-0.058	-0.052	9.340	9.270	95.959%	95.888%
σ		1.259%	0.019	0.003	0.009	0.121	0.117	1.363%	0.392%
%RSD		1.385	15.580	5.968	17.700	1.297	1.257	1.421	0.409
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:15:38	0.032	0.034	0.047	0.020	0.030	88.883%		
2	11:16:04	0.028	0.022	0.037	0.033	0.038	87.739%		
3	11:16:31	0.016	0.019	0.025	0.033	0.028	89.824%		
x		0.026	0.025	0.036	0.029	0.032	88.815%		
σ		0.008	0.008	0.011	0.008	0.005	1.044%		
%RSD		32.200	30.900	29.040	27.310	15.370	1.175		

CCV 1487954 3/3/2015 11:19:29 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	11:19:55	91.820%	97.060	104.100	105.000	0.000	50100.000	49650.000	49600.000
2	11:20:22	90.545%	100.100	108.400	112.700	0.000	50210.000	50790.000	50600.000
3	11:20:49	91.319%	100.400	110.200	112.700	0.000	49710.000	50610.000	50500.000
x		91.228%	99.179%	107.560%	110.127%	0.000	100.019%	100.700%	100.466%
σ		0.642%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.704	1.858	2.916	4.070	0.000	0.525	1.211	1.099

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	480.500	5170.000	0.000	50660.000	48340.000	49180.000	92.068%	99.050
2	11:20:22	490.700	5185.000	0.000	49630.000	48510.000	49120.000	94.917%	97.150
3	11:20:49	489.700	5114.000	0.000	49200.000	48540.000	48720.000	96.441%	97.080
x		97.387%	103.131%	0.000	99.661%	96.920%	98.010%	94.475%	97.762%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.220%	n/a
%RSD		1.156	0.734	0.000	1.503	0.225	0.515	2.350	1.141

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	93.710	94.630	500.500	24140.000	24960.000	96.290	96.300	97.040
2	11:20:22	94.340	94.490	501.900	24110.000	24900.000	96.300	95.880	96.620
3	11:20:49	94.610	93.920	498.000	24140.000	24940.000	95.910	96.380	96.380
x		94.220%	94.349%	100.025%	96.524%	99.738%	96.169%	96.189%	96.677%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.491	0.401	0.393	0.063	0.131	0.235	0.280	0.344

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	97.870	99.860	98.450	97.320	100.100	99.140	0.000	97.320
2	11:20:22	96.990	98.450	99.570	97.820	98.960	100.300	0.000	98.670
3	11:20:49	97.150	97.890	100.100	96.730	97.070	100.400	0.000	98.760
x		97.337%	98.735%	99.376%	97.293%	98.695%	99.946%	0.000	98.249%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.482	1.028	0.848	0.561	1.536	0.698	0.000	0.819

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	89.456%	96.040	96.370	87.822%	96.620	96.970	97.510	95.580
2	11:20:22	90.096%	101.200	102.500	88.048%	98.100	98.820	99.470	97.660
3	11:20:49	91.250%	103.600	104.000	88.599%	98.070	97.830	99.620	98.880
x		90.268%	100.274%	100.954%	88.156%	97.596%	97.873%	98.863%	97.372%
σ		0.909%	n/a	n/a	0.400%	n/a	n/a	n/a	n/a
%RSD		1.007	3.850	4.003	0.453	0.867	0.946	1.191	1.715

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	87.616%	98.310	97.980	98.270	96.500	97.670	92.154%	92.276%
2	11:20:22	87.237%	100.900	100.600	101.600	98.320	99.840	92.809%	92.728%
3	11:20:49	88.209%	102.500	101.000	102.100	100.300	100.000	92.312%	93.392%
x		87.687%	100.571%	99.869%	100.633%	98.364%	99.180%	92.425%	92.799%
σ		0.490%	n/a	n/a	n/a	n/a	n/a	0.342%	0.561%
%RSD		0.559	2.090	1.645	2.044	1.920	1.318	0.370	0.605

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:55	101.100	99.390	100.400	100.200	99.960	85.749%
2	11:20:22	102.300	101.200	102.900	103.100	102.700	85.863%
3	11:20:49	103.800	102.000	104.200	105.600	104.600	85.768%
x		102.399%	100.864%	102.484%	102.954%	102.418%	85.794%
σ		n/a	n/a	n/a	n/a	n/a	0.061%
%RSD		1.335	1.329	1.896	2.619	2.280	0.071

CCB3 3/3/2015 11:26:57 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	11:27:24	98.854%	0.013	4.860	3.727	0.000	-0.849	1.870	1.468
2	11:27:50	101.008%	-0.024	4.352	3.969	0.000	-0.209	1.857	1.660
3	11:28:17	101.846%	0.034	3.588	3.864	0.000	-0.075	1.632	1.567
x		100.569%	0.008	4.266	3.853	0.000	-0.378	1.786	1.565
σ		1.543%	0.029	0.640	0.121	0.000	0.414	0.134	0.096
%RSD		1.534	383.100	15.000	3.150	0.000	109.500	7.498	6.137
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	-0.575	1.799	0.000	-8.425	8.122	3.248	98.463%	-0.198
2	11:27:50	-0.337	-0.596	0.000	-5.733	9.782	2.955	97.312%	-0.133
3	11:28:17	-0.507	-0.488	0.000	-4.415	8.350	3.736	96.602%	-0.213
x		-0.473	0.238	0.000	-6.191	8.751	3.313	97.459%	-0.181
σ		0.123	1.353	0.000	2.044	0.900	0.395	0.939%	0.043
%RSD		25.910	567.800	0.000	33.010	10.280	11.910	0.964	23.590
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	-0.014	-0.015	0.040	3.297	3.774	0.002	0.041	0.002
2	11:27:50	0.005	0.035	0.050	2.717	4.072	-0.001	0.047	0.007
3	11:28:17	0.014	-0.043	0.053	2.259	1.893	-0.007	0.037	-0.003
x		0.001	-0.008	0.048	2.758	3.247	-0.002	0.042	0.002
σ		0.014	0.039	0.007	0.520	1.181	0.005	0.005	0.005
%RSD		1030.000	503.700	14.120	18.850	36.390	226.100	11.680	235.400
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	-0.007	0.131	-0.062	0.051	0.263	0.727	0.000	0.007
2	11:27:50	0.031	0.147	0.055	0.101	0.162	0.587	0.000	0.016
3	11:28:17	-0.003	0.201	0.020	0.429	0.319	2.331	0.000	0.013
x		0.007	0.160	0.005	0.194	0.248	1.215	0.000	0.012
σ		0.021	0.037	0.060	0.206	0.080	0.969	0.000	0.004
%RSD		295.900	23.070	1327.000	106.200	32.030	79.800	0.000	37.200
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	93.558%	0.243	0.295	95.001%	-0.058	-0.071	0.070	0.058
2	11:27:50	94.180%	0.230	0.276	94.824%	-0.050	-0.051	-0.009	-0.011
3	11:28:17	94.814%	0.274	0.226	95.023%	-0.056	-0.074	0.060	0.032
x		94.184%	0.249	0.266	94.949%	-0.054	-0.066	0.040	0.026
σ		0.628%	0.023	0.035	0.109%	0.004	0.012	0.043	0.035
%RSD		0.667	9.043	13.320	0.114	7.469	18.870	107.700	132.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:24	93.424%	-0.356	0.006	-0.004	-0.010	-0.005	93.686%	94.529%
2	11:27:50	93.046%	-0.307	0.002	-0.012	-0.006	-0.000	95.951%	95.110%
3	11:28:17	93.300%	-0.314	-0.009	-0.001	-0.006	0.010	95.938%	95.624%
x		93.257%	-0.326	-0.000	-0.006	-0.007	0.002	95.192%	95.088%
σ		0.193%	0.027	0.008	0.006	0.002	0.008	1.304%	0.548%
%RSD		0.207	8.169	1813.000	101.200	34.550	451.400	1.370	0.576
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:27:24	0.013	0.008	0.006	-0.004	0.003	94.470%		
2	11:27:50	0.011	0.009	0.009	0.009	0.007	92.774%		
3	11:28:17	0.010	0.011	0.006	0.003	0.006	92.318%		
x		0.011	0.009	0.007	0.003	0.005	93.188%		
σ		0.001	0.001	0.001	0.006	0.002	1.134%		
%RSD		12.180	15.510	19.820	217.600	42.450	1.217		

180-41508-B-1-B MS 3/3/2015 11:31:18 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	76.114%	42.070	996.000	1069.000	0.000	78130.000	64630.000	64410.000
2	11:32:11	74.332%	41.000	1008.000	1071.000	0.000	79250.000	67130.000	66720.000
3	11:32:38	70.390%	42.320	1050.000	1118.000	0.000	78750.000	68660.000	68400.000
x		73.612%	41.800	1018.000	1086.000	0.000	78710.000	66810.000	66510.000
σ		2.930%	0.705	28.520	27.550	0.000	563.100	2034.000	2002.000
%RSD		3.980	1.686	2.802	2.537	0.000	0.715	3.044	3.010
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	2047.000	15590.000	0.000	53360.000	167700.000	168600.000	74.440%	1000.000
2	11:32:11	2105.000	15920.000	0.000	54250.000	174700.000	174900.000	72.124%	1040.000
3	11:32:38	2118.000	16110.000	0.000	54290.000	171900.000	172100.000	71.885%	1035.000
x		2090.000	15880.000	0.000	53970.000	171400.000	171900.000	72.816%	1025.000
σ		37.740	263.400	0.000	528.100	3558.000	3153.000	1.411%	21.790
%RSD		1.806	1.659	0.000	0.979	2.076	1.834	1.938	2.125
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	490.100	193.700	515.900	1147.000	1488.000	491.800	479.000	234.900
2	11:32:11	509.700	201.000	536.900	1188.000	1539.000	507.500	494.400	241.900
3	11:32:38	508.100	201.500	537.800	1196.000	1497.000	507.400	491.400	240.100
x		502.600	198.700	530.200	1177.000	1508.000	502.200	488.300	239.000
σ		10.900	4.329	12.400	26.580	27.020	9.053	8.158	3.627
%RSD		2.169	2.178	2.339	2.258	1.792	1.803	1.671	1.518
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	243.100	481.000	488.100	38.400	10.620	11.350	0.000	1248.000
2	11:32:11	248.800	501.300	500.500	38.230	9.506	10.460	0.000	1275.000
3	11:32:38	248.100	497.500	502.300	39.370	10.260	12.930	0.000	1297.000
x		246.700	493.300	497.000	38.670	10.130	11.580	0.000	1273.000
σ		3.081	10.790	7.766	0.615	0.571	1.252	0.000	24.100
%RSD		1.249	2.187	1.563	1.591	5.632	10.810	0.000	1.893
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	82.547%	1030.000	1063.000	80.244%	46.970	46.670	48.520	40.030
2	11:32:11	82.017%	1059.000	1093.000	80.128%	48.320	48.120	49.990	41.650
3	11:32:38	80.881%	1080.000	1103.000	80.430%	46.970	47.260	49.280	39.650
x		81.815%	1056.000	1086.000	80.267%	47.420	47.350	49.260	40.440
σ		0.851%	24.980	20.560	0.153%	0.779	0.730	0.737	1.065
%RSD		1.040	2.365	1.892	0.190	1.642	1.542	1.496	2.633
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:44	81.565%	2078.000	525.800	512.400	2020.000	2101.000	92.507%	93.281%
2	11:32:11	79.745%	2151.000	538.800	532.800	2090.000	2182.000	93.114%	92.920%
3	11:32:38	81.396%	2130.000	530.700	527.100	2071.000	2155.000	92.555%	93.597%
x		80.902%	2120.000	531.800	524.100	2060.000	2146.000	92.725%	93.266%
σ		1.005%	37.350	6.574	10.540	36.380	40.910	0.337%	0.339%
%RSD		1.243	1.762	1.236	2.012	1.766	1.906	0.364	0.363
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:31:44	48.850	48.530	21.130	21.050	20.990	81.105%		
2	11:32:11	52.800	51.820	22.520	22.420	22.320	78.247%		
3	11:32:38	52.100	50.570	21.320	21.940	21.270	82.092%		
x		51.250	50.310	21.660	21.800	21.530	80.481%		
σ		2.108	1.659	0.757	0.695	0.702	1.997%		
%RSD		4.113	3.298	3.494	3.190	3.261	2.481		

180-41508-B-1-C MSD 3/3/2015 11:35:35 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	11:36:01	69.984%	42.520	995.900	1069.000	0.000	76550.000	64840.000	64670.000
2	11:36:28	70.725%	40.060	956.100	1064.000	0.000	76790.000	66630.000	66380.000
3	11:36:55	67.292%	41.930	1025.000	1096.000	0.000	79020.000	68970.000	68240.000
x		69.334%	41.510	992.500	1076.000	0.000	77450.000	66810.000	66430.000
σ		1.806%	1.286	34.770	17.310	0.000	1362.000	2070.000	1784.000
%RSD		2.605	3.098	3.504	1.608	0.000	1.759	3.099	2.686
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	1960.000	15390.000	0.000	53300.000	165700.000	164900.000	68.826%	990.000
2	11:36:28	1998.000	15490.000	0.000	53840.000	171100.000	171400.000	68.122%	1022.000
3	11:36:55	2048.000	15890.000	0.000	53970.000	175500.000	172800.000	67.281%	1044.000
x		2002.000	15590.000	0.000	53700.000	170800.000	169700.000	68.076%	1018.000
σ		44.520	261.700	0.000	354.800	4901.000	4225.000	0.773%	26.950
%RSD		2.223	1.679	0.000	0.661	2.870	2.490	1.136	2.646
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	482.900	193.300	505.300	1293.000	1840.000	483.900	470.900	230.300
2	11:36:28	496.900	197.000	521.100	1325.000	1640.000	498.200	485.900	237.000
3	11:36:55	502.700	200.600	532.000	1346.000	1601.000	498.500	485.000	236.800
x		494.200	197.000	519.500	1321.000	1694.000	493.600	480.600	234.700
σ		10.160	3.603	13.420	26.670	128.100	8.324	8.386	3.831
%RSD		2.056	1.829	2.583	2.019	7.563	1.686	1.745	1.633
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	238.000	479.400	481.600	37.240	8.806	12.150	0.000	1224.000
2	11:36:28	242.200	491.500	492.700	37.060	8.316	11.740	0.000	1249.000
3	11:36:55	243.800	495.000	499.400	38.050	10.350	11.430	0.000	1252.000
x		241.300	488.700	491.200	37.450	9.158	11.770	0.000	1242.000
σ		2.983	8.199	9.018	0.529	1.062	0.364	0.000	15.040
%RSD		1.236	1.678	1.836	1.413	11.600	3.093	0.000	1.211
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	78.319%	1013.000	1037.000	78.171%	45.990	46.220	48.480	37.850
2	11:36:28	79.376%	1052.000	1082.000	78.847%	46.680	46.950	48.560	39.580
3	11:36:55	79.209%	1056.000	1091.000	78.766%	47.070	47.290	49.370	40.610
x		78.968%	1041.000	1070.000	78.595%	46.580	46.820	48.810	39.350
σ		0.568%	24.000	28.980	0.369%	0.548	0.548	0.492	1.393
%RSD		0.720	2.306	2.709	0.470	1.176	1.169	1.008	3.540
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:01	79.107%	2054.000	511.900	508.100	1962.000	2047.000	90.584%	92.103%
2	11:36:28	79.233%	2108.000	525.800	516.000	2017.000	2105.000	92.223%	92.881%
3	11:36:55	78.907%	2131.000	527.500	525.900	2040.000	2131.000	92.232%	93.035%
x		79.082%	2098.000	521.700	516.700	2006.000	2094.000	91.680%	92.673%
σ		0.164%	39.160	8.539	8.950	40.450	43.110	0.949%	0.499%
%RSD		0.208	1.867	1.637	1.732	2.016	2.059	1.035	0.539
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:36:01	48.520	47.910	21.050	21.370	20.810	80.321%		
2	11:36:28	50.480	49.830	21.420	21.540	21.300	81.184%		
3	11:36:55	52.680	51.350	22.110	22.150	21.910	79.617%		
x		50.560	49.690	21.530	21.690	21.340	80.374%		
σ		2.081	1.723	0.541	0.412	0.552	0.785%		
%RSD		4.117	3.467	2.512	1.898	2.586	0.976		

