TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-42445-1

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
4/8/2015 10:52 AM

Carrie L Gamber, Senior Project Manager
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2428
carrie.gamber@testamericainc.com
04/08/2015

Table of Contents

Table of Contents

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits
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.
E	Result exceeded calibration range.

HPLC/IC

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

Metals

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

General Chemistry

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

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-42445-1

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 03/27/2015; the samples arrived in good condition, properly preserved and on ice. 3 coolers at receipt time were 1.3º C, 1.8º C and 2.2º C.

Samples HD-QC1-0/1-3 and HD-QC1- /1-4 have only 3 voa vials for each sample; however the COC lists tests for metals, nitrates and alkalinity which no containers were received. The client was notified and confirmed the samples should only be logged in for volatiles.

VOLATILES

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

Methylene Chloride was detected in method blank MB 180-137472/6 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 laboratory control sample (LCS) for batch 137356 recovered outside control limits for the following analytes: 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

METALS

Calcium and Sodium were detected in method blank MB 180-137340/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

ALKALINITY

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-137271/28 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

IC

Sample HD-MW-50D-0/1-0 (8) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Chloride, Nitrate as N and Sulfate were detected in method blank MB 180-136787/10 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.

Nitrate as N was detected in method blank MB 180-136796/12 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Client Sample ID: HD-QC5-0/1-2 — Lab Sample ID: 180-42445-1

No Detections.

Client Sample ID: HD-MW-96S-0/1-0 — Lab Sample ID: 180-42445-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.4		2.5	0.74	ug/L	2.5		8260C	Total/NA
trans-1,2-Dichloroethene	0.61	J	2.5	0.42	ug/L	2.5		8260C	Total/NA
1,1-Dichloroethane	2.0	J	2.5	0.29	ug/L	2.5		8260C	Total/NA
cis-1,2-Dichloroethene	120		2.5	0.59	ug/L	2.5		8260C	Total/NA
Chloroform	0.53	J	2.5	0.43	ug/L	2.5		8260C	Total/NA
1,1,1-Trichloroethane	11		2.5	0.72	ug/L	2.5		8260C	Total/NA
Trichloroethene	220	E	2.5	0.36	ug/L	2.5		8260C	Total/NA
Tetrachloroethene	550	E	2.5	0.37	ug/L	2.5		8260C	Total/NA
Methylene Chloride - DL	8.9	J B	25	3.1	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene - DL	100		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane - DL	9.3	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene - DL	230		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene - DL	800		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	3.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	53	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	12000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	64000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-96D-0/1-0 — Lab Sample ID: 180-42445-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	4.8	J	10	3.0	ug/L	10		8260C	Total/NA
Methylene Chloride	3.5	J B	10	1.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	1.5	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	100		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	11		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	280		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	150		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	4.0	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	47	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	5000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	48000	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-98I-0/1-0 — Lab Sample ID: 180-42445-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.84	J	1.0	0.30	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-98I-0/1-0 (Continued)

Lab Sample ID: 180-42445-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.2		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	12		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	14		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	56	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	44	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	3200		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	12000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	26000	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-MW-98S-0/1-0

Lab Sample ID: 180-42445-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.59	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.27	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	9.1		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.8		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	10		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	12		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	4.2	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	57		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	48		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	3300		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	12000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	25000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	290	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

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

Lab Sample ID: 180-42445-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.0	J	3.0	0.89	ug/L	3		8260C	Total/NA
Methylene Chloride	0.89	J B	3.0	0.38	ug/L	3		8260C	Total/NA
1,1-Dichloroethane	0.96	J	3.0	0.35	ug/L	3		8260C	Total/NA
cis-1,2-Dichloroethene	51		3.0	0.71	ug/L	3		8260C	Total/NA
1,1,1-Trichloroethane	4.4		3.0	0.86	ug/L	3		8260C	Total/NA
Trichloroethene	75		3.0	0.43	ug/L	3		8260C	Total/NA
Tetrachloroethene	29		3.0	0.45	ug/L	3		8260C	Total/NA
Nitrate as N	3.5	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	99	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	7700		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	35000	B	100	3.8	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-39D-0/1-0 (Continued) — Lab Sample ID: 180-42445-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-74S-0/1-0 — Lab Sample ID: 180-42445-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.89	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	23		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.2		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	15		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.5		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	1.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	65	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	18	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	91000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	3200		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	9600		100	1.2	ug/L	1		6020A	Total/NA
Sodium	27000	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-MW-50D-0/1-0 — Lab Sample ID: 180-42445-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	36	J	130	28	ug/L	125		8260C	Total/NA
1,1-Dichloroethene	280		130	37	ug/L	125		8260C	Total/NA
Methylene Chloride	50	J B	130	16	ug/L	125		8260C	Total/NA
1,1-Dichloroethane	650		130	15	ug/L	125		8260C	Total/NA
cis-1,2-Dichloroethene	4700		130	30	ug/L	125		8260C	Total/NA
1,1,1-Trichloroethane	110	J	130	36	ug/L	125		8260C	Total/NA
Trichloroethene	5300		130	18	ug/L	125		8260C	Total/NA
Tetrachloroethene	500		130	19	ug/L	125		8260C	Total/NA
Chloride	88		10	2.0	mg/L	10		300.0	Total/NA
Sulfate	230		10	2.1	mg/L	10		300.0	Total/NA
Calcium	160000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	2500		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	47000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	19000	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-51S-0/1-0 — Lab Sample ID: 180-42445-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	52		50	15	ug/L	50		8260C	Total/NA
Methylene Chloride	19	J B	50	6.3	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	12	J	50	5.8	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	640		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	110		50	14	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: 180-42445-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	680		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	580		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	2.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	54	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	8000		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	48000	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-QC2-0/1-1 — Lab Sample ID: 180-42445-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.92	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.42	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	11		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.7		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	13		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	4.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	54	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	47	B	1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	100	2.8	ug/L	1		6020A	Total/NA
Potassium	3200		100	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		100	1.2	ug/L	1		6020A	Total/NA
Sodium	24000	B	100	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	330	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	330	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC1-0/1-3 — Lab Sample ID: 180-42445-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.69	J	1.0	0.15	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC1-0/1-4 — Lab Sample ID: 180-42445-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.83	J	1.0	0.15	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-QC5-0/1-2
Date Collected: 03/26/15 12:00
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/02/15 21:39	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/02/15 21:39	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/02/15 21:39	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 21:39	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/02/15 21:39	1
Acetone	5.0	U	5.0	2.5	ug/L			04/02/15 21:39	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/02/15 21:39	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/02/15 21:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/02/15 21:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/02/15 21:39	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/02/15 21:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/02/15 21:39	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/02/15 21:39	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/02/15 21:39	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/02/15 21:39	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/02/15 21:39	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/02/15 21:39	1
Benzene	1.0	U	1.0	0.11	ug/L			04/02/15 21:39	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 21:39	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/02/15 21:39	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/02/15 21:39	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/02/15 21:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/02/15 21:39	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/02/15 21:39	1
Toluene	1.0	U	1.0	0.15	ug/L			04/02/15 21:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/02/15 21:39	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 21:39	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/02/15 21:39	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/02/15 21:39	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/02/15 21:39	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/02/15 21:39	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/02/15 21:39	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/02/15 21:39	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/02/15 21:39	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/02/15 21:39	1
Styrene	1.0	U	1.0	0.097	ug/L			04/02/15 21:39	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/02/15 21:39	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.20	ug/L			04/02/15 21:39	1
Acrylonitrile	20	U	20	0.55	ug/L			04/02/15 21:39	1
1,4-Dioxane	200	U	200	34	ug/L			04/02/15 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*126*		*64 - 135*		*04/02/15 21:39*	*1*
Toluene-d8 (Surr)	*109*		*71 - 118*		*04/02/15 21:39*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*04/02/15 21:39*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*04/02/15 21:39*	*1*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 03/26/15 09:35
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.5	U	2.5	0.71	ug/L			04/04/15 22:55	2.5
Vinyl chloride	2.5	U	2.5	0.57	ug/L			04/04/15 22:55	2.5
Bromomethane	2.5	U	2.5	0.78	ug/L			04/04/15 22:55	2.5
Chloroethane	2.5	U	2.5	0.54	ug/L			04/04/15 22:55	2.5
1,1-Dichloroethene	**3.4**		2.5	0.74	ug/L			04/04/15 22:55	2.5
Acetone	13	U	13	6.3	ug/L			04/04/15 22:55	2.5
Carbon disulfide	2.5	U	2.5	0.53	ug/L			04/04/15 22:55	2.5
Methylene Chloride	2.5	U	2.5	0.31	ug/L			04/04/15 22:55	2.5
trans-1,2-Dichloroethene	**0.61**	**J**	2.5	0.42	ug/L			04/04/15 22:55	2.5
Methyl tert-butyl ether	2.5	U	2.5	0.46	ug/L			04/04/15 22:55	2.5
1,1-Dichloroethane	**2.0**	**J**	2.5	0.29	ug/L			04/04/15 22:55	2.5
cis-1,2-Dichloroethene	**120**		2.5	0.59	ug/L			04/04/15 22:55	2.5
Bromochloromethane	2.5	U	2.5	0.45	ug/L			04/04/15 22:55	2.5
2-Butanone (MEK)	13	U	13	1.4	ug/L			04/04/15 22:55	2.5
Chloroform	**0.53**	**J**	2.5	0.43	ug/L			04/04/15 22:55	2.5
1,1,1-Trichloroethane	**11**		2.5	0.72	ug/L			04/04/15 22:55	2.5
Carbon tetrachloride	2.5	U	2.5	0.34	ug/L			04/04/15 22:55	2.5
Benzene	2.5	U	2.5	0.26	ug/L			04/04/15 22:55	2.5
1,2-Dichloroethane	2.5	U	2.5	0.53	ug/L			04/04/15 22:55	2.5
Trichloroethene	**220**	**E**	2.5	0.36	ug/L			04/04/15 22:55	2.5
1,2-Dichloropropane	2.5	U	2.5	0.24	ug/L			04/04/15 22:55	2.5
Bromodichloromethane	2.5	U	2.5	0.33	ug/L			04/04/15 22:55	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	0.47	ug/L			04/04/15 22:55	2.5
4-Methyl-2-pentanone (MIBK)	13	U	13	1.3	ug/L			04/04/15 22:55	2.5
Toluene	2.5	U	2.5	0.38	ug/L			04/04/15 22:55	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	0.37	ug/L			04/04/15 22:55	2.5
1,1,2-Trichloroethane	2.5	U	2.5	0.50	ug/L			04/04/15 22:55	2.5
Tetrachloroethene	**550**	**E**	2.5	0.37	ug/L			04/04/15 22:55	2.5
2-Hexanone	13	U	13	0.40	ug/L			04/04/15 22:55	2.5
Dibromochloromethane	2.5	U	2.5	0.34	ug/L			04/04/15 22:55	2.5
1,2-Dibromoethane (EDB)	2.5	U	2.5	0.45	ug/L			04/04/15 22:55	2.5
Chlorobenzene	2.5	U	2.5	0.34	ug/L			04/04/15 22:55	2.5
1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.69	ug/L			04/04/15 22:55	2.5
Ethylbenzene	2.5	U	2.5	0.57	ug/L			04/04/15 22:55	2.5
Xylenes, Total	7.5	U	7.5	1.2	ug/L			04/04/15 22:55	2.5
Styrene	2.5	U	2.5	0.24	ug/L			04/04/15 22:55	2.5
Bromoform	2.5	U	2.5	0.48	ug/L			04/04/15 22:55	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.50	ug/L			04/04/15 22:55	2.5
Acrylonitrile	50	U	50	1.4	ug/L			04/04/15 22:55	2.5
1,4-Dioxane	500	U	500	86	ug/L			04/04/15 22:55	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*04/04/15 22:55*	*2.5*
Toluene-d8 (Surr)	*99*		*71 - 118*		*04/04/15 22:55*	*2.5*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*04/04/15 22:55*	*2.5*
Dibromofluoromethane (Surr)	*110*		*70 - 128*		*04/04/15 22:55*	*2.5*

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

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 03/26/15 08:55
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			04/03/15 18:13	10
Vinyl chloride	10	U	10	2.3	ug/L			04/03/15 18:13	10
Bromomethane	10	U	10	3.1	ug/L			04/03/15 18:13	10
Chloroethane	10	U	10	2.1	ug/L			04/03/15 18:13	10
1,1-Dichloroethene	**4.8**	**J**	10	3.0	ug/L			04/03/15 18:13	10
Acetone	50	U	50	25	ug/L			04/03/15 18:13	10
Carbon disulfide	10	U	10	2.1	ug/L			04/03/15 18:13	10
Methylene Chloride	**3.5**	**J B**	10	1.3	ug/L			04/03/15 18:13	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			04/03/15 18:13	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			04/03/15 18:13	10
1,1-Dichloroethane	**1.5**	**J**	10	1.2	ug/L			04/03/15 18:13	10
cis-1,2-Dichloroethene	**100**		10	2.4	ug/L			04/03/15 18:13	10
Bromochloromethane	10	U	10	1.8	ug/L			04/03/15 18:13	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			04/03/15 18:13	10
Chloroform	10	U	10	1.7	ug/L			04/03/15 18:13	10
1,1,1-Trichloroethane	**11**		10	2.9	ug/L			04/03/15 18:13	10
Carbon tetrachloride	10	U	10	1.4	ug/L			04/03/15 18:13	10
Benzene	10	U	10	1.1	ug/L			04/03/15 18:13	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			04/03/15 18:13	10
Trichloroethene	**280**		10	1.4	ug/L			04/03/15 18:13	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			04/03/15 18:13	10
Bromodichloromethane	10	U	10	1.3	ug/L			04/03/15 18:13	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			04/03/15 18:13	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			04/03/15 18:13	10
Toluene	10	U	10	1.5	ug/L			04/03/15 18:13	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			04/03/15 18:13	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			04/03/15 18:13	10
Tetrachloroethene	**150**		10	1.5	ug/L			04/03/15 18:13	10
2-Hexanone	50	U	50	1.6	ug/L			04/03/15 18:13	10
Dibromochloromethane	10	U	10	1.4	ug/L			04/03/15 18:13	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			04/03/15 18:13	10
Chlorobenzene	10	U	10	1.4	ug/L			04/03/15 18:13	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			04/03/15 18:13	10
Ethylbenzene	10	U	10	2.3	ug/L			04/03/15 18:13	10
Xylenes, Total	30	U	30	4.9	ug/L			04/03/15 18:13	10
Styrene	10	U	10	0.97	ug/L			04/03/15 18:13	10
Bromoform	10	U	10	1.9	ug/L			04/03/15 18:13	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			04/03/15 18:13	10
Acrylonitrile	200	U	200	5.5	ug/L			04/03/15 18:13	10
1,4-Dioxane	2000	U	2000	340	ug/L			04/03/15 18:13	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*64 - 135*		*04/03/15 18:13*	*10*
Toluene-d8 (Surr)	*110*		*71 - 118*		*04/03/15 18:13*	*10*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*04/03/15 18:13*	*10*
Dibromofluoromethane (Surr)	*118*		*70 - 128*		*04/03/15 18:13*	*10*

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

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 03/26/15 14:25
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 15:35	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 15:35	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 15:35	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 15:35	1
1,1-Dichloroethene	**0.84**	**J**	1.0	0.30	ug/L			04/03/15 15:35	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 15:35	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 15:35	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 15:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 15:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 15:35	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 15:35	1
cis-1,2-Dichloroethene	**11**		1.0	0.24	ug/L			04/03/15 15:35	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 15:35	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 15:35	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 15:35	1
1,1,1-Trichloroethane	**2.2**		1.0	0.29	ug/L			04/03/15 15:35	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 15:35	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 15:35	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 15:35	1
Trichloroethene	**12**		1.0	0.14	ug/L			04/03/15 15:35	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 15:35	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 15:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 15:35	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 15:35	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 15:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 15:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 15:35	1
Tetrachloroethene	**14**		1.0	0.15	ug/L			04/03/15 15:35	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 15:35	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 15:35	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 15:35	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 15:35	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 15:35	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 15:35	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 15:35	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 15:35	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 15:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 15:35	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 15:35	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*64 - 135*		*04/03/15 15:35*	*1*
Toluene-d8 (Surr)	*106*		*71 - 118*		*04/03/15 15:35*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*04/03/15 15:35*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 128*		*04/03/15 15:35*	*1*

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

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 03/26/15 13:45
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 18:37	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 18:37	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 18:37	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 18:37	1
1,1-Dichloroethene	**0.59**	**J**	1.0	0.30	ug/L			04/03/15 18:37	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 18:37	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 18:37	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 18:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 18:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 18:37	1
1,1-Dichloroethane	**0.27**	**J**	1.0	0.12	ug/L			04/03/15 18:37	1
cis-1,2-Dichloroethene	**9.1**		1.0	0.24	ug/L			04/03/15 18:37	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 18:37	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 18:37	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 18:37	1
1,1,1-Trichloroethane	**1.8**		1.0	0.29	ug/L			04/03/15 18:37	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 18:37	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 18:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 18:37	1
Trichloroethene	**10**		1.0	0.14	ug/L			04/03/15 18:37	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 18:37	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 18:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 18:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 18:37	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 18:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 18:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 18:37	1
Tetrachloroethene	**12**		1.0	0.15	ug/L			04/03/15 18:37	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 18:37	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 18:37	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 18:37	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 18:37	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 18:37	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 18:37	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 18:37	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 18:37	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 18:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 18:37	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 18:37	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*04/03/15 18:37*	*1*
Toluene-d8 (Surr)	*110*		*71 - 118*		*04/03/15 18:37*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*		*04/03/15 18:37*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*04/03/15 18:37*	*1*

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

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 03/26/15 12:20
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	3.0	U	3.0	0.85	ug/L			04/03/15 19:01	3
Vinyl chloride	3.0	U	3.0	0.68	ug/L			04/03/15 19:01	3
Bromomethane	3.0	U	3.0	0.94	ug/L			04/03/15 19:01	3
Chloroethane	3.0	U	3.0	0.64	ug/L			04/03/15 19:01	3
1,1-Dichloroethene	**2.0**	**J**	3.0	0.89	ug/L			04/03/15 19:01	3
Acetone	15	U	15	7.5	ug/L			04/03/15 19:01	3
Carbon disulfide	3.0	U	3.0	0.64	ug/L			04/03/15 19:01	3
Methylene Chloride	**0.89**	**J B**	3.0	0.38	ug/L			04/03/15 19:01	3
trans-1,2-Dichloroethene	3.0	U	3.0	0.51	ug/L			04/03/15 19:01	3
Methyl tert-butyl ether	3.0	U	3.0	0.55	ug/L			04/03/15 19:01	3
1,1-Dichloroethane	**0.96**	**J**	3.0	0.35	ug/L			04/03/15 19:01	3
cis-1,2-Dichloroethene	**51**		3.0	0.71	ug/L			04/03/15 19:01	3
Bromochloromethane	3.0	U	3.0	0.54	ug/L			04/03/15 19:01	3
2-Butanone (MEK)	15	U	15	1.6	ug/L			04/03/15 19:01	3
Chloroform	3.0	U	3.0	0.51	ug/L			04/03/15 19:01	3
1,1,1-Trichloroethane	**4.4**		3.0	0.86	ug/L			04/03/15 19:01	3
Carbon tetrachloride	3.0	U	3.0	0.41	ug/L			04/03/15 19:01	3
Benzene	3.0	U	3.0	0.32	ug/L			04/03/15 19:01	3
1,2-Dichloroethane	3.0	U	3.0	0.64	ug/L			04/03/15 19:01	3
Trichloroethene	**75**		3.0	0.43	ug/L			04/03/15 19:01	3
1,2-Dichloropropane	3.0	U	3.0	0.28	ug/L			04/03/15 19:01	3
Bromodichloromethane	3.0	U	3.0	0.39	ug/L			04/03/15 19:01	3
cis-1,3-Dichloropropene	3.0	U	3.0	0.56	ug/L			04/03/15 19:01	3
4-Methyl-2-pentanone (MIBK)	15	U	15	1.6	ug/L			04/03/15 19:01	3
Toluene	3.0	U	3.0	0.45	ug/L			04/03/15 19:01	3
trans-1,3-Dichloropropene	3.0	U	3.0	0.44	ug/L			04/03/15 19:01	3
1,1,2-Trichloroethane	3.0	U	3.0	0.60	ug/L			04/03/15 19:01	3
Tetrachloroethene	**29**		3.0	0.45	ug/L			04/03/15 19:01	3
2-Hexanone	15	U	15	0.48	ug/L			04/03/15 19:01	3
Dibromochloromethane	3.0	U	3.0	0.41	ug/L			04/03/15 19:01	3
1,2-Dibromoethane (EDB)	3.0	U	3.0	0.54	ug/L			04/03/15 19:01	3
Chlorobenzene	3.0	U	3.0	0.41	ug/L			04/03/15 19:01	3
1,1,1,2-Tetrachloroethane	3.0	U	3.0	0.83	ug/L			04/03/15 19:01	3
Ethylbenzene	3.0	U	3.0	0.68	ug/L			04/03/15 19:01	3
Xylenes, Total	9.0	U	9.0	1.5	ug/L			04/03/15 19:01	3
Styrene	3.0	U	3.0	0.29	ug/L			04/03/15 19:01	3
Bromoform	3.0	U	3.0	0.57	ug/L			04/03/15 19:01	3
1,1,2,2-Tetrachloroethane	3.0	U	3.0	0.60	ug/L			04/03/15 19:01	3
Acrylonitrile	60	U	60	1.6	ug/L			04/03/15 19:01	3
1,4-Dioxane	600	U	600	100	ug/L			04/03/15 19:01	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*64 - 135*		*04/03/15 19:01*	*3*
Toluene-d8 (Surr)	*113*		*71 - 118*		*04/03/15 19:01*	*3*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*04/03/15 19:01*	*3*
Dibromofluoromethane (Surr)	*113*		*70 - 128*		*04/03/15 19:01*	*3*

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

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 03/26/15 10:50
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 19:25	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 19:25	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 19:25	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 19:25	1
1,1-Dichloroethene	**1.3**		1.0	0.30	ug/L			04/03/15 19:25	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 19:25	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 19:25	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 19:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 19:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 19:25	1
1,1-Dichloroethane	**0.89**	**J**	1.0	0.12	ug/L			04/03/15 19:25	1
cis-1,2-Dichloroethene	**23**		1.0	0.24	ug/L			04/03/15 19:25	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 19:25	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 19:25	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 19:25	1
1,1,1-Trichloroethane	**2.2**		1.0	0.29	ug/L			04/03/15 19:25	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 19:25	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 19:25	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 19:25	1
Trichloroethene	**15**		1.0	0.14	ug/L			04/03/15 19:25	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 19:25	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 19:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 19:25	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 19:25	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 19:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 19:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 19:25	1
Tetrachloroethene	**9.5**		1.0	0.15	ug/L			04/03/15 19:25	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 19:25	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 19:25	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 19:25	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 19:25	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 19:25	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 19:25	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 19:25	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 19:25	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 19:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 19:25	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 19:25	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*64 - 135*		*04/03/15 19:25*	*1*
Toluene-d8 (Surr)	*110*		*71 - 118*		*04/03/15 19:25*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*04/03/15 19:25*	*1*
Dibromofluoromethane (Surr)	*116*		*70 - 128*		*04/03/15 19:25*	*1*

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

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 03/26/15 10:32
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	130	U	130	35	ug/L			04/03/15 19:49	125
Vinyl chloride	**36**	**J**	130	28	ug/L			04/03/15 19:49	125
Bromomethane	130	U	130	39	ug/L			04/03/15 19:49	125
Chloroethane	130	U	130	27	ug/L			04/03/15 19:49	125
1,1-Dichloroethene	**280**		130	37	ug/L			04/03/15 19:49	125
Acetone	630	U	630	310	ug/L			04/03/15 19:49	125
Carbon disulfide	130	U	130	27	ug/L			04/03/15 19:49	125
Methylene Chloride	**50**	**J B**	130	16	ug/L			04/03/15 19:49	125
trans-1,2-Dichloroethene	130	U	130	21	ug/L			04/03/15 19:49	125
Methyl tert-butyl ether	130	U	130	23	ug/L			04/03/15 19:49	125
1,1-Dichloroethane	**650**		130	15	ug/L			04/03/15 19:49	125
cis-1,2-Dichloroethene	**4700**		130	30	ug/L			04/03/15 19:49	125
Bromochloromethane	130	U	130	23	ug/L			04/03/15 19:49	125
2-Butanone (MEK)	630	U	630	68	ug/L			04/03/15 19:49	125
Chloroform	130	U	130	21	ug/L			04/03/15 19:49	125
1,1,1-Trichloroethane	**110**	**J**	130	36	ug/L			04/03/15 19:49	125
Carbon tetrachloride	130	U	130	17	ug/L			04/03/15 19:49	125
Benzene	130	U	130	13	ug/L			04/03/15 19:49	125
1,2-Dichloroethane	130	U	130	26	ug/L			04/03/15 19:49	125
Trichloroethene	**5300**		130	18	ug/L			04/03/15 19:49	125
1,2-Dichloropropane	130	U	130	12	ug/L			04/03/15 19:49	125
Bromodichloromethane	130	U	130	16	ug/L			04/03/15 19:49	125
cis-1,3-Dichloropropene	130	U	130	23	ug/L			04/03/15 19:49	125
4-Methyl-2-pentanone (MIBK)	630	U	630	66	ug/L			04/03/15 19:49	125
Toluene	130	U	130	19	ug/L			04/03/15 19:49	125
trans-1,3-Dichloropropene	130	U	130	19	ug/L			04/03/15 19:49	125
1,1,2-Trichloroethane	130	U	130	25	ug/L			04/03/15 19:49	125
Tetrachloroethene	**500**		130	19	ug/L			04/03/15 19:49	125
2-Hexanone	630	U	630	20	ug/L			04/03/15 19:49	125
Dibromochloromethane	130	U	130	17	ug/L			04/03/15 19:49	125
1,2-Dibromoethane (EDB)	130	U	130	23	ug/L			04/03/15 19:49	125
Chlorobenzene	130	U	130	17	ug/L			04/03/15 19:49	125
1,1,1,2-Tetrachloroethane	130	U	130	35	ug/L			04/03/15 19:49	125
Ethylbenzene	130	U	130	28	ug/L			04/03/15 19:49	125
Xylenes, Total	380	U	380	61	ug/L			04/03/15 19:49	125
Styrene	130	U	130	12	ug/L			04/03/15 19:49	125
Bromoform	130	U	130	24	ug/L			04/03/15 19:49	125
1,1,2,2-Tetrachloroethane	130	U	130	25	ug/L			04/03/15 19:49	125
Acrylonitrile	2500	U	2500	68	ug/L			04/03/15 19:49	125
1,4-Dioxane	25000	U	25000	4300	ug/L			04/03/15 19:49	125

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*64 - 135*		*04/03/15 19:49*	*125*
Toluene-d8 (Surr)	*106*		*71 - 118*		*04/03/15 19:49*	*125*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*04/03/15 19:49*	*125*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*04/03/15 19:49*	*125*

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

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 03/26/15 14:42
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			04/03/15 20:38	50
Vinyl chloride	50	U	50	11	ug/L			04/03/15 20:38	50
Bromomethane	50	U	50	16	ug/L			04/03/15 20:38	50
Chloroethane	50	U	50	11	ug/L			04/03/15 20:38	50
1,1-Dichloroethene	**52**		50	15	ug/L			04/03/15 20:38	50
Acetone	250	U	250	130	ug/L			04/03/15 20:38	50
Carbon disulfide	50	U	50	11	ug/L			04/03/15 20:38	50
Methylene Chloride	**19**	**J B**	50	6.3	ug/L			04/03/15 20:38	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			04/03/15 20:38	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			04/03/15 20:38	50
1,1-Dichloroethane	**12**	**J**	50	5.8	ug/L			04/03/15 20:38	50
cis-1,2-Dichloroethene	**640**		50	12	ug/L			04/03/15 20:38	50
Bromochloromethane	50	U	50	9.0	ug/L			04/03/15 20:38	50
2-Butanone (MEK)	250	U	250	27	ug/L			04/03/15 20:38	50
Chloroform	50	U	50	8.5	ug/L			04/03/15 20:38	50
1,1,1-Trichloroethane	**110**		50	14	ug/L			04/03/15 20:38	50
Carbon tetrachloride	50	U	50	6.8	ug/L			04/03/15 20:38	50
Benzene	50	U	50	5.3	ug/L			04/03/15 20:38	50
1,2-Dichloroethane	50	U	50	11	ug/L			04/03/15 20:38	50
Trichloroethene	**680**		50	7.2	ug/L			04/03/15 20:38	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			04/03/15 20:38	50
Bromodichloromethane	50	U	50	6.5	ug/L			04/03/15 20:38	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			04/03/15 20:38	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			04/03/15 20:38	50
Toluene	50	U	50	7.5	ug/L			04/03/15 20:38	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			04/03/15 20:38	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			04/03/15 20:38	50
Tetrachloroethene	**580**		50	7.4	ug/L			04/03/15 20:38	50
2-Hexanone	250	U	250	8.0	ug/L			04/03/15 20:38	50
Dibromochloromethane	50	U	50	6.8	ug/L			04/03/15 20:38	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			04/03/15 20:38	50
Chlorobenzene	50	U	50	6.8	ug/L			04/03/15 20:38	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			04/03/15 20:38	50
Ethylbenzene	50	U	50	11	ug/L			04/03/15 20:38	50
Xylenes, Total	150	U	150	24	ug/L			04/03/15 20:38	50
Styrene	50	U	50	4.8	ug/L			04/03/15 20:38	50
Bromoform	50	U	50	9.6	ug/L			04/03/15 20:38	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			04/03/15 20:38	50
Acrylonitrile	1000	U	1000	27	ug/L			04/03/15 20:38	50
1,4-Dioxane	10000	U	10000	1700	ug/L			04/03/15 20:38	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*64 - 135*		*04/03/15 20:38*	*50*
Toluene-d8 (Surr)	*114*		*71 - 118*		*04/03/15 20:38*	*50*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*04/03/15 20:38*	*50*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*04/03/15 20:38*	*50*

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

Client Sample ID: HD-QC2-0/1-1
Date Collected: 03/26/15 08:00
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/04/15 17:17	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/04/15 17:17	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/04/15 17:17	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 17:17	1
1,1-Dichloroethene	**0.92**	**J**	1.0	0.30	ug/L			04/04/15 17:17	1
Acetone	5.0	U	5.0	2.5	ug/L			04/04/15 17:17	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/04/15 17:17	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/04/15 17:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/04/15 17:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/04/15 17:17	1
1,1-Dichloroethane	**0.42**	**J**	1.0	0.12	ug/L			04/04/15 17:17	1
cis-1,2-Dichloroethene	**11**		1.0	0.24	ug/L			04/04/15 17:17	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/04/15 17:17	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/04/15 17:17	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/04/15 17:17	1
1,1,1-Trichloroethane	**2.7**		1.0	0.29	ug/L			04/04/15 17:17	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/04/15 17:17	1
Benzene	1.0	U	1.0	0.11	ug/L			04/04/15 17:17	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 17:17	1
Trichloroethene	**11**		1.0	0.14	ug/L			04/04/15 17:17	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/04/15 17:17	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/04/15 17:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/04/15 17:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/04/15 17:17	1
Toluene	1.0	U	1.0	0.15	ug/L			04/04/15 17:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/04/15 17:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 17:17	1
Tetrachloroethene	**13**		1.0	0.15	ug/L			04/04/15 17:17	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/04/15 17:17	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/04/15 17:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/04/15 17:17	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/04/15 17:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/04/15 17:17	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/04/15 17:17	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/04/15 17:17	1
Styrene	1.0	U	1.0	0.097	ug/L			04/04/15 17:17	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/04/15 17:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 17:17	1
Acrylonitrile	20	U	20	0.55	ug/L			04/04/15 17:17	1
1,4-Dioxane	200	U	200	34	ug/L			04/04/15 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*64 - 135*		*04/04/15 17:17*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*04/04/15 17:17*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*04/04/15 17:17*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 128*		*04/04/15 17:17*	*1*

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

Client Sample ID: HD-QC1-0/1-3
Date Collected: 03/26/15 15:05
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 21:25	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 21:25	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 21:25	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 21:25	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/03/15 21:25	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 21:25	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 21:25	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 21:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 21:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 21:25	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 21:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/03/15 21:25	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 21:25	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 21:25	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 21:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/03/15 21:25	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 21:25	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 21:25	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 21:25	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/03/15 21:25	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 21:25	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 21:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 21:25	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 21:25	1
Toluene	**0.69**	**J**	1.0	0.15	ug/L			04/03/15 21:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 21:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 21:25	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/03/15 21:25	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 21:25	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 21:25	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 21:25	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 21:25	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 21:25	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 21:25	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 21:25	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 21:25	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 21:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 21:25	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 21:25	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*129*		*64 - 135*		*04/03/15 21:25*	*1*
Toluene-d8 (Surr)	*111*		*71 - 118*		*04/03/15 21:25*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*04/03/15 21:25*	*1*
Dibromofluoromethane (Surr)	*119*		*70 - 128*		*04/03/15 21:25*	*1*

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

Client Sample ID: HD-QC1-0/1-4
Date Collected: 03/26/15 15:10
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			04/03/15 21:49	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 21:49	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 21:49	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 21:49	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/03/15 21:49	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 21:49	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 21:49	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/03/15 21:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 21:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 21:49	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 21:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/03/15 21:49	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 21:49	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 21:49	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 21:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/03/15 21:49	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 21:49	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 21:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 21:49	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/03/15 21:49	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 21:49	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 21:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 21:49	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 21:49	1
Toluene	**0.83**	**J**	1.0	0.15	ug/L			04/03/15 21:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 21:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 21:49	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/03/15 21:49	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 21:49	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 21:49	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 21:49	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 21:49	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 21:49	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 21:49	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 21:49	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 21:49	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 21:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 21:49	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 21:49	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*134*		*64 - 135*		*04/03/15 21:49*	*1*
Toluene-d8 (Surr)	*109*		*71 - 118*		*04/03/15 21:49*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*		*04/03/15 21:49*	*1*
Dibromofluoromethane (Surr)	*119*		*70 - 128*		*04/03/15 21:49*	*1*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 03/26/15 09:35
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			04/03/15 17:49	25
Vinyl chloride	25	U	25	5.7	ug/L			04/03/15 17:49	25
Bromomethane	25	U	25	7.8	ug/L			04/03/15 17:49	25
Chloroethane	25	U	25	5.4	ug/L			04/03/15 17:49	25
1,1-Dichloroethene	25	U	25	7.4	ug/L			04/03/15 17:49	25
Acetone	130	U	130	63	ug/L			04/03/15 17:49	25
Carbon disulfide	25	U	25	5.3	ug/L			04/03/15 17:49	25
Methylene Chloride	**8.9**	**J B**	25	3.1	ug/L			04/03/15 17:49	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			04/03/15 17:49	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			04/03/15 17:49	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			04/03/15 17:49	25
cis-1,2-Dichloroethene	**100**		25	5.9	ug/L			04/03/15 17:49	25
Bromochloromethane	25	U	25	4.5	ug/L			04/03/15 17:49	25
2-Butanone (MEK)	130	U	130	14	ug/L			04/03/15 17:49	25
Chloroform	25	U	25	4.3	ug/L			04/03/15 17:49	25
1,1,1-Trichloroethane	**9.3**	**J**	25	7.2	ug/L			04/03/15 17:49	25
Carbon tetrachloride	25	U	25	3.4	ug/L			04/03/15 17:49	25
Benzene	25	U	25	2.6	ug/L			04/03/15 17:49	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			04/03/15 17:49	25
Trichloroethene	**230**		25	3.6	ug/L			04/03/15 17:49	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			04/03/15 17:49	25
Bromodichloromethane	25	U	25	3.3	ug/L			04/03/15 17:49	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			04/03/15 17:49	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			04/03/15 17:49	25
Toluene	25	U	25	3.8	ug/L			04/03/15 17:49	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			04/03/15 17:49	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			04/03/15 17:49	25
Tetrachloroethene	**800**		25	3.7	ug/L			04/03/15 17:49	25
2-Hexanone	130	U	130	4.0	ug/L			04/03/15 17:49	25
Dibromochloromethane	25	U	25	3.4	ug/L			04/03/15 17:49	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			04/03/15 17:49	25
Chlorobenzene	25	U	25	3.4	ug/L			04/03/15 17:49	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			04/03/15 17:49	25
Ethylbenzene	25	U	25	5.7	ug/L			04/03/15 17:49	25
Xylenes, Total	75	U	75	12	ug/L			04/03/15 17:49	25
Styrene	25	U	25	2.4	ug/L			04/03/15 17:49	25
Bromoform	25	U	25	4.8	ug/L			04/03/15 17:49	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			04/03/15 17:49	25
Acrylonitrile	500	U	500	14	ug/L			04/03/15 17:49	25
1,4-Dioxane	5000	U	5000	860	ug/L			04/03/15 17:49	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*64 - 135*		*04/03/15 17:49*	*25*
Toluene-d8 (Surr)	*115*		*71 - 118*		*04/03/15 17:49*	*25*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*04/03/15 17:49*	*25*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/03/15 17:49*	*25*

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 03/26/15 09:35
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.9	B	0.10	0.0062	mg/L			03/27/15 16:43	1
Chloride	150	B	1.0	0.20	mg/L			03/27/15 16:43	1
Sulfate	53	B	1.0	0.21	mg/L			03/27/15 16:43	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 03/26/15 08:55
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.0	B	0.10	0.0062	mg/L			03/27/15 17:00	1
Chloride	130	B	1.0	0.20	mg/L			03/27/15 17:00	1
Sulfate	47	B	1.0	0.21	mg/L			03/27/15 17:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 03/26/15 14:25
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.4	B	0.10	0.0062	mg/L			03/27/15 18:09	1
Chloride	56	B	1.0	0.20	mg/L			03/27/15 18:09	1
Sulfate	44	B	1.0	0.21	mg/L			03/27/15 18:09	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 03/26/15 13:45
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.2	B	0.10	0.0062	mg/L			03/27/15 18:41	1
Chloride	57		1.0	0.20	mg/L			03/27/15 18:41	1
Sulfate	48		1.0	0.21	mg/L			03/27/15 18:41	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 03/26/15 12:20
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.5	B	0.10	0.0062	mg/L			03/27/15 17:17	1
Chloride	99	B	1.0	0.20	mg/L			03/27/15 17:17	1
Sulfate	35	B	1.0	0.21	mg/L			03/27/15 17:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 03/26/15 10:50
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.9	B	0.10	0.0062	mg/L			03/27/15 19:53	1
Chloride	65	B	1.0	0.20	mg/L			03/27/15 19:53	1
Sulfate	18	B	1.0	0.21	mg/L			03/27/15 19:53	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 03/26/15 10:32
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-8
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			03/27/15 19:57	1
Chloride	**88**		10	2.0	mg/L			03/27/15 20:12	10
Sulfate	**230**		10	2.1	mg/L			03/27/15 20:12	10

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 03/26/15 14:42
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.8	B	0.10	0.0062	mg/L			03/27/15 19:19	1
Chloride	150	B	1.0	0.20	mg/L			03/27/15 19:19	1
Sulfate	54	B	1.0	0.21	mg/L			03/27/15 19:19	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-QC2-0/1-1
Date Collected: 03/26/15 08:00
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.1	B	0.10	0.0062	mg/L			03/27/15 19:36	1
Chloride	54	B	1.0	0.20	mg/L			03/27/15 19:36	1
Sulfate	47	B	1.0	0.21	mg/L			03/27/15 19:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 03/26/15 09:35
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 14:42	1
Potassium	12000		100	5.8	ug/L		04/02/15 10:32	04/06/15 14:42	1
Magnesium	18000		100	1.2	ug/L		04/02/15 10:32	04/06/15 14:42	1
Sodium	64000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 14:42	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 03/26/15 08:55
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 14:46	1
Potassium	5000		100	5.8	ug/L		04/02/15 10:32	04/06/15 14:46	1
Magnesium	16000		100	1.2	ug/L		04/02/15 10:32	04/06/15 14:46	1
Sodium	48000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 14:46	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 03/26/15 14:25
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 14:50	1
Potassium	3200		100	5.8	ug/L		04/02/15 10:32	04/06/15 14:50	1
Magnesium	12000		100	1.2	ug/L		04/02/15 10:32	04/06/15 14:50	1
Sodium	26000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 14:50	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 03/26/15 13:45
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 15:12	1
Potassium	3300		100	5.8	ug/L		04/02/15 10:32	04/06/15 15:12	1
Magnesium	12000		100	1.2	ug/L		04/02/15 10:32	04/06/15 15:12	1
Sodium	25000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 15:12	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 03/26/15 12:20
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 15:16	1
Potassium	7700		100	5.8	ug/L		04/02/15 10:32	04/06/15 15:16	1
Magnesium	13000		100	1.2	ug/L		04/02/15 10:32	04/06/15 15:16	1
Sodium	35000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 15:16	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 03/26/15 10:50
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	91000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 15:32	1
Potassium	3200		100	5.8	ug/L		04/02/15 10:32	04/06/15 15:32	1
Magnesium	9600		100	1.2	ug/L		04/02/15 10:32	04/06/15 15:32	1
Sodium	27000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 15:32	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 03/26/15 10:32
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 15:36	1
Potassium	2500		100	5.8	ug/L		04/02/15 10:32	04/06/15 15:36	1
Magnesium	47000		100	1.2	ug/L		04/02/15 10:32	04/06/15 15:36	1
Sodium	19000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 15:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 03/26/15 14:42
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 15:41	1
Potassium	8000		100	5.8	ug/L		04/02/15 10:32	04/06/15 15:41	1
Magnesium	13000		100	1.2	ug/L		04/02/15 10:32	04/06/15 15:41	1
Sodium	48000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 15:41	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-QC2-0/1-1
Date Collected: 03/26/15 08:00
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	100	2.8	ug/L		04/02/15 10:32	04/06/15 15:45	1
Potassium	3200		100	5.8	ug/L		04/02/15 10:32	04/06/15 15:45	1
Magnesium	11000		100	1.2	ug/L		04/02/15 10:32	04/06/15 15:45	1
Sodium	24000	B	100	3.8	ug/L		04/02/15 10:32	04/06/15 15:45	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 03/26/15 09:35
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**270**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 03/26/15 08:55
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 03/26/15 14:25
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-4
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			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**280**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 03/26/15 13:45
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**290**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**290**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-39D-0/1-0
Date Collected: 03/26/15 12:20
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-74S-0/1-0
Date Collected: 03/26/15 10:50
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 03/26/15 10:32
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-8
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			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**300**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 03/26/15 14:42
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-9
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			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

General Chemistry

Client Sample ID: HD-QC2-0/1-1
Date Collected: 03/26/15 08:00
Date Received: 03/27/15 09:30

Lab Sample ID: 180-42445-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**330**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	**330**	**B**	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

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

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

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: 180-42445-1

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)
180-42445-1	HD-QC5-0/1-2	126	109	93	112
180-42445-2 - DL	HD-MW-96S-0/1-0	121	115	102	105
180-42445-2	HD-MW-96S-0/1-0	115	99	98	110
180-42445-3	HD-MW-96D-0/1-0	125	110	91	118
180-42445-4	HD-MW-98I-0/1-0	118	106	94	114
180-42445-4 MS	HD-MW-98I-0/1-0	106	102	93	97
180-42445-4 MSD	HD-MW-98I-0/1-0	104	91	84	92
180-42445-5	HD-MW-98S-0/1-0	122	110	97	103
180-42445-6	HD-MW-39D-0/1-0	124	113	100	113
180-42445-7	HD-MW-74S-0/1-0	124	110	94	116
180-42445-8	HD-MW-50D-0/1-0	120	106	94	112
180-42445-9	HD-MW-51S-0/1-0	124	114	100	115
180-42445-10	HD-QC2-0/1-1	113	101	98	109
180-42445-11	HD-QC1-0/1-3	129	111	100	119
180-42445-12	HD-QC1-0/1-4	134	109	99	119
LCS 180-137356/8	Lab Control Sample	99	109	97	95
LCS 180-137472/8	Lab Control Sample	107	92	89	91
LCS 180-137519/8	Lab Control Sample	99	99	94	95
MB 180-137356/5	Method Blank	110	108	94	105
MB 180-137472/6	Method Blank	121	108	95	105
MB 180-137519/5	Method Blank	115	107	100	108

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: 180-42445-1

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

Lab Sample ID: MB 180-137356/5
Matrix: Water
Analysis Batch: 137356

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			04/02/15 14:04	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/02/15 14:04	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/02/15 14:04	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 14:04	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/02/15 14:04	1
Acetone	5.0	U	5.0	2.5	ug/L			04/02/15 14:04	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/02/15 14:04	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/02/15 14:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/02/15 14:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/02/15 14:04	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/02/15 14:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/02/15 14:04	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/02/15 14:04	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/02/15 14:04	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/02/15 14:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/02/15 14:04	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/02/15 14:04	1
Benzene	1.0	U	1.0	0.11	ug/L			04/02/15 14:04	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/02/15 14:04	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/02/15 14:04	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/02/15 14:04	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/02/15 14:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/02/15 14:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/02/15 14:04	1
Toluene	1.0	U	1.0	0.15	ug/L			04/02/15 14:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/02/15 14:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 14:04	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/02/15 14:04	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/02/15 14:04	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/02/15 14:04	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/02/15 14:04	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/02/15 14:04	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/02/15 14:04	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/02/15 14:04	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/02/15 14:04	1
Styrene	1.0	U	1.0	0.097	ug/L			04/02/15 14:04	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/02/15 14:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/02/15 14:04	1
Acrylonitrile	20	U	20	0.55	ug/L			04/02/15 14:04	1
1,4-Dioxane	200	U	200	34	ug/L			04/02/15 14:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 135*		*04/02/15 14:04*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*04/02/15 14:04*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*04/02/15 14:04*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/02/15 14:04*	*1*

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

Lab Sample ID: LCS 180-137356/8
Matrix: Water
Analysis Batch: 137356

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	7.37		ug/L		74	50 - 139
Vinyl chloride	10.0	8.99		ug/L		90	53 - 138
Bromomethane	10.0	10.1		ug/L		101	33 - 150
Chloroethane	10.0	8.75		ug/L		87	36 - 142
1,1-Dichloroethene	10.0	7.79		ug/L		78	65 - 136
Acetone	20.0	19.5		ug/L		98	22 - 150
Carbon disulfide	10.0	6.24		ug/L		62	54 - 132
Methylene Chloride	10.0	7.61		ug/L		76	63 - 129
trans-1,2-Dichloroethene	10.0	7.72		ug/L		77	73 - 126
Methyl tert-butyl ether	10.0	8.44		ug/L		84	64 - 123
1,1-Dichloroethane	10.0	7.82		ug/L		78	73 - 126
cis-1,2-Dichloroethene	10.0	7.96		ug/L		80	70 - 120
Bromochloromethane	10.0	8.79		ug/L		88	70 - 127
2-Butanone (MEK)	20.0	20.9		ug/L		104	39 - 138
Chloroform	10.0	8.13		ug/L		81	72 - 127
1,1,1-Trichloroethane	10.0	7.23		ug/L		72	63 - 133
Carbon tetrachloride	10.0	7.52		ug/L		75	55 - 150
Benzene	10.0	9.06		ug/L		91	80 - 120
1,2-Dichloroethane	10.0	9.95		ug/L		99	68 - 132
Trichloroethene	10.0	8.41		ug/L		84	73 - 120
1,2-Dichloropropane	10.0	8.52		ug/L		85	76 - 124
Bromodichloromethane	10.0	8.53		ug/L		85	66 - 130
cis-1,3-Dichloropropene	10.0	7.78		ug/L		78	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.7		ug/L		99	45 - 145
Toluene	10.0	10.8		ug/L		108	80 - 123
trans-1,3-Dichloropropene	10.0	9.87		ug/L		99	65 - 125
1,1,2-Trichloroethane	10.0	12.0		ug/L		120	77 - 127
Tetrachloroethene	10.0	10.2		ug/L		102	70 - 135
2-Hexanone	20.0	21.9		ug/L		110	25 - 132
Dibromochloromethane	10.0	10.2		ug/L		102	60 - 140
1,2-Dibromoethane (EDB)	10.0	11.9		ug/L		119	74 - 123
Chlorobenzene	10.0	10.4		ug/L		104	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.73		ug/L		97	63 - 140
Ethylbenzene	10.0	10.3		ug/L		103	72 - 126
Xylenes, Total	20.0	20.6		ug/L		103	76 - 128
Styrene	10.0	11.0		ug/L		110	71 - 127
Bromoform	10.0	9.93		ug/L		99	46 - 150
1,1,2,2-Tetrachloroethane	10.0	13.1	*	ug/L		131	62 - 125
1,4-Dioxane	200	237		ug/L		119	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*
Toluene-d8 (Surr)	*109*		*71 - 118*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*
Dibromofluoromethane (Surr)	*95*		*70 - 128*

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

Lab Sample ID: MB 180-137472/6
Matrix: Water
Analysis Batch: 137472

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			04/03/15 14:50	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/03/15 14:50	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/03/15 14:50	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 14:50	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/03/15 14:50	1
Acetone	5.0	U	5.0	2.5	ug/L			04/03/15 14:50	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/03/15 14:50	1
Methylene Chloride	0.132	J	1.0	0.13	ug/L			04/03/15 14:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/03/15 14:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/03/15 14:50	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/03/15 14:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/03/15 14:50	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/03/15 14:50	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/03/15 14:50	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/03/15 14:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/03/15 14:50	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/03/15 14:50	1
Benzene	1.0	U	1.0	0.11	ug/L			04/03/15 14:50	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/03/15 14:50	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/03/15 14:50	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/03/15 14:50	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/03/15 14:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/03/15 14:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/03/15 14:50	1
Toluene	1.0	U	1.0	0.15	ug/L			04/03/15 14:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/03/15 14:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 14:50	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/03/15 14:50	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/03/15 14:50	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/03/15 14:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/03/15 14:50	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/03/15 14:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/03/15 14:50	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/03/15 14:50	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/03/15 14:50	1
Styrene	1.0	U	1.0	0.097	ug/L			04/03/15 14:50	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/03/15 14:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/03/15 14:50	1
Acrylonitrile	20	U	20	0.55	ug/L			04/03/15 14:50	1
1,4-Dioxane	200	U	200	34	ug/L			04/03/15 14:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*64 - 135*		*04/03/15 14:50*	*1*
Toluene-d8 (Surr)	*108*		*71 - 118*		*04/03/15 14:50*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*		*04/03/15 14:50*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*04/03/15 14:50*	*1*

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

Lab Sample ID: LCS 180-137472/8
Matrix: Water
Analysis Batch: 137472

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	6.67		ug/L		67	50 - 139
Vinyl chloride	10.0	7.58		ug/L		76	53 - 138
Bromomethane	10.0	10.6		ug/L		106	33 - 150
Chloroethane	10.0	8.03		ug/L		80	36 - 142
1,1-Dichloroethene	10.0	7.34		ug/L		73	65 - 136
Acetone	20.0	17.0		ug/L		85	22 - 150
Carbon disulfide	10.0	5.74		ug/L		57	54 - 132
Methylene Chloride	10.0	7.10		ug/L		71	63 - 129
trans-1,2-Dichloroethene	10.0	7.56		ug/L		76	73 - 126
Methyl tert-butyl ether	10.0	8.26		ug/L		83	64 - 123
1,1-Dichloroethane	10.0	7.48		ug/L		75	73 - 126
cis-1,2-Dichloroethene	10.0	7.74		ug/L		77	70 - 120
Bromochloromethane	10.0	8.82		ug/L		88	70 - 127
2-Butanone (MEK)	20.0	18.2		ug/L		91	39 - 138
Chloroform	10.0	8.54		ug/L		85	72 - 127
1,1,1-Trichloroethane	10.0	7.55		ug/L		75	63 - 133
Carbon tetrachloride	10.0	7.82		ug/L		78	55 - 150
Benzene	10.0	8.63		ug/L		86	80 - 120
1,2-Dichloroethane	10.0	11.0		ug/L		110	68 - 132
Trichloroethene	10.0	8.35		ug/L		83	73 - 120
1,2-Dichloropropane	10.0	8.32		ug/L		83	76 - 124
Bromodichloromethane	10.0	8.88		ug/L		89	66 - 130
cis-1,3-Dichloropropene	10.0	8.10		ug/L		81	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	14.4		ug/L		72	45 - 145
Toluene	10.0	9.61		ug/L		96	80 - 123
trans-1,3-Dichloropropene	10.0	9.52		ug/L		95	65 - 125
1,1,2-Trichloroethane	10.0	11.3		ug/L		113	77 - 127
Tetrachloroethene	10.0	10.1		ug/L		101	70 - 135
2-Hexanone	20.0	16.5		ug/L		83	25 - 132
Dibromochloromethane	10.0	9.53		ug/L		95	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.8		ug/L		108	74 - 123
Chlorobenzene	10.0	9.75		ug/L		98	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.03		ug/L		90	63 - 140
Ethylbenzene	10.0	9.21		ug/L		92	72 - 126
Xylenes, Total	20.0	18.3		ug/L		92	76 - 128
Styrene	10.0	9.91		ug/L		99	71 - 127
Bromoform	10.0	10.3		ug/L		103	46 - 150
1,1,2,2-Tetrachloroethane	10.0	11.3		ug/L		113	62 - 125
1,4-Dioxane	200	233		ug/L		116	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 135*
Toluene-d8 (Surr)	*92*		*71 - 118*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*
Dibromofluoromethane (Surr)	*91*		*70 - 128*

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

Lab Sample ID: 180-42445-4 MS
Matrix: Water
Analysis Batch: 137472

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U	10.0	7.44		ug/L		74	50 - 139
Vinyl chloride	1.0	U	10.0	8.19		ug/L		82	53 - 138
Bromomethane	1.0	U	10.0	11.1		ug/L		111	33 - 150
Chloroethane	1.0	U	10.0	8.00		ug/L		80	36 - 142
1,1-Dichloroethene	0.84	J	10.0	9.07		ug/L		82	65 - 136
Acetone	5.0	U	20.0	18.0		ug/L		90	22 - 150
Carbon disulfide	1.0	U	10.0	6.14		ug/L		61	54 - 132
Methylene Chloride	1.0	U	10.0	7.48		ug/L		75	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	7.69		ug/L		77	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	9.34		ug/L		93	64 - 123
1,1-Dichloroethane	1.0	U	10.0	8.15		ug/L		82	73 - 126
cis-1,2-Dichloroethene	11		10.0	19.9		ug/L		87	70 - 120
Bromochloromethane	1.0	U	10.0	8.77		ug/L		88	70 - 127
2-Butanone (MEK)	5.0	U	20.0	19.7		ug/L		98	39 - 138
Chloroform	1.0	U	10.0	8.97		ug/L		90	72 - 127
1,1,1-Trichloroethane	2.2		10.0	10.3		ug/L		82	63 - 133
Carbon tetrachloride	1.0	U	10.0	8.77		ug/L		88	55 - 150
Benzene	1.0	U	10.0	9.03		ug/L		90	80 - 120
1,2-Dichloroethane	1.0	U	10.0	11.1		ug/L		111	68 - 132
Trichloroethene	12		10.0	20.3		ug/L		79	73 - 120
1,2-Dichloropropane	1.0	U	10.0	8.31		ug/L		83	76 - 124
Bromodichloromethane	1.0	U	10.0	8.91		ug/L		89	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	8.06		ug/L		81	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	17.6		ug/L		88	45 - 145
Toluene	1.0	U	10.0	10.5		ug/L		105	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	10.2		ug/L		102	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	12.0		ug/L		120	77 - 127
Tetrachloroethene	14		10.0	24.5		ug/L		102	70 - 135
2-Hexanone	5.0	U	20.0	18.4		ug/L		92	25 - 132
Dibromochloromethane	1.0	U	10.0	10.1		ug/L		101	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	11.5		ug/L		115	74 - 123
Chlorobenzene	1.0	U	10.0	9.93		ug/L		99	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.67		ug/L		97	63 - 140
Ethylbenzene	1.0	U	10.0	10.1		ug/L		101	72 - 126
Xylenes, Total	3.0	U	20.0	20.0		ug/L		100	76 - 128
Styrene	1.0	U	10.0	10.5		ug/L		105	71 - 127
Bromoform	1.0	U	10.0	10.6		ug/L		106	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	12.4		ug/L		124	62 - 125
1,4-Dioxane	200	U	200	274		ug/L		137	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 135*
Toluene-d8 (Surr)	*102*		*71 - 118*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*
Dibromofluoromethane (Surr)	*97*		*70 - 128*

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

Lab Sample ID: 180-42445-4 MSD
Matrix: Water
Analysis Batch: 137472

Client Sample ID: HD-MW-98I-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
Chloromethane	1.0	U	10.0	6.82		ug/L		68	50 - 139	9	35
Vinyl chloride	1.0	U	10.0	8.17		ug/L		82	53 - 138	0	35
Bromomethane	1.0	U	10.0	10.2		ug/L		102	33 - 150	8	35
Chloroethane	1.0	U	10.0	7.73		ug/L		77	36 - 142	4	35
1,1-Dichloroethene	0.84	J	10.0	8.31		ug/L		75	65 - 136	9	35
Acetone	5.0	U	20.0	16.7		ug/L		84	22 - 150	7	35
Carbon disulfide	1.0	U	10.0	6.07		ug/L		61	54 - 132	1	35
Methylene Chloride	1.0	U	10.0	7.32		ug/L		73	63 - 129	2	35
trans-1,2-Dichloroethene	1.0	U	10.0	8.01		ug/L		80	73 - 126	4	35
Methyl tert-butyl ether	1.0	U	10.0	9.08		ug/L		91	64 - 123	3	35
1,1-Dichloroethane	1.0	U	10.0	8.24		ug/L		82	73 - 126	1	35
cis-1,2-Dichloroethene	11		10.0	19.3		ug/L		81	70 - 120	3	35
Bromochloromethane	1.0	U	10.0	9.01		ug/L		90	70 - 127	3	35
2-Butanone (MEK)	5.0	U	20.0	20.0		ug/L		100	39 - 138	1	35
Chloroform	1.0	U	10.0	8.77		ug/L		88	72 - 127	2	35
1,1,1-Trichloroethane	2.2		10.0	10.1		ug/L		80	63 - 133	2	35
Carbon tetrachloride	1.0	U	10.0	7.91		ug/L		79	55 - 150	10	35
Benzene	1.0	U	10.0	8.66		ug/L		87	80 - 120	4	32
1,2-Dichloroethane	1.0	U	10.0	10.7		ug/L		107	68 - 132	3	32
Trichloroethene	12		10.0	19.8		ug/L		74	73 - 120	2	35
1,2-Dichloropropane	1.0	U	10.0	8.06		ug/L		81	76 - 124	3	34
Bromodichloromethane	1.0	U	10.0	8.56		ug/L		86	66 - 130	4	35
cis-1,3-Dichloropropene	1.0	U	10.0	7.91		ug/L		79	66 - 120	2	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	16.4		ug/L		82	45 - 145	7	35
Toluene	1.0	U	10.0	9.53		ug/L		95	80 - 123	10	35
trans-1,3-Dichloropropene	1.0	U	10.0	9.07		ug/L		91	65 - 125	11	35
1,1,2-Trichloroethane	1.0	U	10.0	11.0		ug/L		110	77 - 127	9	35
Tetrachloroethene	14		10.0	22.8		ug/L		85	70 - 135	7	35
2-Hexanone	5.0	U	20.0	17.9		ug/L		90	25 - 132	2	35
Dibromochloromethane	1.0	U	10.0	9.34		ug/L		93	60 - 140	8	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.2		ug/L		102	74 - 123	12	35
Chlorobenzene	1.0	U	10.0	9.39		ug/L		94	80 - 120	6	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	8.74		ug/L		87	63 - 140	10	34
Ethylbenzene	1.0	U	10.0	9.41		ug/L		94	72 - 126	7	33
Xylenes, Total	3.0	U	20.0	17.9		ug/L		90	76 - 128	11	32
Styrene	1.0	U	10.0	9.54		ug/L		95	71 - 127	9	34
Bromoform	1.0	U	10.0	10.4		ug/L		104	46 - 150	2	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.4		ug/L		114	62 - 125	8	35
1,4-Dioxane	200	U	200	248		ug/L		124	10 - 160	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*91*		*71 - 118*
4-Bromofluorobenzene (Surr)	*84*		*70 - 118*
Dibromofluoromethane (Surr)	*92*		*70 - 128*

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

Lab Sample ID: MB 180-137519/5
Matrix: Water
Analysis Batch: 137519

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			04/04/15 13:27	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			04/04/15 13:27	1
Bromomethane	1.0	U	1.0	0.31	ug/L			04/04/15 13:27	1
Chloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 13:27	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			04/04/15 13:27	1
Acetone	5.0	U	5.0	2.5	ug/L			04/04/15 13:27	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			04/04/15 13:27	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			04/04/15 13:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			04/04/15 13:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			04/04/15 13:27	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			04/04/15 13:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			04/04/15 13:27	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			04/04/15 13:27	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			04/04/15 13:27	1
Chloroform	1.0	U	1.0	0.17	ug/L			04/04/15 13:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			04/04/15 13:27	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			04/04/15 13:27	1
Benzene	1.0	U	1.0	0.11	ug/L			04/04/15 13:27	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/04/15 13:27	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			04/04/15 13:27	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			04/04/15 13:27	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			04/04/15 13:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			04/04/15 13:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			04/04/15 13:27	1
Toluene	1.0	U	1.0	0.15	ug/L			04/04/15 13:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			04/04/15 13:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 13:27	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			04/04/15 13:27	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			04/04/15 13:27	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			04/04/15 13:27	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			04/04/15 13:27	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			04/04/15 13:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			04/04/15 13:27	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			04/04/15 13:27	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			04/04/15 13:27	1
Styrene	1.0	U	1.0	0.097	ug/L			04/04/15 13:27	1
Bromoform	1.0	U	1.0	0.19	ug/L			04/04/15 13:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			04/04/15 13:27	1
Acrylonitrile	20	U	20	0.55	ug/L			04/04/15 13:27	1
1,4-Dioxane	200	U	200	34	ug/L			04/04/15 13:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*04/04/15 13:27*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*04/04/15 13:27*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*04/04/15 13:27*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 128*		*04/04/15 13:27*	*1*

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

Lab Sample ID: LCS 180-137519/8
Matrix: Water
Analysis Batch: 137519

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	9.02		ug/L		90	50 - 139
Vinyl chloride	10.0	10.3		ug/L		103	53 - 138
Bromomethane	10.0	12.9		ug/L		129	33 - 150
Chloroethane	10.0	11.8		ug/L		118	36 - 142
1,1-Dichloroethene	10.0	10.1		ug/L		101	65 - 136
Acetone	20.0	21.7		ug/L		109	22 - 150
Carbon disulfide	10.0	9.57		ug/L		96	54 - 132
Methylene Chloride	10.0	9.12		ug/L		91	63 - 129
trans-1,2-Dichloroethene	10.0	9.88		ug/L		99	73 - 126
Methyl tert-butyl ether	10.0	9.68		ug/L		97	64 - 123
1,1-Dichloroethane	10.0	10.1		ug/L		101	73 - 126
cis-1,2-Dichloroethene	10.0	9.57		ug/L		96	70 - 120
Bromochloromethane	10.0	9.57		ug/L		96	70 - 127
2-Butanone (MEK)	20.0	16.4		ug/L		82	39 - 138
Chloroform	10.0	10.3		ug/L		103	72 - 127
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	63 - 133
Carbon tetrachloride	10.0	12.0		ug/L		120	55 - 150
Benzene	10.0	10.1		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	10.2		ug/L		102	68 - 132
Trichloroethene	10.0	9.25		ug/L		92	73 - 120
1,2-Dichloropropane	10.0	9.73		ug/L		97	76 - 124
Bromodichloromethane	10.0	10.1		ug/L		101	66 - 130
cis-1,3-Dichloropropene	10.0	9.75		ug/L		97	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.5		ug/L		88	45 - 145
Toluene	10.0	10.6		ug/L		106	80 - 123
trans-1,3-Dichloropropene	10.0	10.9		ug/L		109	65 - 125
1,1,2-Trichloroethane	10.0	10.6		ug/L		106	77 - 127
Tetrachloroethene	10.0	10.3		ug/L		103	70 - 135
2-Hexanone	20.0	16.1		ug/L		81	25 - 132
Dibromochloromethane	10.0	10.7		ug/L		107	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	63 - 140
Ethylbenzene	10.0	10.3		ug/L		103	72 - 126
Xylenes, Total	20.0	19.7		ug/L		99	76 - 128
Styrene	10.0	10.2		ug/L		102	71 - 127
Bromoform	10.0	10.1		ug/L		101	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.0		ug/L		100	62 - 125
1,4-Dioxane	200	152	J	ug/L		76	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*
Toluene-d8 (Surr)	*99*		*71 - 118*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*
Dibromofluoromethane (Surr)	*95*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-136787/10
Matrix: Water
Analysis Batch: 136787

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	0.0302	J	0.10	0.0062	mg/L			03/27/15 12:58	1
Chloride	0.445	J	1.0	0.20	mg/L			03/27/15 12:58	1
Sulfate	0.354	J	1.0	0.21	mg/L			03/27/15 12:58	1

Lab Sample ID: LCS 180-136787/9
Matrix: Water
Analysis Batch: 136787

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	2.59		mg/L		104	90 - 110
Chloride	50.0	49.6		mg/L		99	90 - 110
Sulfate	50.0	49.8		mg/L		100	90 - 110

Lab Sample ID: 180-42445-4 MS
Matrix: Water
Analysis Batch: 136787

Client Sample ID: HD-MW-98I-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	3.4	B	1.25	4.67		mg/L		101	80 - 120
Chloride	56	B	25.0	81.7		mg/L		101	80 - 120
Sulfate	44	B	25.0	67.9		mg/L		97	80 - 120

Lab Sample ID: 180-42445-4 MSD
Matrix: Water
Analysis Batch: 136787

Client Sample ID: HD-MW-98I-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	3.4	B	1.25	4.68		mg/L		102	80 - 120	0	20
Chloride	56	B	25.0	82.1		mg/L		103	80 - 120	0	20
Sulfate	44	B	25.0	68.3		mg/L		98	80 - 120	1	20

Lab Sample ID: MB 180-136796/12
Matrix: Water
Analysis Batch: 136796

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	0.0287	J	0.10	0.0062	mg/L			03/27/15 15:31	1
Chloride	1.0	U	1.0	0.20	mg/L			03/27/15 15:31	1
Sulfate	1.0	U	1.0	0.21	mg/L			03/27/15 15:31	1

Lab Sample ID: LCS 180-136796/11
Matrix: Water
Analysis Batch: 136796

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	2.41		mg/L		96	90 - 110
Chloride	50.0	46.1		mg/L		92	90 - 110
Sulfate	50.0	45.9		mg/L		92	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-42445-4 MS
Matrix: Water
Analysis Batch: 137679

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA
Prep Batch: 137340

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	120000	B	50000	162000		ug/L		90	75 - 125
Potassium	3200		50000	49900		ug/L		93	75 - 125
Magnesium	12000		50000	50300		ug/L		77	75 - 125
Sodium	26000	B	50000	70800		ug/L		90	75 - 125

Lab Sample ID: 180-42445-4 MSD
Matrix: Water
Analysis Batch: 137679

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA
Prep Batch: 137340

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	120000	B	50000	160000		ug/L		86	75 - 125	1	20
Potassium	3200		50000	50800		ug/L		95	75 - 125	2	20
Magnesium	12000		50000	51100		ug/L		78	75 - 125	1	20
Sodium	26000	B	50000	71300		ug/L		91	75 - 125	1	20

Lab Sample ID: MB 180-137340/1-A
Matrix: Water
Analysis Batch: 137679

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 137340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	6.29	J	100	2.8	ug/L		04/02/15 10:32	04/06/15 14:13	1
Potassium	100	U	100	5.8	ug/L		04/02/15 10:32	04/06/15 14:13	1
Magnesium	100	U	100	1.2	ug/L		04/02/15 10:32	04/06/15 14:13	1
Sodium	12.7	J	100	3.8	ug/L		04/02/15 10:32	04/06/15 14:13	1

Lab Sample ID: LCS 180-137340/2-A
Matrix: Water
Analysis Batch: 137679

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 137340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	48300		ug/L		97	80 - 120
Potassium	50000	47900		ug/L		96	80 - 120
Magnesium	50000	40400		ug/L		81	80 - 120
Sodium	50000	46100		ug/L		92	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-137271/28
Matrix: Water
Analysis Batch: 137271

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	2.06	J	5.0	0.41	mg/L			04/02/15 05:00	1
Bicarbonate Alkalinity as CaCO3	2.06	J	5.0	0.41	mg/L			04/02/15 05:00	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			04/02/15 05:00	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 180-137271/27
Matrix: Water
Analysis Batch: 137271

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	266		mg/L		106	80 - 120		

Lab Sample ID: 180-42445-4 DU
Matrix: Water
Analysis Batch: 137271

Client Sample ID: HD-MW-98I-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	280	B		284		mg/L				2	20
Bicarbonate Alkalinity as CaCO3	280	B		284		mg/L				2	20
Carbonate Alkalinity as CaCO3	5.0	U		5.0	U	mg/L				NC	20

Lab Sample ID: 180-42445-8 DU
Matrix: Water
Analysis Batch: 137271

Client Sample ID: HD-MW-50D-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	300	B		297		mg/L				0.7	20
Bicarbonate Alkalinity as CaCO3	300	B		297		mg/L				0.7	20
Carbonate Alkalinity as CaCO3	5.0	U		5.0	U	mg/L				NC	20

GC/MS VOA

Analysis Batch: 137356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-1	HD-QC5-0/1-2	Total/NA	Water	8260C	
LCS 180-137356/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-137356/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 137472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-2 - DL	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
180-42445-3	HD-MW-96D-0/1-0	Total/NA	Water	8260C	
180-42445-4	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
180-42445-4 MS	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
180-42445-4 MSD	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
180-42445-5	HD-MW-98S-0/1-0	Total/NA	Water	8260C	
180-42445-6	HD-MW-39D-0/1-0	Total/NA	Water	8260C	
180-42445-7	HD-MW-74S-0/1-0	Total/NA	Water	8260C	
180-42445-8	HD-MW-50D-0/1-0	Total/NA	Water	8260C	
180-42445-9	HD-MW-51S-0/1-0	Total/NA	Water	8260C	
180-42445-11	HD-QC1-0/1-3	Total/NA	Water	8260C	
180-42445-12	HD-QC1-0/1-4	Total/NA	Water	8260C	
LCS 180-137472/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-137472/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 137519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-2	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
180-42445-10	HD-QC2-0/1-1	Total/NA	Water	8260C	
LCS 180-137519/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-137519/5	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 136787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-2	HD-MW-96S-0/1-0	Total/NA	Water	300.0	
180-42445-3	HD-MW-96D-0/1-0	Total/NA	Water	300.0	
180-42445-4	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-42445-4 MS	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-42445-4 MSD	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-42445-6	HD-MW-39D-0/1-0	Total/NA	Water	300.0	
180-42445-7	HD-MW-74S-0/1-0	Total/NA	Water	300.0	
180-42445-9	HD-MW-51S-0/1-0	Total/NA	Water	300.0	
180-42445-10	HD-QC2-0/1-1	Total/NA	Water	300.0	
LCS 180-136787/9	Lab Control Sample	Total/NA	Water	300.0	
MB 180-136787/10	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 136796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-5	HD-MW-98S-0/1-0	Total/NA	Water	300.0	
LCS 180-136796/11	Lab Control Sample	Total/NA	Water	300.0	
MB 180-136796/12	Method Blank	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 136809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-8	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
180-42445-8	HD-MW-50D-0/1-0	Total/NA	Water	300.0	

Metals

Prep Batch: 137340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-2	HD-MW-96S-0/1-0	Total/NA	Water	3005A	
180-42445-3	HD-MW-96D-0/1-0	Total/NA	Water	3005A	
180-42445-4	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-42445-4 MS	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-42445-4 MSD	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-42445-4 PDS	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-42445-4 SD	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-42445-5	HD-MW-98S-0/1-0	Total/NA	Water	3005A	
180-42445-6	HD-MW-39D-0/1-0	Total/NA	Water	3005A	
180-42445-7	HD-MW-74S-0/1-0	Total/NA	Water	3005A	
180-42445-8	HD-MW-50D-0/1-0	Total/NA	Water	3005A	
180-42445-9	HD-MW-51S-0/1-0	Total/NA	Water	3005A	
180-42445-10	HD-QC2-0/1-1	Total/NA	Water	3005A	
LCS 180-137340/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-137340/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 137679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-2	HD-MW-96S-0/1-0	Total/NA	Water	6020A	137340
180-42445-3	HD-MW-96D-0/1-0	Total/NA	Water	6020A	137340
180-42445-4	HD-MW-98I-0/1-0	Total/NA	Water	6020A	137340
180-42445-4 MS	HD-MW-98I-0/1-0	Total/NA	Water	6020A	137340
180-42445-4 MSD	HD-MW-98I-0/1-0	Total/NA	Water	6020A	137340
180-42445-4 PDS	HD-MW-98I-0/1-0	Total/NA	Water	6020A	137340
180-42445-4 SD	HD-MW-98I-0/1-0	Total/NA	Water	6020A	137340
180-42445-5	HD-MW-98S-0/1-0	Total/NA	Water	6020A	137340
180-42445-6	HD-MW-39D-0/1-0	Total/NA	Water	6020A	137340
180-42445-7	HD-MW-74S-0/1-0	Total/NA	Water	6020A	137340
180-42445-8	HD-MW-50D-0/1-0	Total/NA	Water	6020A	137340
180-42445-9	HD-MW-51S-0/1-0	Total/NA	Water	6020A	137340
180-42445-10	HD-QC2-0/1-1	Total/NA	Water	6020A	137340
CRI 180-137679/7	DL		Water	6020A	
CRI 180-137679/80	DL		Water	6020A	
ICSA 180-137679/8	ICS		Water	6020A	
ICSAB 180-137679/9	ICS		Water	6020A	
LCS 180-137340/2-A	Lab Control Sample	Total Recoverable	Water	6020A	137340
MB 180-137340/1-A	Method Blank	Total Recoverable	Water	6020A	137340

General Chemistry

Analysis Batch: 137271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-2	HD-MW-96S-0/1-0	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 137271 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42445-3	HD-MW-96D-0/1-0	Total/NA	Water	SM 2320B	
180-42445-4	HD-MW-98I-0/1-0	Total/NA	Water	SM 2320B	
180-42445-4 DU	HD-MW-98I-0/1-0	Total/NA	Water	SM 2320B	
180-42445-5	HD-MW-98S-0/1-0	Total/NA	Water	SM 2320B	
180-42445-6	HD-MW-39D-0/1-0	Total/NA	Water	SM 2320B	
180-42445-7	HD-MW-74S-0/1-0	Total/NA	Water	SM 2320B	
180-42445-8	HD-MW-50D-0/1-0	Total/NA	Water	SM 2320B	
180-42445-8 DU	HD-MW-50D-0/1-0	Total/NA	Water	SM 2320B	
180-42445-9	HD-MW-51S-0/1-0	Total/NA	Water	SM 2320B	
180-42445-10	HD-QC2-0/1-1	Total/NA	Water	SM 2320B	
LCS 180-137271/27	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-137271/28	Method Blank	Total/NA	Water	SM 2320B	

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

Lab Sample ID: 180-42445-1

Date Collected: 03/26/15 12:00

Matrix: Water

Date Received: 03/27/15 09:30

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	137356	04/02/15 21:39	DLF	TAL PIT
	Instrument ID: CHHP6									

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

Lab Sample ID: 180-42445-2

Date Collected: 03/26/15 09:35

Matrix: Water

Date Received: 03/27/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2.5	5 mL	5 mL	137519	04/04/15 22:55	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	25	5 mL	5 mL	137472	04/03/15 17:49	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	136787	03/27/15 16:43	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 14:42	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-42445-3

Date Collected: 03/26/15 08:55

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 18:13	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		136787	03/27/15 17:00	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 14:46	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-98I-0/1-0

Lab Sample ID: 180-42445-4

Date Collected: 03/26/15 14:25

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 15:35	DLF	TAL PIT
	Instrument ID: CHHP6									

Client Sample ID: HD-MW-98I-0/1-0

Lab Sample ID: 180-42445-4

Date Collected: 03/26/15 14:25

Matrix: Water

Date Received: 03/27/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	1 mL		136787	03/27/15 18:09	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 14:50	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-98S-0/1-0

Lab Sample ID: 180-42445-5

Date Collected: 03/26/15 13:45

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 18:37	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		136796	03/27/15 18:41	CMR	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 15:12	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-42445-6

Date Collected: 03/26/15 12:20

Matrix: Water

Date Received: 03/27/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		3	5 mL	5 mL	137472	04/03/15 19:01	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		136787	03/27/15 17:17	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 15:16	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

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

Lab Sample ID: 180-42445-7

Date Collected: 03/26/15 10:50

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 19:25	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		136787	03/27/15 19:53	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 15:32	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-42445-8

Date Collected: 03/26/15 10:32

Matrix: Water

Date Received: 03/27/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		125	5 mL	5 mL	137472	04/03/15 19:49	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		136809	03/27/15 19:57	CMR	TAL PIT
	Instrument ID: CHIC25									
Total/NA	Analysis	300.0		10	1 mL		136809	03/27/15 20:12	CMR	TAL PIT
	Instrument ID: CHIC25									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 15:36	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-42445-9

Date Collected: 03/26/15 14:42

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 20:38	DLF	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		136787	03/27/15 19:19	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 15:41	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

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

Lab Sample ID: 180-42445-10

Date Collected: 03/26/15 08:00

Matrix: Water

Date Received: 03/27/15 09:30

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	137519	04/04/15 17:17	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		136787	03/27/15 19:36	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	137340	04/02/15 10:32	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	137679	04/06/15 15:45	CNF	TAL PIT
	Instrument ID: X									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	137271	04/02/15 05:00	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-QC1-0/1-3

Lab Sample ID: 180-42445-11

Date Collected: 03/26/15 15:05

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 21:25	DLF	TAL PIT
	Instrument ID: CHHP6									

Client Sample ID: HD-QC1-0/1-4

Lab Sample ID: 180-42445-12

Date Collected: 03/26/15 15:10

Matrix: Water

Date Received: 03/27/15 09:30

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	137472	04/03/15 21:49	DLF	TAL PIT
	Instrument ID: CHHP6									

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

CMR = Carl Reagle

CNF = Caitlin Ferguson

DLF = Donald Ferguson

MJH = Matthew Hartman

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

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 *

* Certification renewal pending - certification considered valid.

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42445-1

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: 180-42445-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-42445-1	HD-QC5-0/1-2	Water	03/26/15 12:00	03/27/15 09:30
180-42445-2	HD-MW-96S-0/1-0	Water	03/26/15 09:35	03/27/15 09:30
180-42445-3	HD-MW-96D-0/1-0	Water	03/26/15 08:55	03/27/15 09:30
180-42445-4	HD-MW-98I-0/1-0	Water	03/26/15 14:25	03/27/15 09:30
180-42445-5	HD-MW-98S-0/1-0	Water	03/26/15 13:45	03/27/15 09:30
180-42445-6	HD-MW-39D-0/1-0	Water	03/26/15 12:20	03/27/15 09:30
180-42445-7	HD-MW-74S-0/1-0	Water	03/26/15 10:50	03/27/15 09:30
180-42445-8	HD-MW-50D-0/1-0	Water	03/26/15 10:32	03/27/15 09:30
180-42445-9	HD-MW-51S-0/1-0	Water	03/26/15 14:42	03/27/15 09:30
180-42445-10	HD-QC2-0/1-1	Water	03/26/15 08:00	03/27/15 09:30
180-42445-11	HD-QC1-0/1-3	Water	03/26/15 15:05	03/27/15 09:30
180-42445-12	HD-QC1-0/1-4	Water	03/26/15 15:10	03/27/15 09:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 135593

Lab Sample ID: IC 180-135593/4 Client Sample ID:

Date Analyzed: 03/16/15 12:41 Lab File ID: 50316004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Baseline	fergusond	03/17/15 09:42

Lab Sample ID: ICIS 180-135593/5 Client Sample ID:

Date Analyzed: 03/16/15 13:05 Lab File ID: 50316005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/17/15 09:27

Lab Sample ID: IC 180-135593/6 Client Sample ID:

Date Analyzed: 03/16/15 13:29 Lab File ID: 50316006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.95	Peak Tail	fergusond	03/17/15 09:45

Lab Sample ID: IC 180-135593/7 Client Sample ID:

Date Analyzed: 03/16/15 13:53 Lab File ID: 50316007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.94	Peak Tail	fergusond	03/17/15 09:48

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 135593

Lab Sample ID: IC 180-135593/13 Client Sample ID:

Date Analyzed: 03/16/15 16:17 Lab File ID: 50316013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.77	Poor chromatography	fergusond	03/17/15 10:01
Acrolein	3.25	Poor chromatography	fergusond	03/17/15 10:01
2-Hexanone	9.66	Poor chromatography	fergusond	03/17/15 10:01
trans-1,4-Dichloro-2-butene	11.74	Poor chromatography	fergusond	03/17/15 10:01

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 137519

Lab Sample ID: CCVIS 180-137519/2 Client Sample ID:

Date Analyzed: 04/04/15 11:51 Lab File ID: 50404002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	04/04/15 12:37

Lab Sample ID: 180-42445-2 Client Sample ID: HD-MW-96S-0/1-0

Date Analyzed: 04/04/15 22:55 Lab File ID: 50404028.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.35	Split Peak	fergusond	04/06/15 08:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 131929

Lab Sample ID: IC 180-131929/6 Client Sample ID:

Date Analyzed: 01/28/15 13:58 Lab File ID: 60128006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Poor chromatography	fergusond	01/29/15 10:25
Chloroethane	2.39	Poor chromatography	fergusond	01/29/15 10:25
Acrylonitrile	4.55	Poor chromatography	fergusond	01/29/15 10:25
Methyl tert-butyl ether	4.61	Split Peak	fergusond	01/29/15 10:25
1,1-Dichloroethane	5.25	Split Peak	fergusond	01/29/15 10:25
1,1,1,2-Tetrachloroethane	10.56	Poor chromatography	fergusond	01/29/15 10:25

Lab Sample ID: IC 180-131929/7 Client Sample ID:

Date Analyzed: 01/28/15 14:21 Lab File ID: 60128007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorofluoromethane	2.68	Baseline	fergusond	01/29/15 10:28
1,4-Dioxane	8.08	Peak Tail	fergusond	01/29/15 10:31
2-Hexanone	9.70	Baseline	fergusond	01/29/15 10:31

Lab Sample ID: ICIS 180-131929/8 Client Sample ID:

Date Analyzed: 01/28/15 14:45 Lab File ID: 60128008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.94	Peak Tail	fergusond	01/29/15 11:08

Lab Sample ID: IC 180-131929/9 Client Sample ID:

Date Analyzed: 01/28/15 15:09 Lab File ID: 60128009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Peak Tail	fergusond	01/29/15 10:51
1,4-Dioxane	8.07	Poor chromatography	fergusond	01/29/15 10:54

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 131929

Lab Sample ID: IC 180-131929/10 Client Sample ID:

Date Analyzed: 01/28/15 15:33 Lab File ID: 60128010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.08	Peak Tail	fergusond	01/29/15 10:53

Lab Sample ID: IC 180-131929/11 Client Sample ID:

Date Analyzed: 01/28/15 15:57 Lab File ID: 60128011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.08	Poor chromatography	fergusond	01/29/15 10:59

Lab Sample ID: IC 180-131929/12 Client Sample ID:

Date Analyzed: 01/28/15 16:21 Lab File ID: 60128012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	01/29/15 11:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 137356

Lab Sample ID: CCVIS 180-137356/2 Client Sample ID:

Date Analyzed: 04/02/15 12:38 Lab File ID: 60402002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.07	Peak Tail	fergusond	04/02/15 13:16

Lab Sample ID: MB 180-137356/5 Client Sample ID:

Date Analyzed: 04/02/15 14:04 Lab File ID: 60402005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toluene	9.05	Poor chromatography	fergusond	04/02/15 14:29

Lab Sample ID: LCS 180-137356/8 Client Sample ID:

Date Analyzed: 04/02/15 15:38 Lab File ID: 60402008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.07	Peak Tail	fergusond	04/02/15 16:24

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 137472

Lab Sample ID: CCVIS 180-137472/4 Client Sample ID:

Date Analyzed: 04/03/15 13:52 Lab File ID: 60403004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroethane	2.41	Peak Tail	fergusond	04/03/15 14:31
1,4-Dioxane	8.07	Peak Tail	fergusond	04/03/15 14:31

Lab Sample ID: MB 180-137472/6 Client Sample ID:

Date Analyzed: 04/03/15 14:50 Lab File ID: 60403006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.16	Split Peak	fergusond	04/03/15 15:53

Lab Sample ID: LCS 180-137472/8 Client Sample ID:

Date Analyzed: 04/03/15 16:14 Lab File ID: 60403008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.08	Peak Tail	fergusond	04/03/15 16:39

Lab Sample ID: 180-42445-4 MS Client Sample ID: HD-MW-98I-0/1-0 MS

Date Analyzed: 04/03/15 16:37 Lab File ID: 60403009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.07	Peak Tail	fergusond	04/04/15 10:39

Lab Sample ID: 180-42445-4 MSD Client Sample ID: HD-MW-98I-0/1-0 MSD

Date Analyzed: 04/03/15 17:01 Lab File ID: 60403010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.07	Peak Tail	fergusond	04/04/15 10:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 137472

Lab Sample ID: 180-42445-2 DL Client Sample ID: HD-MW-96S-0/1-0 DL

Date Analyzed: 04/03/15 17:49 Lab File ID: 60403012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,1-Trichloroethane	6.59	Split Peak	fergusond	04/04/15 10:44
Toluene	9.07	Split Peak	fergusond	04/04/15 10:44

Lab Sample ID: 180-42445-3 Client Sample ID: HD-MW-96D-0/1-0

Date Analyzed: 04/03/15 18:13 Lab File ID: 60403013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.26	Peak Not Found	fergusond	04/04/15 10:45

Lab Sample ID: 180-42445-5 Client Sample ID: HD-MW-98S-0/1-0

Date Analyzed: 04/03/15 18:37 Lab File ID: 60403014.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.25	Peak Not Found	fergusond	04/04/15 10:46

Lab Sample ID: 180-42445-6 Client Sample ID: HD-MW-39D-0/1-0

Date Analyzed: 04/03/15 19:01 Lab File ID: 60403015.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.26	Peak Not Integrated	fergusond	04/04/15 10:48

Lab Sample ID: 180-42445-9 Client Sample ID: HD-MW-51S-0/1-0

Date Analyzed: 04/03/15 20:38 Lab File ID: 60403019.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.26	Peak Not Integrated	fergusond	04/04/15 10:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 137472

Lab Sample ID: 180-42445-11 Client Sample ID: HD-QC1-0/1-3

Date Analyzed: 04/03/15 21:25 Lab File ID: 60403021.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.47	Split Peak	fergusond	04/04/15 10:59
m-Xylene & p-Xylene	10.69	Split Peak	fergusond	04/04/15 10:59
o-Xylene	11.08	Split Peak	fergusond	04/04/15 10:59

Lab Sample ID: 180-42445-12 Client Sample ID: HD-QC1-0/1-4

Date Analyzed: 04/03/15 21:49 Lab File ID: 60403022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylbenzene	10.57	Split Peak	fergusond	04/04/15 11:01

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC2100A Analysis Batch Number: 135876

Lab Sample ID: IC 180-135876/2 Client Sample ID:

Date Analyzed: 03/18/15 11:27 Lab File ID: A-ICS2100 A 03-18-2015-2.d GC Column: AS-18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.01	Baseline	hartmanm	03/18/15 13:48
Chloride	4.03	Baseline	hartmanm	03/18/15 18:15
Nitrite as N	4.69	Baseline	hartmanm	03/18/15 18:15
Sulfate	5.56	Baseline	hartmanm	03/18/15 18:15
Bromide	6.23	Baseline	hartmanm	03/18/15 18:15
Nitrate as N	7.22	Baseline	hartmanm	03/18/15 18:15

Lab Sample ID: IC 180-135876/3 Client Sample ID:

Date Analyzed: 03/18/15 11:43 Lab File ID: A-ICS2100 A 03-18-2015-3.d GC Column: AS-18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.99	Split Peak	hartmanm	03/18/15 13:51

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC25 Analysis Batch Number: 136436

Lab Sample ID: IC 180-136436/2 Client Sample ID:

Date Analyzed: 03/24/15 20:18 Lab File ID: 03-24a-201502.0000.d GC Column: AS-14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.58	Baseline	reaglec	03/25/15 10:11
Chloride	3.33	Baseline	reaglec	03/25/15 10:11
Nitrite as N	3.77	Baseline	hartmanm	03/25/15 11:44
Bromide	4.54	Baseline	hartmanm	03/25/15 11:44
Nitrate as N	5.11	Baseline	hartmanm	03/25/15 11:44
Sulfate	7.65	Baseline	reaglec	03/25/15 10:11

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC25 Analysis Batch Number: 136809

Lab Sample ID: CCB 180-136809/9 Client Sample ID:

Date Analyzed: 03/27/15 14:47 Lab File ID: 03-27-201509.0000.d GC Column: AS-14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.44	Baseline	reaglec	03/28/15 11:22

Lab Sample ID: CCB 180-136809/21 Client Sample ID:

Date Analyzed: 03/27/15 19:10 Lab File ID: 03-27-201521.0000.d GC Column: AS-14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.40	Baseline	reaglec	03/28/15 11:26

Lab Sample ID: CCB 180-136809/29 Client Sample ID:

Date Analyzed: 03/27/15 21:15 Lab File ID: 03-27-201529.0000.d GC Column: AS-14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.39	Baseline	reaglec	03/28/15 11:27

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01201	03/28/15	03/26/15	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
icccv_01202	03/28/15	03/27/15	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_01231	03/28/15	03/26/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
icicv_01232	03/28/15	03/27/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00160	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00206	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00206	03/18/15	03/17/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL2_00161	03/24/15	03/23/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00207	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_00207	03/24/15	03/23/15	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
ICSTDL2_00162	03/26/15	03/25/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00208	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00208	03/26/15	03/25/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00200	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00206	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL
							Nitrate as N	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICSTDL6_00206	03/18/15	03/17/15	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_00201	03/24/15	03/23/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00207	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_00207	03/24/15	03/23/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00202	03/26/15	03/25/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00208	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_00208	03/26/15	03/25/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..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_00135	03/18/15	03/17/15	DI Water, Lot na	5 mL	ICSTDL7_00135	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_00135	03/18/15	03/17/15	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
ICSTDL4_00136	03/24/15	03/23/15	DI Water, Lot na	5 mL	ICSTDL7_00136	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_00136	03/24/15	03/23/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL4_00137	03/26/15	03/25/15	DI Water, Lot na	5 mL	ICSTDL7_00137	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_00137	03/26/15	03/25/15	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_00136	03/18/15	03/17/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00135	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_00135	03/18/15	03/17/15	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_00137	03/24/15	03/23/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00136	1 mL	Bromide	4 ug/mL
							Chloride	20 ug/mL
							Fluoride	1 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	1 ug/mL
							Orthophosphate as P	1 ug/mL
							Sulfate	20 ug/mL
							Nitrite as N	1 ug/mL
.ICSTDL7_00136	03/24/15	03/23/15	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_00138	03/26/15	03/25/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00137	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_00137	03/26/15	03/25/15	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
ICSTDL6_00201	03/18/15	03/04/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00207	03/24/15	03/23/15	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
ICSTDL6_00208	03/26/15	03/25/15	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_00132	03/18/15	03/04/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00136	03/24/15	03/23/15	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
ICSTDL7_00137	03/26/15	03/25/15	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_00102	03/19/15	03/04/15	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
ICSTDL8_00106	03/26/15	03/25/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	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_00107	03/19/15	03/04/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00111	03/26/15	03/25/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
MCCV1X_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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sodium	2500 ppm
MCRIX_00063	04/30/15	03/31/15	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_00068	04/12/15	03/12/15	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00064	04/12/15	03/12/15	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
							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_00030	04/05/15	03/05/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00027	01/30/15	12/30/14	Methanol, Lot 85233	10 mL	VOA8260INTRES_00051	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_00051	02/01/18	Restek, Lot A093504			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00030	04/10/15	03/10/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00091	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260INTRES_00091	07/31/19		Restek, Lot A0104742		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00029	01/30/15	12/30/14	Methanol, Lot 85233	100 mL	VOA8260SURRES_00075	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_00075	01/31/19		Restek, Lot A0101000		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00032	04/10/15	03/10/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00063	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_00063	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_00109	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00090	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00107	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00090	11/30/15		Restek, Lot A0108226		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00107	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00011	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
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00011	02/01/16		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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00097	01/28/15	01/21/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00081	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_00094	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00081	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_00094	01/31/15	12/31/14	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00030	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_00025	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	200 ug/mL
							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_00030	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_00025	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
							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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00105	03/20/15	03/13/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00091	0.08 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
							1,1,1-Trichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Iodomethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00091	09/30/16		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 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
							1,2-Dibromo-3-Chloropropane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							o-Xylene	200 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00108	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00092	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00106	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	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_00092	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_00106	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00014	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00014	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-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.: 180-42445-1

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
VOAKETONEPRI_00003	02/20/15	01/20/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00034	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_00034	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
VOAVAPRI_00005	04/13/15	03/13/15	Methanol, Lot 85233	50 mL	VOA8260VARES_00050	0.25 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00050	07/31/15		Restek, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
voaWAcropri R_00006	02/02/15	01/02/15	Methanol, Lot 85233	50 mL	VOAACRORES_00062	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00062	02/28/15		Restek, Lot A0106504		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWeemixpri_00001	01/29/15	12/29/14	Methanol, Lot 85233	25 mL	VOARESEE1ST_00017	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_00017	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
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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
voaWKet2 Rest_00002	04/16/15	03/16/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00042	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00042	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
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
voaWKetpri Re_00004	04/30/15	03/30/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00039	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00039	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVApri Res_00001	02/06/15	01/06/15	Methanol, Lot 85233	20 mL	VOA8260VARES_00049	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00049	04/30/15		Restek, Lot A0106957		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
WALK125PPMCCV_00083	10/01/15	04/01/15	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_00092	10/01/15	04/01/15	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_00005

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution

Catalog Number: TA-17

Lot Number: J2-MEB568059

Matrix: H2O

Value / Analyte(s): 500 mg/L ea:
Chloride, Sulfate,
100 mg/L ea:
Bromide,
25 mg/L ea:
Fluoride, Nitrate_as_N, oPhosphate_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

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Bromide	100.0 ± 0.6 mg/L	Chloride	500.1 ± 2.9 mg/L		
Fluoride	25.01 ± 0.13 mg/L	Nitrate as N	25.00 ± 0.14 mg/L		
o-Phosphate as P	25.00 ± 0.12 mg/L	Sulfate	500.1 ± 2.6 mg/L		

Certified Density: 0.999 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bromide	IC Assay	3184	020701
Bromide	Volhard	999b	999b
Chloride	IC Assay	194	392607
Chloride	Volhard	999b	999b
Fluoride	Calculated		See Sec. 4.2
Fluoride	IC Assay	3183	050721
Nitrate_as_N	IC Assay	3185	050517
oPhosphate_as_P	IC Assay	3186	090723
Sulfate	Calculated		See Sec. 4.2
Sulfate	IC Assay	3181	080603

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

- 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

February 18, 2015

11.2 Period of Validity

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

11.3 Expiration Date EXPIRES: 1 MAR 2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Christy Shortridge
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

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

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

CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

2 µg/mL ea:

Ag, As, Cd, Co, Cr3, Cu, Mn, Ni, Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

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

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MCALSPECAREV_00005

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

CERTIFICATE OF ANALYSIS

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

1.0 **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.®
203 Norcross Ave, Metuchen, NJ 08840
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.

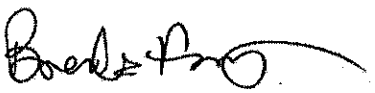
11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations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

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

CERTIFICATE OF ANALYSIS

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

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

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

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

Catalog No.: TAPITT-MSICSAB-2

Lot Number: **G2-MEB467043**

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

250 µg/mL ea:
Si,

50 µg/mL ea:
Sn,

25 µg/mL ea:
B, Se,

10 µg/mL ea:
Sb

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

($\bar{x}$) = mean

x_i = individual results

n = number of measurements

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

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 08, 2013

Expiration Date: EXPIRES 01 NOV 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

1222800

INORGANIC VENTURES

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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

CERTIFICATE OF ANALYSIS

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.

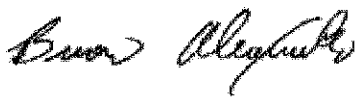
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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

1407255
1407256
1407257

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

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 01/2015

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

1407263
1407261
1407262

INORGANIC VENTURES™

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

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

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

rec'd 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_00081

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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_00091

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

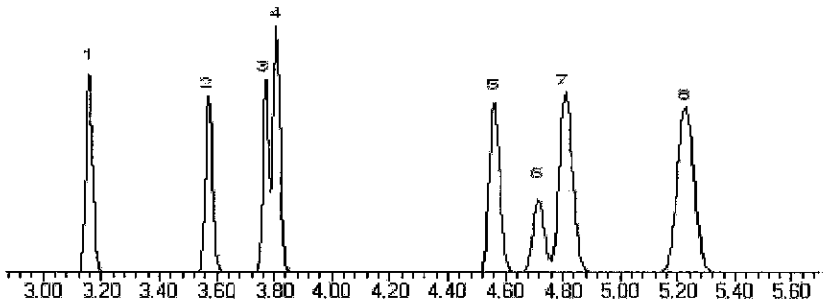
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

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

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS1ST_00092

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

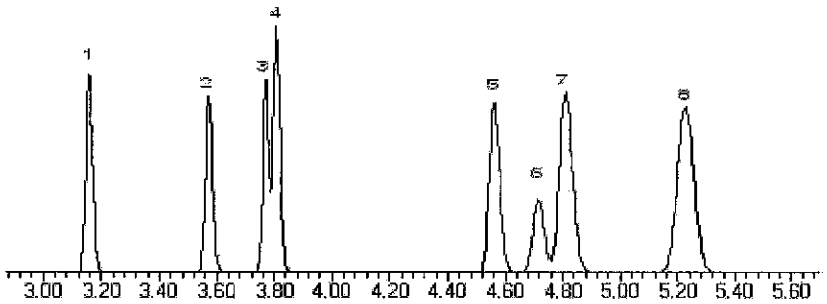
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

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

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS2ND_00090

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

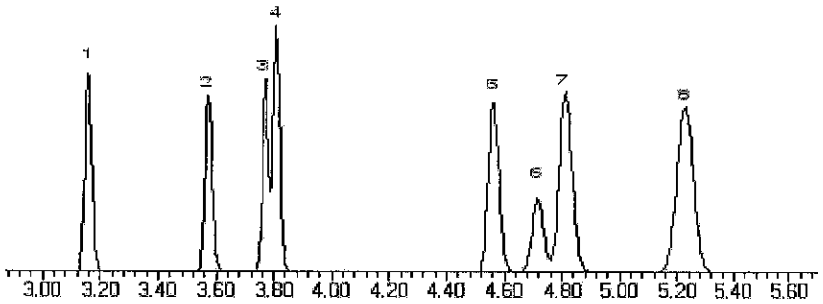
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

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

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260INTRES_00051

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 Internal Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 25725-11-5		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
2	Fluorobenzene	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 462-06-6		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 17647-74-4		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3114-55-4		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3855-82-1		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed

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

Reagent

VOA8260INTRES_00091

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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. : 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_00030

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #2 Ketones

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00034

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #2 Ketones

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00036

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #2 Ketones

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00037

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #2 Ketones

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00039

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00042

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00014

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

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

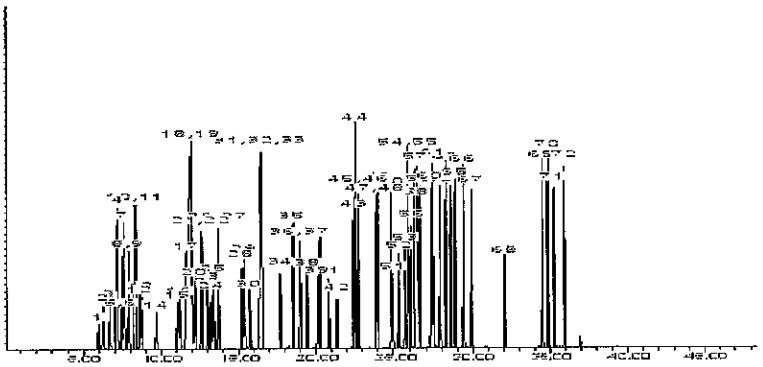
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

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

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

Reagent

VOA8260MEGA1_00025

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

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

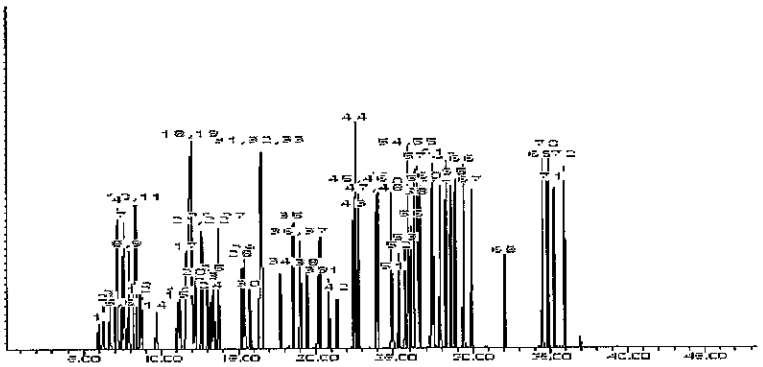
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

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

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

Reagent

VOA8260MEGA1_00027

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

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

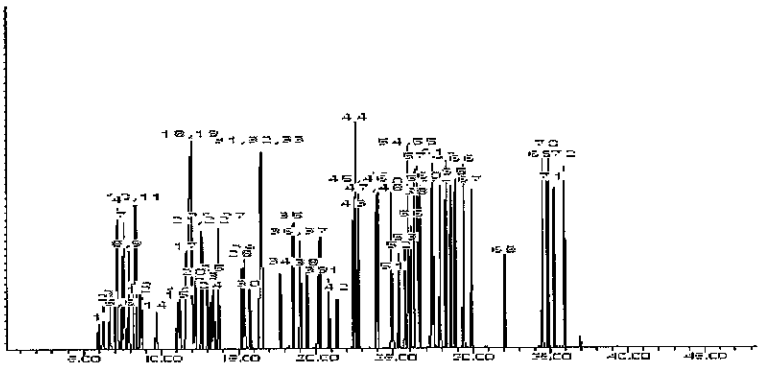
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

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

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

Reagent

VOA8260MEGA2_00011

RESTEK

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #1 MegaMix

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

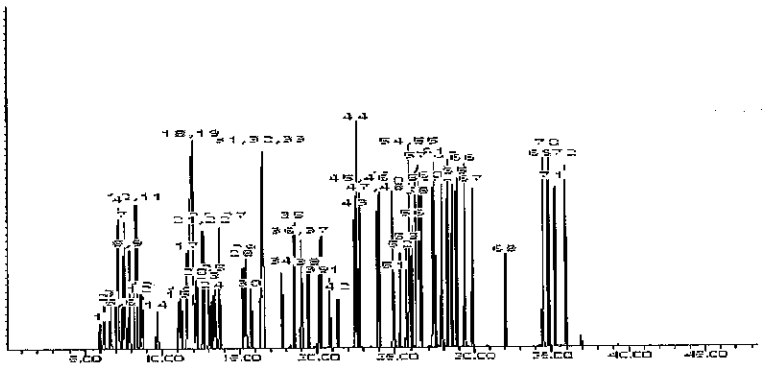
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

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

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

Reagent

VOA8260SURRES_00063

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

VOA8260SURRES_00075

RESTEK®

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0101000

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		2,509.6 µg/mL	+/- 14.5910	µg/mL	Gravimetric
	CAS # 1868-53-7	(Lot 022012)		+/- 28.2993	µg/mL	Unstressed
	Purity 99%			+/- 32.5644	µg/mL	Stressed
2	1,2-Dichloroethane-d4		2,508.2 µg/mL	+/- 14.5829	µg/mL	Gravimetric
	CAS # 17060-07-0	(Lot 12K-027)		+/- 28.2836	µg/mL	Unstressed
	Purity 99%			+/- 32.5462	µg/mL	Stressed
3	Toluene-d8		2,508.8 µg/mL	+/- 14.5864	µg/mL	Gravimetric
	CAS # 2037-26-5	(Lot 13I-050)		+/- 28.2903	µg/mL	Unstressed
	Purity 99%			+/- 32.5540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)		2,509.8 µg/mL	+/- 14.5922	µg/mL	Gravimetric
	CAS # 460-00-4	(Lot 01127COV)		+/- 28.3016	µg/mL	Unstressed
	Purity 99%			+/- 32.5670	µg/mL	Stressed

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

Reagent

VOA8260VARES_00049

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

VOA8260VARES_00050

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00062

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0106504

Description : 8260 List 1/Std #5 Acrolein High

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

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

Expiration Date : February 28, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein		19,767.0 µg/mL	+/- 115.7401	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 140903JLM)		+/- 633.7922	µg/mL	Unstressed
	Purity 99%			+/- 736.7140	µg/mL	Stressed

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

Reagent

VOAACRORES_00064

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

VOARESEE1ST_00017

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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 **CAS #** 98-15-7 **Purity** 99%	(Lot 21324DO)	5,001.0 µg/mL	+/- 29.3487 µg/mL +/- 53.0822 µg/mL +/- 61.7282 µg/mL	Gravimetric Unstressed Stressed
2	4-Chlorobenzotrifluoride **CAS #** 98-56-6 **Purity** 99%	(Lot 08507BO)	5,003.0 µg/mL	+/- 29.3604 µg/mL +/- 53.1034 µg/mL +/- 61.7529 µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorobenzotrifluoride **CAS #** 88-16-4 **Purity** 99%	(Lot I0316DQ)	5,005.0 µg/mL	+/- 29.3721 µg/mL +/- 53.1247 µg/mL +/- 61.7775 µg/mL	Gravimetric Unstressed Stressed
4	3-Chlorotoluene **CAS #** 108-41-8 **Purity** 99%	(Lot 13528LX)	5,000.0 µg/mL	+/- 29.3428 µg/mL +/- 53.0716 µg/mL +/- 61.7158 µg/mL	Gravimetric Unstressed Stressed
5	2,4-Dichlorobenzotrifluoride **CAS #** 320-60-5 **Purity** 99%	(Lot MKBL3552V)	5,002.0 µg/mL	+/- 29.3545 µg/mL +/- 53.0928 µg/mL +/- 61.7405 µg/mL	Gravimetric Unstressed Stressed
6	3,4-Dichlorobenzotrifluoride **CAS #** 328-84-7 **Purity** 99%	(Lot 11105EJV)	5,000.0 µg/mL	+/- 29.3428 µg/mL +/- 53.0716 µg/mL +/- 61.7158 µg/mL	Gravimetric Unstressed Stressed
7	2,5-Dichlorobenzotrifluoride **CAS #** 320-50-3 **Purity** 99%	(Lot 04415DSV)	5,000.0 µg/mL	+/- 29.3428 µg/mL +/- 53.0716 µg/mL +/- 61.7158 µg/mL	Gravimetric Unstressed Stressed
8	2,4-Dichlorotoluene **CAS #** 95-73-8 **Purity** 99%	(Lot 07715JS)	5,002.0 µg/mL	+/- 29.3545 µg/mL +/- 53.0928 µg/mL +/- 61.7405 µg/mL	Gravimetric Unstressed 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.: 180-42445-1

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-QC5-0/1-2	180-42445-1	112	126	109	93
HD-MW-96S-0/1-0	180-42445-2	110	115	99	98
HD-MW-96S-0/1-0 DL	180-42445-2 DL	105	121	115	102
HD-MW-96D-0/1-0	180-42445-3	118	125	110	91
HD-MW-98I-0/1-0	180-42445-4	114	118	106	94
HD-MW-98S-0/1-0	180-42445-5	103	122	110	97
HD-MW-39D-0/1-0	180-42445-6	113	124	113	100
HD-MW-74S-0/1-0	180-42445-7	116	124	110	94
HD-MW-50D-0/1-0	180-42445-8	112	120	106	94
HD-MW-51S-0/1-0	180-42445-9	115	124	114	100
HD-QC2-0/1-1	180-42445-10	109	113	101	98
HD-QC1-0/1-3	180-42445-11	119	129	111	100
HD-QC1-0/1-4	180-42445-12	119	134	109	99
	MB 180-137356/5	105	110	108	94
	MB 180-137472/6	105	121	108	95
	MB 180-137519/5	108	115	107	100
	LCS 180-137356/8	95	99	109	97
	LCS 180-137472/8	91	107	92	89
	LCS 180-137519/8	95	99	99	94
HD-MW-98I-0/1-0 MS	180-42445-4 MS	97	106	102	93
HD-MW-98I-0/1-0 MSD	180-42445-4 MSD	92	104	91	84

	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.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60402008.D

Lab ID: LCS 180-137356/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.37	74	50-139	
Vinyl chloride	10.0	8.99	90	53-138	
Bromomethane	10.0	10.1	101	33-150	
Chloroethane	10.0	8.75	87	36-142	
1,1-Dichloroethene	10.0	7.79	78	65-136	
Acetone	20.0	19.5	98	22-150	
Carbon disulfide	10.0	6.24	62	54-132	
Methylene Chloride	10.0	7.61	76	63-129	
trans-1,2-Dichloroethene	10.0	7.72	77	73-126	
Methyl tert-butyl ether	10.0	8.44	84	64-123	
1,1-Dichloroethane	10.0	7.82	78	73-126	
cis-1,2-Dichloroethene	10.0	7.96	80	70-120	
Bromochloromethane	10.0	8.79	88	70-127	
2-Butanone (MEK)	20.0	20.9	104	39-138	
Chloroform	10.0	8.13	81	72-127	
1,1,1-Trichloroethane	10.0	7.23	72	63-133	
Carbon tetrachloride	10.0	7.52	75	55-150	
Benzene	10.0	9.06	91	80-120	
1,2-Dichloroethane	10.0	9.95	99	68-132	
Trichloroethene	10.0	8.41	84	73-120	
1,2-Dichloropropane	10.0	8.52	85	76-124	
Bromodichloromethane	10.0	8.53	85	66-130	
cis-1,3-Dichloropropene	10.0	7.78	78	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	99	45-145	
Toluene	10.0	10.8	108	80-123	
trans-1,3-Dichloropropene	10.0	9.87	99	65-125	
1,1,2-Trichloroethane	10.0	12.0	120	77-127	
Tetrachloroethene	10.0	10.2	102	70-135	
2-Hexanone	20.0	21.9	110	25-132	
Dibromochloromethane	10.0	10.2	102	60-140	
1,2-Dibromoethane (EDB)	10.0	11.9	119	74-123	
Chlorobenzene	10.0	10.4	104	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.73	97	63-140	
Ethylbenzene	10.0	10.3	103	72-126	
Xylenes, Total	20.0	20.6	103	76-128	
Styrene	10.0	11.0	110	71-127	
Bromoform	10.0	9.93	99	46-150	
1,1,2,2-Tetrachloroethane	10.0	13.1	131	62-125	*
1,4-Dioxane	200	237	119	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.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60403008.D

Lab ID: LCS 180-137472/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.67	67	50-139	
Vinyl chloride	10.0	7.58	76	53-138	
Bromomethane	10.0	10.6	106	33-150	
Chloroethane	10.0	8.03	80	36-142	
1,1-Dichloroethene	10.0	7.34	73	65-136	
Acetone	20.0	17.0	85	22-150	
Carbon disulfide	10.0	5.74	57	54-132	
Methylene Chloride	10.0	7.10	71	63-129	
trans-1,2-Dichloroethene	10.0	7.56	76	73-126	
Methyl tert-butyl ether	10.0	8.26	83	64-123	
1,1-Dichloroethane	10.0	7.48	75	73-126	
cis-1,2-Dichloroethene	10.0	7.74	77	70-120	
Bromochloromethane	10.0	8.82	88	70-127	
2-Butanone (MEK)	20.0	18.2	91	39-138	
Chloroform	10.0	8.54	85	72-127	
1,1,1-Trichloroethane	10.0	7.55	75	63-133	
Carbon tetrachloride	10.0	7.82	78	55-150	
Benzene	10.0	8.63	86	80-120	
1,2-Dichloroethane	10.0	11.0	110	68-132	
Trichloroethene	10.0	8.35	83	73-120	
1,2-Dichloropropane	10.0	8.32	83	76-124	
Bromodichloromethane	10.0	8.88	89	66-130	
cis-1,3-Dichloropropene	10.0	8.10	81	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	14.4	72	45-145	
Toluene	10.0	9.61	96	80-123	
trans-1,3-Dichloropropene	10.0	9.52	95	65-125	
1,1,2-Trichloroethane	10.0	11.3	113	77-127	
Tetrachloroethene	10.0	10.1	101	70-135	
2-Hexanone	20.0	16.5	83	25-132	
Dibromochloromethane	10.0	9.53	95	60-140	
1,2-Dibromoethane (EDB)	10.0	10.8	108	74-123	
Chlorobenzene	10.0	9.75	98	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.03	90	63-140	
Ethylbenzene	10.0	9.21	92	72-126	
Xylenes, Total	20.0	18.3	92	76-128	
Styrene	10.0	9.91	99	71-127	
Bromoform	10.0	10.3	103	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.3	113	62-125	
1,4-Dioxane	200	233	116	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.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50404008.D

Lab ID: LCS 180-137519/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.02	90	50-139	
Vinyl chloride	10.0	10.3	103	53-138	
Bromomethane	10.0	12.9	129	33-150	
Chloroethane	10.0	11.8	118	36-142	
1,1-Dichloroethene	10.0	10.1	101	65-136	
Acetone	20.0	21.7	109	22-150	
Carbon disulfide	10.0	9.57	96	54-132	
Methylene Chloride	10.0	9.12	91	63-129	
trans-1,2-Dichloroethene	10.0	9.88	99	73-126	
Methyl tert-butyl ether	10.0	9.68	97	64-123	
1,1-Dichloroethane	10.0	10.1	101	73-126	
cis-1,2-Dichloroethene	10.0	9.57	96	70-120	
Bromochloromethane	10.0	9.57	96	70-127	
2-Butanone (MEK)	20.0	16.4	82	39-138	
Chloroform	10.0	10.3	103	72-127	
1,1,1-Trichloroethane	10.0	11.1	111	63-133	
Carbon tetrachloride	10.0	12.0	120	55-150	
Benzene	10.0	10.1	101	80-120	
1,2-Dichloroethane	10.0	10.2	102	68-132	
Trichloroethene	10.0	9.25	92	73-120	
1,2-Dichloropropane	10.0	9.73	97	76-124	
Bromodichloromethane	10.0	10.1	101	66-130	
cis-1,3-Dichloropropene	10.0	9.75	97	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.5	88	45-145	
Toluene	10.0	10.6	106	80-123	
trans-1,3-Dichloropropene	10.0	10.9	109	65-125	
1,1,2-Trichloroethane	10.0	10.6	106	77-127	
Tetrachloroethene	10.0	10.3	103	70-135	
2-Hexanone	20.0	16.1	81	25-132	
Dibromochloromethane	10.0	10.7	107	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	74-123	
Chlorobenzene	10.0	10.1	101	80-120	
1,1,1,2-Tetrachloroethane	10.0	11.2	112	63-140	
Ethylbenzene	10.0	10.3	103	72-126	
Xylenes, Total	20.0	19.7	99	76-128	
Styrene	10.0	10.2	102	71-127	
Bromoform	10.0	10.1	101	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.0	100	62-125	
1,4-Dioxane	200	152 J	76	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60403009.D

Lab ID: 180-42445-4 MS Client ID: HD-MW-98I-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	7.44	74	50-139	
Vinyl chloride	10.0	1.0 U	8.19	82	53-138	
Bromomethane	10.0	1.0 U	11.1	111	33-150	
Chloroethane	10.0	1.0 U	8.00	80	36-142	
1,1-Dichloroethene	10.0	0.84 J	9.07	82	65-136	
Acetone	20.0	5.0 U	18.0	90	22-150	
Carbon disulfide	10.0	1.0 U	6.14	61	54-132	
Methylene Chloride	10.0	1.0 U	7.48	75	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	7.69	77	73-126	
Methyl tert-butyl ether	10.0	1.0 U	9.34	93	64-123	
1,1-Dichloroethane	10.0	1.0 U	8.15	82	73-126	
cis-1,2-Dichloroethene	10.0	11	19.9	87	70-120	
Bromochloromethane	10.0	1.0 U	8.77	88	70-127	
2-Butanone (MEK)	20.0	5.0 U	19.7	98	39-138	
Chloroform	10.0	1.0 U	8.97	90	72-127	
1,1,1-Trichloroethane	10.0	2.2	10.3	82	63-133	
Carbon tetrachloride	10.0	1.0 U	8.77	88	55-150	
Benzene	10.0	1.0 U	9.03	90	80-120	
1,2-Dichloroethane	10.0	1.0 U	11.1	111	68-132	
Trichloroethene	10.0	12	20.3	79	73-120	
1,2-Dichloropropane	10.0	1.0 U	8.31	83	76-124	
Bromodichloromethane	10.0	1.0 U	8.91	89	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	8.06	81	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	17.6	88	45-145	
Toluene	10.0	1.0 U	10.5	105	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	10.2	102	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	12.0	120	77-127	
Tetrachloroethene	10.0	14	24.5	102	70-135	
2-Hexanone	20.0	5.0 U	18.4	92	25-132	
Dibromochloromethane	10.0	1.0 U	10.1	101	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	11.5	115	74-123	
Chlorobenzene	10.0	1.0 U	9.93	99	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	9.67	97	63-140	
Ethylbenzene	10.0	1.0 U	10.1	101	72-126	
Xylenes, Total	20.0	3.0 U	20.0	100	76-128	
Styrene	10.0	1.0 U	10.5	105	71-127	
Bromoform	10.0	1.0 U	10.6	106	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	12.4	124	62-125	
1,4-Dioxane	200	200 U	274	137	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60403010.D

Lab ID: 180-42445-4 MSD Client ID: HD-MW-98I-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	6.82	68	9	35	50-139	
Vinyl chloride	10.0	8.17	82	0	35	53-138	
Bromomethane	10.0	10.2	102	8	35	33-150	
Chloroethane	10.0	7.73	77	4	35	36-142	
1,1-Dichloroethene	10.0	8.31	75	9	35	65-136	
Acetone	20.0	16.7	84	7	35	22-150	
Carbon disulfide	10.0	6.07	61	1	35	54-132	
Methylene Chloride	10.0	7.32	73	2	35	63-129	
trans-1,2-Dichloroethene	10.0	8.01	80	4	35	73-126	
Methyl tert-butyl ether	10.0	9.08	91	3	35	64-123	
1,1-Dichloroethane	10.0	8.24	82	1	35	73-126	
cis-1,2-Dichloroethene	10.0	19.3	81	3	35	70-120	
Bromochloromethane	10.0	9.01	90	3	35	70-127	
2-Butanone (MEK)	20.0	20.0	100	1	35	39-138	
Chloroform	10.0	8.77	88	2	35	72-127	
1,1,1-Trichloroethane	10.0	10.1	80	2	35	63-133	
Carbon tetrachloride	10.0	7.91	79	10	35	55-150	
Benzene	10.0	8.66	87	4	32	80-120	
1,2-Dichloroethane	10.0	10.7	107	3	32	68-132	
Trichloroethene	10.0	19.8	74	2	35	73-120	
1,2-Dichloropropane	10.0	8.06	81	3	34	76-124	
Bromodichloromethane	10.0	8.56	86	4	35	66-130	
cis-1,3-Dichloropropene	10.0	7.91	79	2	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.4	82	7	35	45-145	
Toluene	10.0	9.53	95	10	35	80-123	
trans-1,3-Dichloropropene	10.0	9.07	91	11	35	65-125	
1,1,2-Trichloroethane	10.0	11.0	110	9	35	77-127	
Tetrachloroethene	10.0	22.8	85	7	35	70-135	
2-Hexanone	20.0	17.9	90	2	35	25-132	
Dibromochloromethane	10.0	9.34	93	8	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	12	35	74-123	
Chlorobenzene	10.0	9.39	94	6	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	8.74	87	10	34	63-140	
Ethylbenzene	10.0	9.41	94	7	33	72-126	
Xylenes, Total	20.0	17.9	90	11	32	76-128	
Styrene	10.0	9.54	95	9	34	71-127	
Bromoform	10.0	10.4	104	2	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.4	114	8	35	62-125	
1,4-Dioxane	200	248	124	10	35	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.: 180-42445-1

SDG No.:

Lab File ID: 60402005.D Lab Sample ID: MB 180-137356/5

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

Instrument ID: CHHP6 Date Analyzed: 04/02/2015 14:04

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 180-137356/8	60402008.D	04/02/2015 15:38
HD-QC5-0/1-2	180-42445-1	60402023.D	04/02/2015 21:39

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 60403006.D Lab Sample ID: MB 180-137472/6

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

Instrument ID: CHHP6 Date Analyzed: 04/03/2015 14:50

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
HD-MW-98I-0/1-0	180-42445-4	60403007.D	04/03/2015 15:35
	LCS 180-137472/8	60403008.D	04/03/2015 16:14
HD-MW-98I-0/1-0 MS	180-42445-4 MS	60403009.D	04/03/2015 16:37
HD-MW-98I-0/1-0 MSD	180-42445-4 MSD	60403010.D	04/03/2015 17:01
HD-MW-96S-0/1-0 DL	180-42445-2 DL	60403012.D	04/03/2015 17:49
HD-MW-96D-0/1-0	180-42445-3	60403013.D	04/03/2015 18:13
HD-MW-98S-0/1-0	180-42445-5	60403014.D	04/03/2015 18:37
HD-MW-39D-0/1-0	180-42445-6	60403015.D	04/03/2015 19:01
HD-MW-74S-0/1-0	180-42445-7	60403016.D	04/03/2015 19:25
HD-MW-50D-0/1-0	180-42445-8	60403017.D	04/03/2015 19:49
HD-MW-51S-0/1-0	180-42445-9	60403019.D	04/03/2015 20:38
HD-QC1-0/1-3	180-42445-11	60403021.D	04/03/2015 21:25
HD-QC1-0/1-4	180-42445-12	60403022.D	04/03/2015 21:49

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 50404005.D Lab Sample ID: MB 180-137519/5

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

Instrument ID: CHHP5 Date Analyzed: 04/04/2015 13:27

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 180-137519/8	50404008.D	04/04/2015 14:52
HD-QC2-0/1-1	180-42445-10	50404014.D	04/04/2015 17:17
HD-MW-96S-0/1-0	180-42445-2	50404028.D	04/04/2015 22:55

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 50316001.D BFB Injection Date: 03/16/2015

Instrument ID: CHHP5 BFB Injection Time: 10:49

Analysis Batch No.: 135593

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.7	
75	30.0 - 60.0 % of mass 95	54.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.8	(0.9)1
174	50.0 - 120.00 % of mass 95	85.5	
175	5.0 - 9.0 % of mass 174	6.4	(7.5)1
176	95.0 - 101.0 % of mass 174	83.4	(97.4)1
177	5.0 - 9.0 % of mass 176	4.9	(5.8)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 180-135593/4	50316004.D	03/16/2015	12:41
	ICIS 180-135593/5	50316005.D	03/16/2015	13:05
	IC 180-135593/6	50316006.D	03/16/2015	13:29
	IC 180-135593/7	50316007.D	03/16/2015	13:53
	IC 180-135593/8	50316008.D	03/16/2015	14:17
	IC 180-135593/9	50316009.D	03/16/2015	14:41
	IC 180-135593/10	50316010.D	03/16/2015	15:05
	IC 180-135593/13	50316013.D	03/16/2015	16:17

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 50404001.D BFB Injection Date: 04/04/2015

Instrument ID: CHHP5 BFB Injection Time: 11:14

Analysis Batch No.: 137519

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.6	
75	30.0 - 60.0 % of mass 95	52.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.4	(0.4)1
174	50.0 - 120.00 % of mass 95	83.2	
175	5.0 - 9.0 % of mass 174	5.3	(6.3)1
176	95.0 - 101.0 % of mass 174	79.6	(95.7)1
177	5.0 - 9.0 % of mass 176	5.2	(6.6)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-137519/2	50404002.D	04/04/2015	11:51
	CCV 180-137519/3	50404003.D	04/04/2015	12:39
	MB 180-137519/5	50404005.D	04/04/2015	13:27
	LCS 180-137519/8	50404008.D	04/04/2015	14:52
HD-QC2-0/1-1	180-42445-10	50404014.D	04/04/2015	17:17
HD-MW-96S-0/1-0	180-42445-2	50404028.D	04/04/2015	22:55

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 60128004.D BFB Injection Date: 01/28/2015

Instrument ID: CHHP6 BFB Injection Time: 11:55

Analysis Batch No.: 131929

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.1	
75	30.0 - 60.0 % of mass 95	48.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.5	(0.7)1
174	50.0 - 120.00 % of mass 95	64.3	
175	5.0 - 9.0 % of mass 174	4.8	(7.4)1
176	95.0 - 101.0 % of mass 174	64.5	(100.3)1
177	5.0 - 9.0 % of mass 176	4.6	(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
	IC 180-131929/6	60128006.D	01/28/2015	13:58
	IC 180-131929/7	60128007.D	01/28/2015	14:21
	ICIS 180-131929/8	60128008.D	01/28/2015	14:45
	IC 180-131929/9	60128009.D	01/28/2015	15:09
	IC 180-131929/10	60128010.D	01/28/2015	15:33
	IC 180-131929/11	60128011.D	01/28/2015	15:57
	IC 180-131929/12	60128012.D	01/28/2015	16:21
	IC 180-131929/13	60128013.D	01/28/2015	16:44

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 60402001.D BFB Injection Date: 04/02/2015

Instrument ID: CHHP6 BFB Injection Time: 11:56

Analysis Batch No.: 137356

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.1	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	8.0	
173	Less than 2.0 % of mass 174	0.6	(0.9)1
174	50.0 - 120.00 % of mass 95	70.0	
175	5.0 - 9.0 % of mass 174	5.5	(7.8)1
176	95.0 - 101.0 % of mass 174	68.0	(97.1)1
177	5.0 - 9.0 % of mass 176	4.7	(6.9)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-137356/2	60402002.D	04/02/2015	12:38
	CCV 180-137356/3	60402003.D	04/02/2015	13:01
	MB 180-137356/5	60402005.D	04/02/2015	14:04
	LCS 180-137356/8	60402008.D	04/02/2015	15:38
HD-QC5-0/1-2	180-42445-1	60402023.D	04/02/2015	21:39

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: 60403001.D BFB Injection Date: 04/03/2015

Instrument ID: CHHP6 BFB Injection Time: 12:23

Analysis Batch No.: 137472

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.7	
75	30.0 - 60.0 % of mass 95	54.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	71.3	
175	5.0 - 9.0 % of mass 174	5.0	(7.1)1
176	95.0 - 101.0 % of mass 174	70.5	(98.9)1
177	5.0 - 9.0 % of mass 176	4.2	(5.9)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 180-137472/3	60403003.D	04/03/2015	13:25
	CCVIS 180-137472/4	60403004.D	04/03/2015	13:52
	MB 180-137472/6	60403006.D	04/03/2015	14:50
HD-MW-98I-0/1-0	180-42445-4	60403007.D	04/03/2015	15:35
	LCS 180-137472/8	60403008.D	04/03/2015	16:14
HD-MW-98I-0/1-0 MS	180-42445-4 MS	60403009.D	04/03/2015	16:37
HD-MW-98I-0/1-0 MSD	180-42445-4 MSD	60403010.D	04/03/2015	17:01
HD-MW-96S-0/1-0 DL	180-42445-2 DL	60403012.D	04/03/2015	17:49
HD-MW-96D-0/1-0	180-42445-3	60403013.D	04/03/2015	18:13
HD-MW-98S-0/1-0	180-42445-5	60403014.D	04/03/2015	18:37
HD-MW-39D-0/1-0	180-42445-6	60403015.D	04/03/2015	19:01
HD-MW-74S-0/1-0	180-42445-7	60403016.D	04/03/2015	19:25
HD-MW-50D-0/1-0	180-42445-8	60403017.D	04/03/2015	19:49
HD-MW-51S-0/1-0	180-42445-9	60403019.D	04/03/2015	20:38
HD-QC1-0/1-3	180-42445-11	60403021.D	04/03/2015	21:25
HD-QC1-0/1-4	180-42445-12	60403022.D	04/03/2015	21:49

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Sample No.: CCVIS 180-137519/2 Date Analyzed: 04/04/2015 11:51

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

Lab File ID (Standard): 50404002.D Heated Purge: (Y/N) N

Calibration ID: 22514

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		119477	4.32	426044	7.27	97102	10.36
UPPER LIMIT		238954	4.82	852088	7.77	194204	10.86
LOWER LIMIT		59739	3.82	213022	6.77	48551	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-137519/3		118133	4.30	410832	7.27	92121	10.36
MB 180-137519/5		125313	4.31	426718	7.27	94789	10.36
LCS 180-137519/8		122095	4.32	448033	7.27	101379	10.36
180-42445-10	HD-QC2-0/1-1	117868	4.31	400832	7.28	90126	10.36
180-42445-2	HD-MW-96S-0/1-0	104189	4.31	372314	7.27	88368	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.: 180-42445-1

SDG No.:

Sample No.: CCVIS 180-137519/2 Date Analyzed: 04/04/2015 11:51

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

Lab File ID (Standard): 50404002.D Heated Purge: (Y/N) N

Calibration ID: 22514

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		143351	12.68				
UPPER LIMIT		286702	13.18				
LOWER LIMIT		71676	12.18				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-137519/3		115930	12.68				
MB 180-137519/5		137268	12.68				
LCS 180-137519/8		160112	12.68				
180-42445-10	HD-QC2-0/1-1	128015	12.68				
180-42445-2	HD-MW-96S-0/1-0	126851	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 VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Sample No.: CCVIS 180-137356/2 Date Analyzed: 04/02/2015 12:38

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60402002.D Heated Purge: (Y/N) N

Calibration ID: 21588

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		209935	4.28	492629	7.33	102505	10.44
UPPER LIMIT		419870	4.78	985258	7.83	205010	10.94
LOWER LIMIT		104968	3.78	246315	6.83	51253	9.94
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-137356/3		241445	4.27	494132	7.33	93141	10.44
MB 180-137356/5		223881	4.28	525227	7.33	109799	10.44
LCS 180-137356/8		200551	4.28	515092	7.33	98238	10.44
180-42445-1	HD-QC5-0/1-2	175994	4.27	399608	7.33	82166	10.44

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.: 180-42445-1

SDG No.:

Sample No.: CCVIS 180-137356/2 Date Analyzed: 04/02/2015 12:38

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60402002.D Heated Purge: (Y/N) N

Calibration ID: 21588

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		170924	12.80				
UPPER LIMIT		341848	13.30				
LOWER LIMIT		85462	12.30				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-137356/3		150677	12.79				
MB 180-137356/5		178039	12.79				
LCS 180-137356/8		172730	12.79				
180-42445-1	HD-QC5-0/1-2	143554	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Sample No.: CCVIS 180-137472/4 Date Analyzed: 04/03/2015 13:52

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60403004.D Heated Purge: (Y/N) N

Calibration ID: 21588

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		185081	4.28	400759	7.33	83248	10.44
UPPER LIMIT		370162	4.78	801518	7.83	166496	10.94
LOWER LIMIT		92541	3.78	200380	6.83	41624	9.94
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137472/6		190337	4.27	423019	7.33	88325	10.44
180-42445-4	HD-MW-98I-0/1-0	173664	4.27	417925	7.33	88288	10.44
LCS 180-137472/8		169260	4.28	390258	7.33	84762	10.44
180-42445-4 MS	HD-MW-98I-0/1-0 MS	191756	4.29	408396	7.33	82361	10.44
180-42445-4 MSD	HD-MW-98I-0/1-0 MSD	198994	4.27	429943	7.33	91657	10.44
180-42445-2 DL	HD-MW-96S-0/1-0 DL	199166	4.27	430126	7.33	85610	10.44
180-42445-3	HD-MW-96D-0/1-0	192568	4.28	411197	7.34	86530	10.44
180-42445-5	HD-MW-98S-0/1-0	192291	4.27	417023	7.33	88005	10.44
180-42445-6	HD-MW-39D-0/1-0	187703	4.28	411203	7.34	82814	10.44
180-42445-7	HD-MW-74S-0/1-0	188987	4.27	398413	7.33	80877	10.44
180-42445-8	HD-MW-50D-0/1-0	186935	4.28	417542	7.33	90515	10.44
180-42445-9	HD-MW-51S-0/1-0	178324	4.28	393433	7.33	77864	10.44
180-42445-11	HD-QC1-0/1-3	177718	4.29	381543	7.34	78122	10.44
180-42445-12	HD-QC1-0/1-4	174213	4.27	371698	7.33	77547	10.44

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.: 180-42445-1

SDG No.:

Sample No.: CCVIS 180-137472/4 Date Analyzed: 04/03/2015 13:52

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60403004.D Heated Purge: (Y/N) N

Calibration ID: 21588

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		133734	12.79				
UPPER LIMIT		267468	13.29				
LOWER LIMIT		66867	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-137472/6		145974	12.79				
180-42445-4	HD-MW-98I-0/1-0	144940	12.79				
LCS 180-137472/8		136131	12.79				
180-42445-4 MS	HD-MW-98I-0/1-0 MS	138696	12.79				
180-42445-4 MSD	HD-MW-98I-0/1-0 MSD	139649	12.79				
180-42445-2 DL	HD-MW-96S-0/1-0 DL	152610	12.79				
180-42445-3	HD-MW-96D-0/1-0	143883	12.79				
180-42445-5	HD-MW-98S-0/1-0	143242	12.79				
180-42445-6	HD-MW-39D-0/1-0	140857	12.79				
180-42445-7	HD-MW-74S-0/1-0	140404	12.79				
180-42445-8	HD-MW-50D-0/1-0	142161	12.80				
180-42445-9	HD-MW-51S-0/1-0	141305	12.79				
180-42445-11	HD-QC1-0/1-3	136095	12.79				
180-42445-12	HD-QC1-0/1-4	132682	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC5-0/1-2 Lab Sample ID: 180-42445-1

Matrix: Water Lab File ID: 60402023.D

Analysis Method: 8260C Date Collected: 03/26/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 04/02/2015 21:39

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.: 137356 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.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC5-0/1-2 Lab Sample ID: 180-42445-1

Matrix: Water Lab File ID: 60402023.D

Analysis Method: 8260C Date Collected: 03/26/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 04/02/2015 21:39

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.: 137356 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)	126		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402023.D
Lims ID: 180-42445-B-1 Lab Sample ID: 180-42445-1
Client ID: HD-QC5-0/1-2
Sample Type: Client
Inject. Date: 02-Apr-2015 21:39:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-B-1
Misc. Info.: 180-0006300-023
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 12:46:33 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 12:46:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.273	-0.002	92	175994	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	98	399608	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.440	-0.003	90	82166	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	97	143554	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.598	0.008	93	101129	55.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	7.156	-0.179	71	162630	62.9	
$ 7 Toluene-d8 (Surr)	98	8.984	8.982	0.002	94	352196	54.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.633	-0.004	83	128568	46.7	
12 Chloromethane	50		1.769				ND	
13 Vinyl chloride	62		1.903				ND	
15 Bromomethane	94		2.244				ND	
16 Chloroethane	64		2.408				ND	
22 1,1-Dichloroethene	96		3.375				ND	
24 Acetone	43		3.454				ND	
26 Carbon disulfide	76		3.679				ND	
31 Methylene Chloride	84		4.178				ND	
33 Acrylonitrile	53		4.542				ND	
34 trans-1,2-Dichloroethene	96		4.609				ND	
35 Methyl tert-butyl ether	73		4.615				ND	
37 1,1-Dichloroethane	63		5.242				ND	
44 2-Butanone (MEK)	43		5.984				ND	
43 cis-1,2-Dichloroethene	96		5.990				ND	
48 Chlorobromomethane	128		6.276				ND	
50 Chloroform	83		6.409				ND	
51 1,1,1-Trichloroethane	97		6.580				ND	
53 Carbon tetrachloride	117		6.762				ND	
56 Benzene	78		6.987				ND	
57 1,2-Dichloroethane	62		7.060				ND	
61 Trichloroethene	130		7.723				ND	
64 1,2-Dichloropropane	63		7.997				ND	
65 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.270				ND	
71 cis-1,3-Dichloropropene	75		8.720				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.854				ND	
73 Toluene	91	9.051	9.049	0.002	31	3444	0.4100	
74 trans-1,3-Dichloropropene	75		9.292				ND	
76 1,1,2-Trichloroethane	97		9.493				ND	
77 Tetrachloroethene	164		9.572				ND	
79 2-Hexanone	43		9.693				ND	
81 Chlorodibromomethane	129		9.870				ND	
82 Ethylene Dibromide	107		9.985				ND	
84 Chlorobenzene	112		10.472				ND	
86 1,1,1,2-Tetrachloroethane	131		10.563				ND	
87 Ethylbenzene	106		10.569				ND	
88 m-Xylene & p-Xylene	106		10.697				ND	
89 o-Xylene	106		11.080				ND	
90 Styrene	104		11.104				ND	
91 Bromoform	173		11.293				ND	
96 1,1,2,2-Tetrachloroethane	83		11.755				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

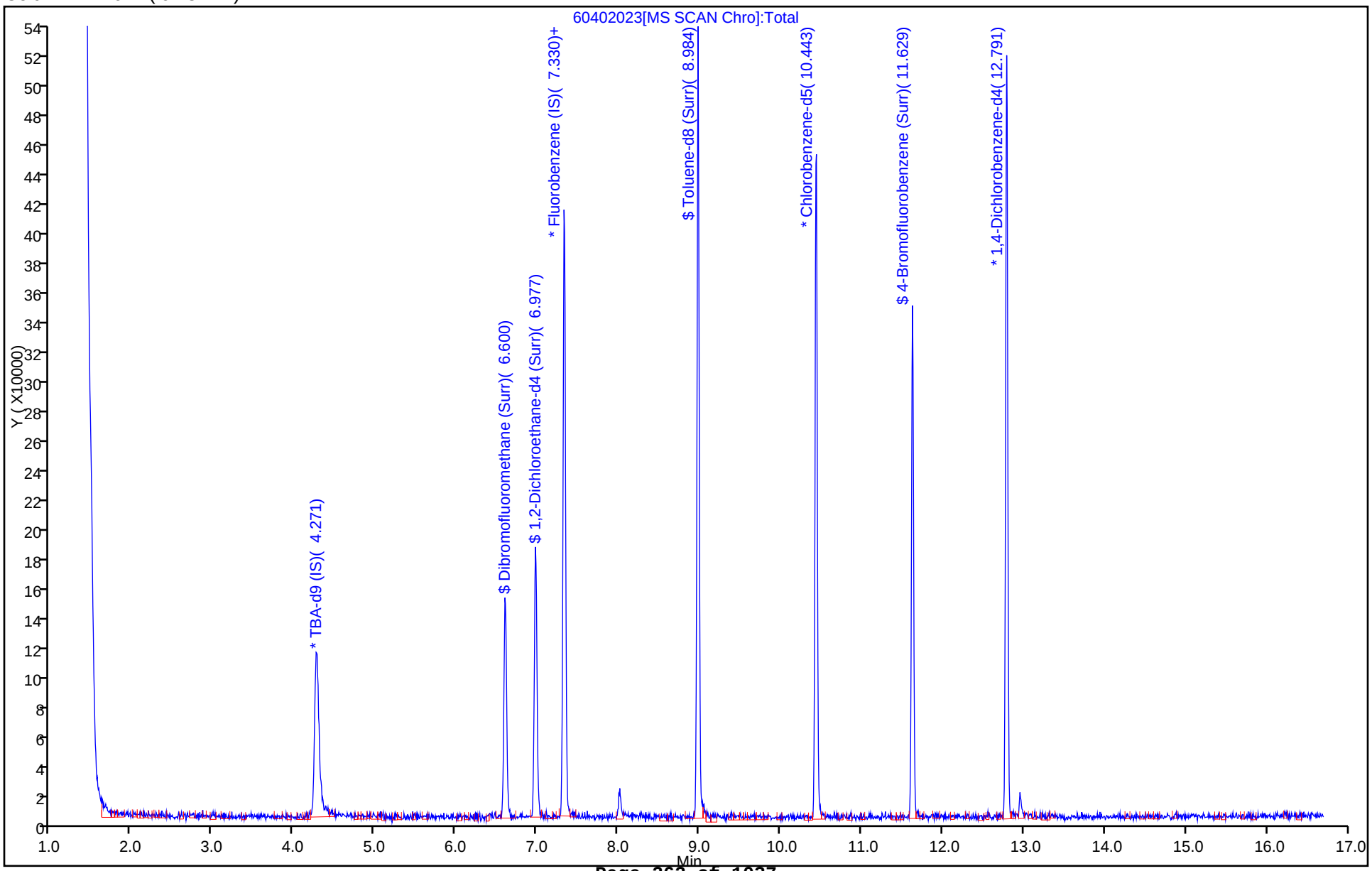
Report Date: 03-Apr-2015 12:46:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402023.D

Injection Date:	02-Apr-2015 21:39:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-B-1	Lab Sample ID:	180-42445-1	Worklist Smp#:	23
Client ID:	HD-QC5-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP6	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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 | Lab Sample ID: 180-42445-2

Matrix: Water | Lab File ID: 50404028.D

Analysis Method: 8260C | Date Collected: 03/26/2015 09:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/04/2015 22:55

Soil Aliquot Vol: | Dilution Factor: 2.5

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

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

Analysis Batch No.: 137519 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.5	U	2.5	0.71
75-01-4	Vinyl chloride	2.5	U	2.5	0.57
74-83-9	Bromomethane	2.5	U	2.5	0.78
75-00-3	Chloroethane	2.5	U	2.5	0.54
75-35-4	1,1-Dichloroethene	3.4		2.5	0.74
67-64-1	Acetone	13	U	13	6.3
75-15-0	Carbon disulfide	2.5	U	2.5	0.53
75-09-2	Methylene Chloride	2.5	U	2.5	0.31
156-60-5	trans-1,2-Dichloroethene	0.61	J	2.5	0.42
1634-04-4	Methyl tert-butyl ether	2.5	U	2.5	0.46
75-34-3	1,1-Dichloroethane	2.0	J	2.5	0.29
156-59-2	cis-1,2-Dichloroethene	120		2.5	0.59
74-97-5	Bromochloromethane	2.5	U	2.5	0.45
78-93-3	2-Butanone (MEK)	13	U	13	1.4
67-66-3	Chloroform	0.53	J	2.5	0.43
71-55-6	1,1,1-Trichloroethane	11		2.5	0.72
56-23-5	Carbon tetrachloride	2.5	U	2.5	0.34
71-43-2	Benzene	2.5	U	2.5	0.26
107-06-2	1,2-Dichloroethane	2.5	U	2.5	0.53
79-01-6	*Trichloroethene*	*220*	*E*	*2.5*	*0.36*
78-87-5	1,2-Dichloropropane	2.5	U	2.5	0.24
75-27-4	Bromodichloromethane	2.5	U	2.5	0.33
10061-01-5	cis-1,3-Dichloropropene	2.5	U	2.5	0.47
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	13	1.3
108-88-3	Toluene	2.5	U	2.5	0.38
10061-02-6	trans-1,3-Dichloropropene	2.5	U	2.5	0.37
79-00-5	1,1,2-Trichloroethane	2.5	U	2.5	0.50
127-18-4	*Tetrachloroethene*	*550*	*E*	*2.5*	*0.37*
591-78-6	2-Hexanone	13	U	13	0.40
124-48-1	Dibromochloromethane	2.5	U	2.5	0.34
106-93-4	1,2-Dibromoethane (EDB)	2.5	U	2.5	0.45
108-90-7	Chlorobenzene	2.5	U	2.5	0.34
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.69
100-41-4	Ethylbenzene	2.5	U	2.5	0.57
1330-20-7	Xylenes, Total	7.5	U	7.5	1.2
100-42-5	Styrene	2.5	U	2.5	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-42445-2

Matrix: Water Lab File ID: 50404028.D

Analysis Method: 8260C Date Collected: 03/26/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 04/04/2015 22:55

Soil Aliquot Vol: Dilution Factor: 2.5

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.5	U	2.5	0.48
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.50
107-13-1	Acrylonitrile	50	U	50	1.4
123-91-1	1,4-Dioxane	500	U	500	86