180-41508-B-1-A PDS 3/3/2015 11:39:53 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	11:40:19	69.418%	40.830	986.000	1078.000	0.000	77100.000	65930.000	65480.000
2	11:40:46	69.294%	42.110	1012.000	1100.000	0.000	78050.000	68280.000	68190.000
3	11:41:12	67.068%	42.750	1012.000	1105.000	0.000	79650.000	69240.000	69430.000
x		68.593%	41.900	1003.000	1094.000	0.000	78270.000	67810.000	67700.000
σ		1.323%	0.979	14.860	14.150	0.000	1288.000	1703.000	2020.000
%RSD		1.928	2.336	1.482	1.293	0.000	1.646	2.512	2.984
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	1975.000	15960.000	0.000	54500.000	168600.000	168600.000	66.644%	1070.000
2	11:40:46	2036.000	16330.000	0.000	54820.000	172600.000	174300.000	66.483%	1105.000
3	11:41:12	2068.000	16580.000	0.000	55120.000	174000.000	175400.000	66.170%	1113.000
x		2026.000	16290.000	0.000	54810.000	171700.000	172800.000	66.433%	1096.000
σ		47.280	311.900	0.000	311.300	2804.000	3641.000	0.241%	22.540
%RSD		2.333	1.914	0.000	0.568	1.632	2.107	0.362	2.056
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	497.800	194.300	520.800	1144.000	1397.000	496.000	478.600	235.300
2	11:40:46	516.000	202.700	542.000	1191.000	1461.000	515.800	503.900	242.300
3	11:41:12	521.600	206.700	545.800	1202.000	1455.000	519.800	501.000	242.800
x		511.800	201.200	536.200	1179.000	1438.000	510.500	494.500	240.100
σ		12.430	6.329	13.510	30.820	35.570	12.730	13.840	4.193
%RSD		2.429	3.145	2.519	2.614	2.474	2.494	2.799	1.746
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	242.300	491.200	492.400	35.380	9.080	11.380	0.000	1235.000
2	11:40:46	252.300	511.700	514.100	38.390	8.839	11.140	0.000	1291.000
3	11:41:12	253.100	513.500	521.900	37.290	11.770	12.990	0.000	1296.000
x		249.200	505.500	509.400	37.020	9.895	11.840	0.000	1274.000
σ		6.017	12.400	15.300	1.522	1.624	1.003	0.000	33.880
%RSD		2.414	2.453	3.003	4.111	16.420	8.476	0.000	2.659
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	77.643%	1065.000	1080.000	79.710%	43.760	43.980	49.220	39.570
2	11:40:46	76.904%	1117.000	1137.000	79.520%	45.230	45.320	51.030	41.230
3	11:41:12	76.515%	1128.000	1154.000	79.206%	44.650	45.610	50.090	40.820
x		77.021%	1103.000	1124.000	79.478%	44.550	44.970	50.120	40.540
σ		0.573%	33.610	38.910	0.255%	0.740	0.871	0.903	0.864
%RSD		0.744	3.046	3.462	0.320	1.661	1.937	1.802	2.131
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:40:19	76.977%	2207.000	551.700	547.600	2025.000	2103.000	89.201%	91.073%
2	11:40:46	77.581%	2249.000	566.300	556.700	2077.000	2164.000	90.828%	91.731%
3	11:41:12	77.345%	2269.000	570.600	559.500	2086.000	2184.000	89.711%	90.973%
x		77.301%	2242.000	562.900	554.600	2063.000	2150.000	89.914%	91.259%
σ		0.304%	31.790	9.891	6.243	33.140	42.480	0.832%	0.411%
%RSD		0.393	1.418	1.757	1.126	1.607	1.976	0.925	0.451
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:40:19	52.080	51.310	21.130	21.220	20.980	79.377%		
2	11:40:46	53.010	52.440	21.910	21.820	21.550	80.184%		
3	11:41:12	52.900	52.290	21.870	21.900	21.560	80.020%		
x		52.660	52.010	21.640	21.640	21.370	79.861%		
σ		0.509	0.616	0.442	0.372	0.331	0.427%		
%RSD		0.967	1.185	2.043	1.717	1.551	0.534		

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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	11:44:37	75.147%	0.020	41.890	41.740	0.000	33220.000	12900.000	12830.000
2	11:45:04	71.814%	-0.042	38.460	41.010	0.000	33470.000	13460.000	13530.000
3	11:45:31	72.102%	0.007	39.700	42.030	0.000	33730.000	13600.000	13550.000
x		73.021%	-0.005	40.020	41.600	0.000	33470.000	13320.000	13300.000
σ		1.847%	0.033	1.734	0.526	0.000	252.800	369.600	412.100
%RSD		2.529	607.100	4.334	1.264	0.000	0.755	2.775	3.097

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	42.320	4830.000	0.000	3357.000	108600.000	108800.000	72.477%	1.589
2	11:45:04	44.290	4961.000	0.000	3403.000	109500.000	111200.000	71.276%	4.928
3	11:45:31	43.460	4990.000	0.000	3431.000	112200.000	112800.000	71.052%	1.513
x		43.360	4927.000	0.000	3397.000	110100.000	110900.000	71.602%	2.676
σ		0.993	85.430	0.000	37.160	1873.000	1991.000	0.766%	1.950
%RSD		2.291	1.734	0.000	1.094	1.701	1.795	1.070	72.860

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	-0.291	3.129	5.704	266.400	502.300	0.281	-0.004	1.162
2	11:45:04	0.717	3.296	5.962	275.300	521.800	0.282	0.030	1.124
3	11:45:31	0.624	3.274	5.871	276.900	504.100	0.324	-0.060	1.191
x		0.350	3.233	5.846	272.900	509.400	0.296	-0.011	1.159
σ		0.557	0.091	0.131	5.697	10.790	0.024	0.045	0.034
%RSD		159.100	2.809	2.237	2.088	2.119	8.213	404.300	2.912

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	1.160	2.185	2.358	0.605	0.111	0.879	0.000	214.800
2	11:45:04	1.158	2.574	2.400	0.734	0.009	1.675	0.000	220.800
3	11:45:31	1.111	2.333	2.027	0.282	-0.718	1.462	0.000	222.000
x		1.143	2.364	2.262	0.540	-0.200	1.338	0.000	219.200
σ		0.028	0.197	0.205	0.233	0.452	0.412	0.000	3.899
%RSD		2.420	8.314	9.044	43.130	226.600	30.800	0.000	1.779

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	76.251%	7.148	7.681	77.219%	-0.053	-0.075	-0.006	-0.023
2	11:45:04	76.713%	5.939	5.704	77.870%	-0.050	-0.081	-0.047	-0.040
3	11:45:31	77.425%	4.588	4.511	78.470%	-0.049	-0.068	-0.027	-0.028
x		76.797%	5.892	5.965	77.853%	-0.051	-0.074	-0.026	-0.030
σ		0.591%	1.281	1.601	0.626%	0.002	0.007	0.021	0.009
%RSD		0.770	21.740	26.840	0.804	4.110	8.736	77.810	29.870

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	77.999%	4.509	1.709	1.720	38.090	39.080	89.151%	89.499%
2	11:45:04	80.124%	3.226	0.959	1.049	39.400	39.170	90.556%	91.755%
3	11:45:31	79.387%	2.423	0.714	0.791	39.620	40.110	90.093%	91.512%
x		79.170%	3.386	1.127	1.187	39.040	39.450	89.934%	90.922%
σ		1.079%	1.052	0.518	0.480	0.831	0.573	0.716%	1.238%
%RSD		1.363	31.080	45.970	40.420	2.128	1.451	0.796	1.362

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:37	0.063	0.071	0.213	0.209	0.201	78.573%
2	11:45:04	0.046	0.050	0.197	0.167	0.188	82.897%
3	11:45:31	0.044	0.043	0.213	0.210	0.195	81.159%
x		0.051	0.055	0.208	0.195	0.194	80.876%
σ		0.010	0.015	0.009	0.025	0.006	2.176%
%RSD		20.480	26.500	4.403	12.570	3.188	2.690

180-41508-B-4-A 3/3/2015 11:48:25 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	76.576%	-0.012	33.100	33.240	0.000	25120.000	13730.000	13670.000
2	11:49:18	73.814%	0.005	29.660	33.740	0.000	26010.000	14250.000	14400.000
3	11:49:44	73.102%	-0.027	29.820	35.570	0.000	26130.000	14610.000	14660.000
x		74.497%	-0.011	30.860	34.190	0.000	25750.000	14200.000	14240.000
σ		1.835%	0.016	1.939	1.228	0.000	547.300	441.200	508.800
%RSD		2.463	140.100	6.283	3.593	0.000	2.125	3.108	3.572
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	25.680	5658.000	0.000	3249.000	93920.000	94800.000	72.118%	0.773
2	11:49:18	26.890	5829.000	0.000	3299.000	97440.000	98550.000	71.799%	0.799
3	11:49:44	25.860	5881.000	0.000	3302.000	98180.000	99550.000	71.646%	0.823
x		26.140	5789.000	0.000	3283.000	96510.000	97630.000	71.855%	0.798
σ		0.654	116.600	0.000	29.930	2274.000	2505.000	0.241%	0.025
%RSD		2.500	2.013	0.000	0.912	2.356	2.566	0.335	3.101
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	-0.544	3.666	6.498	58.910	282.000	0.215	-0.302	0.779
2	11:49:18	0.212	3.698	6.839	61.140	279.800	0.211	-0.378	0.917
3	11:49:44	0.377	3.822	6.776	61.980	278.900	0.210	-0.404	0.918
x		0.015	3.729	6.704	60.680	280.200	0.212	-0.361	0.871
σ		0.491	0.083	0.182	1.589	1.602	0.003	0.053	0.080
%RSD		3307.000	2.220	2.707	2.619	0.572	1.284	14.750	9.215
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	0.891	8.765	8.741	1.233	-0.279	0.607	0.000	184.000
2	11:49:18	0.782	8.913	8.523	0.821	-1.514	1.580	0.000	190.900
3	11:49:44	0.796	8.902	8.781	1.700	-0.143	1.144	0.000	191.000
x		0.823	8.860	8.682	1.251	-0.645	1.110	0.000	188.700
σ		0.059	0.082	0.139	0.440	0.755	0.487	0.000	4.014
%RSD		7.194	0.928	1.599	35.170	117.000	43.900	0.000	2.128
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	76.990%	2.790	2.594	80.878%	-0.060	-0.075	-0.036	-0.020
2	11:49:18	77.437%	2.803	2.814	79.132%	-0.061	-0.085	-0.004	0.003
3	11:49:44	77.948%	2.725	2.779	79.697%	-0.073	-0.075	-0.057	-0.043
x		77.458%	2.773	2.729	79.903%	-0.065	-0.079	-0.032	-0.020
σ		0.480%	0.042	0.118	0.891%	0.007	0.006	0.027	0.023
%RSD		0.619	1.502	4.328	1.115	10.770	7.415	81.760	117.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:51	79.594%	0.537	0.231	0.246	37.750	37.820	89.621%	91.291%
2	11:49:18	79.891%	0.583	0.211	0.217	38.480	39.060	90.633%	91.959%
3	11:49:44	81.628%	0.520	0.155	0.180	38.190	38.620	92.283%	93.020%
x		80.371%	0.547	0.199	0.214	38.140	38.500	90.846%	92.090%
σ		1.099%	0.032	0.039	0.033	0.367	0.627	1.344%	0.872%
%RSD		1.367	5.889	19.740	15.550	0.963	1.628	1.479	0.947
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:48:51	0.022	0.024	0.056	0.045	0.048	81.905%		
2	11:49:18	0.020	0.022	0.049	0.045	0.042	83.084%		
3	11:49:44	0.016	0.023	0.070	0.051	0.059	84.772%		
x		0.020	0.023	0.059	0.047	0.050	83.254%		
σ		0.003	0.001	0.011	0.004	0.009	1.441%		
%RSD		14.580	4.300	18.250	7.936	17.660	1.731		

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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	11:53:07	76.455%	-0.059	27.210	29.640	0.000	18170.000	14090.000	14030.000
2	11:53:33	75.438%	-0.028	24.830	29.490	0.000	18500.000	14680.000	14630.000
3	11:54:00	74.710%	-0.012	25.040	29.220	0.000	18470.000	15000.000	14920.000
x		75.534%	-0.033	25.690	29.450	0.000	18380.000	14590.000	14530.000
σ		0.877%	0.024	1.317	0.210	0.000	182.200	459.300	453.300
%RSD		1.161	73.640	5.125	0.714	0.000	0.992	3.148	3.120

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	3.232	5643.000	0.000	2554.000	83860.000	84820.000	74.376%	0.490
2	11:53:33	3.228	5785.000	0.000	2586.000	87810.000	88600.000	74.059%	0.387
3	11:54:00	3.096	5853.000	0.000	2592.000	88150.000	88730.000	74.351%	0.385
x		3.186	5760.000	0.000	2577.000	86610.000	87380.000	74.262%	0.421
σ		0.077	107.500	0.000	20.170	2381.000	2222.000	0.176%	0.060
%RSD		2.425	1.866	0.000	0.782	2.750	2.543	0.237	14.290

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	0.067	1.763	3.152	21.720	210.400	0.196	-0.449	0.904
2	11:53:33	0.146	1.846	3.174	23.210	221.000	0.167	-0.417	0.967
3	11:54:00	0.281	1.855	3.353	23.310	212.600	0.176	-0.430	0.945
x		0.165	1.821	3.226	22.750	214.700	0.180	-0.432	0.939
σ		0.108	0.051	0.111	0.888	5.602	0.014	0.016	0.032
%RSD		65.580	2.798	3.428	3.904	2.610	8.068	3.734	3.395

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	1.071	2.812	3.078	1.085	-1.032	1.163	0.000	188.000
2	11:53:33	1.086	3.213	3.029	0.659	-0.501	1.924	0.000	191.700
3	11:54:00	1.000	2.965	3.111	0.268	-0.533	2.135	0.000	195.200
x		1.052	2.997	3.073	0.670	-0.689	1.741	0.000	191.600
σ		0.046	0.202	0.041	0.409	0.298	0.511	0.000	3.608
%RSD		4.383	6.755	1.343	60.930	43.260	29.380	0.000	1.882

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	78.480%	1.413	1.360	80.931%	-0.065	-0.090	0.013	0.023
2	11:53:33	79.769%	1.294	1.415	81.729%	-0.070	-0.083	-0.027	-0.025
3	11:54:00	79.646%	1.234	1.396	82.309%	-0.068	-0.095	-0.010	0.016
x		79.298%	1.314	1.391	81.656%	-0.067	-0.090	-0.008	0.005
σ		0.712%	0.091	0.028	0.692%	0.002	0.006	0.020	0.026
%RSD		0.897	6.939	2.000	0.847	3.507	7.076	246.700	568.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	81.427%	0.152	0.451	0.524	24.740	25.270	91.437%	92.082%
2	11:53:33	82.688%	0.229	0.476	0.434	26.320	26.020	93.338%	93.520%
3	11:54:00	84.133%	0.150	0.430	0.434	26.050	25.900	93.762%	94.707%
x		82.749%	0.177	0.452	0.464	25.700	25.730	92.846%	93.437%
σ		1.354%	0.045	0.023	0.052	0.843	0.401	1.239%	1.314%
%RSD		1.636	25.380	5.108	11.260	3.280	1.559	1.334	1.407

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:07	0.015	0.014	0.040	0.029	0.038	83.116%
2	11:53:33	0.028	0.017	0.038	0.032	0.039	85.200%
3	11:54:00	0.017	0.019	0.041	0.044	0.038	87.522%
x		0.020	0.016	0.040	0.035	0.038	85.279%
σ		0.007	0.002	0.002	0.008	0.000	2.204%
%RSD		33.120	13.510	4.192	23.690	1.040	2.584

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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	11:57:21	77.030%	-0.028	46.790	50.380	0.000	53300.000	19830.000	19920.000
2	11:57:48	76.952%	-0.028	48.420	50.740	0.000	54940.000	20990.000	21010.000
3	11:58:14	74.652%	-0.027	46.790	51.890	0.000	54720.000	21230.000	21320.000
x		76.211%	-0.028	47.330	51.000	0.000	54320.000	20680.000	20750.000
σ		1.351%	0.001	0.939	0.785	0.000	891.800	748.700	733.200
%RSD		1.773	1.861	1.983	1.540	0.000	1.642	3.620	3.533
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	51.100	4639.000	0.000	5000.000	86440.000	88780.000	76.701%	1.162
2	11:57:48	54.000	4778.000	0.000	5118.000	91660.000	93420.000	75.419%	0.894
3	11:58:14	53.290	4855.000	0.000	5118.000	92200.000	93290.000	75.613%	1.180
x		52.800	4757.000	0.000	5079.000	90100.000	91830.000	75.911%	1.079
σ		1.512	109.900	0.000	68.120	3182.000	2640.000	0.691%	0.160
%RSD		2.863	2.311	0.000	1.341	3.531	2.875	0.910	14.850
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	-0.665	5.792	9.924	256.100	445.500	0.591	0.295	3.636
2	11:57:48	0.745	5.994	10.200	267.200	466.600	0.534	0.255	3.661
3	11:58:14	0.100	5.784	10.540	272.500	444.800	0.573	0.153	3.709
x		0.060	5.856	10.220	265.300	452.300	0.566	0.235	3.669
σ		0.706	0.119	0.307	8.390	12.410	0.029	0.073	0.037
%RSD		1174.000	2.032	3.004	3.163	2.744	5.152	31.200	1.009
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	3.731	6.372	6.667	0.552	0.441	1.422	0.000	205.600
2	11:57:48	3.765	6.820	6.358	0.639	-0.063	1.945	0.000	209.600
3	11:58:14	3.520	6.622	6.206	0.897	0.621	2.301	0.000	211.600
x		3.672	6.605	6.410	0.696	0.333	1.889	0.000	208.900
σ		0.133	0.224	0.235	0.180	0.355	0.442	0.000	3.070
%RSD		3.609	3.397	3.664	25.800	106.500	23.410	0.000	1.470
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	79.898%	8.897	8.799	80.536%	0.273	0.290	0.046	0.026
2	11:57:48	81.023%	9.289	9.429	80.777%	0.289	0.243	-0.130	-0.071
3	11:58:14	81.540%	9.258	9.342	81.360%	0.278	0.201	0.021	0.025
x		80.820%	9.148	9.190	80.891%	0.280	0.244	-0.021	-0.007
σ		0.839%	0.218	0.341	0.424%	0.008	0.044	0.095	0.056
%RSD		1.038	2.384	3.710	0.524	3.012	18.170	455.700	825.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:57:21	83.806%	0.050	0.109	0.107	37.990	39.030	92.244%	92.735%
2	11:57:48	83.425%	0.108	0.102	0.155	39.600	40.220	94.342%	94.123%
3	11:58:14	84.562%	0.077	0.079	0.126	40.740	40.290	93.356%	94.566%
x		83.931%	0.078	0.097	0.129	39.440	39.850	93.314%	93.808%
σ		0.579%	0.029	0.016	0.024	1.383	0.710	1.050%	0.955%
%RSD		0.690	37.520	16.400	18.450	3.506	1.782	1.125	1.019
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:57:21	0.020	0.015	0.171	0.134	0.143	84.127%		
2	11:57:48	0.016	0.020	0.154	0.123	0.139	82.990%		
3	11:58:14	0.021	0.012	0.160	0.130	0.136	84.561%		
x		0.019	0.016	0.161	0.129	0.139	83.893%		
σ		0.003	0.004	0.008	0.005	0.004	0.812%		
%RSD		14.620	23.610	5.234	4.207	2.571	0.967		

CCV 1487954 3/3/2015 12:01:13 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	12:01:39	90.182%	96.930	101.000	104.500	0.000	49030.000	48860.000	48830.000
2	12:02:05	87.905%	100.900	104.400	111.100	0.000	51870.000	52690.000	52560.000
3	12:02:31	87.580%	98.520	111.400	108.600	0.000	51410.000	52570.000	52690.000
x		88.556%	98.766%	105.635%	108.096%	0.000	101.540%	102.746%	102.718%
σ		1.418%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.601	1.996	5.008	3.067	0.000	3.000	4.244	4.272

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	469.400	5053.000	0.000	48680.000	46920.000	47700.000	93.997%	95.900
2	12:02:05	505.700	5369.000	0.000	52390.000	51060.000	52150.000	86.917%	103.500
3	12:02:31	509.500	5356.000	0.000	52210.000	51150.000	52000.000	88.580%	106.500
x		98.977%	105.194%	0.000	102.186%	99.418%	101.233%	89.831%	101.972%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.702%	n/a
%RSD		4.471	3.400	0.000	4.092	4.856	4.997	4.121	5.371

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	90.480	90.770	484.200	23390.000	24180.000	93.700	93.150	95.480
2	12:02:05	98.890	99.330	520.300	25330.000	26010.000	100.700	101.600	100.200
3	12:02:31	98.330	99.310	519.900	25330.000	26040.000	99.160	100.300	99.570
x		95.899%	96.471%	101.625%	98.728%	101.632%	97.840%	98.358%	98.432%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.904	5.115	4.086	4.520	4.198	3.740	4.639	2.616

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	95.990	97.500	97.460	97.490	98.390	99.300	0.000	97.410
2	12:02:05	100.600	102.900	102.500	99.810	99.750	103.600	0.000	99.010
3	12:02:31	102.000	100.300	104.400	100.100	99.340	103.100	0.000	100.200
x		99.514%	100.263%	101.477%	99.146%	99.162%	102.003%	0.000	98.862%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.149	2.712	3.551	1.452	0.702	2.311	0.000	1.397

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	88.188%	95.210	97.210	85.890%	96.380	96.800	96.510	95.240
2	12:02:05	88.505%	102.600	101.100	86.455%	98.140	97.900	100.500	98.650
3	12:02:31	88.451%	103.800	104.000	86.701%	97.820	97.970	99.330	98.780
x		88.382%	100.519%	100.766%	86.349%	97.446%	97.556%	98.765%	97.555%
σ		0.170%	n/a	n/a	0.416%	n/a	n/a	n/a	n/a
%RSD		0.192	4.612	3.378	0.481	0.959	0.673	2.056	2.060

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	87.570%	97.330	98.230	98.630	96.830	97.660	91.662%	91.910%
2	12:02:05	86.149%	101.900	100.600	101.900	99.080	101.200	91.718%	92.033%
3	12:02:31	87.102%	101.400	101.700	101.600	100.400	99.550	91.980%	92.156%
x		86.940%	100.189%	100.152%	100.701%	98.753%	99.458%	91.787%	92.033%
σ		0.724%	n/a	n/a	n/a	n/a	n/a	0.169%	0.123%
%RSD		0.833	2.483	1.753	1.791	1.806	1.764	0.185	0.134

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:39	102.000	101.300	101.100	102.600	101.200	84.242%
2	12:02:05	103.900	103.300	104.600	105.200	104.100	83.359%
3	12:02:31	103.800	103.000	104.900	105.900	104.900	83.794%
x		103.244%	102.525%	103.535%	104.537%	103.438%	83.798%
σ		n/a	n/a	n/a	n/a	n/a	0.441%
%RSD		1.015	1.025	2.050	1.676	1.885	0.527

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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	12:09:08	97.544%	0.002	2.158	2.923	0.000	-0.557	2.341	2.033
2	12:09:35	96.804%	0.002	2.776	2.766	0.000	-0.904	2.136	1.964
3	12:10:01	97.126%	0.038	1.915	2.693	0.000	-0.563	1.889	2.363
x		97.158%	0.014	2.283	2.794	0.000	-0.674	2.122	2.120
σ		0.371%	0.021	0.444	0.118	0.000	0.199	0.227	0.214
%RSD		0.382	150.400	19.450	4.210	0.000	29.450	10.670	10.070
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	-0.417	2.043	0.000	-5.370	13.190	3.106	95.504%	-0.147
2	12:09:35	-0.564	-1.182	0.000	-4.383	8.667	4.828	94.566%	-0.046
3	12:10:01	-0.446	-0.944	0.000	-4.980	13.210	4.357	95.375%	-0.130
x		-0.476	-0.028	0.000	-4.911	11.690	4.097	95.148%	-0.108
σ		0.078	1.797	0.000	0.497	2.618	0.890	0.508%	0.054
%RSD		16.390	6499.000	0.000	10.130	22.390	21.730	0.534	49.940
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	0.011	0.014	0.053	4.622	3.465	0.004	0.024	0.038
2	12:09:35	-0.040	0.011	0.049	3.659	2.340	-0.001	0.049	-0.031
3	12:10:01	0.004	-0.021	0.050	2.632	1.124	-0.004	0.013	-0.003
x		-0.008	0.001	0.051	3.638	2.310	-0.000	0.029	0.001
σ		0.027	0.019	0.002	0.995	1.171	0.004	0.019	0.035
%RSD		331.000	1453.000	4.471	27.350	50.700	1411.000	65.140	2480.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	0.018	0.075	0.099	0.298	-0.313	1.656	0.000	0.008
2	12:09:35	0.010	0.144	0.056	0.273	0.725	1.380	0.000	0.009
3	12:10:01	0.060	-0.008	0.179	0.096	0.771	0.968	0.000	0.018
x		0.030	0.070	0.111	0.222	0.394	1.335	0.000	0.012
σ		0.027	0.076	0.063	0.110	0.613	0.346	0.000	0.005
%RSD		91.530	108.400	56.370	49.620	155.500	25.950	0.000	44.860
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	91.600%	0.209	0.262	93.281%	-0.058	-0.069	-0.058	-0.034
2	12:09:35	92.666%	0.265	0.188	93.617%	-0.043	-0.070	0.007	0.003
3	12:10:01	92.855%	0.175	0.196	94.552%	-0.047	-0.074	0.012	0.021
x		92.373%	0.217	0.215	93.816%	-0.049	-0.071	-0.013	-0.003
σ		0.677%	0.046	0.041	0.658%	0.008	0.003	0.039	0.028
%RSD		0.733	21.120	18.880	0.702	15.590	4.070	306.400	837.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:08	91.577%	-0.315	0.014	0.014	0.026	0.016	91.859%	92.505%
2	12:09:35	90.958%	-0.327	0.014	0.023	-0.010	-0.002	93.526%	93.423%
3	12:10:01	92.297%	-0.314	0.009	-0.003	0.017	-0.005	93.561%	94.451%
x		91.611%	-0.319	0.012	0.011	0.011	0.003	92.982%	93.460%
σ		0.670%	0.007	0.003	0.013	0.019	0.011	0.973%	0.973%
%RSD		0.731	2.275	25.540	115.000	165.400	355.600	1.046	1.041
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:09:08	0.017	0.009	0.009	0.003	0.008	93.187%		
2	12:09:35	0.004	0.012	0.020	0.003	0.006	92.265%		
3	12:10:01	0.007	0.006	0.001	0.001	0.000	92.403%		
x		0.009	0.009	0.010	0.002	0.005	92.618%		
σ		0.007	0.003	0.010	0.001	0.004	0.497%		
%RSD		72.780	29.680	98.040	47.120	83.560	0.537		

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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	12:13:28	76.347%	-0.059	49.860	51.560	0.000	59720.000	20730.000	20890.000
2	12:13:55	76.325%	-0.012	45.870	52.690	0.000	59630.000	21460.000	21430.000
3	12:14:21	73.534%	-0.011	50.770	55.190	0.000	60950.000	21870.000	21970.000
x		75.402%	-0.027	48.830	53.140	0.000	60100.000	21350.000	21430.000
σ		1.618%	0.027	2.607	1.858	0.000	738.700	578.200	543.000
%RSD		2.146	99.760	5.339	3.496	0.000	1.229	2.708	2.534
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	2.233	4812.000	0.000	5568.000	90210.000	91430.000	75.186%	0.482
2	12:13:55	2.225	4875.000	0.000	5642.000	93120.000	95240.000	73.730%	0.199
3	12:14:21	2.408	4966.000	0.000	5704.000	93590.000	95770.000	72.626%	0.227
x		2.288	4884.000	0.000	5638.000	92310.000	94150.000	73.848%	0.302
σ		0.103	77.810	0.000	68.360	1832.000	2371.000	1.284%	0.156
%RSD		4.513	1.593	0.000	1.212	1.984	2.518	1.739	51.510
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	-0.054	6.348	0.650	51.930	282.700	0.121	-0.401	1.365
2	12:13:55	0.002	6.500	0.642	51.870	271.400	0.135	-0.482	1.336
3	12:14:21	0.642	6.713	0.664	53.210	272.400	0.145	-0.419	1.218
x		0.197	6.520	0.652	52.330	275.500	0.134	-0.434	1.306
σ		0.387	0.184	0.011	0.755	6.242	0.012	0.043	0.078
%RSD		196.300	2.818	1.724	1.442	2.266	8.900	9.799	5.967
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	1.080	2.151	2.591	0.161	0.740	0.697	0.000	196.700
2	12:13:55	1.028	2.476	2.306	0.100	0.132	2.218	0.000	200.500
3	12:14:21	1.074	2.290	2.482	0.574	0.424	2.655	0.000	202.600
x		1.061	2.306	2.460	0.278	0.432	1.857	0.000	199.900
σ		0.029	0.163	0.144	0.258	0.304	1.028	0.000	3.023
%RSD		2.711	7.080	5.845	92.650	70.470	55.350	0.000	1.512
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	81.441%	10.690	10.400	82.237%	-0.058	-0.076	-0.040	-0.025
2	12:13:55	82.830%	10.240	10.600	82.188%	-0.054	-0.076	10.220	6.754
3	12:14:21	81.309%	10.540	10.950	82.516%	-0.049	-0.077	10.960	7.295
x		81.860%	10.490	10.650	82.314%	-0.054	-0.077	7.047	4.675
σ		0.843%	0.226	0.277	0.177%	0.004	0.001	6.149	4.079
%RSD		1.030	2.158	2.597	0.215	8.265	0.830	87.250	87.250
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:28	82.952%	0.106	0.184	0.204	39.570	39.780	91.654%	92.250%
2	12:13:55	83.485%	0.062	0.153	0.206	41.400	40.500	93.075%	93.566%
3	12:14:21	82.788%	0.155	0.131	0.167	40.740	41.240	92.730%	93.787%
x		83.075%	0.108	0.156	0.192	40.570	40.510	92.486%	93.201%
σ		0.365%	0.046	0.027	0.022	0.927	0.734	0.741%	0.831%
%RSD		0.439	42.930	17.220	11.380	2.284	1.812	0.802	0.892
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:13:28	0.037	0.033	0.016	0.005	0.012	81.972%		
2	12:13:55	0.029	0.029	0.028	0.014	0.015	83.040%		
3	12:14:21	0.032	0.027	0.013	0.005	0.008	83.096%		
x		0.033	0.030	0.019	0.008	0.012	82.702%		
σ		0.004	0.003	0.008	0.005	0.004	0.633%		
%RSD		12.450	10.440	41.690	66.340	32.440	0.766		

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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	12:17:46	74.509%	-0.011	43.960	49.480	0.000	47660.000	21440.000	21590.000
2	12:18:12	73.600%	-0.011	49.020	51.120	0.000	48440.000	22360.000	22490.000
3	12:18:39	72.918%	0.006	45.800	50.580	0.000	48280.000	22450.000	22800.000
x		73.676%	-0.005	46.260	50.390	0.000	48130.000	22080.000	22290.000
σ		0.798%	0.010	2.558	0.835	0.000	413.700	555.700	626.100
%RSD		1.084	181.900	5.530	1.657	0.000	0.860	2.516	2.808

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	1.394	5625.000	0.000	4214.000	90590.000	92560.000	72.752%	0.441
2	12:18:12	1.449	5759.000	0.000	4275.000	94640.000	96530.000	71.555%	0.386
3	12:18:39	1.473	5781.000	0.000	4322.000	96880.000	97230.000	70.244%	0.464
x		1.439	5722.000	0.000	4270.000	94030.000	95440.000	71.517%	0.430
σ		0.040	84.640	0.000	54.310	3188.000	2516.000	1.254%	0.040
%RSD		2.811	1.479	0.000	1.272	3.390	2.636	1.754	9.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	-0.120	1.793	38.390	3.042	219.300	0.151	-0.314	1.032
2	12:18:12	0.526	1.980	40.320	3.035	221.000	0.153	-0.367	1.074
3	12:18:39	0.275	1.987	40.650	3.300	218.700	0.183	-0.345	1.065
x		0.227	1.920	39.790	3.126	219.700	0.162	-0.342	1.057
σ		0.326	0.110	1.217	0.151	1.191	0.018	0.027	0.022
%RSD		143.600	5.732	3.059	4.827	0.542	10.980	7.850	2.104

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	0.952	1.433	1.744	0.371	-0.400	1.599	0.000	201.000
2	12:18:12	0.938	1.609	1.352	0.259	0.425	1.168	0.000	206.200
3	12:18:39	0.861	1.415	1.584	0.396	0.617	1.620	0.000	206.800
x		0.917	1.486	1.560	0.342	0.214	1.462	0.000	204.700
σ		0.049	0.107	0.197	0.073	0.540	0.255	0.000	3.204
%RSD		5.371	7.214	12.650	21.320	252.200	17.450	0.000	1.566

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	81.066%	2.148	2.164	81.741%	-0.059	-0.084	-0.007	-0.005
2	12:18:12	81.754%	2.145	2.262	82.614%	-0.052	-0.085	7.764	5.141
3	12:18:39	81.224%	2.074	2.286	82.188%	-0.062	-0.084	8.255	5.484
x		81.348%	2.122	2.237	82.181%	-0.058	-0.084	5.337	3.540
σ		0.361%	0.042	0.065	0.437%	0.005	0.001	4.635	3.075
%RSD		0.443	1.979	2.894	0.532	8.626	0.877	86.840	86.860

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	82.497%	-0.139	0.075	0.097	39.190	39.710	92.183%	92.806%
2	12:18:12	83.434%	-0.145	0.125	0.101	39.710	39.880	93.018%	94.257%
3	12:18:39	83.710%	-0.111	0.080	0.115	39.430	40.650	93.010%	93.528%
x		83.214%	-0.132	0.093	0.105	39.440	40.080	92.737%	93.530%
σ		0.636%	0.018	0.028	0.009	0.262	0.498	0.480%	0.725%
%RSD		0.764	13.590	29.770	8.574	0.664	1.244	0.518	0.776

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:46	0.023	0.015	0.019	0.013	0.018	83.185%
2	12:18:12	0.026	0.014	0.028	0.012	0.020	83.517%
3	12:18:39	0.022	0.020	0.019	0.030	0.018	84.215%
x		0.024	0.016	0.022	0.018	0.019	83.639%
σ		0.002	0.003	0.005	0.010	0.001	0.526%
%RSD		7.373	18.950	23.510	55.580	5.353	0.629

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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	12:22:03	72.963%	-0.027	44.040	48.160	0.000	51130.000	21650.000	21720.000
2	12:22:30	72.963%	0.022	44.740	50.290	0.000	51180.000	22240.000	22440.000
3	12:22:57	72.052%	0.007	49.260	48.110	0.000	51610.000	22690.000	22690.000
x		72.659%	0.001	46.010	48.850	0.000	51310.000	22190.000	22280.000
σ		0.526%	0.025	2.834	1.245	0.000	262.100	522.400	503.200
%RSD		0.724	3485.000	6.158	2.548	0.000	0.511	2.354	2.258