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D
Lims ID: 180-42445-D-2 Lab Sample ID: 180-42445-2
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 04-Apr-2015 22:55:30 ALS Bottle#: 28 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 2.5000
Sample Info: 180-42445-D-2, 2.5x
Misc. Info.: 180-0006328-028
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 08:45:59 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

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

First Level Reviewer: fergusond Date: 06-Apr-2015 08:45:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.301	0.009	97	104189	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.270	0.003	100	372314	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.360	0.003	99	88368	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.684	-0.003	94	126851	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.525	0.006	73	93516	55.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	98	127873	57.3	
$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	349897	49.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.525	11.526	-0.001	97	124554	49.1	
12 Chloromethane	50		1.786				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.407				ND	
22 1,1-Dichloroethene	96	3.404	3.386	0.018	96	14425	6.72	
24 Acetone	43		3.502				ND	
26 Carbon disulfide	76		3.666				ND	
31 Methylene Chloride	84		4.147				ND	
33 Acrylonitrile	53		4.560				ND	
34 trans-1,2-Dichloroethene	96	4.578	4.566	0.012	4	2687	1.21	
35 Methyl tert-butyl ether	73		4.597				ND	
37 1,1-Dichloroethane	63	5.180	5.175	0.005	98	15648	3.95	
45 cis-1,2-Dichloroethene	96	5.941	5.941	0.000	83	561625	240.1	
46 2-Butanone (MEK)	43		5.990				ND	
49 Chlorobromomethane	128		6.227				ND	
52 Chloroform	83	6.354	6.343	0.011	7	3846	1.07	M
53 1,1,1-Trichloroethane	97	6.537	6.531	0.006	74	51997	22.6	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.951				ND	
59 1,2-Dichloroethane	62		6.988				ND	
64 Trichloroethene	130	7.668	7.669	-0.001	99	993850	449.6	E
67 1,2-Dichloropropane	63		7.900				ND	
70 1,4-Dioxane	88		8.058				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.198				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91		8.989				ND	
77 trans-1,3-Dichloropropene	75		9.220				ND	
79 1,1,2-Trichloroethane	97		9.397				ND	
80 Tetrachloroethene	164	9.536	9.537	-0.001	93	1944439	1097.7	E
82 2-Hexanone	43		9.652				ND	
84 Chlorodibromomethane	129		9.786				ND	
85 Ethylene Dibromide	107		9.902				ND	
87 Chlorobenzene	112		10.388				ND	
89 1,1,1,2-Tetrachloroethane	131		10.473				ND	
90 Ethylbenzene	106		10.498				ND	
91 m-Xylene & p-Xylene	106		10.613				ND	
92 o-Xylene	106		11.009				ND	
93 Styrene	104		11.021				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

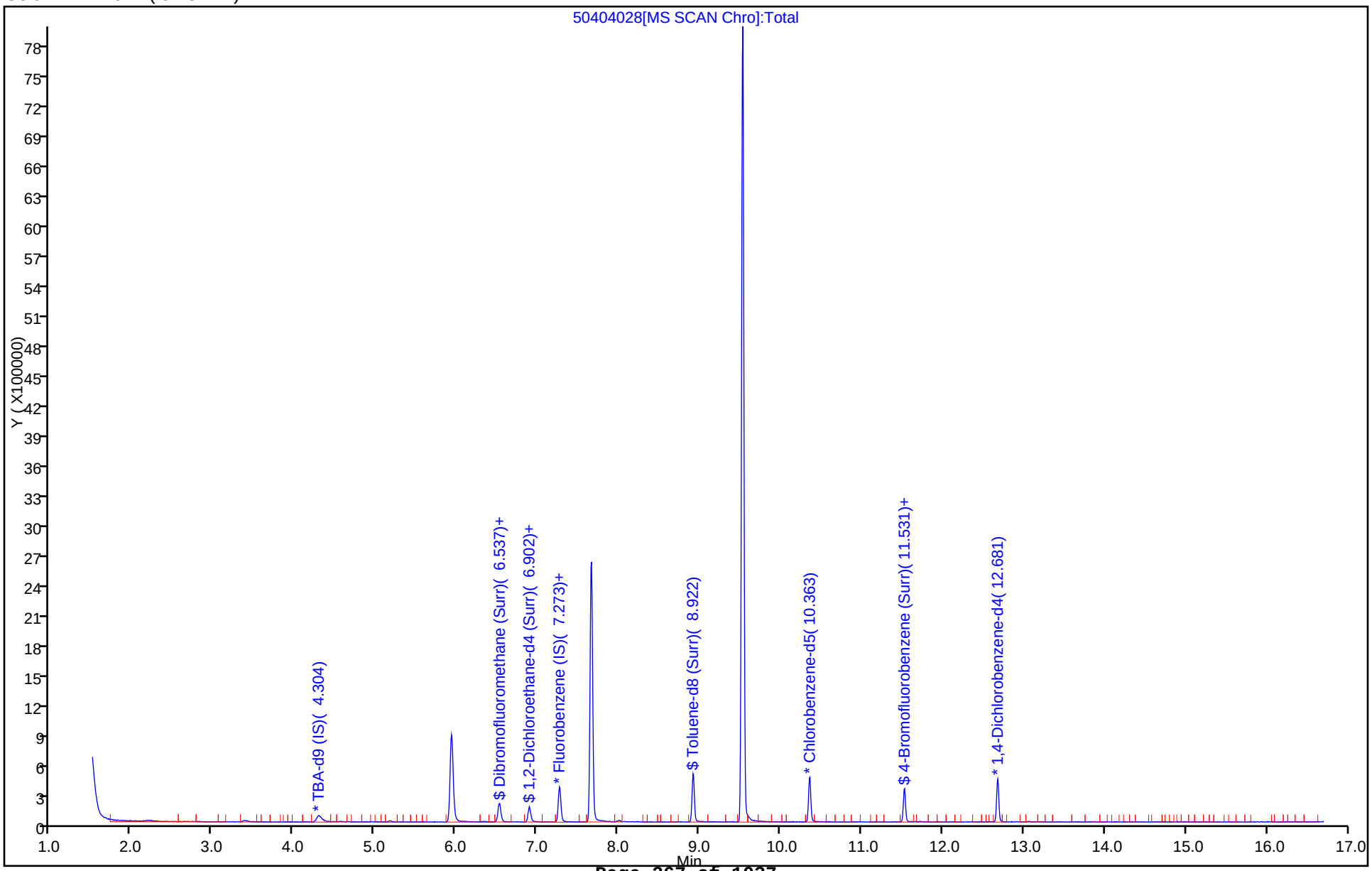
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D				
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2	Worklist Smp#:	28
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.5000	ALS Bottle#:	28
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

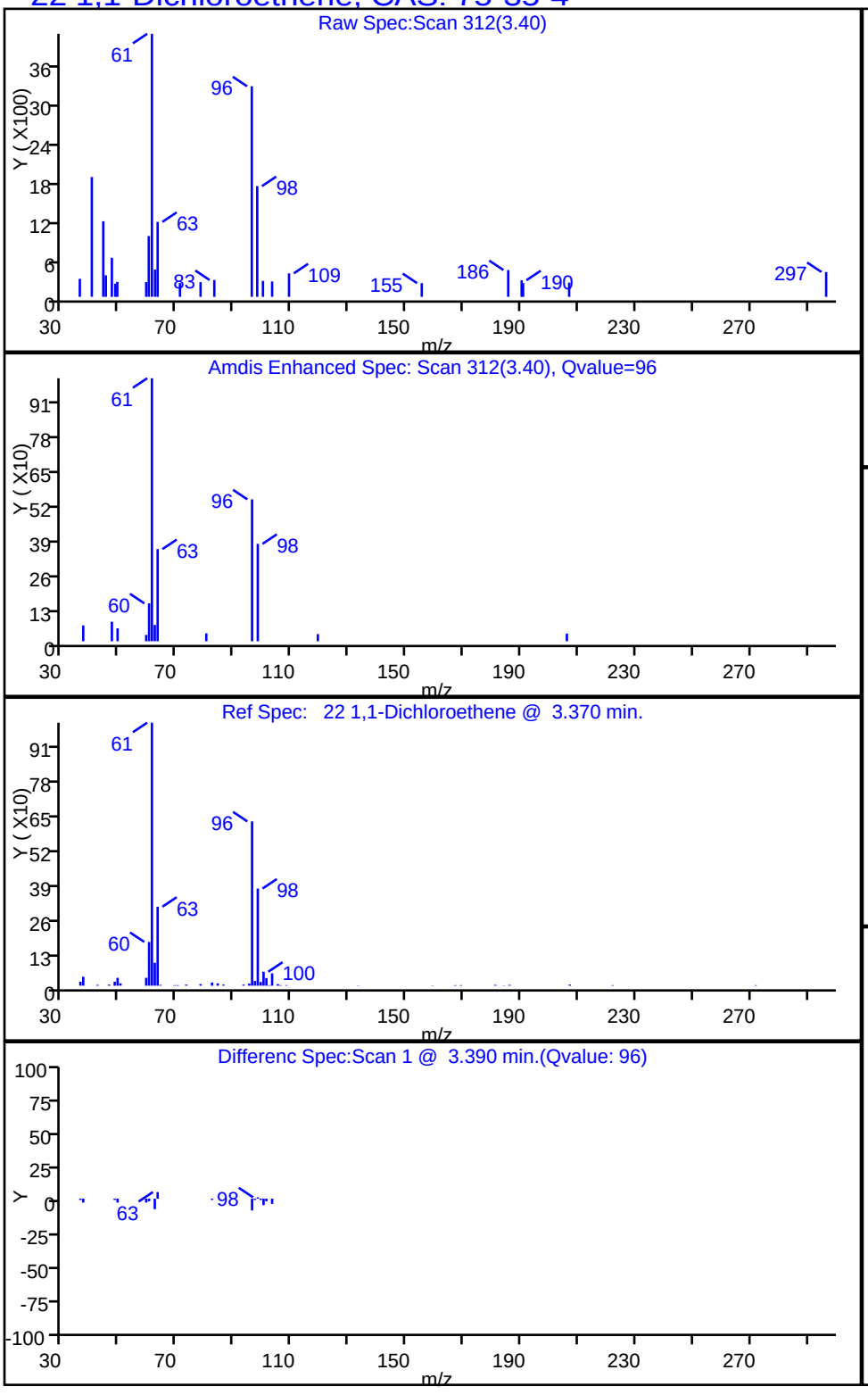


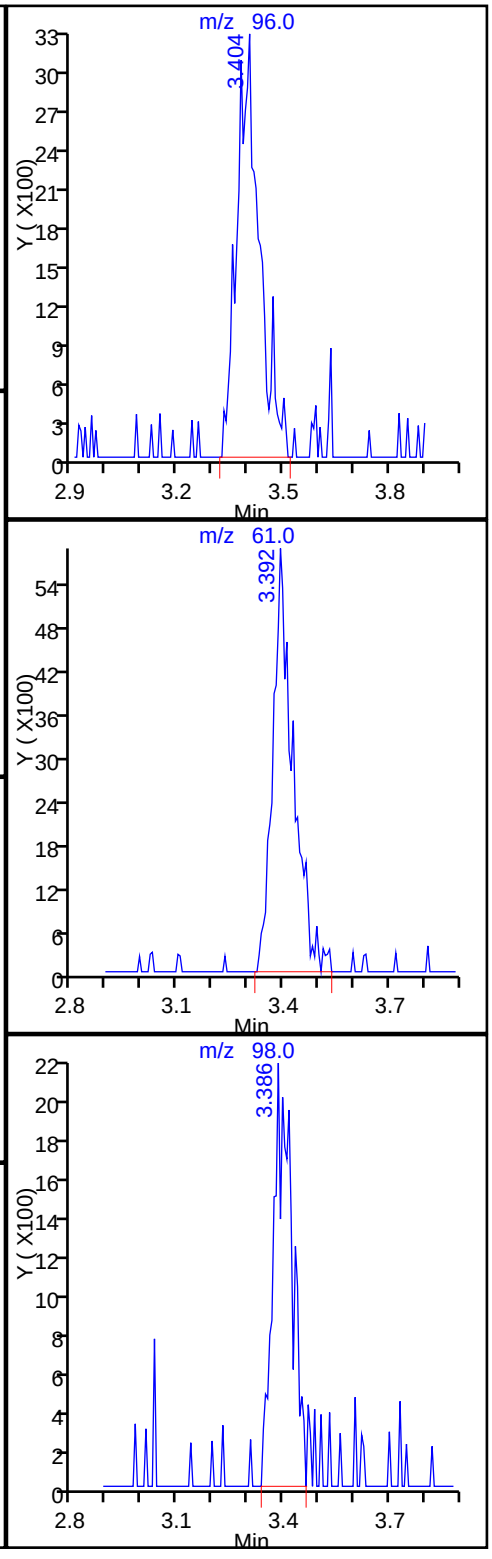
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D		
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	28 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
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



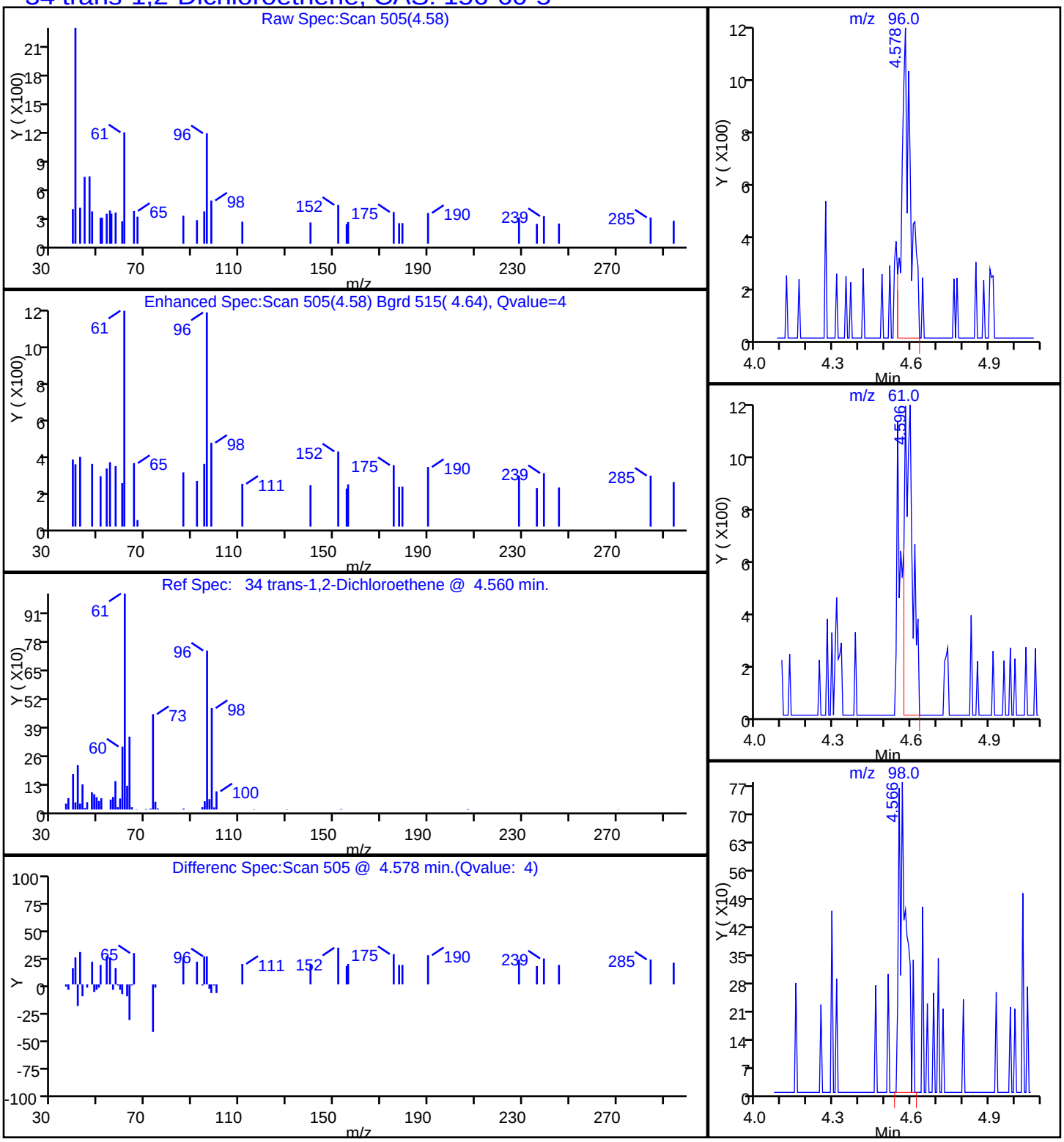


Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D				
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
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

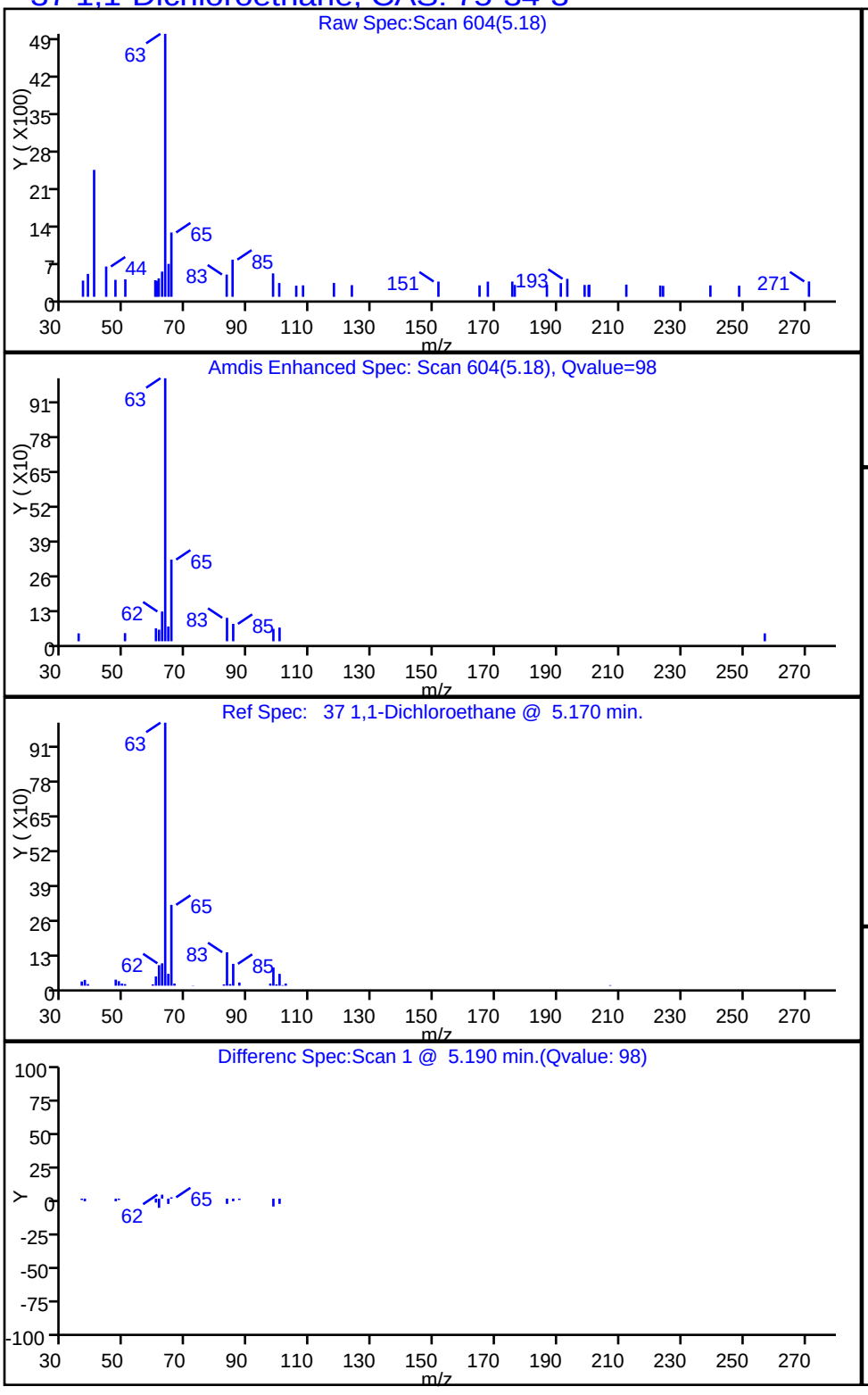


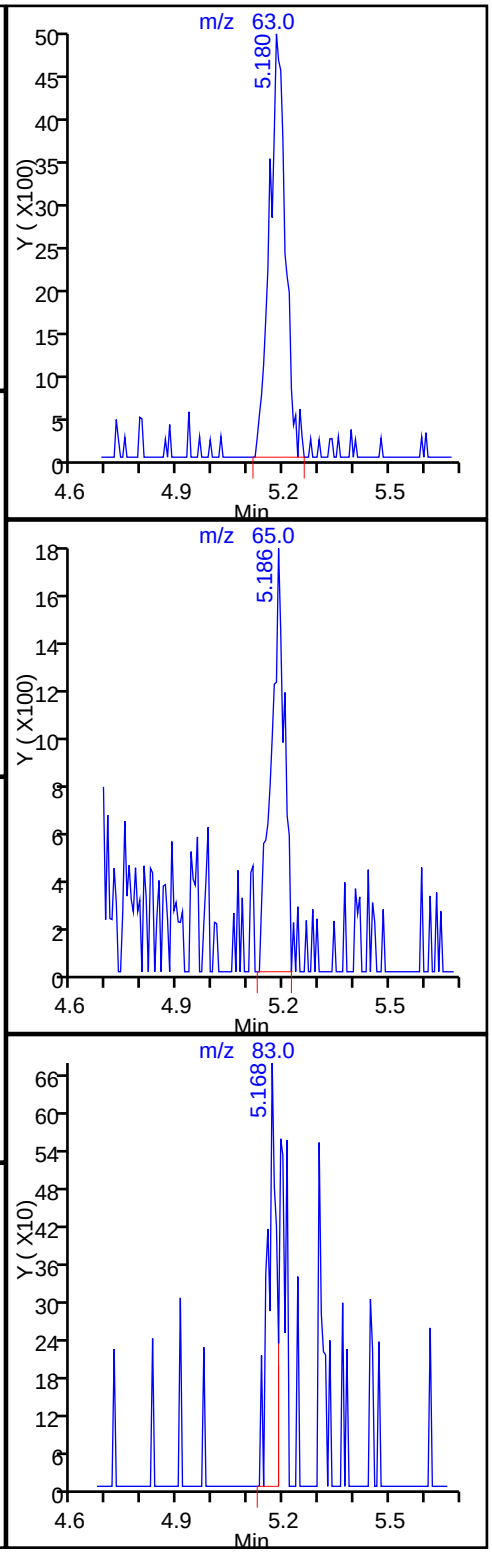
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D		
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	28 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
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





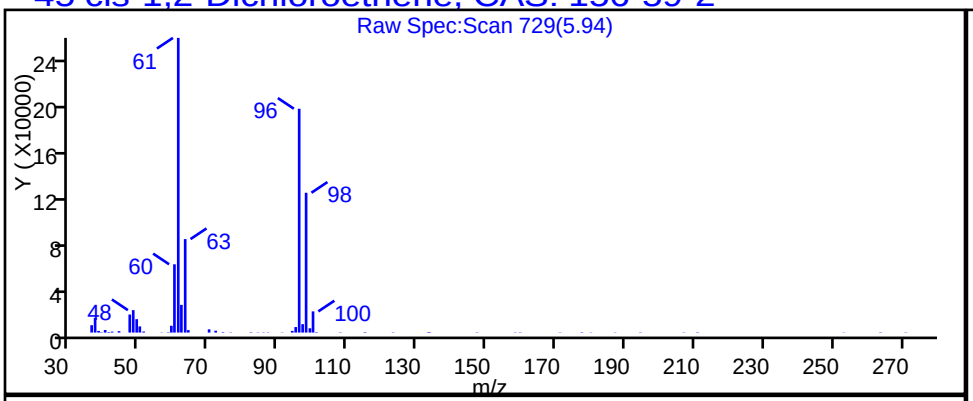
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

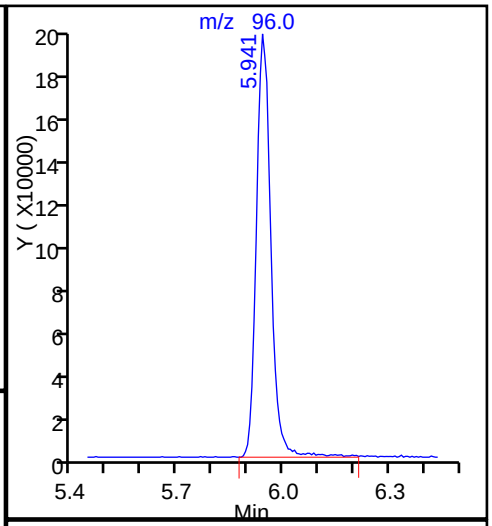
TestAmerica Pittsburgh

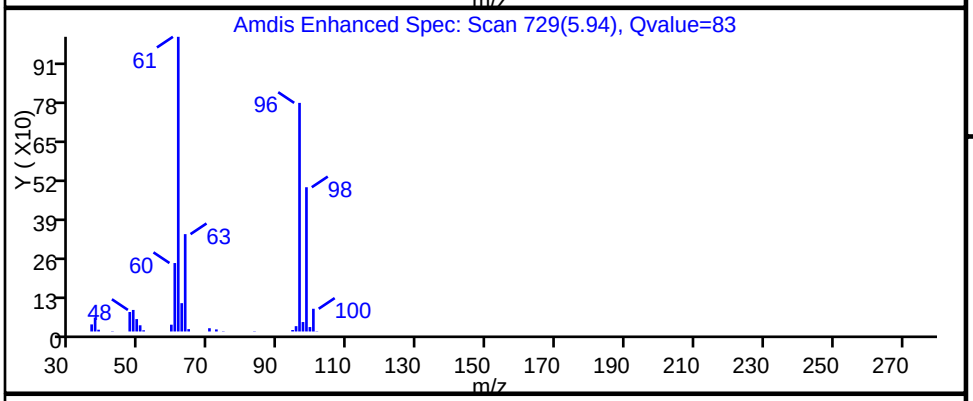
Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D

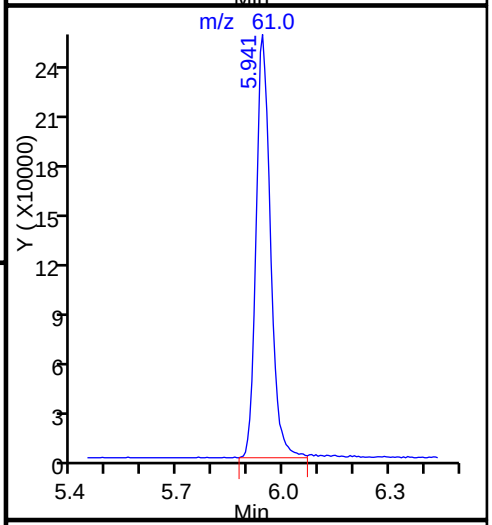
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

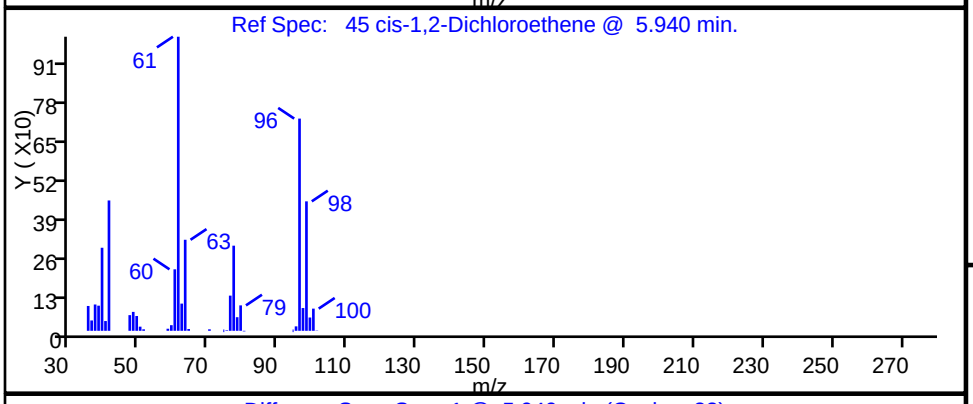
45 cis-1,2-Dichloroethene, CAS: 156-59-2

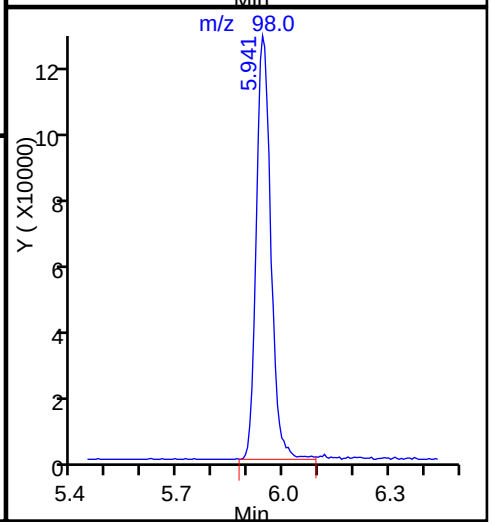


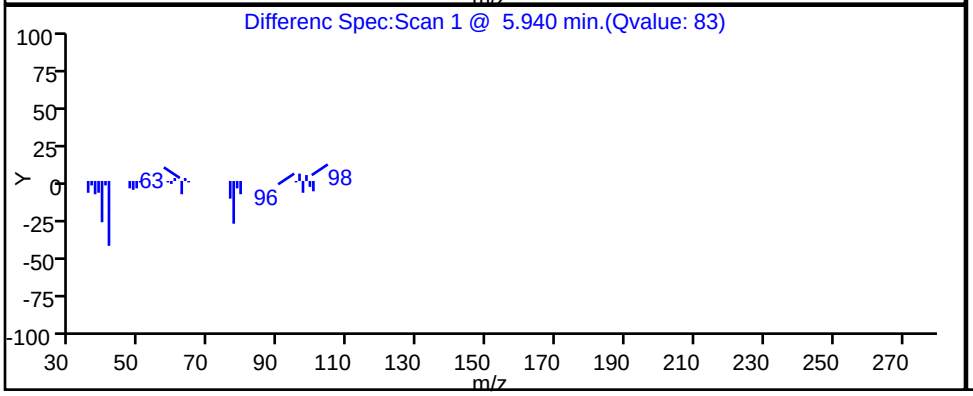










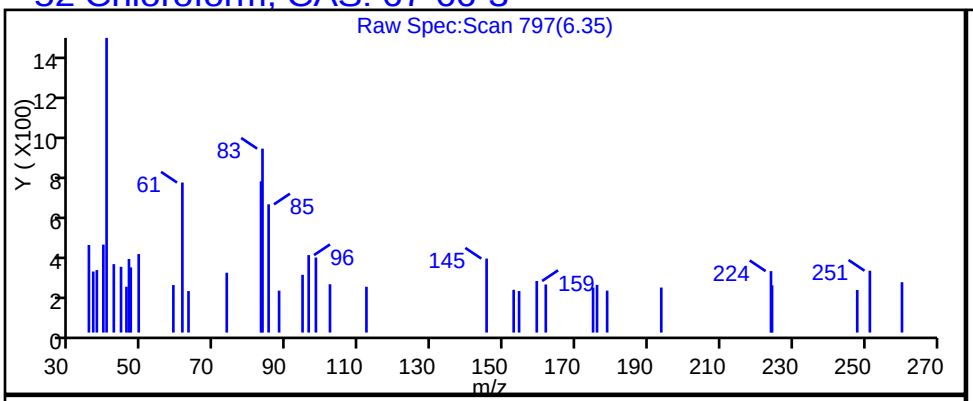


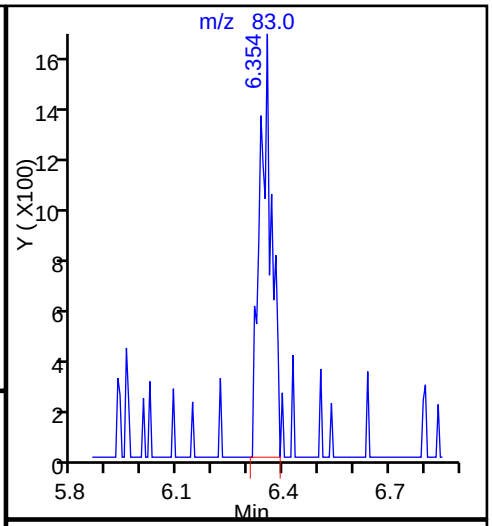
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

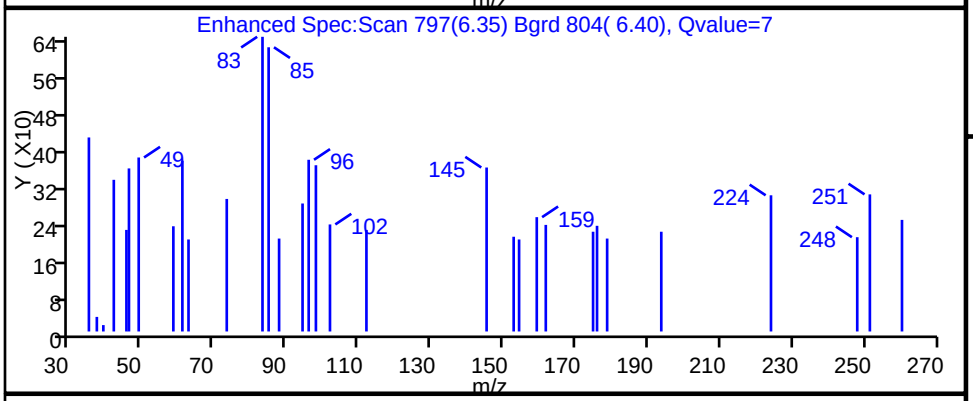
TestAmerica Pittsburgh

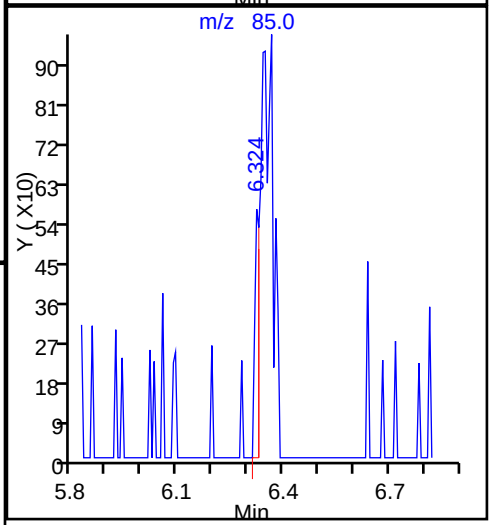
Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D				
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

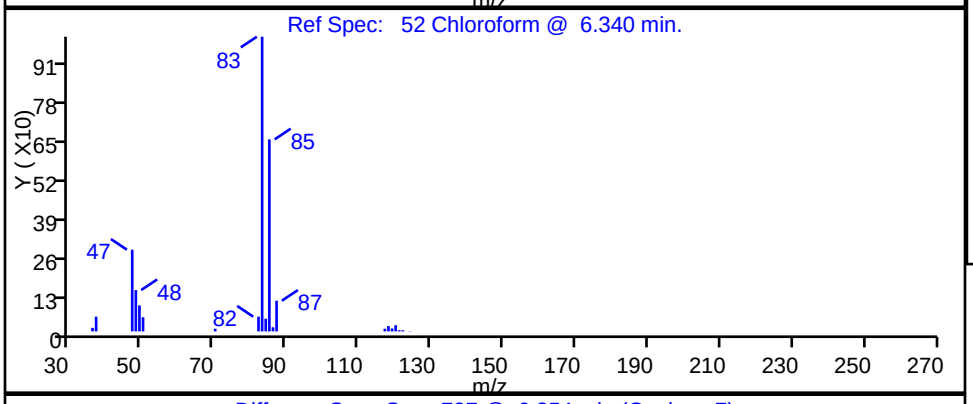
52 Chloroform, CAS: 67-66-3

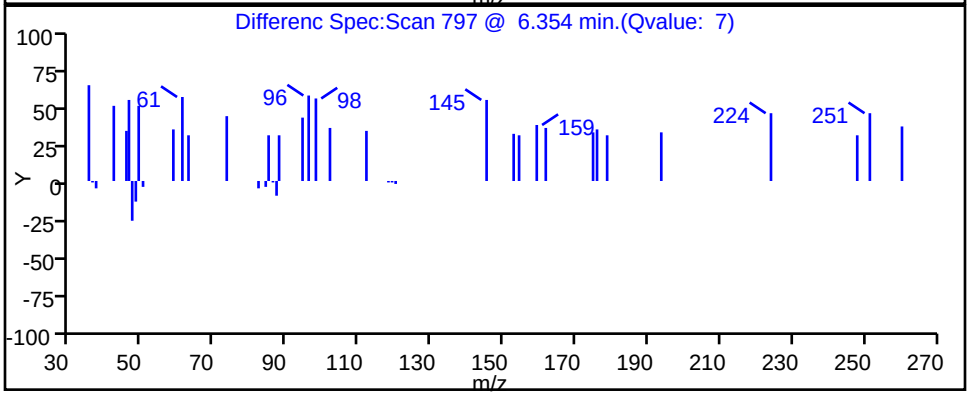










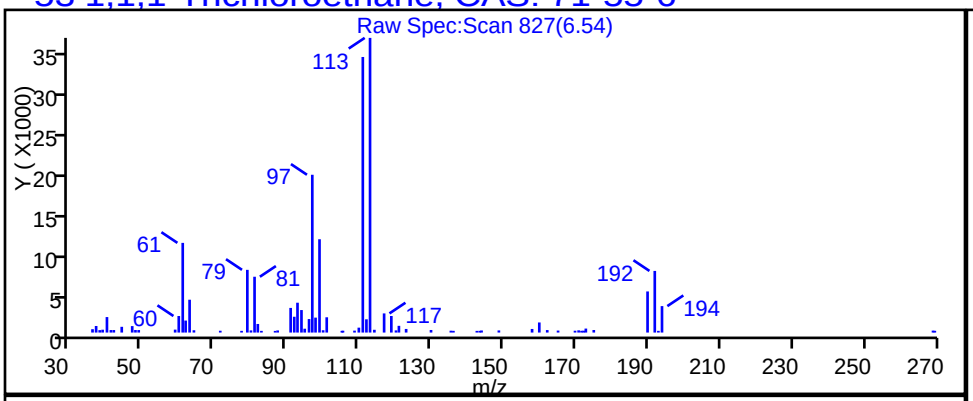


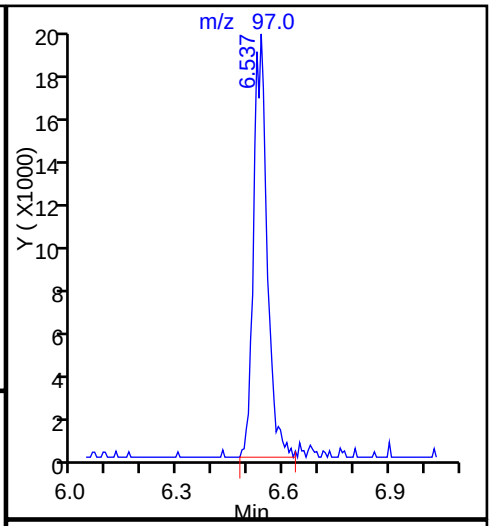
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

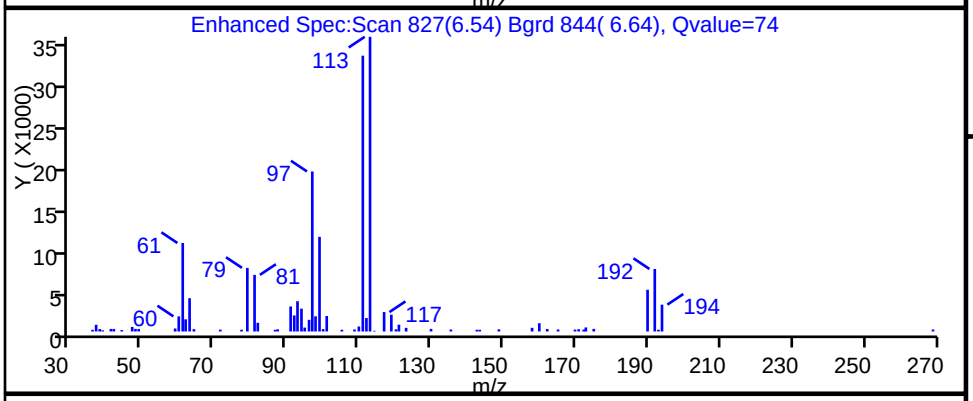
TestAmerica Pittsburgh

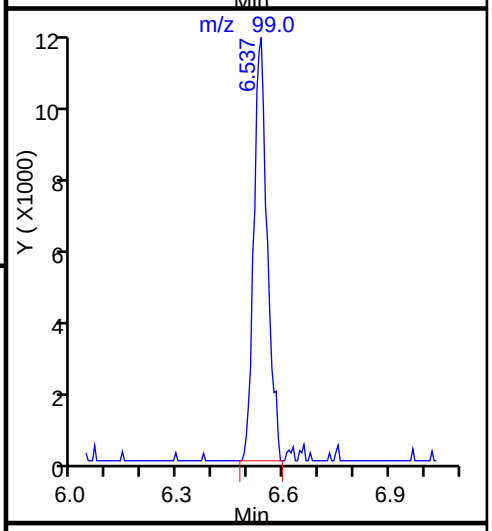
Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D				
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

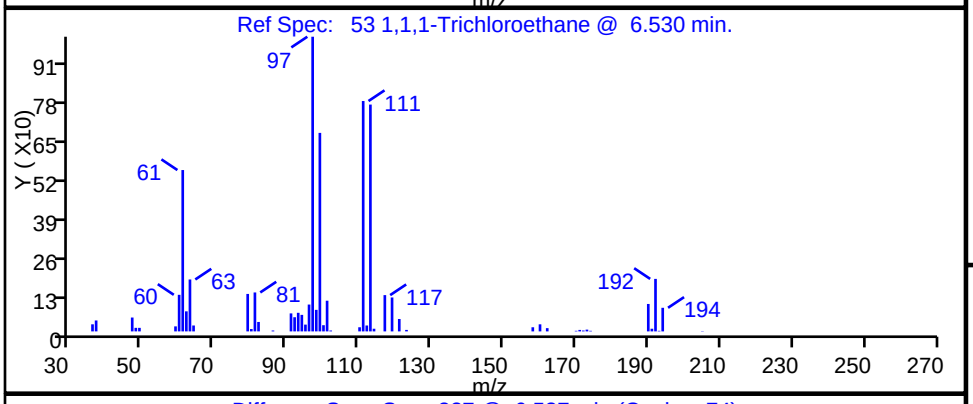
53 1,1,1-Trichloroethane, CAS: 71-55-6

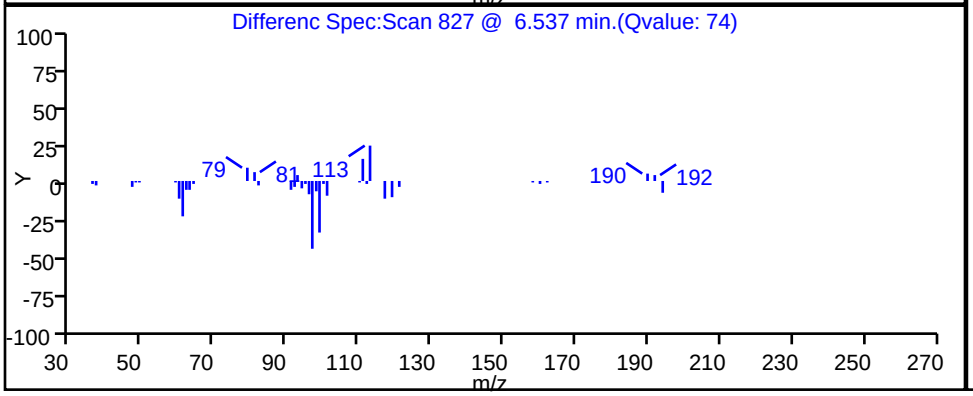


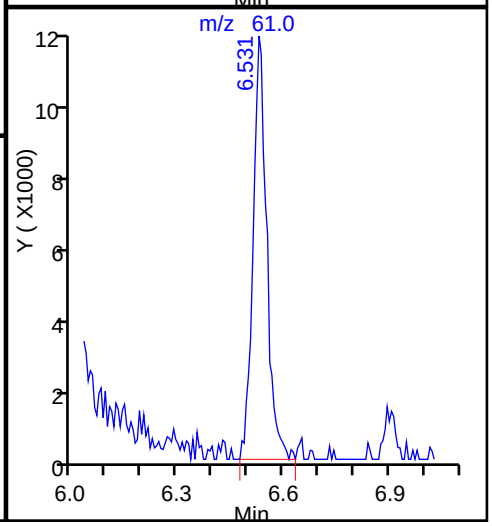










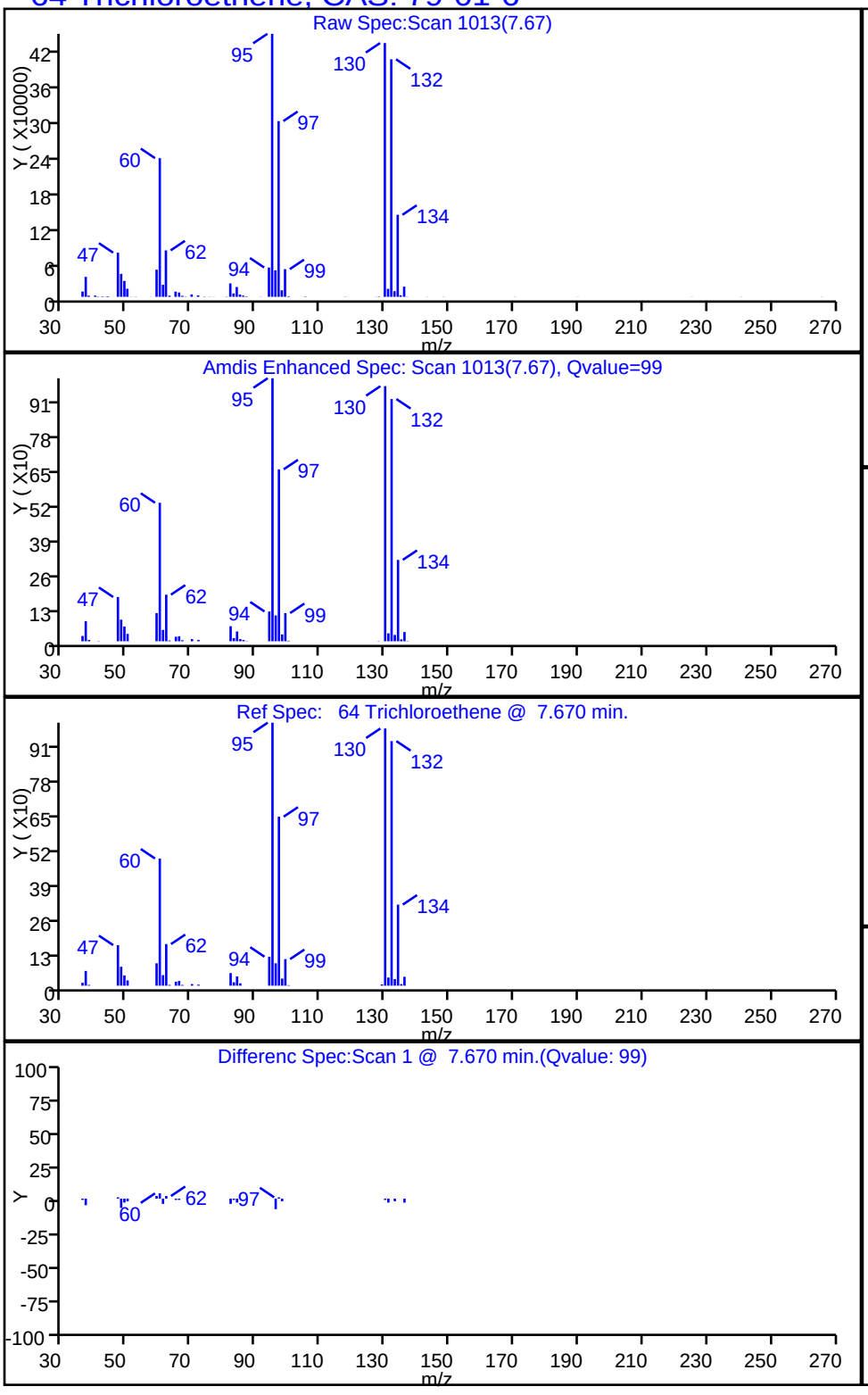


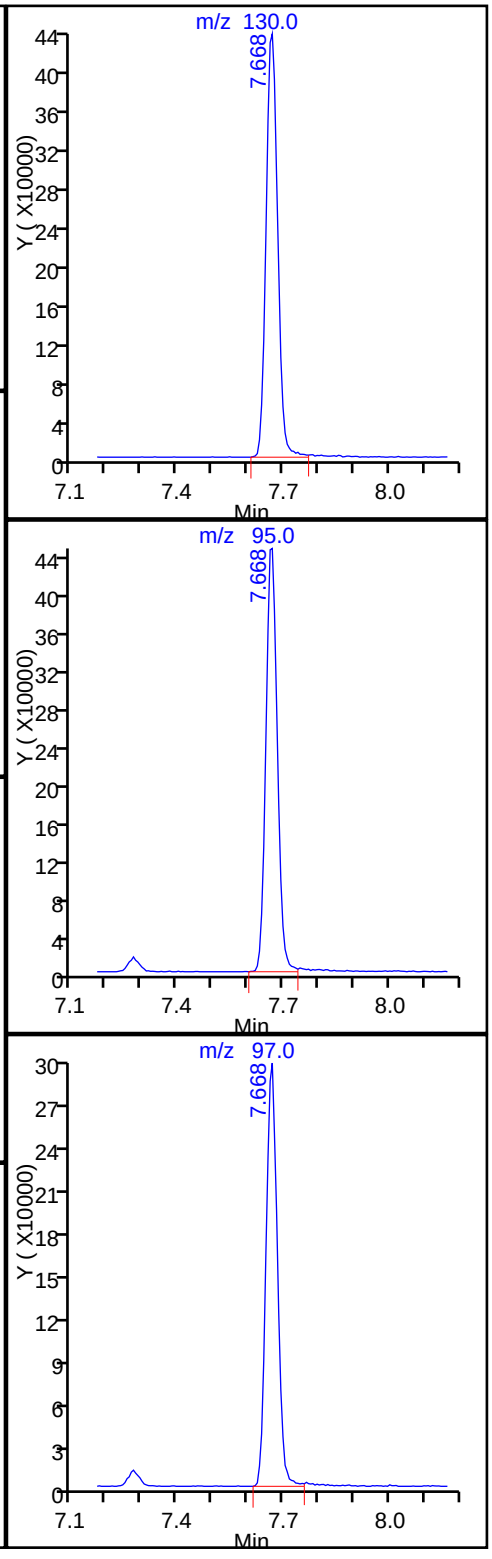
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D		
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	28 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



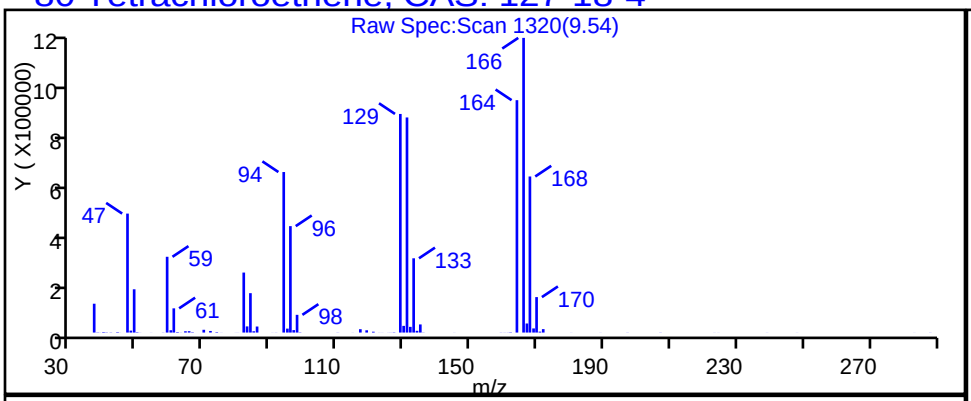


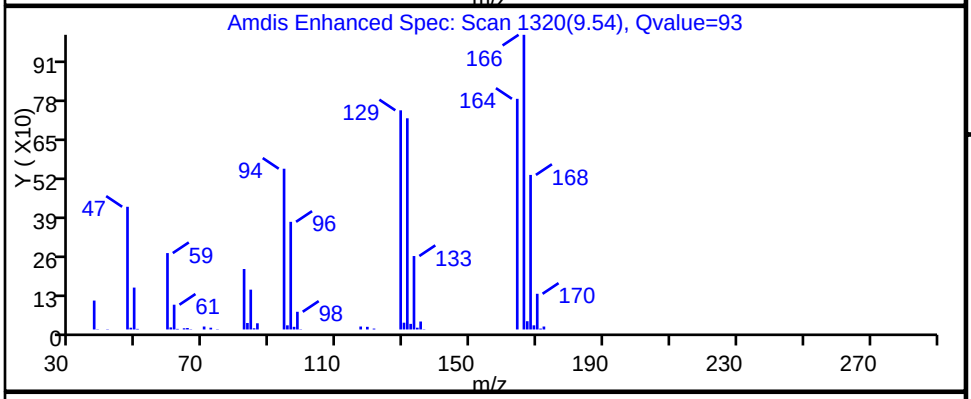
Report Date: 06-Apr-2015 08:46:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

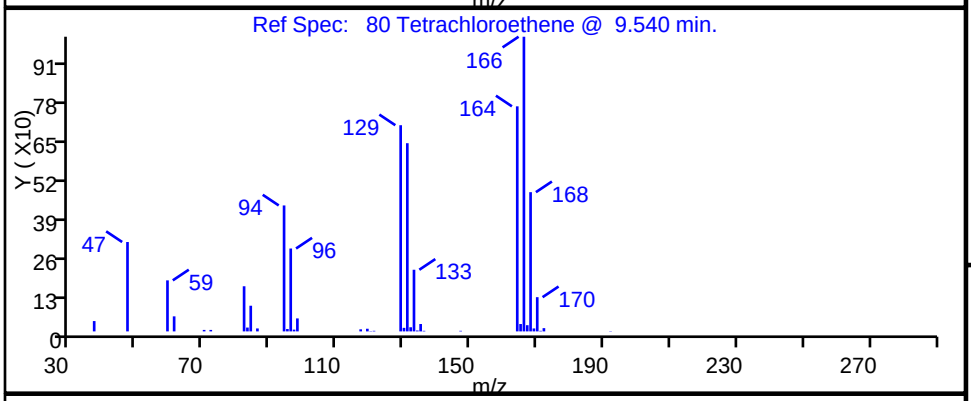
TestAmerica Pittsburgh

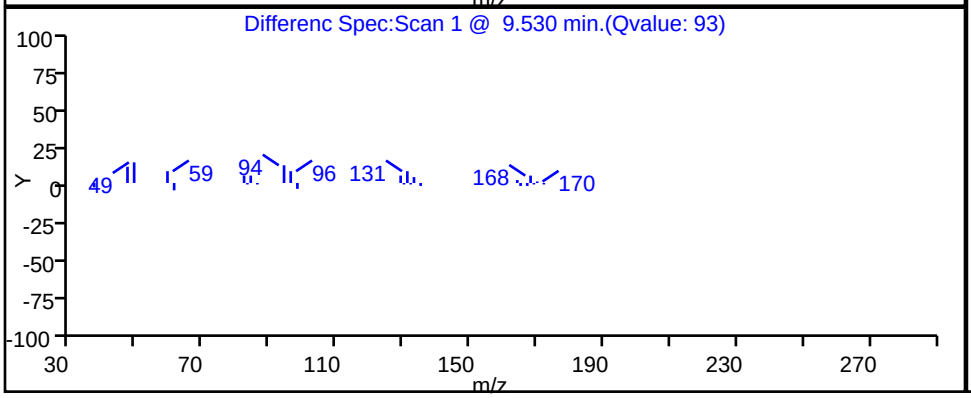
Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D		
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	28 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

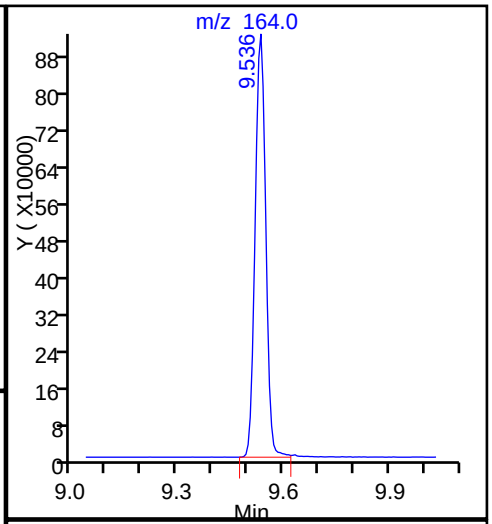
80 Tetrachloroethene, CAS: 127-18-4

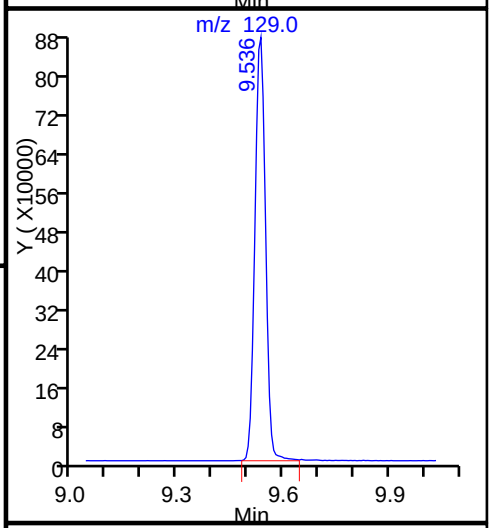


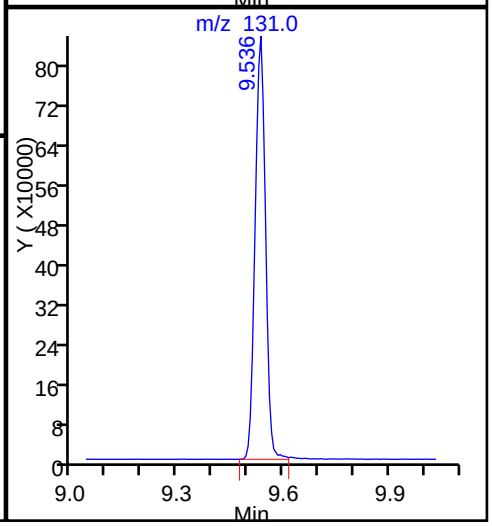












Manual Integration/User Assign Peak Report

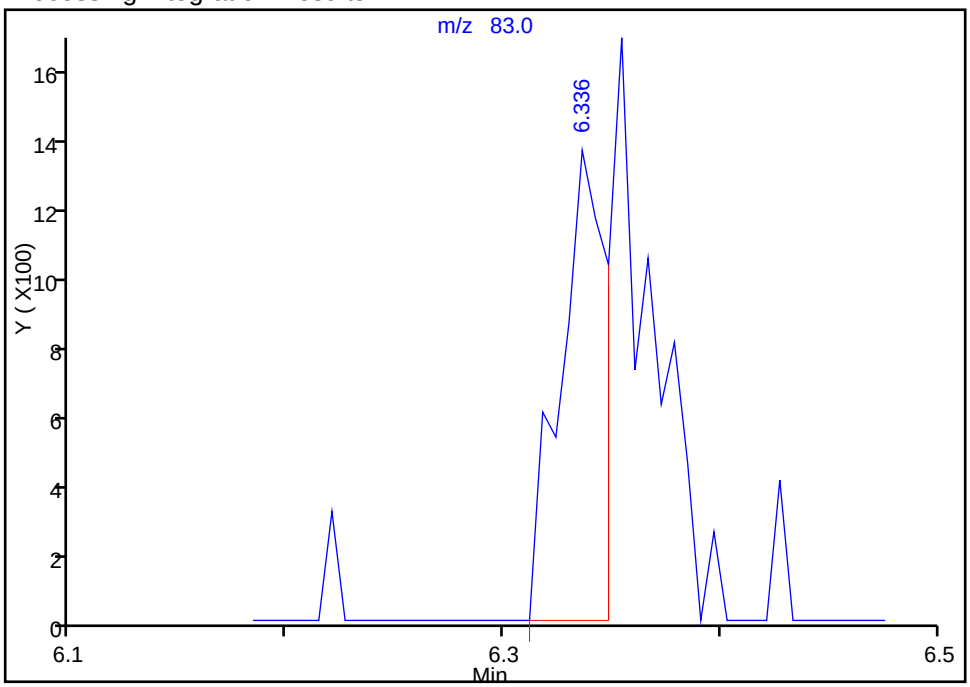
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404028.D				
Injection Date:	04-Apr-2015 22:55:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-D-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	2.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

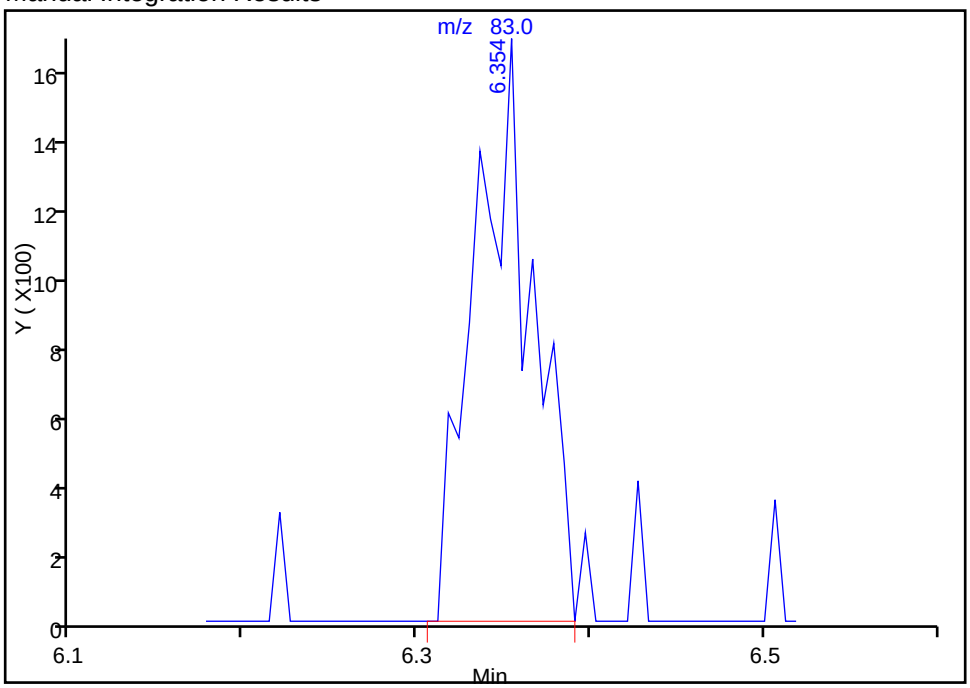
Processing Integration Results

RT: 6.34
Area: 1959
Amount: 0.544038
Amount Units: ng



Manual Integration Results

RT: 6.35
Area: 3846
Amount: 1.068080
Amount Units: ng



Reviewer: fergusond, 06-Apr-2015 08:45:59
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL | Lab Sample ID: 180-42445-2 DL

Matrix: Water | Lab File ID: 60403012.D

Analysis Method: 8260C | Date Collected: 03/26/2015 09:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 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.: 137472 | 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	8.9	J B	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	100		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	9.3	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	230		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	800		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL Lab Sample ID: 180-42445-2 DL

Matrix: Water Lab File ID: 60403012.D

Analysis Method: 8260C Date Collected: 03/26/2015 09:35

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 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.: 137472 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)	121		64-135
2037-26-5	Toluene-d8 (Surr)	115		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D
Lims ID: 180-42445-E-2 Lab Sample ID: 180-42445-2
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 17:49:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-42445-E-2, 25x
Misc. Info.: 180-0006320-012
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:44:09 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:44:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.279	-0.005	95	199166	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.332	0.000	98	430126	50.0	
* 3 Chlorobenzene-d5	119	10.440	10.439	0.001	89	85610	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.793	12.793	0.000	97	152610	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.602	0.001	93	101824	52.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.980	6.979	0.001	71	169050	60.7	
$ 7 Toluene-d8 (Surr)	98	8.987	8.980	0.007	94	388801	57.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.626	11.625	0.001	85	146575	51.1	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.386	3.391	-0.005	1	693	0.2870	
24 Acetone	43		3.464				ND	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84	4.207	4.181	0.026	29	6300	1.78	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
37 1,1-Dichloroethane	63		5.240				ND	
43 cis-1,2-Dichloroethene	96	5.988	5.988	0.000	80	62503	20.3	
44 2-Butanone (MEK)	43		5.988				ND	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83		6.413				ND	
51 1,1,1-Trichloroethane	97	6.591	6.584	0.007	37	6873	1.86	M
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.728	7.721	0.007	97	110356	45.4	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.066	9.053	0.013	40	3482	0.3978	M
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.570	9.569	0.001	96	249763	159.8	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

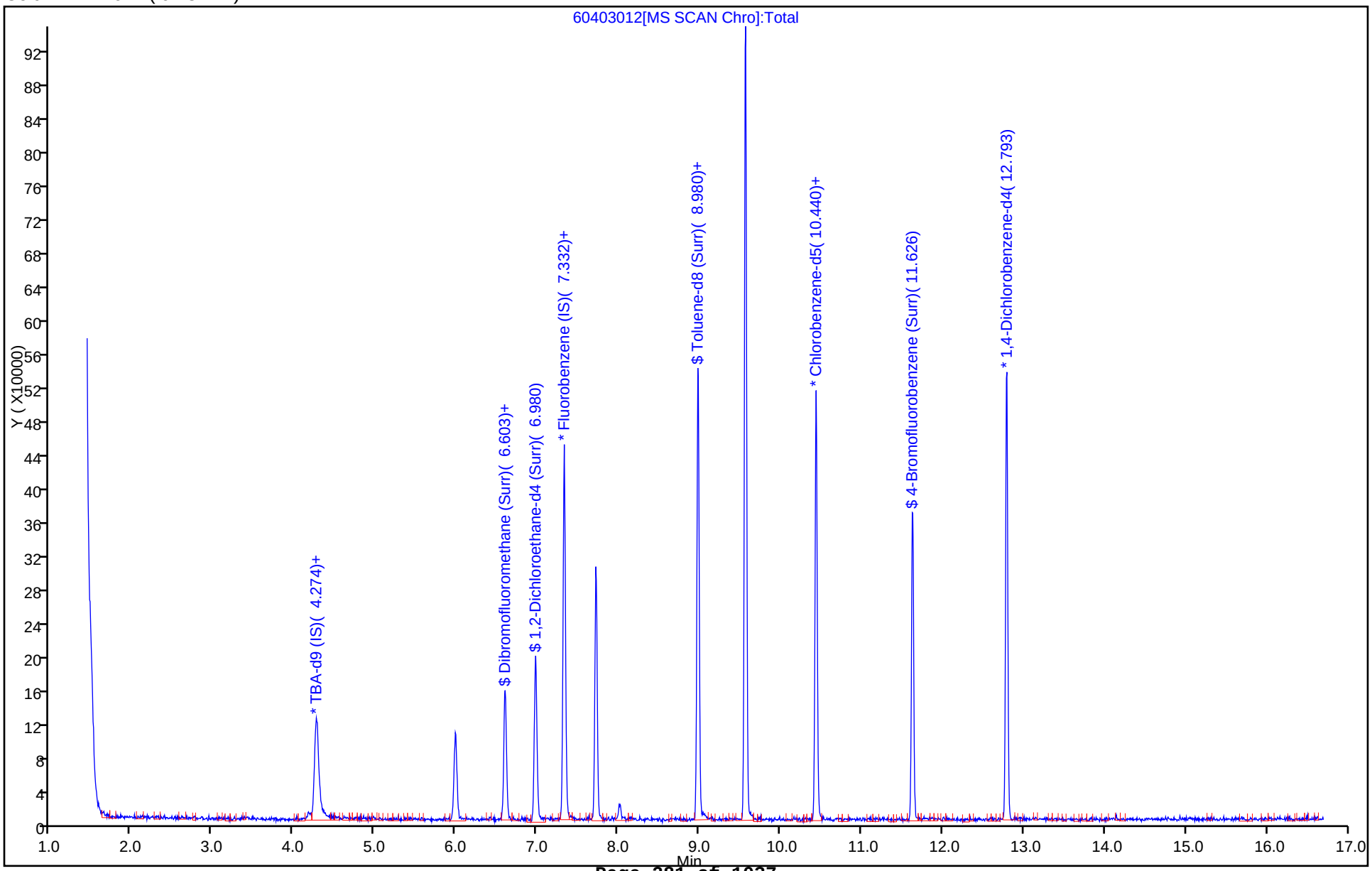
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 04-Apr-2015 10:44:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D				
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2	Worklist Smp#:	12
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

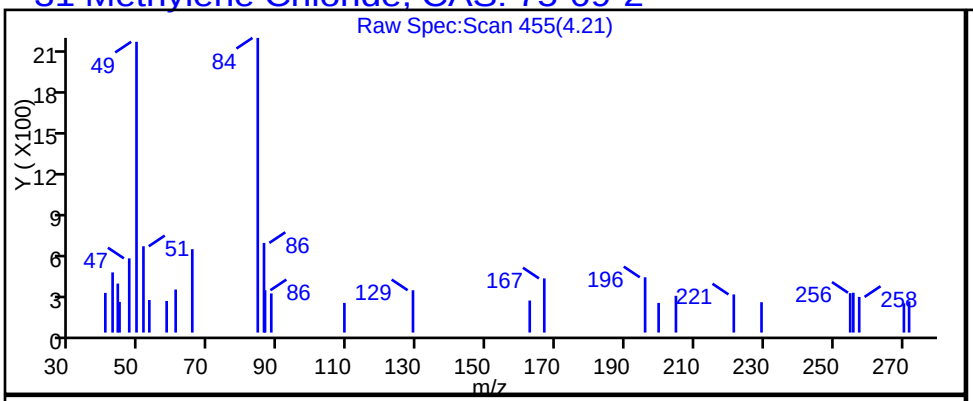


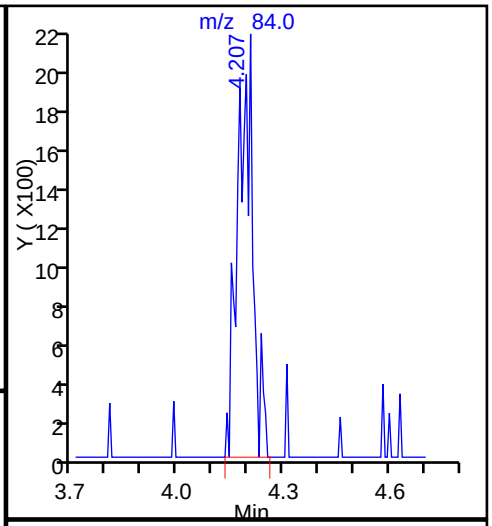
Report Date: 04-Apr-2015 10:44:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

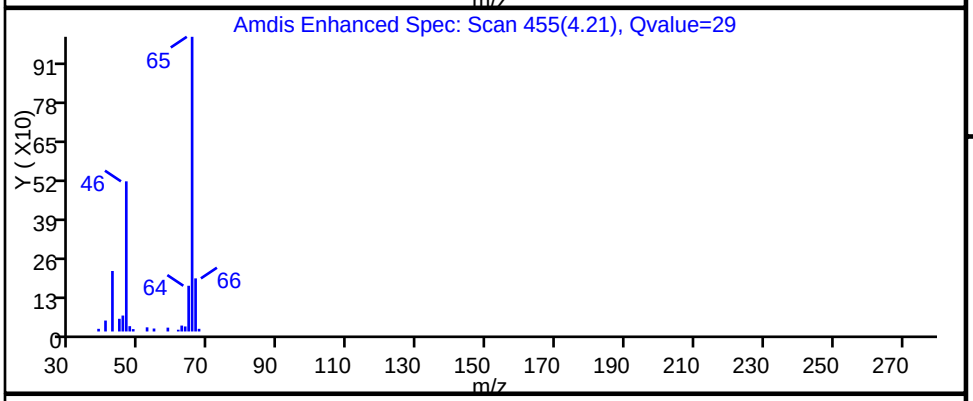
TestAmerica Pittsburgh

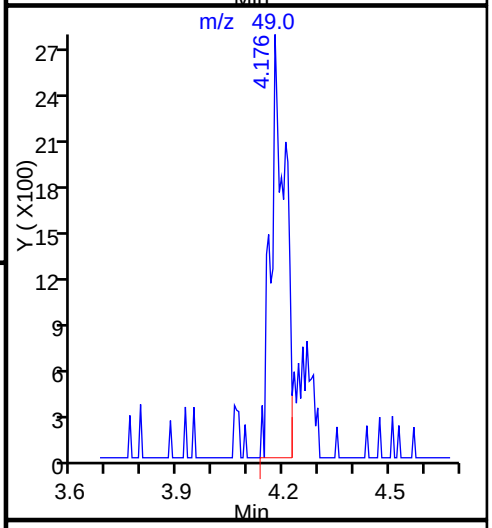
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D				
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	12	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

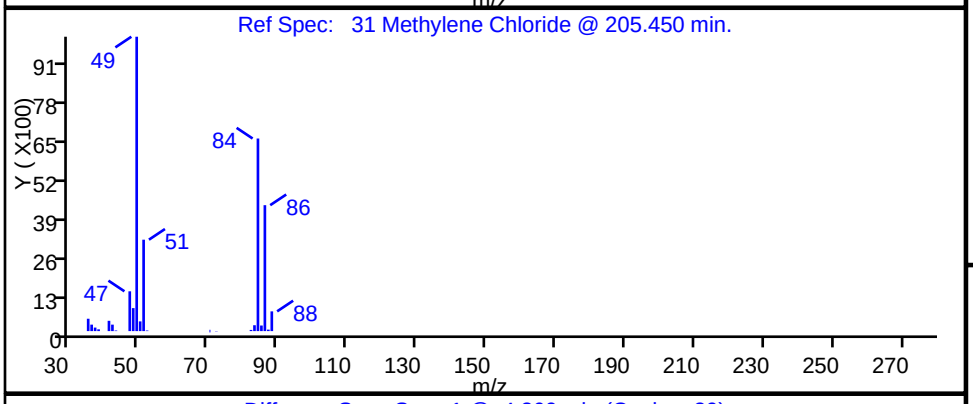
31 Methylene Chloride, CAS: 75-09-2

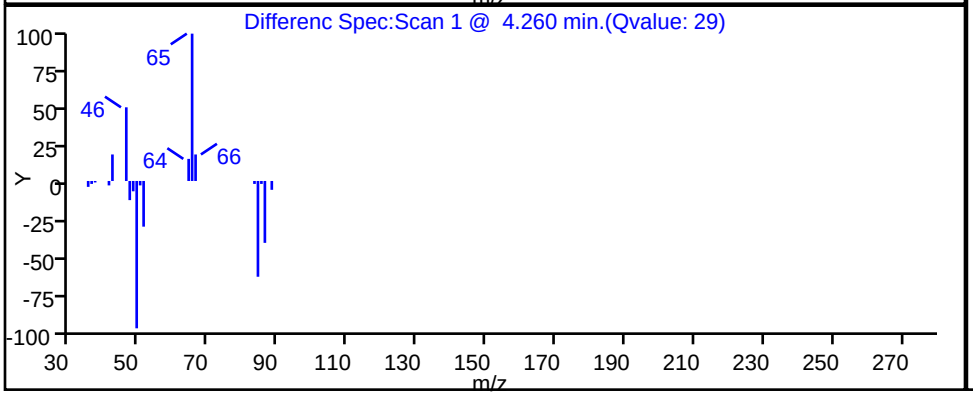


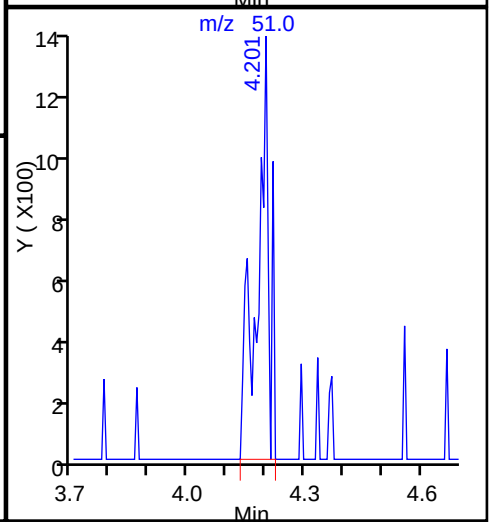










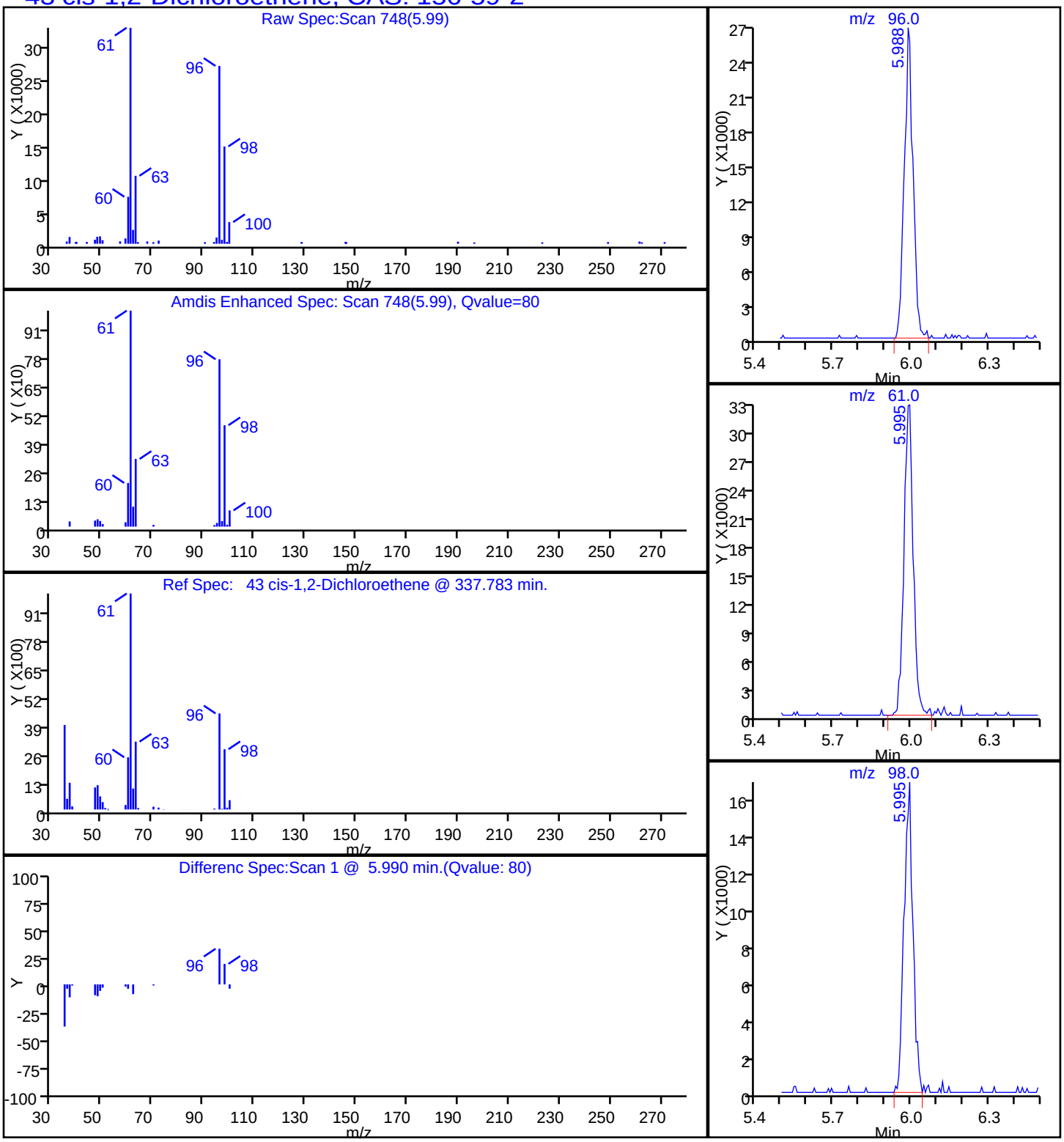


Report Date: 04-Apr-2015 10:44:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D				
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	12	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



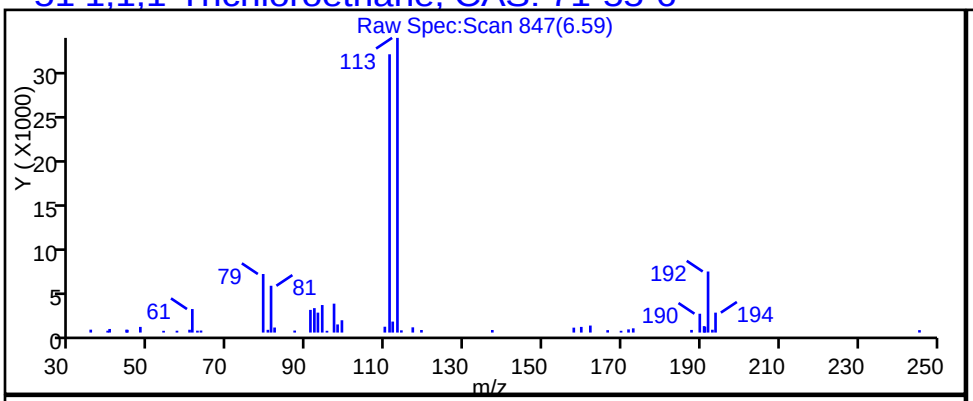
Report Date: 04-Apr-2015 10:44:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

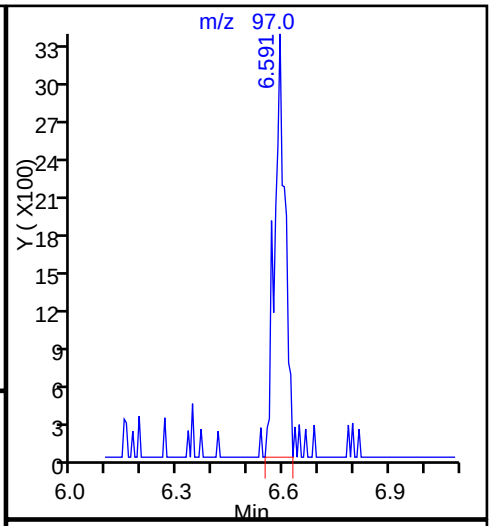
TestAmerica Pittsburgh

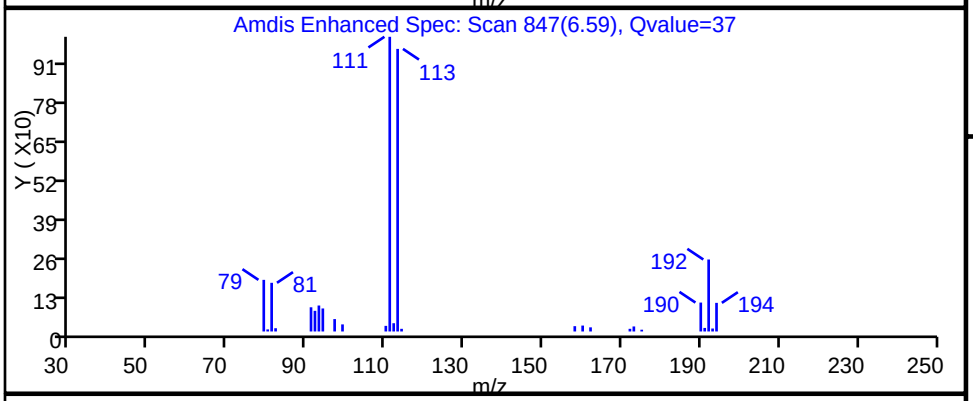
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D

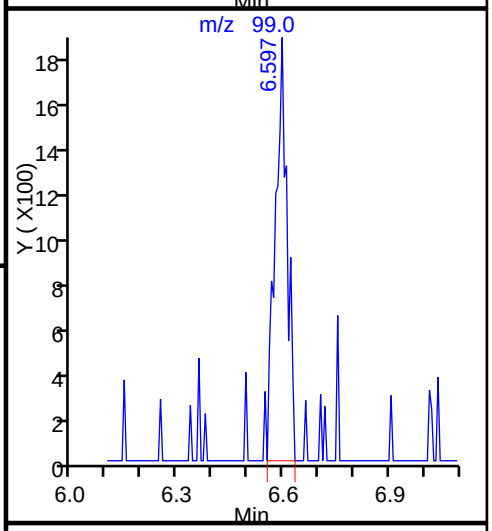
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	12	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

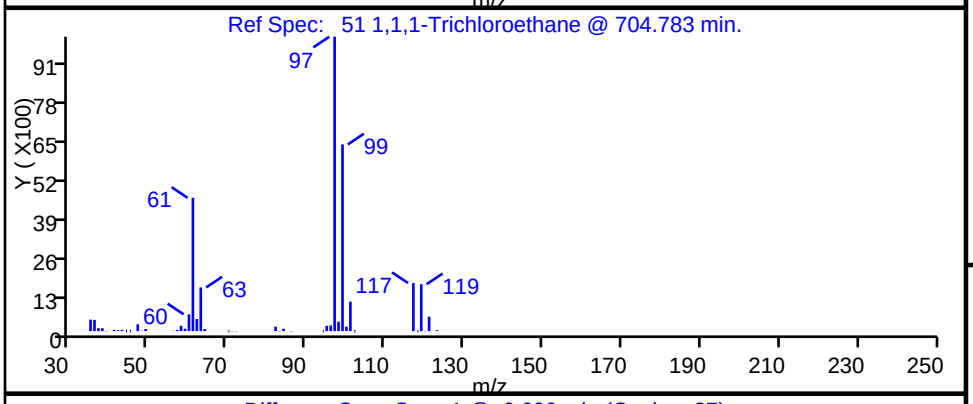
51 1,1,1-Trichloroethane, CAS: 71-55-6

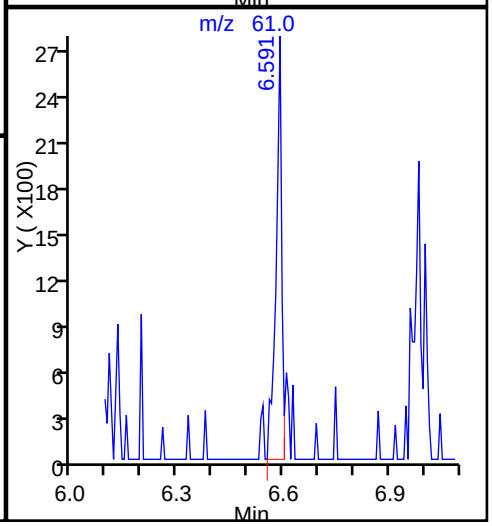


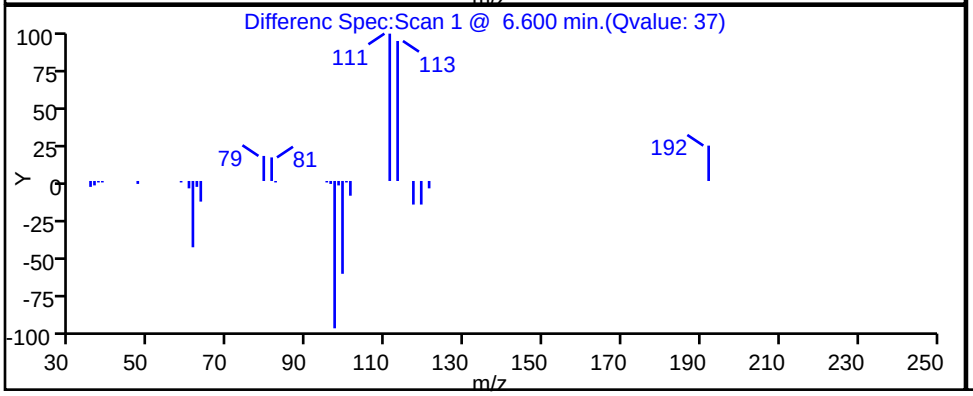










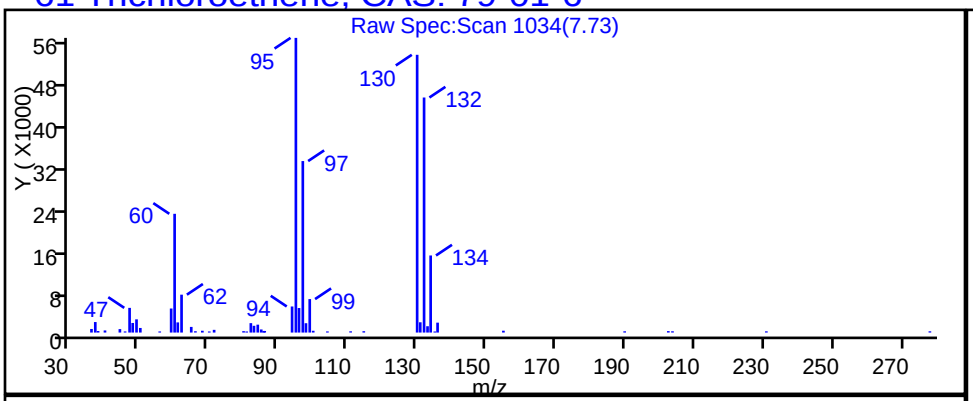


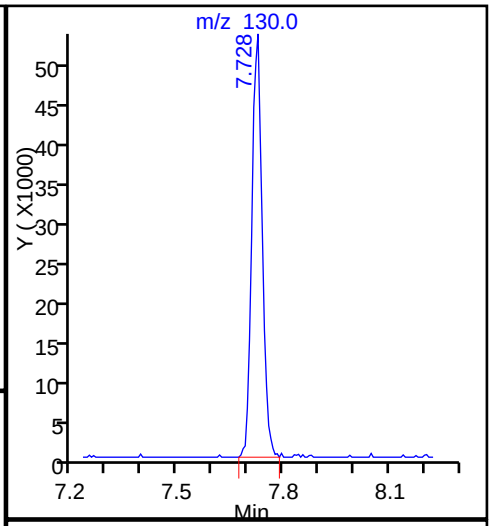
Report Date: 04-Apr-2015 10:44:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

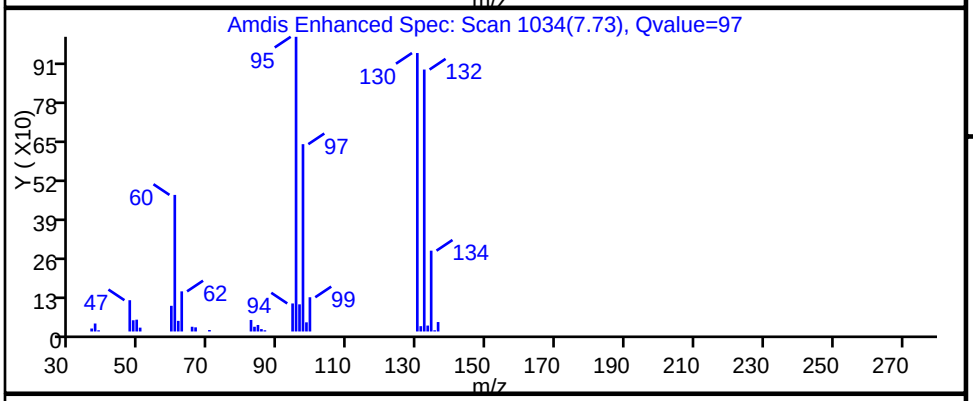
TestAmerica Pittsburgh

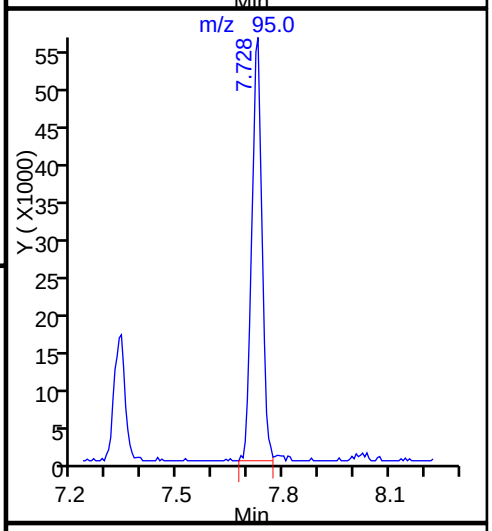
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D		
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

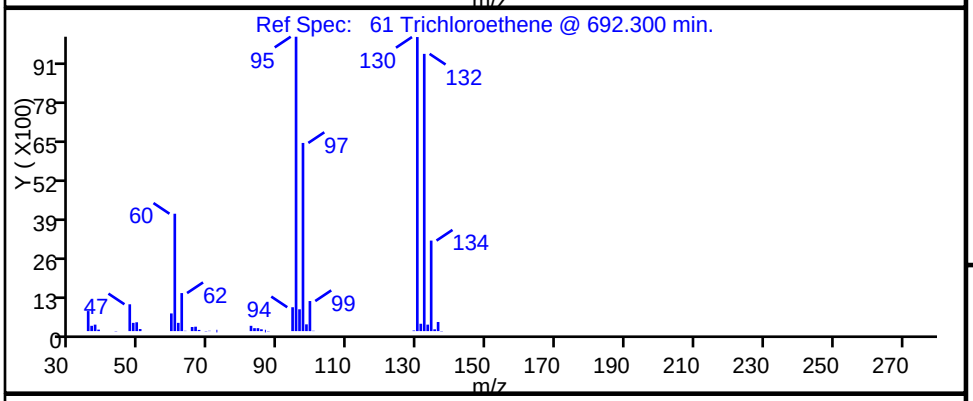
61 Trichloroethene, CAS: 79-01-6

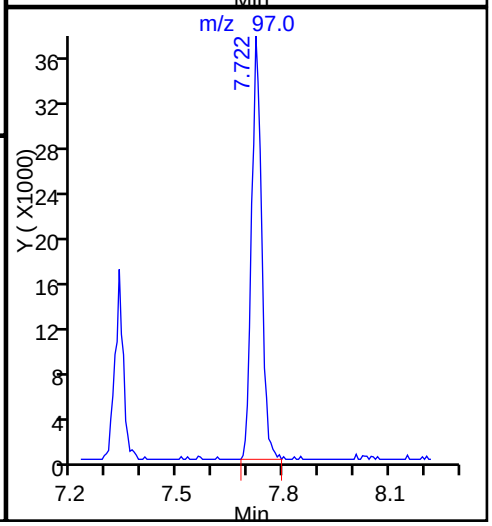


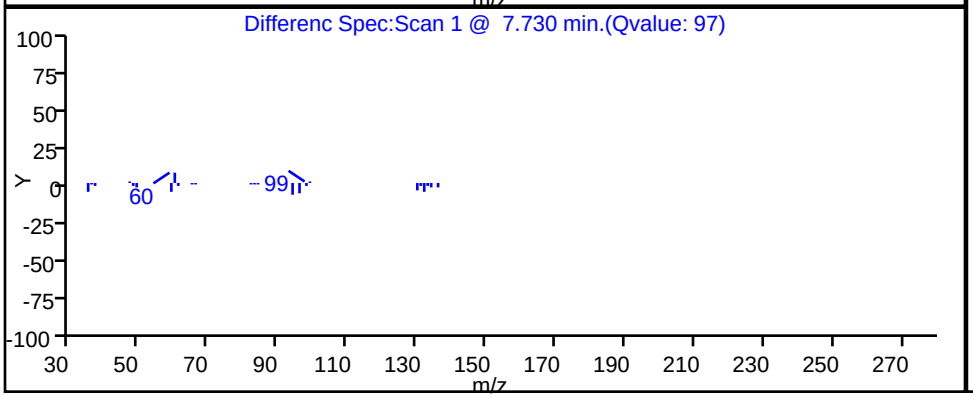










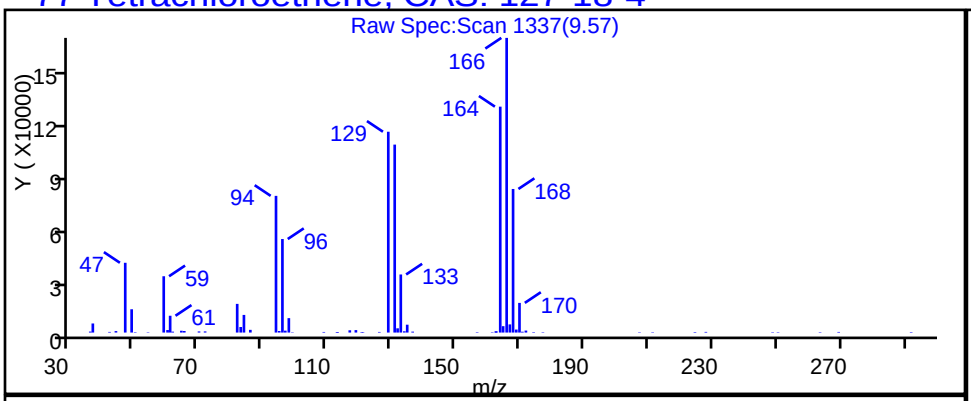


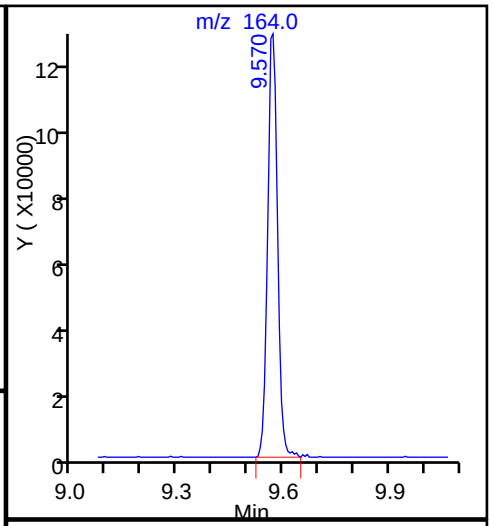
Report Date: 04-Apr-2015 10:44:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

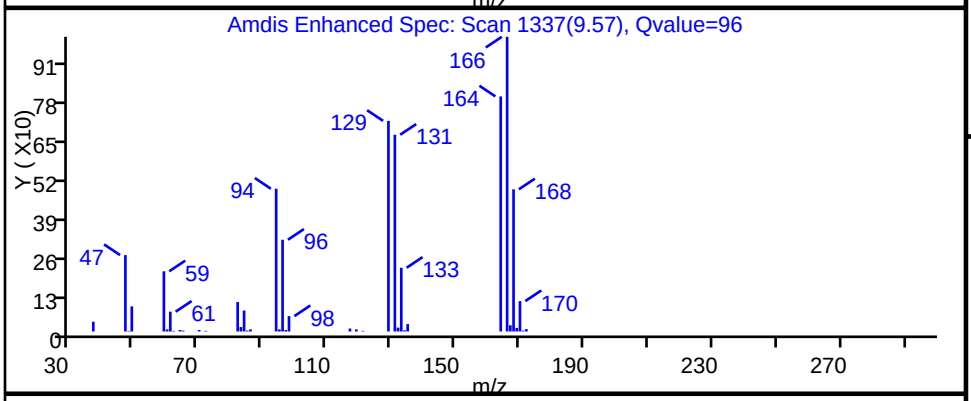
TestAmerica Pittsburgh

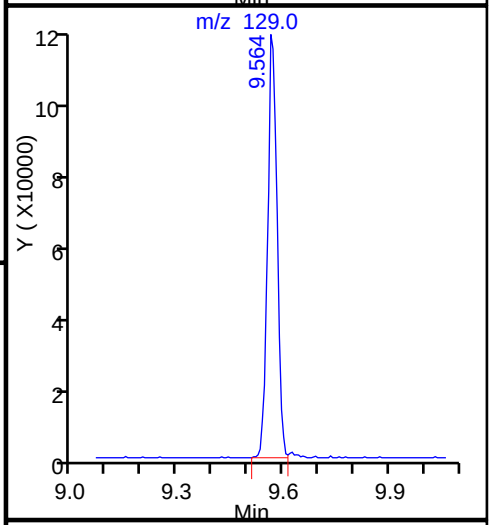
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D		
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	001562	ALS Bottle#:	12 Worklist Smp#: 12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

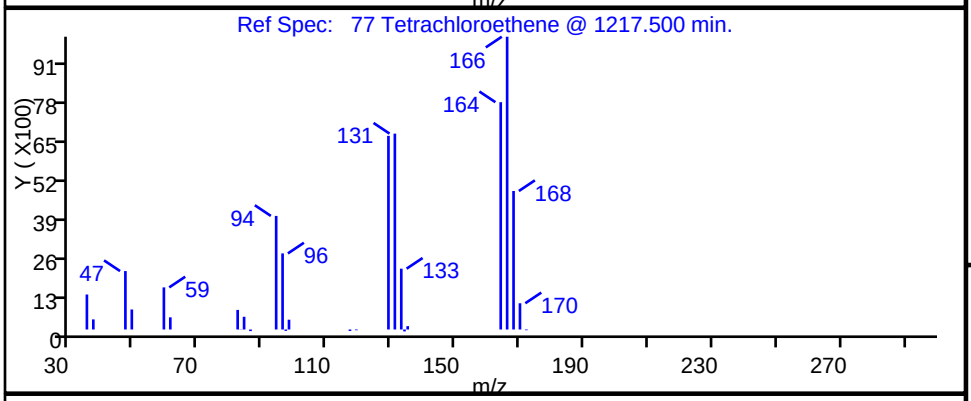
77 Tetrachloroethene, CAS: 127-18-4

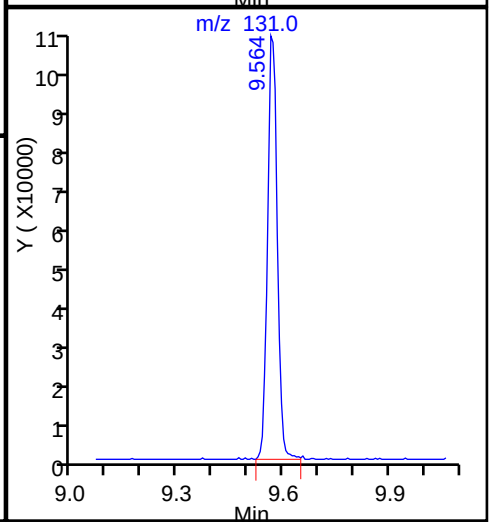


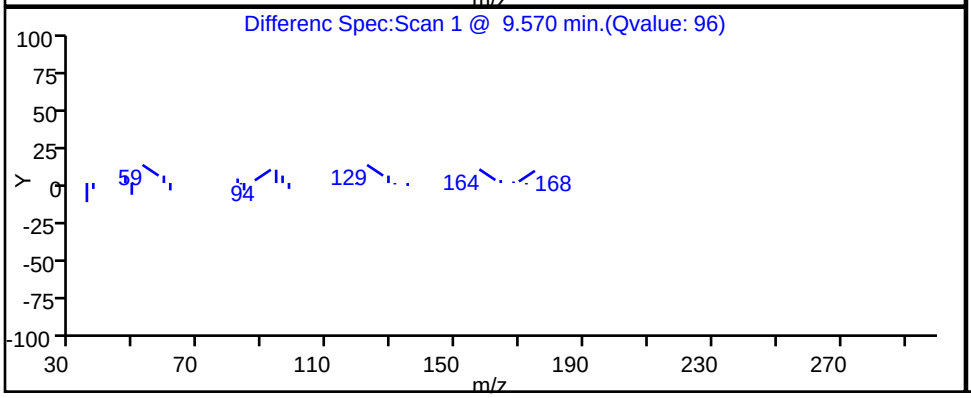












Manual Integration/User Assign Peak Report

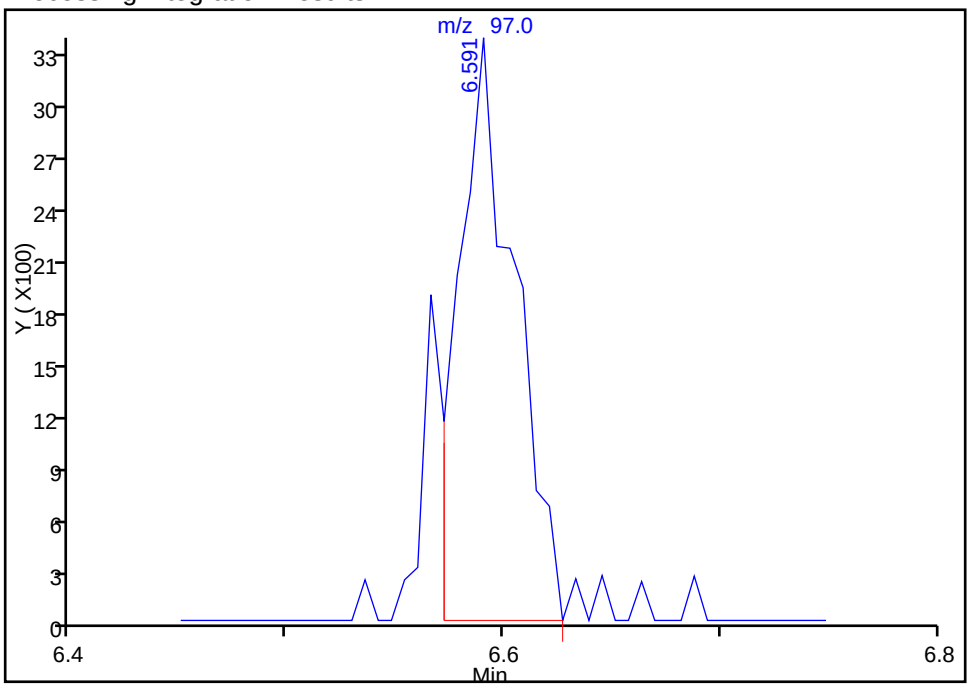
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D				
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	12	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

51 1,1,1-Trichloroethane, CAS: 71-55-6

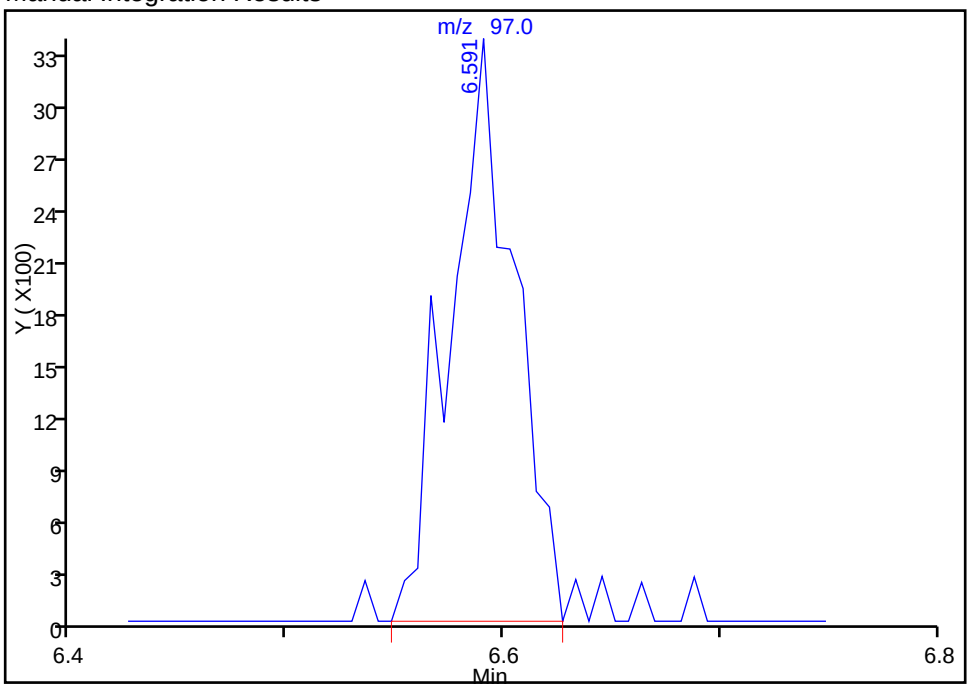
Processing Integration Results

RT: 6.59
Area: 5998
Amount: 1.625855
Amount Units: ng



Manual Integration Results

RT: 6.59
Area: 6873
Amount: 1.863038
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:44:09
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

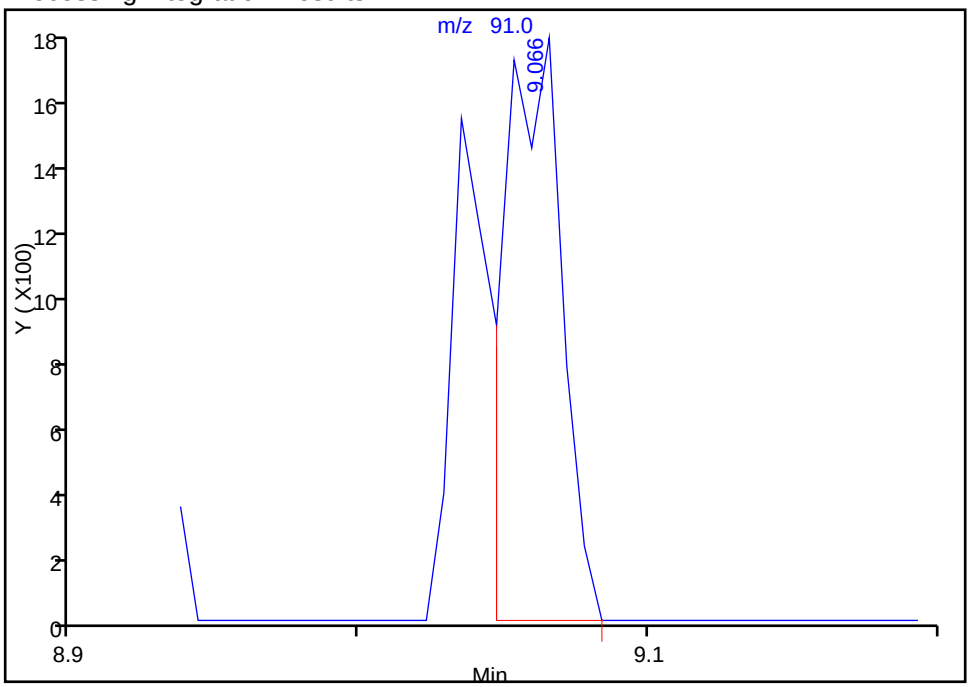
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403012.D				
Injection Date:	03-Apr-2015 17:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	001562	ALS Bottle#:	12	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

73 Toluene, CAS: 108-88-3

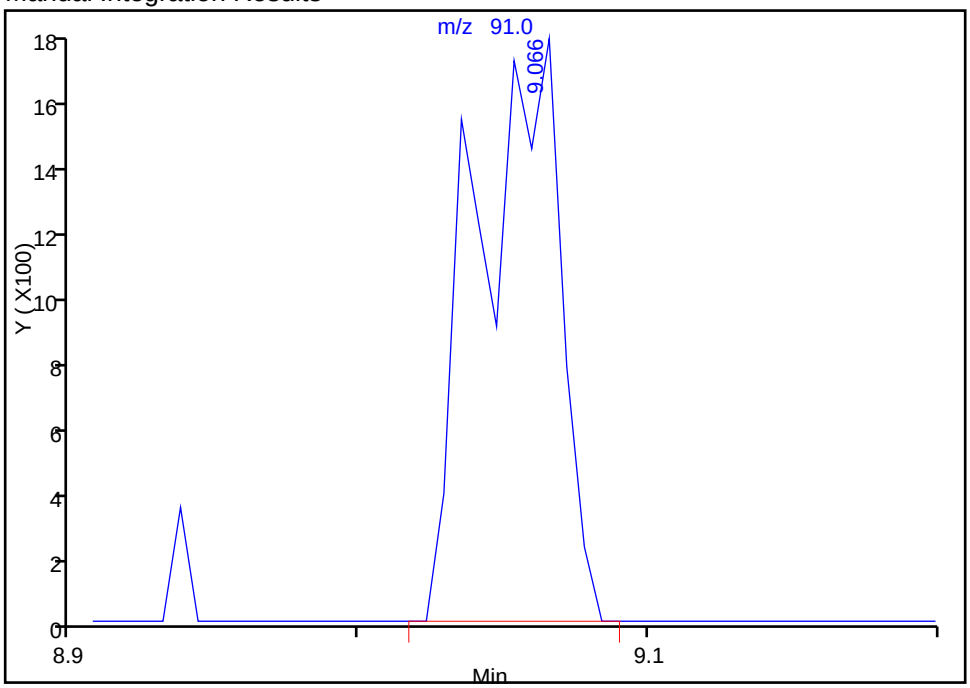
Processing Integration Results

RT: 9.07
Area: 2388
Amount: 0.272842
Amount Units: ng



Manual Integration Results

RT: 9.07
Area: 3482
Amount: 0.397837
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:44:09
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 | Lab Sample ID: 180-42445-3

Matrix: Water | Lab File ID: 60403013.D

Analysis Method: 8260C | Date Collected: 03/26/2015 08:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 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.: 137472 | 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	4.8	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	3.5	J B	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	1.5	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	100		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	11		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	280		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	150		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-42445-3

Matrix: Water Lab File ID: 60403013.D

Analysis Method: 8260C Date Collected: 03/26/2015 08:55

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 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.: 137472 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)	125		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	118		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D
Lims ID: 180-42445-D-3 Lab Sample ID: 180-42445-3
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 18:13:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-42445-D-3, 10x
Misc. Info.: 180-0006320-013
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:45:36 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:45:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.279	0.000	88	192568	1000.0	
* 2 Fluorobenzene (IS)	96	7.338	7.332	0.006	98	411197	50.0	
* 3 Chlorobenzene-d5	119	10.440	10.439	0.001	89	86530	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.793	12.793	0.000	98	143883	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.608	6.602	0.006	92	109770	59.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.979	0.000	71	165926	62.3	
$ 7 Toluene-d8 (Surr)	98	8.986	8.980	0.006	94	373540	54.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.625	11.625	0.000	85	132328	45.6	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.391	3.391	0.000	58	5575	2.41	
24 Acetone	43		3.464				ND	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84	4.194	4.181	0.013	39	5905	1.75	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
37 1,1-Dichloroethane	63	5.258	5.240	0.018	1	4017	0.7471	M
44 2-Butanone (MEK)	43		5.988				ND	
43 cis-1,2-Dichloroethene	96	5.994	5.988	0.006	81	151987	51.6	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83		6.413				ND	
51 1,1,1-Trichloroethane	97	6.590	6.584	0.006	41	19177	5.44	
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.727	7.721	0.006	96	327469	140.8	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.053	9.053	0.000	36	2813	0.3180	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.570	9.569	0.001	95	120226	76.1	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

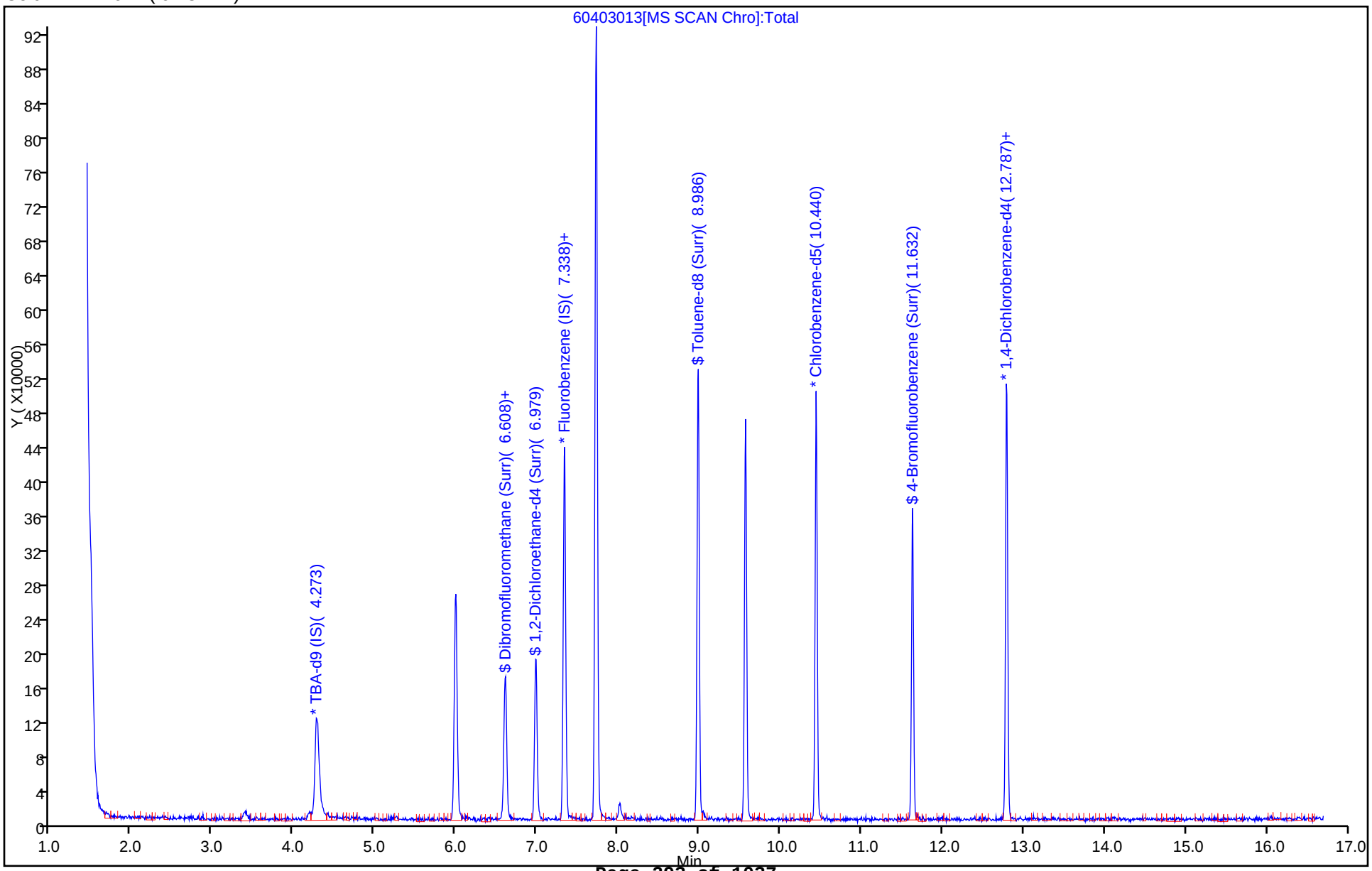
Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D

Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3	Worklist Smp#:	13
Client ID:	HD-MW-96D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



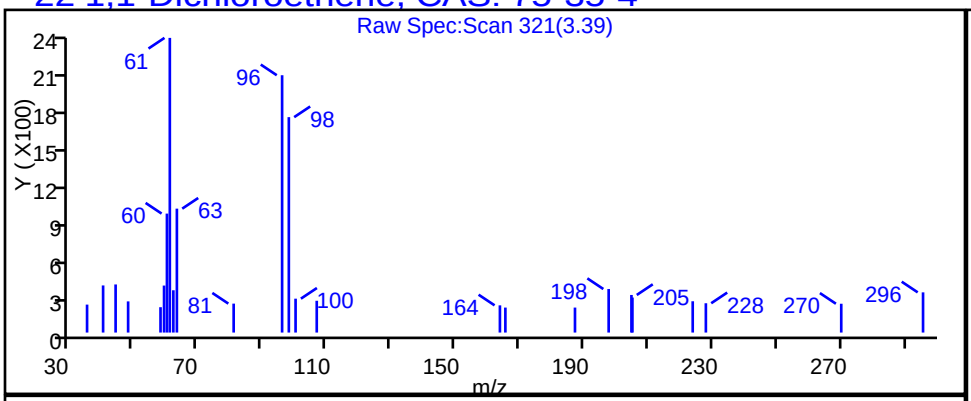
Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

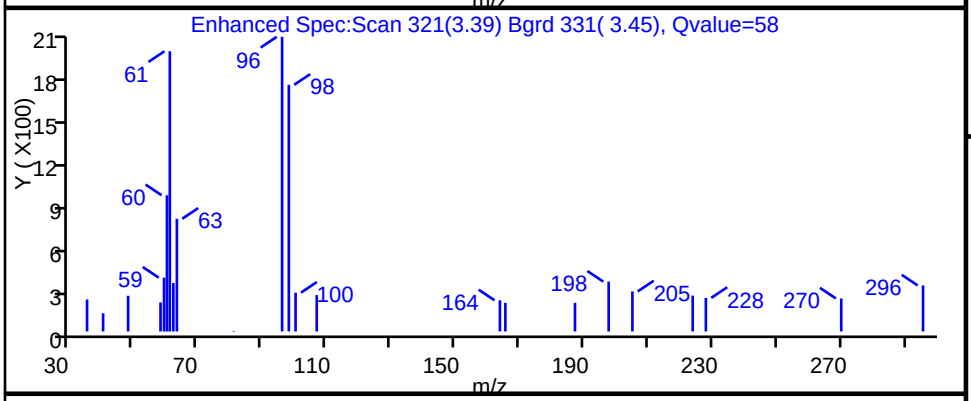
TestAmerica Pittsburgh

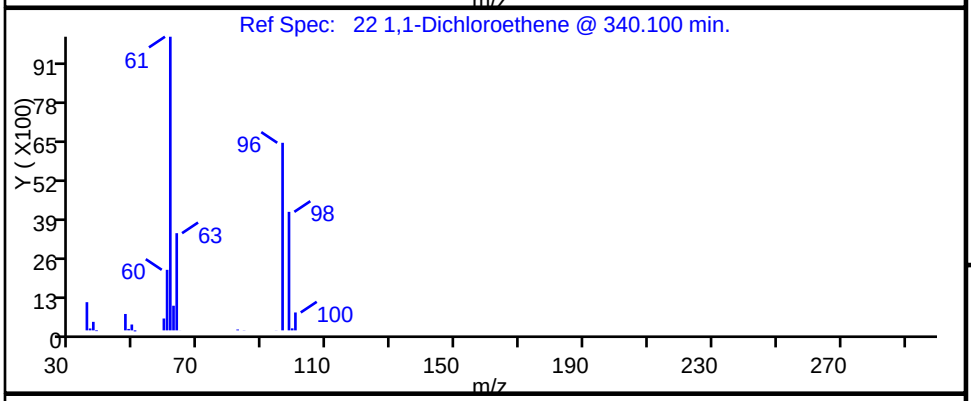
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D

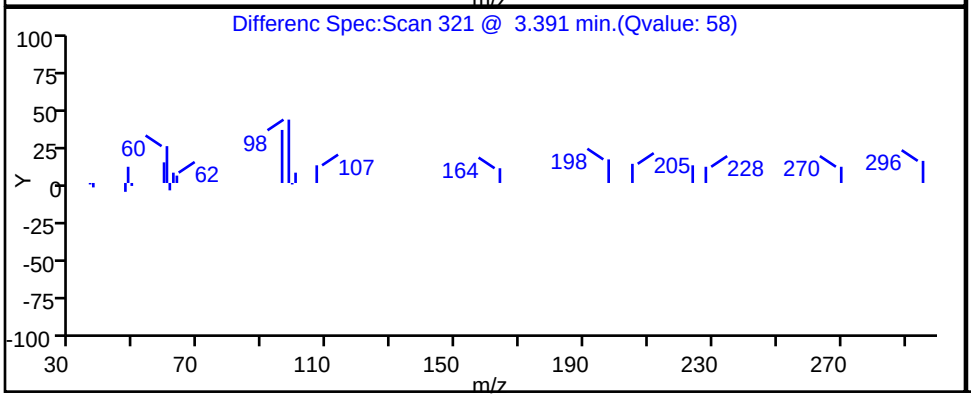
Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

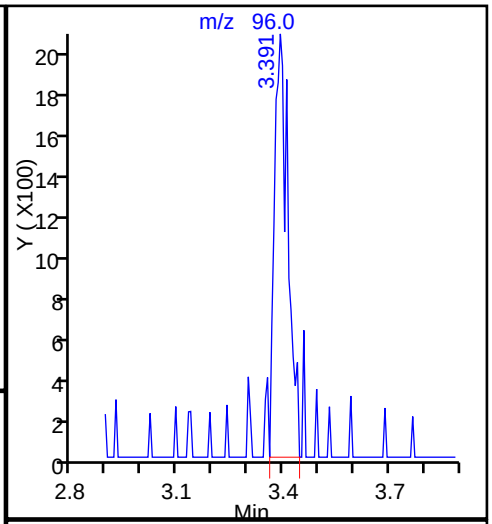
22 1,1-Dichloroethene, CAS: 75-35-4

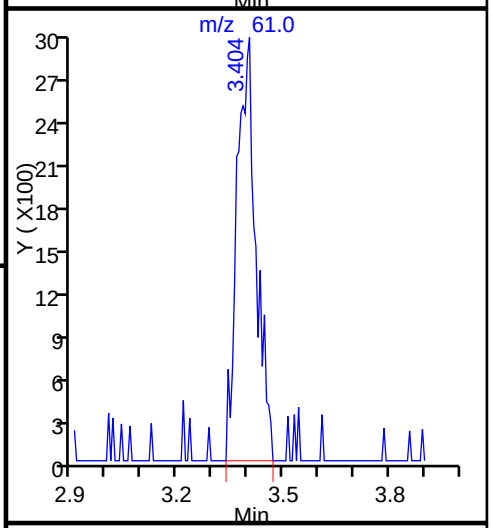


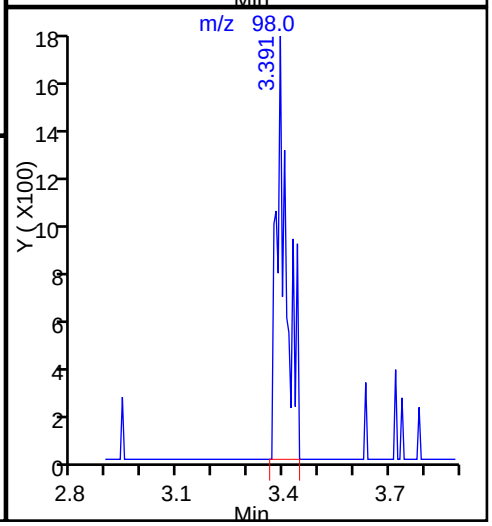












Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D

Injection Date: 03-Apr-2015 18:13:30 Instrument ID: CHHP6

Lims ID: 180-42445-D-3 Lab Sample ID: 180-42445-3

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

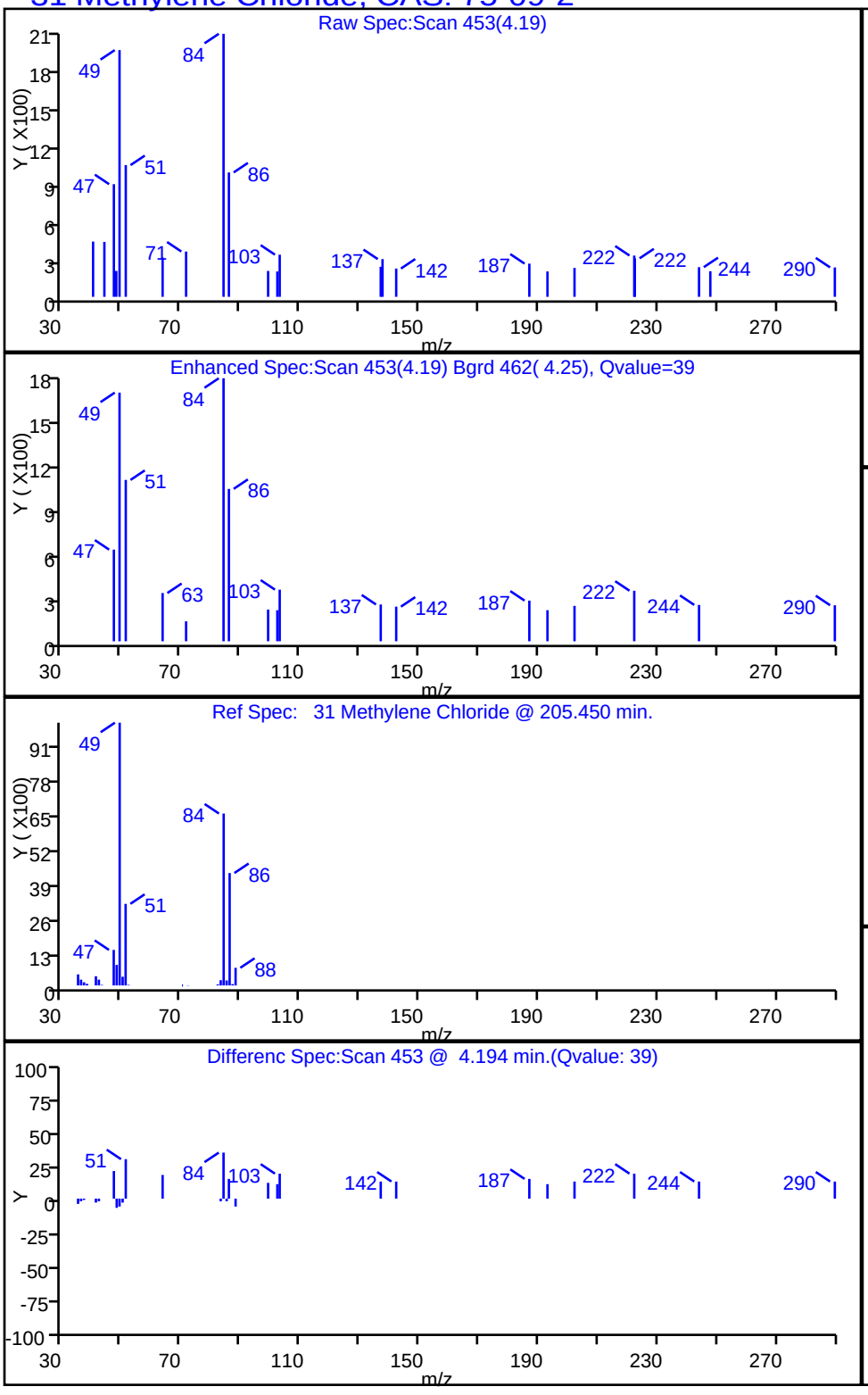
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13

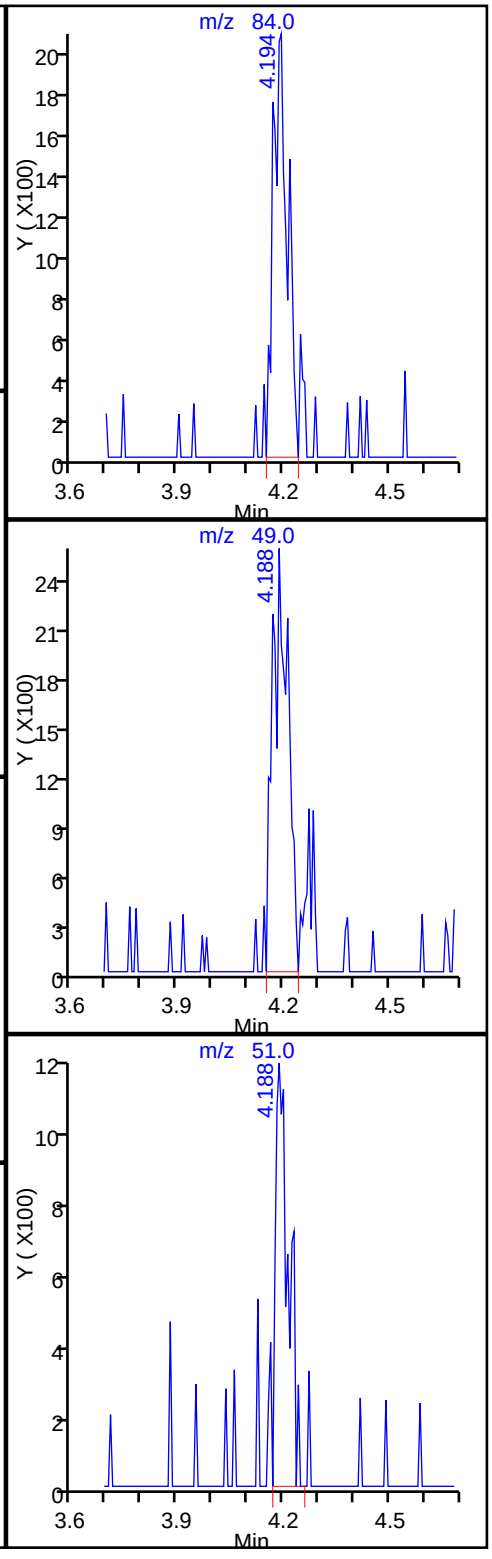
Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

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

31 Methylene Chloride, CAS: 75-09-2





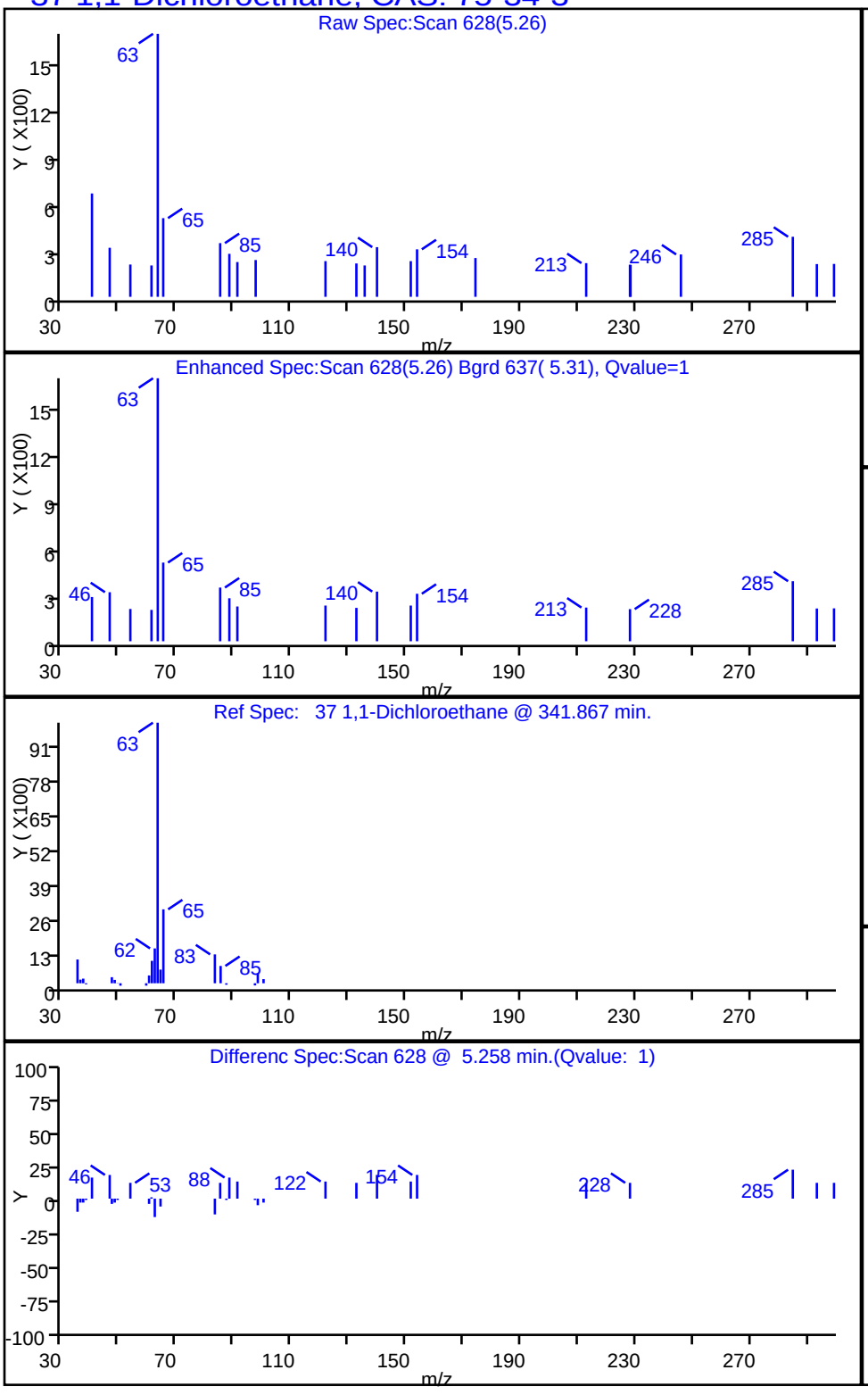
Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

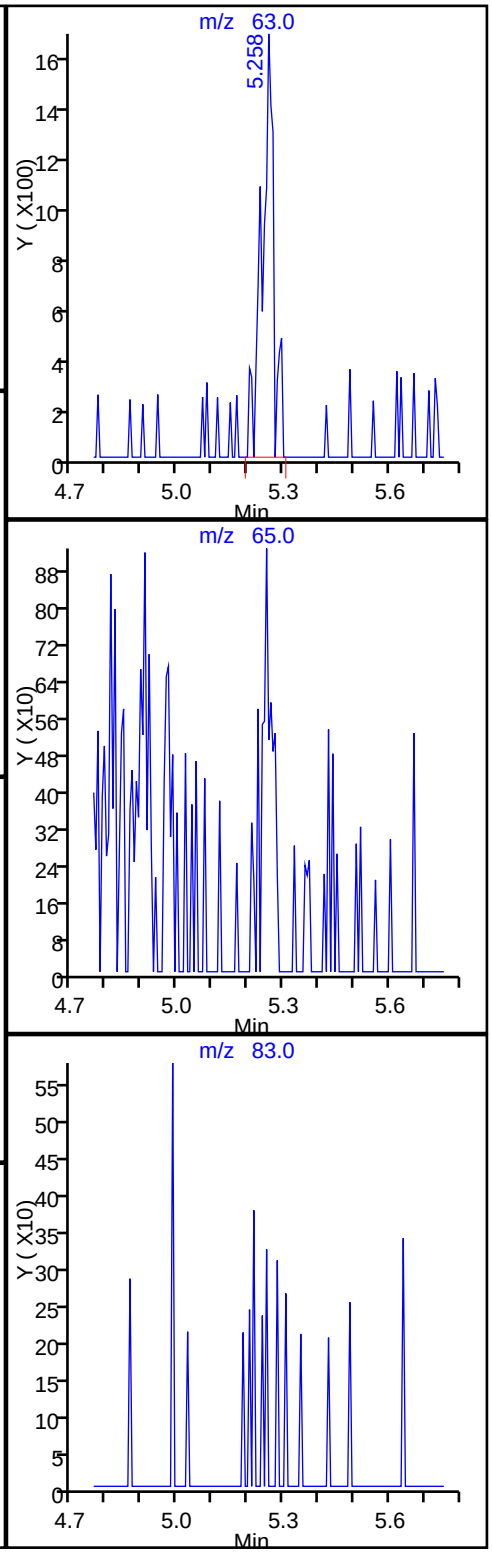
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D

Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3
Client ID:	HD-MW-96D-0/1-0		
Operator ID:	001562	ALS Bottle#:	13 Worklist Smp#: 13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



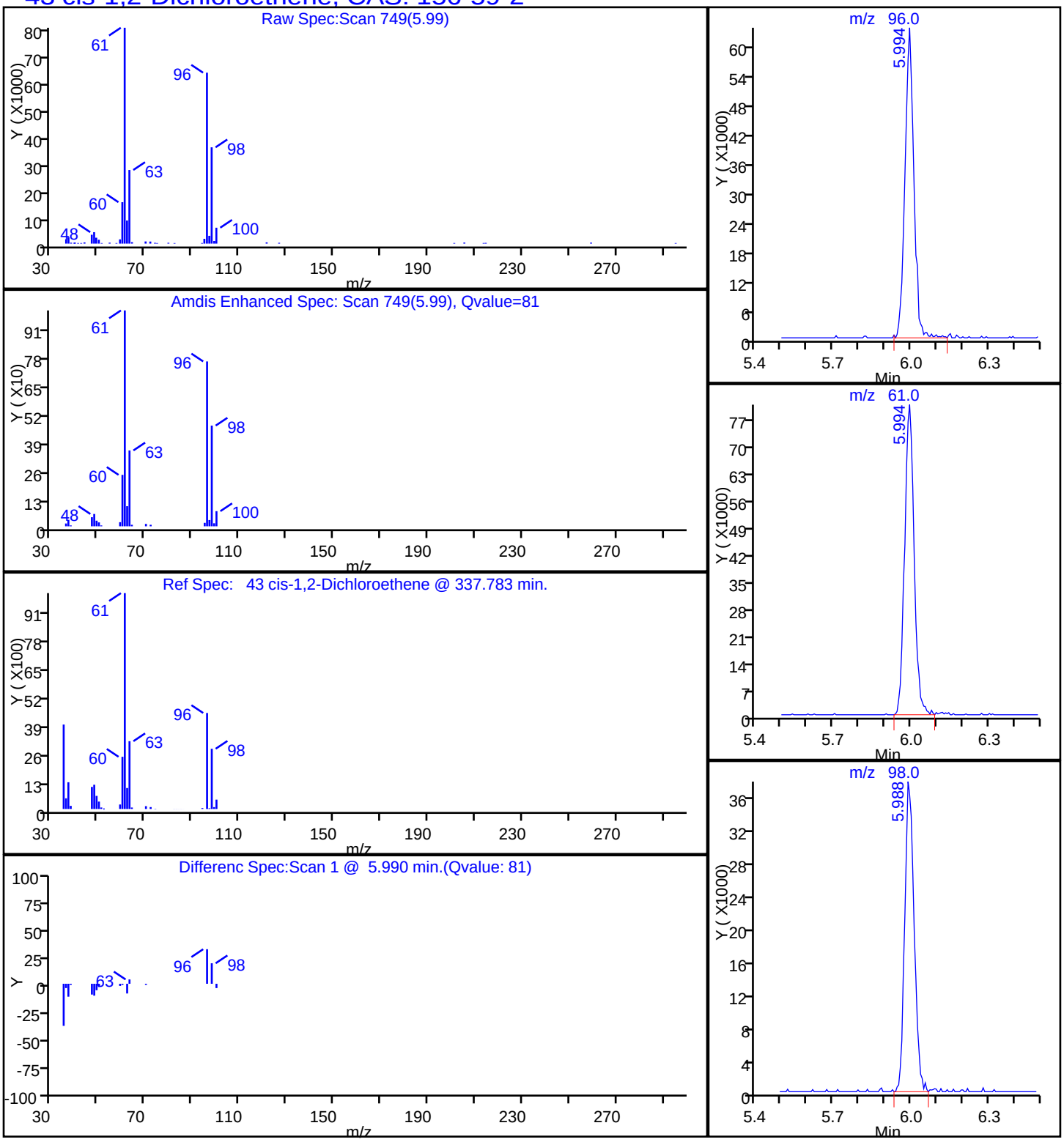


Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D				
Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



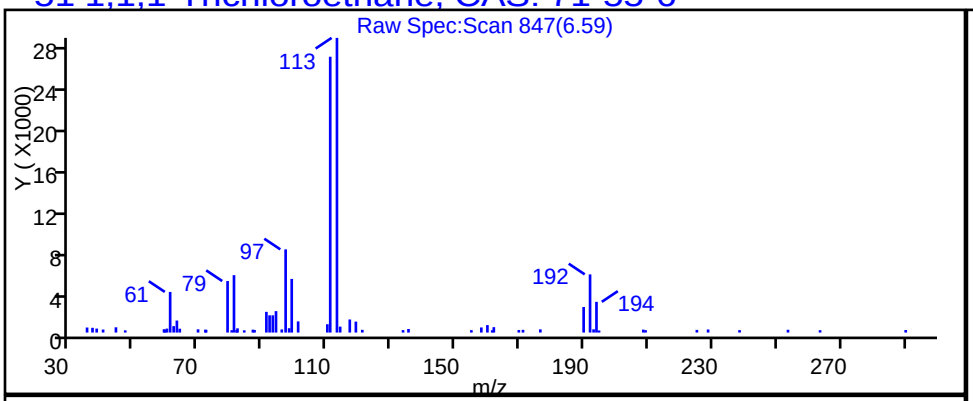
Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