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	1.622	5379.000	0.000	4694.000	92550.000	93780.000	72.483%	0.314
2	12:22:30	1.632	5541.000	0.000	4747.000	97000.000	98550.000	70.427%	0.330
3	12:22:57	1.926	5572.000	0.000	4770.000	97480.000	98890.000	70.380%	0.463
x		1.726	5497.000	0.000	4737.000	95670.000	97070.000	71.097%	0.369
σ		0.173	103.700	0.000	38.790	2718.000	2858.000	1.201%	0.082
%RSD		9.994	1.886	0.000	0.819	2.840	2.944	1.689	22.180

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	0.652	5.141	1.980	3.595	217.800	0.140	-0.449	0.965
2	12:22:30	-0.119	5.223	2.097	3.975	217.800	0.129	-0.342	0.998
3	12:22:57	0.121	5.482	2.171	3.926	221.500	0.121	-0.556	1.022
x		0.218	5.282	2.083	3.832	219.100	0.130	-0.449	0.995
σ		0.395	0.178	0.096	0.207	2.142	0.009	0.107	0.029
%RSD		181.100	3.372	4.611	5.394	0.978	7.188	23.810	2.902

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	1.008	1.230	1.277	0.690	0.030	2.006	0.000	202.500
2	12:22:30	0.836	1.261	0.979	-0.352	-0.031	1.702	0.000	208.100
3	12:22:57	0.974	1.285	1.016	0.647	0.330	2.828	0.000	211.400
x		0.939	1.259	1.091	0.328	0.110	2.179	0.000	207.300
σ		0.091	0.027	0.163	0.589	0.194	0.582	0.000	4.495
%RSD		9.689	2.170	14.920	179.500	176.700	26.730	0.000	2.168

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	81.063%	4.334	4.359	81.979%	-0.062	-0.091	-0.017	0.004
2	12:22:30	81.506%	4.315	4.486	82.497%	-0.067	-0.093	0.024	0.011
3	12:22:57	81.085%	4.286	4.530	82.346%	-0.062	-0.086	-0.007	-0.015
x		81.218%	4.312	4.458	82.274%	-0.064	-0.090	-0.000	0.000
σ		0.249%	0.024	0.088	0.266%	0.003	0.003	0.021	0.013
%RSD		0.307	0.558	1.981	0.324	4.054	3.728	8244.000	6381.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	83.009%	-0.184	0.034	0.066	42.120	41.920	92.240%	92.585%
2	12:22:30	83.604%	-0.212	0.052	0.063	42.370	42.590	93.652%	94.545%
3	12:22:57	84.304%	-0.127	0.032	0.063	42.500	43.240	93.840%	94.615%
x		83.639%	-0.174	0.039	0.064	42.330	42.580	93.244%	93.915%
σ		0.648%	0.043	0.011	0.002	0.193	0.659	0.875%	1.152%
%RSD		0.775	24.930	28.030	2.458	0.456	1.547	0.938	1.227

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:03	0.015	0.007	0.025	0.021	0.028	83.386%
2	12:22:30	0.005	0.010	0.027	0.025	0.016	84.614%
3	12:22:57	0.011	0.009	0.034	0.026	0.032	84.763%
x		0.010	0.009	0.029	0.024	0.025	84.254%
σ		0.005	0.001	0.005	0.003	0.008	0.756%
%RSD		48.560	14.720	16.120	13.090	32.370	0.897

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	72.654%	0.006	41.710	51.390	0.000	53150.000	21370.000	21580.000
2	12:26:48	73.768%	-0.027	43.650	48.610	0.000	52390.000	22280.000	22240.000
3	12:27:14	72.784%	0.006	47.930	50.880	0.000	53390.000	22600.000	22710.000
x		73.068%	-0.005	44.430	50.290	0.000	52980.000	22080.000	22180.000
σ		0.609%	0.019	3.186	1.481	0.000	519.700	641.900	563.800
%RSD		0.834	389.100	7.170	2.945	0.000	0.981	2.907	2.542

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	2.293	5341.000	0.000	4721.000	92850.000	94390.000	70.849%	0.261
2	12:26:48	2.416	5399.000	0.000	4772.000	97900.000	98440.000	70.096%	0.355
3	12:27:14	2.301	5426.000	0.000	4755.000	96970.000	99240.000	69.965%	0.445
x		2.337	5389.000	0.000	4749.000	95900.000	97360.000	70.303%	0.353
σ		0.069	43.250	0.000	26.020	2689.000	2602.000	0.477%	0.092
%RSD		2.956	0.802	0.000	0.548	2.804	2.672	0.678	26.040

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	1.159	4.383	26.820	9.092	215.000	0.524	0.009	1.042
2	12:26:48	0.018	4.554	27.850	8.337	219.500	0.595	-0.029	1.013
3	12:27:14	0.296	4.836	27.680	8.898	217.200	0.532	-0.107	1.061
x		0.491	4.591	27.450	8.776	217.200	0.551	-0.042	1.039
σ		0.595	0.229	0.551	0.392	2.294	0.039	0.059	0.024
%RSD		121.100	4.982	2.007	4.467	1.056	7.047	138.900	2.332

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	1.022	2.221	2.140	0.846	1.521	2.628	0.000	199.000
2	12:26:48	0.861	2.316	2.493	-0.745	-0.430	2.481	0.000	205.100
3	12:27:14	0.867	2.372	2.288	0.478	0.408	2.801	0.000	207.000
x		0.917	2.303	2.307	0.193	0.499	2.637	0.000	203.700
σ		0.091	0.076	0.177	0.833	0.979	0.160	0.000	4.185
%RSD		9.973	3.311	7.680	431.300	196.000	6.064	0.000	2.055

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	80.366%	4.507	4.691	81.294%	-0.057	-0.098	-0.061	-0.042
2	12:26:48	81.348%	4.848	4.867	81.431%	-0.056	-0.084	-0.013	-0.006
3	12:27:14	81.513%	4.815	4.722	81.691%	-0.060	-0.079	-0.122	-0.077
x		81.076%	4.723	4.760	81.472%	-0.058	-0.087	-0.065	-0.042
σ		0.620%	0.189	0.094	0.202%	0.002	0.010	0.054	0.036
%RSD		0.765	3.991	1.975	0.248	3.121	11.400	82.980	85.110

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	81.018%	-0.165	-0.017	0.033	40.260	40.440	92.035%	92.460%
2	12:26:48	82.448%	-0.158	0.006	0.003	42.250	41.610	93.170%	93.148%
3	12:27:14	83.032%	-0.159	0.010	0.021	41.790	42.930	93.425%	94.068%
x		82.166%	-0.161	-0.000	0.019	41.430	41.660	92.877%	93.225%
σ		1.036%	0.004	0.015	0.015	1.043	1.245	0.740%	0.807%
%RSD		1.261	2.190	5215.000	81.320	2.518	2.988	0.796	0.866

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:26:21	0.011	0.009	0.047	0.044	0.043	80.288%
2	12:26:48	0.008	0.010	0.049	0.024	0.041	83.080%
3	12:27:14	0.010	0.013	0.048	0.040	0.045	83.005%
x		0.010	0.011	0.048	0.036	0.043	82.124%
σ		0.002	0.002	0.001	0.010	0.002	1.591%
%RSD		19.300	16.840	2.852	29.070	5.607	1.937

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	71.117%	-0.026	36.520	46.600	0.000	96530.000	29960.000	27400.000
2	12:31:01	69.107%	0.026	44.440	50.050	0.000	99800.000	29460.000	29260.000
3	12:31:28	69.692%	0.009	45.000	49.270	0.000	98000.000	29260.000	29150.000
x		69.972%	0.003	41.990	48.640	0.000	98110.000	29560.000	28600.000
σ		1.034%	0.026	4.740	1.810	0.000	1638.000	358.200	1040.000
%RSD		1.477	894.000	11.290	3.721	0.000	1.669	1.212	3.635
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	1.570	6264.000	0.000	15300.000	193000.000	194600.000	72.883%	0.354
2	12:31:01	1.391	6538.000	0.000	15660.000	209000.000	209400.000	71.647%	0.668
3	12:31:28	1.502	6537.000	0.000	15710.000	207300.000	209600.000	72.172%	0.575
x		1.488	6447.000	0.000	15560.000	203100.000	204500.000	72.234%	0.532
σ		0.091	157.900	0.000	221.400	8793.000	8620.000	0.620%	0.161
%RSD		6.102	2.450	0.000	1.423	4.330	4.215	0.858	30.290
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	0.298	1.254	325.600	26.880	471.300	9.186	9.115	14.730
2	12:31:01	0.466	1.467	347.800	29.800	481.000	9.465	9.745	15.620
3	12:31:28	-0.197	1.369	349.500	29.790	476.200	9.368	9.854	15.700
x		0.189	1.363	341.000	28.820	476.200	9.340	9.571	15.350
σ		0.345	0.107	13.330	1.679	4.810	0.142	0.399	0.542
%RSD		182.300	7.844	3.909	5.825	1.010	1.519	4.170	3.534
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	14.640	23.210	23.520	1.308	0.716	2.209	0.000	383.700
2	12:31:01	16.170	23.040	23.510	1.790	0.644	2.292	0.000	392.700
3	12:31:28	15.460	24.220	23.640	0.295	-0.108	1.662	0.000	400.300
x		15.420	23.490	23.560	1.131	0.417	2.055	0.000	392.200
σ		0.767	0.637	0.072	0.763	0.457	0.342	0.000	8.273
%RSD		4.970	2.710	0.305	67.470	109.400	16.650	0.000	2.109
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	80.461%	0.185	0.195	80.959%	-0.043	-0.058	10.190	6.764
2	12:31:01	82.168%	0.234	0.200	80.928%	-0.028	-0.052	0.038	0.055
3	12:31:28	82.110%	0.184	0.176	81.972%	-0.041	-0.068	0.084	0.054
x		81.580%	0.201	0.190	81.286%	-0.037	-0.059	3.437	2.291
σ		0.969%	0.029	0.012	0.594%	0.008	0.008	5.848	3.874
%RSD		1.188	14.380	6.547	0.731	21.010	13.180	170.100	169.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:30:35	82.079%	-0.217	0.010	0.003	103.500	107.900	91.014%	91.993%
2	12:31:01	83.508%	-0.172	-0.003	-0.002	108.100	107.400	93.427%	93.042%
3	12:31:28	85.202%	-0.194	-0.005	0.014	109.800	108.600	92.989%	93.799%
x		83.596%	-0.195	0.001	0.005	107.100	107.900	92.477%	92.945%
σ		1.563%	0.023	0.008	0.008	3.252	0.643	1.286%	0.907%
%RSD		1.870	11.580	1178.000	166.200	3.035	0.595	1.390	0.976
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:30:35	0.044	0.036	0.503	0.445	0.462	80.142%		
2	12:31:01	0.038	0.040	0.521	0.463	0.479	81.650%		
3	12:31:28	0.038	0.035	0.489	0.473	0.486	82.588%		
x		0.040	0.037	0.504	0.460	0.476	81.460%		
σ		0.003	0.002	0.016	0.014	0.012	1.234%		
%RSD		8.780	6.281	3.201	3.058	2.513	1.515		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	72.901%	0.022	48.040	57.750	0.000	55910.000	22130.000	22140.000
2	12:35:17	72.347%	0.022	50.740	56.560	0.000	55650.000	23350.000	23410.000
3	12:35:43	71.613%	-0.026	51.700	57.000	0.000	56790.000	23830.000	23900.000
x		72.287%	0.006	50.160	57.100	0.000	56120.000	23100.000	23150.000
σ		0.646%	0.028	1.900	0.598	0.000	598.200	880.300	904.400
%RSD		0.893	451.900	3.788	1.048	0.000	1.066	3.810	3.907
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	1.342	5836.000	0.000	14390.000	127400.000	128200.000	72.295%	0.401
2	12:35:17	1.404	5998.000	0.000	14550.000	130800.000	133700.000	72.491%	0.378
3	12:35:43	1.234	6150.000	0.000	14740.000	134800.000	135400.000	72.157%	0.402
x		1.327	5995.000	0.000	14560.000	131000.000	132400.000	72.314%	0.394
σ		0.086	157.000	0.000	177.000	3701.000	3751.000	0.168%	0.014
%RSD		6.460	2.618	0.000	1.216	2.825	2.832	0.232	3.505
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	0.409	15.560	83.780	11.220	296.300	0.362	10.750	9.408
2	12:35:17	0.211	16.080	87.860	11.330	298.200	0.353	10.720	9.637
3	12:35:43	0.944	16.760	89.870	13.200	297.700	0.399	10.940	9.613
x		0.521	16.130	87.170	11.910	297.400	0.371	10.800	9.552
σ		0.379	0.599	3.103	1.116	0.973	0.025	0.121	0.126
%RSD		72.800	3.716	3.560	9.365	0.327	6.640	1.122	1.319
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	9.467	38.540	40.580	-0.364	-0.000	0.808	0.000	327.500
2	12:35:17	9.980	40.570	42.200	0.371	-0.026	1.285	0.000	343.000
3	12:35:43	9.713	41.040	42.130	-0.780	1.303	1.191	0.000	346.900
x		9.720	40.050	41.640	-0.258	0.426	1.095	0.000	339.100
σ		0.256	1.327	0.916	0.583	0.760	0.253	0.000	10.250
%RSD		2.638	3.314	2.200	226.200	178.500	23.090	0.000	3.023
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	82.306%	0.139	0.191	81.663%	-0.036	-0.069	7.286	4.826
2	12:35:17	83.347%	0.184	0.192	83.100%	-0.045	-0.070	-0.058	-0.016
3	12:35:43	83.531%	0.179	0.182	83.870%	-0.041	-0.066	7.035	4.660
x		83.061%	0.167	0.188	82.878%	-0.041	-0.069	4.754	3.157
σ		0.661%	0.025	0.006	1.120%	0.004	0.002	4.170	2.749
%RSD		0.795	14.870	3.025	1.352	10.920	3.284	87.700	87.080
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:50	82.632%	-0.047	0.003	0.005	67.020	67.360	93.343%	92.456%
2	12:35:17	86.421%	0.049	-0.027	0.004	68.520	68.380	95.472%	94.661%
3	12:35:43	85.668%	0.006	-0.025	-0.010	69.440	69.960	95.542%	95.944%
x		84.907%	0.002	-0.016	-0.000	68.330	68.570	94.786%	94.354%
σ		2.006%	0.048	0.017	0.008	1.224	1.313	1.250%	1.764%
%RSD		2.362	2035.000	103.800	2002.000	1.792	1.915	1.319	1.870
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:34:50	0.011	0.021	2.074	1.951	1.998	80.235%		
2	12:35:17	0.010	0.015	2.101	1.885	1.949	85.603%		
3	12:35:43	0.016	0.016	2.151	1.982	2.021	84.087%		
x		0.012	0.017	2.109	1.939	1.989	83.308%		
σ		0.004	0.004	0.039	0.050	0.037	2.767%		
%RSD		29.820	20.840	1.858	2.577	1.841	3.322		

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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	12:39:08	73.144%	0.022	38.270	43.080	0.000	63670.000	23070.000	23300.000
2	12:39:34	74.372%	-0.027	38.820	43.290	0.000	63760.000	23830.000	24110.000
3	12:40:01	70.820%	0.024	35.270	44.270	0.000	66100.000	24750.000	24860.000
x		72.779%	0.006	37.450	43.550	0.000	64510.000	23880.000	24090.000
σ		1.804%	0.029	1.914	0.632	0.000	1378.000	843.100	779.400
%RSD		2.479	466.700	5.110	1.451	0.000	2.137	3.530	3.235
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	50.180	4699.000	0.000	6813.000	91590.000	92870.000	73.330%	3.283
2	12:39:34	52.380	5101.000	0.000	6888.000	95490.000	97370.000	72.885%	1.337
3	12:40:01	51.830	5267.000	0.000	6942.000	96250.000	98230.000	73.077%	1.629
x		51.460	5022.000	0.000	6881.000	94440.000	96160.000	73.097%	2.083
σ		1.143	291.900	0.000	64.820	2498.000	2877.000	0.223%	1.049
%RSD		2.221	5.812	0.000	0.942	2.645	2.992	0.305	50.380
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	0.239	14.350	66.330	417.600	601.300	0.250	2.899	11.150
2	12:39:34	0.347	14.920	68.090	437.500	613.300	0.228	2.667	11.050
3	12:40:01	0.320	15.010	68.220	438.300	603.400	0.201	2.754	11.240
x		0.302	14.760	67.550	431.100	606.000	0.226	2.773	11.150
σ		0.057	0.359	1.055	11.730	6.399	0.025	0.117	0.095
%RSD		18.720	2.432	1.561	2.721	1.056	10.980	4.222	0.854
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	11.140	57.350	56.360	0.197	0.506	1.044	0.000	230.400
2	12:39:34	10.840	58.710	60.430	0.094	-0.294	2.031	0.000	240.300
3	12:40:01	11.590	59.410	58.240	0.573	0.650	1.239	0.000	237.600
x		11.190	58.490	58.340	0.288	0.287	1.438	0.000	236.100
σ		0.377	1.045	2.036	0.252	0.508	0.523	0.000	5.137
%RSD		3.366	1.787	3.489	87.440	176.900	36.350	0.000	2.176
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	83.823%	0.220	0.218	83.548%	-0.012	-0.026	7.977	5.332
2	12:39:34	83.778%	0.230	0.211	83.882%	-0.005	-0.042	-0.050	-0.023
3	12:40:01	85.611%	0.279	0.242	84.740%	-0.013	-0.027	6.582	4.348
x		84.404%	0.243	0.224	84.056%	-0.010	-0.032	4.837	3.219
σ		1.046%	0.031	0.017	0.615%	0.004	0.009	4.289	2.850
%RSD		1.239	12.950	7.394	0.732	41.510	27.650	88.670	88.550
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:39:08	84.211%	-0.210	0.043	0.057	61.460	62.650	93.700%	94.855%
2	12:39:34	84.854%	-0.176	0.021	0.054	61.970	63.130	94.929%	95.759%
3	12:40:01	86.228%	-0.156	0.028	0.070	63.450	64.260	96.406%	97.290%
x		85.098%	-0.181	0.031	0.060	62.290	63.340	95.011%	95.968%
σ		1.030%	0.027	0.011	0.009	1.036	0.825	1.355%	1.231%
%RSD		1.211	14.980	37.140	14.500	1.663	1.302	1.426	1.283
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:39:08	0.007	0.007	1.757	1.612	1.627	83.924%		
2	12:39:34	0.000	0.005	1.726	1.768	1.720	85.123%		
3	12:40:01	0.008	0.005	1.804	1.638	1.700	85.132%		
x		0.005	0.006	1.762	1.673	1.682	84.726%		
σ		0.004	0.001	0.039	0.084	0.049	0.695%		
%RSD		84.130	16.290	2.222	5.012	2.908	0.820		

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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	12:43:25	73.768%	0.053	46.880	51.000	0.000	78710.000	26920.000	24910.000
2	12:43:52	73.875%	-0.011	45.370	51.950	0.000	79340.000	28180.000	25790.000
3	12:44:19	71.284%	-0.009	50.550	52.830	0.000	82030.000	26860.000	26550.000
x		72.976%	0.011	47.600	51.920	0.000	80030.000	27320.000	25750.000
σ		1.466%	0.036	2.662	0.915	0.000	1763.000	741.000	819.700
%RSD		2.009	336.700	5.592	1.762	0.000	2.203	2.712	3.184

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	6.443	4447.000	0.000	15200.000	96650.000	98020.000	73.484%	0.434
2	12:43:52	8.454	4562.000	0.000	15490.000	101200.000	102300.000	73.489%	0.412
3	12:44:19	1.216	4645.000	0.000	15600.000	101500.000	103200.000	73.567%	0.347
x		5.371	4552.000	0.000	15430.000	99800.000	101200.000	73.513%	0.398
σ		3.736	99.470	0.000	204.700	2737.000	2776.000	0.047%	0.045
%RSD		69.560	2.185	0.000	1.327	2.742	2.744	0.063	11.280

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	-0.213	6.731	4.134	23.130	235.600	0.221	-0.402	2.145
2	12:43:52	0.592	7.314	4.076	23.770	242.300	0.196	-0.377	2.217
3	12:44:19	0.450	7.189	4.226	23.430	243.300	0.203	-0.365	2.055
x		0.276	7.078	4.145	23.440	240.400	0.207	-0.381	2.139
σ		0.430	0.307	0.076	0.322	4.208	0.013	0.019	0.081
%RSD		155.600	4.332	1.822	1.375	1.751	6.144	5.027	3.793

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	1.681	7.787	7.789	0.222	0.608	0.925	0.000	206.700
2	12:43:52	1.714	8.248	7.812	0.313	1.037	2.983	0.000	213.600
3	12:44:19	1.817	8.064	7.577	1.162	0.058	1.392	0.000	214.300
x		1.737	8.033	7.726	0.565	0.568	1.766	0.000	211.500
σ		0.071	0.232	0.129	0.518	0.491	1.079	0.000	4.192
%RSD		4.089	2.890	1.674	91.650	86.390	61.090	0.000	1.982

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	82.546%	0.742	0.661	82.276%	-0.062	-0.077	-0.037	-0.003
2	12:43:52	83.445%	0.655	0.753	83.081%	-0.063	-0.077	-0.035	-0.017
3	12:44:19	85.010%	0.760	0.724	83.843%	-0.066	-0.090	-0.048	-0.028
x		83.667%	0.719	0.713	83.067%	-0.064	-0.081	-0.040	-0.016
σ		1.247%	0.056	0.047	0.784%	0.002	0.008	0.007	0.013
%RSD		1.490	7.817	6.631	0.944	2.903	9.610	16.830	80.640

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	84.789%	-0.257	0.107	0.098	69.520	68.550	92.636%	93.013%
2	12:43:52	84.943%	-0.208	0.090	0.121	71.570	71.450	93.839%	94.015%
3	12:44:19	85.679%	-0.234	0.095	0.094	71.480	72.780	95.240%	94.686%
x		85.137%	-0.233	0.098	0.104	70.850	70.930	93.905%	93.905%
σ		0.475%	0.025	0.008	0.015	1.158	2.161	1.303%	0.842%
%RSD		0.558	10.570	8.495	14.430	1.634	3.046	1.388	0.897

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:25	0.010	0.006	0.152	0.168	0.159	82.067%
2	12:43:52	0.009	0.004	0.156	0.189	0.155	82.325%
3	12:44:19	0.006	0.008	0.156	0.141	0.157	82.686%
x		0.008	0.006	0.155	0.166	0.157	82.360%
σ		0.002	0.002	0.002	0.024	0.002	0.311%
%RSD		25.660	26.040	1.510	14.580	1.320	0.377

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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	12:50:49	99.953%	1.049	5.470	6.041	0.000	109.400	107.400	111.000
2	12:51:16	100.099%	0.979	4.897	5.871	0.000	110.700	117.300	114.700
3	12:51:43	100.283%	1.072	5.635	6.263	0.000	110.300	115.300	116.700
x		100.112%	103.311%	106.680%	121.167%	0.000	137.653%	113.338%	114.143%
σ		0.165%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.165	4.706	7.265	3.249	0.000	0.630	4.633	2.576

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	30.270	528.400	0.000	99.480	137.500	112.100	97.447%	4.414
2	12:51:16	31.150	543.600	0.000	102.200	110.600	116.300	95.692%	4.705
3	12:51:43	31.870	550.900	0.000	104.400	135.000	119.600	94.840%	5.407
x		103.663%	108.189%	0.000	102.024%	127.722%	115.975%	95.993%	96.843%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.329%	n/a
%RSD		2.576	2.122	0.000	2.414	11.640	3.240	1.384	10.540

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	0.928	2.073	4.934	52.510	45.610	0.509	1.145	2.191
2	12:51:16	1.037	2.081	5.287	54.250	51.740	0.532	1.135	2.123
3	12:51:43	1.121	2.021	5.191	55.250	50.300	0.481	1.111	2.240
x		102.851%	102.925%	102.748%	108.004%	98.436%	101.488%	113.007%	109.228%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		9.431	1.589	3.557	2.570	6.512	5.035	1.553	2.689

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	2.085	5.265	5.183	1.478	5.721	5.571	0.000	4.656
2	12:51:16	2.086	5.141	5.469	0.999	4.947	4.081	0.000	4.825
3	12:51:43	2.252	5.271	5.396	1.053	5.644	4.464	0.000	4.813
x		107.060%	104.514%	106.988%	117.623%	108.744%	94.106%	0.000	95.292%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.490	1.406	2.778	22.320	7.844	16.450	0.000	1.982

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	99.813%	4.605	4.662	93.599%	0.940	0.894	1.298	1.014
2	12:51:16	101.228%	4.689	4.928	94.614%	0.957	0.938	1.052	1.044
3	12:51:43	101.480%	5.107	5.222	95.030%	0.983	0.972	1.174	1.119
x		100.840%	96.006%	98.749%	94.415%	96.010%	93.457%	117.460%	105.897%
σ		0.898%	n/a	n/a	0.736%	n/a	n/a	n/a	n/a
%RSD		0.891	5.598	5.677	0.780	2.280	4.150	10.480	5.125

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	93.168%	4.414	1.866	1.907	10.060	10.260	94.538%	93.742%
2	12:51:16	93.539%	4.570	1.956	2.060	10.350	10.450	95.827%	94.995%
3	12:51:43	92.481%	4.717	1.970	1.979	10.420	10.480	95.826%	95.132%
x		93.063%	91.343%	96.526%	99.105%	102.762%	103.946%	95.397%	94.623%
σ		0.537%	n/a	n/a	n/a	n/a	n/a	0.744%	0.766%
%RSD		0.576	3.317	2.925	3.881	1.828	1.132	0.780	0.810

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:49	0.956	0.949	1.031	0.929	0.975	93.835%
2	12:51:16	1.036	0.987	1.078	0.973	1.000	93.874%
3	12:51:43	1.028	1.008	1.128	0.966	1.056	91.944%
x		100.638%	98.126%	107.902%	95.570%	101.024%	93.217%
σ		n/a	n/a	n/a	n/a	n/a	1.103%
%RSD		4.385	3.048	4.455	2.472	4.108	1.184

CCV 1487954 3/3/2015 12:54:40 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	12:55:06	92.014%	98.380	103.700	104.200	0.000	48870.000	48230.000	48350.000
2	12:55:33	94.526%	99.570	108.300	103.300	0.000	49260.000	49500.000	49810.000
3	12:55:59	93.703%	98.930	98.300	106.400	0.000	49810.000	50360.000	50420.000
x		93.414%	98.962%	103.446%	104.663%	0.000	98.631%	98.732%	99.051%
σ		1.281%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.371	0.602	4.864	1.513	0.000	0.959	2.167	2.149
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	466.500	5070.000	0.000	48370.000	45790.000	46730.000	98.922%	94.150
2	12:55:33	480.700	5142.000	0.000	49010.000	47480.000	48440.000	99.123%	95.690
3	12:55:59	486.300	5162.000	0.000	49430.000	46940.000	48610.000	99.213%	97.670
x		95.567%	102.495%	0.000	97.870%	93.473%	95.856%	99.086%	95.836%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.149%	n/a
%RSD		2.145	0.944	0.000	1.085	1.848	2.172	0.150	1.845
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	89.700	89.780	477.900	23200.000	23850.000	93.320	92.410	93.750
2	12:55:33	93.160	93.220	494.100	24070.000	24900.000	95.840	95.880	96.860
3	12:55:59	93.150	93.780	495.800	24270.000	25030.000	95.450	96.400	96.520
x		92.004%	92.259%	97.849%	95.391%	98.363%	94.870%	94.897%	95.709%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.165	2.345	2.022	2.387	2.626	1.431	2.286	1.786
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	93.800	92.740	95.820	96.350	98.900	100.700	0.000	96.340
2	12:55:33	98.420	96.790	100.600	97.180	96.410	101.800	0.000	99.620
3	12:55:59	98.460	96.500	99.680	99.110	98.700	100.800	0.000	98.870
x		96.894%	95.344%	98.691%	97.548%	98.006%	101.131%	0.000	98.279%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.765	2.374	2.555	1.454	1.412	0.607	0.000	1.751
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	89.821%	95.640	96.540	87.570%	97.170	96.180	95.280	93.770
2	12:55:33	90.407%	100.800	102.500	88.238%	98.520	98.440	98.520	96.710
3	12:55:59	91.263%	103.200	103.900	88.695%	97.860	98.190	100.200	97.370
x		90.497%	99.872%	100.994%	88.168%	97.850%	97.605%	98.000%	95.948%
σ		0.725%	n/a	n/a	0.566%	n/a	n/a	n/a	n/a
%RSD		0.801	3.871	3.878	0.642	0.690	1.268	2.553	2.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:06	87.699%	96.560	97.530	97.490	96.060	96.520	91.238%	90.970%
2	12:55:33	88.240%	100.700	99.640	100.100	99.590	98.160	92.648%	92.448%
3	12:55:59	87.684%	101.800	101.600	102.100	100.600	99.660	91.984%	92.622%
x		87.874%	99.685%	99.576%	99.908%	98.754%	98.110%	91.956%	92.013%
σ		0.317%	n/a	n/a	n/a	n/a	n/a	0.705%	0.908%
%RSD		0.361	2.783	2.024	2.320	2.422	1.602	0.767	0.986
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:55:06	93.090	92.050	92.040	92.470	90.960	93.003%		
2	12:55:33	97.270	96.750	97.810	98.350	97.200	89.661%		
3	12:55:59	99.880	97.910	99.900	101.000	99.760	88.007%		
x		96.749%	95.571%	96.582%	97.284%	95.974%	90.224%		
σ		n/a	n/a	n/a	n/a	n/a	2.545%		
%RSD		3.539	3.245	4.212	4.507	4.717	2.821		

CCB5 3/3/2015 1:02:03 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	13:02:29	100.349%	-0.024	1.012	1.141	0.000	-0.354	2.669	2.716
2	13:02:56	97.686%	0.038	0.888	1.121	0.000	0.112	2.464	2.394
3	13:03:23	98.635%	-0.011	0.290	0.989	0.000	0.102	2.731	2.163
x		98.890%	0.001	0.730	1.083	0.000	-0.047	2.622	2.424
σ		1.350%	0.032	0.386	0.083	0.000	0.266	0.140	0.278
%RSD		1.365	3107.000	52.880	7.637	0.000	568.900	5.328	11.460

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	-0.451	1.408	0.000	-5.674	8.232	5.425	97.549%	-0.213
2	13:02:56	-0.150	0.110	0.000	-2.474	2.261	4.667	96.274%	-0.099
3	13:03:23	-0.500	-1.221	0.000	-4.244	8.487	6.842	95.760%	-0.164
x		-0.367	0.099	0.000	-4.131	6.327	5.645	96.528%	-0.159
σ		0.190	1.315	0.000	1.603	3.523	1.104	0.921%	0.057
%RSD		51.670	1328.000	0.000	38.810	55.680	19.560	0.954	36.240

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	-0.019	0.011	0.044	4.644	3.284	0.008	0.018	0.007
2	13:02:56	0.018	-0.024	0.070	5.521	4.637	-0.003	0.003	0.032
3	13:03:23	0.024	-0.029	0.049	3.780	5.817	-0.004	0.054	-0.007
x		0.008	-0.014	0.054	4.648	4.579	0.000	0.025	0.011
σ		0.023	0.022	0.014	0.871	1.268	0.006	0.026	0.020
%RSD		288.900	152.900	25.110	18.730	27.680	2372.000	105.500	184.900

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	-0.013	0.102	-0.052	0.360	1.025	2.733	0.000	0.017
2	13:02:56	-0.048	0.098	0.071	0.158	-0.195	0.881	0.000	0.022
3	13:03:23	0.013	0.069	0.107	0.312	0.093	1.754	0.000	0.014
x		-0.016	0.089	0.042	0.276	0.308	1.789	0.000	0.018
σ		0.030	0.018	0.083	0.106	0.638	0.926	0.000	0.004
%RSD		190.200	19.940	198.400	38.170	207.300	51.780	0.000	22.880

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	90.464%	0.178	0.137	92.287%	-0.062	-0.073	0.008	0.009
2	13:02:56	92.749%	0.106	0.182	92.364%	-0.064	-0.079	0.000	0.001
3	13:03:23	93.060%	0.158	0.184	92.410%	-0.054	-0.073	0.009	0.009
x		92.091%	0.148	0.168	92.354%	-0.060	-0.075	0.006	0.006
σ		1.417%	0.037	0.027	0.062%	0.005	0.003	0.005	0.004
%RSD		1.539	25.100	16.070	0.067	8.709	4.582	83.710	67.280

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	90.662%	-0.360	-0.011	-0.017	0.004	-0.007	90.750%	90.485%
2	13:02:56	90.130%	-0.328	-0.014	0.008	-0.009	-0.002	92.708%	91.695%
3	13:03:23	90.874%	-0.337	-0.019	0.003	-0.010	-0.005	94.984%	92.243%
x		90.556%	-0.342	-0.015	-0.002	-0.005	-0.004	92.814%	91.475%
σ		0.383%	0.016	0.004	0.013	0.008	0.003	2.119%	0.900%
%RSD		0.423	4.766	27.850	578.800	163.700	57.590	2.283	0.983

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:29	0.005	0.007	0.008	0.001	0.004	92.762%
2	13:02:56	0.004	0.006	0.006	0.004	0.002	89.596%
3	13:03:23	0.005	0.004	0.010	0.006	0.010	90.435%
x		0.005	0.006	0.008	0.004	0.005	90.931%
σ		0.001	0.002	0.002	0.003	0.004	1.640%
%RSD		14.360	33.130	21.480	66.490	76.170	1.804

MB 180-134393/1-A 3/3/2015 1:06:21 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	13:06:47	99.532%	-0.047	0.860	0.995	0.000	-3.015	0.164	-0.193
2	13:07:14	98.889%	-0.011	0.621	0.985	0.000	-2.129	0.354	-0.373
3	13:07:40	96.998%	0.026	0.306	0.665	0.000	-2.129	-0.001	-0.062
x		98.473%	-0.011	0.596	0.882	0.000	-2.424	0.172	-0.209
σ		1.317%	0.037	0.278	0.188	0.000	0.512	0.177	0.157
%RSD		1.337	344.800	46.690	21.290	0.000	21.110	102.900	74.820