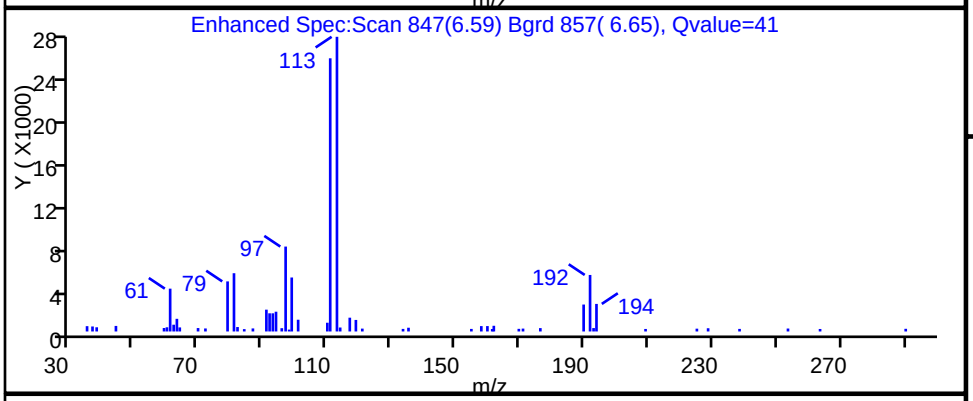
TestAmerica Pittsburgh

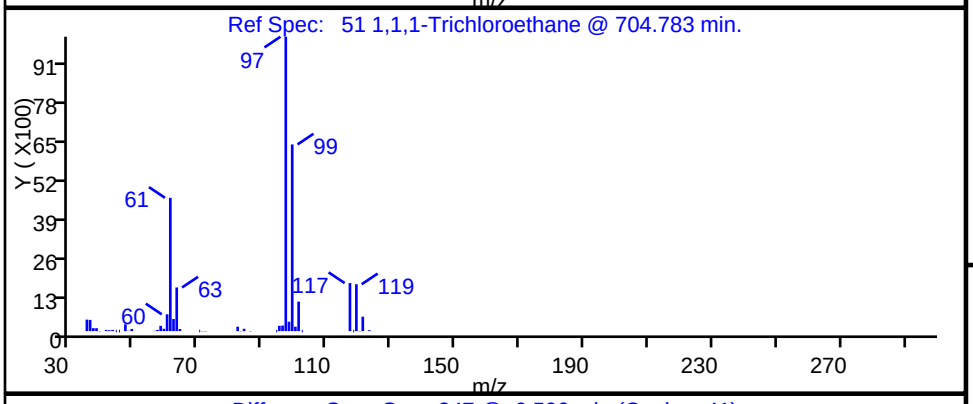
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D

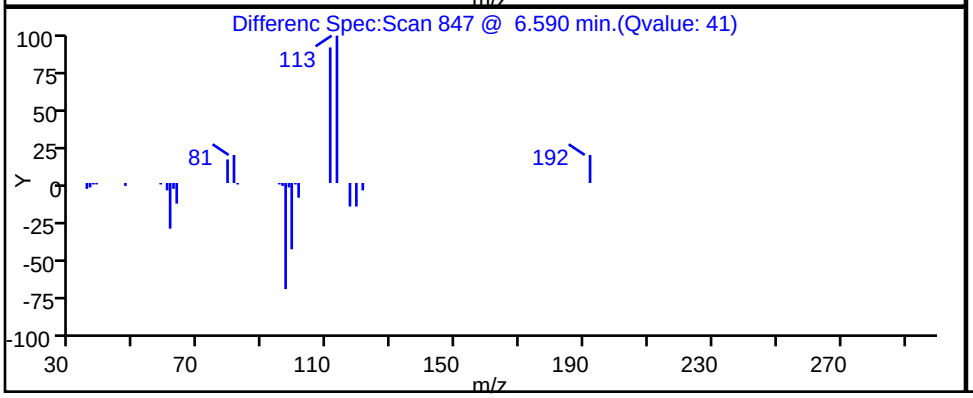
Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

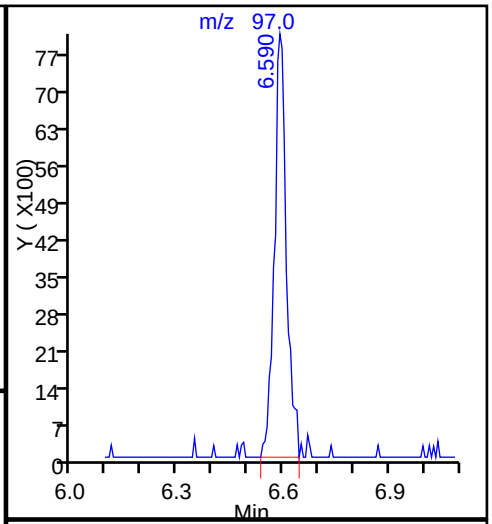
51 1,1,1-Trichloroethane, CAS: 71-55-6

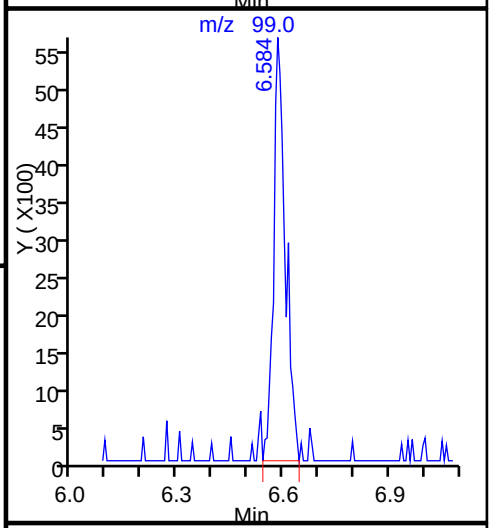


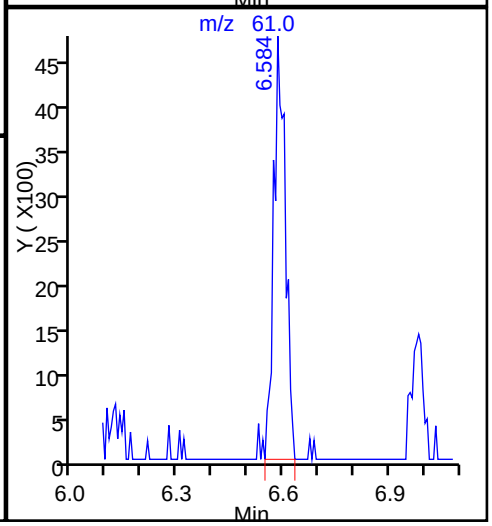












Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D

Injection Date: 03-Apr-2015 18:13:30 Instrument ID: CHHP6

Lims ID: 180-42445-D-3 Lab Sample ID: 180-42445-3

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

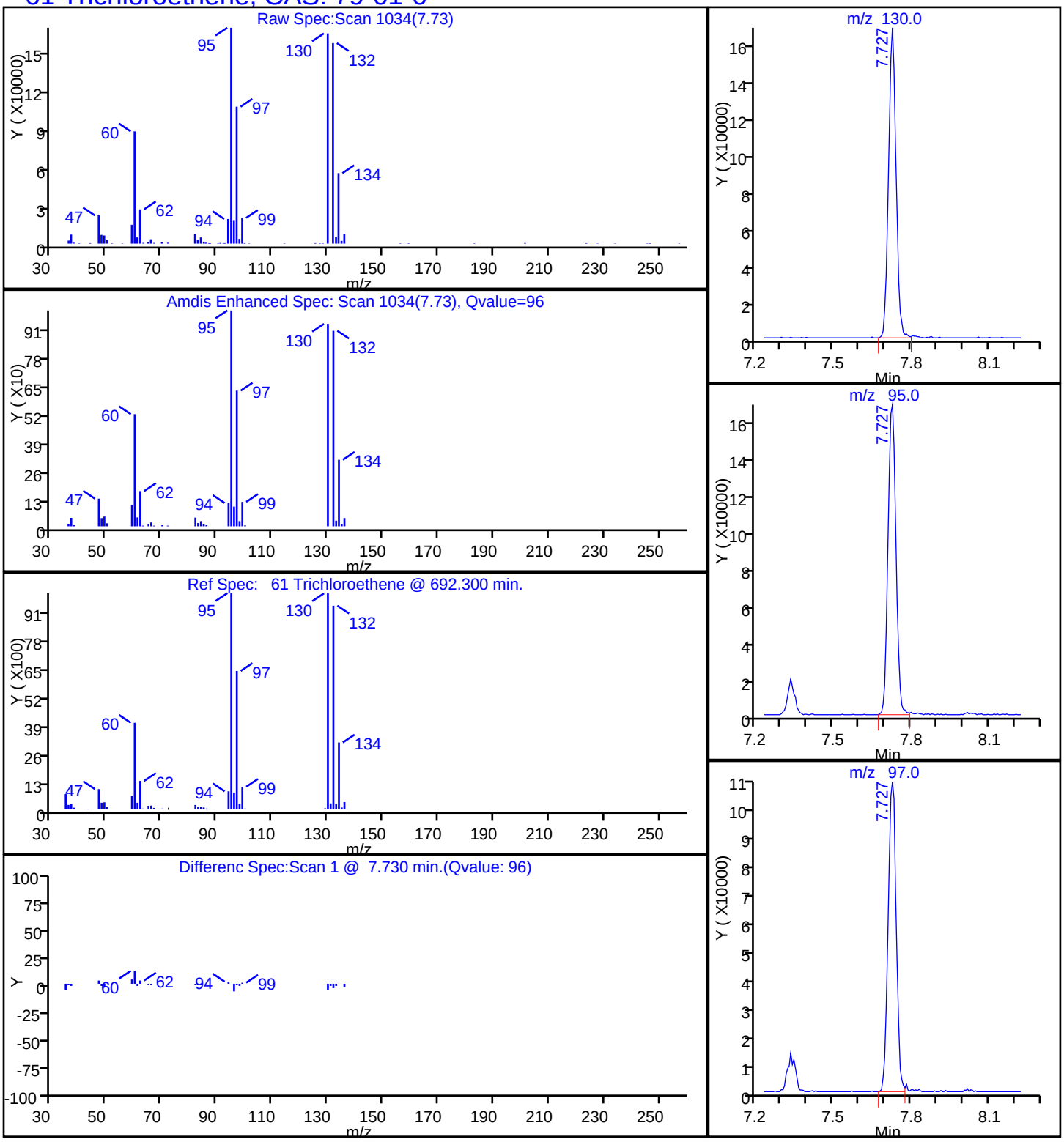
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13

Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

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

61 Trichloroethene, CAS: 79-01-6

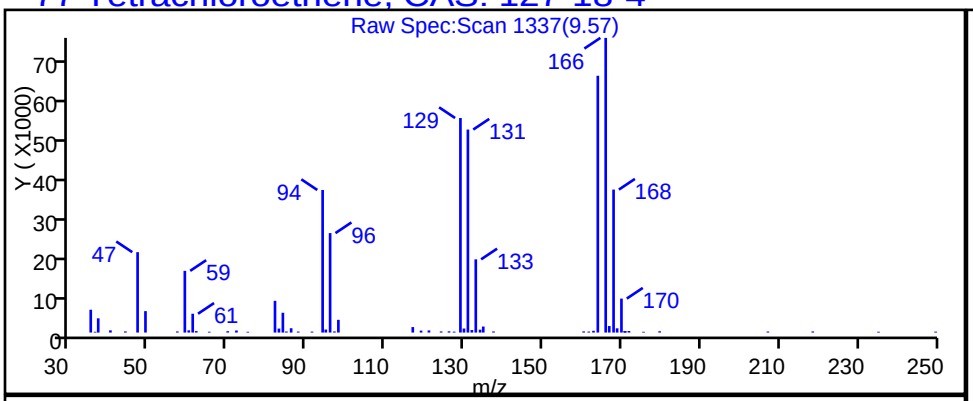


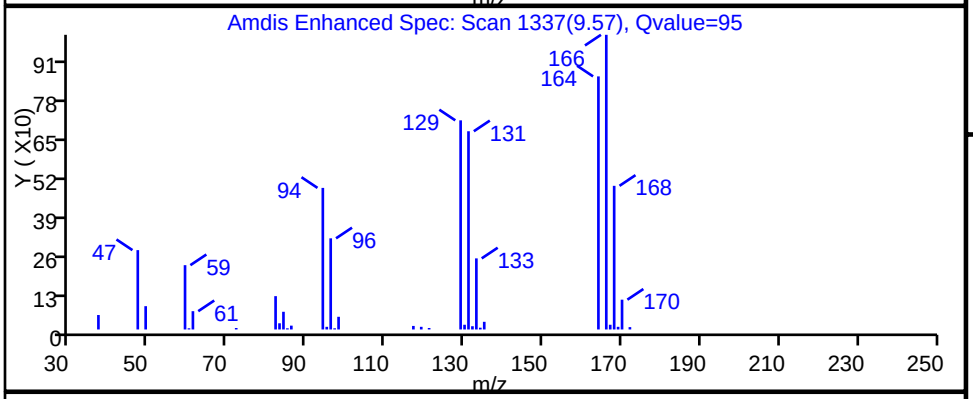
Report Date: 04-Apr-2015 10:45:36 Chrom Revision: 2.2 13-Mar-2015 11:20:44

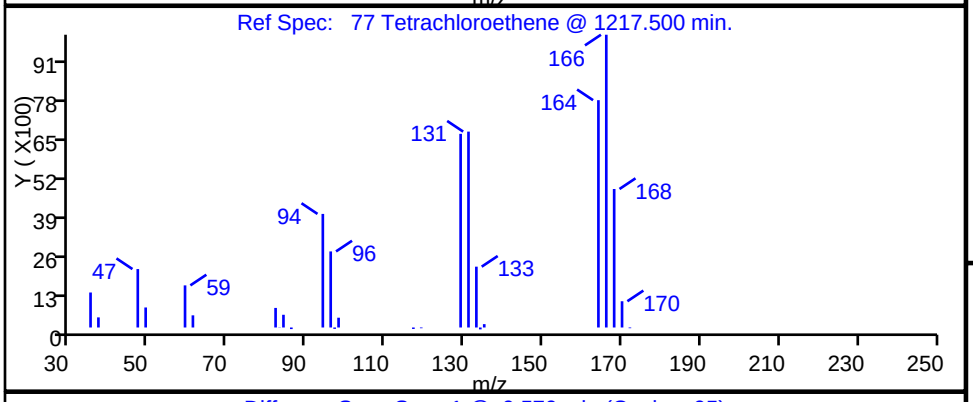
TestAmerica Pittsburgh

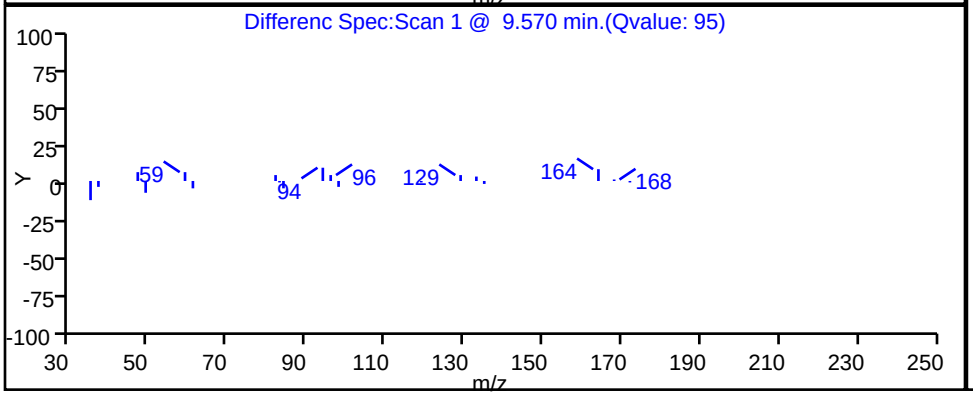
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D				
Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

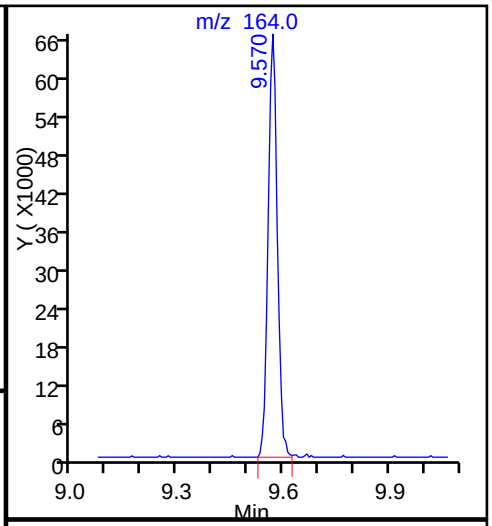
77 Tetrachloroethene, CAS: 127-18-4

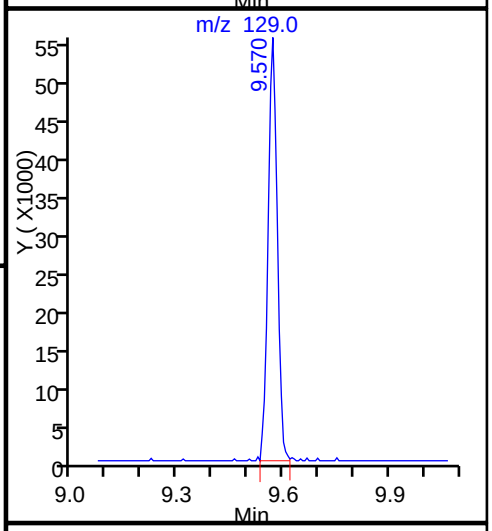


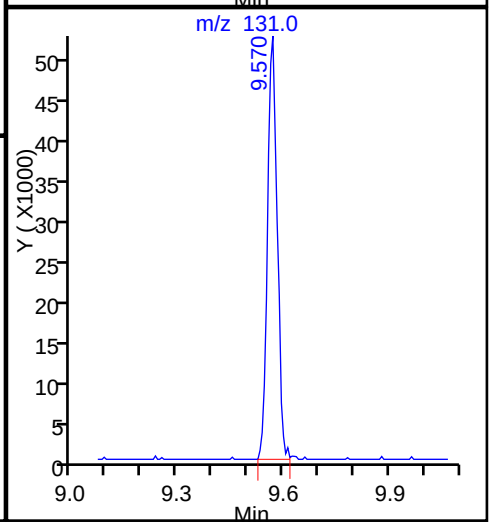












Manual Integration/User Assign Peak Report

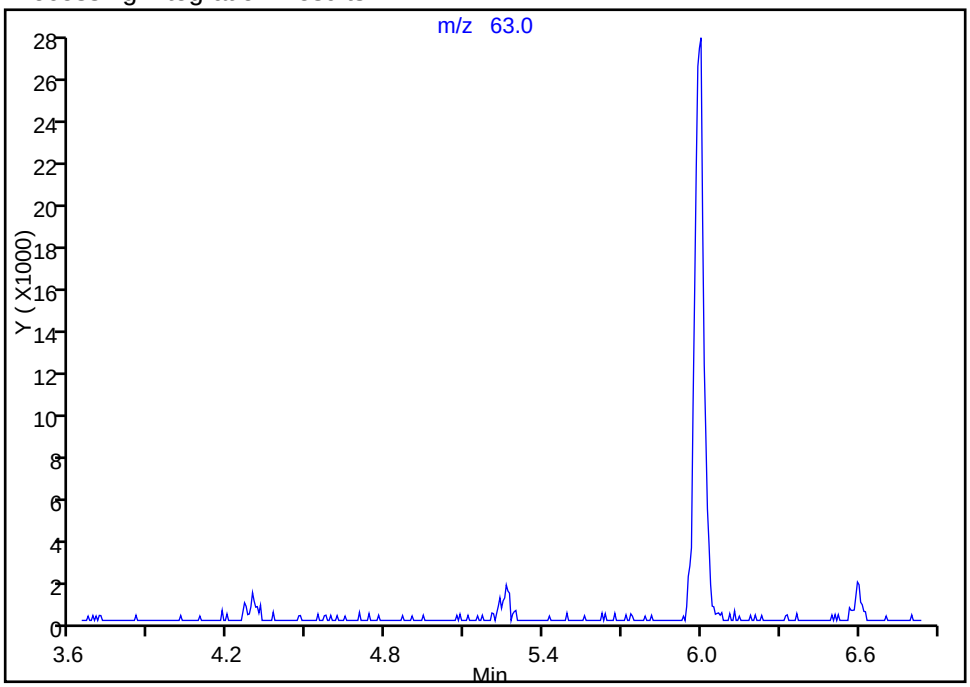
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403013.D				
Injection Date:	03-Apr-2015 18:13:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-3	Lab Sample ID:	180-42445-3		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

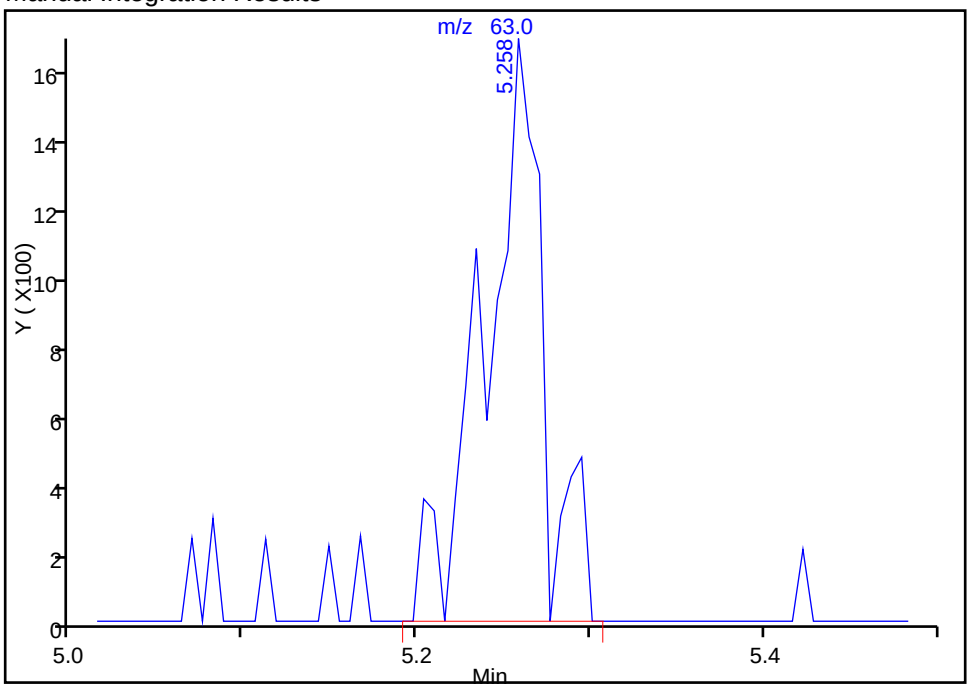
Not Detected
Expected RT: 5.24

Processing Integration Results



Manual Integration Results

RT: 5.26
Area: 4017
Amount: 0.747131
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:45:36
Audit Action: Manually Integrated
Audit Reason: Peak Not Found

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-42445-4

Matrix: Water Lab File ID: 60403007.D

Analysis Method: 8260C Date Collected: 03/26/2015 14:25

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 15:35

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.: 137472 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	0.84	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	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.2		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	12		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	14		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-42445-4

Matrix: Water Lab File ID: 60403007.D

Analysis Method: 8260C Date Collected: 03/26/2015 14:25

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 15:35

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.: 137472 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)	118		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D
Lims ID: 180-42445-D-4 Lab Sample ID: 180-42445-4
Client ID: HD-MW-98I-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 15:35:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-D-4
Misc. Info.: 180-0006320-007
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 15:56:37 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 15:56:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.279	-0.008	90	173664	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	98	417925	50.0	
* 3 Chlorobenzene-d5	119	10.438	10.439	-0.001	91	88288	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	98	144940	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.600	6.602	-0.002	93	107764	57.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	6.979	-0.002	71	159441	58.9	
$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	94	368596	53.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.625	0.005	86	139317	47.1	
11 Dichlorodifluoromethane	85		1.627				ND	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
14 Butadiene	39		1.950				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
17 Dichlorofluoromethane	67		2.679				ND	
18 Trichlorofluoromethane	101		2.716				ND	
19 Ethanol	45		2.951				ND	
20 Ethyl ether	59		3.069				ND	
21 Acrolein	56		3.257				ND	
22 1,1-Dichloroethene	96	3.383	3.391	-0.008	97	9805	4.18	
23 1,1,2-Trichloro-1,2,2-trif	101		3.452				ND	
24 Acetone	43		3.464				ND	
25 Iodomethane	142		3.585				ND	
26 Carbon disulfide	76		3.689				ND	
27 Isopropyl alcohol	45		3.730				ND	
28 Acetonitrile	40		3.882				ND	
29 3-Chloro-1-propene	76		3.956				ND	
30 Methyl acetate	43		3.975				ND	
31 Methylene Chloride	84		4.181				ND	
32 2-Methyl-2-propanol	59		4.412				ND	
33 Acrylonitrile	53		4.546				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
36 Hexane	57		5.027				ND	
37 1,1-Dichloroethane	63		5.240				ND	
38 Vinyl acetate	43		5.282				ND	
39 2-Chloro-1,3-butadiene	53		5.335				ND	
40 Isopropyl ether	45		5.335				ND	
41 Tert-butyl ethyl ether	59		5.809				ND	
42 2,2-Dichloropropane	77		5.988				ND	
44 2-Butanone (MEK)	43		5.988				ND	
43 cis-1,2-Dichloroethene	96	5.986	5.988	-0.002	84	167487	55.9	
45 Propionitrile	54		6.053				ND	
46 Ethyl acetate	43		6.065				ND	
47 Methacrylonitrile	41		6.235				ND	
48 Chlorobromomethane	128		6.273				ND	
49 Tetrahydrofuran	42		6.286				ND	
50 Chloroform	83	6.424	6.413	0.011	35	1750	0.3719	
51 1,1,1-Trichloroethane	97	6.582	6.584	-0.002	97	38717	10.8	
52 Cyclohexane	56		6.669				ND	
53 Carbon tetrachloride	117		6.760				ND	
54 1,1-Dichloropropene	75		6.772				ND	
55 Isobutyl alcohol	41		6.936				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
58 Tert-amyl methyl ether	73		7.159				ND	
59 n-Heptane	43		7.350				ND	
60 n-Butanol	56		7.646				ND	
61 Trichloroethene	130	7.719	7.721	-0.002	97	146377	61.9	
62 Ethyl acrylate	55		7.828				ND	
63 Methylcyclohexane	83		7.970				ND	
64 1,2-Dichloropropane	63		7.994				ND	
66 Methyl methacrylate	69		8.066				ND	
65 1,4-Dioxane	88		8.067				ND	
67 Dibromomethane	93		8.086				ND	
68 Dichlorobromomethane	83		8.274				ND	
69 2-Nitropropane	41		8.485				ND	
70 2-Chloroethyl vinyl ether	63		8.570				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.057	9.053	0.004	29	4207	0.4661	
74 trans-1,3-Dichloropropene	75		9.296				ND	
75 Ethyl methacrylate	69		9.351				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.568	9.569	-0.001	95	115048	71.4	
78 1,3-Dichloropropane	76		9.649				ND	
79 2-Hexanone	43		9.691				ND	
80 n-Butyl acetate	43		9.823				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
83 3-Chlorobenzotrifluoride	180		10.433				ND	
84 Chlorobenzene	112		10.469				ND	
85 4-Chlorobenzotrifluoride	180		10.524				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
129 Cyclohexanol	57		11.289				ND	
91 Bromoform	173		11.290				ND	
92 2-Chlorobenzotrifluoride	180		11.339				ND	
93 Isopropylbenzene	105		11.449				ND	
94 Cyclohexanone	55		11.526				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
95 Bromobenzene	156		11.771				ND	
97 trans-1,4-Dichloro-2-buten	53		11.789				ND	
98 1,2,3-Trichloropropane	110		11.813				ND	
99 N-Propylbenzene	120		11.868				ND	
100 2-Chlorotoluene	126		11.953				ND	
101 3-Chlorotoluene	126		12.020				ND	
102 1,3,5-Trimethylbenzene	105		12.045				ND	
103 4-Chlorotoluene	126		12.081				ND	
104 tert-Butylbenzene	119		12.367				ND	
105 Pentachloroethane	167		12.402				ND	
106 1,2,4-Trimethylbenzene	105		12.422				ND	
107 1,2-dichloro-4-(trifluorom	214		12.458				ND	
108 sec-Butylbenzene	105		12.586				ND	
109 1,3-Dichlorobenzene	146		12.707				ND	
110 4-Isopropyltoluene	119		12.744				ND	
111 1,4-Dichlorobenzene	146		12.817				ND	
113 2,4-Dichloro-1-(triflourom	214		12.829				ND	
112 1,2,3-Trimethylbenzene	105		12.833				ND	
114 2,5-Dichlorobenzotrifluori	214		12.866				ND	
115 Benzyl chloride	91		12.925				ND	
116 n-Butylbenzene	91		13.151				ND	
117 1,2-Dichlorobenzene	146		13.170				ND	
118 1,2-Dibromo-3-Chloropropan	75		13.966				ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.106				ND	
120 1,3,5-Trichlorobenzene	180		14.153				ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.520				ND	
122 1,2,4-Trichlorobenzene	180		14.787				ND	
123 Hexachlorobutadiene	225		14.927				ND	
124 Naphthalene	128		15.055				ND	
125 1,2,3-Trichlorobenzene	180		15.280				ND	
126 2,4,5-Trichlorotoluene	159		16.046				ND	
127 2,3,6-Trichlorotoluene	159		16.149				ND	
128 2-Methylnaphthalene	142		16.190				ND	
153 1,2 Epoxybutane TIC	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
147 2,6-Dichlorotoluene	1		0.000				ND	
143 2,5-Dichlorotoluene	1		0.000				ND	
144 2,4-Dichlorotoluene	1		0.000				ND	
149 Isopropyl ether TIC	1		0.000				ND	
150 Tert-butyl ethyl ether (TI	1		0.000				ND	
148 Isooctane	57		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
146 3,4-Dichlorotoluene	1		0.000				ND	
151 Tert-amyl methyl ether (TI	1		0.000				ND	
145 2,3-Dichlorotoluene	1		0.000				ND	
S 130 1,2-Dichloroethene, Total	96				0		55.9	
S 131 Xylenes, Total	106		1.000				ND	
S 132 1,3-Dichloropropene, Total	1		0.000				ND	
T 133 Tetrahydrofuran TIC	42		0.000				ND	
T 134 Methyl n-amyl ketone TIC	43		0.000				ND	
T 135 Mesityl oxide TIC	83		0.000				ND	

Reagents:

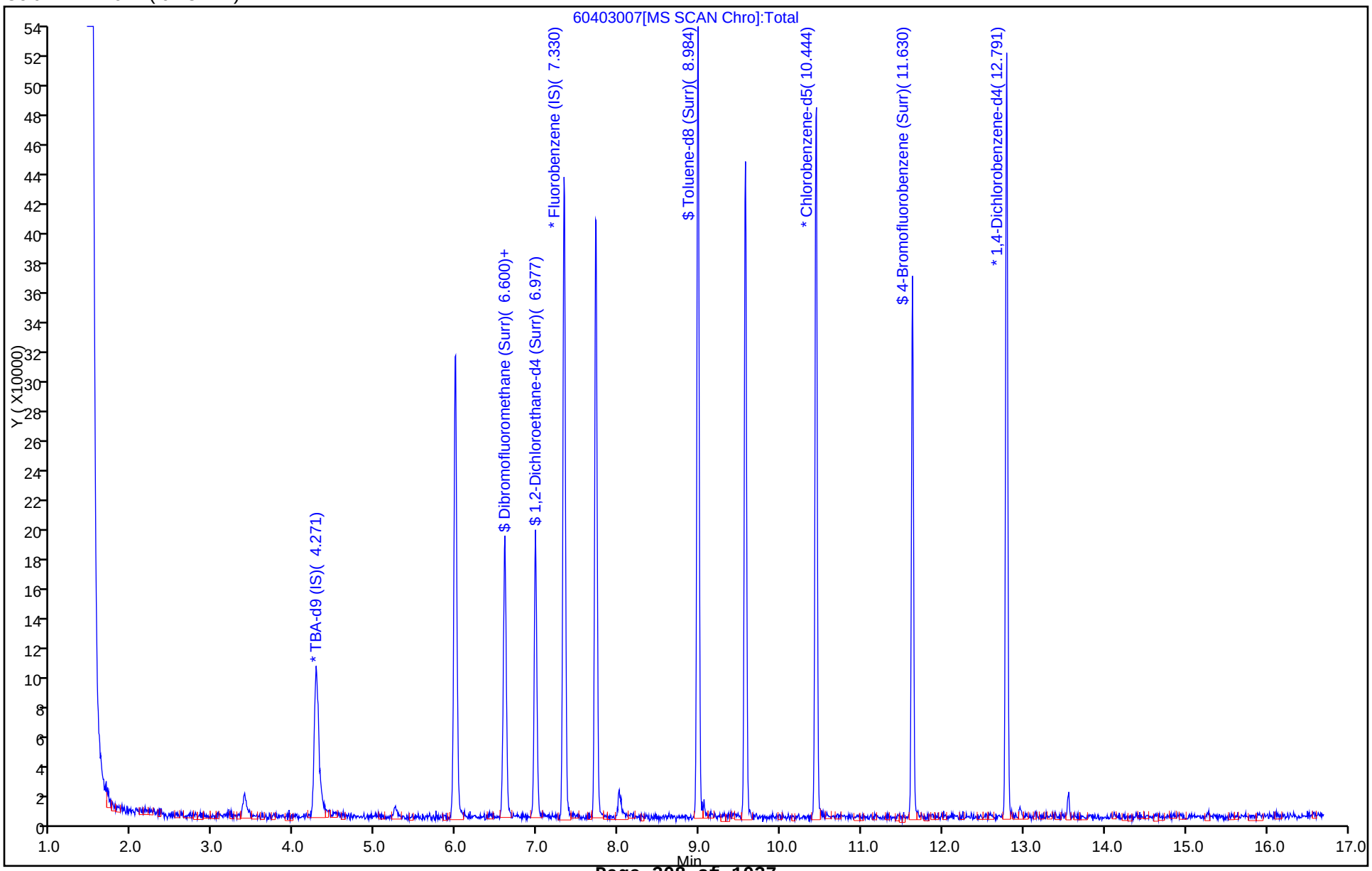
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 03-Apr-2015 15:56:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D				
Injection Date:	03-Apr-2015 15:35:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-D-4	Lab Sample ID:	180-42445-4	Worklist Smp#:	7
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

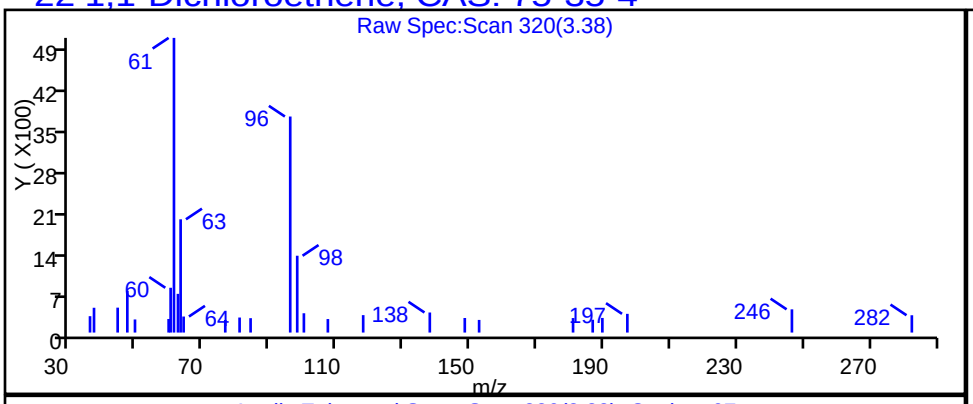


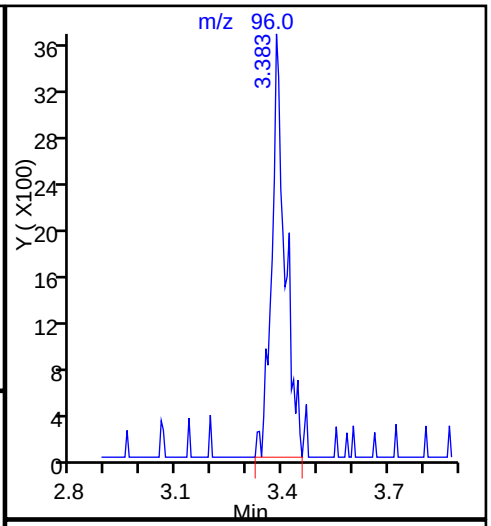
Report Date: 03-Apr-2015 15:56:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

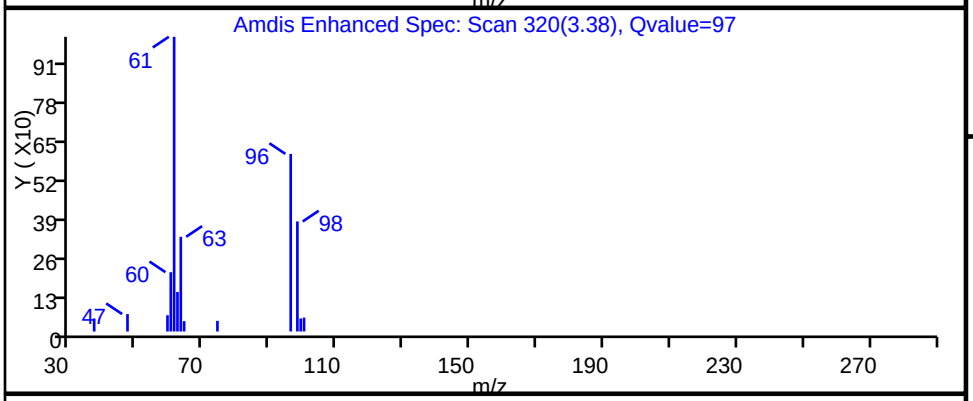
TestAmerica Pittsburgh

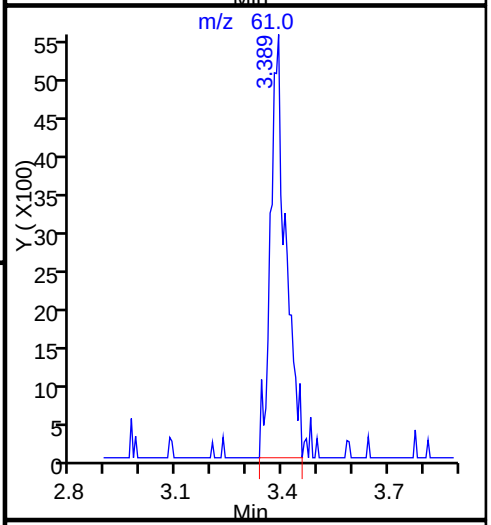
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D		
Injection Date:	03-Apr-2015 15:35:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-4	Lab Sample ID:	180-42445-4
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

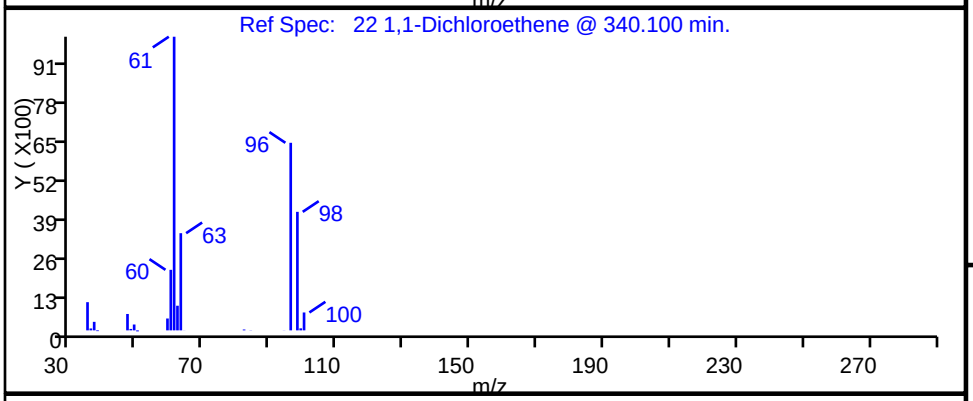
22 1,1-Dichloroethene, CAS: 75-35-4

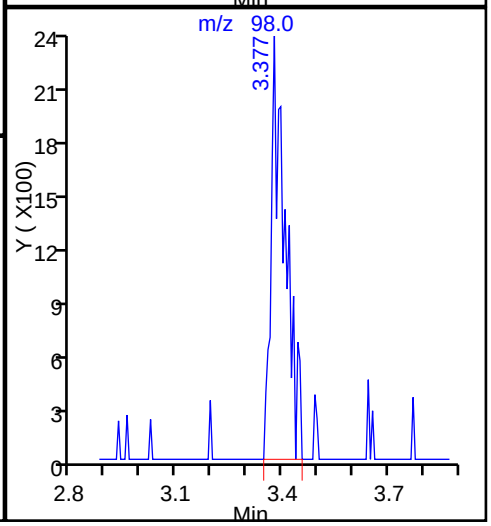


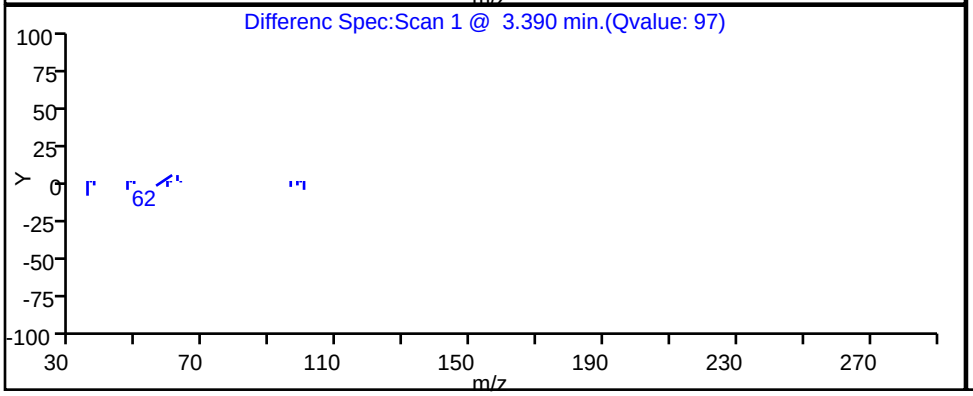










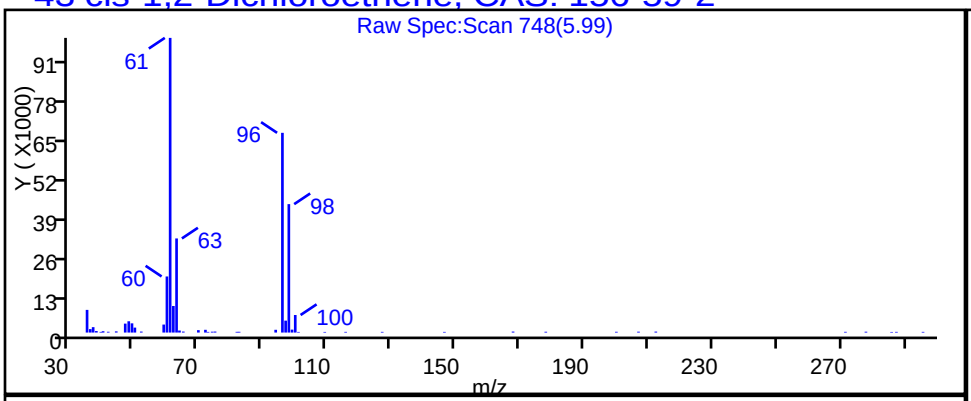


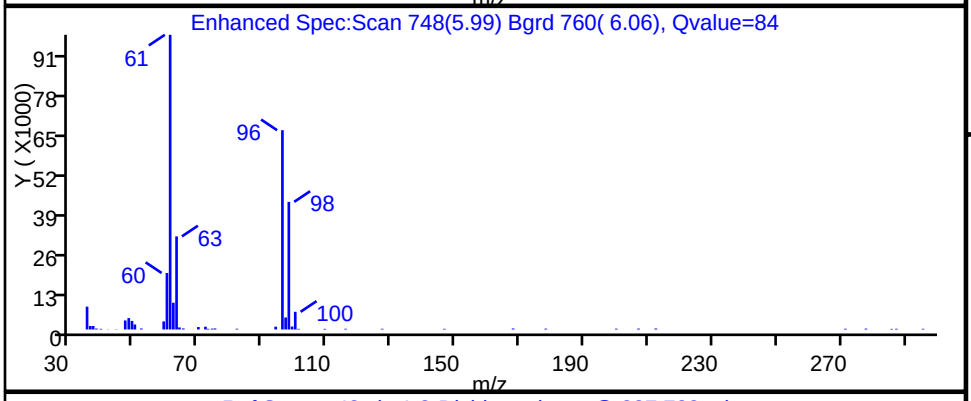
Report Date: 03-Apr-2015 15:56:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

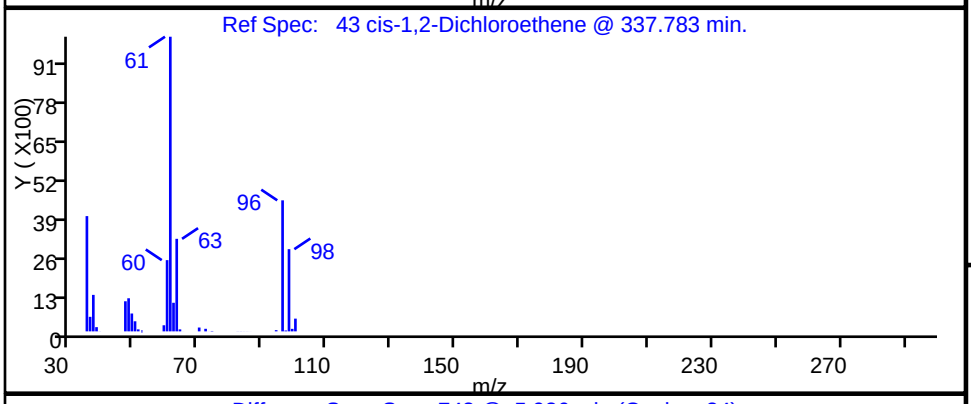
TestAmerica Pittsburgh

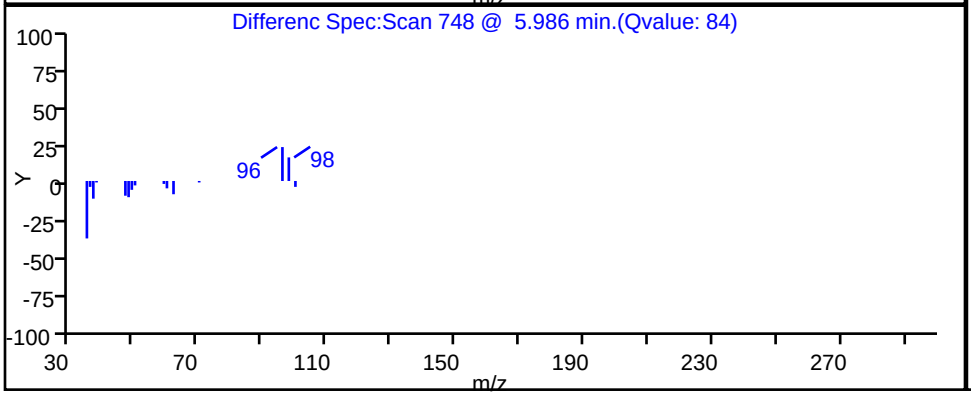
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D				
Injection Date:	03-Apr-2015 15:35:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-4	Lab Sample ID:	180-42445-4		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

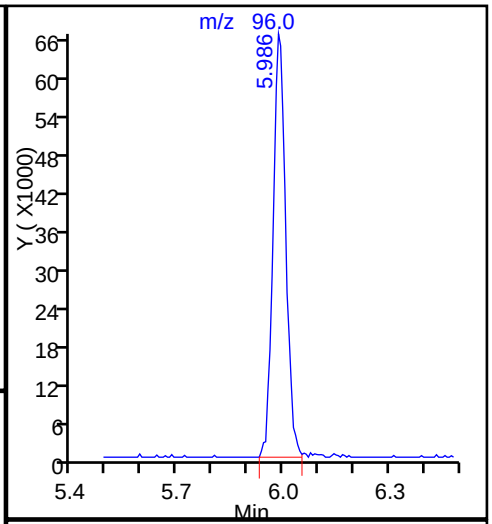
43 cis-1,2-Dichloroethene, CAS: 156-59-2

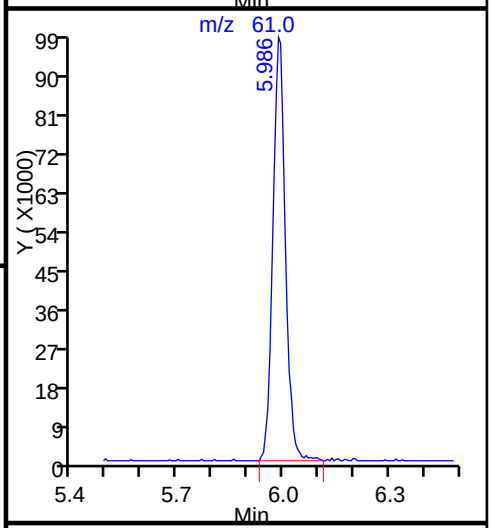


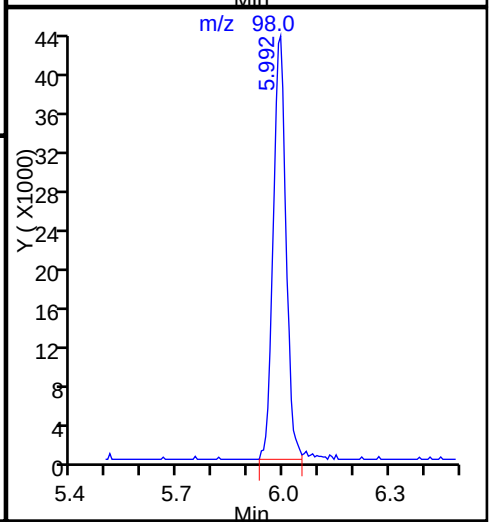










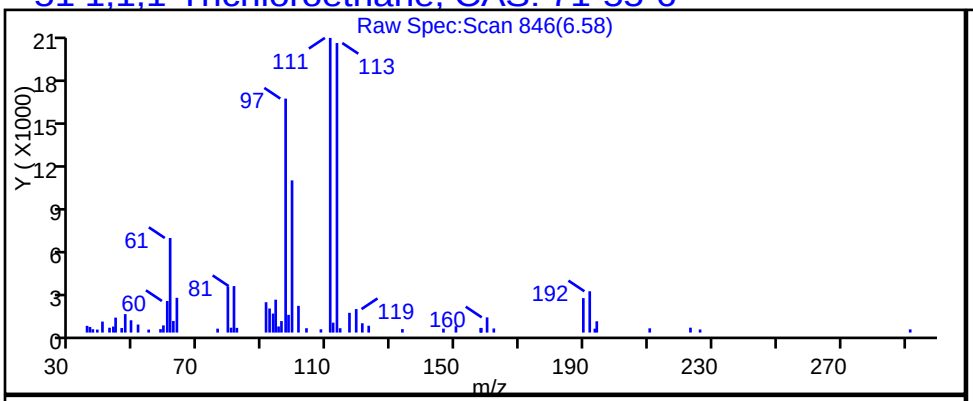


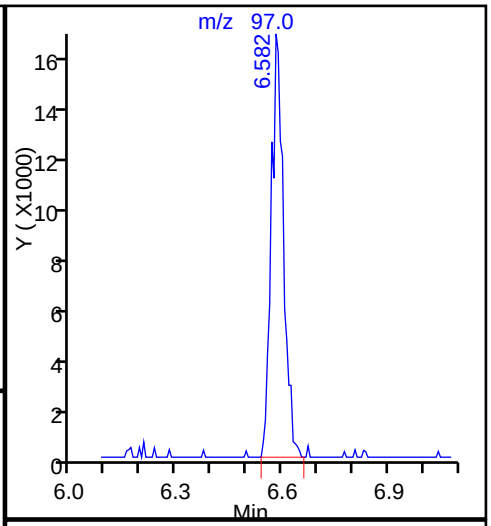
Report Date: 03-Apr-2015 15:56:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

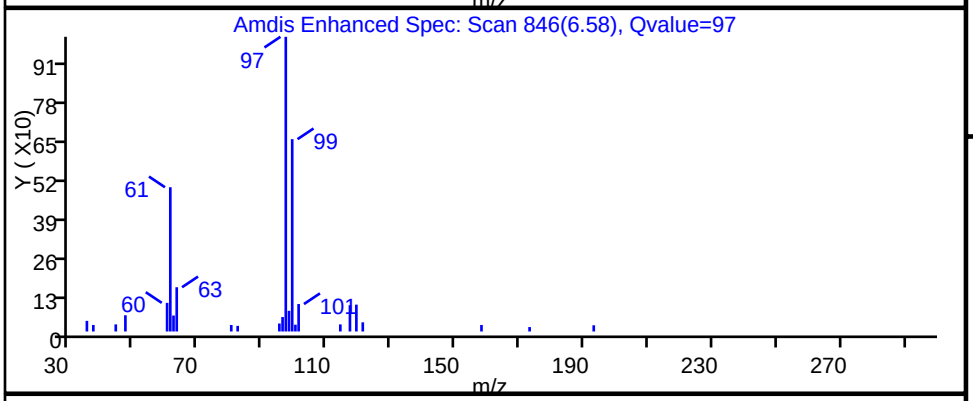
TestAmerica Pittsburgh

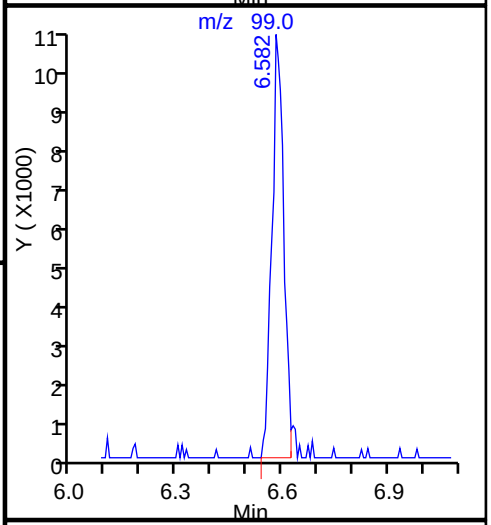
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D				
Injection Date:	03-Apr-2015 15:35:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-4	Lab Sample ID:	180-42445-4		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

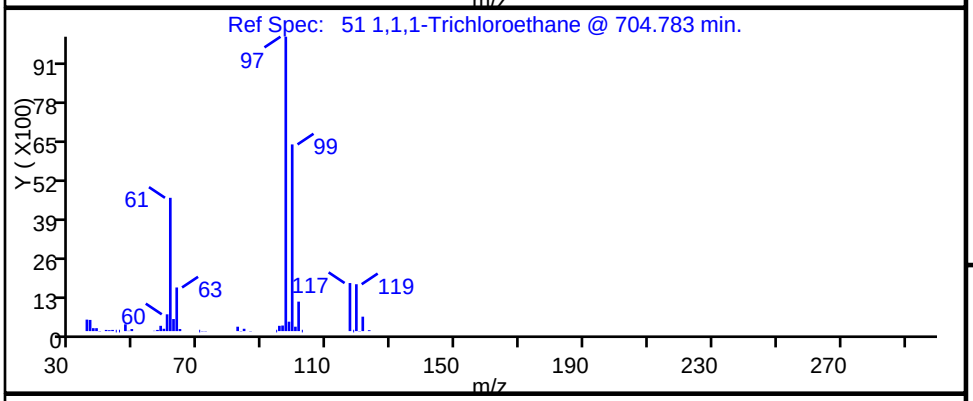
51 1,1,1-Trichloroethane, CAS: 71-55-6

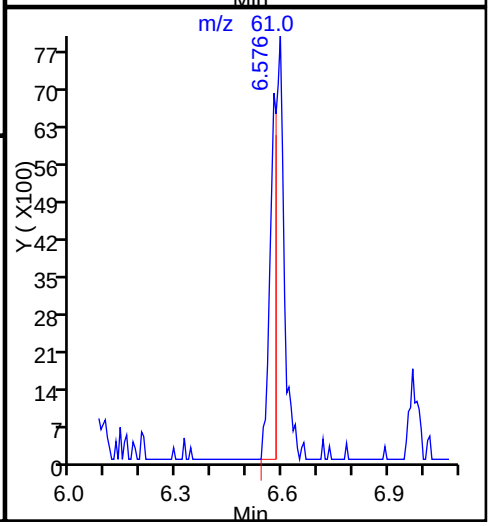


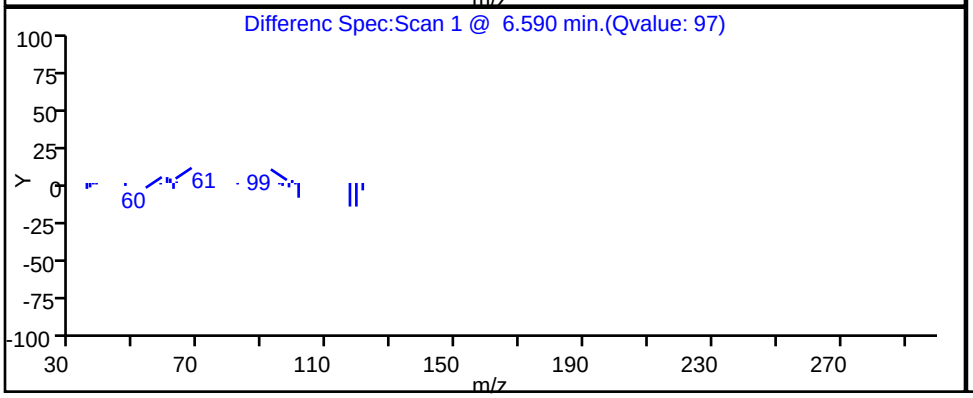










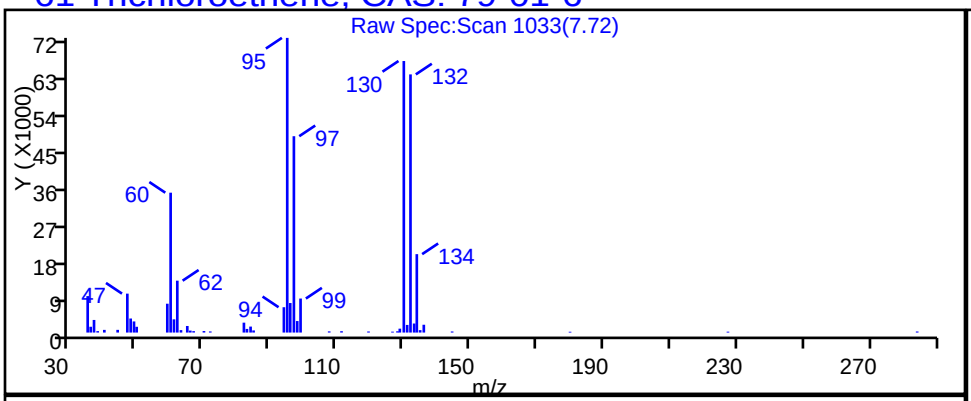


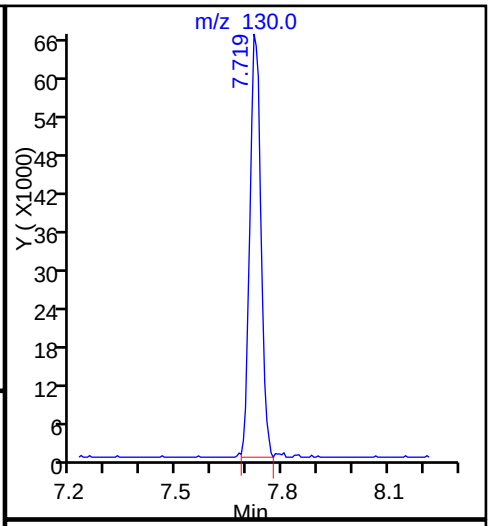
Report Date: 03-Apr-2015 15:56:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

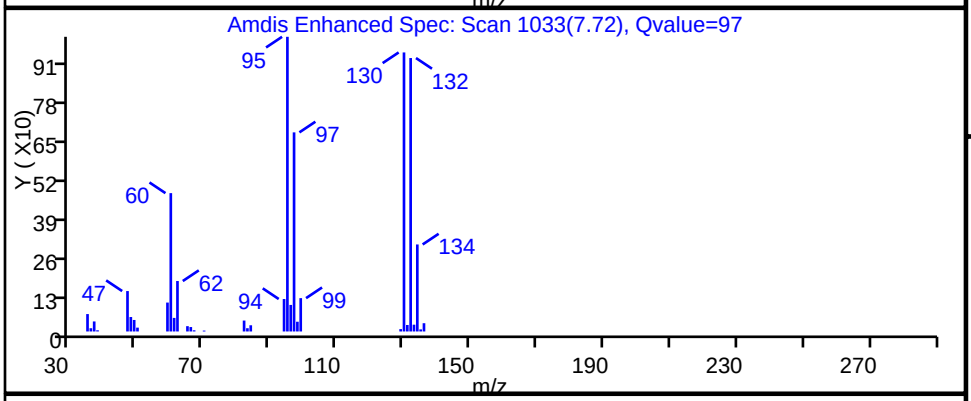
TestAmerica Pittsburgh

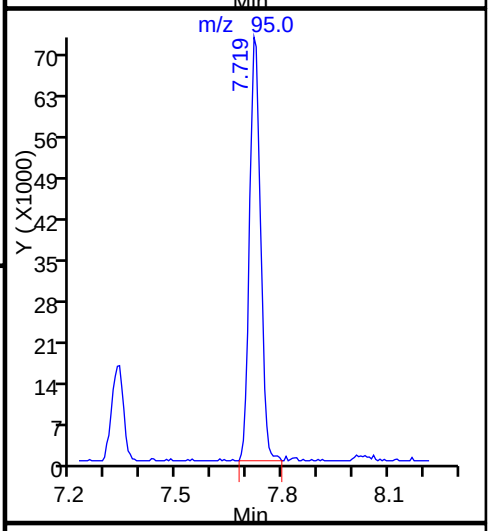
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D		
Injection Date:	03-Apr-2015 15:35:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-4	Lab Sample ID:	180-42445-4
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

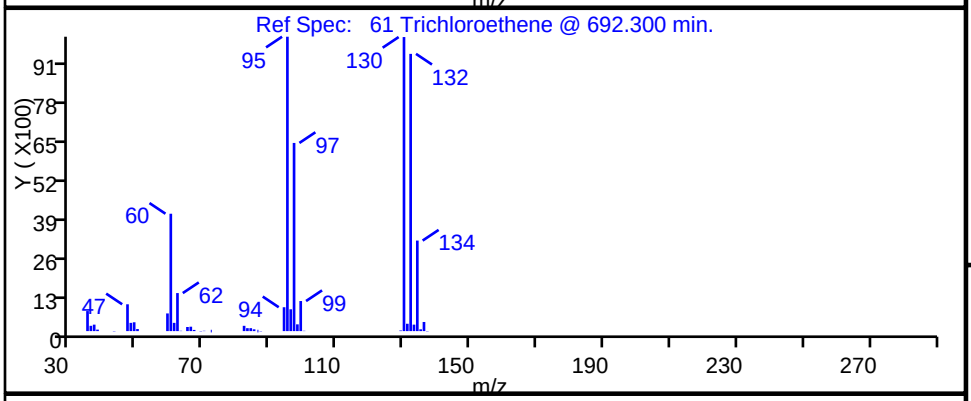
61 Trichloroethene, CAS: 79-01-6

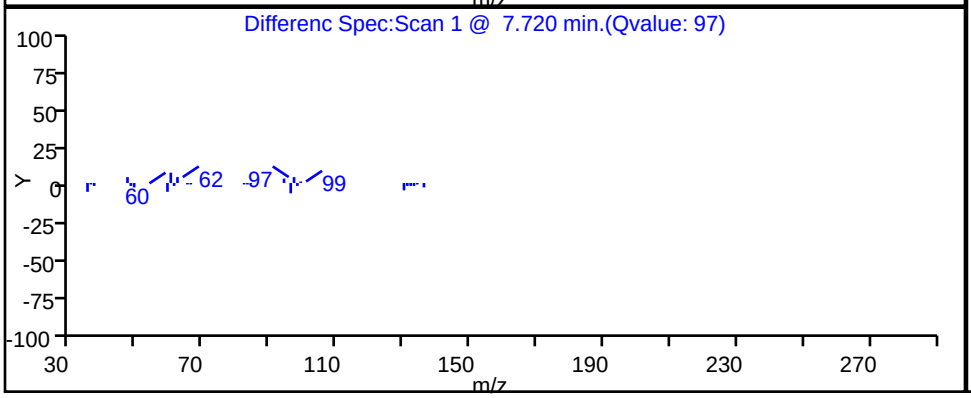


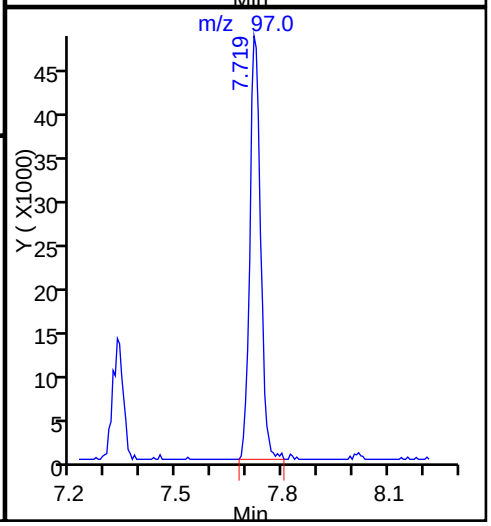












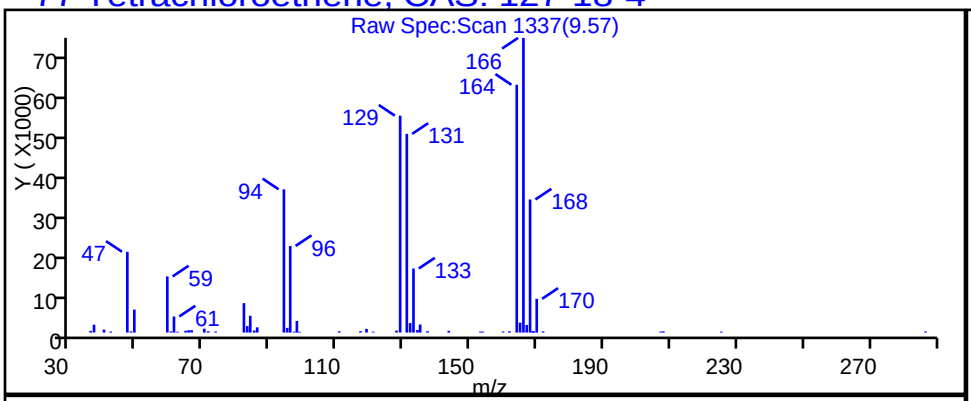
Report Date: 03-Apr-2015 15:56:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

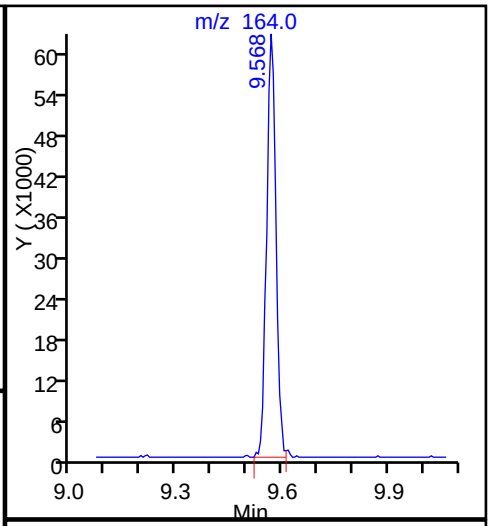
TestAmerica Pittsburgh

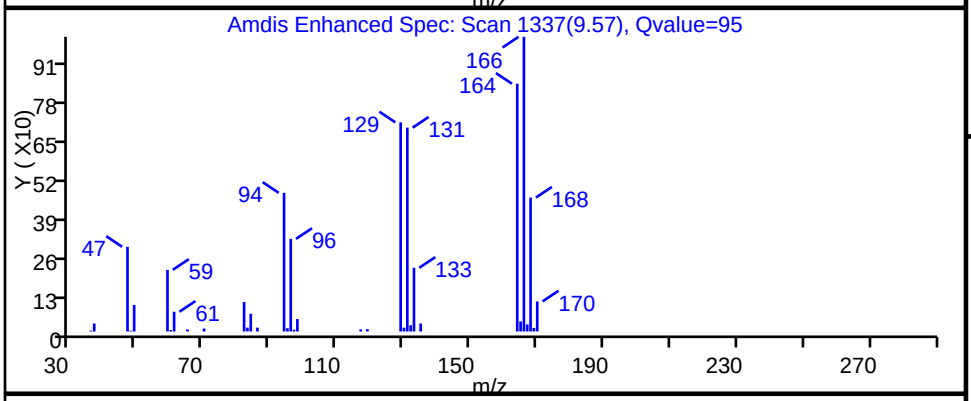
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403007.D

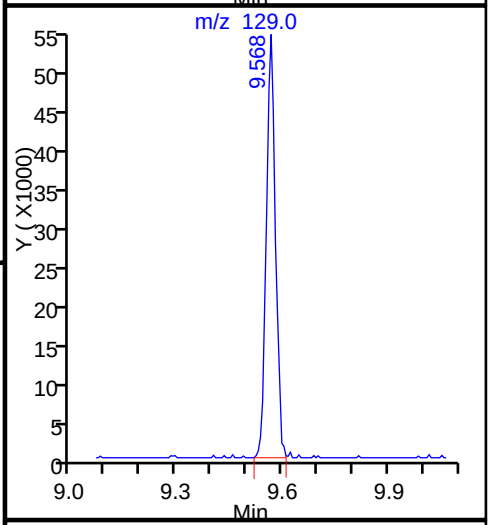
Injection Date:	03-Apr-2015 15:35:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-4	Lab Sample ID:	180-42445-4
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	7 Worklist Smp#: 7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

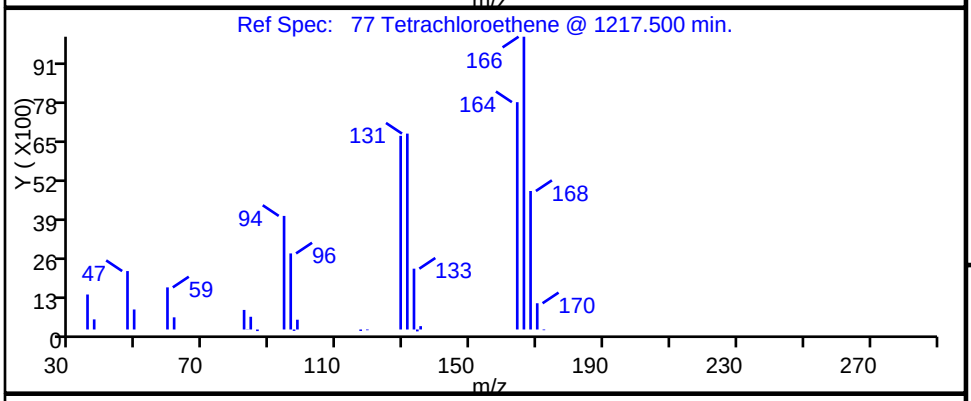
77 Tetrachloroethene, CAS: 127-18-4

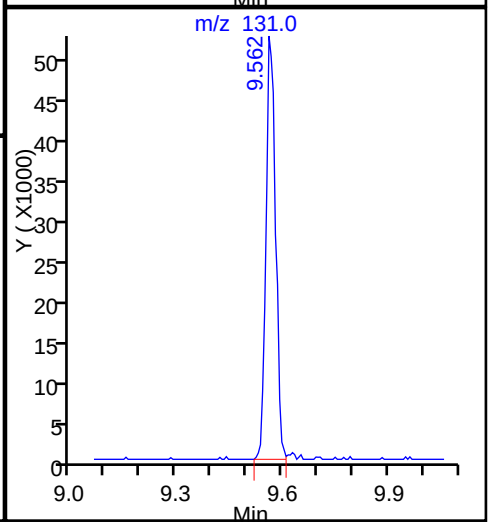


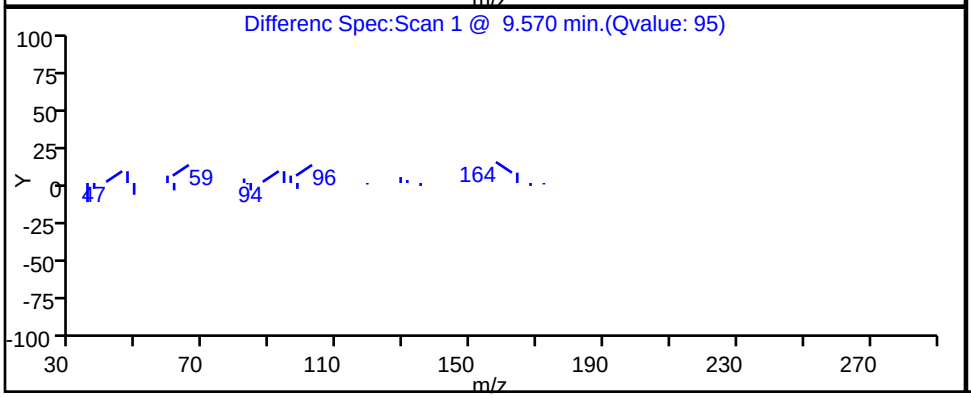












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 | Lab Sample ID: 180-42445-5

Matrix: Water | Lab File ID: 60403014.D

Analysis Method: 8260C | Date Collected: 03/26/2015 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 18:37

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.: 137472 | 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	0.59	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	0.27	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.1		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	1.8		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	10		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	12		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-42445-5

Matrix: Water Lab File ID: 60403014.D

Analysis Method: 8260C Date Collected: 03/26/2015 13:45

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 18:37

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.: 137472 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)	122		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D
Lims ID: 180-42445-D-5 Lab Sample ID: 180-42445-5
Client ID: HD-MW-98S-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 18:37:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-D-5
Misc. Info.: 180-0006320-014
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:46:49 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:46:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.279	-0.008	90	192291	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	98	417023	50.0	
* 3 Chlorobenzene-d5	119	10.444	10.439	0.005	91	88005	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	98	143242	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.600	6.602	-0.002	91	97451	51.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	6.979	-0.002	70	165255	61.2	
$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	93	382281	55.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.625	0.005	83	142692	48.4	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.383	3.391	-0.008	70	6885	2.94	
24 Acetone	43	3.456	3.464	-0.008	70	1826	2.48	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84		4.181				ND	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
37 1,1-Dichloroethane	63	5.250	5.240	0.010	1	7331	1.34	M
44 2-Butanone (MEK)	43		5.988				ND	
43 cis-1,2-Dichloroethene	96	5.986	5.988	-0.002	81	135598	45.4	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83	6.424	6.413	0.011	8	1979	0.4215	
51 1,1,1-Trichloroethane	97	6.588	6.584	0.004	60	32426	9.07	
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.725	7.721	0.004	95	119000	50.5	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.045	9.053	-0.008	41	4673	0.5194	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.568	9.569	-0.001	95	100207	62.4	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

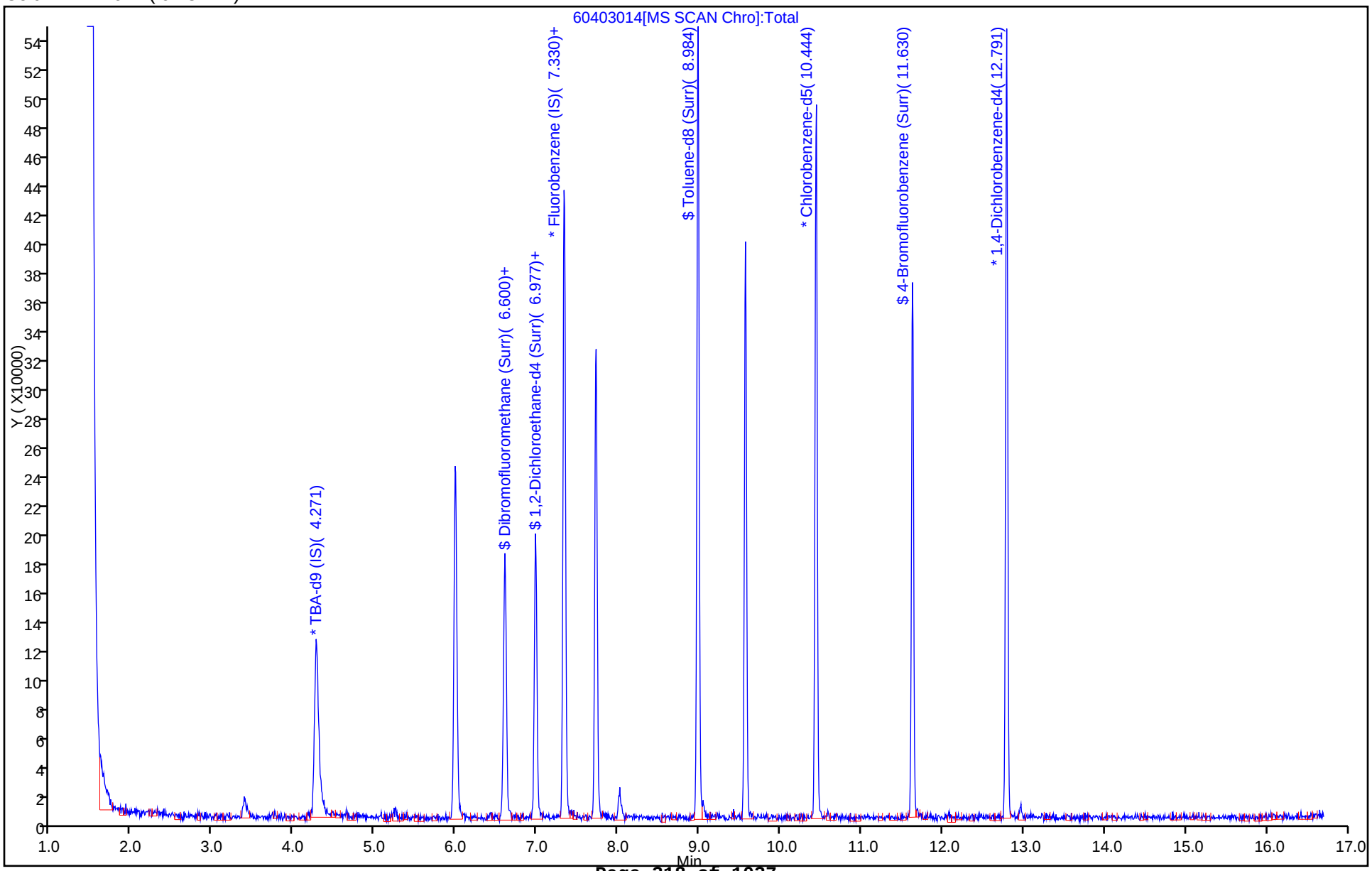
Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D

Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5	Worklist Smp#:	14
Client ID:	HD-MW-98S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



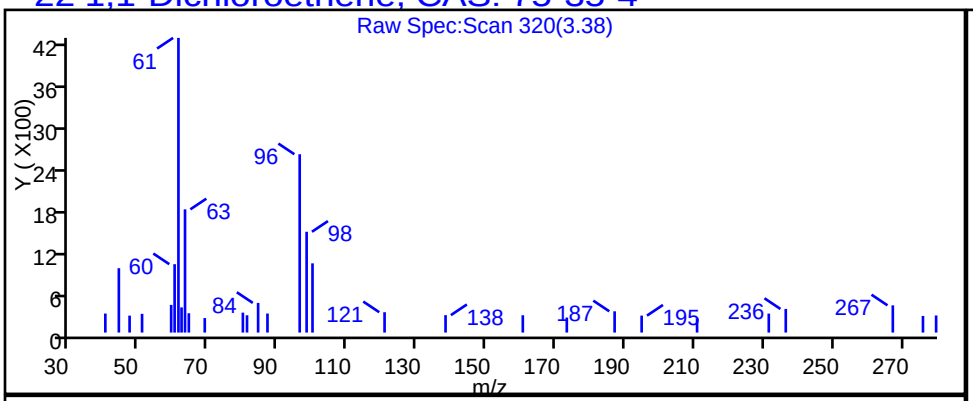
Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

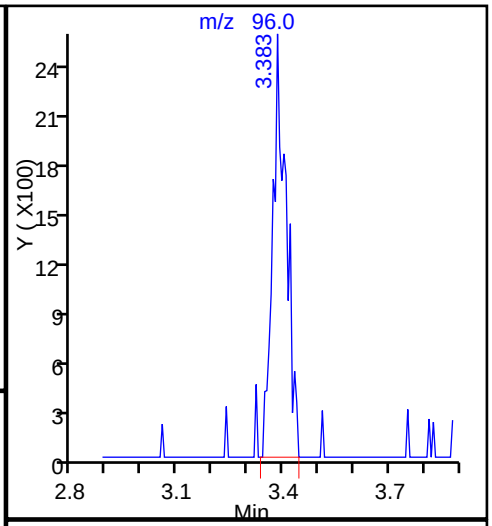
TestAmerica Pittsburgh

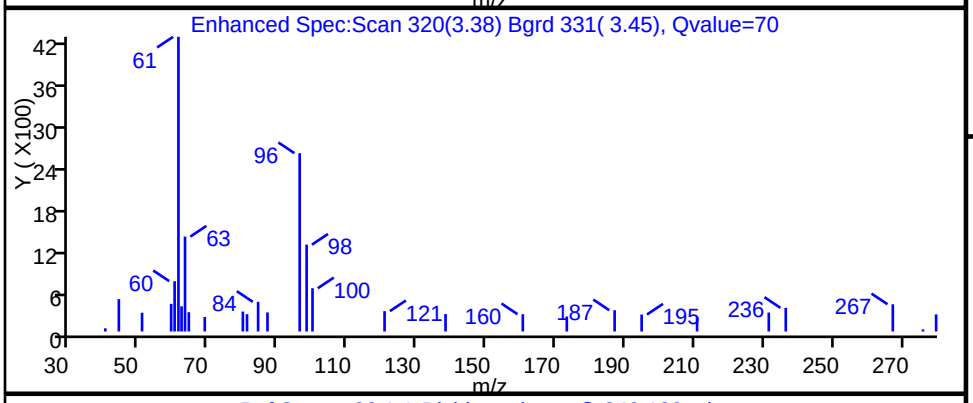
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D

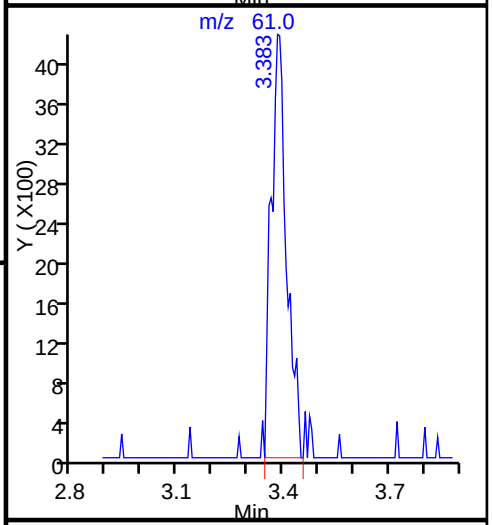
Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

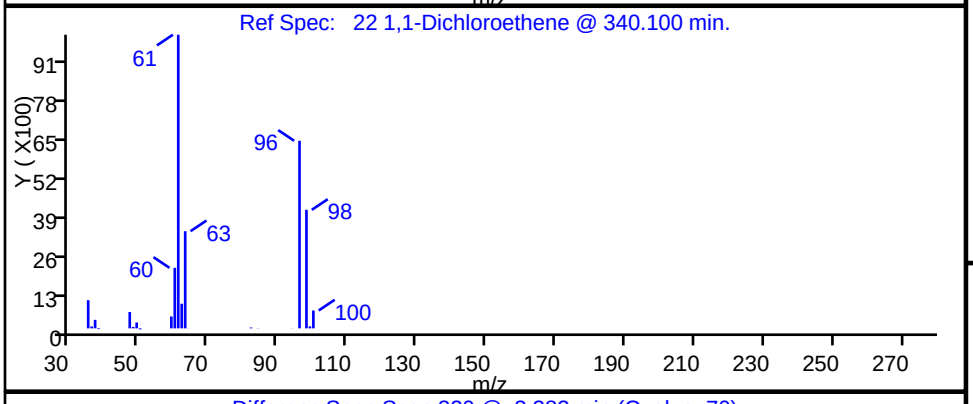
22 1,1-Dichloroethene, CAS: 75-35-4

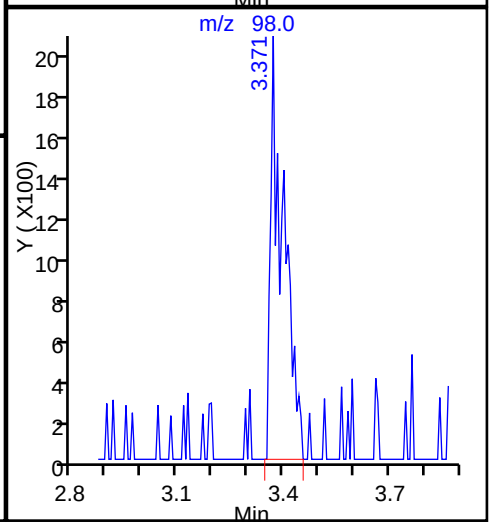


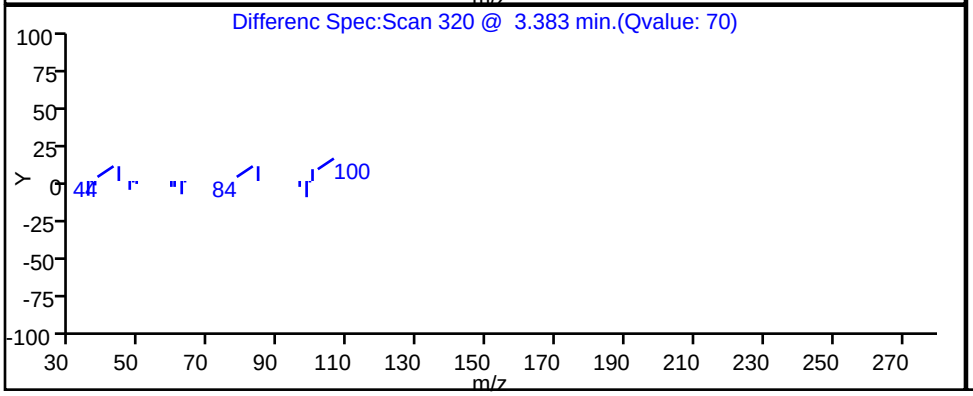










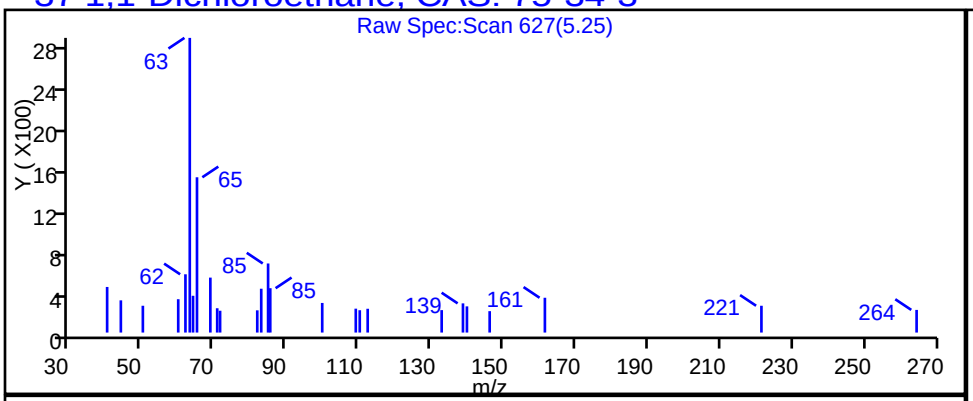


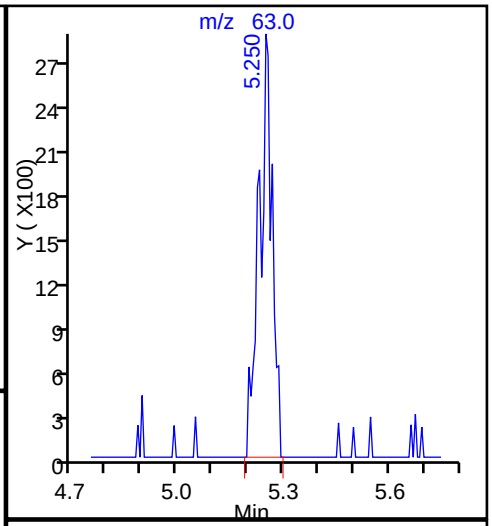
Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

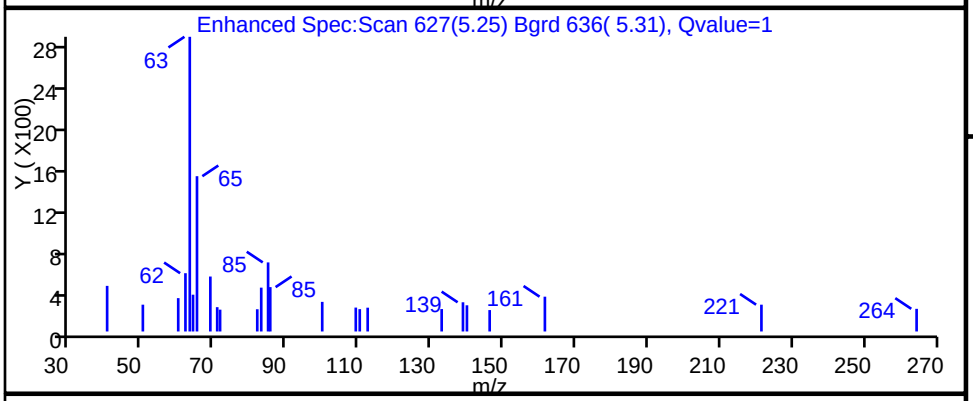
TestAmerica Pittsburgh

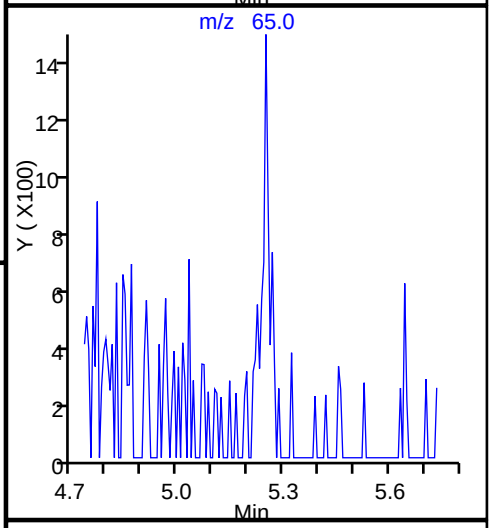
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D				
Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

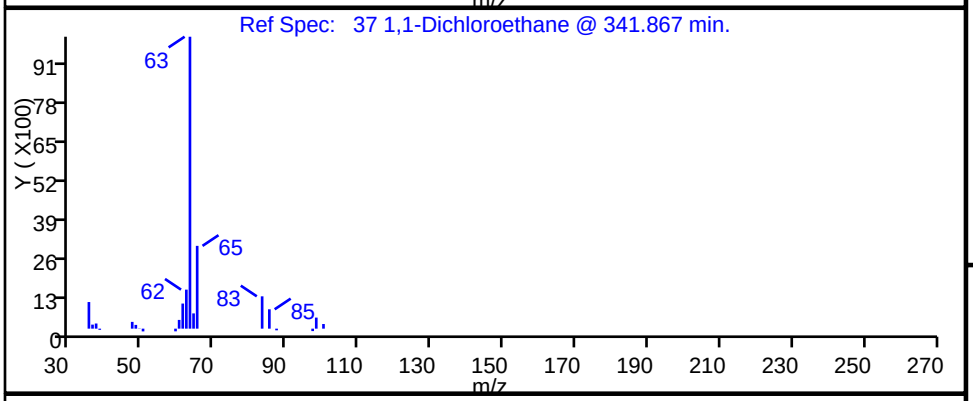
37 1,1-Dichloroethane, CAS: 75-34-3

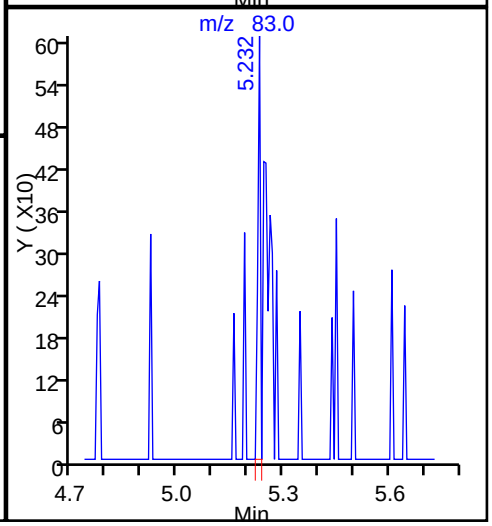


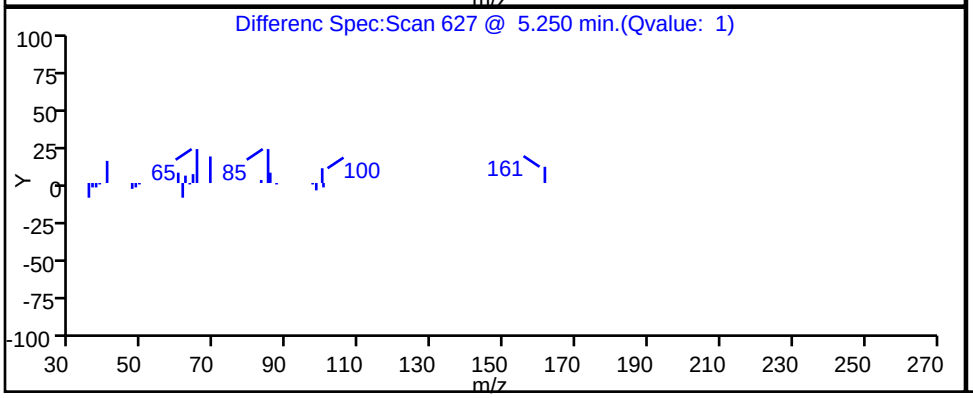










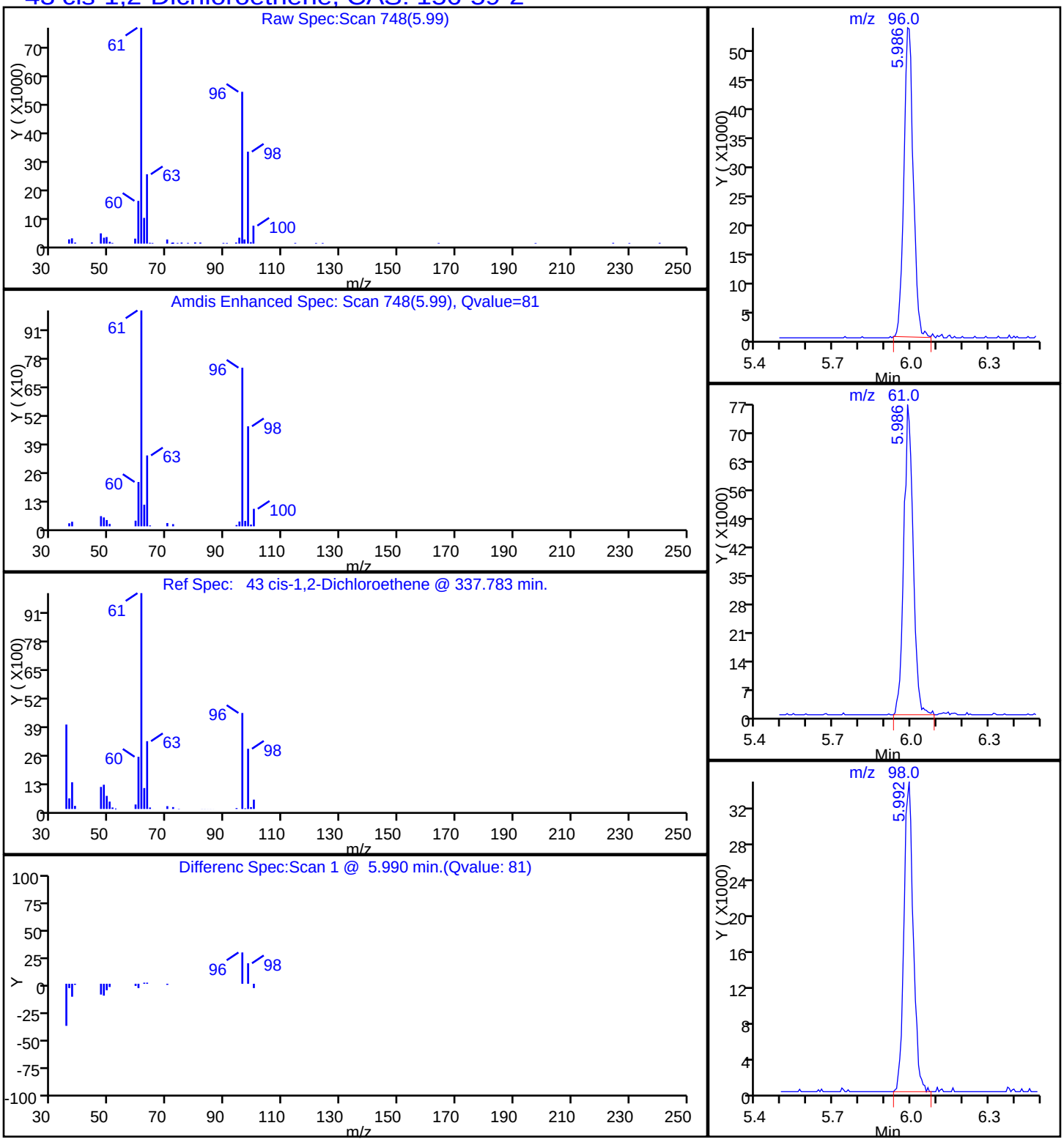


Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D				
Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



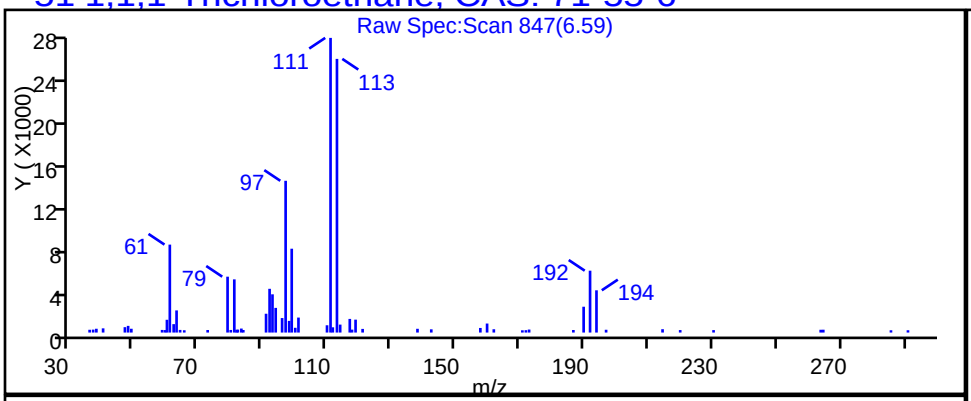
Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

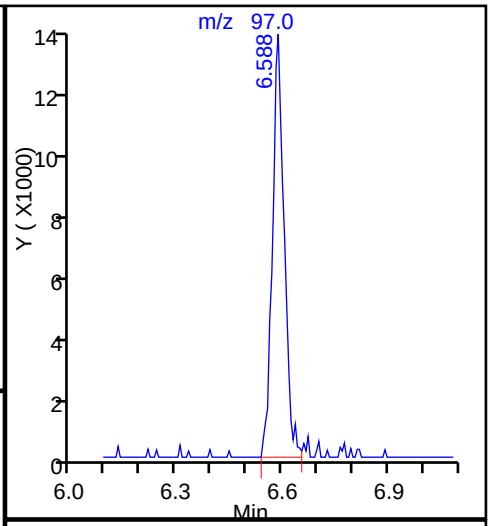
TestAmerica Pittsburgh

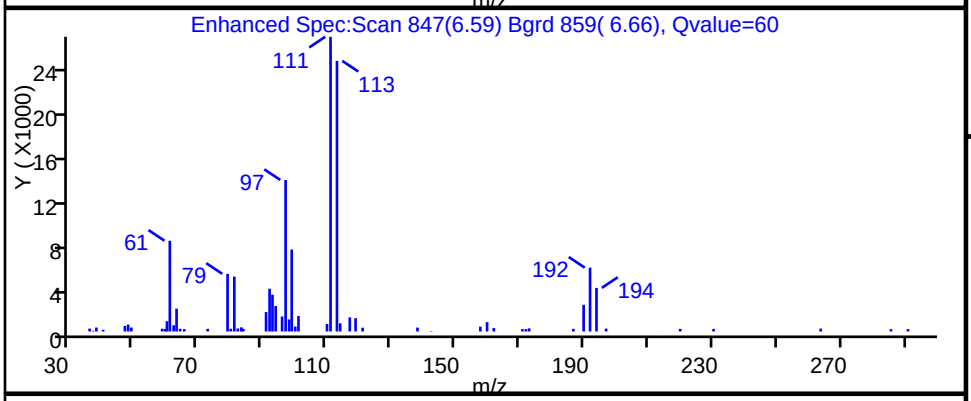
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D

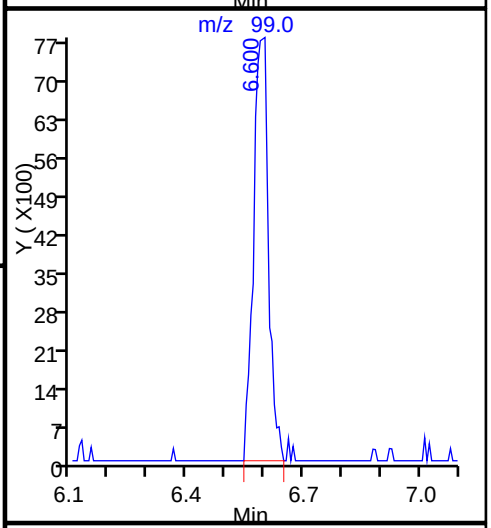
Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

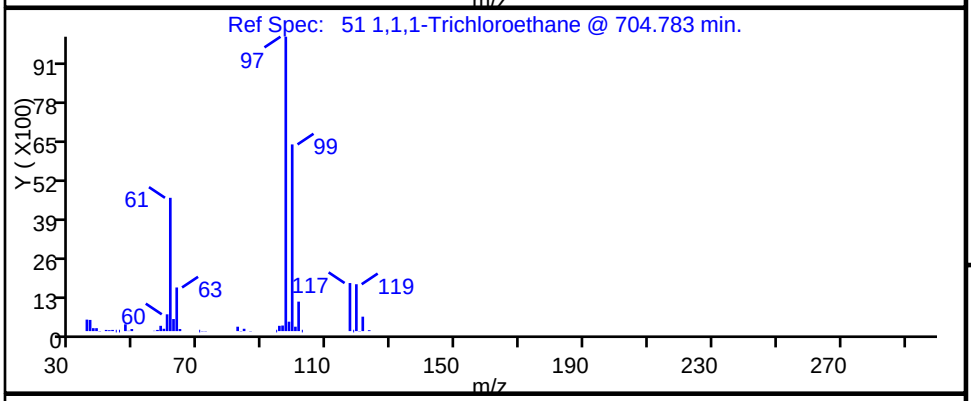
51 1,1,1-Trichloroethane, CAS: 71-55-6

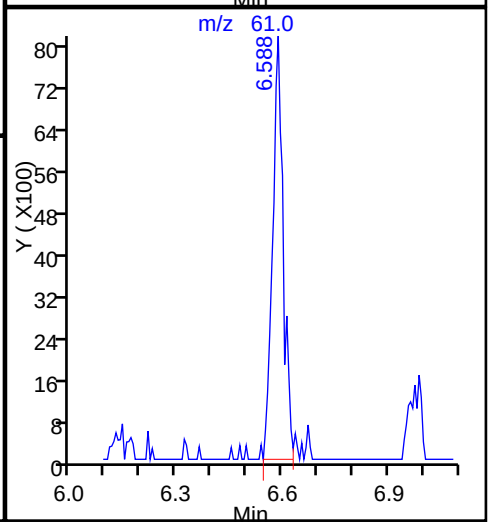


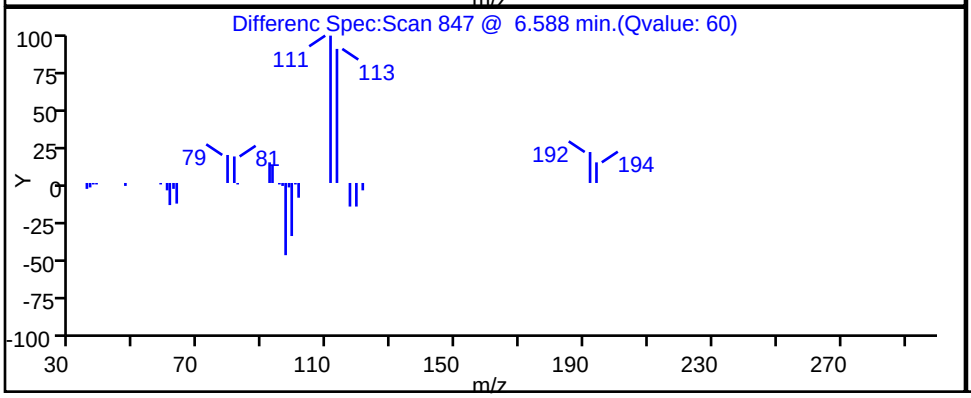












Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D

Injection Date: 03-Apr-2015 18:37:30 Instrument ID: CHHP6

Lims ID: 180-42445-D-5 Lab Sample ID: 180-42445-5

Client ID: HD-MW-98S-0/1-0

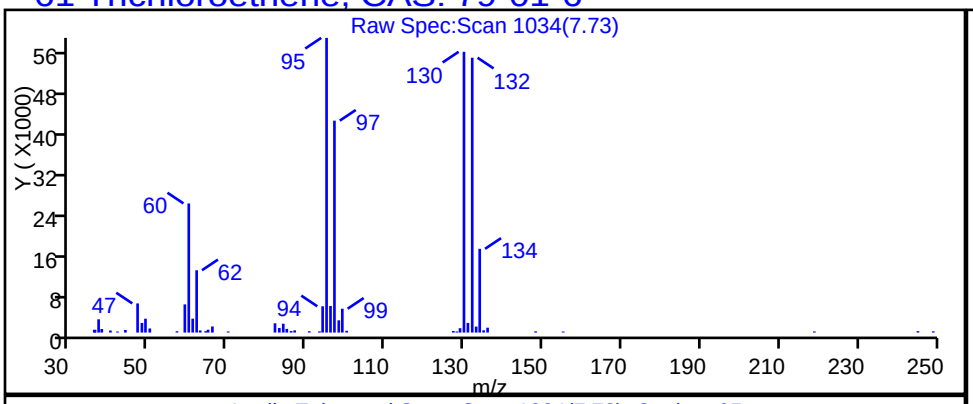
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14

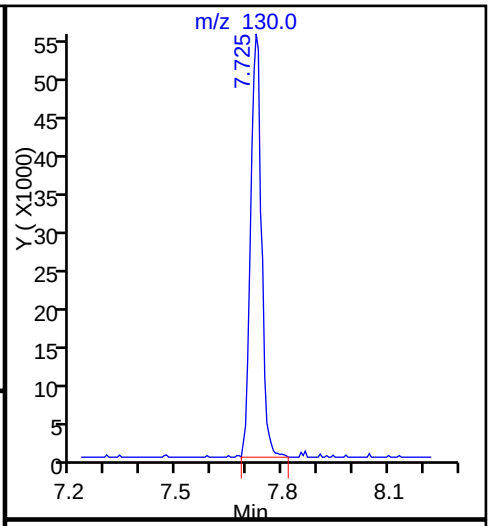
Purge Vol: 5.000 mL Dil. Factor: 1.0000

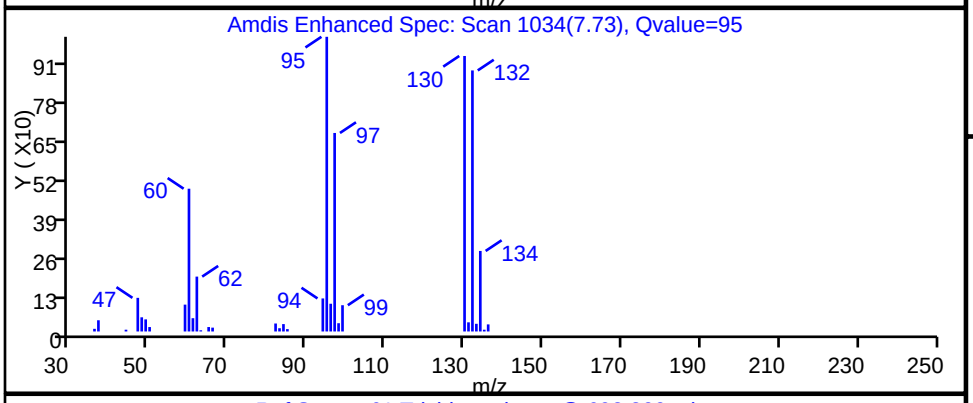
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

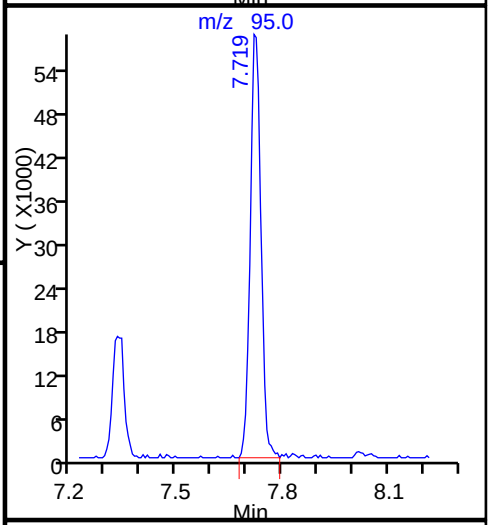
Column: DB-624 (0.18 mm) Detector MS SCAN

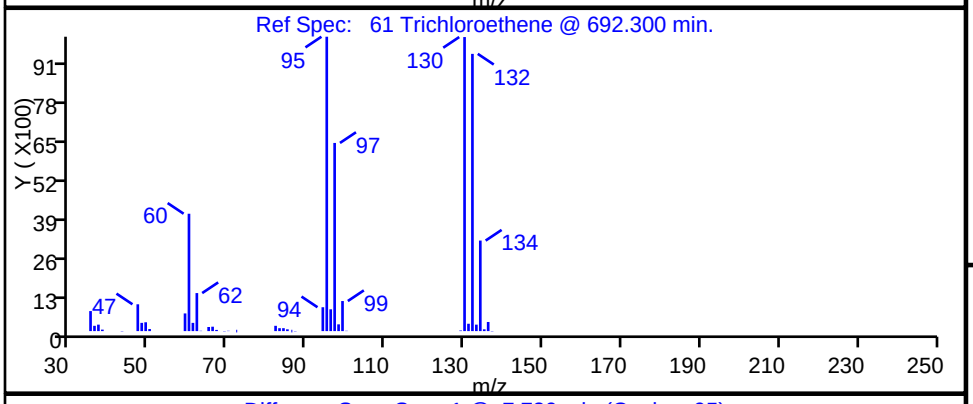
61 Trichloroethene, CAS: 79-01-6

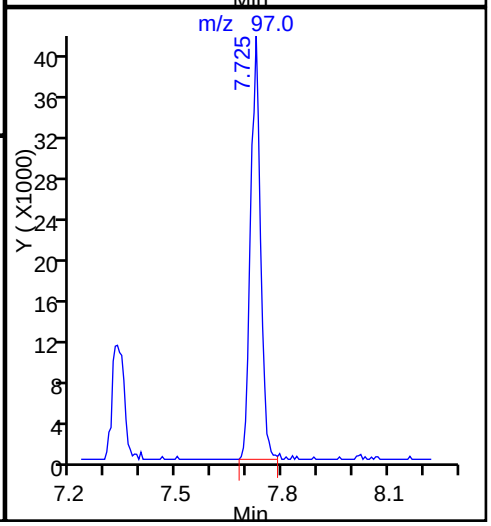


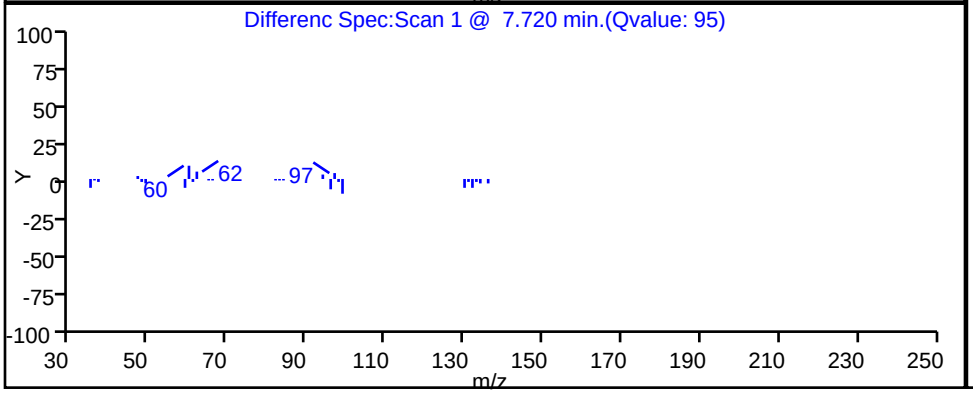










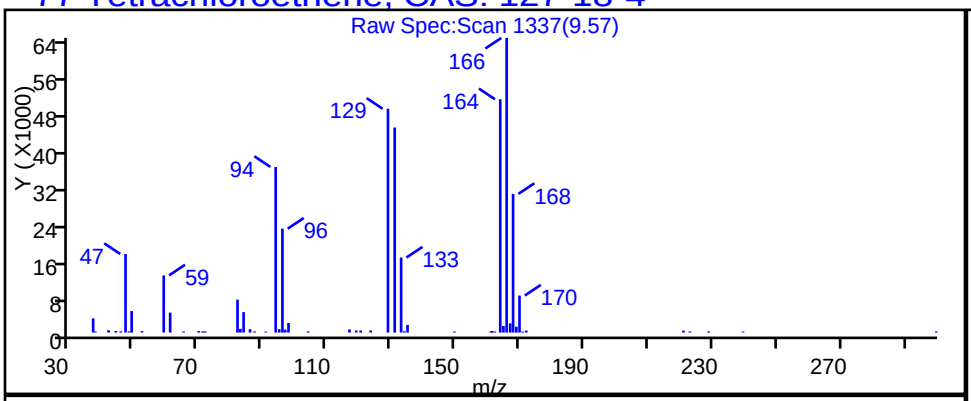


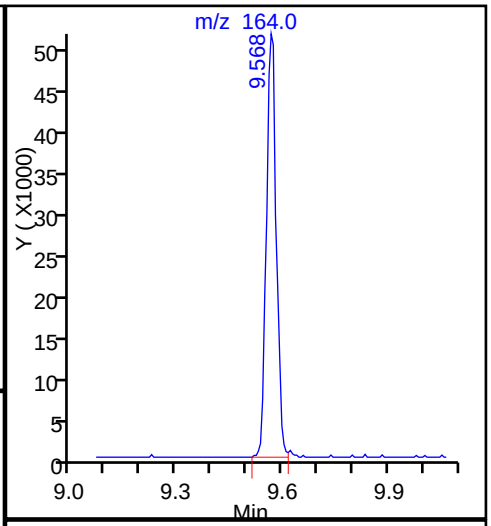
Report Date: 04-Apr-2015 10:46:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

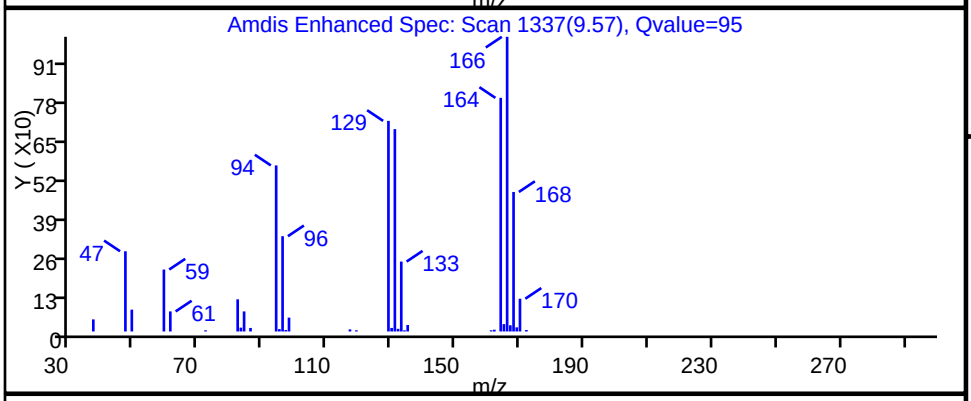
TestAmerica Pittsburgh

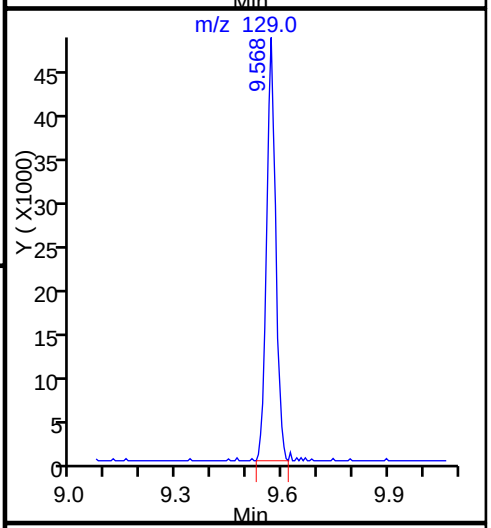
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D		
Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

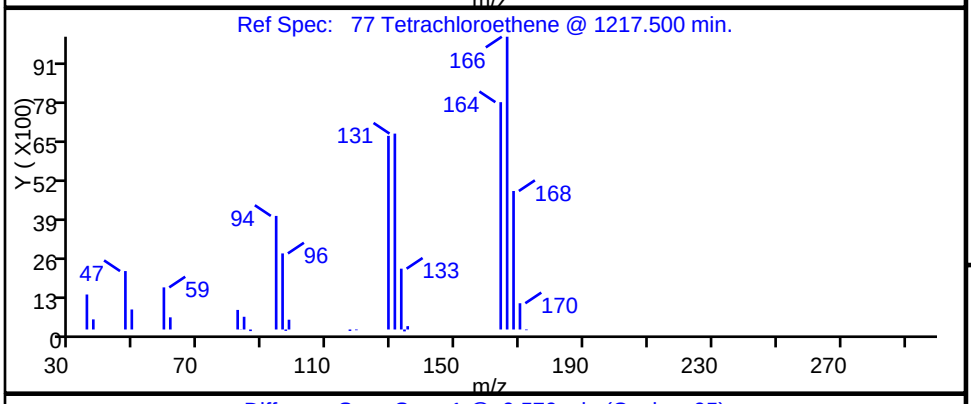
77 Tetrachloroethene, CAS: 127-18-4

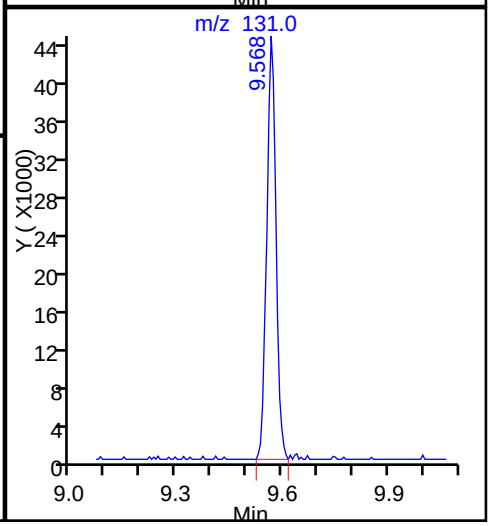


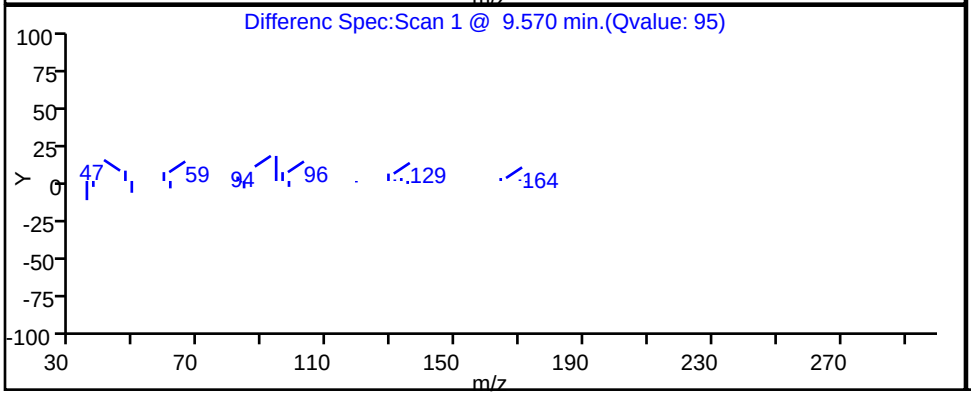












Manual Integration/User Assign Peak Report

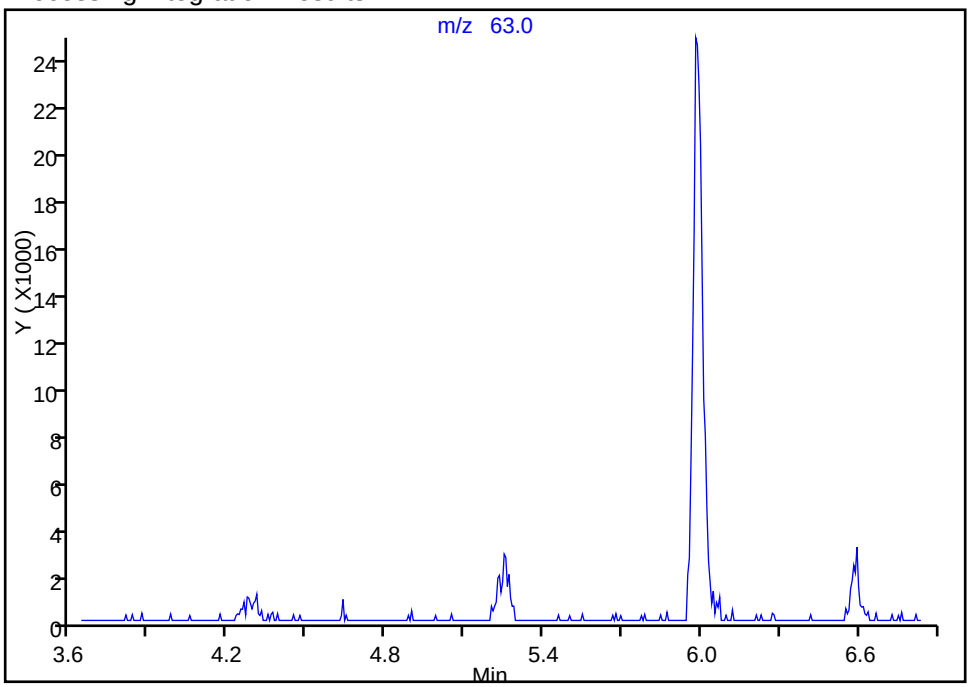
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403014.D				
Injection Date:	03-Apr-2015 18:37:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-5	Lab Sample ID:	180-42445-5		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

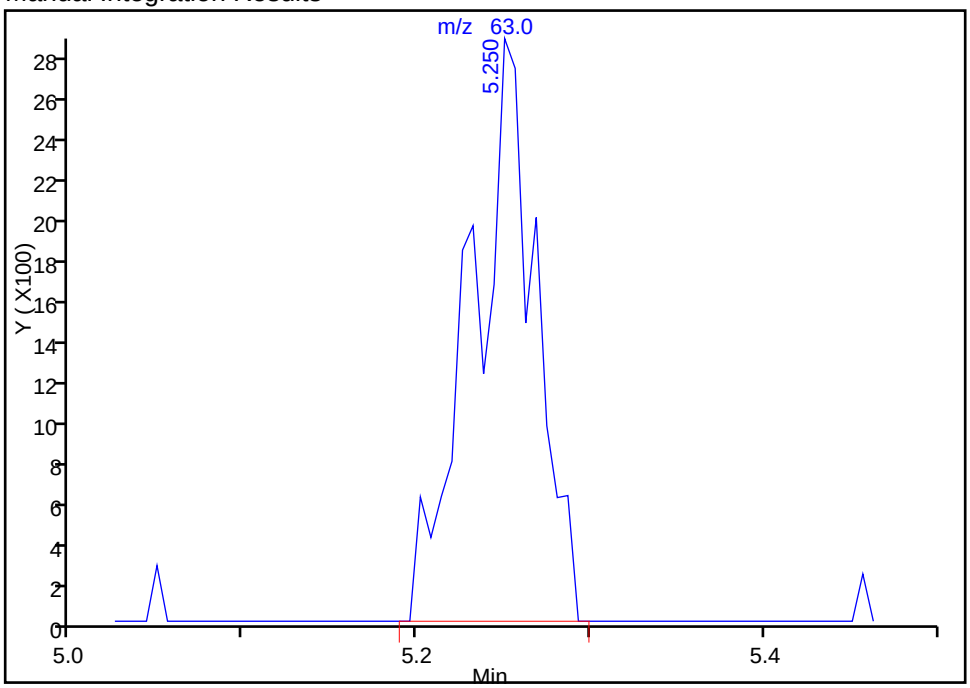
Not Detected
Expected RT: 5.24

Processing Integration Results



Manual Integration Results

RT: 5.25
Area: 7331
Amount: 1.344460
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:46:49
Audit Action: Manually Integrated
Audit Reason: Peak Not Found

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-39D-0/1-0 | Lab Sample ID: 180-42445-6

Matrix: Water | Lab File ID: 60403015.D

Analysis Method: 8260C | Date Collected: 03/26/2015 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 19:01

Soil Aliquot Vol: | Dilution Factor: 3

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

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

Analysis Batch No.: 137472 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	3.0	U	3.0	0.85
75-01-4	Vinyl chloride	3.0	U	3.0	0.68
74-83-9	Bromomethane	3.0	U	3.0	0.94
75-00-3	Chloroethane	3.0	U	3.0	0.64
75-35-4	1,1-Dichloroethene	2.0	J	3.0	0.89
67-64-1	Acetone	15	U	15	7.5
75-15-0	Carbon disulfide	3.0	U	3.0	0.64
75-09-2	Methylene Chloride	0.89	J B	3.0	0.38
156-60-5	trans-1,2-Dichloroethene	3.0	U	3.0	0.51
1634-04-4	Methyl tert-butyl ether	3.0	U	3.0	0.55
75-34-3	1,1-Dichloroethane	0.96	J	3.0	0.35
156-59-2	cis-1,2-Dichloroethene	51		3.0	0.71
74-97-5	Bromochloromethane	3.0	U	3.0	0.54
78-93-3	2-Butanone (MEK)	15	U	15	1.6
67-66-3	Chloroform	3.0	U	3.0	0.51
71-55-6	1,1,1-Trichloroethane	4.4		3.0	0.86
56-23-5	Carbon tetrachloride	3.0	U	3.0	0.41
71-43-2	Benzene	3.0	U	3.0	0.32
107-06-2	1,2-Dichloroethane	3.0	U	3.0	0.64
79-01-6	Trichloroethene	75		3.0	0.43
78-87-5	1,2-Dichloropropane	3.0	U	3.0	0.28
75-27-4	Bromodichloromethane	3.0	U	3.0	0.39
10061-01-5	cis-1,3-Dichloropropene	3.0	U	3.0	0.56
108-10-1	4-Methyl-2-pentanone (MIBK)	15	U	15	1.6
108-88-3	Toluene	3.0	U	3.0	0.45
10061-02-6	trans-1,3-Dichloropropene	3.0	U	3.0	0.44
79-00-5	1,1,2-Trichloroethane	3.0	U	3.0	0.60
127-18-4	Tetrachloroethene	29		3.0	0.45
591-78-6	2-Hexanone	15	U	15	0.48
124-48-1	Dibromochloromethane	3.0	U	3.0	0.41
106-93-4	1,2-Dibromoethane (EDB)	3.0	U	3.0	0.54
108-90-7	Chlorobenzene	3.0	U	3.0	0.41
630-20-6	1,1,1,2-Tetrachloroethane	3.0	U	3.0	0.83
100-41-4	Ethylbenzene	3.0	U	3.0	0.68
1330-20-7	Xylenes, Total	9.0	U	9.0	1.5
100-42-5	Styrene	3.0	U	3.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-39D-0/1-0 Lab Sample ID: 180-42445-6

Matrix: Water Lab File ID: 60403015.D

Analysis Method: 8260C Date Collected: 03/26/2015 12:20

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 19:01

Soil Aliquot Vol: Dilution Factor: 3

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137472 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	3.0	U	3.0	0.57
79-34-5	1,1,2,2-Tetrachloroethane	3.0	U	3.0	0.60
107-13-1	Acrylonitrile	60	U	60	1.6
123-91-1	1,4-Dioxane	600	U	600	100

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		64-135
2037-26-5	Toluene-d8 (Surr)	113		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D
Lims ID: 180-42445-C-6 Lab Sample ID: 180-42445-6
Client ID: HD-MW-39D-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 19:01:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 3.0000
Sample Info: 180-42445-C-6
Misc. Info.: 180-0006320-015
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:48:16 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:48:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.279	-0.002	92	187703	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.332	0.004	98	411203	50.0	
* 3 Chlorobenzene-d5	119	10.444	10.439	0.005	90	82814	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	98	140857	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.602	0.004	92	105195	56.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	6.979	-0.002	70	164431	61.8	
$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	93	369365	56.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.625	0.004	85	139090	50.1	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.377	3.391	-0.014	63	7733	3.35	
24 Acetone	43		3.464				ND	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84	4.192	4.181	0.011	28	4983	1.48	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
37 1,1-Dichloroethane	63	5.256	5.240	0.016	1	8562	1.59	M
43 cis-1,2-Dichloroethene	96	5.986	5.988	-0.002	83	252599	85.7	
44 2-Butanone (MEK)	43		5.988				ND	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83		6.413				ND	
51 1,1,1-Trichloroethane	97	6.594	6.584	0.010	44	25745	7.30	
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.725	7.721	0.004	96	290106	124.7	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.057	9.053	0.004	55	2811	0.3320	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97	9.501	9.496	0.005	1	534	0.3473	
77 Tetrachloroethene	164	9.568	9.569	-0.001	93	72412	47.9	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

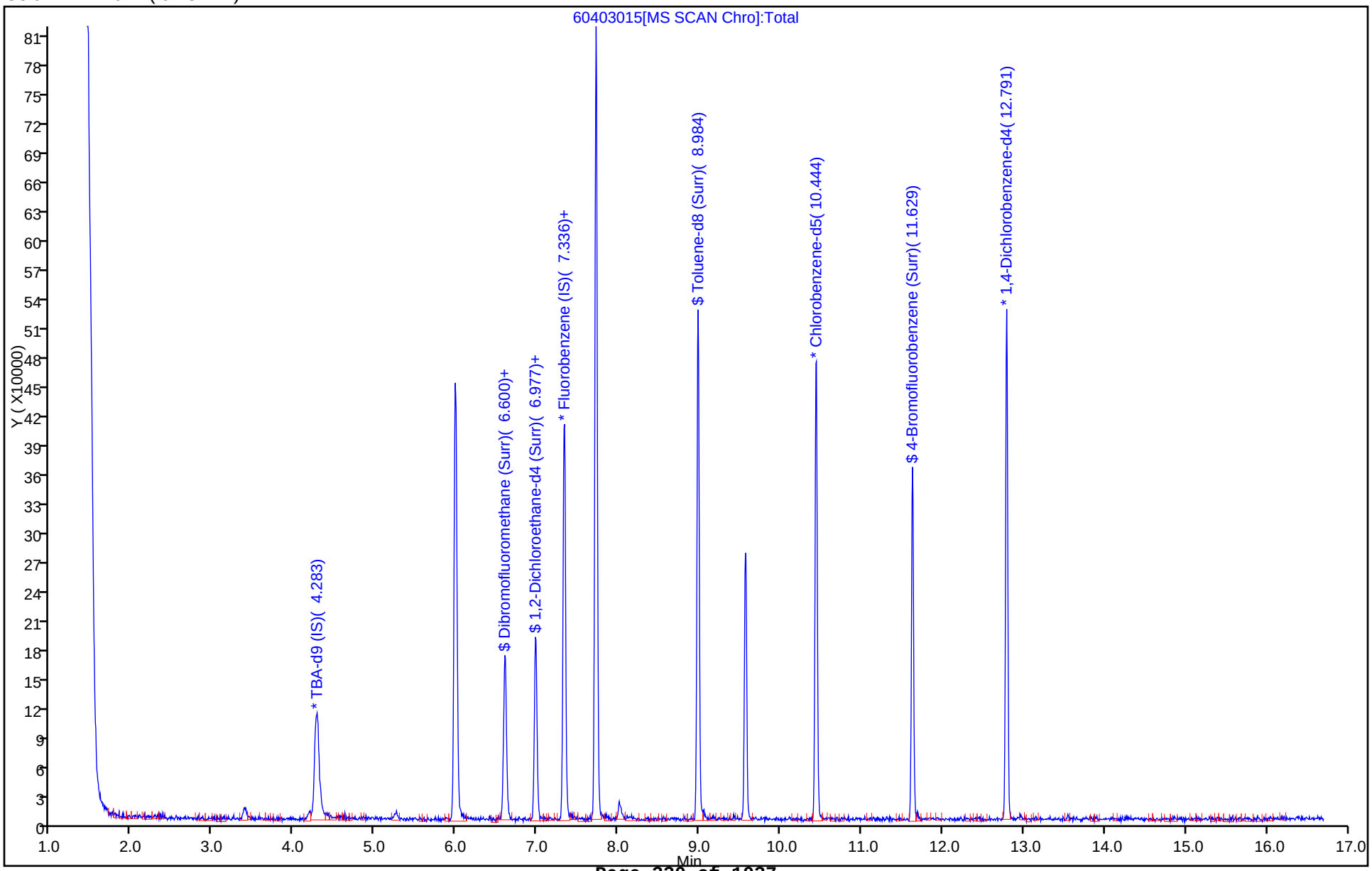
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 04-Apr-2015 10:48:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D				
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6	Worklist Smp#:	15
Client ID:	HD-MW-39D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	3.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



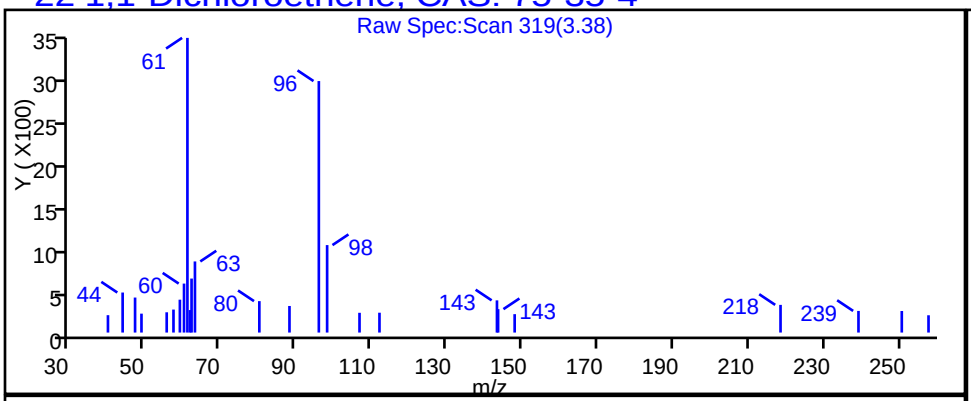
Report Date: 04-Apr-2015 10:48:16 Chrom Revision: 2.2 13-Mar-2015 11:20:44

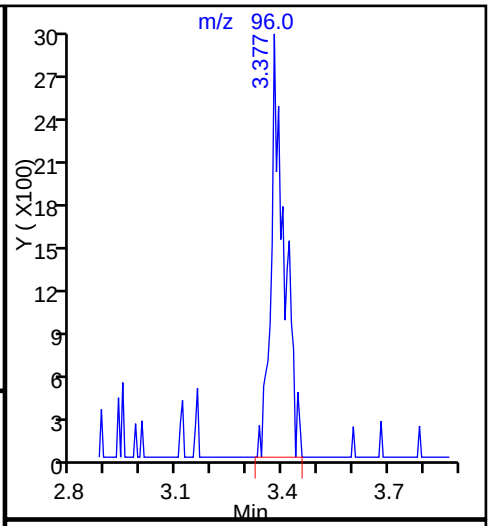
TestAmerica Pittsburgh

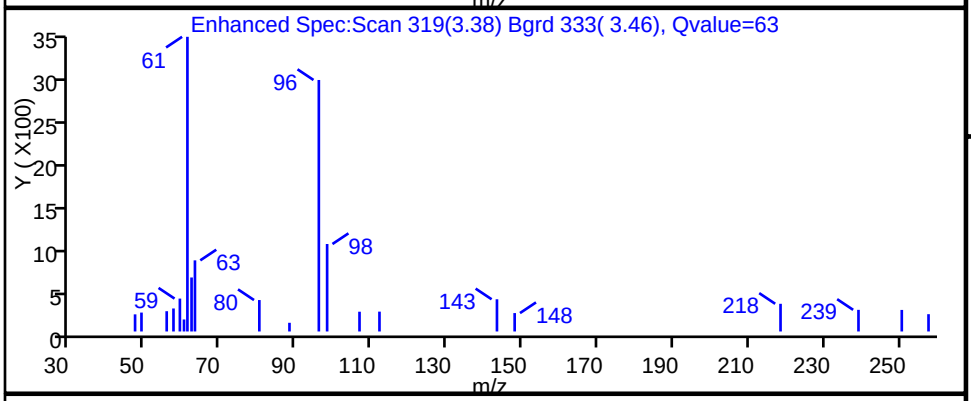
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D

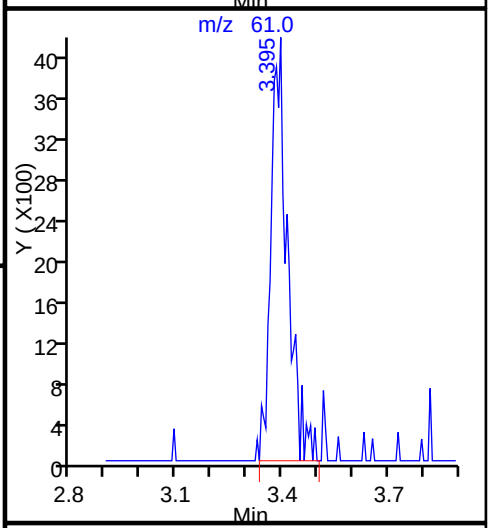
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

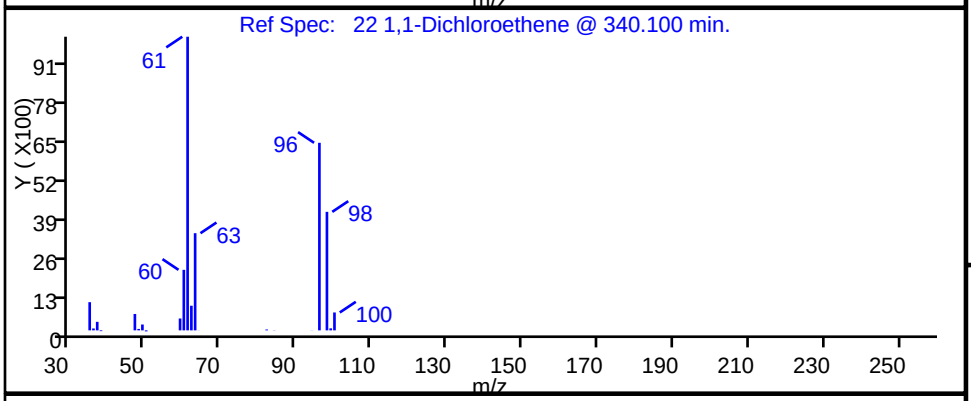
22 1,1-Dichloroethene, CAS: 75-35-4

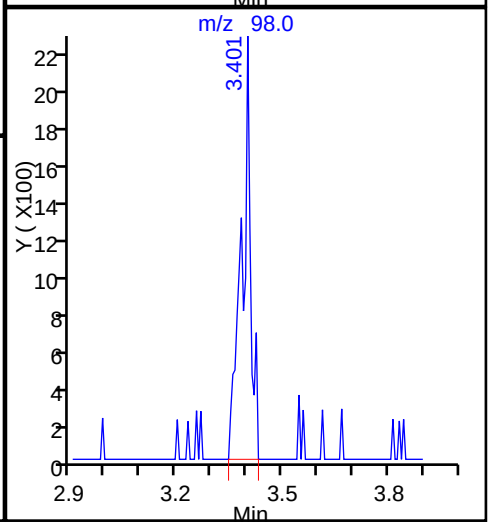


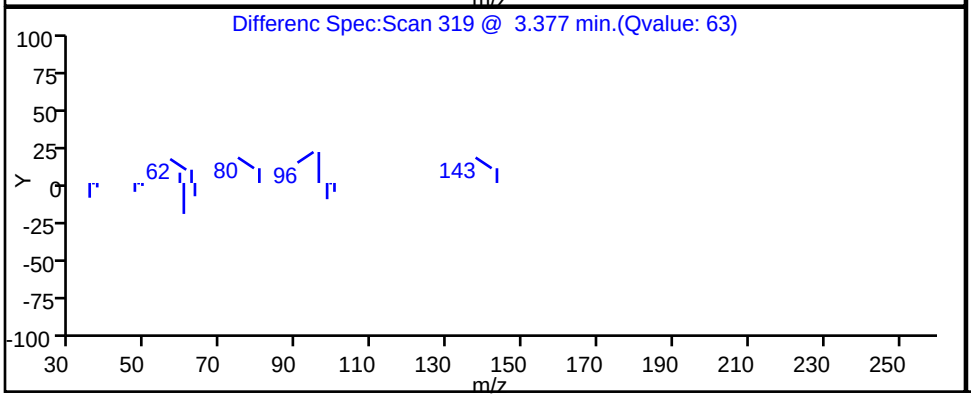












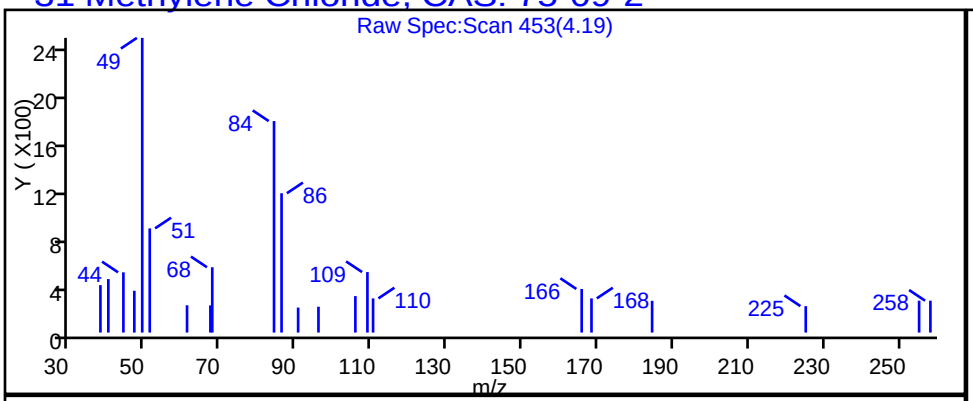
Report Date: 04-Apr-2015 10:48:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

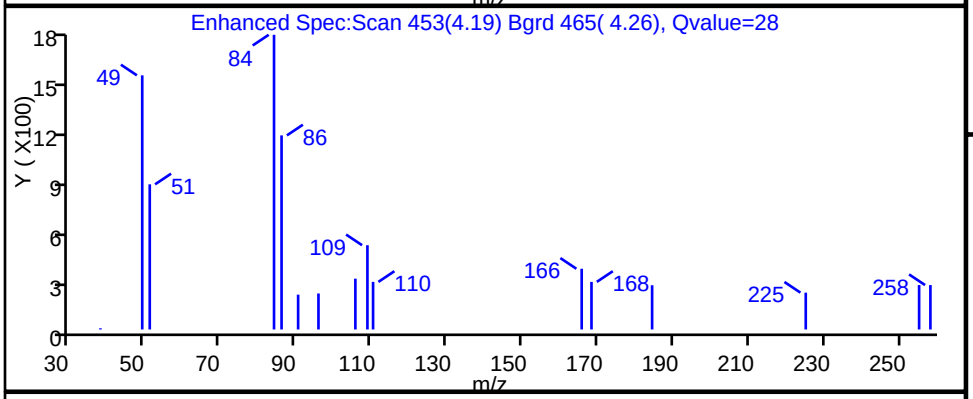
TestAmerica Pittsburgh

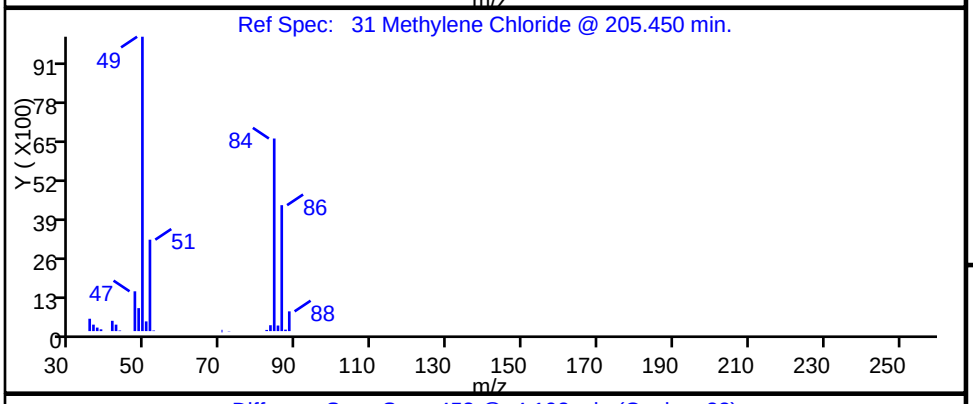
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D