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	-0.687	1.858	0.000	-6.148	19.020	3.180	96.930%	-0.181
2	13:07:14	-0.549	-1.089	0.000	-7.049	3.824	1.641	95.971%	-0.147
3	13:07:40	-0.644	-1.329	0.000	-5.007	8.571	3.406	95.238%	-0.147
x		-0.627	-0.187	0.000	-6.068	10.470	2.743	96.046%	-0.158
σ		0.071	1.775	0.000	1.023	7.777	0.960	0.849%	0.019
%RSD		11.280	951.400	0.000	16.870	74.250	35.010	0.884	12.290

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	0.003	0.005	0.017	1.218	-0.317	-0.002	-0.018	0.014
2	13:07:14	0.008	-0.048	0.003	0.561	-0.086	-0.004	0.018	0.033
3	13:07:40	0.015	-0.005	0.029	0.208	1.437	-0.010	0.008	0.046
x		0.009	-0.016	0.016	0.662	0.344	-0.005	0.003	0.031
σ		0.006	0.028	0.013	0.513	0.953	0.004	0.019	0.016
%RSD		68.750	177.100	80.230	77.420	276.800	82.560	617.300	52.070

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	-0.030	0.281	0.197	0.179	-0.397	1.003	0.000	0.009
2	13:07:14	-0.008	0.270	0.337	0.251	0.396	1.637	0.000	0.011
3	13:07:40	0.001	0.442	0.077	0.379	0.268	2.644	0.000	0.005
x		-0.012	0.331	0.204	0.270	0.089	1.761	0.000	0.008
σ		0.016	0.096	0.130	0.102	0.426	0.827	0.000	0.003
%RSD		129.100	29.090	63.850	37.640	478.500	46.980	0.000	35.300

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	90.811%	0.037	0.010	91.851%	-0.069	-0.092	-0.028	-0.020
2	13:07:14	91.885%	0.039	0.038	92.461%	-0.064	-0.094	0.067	0.044
3	13:07:40	91.990%	0.023	0.033	93.552%	-0.069	-0.093	-0.007	0.008
x		91.562%	0.033	0.027	92.621%	-0.067	-0.093	0.011	0.011
σ		0.653%	0.009	0.015	0.862%	0.003	0.001	0.050	0.032
%RSD		0.713	26.710	56.320	0.930	4.602	0.727	477.000	299.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	89.162%	-0.390	-0.062	-0.062	0.009	0.009	90.776%	90.912%
2	13:07:14	91.688%	-0.356	-0.045	-0.053	0.013	0.006	92.492%	91.959%
3	13:07:40	90.840%	-0.372	-0.051	-0.056	0.026	-0.007	92.924%	93.132%
x		90.563%	-0.373	-0.053	-0.057	0.016	0.003	92.064%	92.001%
σ		1.286%	0.017	0.009	0.005	0.009	0.009	1.137%	1.110%
%RSD		1.420	4.540	16.390	8.173	56.110	320.500	1.234	1.207

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:47	0.001	0.002	0.009	-0.003	0.006	93.803%
2	13:07:14	0.005	0.001	0.013	0.008	0.009	93.710%
3	13:07:40	0.000	0.001	0.022	-0.001	0.012	91.300%
x		0.002	0.001	0.015	0.001	0.009	92.938%
σ		0.002	0.000	0.007	0.006	0.003	1.419%
%RSD		129.000	29.970	44.090	444.300	32.300	1.527

LCS 180-134393/2-A 3/3/2015 1:10:36 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	13:11:02	93.668%	23.270	467.000	478.000	0.000	23640.000	23230.000	23340.000
2	13:11:29	92.003%	24.130	486.400	498.200	0.000	24310.000	24350.000	24430.000
3	13:11:56	89.982%	25.300	487.100	502.600	0.000	24490.000	24370.000	24570.000
x		91.884%	24.230	480.200	492.900	0.000	24150.000	23980.000	24110.000
σ		1.846%	1.019	11.390	13.120	0.000	448.600	647.500	673.400
%RSD		2.009	4.203	2.371	2.662	0.000	1.858	2.700	2.793
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	935.600	4991.000	0.000	24420.000	23740.000	22990.000	91.272%	480.300
2	13:11:29	972.800	5133.000	0.000	24920.000	24410.000	24210.000	90.072%	506.200
3	13:11:56	978.000	5155.000	0.000	24810.000	24030.000	23690.000	89.465%	498.300
x		962.100	5093.000	0.000	24720.000	24060.000	23630.000	90.269%	494.900
σ		23.140	88.750	0.000	263.200	338.000	612.900	0.920%	13.300
%RSD		2.405	1.742	0.000	1.065	1.405	2.594	1.019	2.687
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	233.400	92.320	235.200	460.600	522.100	238.400	237.900	121.200
2	13:11:29	240.900	95.590	241.300	478.600	525.300	242.900	245.300	123.500
3	13:11:56	240.700	96.140	243.200	486.600	526.300	245.900	247.600	124.800
x		238.300	94.680	239.900	475.200	524.500	242.400	243.600	123.200
σ		4.273	2.066	4.180	13.320	2.201	3.813	5.049	1.803
%RSD		1.793	2.182	1.742	2.804	0.420	1.573	2.073	1.464
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	124.400	244.800	248.000	19.190	5.885	7.019	0.000	508.300
2	13:11:29	126.300	249.900	254.300	19.360	4.266	8.284	0.000	518.600
3	13:11:56	126.700	250.500	253.500	19.700	5.460	7.639	0.000	525.700
x		125.800	248.400	251.900	19.420	5.204	7.648	0.000	517.500
σ		1.224	3.167	3.411	0.258	0.839	0.633	0.000	8.796
%RSD		0.973	1.275	1.354	1.330	16.130	8.270	0.000	1.700
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	89.086%	409.900	411.400	87.726%	23.350	23.600	23.710	18.530
2	13:11:29	89.461%	444.900	453.000	87.750%	24.200	23.700	24.270	19.360
3	13:11:56	88.730%	474.000	474.100	88.233%	23.540	23.560	24.640	18.880
x		89.093%	442.900	446.200	87.903%	23.690	23.620	24.210	18.920
σ		0.366%	32.070	31.900	0.286%	0.447	0.068	0.468	0.420
%RSD		0.410	7.242	7.149	0.326	1.888	0.288	1.933	2.222
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:02	87.586%	1026.000	247.300	246.100	964.000	983.200	91.369%	91.734%
2	13:11:29	87.088%	1061.000	254.800	252.800	979.400	1003.000	93.597%	93.094%
3	13:11:56	88.049%	1063.000	253.700	254.900	990.400	1008.000	92.415%	94.139%
x		87.574%	1050.000	252.000	251.300	977.900	998.100	92.460%	92.989%
σ		0.481%	20.990	4.042	4.577	13.280	13.230	1.115%	1.206%
%RSD		0.549	1.999	1.604	1.822	1.358	1.326	1.206	1.297
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:11:02	22.070	21.390	9.344	9.421	9.238	91.314%		
2	13:11:29	23.140	22.670	9.700	9.704	9.660	90.363%		
3	13:11:56	23.600	22.910	9.681	9.872	9.666	90.352%		
x		22.930	22.320	9.575	9.666	9.521	90.676%		
σ		0.788	0.819	0.201	0.228	0.245	0.552%		
%RSD		3.434	3.668	2.094	2.358	2.576	0.609		

LCSD 180-134393/3-A 3/3/2015 1:14:53 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	13:15:20	89.706%	23.750	476.800	486.700	0.000	24040.000	23620.000	23850.000
2	13:15:47	90.055%	24.430	477.700	495.400	0.000	24460.000	24420.000	24510.000
3	13:16:13	87.879%	23.930	477.400	493.600	0.000	24550.000	24560.000	24750.000
x		89.213%	24.040	477.300	491.900	0.000	24350.000	24200.000	24370.000
σ		1.168%	0.353	0.467	4.569	0.000	273.400	508.700	461.600
%RSD		1.310	1.467	0.098	0.929	0.000	1.123	2.102	1.894
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	937.500	5520.000	0.000	24700.000	23330.000	23030.000	87.860%	484.200
2	13:15:47	970.400	5074.000	0.000	24950.000	24740.000	24410.000	86.459%	504.600
3	13:16:13	979.500	5690.000	0.000	24930.000	24830.000	24270.000	85.989%	494.300
x		962.500	5428.000	0.000	24860.000	24300.000	23900.000	86.770%	494.400
σ		22.090	318.200	0.000	137.200	840.800	757.500	0.974%	10.240
%RSD		2.295	5.862	0.000	0.552	3.460	3.169	1.122	2.071
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	232.100	92.740	235.500	469.200	507.100	239.400	241.400	120.500
2	13:15:47	238.300	95.560	242.100	485.900	534.100	244.500	245.500	125.200
3	13:16:13	240.100	95.930	243.600	491.800	531.300	244.700	246.800	122.100
x		236.800	94.740	240.400	482.300	524.200	242.900	244.600	122.600
σ		4.228	1.744	4.299	11.700	14.810	3.012	2.790	2.385
%RSD		1.785	1.841	1.788	2.427	2.826	1.240	1.141	1.945
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	123.000	243.900	247.900	19.340	5.517	6.896	0.000	511.700
2	13:15:47	125.100	251.900	255.200	19.630	5.120	7.034	0.000	518.300
3	13:16:13	126.500	251.900	255.000	19.740	5.242	7.145	0.000	519.900
x		124.900	249.200	252.700	19.570	5.293	7.025	0.000	516.600
σ		1.788	4.595	4.163	0.205	0.203	0.125	0.000	4.332
%RSD		1.432	1.844	1.647	1.047	3.841	1.772	0.000	0.839
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	87.174%	424.500	420.200	87.403%	23.220	23.240	23.400	18.180
2	13:15:47	87.549%	452.200	463.800	86.536%	23.850	23.410	24.680	19.730
3	13:16:13	87.910%	474.900	482.100	87.170%	23.030	23.480	24.890	18.470
x		87.545%	450.500	455.400	87.036%	23.370	23.380	24.320	18.790
σ		0.368%	25.270	31.780	0.449%	0.428	0.121	0.804	0.825
%RSD		0.420	5.609	6.979	0.516	1.830	0.519	3.308	4.391
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:20	86.447%	1027.000	246.400	247.100	960.600	982.300	90.754%	92.414%
2	13:15:47	87.310%	1045.000	249.800	246.900	971.500	987.700	93.046%	92.526%
3	13:16:13	89.532%	1039.000	248.500	247.300	970.900	985.200	92.523%	93.638%
x		87.763%	1037.000	248.300	247.100	967.600	985.100	92.108%	92.859%
σ		1.592%	9.364	1.723	0.221	6.115	2.720	1.201%	0.677%
%RSD		1.813	0.903	0.694	0.089	0.632	0.276	1.304	0.729
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:15:20	22.390	21.650	9.562	9.393	9.325	91.804%		
2	13:15:47	23.160	22.730	9.623	9.901	9.593	91.595%		
3	13:16:13	23.030	23.080	9.685	9.653	9.526	91.569%		
x		22.860	22.490	9.624	9.649	9.481	91.656%		
σ		0.412	0.740	0.062	0.254	0.140	0.129%		
%RSD		1.804	3.293	0.640	2.630	1.471	0.141		

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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	13:19:35	84.621%	-0.003	9.229	8.623	0.000	1487.000	734.700	725.000
2	13:20:02	82.884%	0.055	8.936	9.261	0.000	1520.000	759.200	758.900
3	13:20:29	81.302%	0.028	8.614	7.965	0.000	1504.000	765.700	767.400
x		82.936%	0.027	8.927	8.617	0.000	1503.000	753.200	750.400
σ		1.660%	0.029	0.308	0.648	0.000	16.260	16.350	22.420
%RSD		2.001	108.700	3.445	7.519	0.000	1.081	2.171	2.988

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	254900.000	13750.000	0.000	59.600	2323.000	2312.000	81.798%	14.590
2	13:20:02	264700.000	14110.000	0.000	59.520	2527.000	2361.000	80.375%	14.470
3	13:20:29	265200.000	14160.000	0.000	59.540	2570.000	2372.000	79.070%	15.080
x		261600.000	14010.000	0.000	59.550	2473.000	2348.000	80.414%	14.710
σ		5803.000	228.100	0.000	0.043	131.700	32.110	1.364%	0.323
%RSD		2.218	1.628	0.000	0.073	5.323	1.368	1.697	2.198

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	10.020	6.616	17.340	10680.000	10340.000	2.273	824.200	4014.000
2	13:20:02	10.460	6.970	17.300	11100.000	10750.000	2.342	847.300	4089.000
3	13:20:29	10.720	6.949	17.780	11330.000	10910.000	2.413	849.100	4107.000
x		10.400	6.845	17.470	11040.000	10670.000	2.342	840.200	4070.000
σ		0.350	0.199	0.265	329.600	293.800	0.070	13.900	49.480
%RSD		3.369	2.908	1.514	2.986	2.755	2.985	1.654	1.216

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	4202.000	3592.000	3580.000	1.892	-0.071	2.618	0.000	14.260
2	13:20:02	4292.000	3668.000	3650.000	1.662	0.197	1.446	0.000	14.630
3	13:20:29	4320.000	3707.000	3697.000	1.570	-0.054	1.090	0.000	14.510
x		4271.000	3656.000	3642.000	1.708	0.024	1.718	0.000	14.470
σ		61.700	58.390	59.140	0.166	0.150	0.799	0.000	0.191
%RSD		1.445	1.597	1.624	9.707	621.700	46.530	0.000	1.321

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	83.409%	7.370	7.651	81.780%	-0.042	-0.069	7.418	4.279
2	13:20:02	84.387%	7.584	7.621	82.279%	-0.034	-0.055	7.544	4.496
3	13:20:29	83.795%	7.328	6.997	82.375%	-0.032	-0.061	8.414	4.856
x		83.863%	7.427	7.423	82.145%	-0.036	-0.062	7.792	4.543
σ		0.492%	0.137	0.369	0.319%	0.005	0.007	0.542	0.292
%RSD		0.587	1.847	4.972	0.389	14.040	12.000	6.960	6.417

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	83.514%	205.900	0.651	0.667	7.605	7.542	91.031%	91.709%
2	13:20:02	82.643%	215.000	0.690	0.648	8.038	8.354	92.523%	92.575%
3	13:20:29	83.694%	214.700	0.642	0.673	7.893	7.546	92.703%	93.078%
x		83.284%	211.800	0.661	0.663	7.845	7.814	92.086%	92.454%
σ		0.562%	5.140	0.026	0.013	0.221	0.468	0.917%	0.692%
%RSD		0.675	2.427	3.876	2.005	2.814	5.989	0.996	0.749

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:19:35	0.123	0.111	73.530	70.630	71.080	110.196%
2	13:20:02	0.084	0.066	75.580	71.690	72.470	110.438%
3	13:20:29	0.055	0.049	74.720	70.720	71.390	112.305%
x		0.087	0.075	74.610	71.010	71.650	110.980%
σ		0.034	0.032	1.031	0.591	0.729	1.154%
%RSD		39.260	42.170	1.382	0.832	1.017	1.040

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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	13:23:52	83.980%	-0.031	9.008	10.830	0.000	5480.000	11860.000	11940.000
2	13:24:19	82.434%	-0.030	8.483	10.650	0.000	5592.000	12370.000	12330.000
3	13:24:45	81.469%	-0.001	7.871	10.760	0.000	5599.000	12410.000	12440.000
x		82.628%	-0.021	8.454	10.740	0.000	5557.000	12210.000	12240.000
σ		1.267%	0.017	0.569	0.092	0.000	66.580	305.900	264.000
%RSD		1.533	82.440	6.735	0.856	0.000	1.198	2.505	2.157

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	45.880	2277.000	0.000	444.200	28670.000	29050.000	81.317%	0.486
2	13:24:19	60.070	2334.000	0.000	457.200	30240.000	29780.000	80.408%	0.454
3	13:24:45	53.400	2330.000	0.000	452.600	29880.000	29860.000	80.668%	0.781
x		53.120	2314.000	0.000	451.300	29600.000	29570.000	80.798%	0.574
σ		7.098	31.660	0.000	6.592	824.800	451.200	0.468%	0.181
%RSD		13.360	1.368	0.000	1.461	2.787	1.526	0.580	31.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	-0.009	0.100	22.610	74.800	145.100	0.097	0.716	0.950
2	13:24:19	0.023	0.092	23.140	69.520	142.600	0.110	0.855	0.840
3	13:24:45	0.144	0.096	23.380	65.810	137.300	0.091	0.833	0.785
x		0.052	0.096	23.040	70.040	141.700	0.099	0.801	0.858
σ		0.080	0.004	0.392	4.514	4.018	0.010	0.075	0.084
%RSD		153.400	4.282	1.703	6.445	2.836	9.623	9.306	9.767

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	1.003	3.680	3.810	0.944	0.588	4.515	0.000	88.920
2	13:24:19	0.936	3.900	4.035	0.486	0.920	2.720	0.000	90.940
3	13:24:45	0.864	4.266	4.267	0.374	0.229	1.963	0.000	91.160
x		0.934	3.949	4.037	0.601	0.579	3.066	0.000	90.340
σ		0.069	0.296	0.229	0.302	0.345	1.311	0.000	1.233
%RSD		7.434	7.492	5.660	50.300	59.640	42.750	0.000	1.365