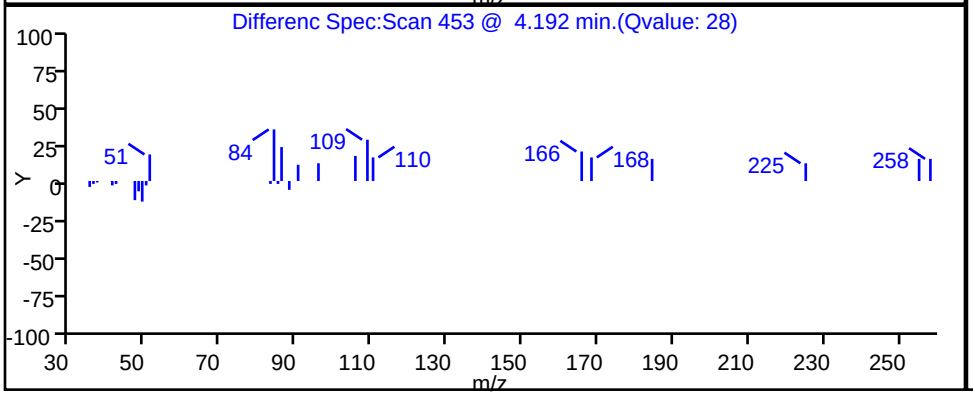
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

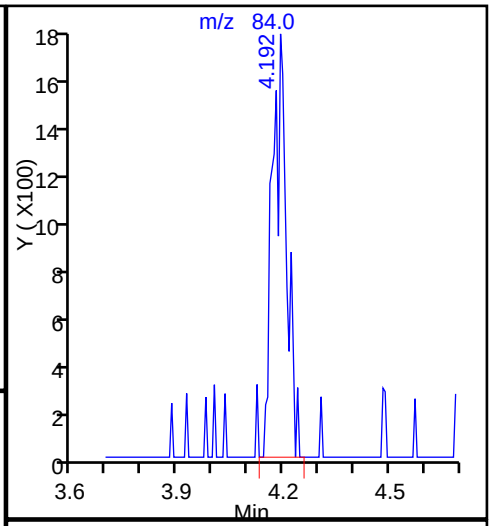
31 Methylene Chloride, CAS: 75-09-2

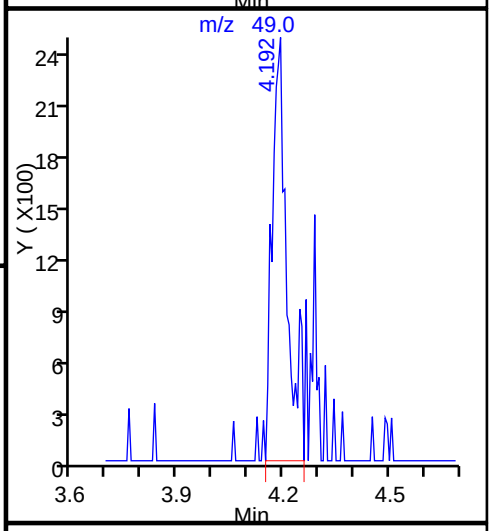


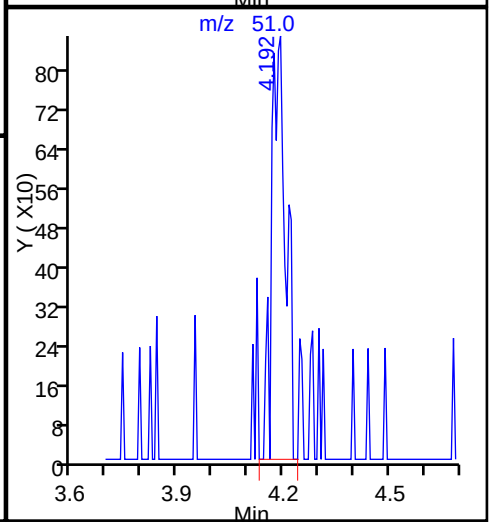










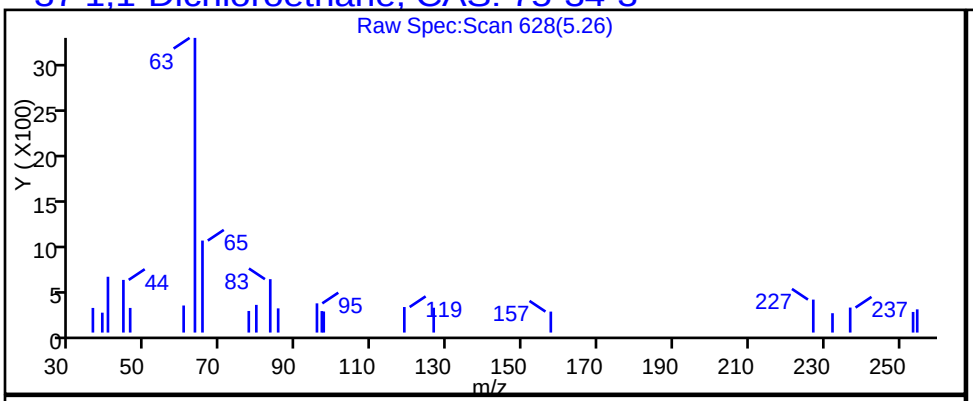


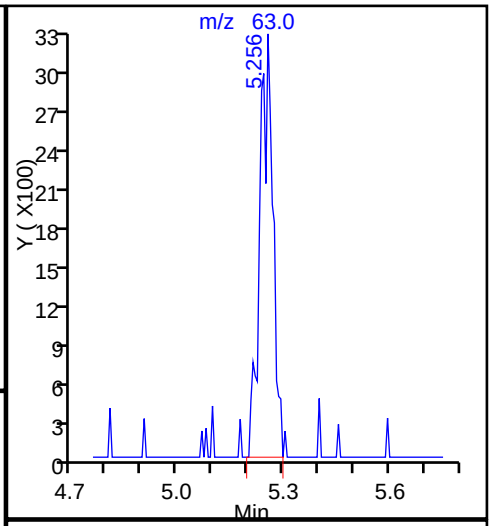
Report Date: 04-Apr-2015 10:48:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

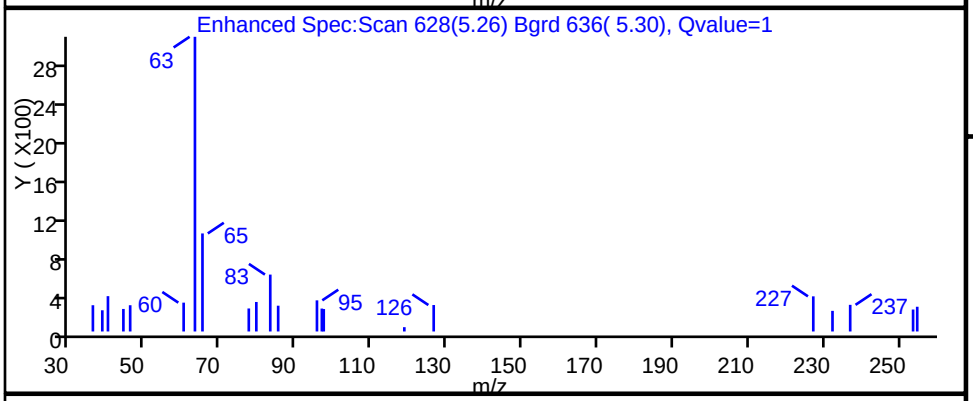
TestAmerica Pittsburgh

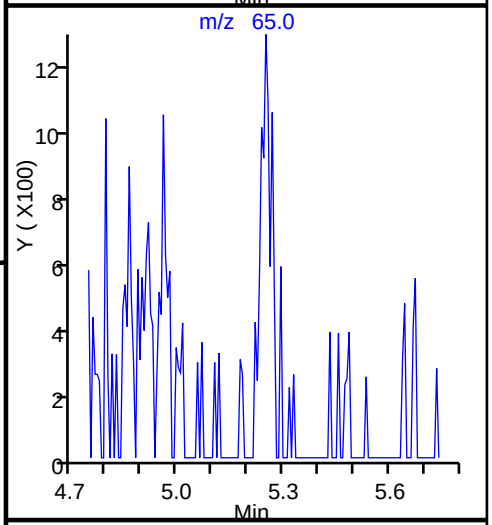
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D				
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

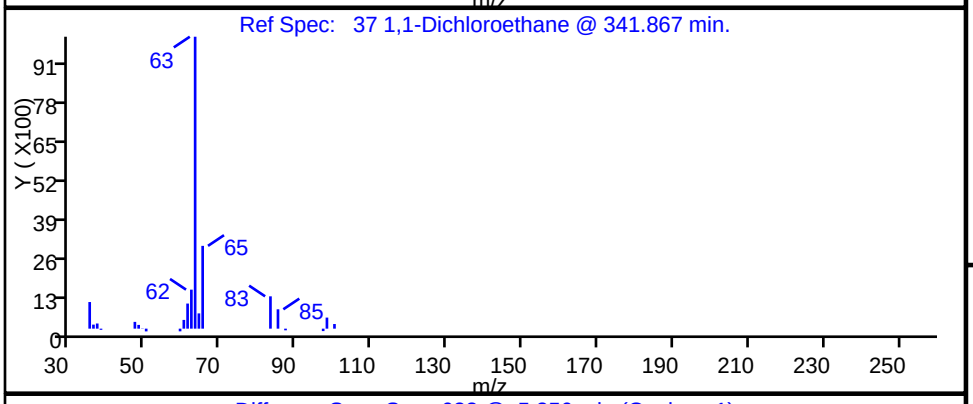
37 1,1-Dichloroethane, CAS: 75-34-3

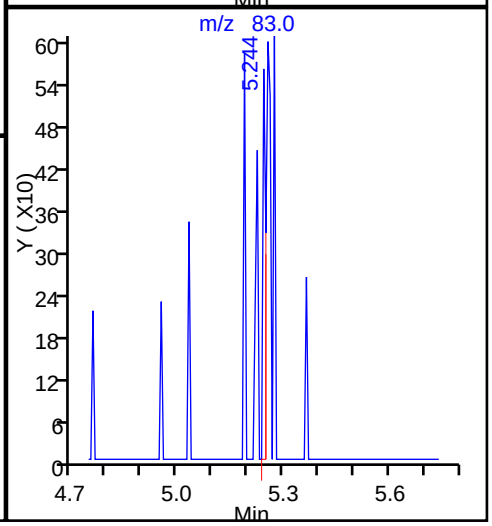


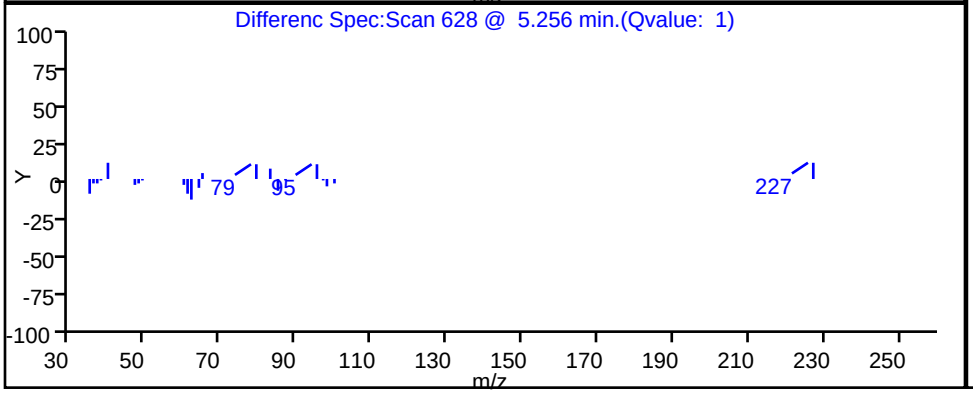












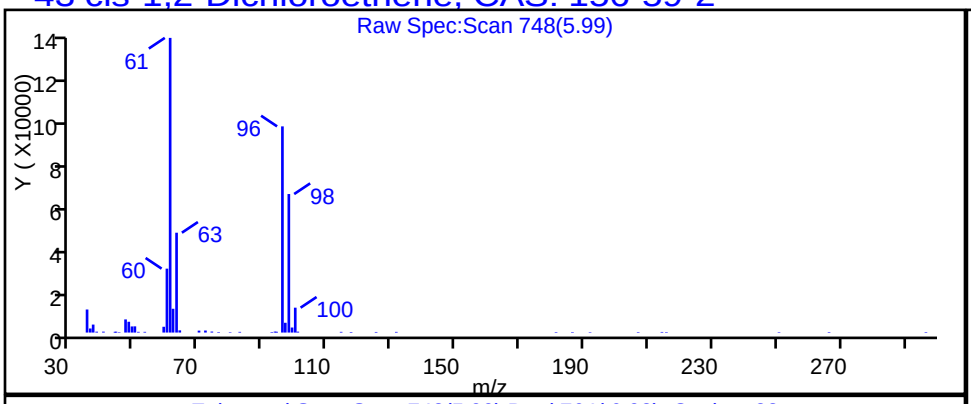
Report Date: 04-Apr-2015 10:48:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

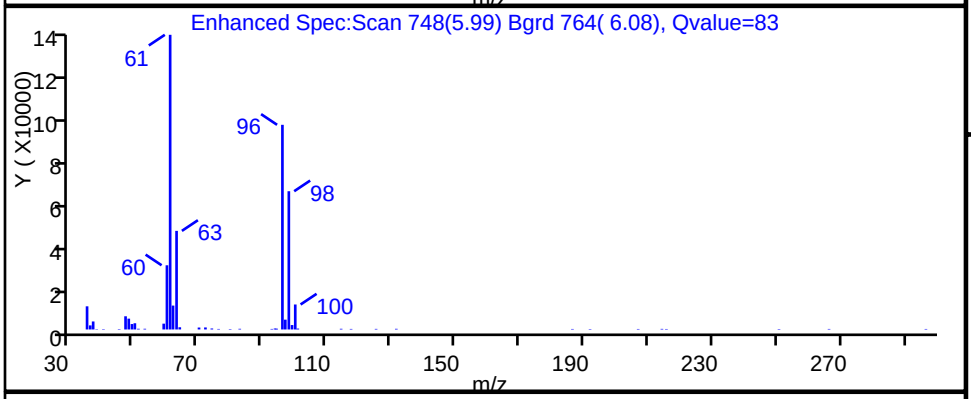
TestAmerica Pittsburgh

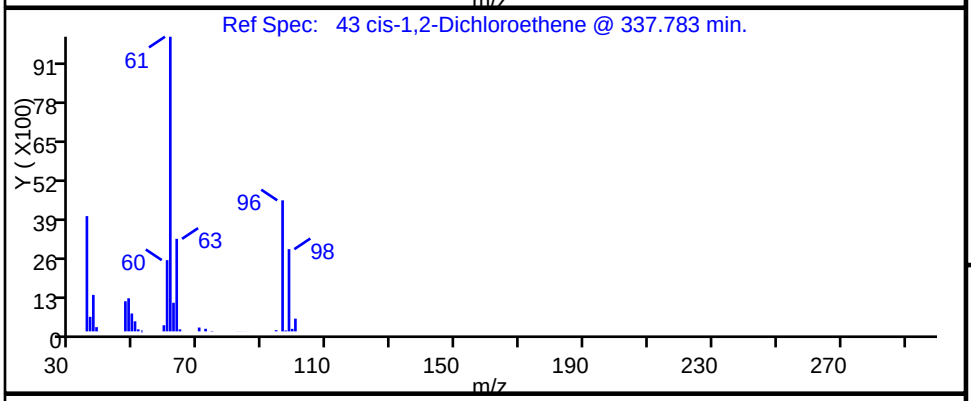
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D

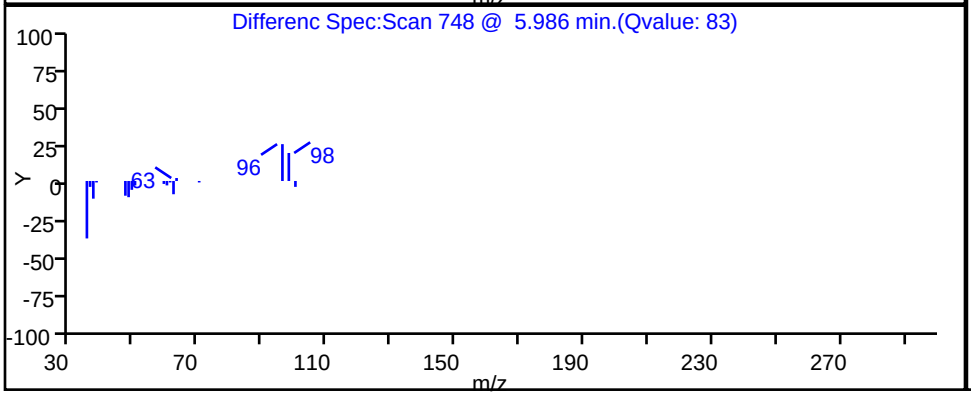
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

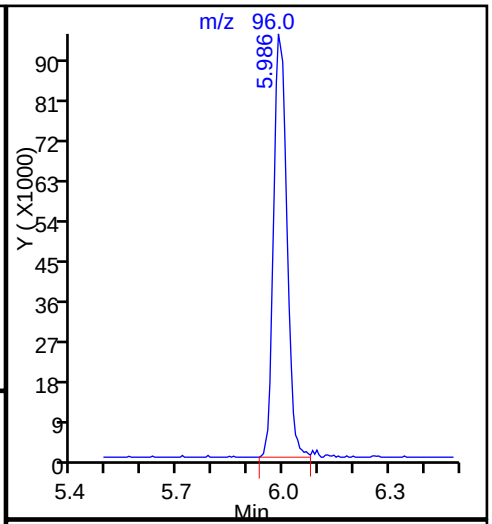
43 cis-1,2-Dichloroethene, CAS: 156-59-2

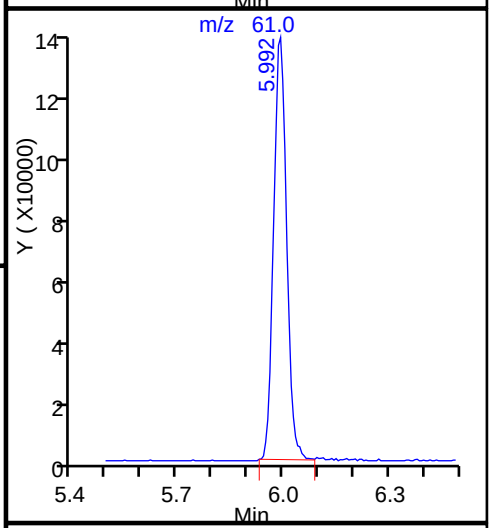


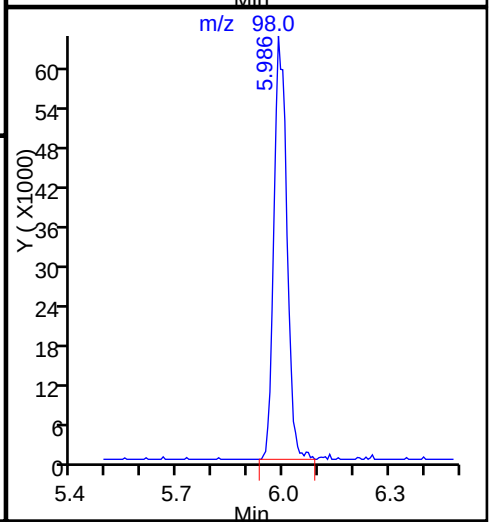












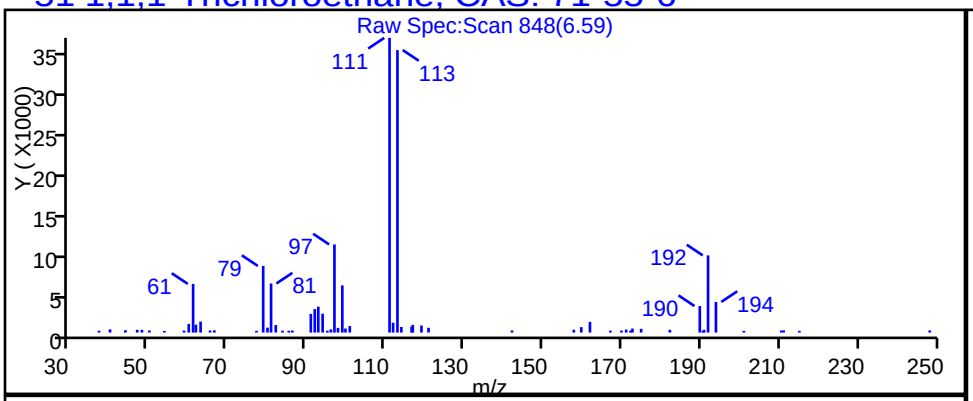
Report Date: 04-Apr-2015 10:48:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

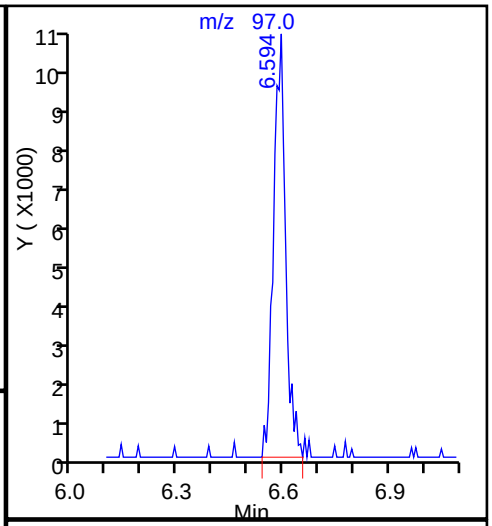
TestAmerica Pittsburgh

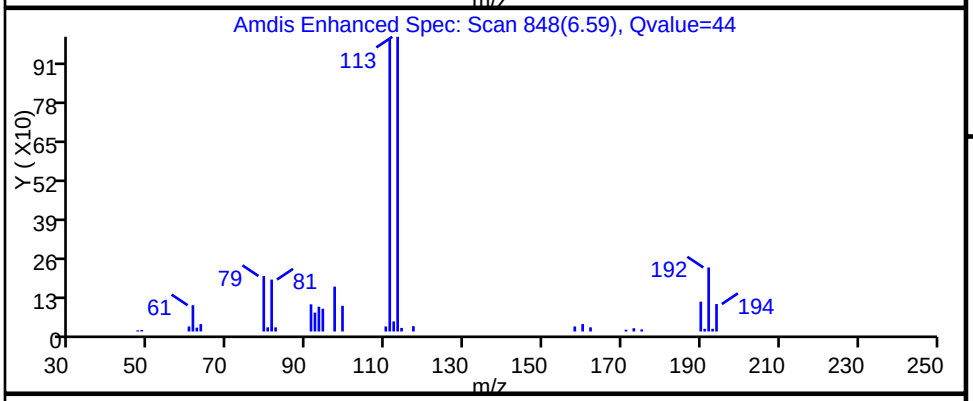
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D

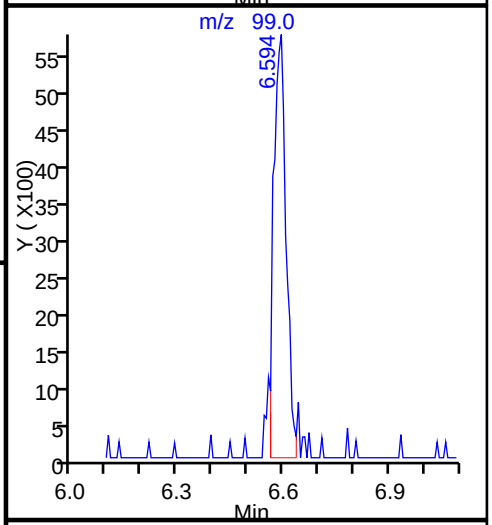
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

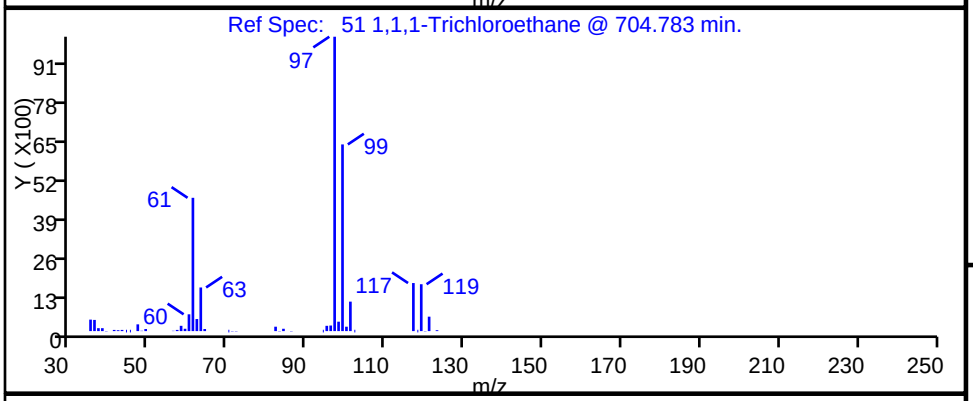
51 1,1,1-Trichloroethane, CAS: 71-55-6

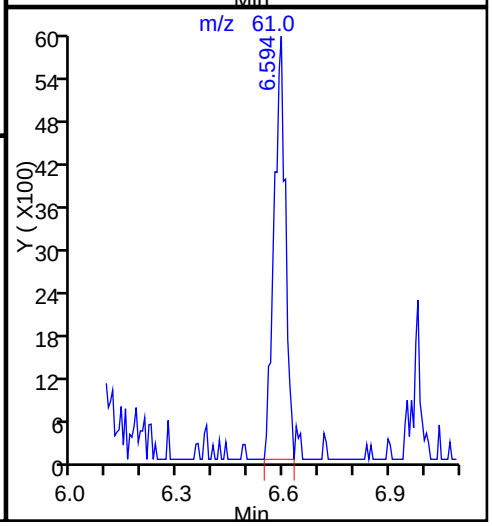


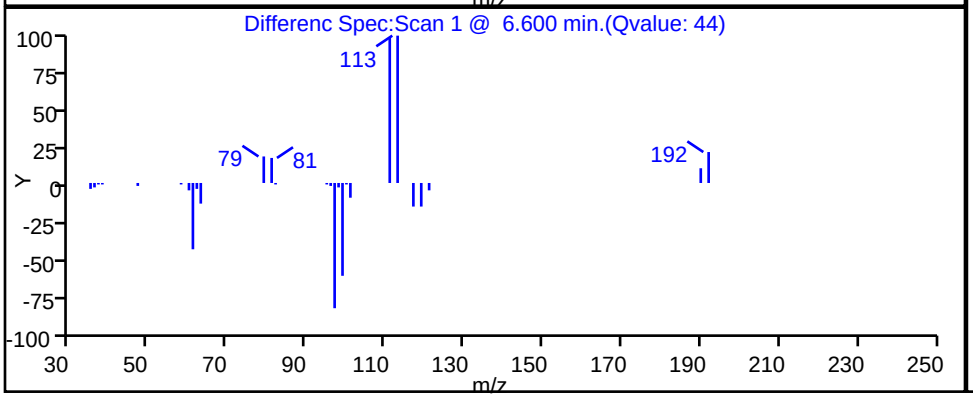










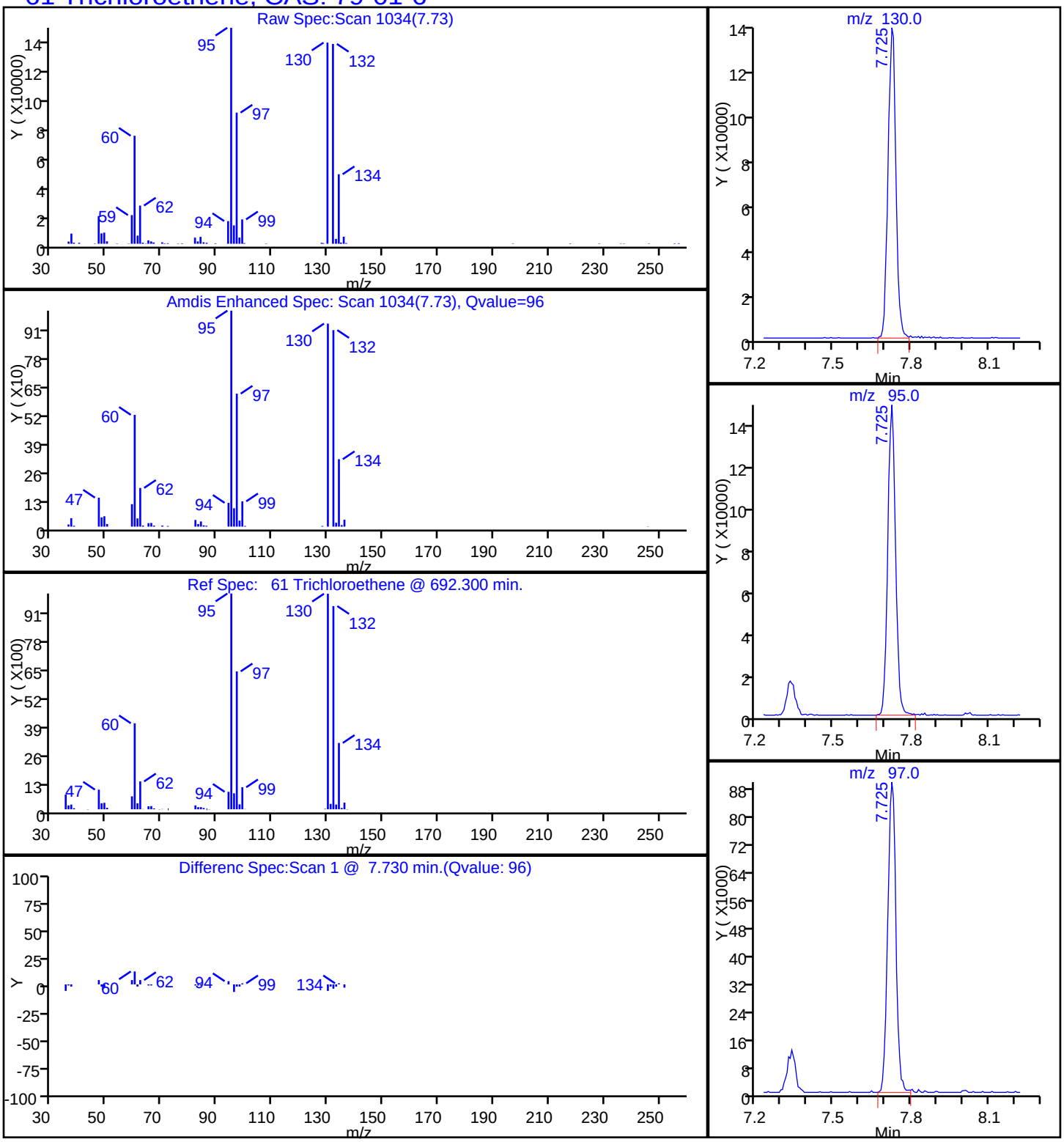


Report Date: 04-Apr-2015 10:48:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D				
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

61 Trichloroethene, CAS: 79-01-6



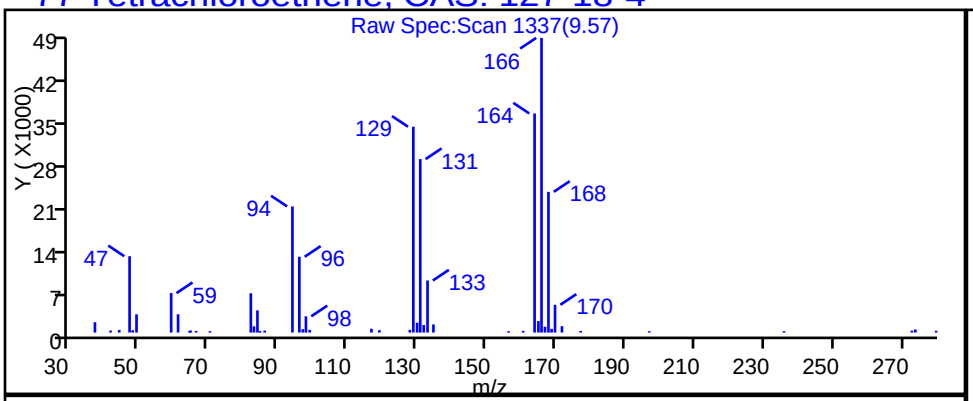
Report Date: 04-Apr-2015 10:48:17 Chrom Revision: 2.2 13-Mar-2015 11:20:44

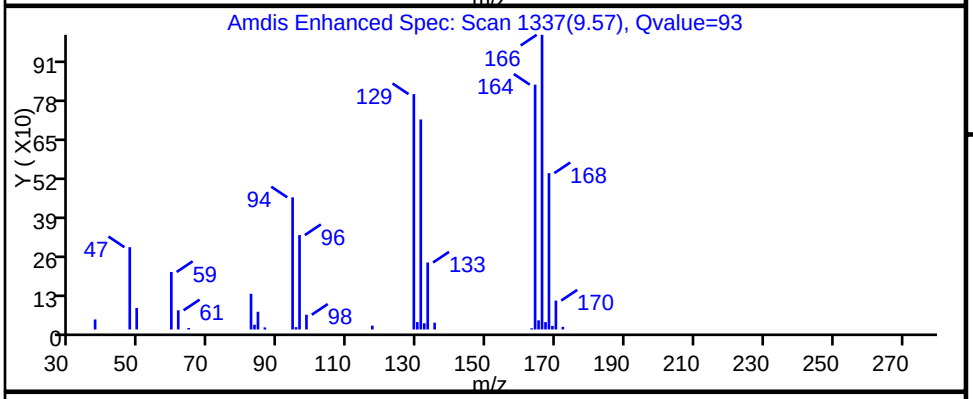
TestAmerica Pittsburgh

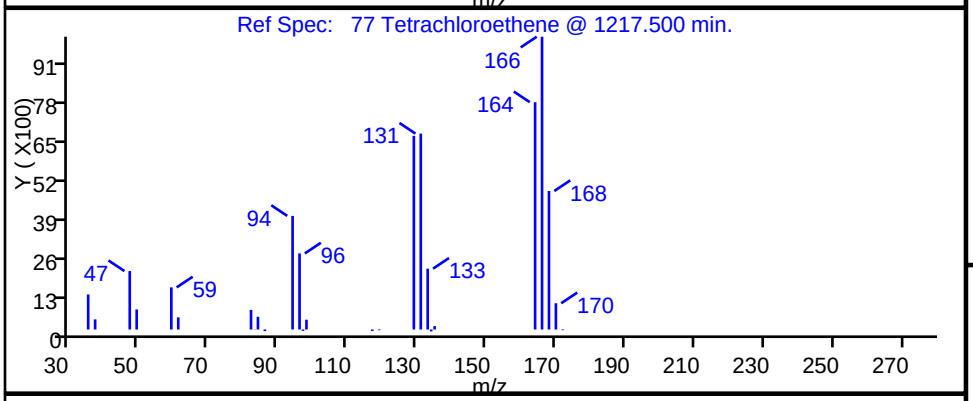
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D

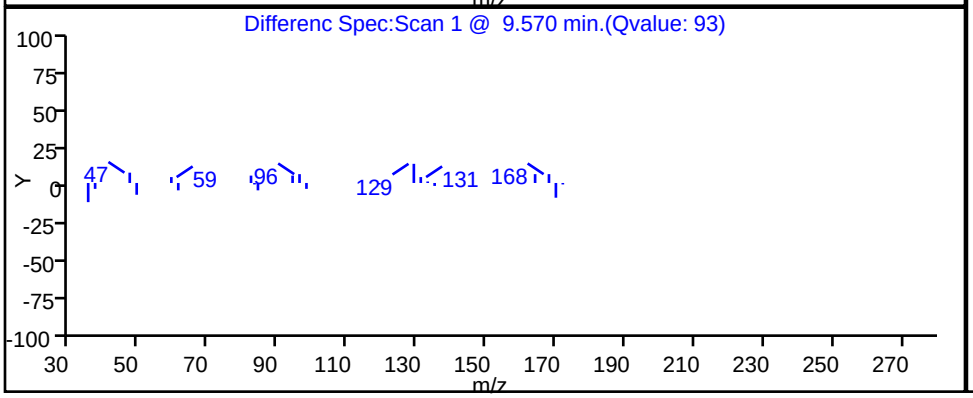
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6
Client ID:	HD-MW-39D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

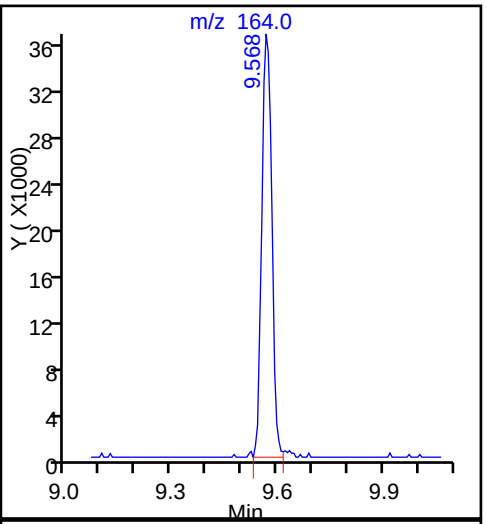
77 Tetrachloroethene, CAS: 127-18-4

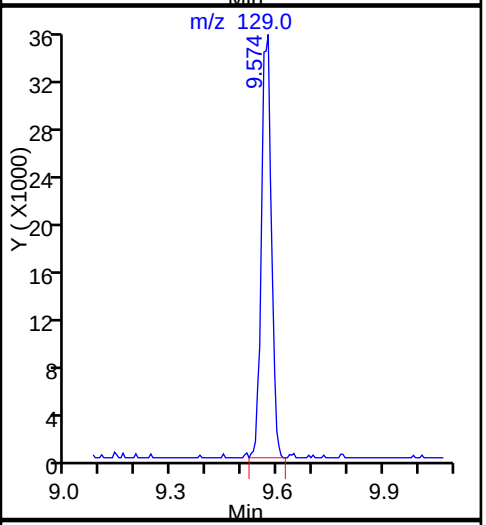


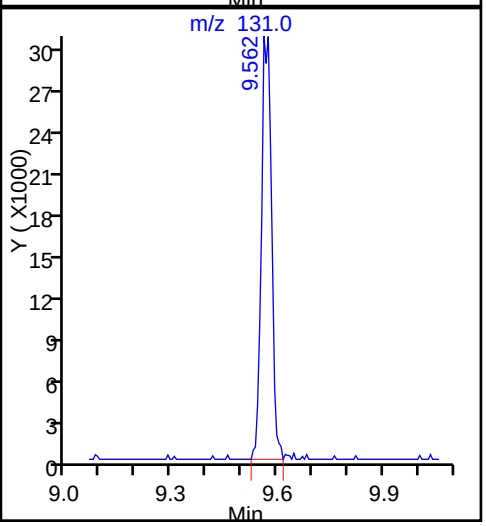












Manual Integration/User Assign Peak Report

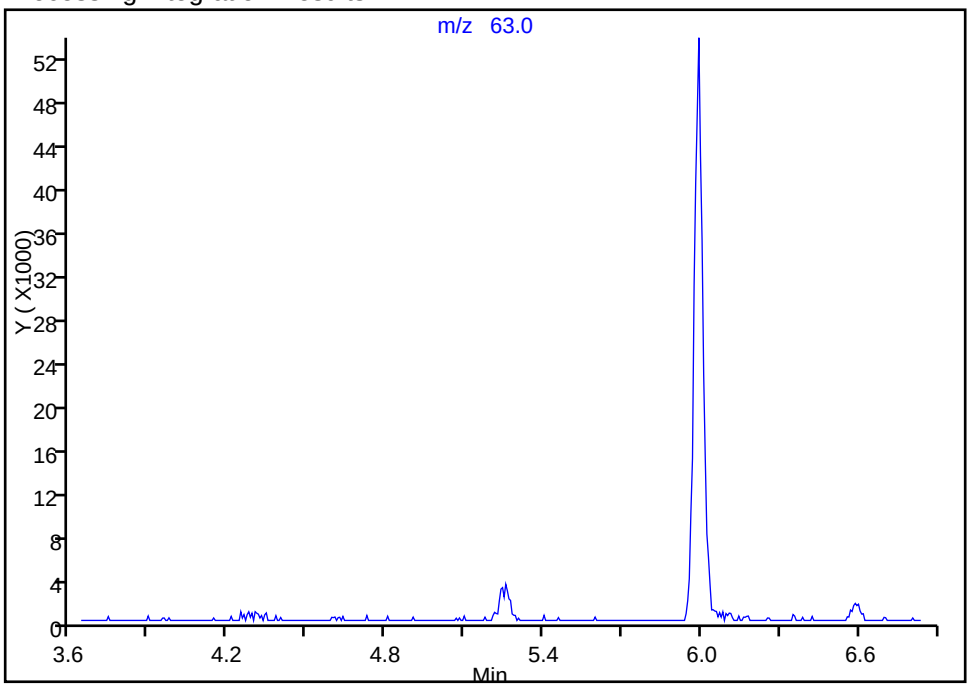
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403015.D				
Injection Date:	03-Apr-2015 19:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

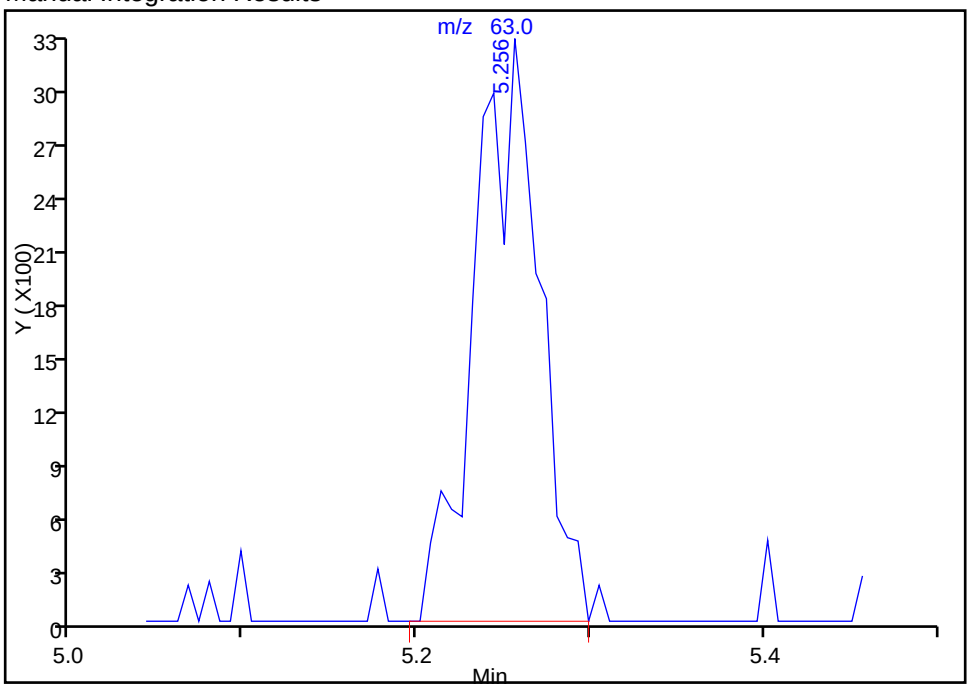
Not Detected
Expected RT: 5.24

Processing Integration Results



Manual Integration Results

RT: 5.26
Area: 8562
Amount: 1.592442
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:48:16
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-74S-0/1-0 | Lab Sample ID: 180-42445-7

Matrix: Water | Lab File ID: 60403016.D

Analysis Method: 8260C | Date Collected: 03/26/2015 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 19:25

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.: 137472 | 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	1.3		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	0.89	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	23		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.2		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	15		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	9.5		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-42445-7

Matrix: Water Lab File ID: 60403016.D

Analysis Method: 8260C Date Collected: 03/26/2015 10:50

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 19:25

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.: 137472 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)	124		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D
Lims ID: 180-42445-D-7 Lab Sample ID: 180-42445-7
Client ID: HD-MW-74S-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 19:25:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-D-7
Misc. Info.: 180-0006320-016
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:49:20 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:49:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.279	-0.007	92	188987	1000.0	
* 2 Fluorobenzene (IS)	96	7.331	7.332	-0.001	98	398413	50.0	
* 3 Chlorobenzene-d5	119	10.444	10.439	0.005	90	80877	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.793	-0.001	97	140404	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.607	6.602	0.005	92	104664	58.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.978	6.979	-0.001	71	159972	62.0	
$ 7 Toluene-d8 (Surr)	98	8.985	8.980	0.005	93	351713	55.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.625	0.005	85	127338	47.0	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.378	3.391	-0.013	95	15010	6.71	
24 Acetone	43		3.464				ND	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84		4.181				ND	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96	4.624	4.619	0.005	56	1256	0.4664	
37 1,1-Dichloroethane	63	5.251	5.240	0.011	61	23160	4.45	
44 2-Butanone (MEK)	43		5.988				ND	
43 cis-1,2-Dichloroethene	96	5.993	5.988	0.005	82	322711	113.0	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83	6.425	6.413	0.011	7	2905	0.6476	
51 1,1,1-Trichloroethane	97	6.583	6.584	-0.001	81	37818	11.1	
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.726	7.721	0.005	94	174465	77.4	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.052	9.053	-0.001	39	4356	0.5268	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.575	9.569	0.006	95	70057	47.4	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

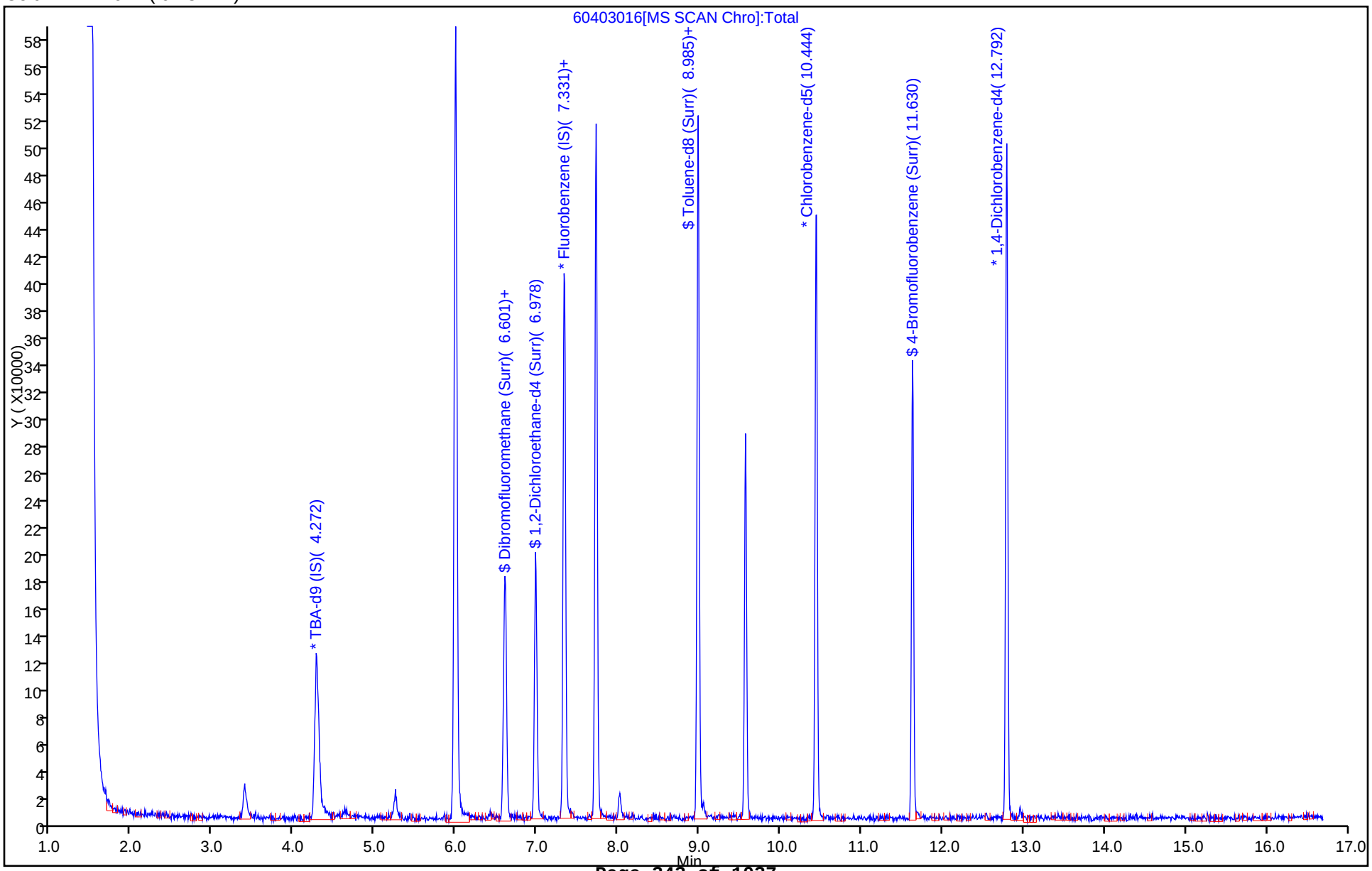
Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D

Injection Date:	03-Apr-2015 19:25:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-D-7	Lab Sample ID:	180-42445-7	Worklist Smp#:	16
Client ID:	HD-MW-74S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D

Injection Date: 03-Apr-2015 19:25:30 Instrument ID: CHHP6

Lims ID: 180-42445-D-7 Lab Sample ID: 180-42445-7

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

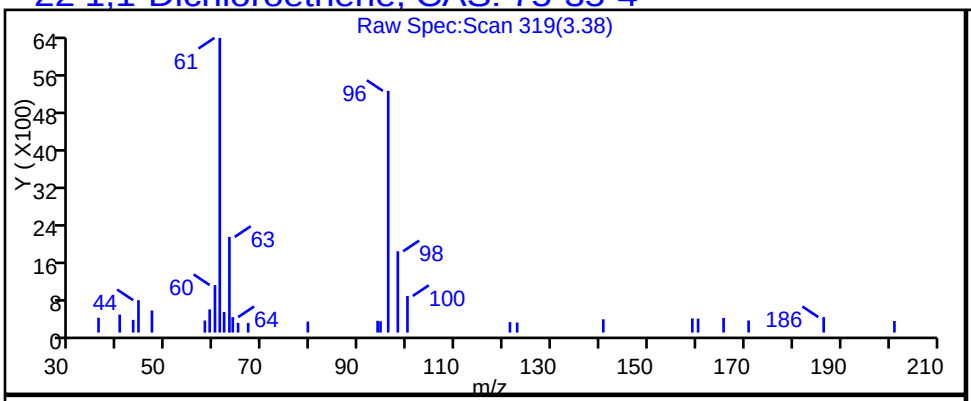
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

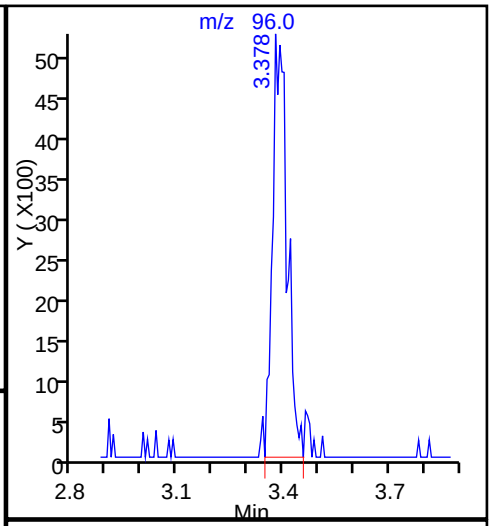
Purge Vol: 5.000 mL Dil. Factor: 1.0000

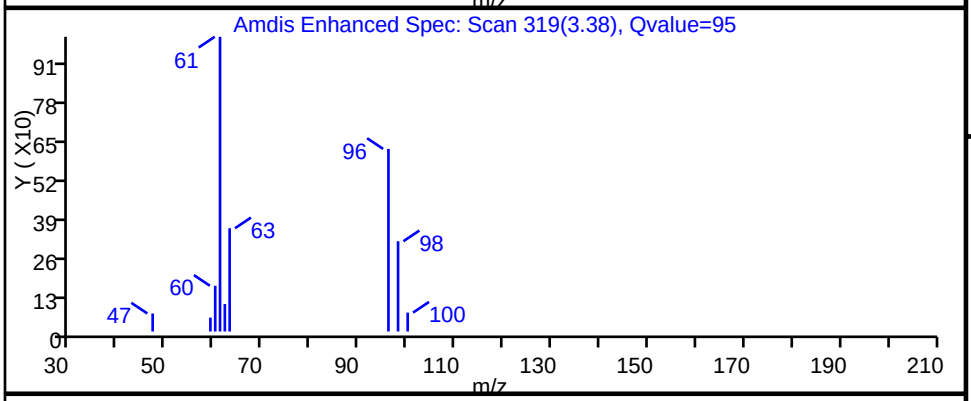
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

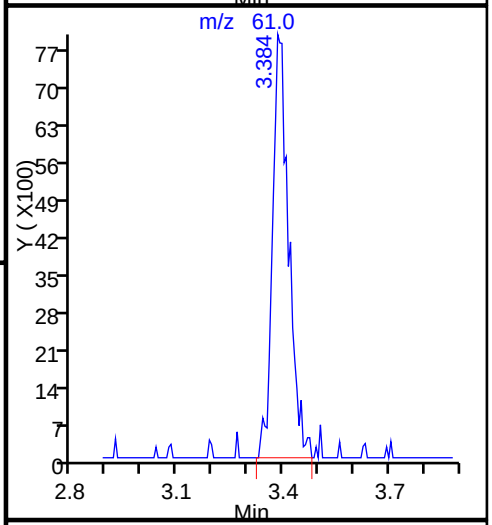
Column: DB-624 (0.18 mm) Detector MS SCAN

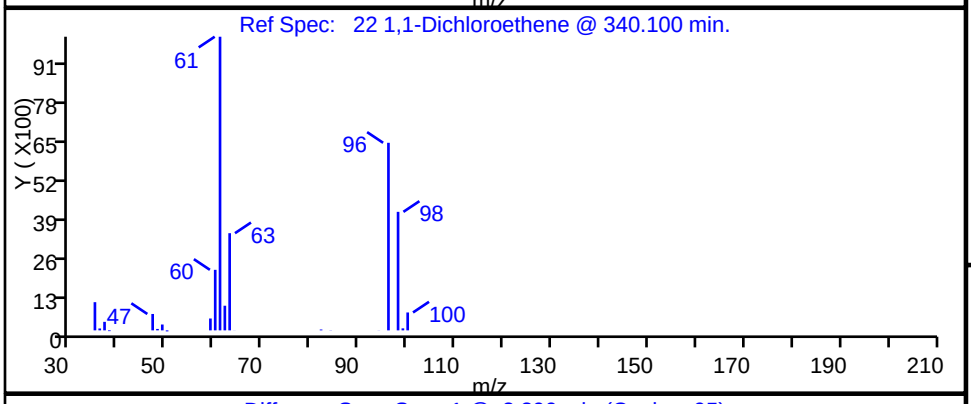
22 1,1-Dichloroethene, CAS: 75-35-4

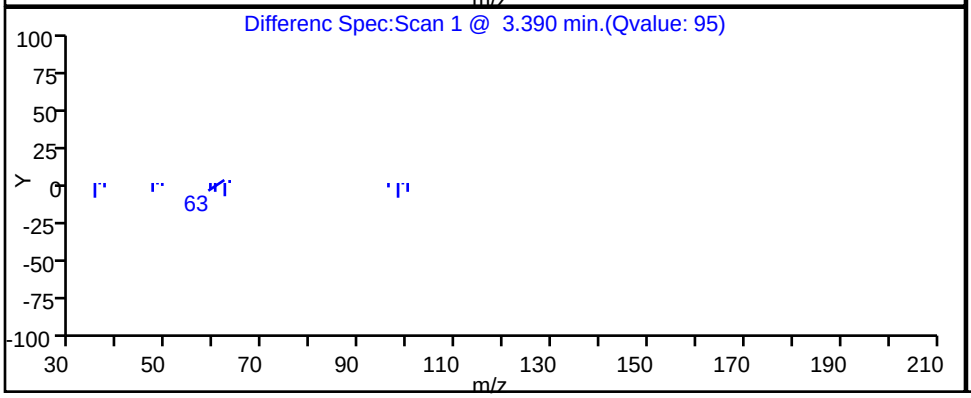


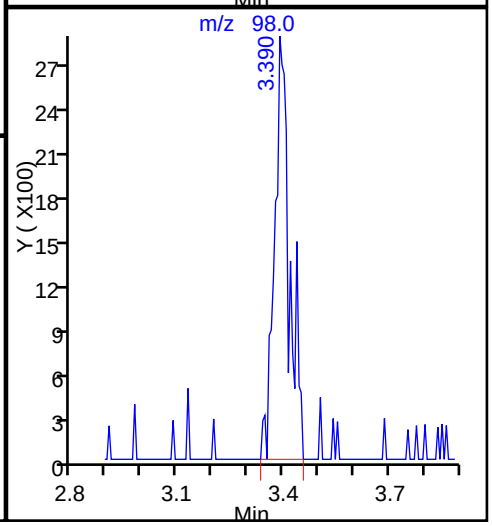












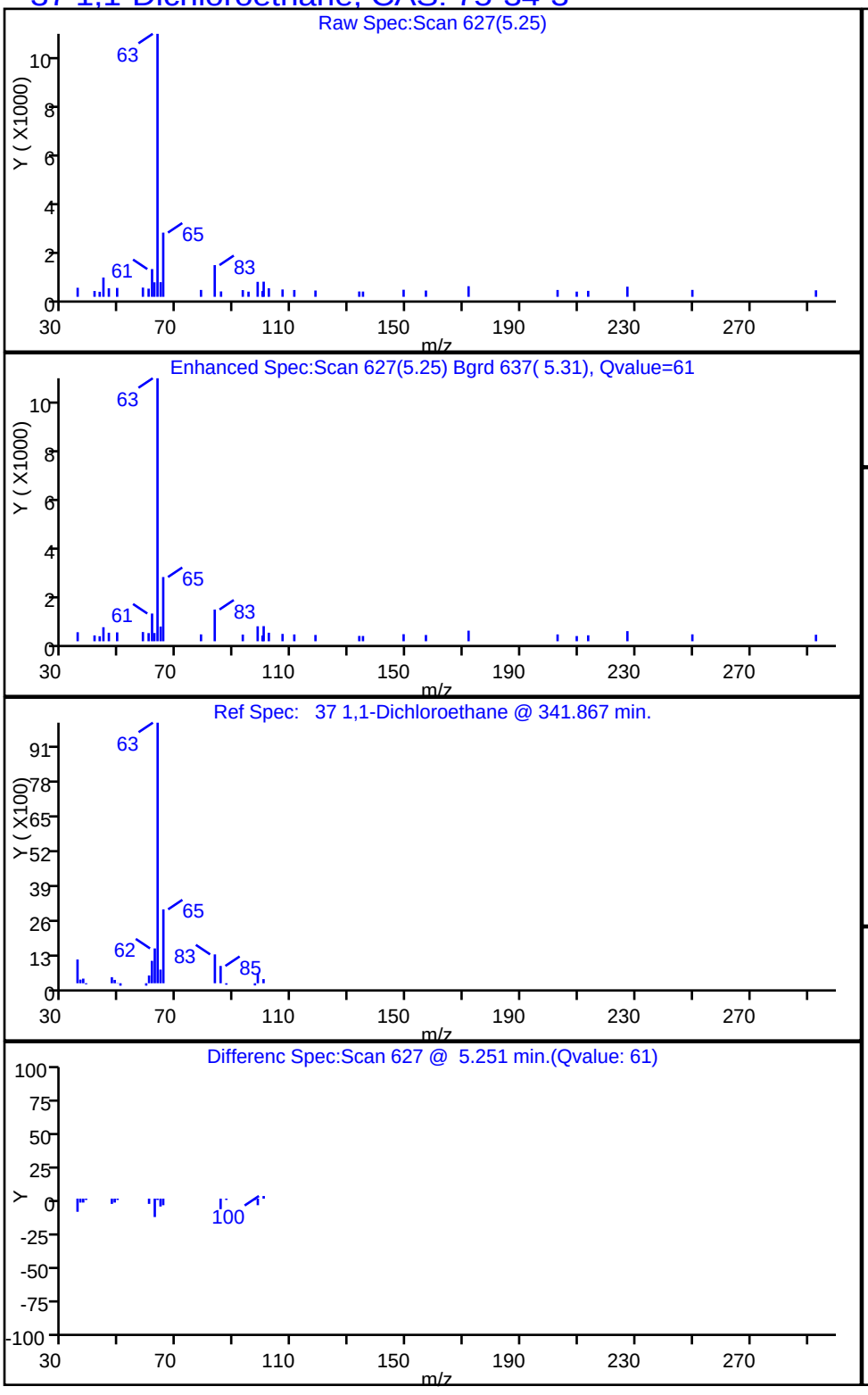
Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

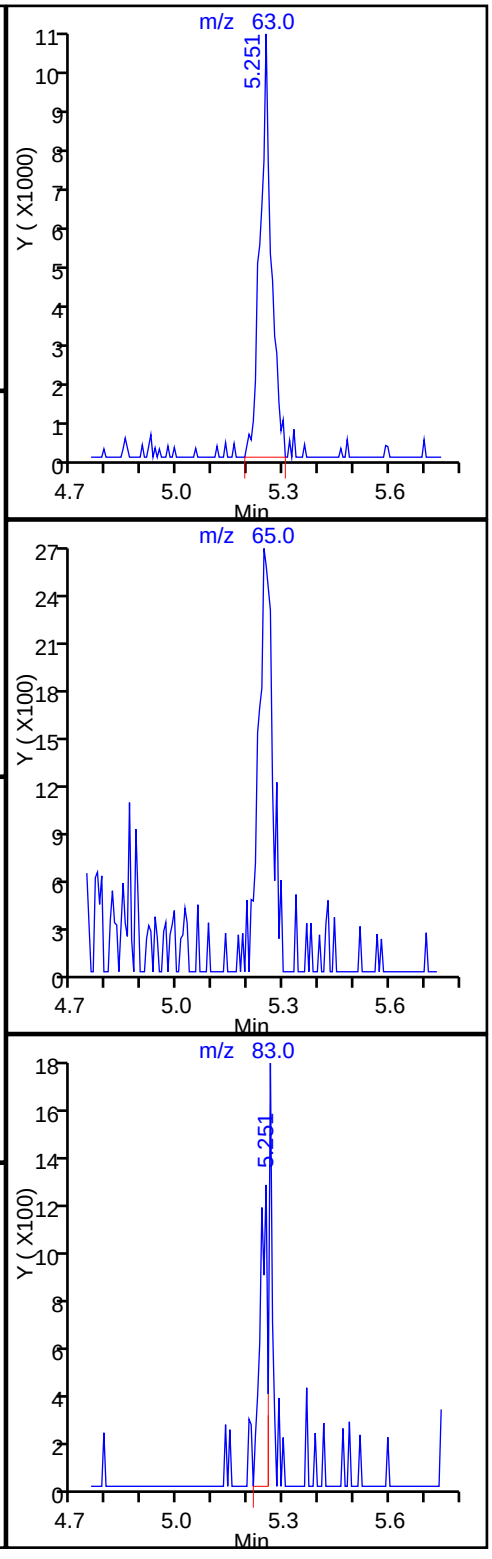
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D

Injection Date:	03-Apr-2015 19:25:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-7	Lab Sample ID:	180-42445-7
Client ID:	HD-MW-74S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



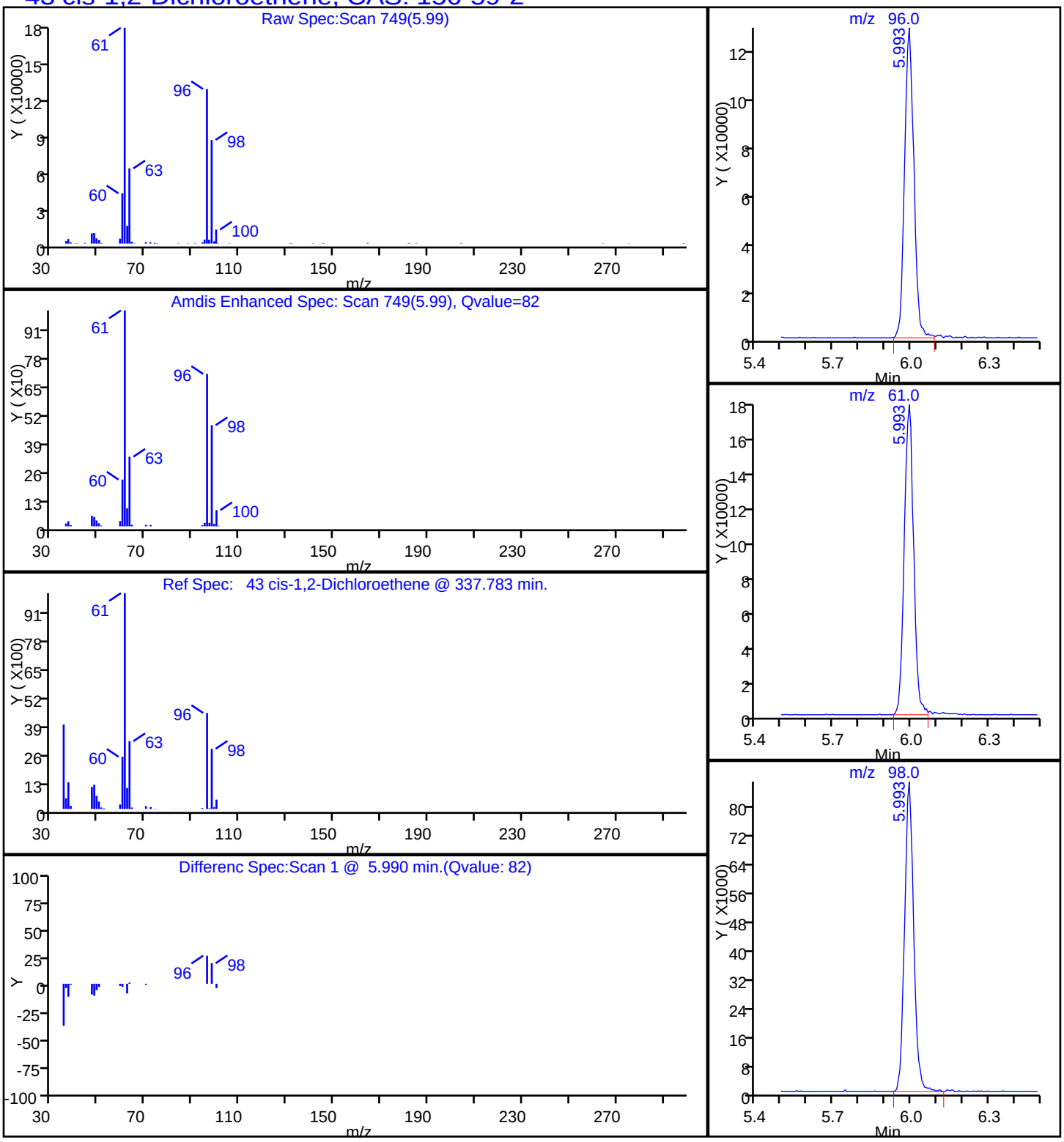


Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D				
Injection Date:	03-Apr-2015 19:25:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-7	Lab Sample ID:	180-42445-7		
Client ID:	HD-MW-74S-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

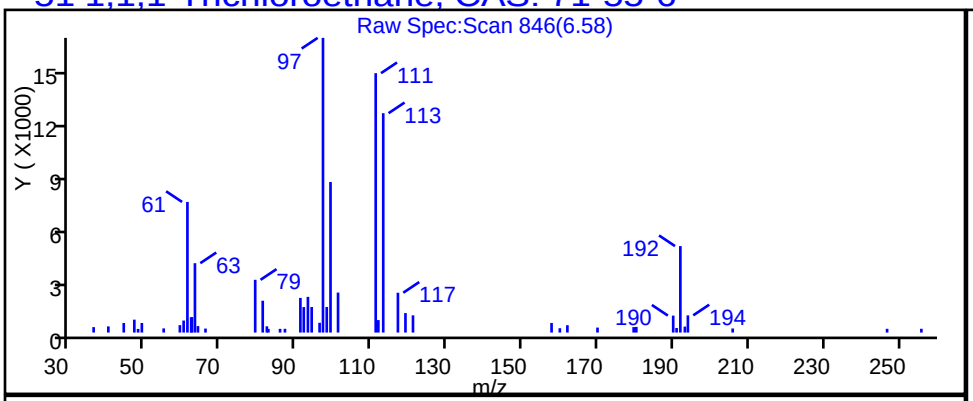


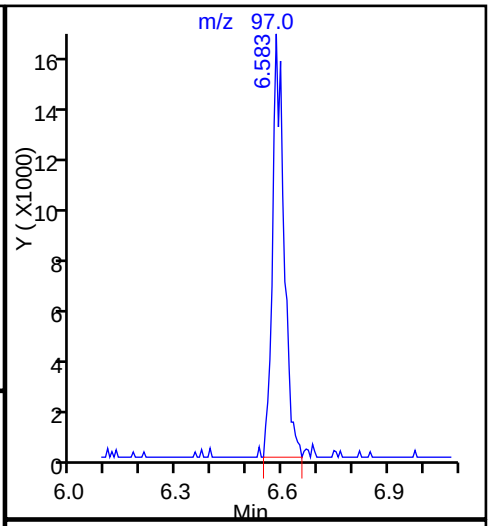
Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

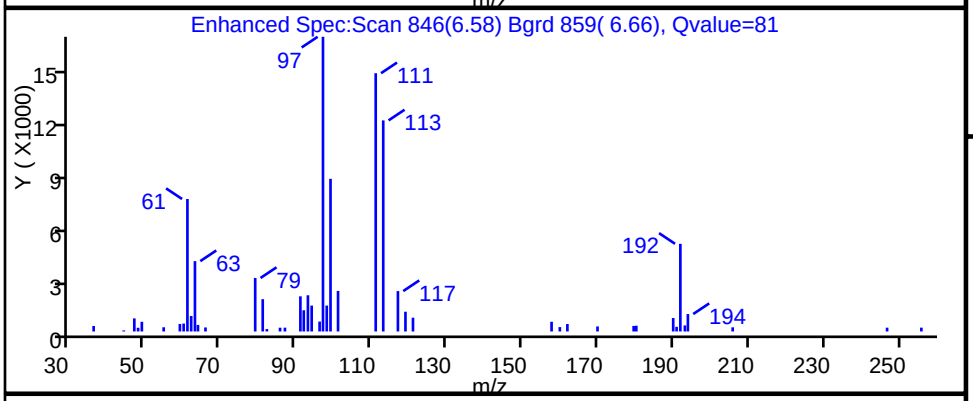
TestAmerica Pittsburgh

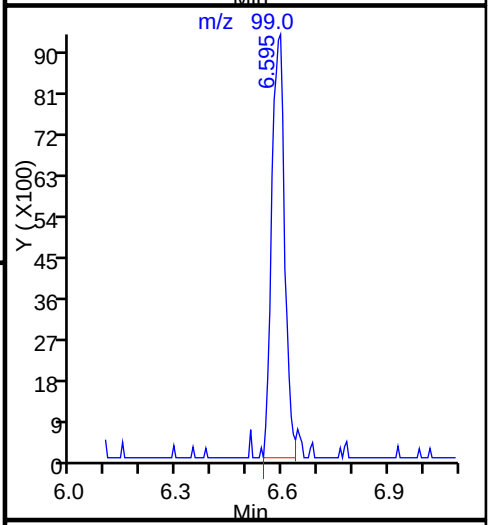
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D				
Injection Date:	03-Apr-2015 19:25:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-D-7	Lab Sample ID:	180-42445-7		
Client ID:	HD-MW-74S-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

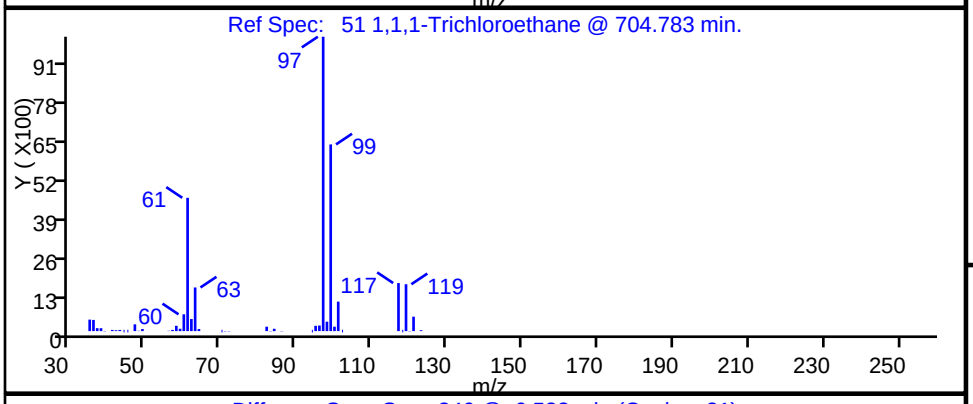
51 1,1,1-Trichloroethane, CAS: 71-55-6

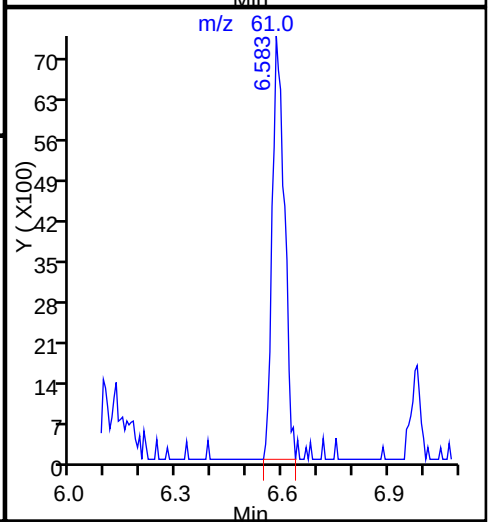


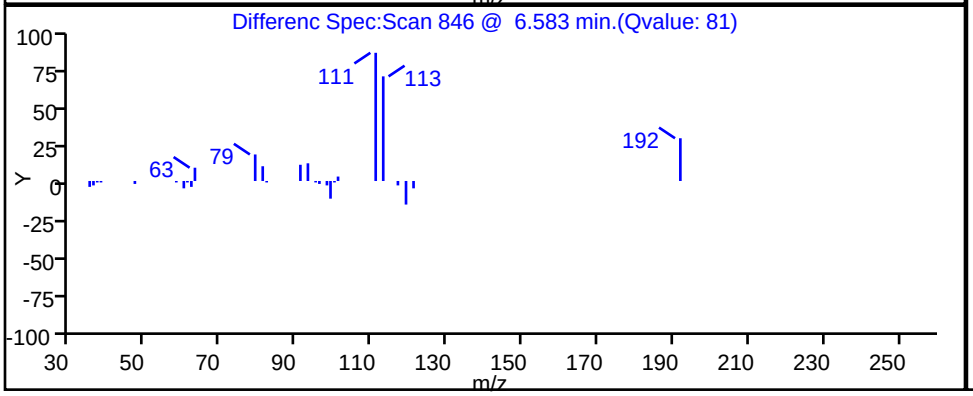












Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D

Injection Date: 03-Apr-2015 19:25:30 Instrument ID: CHHP6

Lims ID: 180-42445-D-7 Lab Sample ID: 180-42445-7

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

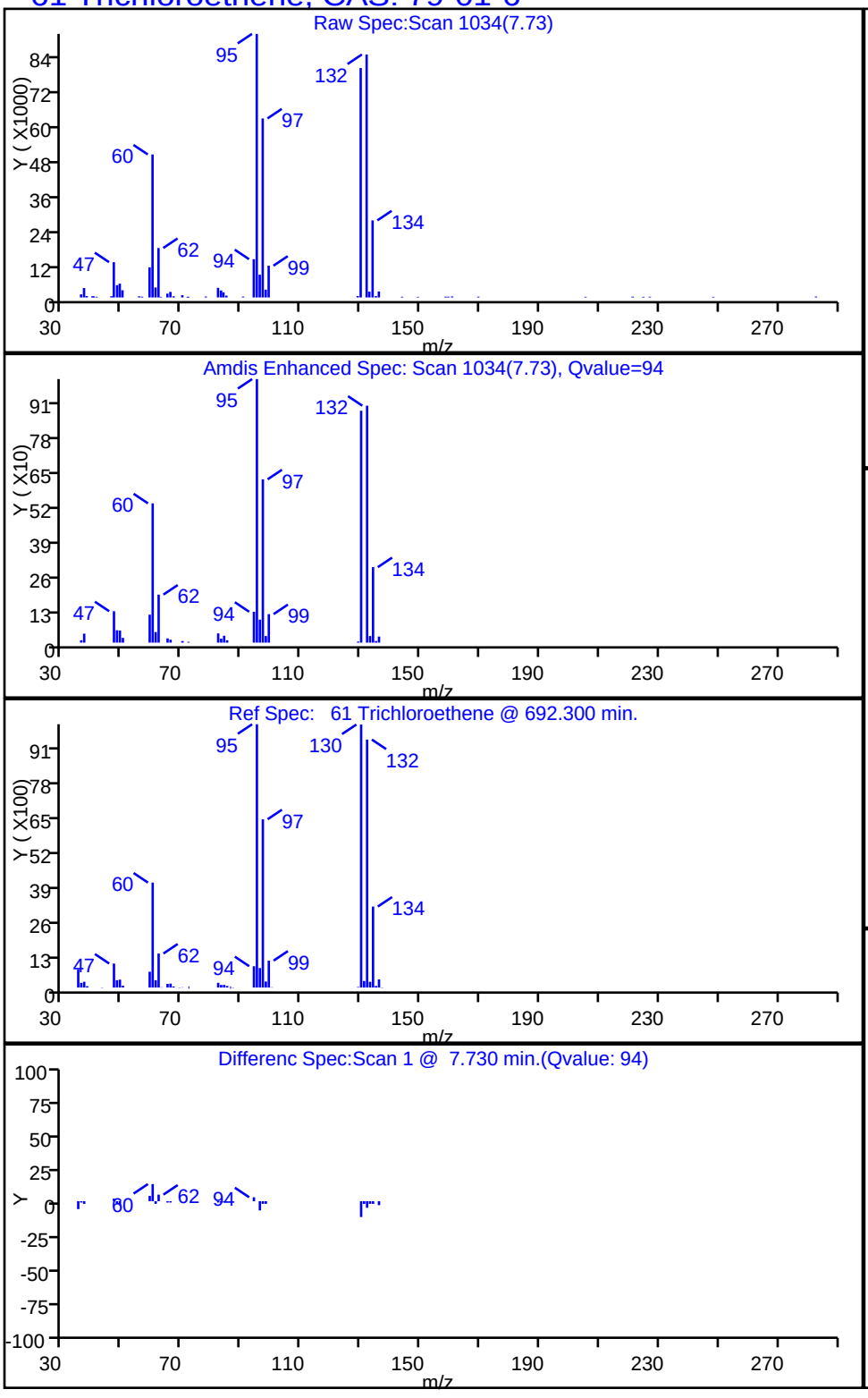
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16

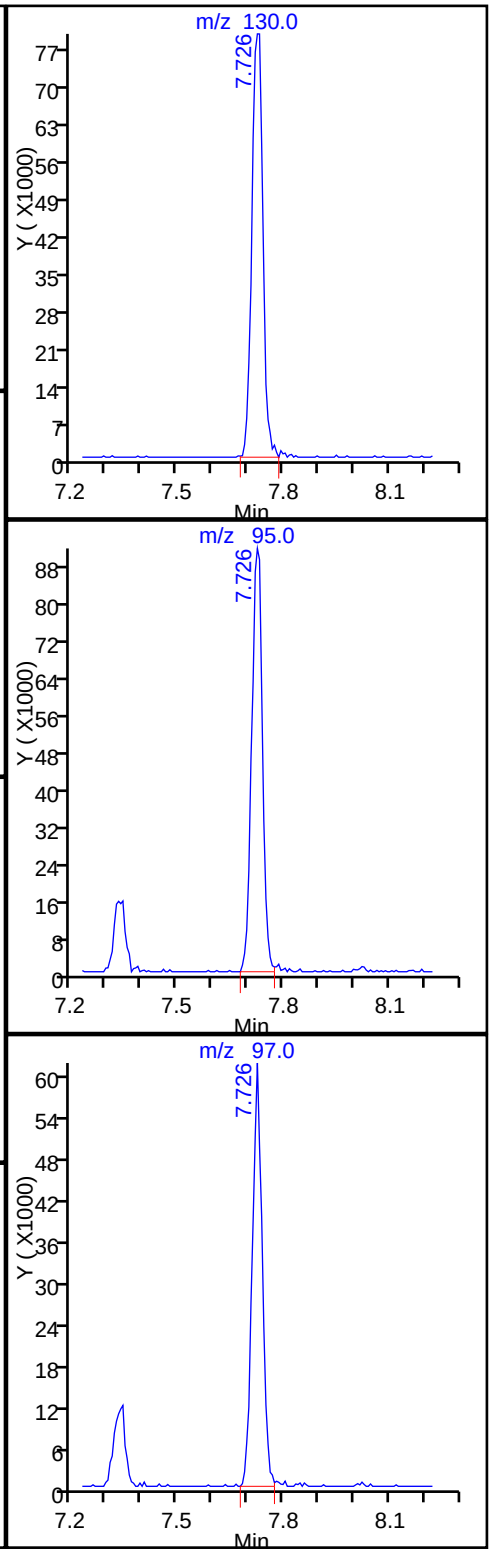
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

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

61 Trichloroethene, CAS: 79-01-6



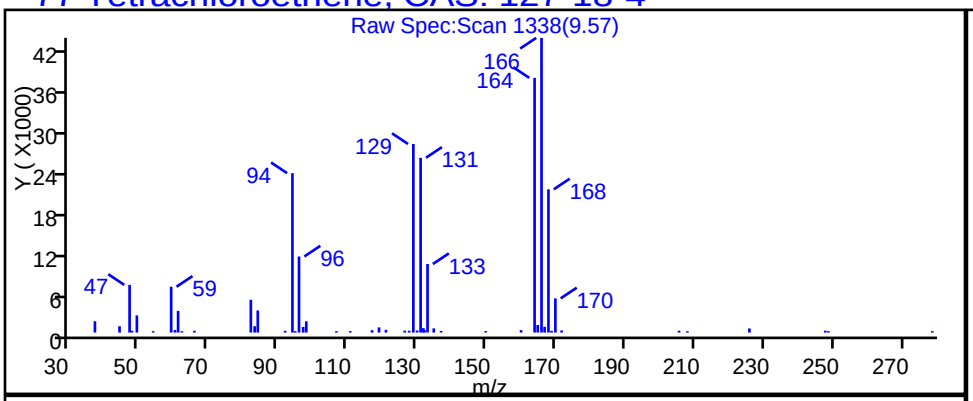


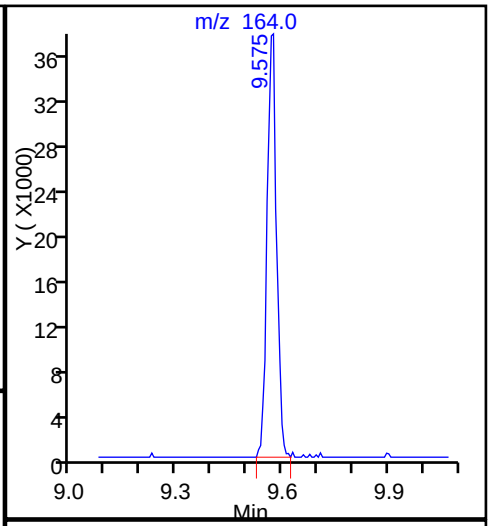
Report Date: 04-Apr-2015 10:49:20 Chrom Revision: 2.2 13-Mar-2015 11:20:44

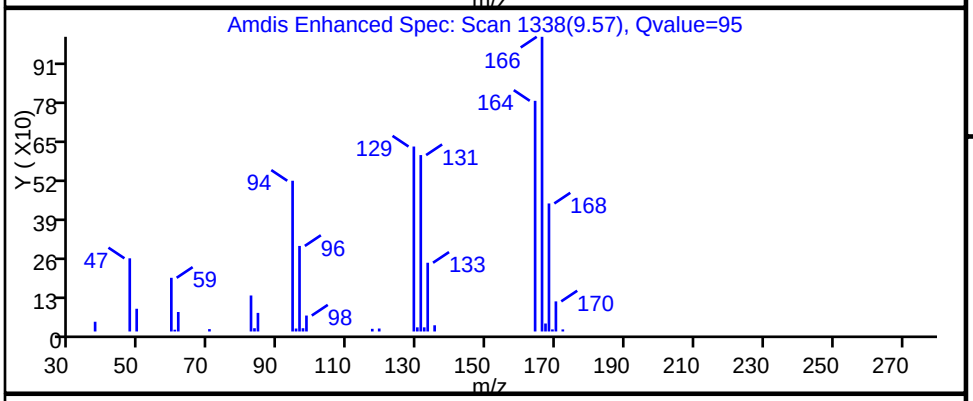
TestAmerica Pittsburgh

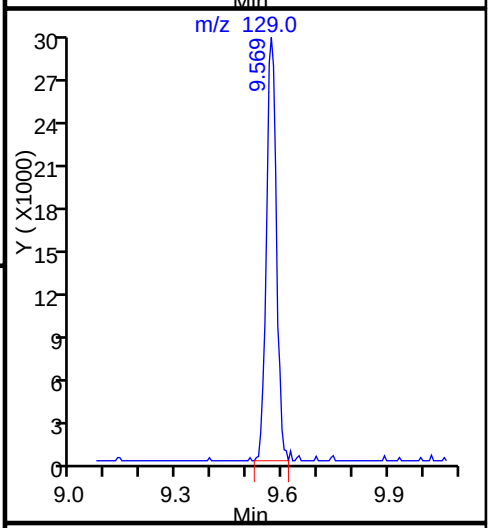
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403016.D		
Injection Date:	03-Apr-2015 19:25:30	Instrument ID:	CHHP6
Lims ID:	180-42445-D-7	Lab Sample ID:	180-42445-7
Client ID:	HD-MW-74S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

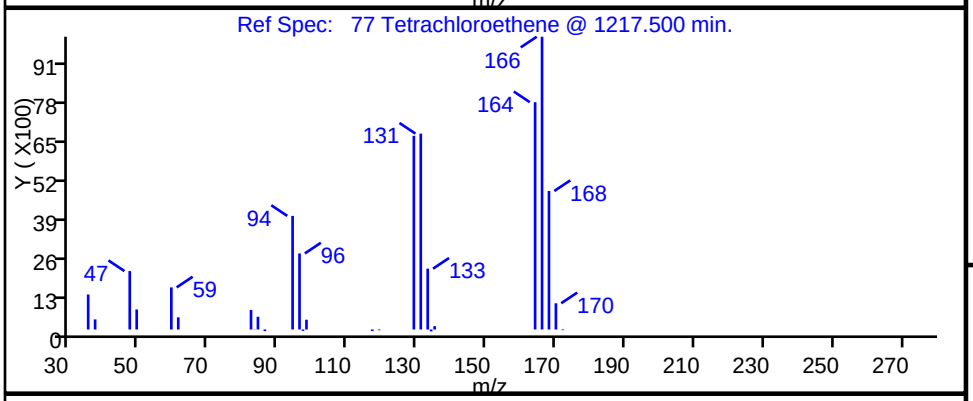
77 Tetrachloroethene, CAS: 127-18-4

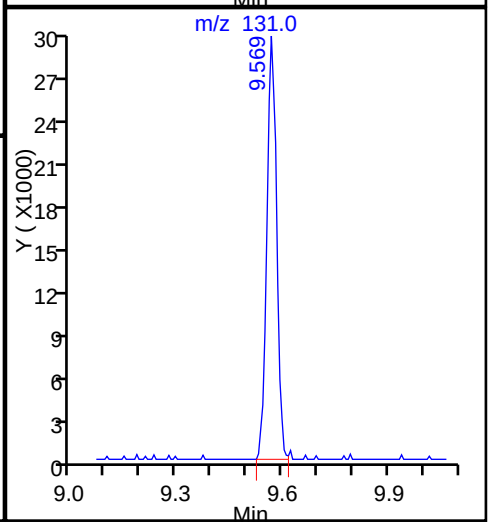


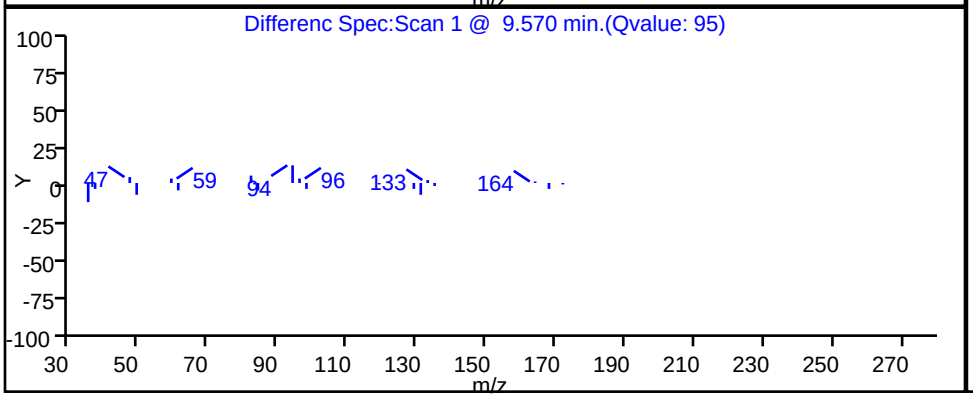












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 | Lab Sample ID: 180-42445-8

Matrix: Water | Lab File ID: 60403017.D

Analysis Method: 8260C | Date Collected: 03/26/2015 10:32

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 19:49

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.: 137472 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	130	U	130	35
75-01-4	Vinyl chloride	36	J	130	28
74-83-9	Bromomethane	130	U	130	39
75-00-3	Chloroethane	130	U	130	27
75-35-4	1,1-Dichloroethene	280		130	37
67-64-1	Acetone	630	U	630	310
75-15-0	Carbon disulfide	130	U	130	27
75-09-2	Methylene Chloride	50	J B	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	650		130	15
156-59-2	cis-1,2-Dichloroethene	4700		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	110	J	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	5300		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	500		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-42445-8

Matrix: Water Lab File ID: 60403017.D

Analysis Method: 8260C Date Collected: 03/26/2015 10:32

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 19:49

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.: 137472 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)	120		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D
Lims ID: 180-42445-C-8 Lab Sample ID: 180-42445-8
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 19:49:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 125.0000
Sample Info: 180-42445-C-8, 125x
Misc. Info.: 180-0006320-017
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:50:34 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:50:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.279	-0.002	91	186935	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	98	417542	50.0	
* 3 Chlorobenzene-d5	119	10.444	10.439	0.005	90	90515	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.797	12.793	0.004	99	142161	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.602	0.004	91	105669	55.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	6.979	-0.002	70	162000	59.9	
$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	93	379351	53.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.625	0.004	84	142568	47.0	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62	1.899	1.907	-0.008	19	4285	1.42	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.383	3.391	-0.008	88	26124	11.1	
24 Acetone	43		3.464				ND	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84	4.192	4.181	0.011	57	6797	1.98	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
37 1,1-Dichloroethane	63	5.250	5.240	0.010	97	142941	26.2	
44 2-Butanone (MEK)	43		5.988				ND	
43 cis-1,2-Dichloroethene	96	5.992	5.988	0.004	81	561212	187.5	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83		6.413				ND	
51 1,1,1-Trichloroethane	97	6.588	6.584	0.004	48	15972	4.46	
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.725	7.721	0.004	95	500798	212.1	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.069	9.053	0.016	17	3413	0.3688	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.574	9.569	0.005	96	32759	19.8	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

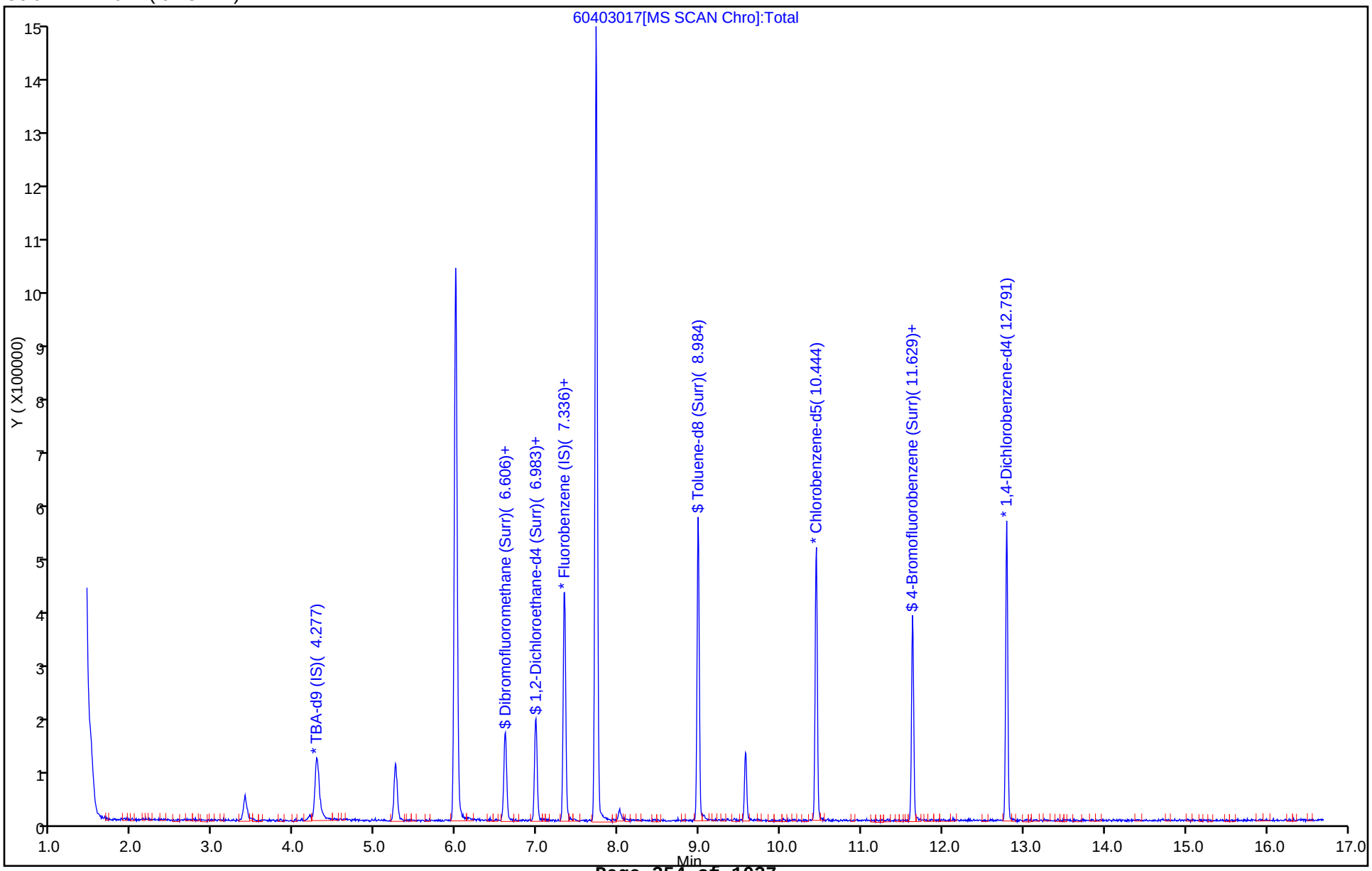
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D				
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8	Worklist Smp#:	17
Client ID:	HD-MW-50D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	125.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



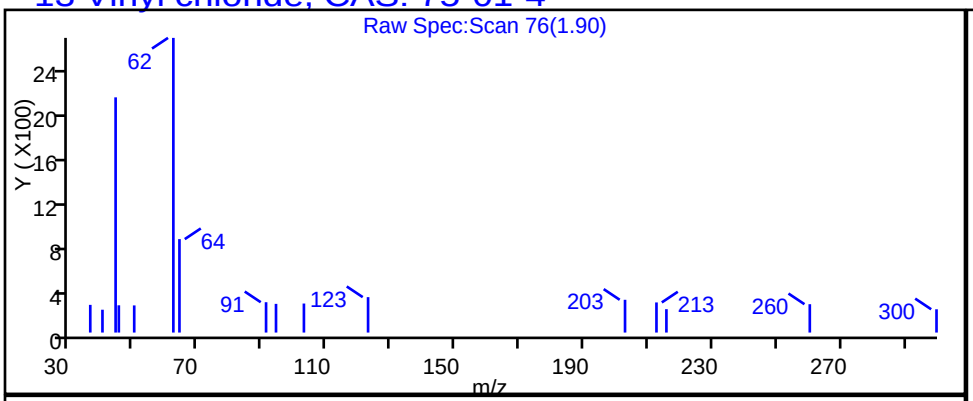
Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

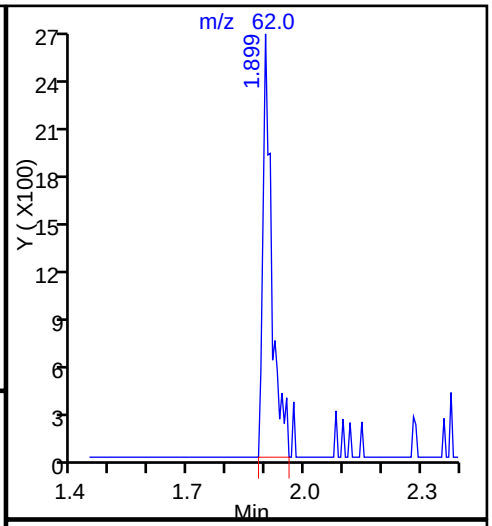
TestAmerica Pittsburgh

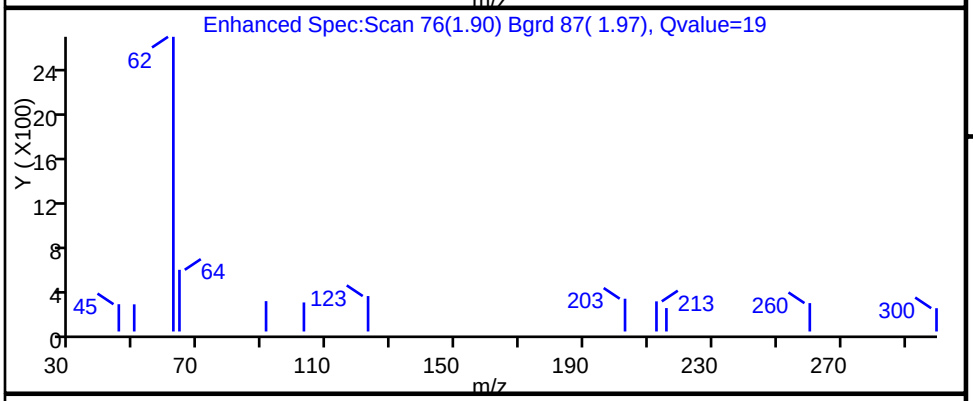
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D

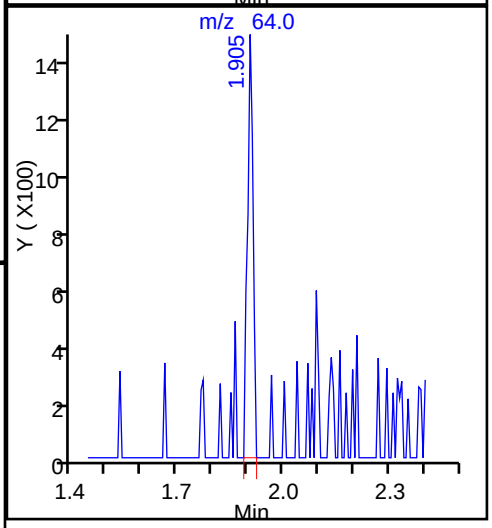
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

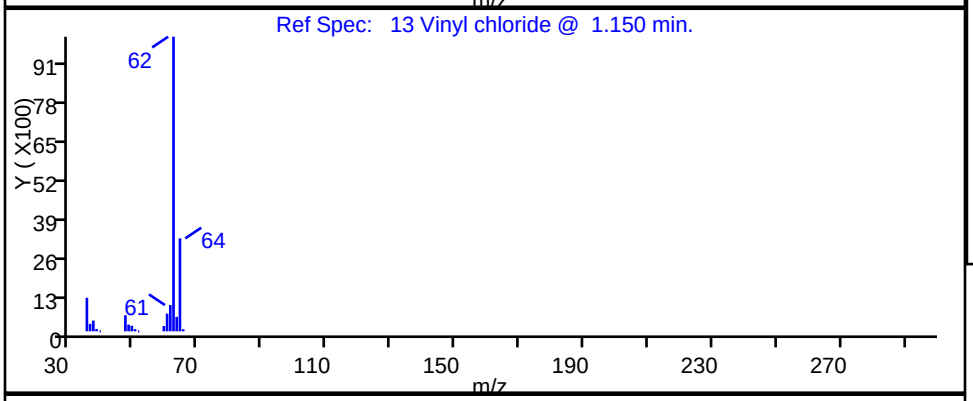
13 Vinyl chloride, CAS: 75-01-4

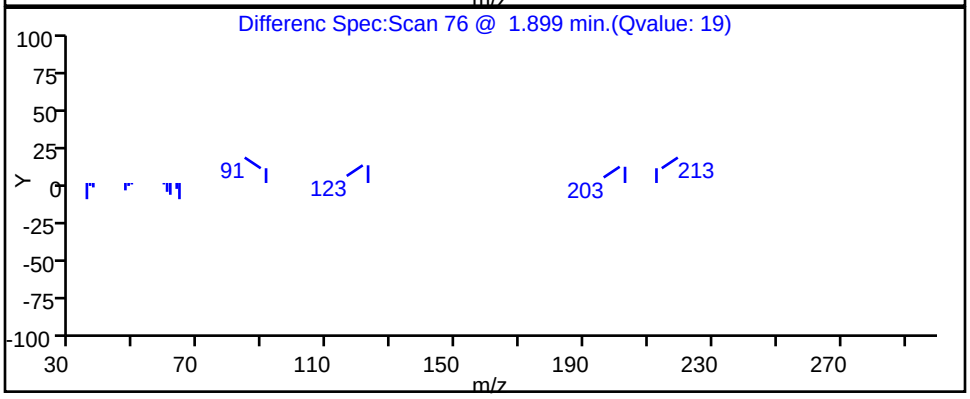










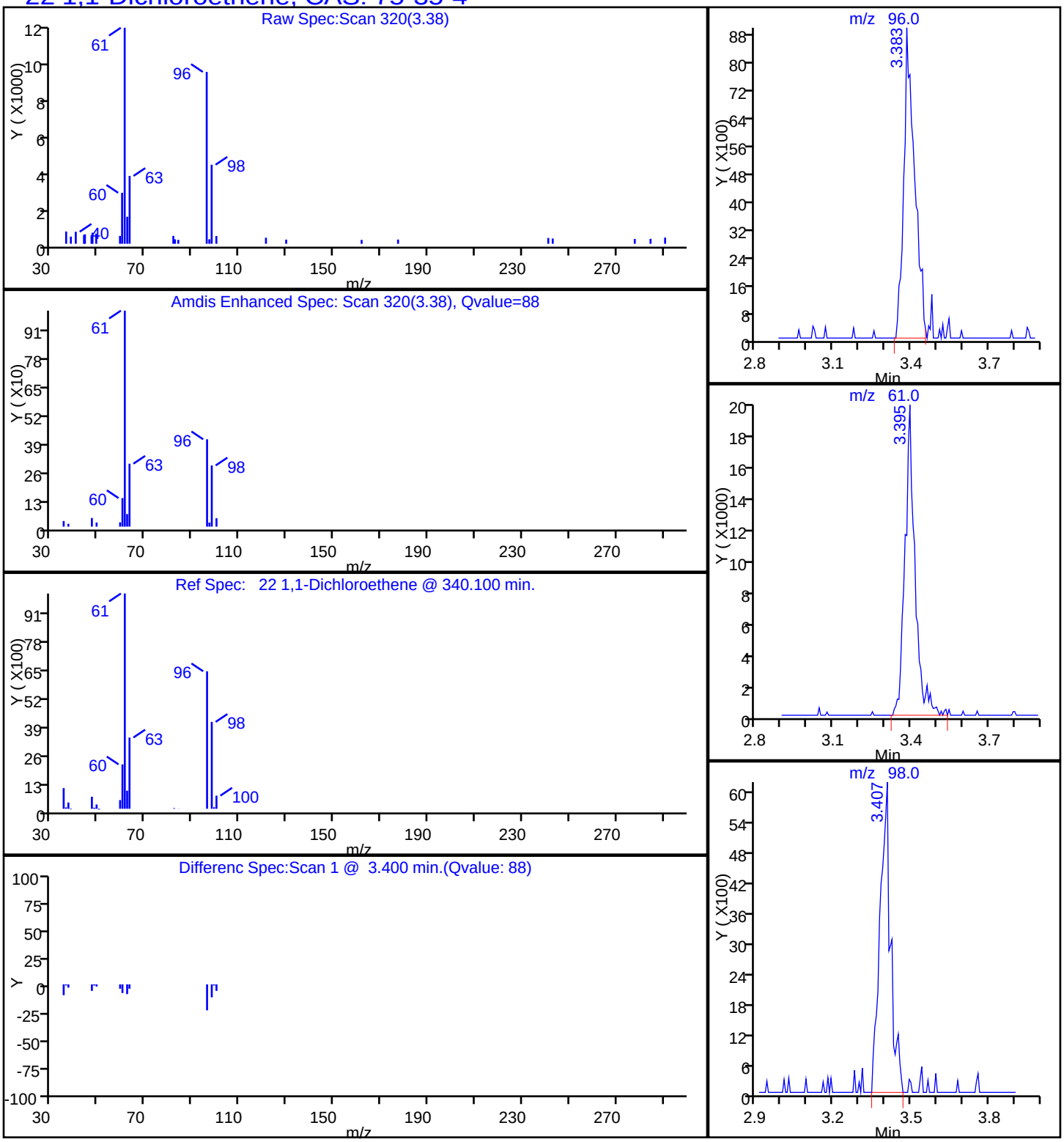


Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D				
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



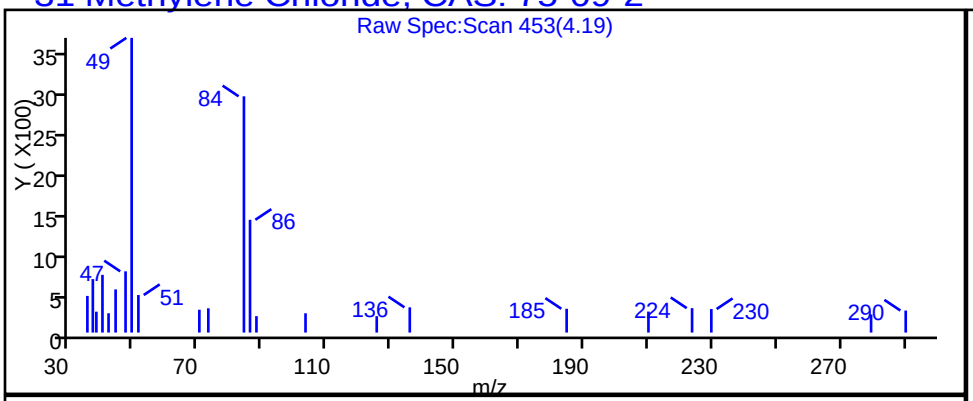
Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

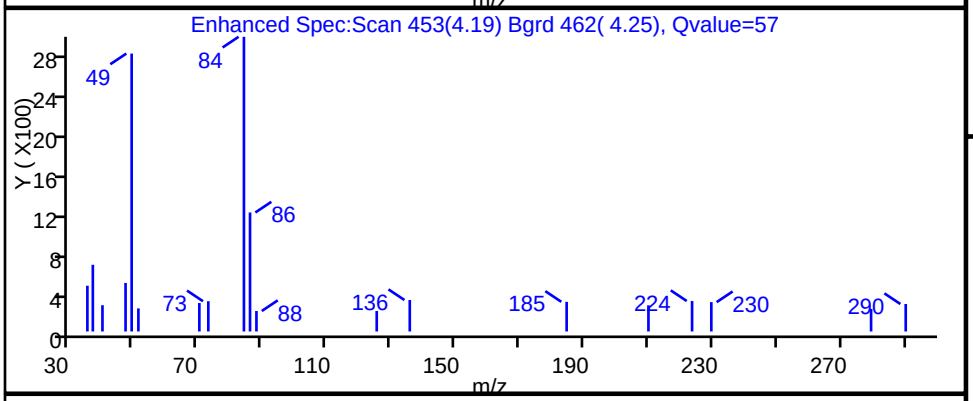
TestAmerica Pittsburgh

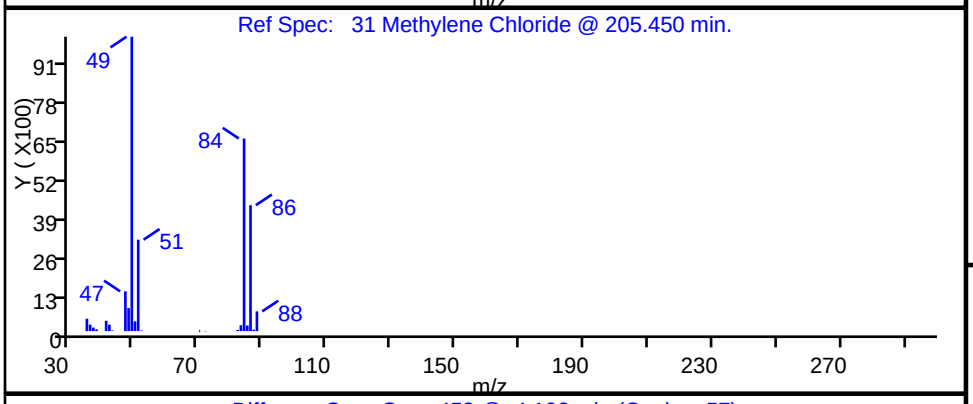
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D

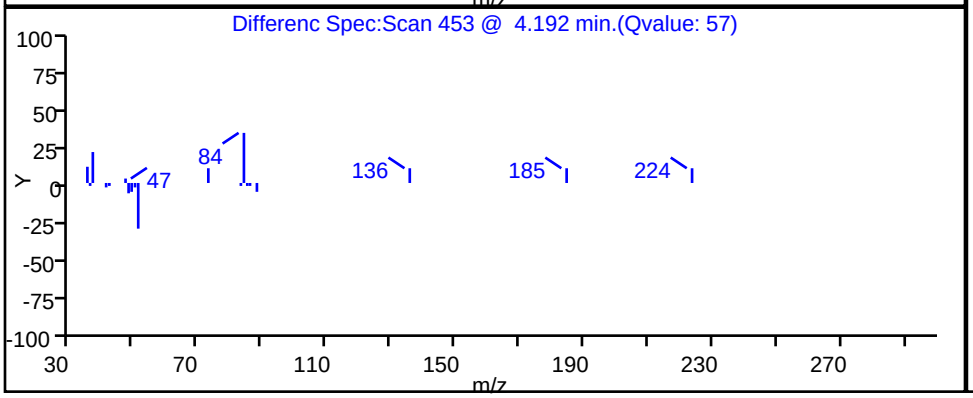
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

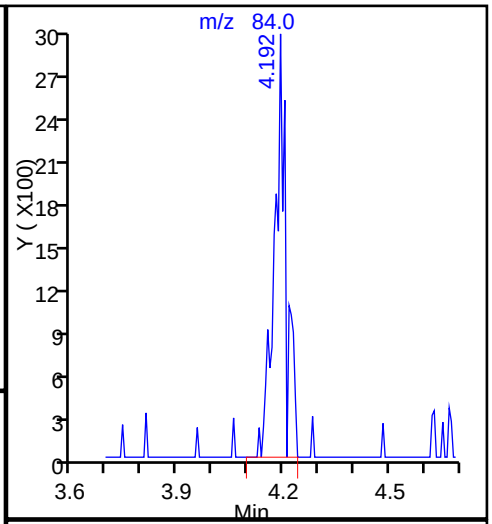
31 Methylene Chloride, CAS: 75-09-2

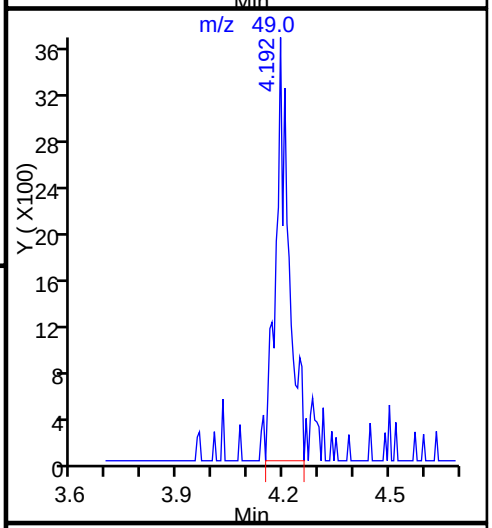


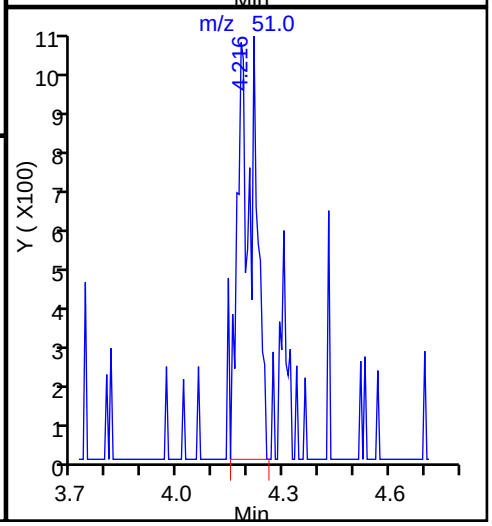










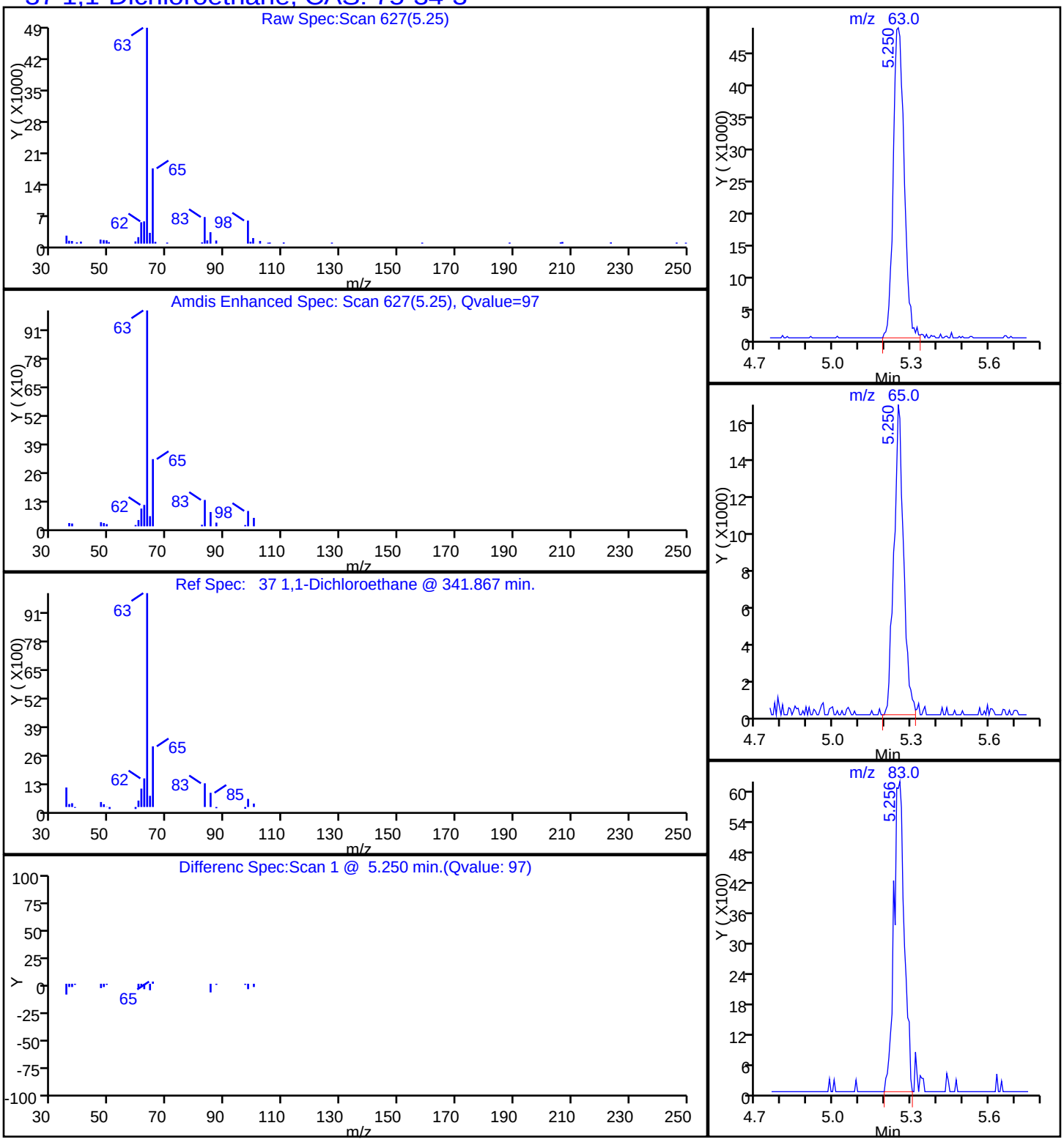


Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D				
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

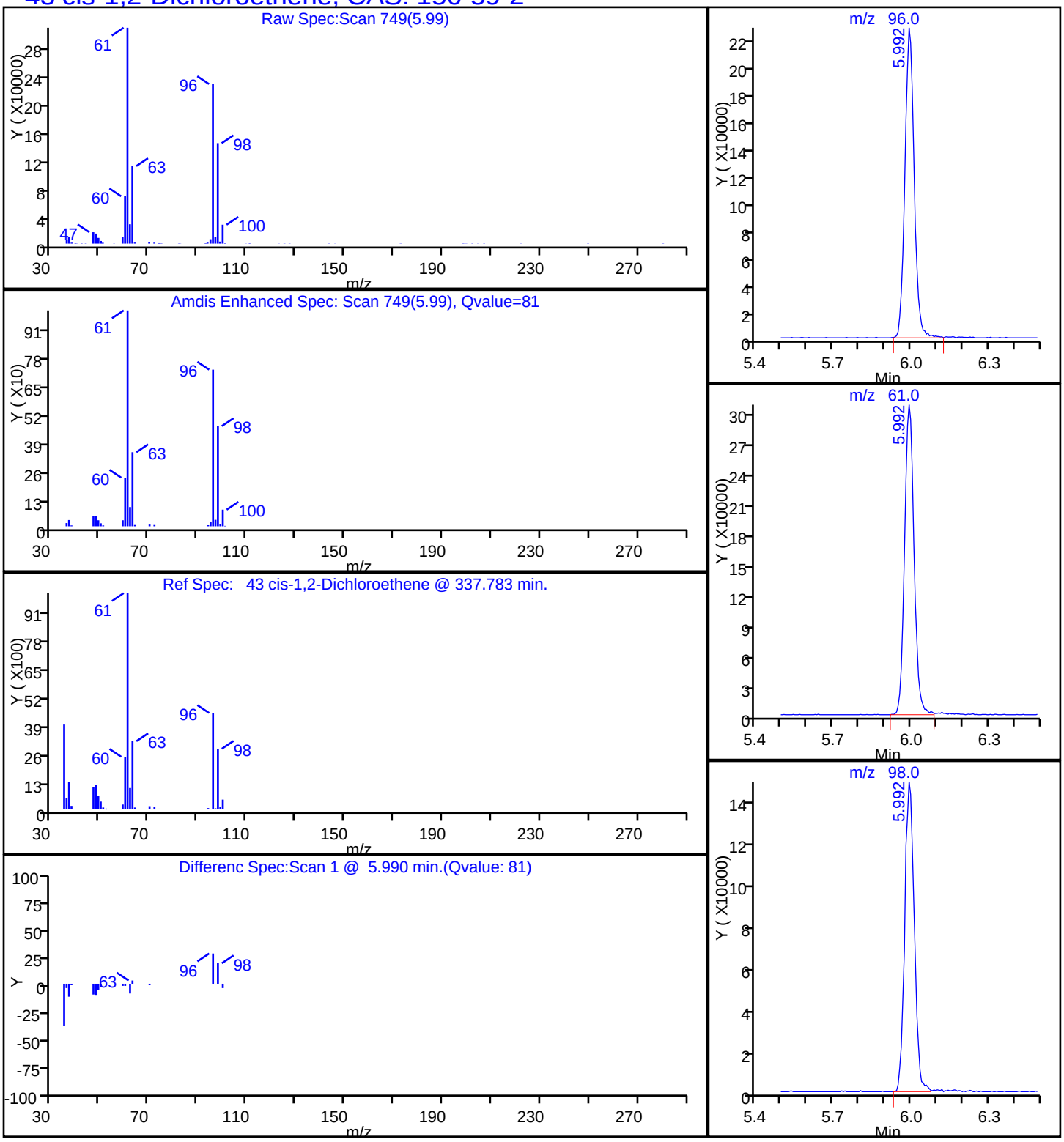


Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D				
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



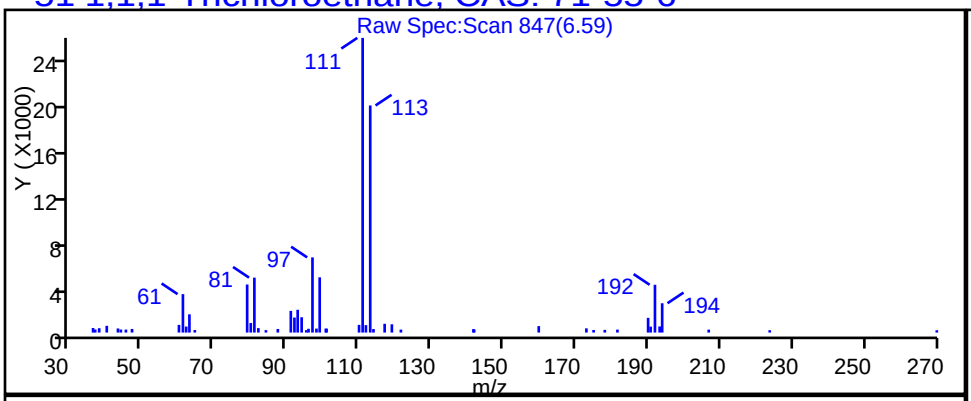
Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

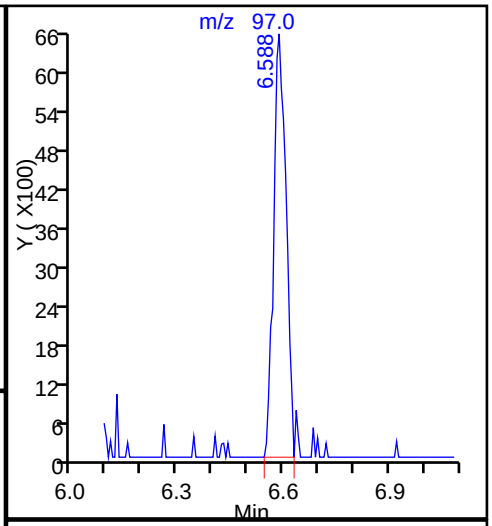
TestAmerica Pittsburgh

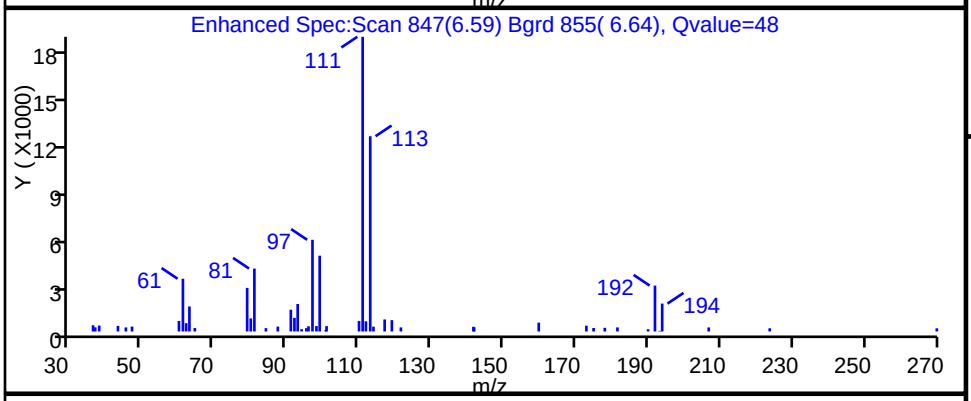
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D

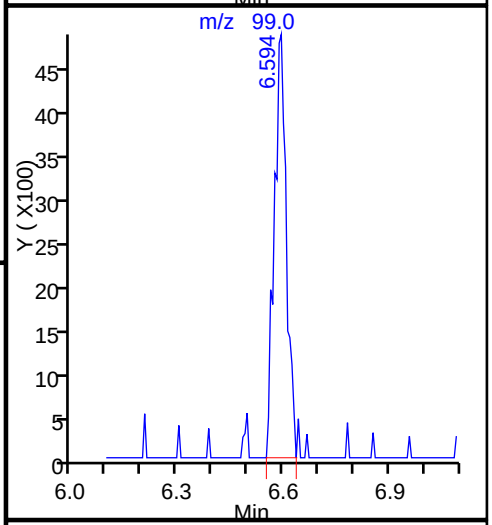
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

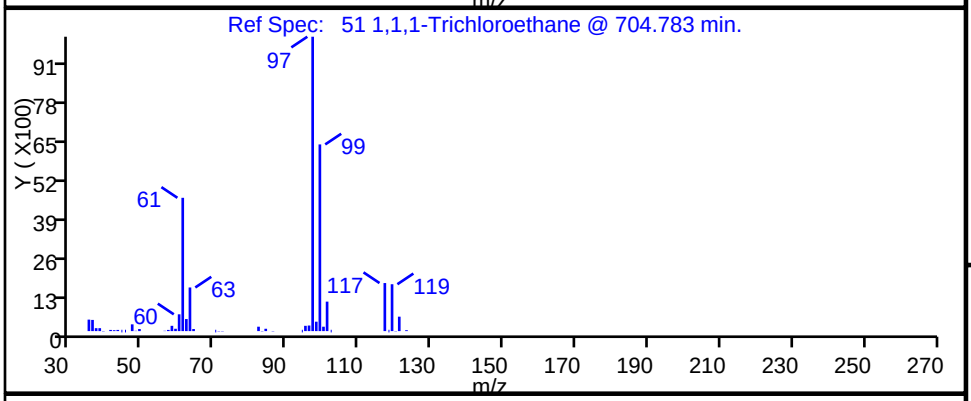
51 1,1,1-Trichloroethane, CAS: 71-55-6

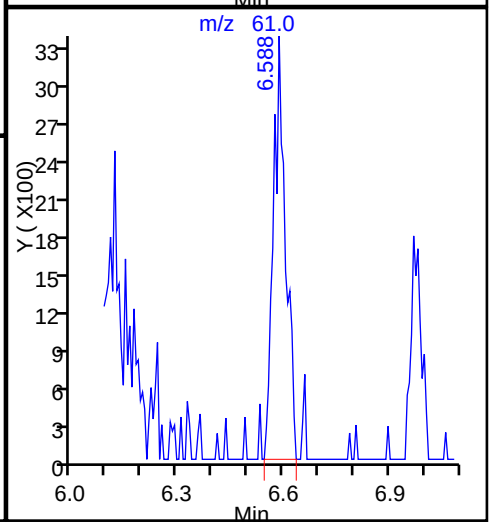


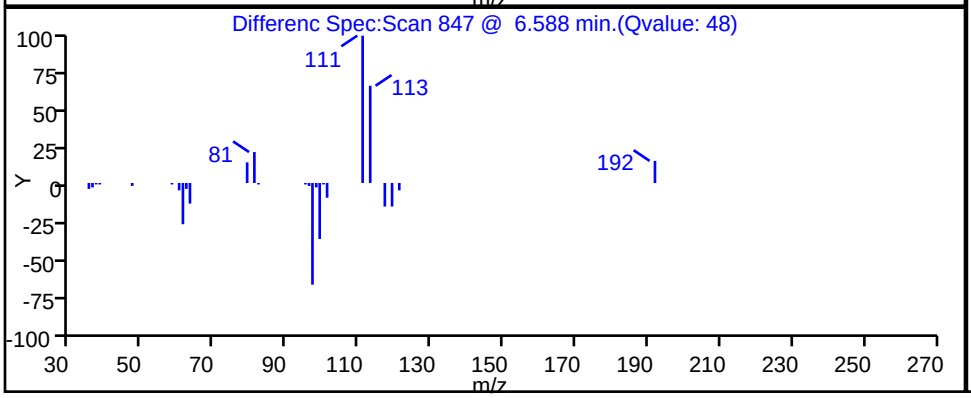










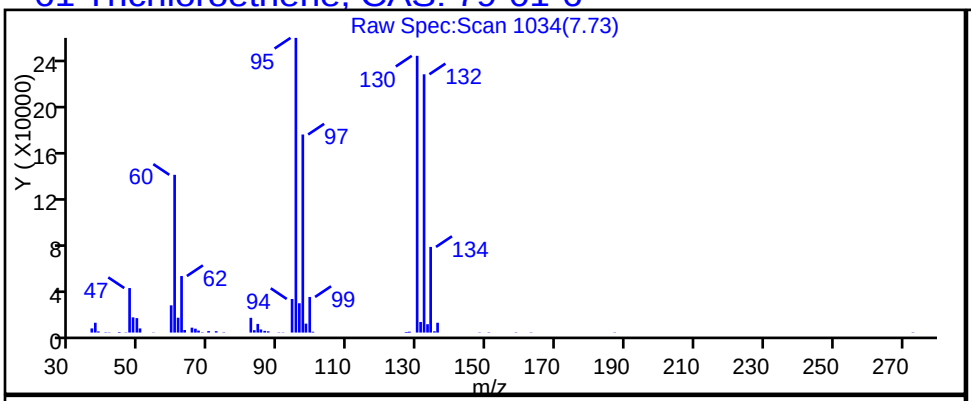


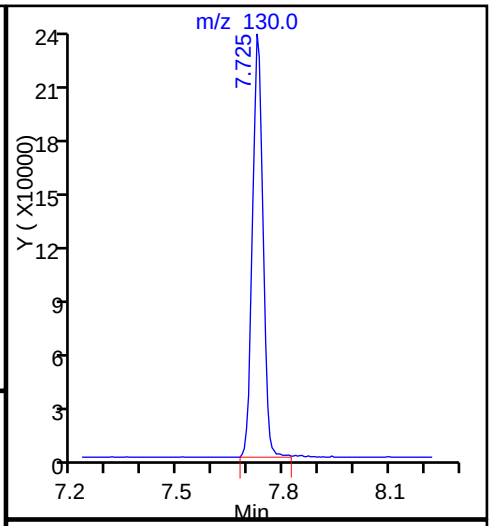
Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

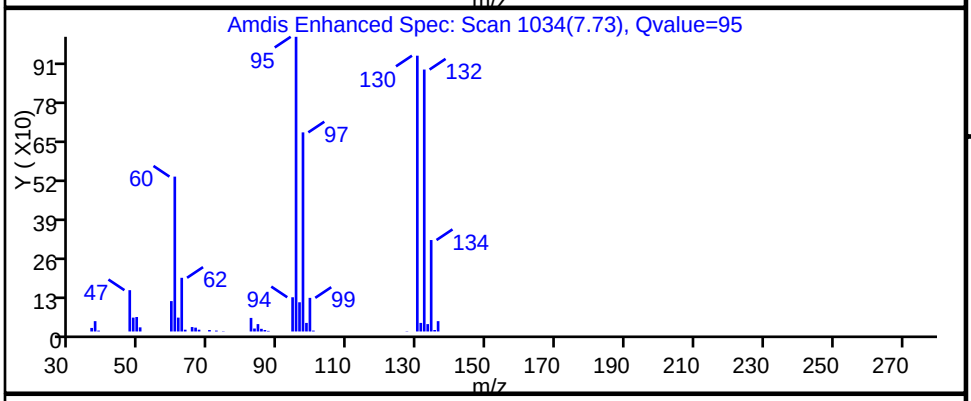
TestAmerica Pittsburgh

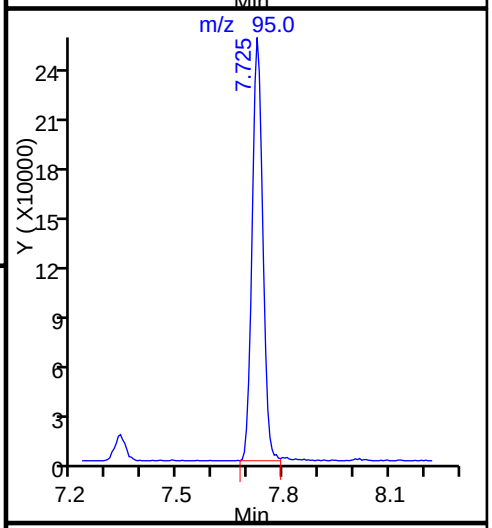
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D				
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

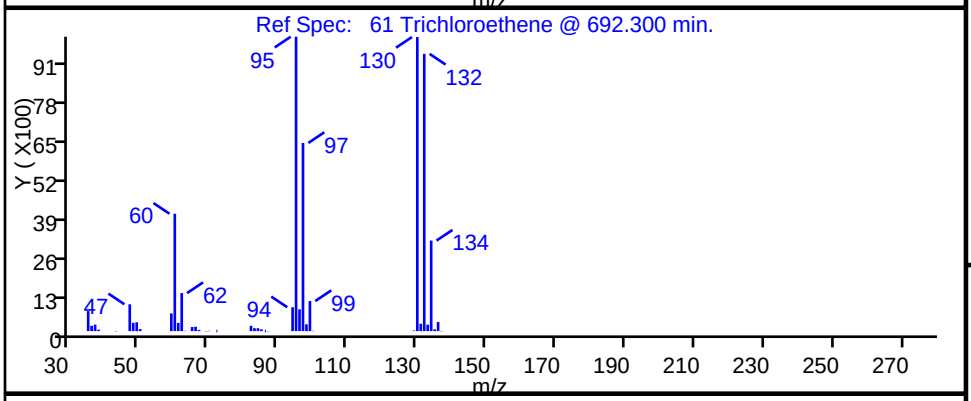
61 Trichloroethene, CAS: 79-01-6

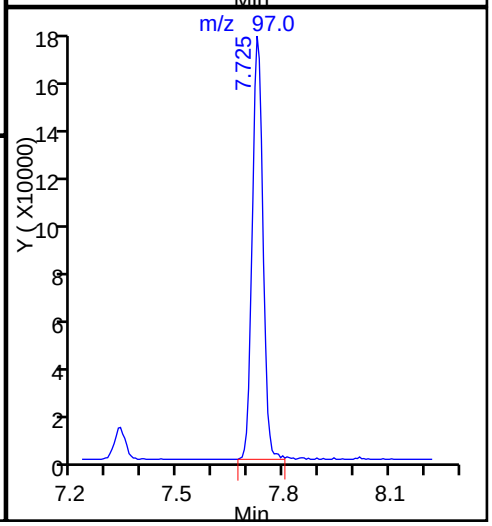


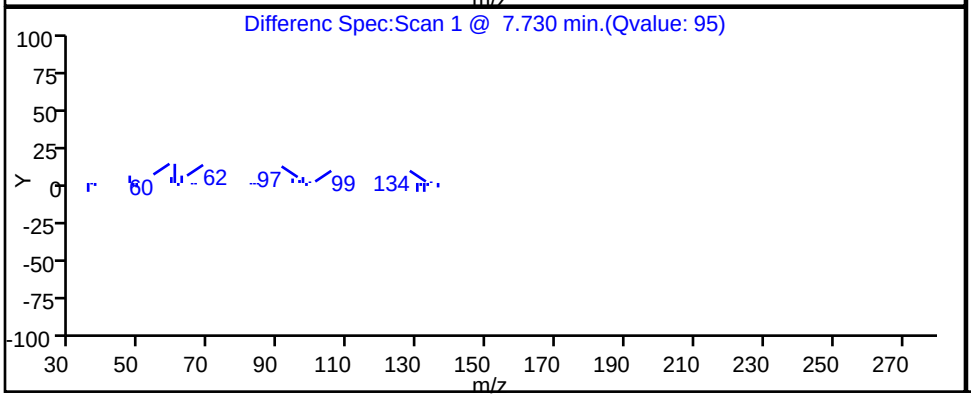










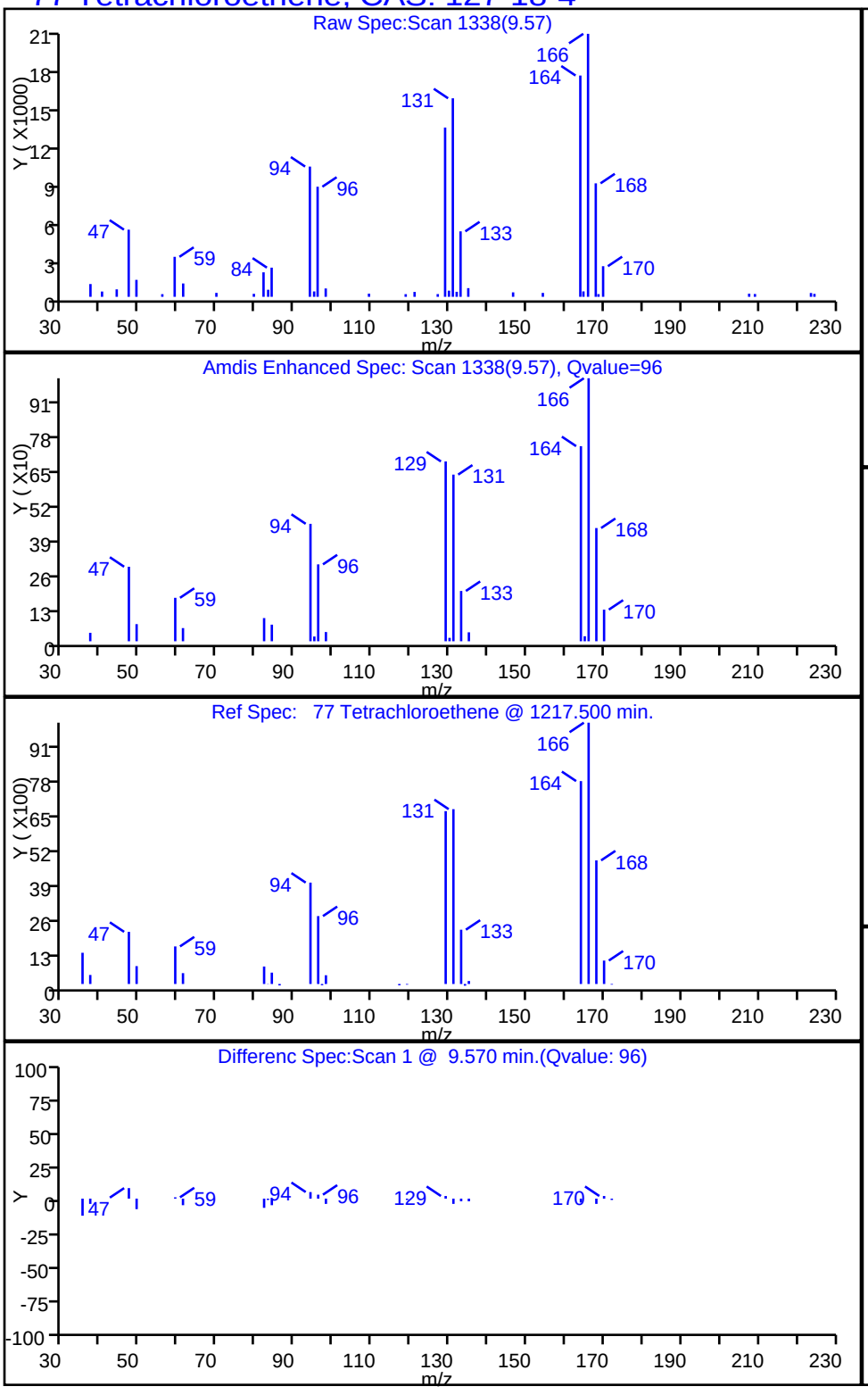


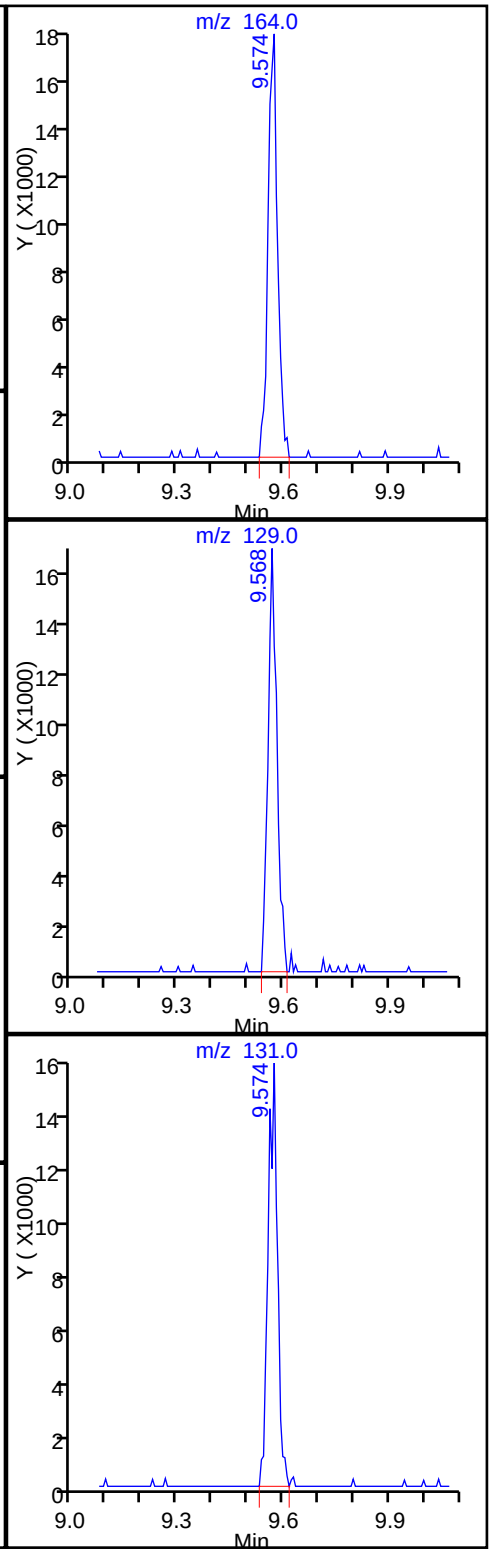
Report Date: 04-Apr-2015 10:50:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403017.D				
Injection Date:	03-Apr-2015 19:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

77 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 | Lab Sample ID: 180-42445-9

Matrix: Water | Lab File ID: 60403019.D

Analysis Method: 8260C | Date Collected: 03/26/2015 14:42

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 20:38

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.: 137472 | 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	52		50	15
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	19	J B	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	12	J	50	5.8
156-59-2	cis-1,2-Dichloroethene	640		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	110		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	680		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	580		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-42445-9

Matrix: Water Lab File ID: 60403019.D

Analysis Method: 8260C Date Collected: 03/26/2015 14:42

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 20:38

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.: 137472 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)	124		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D
Lims ID: 180-42445-C-9 Lab Sample ID: 180-42445-9
Client ID: HD-MW-51S-0/1-0
Sample Type: Client
Inject. Date: 03-Apr-2015 20:38:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-42445-C-9, 50x
Misc. Info.: 180-0006320-019
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:57:17 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:57:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.279	-0.001	90	178324	1000.0	
* 2 Fluorobenzene (IS)	96	7.331	7.332	-0.001	98	393433	50.0	
* 3 Chlorobenzene-d5	119	10.439	10.439	0.000	90	77864	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.793	-0.001	98	141305	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.607	6.602	0.005	93	102379	57.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.978	6.979	-0.001	70	157370	61.8	
$ 7 Toluene-d8 (Surr)	98	8.985	8.980	0.005	94	349163	56.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.625	0.005	85	130826	50.1	
12 Chloromethane	50		1.767				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.260				ND	
16 Chloroethane	64		2.412				ND	
22 1,1-Dichloroethene	96	3.396	3.391	0.005	95	11516	5.21	
24 Acetone	43		3.464				ND	
26 Carbon disulfide	76		3.689				ND	
31 Methylene Chloride	84	4.187	4.181	0.006	39	6242	1.93	
33 Acrylonitrile	53		4.546				ND	
35 Methyl tert-butyl ether	73		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.619				ND	
37 1,1-Dichloroethane	63	5.257	5.240	0.017	1	5969	1.16	M
44 2-Butanone (MEK)	43		5.988				ND	
43 cis-1,2-Dichloroethene	96	5.987	5.988	-0.001	82	180774	64.1	
48 Chlorobromomethane	128		6.273				ND	
50 Chloroform	83		6.413				ND	
51 1,1,1-Trichloroethane	97	6.583	6.584	-0.001	94	38603	11.4	
53 Carbon tetrachloride	117		6.760				ND	
56 Benzene	78		6.985				ND	
57 1,2-Dichloroethane	62		7.058				ND	
61 Trichloroethene	130	7.726	7.721	0.005	95	151838	68.2	
64 1,2-Dichloropropane	63		7.994				ND	
65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.046	9.053	-0.007	50	3235	0.4064	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164	9.575	9.569	0.006	96	82932	58.3	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106		10.701				ND	
89 o-Xylene	106		11.084				ND	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

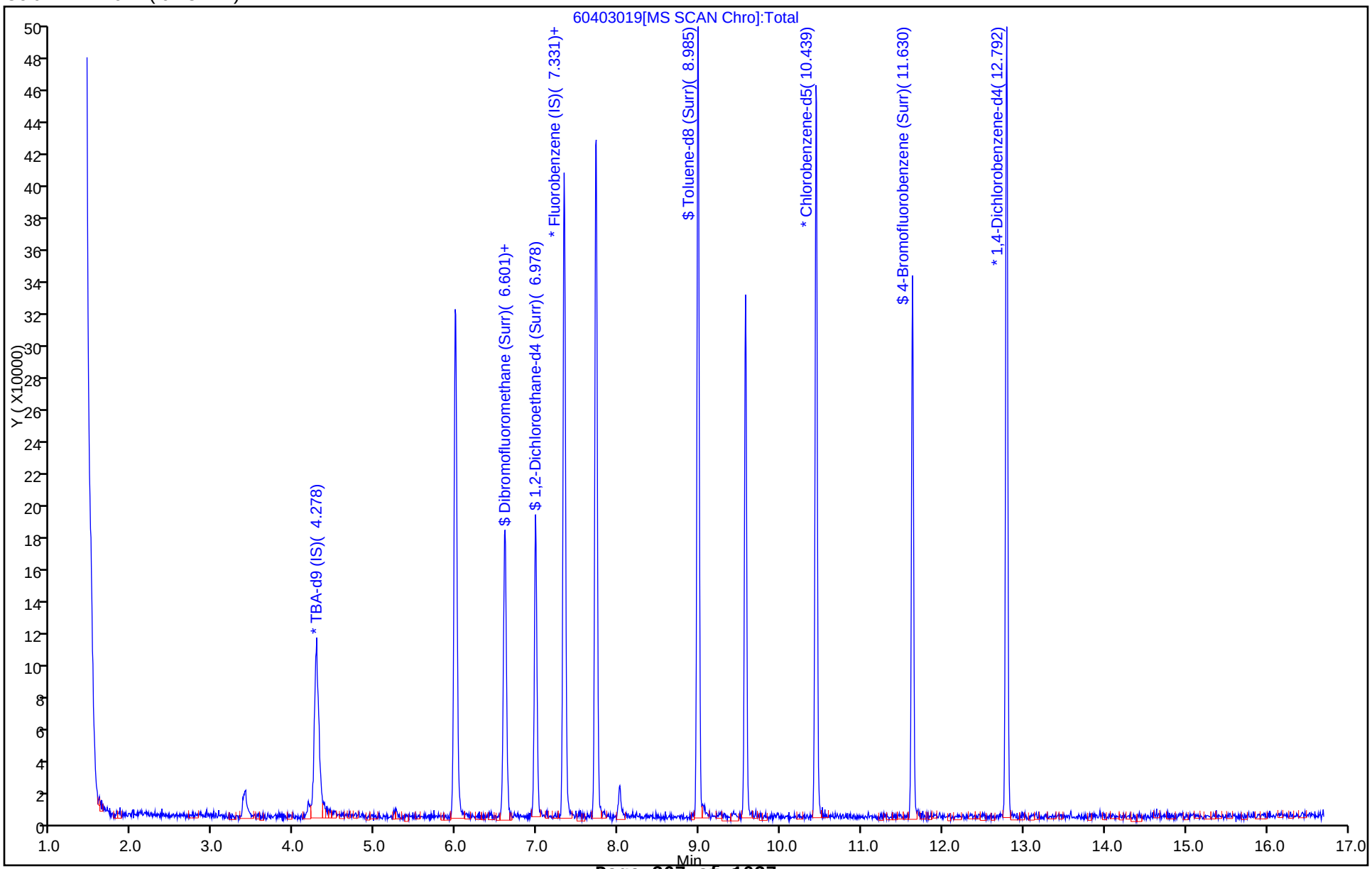
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D

Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9	Worklist Smp#:	19
Client ID:	HD-MW-51S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

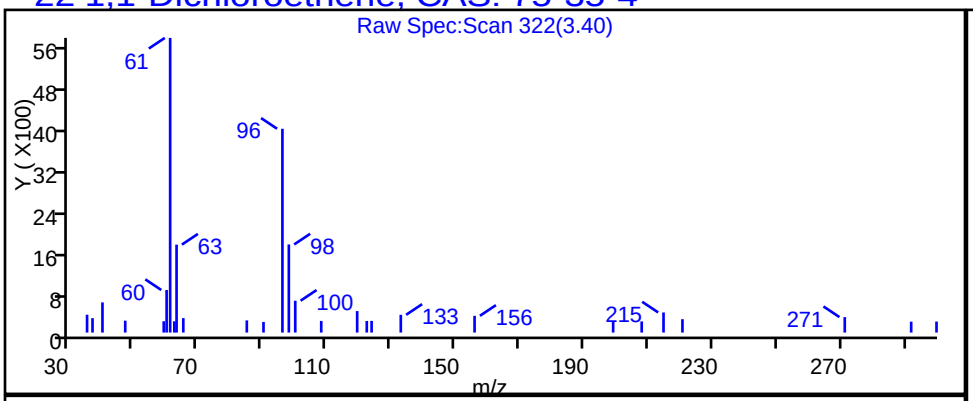


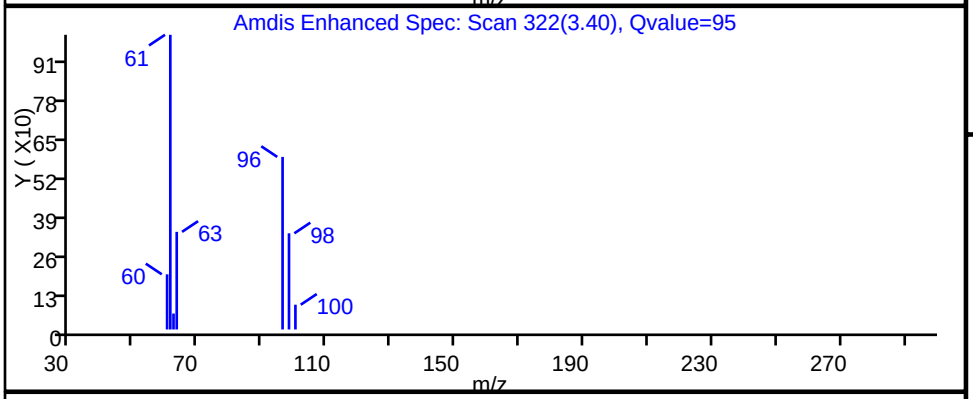
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

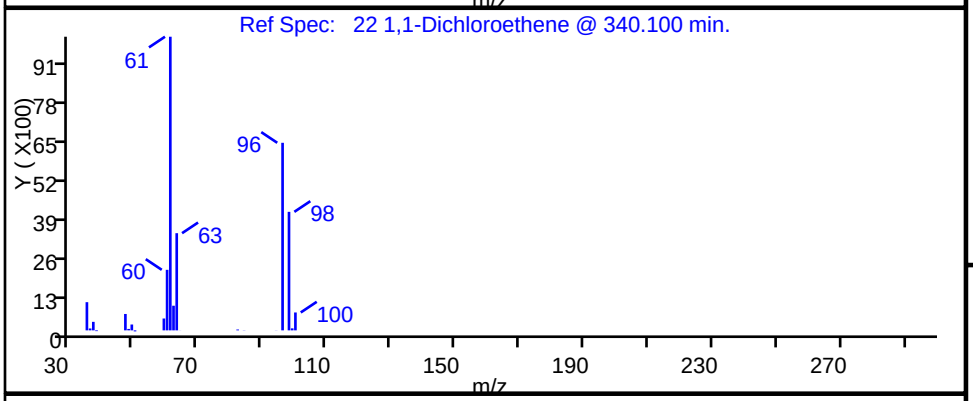
TestAmerica Pittsburgh

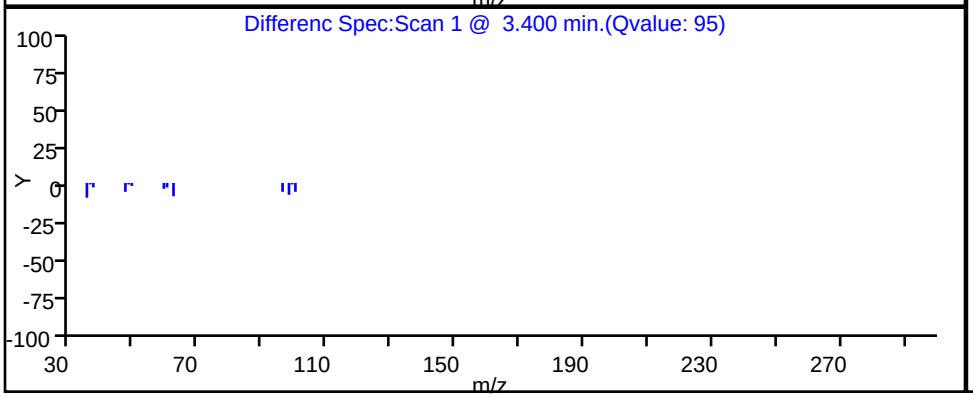
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D				
Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

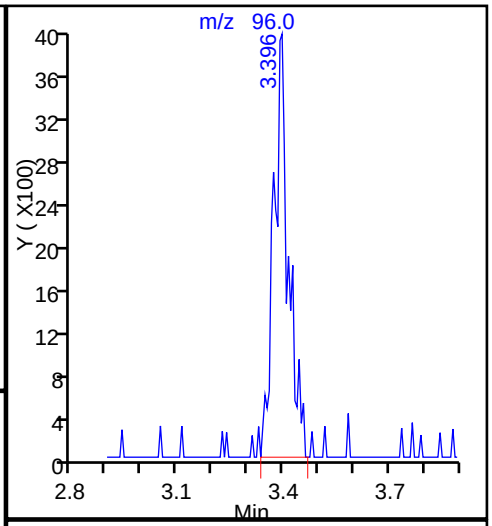
22 1,1-Dichloroethene, CAS: 75-35-4

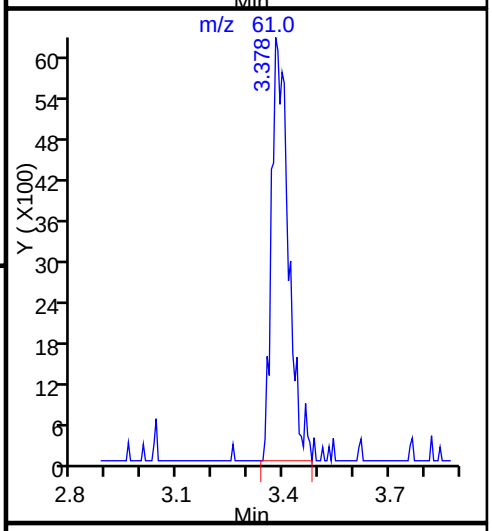


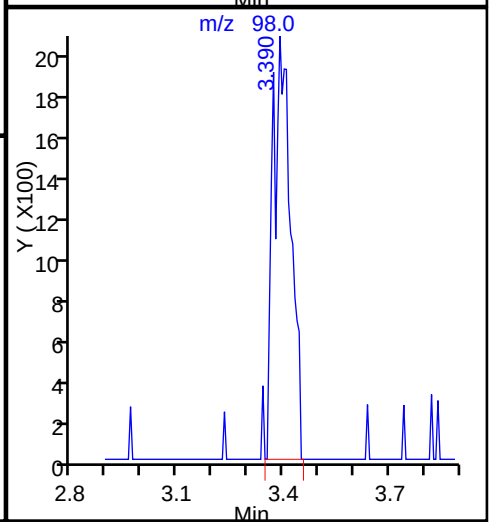












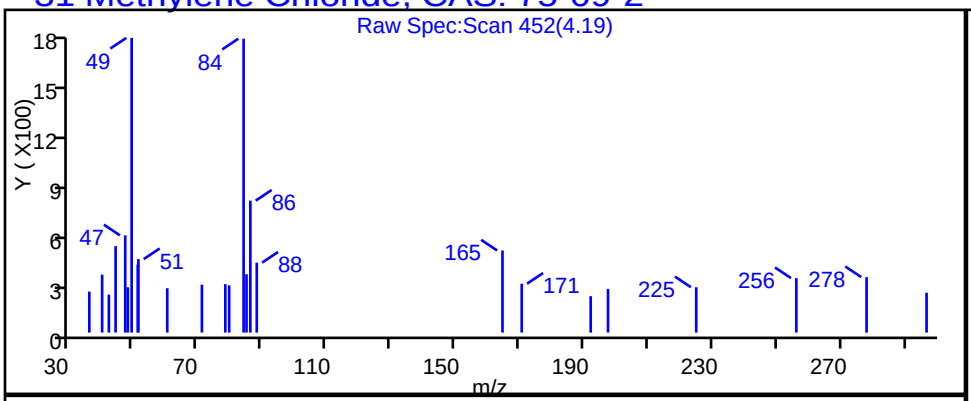
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

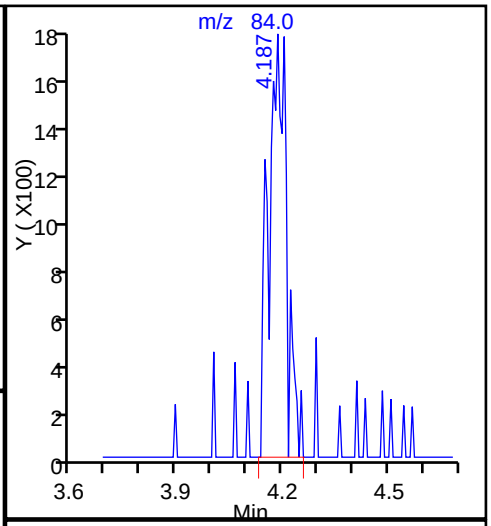
TestAmerica Pittsburgh

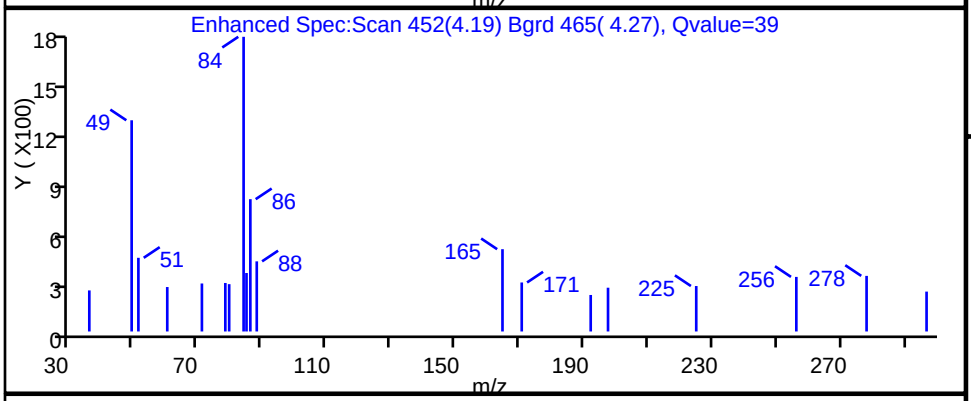
Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D

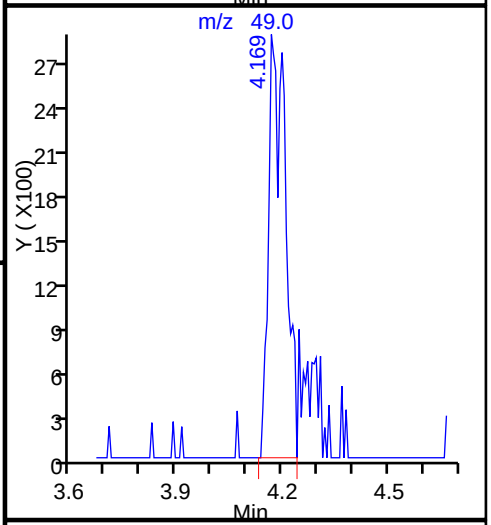
Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

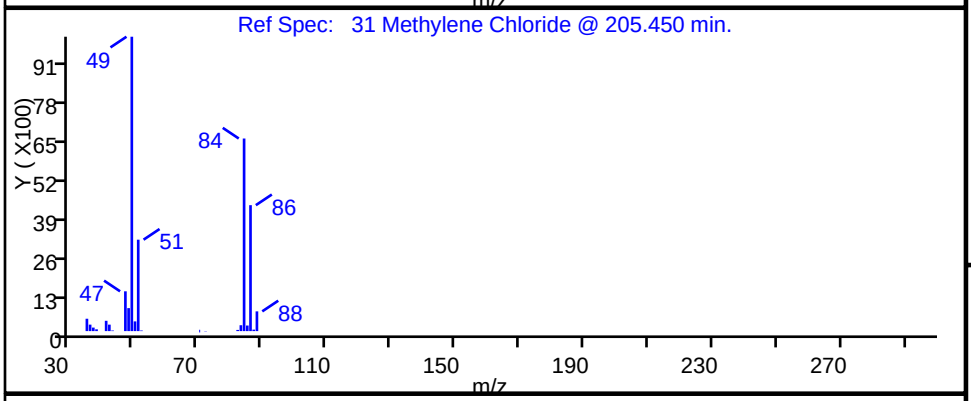
31 Methylene Chloride, CAS: 75-09-2

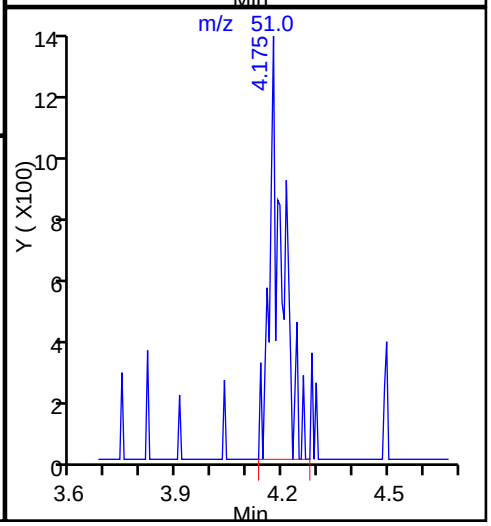


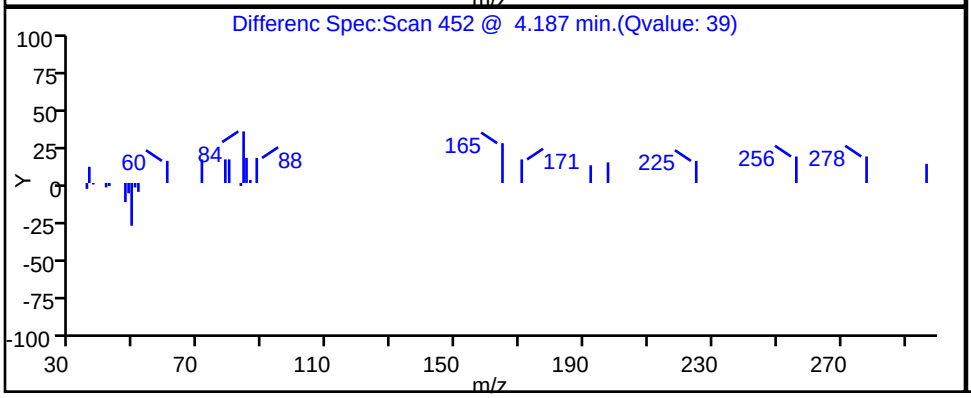












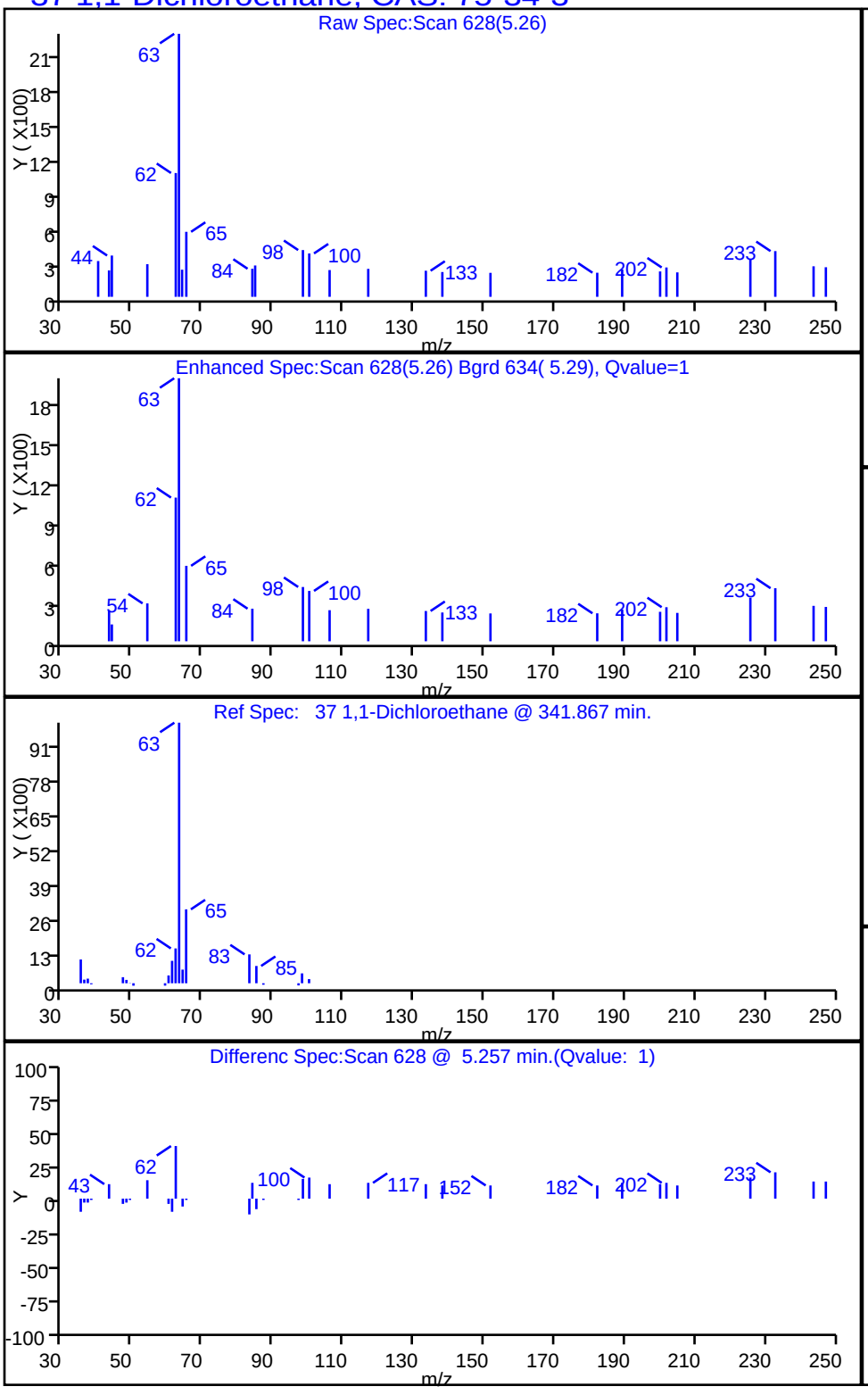
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

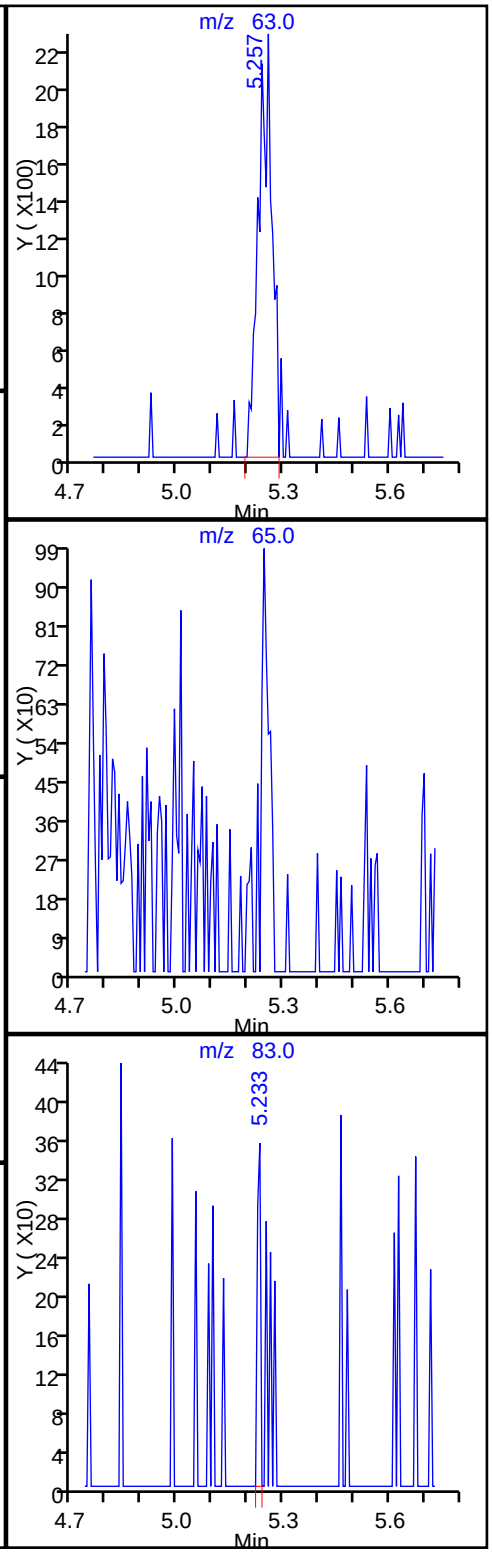
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D

Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



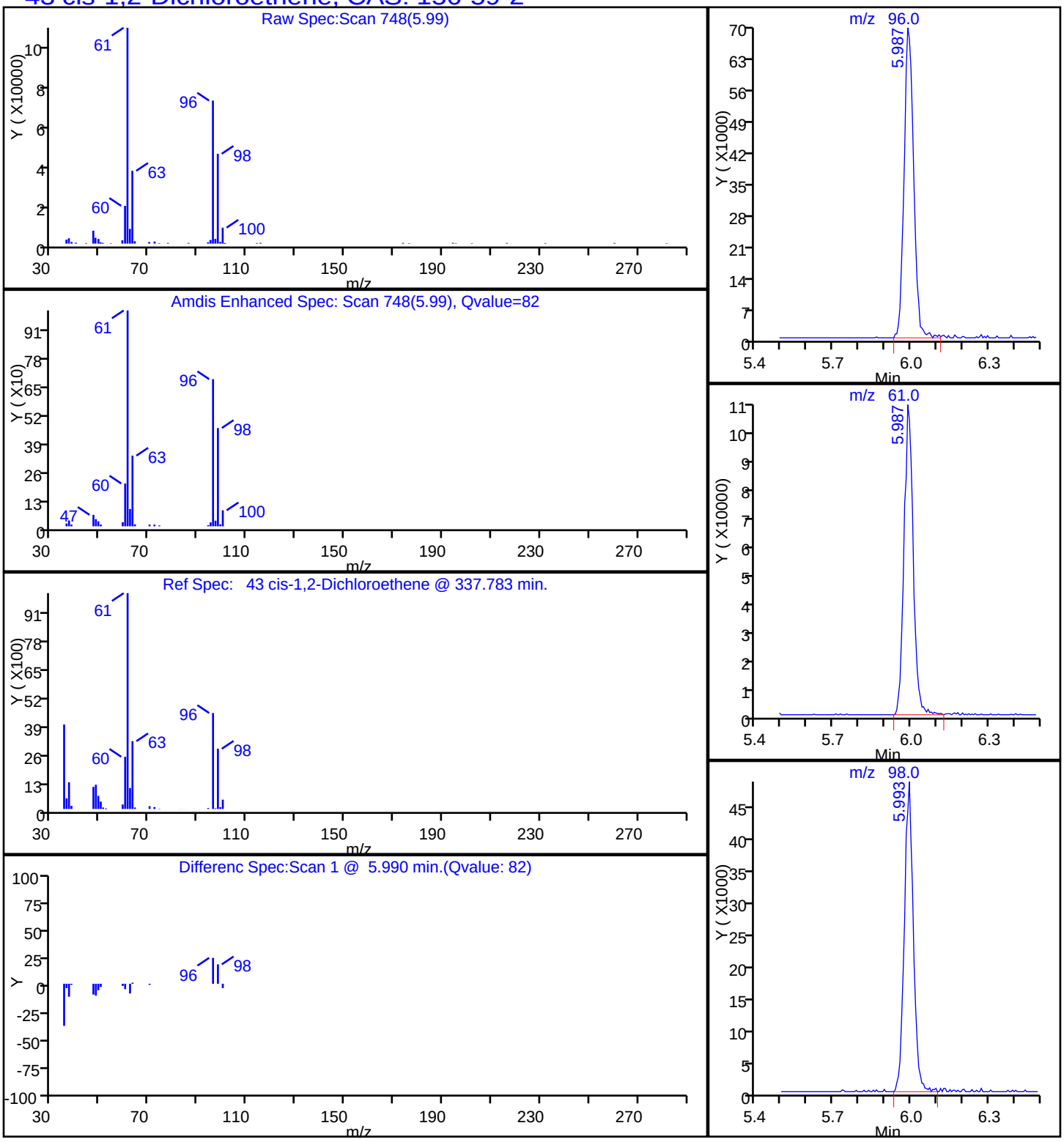


Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D				
Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

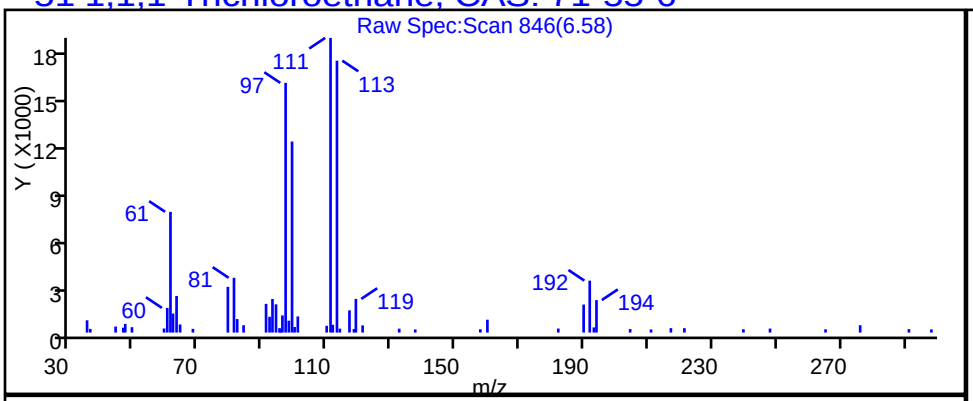


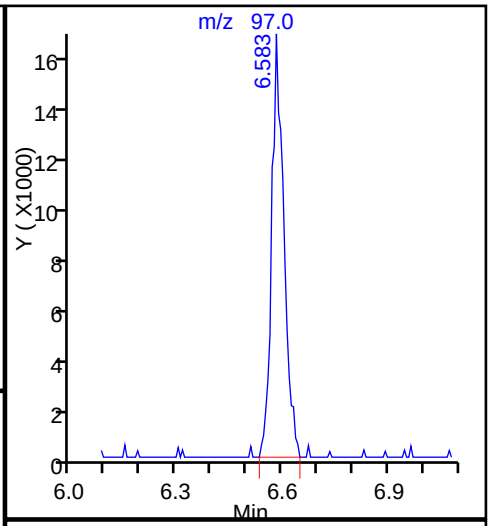
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

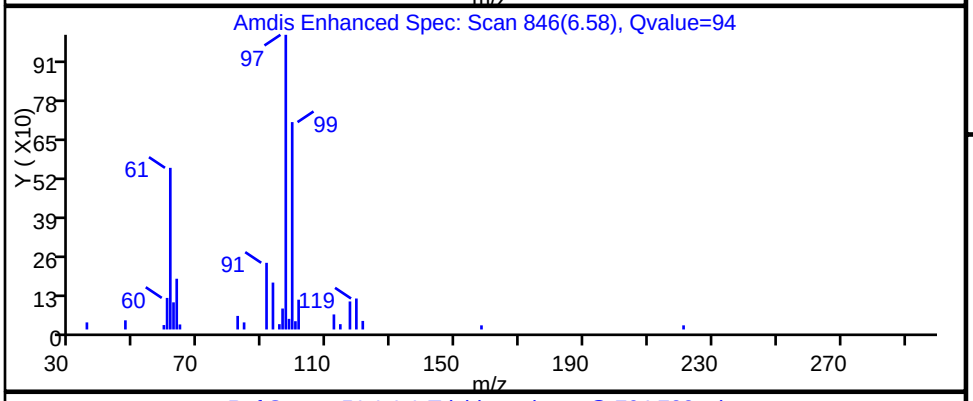
TestAmerica Pittsburgh

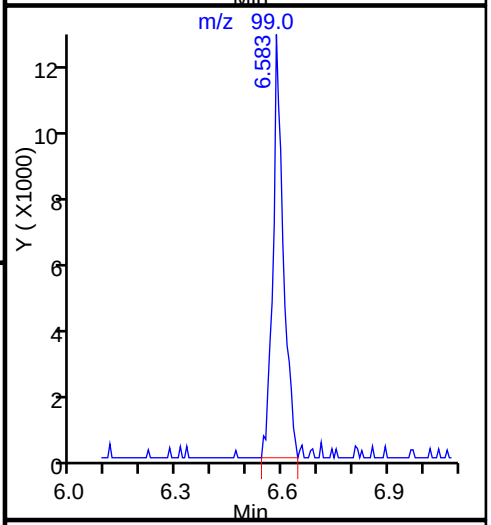
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D				
Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

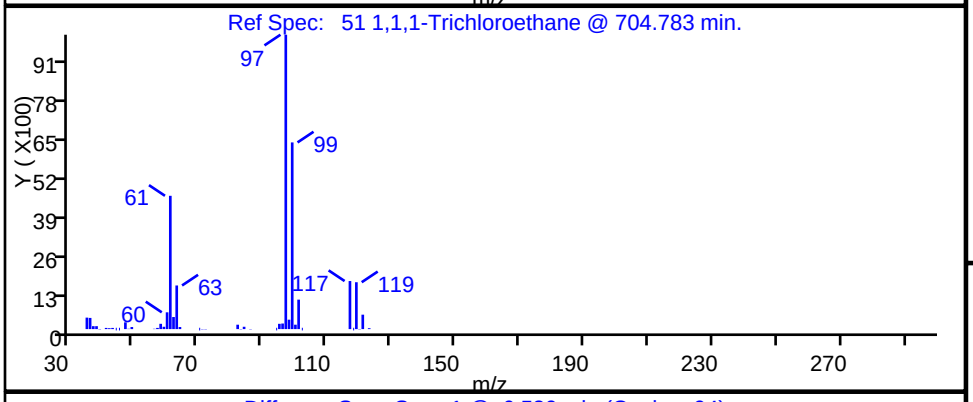
51 1,1,1-Trichloroethane, CAS: 71-55-6

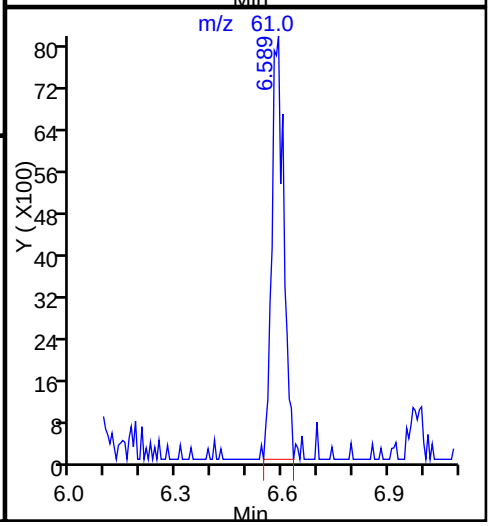


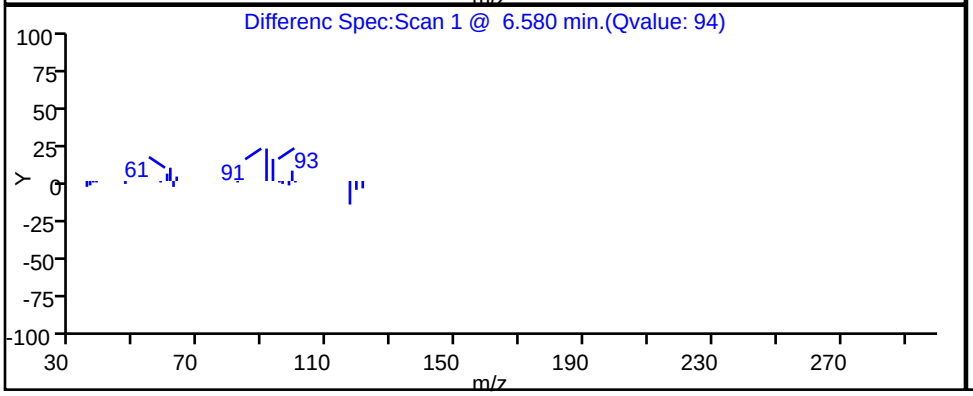










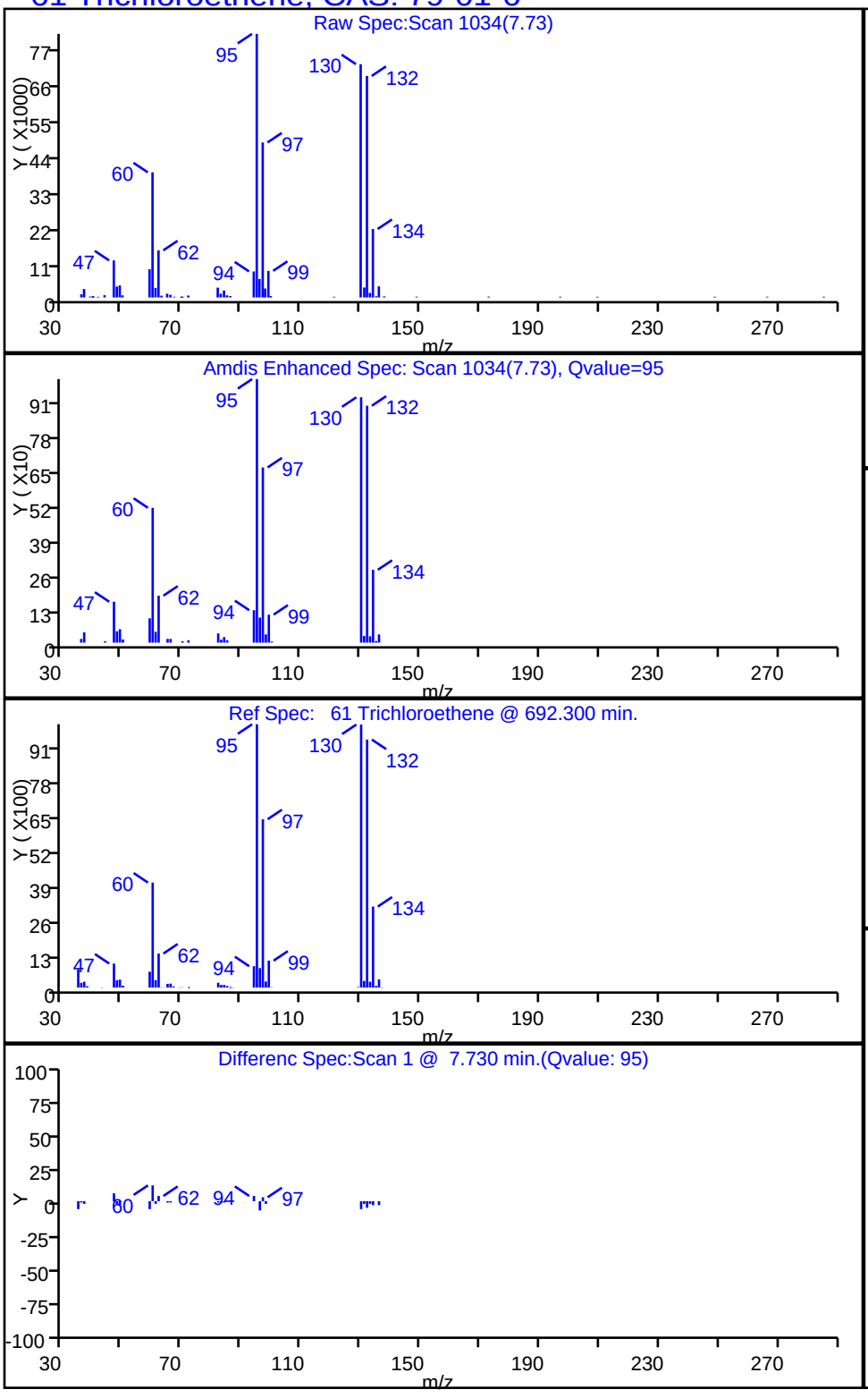


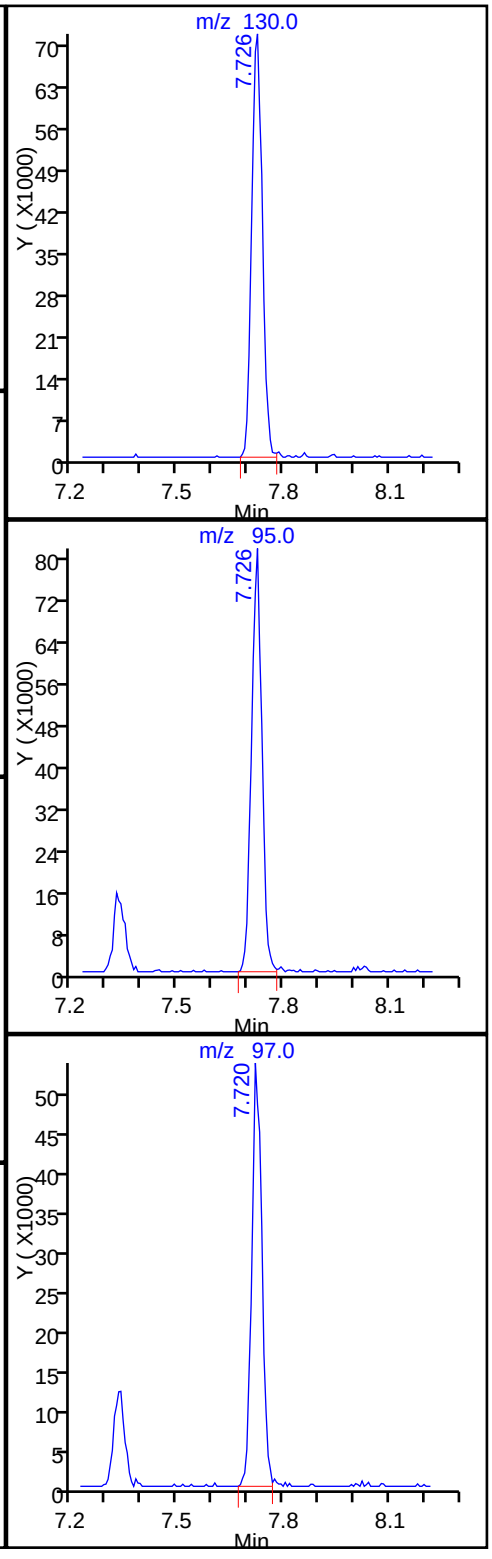
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D		
Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

61 Trichloroethene, CAS: 79-01-6





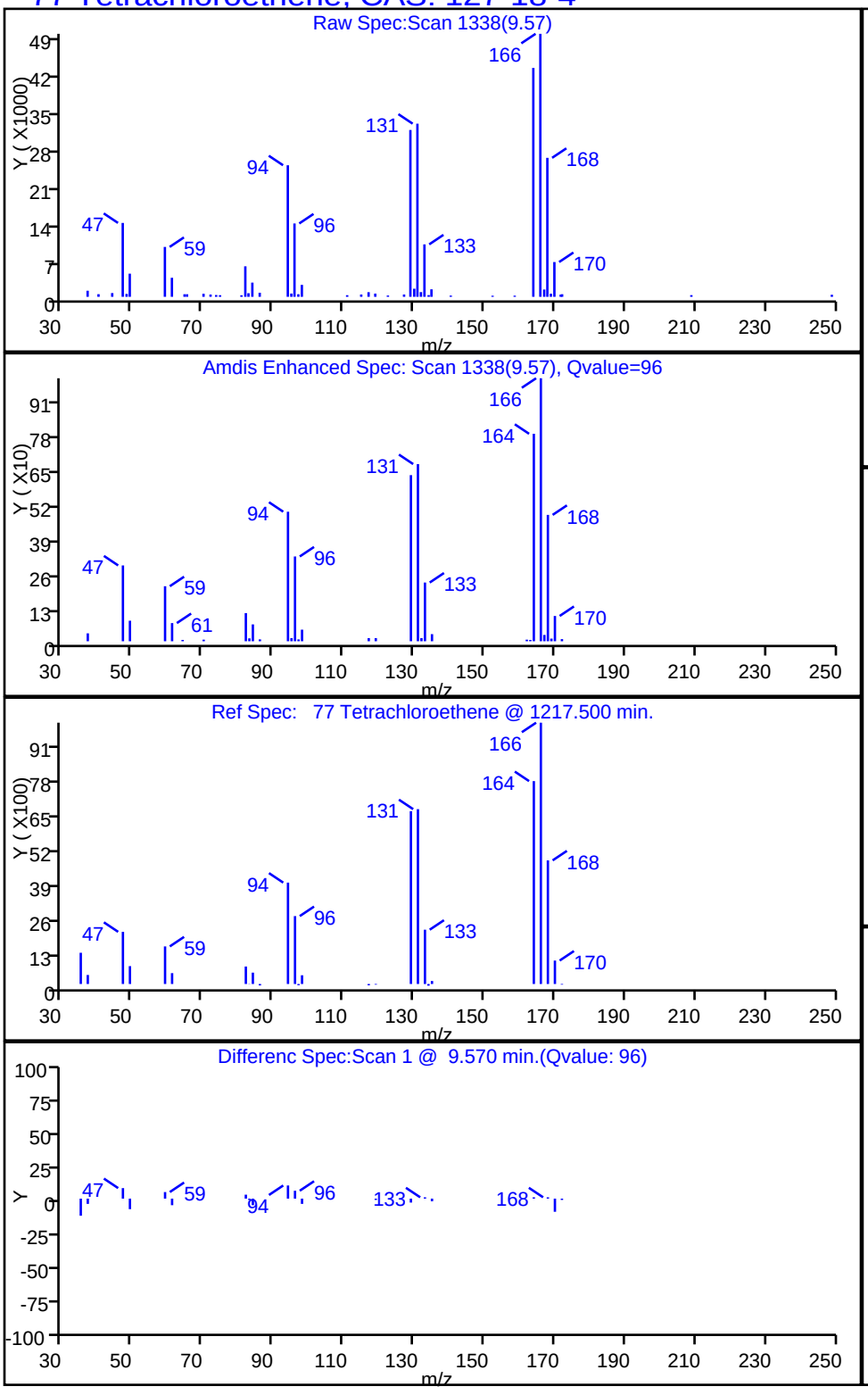
Report Date: 04-Apr-2015 10:57:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

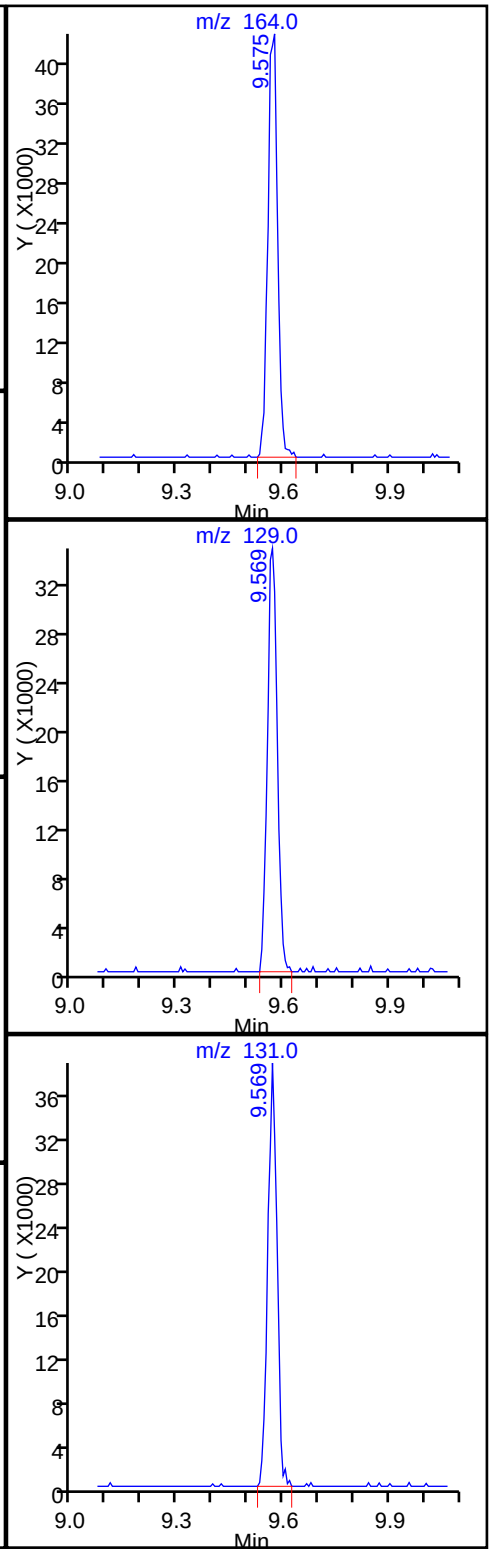
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D

Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

77 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

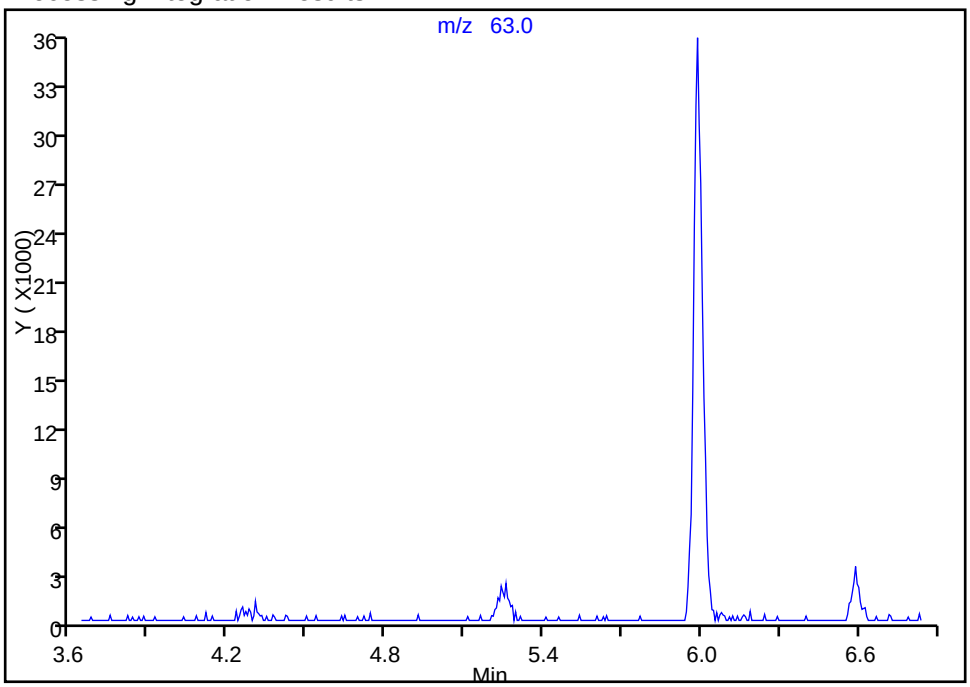
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403019.D				
Injection Date:	03-Apr-2015 20:38:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-C-9	Lab Sample ID:	180-42445-9		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

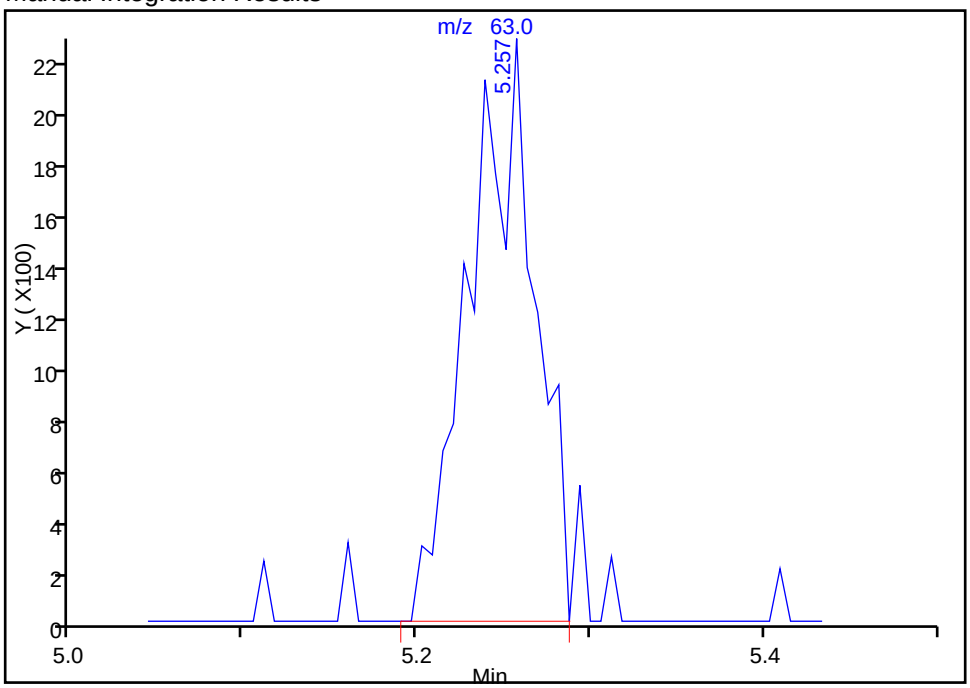
Not Detected
Expected RT: 5.24

Processing Integration Results



Manual Integration Results

RT: 5.26
Area: 5969
Amount: 1.160314
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:57:17
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 | Lab Sample ID: 180-42445-10

Matrix: Water | Lab File ID: 50404014.D

Analysis Method: 8260C | Date Collected: 03/26/2015 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/04/2015 17:17

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137519 | 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	0.92	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	0.42	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.7		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	11		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	13		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.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-42445-10

Matrix: Water Lab File ID: 50404014.D

Analysis Method: 8260C Date Collected: 03/26/2015 08:00

Sample wt/vol: 5(mL) Date Analyzed: 04/04/2015 17:17

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137519 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)	113		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D
Lims ID: 180-42445-C-10 Lab Sample ID: 180-42445-10
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 04-Apr-2015 17:17:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-C-10
Misc. Info.: 180-0006328-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 06-Apr-2015 08:06:40 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

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

First Level Reviewer: fergusond Date: 06-Apr-2015 08:06:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.309	4.301	0.008	97	117868	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.270	0.007	100	400832	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.360	0.002	99	90126	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.680	12.684	-0.004	93	128015	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.525	0.010	67	99207	54.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.902	0.004	98	135477	56.4	
$ 7 Toluene-d8 (Surr)	98	8.926	8.922	0.004	99	363137	50.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.526	0.004	99	126433	48.9	
12 Chloromethane	50	1.796	1.786	0.010	1	614	0.2589	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.407				ND	
22 1,1-Dichloroethene	96	3.408	3.386	0.022	58	10634	4.60	
24 Acetone	43		3.502				ND	
26 Carbon disulfide	76		3.666				ND	
31 Methylene Chloride	84		4.147				ND	
33 Acrylonitrile	53		4.560				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.597				ND	
37 1,1-Dichloroethane	63	5.197	5.175	0.022	52	9033	2.12	
45 cis-1,2-Dichloroethene	96	5.945	5.941	0.004	84	144827	57.5	
46 2-Butanone (MEK)	43		5.990				ND	
49 Chlorobromomethane	128		6.227				ND	
52 Chloroform	83		6.343				ND	
53 1,1,1-Trichloroethane	97	6.541	6.531	0.010	67	33571	13.6	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.951				ND	
59 1,2-Dichloroethane	62		6.988				ND	
64 Trichloroethene	130	7.667	7.669	-0.002	97	129446	54.4	
67 1,2-Dichloropropane	63		7.900				ND	
70 1,4-Dioxane	88		8.058				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.198				ND	
74 cis-1,3-Dichloropropene	75		8.654				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91		8.989				ND	
77 trans-1,3-Dichloropropene	75		9.220				ND	
79 1,1,2-Trichloroethane	97		9.397				ND	
80 Tetrachloroethene	164	9.534	9.537	-0.003	97	114477	63.4	
82 2-Hexanone	43		9.652				ND	
84 Chlorodibromomethane	129		9.786				ND	
85 Ethylene Dibromide	107		9.902				ND	
87 Chlorobenzene	112		10.388				ND	
89 1,1,1,2-Tetrachloroethane	131		10.473				ND	
90 Ethylbenzene	106		10.498				ND	
91 m-Xylene & p-Xylene	106		10.613				ND	
92 o-Xylene	106		11.009				ND	
93 Styrene	104		11.021				ND	
94 Bromoform	173		11.209				ND	
99 1,1,2,2-Tetrachloroethane	83		11.672				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

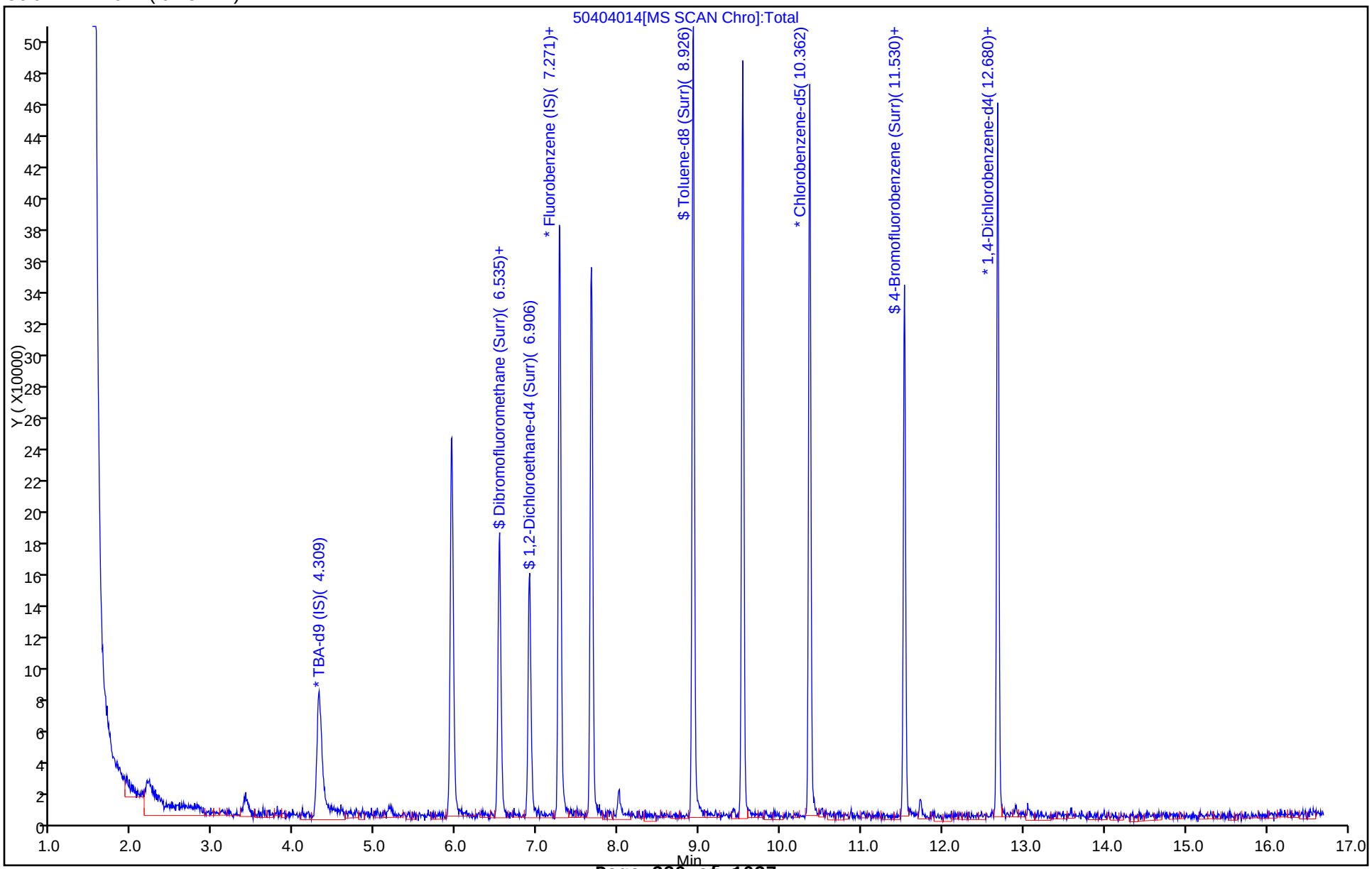
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D				
Injection Date:	04-Apr-2015 17:17:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-42445-C-10	Lab Sample ID:	180-42445-10	Worklist Smp#:	14
Client ID:	HD-QC2-0/1-1				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

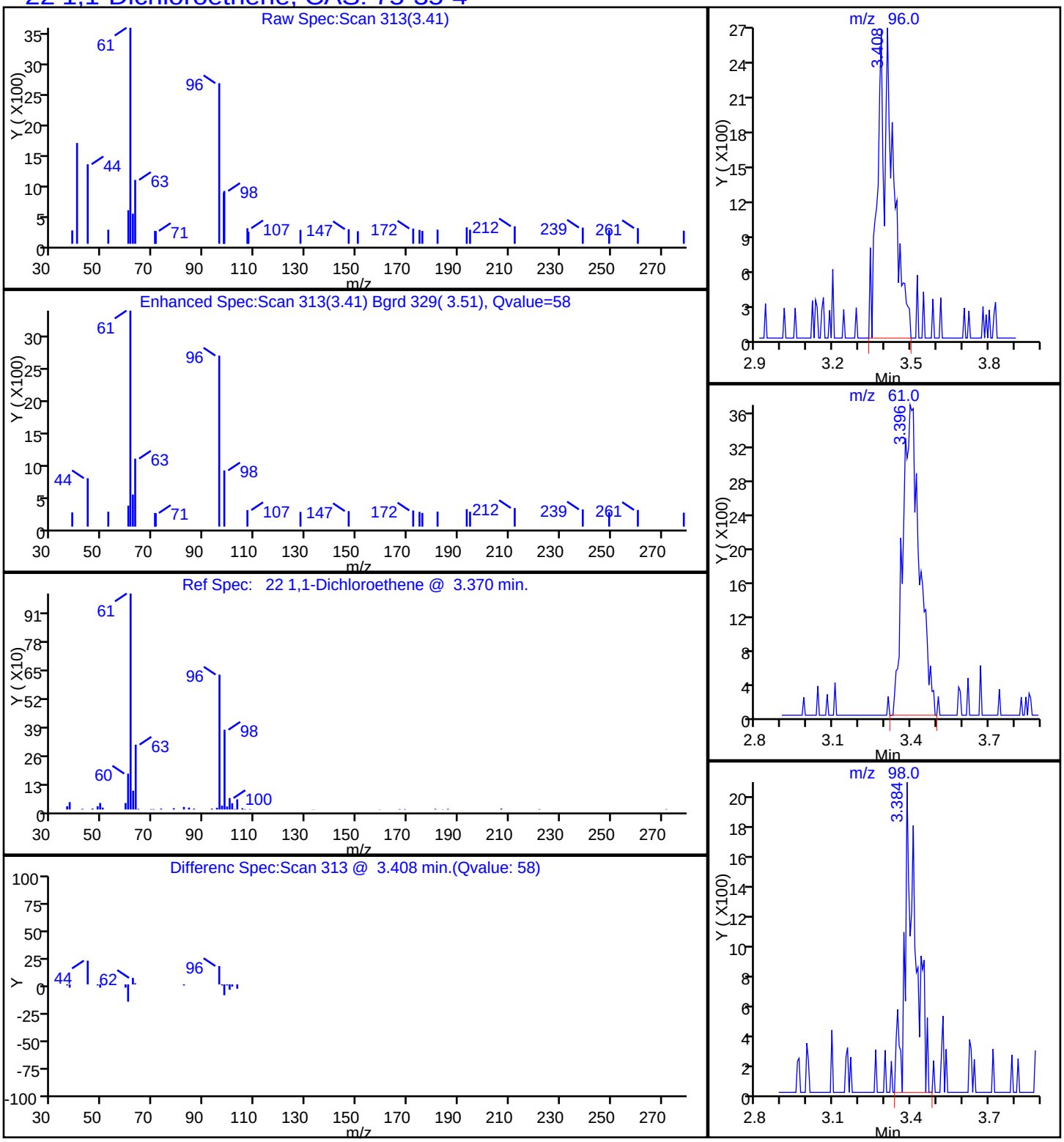


Report Date: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D				
Injection Date:	04-Apr-2015 17:17:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-C-10	Lab Sample ID:	180-42445-10		
Client ID:	HD-QC2-0/1-1				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
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



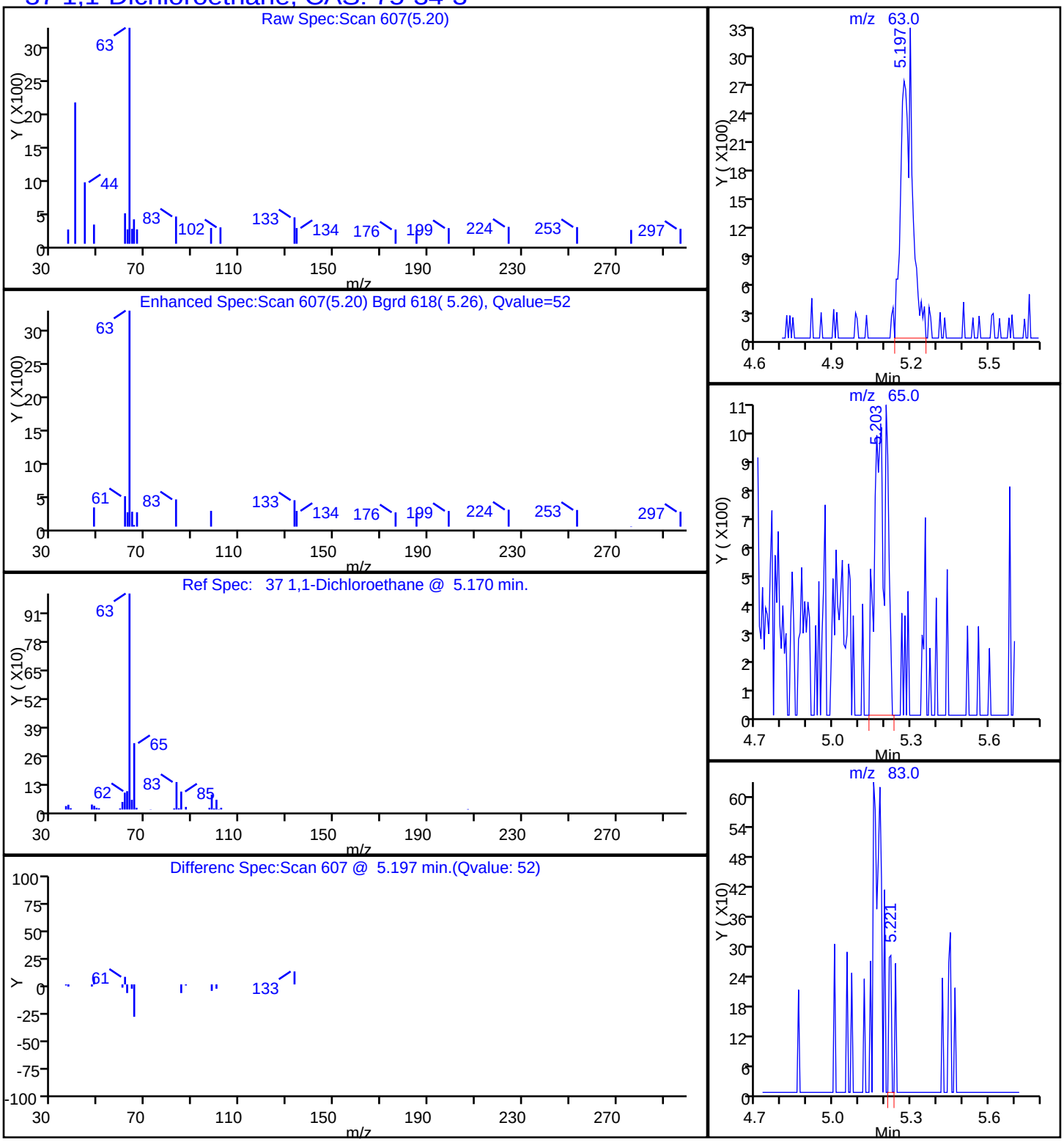
Report Date: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D

Injection Date:	04-Apr-2015 17:17:30	Instrument ID:	CHHP5		
Lims ID:	180-42445-C-10	Lab Sample ID:	180-42445-10		
Client ID:	HD-QC2-0/1-1				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	14
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: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D

Injection Date: 04-Apr-2015 17:17:30 Instrument ID: CHHP5

Lims ID: 180-42445-C-10 Lab Sample ID: 180-42445-10

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

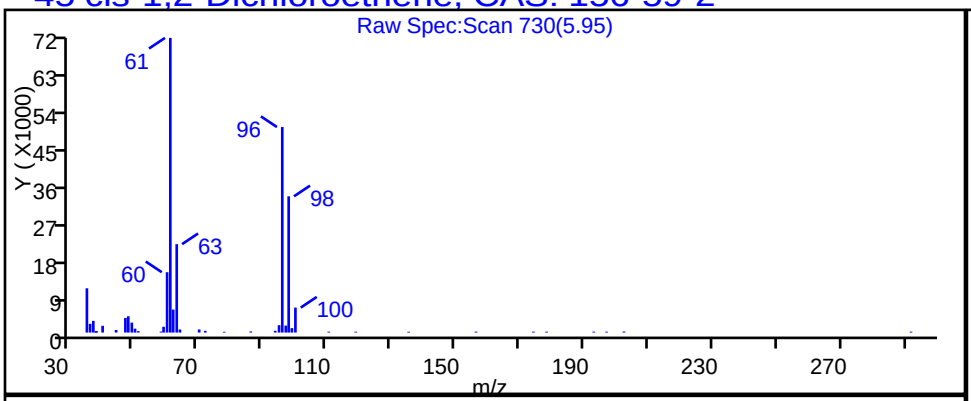
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14

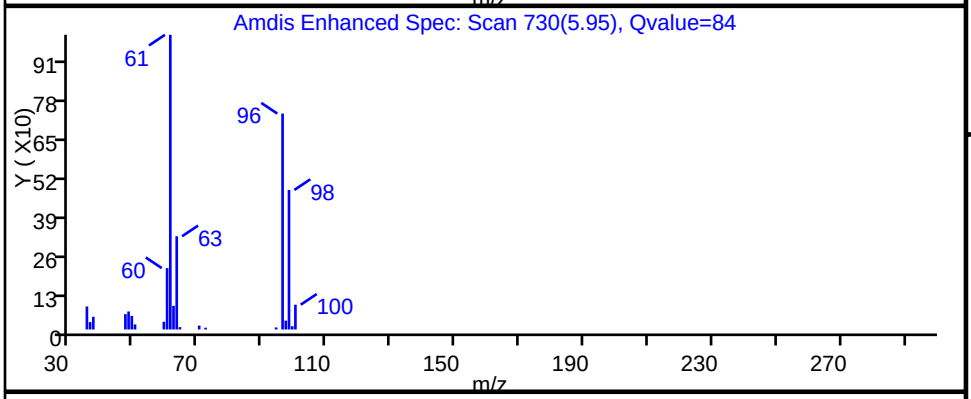
Purge Vol: 5.000 mL Dil. Factor: 1.0000

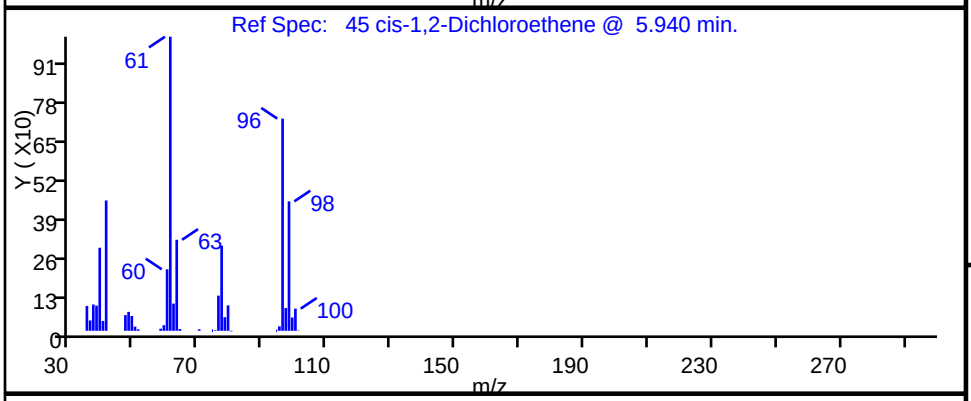
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

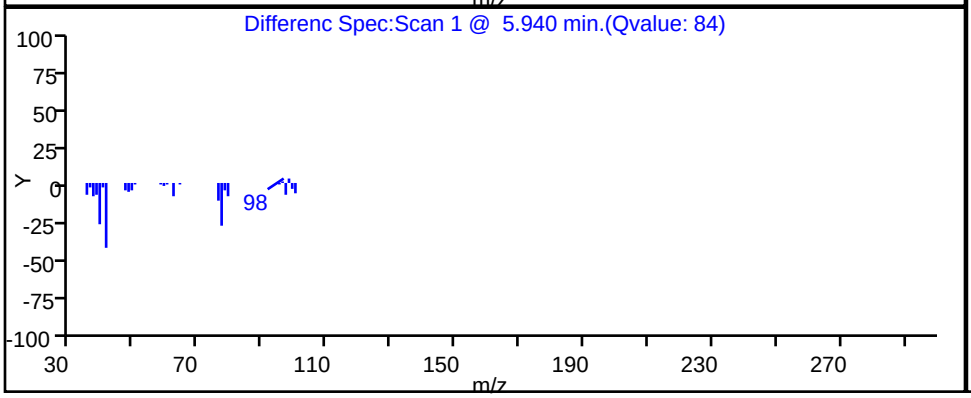
Column: DB-624 (0.18 mm) Detector MS SCAN

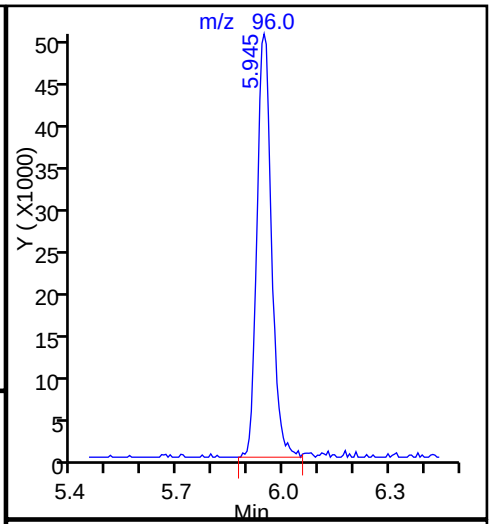
45 cis-1,2-Dichloroethene, CAS: 156-59-2

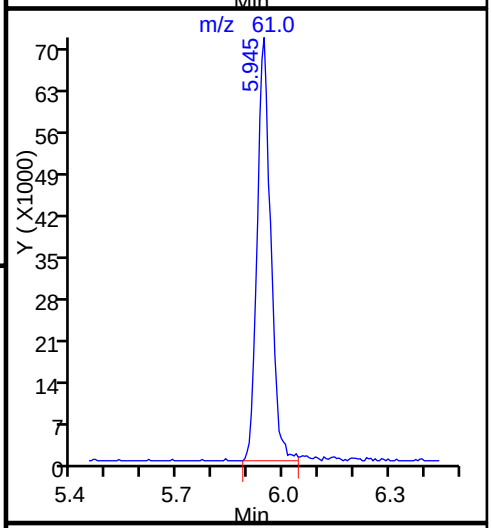


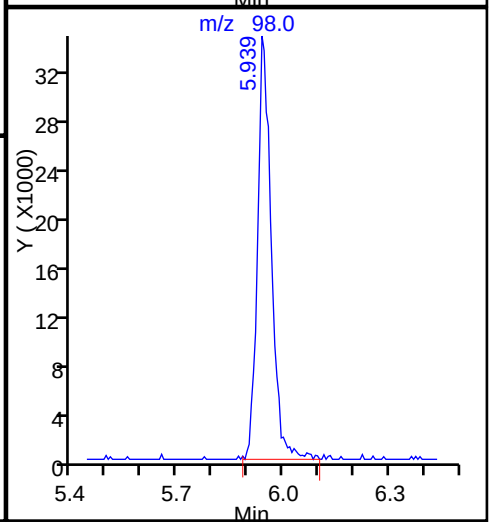










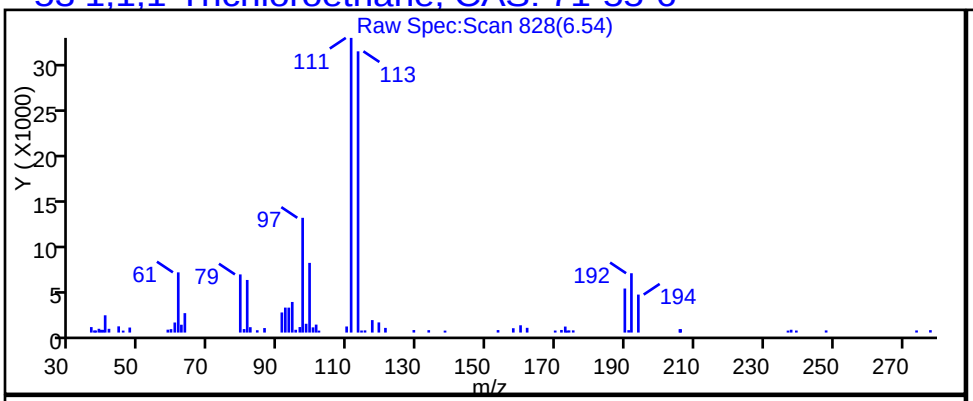


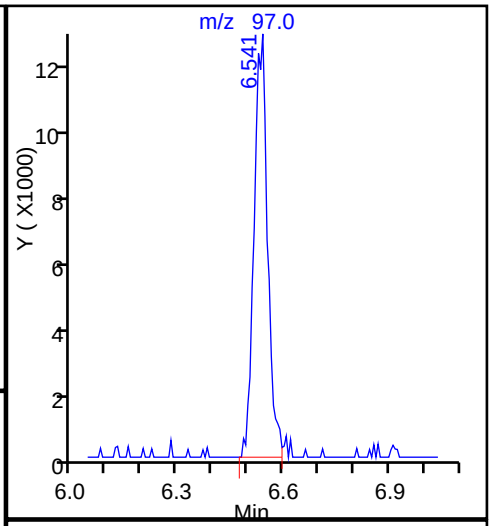
Report Date: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

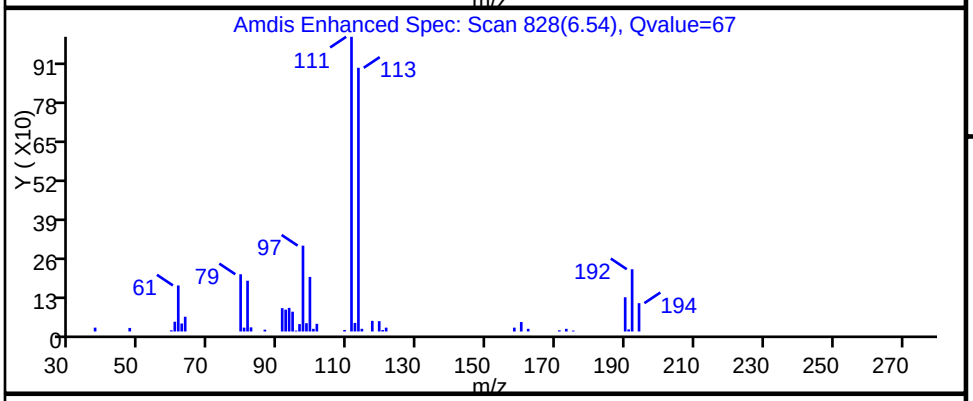
TestAmerica Pittsburgh

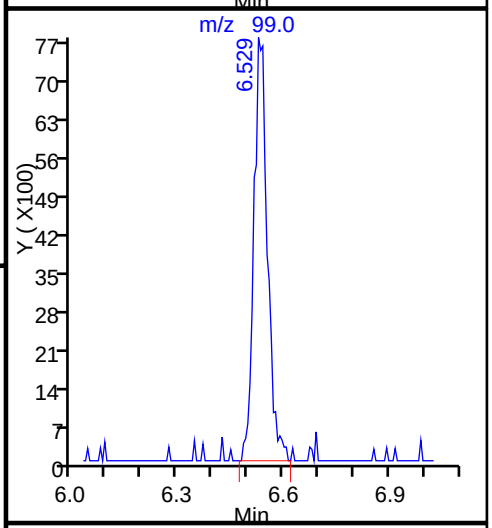
Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D		
Injection Date:	04-Apr-2015 17:17:30	Instrument ID:	CHHP5
Lims ID:	180-42445-C-10	Lab Sample ID:	180-42445-10
Client ID:	HD-QC2-0/1-1		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

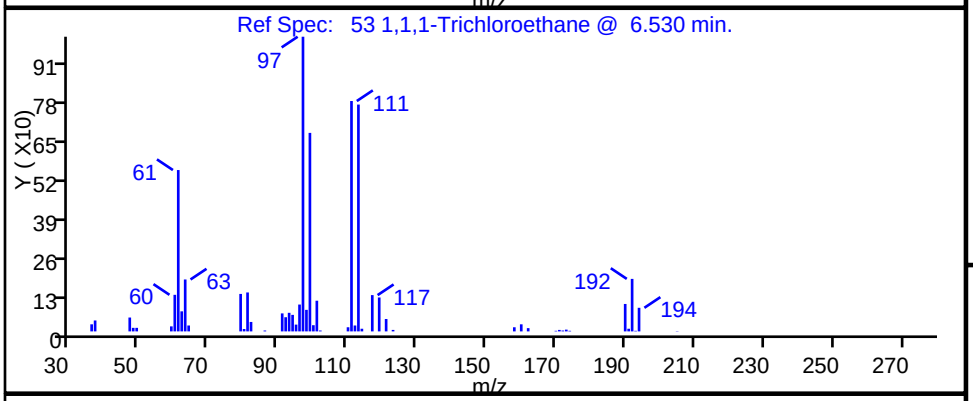
53 1,1,1-Trichloroethane, CAS: 71-55-6

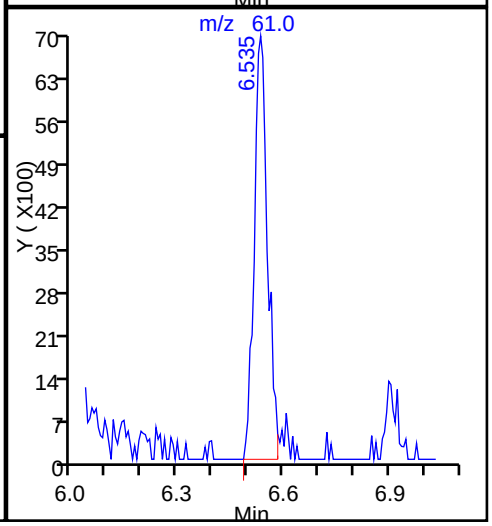


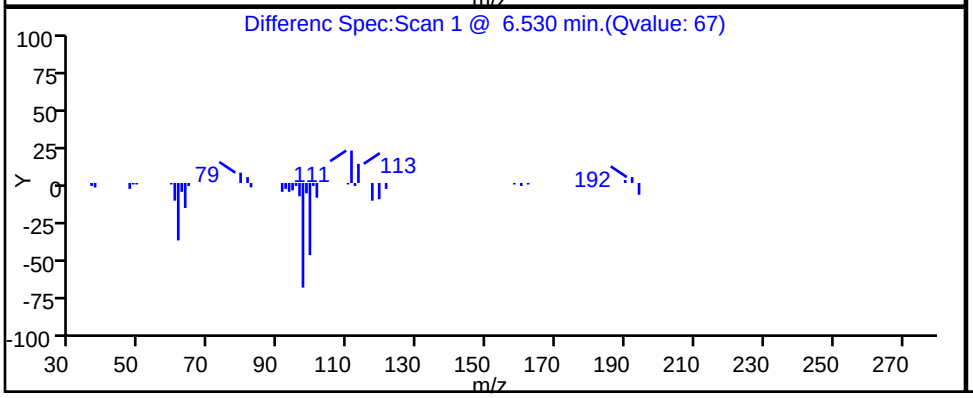










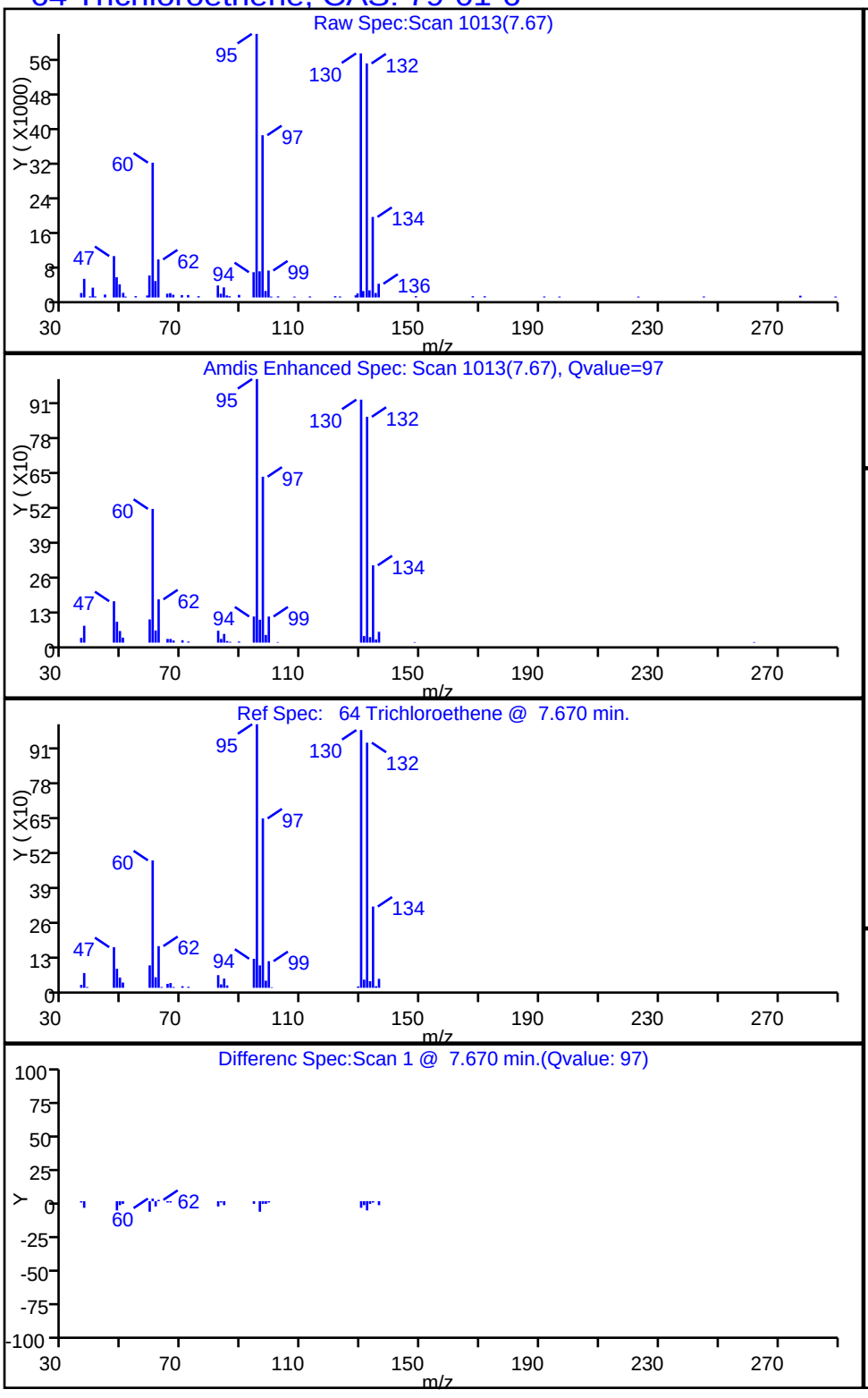


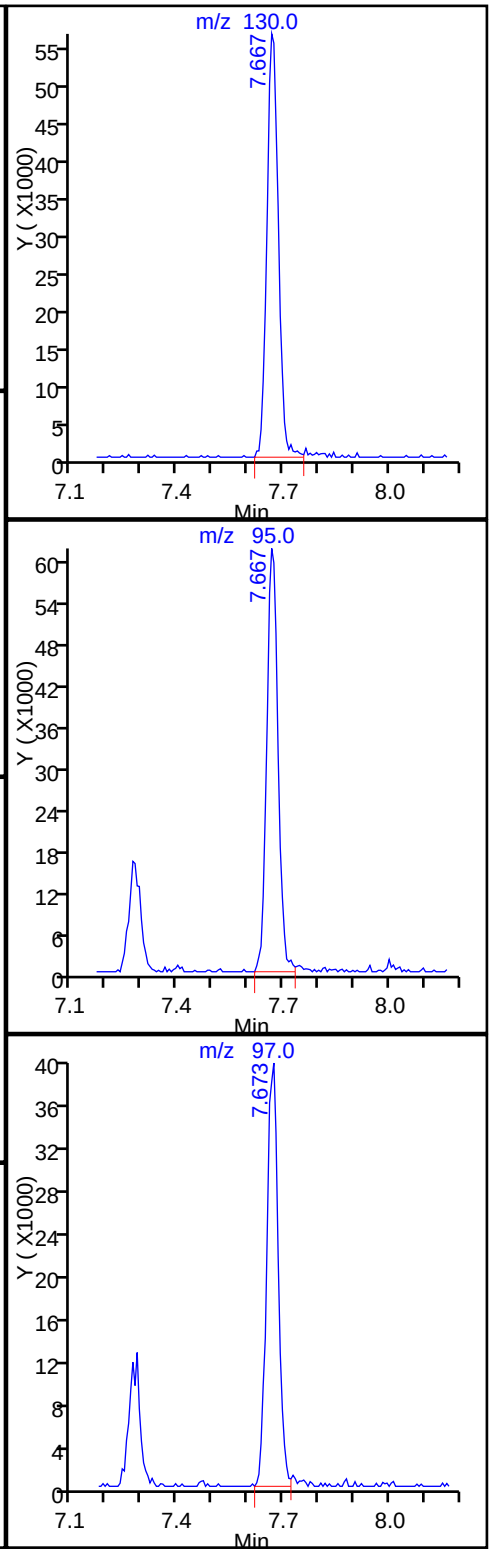
Report Date: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D		
Injection Date:	04-Apr-2015 17:17:30	Instrument ID:	CHHP5
Lims ID:	180-42445-C-10	Lab Sample ID:	180-42445-10
Client ID:	HD-QC2-0/1-1		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
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





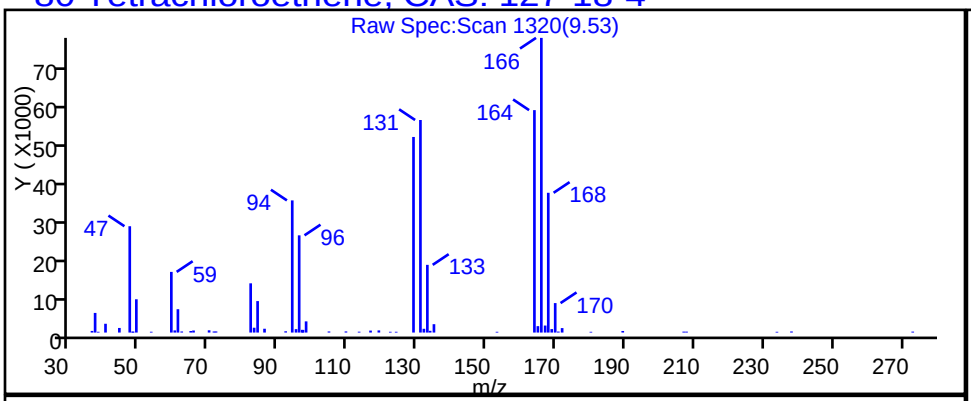
Report Date: 06-Apr-2015 08:06:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

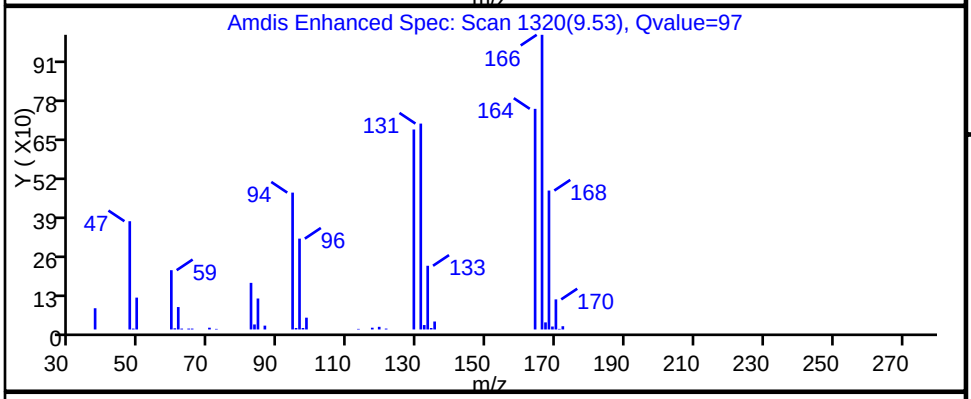
TestAmerica Pittsburgh

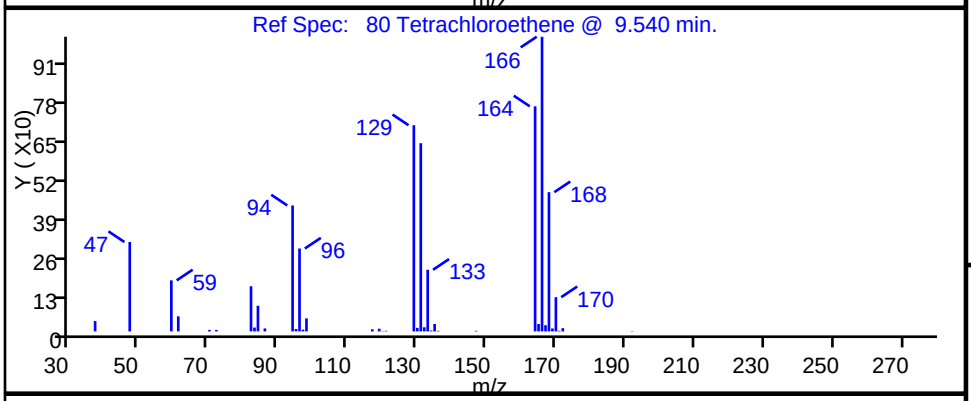
Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404014.D

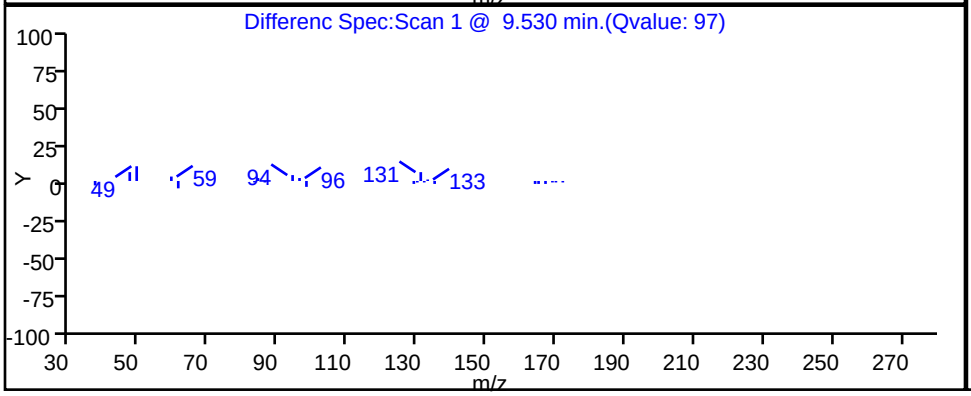
Injection Date:	04-Apr-2015 17:17:30	Instrument ID:	CHHP5
Lims ID:	180-42445-C-10	Lab Sample ID:	180-42445-10
Client ID:	HD-QC2-0/1-1		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

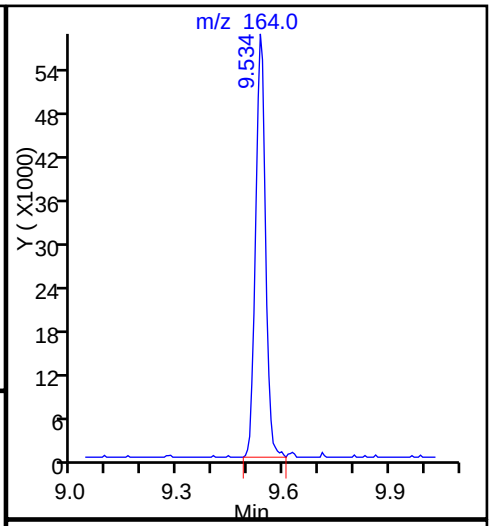
80 Tetrachloroethene, CAS: 127-18-4

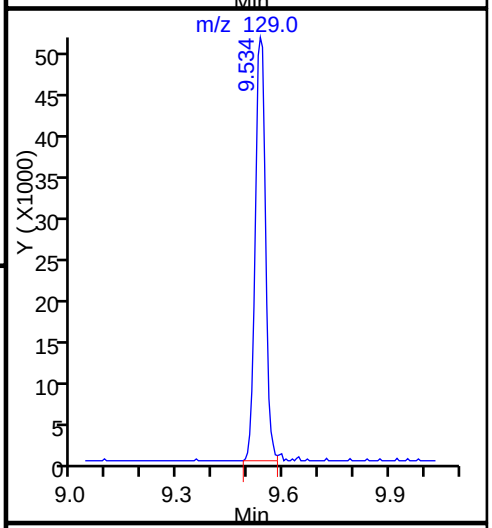


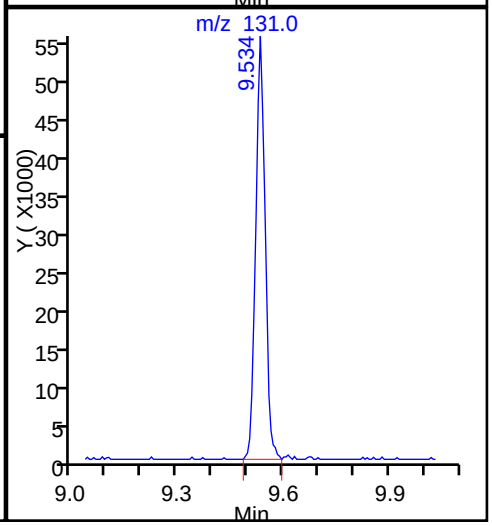












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC1-0/1-3 Lab Sample ID: 180-42445-11

Matrix: Water Lab File ID: 60403021.D

Analysis Method: 8260C Date Collected: 03/26/2015 15:05

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 21:25

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.: 137472 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	0.69	J	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.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC1-0/1-3 Lab Sample ID: 180-42445-11

Matrix: Water Lab File ID: 60403021.D

Analysis Method: 8260C Date Collected: 03/26/2015 15:05

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 21:25

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.: 137472 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)	129		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	119		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403021.D
Lims ID: 180-42445-E-11 Lab Sample ID: 180-42445-11
Client ID: HD-QC1-0/1-3
Sample Type: Client
Inject. Date: 03-Apr-2015 21:25:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-E-11
Misc. Info.: 180-0006320-021
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:59:47 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:59:47

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.289	4.279	0.010	89	177718	1000.0	
*	2 Fluorobenzene (IS)	96	7.336	7.332	0.004	98	381543	50.0	
*	3 Chlorobenzene-d5	119	10.437	10.439	-0.002	89	78122	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	98	136095	50.0	
$	5 Dibromofluoromethane (Surr	113	6.600	6.602	-0.002	93	102371	59.3	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.977	6.979	-0.002	71	159129	64.4	
$	7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	94	342892	55.7	
$	8 4-Bromofluorobenzene (Surr	95	11.629	11.625	0.004	84	131443	50.2	
	12 Chloromethane	50		1.767				ND	
	13 Vinyl chloride	62		1.907				ND	
	15 Bromomethane	94		2.260				ND	
	16 Chloroethane	64		2.412				ND	
	22 1,1-Dichloroethene	96		3.391				ND	
	24 Acetone	43	3.474	3.464	0.010	60	4318	6.40	M
	26 Carbon disulfide	76		3.689				ND	
	31 Methylene Chloride	84		4.181				ND	
	33 Acrylonitrile	53		4.546				ND	
	35 Methyl tert-butyl ether	73		4.607				ND	
	34 trans-1,2-Dichloroethene	96		4.619				ND	
	37 1,1-Dichloroethane	63		5.240				ND	
	44 2-Butanone (MEK)	43		5.988				ND	
	43 cis-1,2-Dichloroethene	96		5.988				ND	
	48 Chlorobromomethane	128		6.273				ND	
	50 Chloroform	83		6.413				ND	
	51 1,1,1-Trichloroethane	97		6.584				ND	
	53 Carbon tetrachloride	117		6.760				ND	
	56 Benzene	78		6.985				ND	
	57 1,2-Dichloroethane	62		7.058				ND	
	61 Trichloroethene	130		7.721				ND	
	64 1,2-Dichloropropane	63		7.994				ND	
	65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.057	9.053	0.004	98	27664	3.46	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164		9.569				ND	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106		10.567				ND	
88 m-Xylene & p-Xylene	106	10.693	10.701	-0.008	47	3434	0.9303	M
89 o-Xylene	106	11.082	11.084	-0.002	17	2163	0.5701	M
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106				0		1.50	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

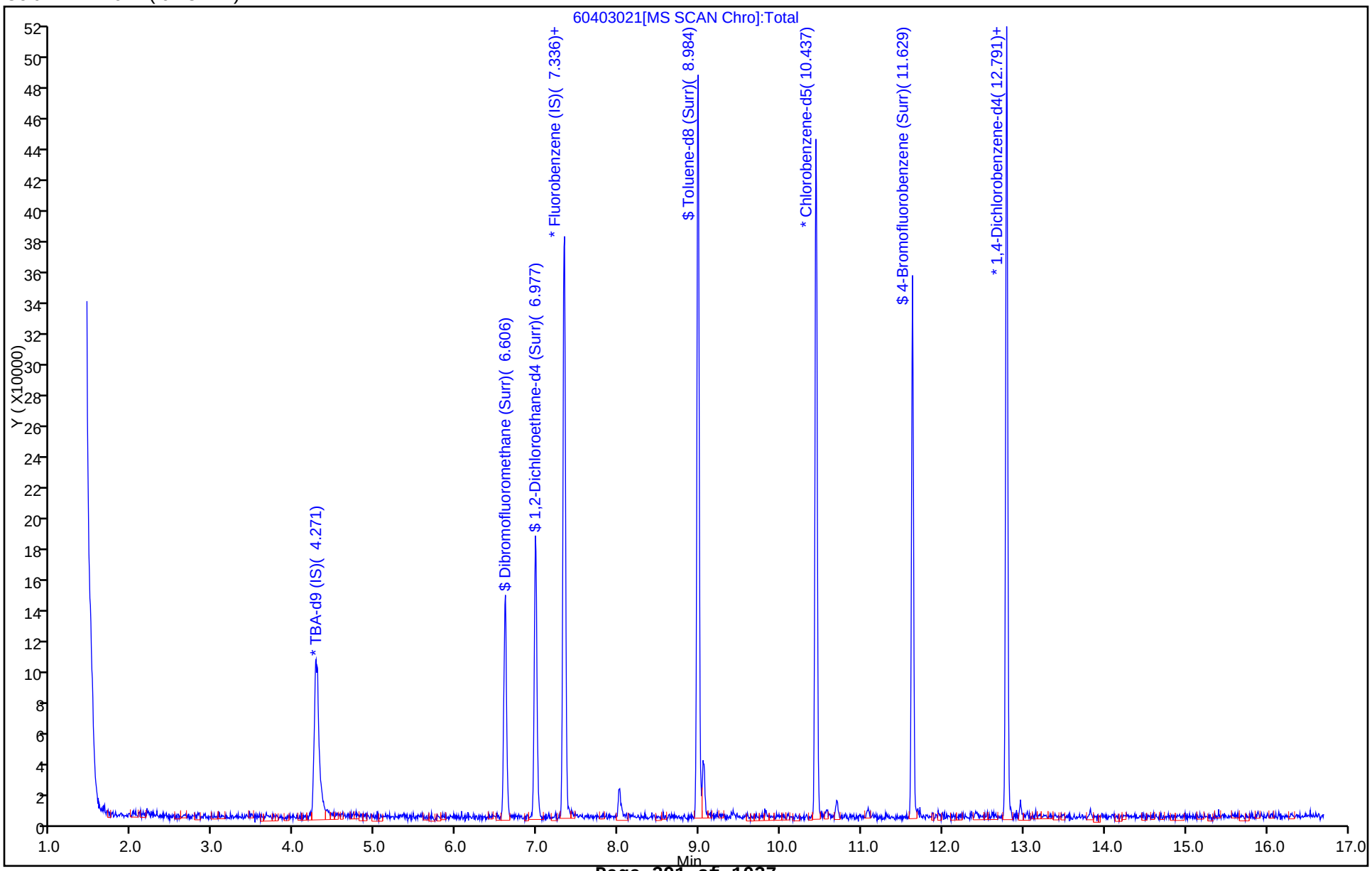
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 04-Apr-2015 10:59:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403021.D				
Injection Date:	03-Apr-2015 21:25:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-E-11	Lab Sample ID:	180-42445-11	Worklist Smp#:	21
Client ID:	HD-QC1-0/1-3				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

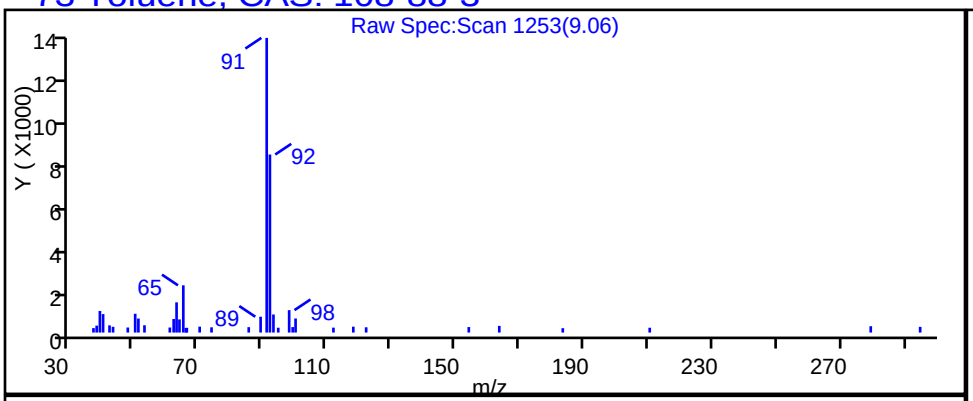


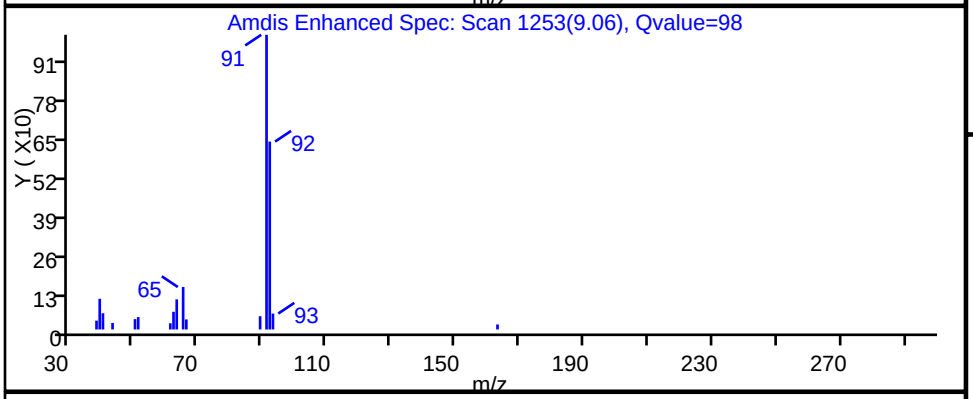
Report Date: 04-Apr-2015 10:59:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

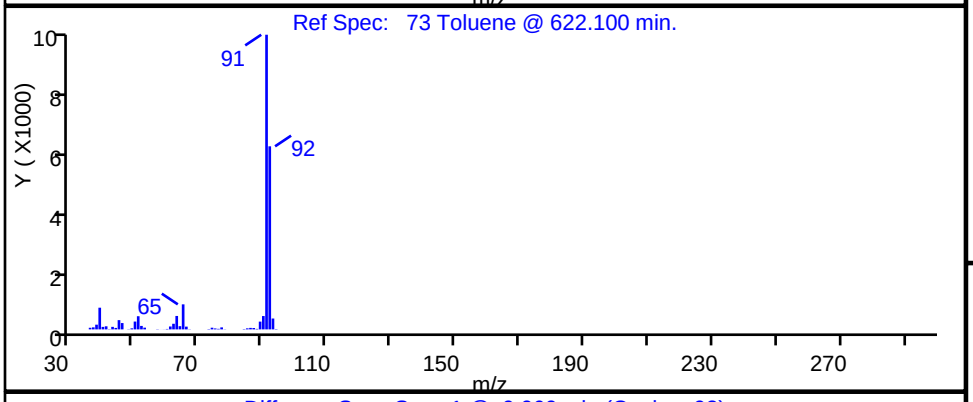
TestAmerica Pittsburgh

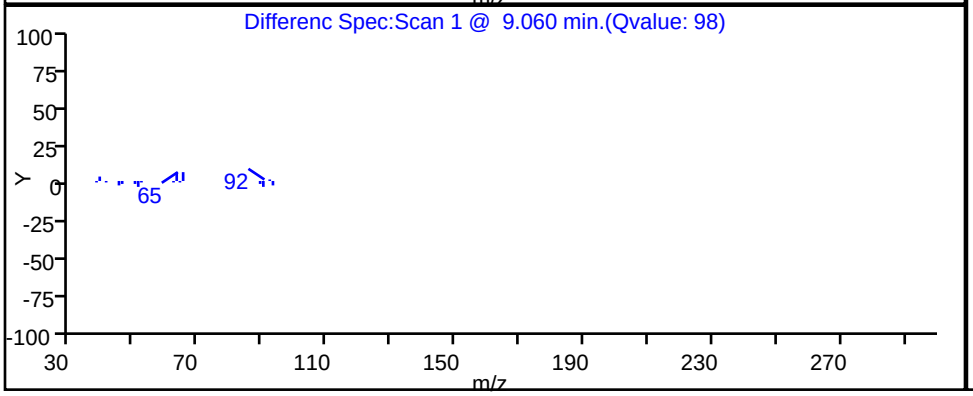
Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403021.D		
Injection Date:	03-Apr-2015 21:25:30	Instrument ID:	CHHP6
Lims ID:	180-42445-E-11	Lab Sample ID:	180-42445-11
Client ID:	HD-QC1-0/1-3		
Operator ID:	001562	ALS Bottle#:	21 Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

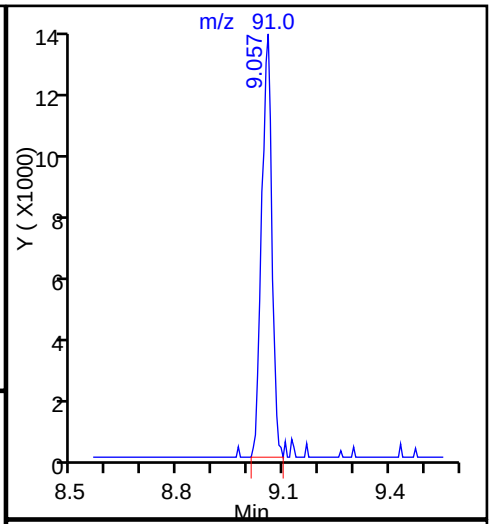
73 Toluene, CAS: 108-88-3

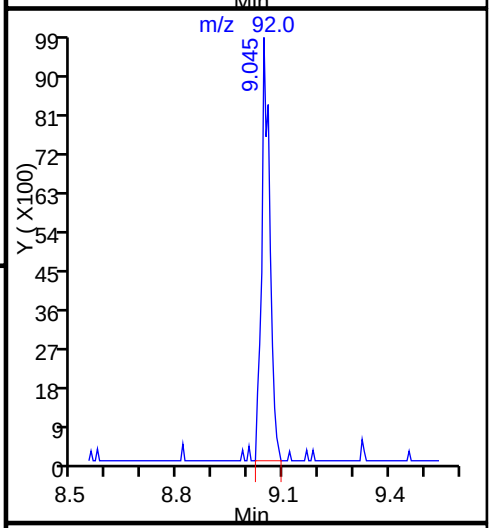


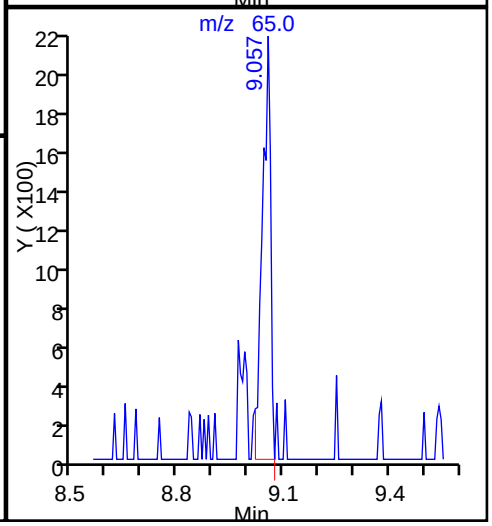












Manual Integration/User Assign Peak Report

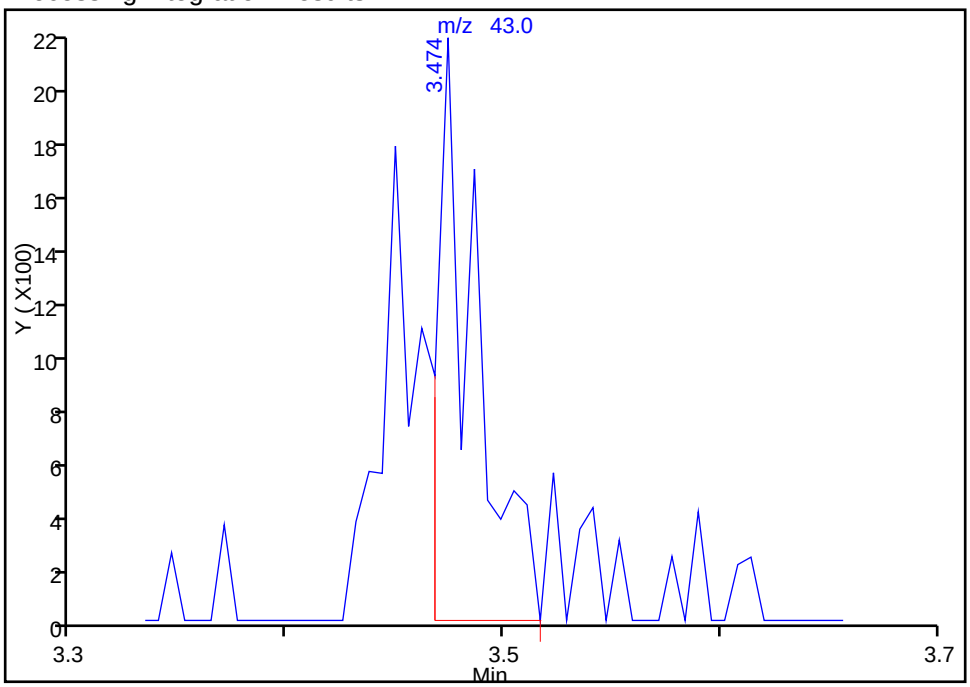
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403021.D				
Injection Date:	03-Apr-2015 21:25:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-11	Lab Sample ID:	180-42445-11		
Client ID:	HD-QC1-0/1-3				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

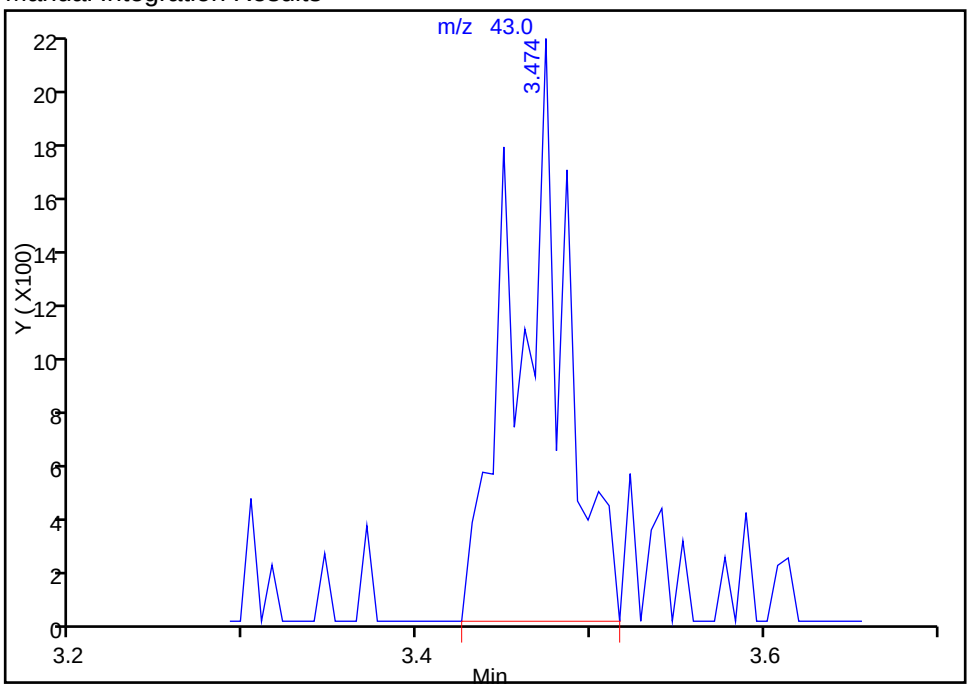
Processing Integration Results

RT: 3.47
Area: 2529
Amount: 3.747003
Amount Units: ng



Manual Integration Results

RT: 3.47
Area: 4318
Amount: 6.397611
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:59:47
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

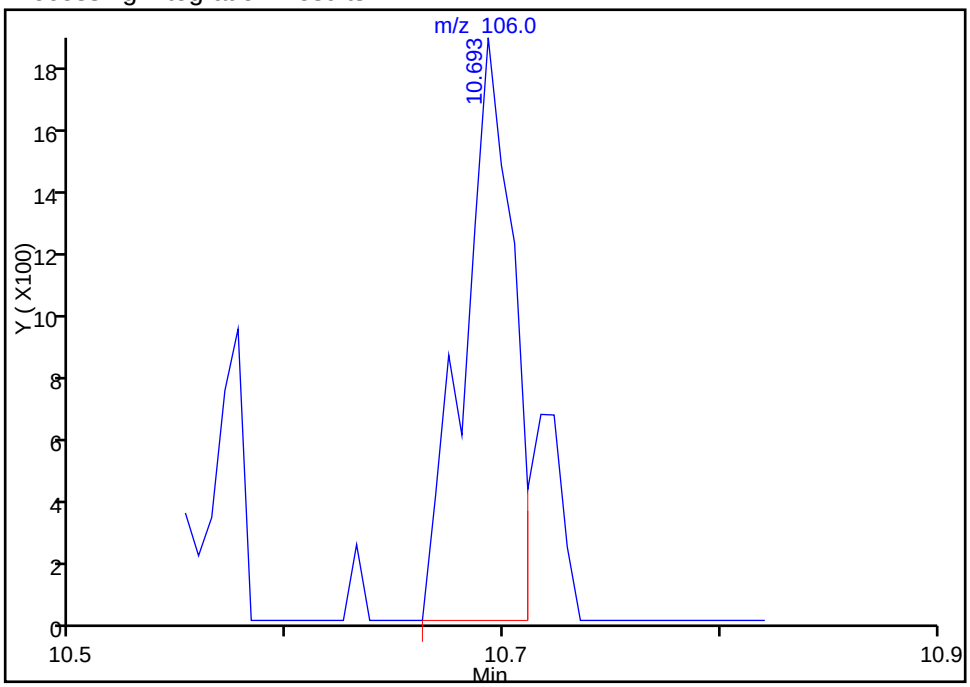
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403021.D				
Injection Date:	03-Apr-2015 21:25:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-11	Lab Sample ID:	180-42445-11		
Client ID:	HD-QC1-0/1-3				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

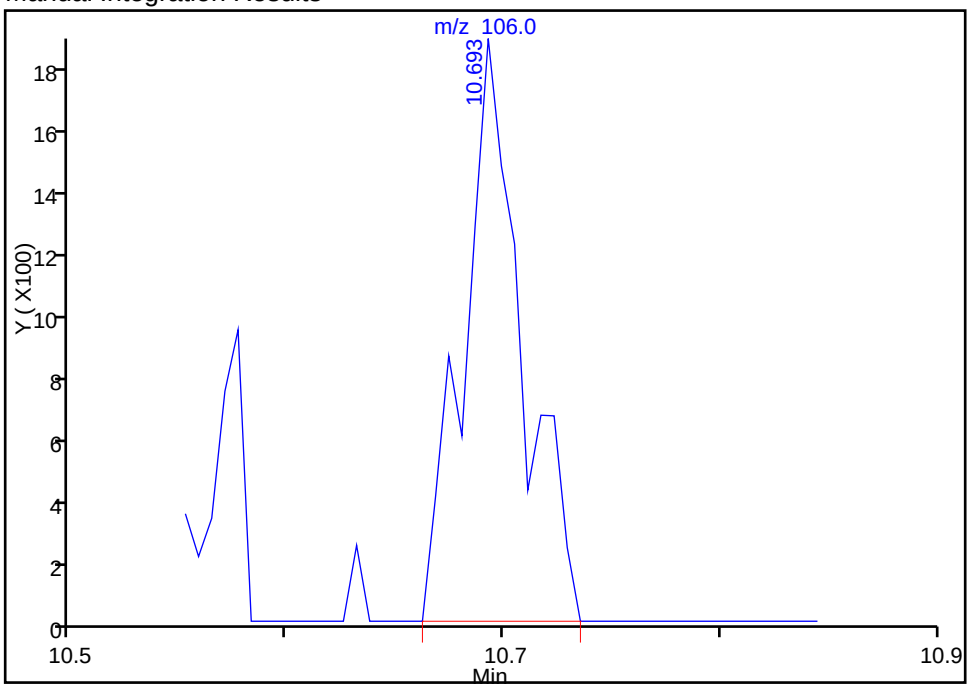
Processing Integration Results

RT: 10.69
Area: 2880
Amount: 0.780198
Amount Units: ng



Manual Integration Results

RT: 10.69
Area: 3434
Amount: 0.930278
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:59:47
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

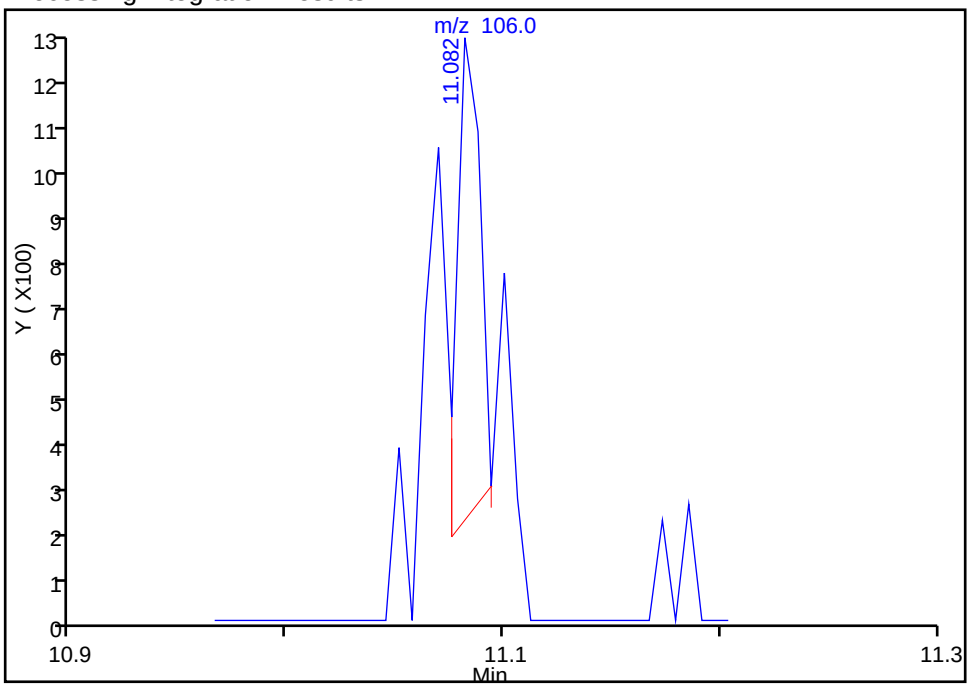
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403021.D				
Injection Date:	03-Apr-2015 21:25:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-11	Lab Sample ID:	180-42445-11		
Client ID:	HD-QC1-0/1-3				
Operator ID:	001562	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

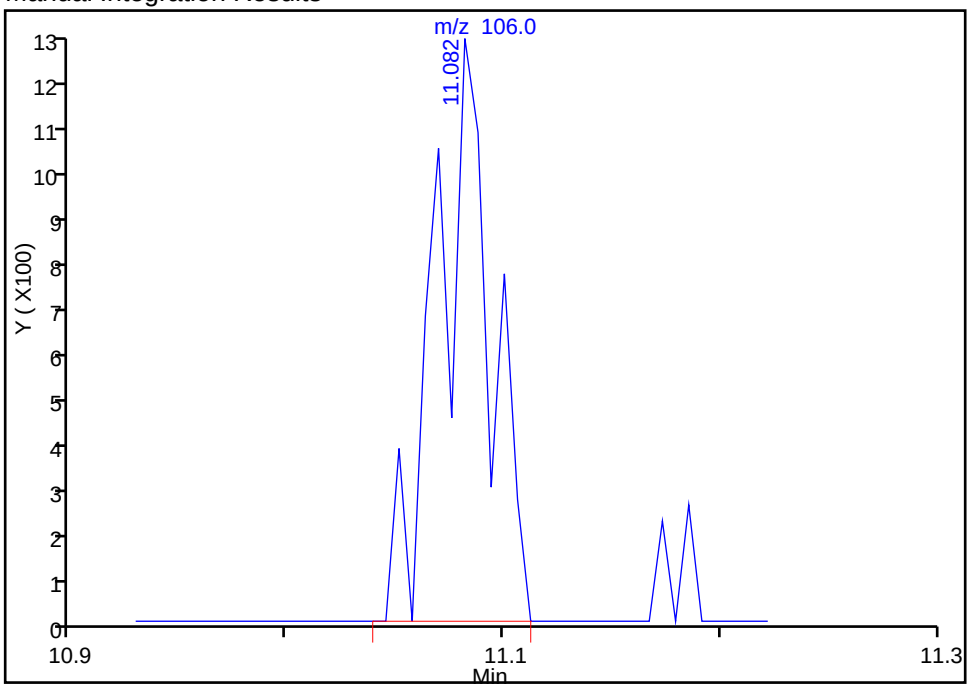
Processing Integration Results

RT: 11.08
Area: 744
Amount: 0.196097
Amount Units: ng



Manual Integration Results

RT: 11.08
Area: 2163
Amount: 0.570104
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:59:47
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC1-0/1-4 | Lab Sample ID: 180-42445-12

Matrix: Water | Lab File ID: 60403022.D

Analysis Method: 8260C | Date Collected: 03/26/2015 15:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 21:49

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137472 | 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	0.83	J	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.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC1-0/1-4 Lab Sample ID: 180-42445-12

Matrix: Water Lab File ID: 60403022.D

Analysis Method: 8260C Date Collected: 03/26/2015 15:10

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 21:49

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137472 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)	134		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	119		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403022.D
Lims ID: 180-42445-E-12 Lab Sample ID: 180-42445-12
Client ID: HD-QC1-0/1-4
Sample Type: Client
Inject. Date: 03-Apr-2015 21:49:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-E-12
Misc. Info.: 180-0006320-022
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 11:01:08 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 11:01:08

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.274	4.279	-0.005	90	174213	1000.0	
*	2 Fluorobenzene (IS)	96	7.333	7.332	0.001	97	371698	50.0	
*	3 Chlorobenzene-d5	119	10.441	10.439	0.002	89	77547	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.794	12.793	0.001	97	132682	50.0	
$	5 Dibromofluoromethane (Surr	113	6.604	6.602	0.002	92	100419	59.7	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.979	0.002	71	161768	67.2	
$	7 Toluene-d8 (Surr)	98	8.987	8.980	0.007	93	332623	54.4	
$	8 4-Bromofluorobenzene (Surr	95	11.633	11.625	0.008	86	128109	49.3	
	12 Chloromethane	50		1.767				ND	
	13 Vinyl chloride	62		1.907				ND	
	15 Bromomethane	94		2.260				ND	
	16 Chloroethane	64		2.412				ND	
	22 1,1-Dichloroethene	96		3.391				ND	
	24 Acetone	43	3.460	3.464	-0.004	32	3695	5.62	
	26 Carbon disulfide	76		3.689				ND	
	31 Methylene Chloride	84		4.181				ND	
	33 Acrylonitrile	53		4.546				ND	
	35 Methyl tert-butyl ether	73		4.607				ND	
	34 trans-1,2-Dichloroethene	96		4.619				ND	
	37 1,1-Dichloroethane	63		5.240				ND	
	43 cis-1,2-Dichloroethene	96		5.988				ND	
	44 2-Butanone (MEK)	43		5.988				ND	
	48 Chlorobromomethane	128		6.273				ND	
	50 Chloroform	83		6.413				ND	
	51 1,1,1-Trichloroethane	97		6.584				ND	
	53 Carbon tetrachloride	117		6.760				ND	
	56 Benzene	78	7.005	6.985	0.020	43	3042	0.3296	
	57 1,2-Dichloroethane	62		7.058				ND	
	61 Trichloroethene	130		7.721				ND	
	64 1,2-Dichloropropane	63		7.994				ND	
	65 1,4-Dioxane	88		8.067				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.274				ND	
71 cis-1,3-Dichloropropene	75		8.718				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858				ND	
73 Toluene	91	9.054	9.053	0.001	99	32750	4.13	
74 trans-1,3-Dichloropropene	75		9.296				ND	
76 1,1,2-Trichloroethane	97		9.496				ND	
77 Tetrachloroethene	164		9.569				ND	
79 2-Hexanone	43		9.691				ND	
81 Chlorodibromomethane	129		9.874				ND	
82 Ethylene Dibromide	107		9.983				ND	
84 Chlorobenzene	112		10.469				ND	
86 1,1,1,2-Tetrachloroethane	131		10.561				ND	
87 Ethylbenzene	106	10.569	10.567	0.002	13	1102	0.3712	M
88 m-Xylene & p-Xylene	106	10.702	10.701	0.001	20	5226	1.43	
89 o-Xylene	106	11.086	11.084	0.002	16	2235	0.5934	
90 Styrene	104		11.102				ND	
91 Bromoform	173		11.290				ND	
96 1,1,2,2-Tetrachloroethane	83		11.753				ND	
S 131 Xylenes, Total	106				0		2.02	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

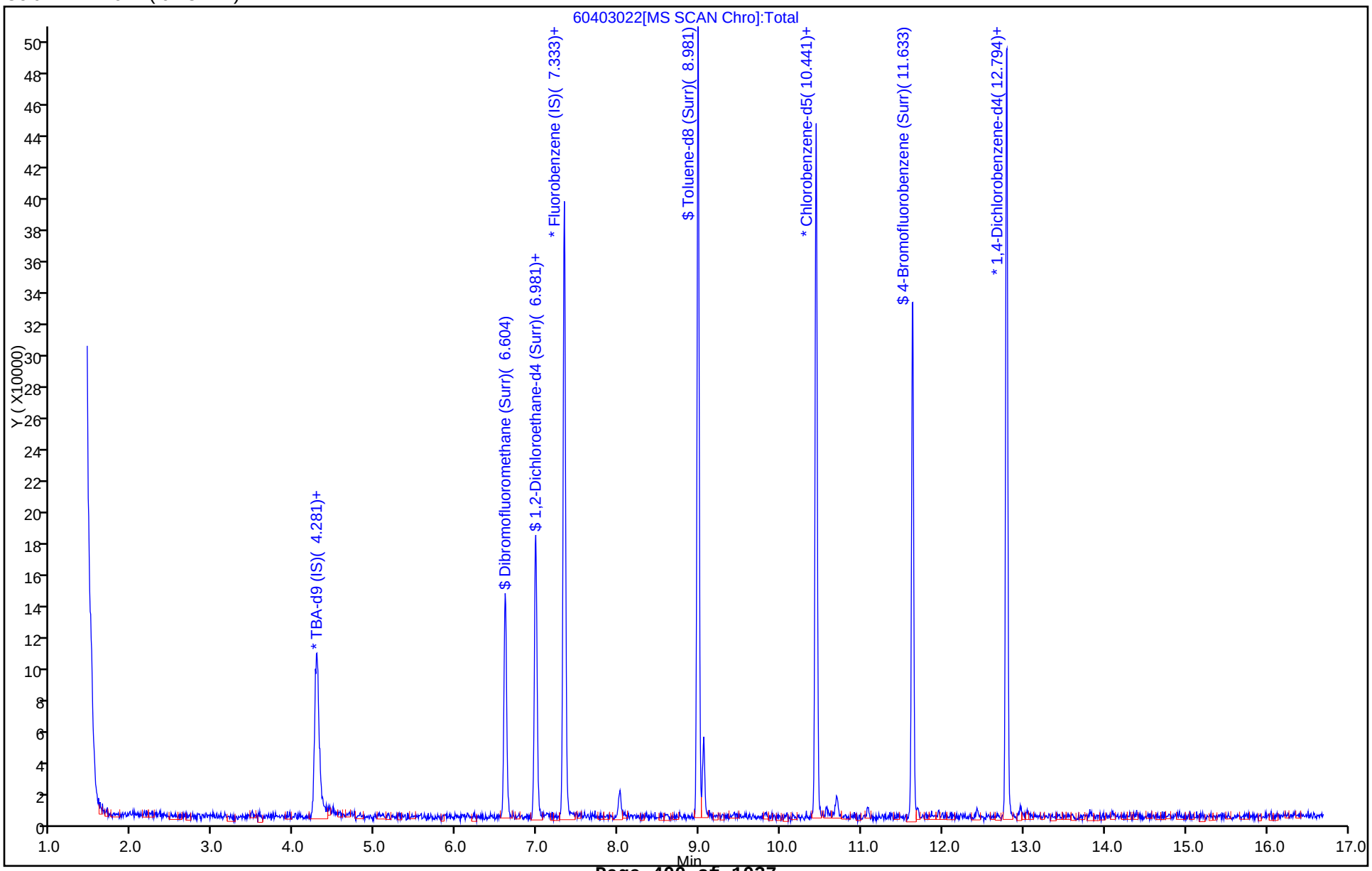
Report Date: 04-Apr-2015 11:01:08 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403022.D

Injection Date:	03-Apr-2015 21:49:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-E-12	Lab Sample ID:	180-42445-12	Worklist Smp#:	22
Client ID:	HD-QC1-0/1-4				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

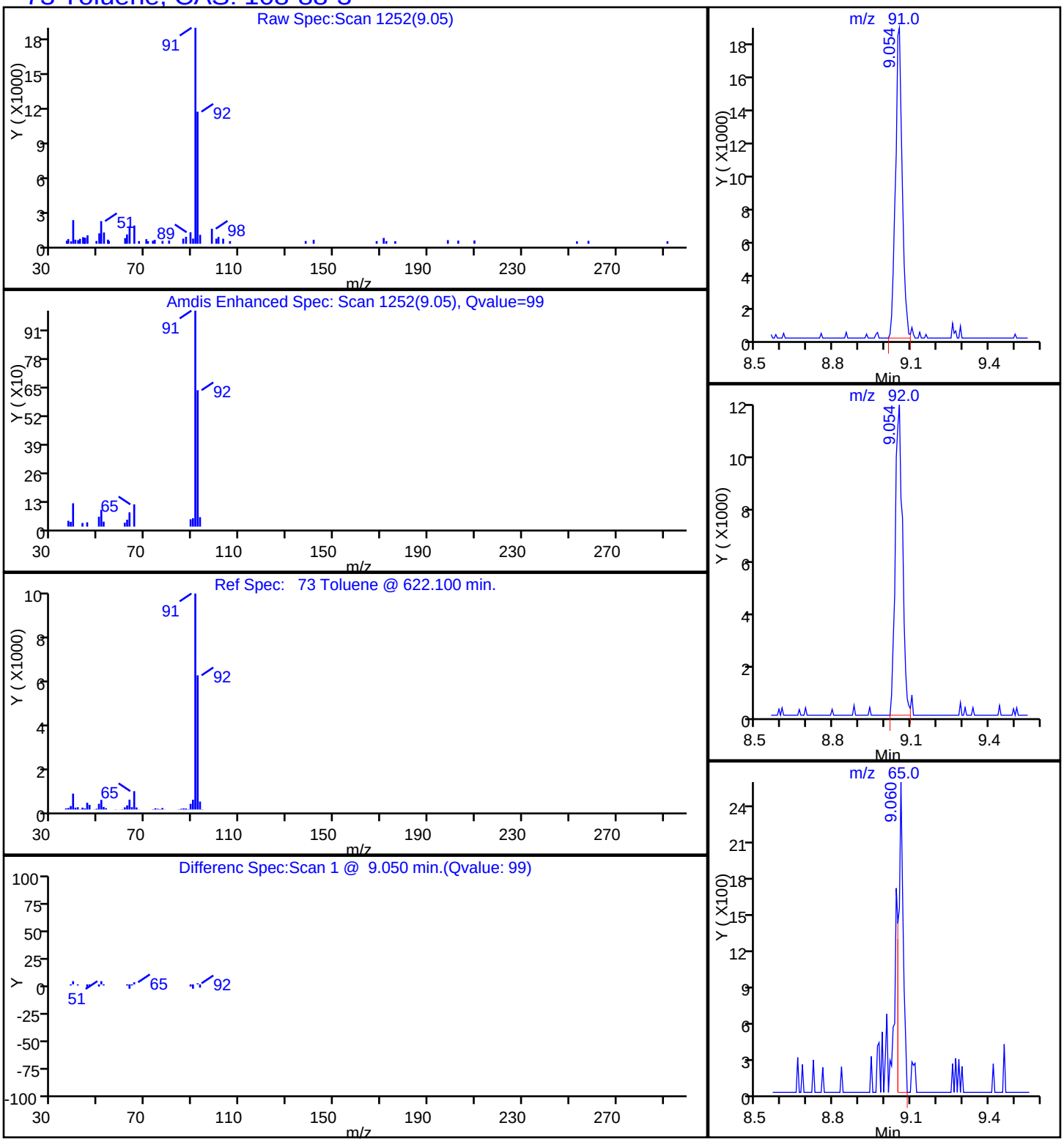


Report Date: 04-Apr-2015 11:01:09 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403022.D		
Injection Date:	03-Apr-2015 21:49:30	Instrument ID:	CHHP6
Lims ID:	180-42445-E-12	Lab Sample ID:	180-42445-12
Client ID:	HD-QC1-0/1-4		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

73 Toluene, CAS: 108-88-3



Manual Integration/User Assign Peak Report

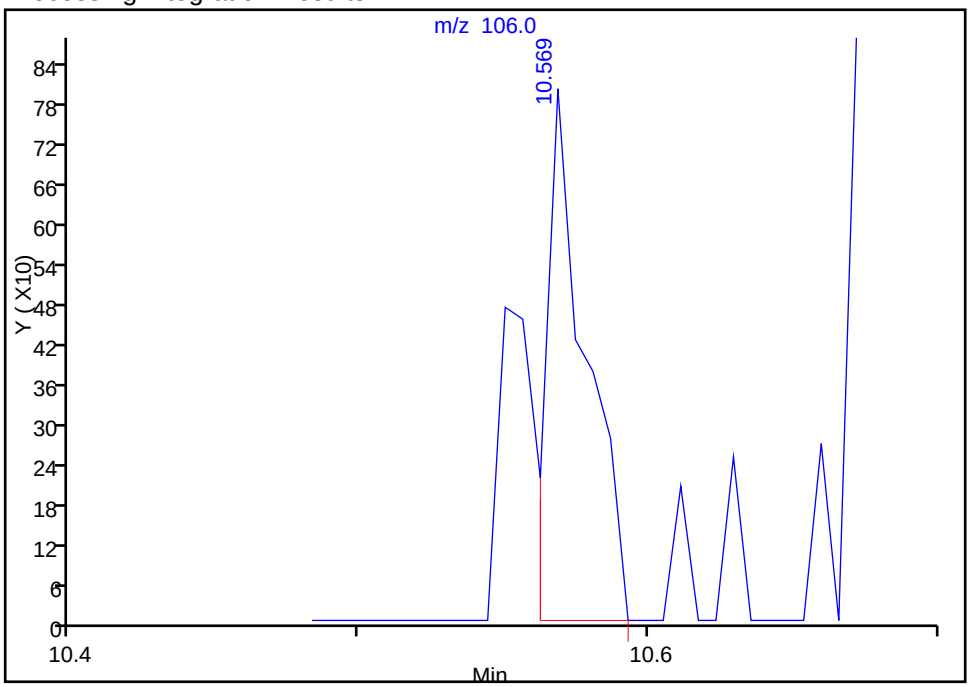
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403022.D				
Injection Date:	03-Apr-2015 21:49:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-12	Lab Sample ID:	180-42445-12		
Client ID:	HD-QC1-0/1-4				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

87 Ethylbenzene, CAS: 100-41-4

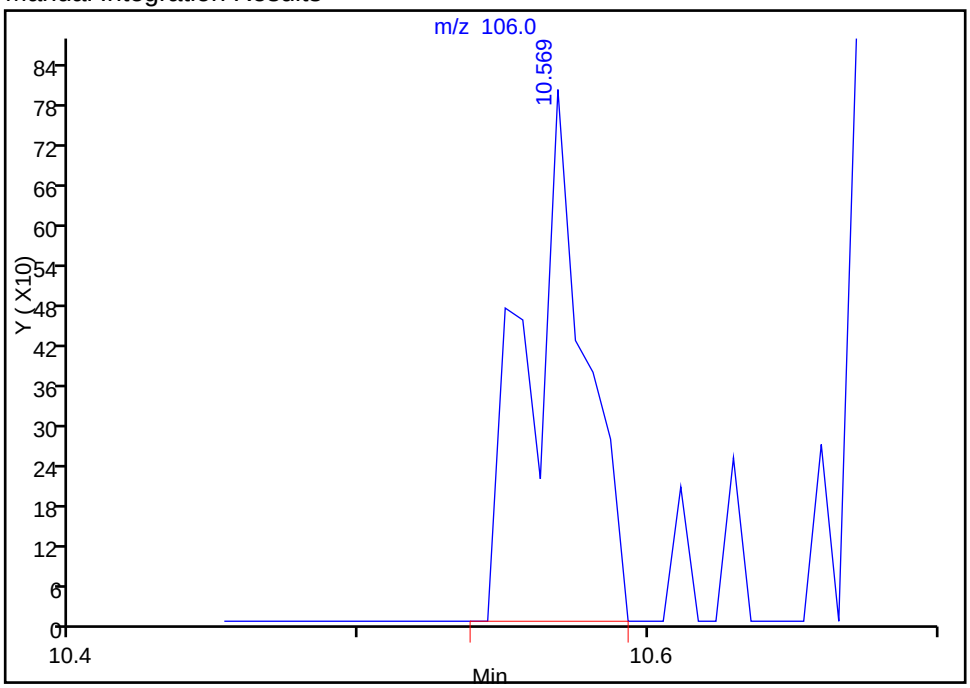
Processing Integration Results

RT: 10.57
Area: 764
Amount: 0.257324
Amount Units: ng



Manual Integration Results

RT: 10.57
Area: 1102
Amount: 0.371166
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 11:01:08
Audit Action: Manually Integrated
Audit Reason: Split Peak