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	85.195%	1.972	2.102	85.748%	-0.078	-0.094	0.039	0.002
2	13:24:19	86.251%	2.218	1.975	87.161%	-0.073	-0.082	-0.099	-0.088
3	13:24:45	86.513%	1.904	1.860	87.790%	-0.068	-0.091	-0.000	-0.006
x		85.986%	2.031	1.979	86.900%	-0.073	-0.089	-0.020	-0.030
σ		0.698%	0.165	0.121	1.046%	0.005	0.006	0.071	0.050
%RSD		0.811	8.129	6.114	1.204	6.970	6.695	356.100	162.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	87.614%	4.468	0.060	0.014	25.640	25.830	93.527%	92.648%
2	13:24:19	88.173%	4.692	0.067	0.043	26.230	26.890	93.127%	93.967%
3	13:24:45	88.228%	4.562	0.040	0.054	26.970	27.140	94.573%	94.096%
x		88.005%	4.574	0.056	0.037	26.280	26.620	93.742%	93.570%
σ		0.339%	0.112	0.014	0.021	0.668	0.696	0.747%	0.801%
%RSD		0.386	2.451	24.920	56.620	2.541	2.613	0.796	0.856

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:52	0.015	0.010	0.137	0.105	0.101	100.827%
2	13:24:19	0.014	0.015	0.114	0.105	0.110	97.054%
3	13:24:45	0.012	0.012	0.118	0.104	0.111	96.054%
x		0.014	0.012	0.123	0.104	0.107	97.978%
σ		0.002	0.002	0.012	0.000	0.005	2.517%
%RSD		12.240	18.630	9.889	0.375	4.852	2.569

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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	13:28:07	88.256%	0.008	3.013	3.557	0.000	1092.000	2213.000	2188.000
2	13:28:33	88.181%	-0.059	3.303	3.256	0.000	1117.000	2299.000	2285.000
3	13:29:00	86.638%	-0.059	2.897	2.864	0.000	1142.000	2332.000	2339.000
x		87.692%	-0.037	3.071	3.226	0.000	1117.000	2281.000	2271.000
σ		0.913%	0.038	0.209	0.348	0.000	24.980	61.550	76.290
%RSD		1.041	105.200	6.816	10.780	0.000	2.237	2.698	3.360

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	7.583	420.700	0.000	74.730	5378.000	5245.000	87.948%	-0.032
2	13:28:33	12.670	434.200	0.000	77.160	5786.000	5515.000	86.454%	0.243
3	13:29:00	6.178	438.500	0.000	79.370	5779.000	5545.000	85.566%	0.285
x		8.811	431.100	0.000	77.090	5648.000	5435.000	86.656%	0.166
σ		3.416	9.328	0.000	2.324	233.800	165.500	1.204%	0.172
%RSD		38.770	2.164	0.000	3.014	4.139	3.044	1.389	103.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	0.014	0.006	4.403	14.530	22.950	0.020	0.189	0.173
2	13:28:33	0.024	0.030	4.515	15.060	19.090	0.012	0.281	0.121
3	13:29:00	0.066	0.029	4.503	14.050	21.310	0.023	0.178	0.100
x		0.035	0.022	4.474	14.550	21.120	0.018	0.216	0.131
σ		0.028	0.013	0.062	0.507	1.937	0.005	0.056	0.038
%RSD		80.110	61.400	1.376	3.485	9.174	29.670	26.130	28.580

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	0.113	0.650	0.541	0.383	0.063	1.803	0.000	17.240
2	13:28:33	0.101	0.571	0.700	0.391	0.106	2.740	0.000	17.640
3	13:29:00	0.125	0.777	0.834	0.245	0.234	1.138	0.000	17.880
x		0.113	0.666	0.691	0.340	0.134	1.893	0.000	17.590
σ		0.012	0.104	0.147	0.082	0.089	0.805	0.000	0.321
%RSD		10.640	15.570	21.190	24.070	66.300	42.510	0.000	1.824

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	88.266%	0.917	0.842	90.251%	-0.068	-0.088	0.004	0.001
2	13:28:33	88.967%	0.992	0.890	90.339%	-0.070	-0.093	-0.010	-0.015
3	13:29:00	89.494%	0.868	0.923	90.930%	-0.080	-0.084	-0.054	-0.016
x		88.909%	0.925	0.885	90.507%	-0.073	-0.089	-0.020	-0.010
σ		0.616%	0.063	0.041	0.369%	0.007	0.005	0.030	0.009
%RSD		0.693	6.757	4.602	0.408	8.985	5.105	148.200	93.330

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	88.959%	1.847	0.013	-0.004	5.067	5.120	93.570%	93.500%
2	13:28:33	89.652%	2.033	0.009	-0.026	5.124	5.314	94.408%	93.753%
3	13:29:00	91.072%	2.128	0.001	-0.004	5.266	5.302	94.409%	95.314%
x		89.894%	2.003	0.007	-0.012	5.152	5.245	94.129%	94.189%
σ		1.077%	0.143	0.006	0.013	0.103	0.109	0.484%	0.983%
%RSD		1.198	7.135	84.900	109.200	1.990	2.081	0.514	1.043

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:07	0.009	0.004	0.026	0.039	0.032	96.424%
2	13:28:33	0.010	0.006	0.038	0.027	0.029	93.639%
3	13:29:00	0.012	0.005	0.038	0.023	0.030	94.364%
x		0.010	0.005	0.034	0.030	0.031	94.809%
σ		0.002	0.001	0.007	0.008	0.002	1.445%
%RSD		15.020	27.540	20.820	27.610	6.501	1.524

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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	13:32:25	86.354%	96.420	97.910	106.000	0.000	50510.000	50460.000	50570.000
2	13:32:51	87.273%	95.640	99.550	104.800	0.000	50970.000	52290.000	52210.000
3	13:33:18	87.292%	97.590	107.900	103.300	0.000	51130.000	52560.000	52660.000
x		86.973%	96.551%	101.777%	104.707%	0.000	101.740%	103.537%	103.629%
σ		0.536%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.617	1.018	5.248	1.270	0.000	0.635	2.200	2.125
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	487.200	5232.000	0.000	51160.000	48070.000	51000.000	86.374%	101.200
2	13:32:51	505.900	5375.000	0.000	52490.000	51070.000	53210.000	84.620%	104.000
3	13:33:18	506.600	5372.000	0.000	52310.000	51320.000	53740.000	85.140%	104.000
x		99.978%	106.519%	0.000	103.972%	100.306%	105.302%	85.378%	103.070%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.901%	n/a
%RSD		2.203	1.532	0.000	1.385	3.611	2.759	1.055	1.580
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	94.510	94.470	504.200	24550.000	25030.000	95.910	97.570	97.690
2	13:32:51	98.730	98.000	520.900	25510.000	25980.000	100.200	100.100	100.100
3	13:33:18	99.800	99.220	522.000	25640.000	26130.000	99.600	100.100	99.330
x		97.678%	97.230%	103.141%	100.936%	102.845%	98.556%	99.252%	99.028%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.865	2.538	1.943	2.347	2.327	2.342	1.472	1.230
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	98.630	98.020	98.730	99.110	102.700	101.200	0.000	97.280
2	13:32:51	101.600	102.800	102.100	98.820	100.400	100.200	0.000	99.630
3	13:33:18	102.200	100.400	104.500	99.390	100.900	103.400	0.000	99.170
x		100.811%	100.387%	101.758%	99.108%	101.333%	101.609%	0.000	98.696%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.896	2.374	2.838	0.289	1.164	1.635	0.000	1.262
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	86.160%	96.890	95.910	84.774%	96.240	96.290	103.900	99.190
2	13:32:51	85.921%	101.800	101.700	84.661%	97.420	97.650	108.900	104.200
3	13:33:18	86.210%	103.400	104.700	84.557%	97.170	97.720	100.800	98.770
x		86.097%	100.690%	100.768%	84.664%	96.942%	97.220%	104.518%	100.731%
σ		0.154%	n/a	n/a	0.109%	n/a	n/a	n/a	n/a
%RSD		0.179	3.371	4.433	0.128	0.641	0.827	3.953	3.015
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:25	85.424%	99.550	97.780	98.090	97.570	96.810	89.204%	90.642%
2	13:32:51	84.872%	102.900	100.400	100.100	98.540	100.400	90.690%	90.887%
3	13:33:18	84.209%	104.000	102.500	102.500	101.400	100.900	91.302%	90.837%
x		84.835%	102.144%	100.215%	100.210%	99.155%	99.351%	90.398%	90.788%
σ		0.608%	n/a	n/a	n/a	n/a	n/a	1.079%	0.130%
%RSD		0.717	2.260	2.346	2.187	1.986	2.231	1.194	0.143
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:32:25	91.690	91.690	90.760	91.700	90.260	92.851%		
2	13:32:51	97.430	96.440	97.710	98.200	96.870	89.364%		
3	13:33:18	99.010	97.960	99.970	99.130	98.620	87.983%		
x		96.042%	95.361%	96.149%	96.342%	95.252%	90.066%		
σ		n/a	n/a	n/a	n/a	n/a	2.509%		
%RSD		4.012	3.429	4.993	4.203	4.631	2.785		

CCB6 3/3/2015 1:39:24 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	93.947%	0.004	1.303	1.267	0.000	1.678	3.124	2.615
2	13:40:17	95.089%	-0.009	0.413	0.812	0.000	2.125	2.612	3.568
3	13:40:44	95.221%	-0.034	0.933	0.791	0.000	2.889	3.333	2.766
x		94.752%	-0.013	0.883	0.957	0.000	2.231	3.023	2.983
σ		0.700%	0.019	0.447	0.269	0.000	0.612	0.371	0.512
%RSD		0.739	146.900	50.620	28.110	0.000	27.450	12.280	17.160

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	-0.292	1.788	0.000	-3.762	12.260	4.564	92.153%	-0.160
2	13:40:17	-0.257	-1.561	0.000	-6.451	10.500	5.886	92.968%	-0.161
3	13:40:44	-0.213	-2.009	0.000	-6.992	20.270	4.642	92.211%	-0.075
x		-0.254	-0.594	0.000	-5.735	14.340	5.031	92.444%	-0.132
σ		0.040	2.075	0.000	1.730	5.206	0.742	0.454%	0.049
%RSD		15.670	349.500	0.000	30.160	36.290	14.760	0.492	37.220

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	-0.002	0.033	0.033	5.564	3.418	0.004	0.036	0.012
2	13:40:17	-0.016	-0.019	0.046	4.789	2.863	0.012	0.014	-0.008
3	13:40:44	-0.004	-0.016	0.039	4.706	3.422	0.004	0.046	-0.001
x		-0.007	-0.001	0.039	5.019	3.234	0.007	0.032	0.001
σ		0.007	0.029	0.007	0.473	0.322	0.004	0.016	0.010
%RSD		99.840	3776.000	17.600	9.427	9.950	64.130	50.290	1094.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	-0.026	0.200	0.098	0.306	0.297	2.030	0.000	0.008
2	13:40:17	-0.014	0.077	0.156	0.293	-0.078	2.086	0.000	0.018
3	13:40:44	-0.009	0.096	0.084	0.557	0.606	3.327	0.000	0.021
x		-0.016	0.125	0.113	0.386	0.275	2.481	0.000	0.016
σ		0.009	0.066	0.038	0.149	0.342	0.734	0.000	0.007
%RSD		53.080	53.280	33.940	38.640	124.500	29.570	0.000	43.620

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	91.167%	0.306	0.264	91.563%	-0.051	-0.068	-0.003	0.012
2	13:40:17	92.195%	0.293	0.305	92.505%	-0.053	-0.079	-0.032	-0.014
3	13:40:44	91.817%	0.290	0.303	92.700%	-0.059	-0.070	0.020	0.019
x		91.726%	0.297	0.291	92.256%	-0.054	-0.072	-0.005	0.006
σ		0.520%	0.009	0.023	0.608%	0.004	0.006	0.026	0.017
%RSD		0.567	2.873	7.876	0.659	7.385	8.043	509.900	313.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	89.270%	0.158	0.007	0.022	-0.000	0.009	93.785%	92.096%
2	13:40:17	92.094%	0.246	0.014	0.014	-0.005	0.003	94.831%	94.526%
3	13:40:44	92.710%	0.302	-0.002	0.017	0.052	0.005	94.264%	94.021%
x		91.358%	0.235	0.006	0.018	0.015	0.006	94.294%	93.548%
σ		1.834%	0.072	0.008	0.004	0.032	0.003	0.524%	1.282%
%RSD		2.007	30.770	123.000	23.190	206.000	52.580	0.556	1.371

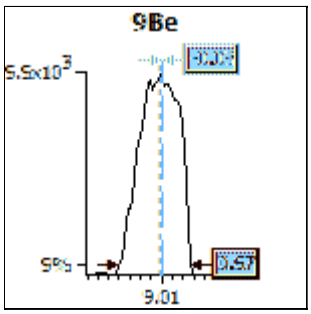
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:51	0.011	0.007	0.012	-0.004	0.004	92.848%
2	13:40:17	0.013	0.008	0.010	-0.006	0.002	94.549%
3	13:40:44	0.007	0.004	-0.002	-0.007	-0.001	94.349%
x		0.010	0.007	0.007	-0.005	0.002	93.915%
σ		0.003	0.002	0.008	0.001	0.002	0.930%
%RSD		29.920	34.530	118.700	22.730	124.700	0.990

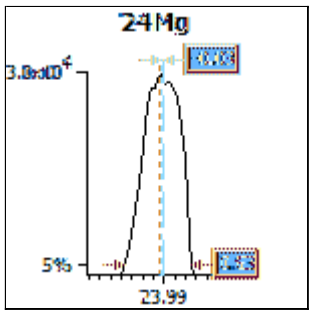
Performance Report

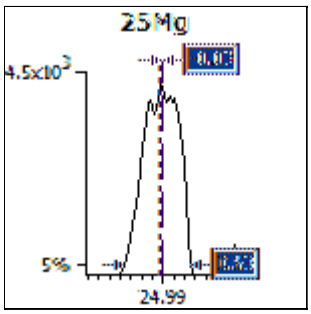
Sample details
Sample name : ITUNE
Acquired at : 3/3/2015 6:53:40 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

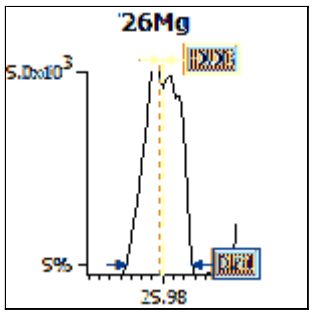
Mass Calibration verification

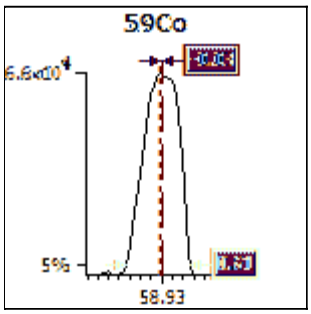
Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

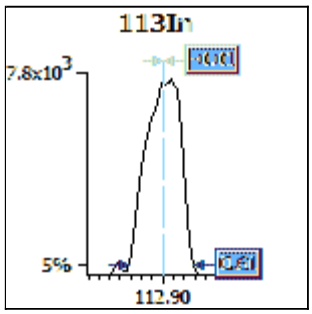


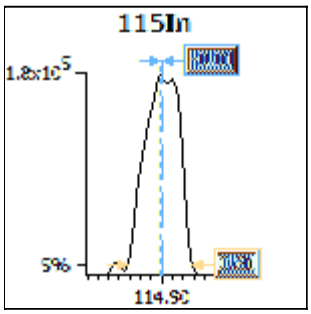


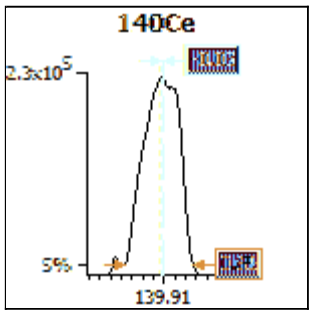


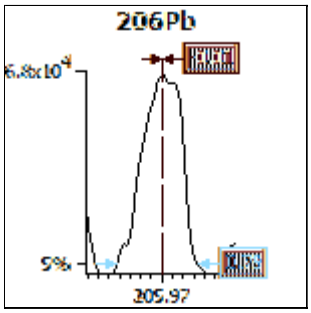


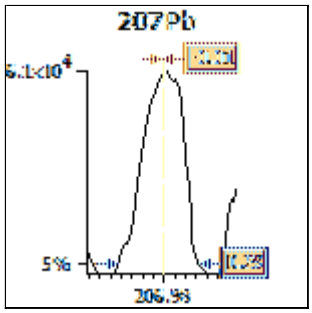


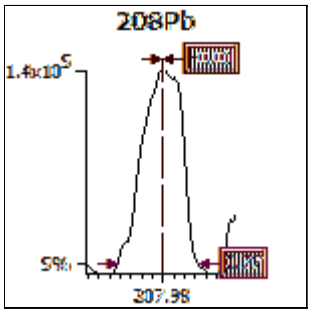












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.67	-0.03
24Mg	0.90	0.40	0.10	0.63	-0.03
25Mg	0.90	0.40	0.10	0.63	-0.03
26Mg	0.90	0.40	0.10	0.61	-0.03
59Co	0.90	0.40	0.10	0.61	-0.03
113In	0.90	0.40	0.10	0.61	-0.01
115In	0.90	0.40	0.10	0.61	-0.01
140Ce	0.90	0.40	0.10	0.65	-0.03
206Pb	0.90	0.40	0.10	0.79	-0.01
207Pb	0.90	0.40	0.10	0.79	-0.01
208Pb	0.90	0.40	0.10	0.77	-0.01