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135593/13	50316013.D
Level 2	IC 180-135593/4	50316004.D
Level 3	ICIS 180-135593/5	50316005.D
Level 4	IC 180-135593/6	50316006.D
Level 5	IC 180-135593/7	50316007.D
Level 6	IC 180-135593/8	50316008.D
Level 7	IC 180-135593/9	50316009.D
Level 8	IC 180-135593/10	50316010.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	0.1981 0.2196	0.2184 0.2203	0.2158 0.2064	0.2176	0.2184	Ave		0.2143			0.1000	3.7		20.0			
Chloromethane	0.3161 0.2913	0.3036 0.2846	0.2971 0.2760	0.3139	0.2839	Ave		0.2958			0.1000	4.9		20.0			
Vinyl chloride	0.3339 0.3170	0.3476 0.3238	0.3406 0.2981	0.3521	0.3317	Ave		0.3306			0.1000	5.3		20.0			
1,3-Butadiene	0.4238 0.3606	0.3989 0.3546	0.3880 0.3243	0.3988	0.3720	Ave		0.3776			0.0100	8.3		20.0			
Bromomethane	0.3177 0.1565	0.2026 0.1546	0.1872 0.1489	0.2009	0.1727	Lin2	0.7885	0.1633			0.0500				0.9910		0.9900
Chloroethane	0.2320 0.2316	0.2215 0.2239	0.2348 0.2259	0.2403	0.2201	Ave		0.2287			0.0500	3.1		20.0			
Dichlorofluoromethane	0.6033 0.4953	0.5246 0.5015	0.5246 0.4874	0.5502	0.4911	Ave		0.5222			0.0100	7.5		20.0			
Trichlorofluoromethane	0.3610 0.3924	0.3936 0.3991	0.4043 0.3800	0.4504	0.3921	Ave		0.3966			0.1000	6.4		20.0			
Ethyl ether	0.2888 0.2638	0.2444 0.2500	0.2576 0.2556	0.2691	0.2633	Ave		0.2615			0.0100	5.2		20.0			
Acrolein	0.0310 0.0323	0.0302 0.0321	0.0313 0.0320	0.0335	0.0318	Ave		0.0318			0.0100	3.1		20.0			
1,1-Dichloroethene	0.3207 0.2859	0.2901 0.2792	0.2822 0.2667	0.2965	0.2853	Ave		0.2883			0.1000	5.4		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2914 0.2935	0.2973 0.2885	0.2973 0.2692	0.3100	0.2859	Ave		0.2916			0.1000	4.0		20.0			
Acetone	0.1044 0.1092	0.0964 0.1031	0.0956 0.1001	0.1134	0.0972	Ave		0.1024			0.0500	6.2		20.0			
Iodomethane	0.4015 0.3985	0.4019 0.3989	0.4026 0.3873	0.4200	0.3937	Ave		0.4005			0.0100	2.3		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	0.7271 0.7017	0.7065 0.6934	0.7209 0.6551	0.7444	0.6916	Ave		0.7051			0.1000	3.8		20.0			
Allyl chloride	0.1408 0.1596	0.1433 0.1659	0.1497 0.1554	0.1576	0.1468	Ave		0.1524			0.0100	5.7		20.0			
Methyl acetate	0.2499 0.2446	0.2206 0.2371	0.2383 0.2398	0.2500	0.2368	Ave		0.2396			0.1000	3.9		20.0			
Methylene Chloride	0.4921 0.3038	0.3340 0.2965	0.3132 0.2964	0.3223	0.3092	Ave		0.3335			0.1000	20.0		20.0			
tert-Butyl alcohol	1.4634 1.1634	1.1166 1.0879	1.2271 1.0609	1.1679	1.1362	Ave		1.1779			0.0100	11.0		20.0			
Acrylonitrile	0.1262 0.1243	0.1185 0.1210	0.1238 0.1200	0.1302	0.1222	Ave		0.1233			0.0100	3.0		20.0			
trans-1,2-Dichloroethene	0.3010 0.2955	0.3039 0.2920	0.2999 0.2846	0.3158	0.2932	Ave		0.2982			0.1000	3.1		20.0			
Methyl tert-butyl ether	0.7046 0.6848	0.5895 0.6670	0.6262 0.6870	0.6643	0.6513	Ave		0.6593			0.1000	5.6		20.0			
Hexane	0.5105 0.4724	0.4808 0.4625	0.4867 0.4447	0.4928	0.4612	Ave		0.4764			0.0100	4.3		20.0			
1,1-Dichloroethane	0.5210 0.5346	0.5355 0.5274	0.5415 0.5173	0.5479	0.5333	Ave		0.5323			0.2000	1.9		20.0			
Vinyl acetate	0.3354 0.4226	0.3143 0.4225	0.3492 0.4312	0.3701	0.3754	Ave		0.3776			0.0100	12.0		20.0			
2,2-Dichloropropane	0.1102 0.1425	0.1245 0.1427	0.1303 0.1457	0.1368	0.1319	Ave		0.1331			0.0100	8.8		20.0			
cis-1,2-Dichloroethene	0.3333 0.3114	0.3188 0.3041	0.3064 0.2999	0.3262	0.3133	Ave		0.3142			0.1000	3.6		20.0			
2-Butanone (MEK)	0.1479 0.1689	0.1544 0.1707	0.1682 0.1707	0.1629	0.1664	Ave		0.1638			0.0500	5.1		20.0			
Bromochloromethane	0.1516 0.1369	0.1328 0.1312	0.1322 0.1303	0.1382	0.1345	Ave		0.1360			0.0100	5.1		20.0			
Tetrahydrofuran	0.1048 0.1057	0.0960 0.1019	0.1025 0.1042	0.1047	0.1007	Ave		0.1026			0.0100	3.0		20.0			
Chloroform	0.5131 0.4845	0.4800 0.4679	0.4876 0.4593	0.4976	0.4787	Ave		0.4836			0.2000	3.5		20.0			
1,1,1-Trichloroethane	0.2755 0.3251	0.2860 0.3242	0.3106 0.3133	0.3267	0.3088	Ave		0.3088			0.1000	6.1		20.0			
Cyclohexane	0.6382 0.5901	0.5930 0.5765	0.5992 0.5384	0.6258	0.5817	Ave		0.5929			0.1000	5.2		20.0			
Carbon tetrachloride	0.2289 0.2566	0.2357 0.2582	0.2463 0.2549	0.2561	0.2457	Ave		0.2478			0.1000	4.4		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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	0.4232 0.3982	0.4094 0.3936	0.4088 0.3740	0.4106	0.3910	Ave		0.4011			0.0100	3.8		20.0			
Isobutyl alcohol	0.0062 0.0078	0.0044 0.0073	0.0062 0.0083	0.0069	0.0062	Ave		0.0067		*	0.0100	18.0		20.0			
Benzene	1.2964 1.1615	1.1929 1.1190	1.2156 1.0805	1.2375	1.1757	Ave		1.1849			0.5000	5.7		20.0			
1,2-Dichloroethane	0.3889 0.3972	0.3853 0.3828	0.3878 0.3740	0.4029	0.3849	Ave		0.3880			0.1000	2.3		20.0			
n-Heptane	0.4132 0.4165	0.4157 0.3968	0.4135 0.3813	0.4223	0.3971	Ave		0.4071			0.0100	3.4		20.0			
Trichloroethene	0.3236 0.2977	0.2885 0.2885	0.3022 0.2774	0.3045	0.2926	Ave		0.2969			0.2000	4.7		20.0			
Methylcyclohexane	0.5265 0.5361	0.5390 0.5114	0.5500 0.4900	0.5614	0.5230	Ave		0.5297			0.1000	4.2		20.0			
1,2-Dichloropropane	0.2976 0.3036	0.2675 0.2956	0.2870 0.2962	0.2996	0.2976	Ave		0.2931			0.1000	3.9		20.0			
Dibromomethane	0.1682 0.1567	0.1491 0.1563	0.1532 0.1546	0.1640	0.1603	Ave		0.1578			0.0100	3.9		20.0			
1,4-Dioxane	0.0033 0.0034	0.0029 0.0031	0.0029 0.0030	0.0032	0.0030	Ave		0.0031		*	0.0100	5.9		20.0			
Bromodichloromethane	0.2966 0.3370	0.3114 0.3262	0.3286 0.3235	0.3266	0.3259	Ave		0.3220			0.2000	3.9		20.0			
cis-1,3-Dichloropropene	0.2720 0.3463	0.2598 0.3498	0.2835 0.3541	0.3106	0.3095	Ave		0.3107			0.2000	12.0		20.0			
4-Methyl-2-pentanone (MIBK)	1.2503 1.3434	1.2818 1.3687	1.4091 1.3065	1.4145	1.4492	Ave		1.3529			0.1000	5.2		20.0			
Toluene	5.9882 4.5343	5.4946 4.5939	5.5890 4.1718	5.4186	5.2011	Ave		5.1239			0.4000	12.0		20.0			
trans-1,3-Dichloropropene	0.8645 0.9716	0.7455 1.0385	0.8963 1.0484	0.8911	0.9475	Ave		0.9254			0.1000	11.0		20.0			
Ethyl methacrylate	1.1000 1.2637	0.9953 1.3239	1.1753 1.3175	1.1818	1.2989	Ave		1.2070			0.0100	9.7		20.0			
1,1,2-Trichloroethane	1.0794 0.8993	0.9278 0.9152	1.0316 0.8752	0.9797	0.9793	Ave		0.9609			0.1000	7.3		20.0			
Tetrachloroethene	1.1314 0.9214	1.0730 0.9231	1.0654 0.8552	1.0357	1.0130	Ave		1.0023			0.2000	9.3		20.0			
1,3-Dichloropropane	1.9127 1.6507	1.8290 1.6948	1.9187 1.6444	1.8257	1.8122	Ave		1.7860			0.0100	6.1		20.0			
2-Hexanone	0.8865 1.0653	0.9324 1.1043	1.1169 1.0437	1.0718	1.0506	Ave		1.0339			0.1000	7.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	0.6589 0.7861	0.7302 0.8019	0.7961 0.7741	0.7741	0.8146	Ave		0.7670			0.1000	6.6		20.0			
1,2-Dibromoethane (EDB)	0.9462 0.8909	0.8507 0.9041	0.9478 0.8836	0.9579	0.9540	Ave		0.9169			0.1000	4.4		20.0			
3-Chlorobenzotrifluoride	2.1568 1.7885	2.0616 1.8999	2.0657 1.6136	2.0676	1.9855	Ave		1.9549			0.0100	9.2		20.0			
Chlorobenzene	3.9165 2.9120	3.3811 2.9538	3.4265 2.7856	3.3185	3.2780	Ave		3.2465			0.5000	11.0		20.0			
4-Chlorobenzotrifluoride	2.1386 1.7554	1.9292 1.8762	1.9271 1.5481	1.9634	1.9831	Ave		1.8901			0.0100	9.2		20.0			
1,1,1,2-Tetrachloroethane	0.7551 0.8493	0.8012 0.8680	0.8363 0.8428	0.8482	0.9047	Ave		0.8382			0.0100	5.3		20.0			
Ethylbenzene	1.9914 1.7179	1.9333 1.7672	1.9980 1.6464	1.9518	1.8953	Ave		1.8627			0.1000	7.2		20.0			
m-Xylene & p-Xylene	2.4849 2.1093	2.3674 2.1267	2.4171 1.9994	2.4234	2.2969	Ave		2.2781			0.1000	7.8		20.0			
o-Xylene	2.6403 2.0475	2.2064 2.0545	2.3516 1.9292	2.3257	2.2716	Ave		2.2283			0.3000	10.0		20.0			
Styrene	3.8818 3.3296	3.6611 3.3147	3.8658 3.1277	3.7940	3.7504	Ave		3.5907			0.3000	8.1		20.0			
Bromoform	0.4254 0.4898	0.4398 0.4974	0.4744 0.4894	0.4822	0.4911	Ave		0.4737			0.1000	5.6		20.0			
2-Chlorobenzotrifluoride	2.0985 1.7811	2.0764 1.8958	2.0751 1.6078	2.0615	2.0224	Ave		1.9523			0.0100	9.1		20.0			
Isopropylbenzene	6.2252 4.9838	6.1153 4.8827	6.0965 4.4013	6.0579	5.7184	Ave		5.5601			0.1000	13.0		20.0			
1,1,2,2-Tetrachloroethane	1.5778 1.3165	1.3921 1.3063	1.4139 1.2430	1.4088	1.3646	Ave		1.3779			0.3000	7.2		20.0			
Bromobenzene	0.9601 0.9043	0.9163 0.9102	0.9670 0.9012	0.9241	0.9202	Ave		0.9254			0.0100	2.7		20.0			
1,2,3-Trichloropropane	0.3380 0.3040	0.2838 0.2874	0.3205 0.3069	0.2961	0.2961	Ave		0.3041			0.0100	5.9		20.0			
trans-1,4-Dichloro-2-butene	0.2572 0.2562	0.2443 0.2601	0.2456 0.2696	0.2438	0.2460	Ave		0.2528			0.0100	3.7		20.0			
N-Propylbenzene	1.2305 1.1066	1.1620 1.0908	1.2081 1.0656	1.1555	1.1135	Ave		1.1416			0.0100	5.1		20.0			
2-Chlorotoluene	1.0248 0.9458	0.9575 0.9297	1.0195 0.9076	0.9558	0.9319	Ave		0.9591			0.0100	4.4		20.0			
3-Chlorotoluene	1.1523 1.0737	1.0357 1.0942	1.0635 0.9927	1.0618	1.1018	Ave		1.0720			0.0100	4.4		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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	3.5091 3.0301	3.2905 2.9338	3.3765 2.8104	3.3601	3.1525	Ave		3.1829			0.0100	7.6		20.0			
4-Chlorotoluene	1.1316 1.0097	1.0151 0.9774	1.0863 1.0009	1.0825	1.0021	Ave		1.0382			0.0100	5.2		20.0			
tert-Butylbenzene	3.1830 2.5928	2.8173 2.5318	2.9656 2.3701	2.8959	2.7052	Ave		2.7577			0.0100	9.5		20.0			
1,2,4-Trimethylbenzene	3.6039 3.1029	3.3270 3.0238	3.4986 2.8908	3.4674	3.2206	Ave		3.2669			0.0100	7.7		20.0			
3,4-Dichlorobenzotrifluoride	1.1042 1.0202	0.9953 1.0227	1.0269 0.9335	1.1049	1.0507	Ave		1.0323			0.0100	5.5		20.0			
sec-Butylbenzene	4.3054 3.6389	4.1108 3.5066	4.1991 3.2620	4.1487	3.8794	Ave		3.8814			0.0100	9.7		20.0			
1,3-Dichlorobenzene	1.9132 1.6438	1.7258 1.6071	1.7369 1.5897	1.7497	1.6725	Ave		1.7048			0.6000	6.1		20.0			
4-Isopropyltoluene	3.4872 3.0606	3.2348 2.9586	3.4694 2.7984	3.4562	3.1691	Ave		3.2043			0.0100	8.0		20.0			
1,4-Dichlorobenzene	1.9760 1.6976	1.7145 1.6569	1.7807 1.6355	1.7648	1.7035	Ave		1.7412			0.5000	6.1		20.0			
2,4-Dichlorobenzotrifluoride	1.0162 0.9585	0.9307 0.9665	1.0004 0.8567	1.0551	0.9508	Ave		0.9669			0.0100	6.2		20.0			
2,5-Dichlorobenzotrifluoride	1.1811 1.0613	1.0765 1.0776	1.0685 0.9818	1.1269	1.0793	Ave		1.0816			0.0100	5.2		20.0			
n-Butylbenzene	3.1276 2.8128	2.9811 2.7148	3.1079 2.5582	3.1414	2.9001	Ave		2.9180			0.0100	7.3		20.0			
1,2-Dichlorobenzene	1.7371 1.5488	1.5543 1.5042	1.6235 1.4749	1.6066	1.5803	Ave		1.5787			0.4000	5.1		20.0			
1,2-Dibromo-3-Chloropropane	0.1313 0.1386	0.1067 0.1383	0.1229 0.1385	0.1324	0.1248	Ave		0.1292			0.0500	8.5		20.0			
1,2,4-Trichlorobenzene	0.9720 0.8625	0.7083 0.8349	0.7579 0.7778	0.8780	0.7835	Ave		0.8219			0.2000	10.0		20.0			
Hexachlorobutadiene	0.4883 0.3899	0.3825 0.3778	0.3866 0.3464	0.4091	0.3724	Ave		0.3941			0.0100	11.0		20.0			
Naphthalene	2.3899 2.2683	1.8332 2.1948	1.9931 2.0920	2.3983	2.0941	Ave		2.1580			0.0100	9.0		20.0			
1,2,3-Trichlorobenzene	0.7895 0.7155	0.5376 0.7162	0.6024 0.6573	0.7303	0.6432	Ave		0.6740			0.0100	12.0		20.0			
2,4,5-Trichlorotoluene	0.4907 0.3881	0.2750 0.3876	0.2929 0.3431	0.3938	0.3283	Ave		0.3624			0.0100	19.0		20.0			
2,3,6-Trichlorotoluene	0.4374 0.3491	0.2501 0.3509	0.2713 0.3051	0.3608	0.2936	Ave		0.3273			0.0100	18.0		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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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)	0.2497 0.2212	0.2276 0.2219	0.2284 0.2143	0.2334	0.2228	Ave		0.2274				4.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3017 0.2995	0.3055 0.2914	0.3015 0.2867	0.3115	0.3008	Ave		0.2998				2.6		20.0			
Toluene-d8 (Surr)	4.5313 3.5890	4.2126 3.6439	4.3365 3.2599	4.2301	4.0882	Ave		3.9864				11.0		20.0			
4-Bromofluorobenzene (Surr)	1.5722 1.3558	1.4371 1.3519	1.5107 1.2944	1.4891	1.4730	Ave		1.4356				6.6		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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135593/13	50316013.D
Level 2	IC 180-135593/4	50316004.D
Level 3	ICIS 180-135593/5	50316005.D
Level 4	IC 180-135593/6	50316006.D
Level 5	IC 180-135593/7	50316007.D
Level 6	IC 180-135593/8	50316008.D
Level 7	IC 180-135593/9	50316009.D
Level 8	IC 180-135593/10	50316010.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	11265 432190	59394 522240	116111 640090	173113	243823	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	17972 573343	82552 674845	159885 855933	249772	316915	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	18981 624000	94520 767804	183317 924535	280135	370271	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	24095 709784	108469 840803	208815 1005925	317272	415323	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	18060 307964	55097 366671	100717 461680	159846	192846	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	13187 455903	60248 530813	126349 700467	191164	245673	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	34297 974888	142662 1188936	282324 1511714	437737	548270	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	20521 772293	107038 946313	217544 1178605	358375	437688	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	16416 519119	66452 592652	138609 792637	214135	293889	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	35289 81646	41017 95028	50582 109180	62132	71073	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	18234 562804	78897 662050	151843 827120	235889	318457	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	16567 577719	80854 684103	159979 834802	246660	319162	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	29674 429781	52410 489133	102899 621064	180387	217095	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	22824 784350	109309 945860	216640 1201056	334141	439512	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	41336 1381152	192118 1643948	387934 2031733	592248	772081	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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	8006 314052	38957 393345	80577 482122	125423	163875	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	71022 2407305	299965 2810332	641136 3718382	994505	1321970	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	27978 597904	90836 703059	168570 919183	256424	345226	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	10830 351016	39251 399281	83098 537174	133756	175500	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	71728 2446379	322268 2868164	666088 3721902	1035956	1363975	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	17111 581552	82640 692220	161381 882651	251288	327278	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	40058 1347848	160325 1581345	336961 2130684	528520	727030	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	29021 929791	130741 1096478	261916 1379168	392065	514868	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	29622 1052201	145639 1250453	291408 1604398	435915	595324	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	19067 831670	85462 1001771	187915 1337263	294456	419086	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	6267 280515	33850 338302	70106 452022	108858	147216	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	18951 612812	86701 721075	164893 930230	259517	349805	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	42054 665013	83987 809232	180996 1059138	259227	371447	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	8619 269375	36107 311076	71124 404105	109930	150204	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	11913 415944	52231 483324	110274 646482	166594	224920	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	29168 953676	130523 1109416	262371 1424461	395935	534362	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15663 639960	77770 768585	167130 971626	259963	344772	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	36280 1161488	161271 1366913	322468 1669676	497889	649387	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	13013 504991	64089 612080	132517 790495	203736	274328	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	24060 783682	111342 933326	219974 1159811	326699	436454	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	8820 386141	29897 433313	83109 644697	137203	174166	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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	73700 2286079	324419 2653105	654151 3351151	984614	1312435	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	22108 781760	104777 907622	208683 1159879	320594	429724	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	23490 819785	113041 940924	222515 1182643	335961	443357	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	18397 586010	78459 684010	162608 860273	242252	326599	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	29934 1055175	146574 1212427	295972 1519674	446628	583894	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16916 597514	72742 700921	154467 918714	238331	332279	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	9562 308441	40542 370624	82469 479407	130496	178905	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	3746 132396	15563 146272	31354 185631	50907	66490	100 3500	500 4000	1000 5000	1500	2000
Bromodichloromethane	FB	Ave	16863 663337	84673 773432	176851 1003399	259871	363842	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	15462 681682	70642 829306	152581 1098242	247138	345528	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	75787 1390980	154453 1617802	342539 2109966	531084	747218	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	72597 2347437	331041 2714932	679332 3368812	1017198	1340817	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	10481 502980	44917 613747	108942 846559	167274	244258	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	13336 654210	59964 782394	142858 1063861	221852	334858	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	13086 465584	55897 540864	125390 706748	183907	252461	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	13716 477004	64647 545517	129494 690601	194422	261148	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	23188 854593	110194 1001573	233217 1327847	342719	467174	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	53734 1103034	112348 1305223	271508 1685534	402386	541680	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7988 406960	43996 473922	96762 625118	145315	210013	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	11471 461219	51254 534328	115204 713501	179814	245946	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	26148 925933	124209 1122812	251080 1303041	388132	511845	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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	47481 1507544	203702 1745676	416488 2249414	622968	845046	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	25927 908777	116232 1108797	234233 1250140	368570	511237	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	9154 439701	48269 512980	101650 680608	159225	233228	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	24142 889389	116477 1044399	242856 1329470	366398	488611	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	30126 1092005	142634 1256840	293796 1614511	454933	592135	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	32009 1059986	132929 1214164	285835 1557898	436586	585609	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	47061 1723778	220574 1958961	469890 2525667	712222	966850	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	5157 253560	26498 293938	57667 395201	90522	126605	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	25441 922108	125099 1120386	252226 1298335	386985	521379	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	75470 2580136	368436 2885608	741027 3554151	1137215	1474178	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	19128 681581	83874 772016	171864 1003707	264462	351798	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	16809 637569	80670 740842	168649 956763	253502	346996	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	5918 214358	24990 233938	55900 325768	81225	111668	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	4503 180624	21505 211691	42827 286166	66879	92761	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	21543 780243	102304 887838	210687 1131297	316980	419888	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	17942 666866	84295 756732	177793 963573	262207	351403	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	20174 757051	91182 890638	185477 1053875	291288	415463	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	61438 2136446	289696 2387945	588847 2983647	921783	1188743	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	19812 711885	89370 795532	189449 1062581	296950	377870	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	55729 1828125	248042 2060731	517188 2516209	794422	1020106	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	63098 2187785	292909 2461131	610150 3068942	951216	1214438	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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	19333 719294	87627 832435	179092 991010	303120	396211	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	75379 2565671	361915 2854173	732318 3463106	1138120	1462842	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	33497 1159025	151937 1308081	302903 1687649	480001	630675	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	61054 2157955	284792 2408127	605051 2970922	948139	1195021	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	34596 1196958	150942 1348596	310551 1736319	484138	642365	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	17792 675783	81937 786683	174468 909481	289446	358539	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	20678 748317	94772 877059	186350 1042359	309155	406971	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	54758 1983203	262455 2209671	542017 2715831	861784	1093564	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	30414 1092014	136843 1224311	283138 1565775	440732	595901	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	2299 97714	9396 112547	21428 147059	36318	47067	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	17018 608110	62363 679520	132179 825772	240861	295444	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	8549 274932	33676 307470	67414 367792	112236	140410	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	41842 1599300	161398 1786434	347596 2220927	657935	789643	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	13823 504504	47333 582911	105062 697862	200345	242534	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	8592 273662	24209 315499	51080 364223	108037	123791	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	7658 246163	22020 285573	47319 323920	98974	110702	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	14193 435320	61901 526164	122918 664693	185698	248750	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	17152 589491	83077 691002	162227 889045	247858	335757	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	54935 1858068	253798 2153477	527093 2632400	794092	1053927	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	19061 701915	86585 798953	183629 1045249	279546	379740	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.: 180-42445-1 Analy Batch No.: 135593

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

Report Date: 17-Mar-2015 10:59:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316004.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Mar-2015 12:41:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0006031-004
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:20 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 09:28:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.305	-0.003	88	140612	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.273	0.004	97	543896	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.364	-0.003	99	120496	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	97	176082	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.535	6.525	0.010	94	61901	25.0	25.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.902	0.004	96	83077	25.0	25.5	
$ 7 Toluene-d8 (Surr)	98	8.919	8.922	-0.003	100	253798	25.0	26.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.532	-0.003	95	86585	25.0	25.0	
11 Dichlorodifluoromethane	85	1.619	1.616	0.003	98	59394	25.0	25.5	
12 Chloromethane	50	1.771	1.774	-0.003	100	82552	25.0	25.7	
13 Vinyl chloride	62	1.905	1.902	0.003	99	94520	25.0	26.3	
14 Butadiene	39	1.948	1.944	0.004	98	108469	25.0	26.4	
15 Bromomethane	94	2.252	2.249	0.003	90	55097	25.0	26.2	M
16 Chloroethane	64	2.392	2.370	0.022	97	60248	25.0	24.2	
17 Dichlorofluoromethane	67	2.660	2.650	0.010	98	142662	25.0	25.1	
18 Trichlorofluoromethane	101	2.690	2.711	-0.021	96	107038	25.0	24.8	
20 Ethyl ether	59	3.085	3.088	-0.003	98	66452	25.0	23.4	
21 Acrolein	56	3.256	3.252	0.004	96	41017	125.0	118.7	
22 1,1-Dichloroethene	96	3.371	3.386	-0.015	97	78897	25.0	25.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.444	3.429	0.015	97	80854	25.0	25.5	
24 Acetone	43	3.493	3.496	-0.003	98	52410	50.0	47.0	
25 Iodomethane	142	3.572	3.587	-0.015	98	109309	25.0	25.1	
26 Carbon disulfide	76	3.651	3.654	-0.003	100	192118	25.0	25.0	
28 3-Chloro-1-propene	76	3.931	3.940	-0.009	92	38957	25.0	23.5	
30 Methyl acetate	43	4.022	4.019	0.003	100	299965	125.0	115.1	
31 Methylene Chloride	84	4.144	4.134	0.010	95	90836	25.0	25.0	
32 2-Methyl-2-propanol	59	4.430	4.445	-0.015	90	39251	250.0	237.0	
33 Acrylonitrile	53	4.552	4.554	-0.002	100	322268	250.0	240.3	
34 trans-1,2-Dichloroethene	96	4.564	4.560	0.004	61	82640	25.0	25.5	
35 Methyl tert-butyl ether	73	4.594	4.591	0.003	96	160325	25.0	22.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.980	0.003	97	130741	25.0	25.2	
37 1,1-Dichloroethane	63	5.178	5.169	0.009	99	145639	25.0	25.2	
38 Vinyl acetate	43	5.300	5.290	0.010	100	85462	25.0	20.8	
44 2,2-Dichloropropane	77	5.926	5.923	0.003	85	33850	25.0	23.4	
45 cis-1,2-Dichloroethene	96	5.939	5.935	0.004	94	86701	25.0	25.4	
46 2-Butanone (MEK)	43	5.987	5.990	-0.003	99	83987	50.0	47.1	
49 Chlorobromomethane	128	6.224	6.233	-0.009	96	36107	25.0	24.4	
51 Tetrahydrofuran	42	6.285	6.288	-0.003	97	52231	50.0	46.8	
52 Chloroform	83	6.340	6.343	-0.003	96	130523	25.0	24.8	
53 1,1,1-Trichloroethane	97	6.529	6.531	-0.002	95	77770	25.0	23.2	
54 Cyclohexane	56	6.589	6.586	0.003	96	161271	25.0	25.0	
56 Carbon tetrachloride	117	6.723	6.720	0.003	69	64089	25.0	23.8	
55 1,1-Dichloropropene	75	6.729	6.726	0.003	96	111342	25.0	25.5	
57 Isobutyl alcohol	41	6.942	6.945	-0.003	33	29897	625.0	411.8	
58 Benzene	78	6.954	6.957	-0.003	98	324419	25.0	25.2	
59 1,2-Dichloroethane	62	6.985	6.981	0.004	98	104777	25.0	24.8	
62 n-Heptane	43	7.277	7.280	-0.003	65	113041	25.0	25.5	
64 Trichloroethene	130	7.666	7.669	-0.003	99	78459	25.0	24.3	
66 Methylcyclohexane	83	7.867	7.864	0.003	96	146574	25.0	25.4	
67 1,2-Dichloropropane	63	7.903	7.906	-0.003	95	72742	25.0	22.8	
68 Dibromomethane	93	8.031	8.028	0.003	94	40542	25.0	23.6	
70 1,4-Dioxane	88	8.068	8.058	0.010	87	15563	500.0	463.6	
71 Dichlorobromomethane	83	8.196	8.198	-0.002	97	84673	25.0	24.2	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.002	98	70642	25.0	20.9	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.825	-0.003	98	154453	50.0	47.4	
76 Toluene	91	8.992	8.989	0.003	99	331041	25.0	26.8	
77 trans-1,3-Dichloropropene	75	9.224	9.220	0.004	95	44917	25.0	20.1	
78 Ethyl methacrylate	69	9.321	9.318	0.003	97	59964	25.0	20.6	
79 1,1,2-Trichloroethane	97	9.400	9.397	0.003	98	55897	25.0	24.1	
80 Tetrachloroethene	164	9.534	9.537	-0.003	96	64647	25.0	26.8	
81 1,3-Dichloropropane	76	9.570	9.567	0.003	98	110194	25.0	25.6	
82 2-Hexanone	43	9.662	9.658	0.004	99	112348	50.0	45.1	
84 Chlorodibromomethane	129	9.795	9.786	0.009	98	43996	25.0	23.8	
85 Ethylene Dibromide	107	9.899	9.902	-0.003	99	51254	25.0	23.2	
86 3-Chlorobenzotrifluoride	180	10.373	10.370	0.003	89	124209	25.0	26.4	
87 Chlorobenzene	112	10.392	10.394	-0.002	99	203702	25.0	26.0	
88 4-Chlorobenzotrifluoride	180	10.434	10.431	0.003	99	116232	25.0	25.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.473	0.004	96	48269	25.0	23.9	
90 Ethylbenzene	106	10.501	10.498	0.003	100	116477	25.0	25.9	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	99	142634	25.0	26.0	
92 o-Xylene	106	11.012	11.015	-0.003	97	132929	25.0	24.8	
93 Styrene	104	11.024	11.027	-0.003	99	220574	25.0	25.5	
94 Bromoform	173	11.213	11.209	0.004	97	26498	25.0	23.2	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	97	125099	25.0	26.6	
97 Isopropylbenzene	105	11.377	11.380	-0.003	99	368436	25.0	27.5	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.672	0.003	70	83874	25.0	25.3	
100 Bromobenzene	156	11.681	11.684	-0.003	98	80670	25.0	24.8	
101 1,2,3-Trichloropropane	110	11.718	11.720	-0.002	95	24990	25.0	23.3	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.727	0.003	85	21505	25.0	24.2	
103 N-Propylbenzene	120	11.791	11.787	0.004	100	102304	25.0	25.4	
104 2-Chlorotoluene	126	11.876	11.873	0.003	99	84295	25.0	25.0	
105 3-Chlorotoluene	126	11.937	11.933	0.004	98	91182	25.0	24.2	

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	11.961	11.964	-0.003	100	289696	25.0	25.8	
107 4-Chlorotoluene	126	11.986	11.982	0.004	96	89370	25.0	24.4	
108 tert-Butylbenzene	119	12.290	12.286	0.004	98	248042	25.0	25.5	
110 1,2,4-Trimethylbenzene	105	12.338	12.335	0.003	99	292909	25.0	25.5	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.402	-0.003	98	87627	25.0	24.1	
112 sec-Butylbenzene	105	12.509	12.505	0.004	100	361915	25.0	26.5	
113 1,3-Dichlorobenzene	146	12.618	12.615	0.003	99	151937	25.0	25.3	
114 4-Isopropyltoluene	119	12.655	12.651	0.004	99	284792	25.0	25.2	
115 1,4-Dichlorobenzene	146	12.709	12.706	0.003	98	150942	25.0	24.6	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.761	-0.003	94	81937	25.0	24.1	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.809	-0.002	97	94772	25.0	24.9	
120 n-Butylbenzene	91	13.062	13.059	0.003	100	262455	25.0	25.5	
121 1,2-Dichlorobenzene	146	13.081	13.083	-0.002	99	136843	25.0	24.6	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.862	-0.003	92	9396	25.0	20.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.011	14.008	0.003	99	300911	75.0	71.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	99	191256	50.0	46.8	
126 1,2,4-Trichlorobenzene	180	14.693	14.689	0.004	98	62363	25.0	21.5	
127 Hexachlorobutadiene	225	14.863	14.860	0.003	95	33676	25.0	24.3	
128 Naphthalene	128	14.942	14.939	0.003	99	161398	25.0	21.2	
129 1,2,3-Trichlorobenzene	180	15.185	15.188	-0.003	97	47333	25.0	19.9	
131 2,4,5-Trichlorotoluene	159	15.964	15.961	0.003	95	24209	25.0	19.0	
130 2,3,6-Trichlorotoluene	159	16.061	16.064	-0.003	95	22020	25.0	19.1	
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		50.0	50.7	
S 134 1,2-Dichloroethene, Total	96				0		50.0	50.8	
S 135 1,3-Dichloropropene, Total	1				0		50.0	41.0	

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	
voaWEEpri Res_00003	Amount Added:	1.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	1.00	Units: uL	
VOA8260SURR_00032	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	1.00	Units: uL	
VOAVAPRI_00005	Amount Added:	1.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

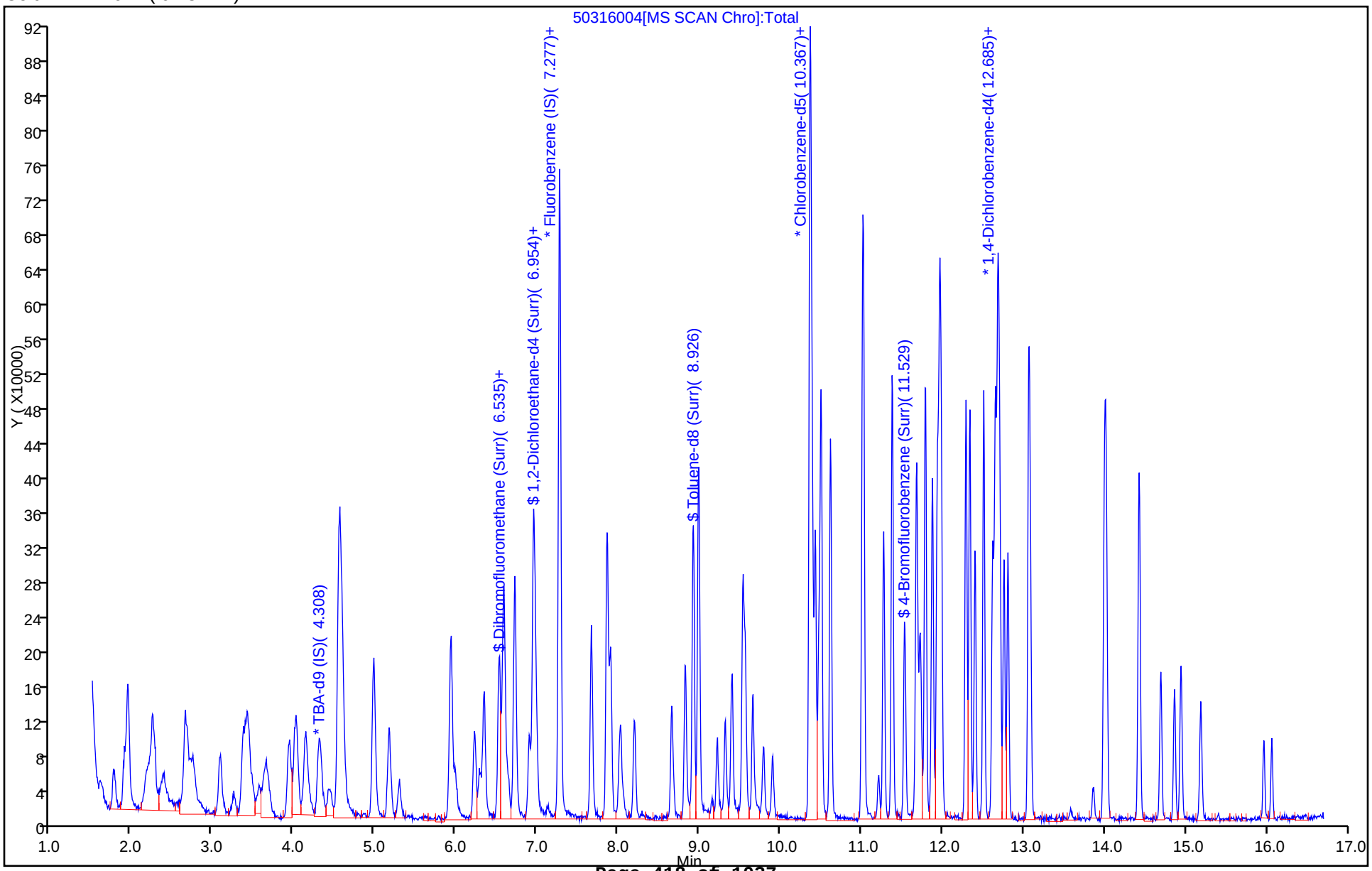
Report Date: 17-Mar-2015 10:59:21 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316004.D

Injection Date:	16-Mar-2015 12:41:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

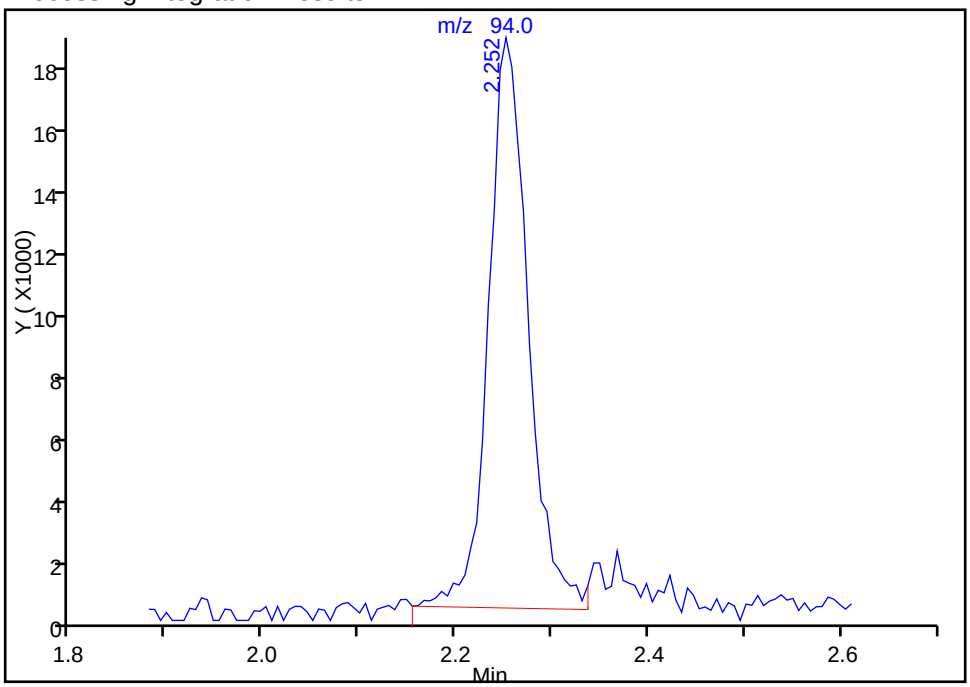
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316004.D				
Injection Date:	16-Mar-2015 12:41:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

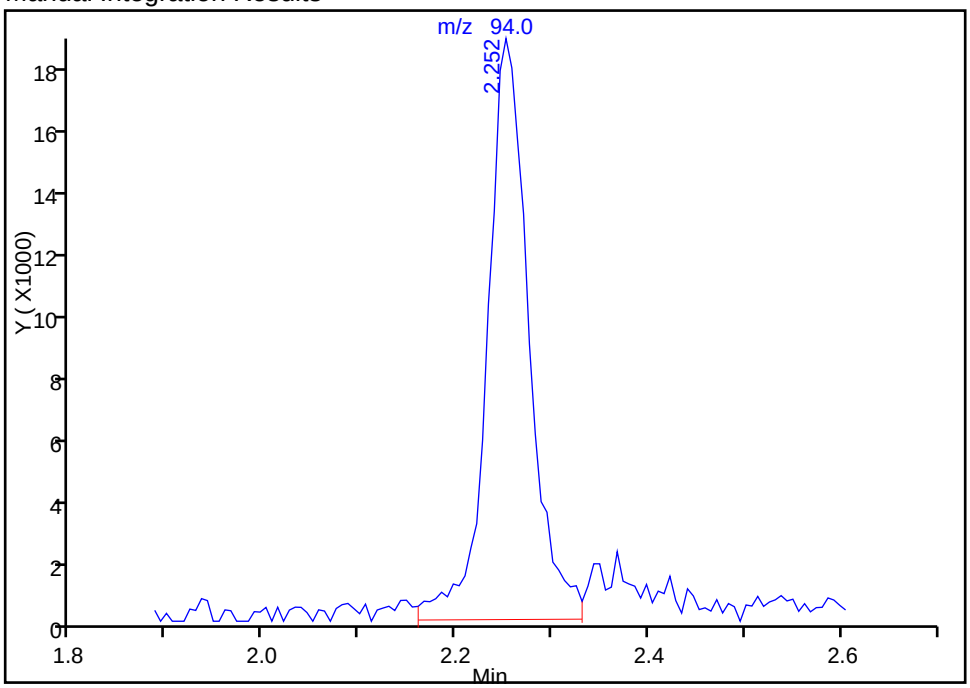
Processing Integration Results

RT: 2.25
Area: 51742
Amount: 22.147125
Amount Units: ng



Manual Integration Results

RT: 2.25
Area: 55097
Amount: 26.195176
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 09:42:10
Audit Action: Manually Integrated
Audit Reason: Baseline

Report Date: 17-Mar-2015 10:59:23 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316005.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 16-Mar-2015 13:05:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0006031-005
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:21 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 16-Mar-2015 15:03:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.305	0.000	86	135440	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	99	538139	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	97	121549	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	98	174397	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	95	122918	50.0	50.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	99	162227	50.0	50.3	
$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	527093	50.0	54.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	95	183629	50.0	52.6	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	100	116111	50.0	50.3	
12 Chloromethane	50	1.774	1.774	0.000	100	159885	50.0	50.2	
13 Vinyl chloride	62	1.902	1.902	0.000	100	183317	50.0	51.5	
14 Butadiene	39	1.944	1.944	0.000	99	208815	50.0	51.4	
15 Bromomethane	94	2.249	2.249	0.000	93	100717	50.0	52.5	
16 Chloroethane	64	2.370	2.370	0.000	98	126349	50.0	51.3	
17 Dichlorofluoromethane	67	2.650	2.650	0.000	100	282324	50.0	50.2	
18 Trichlorofluoromethane	101	2.711	2.711	0.000	98	217544	50.0	51.0	
20 Ethyl ether	59	3.088	3.088	0.000	98	138609	50.0	49.2	
21 Acrolein	56	3.252	3.252	0.000	98	50582	150.0	147.9	
22 1,1-Dichloroethene	96	3.386	3.386	0.000	99	151843	50.0	48.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.429	0.000	97	159979	50.0	51.0	
24 Acetone	43	3.496	3.496	0.000	99	102899	100.0	93.3	
25 Iodomethane	142	3.587	3.587	0.000	96	216640	50.0	50.3	
26 Carbon disulfide	76	3.654	3.654	0.000	100	387934	50.0	51.1	
28 3-Chloro-1-propene	76	3.940	3.940	0.000	96	80577	50.0	49.1	
30 Methyl acetate	43	4.019	4.019	0.000	100	641136	250.0	248.6	
31 Methylene Chloride	84	4.134	4.134	0.000	86	168570	50.0	47.0	
32 2-Methyl-2-propanol	59	4.445	4.445	0.000	86	83098	500.0	520.9	
33 Acrylonitrile	53	4.554	4.554	0.000	99	666088	500.0	502.1	
34 trans-1,2-Dichloroethene	96	4.560	4.560	0.000	59	161381	50.0	50.3	
35 Methyl tert-butyl ether	73	4.591	4.591	0.000	96	336961	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.980	0.000	98	261916	50.0	51.1	
37 1,1-Dichloroethane	63	5.169	5.169	0.000	100	291408	50.0	50.9	
38 Vinyl acetate	43	5.290	5.290	0.000	100	187915	50.0	46.2	
44 2,2-Dichloropropane	77	5.923	5.923	0.000	67	70106	50.0	48.9	
45 cis-1,2-Dichloroethene	96	5.935	5.935	0.000	92	164893	50.0	48.8	
46 2-Butanone (MEK)	43	5.990	5.990	0.000	100	180996	100.0	102.7	
49 Chlorobromomethane	128	6.233	6.233	0.000	95	71124	50.0	48.6	
51 Tetrahydrofuran	42	6.288	6.288	0.000	98	110274	100.0	99.9	
52 Chloroform	83	6.343	6.343	0.000	96	262371	50.0	50.4	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	95	167130	50.0	50.3	
54 Cyclohexane	56	6.586	6.586	0.000	95	322468	50.0	50.5	
56 Carbon tetrachloride	117	6.720	6.720	0.000	69	132517	50.0	49.7	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	97	219974	50.0	51.0	
57 Isobutyl alcohol	41	6.945	6.945	0.000	37	83109	1250.0	1157.0	
58 Benzene	78	6.957	6.957	0.000	99	654151	50.0	51.3	
59 1,2-Dichloroethane	62	6.981	6.981	0.000	97	208683	50.0	50.0	
62 n-Heptane	43	7.280	7.280	0.000	81	222515	50.0	50.8	
64 Trichloroethene	130	7.669	7.669	0.000	98	162608	50.0	50.9	
66 Methylcyclohexane	83	7.864	7.864	0.000	96	295972	50.0	51.9	
67 1,2-Dichloropropane	63	7.906	7.906	0.000	95	154467	50.0	49.0	
68 Dibromomethane	93	8.028	8.028	0.000	95	82469	50.0	48.6	
70 1,4-Dioxane	88	8.058	8.058	0.000	96	31354	1000.0	944.0	M
71 Dichlorobromomethane	83	8.198	8.198	0.000	99	176851	50.0	51.0	
74 cis-1,3-Dichloropropene	75	8.661	8.661	0.000	99	152581	50.0	45.6	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	342539	100.0	104.1	
76 Toluene	91	8.989	8.989	0.000	100	679332	50.0	54.5	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	94	108942	50.0	48.4	
78 Ethyl methacrylate	69	9.318	9.318	0.000	96	142858	50.0	48.7	
79 1,1,2-Trichloroethane	97	9.397	9.397	0.000	99	125390	50.0	53.7	
80 Tetrachloroethene	164	9.537	9.537	0.000	95	129494	50.0	53.1	
81 1,3-Dichloropropane	76	9.567	9.567	0.000	98	233217	50.0	53.7	
82 2-Hexanone	43	9.658	9.658	0.000	99	271508	100.0	108.0	
84 Chlorodibromomethane	129	9.786	9.786	0.000	99	96762	50.0	51.9	
85 Ethylene Dibromide	107	9.902	9.902	0.000	98	115204	50.0	51.7	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	97	251080	50.0	52.8	
87 Chlorobenzene	112	10.394	10.394	0.000	99	416488	50.0	52.8	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	99	234233	50.0	51.0	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	97	101650	50.0	49.9	
90 Ethylbenzene	106	10.498	10.498	0.000	100	242856	50.0	53.6	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	99	293796	50.0	53.0	
92 o-Xylene	106	11.015	11.015	0.000	97	285835	50.0	52.8	
93 Styrene	104	11.027	11.027	0.000	99	469890	50.0	53.8	
94 Bromoform	173	11.209	11.209	0.000	96	57667	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.276	11.276	0.000	99	252226	50.0	53.1	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	741027	50.0	54.8	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.672	0.000	97	171864	50.0	51.3	
100 Bromobenzene	156	11.684	11.684	0.000	98	168649	50.0	52.2	
101 1,2,3-Trichloropropane	110	11.720	11.720	0.000	97	55900	50.0	52.7	
102 trans-1,4-Dichloro-2-buten	53	11.727	11.727	0.000	88	42827	50.0	48.6	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	210687	50.0	52.9	
104 2-Chlorotoluene	126	11.873	11.873	0.000	100	177793	50.0	53.1	
105 3-Chlorotoluene	126	11.933	11.933	0.000	99	185477	50.0	49.6	

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	11.964	11.964	0.000	99	588847	50.0	53.0	
107 4-Chlorotoluene	126	11.982	11.982	0.000	99	189449	50.0	52.3	
108 tert-Butylbenzene	119	12.286	12.286	0.000	100	517188	50.0	53.8	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	100	610150	50.0	53.5	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	98	179092	50.0	49.7	
112 sec-Butylbenzene	105	12.505	12.505	0.000	100	732318	50.0	54.1	
113 1,3-Dichlorobenzene	146	12.615	12.615	0.000	98	302903	50.0	50.9	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	99	605051	50.0	54.1	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	98	310551	50.0	51.1	
116 2,4-Dichloro-1-(triflourom	214	12.761	12.761	0.000	94	174468	50.0	51.7	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.809	0.000	98	186350	50.0	49.4	
120 n-Butylbenzene	91	13.059	13.059	0.000	100	542017	50.0	53.3	
121 1,2-Dichlorobenzene	146	13.083	13.083	0.000	100	283138	50.0	51.4	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.862	0.000	86	21428	50.0	47.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	99	613057	150.0	147.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	100	386758	100.0	95.5	
126 1,2,4-Trichlorobenzene	180	14.689	14.689	0.000	96	132179	50.0	46.1	
127 Hexachlorobutadiene	225	14.860	14.860	0.000	96	67414	50.0	49.0	
128 Naphthalene	128	14.939	14.939	0.000	100	347596	50.0	46.2	
129 1,2,3-Trichlorobenzene	180	15.188	15.188	0.000	98	105062	50.0	44.7	
131 2,4,5-Trichlorotoluene	159	15.961	15.961	0.000	96	51080	50.0	40.4	
130 2,3,6-Trichlorotoluene	159	16.064	16.064	0.000	97	47319	50.0	41.5	
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		100.0	105.8	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAVAPRI_00005	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	2.00	Units: uL	
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	
voaWEEpri Res_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_00030	Amount Added:	2.00	Units: uL	Run Reagent

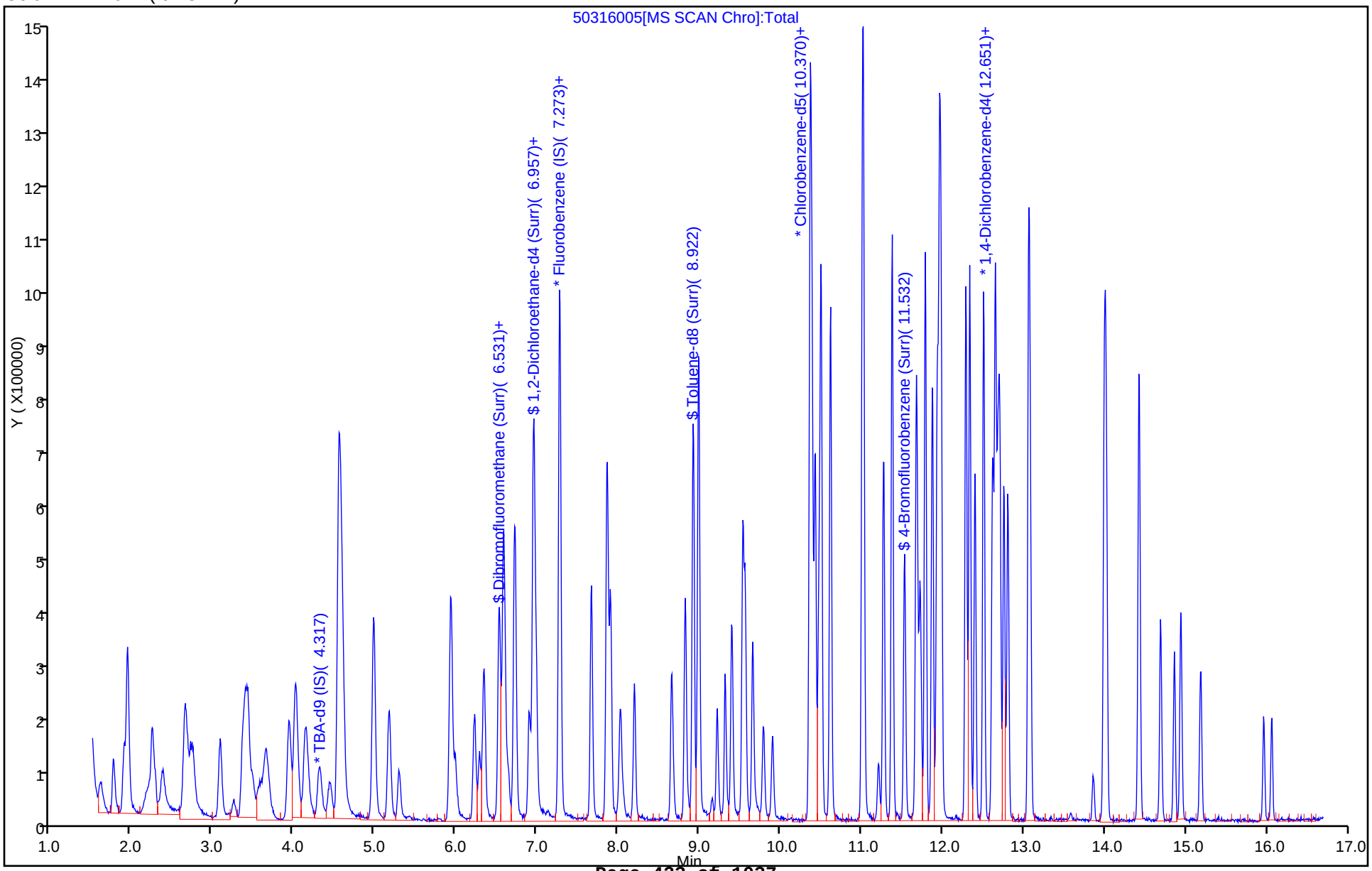
Report Date: 17-Mar-2015 10:59:23 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316005.D

Injection Date:	16-Mar-2015 13:05:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

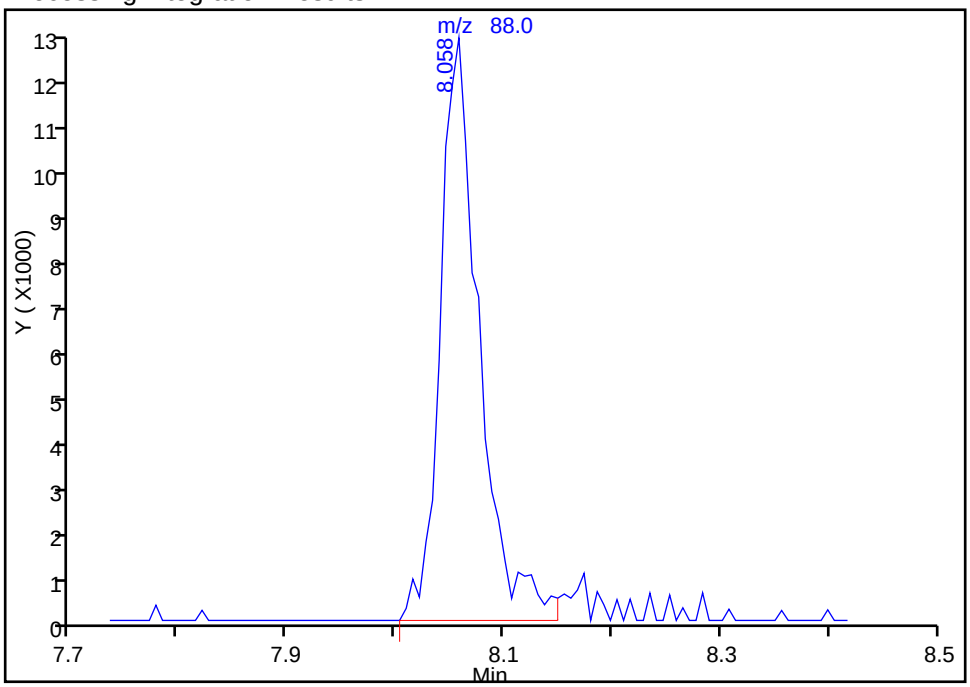
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316005.D
Injection Date: 16-Mar-2015 13:05:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 5
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

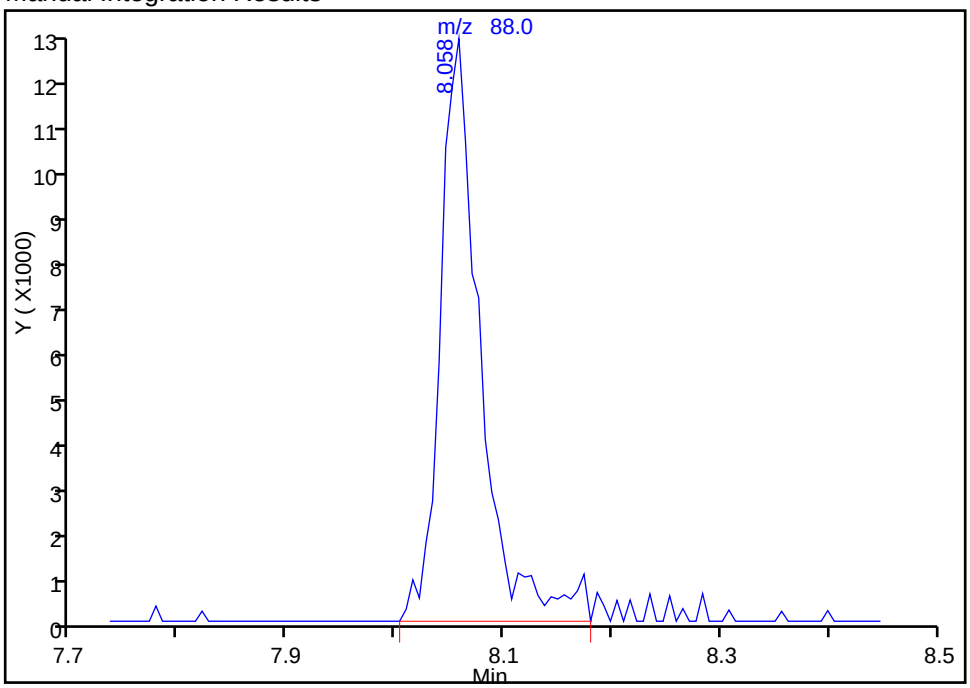
Processing Integration Results

RT: 8.06
Area: 30397
Amount: 939.9751
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 31354
Amount: 944.0403
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 09:27:38
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316006.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-Mar-2015 13:29:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0006031-006
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:26 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 09:45:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.305	0.000	89	152705	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	99	530419	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	99	125149	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	95	182887	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	97	185698	75.0	77.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	96	247858	75.0	77.9	
$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	794092	75.0	79.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	97	279546	75.0	77.8	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	99	173113	75.0	76.1	
12 Chloromethane	50	1.768	1.768	0.000	99	249772	75.0	79.6	
13 Vinyl chloride	62	1.896	1.896	0.000	100	280135	75.0	79.9	
14 Butadiene	39	1.944	1.944	0.000	99	317272	75.0	79.2	
15 Bromomethane	94	2.249	2.249	0.000	92	159846	75.0	87.5	
16 Chloroethane	64	2.376	2.376	0.000	96	191164	75.0	78.8	
17 Dichlorofluoromethane	67	2.644	2.644	0.000	99	437737	75.0	79.0	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	96	358375	75.0	85.2	
20 Ethyl ether	59	3.082	3.082	0.000	100	214135	75.0	77.2	
21 Acrolein	56	3.258	3.258	0.000	100	62132	175.0	184.3	
22 1,1-Dichloroethene	96	3.374	3.374	0.000	100	235889	75.0	77.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	100	246660	75.0	79.7	
24 Acetone	43	3.496	3.496	0.000	100	180387	150.0	166.0	
25 Iodomethane	142	3.581	3.581	0.000	100	334141	75.0	78.6	
26 Carbon disulfide	76	3.660	3.660	0.000	100	592248	75.0	79.2	
28 3-Chloro-1-propene	76	3.934	3.934	0.000	100	125423	75.0	77.6	
30 Methyl acetate	43	4.019	4.019	0.000	100	994505	375.0	391.2	
31 Methylene Chloride	84	4.147	4.147	0.000	100	256424	75.0	72.5	
32 2-Methyl-2-propanol	59	4.439	4.439	0.000	100	133756	750.0	743.6	
33 Acrylonitrile	53	4.554	4.554	0.000	100	1035956	750.0	792.2	
34 trans-1,2-Dichloroethene	96	4.560	4.560	0.000	100	251288	75.0	79.4	
35 Methyl tert-butyl ether	73	4.597	4.597	0.000	100	528520	75.0	75.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.980	0.000	100	392065	75.0	77.6	
37 1,1-Dichloroethane	63	5.175	5.175	0.000	100	435915	75.0	77.2	
38 Vinyl acetate	43	5.296	5.296	0.000	100	294456	75.0	73.5	
44 2,2-Dichloropropane	77	5.929	5.929	0.000	100	108858	75.0	77.1	
45 cis-1,2-Dichloroethene	96	5.941	5.941	0.000	100	259517	75.0	77.9	
46 2-Butanone (MEK)	43	5.990	5.990	0.000	100	259227	150.0	149.2	
49 Chlorobromomethane	128	6.227	6.227	0.000	100	109930	75.0	76.2	
51 Tetrahydrofuran	42	6.282	6.282	0.000	100	166594	150.0	153.1	
52 Chloroform	83	6.343	6.343	0.000	100	395935	75.0	77.2	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	100	259963	75.0	79.4	
54 Cyclohexane	56	6.586	6.586	0.000	100	497889	75.0	79.2	
56 Carbon tetrachloride	117	6.720	6.720	0.000	100	203736	75.0	77.5	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	100	326699	75.0	76.8	
57 Isobutyl alcohol	41	6.945	6.945	0.000	100	137203	1875.0	1937.9	M
58 Benzene	78	6.957	6.957	0.000	100	984614	75.0	78.3	
59 1,2-Dichloroethane	62	6.988	6.988	0.000	100	320594	75.0	77.9	
62 n-Heptane	43	7.280	7.280	0.000	100	335961	75.0	77.8	
64 Trichloroethene	130	7.669	7.669	0.000	100	242252	75.0	76.9	
66 Methylcyclohexane	83	7.864	7.864	0.000	100	446628	75.0	79.5	
67 1,2-Dichloropropane	63	7.906	7.906	0.000	100	238331	75.0	76.7	
68 Dibromomethane	93	8.022	8.022	0.000	100	130496	75.0	78.0	
70 1,4-Dioxane	88	8.058	8.058	0.000	100	50907	1500.0	1555.1	
71 Dichlorobromomethane	83	8.198	8.198	0.000	100	259871	75.0	76.1	
74 cis-1,3-Dichloropropene	75	8.661	8.661	0.000	100	247138	75.0	75.0	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	100	531084	150.0	156.8	
76 Toluene	91	8.989	8.989	0.000	100	1017198	75.0	79.3	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	100	167274	75.0	72.2	
78 Ethyl methacrylate	69	9.318	9.318	0.000	100	221852	75.0	73.4	
79 1,1,2-Trichloroethane	97	9.403	9.403	0.000	100	183907	75.0	76.5	
80 Tetrachloroethene	164	9.537	9.537	0.000	100	194422	75.0	77.5	
81 1,3-Dichloropropane	76	9.561	9.561	0.000	100	342719	75.0	76.7	
82 2-Hexanone	43	9.658	9.658	0.000	100	402386	150.0	155.5	
84 Chlorodibromomethane	129	9.792	9.792	0.000	100	145315	75.0	75.7	
85 Ethylene Dibromide	107	9.902	9.902	0.000	100	179814	75.0	78.4	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	100	388132	75.0	79.3	
87 Chlorobenzene	112	10.388	10.388	0.000	100	622968	75.0	76.7	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	100	368570	75.0	77.9	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	100	159225	75.0	75.9	
90 Ethylbenzene	106	10.504	10.504	0.000	100	366398	75.0	78.6	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	100	454933	75.0	79.8	
92 o-Xylene	106	11.009	11.009	0.000	100	436586	75.0	78.3	
93 Styrene	104	11.027	11.027	0.000	100	712222	75.0	79.2	
94 Bromoform	173	11.209	11.209	0.000	100	90522	75.0	76.3	
96 2-Chlorobenzotrifluoride	180	11.276	11.276	0.000	100	386985	75.0	79.2	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	1137215	75.0	81.7	
99 1,1,2,2-Tetrachloroethane	83	11.678	11.678	0.000	100	264462	75.0	76.7	
100 Bromobenzene	156	11.678	11.678	0.000	100	253502	75.0	74.9	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	100	81225	75.0	73.0	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	100	66879	75.0	72.3	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	316980	75.0	75.9	
104 2-Chlorotoluene	126	11.873	11.873	0.000	100	262207	75.0	74.7	
105 3-Chlorotoluene	126	11.933	11.933	0.000	100	291288	75.0	74.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.964	11.964	0.000	100	921783	75.0	79.2	
107 4-Chlorotoluene	126	11.982	11.982	0.000	100	296950	75.0	78.2	
108 tert-Butylbenzene	119	12.286	12.286	0.000	100	794422	75.0	78.8	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	100	951216	75.0	79.6	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	100	303120	75.0	80.3	
112 sec-Butylbenzene	105	12.511	12.511	0.000	100	1138120	75.0	80.2	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	100	480001	75.0	77.0	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	100	948139	75.0	80.9	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	100	484138	75.0	76.0	
116 2,4-Dichloro-1-(triflourom	214	12.755	12.755	0.000	100	289446	75.0	81.8	
118 2,5-Dichlorobenzotrifluori	214	12.803	12.803	0.000	100	309155	75.0	78.1	
120 n-Butylbenzene	91	13.065	13.065	0.000	100	861784	75.0	80.7	
121 1,2-Dichlorobenzene	146	13.083	13.083	0.000	100	440732	75.0	76.3	
122 1,2-Dibromo-3-Chloropropan	75	13.856	13.856	0.000	100	36318	75.0	76.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	100	1058653	225.0	242.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	100	694253	150.0	163.5	
126 1,2,4-Trichlorobenzene	180	14.695	14.695	0.000	100	240861	75.0	80.1	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	100	112236	75.0	77.9	
128 Naphthalene	128	14.939	14.939	0.000	100	657935	75.0	83.4	
129 1,2,3-Trichlorobenzene	180	15.188	15.188	0.000	100	200345	75.0	81.3	
131 2,4,5-Trichlorotoluene	159	15.967	15.967	0.000	100	108037	75.0	81.5	
130 2,3,6-Trichlorotoluene	159	16.064	16.064	0.000	100	98974	75.0	82.7	
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		150.0	158.1	
S 134 1,2-Dichloroethene, Total	96				0		150.0	157.3	
S 135 1,3-Dichloropropene, Total	1				0		150.0	147.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRPRI_00003	Amount Added:	7.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	3.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	3.00	Units: uL	
VOA8260SURR_00032	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	3.00	Units: uL	
VOAVAPRI_00005	Amount Added:	3.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

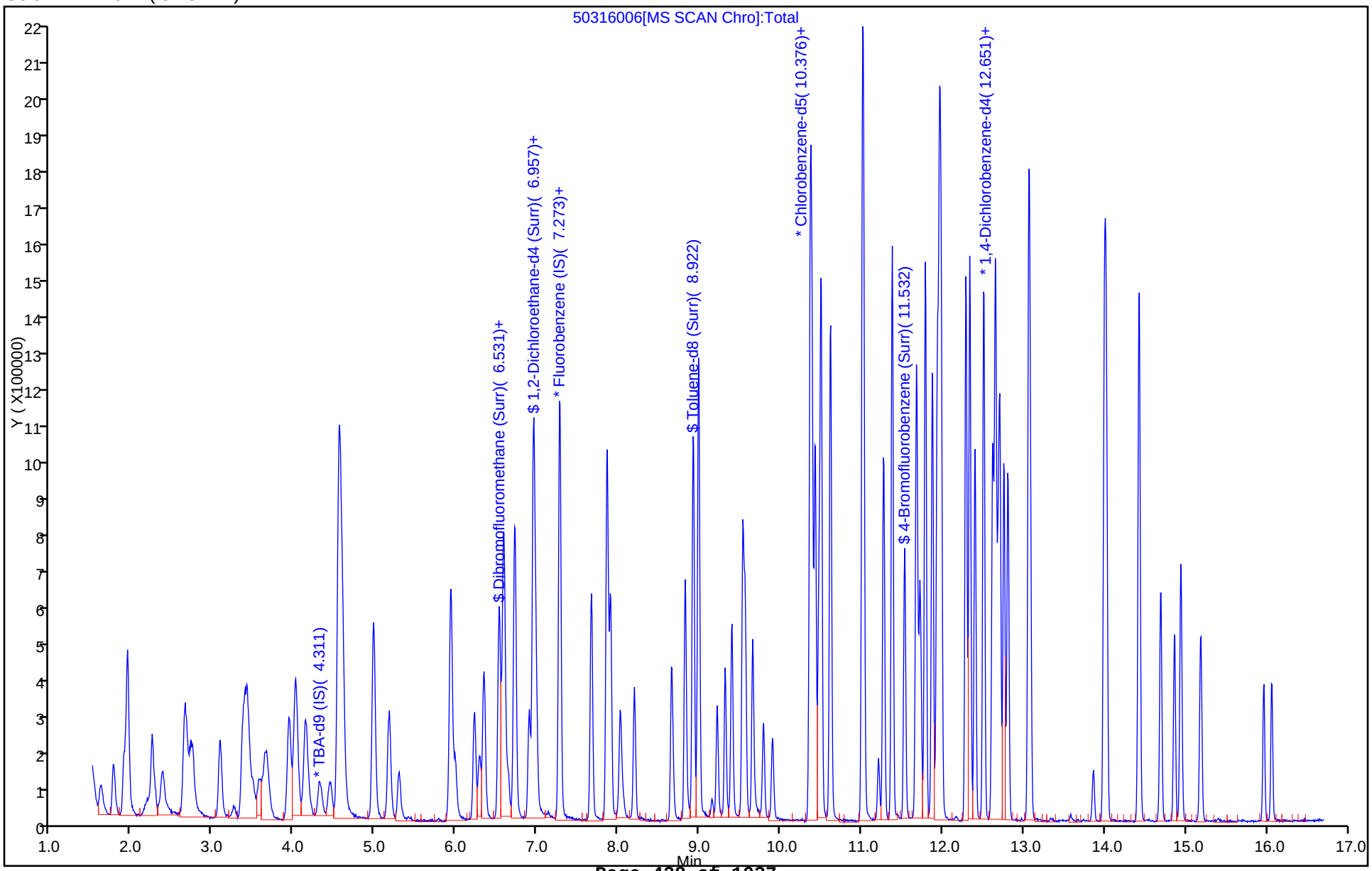
Report Date: 17-Mar-2015 10:59:27 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316006.D

Injection Date:	16-Mar-2015 13:29:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

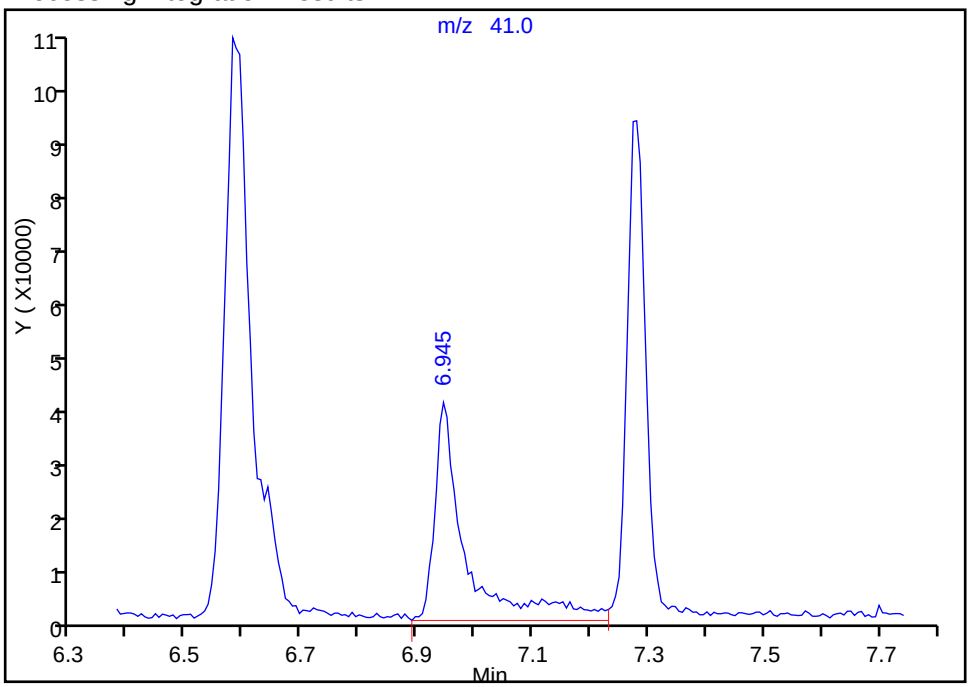
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316006.D
Injection Date: 16-Mar-2015 13:29:30 Instrument ID: CHHP5
Lims ID: IC VSTD15
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
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

57 Isobutyl alcohol, CAS: 78-83-1

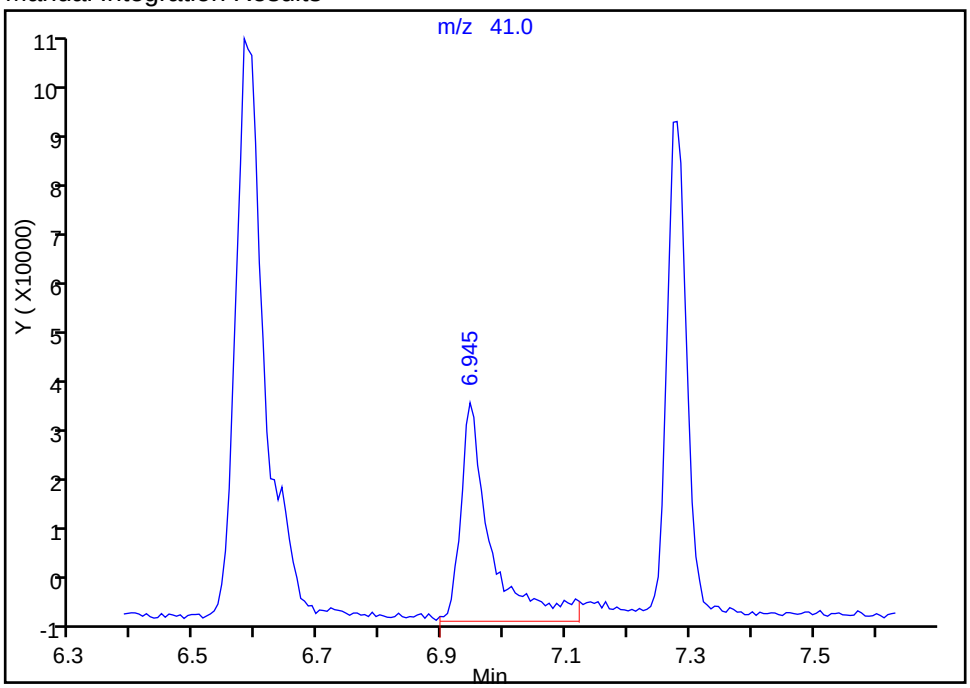
Processing Integration Results

RT: 6.94
Area: 150922
Amount: 2067.3126
Amount Units: ng



Manual Integration Results

RT: 6.94
Area: 137203
Amount: 1937.8985
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 09:45:06
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316007.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-Mar-2015 13:53:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0006031-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:28 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 09:48:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.326	4.305	0.021	86	154462	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.270	7.273	-0.003	99	558174	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.364	0.003	99	128898	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	99	188542	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.528	6.525	0.003	99	248750	100.0	98.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.899	6.902	-0.003	97	335757	100.0	100.3	
$ 7 Toluene-d8 (Surr)	98	8.919	8.922	-0.003	100	1053927	100.0	102.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.532	-0.003	98	379740	100.0	102.6	
11 Dichlorodifluoromethane	85	1.619	1.622	-0.003	98	243823	100.0	101.9	
12 Chloromethane	50	1.777	1.768	0.009	100	316915	100.0	96.0	
13 Vinyl chloride	62	1.905	1.896	0.009	100	370271	100.0	100.3	
14 Butadiene	39	1.947	1.944	0.003	100	415323	100.0	98.5	
15 Bromomethane	94	2.251	2.249	0.002	99	192846	100.0	101.0	
16 Chloroethane	64	2.373	2.376	-0.003	99	245673	100.0	96.2	
17 Dichlorofluoromethane	67	2.653	2.644	0.009	100	548270	100.0	94.0	
18 Trichlorofluoromethane	101	2.702	2.723	-0.021	98	437688	100.0	98.9	
20 Ethyl ether	59	3.085	3.082	0.003	100	293889	100.0	100.7	
21 Acrolein	56	3.261	3.258	0.003	99	71073	200.0	200.4	
22 1,1-Dichloroethene	96	3.377	3.374	0.003	98	318457	100.0	98.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.423	0.009	98	319162	100.0	98.0	
24 Acetone	43	3.492	3.496	-0.004	100	217095	200.0	189.9	
25 Iodomethane	142	3.596	3.581	0.015	99	439512	100.0	98.3	
26 Carbon disulfide	76	3.669	3.660	0.009	100	772081	100.0	98.1	
28 3-Chloro-1-propene	76	3.930	3.934	-0.004	99	163875	100.0	96.3	
30 Methyl acetate	43	4.022	4.019	0.003	100	1321970	500.0	494.2	
31 Methylene Chloride	84	4.143	4.147	-0.004	98	345226	100.0	92.7	
32 2-Methyl-2-propanol	59	4.435	4.439	-0.004	99	175500	1000.0	964.6	
33 Acrylonitrile	53	4.551	4.554	-0.003	100	1363975	1000.0	991.2	
34 trans-1,2-Dichloroethene	96	4.557	4.560	-0.003	95	327278	100.0	98.3	
35 Methyl tert-butyl ether	73	4.594	4.597	-0.003	99	727030	100.0	98.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.980	0.003	99	514868	100.0	96.8	
37 1,1-Dichloroethane	63	5.171	5.175	-0.004	100	595324	100.0	100.2	
38 Vinyl acetate	43	5.293	5.296	-0.003	100	419086	100.0	99.4	
44 2,2-Dichloropropane	77	5.926	5.929	-0.003	98	147216	100.0	99.1	
45 cis-1,2-Dichloroethene	96	5.938	5.941	-0.003	98	349805	100.0	99.7	
46 2-Butanone (MEK)	43	5.987	5.990	-0.003	100	371447	200.0	203.2	
49 Chlorobromomethane	128	6.230	6.227	0.003	98	150204	100.0	99.0	
51 Tetrahydrofuran	42	6.285	6.282	0.003	99	224920	200.0	196.4	
52 Chloroform	83	6.346	6.343	0.003	100	534362	100.0	99.0	
53 1,1,1-Trichloroethane	97	6.528	6.531	-0.003	99	344772	100.0	100.0	
54 Cyclohexane	56	6.589	6.586	0.003	99	649387	100.0	98.1	
56 Carbon tetrachloride	117	6.717	6.720	-0.003	98	274328	100.0	99.2	
55 1,1-Dichloropropene	75	6.723	6.726	-0.003	98	436454	100.0	97.5	
57 Isobutyl alcohol	41	6.942	6.945	-0.003	98	174166	2500.0	2337.7	M
58 Benzene	78	6.954	6.957	-0.003	99	1312435	100.0	99.2	
59 1,2-Dichloroethane	62	6.984	6.988	-0.004	99	429724	100.0	99.2	
62 n-Heptane	43	7.276	7.280	-0.004	99	443357	100.0	97.6	
64 Trichloroethene	130	7.666	7.669	-0.003	99	326599	100.0	98.5	
66 Methylcyclohexane	83	7.860	7.864	-0.004	100	583894	100.0	98.7	
67 1,2-Dichloropropane	63	7.903	7.906	-0.003	99	332279	100.0	101.6	
68 Dibromomethane	93	8.025	8.022	0.003	99	178905	100.0	101.6	
70 1,4-Dioxane	88	8.055	8.058	-0.003	99	66490	2000.0	1930.1	
71 Dichlorobromomethane	83	8.195	8.198	-0.003	98	363842	100.0	101.2	
74 cis-1,3-Dichloropropene	75	8.657	8.661	-0.004	99	345528	100.0	99.6	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.825	-0.003	100	747218	200.0	214.2	
76 Toluene	91	8.992	8.989	0.003	100	1340817	100.0	101.5	
77 trans-1,3-Dichloropropene	75	9.217	9.220	-0.003	99	244258	100.0	102.4	
78 Ethyl methacrylate	69	9.314	9.318	-0.004	97	334858	100.0	107.6	
79 1,1,2-Trichloroethane	97	9.399	9.403	-0.004	99	252461	100.0	101.9	
80 Tetrachloroethene	164	9.539	9.537	0.002	99	261148	100.0	101.1	
81 1,3-Dichloropropane	76	9.564	9.561	0.003	100	467174	100.0	101.5	
82 2-Hexanone	43	9.655	9.658	-0.003	100	541680	200.0	203.2	
84 Chlorodibromomethane	129	9.789	9.792	-0.003	99	210013	100.0	106.2	
85 Ethylene Dibromide	107	9.898	9.902	-0.004	100	245946	100.0	104.0	
86 3-Chlorobenzotrifluoride	180	10.373	10.370	0.003	97	511845	100.0	101.6	
87 Chlorobenzene	112	10.391	10.388	0.003	100	845046	100.0	101.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.431	-0.003	99	511237	100.0	104.9	
89 1,1,1,2-Tetrachloroethane	131	10.476	10.473	0.003	95	233228	100.0	107.9	
90 Ethylbenzene	106	10.501	10.504	-0.003	100	488611	100.0	101.8	
91 m-Xylene & p-Xylene	106	10.616	10.619	-0.003	100	592135	100.0	100.8	
92 o-Xylene	106	11.012	11.009	0.003	100	585609	100.0	101.9	
93 Styrene	104	11.024	11.027	-0.003	95	966850	100.0	104.4	
94 Bromoform	173	11.212	11.209	0.003	98	126605	100.0	103.7	
96 2-Chlorobenzotrifluoride	180	11.273	11.276	-0.003	99	521379	100.0	103.6	
97 Isopropylbenzene	105	11.377	11.380	-0.003	100	1474178	100.0	102.8	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.678	-0.003	98	351798	100.0	99.0	
100 Bromobenzene	156	11.681	11.678	0.003	99	346996	100.0	99.4	
101 1,2,3-Trichloropropane	110	11.717	11.721	-0.003	97	111668	100.0	97.4	
102 trans-1,4-Dichloro-2-buten	53	11.729	11.733	-0.004	97	92761	100.0	97.3	
103 N-Propylbenzene	120	11.784	11.787	-0.003	100	419888	100.0	97.5	
104 2-Chlorotoluene	126	11.875	11.873	0.002	100	351403	100.0	97.2	
105 3-Chlorotoluene	126	11.936	11.933	0.003	98	415463	100.0	102.8	

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	11.964	-0.003	100	1188743	100.0	99.0	
107 4-Chlorotoluene	126	11.985	11.982	0.003	97	377870	100.0	96.5	
108 tert-Butylbenzene	119	12.289	12.286	0.003	99	1020106	100.0	98.1	
110 1,2,4-Trimethylbenzene	105	12.338	12.335	0.003	100	1214438	100.0	98.6	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.402	-0.003	100	396211	100.0	101.8	
112 sec-Butylbenzene	105	12.508	12.511	-0.003	100	1462842	100.0	99.9	
113 1,3-Dichlorobenzene	146	12.618	12.621	-0.003	99	630675	100.0	98.1	
114 4-Isopropyltoluene	119	12.648	12.651	-0.003	100	1195021	100.0	98.9	
115 1,4-Dichlorobenzene	146	12.709	12.706	0.003	99	642365	100.0	97.8	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.755	0.003	98	358539	100.0	98.3	
118 2,5-Dichlorobenzotrifluori	214	12.806	12.803	0.003	99	406971	100.0	99.8	
120 n-Butylbenzene	91	13.062	13.065	-0.003	100	1093564	100.0	99.4	
121 1,2-Dichlorobenzene	146	13.080	13.083	-0.003	99	595901	100.0	100.1	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.856	0.003	95	47067	100.0	96.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.008	-0.003	100	1333690	300.0	296.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.424	14.428	-0.004	100	866884	200.0	198.1	
126 1,2,4-Trichlorobenzene	180	14.692	14.695	-0.003	99	295444	100.0	95.3	
127 Hexachlorobutadiene	225	14.862	14.866	-0.004	98	140410	100.0	94.5	
128 Naphthalene	128	14.942	14.939	0.003	100	789643	100.0	97.0	
129 1,2,3-Trichlorobenzene	180	15.185	15.188	-0.003	98	242534	100.0	95.4	
131 2,4,5-Trichlorotoluene	159	15.964	15.967	-0.003	98	123791	100.0	90.6	
130 2,3,6-Trichlorotoluene	159	16.061	16.064	-0.003	98	110702	100.0	89.7	
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		200.0	202.8	
S 134 1,2-Dichloroethene, Total	96				0		200.0	198.0	
S 135 1,3-Dichloropropene, Total	1				0		200.0	202.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAVAPRI_00005	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	4.00	Units: uL	
VOA8260SURR_00032	Amount Added:	4.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	4.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	4.00	Units: uL	
VOAACRPRI_00003	Amount Added:	8.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

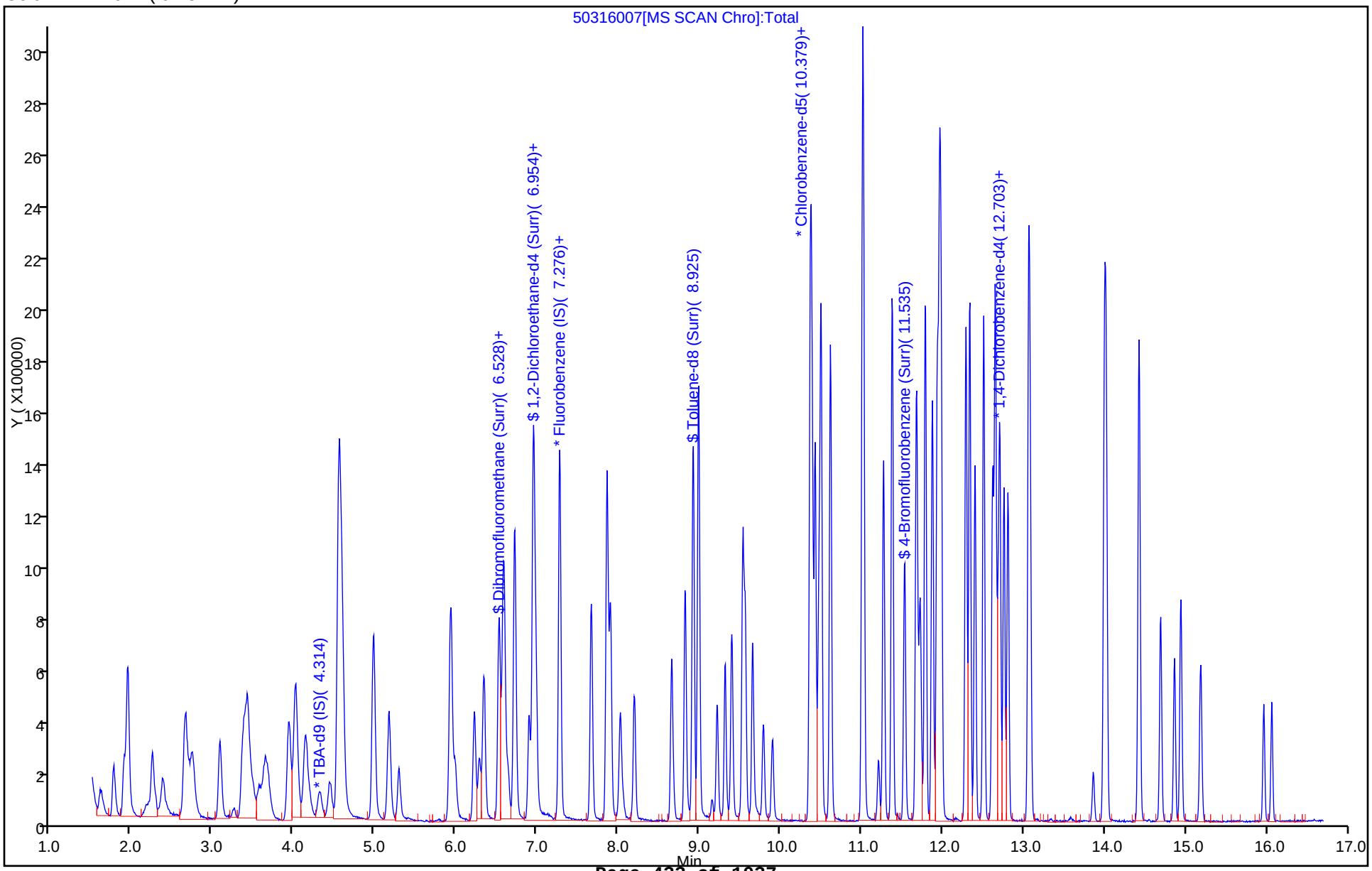
Report Date: 17-Mar-2015 10:59:29 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316007.D

Injection Date:	16-Mar-2015 13:53:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD20			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)



Manual Integration/User Assign Peak Report

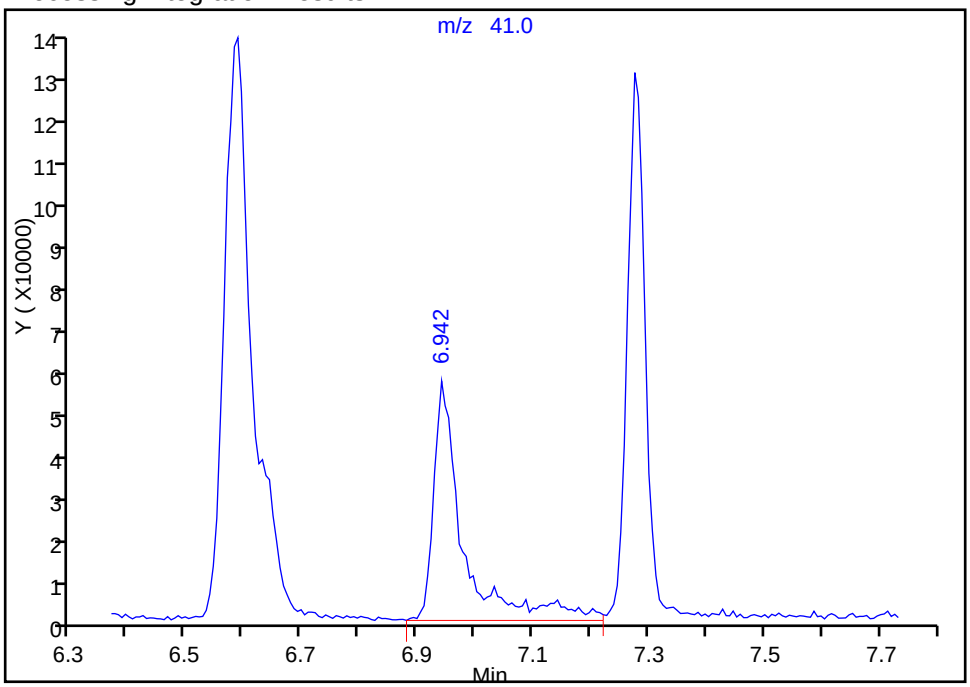
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316007.D
Injection Date: 16-Mar-2015 13:53:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
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

57 Isobutyl alcohol, CAS: 78-83-1

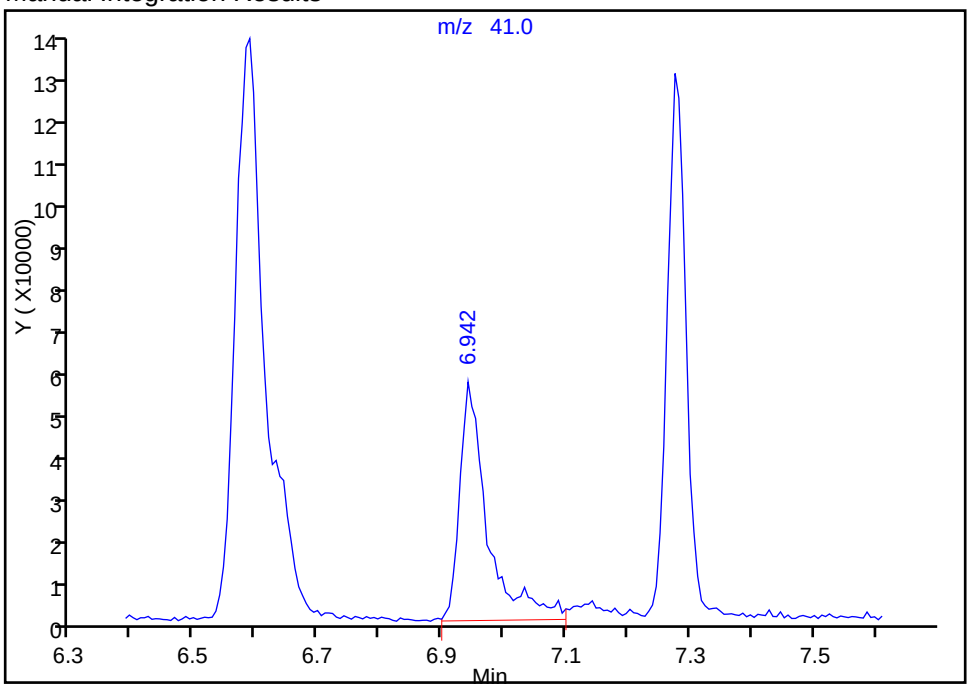
Processing Integration Results

RT: 6.94
Area: 197796
Amount: 2559.7908
Amount Units: ng



Manual Integration Results

RT: 6.94
Area: 174166
Amount: 2337.6542
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 09:48:25
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316008.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-Mar-2015 14:17:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0006031-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:29 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 09:49:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.309	4.305	0.004	95	172412	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.273	-0.002	99	562344	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.364	-0.002	92	147916	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.682	0.004	95	201448	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.525	0.004	99	435320	175.0	170.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.902	-0.002	98	589491	175.0	174.8	
$ 7 Toluene-d8 (Surr)	98	8.920	8.922	-0.002	99	1858068	175.0	157.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.532	-0.002	98	701915	175.0	165.3	
11 Dichlorodifluoromethane	85	1.614	1.622	-0.008	99	432190	175.0	179.3	
12 Chloromethane	50	1.772	1.768	0.004	100	573343	175.0	172.3	
13 Vinyl chloride	62	1.906	1.896	0.010	100	624000	175.0	167.8	
14 Butadiene	39	1.948	1.944	0.004	99	709784	175.0	167.1	
15 Bromomethane	94	2.252	2.249	0.003	100	307964	175.0	162.9	
16 Chloroethane	64	2.380	2.376	0.004	98	455903	175.0	177.2	
17 Dichlorofluoromethane	67	2.648	2.644	0.004	100	974888	175.0	166.0	
18 Trichlorofluoromethane	101	2.703	2.723	-0.020	98	772293	175.0	173.1	
20 Ethyl ether	59	3.086	3.082	0.004	99	519119	175.0	176.5	
21 Acrolein	56	3.250	3.258	-0.008	100	81646	225.0	228.5	
22 1,1-Dichloroethene	96	3.372	3.374	-0.002	98	562804	175.0	173.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.423	0.004	98	577719	175.0	176.1	
24 Acetone	43	3.493	3.496	-0.003	100	429781	350.0	373.1	
25 Iodomethane	142	3.573	3.581	-0.008	100	784350	175.0	174.1	
26 Carbon disulfide	76	3.652	3.660	-0.008	100	1381152	175.0	174.2	
28 3-Chloro-1-propene	76	3.931	3.934	-0.003	100	314052	175.0	183.2	
30 Methyl acetate	43	4.017	4.019	-0.002	100	2407305	875.0	893.2	
31 Methylene Chloride	84	4.138	4.147	-0.009	97	597904	175.0	159.4	
32 2-Methyl-2-propanol	59	4.442	4.439	0.003	99	351016	1750.0	1728.4	
33 Acrylonitrile	53	4.546	4.554	-0.008	99	2446379	1750.0	1764.6	
34 trans-1,2-Dichloroethene	96	4.558	4.560	-0.002	92	581552	175.0	173.4	
35 Methyl tert-butyl ether	73	4.595	4.597	-0.002	98	1347848	175.0	181.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.978	4.980	-0.002	99	929791	175.0	173.5	
37 1,1-Dichloroethane	63	5.166	5.175	-0.009	100	1052201	175.0	175.7	
38 Vinyl acetate	43	5.294	5.296	-0.002	100	831670	175.0	195.8	
44 2,2-Dichloropropane	77	5.927	5.929	-0.002	98	280515	175.0	187.4	
45 cis-1,2-Dichloroethene	96	5.933	5.941	-0.008	98	612812	175.0	173.4	
46 2-Butanone (MEK)	43	5.982	5.990	-0.008	100	665013	350.0	361.1	
49 Chlorobromomethane	128	6.225	6.227	-0.002	99	269375	175.0	176.2	
51 Tetrahydrofuran	42	6.286	6.282	0.004	100	415944	350.0	360.6	
52 Chloroform	83	6.341	6.343	-0.003	100	953676	175.0	175.3	
53 1,1,1-Trichloroethane	97	6.529	6.531	-0.002	99	639960	175.0	184.3	
54 Cyclohexane	56	6.584	6.586	-0.002	99	1161488	175.0	174.2	
56 Carbon tetrachloride	117	6.718	6.720	-0.002	100	504991	175.0	181.2	
55 1,1-Dichloropropene	75	6.724	6.726	-0.002	100	783682	175.0	173.7	
57 Isobutyl alcohol	41	6.943	6.945	-0.002	98	386141	4375.0	5144.3	
58 Benzene	78	6.955	6.957	-0.002	98	2286079	175.0	171.5	
59 1,2-Dichloroethane	62	6.985	6.988	-0.003	99	781760	175.0	179.2	
62 n-Heptane	43	7.277	7.280	-0.003	90	819785	175.0	179.1	
64 Trichloroethene	130	7.667	7.669	-0.002	99	586010	175.0	175.5	
66 Methylcyclohexane	83	7.861	7.864	-0.003	100	1055175	175.0	177.1	
67 1,2-Dichloropropane	63	7.904	7.906	-0.002	98	597514	175.0	181.3	
68 Dibromomethane	93	8.026	8.022	0.004	100	308441	175.0	173.8	
70 1,4-Dioxane	88	8.056	8.058	-0.002	97	132396	3500.0	3814.7	
71 Dichlorobromomethane	83	8.196	8.198	-0.002	100	663337	175.0	183.2	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.003	100	681682	175.0	195.1	
75 4-Methyl-2-pentanone (MIBK	43	8.823	8.825	-0.002	99	1390980	350.0	347.5	
76 Toluene	91	8.993	8.989	0.004	99	2347437	175.0	154.9	
77 trans-1,3-Dichloropropene	75	9.218	9.220	-0.002	98	502980	175.0	183.7	
78 Ethyl methacrylate	69	9.315	9.318	-0.003	98	654210	175.0	183.2	
79 1,1,2-Trichloroethane	97	9.400	9.403	-0.003	100	465584	175.0	163.8	
80 Tetrachloroethene	164	9.534	9.537	-0.003	99	477004	175.0	160.9	
81 1,3-Dichloropropane	76	9.565	9.561	0.004	99	854593	175.0	161.7	
82 2-Hexanone	43	9.656	9.658	-0.002	100	1103034	350.0	360.6	
84 Chlorodibromomethane	129	9.790	9.792	-0.002	99	406960	175.0	179.4	
85 Ethylene Dibromide	107	9.899	9.902	-0.003	99	461219	175.0	170.0	
86 3-Chlorobenzotrifluoride	180	10.374	10.370	0.004	87	925933	175.0	160.1	
87 Chlorobenzene	112	10.392	10.388	0.004	99	1507544	175.0	157.0	
88 4-Chlorobenzotrifluoride	180	10.429	10.431	-0.002	99	908777	175.0	162.5	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.473	-0.002	95	439701	175.0	177.3	
90 Ethylbenzene	106	10.502	10.504	-0.002	99	889389	175.0	161.4	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	99	1092005	175.0	162.0	
92 o-Xylene	106	11.013	11.009	0.004	98	1059986	175.0	160.8	
93 Styrene	104	11.025	11.027	-0.002	93	1723778	175.0	162.3	
94 Bromoform	173	11.213	11.209	0.004	99	253560	175.0	180.9	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	99	922108	175.0	159.7	
97 Isopropylbenzene	105	11.378	11.380	-0.002	98	2580136	175.0	156.9	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.678	-0.002	99	681581	175.0	167.2	
100 Bromobenzene	156	11.682	11.678	0.004	98	637569	175.0	171.0	
101 1,2,3-Trichloropropane	110	11.718	11.721	-0.002	98	214358	175.0	174.9	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.733	-0.003	98	180624	175.0	177.3	
103 N-Propylbenzene	120	11.791	11.787	0.004	99	780243	175.0	169.6	
104 2-Chlorotoluene	126	11.876	11.873	0.003	99	666866	175.0	172.6	
105 3-Chlorotoluene	126	11.937	11.933	0.004	97	757051	175.0	175.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.962	11.964	-0.002	99	2136446	175.0	166.6	
107 4-Chlorotoluene	126	11.986	11.982	0.004	97	711885	175.0	170.2	
108 tert-Butylbenzene	119	12.290	12.286	0.004	100	1828125	175.0	164.5	
110 1,2,4-Trimethylbenzene	105	12.339	12.335	0.004	98	2187785	175.0	166.2	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.402	-0.002	100	719294	175.0	172.9	
112 sec-Butylbenzene	105	12.509	12.511	-0.002	99	2565671	175.0	164.1	
113 1,3-Dichlorobenzene	146	12.619	12.621	-0.002	99	1159025	175.0	168.7	
114 4-Isopropyltoluene	119	12.655	12.651	0.004	98	2157955	175.0	167.2	
115 1,4-Dichlorobenzene	146	12.704	12.706	-0.002	99	1196958	175.0	170.6	
116 2,4-Dichloro-1-(triflourom	214	12.759	12.755	0.004	99	675783	175.0	173.5	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.803	0.004	99	748317	175.0	171.7	
120 n-Butylbenzene	91	13.063	13.065	-0.002	99	1983203	175.0	168.7	
121 1,2-Dichlorobenzene	146	13.081	13.083	-0.002	99	1092014	175.0	171.7	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.856	0.004	95	97714	175.0	187.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.008	-0.002	99	2487475	525.0	517.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	98	1639357	350.0	350.6	
126 1,2,4-Trichlorobenzene	180	14.693	14.695	-0.002	100	608110	175.0	183.6	
127 Hexachlorobutadiene	225	14.863	14.866	-0.003	98	274932	175.0	173.1	
128 Naphthalene	128	14.943	14.939	0.004	100	1599300	175.0	183.9	
129 1,2,3-Trichlorobenzene	180	15.186	15.188	-0.002	100	504504	175.0	185.8	
131 2,4,5-Trichlorotoluene	159	15.965	15.967	-0.002	99	273662	175.0	187.4	
130 2,3,6-Trichlorotoluene	159	16.062	16.064	-0.002	99	246163	175.0	186.7	
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		350.0	322.8	
S 134 1,2-Dichloroethene, Total	96				0		350.0	346.8	
S 135 1,3-Dichloropropene, Total	1				0		350.0	378.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

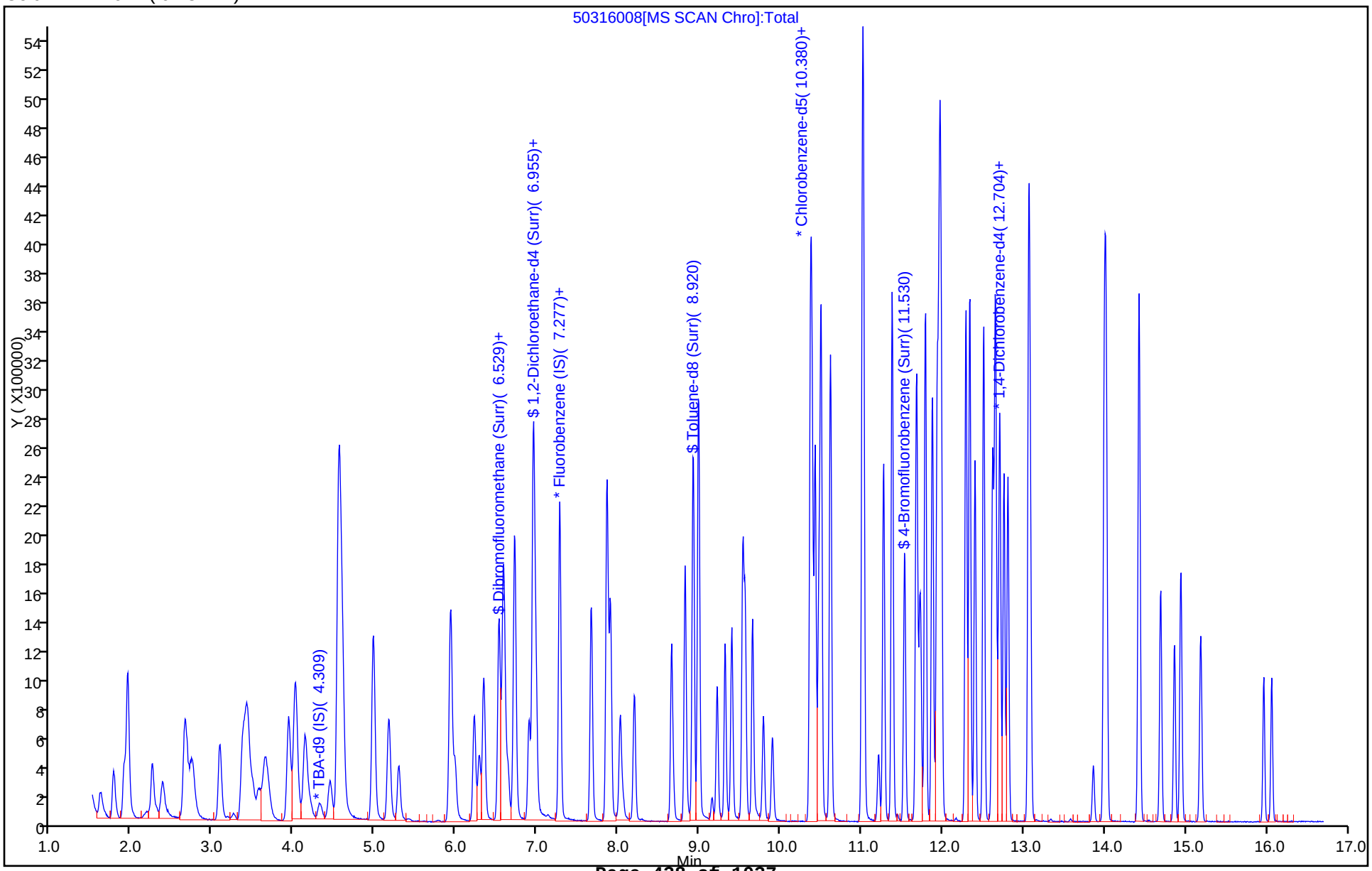
VOAACRPRI_00003	Amount Added:	9.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	7.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	7.00	Units: uL	
VOA8260SURR_00032	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	7.00	Units: uL	
VOAVAPRI_00005	Amount Added:	7.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 17-Mar-2015 10:59:30 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316008.D				
Injection Date:	16-Mar-2015 14:17:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316009.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-Mar-2015 14:41:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0006031-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:31 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 09:50:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.305	0.022	86	183503	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.273	-0.002	99	592746	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.364	0.004	94	147746	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	94	203483	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.529	6.525	0.004	99	526164	200.0	195.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.902	-0.002	98	691002	200.0	194.4	
$ 7 Toluene-d8 (Surr)	98	8.926	8.922	0.004	99	2153477	200.0	182.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.532	-0.003	98	798953	200.0	188.3	
11 Dichlorodifluoromethane	85	1.619	1.622	-0.003	99	522240	200.0	205.5	
12 Chloromethane	50	1.778	1.768	0.010	100	674845	200.0	192.4	
13 Vinyl chloride	62	1.905	1.896	0.009	100	767804	200.0	195.9	
14 Butadiene	39	1.948	1.944	0.004	98	840803	200.0	187.8	
15 Bromomethane	94	2.252	2.249	0.003	100	366671	200.0	184.6	
16 Chloroethane	64	2.374	2.376	-0.002	99	530813	200.0	195.7	
17 Dichlorofluoromethane	67	2.654	2.644	0.010	99	1188936	200.0	192.0	
18 Trichlorofluoromethane	101	2.733	2.723	0.010	98	946313	200.0	201.3	
20 Ethyl ether	59	3.092	3.082	0.010	100	592652	200.0	191.1	
21 Acrolein	56	3.250	3.258	-0.008	100	95028	250.0	252.3	
22 1,1-Dichloroethene	96	3.378	3.374	0.004	98	662050	200.0	193.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.423	0.009	98	684103	200.0	197.9	
24 Acetone	43	3.505	3.496	0.009	100	489133	400.0	402.8	
25 Iodomethane	142	3.597	3.581	0.016	100	945860	200.0	199.2	
26 Carbon disulfide	76	3.664	3.660	0.004	100	1643948	200.0	196.7	
28 3-Chloro-1-propene	76	3.931	3.934	-0.003	99	393345	200.0	217.7	
30 Methyl acetate	43	4.022	4.019	0.003	99	2810332	1000.0	989.3	
31 Methylene Chloride	84	4.144	4.147	-0.003	98	703059	200.0	177.9	
32 2-Methyl-2-propanol	59	4.448	4.439	0.009	99	399281	2000.0	1847.2	
33 Acrylonitrile	53	4.552	4.554	-0.002	99	2868164	2000.0	1962.8	
34 trans-1,2-Dichloroethene	96	4.564	4.560	0.004	96	692220	200.0	195.8	
35 Methyl tert-butyl ether	73	4.600	4.597	0.003	98	1581345	200.0	202.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.978	4.980	-0.002	100	1096478	200.0	194.1	
37 1,1-Dichloroethane	63	5.172	5.175	-0.003	100	1250453	200.0	198.2	
38 Vinyl acetate	43	5.294	5.296	-0.002	100	1001771	200.0	223.8	
44 2,2-Dichloropropane	77	5.927	5.929	-0.002	98	338302	200.0	214.4	
45 cis-1,2-Dichloroethene	96	5.933	5.941	-0.008	98	721075	200.0	193.6	
46 2-Butanone (MEK)	43	5.987	5.990	-0.003	100	809232	400.0	416.8	
49 Chlorobromomethane	128	6.225	6.227	-0.002	98	311076	200.0	193.0	
51 Tetrahydrofuran	42	6.286	6.282	0.004	99	483324	400.0	397.5	
52 Chloroform	83	6.340	6.343	-0.003	100	1109416	200.0	193.5	
53 1,1,1-Trichloroethane	97	6.529	6.531	-0.002	99	768585	200.0	210.0	
54 Cyclohexane	56	6.584	6.586	-0.002	99	1366913	200.0	194.5	
56 Carbon tetrachloride	117	6.717	6.720	-0.003	99	612080	200.0	208.4	
55 1,1-Dichloropropene	75	6.724	6.726	-0.002	99	933326	200.0	196.3	
57 Isobutyl alcohol	41	6.949	6.945	0.004	98	433313	5000.0	5476.7	
58 Benzene	78	6.955	6.957	-0.002	97	2653105	200.0	188.9	
59 1,2-Dichloroethane	62	6.985	6.988	-0.003	99	907622	200.0	197.3	
62 n-Heptane	43	7.277	7.280	-0.003	88	940924	200.0	195.0	
64 Trichloroethene	130	7.666	7.669	-0.003	99	684010	200.0	194.4	
66 Methylcyclohexane	83	7.861	7.864	-0.003	100	1212427	200.0	193.1	
67 1,2-Dichloropropane	63	7.904	7.906	-0.002	98	700921	200.0	201.7	
68 Dibromomethane	93	8.025	8.022	0.003	99	370624	200.0	198.1	
70 1,4-Dioxane	88	8.062	8.058	0.004	98	146272	4000.0	3998.4	
71 Dichlorobromomethane	83	8.196	8.198	-0.002	100	773432	200.0	202.6	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.003	99	829306	200.0	225.1	
75 4-Methyl-2-pentanone (MIBK	43	8.822	8.825	-0.003	99	1617802	400.0	404.7	
76 Toluene	91	8.993	8.989	0.004	99	2714932	200.0	179.3	
77 trans-1,3-Dichloropropene	75	9.218	9.220	-0.002	98	613747	200.0	224.4	
78 Ethyl methacrylate	69	9.315	9.318	-0.003	98	782394	200.0	219.4	
79 1,1,2-Trichloroethane	97	9.400	9.403	-0.003	99	540864	200.0	190.5	
80 Tetrachloroethene	164	9.540	9.537	0.003	99	545517	200.0	184.2	
81 1,3-Dichloropropane	76	9.564	9.561	0.003	99	1001573	200.0	189.8	
82 2-Hexanone	43	9.656	9.658	-0.002	100	1305223	400.0	427.2	
84 Chlorodibromomethane	129	9.790	9.792	-0.002	99	473922	200.0	209.1	
85 Ethylene Dibromide	107	9.899	9.902	-0.003	100	534328	200.0	197.2	
86 3-Chlorobenzotrifluoride	180	10.374	10.370	0.004	88	1122812	200.0	194.4	
87 Chlorobenzene	112	10.392	10.388	0.004	99	1745676	200.0	182.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.431	-0.003	99	1108797	200.0	198.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.473	0.004	95	512980	200.0	207.1	
90 Ethylbenzene	106	10.501	10.504	-0.003	98	1044399	200.0	189.8	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	98	1256840	200.0	186.7	
92 o-Xylene	106	11.012	11.009	0.003	99	1214164	200.0	184.4	
93 Styrene	104	11.025	11.027	-0.002	97	1958961	200.0	184.6	
94 Bromoform	173	11.213	11.209	0.004	98	293938	200.0	210.0	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	99	1120386	200.0	194.2	
97 Isopropylbenzene	105	11.377	11.380	-0.003	98	2885608	200.0	175.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.678	-0.003	98	772016	200.0	189.6	
100 Bromobenzene	156	11.682	11.678	0.004	99	740842	200.0	196.7	
101 1,2,3-Trichloropropane	110	11.718	11.721	-0.002	96	233938	200.0	189.0	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.733	-0.003	98	211691	200.0	205.7	
103 N-Propylbenzene	120	11.791	11.787	0.004	98	887838	200.0	191.1	
104 2-Chlorotoluene	126	11.870	11.873	-0.003	99	756732	200.0	193.9	
105 3-Chlorotoluene	126	11.937	11.933	0.004	97	890638	200.0	204.2	

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	11.961	11.964	-0.003	99	2387945	200.0	184.4	
107 4-Chlorotoluene	126	11.980	11.982	-0.002	96	795532	200.0	188.3	
108 tert-Butylbenzene	119	12.290	12.286	0.004	99	2060731	200.0	183.6	
110 1,2,4-Trimethylbenzene	105	12.339	12.335	0.004	99	2461131	200.0	185.1	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.402	-0.003	99	832435	200.0	198.1	
112 sec-Butylbenzene	105	12.509	12.511	-0.002	99	2854173	200.0	180.7	
113 1,3-Dichlorobenzene	146	12.618	12.621	-0.003	99	1308081	200.0	188.5	
114 4-Isopropyltoluene	119	12.655	12.651	0.004	98	2408127	200.0	184.7	
115 1,4-Dichlorobenzene	146	12.710	12.706	0.004	99	1348596	200.0	190.3	
116 2,4-Dichloro-1-(triflourom	214	12.758	12.755	0.003	99	786683	200.0	199.9	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.803	0.004	99	877059	200.0	199.2	
120 n-Butylbenzene	91	13.062	13.065	-0.003	98	2209671	200.0	186.1	
121 1,2-Dichlorobenzene	146	13.081	13.083	-0.002	99	1224311	200.0	190.6	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.856	0.003	94	112547	200.0	214.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.008	-0.003	98	2860911	600.0	589.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	98	1868280	400.0	395.5	
126 1,2,4-Trichlorobenzene	180	14.693	14.695	-0.002	99	679520	200.0	203.2	
127 Hexachlorobutadiene	225	14.863	14.866	-0.003	99	307470	200.0	191.7	
128 Naphthalene	128	14.942	14.939	0.003	100	1786434	200.0	203.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.188	-0.002	99	582911	200.0	212.5	
131 2,4,5-Trichlorotoluene	159	15.964	15.967	-0.003	98	315499	200.0	213.9	
130 2,3,6-Trichlorotoluene	159	16.062	16.064	-0.002	98	285573	200.0	214.4	
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		400.0	371.1	
S 134 1,2-Dichloroethene, Total	96				0		400.0	389.4	
S 135 1,3-Dichloropropene, Total	1				0		400.0	449.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAVAPRI_00005	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	8.00	Units: uL	
VOA8260SURR_00032	Amount Added:	8.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	8.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	8.00	Units: uL	
VOAACRPRI_00003	Amount Added:	10.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

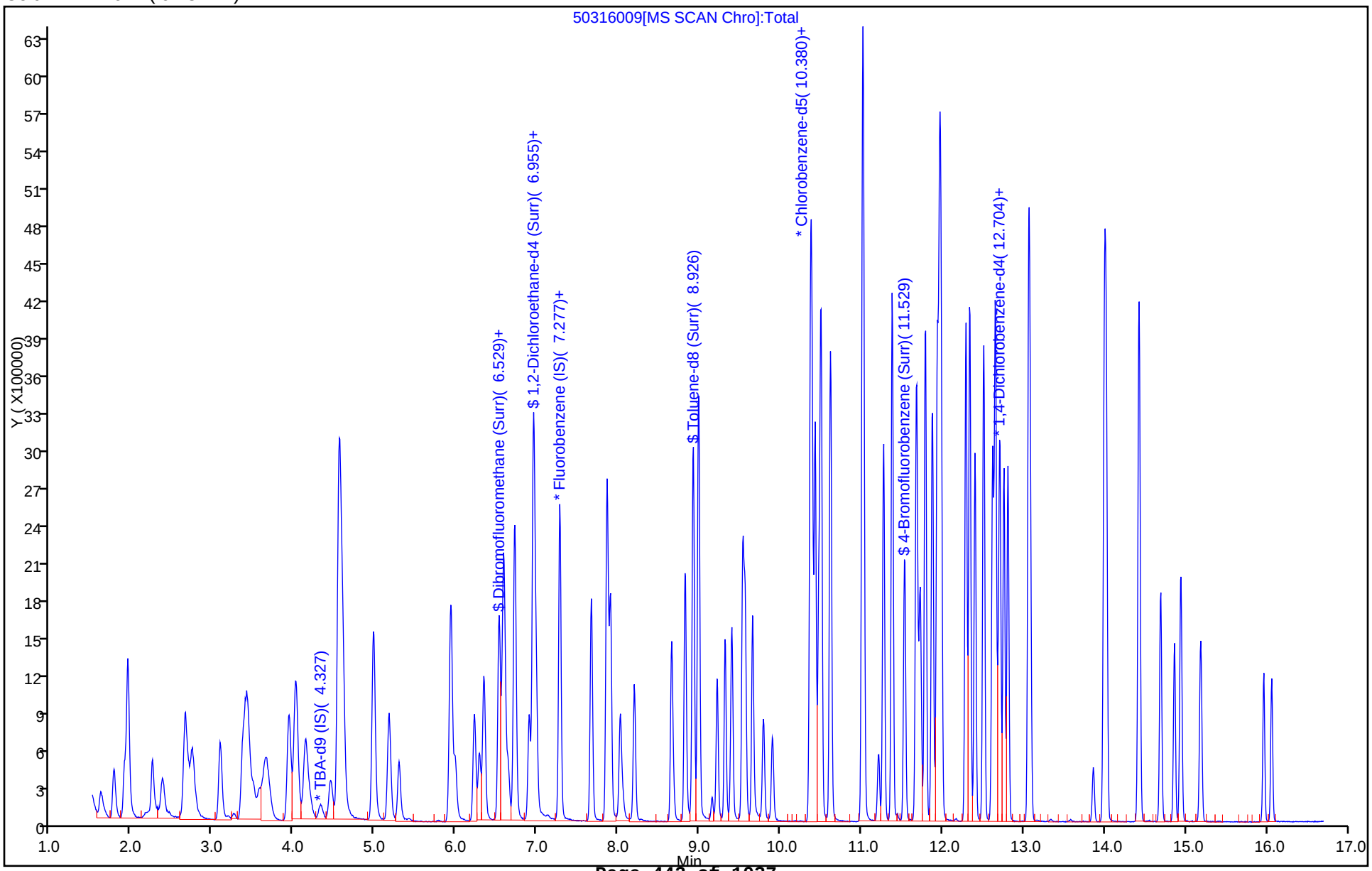
Report Date: 17-Mar-2015 10:59:31 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316009.D

Injection Date:	16-Mar-2015 14:41:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	9
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)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316010.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 16-Mar-2015 15:05:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0006031-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:32 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 09:55:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.336	4.305	0.031	85	202534	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.275	7.273	0.002	99	620293	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.364	-0.005	77	161503	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.682	0.001	92	212327	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.527	6.525	0.001	99	664693	250.0	235.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.898	6.902	-0.004	99	889045	250.0	239.0	
$ 7 Toluene-d8 (Surr)	98	8.923	8.922	0.001	98	2632400	250.0	204.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.532	0.001	98	1045249	250.0	225.4	
11 Dichlorodifluoromethane	85	1.617	1.622	-0.005	99	640090	250.0	240.7	
12 Chloromethane	50	1.775	1.768	0.007	100	855933	250.0	233.2	
13 Vinyl chloride	62	1.909	1.896	0.013	100	924535	250.0	225.4	
14 Butadiene	39	1.946	1.944	0.002	99	1005925	250.0	214.7	
15 Bromomethane	94	2.250	2.249	0.001	100	461680	250.0	223.1	
16 Chloroethane	64	2.371	2.376	-0.005	99	700467	250.0	246.8	
17 Dichlorofluoromethane	67	2.651	2.644	0.007	100	1511714	250.0	233.3	
18 Trichlorofluoromethane	101	2.724	2.723	0.001	98	1178605	250.0	239.5	
20 Ethyl ether	59	3.083	3.082	0.001	99	792637	250.0	244.3	
21 Acrolein	56	3.254	3.258	-0.004	96	109180	275.0	277.0	
22 1,1-Dichloroethene	96	3.375	3.374	0.001	98	827120	250.0	231.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.424	3.423	0.001	99	834802	250.0	230.7	
24 Acetone	43	3.497	3.496	0.001	99	621064	500.0	488.8	
25 Iodomethane	142	3.594	3.581	0.013	100	1201056	250.0	241.7	
26 Carbon disulfide	76	3.655	3.660	-0.005	100	2031733	250.0	232.3	
28 3-Chloro-1-propene	76	3.935	3.934	0.001	99	482122	250.0	255.0	
30 Methyl acetate	43	4.014	4.019	-0.005	99	3718382	1250.0	1250.8	
31 Methylene Chloride	84	4.142	4.147	-0.005	98	919183	250.0	222.2	
32 2-Methyl-2-propanol	59	4.446	4.439	0.007	98	537174	2500.0	2251.6	
33 Acrylonitrile	53	4.549	4.554	-0.005	99	3721902	2500.0	2433.9	
34 trans-1,2-Dichloroethene	96	4.562	4.560	0.002	97	882651	250.0	238.6	
35 Methyl tert-butyl ether	73	4.598	4.597	0.001	98	2130684	250.0	260.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.975	4.980	-0.005	99	1379168	250.0	233.3	
37 1,1-Dichloroethane	63	5.170	5.175	-0.005	99	1604398	250.0	242.9	
38 Vinyl acetate	43	5.292	5.296	-0.004	100	1337263	250.0	285.5	
44 2,2-Dichloropropane	77	5.924	5.929	-0.005	97	452022	250.0	273.8	
45 cis-1,2-Dichloroethene	96	5.936	5.941	-0.005	97	930230	250.0	238.7	
46 2-Butanone (MEK)	43	5.985	5.990	-0.005	100	1059138	500.0	521.3	
49 Chlorobromomethane	128	6.222	6.227	-0.005	99	404105	250.0	239.6	
51 Tetrahydrofuran	42	6.283	6.282	0.001	99	646482	500.0	508.1	
52 Chloroform	83	6.338	6.343	-0.005	100	1424461	250.0	237.4	
53 1,1,1-Trichloroethane	97	6.527	6.531	-0.005	99	971626	250.0	253.6	
54 Cyclohexane	56	6.581	6.586	-0.005	98	1669676	250.0	227.0	
56 Carbon tetrachloride	117	6.715	6.720	-0.005	99	790495	250.0	257.2	
55 1,1-Dichloropropene	75	6.721	6.726	-0.005	99	1159811	250.0	233.1	
57 Isobutyl alcohol	41	6.946	6.945	0.001	97	644697	6250.0	7786.6	
58 Benzene	78	6.952	6.957	-0.005	97	3351151	250.0	228.0	
59 1,2-Dichloroethane	62	6.983	6.988	-0.005	99	1159879	250.0	241.0	
62 n-Heptane	43	7.275	7.280	-0.005	86	1182643	250.0	234.2	
64 Trichloroethene	130	7.664	7.669	-0.005	99	860273	250.0	233.6	
66 Methylcyclohexane	83	7.859	7.864	-0.005	99	1519674	250.0	231.3	
67 1,2-Dichloropropane	63	7.907	7.906	0.001	99	918714	250.0	252.7	
68 Dibromomethane	93	8.023	8.022	0.001	99	479407	250.0	244.9	
70 1,4-Dioxane	88	8.053	8.058	-0.005	98	185631	5000.0	4848.9	
71 Dichlorobromomethane	83	8.199	8.198	0.001	100	1003399	250.0	251.2	
74 cis-1,3-Dichloropropene	75	8.656	8.661	-0.005	99	1098242	250.0	284.9	
75 4-Methyl-2-pentanone (MIBK	43	8.820	8.825	-0.005	98	2109966	500.0	482.8	
76 Toluene	91	8.990	8.989	0.001	97	3368812	250.0	203.5	
77 trans-1,3-Dichloropropene	75	9.221	9.220	0.001	98	846559	250.0	283.2	
78 Ethyl methacrylate	69	9.319	9.318	0.001	98	1063861	250.0	272.9	
79 1,1,2-Trichloroethane	97	9.398	9.403	-0.005	99	706748	250.0	227.7	
80 Tetrachloroethene	164	9.538	9.537	0.001	99	690601	250.0	213.3	
81 1,3-Dichloropropane	76	9.562	9.561	0.001	100	1327847	250.0	230.2	
82 2-Hexanone	43	9.653	9.658	-0.005	99	1685534	500.0	504.7	
84 Chlorodibromomethane	129	9.787	9.792	-0.005	99	625118	250.0	252.3	
85 Ethylene Dibromide	107	9.903	9.902	0.001	99	713501	250.0	240.9	
86 3-Chlorobenzotrifluoride	180	10.371	10.370	0.001	87	1303041	250.0	206.4	
87 Chlorobenzene	112	10.390	10.388	0.002	98	2249414	250.0	214.5	
88 4-Chlorobenzotrifluoride	180	10.426	10.431	-0.005	99	1250140	250.0	204.8	
89 1,1,1,2-Tetrachloroethane	131	10.475	10.473	0.002	95	680608	250.0	251.4	
90 Ethylbenzene	106	10.499	10.504	-0.005	97	1329470	250.0	221.0	
91 m-Xylene & p-Xylene	106	10.621	10.619	0.002	97	1614511	250.0	219.4	
92 o-Xylene	106	11.010	11.009	0.001	94	1557898	250.0	216.4	
93 Styrene	104	11.022	11.027	-0.005	91	2525667	250.0	217.8	
94 Bromoform	173	11.211	11.209	0.002	99	395201	250.0	258.3	
96 2-Chlorobenzotrifluoride	180	11.272	11.276	-0.004	99	1298335	250.0	205.9	
97 Isopropylbenzene	105	11.381	11.380	0.001	97	3554151	250.0	197.9	
99 1,1,2,2-Tetrachloroethane	83	11.673	11.678	-0.005	98	1003707	250.0	225.5	
100 Bromobenzene	156	11.685	11.678	0.007	99	956763	250.0	243.5	
101 1,2,3-Trichloropropane	110	11.716	11.721	-0.004	97	325768	250.0	252.3	
102 trans-1,4-Dichloro-2-buten	53	11.728	11.733	-0.005	98	286166	250.0	266.5	
103 N-Propylbenzene	120	11.789	11.787	0.002	97	1131297	250.0	233.4	
104 2-Chlorotoluene	126	11.874	11.873	0.001	97	963573	250.0	236.6	
105 3-Chlorotoluene	126	11.935	11.933	0.002	96	1053875	250.0	231.5	

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	11.965	11.964	0.001	98	2983647	250.0	220.7	
107 4-Chlorotoluene	126	11.983	11.982	0.001	97	1062581	250.0	241.0	
108 tert-Butylbenzene	119	12.288	12.286	0.002	98	2516209	250.0	214.9	
110 1,2,4-Trimethylbenzene	105	12.336	12.335	0.001	97	3068942	250.0	221.2	
111 1,2-dichloro-4-(trifluorom	214	12.403	12.402	0.001	99	991010	250.0	226.1	
112 sec-Butylbenzene	105	12.507	12.511	-0.004	98	3463106	250.0	210.1	
113 1,3-Dichlorobenzene	146	12.616	12.621	-0.005	98	1687649	250.0	233.1	
114 4-Isopropyltoluene	119	12.653	12.651	0.002	97	2970922	250.0	218.3	
115 1,4-Dichlorobenzene	146	12.707	12.706	0.001	98	1736319	250.0	234.8	
116 2,4-Dichloro-1-(triflourom	214	12.756	12.755	0.001	98	909481	250.0	221.5	
118 2,5-Dichlorobenzotrifluori	214	12.811	12.803	0.008	99	1042359	250.0	226.9	
120 n-Butylbenzene	91	13.060	13.065	-0.005	97	2715831	250.0	219.2	
121 1,2-Dichlorobenzene	146	13.078	13.083	-0.005	99	1565775	250.0	233.6	
122 1,2-Dibromo-3-Chloropropan	75	13.863	13.856	0.007	94	147059	250.0	268.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.003	14.008	-0.005	98	3379751	750.0	666.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.423	14.428	-0.005	97	2218229	500.0	450.0	
126 1,2,4-Trichlorobenzene	180	14.691	14.695	-0.004	99	825772	250.0	236.6	
127 Hexachlorobutadiene	225	14.861	14.866	-0.005	99	367792	250.0	219.8	
128 Naphthalene	128	14.940	14.939	0.001	99	2220927	250.0	242.4	
129 1,2,3-Trichlorobenzene	180	15.189	15.188	0.001	99	697862	250.0	243.8	
131 2,4,5-Trichlorotoluene	159	15.962	15.967	-0.005	99	364223	250.0	236.6	
130 2,3,6-Trichlorotoluene	159	16.065	16.064	0.001	98	323920	250.0	233.1	
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		500.0	435.9	
S 134 1,2-Dichloroethene, Total	96				0		500.0	477.2	
S 135 1,3-Dichloropropene, Total	1				0		500.0	568.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACRPRI_00003	Amount Added:	11.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	10.00	Units: uL	
voaWKetpri Re_00003	Amount Added:	10.00	Units: uL	
VOA8260SURR_00032	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	10.00	Units: uL	
VOAVAPRI_00005	Amount Added:	10.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

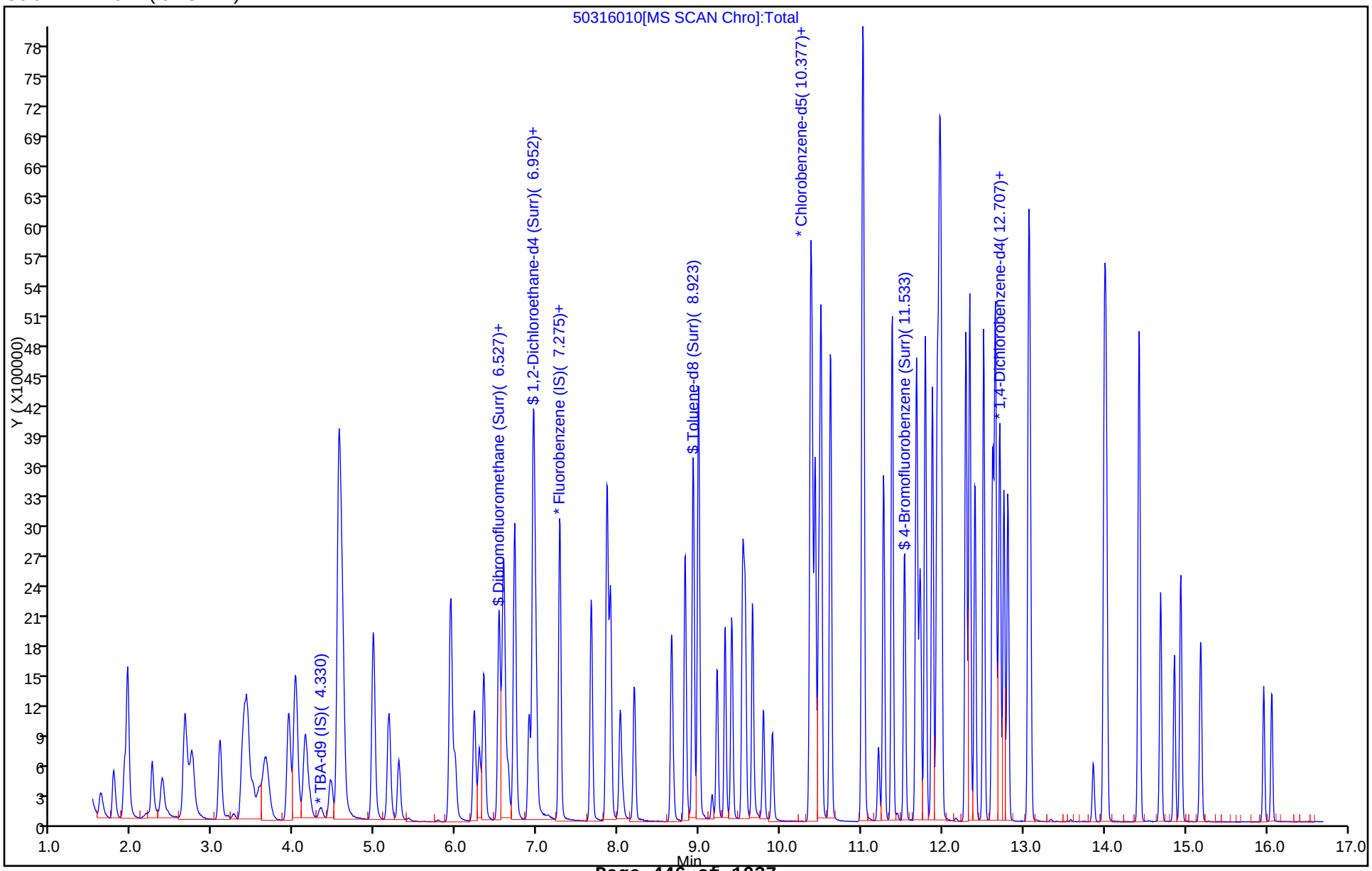
Report Date: 17-Mar-2015 10:59:33 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316010.D

Injection Date:	16-Mar-2015 15:05:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-Mar-2015 16:17:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0006031-013
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:33 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 17-Mar-2015 10:01:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.305	0.012	83	148007	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.273	0.001	99	568509	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	74	121234	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	96	175081	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.526	6.525	0.001	93	14193	5.00	5.49	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.902	0.001	96	17152	5.00	5.03	
$ 7 Toluene-d8 (Surr)	98	8.923	8.922	0.001	98	54935	5.00	5.68	
$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	92	19061	5.00	5.48	
11 Dichlorodifluoromethane	85	1.616	1.622	-0.006	96	11265	5.00	4.62	
12 Chloromethane	50	1.768	1.768	0.000	97	17972	5.00	5.34	M
13 Vinyl chloride	62	1.908	1.896	0.012	96	18981	5.00	5.05	
14 Butadiene	39	1.951	1.944	0.007	98	24095	5.00	5.61	
15 Bromomethane	94	2.249	2.249	0.000	85	18060	5.00	4.90	
16 Chloroethane	64	2.377	2.376	0.001	53	13187	5.00	5.07	
17 Dichlorofluoromethane	67	2.644	2.644	0.000	99	34297	5.00	5.78	
18 Trichlorofluoromethane	101	2.711	2.723	-0.012	92	20521	5.00	4.55	
20 Ethyl ether	59	3.082	3.082	0.000	94	16416	5.00	5.52	
21 Acrolein	56	3.247	3.258	-0.011	96	35289	100.0	97.7	M
22 1,1-Dichloroethene	96	3.368	3.374	-0.006	97	18234	5.00	5.56	
23 1,1,2-Trichloro-1,2,2-trif	101	3.435	3.423	0.012	90	16567	5.00	5.00	
24 Acetone	43	3.490	3.496	-0.006	93	29674	25.0	25.5	
25 Iodomethane	142	3.581	3.581	0.000	97	22824	5.00	5.01	
26 Carbon disulfide	76	3.648	3.660	-0.012	98	41336	5.00	5.16	
28 3-Chloro-1-propene	76	3.940	3.934	0.006	95	8006	5.00	4.62	
30 Methyl acetate	43	4.031	4.019	0.012	100	71022	25.0	26.1	
31 Methylene Chloride	84	4.135	4.147	-0.012	96	27978	5.00	7.38	
32 2-Methyl-2-propanol	59	4.433	4.439	-0.006	73	10830	50.0	62.1	
33 Acrylonitrile	53	4.555	4.554	0.001	99	71728	50.0	51.2	
34 trans-1,2-Dichloroethene	96	4.555	4.560	-0.005	57	17111	5.00	5.05	
35 Methyl tert-butyl ether	73	4.603	4.597	0.006	94	40058	5.00	5.34	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.974	4.980	-0.006	96	29021	5.00	5.36	
37 1,1-Dichloroethane	63	5.169	5.175	-0.006	99	29622	5.00	4.89	
38 Vinyl acetate	43	5.297	5.296	0.001	79	19067	5.00	4.44	
44 2,2-Dichloropropane	77	5.936	5.929	0.007	87	6267	5.00	4.14	
45 cis-1,2-Dichloroethene	96	5.936	5.941	-0.005	95	18951	5.00	5.30	
46 2-Butanone (MEK)	43	5.996	5.990	0.006	99	42054	25.0	22.6	
49 Chlorobromomethane	128	6.234	6.227	0.007	95	8619	5.00	5.58	
51 Tetrahydrofuran	42	6.288	6.282	0.006	75	11913	10.0	10.2	
52 Chloroform	83	6.343	6.343	0.000	97	29168	5.00	5.30	
53 1,1,1-Trichloroethane	97	6.532	6.531	0.001	93	15663	5.00	4.46	
54 Cyclohexane	56	6.580	6.586	-0.006	94	36280	5.00	5.38	
56 Carbon tetrachloride	117	6.720	6.720	0.000	97	13013	5.00	4.62	
55 1,1-Dichloropropene	75	6.720	6.726	-0.006	97	24060	5.00	5.28	
57 Isobutyl alcohol	41	6.958	6.945	0.013	95	8820	125.0	116.2	
58 Benzene	78	6.958	6.957	0.001	96	73700	5.00	5.47	
59 1,2-Dichloroethane	62	6.976	6.988	-0.012	98	22108	5.00	5.01	
62 n-Heptane	43	7.274	7.280	-0.006	58	23490	5.00	5.08	
64 Trichloroethene	130	7.669	7.669	0.000	96	18397	5.00	5.45	
66 Methylcyclohexane	83	7.858	7.864	-0.006	94	29934	5.00	4.97	
67 1,2-Dichloropropane	63	7.907	7.906	0.001	90	16916	5.00	5.08	
68 Dibromomethane	93	8.022	8.022	0.000	93	9562	5.00	5.33	
70 1,4-Dioxane	88	8.047	8.058	-0.012	33	3746	100.0	106.8	
71 Dichlorobromomethane	83	8.193	8.198	-0.006	98	16863	5.00	4.61	
74 cis-1,3-Dichloropropene	75	8.655	8.661	-0.006	98	15462	5.00	4.38	
75 4-Methyl-2-pentanone (MIBK	43	8.831	8.825	0.006	99	75787	25.0	23.1	
76 Toluene	91	8.989	8.989	0.000	99	72597	5.00	5.84	
77 trans-1,3-Dichloropropene	75	9.208	9.220	-0.012	92	10481	5.00	4.67	
78 Ethyl methacrylate	69	9.318	9.318	0.000	94	13336	5.00	4.56	
79 1,1,2-Trichloroethane	97	9.403	9.403	0.000	95	13086	5.00	5.62	
80 Tetrachloroethene	164	9.531	9.537	-0.006	96	13716	5.00	5.64	
81 1,3-Dichloropropane	76	9.567	9.561	0.006	97	23188	5.00	5.35	
82 2-Hexanone	43	9.659	9.658	0.001	98	53734	25.0	21.4	M
84 Chlorodibromomethane	129	9.786	9.792	-0.006	95	7988	5.00	4.30	
85 Ethylene Dibromide	107	9.902	9.902	0.000	96	11471	5.00	5.16	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	67	26148	5.00	5.52	
87 Chlorobenzene	112	10.389	10.388	0.001	98	47481	5.00	6.03	
88 4-Chlorobenzotrifluoride	180	10.425	10.431	-0.006	97	25927	5.00	5.66	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.473	0.001	87	9154	5.00	4.50	
90 Ethylbenzene	106	10.504	10.504	0.000	99	24142	5.00	5.35	
91 m-Xylene & p-Xylene	106	10.614	10.619	-0.005	98	30126	5.00	5.45	
92 o-Xylene	106	11.015	11.009	0.006	97	32009	5.00	5.92	
93 Styrene	104	11.027	11.027	0.000	95	47061	5.00	5.41	
94 Bromoform	173	11.216	11.209	0.007	32	5157	5.00	4.49	
96 2-Chlorobenzotrifluoride	180	11.277	11.276	0.001	98	25441	5.00	5.37	
97 Isopropylbenzene	105	11.380	11.380	0.000	99	75470	5.00	5.60	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.678	-0.006	93	19128	5.00	5.73	
100 Bromobenzene	156	11.691	11.678	0.012	97	16809	5.00	5.19	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.001	89	5918	5.00	5.56	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.733	0.006	50	4503	5.00	5.09	M
103 N-Propylbenzene	120	11.788	11.787	0.001	99	21543	5.00	5.39	
104 2-Chlorotoluene	126	11.873	11.873	0.000	99	17942	5.00	5.34	
105 3-Chlorotoluene	126	11.934	11.933	0.001	98	20174	5.00	5.37	