Sample details
Sample name : ITUNE
Acquired at : 3/3/2015 6:53:40 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-153
Lens 1	4.7
Focus	22.7
D1	-29.8
Pole Bias	-0.0
Hexapole Bias	-3.4
Nebuliser	0.87
Sampling Depth	200

Minor	
Lens 2	-35.3
Lens 3	-181.2
Forward power	1404
Horizontal	30
Vertical	409
D2	-121
DA	-80.0
Cool	14.0
Auxiliary	0.80

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
CCT1	0.00
CCT2	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
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%	5.0%	5.0%
	Countrate	-	>100	>500	>150	>150	>500	>500	>10000
1	6:54:27 AM	0	5571	29457	3913	4777	67412	7531	178544
2	6:55:39 AM	0	5640	29312	3938	4864	68110	7382	178202
3	6:56:51 AM	0	5498	29350	3790	4889	67689	7503	179019
4	6:58:03 AM	0	5515	29533	3968	4811	67797	7428	178944
5	6:59:16 AM	0	5657	29772	3929	4973	69031	7604	179240
x		0	5576	29485	3908	4863	68008	7489	178790
σ		0.08	71.63	182.93	68.55	75.76	624.11	87.31	413.85
%RSD		70.711	1.284	0.620	1.754	1.558	0.918	1.166	0.231

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	5.0%	-	5.0%	5.0%	5.0%	-
	Countrate	>10000	-	>1000	>1000	>5000	-
1	6:54:27 AM	219979	3516	69940	60871	144925	0
2	6:55:39 AM	222039	3555	70143	61507	146206	0
3	6:56:51 AM	222655	3566	70730	61021	146714	0
4	6:58:03 AM	222574	3562	69963	60846	145795	0
5	6:59:16 AM	224787	3613	69260	60072	144710	0
x		222407	3562	70007	60864	145670	0
σ		1716.37	34.40	525.73	516.15	846.69	0.06
%RSD		0.772	0.966	0.751	0.848	0.581	100.000

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	6:54:27 AM	0
2	6:55:39 AM	0
3	6:56:51 AM	0
4	6:58:03 AM	0
5	6:59:16 AM	0
x		0.0160
σ		0.00
%RSD		0.2056

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Batch Number: 134507 Batch Start Date: 03/02/15 11:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 03/02/15 15:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-134507/1		3005A, 6020A		50 mL	50 mL				
LCS 180-134507/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-41569-B-1	HD-QC2-0/1-1	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-1 MS	HD-QC2-0/1-1	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-41569-B-1 MSD	HD-QC2-0/1-1	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-41569-B-3	HD-MW-50D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-4	HD-MW-51S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-5	HD-CW-18-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-6	HD-MW-114-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-7	HD-MW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-8	HD-CW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-9	HD-MW-96S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-41569-B-10	HD-MW-96D-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals C2
First End time	15:15
Lot # of hydrochloric acid	2.5 ml 1452455
Lot # of Nitric Acid	1.0 ml 1472455
Hot Block ID number	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	11:15
ID number of the thermometer	IP1-14 CF=0.0 F3
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	95 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Batch Number: 134507 Batch Start Date: 03/02/15 11:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 03/02/15 15:15

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: 180-41569-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-QC2-0/1-1	180-41569-1
HD-MW-50D-0/1-0	180-41569-3
HD-MW-51S-0/1-0	180-41569-4
HD-CW-18-0/1-0	180-41569-5
HD-MW-114-0/1-0	180-41569-6
HD-MW-7-0/1-0	180-41569-7
HD-CW-17-0/1-0	180-41569-8
HD-MW-96S-0/1-0	180-41569-9
HD-MW-96D-0/1-0	180-41569-10

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-41569-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 08:00

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	280	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	280	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-50D-0/1-0 Lab Sample ID: 180-41569-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 11:35

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	310	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	310	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-51S-0/1-0 Lab Sample ID: 180-41569-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 13:25

Reporting Basis: WET Date Received: 02/27/2015 09:15

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

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-41569-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 09:35

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	300	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	300	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: 180-41569-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 11:50

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	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-7-0/1-0 Lab Sample ID: 180-41569-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 14:40

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	280	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	280	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-CW-17-0/1-0 Lab Sample ID: 180-41569-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 05:50

Reporting Basis: WET Date Received: 02/27/2015 09:15

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-96S-0/1-0 Lab Sample ID: 180-41569-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 15:10

Reporting Basis: WET Date Received: 02/27/2015 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	300	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	300	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-96D-0/1-0 Lab Sample ID: 180-41569-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG ID.:

Matrix: Water Date Sampled: 02/26/2015 14:30

Reporting Basis: WET Date Received: 02/27/2015 09:15

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

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Analyst: CLL Batch Start Date: 03/04/2015

Reporting Units: mg/L Analytical Batch No.: 134684

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	06:05	Total Alkalinity as CaCO3 to pH 4.5	129	125	103	80-120		WALK125PPMCCV_00081
14	CCB	06:05	Total Alkalinity as CaCO3 to pH 4.5	2.04				J	
			Bicarbonate Alkalinity as CaCO3	2.04				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.: 180-41569-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 134684 Date: 03/04/2015 06:05							
SM 2320B	MB 180-134684/2	Total Alkalinity as CaCO3 to pH 4.5	2.04	J	mg/L	5.0	1
SM 2320B	MB 180-134684/2	Bicarbonate Alkalinity as CaCO3	2.04	J	mg/L	5.0	1
SM 2320B	MB 180-134684/2	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.: 180-41569-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 134684 Date: 03/04/2015 06:05								
SM 2320B	HD-QC2-0/1-1	180-41569-1	Total Alkalinity as CaCO3 to pH 4.5	280	mg/L			
SM 2320B	HD-QC2-0/1-1	180-41569-1 DU	Total Alkalinity as CaCO3 to pH 4.5	290	mg/L	2	20	
SM 2320B	HD-QC2-0/1-1	180-41569-1	Bicarbonate Alkalinity as CaCO3	280	mg/L			
SM 2320B	HD-QC2-0/1-1	180-41569-1 DU	Bicarbonate Alkalinity as CaCO3	290	mg/L	2	20	
SM 2320B	HD-QC2-0/1-1	180-41569-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-QC2-0/1-1	180-41569-1 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.: 180-41569-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 134684 Date: 03/04/2015 06:05											
						LCS Source: WALK250PPMPi_00090					
SM 2320B	LCS 180-134684/1	Total Alkalinity as CaCO3 to pH 4.5	259		mg/L	250	104	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: 180-41569-1

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: 180-41569-1

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

ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 03/04/2015 06:05 End Date: 03/04/2015 06:32

Lab Sample Id	D/F	Type	Time	Analytes: Alk	BALKCC	CarAlk
LCS 180-134684/1	1	T	06:05	X		
MB 180-134684/2	1	T	06:05	X	X	X
180-41569-1	1	T	06:05	X	X	X
180-41569-1 DU	1	T	06:05	X	X	X
180-41569-3	1	T	06:05	X	X	X
180-41569-4	1	T	06:05	X	X	X
180-41569-5	1	T	06:05	X	X	X
180-41569-6	1	T	06:05	X	X	X
180-41569-7	1	T	06:05	X	X	X
180-41569-8	1	T	06:05	X	X	X
180-41569-9	1	T	06:05	X	X	X
180-41569-10	1	T	06:05	X	X	X
CCV 180-134684/13	1		06:05	X		
CCB 180-134684/14	1		06:05	X	X	X
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
ZZZZZZ			06:05			
CCV 180-134684/25			06:32			
CCB 180-134684/26			06:32			

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lib #030105 AUK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-012

Analyst: CLLahnigde

Date: 3-4-15

Reviewed By: SeeDRC

Date: ~~cw3-4-15~~

pH Meter ID: Accumet XL S/N#94102132 cw3-4-15

AD Batch: 134684

pH 4 Start: 4.02

pH 4 End: 4.03

Job Number(s): 41569-41590-41595-41612

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)(N)(50{,}000)}{\text{mL of Sample}}$$

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
P = 0	0	0	T
P < ½T	0	2P	T-2P
P = ½T	0	2P	0
P > ½T	2P-T	2(T-P)	0
P = T	T	0	0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-012

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	10.68	50	6.5	12.7	.0204	259.08				
MB	5.59		0	.1		2.04				
180-41569-1	7.11		0	13.9		283.56				
-1X	7.09		0	14.2		289.68				
3	7.05		0	15.1		308.04				
4	7.10		0	10.6		216.24				
5	7.17		0	14.7		299.88				
6	7.18		0	10.4		212.16				
7	7.04		0	13.8		281.52				
8	7.25		0	12.5		255				
9	7.11		0	14.6		297.84				
10	7.21		0	12.9		263.16				
CCV	10.57		3.2	6.3		128.52				
CCB	5.61		0	.1		2.04				
180-41590-2	8.86		0.5	6.1		114.24				
180-41595-1	7.71		0	11.9		242.76				
2	7.58		0	13.1		267.24				
3	7.89		0	9.8		199.92				
4	7.91		0	13.5		275.4				
5	7.99		0	9.6		195.84				
6	7.70		0	14.4		293.76				
180-41612-1	7.73		0	9.9		201.96				
-2	8.12		0	19.3		393.72				
-2X	8.13		0	18.9		385.56				
CCV	10.53		3.3	6.3		128.52				
CCB	5.60		0	.1		2.04				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-41569-1

SDG No.:

Batch Number: 134684 Batch Start Date: 03/04/15 06:05 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 180-134684/1		SM 2320B		50 mL	10.68 SU	0 mL	6.5 mL	6.5 mL	0 mL
MB 180-134684/2		SM 2320B		50 mL	5.59 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-1	HD-QC2-0/1-1	SM 2320B	T	50 mL	7.11 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-1 DU	HD-QC2-0/1-1	SM 2320B	T	50 mL	7.09 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-3	HD-MW-50D-0/1-0	SM 2320B	T	50 mL	7.05 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-4	HD-MW-51S-0/1-0	SM 2320B	T	50 mL	7.10 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-5	HD-CW-18-0/1-0	SM 2320B	T	50 mL	7.17 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-6	HD-MW-114-0/1-0	SM 2320B	T	50 mL	7.18 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-7	HD-MW-7-0/1-0	SM 2320B	T	50 mL	7.04 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-8	HD-CW-17-0/1-0	SM 2320B	T	50 mL	7.25 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-9	HD-MW-96S-0/1-0	SM 2320B	T	50 mL	7.11 SU	0 mL	0 mL	0 mL	0 mL
180-41569-A-10	HD-MW-96D-0/1-0	SM 2320B	T	50 mL	7.21 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-134684/13		SM 2320B		50 mL	10.57 SU	0 mL	3.2 mL	3.2 mL	0 mL
CCB 180-134684/14		SM 2320B		50 mL	5.61 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 180-134684/1		SM 2320B		6.2 mL	6.2 mL	Case 4	252.96 mg/L	6.12 mg/L	0 mg/L
MB 180-134684/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.04 mg/L
180-41569-A-1	HD-QC2-0/1-1	SM 2320B	T	13.9 mL	13.9 mL	Case 1	0 mg/L	0 mg/L	283.56 mg/L
180-41569-A-1 DU	HD-QC2-0/1-1	SM 2320B	T	14.2 mL	14.2 mL	Case 1	0 mg/L	0 mg/L	289.68 mg/L
180-41569-A-3	HD-MW-50D-0/1-0	SM 2320B	T	15.1 mL	15.1 mL	Case 1	0 mg/L	0 mg/L	308.04 mg/L
180-41569-A-4	HD-MW-51S-0/1-0	SM 2320B	T	10.6 mL	10.6 mL	Case 1	0 mg/L	0 mg/L	216.24 mg/L
180-41569-A-5	HD-CW-18-0/1-0	SM 2320B	T	14.7 mL	14.7 mL	Case 1	0 mg/L	0 mg/L	299.88 mg/L
180-41569-A-6	HD-MW-114-0/1-0	SM 2320B	T	10.4 mL	10.4 mL	Case 1	0 mg/L	0 mg/L	212.16 mg/L
180-41569-A-7	HD-MW-7-0/1-0	SM 2320B	T	13.8 mL	13.8 mL	Case 1	0 mg/L	0 mg/L	281.52 mg/L
180-41569-A-8	HD-CW-17-0/1-0	SM 2320B	T	12.5 mL	12.5 mL	Case 1	0 mg/L	0 mg/L	255 mg/L
180-41569-A-9	HD-MW-96S-0/1-0	SM 2320B	T	14.6 mL	14.6 mL	Case 1	0 mg/L	0 mg/L	297.84 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.: 180-41569-1

SDG No.:

Batch Number: 134684 Batch Start Date: 03/04/15 06:05 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
180-41569-A-10	HD-MW-96D-0/1-0	SM 2320B	T	12.9 mL	12.9 mL	Case 1	0 mg/L	0 mg/L	263.16 mg/L
CCV 180-134684/13		SM 2320B		3.1 mL	3.1 mL	Case 4	126.48 mg/L	2.0399999999999 9 mg/L	0 mg/L
CCB 180-134684/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.04 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00081	WALK250PPMPi 00090	
LCS 180-134684/1		SM 2320B		132.6 mg/L	259.08 mg/L	50 mL		50 mL	
MB 180-134684/2		SM 2320B		0 mg/L	2.04 mg/L	50 mL			
180-41569-A-1	HD-QC2-0/1-1	SM 2320B	T	0 mg/L	283.56 mg/L	50 mL			
180-41569-A-1 DU	HD-QC2-0/1-1	SM 2320B	T	0 mg/L	289.68 mg/L	50 mL			
180-41569-A-3	HD-MW-50D-0/1-0	SM 2320B	T	0 mg/L	308.04 mg/L	50 mL			
180-41569-A-4	HD-MW-51S-0/1-0	SM 2320B	T	0 mg/L	216.24 mg/L	50 mL			
180-41569-A-5	HD-CW-18-0/1-0	SM 2320B	T	0 mg/L	299.88 mg/L	50 mL			
180-41569-A-6	HD-MW-114-0/1-0	SM 2320B	T	0 mg/L	212.16 mg/L	50 mL			
180-41569-A-7	HD-MW-7-0/1-0	SM 2320B	T	0 mg/L	281.52 mg/L	50 mL			
180-41569-A-8	HD-CW-17-0/1-0	SM 2320B	T	0 mg/L	255 mg/L	50 mL			
180-41569-A-9	HD-MW-96S-0/1-0	SM 2320B	T	0 mg/L	297.84 mg/L	50 mL			
180-41569-A-10	HD-MW-96D-0/1-0	SM 2320B	T	0 mg/L	263.16 mg/L	50 mL			
CCV 180-134684/13		SM 2320B		65.28 mg/L	128.52 mg/L	50 mL	50 mL		
CCB 180-134684/14		SM 2320B		0 mg/L	2.04 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.: 180-41569-1

SDG No.:

Batch Number: 134684 Batch Start Date: 03/04/15 06:05 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.02 PH 4 END: 4.03
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1393069
pH Buffer 4 ID	1233635
pH Buffer 5 ID	1179928
Sulfuric Acid Lot Number	1473396
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0204 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: 2/26/2015	COC No: TAP2015022601
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
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			DG No.
Project Name: Dry Season Shutdown Event 10	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

180-41569 Chain of Custody

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-QC2-0/1-1	2/26/15	8:00	Groundwater	Water	5	X	X	X	
HD-QC4-0/1-2	2/26/15	12:00	Trip Blank	Water	2	X			
HD-MW-50D-0/1-0	2/26/15	11:35	Groundwater	Water	5	X	X	X	
HD-MW-51S-0/1-0	2/26/15	13:25	Groundwater	Water	5	X	X	X	
HD-CW-18-0/1-0	2/26/15	9:35	Groundwater	Water	5	X	X	X	
HD-MW-114-0/1-0	2/26/15	11:50	Groundwater	Water	5	X	X	X	
HD-MW-7-0/1-0	2/26/15	14:40	Groundwater	Water	5	X	X	X	
HD-CW-17-0/1-0	2/26/15	5:50	Groundwater	Water	5	X	X	X	
HD-MW-96S-0/1-0	2/26/15	15:10	Groundwater	Water	5	X	X	X	
HD-MW-96D-0/1-0	2/26/15	14:30	Groundwater	Water	5	X	X	X	
Number of Containers						3	1	1	
Preservation Used: 1=Ice, 2=HCL, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved, 7=Na2S2O3						2	1	4	
Field Filter						N	N	N	

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

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

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables**

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 2/26/15 1535	Received by:	Company: TAL	Date/Time: 2/26/15 15:35
Relinquished by:	Company: TAL	Date/Time: 2/26/15 1705	Received by:	Company: TAL	Date/Time: 2-27-15 9:15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-41569-1

Login Number: 41569

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	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	