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	11.964	0.000	99	61438	5.00	5.51	
107 4-Chlorotoluene	126	11.983	11.982	0.000	94	19812	5.00	5.45	
108 tert-Butylbenzene	119	12.287	12.286	0.001	97	55729	5.00	5.77	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	97	63098	5.00	5.52	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.402	0.006	98	19333	5.00	5.35	
112 sec-Butylbenzene	105	12.506	12.511	-0.005	100	75379	5.00	5.55	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	98	33497	5.00	5.61	
114 4-Isopropyltoluene	119	12.652	12.651	0.001	98	61054	5.00	5.44	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	98	34596	5.00	5.67	
116 2,4-Dichloro-1-(triflourom	214	12.755	12.755	0.000	94	17792	5.00	5.26	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.803	0.007	96	20678	5.00	5.46	
120 n-Butylbenzene	91	13.065	13.065	0.000	99	54758	5.00	5.36	
121 1,2-Dichlorobenzene	146	13.084	13.083	0.001	99	30414	5.00	5.50	
122 1,2-Dibromo-3-Chloropropan	75	13.874	13.856	0.018	18	2299	5.00	5.08	
123 2,4- & 2,5- & 2,6- Dichlor	125	13.996	14.008	-0.012	93	71584	15.0	17.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	97	46257	10.0	11.4	
126 1,2,4-Trichlorobenzene	180	14.690	14.695	-0.005	94	17018	5.00	5.91	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	90	8549	5.00	6.19	
128 Naphthalene	128	14.939	14.939	0.000	99	41842	5.00	5.54	
129 1,2,3-Trichlorobenzene	180	15.189	15.188	0.000	95	13823	5.00	5.86	
131 2,4,5-Trichlorotoluene	159	15.961	15.967	-0.006	94	8592	5.00	6.77	
130 2,3,6-Trichlorotoluene	159	16.058	16.064	-0.006	94	7658	5.00	6.68	
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		10.0	11.4	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.4	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.05	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00032	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00105	Amount Added:	0.20	Units: uL	
VOAVAPRI_00005	Amount Added:	0.20	Units: uL	
voaWKetpri Re_00003	Amount Added:	0.80	Units: uL	
VOAACRPRI_00003	Amount Added:	4.00	Units: uL	
voaWEEpri Res_00003	Amount Added:	0.20	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent

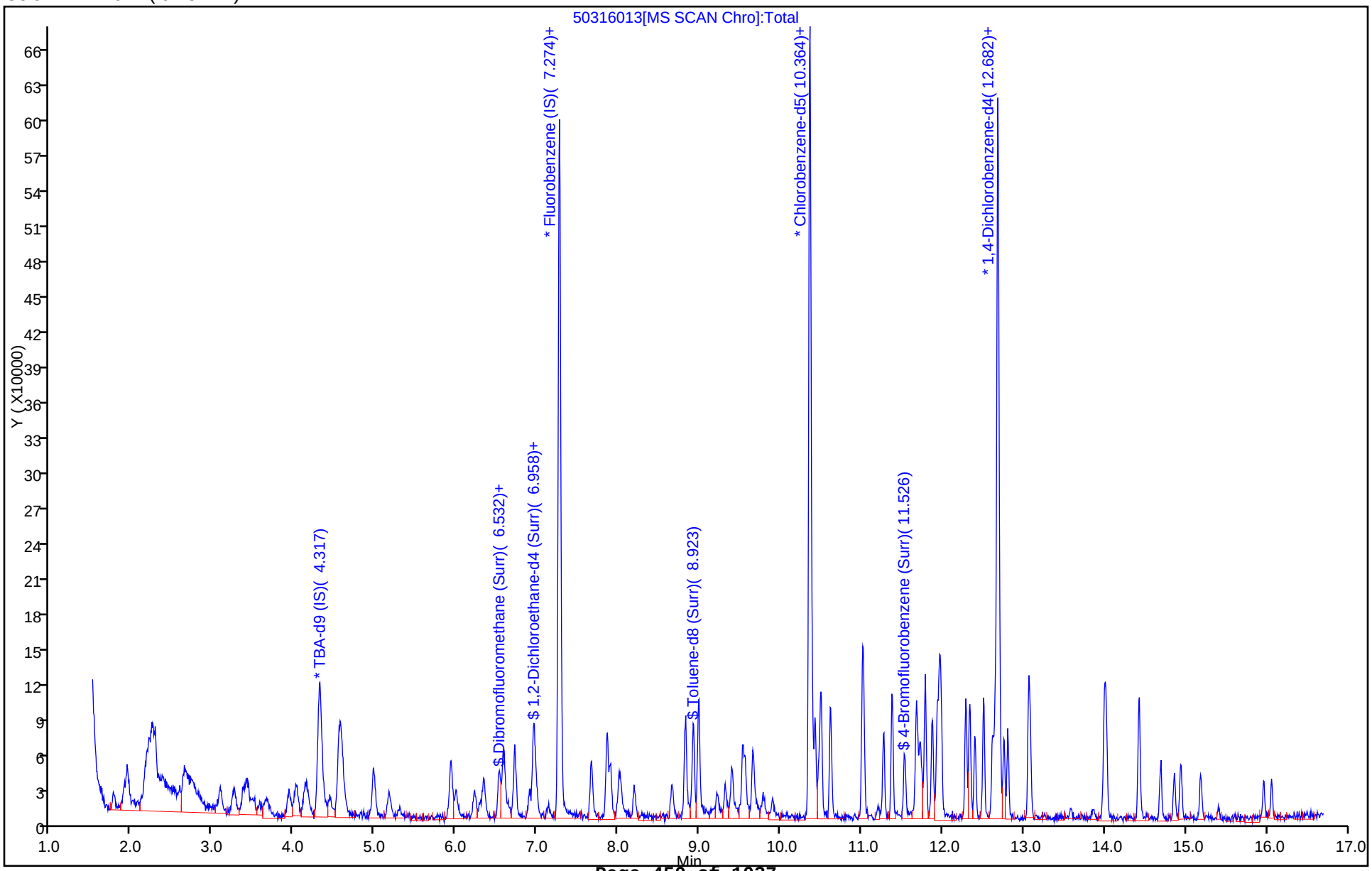
Report Date: 17-Mar-2015 10:59:34 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Injection Date:	16-Mar-2015 16:17:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

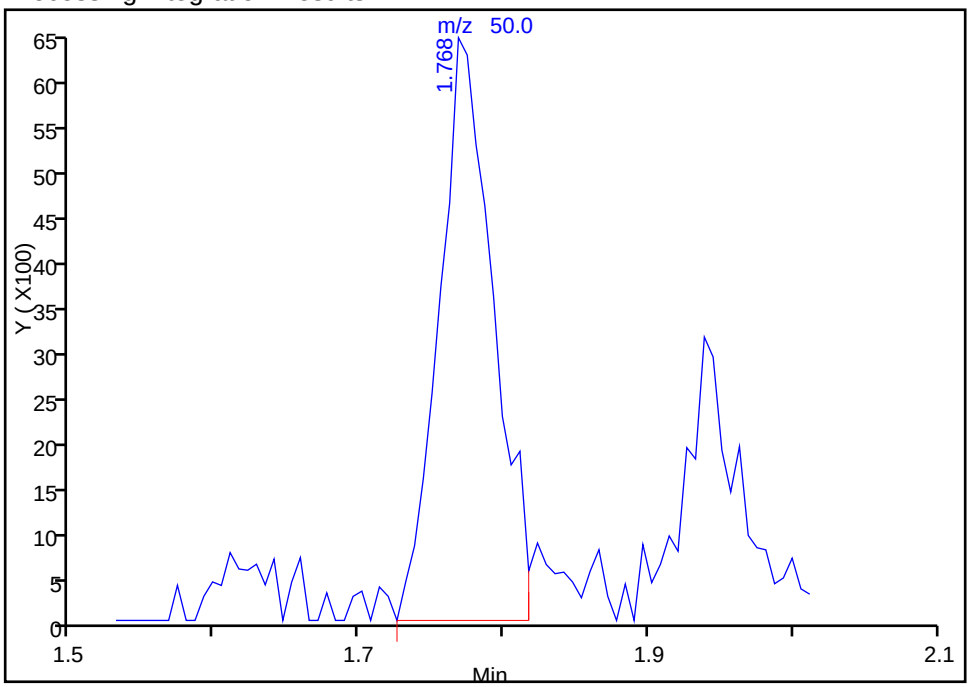
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D				
Injection Date:	16-Mar-2015 16:17:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

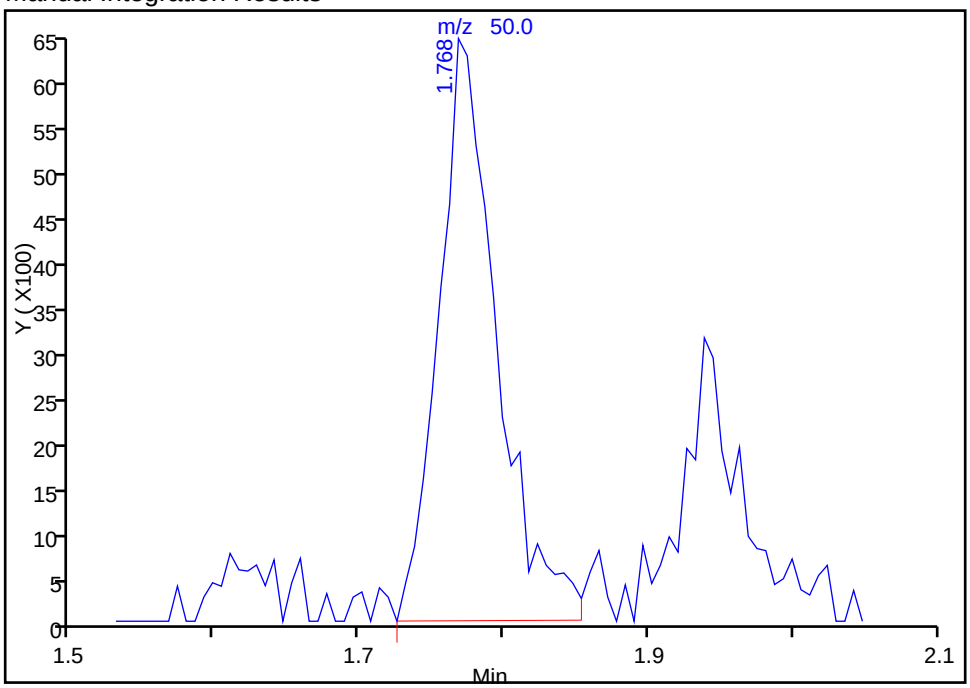
Processing Integration Results

RT: 1.77
Area: 16860
Amount: 4.846171
Amount Units: ng



Manual Integration Results

RT: 1.77
Area: 17972
Amount: 5.343308
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 10:01:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

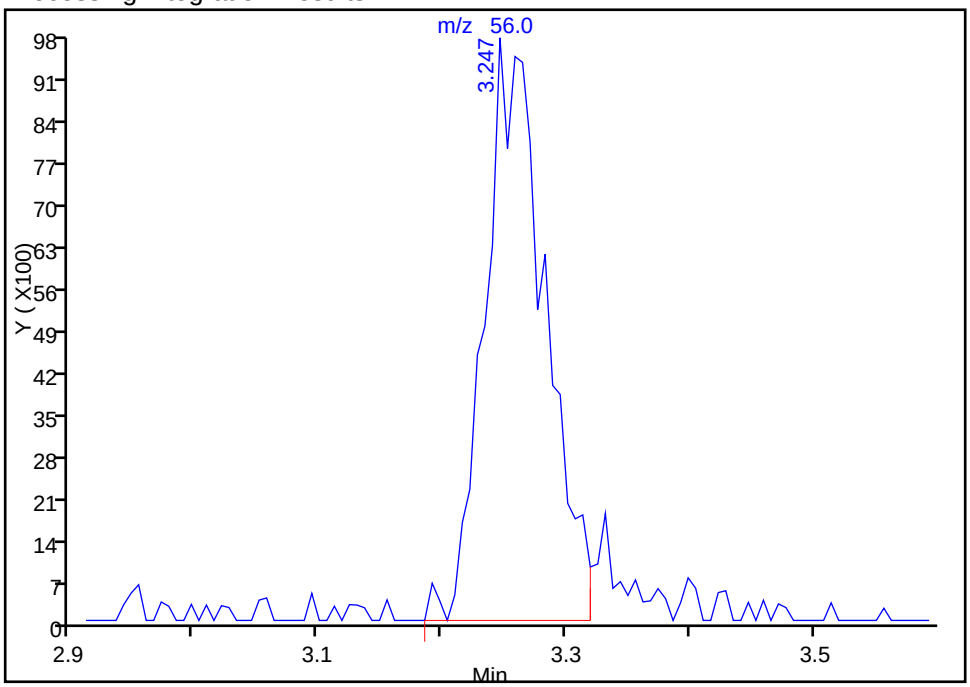
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D				
Injection Date:	16-Mar-2015 16:17:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

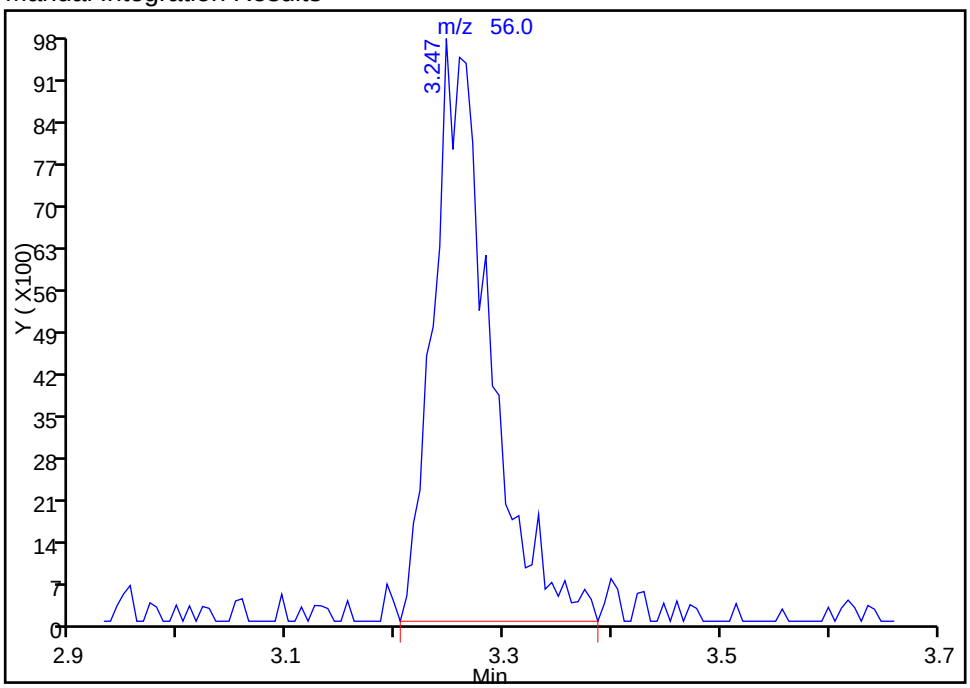
Processing Integration Results

RT: 3.25
Area: 33235
Amount: 92.071591
Amount Units: ng



Manual Integration Results

RT: 3.25
Area: 35289
Amount: 97.689446
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 10:01:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

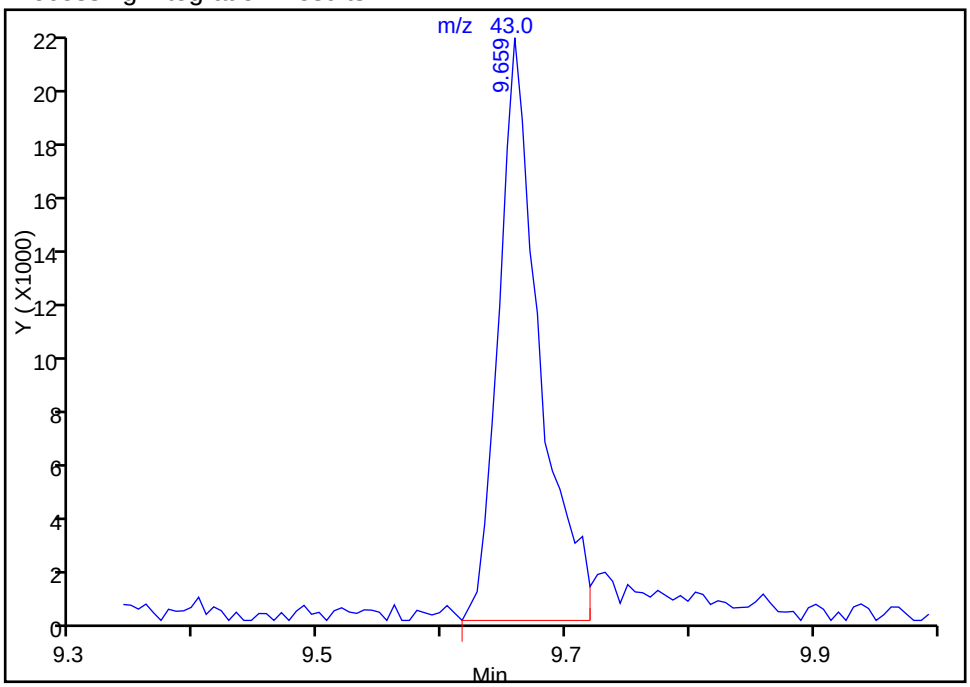
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D				
Injection Date:	16-Mar-2015 16:17:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

82 2-Hexanone, CAS: 591-78-6

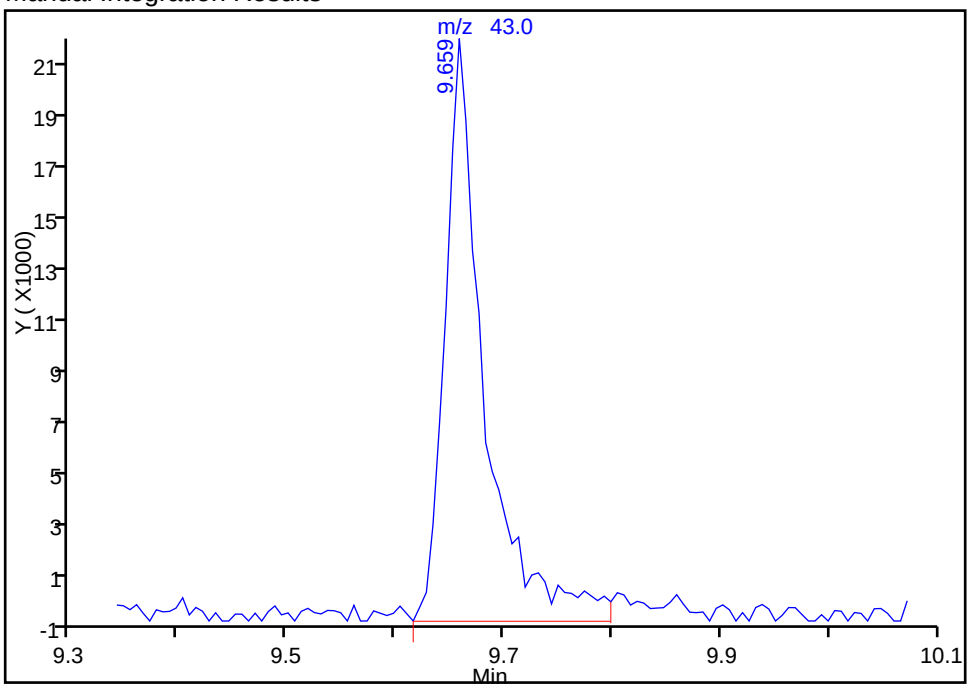
Processing Integration Results

RT: 9.66
Area: 48498
Amount: 19.235523
Amount Units: ng



Manual Integration Results

RT: 9.66
Area: 53734
Amount: 21.434406
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 10:01:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

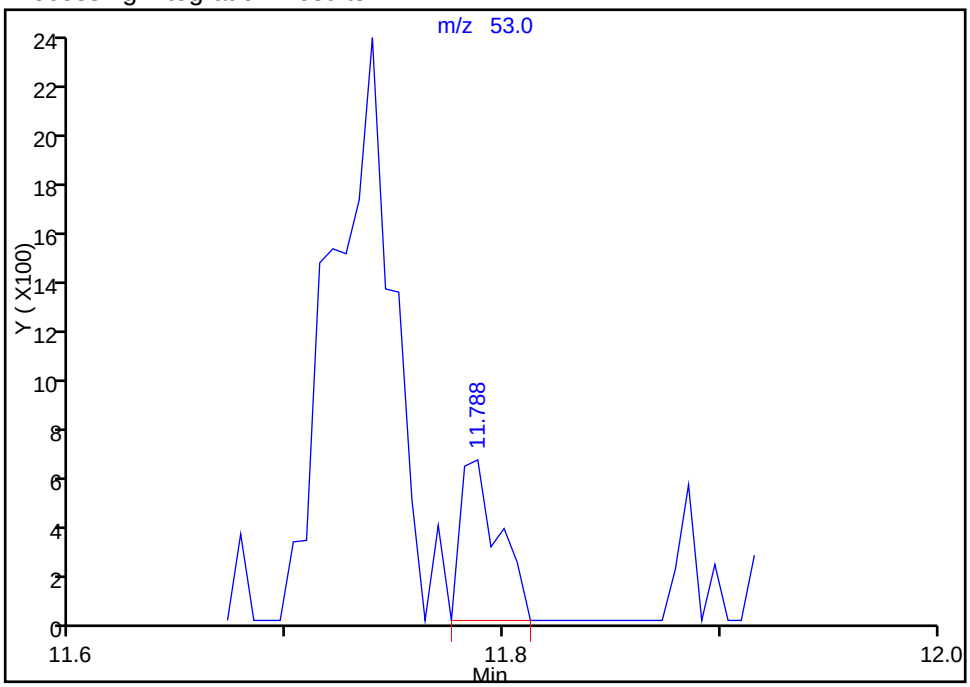
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D				
Injection Date:	16-Mar-2015 16:17:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

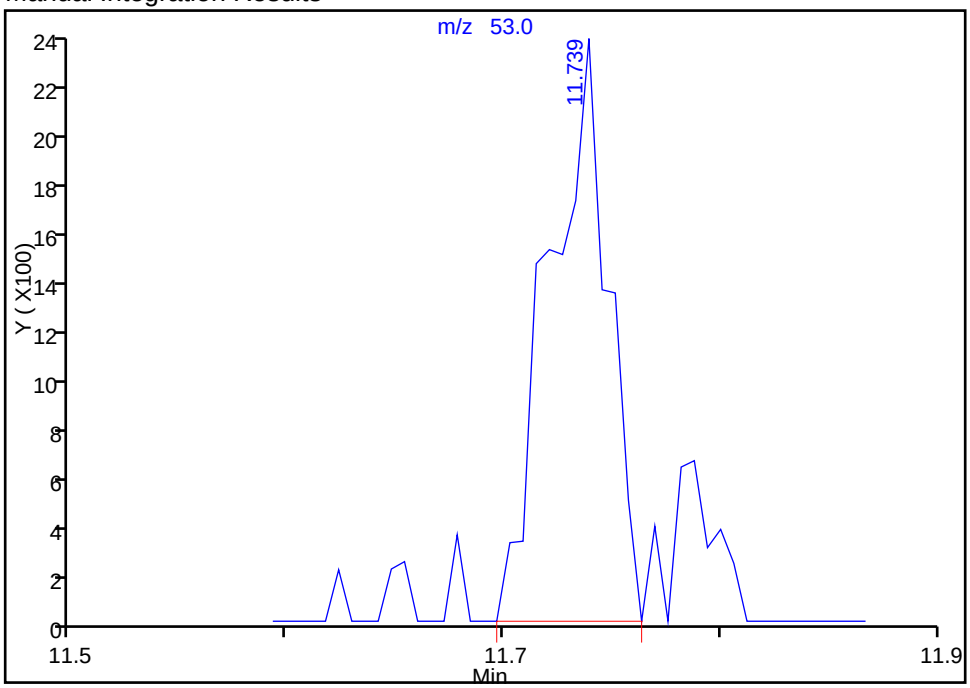
Processing Integration Results

RT: 11.79
Area: 798
Amount: 0.892929
Amount Units: ng



Manual Integration Results

RT: 11.74
Area: 4503
Amount: 5.086353
Amount Units: ng



Reviewer: fergusond, 17-Mar-2015 10:01:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-131929/6	60128006.D
Level 2	IC 180-131929/7	60128007.D
Level 3	ICIS 180-131929/8	60128008.D
Level 4	IC 180-131929/9	60128009.D
Level 5	IC 180-131929/10	60128010.D
Level 6	IC 180-131929/11	60128011.D
Level 7	IC 180-131929/12	60128012.D
Level 8	IC 180-131929/13	60128013.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	0.2515 0.2570	0.3026 0.2707	0.2756 0.2444	0.2408	0.2772	Ave		0.2650			0.1000	7.8		20.0			
Chloromethane	0.3999 0.4010	0.4495 0.4049	0.4034 0.3807	0.3828	0.4377	Ave		0.4075			0.1000	6.0		20.0			
Vinyl chloride	0.3422 0.3550	0.3985 0.3659	0.3669 0.3370	0.3364	0.3870	Ave		0.3611			0.1000	6.4		20.0			
1,3-Butadiene	0.3856 0.3575	0.4506 0.3848	0.3871 0.3581	0.3471	0.4135	Ave		0.3855			0.0100	8.8		20.0			
Bromomethane	0.1467 0.1381	0.1750 0.1385	0.1535 0.1204	0.1356	0.1518	Ave		0.1449			0.0500	11.0		20.0			
Chloroethane	0.2246 0.2156	0.2378 0.2212	0.2308 0.2039	0.2024	0.2350	Ave		0.2214			0.0500	6.0		20.0			
Dichlorofluoromethane	0.5042 0.5028	0.6157 0.5326	0.5347 0.4962	0.4839	0.5527	Ave		0.5279			0.0100	8.0		20.0			
Trichlorofluoromethane	0.3860 0.3913	0.5126 0.4251	0.4168 0.3840	0.3562	0.4323	Ave		0.4130			0.1000	11.0		20.0			
Ethyl ether	0.3086 0.3102	0.3235 0.3233	0.3137 0.3151	0.2963	0.3289	Ave		0.3150			0.0100	3.3		20.0			
Acrolein	0.0396 0.0517	0.0543 0.0531	0.0483 0.0514	0.0494	0.0523	Ave		0.0500			0.0100	9.2		20.0			
1,1-Dichloroethene	0.2617 0.2769	0.3126 0.2902	0.2929 0.2710	0.2438	0.2966	Ave		0.2807			0.1000	7.8		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2784 0.2816	0.3066 0.2868	0.2842 0.2700	0.2572	0.3066	Ave		0.2839			0.1000	5.9		20.0			
Acetone	0.0798 0.0903	0.1021 0.0898	0.0810 0.0901	0.0853	0.0894	Ave		0.0884			0.0500	7.8		20.0			
Iodomethane	0.3845 0.4194	0.4548 0.4293	0.4169 0.4189	0.3736	0.4299	Ave		0.4159			0.0100	6.2		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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	0.7487 0.8423	0.8906 0.8871	0.8183 0.8610	0.7260	0.8778	Ave		0.8315			0.1000	7.6		20.0			
Allyl chloride	0.1478 0.1884	0.2053 0.1953	0.1824 0.1875	0.1614	0.1907	Ave		0.1823			0.0100	10.0		20.0			
Methyl acetate	0.1939 0.2192	0.2296 0.2217	0.2129 0.2109	0.2145	0.2292	Ave		0.2165			0.1000	5.3		20.0			
Methylene Chloride	0.5663 0.3764	0.4406 0.3812	0.3942 0.3763	0.3452	0.4033	Ave		0.4104			0.1000	17.0		20.0			
tert-Butyl alcohol	0.9048 1.1531	1.2046 1.1953	1.1245 1.1486	1.1865	1.1233	Ave		1.1301			0.0100	8.5		20.0			
Acrylonitrile	0.0986 0.1135	0.1174 0.1174	0.1124 0.1105	0.1114	0.1219	Ave		0.1129			0.0100	6.1		20.0			
trans-1,2-Dichloroethene	0.3049 0.3368	0.3676 0.3502	0.3416 0.3352	0.3064	0.3612	Ave		0.3380			0.1000	6.8		20.0			
Methyl tert-butyl ether	0.7928 0.9305	0.9167 0.9185	0.8812 0.8985	0.8253	0.9438	Ave		0.8884			0.1000	6.0		20.0			
Hexane	0.4629 0.4758	0.5115 0.4938	0.4880 0.4752	0.4742	0.5094	Ave		0.4863			0.0100	3.6		20.0			
1,1-Dichloroethane	0.6073 0.6486	0.7152 0.6711	0.6594 0.6387	0.5982	0.6916	Ave		0.6538			0.2000	6.1		20.0			
Vinyl acetate	0.3314 0.3275	0.3270 0.3665	0.3192 0.3491	0.3563	0.3424	Ave		0.3399			0.0100	4.8		20.0			
2-Butanone (MEK)	0.0981 0.1170	0.1045 0.1174	0.1091 0.1130	0.1341	0.1140	Ave		0.1134			0.0500	9.4		20.0			
cis-1,2-Dichloroethene	0.3245 0.3584	0.3872 0.3703	0.3585 0.3605	0.3251	0.3832	Ave		0.3585			0.1000	6.5		20.0			
2,2-Dichloropropane	0.3199 0.3750	0.4095 0.3953	0.3658 0.3787	0.3260	0.3957	Ave		0.3707			0.0100	8.8		20.0			
Bromochloromethane	0.1350 0.1448	0.1446 0.1494	0.1365 0.1459	0.1362	0.1490	Ave		0.1427			0.0100	4.1		20.0			
Tetrahydrofuran	0.0903 0.0790	0.0922 0.0786	0.0695 0.0777	0.0808	0.0836	Ave		0.0815			0.0100	8.9		20.0			
Chloroform	0.5289 0.5736	0.5990 0.5775	0.5675 0.5500	0.5145	0.5923	Ave		0.5629			0.2000	5.3		20.0			
1,1,1-Trichloroethane	0.3563 0.4446	0.4657 0.4553	0.4238 0.4340	0.3968	0.4543	Ave		0.4288			0.1000	8.5		20.0			
Cyclohexane	0.6359 0.6708	0.7886 0.6979	0.7167 0.6628	0.6153	0.7383	Ave		0.6908			0.1000	8.2		20.0			
Carbon tetrachloride	0.3118 0.3436	0.3285 0.3563	0.3441 0.3446	0.2948	0.3616	Ave		0.3357			0.1000	6.8		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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	0.4003 0.4186	0.4561 0.4404	0.4219 0.4179	0.4152	0.4528	Ave		0.4279			0.0100	4.6		20.0			
Isobutyl alcohol	0.0043 0.0072	0.0064 0.0072	0.0064 0.0068	0.0074	0.0076	Ave		0.0067		*	0.0100	16.0		20.0			
Benzene	1.1307 1.1958	1.3767 1.2342	1.2896 1.1539	1.2476	1.3035	Ave		1.2415			0.5000	6.6		20.0			
1,2-Dichloroethane	0.4007 0.3996	0.4089 0.4174	0.3990 0.4021	0.4078	0.4253	Ave		0.4076			0.1000	2.3		20.0			
n-Heptane	0.3920 0.3756	0.4175 0.3951	0.4074 0.3772	0.3914	0.4078	Ave		0.3955			0.0100	3.8		20.0			
Trichloroethene	0.2891 0.2677	0.3005 0.2889	0.2760 0.2665	0.2817	0.2919	Ave		0.2828			0.2000	4.3		20.0			
Methylcyclohexane	0.5102 0.5411	0.6090 0.5779	0.5854 0.5414	0.5070	0.5852	Ave		0.5572			0.1000	6.8		20.0			
1,2-Dichloropropane	0.3166 0.3290	0.3285 0.3343	0.3184 0.3303	0.3331	0.3380	Ave		0.3285			0.1000	2.3		20.0			
1,4-Dioxane	0.0014 0.0021	0.0019 0.0021	0.0020 0.0019	0.0023	0.0026	Ave		0.0021		*	0.0100	16.0		20.0			
Dibromomethane	0.1216 0.1521	0.1431 0.1598	0.1502 0.1505	0.1442	0.1532	Ave		0.1468			0.0100	7.8		20.0			
Bromodichloromethane	0.2993 0.3553	0.3290 0.3756	0.3325 0.3612	0.3451	0.3571	Ave		0.3444			0.2000	6.9		20.0			
cis-1,3-Dichloropropene	0.3353 0.4110	0.3503 0.4405	0.3634 0.4227	0.4129	0.4256	Ave		0.3952			0.2000	10.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.9540 1.1151	1.1043 1.1718	1.1815 1.0384	1.2050	1.2539	Ave		1.1280			0.1000	8.6		20.0			
Toluene	5.4914 4.5310	5.7208 4.7401	5.6426 4.1615	5.1921	5.4144	Ave		5.1117			0.4000	11.0		20.0			
trans-1,3-Dichloropropene	1.2695 1.3907	1.2955 1.4928	1.3784 1.3478	1.5487	1.4918	Ave		1.4019			0.1000	7.2		20.0			
Ethyl methacrylate	1.1291 1.2563	1.2172 1.3586	1.3093 1.2529	1.3664	1.4291	Ave		1.2899			0.0100	7.4		20.0			
1,1,2-Trichloroethane	1.0185 0.8514	1.0026 0.9021	0.9486 0.8143	0.9248	0.9635	Ave		0.9282			0.1000	7.6		20.0			
Tetrachloroethene	0.9955 0.7962	1.0058 0.8828	0.9677 0.7835	0.9124	0.9591	Ave		0.9129			0.2000	9.4		20.0			
1,3-Dichloropropane	1.7663 1.5809	1.8062 1.6986	1.7615 1.5218	1.8579	1.8132	Ave		1.7258			0.0100	6.8		20.0			
2-Hexanone	0.5452 0.6314	0.6409 0.6677	0.6587 0.6084	0.6924	0.7040	Ave		0.6436			0.1000	7.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	0.6719 0.7933	0.7287 0.8651	0.8081 0.7828	0.8040	0.8498	Ave		0.7880			0.1000	7.9		20.0			
1,2-Dibromoethane (EDB)	0.7702 0.8091	0.8566 0.8695	0.8717 0.7825	0.8987	0.8965	Ave		0.8444			0.1000	6.0		20.0			
3-Chlorobenzotrifluoride	2.1092 1.5798	1.9444 1.6709	2.0206 1.4750	1.6511	1.7758	Ave		1.7784			0.0100	13.0		20.0			
Chlorobenzene	3.4601 2.8835	3.3914 3.0356	3.4154 2.7518	3.2008	3.3854	Ave		3.1905			0.5000	8.5		20.0			
4-Chlorobenzotrifluoride	1.8212 1.5037	1.8756 1.5784	1.8254 1.4071	1.5671	1.6615	Ave		1.6550			0.0100	10.0		20.0			
1,1,1,2-Tetrachloroethane	0.8739 1.1196	1.1217 1.1535	1.1594 1.0827	1.0702	1.2192	Ave		1.1000			0.0100	9.3		20.0			
Ethylbenzene	2.0615 1.7563	2.0184 1.8372	2.0638 1.6858	1.8579	2.0338	Ave		1.9143			0.1000	7.8		20.0			
m-Xylene & p-Xylene	2.2289 2.2454	2.6070 2.2936	2.5188 2.0897	2.3575	2.5596	Ave		2.3626			0.1000	7.7		20.0			
o-Xylene	2.3535 2.3021	2.6114 2.3512	2.6901 2.1211	2.3725	2.6243	Ave		2.4283			0.3000	8.0		20.0			
Styrene	3.4711 3.4069	3.6753 3.5670	3.8725 3.1901	3.5790	3.8420	Ave		3.5755			0.3000	6.3		20.0			
Bromoform	0.3456 0.4498	0.4023 0.4747	0.4231 0.4455	0.3941	0.4408	Ave		0.4220			0.1000	9.6		20.0			
2-Chlorobenzotrifluoride	2.0831 1.6651	2.0073 1.7788	2.0600 1.5739	1.7397	1.9308	Ave		1.8549			0.0100	10.0		20.0			
Isopropylbenzene	6.1322 5.3578	7.0417 5.5217	6.7733 4.8040	5.7294	6.5255	Ave		5.9857			0.1000	13.0		20.0			
1,1,2,2-Tetrachloroethane	1.2405 1.1782	1.3514 1.2324	1.3065 1.1416	1.2206	1.3137	Ave		1.2481			0.3000	5.7		20.0			
Bromobenzene	0.8075 0.8703	0.8805 0.8822	0.8751 0.8614	0.9099	0.9143	Ave		0.8752			0.0100	3.8		20.0			
trans-1,4-Dichloro-2-butene	0.2451 0.2511	0.2240 0.2674	0.2263 0.2510	0.2496	0.2545	Ave		0.2461			0.0100	5.9		20.0			
1,2,3-Trichloropropane	0.2160 0.2538	0.2689 0.2524	0.2612 0.2534	0.2761	0.2673	Ave		0.2561			0.0100	7.1		20.0			
N-Propylbenzene	0.9508 1.0270	1.1121 1.0371	1.0896 0.9935	1.0682	1.0870	Ave		1.0457			0.0100	5.2		20.0			
2-Chlorotoluene	0.9024 0.8995	0.9760 0.9205	0.9138 0.8970	0.9017	0.9611	Ave		0.9215			0.0100	3.3		20.0			
3-Chlorotoluene	1.0017 0.9586	0.9692 0.9307	1.0137 0.9112	0.9609	0.9611	Ave		0.9634			0.0100	3.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	3.0768 3.2530	3.7359 3.2181	3.5555 3.0192	3.4050	3.6257	Ave		3.3612			0.0100	7.8		20.0			
4-Chlorotoluene	0.9577 0.8968	0.9866 0.9558	0.9331 0.9061	0.9440	0.9865	Ave		0.9458			0.0100	3.5		20.0			
tert-Butylbenzene	2.5600 2.5478	2.7508 2.5597	2.6532 2.3924	2.6993	2.7650	Ave		2.6160			0.0100	4.8		20.0			
1,2,4-Trimethylbenzene	3.3035 3.3532	3.8322 3.3235	3.7005 3.1044	3.4799	3.7246	Ave		3.4777			0.0100	7.3		20.0			
3,4-Dichlorobenzotrifluoride	0.9887 0.9504	1.0234 0.9539	1.0268 0.9051	0.9364	0.9894	Ave		0.9718			0.0100	4.4		20.0			
sec-Butylbenzene	3.9016 3.7982	4.5860 3.7545	4.3726 3.4441	4.1591	4.3402	Ave		4.0445			0.0100	9.5		20.0			
1,3-Dichlorobenzene	1.7518 1.6682	1.8502 1.6495	1.7633 1.5971	1.6478	1.7893	Ave		1.7146			0.6000	5.0		20.0			
4-Isopropyltoluene	3.1932 3.1803	3.5244 3.1617	3.4397 2.9124	3.3244	3.5095	Ave		3.2807			0.0100	6.4		20.0			
1,4-Dichlorobenzene	1.8921 1.7229	1.8544 1.7172	1.7634 1.6486	1.7582	1.8323	Ave		1.7736			0.5000	4.6		20.0			
2,4-Dichlorobenzotrifluoride	0.8418 0.9115	1.1643 0.9139	1.0936 0.9451	0.9618	0.9706	Ave		0.9753			0.0100	11.0		20.0			
2,5-Dichlorobenzotrifluoride	1.0277 1.1282	1.0948 1.1145	1.0804 0.9872	1.0256	1.1409	Ave		1.0749			0.0100	5.2		20.0			
n-Butylbenzene	2.8749 3.0408	3.5216 3.0472	3.3346 2.8083	3.1859	3.4281	Ave		3.1552			0.0100	8.2		20.0			
1,2-Dichlorobenzene	1.7178 1.6847	1.8218 1.6615	1.7626 1.6068	1.6829	1.7742	Ave		1.7140			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	0.1196 0.1498	0.1418 0.1456	0.1302 0.1391	0.1296	0.1389	Ave		0.1368			0.0500	7.2		20.0			
1,2,4-Trichlorobenzene	1.2077 1.3259	1.4506 1.3099	1.3159 1.2520	1.3543	1.4062	Ave		1.3278			0.2000	5.9		20.0			
Hexachlorobutadiene	0.4827 0.5151	0.5622 0.5136	0.5273 0.4845	0.5177	0.5517	Ave		0.5193			0.0100	5.4		20.0			
Naphthalene	1.8023 2.3658	2.4053 2.3151	2.3140 2.1769	2.4289	2.4476	Ave		2.2820			0.0100	9.3		20.0			
1,2,3-Trichlorobenzene	0.9869 1.1121	1.2131 1.1031	1.0884 1.0649	1.1361	1.1802	Ave		1.1106			0.0100	6.3		20.0			
2,4,5-Trichlorotoluene	0.8654 0.8230	0.8306 0.8086	0.8131 0.7852	0.7828	0.8314	Ave		0.8175			0.0100	3.3		20.0			
2,3,6-Trichlorotoluene	0.7105 0.7303	0.7883 0.7307	0.7351 0.7070	0.6935	0.7334	Ave		0.7286			0.0100	3.9		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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)	0.2174 0.2296	0.2406 0.2250	0.2312 0.2238	0.2125	0.2294	Ave		0.2262				3.8		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3069 0.3169	0.3462 0.3188	0.3353 0.3175	0.3254	0.3226	Ave		0.3237				3.8		20.0			
Toluene-d8 (Surr)	4.7309 3.4535	4.2834 3.3788	4.5099 3.1748	3.9656	4.0301	Ave		3.9409				14.0		20.0			
4-Bromofluorobenzene (Surr)	2.0381 1.5065	1.7519 1.5176	1.8406 1.4336	1.6178	1.7074	Ave		1.6767				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 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-131929/6	60128006.D
Level 2	IC 180-131929/7	60128007.D
Level 3	ICIS 180-131929/8	60128008.D
Level 4	IC 180-131929/9	60128009.D
Level 5	IC 180-131929/10	60128010.D
Level 6	IC 180-131929/11	60128011.D
Level 7	IC 180-131929/12	60128012.D
Level 8	IC 180-131929/13	60128013.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	12441 399376	61413 466774	123370 543864	178504	243452	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	19782 623186	91222 698118	180612 847288	283765	384421	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	16929 551705	80864 630878	164249 750079	249364	339939	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	19072 555574	91449 663356	173303 797079	257326	363197	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	7254 214591	35506 238802	68708 267917	100551	133368	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	11109 335043	48264 381411	103324 453830	150069	206434	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	24939 781500	124955 918274	239388 1104334	358712	485448	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	19093 608185	104021 732912	186613 854688	264073	379709	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	15266 482160	65645 557320	140456 701385	219655	288913	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	39186 103226	55086 114431	64846 125821	85368	91786	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	12943 430377	63440 500308	131155 603276	180761	260475	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	13773 437728	62215 494476	127227 600973	190645	269318	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	19736 280558	41421 309648	72525 400973	126400	156961	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	19019 651846	92291 740212	186664 932274	276926	377556	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	37034 1309070	180744 1529475	366360 1916453	538178	770934	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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	7309 292881	41661 336687	81645 417234	119671	167495	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	47953 1703104	232955 1911445	476543 2346689	795107	1006389	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	28011 585012	89407 657192	176505 837610	255870	354231	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	5769 335472	44315 373469	82385 475572	157863	196865	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	48759 1763284	238315 2023857	503259 2458471	825638	1070950	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	15080 523513	74610 603714	152947 746155	227148	317224	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	39215 1446119	186042 1583536	394527 1999816	611806	828973	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	22898 739493	103798 851374	218490 1057585	351514	447359	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	30038 1008065	145146 1157116	295240 1421566	443424	607468	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	16394 509076	66357 631938	142927 777050	264095	300763	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	24262 363723	42402 404756	97685 502816	198782	200186	25.0 350	50.0 400	100 500	150	200
cis-1,2-Dichloroethene	FB	Ave	16049 557043	78570 638509	160524 802357	240979	336595	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	15822 582789	83097 681588	163798 842775	241640	347540	5.00 175	25.0 200	50.0 250	75.0	100
Bromochloromethane	FB	Ave	6679 225087	29353 257539	61127 324697	100988	130848	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	8931 245422	37414 271171	62273 346093	119820	146874	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	26162 891515	121573 995734	254065 1224156	381367	520205	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	17622 690974	94502 785027	189759 966056	294109	399010	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	31454 1042561	160049 1203343	320878 1475197	456085	648441	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	15423 533960	66664 614377	154066 766964	218554	317552	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	19800 650661	92563 759338	188906 930038	307766	397719	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	5333 280190	32224 309707	71829 377064	137058	166021	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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	55932 1858516	279397 2127915	577373 2568317	924844	1144809	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	19819 620987	82990 719730	178647 895039	302310	373539	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	19391 583751	84739 681180	182403 839502	290134	358203	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	14298 416102	60983 498060	123549 593184	208800	256342	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25239 840990	123591 996383	262105 1205068	375853	513997	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	15660 511401	66666 576307	142558 735181	246898	296893	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1410 66654	7809 73473	18208 86605	33822	44901	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	6013 236358	29036 275521	67249 334892	106863	134511	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	14807 552260	66762 647525	148860 803958	255826	313642	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	16586 638776	71082 759439	162719 940779	306111	373776	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	48490 833434	94789 963310	221045 1165825	401820	485147	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	55826 1693226	245530 1948278	527825 2335981	865706	1047433	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	12906 519690	55603 613591	128942 756557	258221	288597	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	11478 469489	52242 558436	122480 703298	227823	276463	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10354 318177	43032 370798	88732 457078	154194	186391	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	10120 297552	43168 362836	90521 439818	152121	185546	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	17956 590770	77521 698175	164779 854230	309767	350761	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	27710 471926	55014 548903	123231 682982	230885	272392	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	6831 296438	31276 355583	75589 439418	134047	164399	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	7830 302375	36764 357378	81540 439262	149846	173425	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	21442 590382	83450 686787	189015 827969	275294	343534	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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	35175 1077548	145556 1247688	319491 1544665	533675	654919	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	18514 561945	80499 648765	170754 789851	261287	321428	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8884 418399	48143 474135	108450 607735	178444	235848	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	20957 656339	86627 755113	193055 946322	309783	393435	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	22659 839112	111891 942705	235617 1173036	393071	495166	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	23926 860280	112080 966416	251637 1190653	395578	507675	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	35287 1273143	157741 1466119	362245 1790733	596747	743239	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	3513 168078	17267 195103	39579 250089	65704	85273	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	21177 622262	86153 731138	192703 883499	290061	373509	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	62340 2002206	302221 2269536	633598 2696635	955292	1262379	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	12611 440302	58000 506563	122215 640819	203512	254135	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	13104 477179	60469 550534	135116 690860	223525	278729	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3977 137653	15381 166844	34948 201266	61317	77586	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	3506 139161	18469 157512	40329 203260	67823	81476	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	15430 563113	76375 647166	168244 796757	262417	331379	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	14645 493158	67028 574430	141092 719388	221515	293005	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	16255 525597	66559 580756	156510 730727	236047	292985	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	49931 1783600	256568 2008176	548969 2421330	836492	1105314	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	15542 491693	67753 596461	144067 726677	231900	300726	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	41544 1396912	188912 1597317	409657 1918630	663124	842934	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	53610 1838518	263177 2073941	571367 2489630	854880	1135474	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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

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	16045 521070	70285 595281	158534 725838	230038	301633	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	63316 2082501	314946 2342860	675141 2762118	1021731	1323132	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	28428 914665	127066 1029314	272251 1280853	404796	545480	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	51820 1743713	242039 1972986	531099 2335695	816686	1069888	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	30705 944630	127353 1071549	272272 1322179	431926	558588	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	13661 499776	79958 570286	168861 757959	236290	295903	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	16677 618602	75184 695499	166815 791743	251951	347814	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	46654 1667227	241849 1901534	514864 2252239	782657	1045083	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	27877 923690	125111 1036802	272148 1288639	413439	540869	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1941 82124	9741 90830	20104 111534	31840	42357	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	19598 726984	99622 817434	203185 1004110	332715	428696	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	7834 282422	38609 320466	81412 388561	127169	168186	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	29248 1297115	165187 1444669	357281 1745866	596683	746148	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	16016 609774	83313 688354	168045 854020	279103	359783	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	14043 451216	57044 504552	125544 629698	192318	253456	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	11530 400428	54138 455993	113503 566962	170378	223585	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	10756 356892	48823 387858	103502 498125	157502	201508	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	15181 492507	70258 549644	150111 706731	241234	283354	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	48094 1290581	183840 1388779	421866 1782119	661202	779639	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	20719 562972	75189 623752	172172 804742	269743	330292	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.: 180-42445-1 Analy Batch No.: 131929

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/28/2015 13:58 Calibration End Date: 01/28/2015 16:44 Calibration ID: 21588

Curve Type Legend:
Ave = Average ISTD

TestAmerica Laboratories
Initial Calibration %Drift Report

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Instrument: CHHP6 Lims Location: 180
Lock State: Initial Calib Locked Cpnd Order: Compound Type
Integrator: RTE Last Modified: 29-Jan-2015 13:48:00
No.Compounds:146

Initial Calibration Batches

Ical Batch: \\PITCHROM\ChromData\CHHP6\20141018-3879.b
Inj Date : 18-Oct-2014 14:29:30, Sublist: chrom-MSVOA_LL_CHHP6*sub3

Ical Batch: \\PITCHROM\ChromData\CHHP6\20141118-4467.b
Inj Date : 18-Nov-2014 23:46:30, Sublist: chrom-MSVOA_LL_CHHP6*sub31

Ical Batch: \\PITCHROM\ChromData\CHHP6\20150128-5450.b
Inj Date : 28-Jan-2015 13:58:30, Sublist: chrom-MSVOA_LL_CHHP6*sub5

Limit Group: VOA 8260C ICAL

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
* 1 TBA-d9 (IS)	166219	172370	181020	166706	179861	174392	179994	165623
* 2 Fluorobenzene (IS)	433221	469153	467228	485243	488527	476034	486166	445145
* 3 Chlorobenzene-d5	103593	103411	107218	109218	111724	107730	113095	112267
* 4 1,4-Dichlorobenzene-d4	143652	148646	152348	157204	156430	159771	164262	160396
$ 5 Dibromofluoromethane (	-3.9	6.4	2.2	-6.1	1.4	1.5	-0.5	-1.1
$ 6 1,2-Dichloroethane-d4	-5.2	6.9	3.6	0.5	-0.3	-2.1	-1.5	-1.9
$ 7 Toluene-d8 (Surr)	20.0	8.7	14.4	0.6	2.3	-12.4	-14.3	-19.4
$ 8 4-Bromofluorobenzene (	21.6	4.5	9.8	-3.5	1.8	-10.1	-9.5	-14.5
11 Dichlorodifluoromethan	-5.1	14.2	4.0	-9.1	4.6	-3.0	2.2	-7.8
12 Chloromethane	-1.9	10.3	-1.0	-6.1	7.4	-1.6	-0.6	-6.6
13 Vinyl chloride	-5.2	10.3	1.6	-6.8	7.2	-1.7	1.3	-6.7
14 Butadiene	0.0	16.9	0.4	-10.0	7.3	-7.3	-0.2	-7.1
15 Bromomethane	1.2	20.7	5.9	-6.4	4.8	-4.7	-4.4	-16.9
16 Chloroethane	1.4	7.4	4.2	-8.6	6.2	-2.6	-0.1	-7.9
17 Dichlorofluoromethane	-4.5	16.6	1.3	-8.3	4.7	-4.7	0.9	-6.0
18 Trichlorofluoromethane	-6.5	24.1	0.9	-13.8	4.7	-5.3	2.9	-7.0
19 Ethanol	-17.5	9.3	5.4	3.2	-10.5	1.4	8.8	
20 Ethyl ether	-2.0	2.7	-0.4	-5.9	4.4	-1.5	2.6	0.1
21 Acrolein	-20.8	8.6	-3.4	-1.3	4.5	3.3	6.2	2.8
22 1,1-Dichloroethene	-6.8	11.4	4.4	-13.1	5.6	-1.4	3.4	-3.4
23 1,1,2-Trichloro-1,2,2-	-1.9	8.0	0.1	-9.4	8.0	-0.8	1.0	-4.9
24 Acetone	-9.8	15.4	-8.4	-3.6	1.0	2.0	1.5	1.8
25 Iodomethane	-7.6	9.3	0.2	-10.2	3.4	0.8	3.2	0.7
26 Carbon disulfide	-10.0	7.1	-1.6	-12.7	5.6	1.3	6.7	3.6
27 Isopropyl alcohol	-8.7	-15.4	15.4	-0.1	-6.1	6.2	8.6	
28 Acetonitrile	26.2	-7.7	-4.5	-8.4	-3.8	-0.6	-1.3	
29 3-Chloro-1-propene	-19.0	12.6	0.0	-11.5	4.6	3.3	7.1	2.8
30 Methyl acetate	-10.4	6.1	-1.7	-0.9	5.9	1.2	2.4	-2.6
31 Methylene Chloride	* 38.0	7.3	-3.9	-15.9	-1.7	-8.3	-7.1	-8.3
32 2-Methyl-2-propanol	-19.9	6.6	-0.5	5.0	-0.6	2.0	5.8	1.6
33 Acrylonitrile	-12.7	4.0	-0.4	-1.3	8.0	0.5	4.0	-2.1
34 trans-1,2-Dichloroethe	-9.8	8.8	1.1	-9.3	6.9	-0.3	3.6	-0.8
35 Methyl tert-butyl ethe	-10.8	3.2	-0.8	-7.1	6.2	4.7	3.4	1.1
36 Hexane	-4.8	5.2	0.3	-2.5	4.7	-2.2	1.5	-2.3
37 1,1-Dichloroethane	-7.1	9.4	0.9	-8.5	5.8	-0.8	2.7	-2.3
38 Vinyl acetate	-2.5	-3.8	-6.1	4.8	0.7	-3.6	7.8	2.7
40 Isopropyl ether	5.3	-5.2	1.3	-1.8	-1.5	1.7	0.2	
39 2-Chloro-1,3-butadiene	-3.2	0.5	-2.4	1.5	1.7	4.0	-2.1	

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
41 Tert-butyl ethyl ether	2.4	-3.4	-0.8	-4.0	0.1	1.9	3.9	
44 2-Butanone (MEK)	-13.5	-7.9	-3.8	18.3	0.5	3.2	3.5	-0.4
42 2,2-Dichloropropane	-13.7	10.4	-1.3	-12.1	6.7	1.1	6.6	2.1
43 cis-1,2-Dichloroethene	-9.5	8.0	0.0	-9.3	6.9	0.0	3.3	0.6
45 Propionitrile	-5.3	0.9	4.1	-2.4	-1.3	1.9	2.3	
46 Ethyl acetate	-7.0	-3.1	3.2	-1.4	-0.6	3.6	5.2	
47 Methacrylonitrile	5.8	5.7	6.9	-0.2	-2.1	-6.1	-10.0	
49 Tetrahydrofuran	10.8	13.1	-14.6	-0.8	2.6	-3.1	-3.5	-4.6
48 Chlorobromomethane	-5.4	1.4	-4.3	-4.5	4.4	1.5	4.7	2.2
50 Chloroform	-6.0	6.4	0.8	-8.6	5.2	1.9	2.6	-2.3
51 1,1,1-Trichloroethane	-16.9	8.6	-1.2	-7.5	5.9	3.7	6.2	1.2
52 Cyclohexane	-7.9	14.2	3.7	-10.9	6.9	-2.9	1.0	-4.1
53 Carbon tetrachloride	-7.1	-2.1	2.5	-12.2	7.7	2.4	6.2	2.7
54 1,1-Dichloropropene	-6.5	6.6	-1.4	-3.0	5.8	-2.2	2.9	-2.3
55 Isobutyl alcohol R7	* -35.2	-4.5	-3.5	11.2	13.7	8.4	8.0	1.9
56 Benzene	-8.9	10.9	3.9	0.5	5.0	-3.7	-0.6	-7.1
57 1,2-Dichloroethane	-1.7	0.3	-2.1	0.1	4.3	-2.0	2.4	-1.3
58 Tert-amyl methyl ether	-1.9	-4.7	1.5	-2.1	-0.6	4.2	3.7	
59 n-Heptane	-0.9	5.6	3.0	-1.0	3.1	-5.0	-0.1	-4.6
60 n-Butanol R7	-14.7	-11.2	-3.7	-6.8	0.8	16.4	19.2	
61 Trichloroethene	2.2	6.3	-2.4	-0.4	3.2	-5.3	2.2	-5.7
62 Ethyl acrylate	-11.1	-4.7	-1.2	1.7	-0.5	9.0	6.8	
63 Methylcyclohexane	-8.4	9.3	5.1	-9.0	5.0	-2.9	3.7	-2.8
64 1,2-Dichloropropane	-3.6	0.0	-3.1	1.4	2.9	0.2	1.7	0.5
66 Methyl methacrylate	-5.8	-6.6	-0.5	-1.0	1.7	6.2	5.9	
65 1,4-Dioxane R7	* -30.6	-6.4	-1.1	11.0	24.4	4.3	3.7	-5.3
67 Dibromomethane	-17.2	-2.5	2.3	-1.8	4.3	3.6	8.9	2.5
68 Dichlorobromomethane	-13.1	-4.5	-3.5	0.2	3.7	3.2	9.1	4.9
69 2-Nitropropane	7.3	3.0	3.0	-0.8	-7.9	0.8	-5.4	
70 2-Chloroethyl vinyl et	-2.8	-8.2	-0.9	0.1	0.7	5.6	5.5	
71 cis-1,3-Dichloropropen	-15.2	-11.4	-8.0	4.5	7.7	4.0	11.5	7.0
72 4-Methyl-2-pentanone (	-15.4	-2.1	4.7	6.8	11.2	-1.1	3.9	-7.9
73 Toluene	7.4	11.9	10.4	1.6	5.9	-11.4	-7.3	-18.6
74 trans-1,3-Dichloroprop	-9.4	-7.6	-1.7	10.5	6.4	-0.8	6.5	-3.9
75 Ethyl methacrylate	-12.5	-5.6	1.5	5.9	10.8	-2.6	5.3	-2.9
76 1,1,2-Trichloroethane	9.7	8.0	2.2	-0.4	3.8	-8.3	-2.8	-12.3
77 Tetrachloroethene	9.0	10.2	6.0	-0.1	5.1	-12.8	-3.3	-14.2
78 1,3-Dichloropropane	2.3	4.7	2.1	7.7	5.1	-8.4	-1.6	-11.8
79 2-Hexanone	-15.3	-0.4	2.3	7.6	9.4	-1.9	3.8	-5.5
80 n-Butyl acetate	-8.4	-6.4	-5.0	-0.6	-0.4	11.3	9.5	
81 Chlorodibromomethane	-14.7	-7.5	2.6	2.0	7.9	0.7	9.8	-0.7
82 Ethylene Dibromide	-8.8	1.4	3.2	6.4	6.2	-4.2	3.0	-7.3
83 3-Chlorobenzotrifluori	18.6	9.3	13.6	-7.2	-0.1	-11.2	-6.0	-17.1
84 Chlorobenzene	8.4	6.3	7.1	0.3	6.1	-9.6	-4.9	-13.8
85 4-Chlorobenzotrifluori	10.0	13.3	10.3	-5.3	0.4	-9.1	-4.6	-15.0
87 Ethylbenzene	7.7	5.4	7.8	-2.9	6.2	-8.3	-4.0	-11.9
86 1,1,1,2-Tetrachloroeth	-20.6	2.0	5.4	-2.7	10.8	1.8	4.9	-1.6
88 m-Xylene & p-Xylene	-5.7	10.3	6.6	-0.2	8.3	-5.0	-2.9	-11.5
89 o-Xylene	-3.1	7.5	10.8	-2.3	8.1	-5.2	-3.2	-12.6
90 Styrene	-2.9	2.8	8.3	0.1	7.5	-4.7	-0.2	-10.8
129 Cyclohexanol R7, R2	-6.0	-11.6	-12.0	29.6				
91 Bromoform	-18.1	-4.7	0.3	-6.6	4.5	6.6	12.5	5.6
92 2-Chlorobenzotrifluori	12.3	8.2	11.1	-6.2	4.1	-10.2	-4.1	-15.1
93 Isopropylbenzene	2.4	17.6	13.2	-4.3	9.0	-10.5	-7.8	-19.7
94 Cyclohexanone	-13.6	-6.9	-0.8	3.1	-4.5	9.8	13.0	
96 1,1,2,2-Tetrachloroeth	-0.6	8.3	4.7	-2.2	5.3	-5.6	-1.3	-8.5
95 Bromobenzene	-7.7	0.6	0.0	4.0	4.5	-0.6	0.8	-1.6

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
97 trans-1,4-Dichloro-2-b	-0.4	-9.0	-8.0	1.4	3.4	2.0	8.6	2.0
98 1,2,3-Trichloropropane	-15.7	5.0	2.0	7.8	4.3	-0.9	-1.5	-1.1
99 N-Propylbenzene	-9.1	6.4	4.2	2.2	4.0	-1.8	-0.8	-5.0
100 2-Chlorotoluene	-2.1	5.9	-0.8	-2.1	4.3	-2.4	-0.1	-2.7
101 3-Chlorotoluene	4.0	0.6	5.2	-0.3	-0.2	-0.5	-3.4	-5.4
102 1,3,5-Trimethylbenzene	-8.5	11.1	5.8	1.3	7.9	-3.2	-4.3	-10.2
103 4-Chlorotoluene	1.3	4.3	-1.3	-0.2	4.3	-5.2	1.1	-4.2
104 tert-Butylbenzene	-2.1	5.2	1.4	3.2	5.7	-2.6	-2.2	-8.5
105 Pentachloroethane	25.6	-10.6	-21.2	17.8	1.1	9.2	-21.9	
106 1,2,4-Trimethylbenzene	-5.0	10.2	6.4	0.1	7.1	-3.6	-4.4	-10.7
107 1,2-dichloro-4-(triflu	1.7	5.3	5.7	-3.6	1.8	-2.2	-1.8	-6.9
108 sec-Butylbenzene	-3.5	13.4	8.1	2.8	7.3	-6.1	-7.2	-14.8
109 1,3-Dichlorobenzene	2.2	7.9	2.8	-3.9	4.4	-2.7	-3.8	-6.9
110 4-Isopropyltoluene	-2.7	7.4	4.8	1.3	7.0	-3.1	-3.6	-11.2
111 1,4-Dichlorobenzene	6.7	4.6	-0.6	-0.9	3.3	-2.9	-3.2	-7.0
113 2,4-Dichloro-1-(triflo	-13.7	19.4	12.1	-1.4	-0.5	-6.5	-6.3	-3.1
112 1,2,3-Trimethylbenzene	-1.9	-0.3	4.1	2.3	4.4	-1.8	-6.8	
114 2,5-Dichlorobenzotrifl	-4.4	1.8	0.5	-4.6	6.1	5.0	3.7	-8.2
115 Benzyl chloride	-5.8	-13.7	-7.2	-3.6	-0.3	14.8	15.6	
116 n-Butylbenzene	-8.9	11.6	5.7	1.0	8.7	-3.6	-3.4	-11.0
117 1,2-Dichlorobenzene	0.2	6.3	2.8	-1.8	3.5	-1.7	-3.1	-6.3
118 1,2-Dibromo-3-Chloropr	-12.6	3.7	-4.8	-5.3	1.5	9.5	6.4	1.6
119 2,4- & 2,5- & 2,6- Dic	-3.1	17.6	9.8	-0.7	3.8	-4.8	-8.2	-14.4
120 1,3,5-Trichlorobenzene	4.8	1.0	2.3	-0.6	-0.1	-1.3	-6.1	
121 2,3- & 3,4- Dichloroto	-3.4	18.4	6.2	-0.8	3.6	-4.3	-7.1	-12.7
122 1,2,4-Trichlorobenzene	-9.1	9.2	-0.9	2.0	5.9	-0.1	-1.3	-5.7
123 Hexachlorobutadiene	-7.0	8.3	1.5	-0.3	6.2	-0.8	-1.1	-6.7
124 Naphthalene	-21.0	5.4	1.4	6.4	7.3	3.7	1.5	-4.6
125 1,2,3-Trichlorobenzene	-11.1	9.2	-2.0	2.3	6.3	0.1	-0.7	-4.1
126 2,4,5-Trichlorotoluene	5.9	1.6	-0.5	-4.2	1.7	0.7	-1.1	-4.0
127 2,3,6-Trichlorotoluene	-2.5	8.2	0.9	-4.8	0.7	0.2	0.3	-3.0
128 2-Methylnaphthalene R1	* -34.0	-25.9	-8.9	2.4	14.2	26.5	25.7	

ICalib Error Legend

R7, Calibration Average RF < Min. RF Limit

R2, Missing the Required Number of Calibration Points

R1, Curve Coefs Fail the Rule Error Limit Test

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Jan-2015 13:58:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0005450-006
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:05 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:25:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.261	4.279	-0.018	94	127519	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.327	0.000	98	494647	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.436	10.442	-0.006	91	101660	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.790	0.000	98	162281	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.597	6.597	0.000	51	10756	5.00	4.81	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.974	0.000	51	15181	5.00	4.74	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	94	48094	5.00	6.00	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.628	0.000	79	20719	5.00	6.08	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	94	12441	5.00	4.75	
12 Chloromethane	50	1.767	1.773	-0.006	97	19782	5.00	4.91	
13 Vinyl chloride	62	1.900	1.907	-0.006	94	16929	5.00	4.74	
14 Butadiene	39	1.931	1.943	-0.012	96	19072	5.00	5.00	
15 Bromomethane	94	2.247	2.253	-0.006	77	7254	5.00	5.06	M
16 Chloroethane	64	2.393	2.393	0.000	58	11109	5.00	5.07	M
17 Dichlorofluoromethane	67	2.673	2.673	0.000	92	24939	5.00	4.78	
18 Trichlorofluoromethane	101	2.697	2.685	0.012	77	19093	5.00	4.67	
20 Ethyl ether	59	3.062	3.075	-0.013	96	15266	5.00	4.90	
21 Acrolein	56	3.251	3.263	-0.012	96	39186	100.0	79.2	
22 1,1-Dichloroethene	96	3.385	3.373	0.012	78	12943	5.00	4.66	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.427	0.006	68	13773	5.00	4.90	
24 Acetone	43	3.452	3.464	-0.012	97	19736	25.0	22.6	
25 Iodomethane	142	3.567	3.579	-0.012	99	19019	5.00	4.62	
26 Carbon disulfide	76	3.677	3.689	-0.012	100	37034	5.00	4.50	
29 3-Chloro-1-propene	76	3.963	3.957	0.006	66	7309	5.00	4.05	
30 Methyl acetate	43	3.969	3.969	0.000	97	47953	25.0	22.4	
31 Methylene Chloride	84	4.182	4.176	0.006	91	28011	5.00	6.90	
32 2-Methyl-2-propanol	59	4.395	4.407	-0.012	54	5769	50.0	40.0	
33 Acrylonitrile	53	4.547	4.547	0.000	91	48759	50.0	43.7	M
34 trans-1,2-Dichloroethene	96	4.602	4.614	-0.012	73	15080	5.00	4.51	
35 Methyl tert-butyl ether	73	4.608	4.614	-0.006	98	39215	5.00	4.46	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.033	5.033	0.000	96	22898	5.00	4.76	
37 1,1-Dichloroethane	63	5.246	5.246	0.000	55	30038	5.00	4.64	M
38 Vinyl acetate	43	5.283	5.283	0.000	77	16394	5.00	4.87	
44 2-Butanone (MEK)	43	5.982	5.982	0.000	80	24262	25.0	21.6	
43 cis-1,2-Dichloroethene	96	5.989	5.982	0.007	85	16049	5.00	4.53	
42 2,2-Dichloropropane	77	5.982	5.989	-0.006	59	15822	5.00	4.31	
49 Tetrahydrofuran	42	6.287	6.281	0.007	89	8931	10.0	11.1	
48 Chlorobromomethane	128	6.274	6.281	-0.006	94	6679	5.00	4.73	
50 Chloroform	83	6.414	6.414	0.000	94	26162	5.00	4.70	
51 1,1,1-Trichloroethane	97	6.585	6.585	0.000	94	17622	5.00	4.15	
52 Cyclohexane	56	6.658	6.664	-0.006	96	31454	5.00	4.60	
53 Carbon tetrachloride	117	6.755	6.767	-0.012	77	15423	5.00	4.64	
54 1,1-Dichloropropene	75	6.767	6.773	-0.006	90	19800	5.00	4.68	
55 Isobutyl alcohol	41	6.925	6.938	-0.013	43	5333	125.0	81.0	
56 Benzene	78	6.974	6.986	-0.012	97	55932	5.00	4.55	
57 1,2-Dichloroethane	62	7.059	7.065	-0.006	97	19819	5.00	4.91	
59 n-Heptane	43	7.345	7.345	0.000	94	19391	5.00	4.96	
61 Trichloroethene	130	7.722	7.722	0.000	95	14298	5.00	5.11	
63 Methylcyclohexane	83	7.966	7.966	0.000	92	25239	5.00	4.58	
64 1,2-Dichloropropane	63	7.996	7.990	0.006	96	15660	5.00	4.82	
65 1,4-Dioxane	88	8.069	8.075	-0.006	31	1410	100.0	69.4	
67 Dibromomethane	93	8.075	8.081	-0.006	91	6013	5.00	4.14	
68 Dichlorobromomethane	83	8.270	8.270	0.000	93	14807	5.00	4.35	
71 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	92	16586	5.00	4.24	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.854	0.000	97	48490	25.0	21.1	
73 Toluene	91	9.049	9.048	0.001	97	55826	5.00	5.37	
74 trans-1,3-Dichloropropene	75	9.298	9.292	0.006	97	12906	5.00	4.53	
75 Ethyl methacrylate	69	9.347	9.347	0.000	88	11478	5.00	4.38	
76 1,1,2-Trichloroethane	97	9.487	9.493	-0.006	84	10354	5.00	5.49	
77 Tetrachloroethene	164	9.572	9.566	0.006	95	10120	5.00	5.45	
78 1,3-Dichloropropane	76	9.651	9.651	0.000	91	17956	5.00	5.12	
79 2-Hexanone	43	9.687	9.687	0.000	98	27710	25.0	21.2	
81 Chlorodibromomethane	129	9.870	9.864	0.006	88	6831	5.00	4.26	
82 Ethylene Dibromide	107	9.979	9.985	-0.006	69	7830	5.00	4.56	
83 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	91	21442	5.00	5.93	
84 Chlorobenzene	112	10.466	10.472	-0.006	92	35175	5.00	5.42	
85 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	95	18514	5.00	5.50	
87 Ethylbenzene	106	10.563	10.563	0.000	98	20957	5.00	5.38	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.563	0.000	41	8884	5.00	3.97	M
88 m-Xylene & p-Xylene	106	10.697	10.697	0.000	97	22659	5.00	4.72	
89 o-Xylene	106	11.080	11.080	0.000	97	23926	5.00	4.85	
90 Styrene	104	11.099	11.099	0.000	93	35287	5.00	4.85	
91 Bromoform	173	11.281	11.287	-0.006	20	3513	5.00	4.09	
92 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	95	21177	5.00	5.62	
93 Isopropylbenzene	105	11.452	11.451	0.001	96	62340	5.00	5.12	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.756	0.000	90	12611	5.00	4.97	
95 Bromobenzene	156	11.768	11.768	0.000	93	13104	5.00	4.61	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.792	0.000	57	3977	5.00	4.98	
98 1,2,3-Trichloropropane	110	11.823	11.810	0.013	79	3506	5.00	4.22	
99 N-Propylbenzene	120	11.871	11.871	0.000	99	15430	5.00	4.55	
100 2-Chlorotoluene	126	11.963	11.956	0.006	94	14645	5.00	4.90	
101 3-Chlorotoluene	126	12.029	12.023	0.006	96	16255	5.00	5.20	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.048	0.000	92	49931	5.00	4.58	
103 4-Chlorotoluene	126	12.078	12.078	0.000	99	15542	5.00	5.06	
104 tert-Butylbenzene	119	12.364	12.364	0.000	93	41544	5.00	4.89	
106 1,2,4-Trimethylbenzene	105	12.425	12.425	0.000	96	53610	5.00	4.75	
107 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	95	16045	5.00	5.09	
108 sec-Butylbenzene	105	12.583	12.589	-0.006	95	63316	5.00	4.82	
109 1,3-Dichlorobenzene	146	12.711	12.711	0.000	93	28428	5.00	5.11	
110 4-Isopropyltoluene	119	12.747	12.741	0.006	95	51820	5.00	4.87	
111 1,4-Dichlorobenzene	146	12.814	12.814	0.000	89	30705	5.00	5.33	
113 2,4-Dichloro-1-(triflourom	214	12.826	12.826	0.000	55	13661	5.00	4.32	
114 2,5-Dichlorobenzotrifluori	214	12.869	12.869	0.000	94	16677	5.00	4.78	
116 n-Butylbenzene	91	13.155	13.155	0.000	96	46654	5.00	4.56	
117 1,2-Dichlorobenzene	146	13.167	13.173	-0.006	92	27877	5.00	5.01	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.964	-0.006	12	1941	5.00	4.37	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.104	0.000	98	75930	15.0	14.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.524	14.518	0.006	98	55126	10.0	9.66	
122 1,2,4-Trichlorobenzene	180	14.785	14.791	-0.006	91	19598	5.00	4.55	
123 Hexachlorobutadiene	225	14.931	14.931	0.000	93	7834	5.00	4.65	
124 Naphthalene	128	15.053	15.053	0.000	97	29248	5.00	3.95	
125 1,2,3-Trichlorobenzene	180	15.278	15.278	0.000	92	16016	5.00	4.44	
126 2,4,5-Trichlorotoluene	159	16.045	16.044	0.001	0	14043	5.00	5.29	
127 2,3,6-Trichlorotoluene	159	16.148	16.148	0.000	90	11530	5.00	4.88	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	9.04	
S 131 Xylenes, Total	106				0		10.0	9.56	
S 132 1,3-Dichloropropene, Total	1				0		10.0	8.77	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	0.20	Units: uL	
voaWeemixpri_00001	Amount Added:	0.20	Units: uL	
voaWVApri Res_00001	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	0.20	Units: uL	
VOAKETONEPRI_00003	Amount Added:	0.80	Units: uL	
voaWAcropri R_00006	Amount Added:	4.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

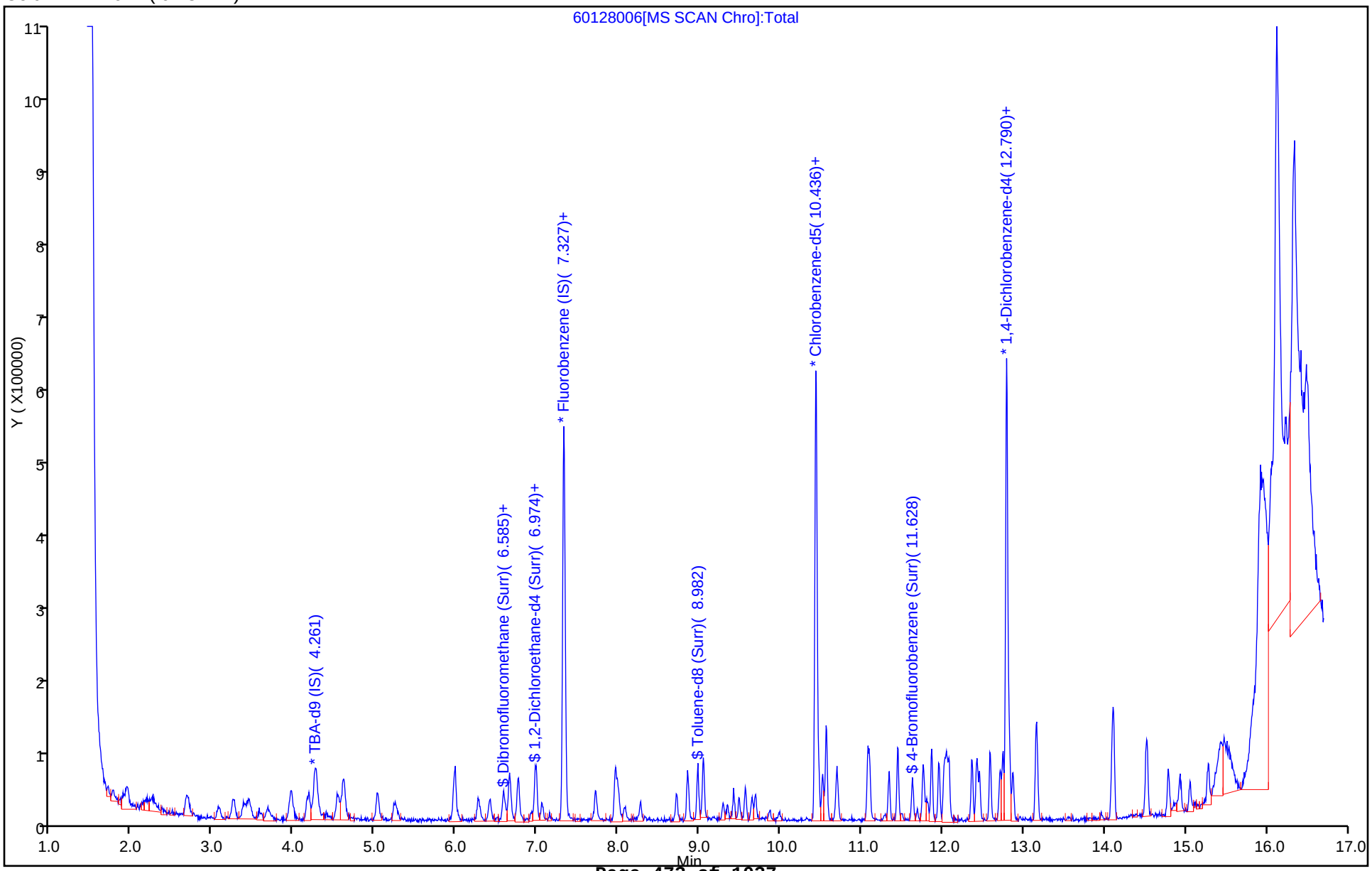
Report Date: 29-Jan-2015 12:59:06 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D

Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

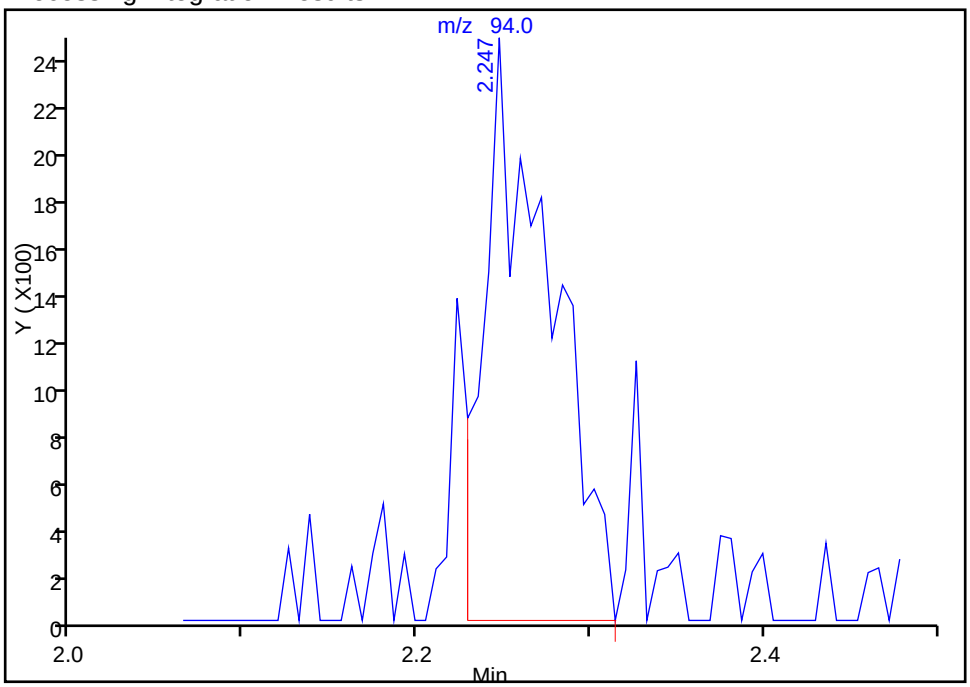
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

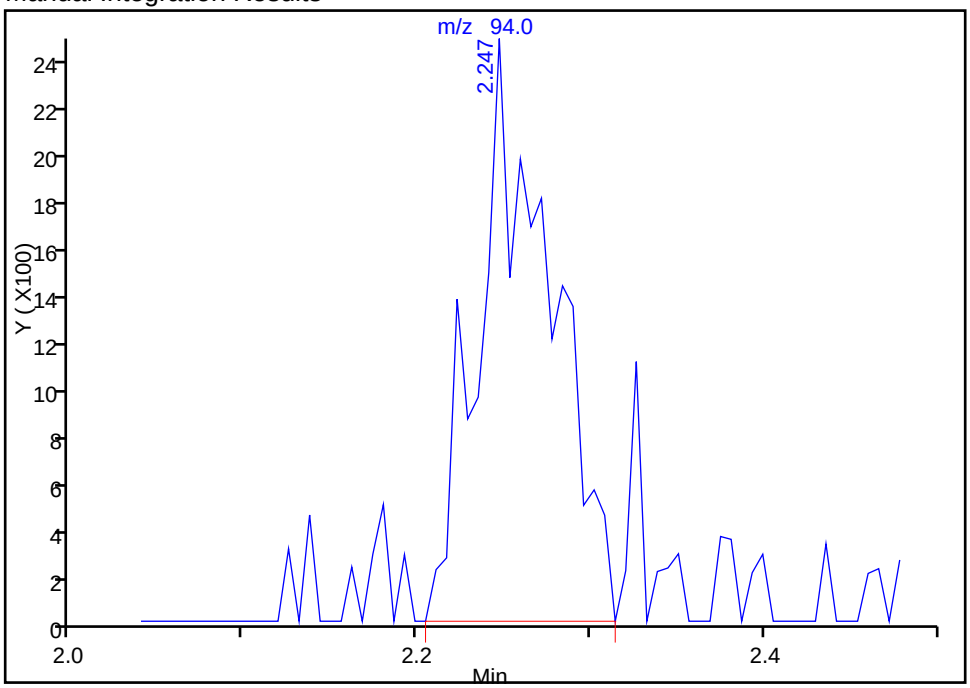
Processing Integration Results

RT: 2.25
Area: 6582
Amount: 4.663707
Amount Units: ng



Manual Integration Results

RT: 2.25
Area: 7254
Amount: 5.059028
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

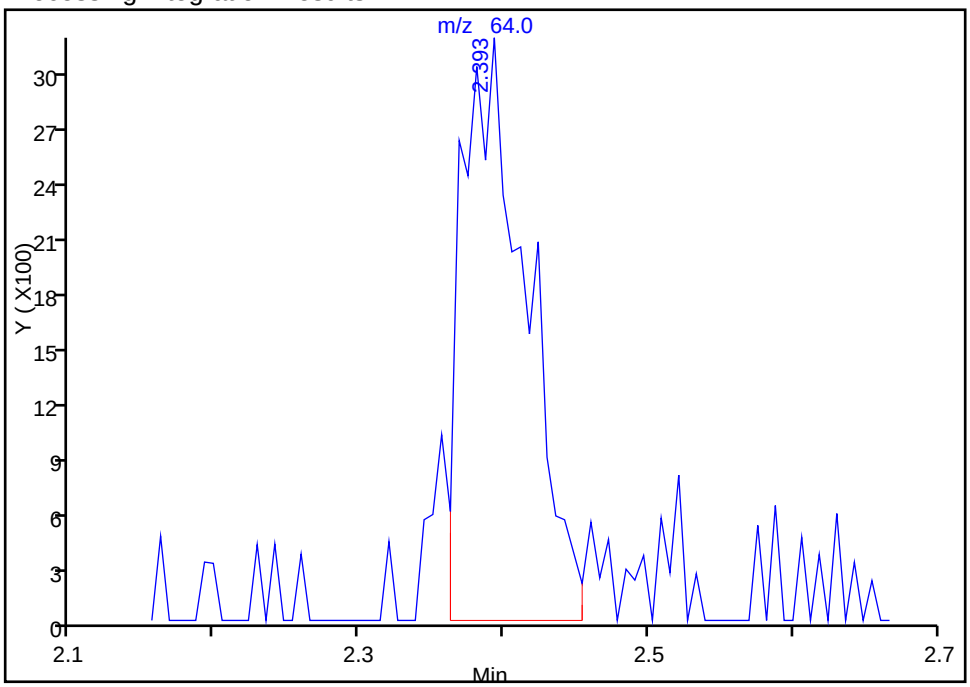
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

16 Chloroethane, CAS: 75-00-3

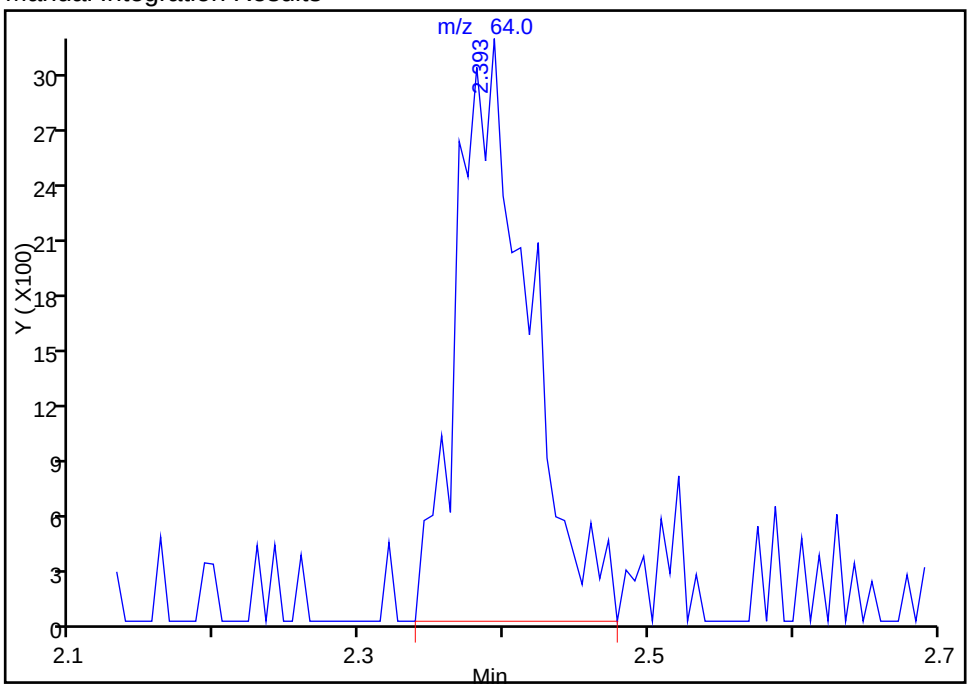
Processing Integration Results

RT: 2.39
Area: 9880
Amount: 4.574556
Amount Units: ng



Manual Integration Results

RT: 2.39
Area: 11109
Amount: 5.071451
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

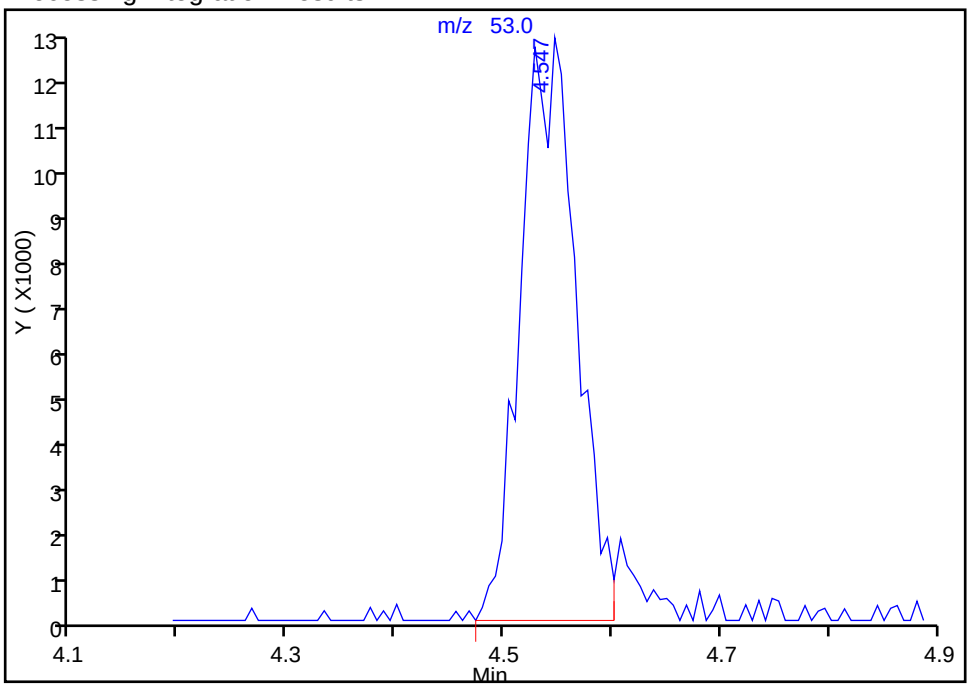
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

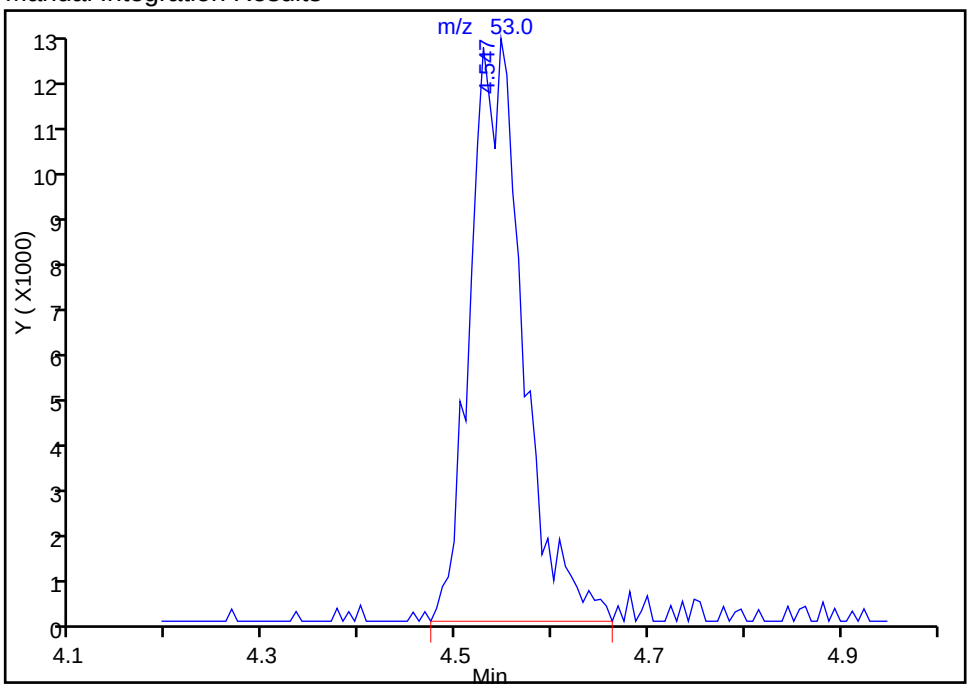
Processing Integration Results

RT: 4.55
Area: 46151
Amount: 41.571241
Amount Units: ng



Manual Integration Results

RT: 4.55
Area: 48759
Amount: 43.664000
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

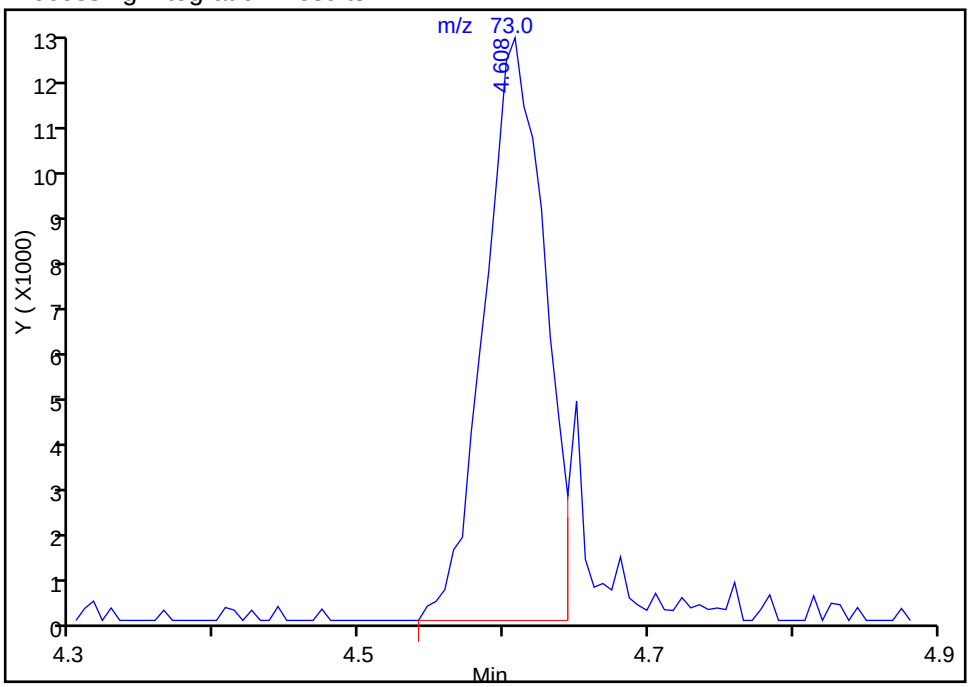
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

35 Methyl tert-butyl ether, CAS: 1634-04-4

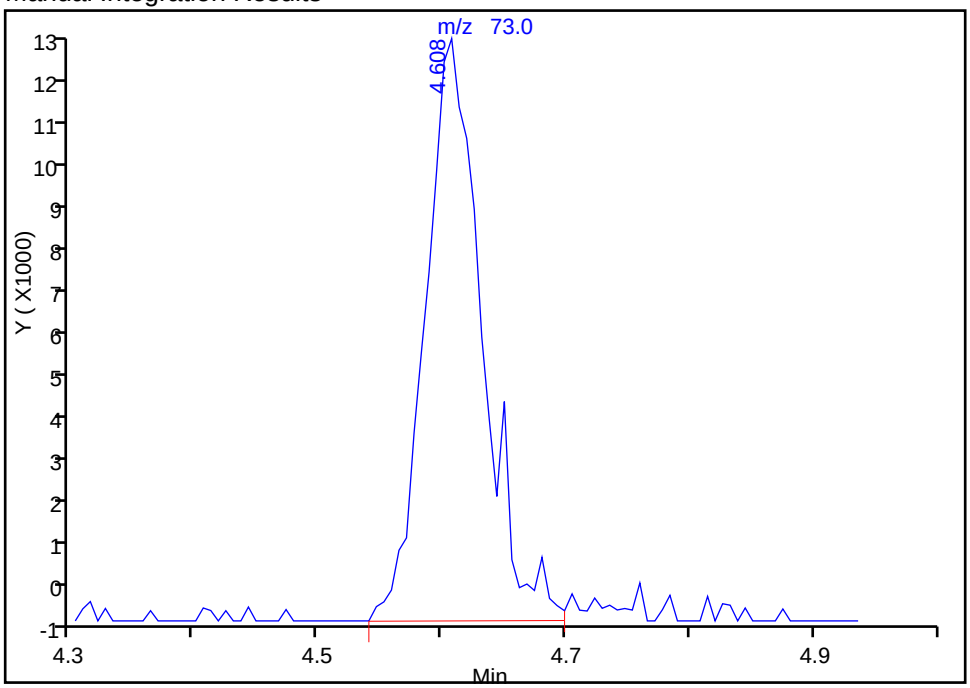
Processing Integration Results

RT: 4.61
Area: 35452
Amount: 4.077319
Amount Units: ng



Manual Integration Results

RT: 4.61
Area: 39215
Amount: 4.461825
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

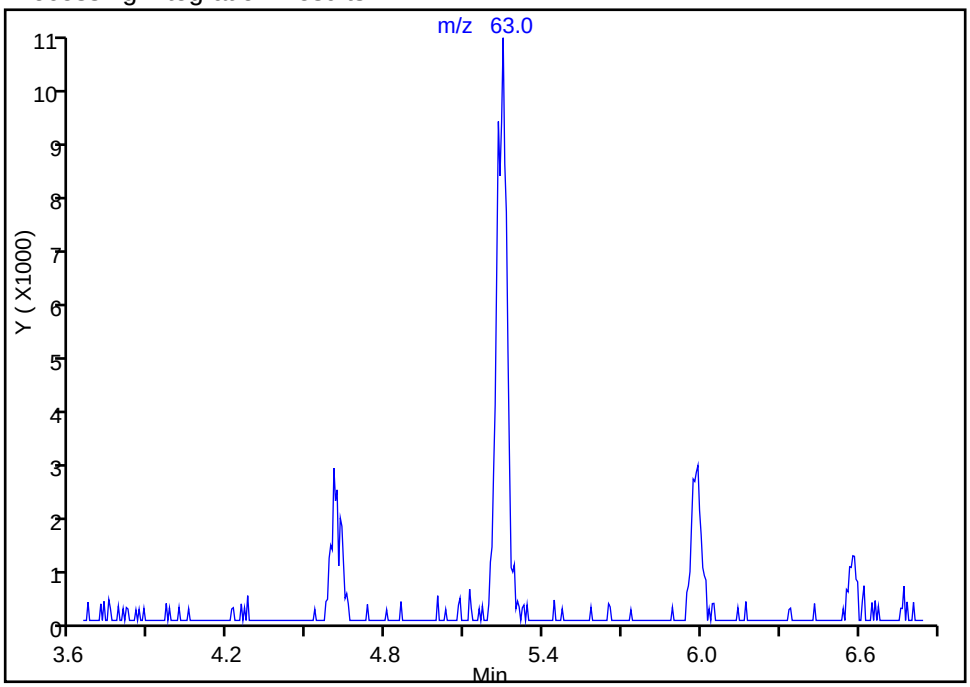
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D				
Injection Date:	28-Jan-2015 13:58:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

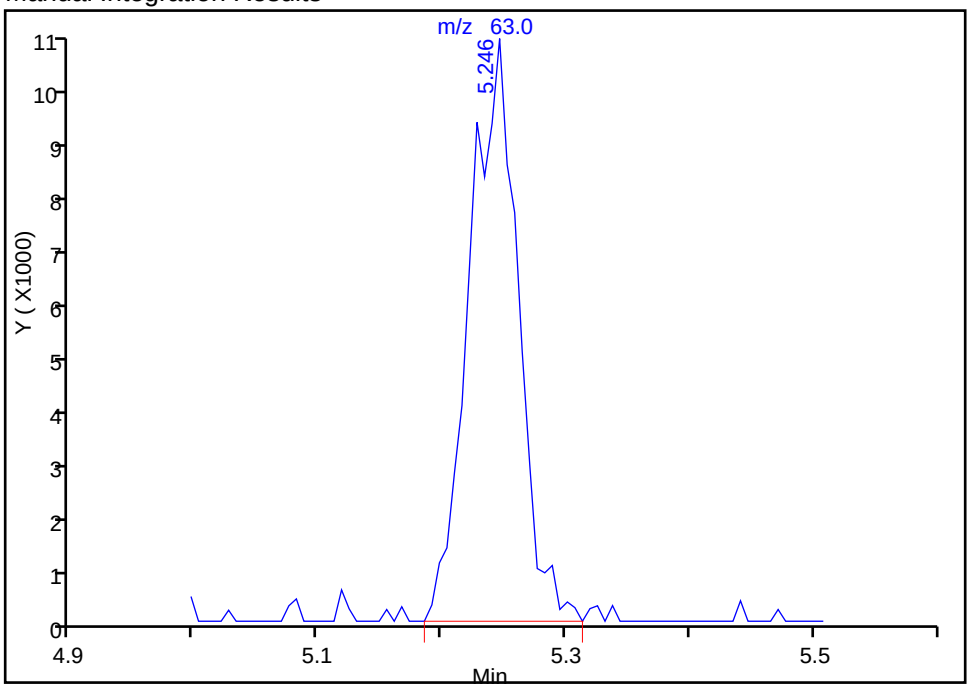
Not Detected
Expected RT: 5.25

Processing Integration Results



Manual Integration Results

RT: 5.25
Area: 30038
Amount: 4.644301
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Split Peak

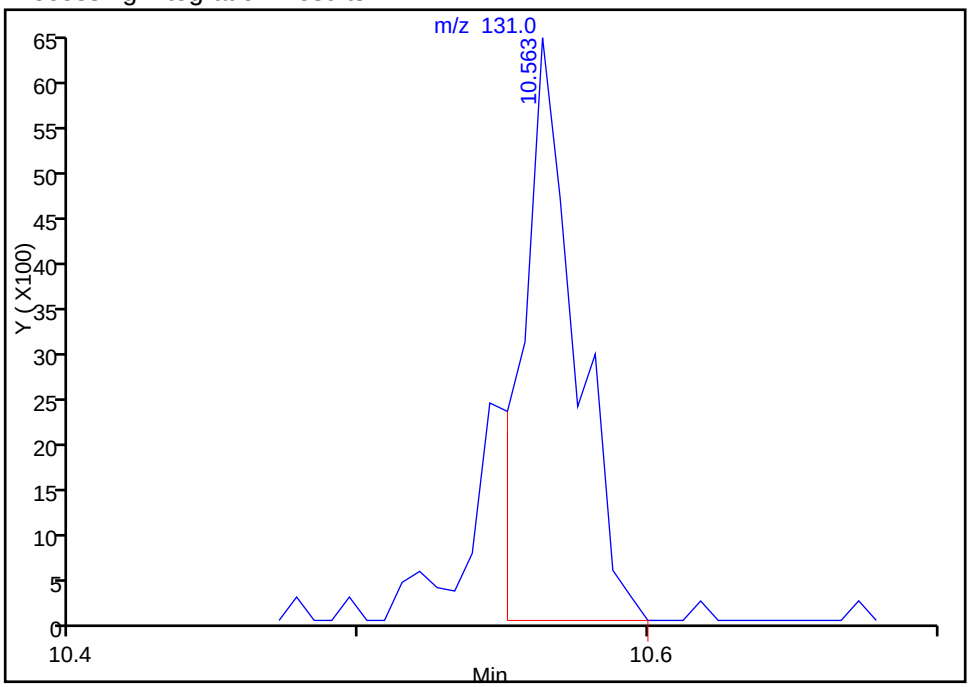
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128006.D
Injection Date: 28-Jan-2015 13:58:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

86 1,1,1,2-Tetrachloroethane, CAS: 630-20-6

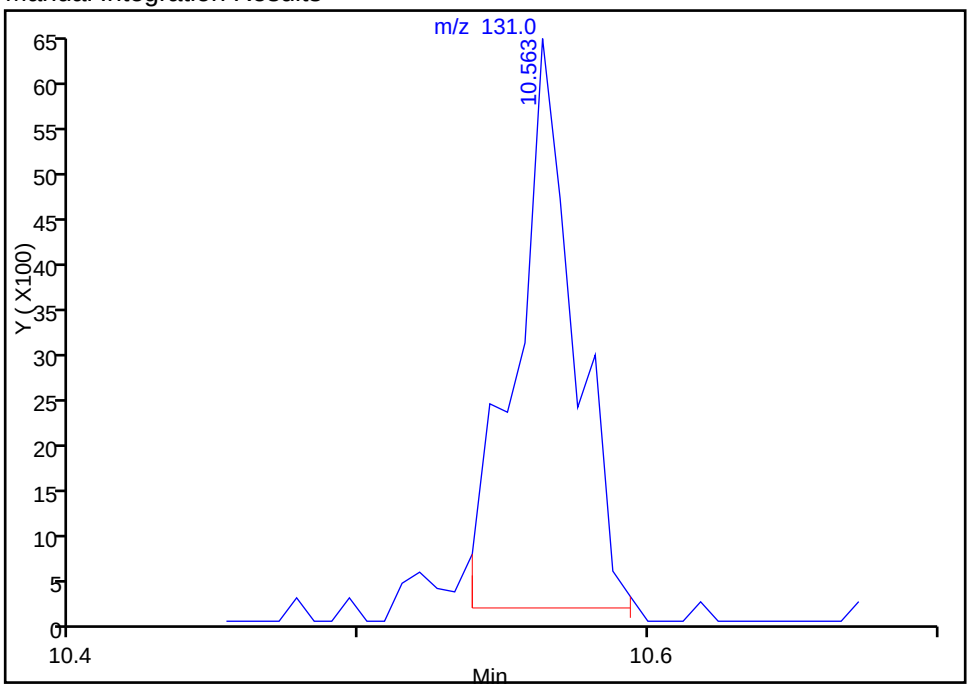
Processing Integration Results

RT: 10.56
Area: 8268
Amount: 3.722370
Amount Units: ng



Manual Integration Results

RT: 10.56
Area: 8884
Amount: 3.972161
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:25:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Report Date: 29-Jan-2015 12:59:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Jan-2015 14:21:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0005450-007
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:07 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:28:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.279	-0.005	94	147158	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.327	0.001	97	405888	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.442	-0.005	92	85838	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.790	0.001	97	137352	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.604	6.597	0.007	90	48823	25.0	26.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.976	6.974	0.002	50	70258	25.0	26.7	
$ 7 Toluene-d8 (Surr)	98	8.983	8.982	0.001	94	183840	25.0	27.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.628	0.001	82	75189	25.0	26.1	
11 Dichlorodifluoromethane	85	1.610	1.608	0.002	99	61413	25.0	28.6	
12 Chloromethane	50	1.774	1.773	0.001	98	91222	25.0	27.6	
13 Vinyl chloride	62	1.902	1.907	-0.004	97	80864	25.0	27.6	
14 Butadiene	39	1.945	1.943	0.001	89	91449	25.0	29.2	
15 Bromomethane	94	2.261	2.253	0.008	92	35506	25.0	30.2	
16 Chloroethane	64	2.389	2.393	-0.004	97	48264	25.0	26.9	
17 Dichlorofluoromethane	67	2.675	2.673	0.002	94	124955	25.0	29.2	M
18 Trichlorofluoromethane	101	2.699	2.685	0.014	95	104021	25.0	31.0	
20 Ethyl ether	59	3.076	3.075	0.001	95	65645	25.0	25.7	
21 Acrolein	56	3.252	3.263	-0.011	97	55086	125.0	135.7	
22 1,1-Dichloroethene	96	3.368	3.373	-0.005	92	63440	25.0	27.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.427	0.014	94	62215	25.0	27.0	
24 Acetone	43	3.465	3.464	0.001	91	41421	50.0	57.7	
25 Iodomethane	142	3.581	3.579	0.002	99	92291	25.0	27.3	
26 Carbon disulfide	76	3.684	3.689	-0.005	99	180744	25.0	26.8	
29 3-Chloro-1-propene	76	3.958	3.957	0.001	76	41661	25.0	28.1	
30 Methyl acetate	43	3.964	3.969	-0.005	98	232955	125.0	132.6	
31 Methylene Chloride	84	4.183	4.176	0.007	99	89407	25.0	26.8	
32 2-Methyl-2-propanol	59	4.408	4.407	0.001	94	44315	250.0	266.5	
33 Acrylonitrile	53	4.542	4.547	-0.005	100	238315	250.0	260.1	
34 trans-1,2-Dichloroethene	96	4.621	4.614	0.007	77	74610	25.0	27.2	
35 Methyl tert-butyl ether	73	4.615	4.614	0.001	98	186042	25.0	25.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.029	5.033	-0.004	93	103798	25.0	26.3	
37 1,1-Dichloroethane	63	5.242	5.246	-0.004	96	145146	25.0	27.3	
38 Vinyl acetate	43	5.278	5.283	-0.005	94	66357	25.0	24.0	
44 2-Butanone (MEK)	43	5.972	5.982	-0.010	49	42402	50.0	46.1	
43 cis-1,2-Dichloroethene	96	5.990	5.982	0.008	85	78570	25.0	27.0	
42 2,2-Dichloropropane	77	5.990	5.989	0.002	66	83097	25.0	27.6	
49 Tetrahydrofuran	42	6.288	6.281	0.008	80	37414	50.0	56.6	
48 Chlorobromomethane	128	6.282	6.281	0.002	89	29353	25.0	25.3	
50 Chloroform	83	6.416	6.414	0.002	95	121573	25.0	26.6	
51 1,1,1-Trichloroethane	97	6.580	6.585	-0.005	97	94502	25.0	27.1	
52 Cyclohexane	56	6.665	6.664	0.001	96	160049	25.0	28.5	
53 Carbon tetrachloride	117	6.757	6.767	-0.010	95	66664	25.0	24.5	
54 1,1-Dichloropropene	75	6.775	6.773	0.002	94	92563	25.0	26.6	
55 Isobutyl alcohol	41	6.933	6.938	-0.005	88	32224	625.0	596.8	
56 Benzene	78	6.982	6.986	-0.004	97	279397	25.0	27.7	
57 1,2-Dichloroethane	62	7.061	7.065	-0.004	96	82990	25.0	25.1	
59 n-Heptane	43	7.353	7.345	0.008	95	84739	25.0	26.4	
61 Trichloroethene	130	7.718	7.722	-0.004	96	60983	25.0	26.6	
63 Methylcyclohexane	83	7.967	7.966	0.001	94	123591	25.0	27.3	
64 1,2-Dichloropropane	63	7.998	7.990	0.008	88	66666	25.0	25.0	
65 1,4-Dioxane	88	8.077	8.075	0.002	40	7809	500.0	468.1	M
67 Dibromomethane	93	8.083	8.081	0.002	93	29036	25.0	24.4	
68 Dichlorobromomethane	83	8.271	8.270	0.001	98	66762	25.0	23.9	
71 cis-1,3-Dichloropropene	75	8.721	8.720	0.001	91	71082	25.0	22.2	
72 4-Methyl-2-pentanone (MIBK	43	8.855	8.854	0.001	97	94789	50.0	48.9	
73 Toluene	91	9.050	9.048	0.002	99	245530	25.0	28.0	
74 trans-1,3-Dichloropropene	75	9.299	9.292	0.007	98	55603	25.0	23.1	
75 Ethyl methacrylate	69	9.354	9.347	0.007	91	52242	25.0	23.6	
76 1,1,2-Trichloroethane	97	9.488	9.493	-0.005	89	43032	25.0	27.0	
77 Tetrachloroethene	164	9.567	9.566	0.001	96	43168	25.0	27.5	
78 1,3-Dichloropropane	76	9.652	9.651	0.001	92	77521	25.0	26.2	
79 2-Hexanone	43	9.695	9.687	0.008	95	55014	50.0	49.8	M
81 Chlorodibromomethane	129	9.871	9.864	0.007	87	31276	25.0	23.1	
82 Ethylene Dibromide	107	9.981	9.985	-0.004	95	36764	25.0	25.4	
83 3-Chlorobenzotrifluoride	180	10.431	10.429	0.002	93	83450	25.0	27.3	
84 Chlorobenzene	112	10.467	10.472	-0.005	91	145556	25.0	26.6	
85 4-Chlorobenzotrifluoride	180	10.522	10.521	0.001	95	80499	25.0	28.3	
87 Ethylbenzene	106	10.571	10.563	0.008	99	86627	25.0	26.4	
86 1,1,1,2-Tetrachloroethane	131	10.559	10.563	-0.004	42	48143	25.0	25.5	
88 m-Xylene & p-Xylene	106	10.705	10.697	0.008	99	111891	25.0	27.6	
89 o-Xylene	106	11.076	11.080	-0.004	97	112080	25.0	26.9	
90 Styrene	104	11.106	11.099	0.007	95	157741	25.0	25.7	
91 Bromoform	173	11.283	11.287	-0.004	93	17267	25.0	23.8	
92 2-Chlorobenzotrifluoride	180	11.343	11.342	0.001	96	86153	25.0	27.1	
93 Isopropylbenzene	105	11.447	11.451	-0.004	97	302221	25.0	29.4	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.756	0.001	96	58000	25.0	27.1	
95 Bromobenzene	156	11.769	11.768	0.001	97	60469	25.0	25.2	
97 trans-1,4-Dichloro-2-buten	53	11.794	11.792	0.002	60	15381	25.0	22.8	
98 1,2,3-Trichloropropane	110	11.812	11.810	0.002	83	18469	25.0	26.2	
99 N-Propylbenzene	120	11.867	11.871	-0.004	99	76375	25.0	26.6	
100 2-Chlorotoluene	126	11.958	11.956	0.002	95	67028	25.0	26.5	
101 3-Chlorotoluene	126	12.025	12.023	0.002	96	66559	25.0	25.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.049	12.048	0.001	93	256568	25.0	27.8	
103 4-Chlorotoluene	126	12.080	12.078	0.002	99	67753	25.0	26.1	
104 tert-Butylbenzene	119	12.365	12.364	0.001	92	188912	25.0	26.3	
106 1,2,4-Trimethylbenzene	105	12.426	12.425	0.001	97	263177	25.0	27.5	
107 1,2-dichloro-4-(trifluorom	214	12.457	12.455	0.002	97	70285	25.0	26.3	
108 sec-Butylbenzene	105	12.591	12.589	0.002	95	314946	25.0	28.3	
109 1,3-Dichlorobenzene	146	12.712	12.711	0.001	95	127066	25.0	27.0	
110 4-Isopropyltoluene	119	12.743	12.741	0.002	96	242039	25.0	26.9	
111 1,4-Dichlorobenzene	146	12.816	12.814	0.002	89	127353	25.0	26.1	
113 2,4-Dichloro-1-(triflourom	214	12.834	12.826	0.008	43	79958	25.0	29.8	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.869	0.001	97	75184	25.0	25.5	
116 n-Butylbenzene	91	13.156	13.155	0.001	98	241849	25.0	27.9	
117 1,2-Dichlorobenzene	146	13.169	13.173	-0.005	92	125111	25.0	26.6	
118 1,2-Dibromo-3-Chloropropan	75	13.959	13.964	-0.005	70	9741	25.0	25.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.104	0.001	99	389895	75.0	88.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.519	14.518	0.001	99	285810	50.0	59.2	
122 1,2,4-Trichlorobenzene	180	14.781	14.791	-0.010	93	99622	25.0	27.3	
123 Hexachlorobutadiene	225	14.927	14.931	-0.004	95	38609	25.0	27.1	
124 Naphthalene	128	15.054	15.053	0.001	97	165187	25.0	26.4	
125 1,2,3-Trichlorobenzene	180	15.279	15.278	0.001	94	83313	25.0	27.3	
126 2,4,5-Trichlorotoluene	159	16.046	16.044	0.002	0	57044	25.0	25.4	
127 2,3,6-Trichlorotoluene	159	16.149	16.148	0.001	94	54138	25.0	27.0	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	54.2	
S 131 Xylenes, Total	106				0		50.0	54.5	
S 132 1,3-Dichloropropene, Total	1				0		50.0	45.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	1.00	Units: uL	
voaWAcropri R_00006	Amount Added:	5.00	Units: uL	
voaWeemixpri_00001	Amount Added:	1.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	1.00	Units: uL	
voaWVApri Res_00001	Amount Added:	1.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

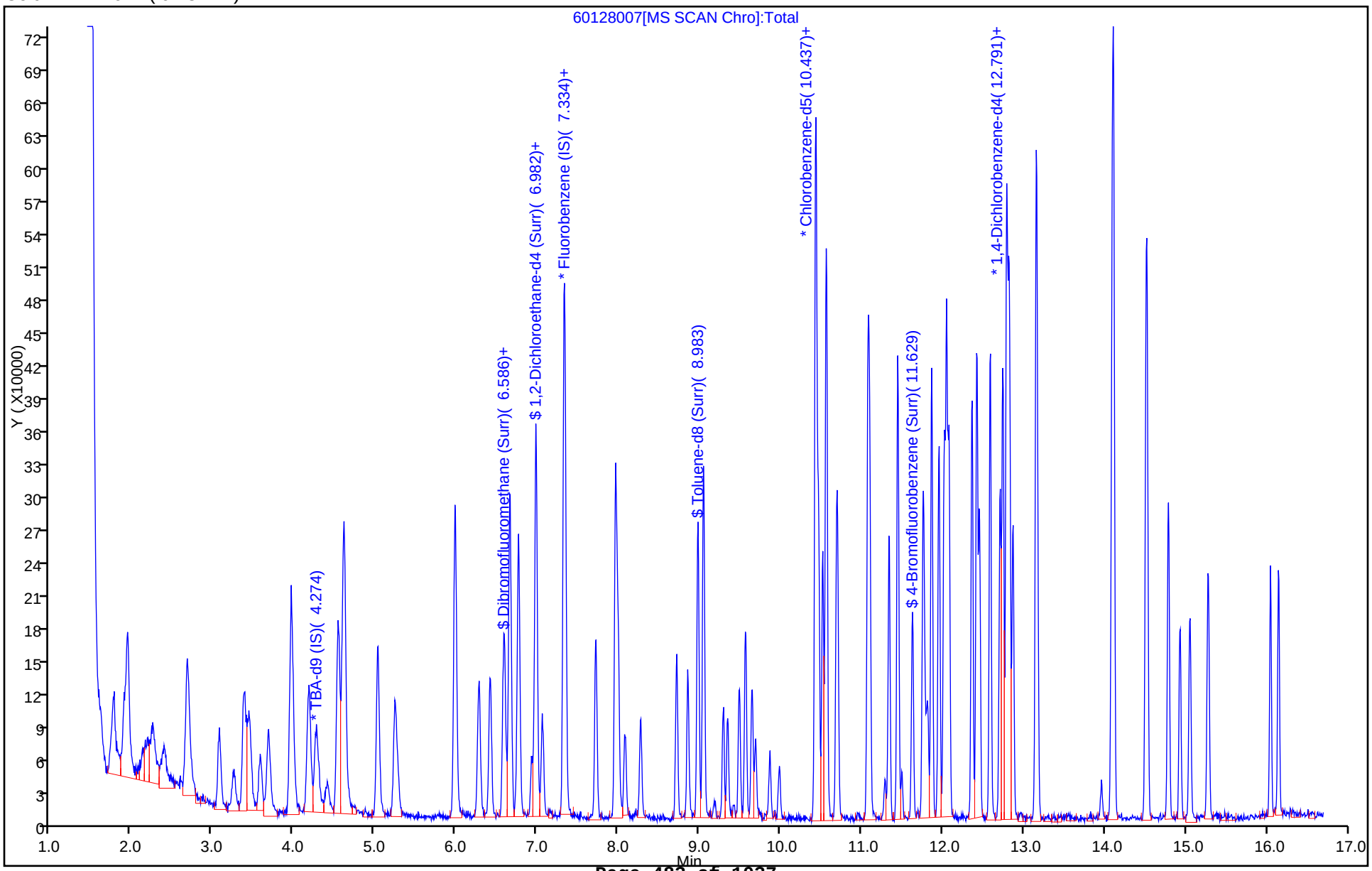
Report Date: 29-Jan-2015 12:59:08 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D

Injection Date:	28-Jan-2015 14:21:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

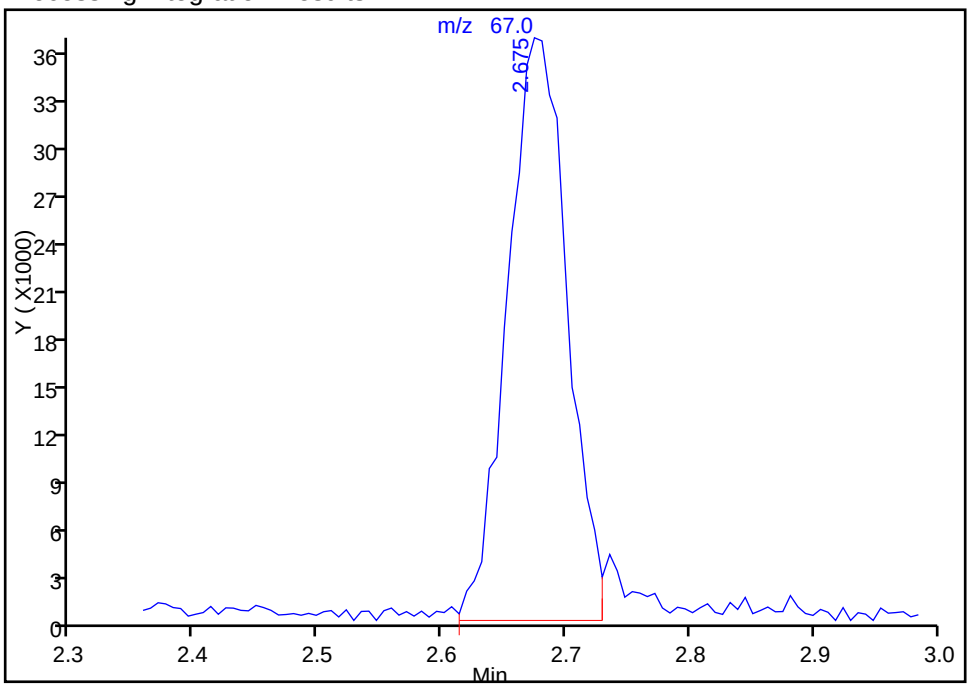
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D				
Injection Date:	28-Jan-2015 14:21:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	5	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

17 Dichlorofluoromethane, CAS: 75-43-4

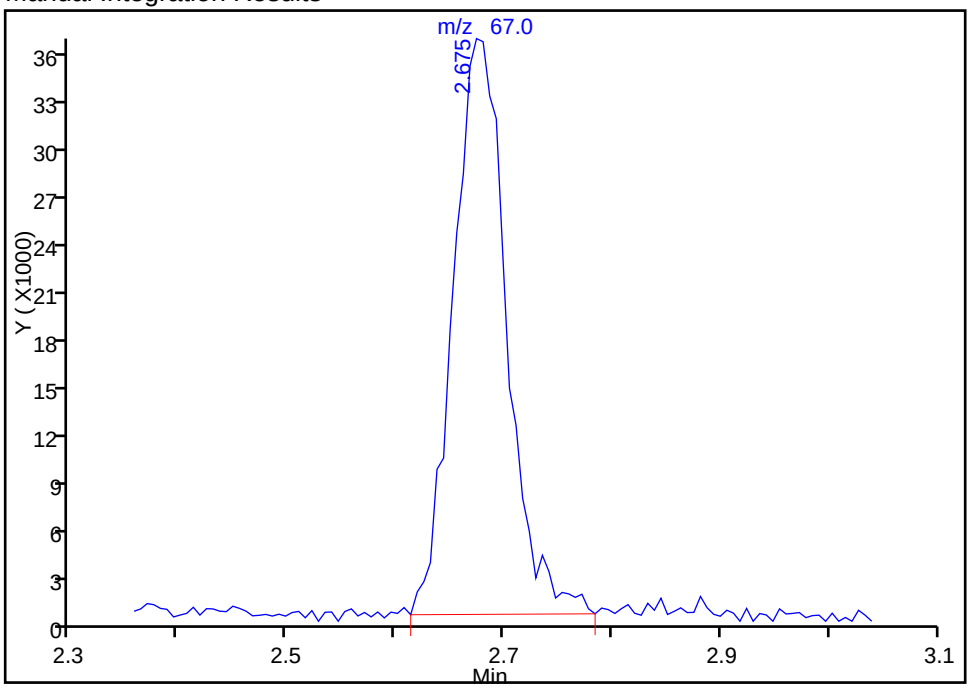
Processing Integration Results

RT: 2.67
Area: 123498
Amount: 28.870358
Amount Units: ng



Manual Integration Results

RT: 2.67
Area: 124955
Amount: 29.161301
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:28:06
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

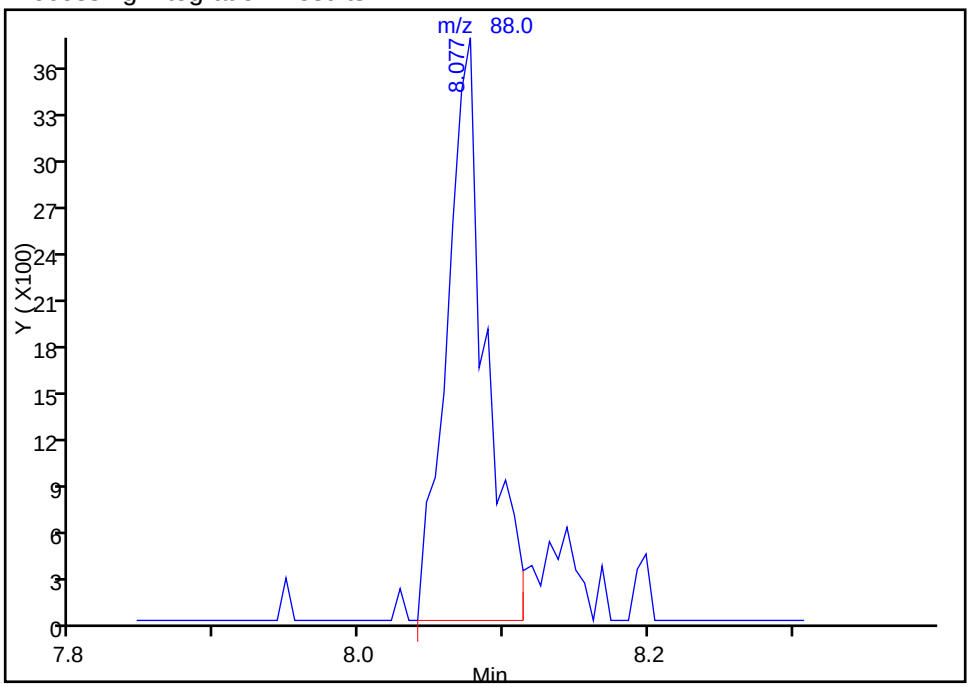
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Injection Date: 28-Jan-2015 14:21:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

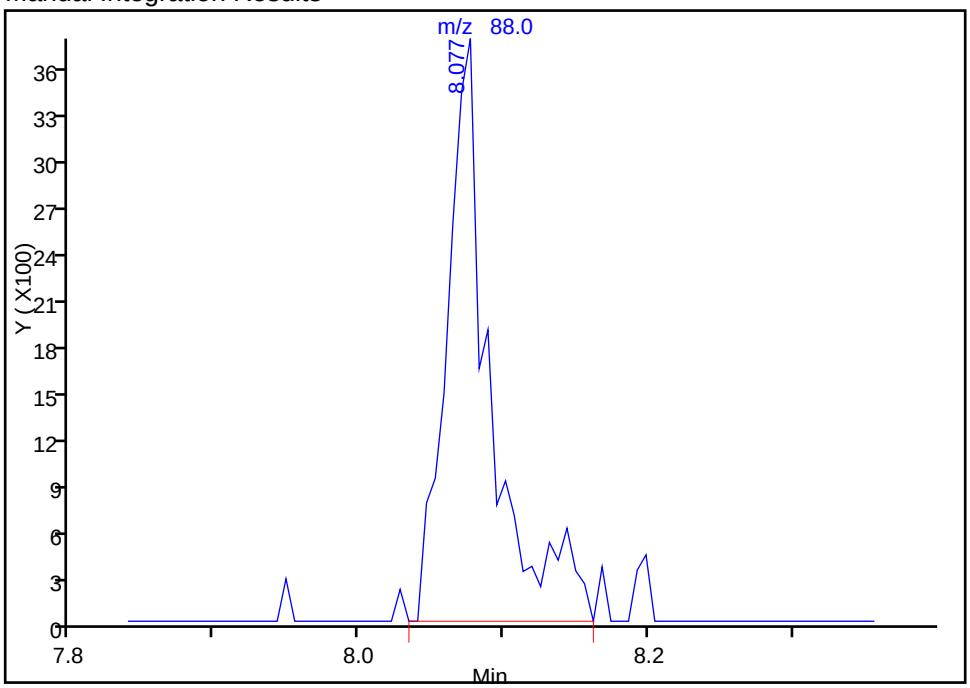
Processing Integration Results

RT: 8.08
Area: 6858
Amount: 429.4537
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 7809
Amount: 468.0903
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:31:00
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

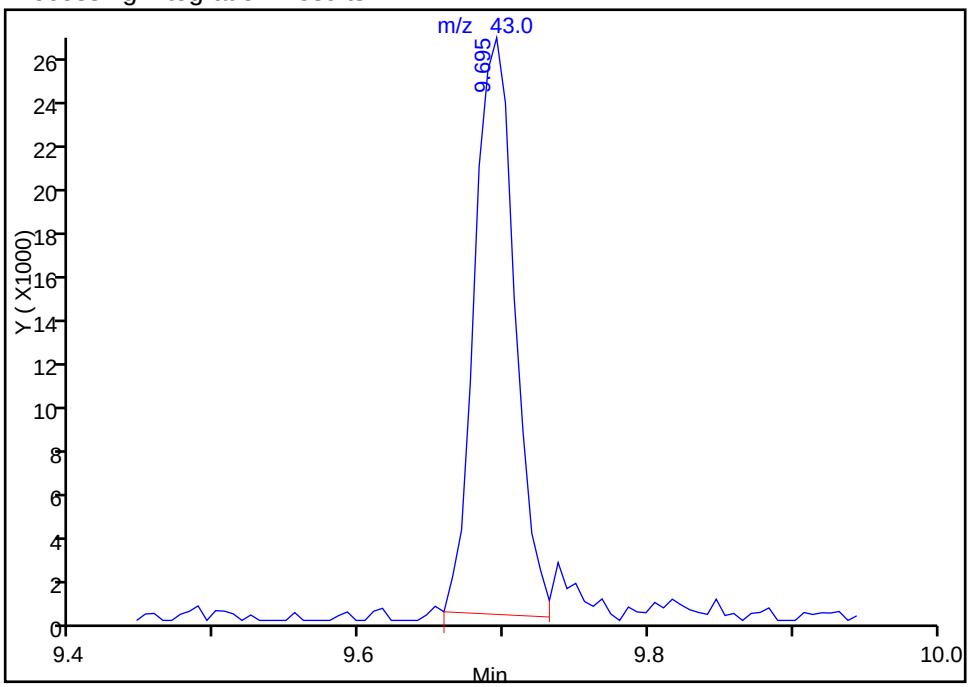
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128007.D
Injection Date: 28-Jan-2015 14:21:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

79 2-Hexanone, CAS: 591-78-6

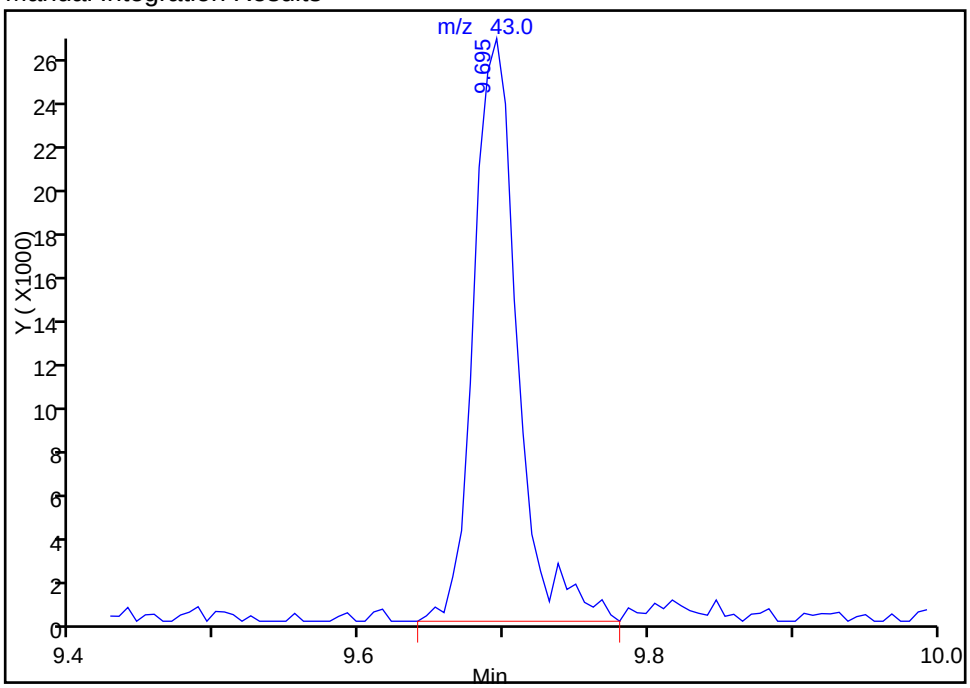
Processing Integration Results

RT: 9.69
Area: 50333
Amount: 46.043032
Amount Units: ng



Manual Integration Results

RT: 9.69
Area: 55014
Amount: 49.792035
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:31:00
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128008.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 28-Jan-2015 14:45:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0005450-008
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:09 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:09:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.279	0.000	95	146525	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.327	0.000	97	447720	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.442	10.442	0.000	93	93543	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.790	12.790	0.000	96	154402	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.597	6.597	0.000	92	103502	50.0	51.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.974	0.000	49	150111	50.0	51.8	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	94	421866	50.0	57.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.628	0.000	84	172172	50.0	54.9	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	100	123370	50.0	52.0	
12 Chloromethane	50	1.773	1.773	0.000	98	180612	50.0	49.5	
13 Vinyl chloride	62	1.907	1.907	0.000	98	164249	50.0	50.8	
14 Butadiene	39	1.943	1.943	0.000	91	173303	50.0	50.2	
15 Bromomethane	94	2.253	2.253	0.000	90	68708	50.0	52.9	
16 Chloroethane	64	2.393	2.393	0.000	98	103324	50.0	52.1	
17 Dichlorofluoromethane	67	2.673	2.673	0.000	96	239388	50.0	50.6	
18 Trichlorofluoromethane	101	2.685	2.685	0.000	74	186613	50.0	50.5	
20 Ethyl ether	59	3.075	3.075	0.000	95	140456	50.0	49.8	
21 Acrolein	56	3.263	3.263	0.000	93	64846	150.0	144.9	
22 1,1-Dichloroethene	96	3.373	3.373	0.000	94	131155	50.0	52.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.427	0.000	95	127227	50.0	50.0	
24 Acetone	43	3.464	3.464	0.000	100	72525	100.0	91.6	
25 Iodomethane	142	3.579	3.579	0.000	98	186664	50.0	50.1	
26 Carbon disulfide	76	3.689	3.689	0.000	100	366360	50.0	49.2	
29 3-Chloro-1-propene	76	3.957	3.957	0.000	78	81645	50.0	50.0	
30 Methyl acetate	43	3.969	3.969	0.000	97	476543	250.0	245.8	
31 Methylene Chloride	84	4.176	4.176	0.000	97	176505	50.0	48.0	
32 2-Methyl-2-propanol	59	4.407	4.407	0.000	96	82385	500.0	497.5	
33 Acrylonitrile	53	4.547	4.547	0.000	99	503259	500.0	497.9	
34 trans-1,2-Dichloroethene	96	4.614	4.614	0.000	74	152947	50.0	50.5	
35 Methyl tert-butyl ether	73	4.614	4.614	0.000	98	394527	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.033	5.033	0.000	93	218490	50.0	50.2	
37 1,1-Dichloroethane	63	5.246	5.246	0.000	96	295240	50.0	50.4	
38 Vinyl acetate	43	5.283	5.283	0.000	97	142927	50.0	47.0	
44 2-Butanone (MEK)	43	5.982	5.982	0.000	48	97685	100.0	96.2	
43 cis-1,2-Dichloroethene	96	5.982	5.982	0.000	85	160524	50.0	50.0	
42 2,2-Dichloropropane	77	5.989	5.989	0.000	64	163798	50.0	49.3	
49 Tetrahydrofuran	42	6.281	6.281	0.000	68	62273	100.0	85.4	
48 Chlorobromomethane	128	6.281	6.281	0.000	91	61127	50.0	47.8	
50 Chloroform	83	6.414	6.414	0.000	94	254065	50.0	50.4	
51 1,1,1-Trichloroethane	97	6.585	6.585	0.000	98	189759	50.0	49.4	
52 Cyclohexane	56	6.664	6.664	0.000	95	320878	50.0	51.9	
53 Carbon tetrachloride	117	6.767	6.767	0.000	94	154066	50.0	51.3	
54 1,1-Dichloropropene	75	6.773	6.773	0.000	93	188906	50.0	49.3	
55 Isobutyl alcohol	41	6.938	6.938	0.000	89	71829	1250.0	1206.0	M
56 Benzene	78	6.986	6.986	0.000	97	577373	50.0	51.9	
57 1,2-Dichloroethane	62	7.065	7.065	0.000	97	178647	50.0	48.9	
59 n-Heptane	43	7.345	7.345	0.000	95	182403	50.0	51.5	
61 Trichloroethene	130	7.722	7.722	0.000	96	123549	50.0	48.8	
63 Methylcyclohexane	83	7.966	7.966	0.000	94	262105	50.0	52.5	
64 1,2-Dichloropropane	63	7.990	7.990	0.000	86	142558	50.0	48.5	
65 1,4-Dioxane	88	8.075	8.075	0.000	38	18208	1000.0	989.5	
67 Dibromomethane	93	8.081	8.081	0.000	94	67249	50.0	51.2	
68 Dichlorobromomethane	83	8.270	8.270	0.000	98	148860	50.0	48.3	
71 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	92	162719	50.0	46.0	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.854	0.000	97	221045	100.0	104.7	
73 Toluene	91	9.048	9.048	0.000	98	527825	50.0	55.2	
74 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	98	128942	50.0	49.2	
75 Ethyl methacrylate	69	9.347	9.347	0.000	92	122480	50.0	50.8	
76 1,1,2-Trichloroethane	97	9.493	9.493	0.000	94	88732	50.0	51.1	
77 Tetrachloroethene	164	9.566	9.566	0.000	94	90521	50.0	53.0	
78 1,3-Dichloropropane	76	9.651	9.651	0.000	94	164779	50.0	51.0	
79 2-Hexanone	43	9.687	9.687	0.000	97	123231	100.0	102.3	
81 Chlorodibromomethane	129	9.864	9.864	0.000	91	75589	50.0	51.3	
82 Ethylene Dibromide	107	9.985	9.985	0.000	98	81540	50.0	51.6	
83 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	93	189015	50.0	56.8	
84 Chlorobenzene	112	10.472	10.472	0.000	90	319491	50.0	53.5	
85 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	97	170754	50.0	55.1	
87 Ethylbenzene	106	10.563	10.563	0.000	99	193055	50.0	53.9	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.563	0.000	80	108450	50.0	52.7	
88 m-Xylene & p-Xylene	106	10.697	10.697	0.000	99	235617	50.0	53.3	
89 o-Xylene	106	11.080	11.080	0.000	96	251637	50.0	55.4	
90 Styrene	104	11.099	11.099	0.000	94	362245	50.0	54.2	
91 Bromoform	173	11.287	11.287	0.000	96	39579	50.0	50.1	
92 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	95	192703	50.0	55.5	
93 Isopropylbenzene	105	11.451	11.451	0.000	97	633598	50.0	56.6	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.756	0.000	96	122215	50.0	52.3	
95 Bromobenzene	156	11.768	11.768	0.000	96	135116	50.0	50.0	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.792	0.000	70	34948	50.0	46.0	
98 1,2,3-Trichloropropane	110	11.810	11.810	0.000	85	40329	50.0	51.0	
99 N-Propylbenzene	120	11.871	11.871	0.000	99	168244	50.0	52.1	
100 2-Chlorotoluene	126	11.956	11.956	0.000	94	141092	50.0	49.6	
101 3-Chlorotoluene	126	12.023	12.023	0.000	96	156510	50.0	52.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.048	0.000	94	548969	50.0	52.9	
103 4-Chlorotoluene	126	12.078	12.078	0.000	99	144067	50.0	49.3	
104 tert-Butylbenzene	119	12.364	12.364	0.000	92	409657	50.0	50.7	
106 1,2,4-Trimethylbenzene	105	12.425	12.425	0.000	98	571367	50.0	53.2	
107 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	97	158534	50.0	52.8	
108 sec-Butylbenzene	105	12.589	12.589	0.000	95	675141	50.0	54.1	
109 1,3-Dichlorobenzene	146	12.711	12.711	0.000	95	272251	50.0	51.4	
110 4-Isopropyltoluene	119	12.741	12.741	0.000	96	531099	50.0	52.4	
111 1,4-Dichlorobenzene	146	12.814	12.814	0.000	92	272272	50.0	49.7	
113 2,4-Dichloro-1-(triflourom	214	12.826	12.826	0.000	57	168861	50.0	56.1	
114 2,5-Dichlorobenzotrifluori	214	12.869	12.869	0.000	97	166815	50.0	50.3	
116 n-Butylbenzene	91	13.155	13.155	0.000	98	514864	50.0	52.8	
117 1,2-Dichlorobenzene	146	13.173	13.173	0.000	95	272148	50.0	51.4	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.964	-0.006	76	20104	50.0	47.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.104	0.000	99	818401	150.0	164.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.518	0.000	99	576450	100.0	106.2	
122 1,2,4-Trichlorobenzene	180	14.791	14.791	0.000	94	203185	50.0	49.6	
123 Hexachlorobutadiene	225	14.931	14.931	0.000	96	81412	50.0	50.8	
124 Naphthalene	128	15.053	15.053	0.000	98	357281	50.0	50.7	
125 1,2,3-Trichlorobenzene	180	15.278	15.278	0.000	94	168045	50.0	49.0	
126 2,4,5-Trichlorotoluene	159	16.044	16.044	0.000	0	125544	50.0	49.7	
127 2,3,6-Trichlorotoluene	159	16.148	16.148	0.000	95	113503	50.0	50.4	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	100.5	
S 131 Xylenes, Total	106				0		100.0	108.7	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	2.00	Units: uL	
voaWeemixpri_00001	Amount Added:	2.00	Units: uL	
voaWVApri Res_00001	Amount Added:	2.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	2.00	Units: uL	
voaWAcropri R_00006	Amount Added:	6.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

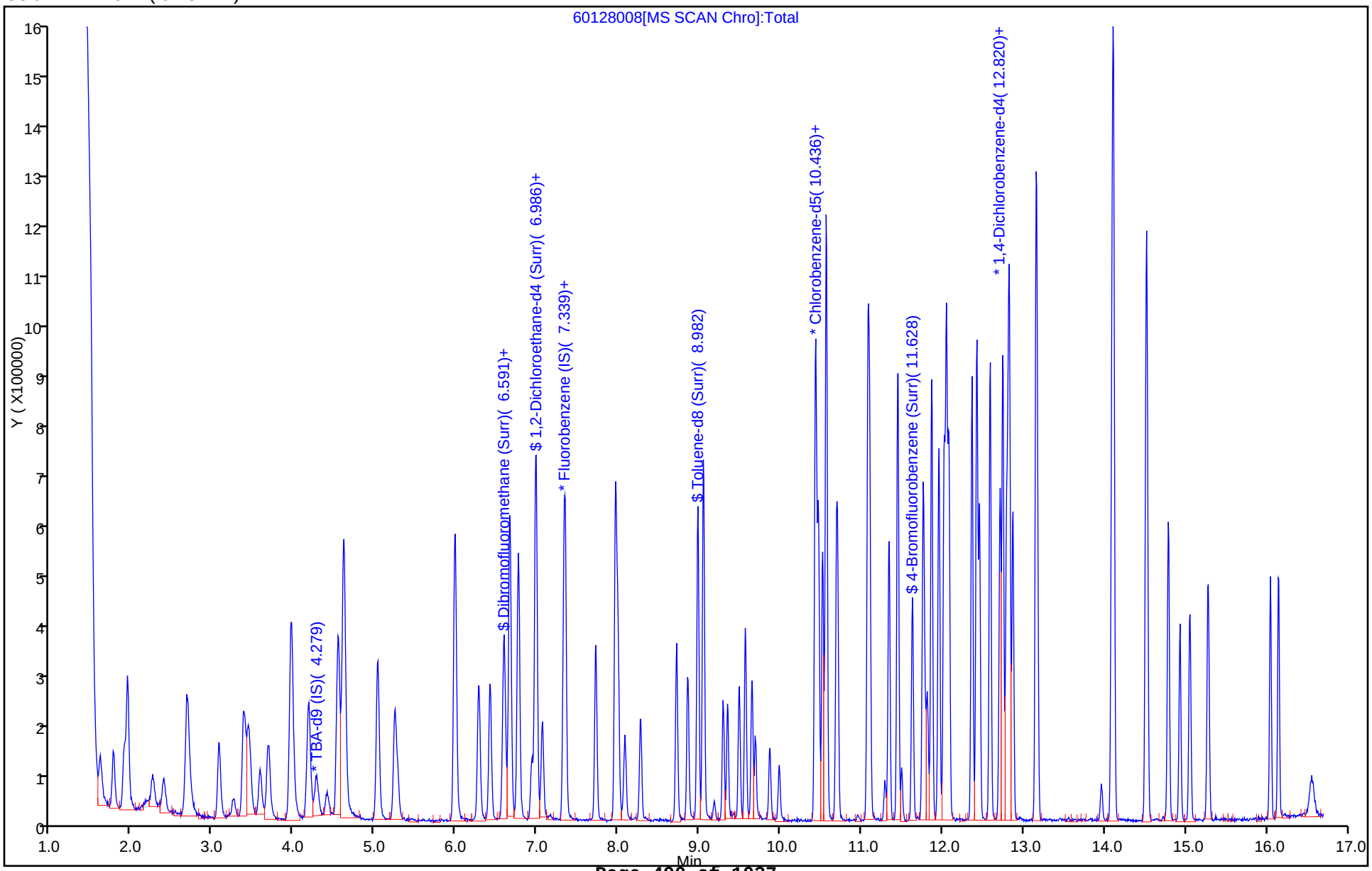
Report Date: 29-Jan-2015 12:59:09 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128008.D

Injection Date:	28-Jan-2015 14:45:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

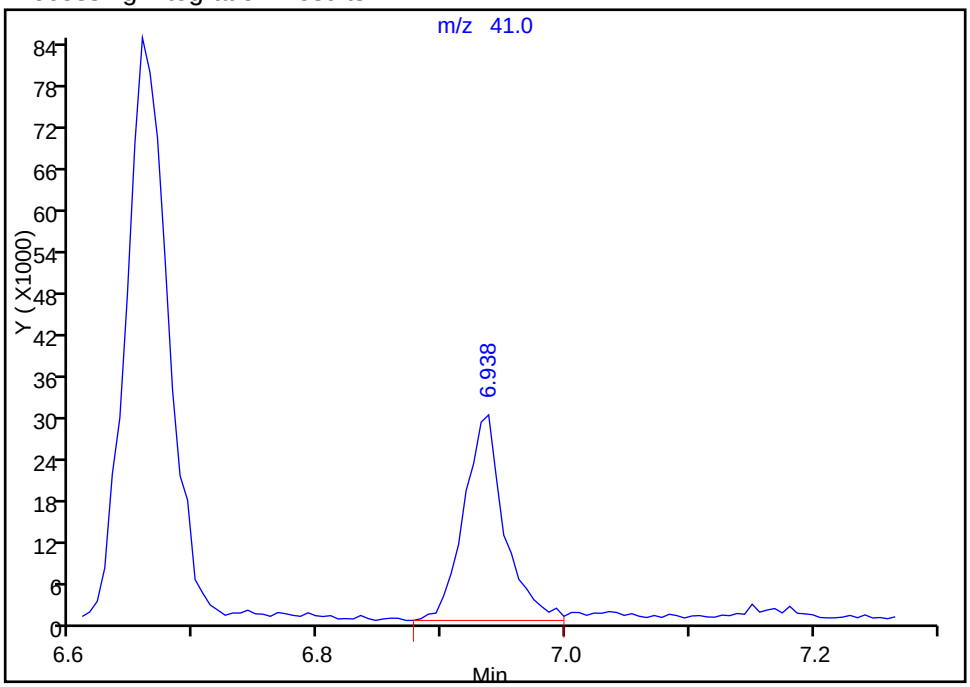
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128008.D				
Injection Date:	28-Jan-2015 14:45:30	Instrument ID:	CHHP6		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 Isobutyl alcohol, CAS: 78-83-1

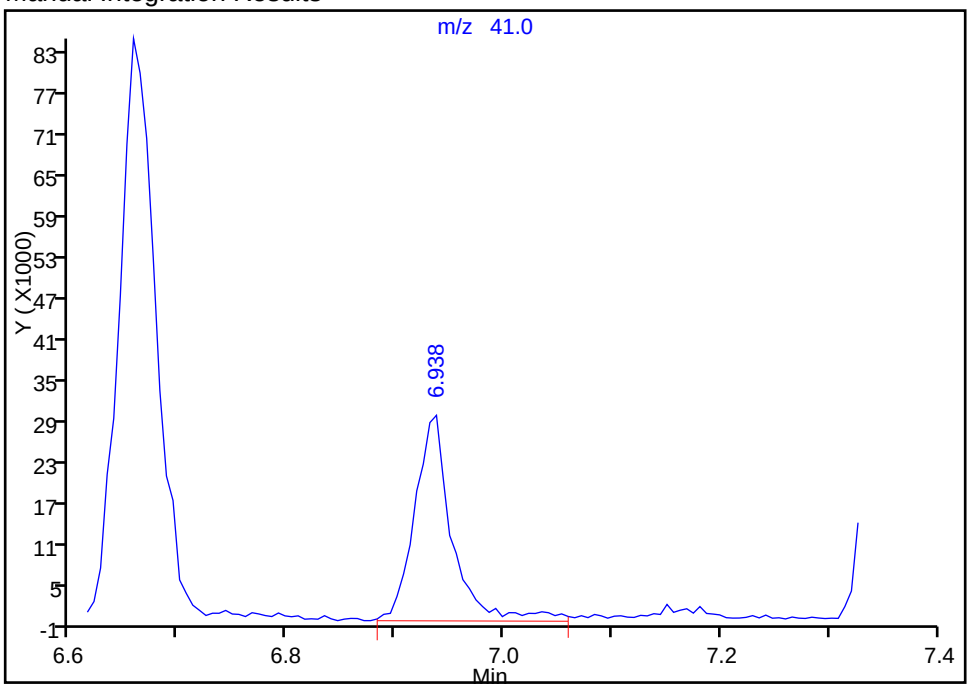
Processing Integration Results

RT: 6.94
Area: 67676
Amount: 1108.5181
Amount Units: ng



Manual Integration Results

RT: 6.94
Area: 71829
Amount: 1206.0150
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 11:08:50
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 28-Jan-2015 15:09:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0005450-009
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:10 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:51:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.278	0.000	96	177406	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.326	7.326	0.000	98	494191	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.440	10.440	0.000	92	111156	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	95	163776	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.596	6.596	0.000	93	157502	75.0	70.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.973	0.000	69	241234	75.0	75.4	
$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	93	661202	75.0	75.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.627	0.000	83	269743	75.0	72.4	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	99	178504	75.0	68.2	
12 Chloromethane	50	1.759	1.759	0.000	99	283765	75.0	70.5	
13 Vinyl chloride	62	1.893	1.893	0.000	98	249364	75.0	69.9	
14 Butadiene	39	1.936	1.936	0.000	92	257326	75.0	67.5	
15 Bromomethane	94	2.240	2.240	0.000	92	100551	75.0	70.2	M
16 Chloroethane	64	2.380	2.380	0.000	99	150069	75.0	68.6	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	96	358712	75.0	68.8	
18 Trichlorofluoromethane	101	2.684	2.684	0.000	68	264073	75.0	64.7	
20 Ethyl ether	59	3.067	3.067	0.000	95	219655	75.0	70.6	
21 Acrolein	56	3.244	3.244	0.000	99	85368	175.0	172.8	
22 1,1-Dichloroethene	96	3.365	3.365	0.000	92	180761	75.0	65.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.426	0.000	96	190645	75.0	67.9	
24 Acetone	43	3.451	3.451	0.000	99	126400	150.0	144.6	
25 Iodomethane	142	3.578	3.578	0.000	98	276926	75.0	67.4	
26 Carbon disulfide	76	3.676	3.676	0.000	100	538178	75.0	65.5	
29 3-Chloro-1-propene	76	3.956	3.956	0.000	70	119671	75.0	66.4	
30 Methyl acetate	43	3.962	3.962	0.000	97	795107	375.0	371.6	
31 Methylene Chloride	84	4.175	4.175	0.000	98	255870	75.0	63.1	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	94	157863	750.0	787.4	
33 Acrylonitrile	53	4.540	4.540	0.000	99	825638	750.0	740.0	
34 trans-1,2-Dichloroethene	96	4.613	4.613	0.000	72	227148	75.0	68.0	
35 Methyl tert-butyl ether	73	4.613	4.613	0.000	98	611806	75.0	69.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.026	5.026	0.000	95	351514	75.0	73.1	
37 1,1-Dichloroethane	63	5.239	5.239	0.000	97	443424	75.0	68.6	
38 Vinyl acetate	43	5.276	5.276	0.000	97	264095	75.0	78.6	
44 2-Butanone (MEK)	43	5.975	5.975	0.000	77	198782	150.0	177.4	
43 cis-1,2-Dichloroethene	96	5.981	5.981	0.000	86	240979	75.0	68.0	
42 2,2-Dichloropropane	77	5.987	5.987	0.000	64	241640	75.0	65.9	
49 Tetrahydrofuran	42	6.279	6.279	0.000	83	119820	150.0	148.8	
48 Chlorobromomethane	128	6.279	6.279	0.000	91	100988	75.0	71.6	
50 Chloroform	83	6.419	6.419	0.000	94	381367	75.0	68.5	
51 1,1,1-Trichloroethane	97	6.584	6.584	0.000	97	294109	75.0	69.4	
52 Cyclohexane	56	6.657	6.657	0.000	96	456085	75.0	66.8	
53 Carbon tetrachloride	117	6.760	6.760	0.000	96	218554	75.0	65.9	
54 1,1-Dichloropropene	75	6.766	6.766	0.000	93	307766	75.0	72.8	
55 Isobutyl alcohol	41	6.936	6.936	0.000	95	137058	1875.0	2084.8	
56 Benzene	78	6.985	6.985	0.000	98	924844	75.0	75.4	
57 1,2-Dichloroethane	62	7.058	7.058	0.000	97	302310	75.0	75.0	
59 n-Heptane	43	7.350	7.350	0.000	94	290134	75.0	74.2	
61 Trichloroethene	130	7.721	7.721	0.000	96	208800	75.0	74.7	
63 Methylcyclohexane	83	7.965	7.965	0.000	94	375853	75.0	68.3	
64 1,2-Dichloropropane	63	7.995	7.995	0.000	88	246898	75.0	76.0	
65 1,4-Dioxane	88	8.074	8.074	0.000	48	33822	1500.0	1665.1	M
67 Dibromomethane	93	8.080	8.080	0.000	97	106863	75.0	73.6	
68 Dichlorobromomethane	83	8.275	8.275	0.000	98	255826	75.0	75.2	
71 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	92	306111	75.0	78.4	
72 4-Methyl-2-pentanone (MIBK	43	8.853	8.853	0.000	98	401820	150.0	160.2	
73 Toluene	91	9.047	9.047	0.000	98	865706	75.0	76.2	
74 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	96	258221	75.0	82.9	
75 Ethyl methacrylate	69	9.345	9.345	0.000	91	227823	75.0	79.4	
76 1,1,2-Trichloroethane	97	9.491	9.491	0.000	92	154194	75.0	74.7	
77 Tetrachloroethene	164	9.564	9.564	0.000	95	152121	75.0	75.0	
78 1,3-Dichloropropane	76	9.650	9.650	0.000	92	309767	75.0	80.7	
79 2-Hexanone	43	9.692	9.692	0.000	98	230885	150.0	161.4	
81 Chlorodibromomethane	129	9.869	9.869	0.000	90	134047	75.0	76.5	
82 Ethylene Dibromide	107	9.984	9.984	0.000	100	149846	75.0	79.8	
83 3-Chlorobenzotrifluoride	180	10.428	10.428	0.000	93	275294	75.0	69.6	
84 Chlorobenzene	112	10.471	10.471	0.000	91	533675	75.0	75.2	
85 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	97	261287	75.0	71.0	
87 Ethylbenzene	106	10.568	10.568	0.000	98	309783	75.0	72.8	
86 1,1,1,2-Tetrachloroethane	131	10.562	10.562	0.000	91	178444	75.0	73.0	
88 m-Xylene & p-Xylene	106	10.702	10.702	0.000	99	393071	75.0	74.8	
89 o-Xylene	106	11.079	11.079	0.000	97	395578	75.0	73.3	
90 Styrene	104	11.098	11.098	0.000	94	596747	75.0	75.1	
91 Bromoform	173	11.292	11.292	0.000	95	65704	75.0	70.0	
92 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	96	290061	75.0	70.3	
93 Isopropylbenzene	105	11.444	11.444	0.000	98	955292	75.0	71.8	
96 1,1,2,2-Tetrachloroethane	83	11.755	11.755	0.000	95	203512	75.0	73.3	
95 Bromobenzene	156	11.767	11.767	0.000	97	223525	75.0	78.0	
97 trans-1,4-Dichloro-2-buten	53	11.791	11.791	0.000	74	61317	75.0	76.1	
98 1,2,3-Trichloropropane	110	11.815	11.815	0.000	84	67823	75.0	80.8	
99 N-Propylbenzene	120	11.864	11.864	0.000	98	262417	75.0	76.6	
100 2-Chlorotoluene	126	11.955	11.955	0.000	94	221515	75.0	73.4	
101 3-Chlorotoluene	126	12.022	12.022	0.000	96	236047	75.0	74.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.047	12.047	0.000	93	836492	75.0	76.0	
103 4-Chlorotoluene	126	12.083	12.083	0.000	98	231900	75.0	74.9	
104 tert-Butylbenzene	119	12.363	12.363	0.000	92	663124	75.0	77.4	
106 1,2,4-Trimethylbenzene	105	12.424	12.424	0.000	98	854880	75.0	75.0	
107 1,2-dichloro-4-(trifluorom	214	12.460	12.460	0.000	97	230038	75.0	72.3	
108 sec-Butylbenzene	105	12.588	12.588	0.000	96	1021731	75.0	77.1	
109 1,3-Dichlorobenzene	146	12.710	12.710	0.000	93	404796	75.0	72.1	
110 4-Isopropyltoluene	119	12.740	12.740	0.000	96	816686	75.0	76.0	
111 1,4-Dichlorobenzene	146	12.813	12.813	0.000	92	431926	75.0	74.3	
113 2,4-Dichloro-1-(triflourom	214	12.831	12.831	0.000	96	236290	75.0	74.0	
114 2,5-Dichlorobenzotrifluori	214	12.868	12.868	0.000	98	251951	75.0	71.6	
116 n-Butylbenzene	91	13.154	13.154	0.000	97	782657	75.0	75.7	
117 1,2-Dichlorobenzene	146	13.166	13.166	0.000	92	413439	75.0	73.6	
118 1,2-Dibromo-3-Chloropropan	75	13.957	13.963	-0.006	79	31840	75.0	71.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.103	14.103	0.000	98	1177478	225.0	223.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.516	14.516	0.000	99	856615	150.0	148.8	
122 1,2,4-Trichlorobenzene	180	14.784	14.784	0.000	93	332715	75.0	76.5	
123 Hexachlorobutadiene	225	14.930	14.930	0.000	95	127169	75.0	74.8	
124 Naphthalene	128	15.052	15.052	0.000	98	596683	75.0	79.8	
125 1,2,3-Trichlorobenzene	180	15.277	15.277	0.000	94	279103	75.0	76.7	
126 2,4,5-Trichlorotoluene	159	16.049	16.049	0.000	0	192318	75.0	71.8	
127 2,3,6-Trichlorotoluene	159	16.147	16.147	0.000	93	170378	75.0	71.4	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		150.0	136.0	
S 131 Xylenes, Total	106				0		150.0	148.1	
S 132 1,3-Dichloropropene, Total	1				0		150.0	161.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	3.00	Units: uL	
voaWeemixpri_00001	Amount Added:	3.00	Units: uL	
voaWVApri Res_00001	Amount Added:	3.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	3.00	Units: uL	
voaWAcropri R_00006	Amount Added:	7.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

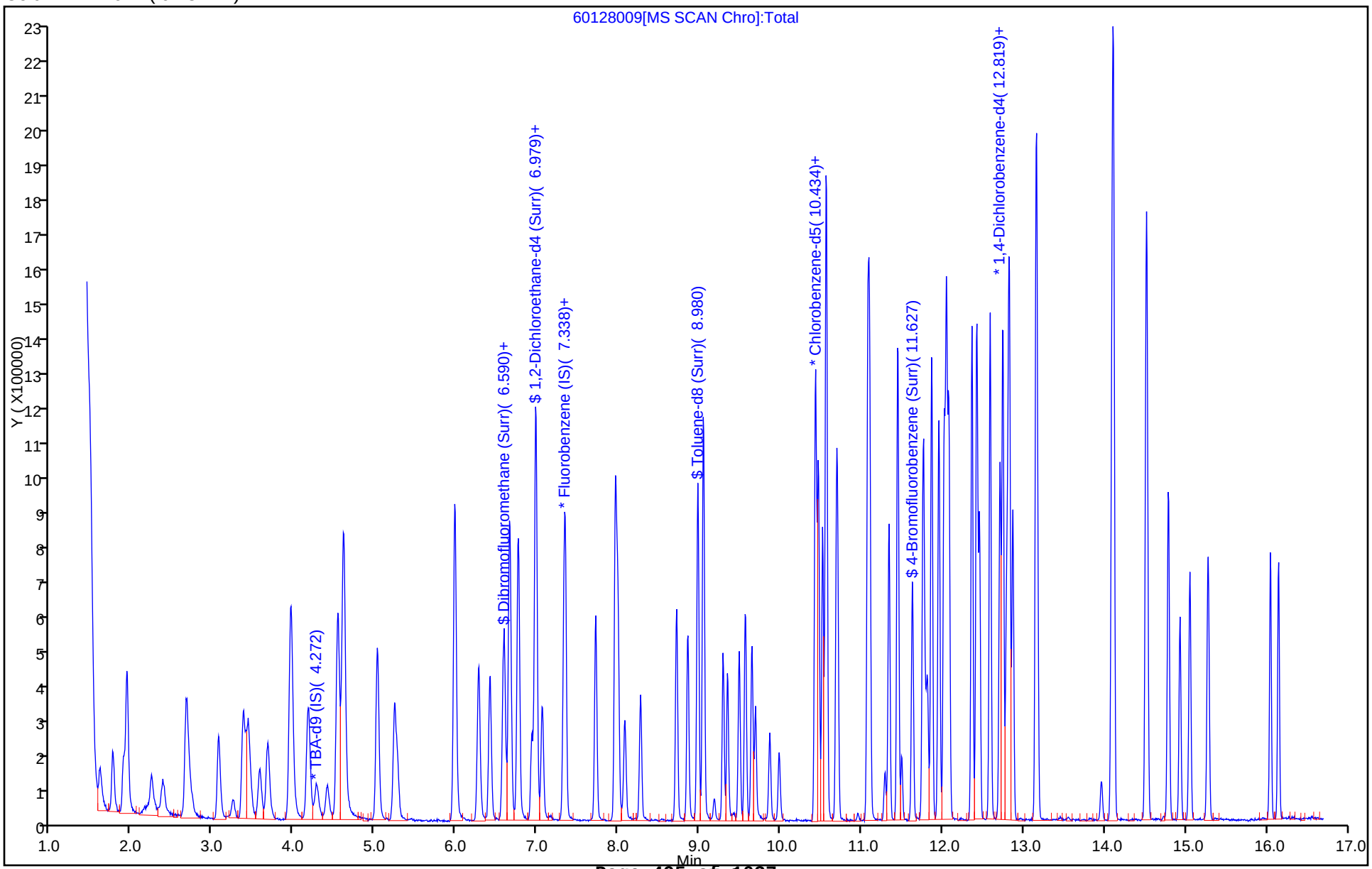
Report Date: 29-Jan-2015 12:59:11 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D

Injection Date:	28-Jan-2015 15:09:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

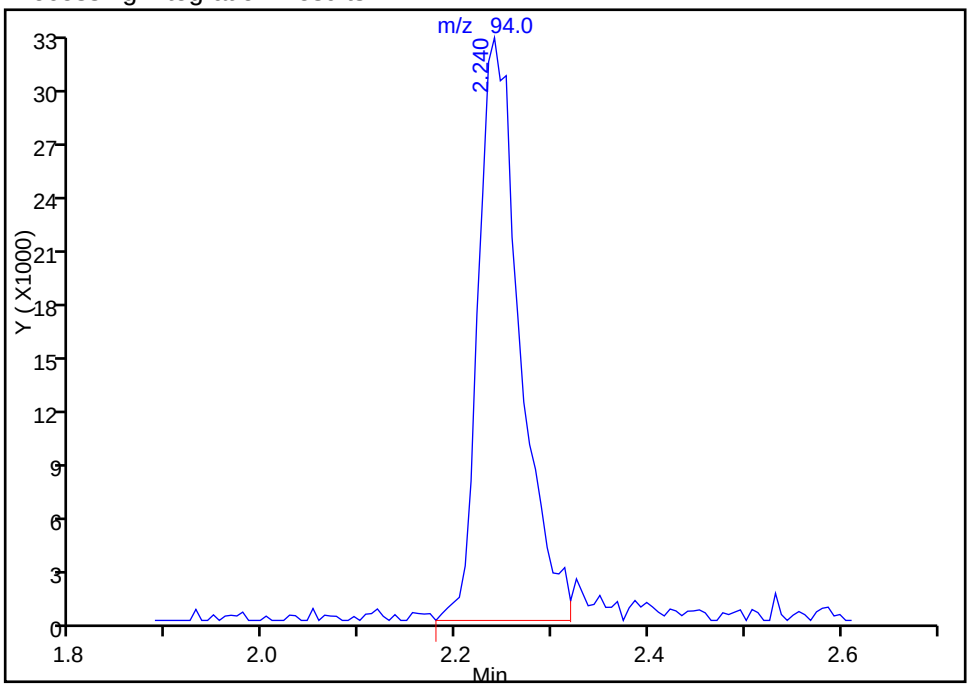
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D				
Injection Date:	28-Jan-2015 15:09:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

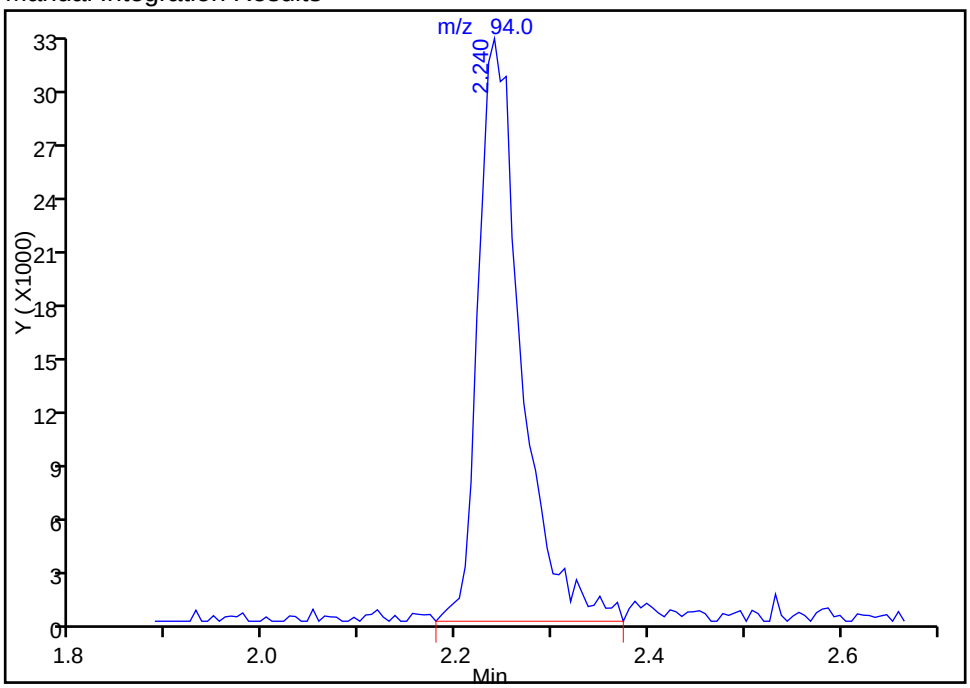
Processing Integration Results

RT: 2.24
Area: 97105
Amount: 68.057558
Amount Units: ng



Manual Integration Results

RT: 2.24
Area: 100551
Amount: 70.190204
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:51:24
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

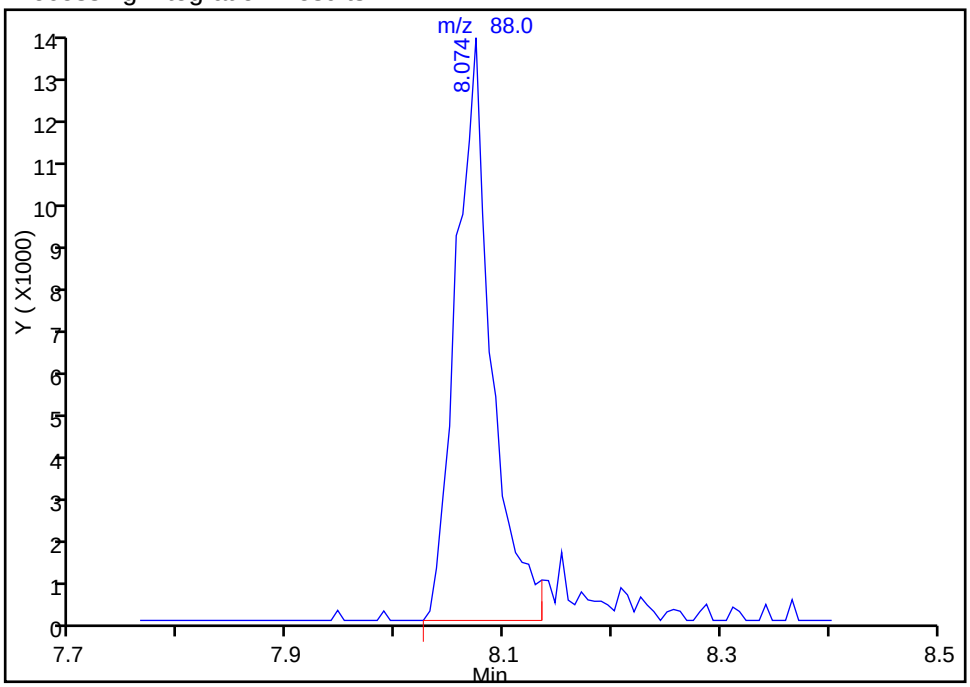
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128009.D				
Injection Date:	28-Jan-2015 15:09:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

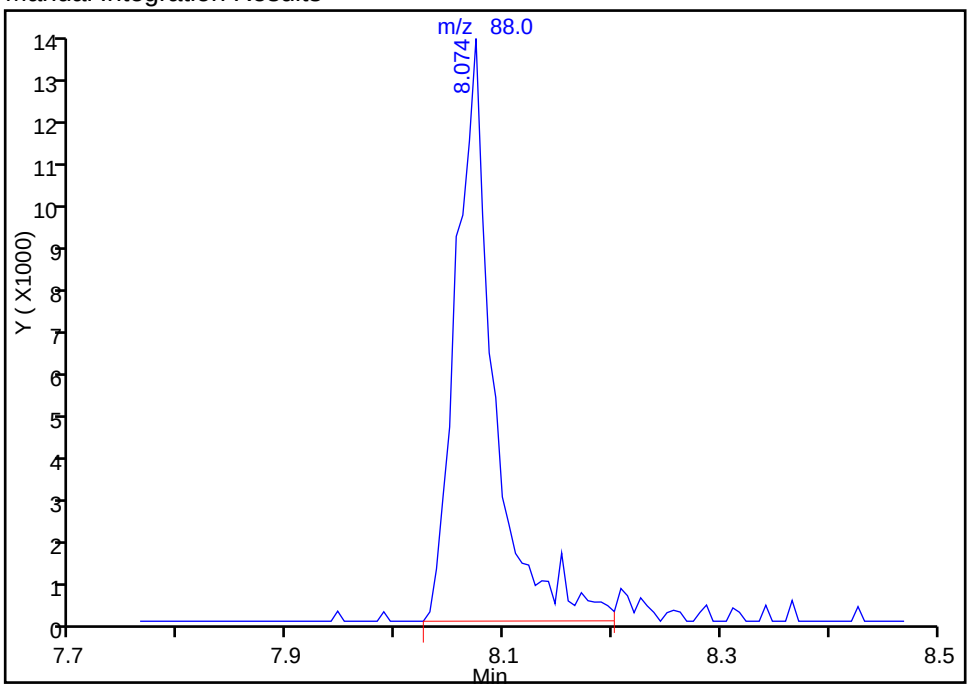
Processing Integration Results

RT: 8.07
Area: 31486
Amount: 1595.6203
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 33822
Amount: 1665.1175
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:54:39
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128010.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 28-Jan-2015 15:33:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0005450-010
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:13 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:53:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.278	-0.004	95	175261	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.326	0.002	98	439145	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.440	-0.003	94	96726	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.789	0.002	95	152427	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.596	0.002	93	201508	100.0	101.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.975	6.973	0.002	70	283354	100.0	99.7	
$ 7 Toluene-d8 (Surr)	98	8.983	8.980	0.003	93	779639	100.0	102.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.627	0.002	83	330292	100.0	101.8	
11 Dichlorodifluoromethane	85	1.604	1.607	-0.003	99	243452	100.0	104.6	
12 Chloromethane	50	1.762	1.759	0.003	99	384421	100.0	107.4	
13 Vinyl chloride	62	1.896	1.893	0.003	98	339939	100.0	107.2	
14 Butadiene	39	1.938	1.936	0.002	91	363197	100.0	107.3	
15 Bromomethane	94	2.242	2.240	0.002	91	133368	100.0	104.8	
16 Chloroethane	64	2.382	2.380	0.002	99	206434	100.0	106.2	
17 Dichlorofluoromethane	67	2.668	2.666	0.002	97	485448	100.0	104.7	
18 Trichlorofluoromethane	101	2.686	2.684	0.002	97	379709	100.0	104.7	
20 Ethyl ether	59	3.064	3.067	-0.003	94	288913	100.0	104.4	
21 Acrolein	56	3.246	3.244	0.002	99	91786	200.0	209.0	
22 1,1-Dichloroethene	96	3.374	3.365	0.009	93	260475	100.0	105.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.426	0.003	95	269318	100.0	108.0	
24 Acetone	43	3.453	3.451	0.002	99	156961	200.0	202.1	
25 Iodomethane	142	3.581	3.578	0.003	99	377556	100.0	103.4	
26 Carbon disulfide	76	3.678	3.676	0.002	100	770934	100.0	105.6	
29 3-Chloro-1-propene	76	3.964	3.956	0.008	69	167495	100.0	104.6	
30 Methyl acetate	43	3.964	3.962	0.002	98	1006389	500.0	529.3	
31 Methylene Chloride	84	4.171	4.175	-0.004	98	354231	100.0	98.3	
32 2-Methyl-2-propanol	59	4.414	4.412	0.002	95	196865	1000.0	994.0	
33 Acrylonitrile	53	4.542	4.540	0.002	99	1070950	1000.0	1080.3	
34 trans-1,2-Dichloroethene	96	4.609	4.613	-0.004	74	317224	100.0	106.9	
35 Methyl tert-butyl ether	73	4.615	4.613	0.002	98	828973	100.0	106.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.029	5.026	0.003	94	447359	100.0	104.7	
37 1,1-Dichloroethane	63	5.241	5.239	0.002	97	607468	100.0	105.8	
38 Vinyl acetate	43	5.278	5.276	0.002	97	300763	100.0	100.7	
44 2-Butanone (MEK)	43	5.984	5.975	0.009	51	200186	200.0	201.0	
43 cis-1,2-Dichloroethene	96	5.984	5.981	0.003	86	336595	100.0	106.9	
42 2,2-Dichloropropane	77	5.990	5.987	0.003	66	347540	100.0	106.7	
49 Tetrahydrofuran	42	6.282	6.279	0.003	94	146874	200.0	205.3	
48 Chlorobromomethane	128	6.276	6.279	-0.003	94	130848	100.0	104.4	
50 Chloroform	83	6.422	6.419	0.003	94	520205	100.0	105.2	
51 1,1,1-Trichloroethane	97	6.580	6.584	-0.004	97	399010	100.0	105.9	
52 Cyclohexane	56	6.659	6.657	0.002	95	648441	100.0	106.9	
53 Carbon tetrachloride	117	6.762	6.760	0.002	97	317552	100.0	107.7	
54 1,1-Dichloropropene	75	6.768	6.766	0.002	94	397719	100.0	105.8	
55 Isobutyl alcohol	41	6.933	6.936	-0.003	95	166021	2500.0	2841.9	
56 Benzene	78	6.981	6.985	-0.004	98	1144809	100.0	105.0	
57 1,2-Dichloroethane	62	7.067	7.058	0.009	97	373539	100.0	104.3	
59 n-Heptane	43	7.352	7.350	0.002	95	358203	100.0	103.1	
61 Trichloroethene	130	7.724	7.721	0.003	97	256342	100.0	103.2	
63 Methylcyclohexane	83	7.967	7.965	0.002	95	513997	100.0	105.0	
64 1,2-Dichloropropane	63	7.997	7.995	0.002	88	296893	100.0	102.9	
65 1,4-Dioxane	88	8.076	8.074	0.002	43	44901	2000.0	2487.6	M
67 Dibromomethane	93	8.082	8.080	0.002	96	134511	100.0	104.3	
68 Dichlorobromomethane	83	8.277	8.275	0.002	98	313642	100.0	103.7	
71 cis-1,3-Dichloropropene	75	8.721	8.719	0.002	92	373776	100.0	107.7	
72 4-Methyl-2-pentanone (MIBK	43	8.855	8.853	0.002	97	485147	200.0	222.3	
73 Toluene	91	9.050	9.047	0.003	97	1047433	100.0	105.9	
74 trans-1,3-Dichloropropene	75	9.293	9.291	0.002	96	288597	100.0	106.4	
75 Ethyl methacrylate	69	9.348	9.345	0.003	92	276463	100.0	110.8	
76 1,1,2-Trichloroethane	97	9.494	9.491	0.003	92	186391	100.0	103.8	
77 Tetrachloroethene	164	9.567	9.564	0.003	95	185546	100.0	105.1	
78 1,3-Dichloropropane	76	9.646	9.650	-0.004	94	350761	100.0	105.1	
79 2-Hexanone	43	9.689	9.692	-0.004	97	272392	200.0	218.8	
81 Chlorodibromomethane	129	9.871	9.869	0.002	91	164399	100.0	107.9	
82 Ethylene Dibromide	107	9.987	9.984	0.003	98	173425	100.0	106.2	
83 3-Chlorobenzotrifluoride	180	10.431	10.428	0.003	93	343534	100.0	99.9	
84 Chlorobenzene	112	10.467	10.471	-0.004	90	654919	100.0	106.1	
85 4-Chlorobenzotrifluoride	180	10.522	10.520	0.002	97	321428	100.0	100.4	
87 Ethylbenzene	106	10.565	10.568	-0.003	98	393435	100.0	106.2	
86 1,1,1,2-Tetrachloroethane	131	10.565	10.562	0.003	90	235848	100.0	110.8	
88 m-Xylene & p-Xylene	106	10.698	10.702	-0.004	98	495166	100.0	108.3	
89 o-Xylene	106	11.082	11.079	0.003	97	507675	100.0	108.1	
90 Styrene	104	11.100	11.098	0.002	93	743239	100.0	107.5	
91 Bromoform	173	11.288	11.292	-0.004	94	85273	100.0	104.5	
92 2-Chlorobenzotrifluoride	180	11.337	11.341	-0.004	96	373509	100.0	104.1	
93 Isopropylbenzene	105	11.447	11.444	0.003	98	1262379	100.0	109.0	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.755	0.002	96	254135	100.0	105.3	
95 Bromobenzene	156	11.763	11.767	-0.004	98	278729	100.0	104.5	
97 trans-1,4-Dichloro-2-buten	53	11.787	11.791	-0.004	73	77586	100.0	103.4	
98 1,2,3-Trichloropropane	110	11.812	11.815	-0.003	86	81476	100.0	104.3	
99 N-Propylbenzene	120	11.866	11.864	0.002	98	331379	100.0	104.0	
100 2-Chlorotoluene	126	11.958	11.955	0.003	95	293005	100.0	104.3	
101 3-Chlorotoluene	126	12.018	12.022	-0.004	96	292985	100.0	99.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.049	12.047	0.002	94	1105314	100.0	107.9	
103 4-Chlorotoluene	126	12.079	12.083	-0.004	99	300726	100.0	104.3	
104 tert-Butylbenzene	119	12.365	12.363	0.002	92	842934	100.0	105.7	
106 1,2,4-Trimethylbenzene	105	12.426	12.424	0.002	99	1135474	100.0	107.1	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.460	-0.004	97	301633	100.0	101.8	
108 sec-Butylbenzene	105	12.584	12.588	-0.004	96	1323132	100.0	107.3	
109 1,3-Dichlorobenzene	146	12.712	12.710	0.002	95	545480	100.0	104.4	
110 4-Isopropyltoluene	119	12.742	12.740	0.002	95	1069888	100.0	107.0	
111 1,4-Dichlorobenzene	146	12.815	12.813	0.002	90	558588	100.0	103.3	
113 2,4-Dichloro-1-(triflourom	214	12.828	12.831	-0.003	96	295903	100.0	99.5	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.868	0.002	98	347814	100.0	106.1	
116 n-Butylbenzene	91	13.150	13.154	-0.004	96	1045083	100.0	108.7	
117 1,2-Dichlorobenzene	146	13.168	13.166	0.002	93	540869	100.0	103.5	
118 1,2-Dibromo-3-Chloropropan	75	13.953	13.963	-0.010	75	42357	100.0	101.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.103	0.002	98	1526957	300.0	311.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.519	14.516	0.003	99	1109689	200.0	207.1	
122 1,2,4-Trichlorobenzene	180	14.786	14.784	0.002	93	428696	100.0	105.9	
123 Hexachlorobutadiene	225	14.932	14.930	0.002	96	168186	100.0	106.2	
124 Naphthalene	128	15.048	15.052	-0.004	98	746148	100.0	107.3	
125 1,2,3-Trichlorobenzene	180	15.279	15.277	0.002	95	359783	100.0	106.3	
126 2,4,5-Trichlorotoluene	159	16.046	16.049	-0.003	0	253456	100.0	101.7	
127 2,3,6-Trichlorotoluene	159	16.143	16.147	-0.004	93	223585	100.0	100.7	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	213.8	
S 131 Xylenes, Total	106				0		200.0	216.4	
S 132 1,3-Dichloropropene, Total	1				0		200.0	214.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	4.00	Units: uL	
voaWeemixpri_00001	Amount Added:	4.00	Units: uL	
voaWVApri Res_00001	Amount Added:	4.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	4.00	Units: uL	
voaWAcropri R_00006	Amount Added:	8.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

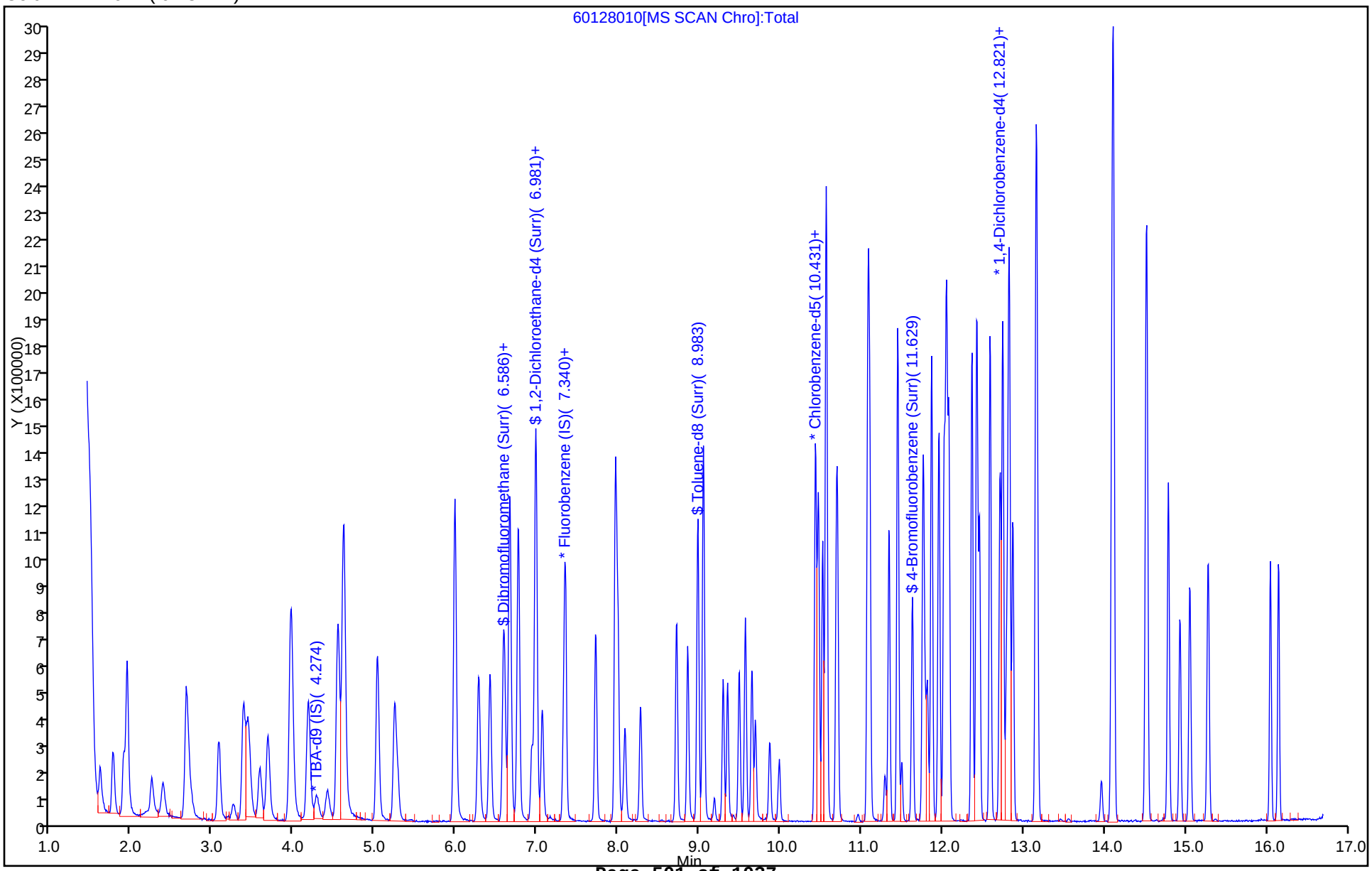
Report Date: 29-Jan-2015 12:59:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128010.D

Injection Date:	28-Jan-2015 15:33:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

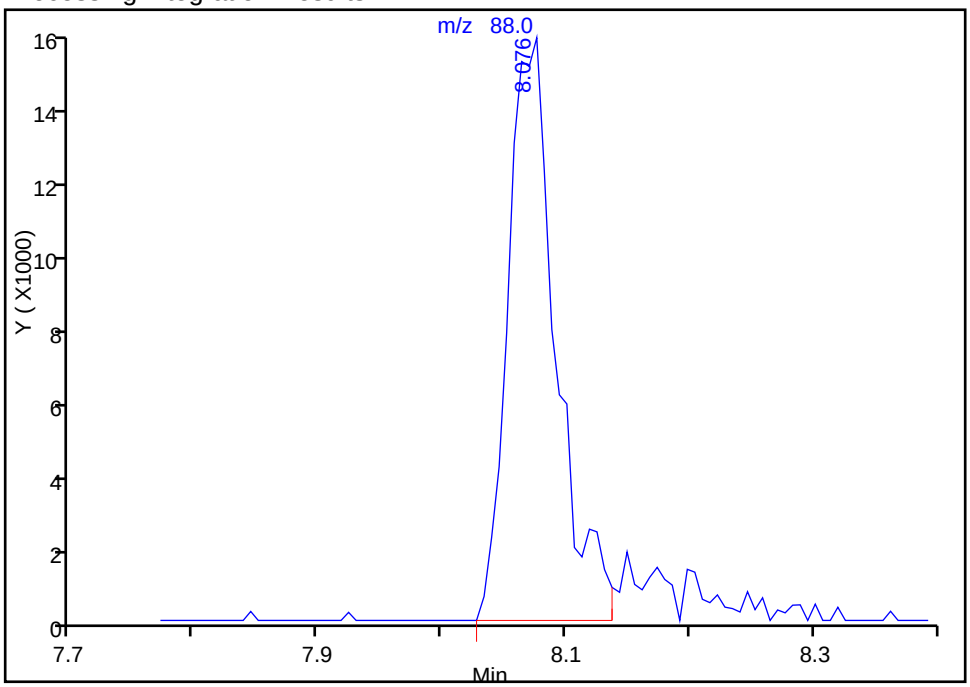
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128010.D				
Injection Date:	28-Jan-2015 15:33:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

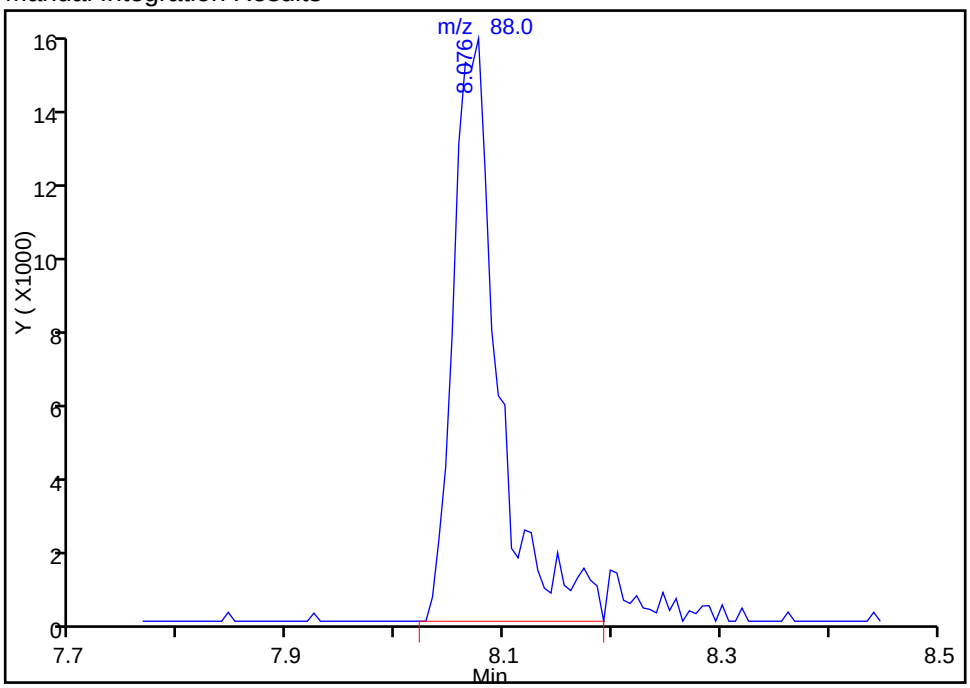
Processing Integration Results

RT: 8.08
Area: 41652
Amount: 2341.8822
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 44901
Amount: 2487.6456
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:53:28
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128011.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-Jan-2015 15:57:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0005450-011
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:14 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 10:59:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.280	4.278	0.002	94	166250	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.326	0.002	98	444059	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.436	10.440	-0.004	91	106771	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.789	0.002	95	156653	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.596	0.002	93	356892	175.0	177.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.975	6.973	0.002	71	492507	175.0	171.3	
$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	93	1290581	175.0	153.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.627	0.002	83	562972	175.0	157.2	
11 Dichlorodifluoromethane	85	1.609	1.607	0.002	100	399376	175.0	169.7	
12 Chloromethane	50	1.767	1.759	0.008	99	623186	175.0	172.2	
13 Vinyl chloride	62	1.895	1.893	0.002	97	551705	175.0	172.0	
14 Butadiene	39	1.938	1.936	0.002	89	555574	175.0	162.3	
15 Bromomethane	94	2.242	2.240	0.002	91	214591	175.0	166.7	
16 Chloroethane	64	2.382	2.380	0.002	99	335043	175.0	170.4	
17 Dichlorofluoromethane	67	2.662	2.666	-0.004	97	781500	175.0	166.7	
18 Trichlorofluoromethane	101	2.680	2.684	-0.004	97	608185	175.0	165.8	
20 Ethyl ether	59	3.069	3.067	0.002	95	482160	175.0	172.4	
21 Acrolein	56	3.252	3.244	0.008	97	103226	225.0	232.5	
22 1,1-Dichloroethene	96	3.373	3.365	0.008	94	430377	175.0	172.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.426	0.002	96	437728	175.0	173.6	
24 Acetone	43	3.453	3.451	0.002	100	280558	350.0	357.2	
25 Iodomethane	142	3.580	3.578	0.002	98	651846	175.0	176.5	
26 Carbon disulfide	76	3.678	3.676	0.002	100	1309070	175.0	177.3	
29 3-Chloro-1-propene	76	3.957	3.956	0.001	73	292881	175.0	180.9	
30 Methyl acetate	43	3.964	3.962	0.002	97	1703104	875.0	885.9	
31 Methylene Chloride	84	4.170	4.175	-0.005	98	585012	175.0	160.5	
32 2-Methyl-2-propanol	59	4.408	4.412	-0.004	96	335472	1750.0	1785.6	
33 Acrylonitrile	53	4.541	4.540	0.001	98	1763284	1750.0	1758.9	
34 trans-1,2-Dichloroethene	96	4.614	4.613	0.001	74	523513	175.0	174.4	
35 Methyl tert-butyl ether	73	4.614	4.613	0.001	98	1446119	175.0	183.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.028	5.026	0.002	93	739493	175.0	171.2	
37 1,1-Dichloroethane	63	5.241	5.239	0.002	96	1008065	175.0	173.6	
38 Vinyl acetate	43	5.278	5.276	0.002	97	509076	175.0	168.6	
44 2-Butanone (MEK)	43	5.983	5.975	0.008	50	363723	350.0	361.2	
43 cis-1,2-Dichloroethene	96	5.983	5.981	0.002	84	557043	175.0	175.0	
42 2,2-Dichloropropane	77	5.983	5.987	-0.004	65	582789	175.0	177.0	
49 Tetrahydrofuran	42	6.287	6.279	0.008	93	245422	350.0	339.2	
48 Chlorobromomethane	128	6.275	6.279	-0.004	92	225087	175.0	177.6	
50 Chloroform	83	6.415	6.419	-0.004	94	891515	175.0	178.3	
51 1,1,1-Trichloroethane	97	6.586	6.584	0.002	97	690974	175.0	181.4	
52 Cyclohexane	56	6.659	6.657	0.002	95	1042561	175.0	169.9	
53 Carbon tetrachloride	117	6.762	6.760	0.002	96	533960	175.0	179.1	
54 1,1-Dichloropropene	75	6.774	6.766	0.008	95	650661	175.0	171.2	
55 Isobutyl alcohol	41	6.938	6.936	0.002	94	280190	4375.0	4743.2	
56 Benzene	78	6.987	6.985	0.002	99	1858516	175.0	168.6	
57 1,2-Dichloroethane	62	7.066	7.058	0.008	96	620987	175.0	171.5	
59 n-Heptane	43	7.346	7.350	-0.004	93	583751	175.0	166.2	
61 Trichloroethene	130	7.723	7.721	0.002	95	416102	175.0	165.7	
63 Methylcyclohexane	83	7.966	7.965	0.001	95	840990	175.0	170.0	
64 1,2-Dichloropropane	63	7.997	7.995	0.002	88	511401	175.0	175.3	
65 1,4-Dioxane	88	8.076	8.074	0.002	42	66654	3500.0	3652.0	M
67 Dibromomethane	93	8.082	8.080	0.002	96	236358	175.0	181.3	
68 Dichlorobromomethane	83	8.277	8.275	0.002	98	552260	175.0	180.6	
71 cis-1,3-Dichloropropene	75	8.721	8.719	0.002	92	638776	175.0	182.0	
72 4-Methyl-2-pentanone (MIBK	43	8.861	8.853	0.008	96	833434	350.0	346.0	
73 Toluene	91	9.049	9.047	0.002	96	1693226	175.0	155.1	
74 trans-1,3-Dichloropropene	75	9.293	9.291	0.002	97	519690	175.0	173.6	
75 Ethyl methacrylate	69	9.347	9.345	0.002	91	469489	175.0	170.4	
76 1,1,2-Trichloroethane	97	9.493	9.491	0.002	93	318177	175.0	160.5	
77 Tetrachloroethene	164	9.566	9.564	0.002	94	297552	175.0	152.6	
78 1,3-Dichloropropane	76	9.652	9.650	0.002	95	590770	175.0	160.3	
79 2-Hexanone	43	9.694	9.692	0.002	96	471926	350.0	343.4	
81 Chlorodibromomethane	129	9.871	9.869	0.002	92	296438	175.0	176.2	
82 Ethylene Dibromide	107	9.986	9.984	0.002	98	302375	175.0	167.7	
83 3-Chlorobenzotrifluoride	180	10.430	10.428	0.002	93	590382	175.0	155.5	
84 Chlorobenzene	112	10.473	10.471	0.002	89	1077548	175.0	158.2	
85 4-Chlorobenzotrifluoride	180	10.522	10.520	0.002	96	561945	175.0	159.0	
86 1,1,1,2-Tetrachloroethane	131	10.564	10.562	0.002	92	418399	175.0	178.1	
87 Ethylbenzene	106	10.570	10.568	0.002	97	656339	175.0	160.6	
88 m-Xylene & p-Xylene	106	10.698	10.702	-0.004	97	839112	175.0	166.3	
89 o-Xylene	106	11.081	11.079	0.002	97	860280	175.0	165.9	
90 Styrene	104	11.099	11.098	0.001	94	1273143	175.0	166.7	
91 Bromoform	173	11.294	11.292	0.002	95	168078	175.0	186.5	
92 2-Chlorobenzotrifluoride	180	11.343	11.341	0.002	95	622262	175.0	157.1	
93 Isopropylbenzene	105	11.452	11.444	0.008	98	2002206	175.0	156.6	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.755	0.001	95	440302	175.0	165.2	
95 Bromobenzene	156	11.769	11.767	0.002	98	477179	175.0	174.0	
97 trans-1,4-Dichloro-2-buten	53	11.793	11.791	0.002	78	137653	175.0	178.5	
98 1,2,3-Trichloropropane	110	11.817	11.815	0.002	86	139161	175.0	173.4	
99 N-Propylbenzene	120	11.866	11.864	0.002	97	563113	175.0	171.9	
100 2-Chlorotoluene	126	11.957	11.955	0.002	95	493158	175.0	170.8	
101 3-Chlorotoluene	126	12.024	12.022	0.002	95	525597	175.0	174.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.047	0.001	95	1783600	175.0	169.4	
103 4-Chlorotoluene	126	12.079	12.083	-0.004	99	491693	175.0	165.9	
104 tert-Butylbenzene	119	12.365	12.363	0.002	92	1396912	175.0	170.4	
106 1,2,4-Trimethylbenzene	105	12.426	12.424	0.002	98	1838518	175.0	168.7	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.460	-0.004	97	521070	175.0	171.1	
108 sec-Butylbenzene	105	12.590	12.588	0.002	96	2082501	175.0	164.3	
109 1,3-Dichlorobenzene	146	12.712	12.710	0.002	94	914665	175.0	170.3	
110 4-Isopropyltoluene	119	12.748	12.740	0.008	94	1743713	175.0	169.6	
111 1,4-Dichlorobenzene	146	12.815	12.813	0.002	91	944630	175.0	170.0	
113 2,4-Dichloro-1-(triflourom	214	12.827	12.831	-0.004	97	499776	175.0	163.5	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.868	0.002	98	618602	175.0	183.7	
116 n-Butylbenzene	91	13.156	13.154	0.002	96	1667227	175.0	168.7	
117 1,2-Dichlorobenzene	146	13.168	13.166	0.002	94	923690	175.0	172.0	
118 1,2-Dibromo-3-Chloropropan	75	13.965	13.963	0.002	79	82124	175.0	191.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.105	14.103	0.002	96	2518550	525.0	499.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.516	0.002	97	1844544	350.0	335.0	
122 1,2,4-Trichlorobenzene	180	14.786	14.784	0.002	94	726984	175.0	174.7	
123 Hexachlorobutadiene	225	14.932	14.930	0.002	95	282422	175.0	173.6	
124 Naphthalene	128	15.054	15.052	0.002	98	1297115	175.0	181.4	
125 1,2,3-Trichlorobenzene	180	15.279	15.277	0.002	94	609774	175.0	175.2	
126 2,4,5-Trichlorotoluene	159	16.045	16.049	-0.004	0	451216	175.0	176.2	
127 2,3,6-Trichlorotoluene	159	16.143	16.147	-0.004	94	400428	175.0	175.4	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		350.0	349.4	
S 131 Xylenes, Total	106				0		350.0	332.2	
S 132 1,3-Dichloropropene, Total	1				0		350.0	355.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	7.00	Units: uL	
voaWeemixpri_00001	Amount Added:	7.00	Units: uL	
voaWVApri Res_00001	Amount Added:	7.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	7.00	Units: uL	
voaWAcropri R_00006	Amount Added:	9.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

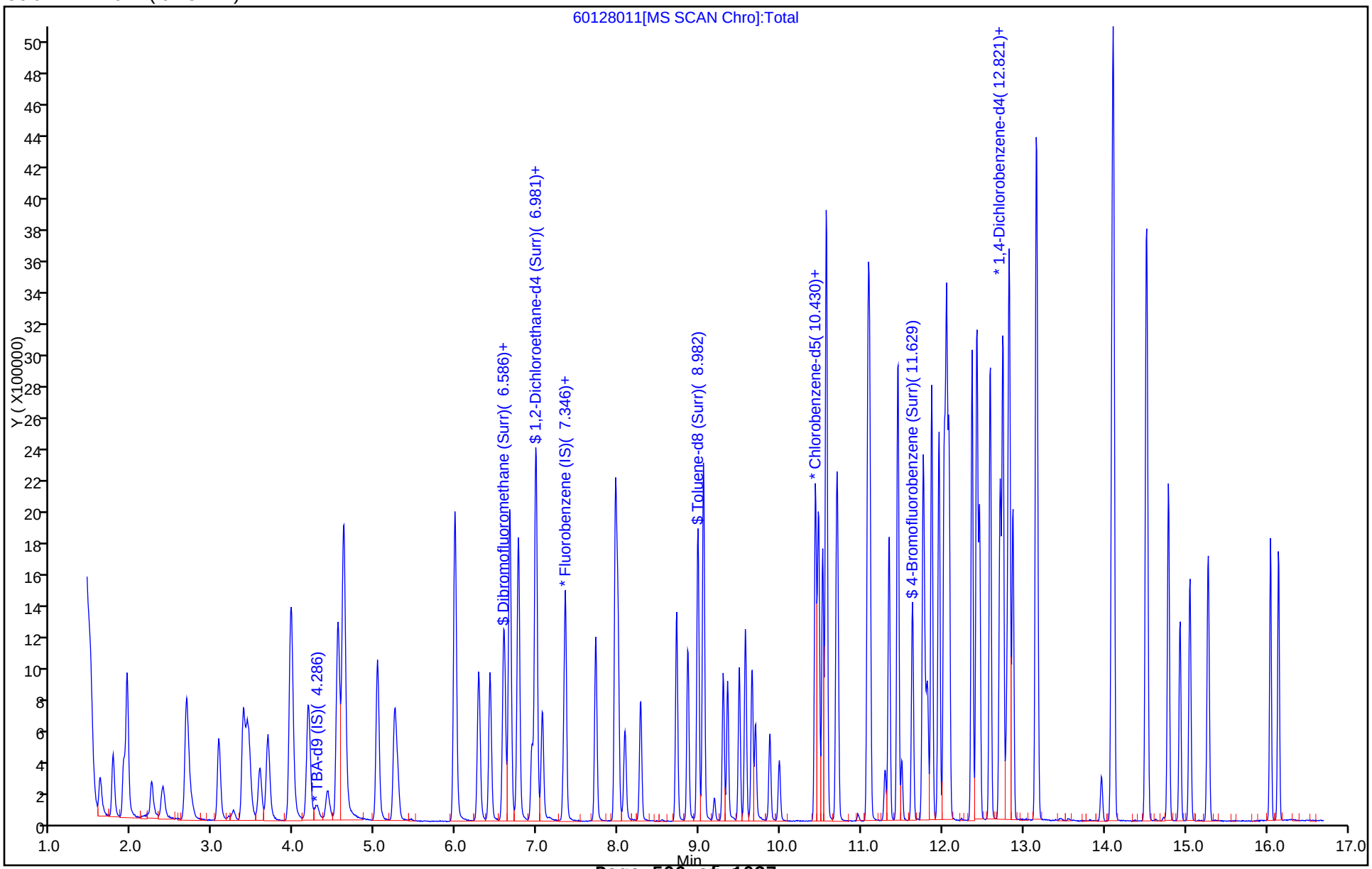
Report Date: 29-Jan-2015 12:59:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128011.D

Injection Date:	28-Jan-2015 15:57:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

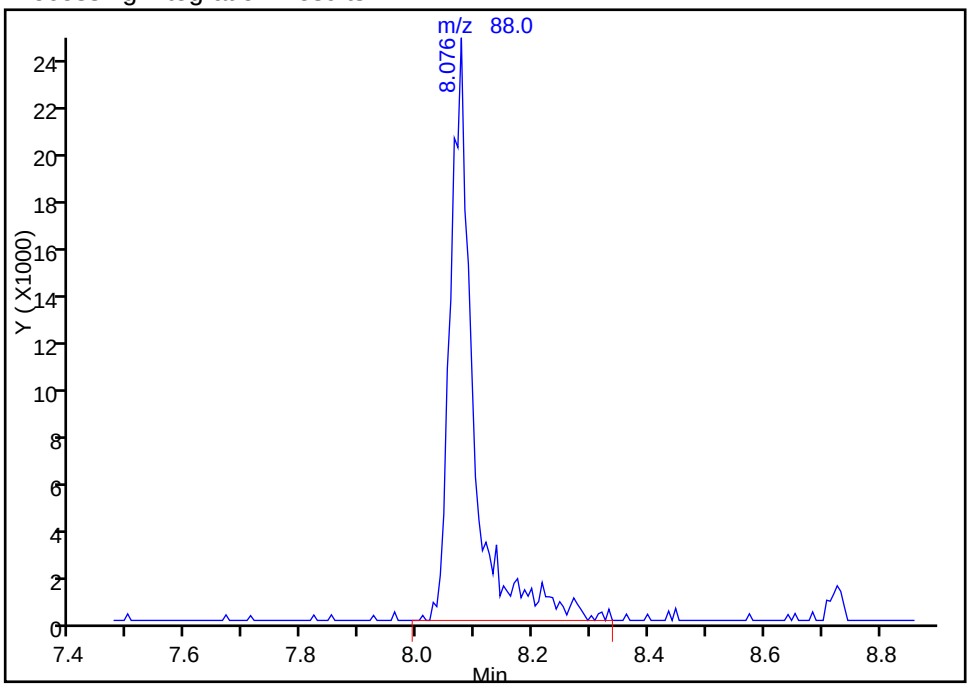
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128011.D
Injection Date: 28-Jan-2015 15:57:30 Instrument ID: CHHP6
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

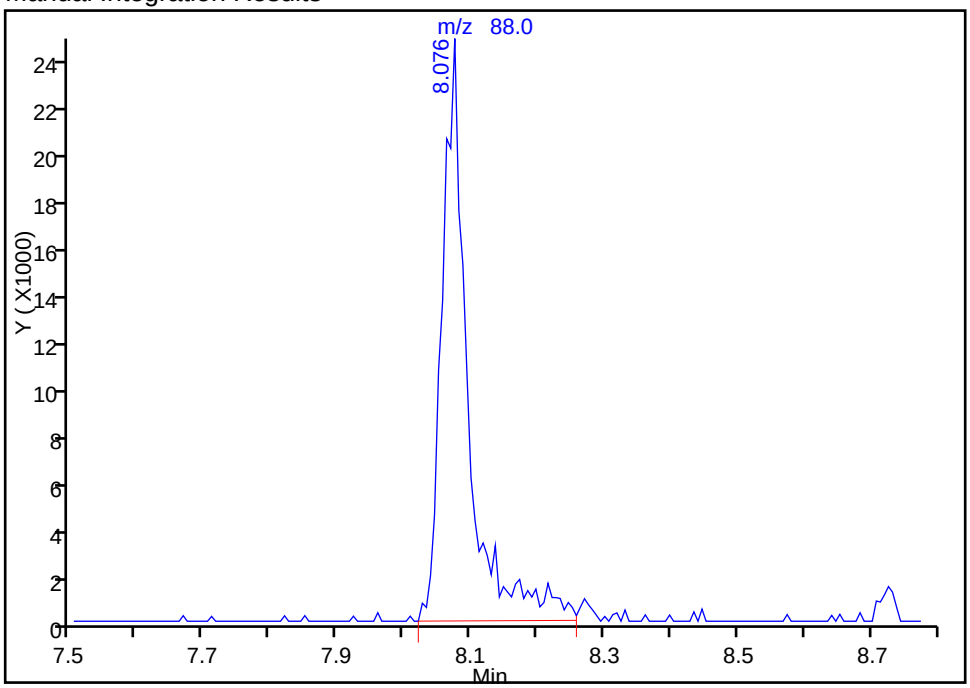
Processing Integration Results

RT: 8.08
Area: 68578
Amount: 3642.8098
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 66654
Amount: 3651.9598
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 10:59:52
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128012.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 28-Jan-2015 16:21:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0005450-012
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:16 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 11:05:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.278	0.001	95	156228	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.326	0.001	98	431028	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.442	10.440	0.002	89	102756	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.796	12.789	0.007	96	156005	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.596	0.007	93	387858	200.0	198.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.973	0.001	69	549644	200.0	197.0	
$ 7 Toluene-d8 (Surr)	98	8.982	8.980	0.002	94	1388779	200.0	171.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.627	0.001	83	623752	200.0	181.0	
11 Dichlorodifluoromethane	85	1.609	1.607	0.002	99	466774	200.0	204.4	
12 Chloromethane	50	1.773	1.759	0.014	98	698118	200.0	198.7	
13 Vinyl chloride	62	1.901	1.893	0.008	98	630878	200.0	202.7	
14 Butadiene	39	1.943	1.936	0.007	92	663356	200.0	199.6	
15 Bromomethane	94	2.247	2.240	0.007	92	238802	200.0	191.1	
16 Chloroethane	64	2.393	2.380	0.013	100	381411	200.0	199.8	
17 Dichlorofluoromethane	67	2.673	2.666	0.007	97	918274	200.0	201.8	
18 Trichlorofluoromethane	101	2.685	2.684	0.001	98	732912	200.0	205.8	
20 Ethyl ether	59	3.069	3.067	0.002	94	557320	200.0	205.3	
21 Acrolein	56	3.251	3.244	0.007	99	114431	250.0	265.5	
22 1,1-Dichloroethene	96	3.379	3.365	0.014	95	500308	200.0	206.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.434	3.426	0.008	94	494476	200.0	202.0	
24 Acetone	43	3.458	3.451	0.007	100	309648	400.0	406.1	
25 Iodomethane	142	3.580	3.578	0.002	99	740212	200.0	206.5	
26 Carbon disulfide	76	3.677	3.676	0.001	100	1529475	200.0	213.4	
29 3-Chloro-1-propene	76	3.963	3.956	0.007	91	336687	200.0	214.2	
30 Methyl acetate	43	3.969	3.962	0.007	98	1911445	1000.0	1024.3	
31 Methylene Chloride	84	4.182	4.175	0.007	97	657192	200.0	185.7	
32 2-Methyl-2-propanol	59	4.407	4.412	-0.005	96	373469	2000.0	2115.4	
33 Acrylonitrile	53	4.541	4.540	0.001	99	2023857	2000.0	2079.9	
34 trans-1,2-Dichloroethene	96	4.614	4.613	0.001	79	603714	200.0	207.2	
35 Methyl tert-butyl ether	73	4.614	4.613	0.001	98	1583536	200.0	206.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.028	5.026	0.002	93	851374	200.0	203.1	
37 1,1-Dichloroethane	63	5.241	5.239	0.001	96	1157116	200.0	205.3	
38 Vinyl acetate	43	5.277	5.276	0.001	97	631938	200.0	215.6	
44 2-Butanone (MEK)	43	5.977	5.975	0.002	54	404756	400.0	414.1	
43 cis-1,2-Dichloroethene	96	5.983	5.981	0.002	84	638509	200.0	206.6	
42 2,2-Dichloropropane	77	5.983	5.987	-0.004	85	681588	200.0	213.3	
49 Tetrahydrofuran	42	6.287	6.279	0.008	82	271171	400.0	386.1	
48 Chlorobromomethane	128	6.269	6.279	-0.010	92	257539	200.0	209.4	
50 Chloroform	83	6.415	6.419	-0.004	95	995734	200.0	205.2	
51 1,1,1-Trichloroethane	97	6.579	6.584	-0.005	97	785027	200.0	212.3	
52 Cyclohexane	56	6.664	6.657	0.007	95	1203343	200.0	202.1	
53 Carbon tetrachloride	117	6.761	6.760	0.001	96	614377	200.0	212.3	
54 1,1-Dichloropropene	75	6.767	6.766	0.001	94	759338	200.0	205.8	
55 Isobutyl alcohol	41	6.932	6.936	-0.004	95	309707	5000.0	5401.4	
56 Benzene	78	6.986	6.985	0.001	99	2127915	200.0	198.8	
57 1,2-Dichloroethane	62	7.066	7.058	0.008	96	719730	200.0	204.8	
59 n-Heptane	43	7.345	7.350	-0.005	93	681180	200.0	199.8	
61 Trichloroethene	130	7.723	7.721	0.002	95	498060	200.0	204.3	
63 Methylcyclohexane	83	7.966	7.965	0.001	94	996383	200.0	207.4	
64 1,2-Dichloropropane	63	7.996	7.995	0.001	91	576307	200.0	203.5	
65 1,4-Dioxane	88	8.063	8.074	-0.011	95	73473	4000.0	4147.3	M
67 Dibromomethane	93	8.082	8.080	0.002	95	275521	200.0	217.7	
68 Dichlorobromomethane	83	8.276	8.275	0.001	98	647525	200.0	218.1	
71 cis-1,3-Dichloropropene	75	8.714	8.719	-0.005	92	759439	200.0	222.9	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.853	0.001	97	963310	400.0	415.5	
73 Toluene	91	9.049	9.047	0.002	96	1948278	200.0	185.5	
74 trans-1,3-Dichloropropene	75	9.292	9.291	0.001	96	613591	200.0	213.0	
75 Ethyl methacrylate	69	9.347	9.345	0.002	92	558436	200.0	210.7	
76 1,1,2-Trichloroethane	97	9.493	9.491	0.002	93	370798	200.0	194.4	
77 Tetrachloroethene	164	9.566	9.564	0.002	94	362836	200.0	193.4	
78 1,3-Dichloropropane	76	9.651	9.650	0.001	95	698175	200.0	196.9	
79 2-Hexanone	43	9.694	9.692	0.002	97	548903	400.0	415.0	
81 Chlorodibromomethane	129	9.870	9.869	0.001	91	355583	200.0	219.6	
82 Ethylene Dibromide	107	9.986	9.984	0.002	99	357378	200.0	206.0	
83 3-Chlorobenzotrifluoride	180	10.430	10.428	0.002	93	686787	200.0	187.9	
84 Chlorobenzene	112	10.472	10.471	0.001	89	1247688	200.0	190.3	
85 4-Chlorobenzotrifluoride	180	10.521	10.520	0.001	96	648765	200.0	190.7	
86 1,1,1,2-Tetrachloroethane	131	10.564	10.562	0.002	92	474135	200.0	209.7	
87 Ethylbenzene	106	10.570	10.568	0.002	98	755113	200.0	191.9	
88 m-Xylene & p-Xylene	106	10.697	10.702	-0.005	97	942705	200.0	194.2	
89 o-Xylene	106	11.081	11.079	0.002	96	966416	200.0	193.7	
90 Styrene	104	11.099	11.098	0.001	93	1466119	200.0	199.5	
91 Bromoform	173	11.287	11.292	-0.005	94	195103	200.0	225.0	
92 2-Chlorobenzotrifluoride	180	11.342	11.341	0.001	95	731138	200.0	191.8	
93 Isopropylbenzene	105	11.446	11.444	0.002	99	2269536	200.0	184.5	
96 1,1,2,2-Tetrachloroethane	83	11.756	11.755	0.001	95	506563	200.0	197.5	
95 Bromobenzene	156	11.768	11.767	0.001	97	550534	200.0	201.6	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.791	0.001	76	166844	200.0	217.3	
98 1,2,3-Trichloropropane	110	11.817	11.815	0.002	86	157512	200.0	197.1	
99 N-Propylbenzene	120	11.865	11.864	0.001	97	647166	200.0	198.4	
100 2-Chlorotoluene	126	11.957	11.955	0.002	95	574430	200.0	199.8	
101 3-Chlorotoluene	126	12.018	12.022	-0.004	95	580756	200.0	193.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.048	12.047	0.001	96	2008176	200.0	191.5	
103 4-Chlorotoluene	126	12.078	12.083	-0.005	98	596461	200.0	202.1	
104 tert-Butylbenzene	119	12.364	12.363	0.001	92	1597317	200.0	195.7	
106 1,2,4-Trimethylbenzene	105	12.425	12.424	0.001	98	2073941	200.0	191.1	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.460	-0.004	97	595281	200.0	196.3	
108 sec-Butylbenzene	105	12.589	12.588	0.001	96	2342860	200.0	185.7	
109 1,3-Dichlorobenzene	146	12.711	12.710	0.001	93	1029314	200.0	192.4	
110 4-Isopropyltoluene	119	12.741	12.740	0.001	94	1972986	200.0	192.7	
111 1,4-Dichlorobenzene	146	12.814	12.813	0.001	85	1071549	200.0	193.6	
113 2,4-Dichloro-1-(triflourom	214	12.827	12.831	-0.004	97	570286	200.0	187.4	
114 2,5-Dichlorobenzotrifluori	214	12.869	12.868	0.001	98	695499	200.0	207.4	
116 n-Butylbenzene	91	13.155	13.154	0.001	95	1901534	200.0	193.2	
117 1,2-Dichlorobenzene	146	13.167	13.166	0.001	91	1036802	200.0	193.9	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.963	-0.005	77	90830	200.0	212.8	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.103	0.001	95	2764683	600.0	550.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.516	0.002	96	2037341	400.0	371.6	
122 1,2,4-Trichlorobenzene	180	14.785	14.784	0.001	94	817434	200.0	197.3	
123 Hexachlorobutadiene	225	14.931	14.930	0.001	96	320466	200.0	197.8	
124 Naphthalene	128	15.053	15.052	0.001	98	1444669	200.0	202.9	
125 1,2,3-Trichlorobenzene	180	15.278	15.277	0.001	94	688354	200.0	198.6	
126 2,4,5-Trichlorotoluene	159	16.045	16.049	-0.004	0	504552	200.0	197.8	
127 2,3,6-Trichlorotoluene	159	16.148	16.147	0.001	94	455993	200.0	200.6	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	413.8	
S 131 Xylenes, Total	106				0		400.0	387.8	
S 132 1,3-Dichloropropene, Total	1				0		400.0	435.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00029	Amount Added:	8.00	Units: uL	
voaWeemixpri_00001	Amount Added:	8.00	Units: uL	
voaWVApri Res_00001	Amount Added:	8.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	8.00	Units: uL	
voaWAcropri R_00006	Amount Added:	10.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

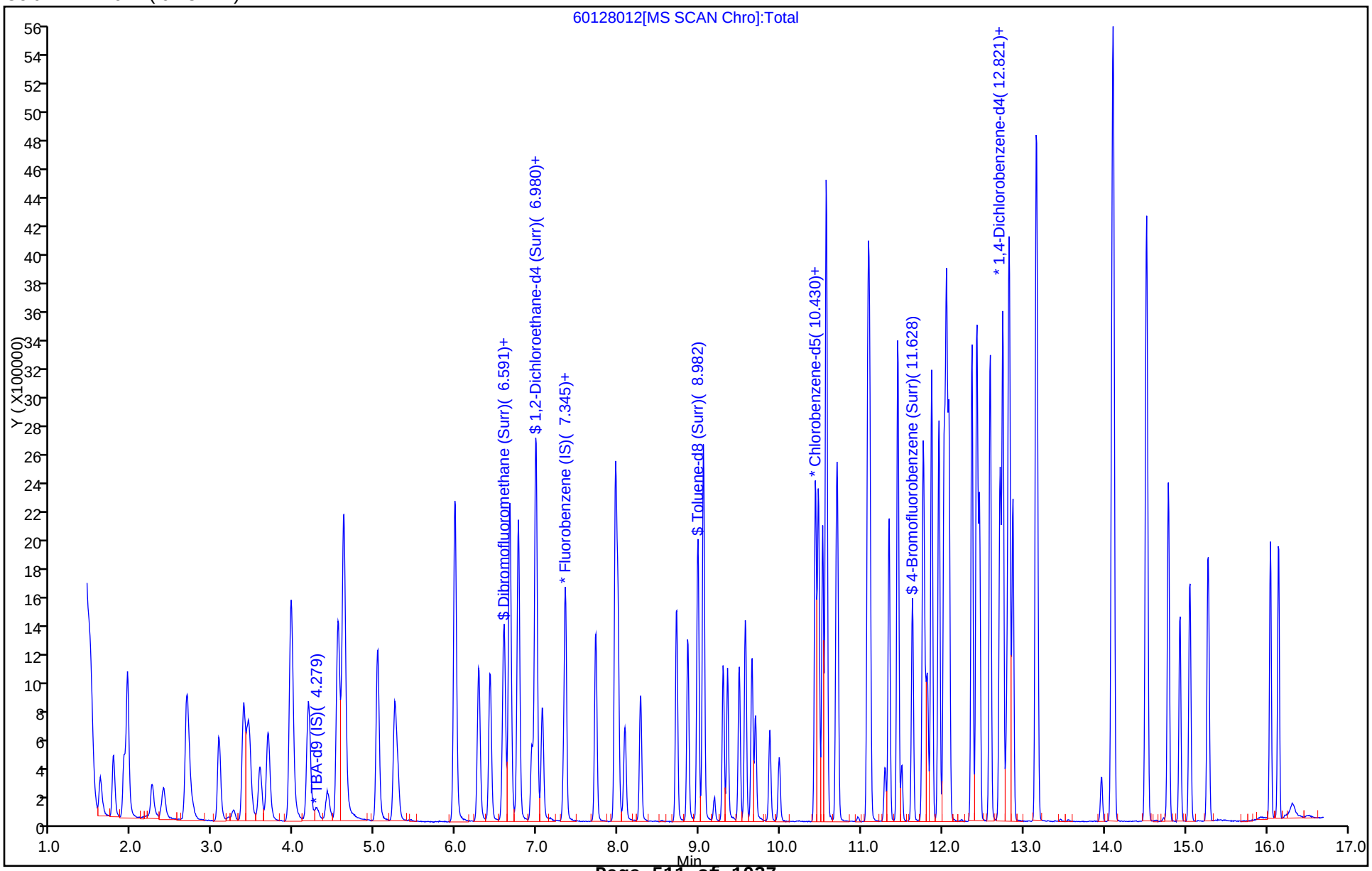
Report Date: 29-Jan-2015 12:59:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128012.D

Injection Date:	28-Jan-2015 16:21:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

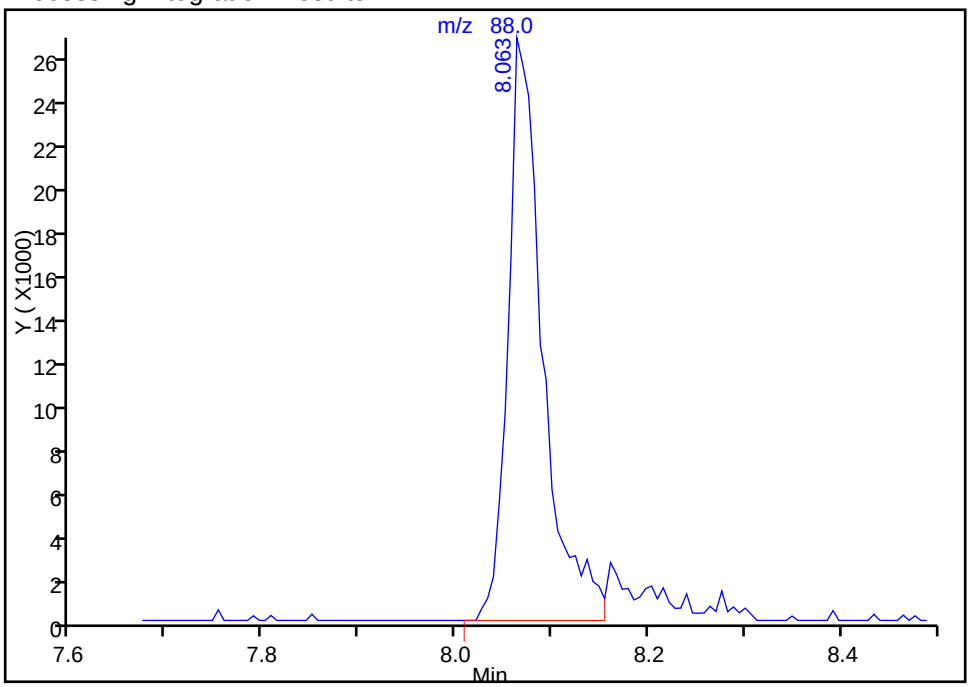
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128012.D				
Injection Date:	28-Jan-2015 16:21:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD40				
Client ID:					
Operator ID:	001562	ALS Bottle#:	10	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

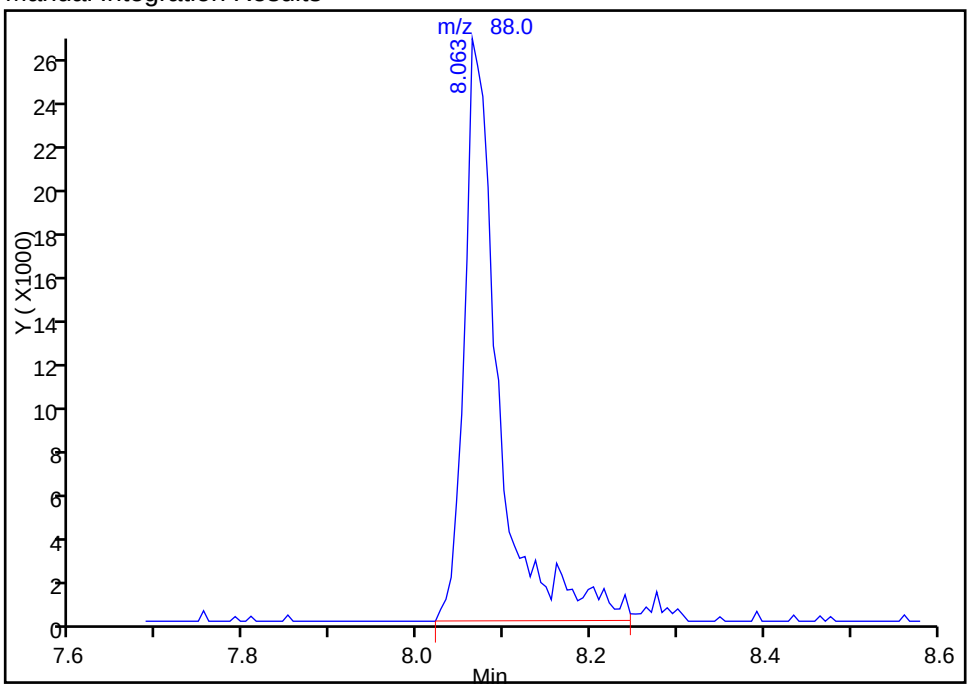
Processing Integration Results

RT: 8.06
Area: 66981
Amount: 3712.8569
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 73473
Amount: 4147.2741
Amount Units: ng



Reviewer: fergusond, 29-Jan-2015 11:12:56
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 28-Jan-2015 16:44:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0005450-013
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:17 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 29-Jan-2015 11:15:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.278	0.000	97	165623	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.326	7.326	0.000	98	445145	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.440	-0.005	89	112267	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	93	160396	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.596	6.596	0.000	93	498125	250.0	247.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.973	6.973	0.000	70	706731	250.0	245.2	
$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	94	1782119	250.0	201.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.627	0.000	83	804742	250.0	213.8	
11 Dichlorodifluoromethane	85	1.608	1.607	0.001	98	543864	250.0	230.6	
12 Chloromethane	50	1.766	1.759	0.007	99	847288	250.0	233.6	
13 Vinyl chloride	62	1.900	1.893	0.007	98	750079	250.0	233.3	
14 Butadiene	39	1.942	1.936	0.006	90	797079	250.0	232.2	
15 Bromomethane	94	2.247	2.240	0.007	90	267917	250.0	207.6	
16 Chloroethane	64	2.387	2.380	0.007	100	453830	250.0	230.2	
17 Dichlorofluoromethane	67	2.672	2.666	0.006	98	1104334	250.0	235.0	
18 Trichlorofluoromethane	101	2.685	2.684	0.001	98	854688	250.0	232.4	
20 Ethyl ether	59	3.074	3.067	0.007	94	701385	250.0	250.1	
21 Acrolein	56	3.244	3.244	0.000	99	125821	275.0	282.7	
22 1,1-Dichloroethene	96	3.372	3.365	0.007	96	603276	250.0	241.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.426	0.007	95	600973	250.0	237.7	
24 Acetone	43	3.457	3.451	0.006	100	400973	500.0	509.2	
25 Iodomethane	142	3.579	3.578	0.001	99	932274	250.0	251.8	
26 Carbon disulfide	76	3.676	3.676	0.000	100	1916453	250.0	258.9	
29 3-Chloro-1-propene	76	3.956	3.956	0.000	90	417234	250.0	257.0	
30 Methyl acetate	43	3.968	3.962	0.006	98	2346689	1250.0	1217.6	
31 Methylene Chloride	84	4.175	4.175	0.000	97	837610	250.0	229.2	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	96	475572	2500.0	2540.9	
33 Acrylonitrile	53	4.540	4.540	0.000	97	2458471	2500.0	2446.4	
34 trans-1,2-Dichloroethene	96	4.613	4.613	0.000	74	746155	250.0	248.0	
35 Methyl tert-butyl ether	73	4.613	4.613	0.000	98	1999816	250.0	252.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.027	5.026	0.001	94	1057585	250.0	244.3	
37 1,1-Dichloroethane	63	5.240	5.239	0.001	96	1421566	250.0	244.2	
38 Vinyl acetate	43	5.276	5.276	0.000	97	777050	250.0	256.8	
44 2-Butanone (MEK)	43	5.982	5.975	0.007	50	502816	500.0	498.1	
43 cis-1,2-Dichloroethene	96	5.982	5.981	0.001	84	802357	250.0	251.4	
42 2,2-Dichloropropane	77	5.982	5.987	-0.005	66	842775	250.0	255.3	
49 Tetrahydrofuran	42	6.286	6.279	0.007	91	346093	500.0	477.1	
48 Chlorobromomethane	128	6.280	6.279	0.001	93	324697	250.0	255.6	
50 Chloroform	83	6.414	6.419	-0.005	94	1224156	250.0	244.3	
51 1,1,1-Trichloroethane	97	6.584	6.584	0.000	96	966056	250.0	253.0	
52 Cyclohexane	56	6.663	6.657	0.006	95	1475197	250.0	239.9	
53 Carbon tetrachloride	117	6.761	6.760	0.001	95	766964	250.0	256.7	
54 1,1-Dichloropropene	75	6.773	6.766	0.007	94	930038	250.0	244.1	
55 Isobutyl alcohol	41	6.931	6.936	-0.005	94	377064	6250.0	6367.6	
56 Benzene	78	6.986	6.985	0.001	99	2568317	250.0	232.4	
57 1,2-Dichloroethane	62	7.065	7.058	0.007	97	895039	250.0	246.6	
59 n-Heptane	43	7.345	7.350	-0.005	94	839502	250.0	238.4	
61 Trichloroethene	130	7.722	7.721	0.001	94	593184	250.0	235.6	
63 Methylcyclohexane	83	7.965	7.965	0.000	94	1205068	250.0	242.9	
64 1,2-Dichloropropane	63	7.995	7.995	0.000	89	735181	250.0	251.4	
65 1,4-Dioxane	88	8.075	8.074	0.001	35	86605	5000.0	4733.5	
67 Dibromomethane	93	8.081	8.080	0.001	95	334892	250.0	256.2	
68 Dichlorobromomethane	83	8.275	8.275	0.000	98	803958	250.0	262.2	
71 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	92	940779	250.0	267.4	
72 4-Methyl-2-pentanone (MIBK	43	8.859	8.853	0.006	96	1165825	500.0	460.3	
73 Toluene	91	9.048	9.047	0.001	96	2335981	250.0	203.5	
74 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	96	756557	250.0	240.3	
75 Ethyl methacrylate	69	9.346	9.345	0.001	91	703298	250.0	242.8	
76 1,1,2-Trichloroethane	97	9.492	9.491	0.001	93	457078	250.0	219.3	
77 Tetrachloroethene	164	9.565	9.564	0.001	93	439818	250.0	214.6	
78 1,3-Dichloropropane	76	9.650	9.650	0.000	95	854230	250.0	220.4	
79 2-Hexanone	43	9.693	9.692	0.001	95	682982	500.0	472.6	
81 Chlorodibromomethane	129	9.869	9.869	0.000	90	439418	250.0	248.4	
82 Ethylene Dibromide	107	9.985	9.984	0.001	99	439262	250.0	231.7	
83 3-Chlorobenzotrifluoride	180	10.429	10.428	0.001	94	827969	250.0	207.4	
84 Chlorobenzene	112	10.471	10.471	0.000	89	1544665	250.0	215.6	
85 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	97	789851	250.0	212.6	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.562	0.001	92	607735	250.0	246.1	
87 Ethylbenzene	106	10.569	10.568	0.001	97	946322	250.0	220.2	
88 m-Xylene & p-Xylene	106	10.697	10.702	-0.005	96	1173036	250.0	221.1	
89 o-Xylene	106	11.080	11.079	0.001	96	1190653	250.0	218.4	
90 Styrene	104	11.098	11.098	0.000	93	1790733	250.0	223.1	
91 Bromoform	173	11.293	11.292	0.001	95	250089	250.0	264.0	
92 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	94	883499	250.0	212.1	
93 Isopropylbenzene	105	11.451	11.444	0.007	99	2696635	250.0	200.6	
96 1,1,2,2-Tetrachloroethane	83	11.755	11.755	0.000	95	640819	250.0	228.7	
95 Bromobenzene	156	11.767	11.767	0.000	98	690860	250.0	246.1	
97 trans-1,4-Dichloro-2-buten	53	11.792	11.791	0.001	82	201266	250.0	254.9	
98 1,2,3-Trichloropropane	110	11.816	11.815	0.001	85	203260	250.0	247.4	
99 N-Propylbenzene	120	11.865	11.864	0.001	97	796757	250.0	237.5	
100 2-Chlorotoluene	126	11.956	11.955	0.001	95	719388	250.0	243.4	
101 3-Chlorotoluene	126	12.023	12.022	0.001	95	730727	250.0	236.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.047	12.047	0.000	94	2421330	250.0	224.6	
103 4-Chlorotoluene	126	12.077	12.083	-0.006	98	726677	250.0	239.5	
104 tert-Butylbenzene	119	12.363	12.363	0.000	92	1918630	250.0	228.6	
106 1,2,4-Trimethylbenzene	105	12.424	12.424	0.000	98	2489630	250.0	223.2	
107 1,2-dichloro-4-(trifluorom	214	12.455	12.460	-0.005	96	725838	250.0	232.8	
108 sec-Butylbenzene	105	12.589	12.588	0.000	96	2762118	250.0	212.9	
109 1,3-Dichlorobenzene	146	12.710	12.710	0.000	93	1280853	250.0	232.9	
110 4-Isopropyltoluene	119	12.747	12.740	0.007	93	2335695	250.0	221.9	
111 1,4-Dichlorobenzene	146	12.820	12.813	0.007	86	1322179	250.0	232.4	
113 2,4-Dichloro-1-(triflourom	214	12.832	12.831	0.001	96	757959	250.0	242.3	
114 2,5-Dichlorobenzotrifluori	214	12.868	12.868	0.000	97	791743	250.0	229.6	
116 n-Butylbenzene	91	13.154	13.154	0.000	94	2252239	250.0	222.5	
117 1,2-Dichlorobenzene	146	13.166	13.166	0.000	91	1288639	250.0	234.4	
118 1,2-Dibromo-3-Chloropropan	75	13.963	13.963	0.000	77	111534	250.0	254.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.103	14.103	0.000	94	3312790	750.0	641.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.517	14.516	0.001	95	2461660	500.0	436.7	
122 1,2,4-Trichlorobenzene	180	14.785	14.784	0.001	94	1004110	250.0	235.7	
123 Hexachlorobutadiene	225	14.931	14.930	0.001	96	388561	250.0	233.2	
124 Naphthalene	128	15.052	15.052	0.000	98	1745866	250.0	238.5	
125 1,2,3-Trichlorobenzene	180	15.277	15.277	0.000	93	854020	250.0	239.7	
126 2,4,5-Trichlorotoluene	159	16.044	16.049	-0.005	0	629698	250.0	240.1	
127 2,3,6-Trichlorotoluene	159	16.147	16.147	0.000	93	566962	250.0	242.6	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		500.0	499.4	
S 131 Xylenes, Total	106				0		500.0	439.5	
S 132 1,3-Dichloropropene, Total	1				0		500.0	507.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260SURR_00029	Amount Added:	10.00	Units: uL	
voaWeemixpri_00001	Amount Added:	10.00	Units: uL	
voaWVApri Res_00001	Amount Added:	10.00	Units: uL	
VOAKETONEPRI_00003	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00097	Amount Added:	10.00	Units: uL	
voaWAcropri R_00006	Amount Added:	11.00	Units: uL	
VOA8260INT_00027	Amount Added:	2.00	Units: uL	Run Reagent

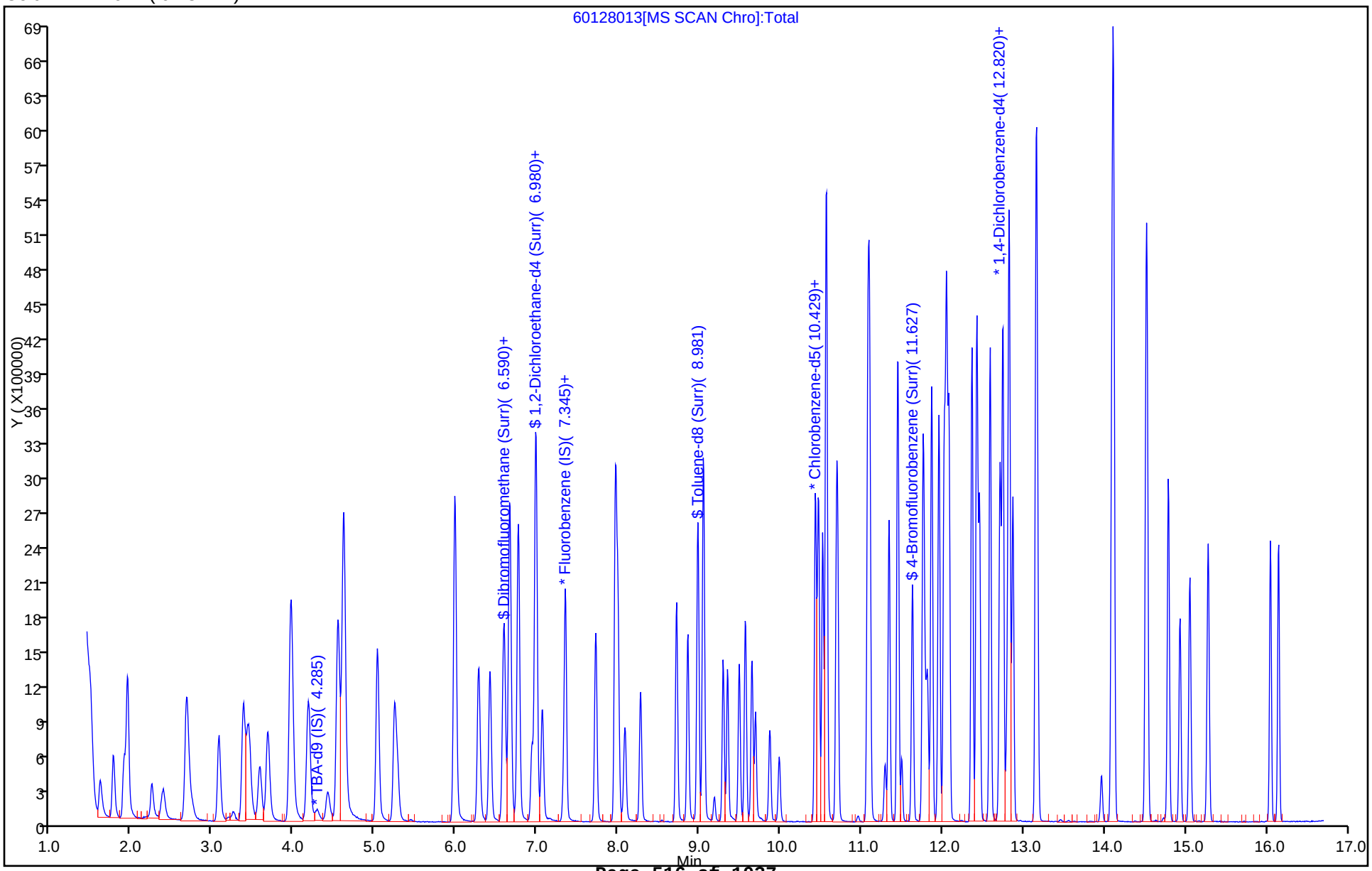
Report Date: 29-Jan-2015 12:59:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Injection Date:	28-Jan-2015 16:44:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP6	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137519/2 Calibration Date: 04/04/2015 11:51

Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2015 16:17

Lab File ID: 50404002.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	0.2143	0.2261	0.1000	10.6	10.0	5.5	20.0
Chloromethane	Ave	0.2958	0.2735	0.1000	9.25	10.0	-7.5	20.0
Vinyl chloride	Ave	0.3306	0.3589	0.1000	10.9	10.0	8.6	20.0
Bromomethane	Lin2		0.2544	0.0500	14.6	10.0	46.1*	20.0
Chloroethane	Ave	0.2287	0.2870	0.0500	12.5	10.0	25.5*	20.0
Dichlorofluoromethane	Ave	0.5222	0.6856	0.0100	13.1	10.0	31.3*	20.0
Trichlorofluoromethane	Ave	0.3966	0.4550	0.1000	11.5	10.0	14.7	20.0
Ethyl ether	Ave	0.2615	0.2977	0.0100	11.4	10.0	13.8	20.0
Acrolein	Ave	0.0318	0.0271	0.0100	25.6	30.0	-14.8	20.0
1,1-Dichloroethene	Ave	0.2883	0.3012	0.1000	10.4	10.0	4.4	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2916	0.3270	0.1000	11.2	10.0	12.1	20.0
Acetone	Ave	0.1024	0.1077	0.0500	21.0	20.0	5.1	20.0
Iodomethane	Ave	0.4005	0.4153	0.0100	10.4	10.0	3.7	20.0
Carbon disulfide	Ave	0.7051	0.7834	0.1000	11.1	10.0	11.1	20.0
Allyl chloride	Ave	0.1524	0.1637	0.0100	10.7	10.0	7.4	20.0
Methyl acetate	Ave	0.2396	0.2572	0.1000	53.7	50.0	7.3	20.0
Methylene Chloride	Ave	0.3335	0.3194	0.1000	9.58	10.0	-4.2	20.0
tert-Butyl alcohol	Ave	1.178	1.065	0.0100	90.4	100	-9.6	20.0
Acrylonitrile	Ave	0.1233	0.1203	0.0100	97.6	100	-2.4	20.0
trans-1,2-Dichloroethene	Ave	0.2982	0.3111	0.1000	10.4	10.0	4.3	20.0
Methyl tert-butyl ether	Ave	0.6593	0.6691	0.1000	10.1	10.0	1.5	20.0
Hexane	Ave	0.4764	0.4305	0.0100	9.04	10.0	-9.6	20.0
1,1-Dichloroethane	Ave	0.5323	0.5548	0.2000	10.4	10.0	4.2	20.0
Vinyl acetate	Ave	0.3776	0.2660	0.0100	7.04	10.0	-29.6*	20.0
2,2-Dichloropropane	Ave	0.1331	0.1895	0.0100	14.2	10.0	42.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3142	0.3226	0.1000	10.3	10.0	2.7	20.0
2-Butanone (MEK)	Ave	0.1638	0.1373	0.0500	16.8	20.0	-16.2	20.0
Bromochloromethane	Ave	0.1360	0.1385	0.0100	10.2	10.0	1.8	20.0
Tetrahydrofuran	Ave	0.1026	0.0913	0.0100	17.8	20.0	-11.0	20.0
Chloroform	Ave	0.4836	0.5269	0.2000	10.9	10.0	9.0	20.0
1,1,1-Trichloroethane	Ave	0.3088	0.3871	0.1000	12.5	10.0	25.4*	20.0
Cyclohexane	Ave	0.5929	0.5664	0.1000	9.55	10.0	-4.5	20.0
Carbon tetrachloride	Ave	0.2478	0.3176	0.1000	12.8	10.0	28.2*	20.0
1,1-Dichloropropene	Ave	0.4011	0.4010	0.0100	10.0	10.0	-0.0	20.0
Isobutyl alcohol	Ave	0.0067	0.0067*	0.0100	252	250	0.8	20.0
Benzene	Ave	1.185	1.271	0.5000	10.7	10.0	7.3	20.0
1,2-Dichloroethane	Ave	0.3880	0.4156	0.1000	10.7	10.0	7.1	20.0
n-Heptane	Ave	0.4071	0.3850	0.0100	9.46	10.0	-5.4	20.0
Trichloroethene	Ave	0.2969	0.2943	0.2000	9.91	10.0	-0.9	20.0
Methylcyclohexane	Ave	0.5297	0.4921	0.1000	9.29	10.0	-7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137519/2 Calibration Date: 04/04/2015 11:51

Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2015 16:17

Lab File ID: 50404002.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	0.2931	0.3073	0.1000	10.5	10.0	4.9	20.0
Dibromomethane	Ave	0.1578	0.1619	0.0100	10.3	10.0	2.6	20.0
1,4-Dioxane	Ave	0.0031	0.0025*	0.0100	164	200	-18.2	20.0
Bromodichloromethane	Ave	0.3220	0.3655	0.2000	11.4	10.0	13.5	20.0
cis-1,3-Dichloropropene	Ave	0.3107	0.3363	0.2000	10.8	10.0	8.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.353	1.236	0.1000	18.3	20.0	-8.7	20.0
Toluene	Ave	5.124	5.678	0.4000	11.1	10.0	10.8	20.0
trans-1,3-Dichloropropene	Ave	0.9254	1.125	0.1000	12.2	10.0	21.5*	20.0
Ethyl methacrylate	Ave	1.207	1.172	0.0100	9.71	10.0	-2.9	20.0
1,1,2-Trichloroethane	Ave	0.9609	1.068	0.1000	11.1	10.0	11.2	20.0
Tetrachloroethene	Ave	1.002	1.075	0.2000	10.7	10.0	7.3	20.0
1,3-Dichloropropane	Ave	1.786	1.844	0.0100	10.3	10.0	3.3	20.0
2-Hexanone	Ave	1.034	1.038	0.1000	20.1	20.0	0.4	20.0
Dibromochloromethane	Ave	0.7670	0.9382	0.1000	12.2	10.0	22.3*	20.0
1,2-Dibromoethane (EDB)	Ave	0.9169	0.9732	0.1000	10.6	10.0	6.1	20.0
3-Chlorobenzotrifluoride	Ave	1.955	1.860	0.0100	9.52	10.0	-4.8	20.0
Chlorobenzene	Ave	3.246	3.425	0.5000	10.5	10.0	5.5	20.0
4-Chlorobenzotrifluoride	Ave	1.890	1.750	0.0100	9.26	10.0	-7.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8382	1.014	0.0100	12.1	10.0	20.9*	20.0
Ethylbenzene	Ave	1.863	1.956	0.1000	10.5	10.0	5.0	20.0
m-Xylene & p-Xylene	Ave	2.278	2.389	0.1000	10.5	10.0	4.9	20.0
o-Xylene	Ave	2.228	2.312	0.3000	10.4	10.0	3.7	20.0
Styrene	Ave	3.591	3.780	0.3000	10.5	10.0	5.3	20.0
Bromoform	Ave	0.4737	0.5901	0.1000	12.5	10.0	24.6*	20.0
2-Chlorobenzotrifluoride	Ave	1.952	1.842	0.0100	9.43	10.0	-5.7	20.0
Isopropylbenzene	Ave	5.560	5.857	0.1000	10.5	10.0	5.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.378	1.507	0.3000	10.9	10.0	9.4	20.0
Bromobenzene	Ave	0.9254	0.9279	0.0100	10.0	10.0	0.3	20.0
1,2,3-Trichloropropane	Ave	0.3041	0.3197	0.0100	10.5	10.0	5.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2528	0.2156	0.0100	8.53	10.0	-14.7	20.0
N-Propylbenzene	Ave	1.142	1.106	0.0100	9.68	10.0	-3.2	20.0
2-Chlorotoluene	Ave	0.9591	0.9117	0.0100	9.51	10.0	-4.9	20.0
3-Chlorotoluene	Ave	1.072	1.013	0.0100	9.45	10.0	-5.5	20.0
1,3,5-Trimethylbenzene	Ave	3.183	3.352	0.0100	10.5	10.0	5.3	20.0
4-Chlorotoluene	Ave	1.038	1.080	0.0100	10.4	10.0	4.0	20.0
tert-Butylbenzene	Ave	2.758	2.584	0.0100	9.37	10.0	-6.3	20.0
1,2,4-Trimethylbenzene	Ave	3.267	3.337	0.0100	10.2	10.0	2.2	20.0
3,4-Dichlorobenzotrifluoride	Ave	1.032	0.9591	0.0100	9.29	10.0	-7.1	20.0
sec-Butylbenzene	Ave	3.881	3.948	0.0100	10.2	10.0	1.7	20.0
1,3-Dichlorobenzene	Ave	1.705	1.701	0.6000	9.98	10.0	-0.2	20.0
4-Isopropyltoluene	Ave	3.204	3.180	0.0100	9.92	10.0	-0.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137519/2 Calibration Date: 04/04/2015 11:51

Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2015 16:17

Lab File ID: 50404002.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	1.741	1.806	0.5000	10.4	10.0	3.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.9669	0.8538	0.0100	8.83	10.0	-11.7	20.0
2,5-Dichlorobenzotrifluoride	Ave	1.082	0.9767	0.0100	9.03	10.0	-9.7	20.0
n-Butylbenzene	Ave	2.918	2.850	0.0100	9.77	10.0	-2.3	20.0
1,2-Dichlorobenzene	Ave	1.579	1.580	0.4000	10.0	10.0	0.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1292	0.1380	0.0500	10.7	10.0	6.8	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.194	0.9861	0.0100	24.8	30.0	-17.4	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.161	0.8911	0.0100	15.4	20.0	-23.2*	20.0
1,2,4-Trichlorobenzene	Ave	0.8219	0.6257	0.2000	7.61	10.0	-23.9*	20.0
Hexachlorobutadiene	Ave	0.3941	0.3194	0.0100	8.11	10.0	-18.9	20.0
Naphthalene	Ave	2.158	1.379	0.0100	6.39	10.0	-36.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.6740	0.4998	0.0100	7.42	10.0	-25.8*	20.0
2,4,5-Trichlorotoluene	Ave	0.3624	0.1844	0.0100	5.09	10.0	-49.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.3273	0.1700	0.0100	5.19	10.0	-48.1*	20.0
Dibromofluoromethane (Surr)	Ave	0.2274	0.2261		9.94	10.0	-0.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2998	0.3035		10.1	10.0	1.2	20.0
Toluene-d8 (Surr)	Ave	3.986	4.072		10.2	10.0	2.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.436	1.436		10.0	10.0	0.0	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Apr-2015 11:51:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006328-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 15:01:05 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 12:37:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.317	0.000	98	119477	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	100	426044	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	99	97102	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	96	143351	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	95	96327	50.0	49.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	94	129319	50.0	50.6	
$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	395437	50.0	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.526	11.526	0.000	98	139426	50.0	50.0	
11 Dichlorodifluoromethane	85	1.628	1.628	0.000	97	96338	50.0	52.8	
12 Chloromethane	50	1.786	1.786	0.000	99	116523	50.0	46.2	
13 Vinyl chloride	62	1.908	1.908	0.000	100	152900	50.0	54.3	
14 Butadiene	39	1.957	1.957	0.000	99	167405	50.0	52.0	
15 Bromomethane	94	2.273	2.273	0.000	99	108364	50.0	73.1	
16 Chloroethane	64	2.407	2.407	0.000	98	122287	50.0	62.7	
17 Dichlorofluoromethane	67	2.668	2.668	0.000	100	292079	50.0	65.6	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	99	193827	50.0	57.4	
20 Ethyl ether	59	3.094	3.094	0.000	98	126824	50.0	56.9	
21 Acrolein	56	3.252	3.252	0.000	97	34613	150.0	127.9	
22 1,1-Dichloroethene	96	3.386	3.386	0.000	99	128305	50.0	52.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	97	139317	50.0	56.1	
24 Acetone	43	3.502	3.502	0.000	83	91733	100.0	105.1	
25 Iodomethane	142	3.605	3.605	0.000	99	176934	50.0	51.8	
26 Carbon disulfide	76	3.666	3.666	0.000	100	333775	50.0	55.6	
28 3-Chloro-1-propene	76	3.940	3.940	0.000	98	69752	50.0	53.7	
30 Methyl acetate	43	4.025	4.025	0.000	100	547884	250.0	268.3	
31 Methylene Chloride	84	4.147	4.147	0.000	97	136060	50.0	47.9	
32 2-Methyl-2-propanol	59	4.439	4.439	0.000	97	63643	500.0	452.2	
33 Acrylonitrile	53	4.560	4.560	0.000	99	512474	500.0	487.9	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	68	132545	50.0	52.2	
35 Methyl tert-butyl ether	73	4.597	4.597	0.000	99	285079	50.0	50.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.986	0.000	97	183398	50.0	45.2	
37 1,1-Dichloroethane	63	5.175	5.175	0.000	100	236353	50.0	52.1	
38 Vinyl acetate	43	5.296	5.296	0.000	100	113314	50.0	35.2	
44 2,2-Dichloropropane	77	5.929	5.929	0.000	97	80733	50.0	71.2	
45 cis-1,2-Dichloroethene	96	5.941	5.941	0.000	97	137428	50.0	51.3	
46 2-Butanone (MEK)	43	5.990	5.990	0.000	99	116989	100.0	83.8	
49 Chlorobromomethane	128	6.227	6.227	0.000	98	58984	50.0	50.9	
51 Tetrahydrofuran	42	6.282	6.282	0.000	98	77804	100.0	89.0	
52 Chloroform	83	6.343	6.343	0.000	100	224486	50.0	54.5	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	95	164905	50.0	62.7	
54 Cyclohexane	56	6.586	6.586	0.000	98	241301	50.0	47.8	
56 Carbon tetrachloride	117	6.714	6.714	0.000	99	135299	50.0	64.1	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	99	170847	50.0	50.0	
57 Isobutyl alcohol	41	6.939	6.939	0.000	98	71684	1250.0	1260.5	
58 Benzene	78	6.951	6.951	0.000	99	541598	50.0	53.6	
59 1,2-Dichloroethane	62	6.988	6.988	0.000	100	177078	50.0	53.6	
62 n-Heptane	43	7.280	7.280	0.000	82	164041	50.0	47.3	
64 Trichloroethene	130	7.669	7.669	0.000	99	125363	50.0	49.6	
66 Methylcyclohexane	83	7.857	7.857	0.000	99	209670	50.0	46.5	
67 1,2-Dichloropropane	63	7.900	7.900	0.000	97	130935	50.0	52.4	
68 Dibromomethane	93	8.028	8.028	0.000	99	68965	50.0	51.3	
70 1,4-Dioxane	88	8.058	8.058	0.000	95	21506	1000.0	817.9	M
71 Dichlorobromomethane	83	8.198	8.198	0.000	99	155737	50.0	56.8	
73 2-Chloroethyl vinyl ether	63	8.521	8.521	0.000	99	132050	100.0	93.8	
74 cis-1,3-Dichloropropene	75	8.654	8.654	0.000	99	143291	50.0	54.1	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	239959	100.0	91.3	
76 Toluene	91	8.989	8.989	0.000	100	551334	50.0	55.4	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	97	109220	50.0	60.8	
78 Ethyl methacrylate	69	9.318	9.318	0.000	96	113801	50.0	48.5	
79 1,1,2-Trichloroethane	97	9.397	9.397	0.000	98	103718	50.0	55.6	
80 Tetrachloroethene	164	9.537	9.537	0.000	98	104389	50.0	53.6	
81 1,3-Dichloropropane	76	9.561	9.561	0.000	99	179091	50.0	51.6	
82 2-Hexanone	43	9.652	9.652	0.000	98	201662	100.0	100.4	
84 Chlorodibromomethane	129	9.786	9.786	0.000	99	91098	50.0	61.2	
85 Ethylene Dibromide	107	9.902	9.902	0.000	99	94501	50.0	53.1	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	93	180626	50.0	47.6	
87 Chlorobenzene	112	10.388	10.388	0.000	99	332561	50.0	52.7	
88 4-Chlorobenzotrifluoride	180	10.425	10.425	0.000	98	169904	50.0	46.3	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	94	98425	50.0	60.5	
90 Ethylbenzene	106	10.498	10.498	0.000	100	189954	50.0	52.5	
91 m-Xylene & p-Xylene	106	10.613	10.613	0.000	100	232014	50.0	52.4	
92 o-Xylene	106	11.009	11.009	0.000	97	224473	50.0	51.9	
93 Styrene	104	11.021	11.021	0.000	94	367017	50.0	52.6	
94 Bromoform	173	11.209	11.209	0.000	98	57299	50.0	62.3	
96 2-Chlorobenzotrifluoride	180	11.270	11.270	0.000	99	178818	50.0	47.2	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	568686	50.0	52.7	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.672	0.000	98	146350	50.0	54.7	
100 Bromobenzene	156	11.678	11.678	0.000	99	133010	50.0	50.1	
101 1,2,3-Trichloropropane	110	11.720	11.720	0.000	97	45835	50.0	52.6	
102 trans-1,4-Dichloro-2-buten	53	11.727	11.727	0.000	97	30904	50.0	42.6	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	158487	50.0	48.4	
104 2-Chlorotoluene	126	11.873	11.873	0.000	100	130692	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.933	11.933	0.000	99	145256	50.0	47.3	
106 1,3,5-Trimethylbenzene	105	11.958	11.958	0.000	99	480558	50.0	52.7	
107 4-Chlorotoluene	126	11.982	11.982	0.000	97	154783	50.0	52.0	
108 tert-Butylbenzene	119	12.286	12.286	0.000	99	370472	50.0	46.9	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	100	478409	50.0	51.1	
111 1,2-dichloro-4-(trifluorom	214	12.396	12.396	0.000	99	137484	50.0	46.5	
112 sec-Butylbenzene	105	12.505	12.505	0.000	100	566000	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.615	12.615	0.000	99	243898	50.0	49.9	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	100	455891	50.0	49.6	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	99	258936	50.0	51.9	
116 2,4-Dichloro-1-(triflourom	214	12.755	12.755	0.000	98	122394	50.0	44.2	
118 2,5-Dichlorobenzotrifluori	214	12.803	12.803	0.000	98	140009	50.0	45.1	
120 n-Butylbenzene	91	13.059	13.059	0.000	100	408487	50.0	48.8	
121 1,2-Dichlorobenzene	146	13.077	13.077	0.000	99	226447	50.0	50.0	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.862	0.000	94	19777	50.0	53.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.002	14.002	0.000	99	424084	150.0	123.9	
124 1,3,5-Trichlorobenzene	180	14.069	14.069	0.000	98	121107	50.0	44.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	99	255484	100.0	76.8	
126 1,2,4-Trichlorobenzene	180	14.689	14.689	0.000	99	89689	50.0	38.1	
127 Hexachlorobutadiene	225	14.860	14.860	0.000	97	45792	50.0	40.5	
128 Naphthalene	128	14.939	14.939	0.000	100	197726	50.0	32.0	
129 1,2,3-Trichlorobenzene	180	15.182	15.182	0.000	99	71646	50.0	37.1	
131 2,4,5-Trichlorotoluene	159	15.961	15.961	0.000	97	26430	50.0	25.4	
130 2,3,6-Trichlorotoluene	159	16.058	16.058	0.000	95	24367	50.0	26.0	
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	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	103.5	
S 133 Xylenes, Total	106				0		100.0	104.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	114.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00108	Amount Added:	2.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added:	2.00	Units: uL	
VOAVAPRI_00005	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00005	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00004	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOAACRPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

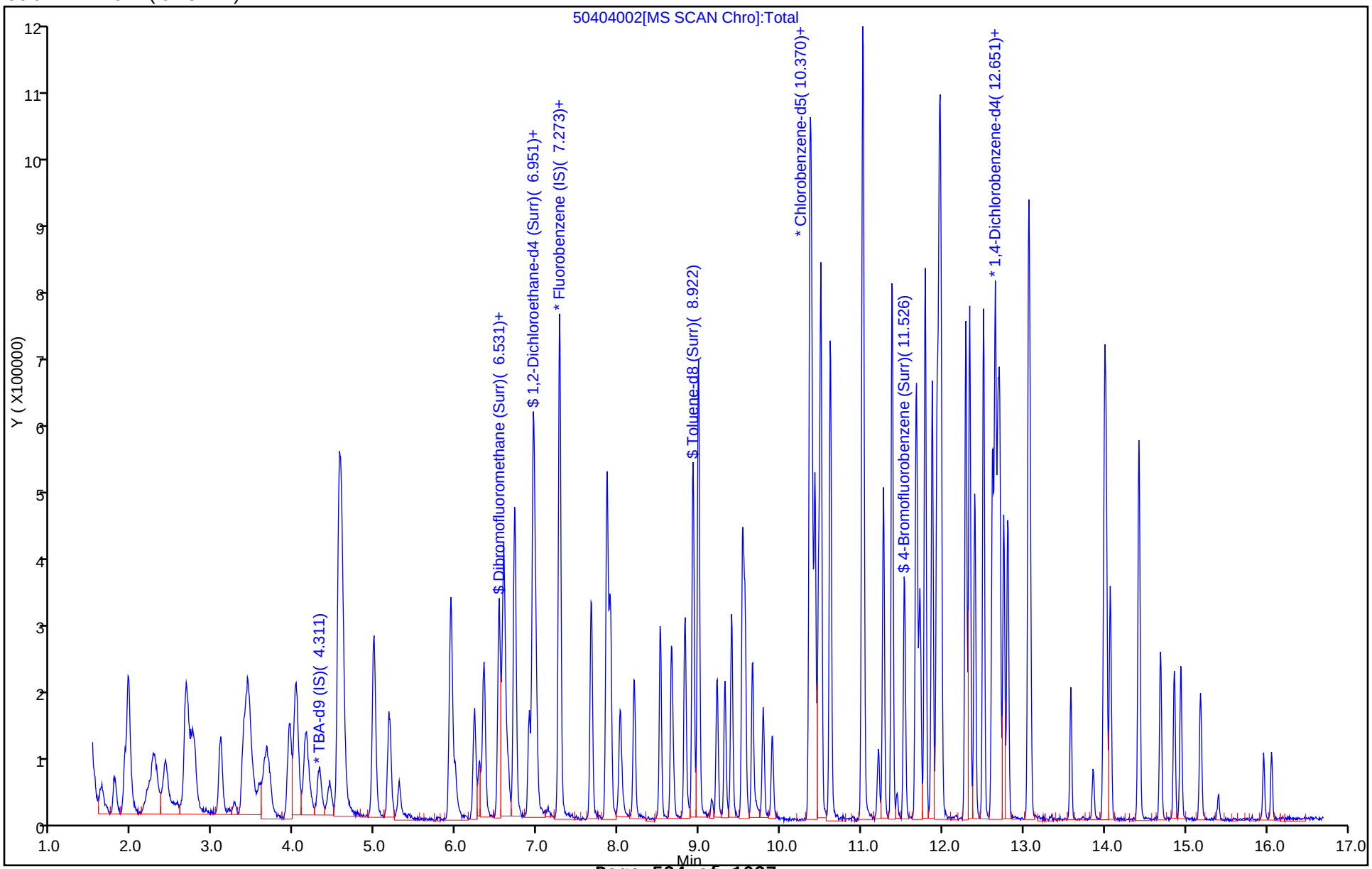
Report Date: 04-Apr-2015 15:01:06 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404002.D

Injection Date:	04-Apr-2015 11:51:30	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)



Manual Integration/User Assign Peak Report

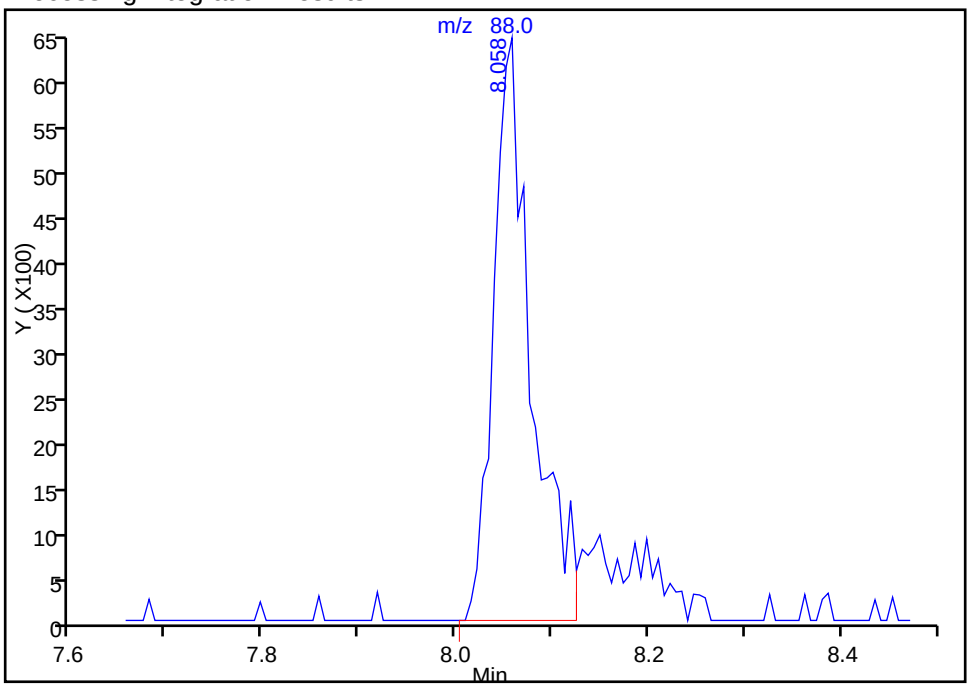
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404002.D
Injection Date: 04-Apr-2015 11:51:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

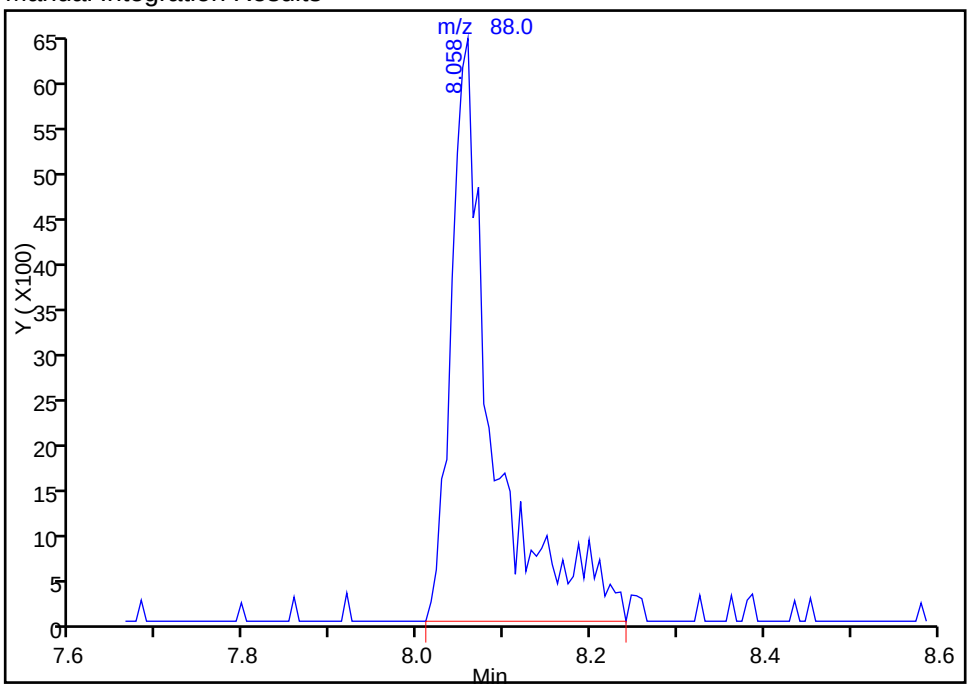
Processing Integration Results

RT: 8.06
Area: 17622
Amount: 670.1821
Amount Units: ng



Manual Integration Results

RT: 8.06
Area: 21506
Amount: 817.8944
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 12:37:07
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137519/2 Calibration Date: 04/04/2015 11:51

Instrument ID: CHHP5 Calib Start Date: 03/18/2015 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2015 16:19

Lab File ID: 50404002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1652	0.1550	0.0100	18.8	20.0	-6.2	20.0
1,3,5-Trichlorobenzene	Ave	0.9577	0.8448	0.0100	8.82	10.0	-11.8	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Apr-2015 11:51:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006328-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub11

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 15:01:05 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 12:37:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.317	0.000	98	119477	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	100	426044	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	99	97102	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	96	143351	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	95	96327	50.0	49.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	94	129319	50.0	50.6	
$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	395437	50.0	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.526	11.526	0.000	98	139426	50.0	50.0	
11 Dichlorodifluoromethane	85	1.628	1.628	0.000	97	96338	50.0	52.8	
12 Chloromethane	50	1.786	1.786	0.000	99	116523	50.0	46.2	
13 Vinyl chloride	62	1.908	1.908	0.000	100	152900	50.0	54.3	
14 Butadiene	39	1.957	1.957	0.000	99	167405	50.0	52.0	
15 Bromomethane	94	2.273	2.273	0.000	99	108364	50.0	73.1	
16 Chloroethane	64	2.407	2.407	0.000	98	122287	50.0	62.7	
17 Dichlorofluoromethane	67	2.668	2.668	0.000	100	292079	50.0	65.6	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	99	193827	50.0	57.4	
20 Ethyl ether	59	3.094	3.094	0.000	98	126824	50.0	56.9	
21 Acrolein	56	3.252	3.252	0.000	97	34613	150.0	127.9	
22 1,1-Dichloroethene	96	3.386	3.386	0.000	99	128305	50.0	52.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	97	139317	50.0	56.1	
24 Acetone	43	3.502	3.502	0.000	83	91733	100.0	105.1	
25 Iodomethane	142	3.605	3.605	0.000	99	176934	50.0	51.8	
26 Carbon disulfide	76	3.666	3.666	0.000	100	333775	50.0	55.6	
28 3-Chloro-1-propene	76	3.940	3.940	0.000	98	69752	50.0	53.7	
30 Methyl acetate	43	4.025	4.025	0.000	100	547884	250.0	268.3	
31 Methylene Chloride	84	4.147	4.147	0.000	97	136060	50.0	47.9	
32 2-Methyl-2-propanol	59	4.439	4.439	0.000	97	63643	500.0	452.2	
33 Acrylonitrile	53	4.560	4.560	0.000	99	512474	500.0	487.9	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	68	132545	50.0	52.2	
35 Methyl tert-butyl ether	73	4.597	4.597	0.000	99	285079	50.0	50.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.986	0.000	97	183398	50.0	45.2	
37 1,1-Dichloroethane	63	5.175	5.175	0.000	100	236353	50.0	52.1	
38 Vinyl acetate	43	5.296	5.296	0.000	100	113314	50.0	35.2	
44 2,2-Dichloropropane	77	5.929	5.929	0.000	97	80733	50.0	71.2	
45 cis-1,2-Dichloroethene	96	5.941	5.941	0.000	97	137428	50.0	51.3	
46 2-Butanone (MEK)	43	5.990	5.990	0.000	99	116989	100.0	83.8	
49 Chlorobromomethane	128	6.227	6.227	0.000	98	58984	50.0	50.9	
51 Tetrahydrofuran	42	6.282	6.282	0.000	98	77804	100.0	89.0	
52 Chloroform	83	6.343	6.343	0.000	100	224486	50.0	54.5	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	95	164905	50.0	62.7	
54 Cyclohexane	56	6.586	6.586	0.000	98	241301	50.0	47.8	
56 Carbon tetrachloride	117	6.714	6.714	0.000	99	135299	50.0	64.1	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	99	170847	50.0	50.0	
57 Isobutyl alcohol	41	6.939	6.939	0.000	98	71684	1250.0	1260.5	
58 Benzene	78	6.951	6.951	0.000	99	541598	50.0	53.6	
59 1,2-Dichloroethane	62	6.988	6.988	0.000	100	177078	50.0	53.6	
62 n-Heptane	43	7.280	7.280	0.000	82	164041	50.0	47.3	
64 Trichloroethene	130	7.669	7.669	0.000	99	125363	50.0	49.6	
66 Methylcyclohexane	83	7.857	7.857	0.000	99	209670	50.0	46.5	
67 1,2-Dichloropropane	63	7.900	7.900	0.000	97	130935	50.0	52.4	
68 Dibromomethane	93	8.028	8.028	0.000	99	68965	50.0	51.3	
70 1,4-Dioxane	88	8.058	8.058	0.000	95	21506	1000.0	817.9	M
71 Dichlorobromomethane	83	8.198	8.198	0.000	99	155737	50.0	56.8	
73 2-Chloroethyl vinyl ether	63	8.521	8.521	0.000	99	132050	100.0	93.8	
74 cis-1,3-Dichloropropene	75	8.654	8.654	0.000	99	143291	50.0	54.1	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	239959	100.0	91.3	
76 Toluene	91	8.989	8.989	0.000	100	551334	50.0	55.4	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	97	109220	50.0	60.8	
78 Ethyl methacrylate	69	9.318	9.318	0.000	96	113801	50.0	48.5	
79 1,1,2-Trichloroethane	97	9.397	9.397	0.000	98	103718	50.0	55.6	
80 Tetrachloroethene	164	9.537	9.537	0.000	98	104389	50.0	53.6	
81 1,3-Dichloropropane	76	9.561	9.561	0.000	99	179091	50.0	51.6	
82 2-Hexanone	43	9.652	9.652	0.000	98	201662	100.0	100.4	
84 Chlorodibromomethane	129	9.786	9.786	0.000	99	91098	50.0	61.2	
85 Ethylene Dibromide	107	9.902	9.902	0.000	99	94501	50.0	53.1	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	93	180626	50.0	47.6	
87 Chlorobenzene	112	10.388	10.388	0.000	99	332561	50.0	52.7	
88 4-Chlorobenzotrifluoride	180	10.425	10.425	0.000	98	169904	50.0	46.3	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	94	98425	50.0	60.5	
90 Ethylbenzene	106	10.498	10.498	0.000	100	189954	50.0	52.5	
91 m-Xylene & p-Xylene	106	10.613	10.613	0.000	100	232014	50.0	52.4	
92 o-Xylene	106	11.009	11.009	0.000	97	224473	50.0	51.9	
93 Styrene	104	11.021	11.021	0.000	94	367017	50.0	52.6	
94 Bromoform	173	11.209	11.209	0.000	98	57299	50.0	62.3	
96 2-Chlorobenzotrifluoride	180	11.270	11.270	0.000	99	178818	50.0	47.2	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	568686	50.0	52.7	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.672	0.000	98	146350	50.0	54.7	
100 Bromobenzene	156	11.678	11.678	0.000	99	133010	50.0	50.1	
101 1,2,3-Trichloropropane	110	11.720	11.720	0.000	97	45835	50.0	52.6	
102 trans-1,4-Dichloro-2-buten	53	11.727	11.727	0.000	97	30904	50.0	42.6	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	158487	50.0	48.4	
104 2-Chlorotoluene	126	11.873	11.873	0.000	100	130692	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.933	11.933	0.000	99	145256	50.0	47.3	
106 1,3,5-Trimethylbenzene	105	11.958	11.958	0.000	99	480558	50.0	52.7	
107 4-Chlorotoluene	126	11.982	11.982	0.000	97	154783	50.0	52.0	
108 tert-Butylbenzene	119	12.286	12.286	0.000	99	370472	50.0	46.9	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	100	478409	50.0	51.1	
111 1,2-dichloro-4-(trifluorom	214	12.396	12.396	0.000	99	137484	50.0	46.5	
112 sec-Butylbenzene	105	12.505	12.505	0.000	100	566000	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.615	12.615	0.000	99	243898	50.0	49.9	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	100	455891	50.0	49.6	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	99	258936	50.0	51.9	
116 2,4-Dichloro-1-(triflourom	214	12.755	12.755	0.000	98	122394	50.0	44.2	
118 2,5-Dichlorobenzotrifluori	214	12.803	12.803	0.000	98	140009	50.0	45.1	
120 n-Butylbenzene	91	13.059	13.059	0.000	100	408487	50.0	48.8	
121 1,2-Dichlorobenzene	146	13.077	13.077	0.000	99	226447	50.0	50.0	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.862	0.000	94	19777	50.0	53.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.002	14.002	0.000	99	424084	150.0	123.9	
124 1,3,5-Trichlorobenzene	180	14.069	14.069	0.000	98	121107	50.0	44.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	99	255484	100.0	76.8	
126 1,2,4-Trichlorobenzene	180	14.689	14.689	0.000	99	89689	50.0	38.1	
127 Hexachlorobutadiene	225	14.860	14.860	0.000	97	45792	50.0	40.5	
128 Naphthalene	128	14.939	14.939	0.000	100	197726	50.0	32.0	
129 1,2,3-Trichlorobenzene	180	15.182	15.182	0.000	99	71646	50.0	37.1	
131 2,4,5-Trichlorotoluene	159	15.961	15.961	0.000	97	26430	50.0	25.4	
130 2,3,6-Trichlorotoluene	159	16.058	16.058	0.000	95	24367	50.0	26.0	
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	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	103.5	
S 133 Xylenes, Total	106				0		100.0	104.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	114.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00108	Amount Added:	2.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added:	2.00	Units: uL	
VOAVAPRI_00005	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00005	Amount Added:	2.00	Units: uL	
voaWKetpri Re_00004	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOAACRPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

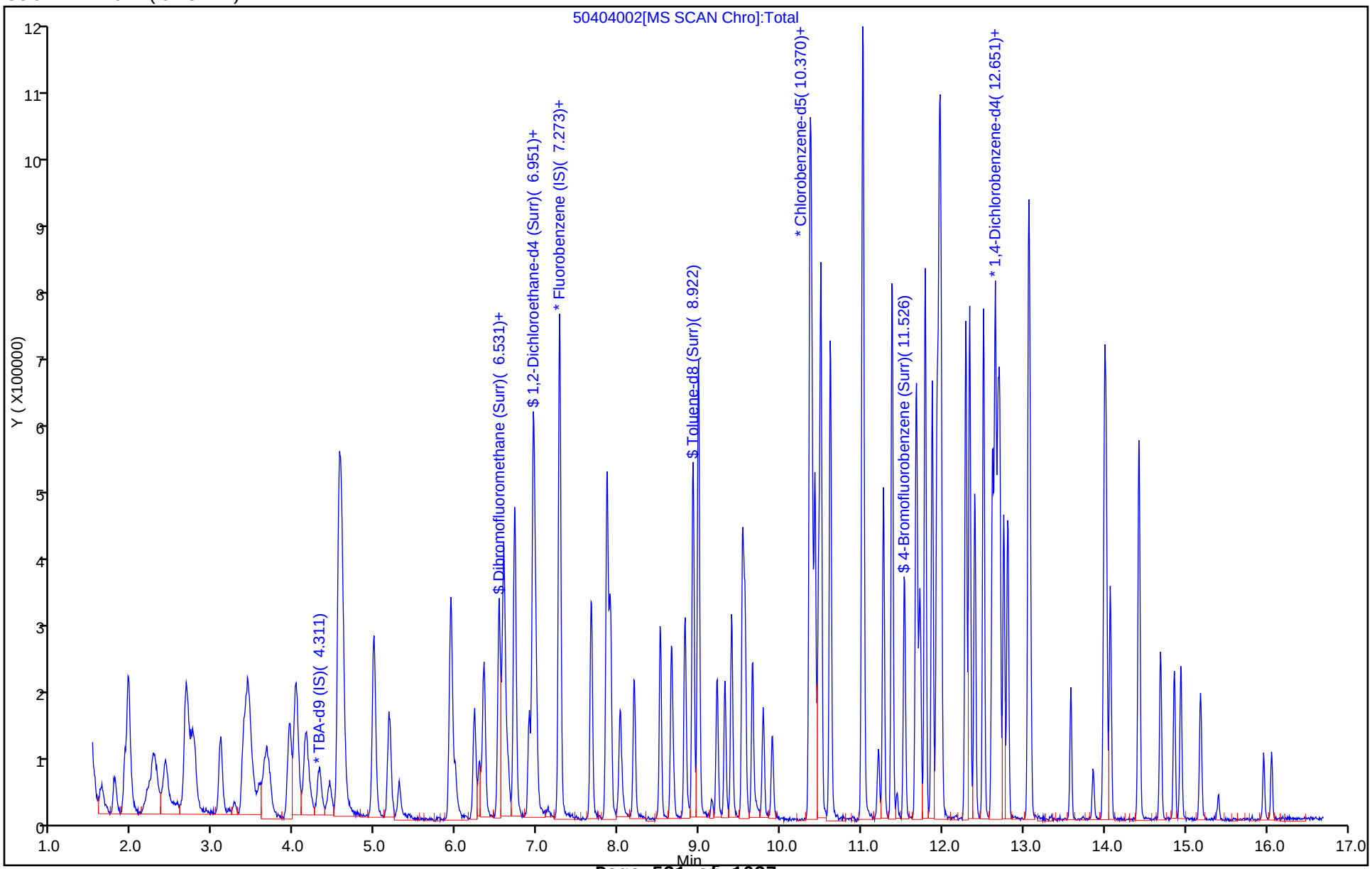
Report Date: 04-Apr-2015 15:01:06 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404002.D

Injection Date:	04-Apr-2015 11:51:30	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137356/2 Calibration Date: 04/02/2015 12:38

Instrument ID: CHHP6 Calib Start Date: 09/11/2014 11:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/11/2014 13:46

Lab File ID: 60402002.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-Dibromo-3-Chloropropane	Ave	0.1419	0.1484	0.0500	10.8	10.0	4.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Apr-2015 12:38:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006300-002
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:23:39 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 02-Apr-2015 13:16:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.281	0.000	94	209935	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.328	0.000	97	492629	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.441	10.441	0.000	90	102505	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.795	0.000	96	170924	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.598	0.000	93	110198	50.0	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.975	6.975	0.000	70	169480	50.0	53.1	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	93	430407	50.0	53.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	85	166522	50.0	48.4	
11 Dichlorodifluoromethane	85	1.611	1.611	0.000	99	131609	50.0	50.4	
12 Chloromethane	50	1.769	1.769	0.000	98	170312	50.0	42.4	
13 Vinyl chloride	62	1.903	1.903	0.000	98	166610	50.0	46.8	
14 Butadiene	39	1.946	1.946	0.000	90	162165	50.0	42.7	
15 Bromomethane	94	2.244	2.244	0.000	91	80935	50.0	56.7	
16 Chloroethane	64	2.408	2.408	0.000	99	100894	50.0	46.2	
17 Dichlorofluoromethane	67	2.669	2.669	0.000	97	236208	50.0	45.4	
18 Trichlorofluoromethane	101	2.718	2.718	0.000	96	207779	50.0	51.1	
20 Ethyl ether	59	3.077	3.077	0.000	93	135166	50.0	43.6	
21 Acrolein	56	3.247	3.247	0.000	95	34263	150.0	69.6	
22 1,1-Dichloroethene	96	3.375	3.375	0.000	96	120899	50.0	43.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.442	3.442	0.000	95	126273	50.0	45.1	
24 Acetone	43	3.454	3.454	0.000	100	84777	100.0	97.3	
25 Iodomethane	142	3.569	3.569	0.000	96	174964	50.0	42.7	
26 Carbon disulfide	76	3.679	3.679	0.000	99	290563	50.0	35.5	
29 3-Chloro-1-propene	76	3.959	3.959	0.000	57	66287	50.0	36.9	
30 Methyl acetate	43	3.971	3.971	0.000	97	605139	250.0	283.7	
31 Methylene Chloride	84	4.178	4.178	0.000	95	166637	50.0	41.2	
32 2-Methyl-2-propanol	59	4.415	4.415	0.000	93	121049	500.0	510.2	
33 Acrylonitrile	53	4.542	4.542	0.000	100	635560	500.0	571.5	
34 trans-1,2-Dichloroethene	96	4.609	4.609	0.000	69	137196	50.0	41.2	
35 Methyl tert-butyl ether	73	4.615	4.615	0.000	97	388193	50.0	44.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.023	5.023	0.000	92	175438	50.0	36.6	
37 1,1-Dichloroethane	63	5.242	5.242	0.000	97	264635	50.0	41.1	
38 Vinyl acetate	43	5.278	5.278	0.000	97	151676	50.0	45.3	
44 2-Butanone (MEK)	43	5.984	5.984	0.000	62	125108	100.0	112.0	
42 2,2-Dichloropropane	77	5.990	5.990	0.000	60	105170	50.0	28.8	
43 cis-1,2-Dichloroethene	96	5.990	5.990	0.000	83	151853	50.0	43.0	
48 Chlorobromomethane	128	6.276	6.276	0.000	94	65227	50.0	46.4	
49 Tetrahydrofuran	42	6.288	6.288	0.000	85	73527	100.0	91.6	
50 Chloroform	83	6.409	6.409	0.000	93	252793	50.0	45.6	
51 1,1,1-Trichloroethane	97	6.580	6.580	0.000	97	170861	50.0	40.4	
52 Cyclohexane	56	6.665	6.665	0.000	93	241230	50.0	35.4	
53 Carbon tetrachloride	117	6.762	6.762	0.000	73	136331	50.0	41.2	
54 1,1-Dichloropropene	75	6.768	6.768	0.000	96	186520	50.0	44.2	
55 Isobutyl alcohol	41	6.932	6.932	0.000	92	103189	1250.0	1574.6	
56 Benzene	78	6.987	6.987	0.000	97	584761	50.0	47.8	
57 1,2-Dichloroethane	62	7.060	7.060	0.000	98	208683	50.0	52.0	
59 n-Heptane	43	7.346	7.346	0.000	88	128965	50.0	33.1	
61 Trichloroethene	130	7.723	7.723	0.000	95	126566	50.0	45.4	
63 Methylcyclohexane	83	7.966	7.966	0.000	92	197904	50.0	36.1	
64 1,2-Dichloropropane	63	7.997	7.997	0.000	95	144784	50.0	44.7	
65 1,4-Dioxane	88	8.070	8.070	0.000	44	28048	1000.0	1385.2	M
67 Dibromomethane	93	8.082	8.082	0.000	96	83177	50.0	57.5	
68 Dichlorobromomethane	83	8.270	8.270	0.000	98	157853	50.0	46.5	
71 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	93	167789	50.0	43.1	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.854	0.000	97	201902	100.0	87.3	
73 Toluene	91	9.049	9.049	0.000	99	575496	50.0	54.9	
74 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	94	146188	50.0	50.9	
75 Ethyl methacrylate	69	9.347	9.347	0.000	91	149411	50.0	56.5	
76 1,1,2-Trichloroethane	97	9.493	9.493	0.000	90	117895	50.0	62.0	
77 Tetrachloroethene	164	9.572	9.572	0.000	97	95165	50.0	50.9	
78 1,3-Dichloropropane	76	9.645	9.645	0.000	90	203292	50.0	57.5	
79 2-Hexanone	43	9.693	9.693	0.000	96	166672	100.0	126.3	
81 Chlorodibromomethane	129	9.870	9.870	0.000	91	90735	50.0	56.2	
82 Ethylene Dibromide	107	9.985	9.985	0.000	98	98231	50.0	56.7	
83 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	93	190903	50.0	52.4	
84 Chlorobenzene	112	10.472	10.472	0.000	93	337450	50.0	51.6	
85 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	96	177978	50.0	52.5	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.563	0.000	91	108266	50.0	48.0	
87 Ethylbenzene	106	10.569	10.569	0.000	98	204436	50.0	52.1	
88 m-Xylene & p-Xylene	106	10.697	10.697	0.000	99	249570	50.0	51.5	
89 o-Xylene	106	11.080	11.080	0.000	96	248474	50.0	49.9	
90 Styrene	104	11.104	11.104	0.000	95	401403	50.0	54.8	
91 Bromoform	173	11.293	11.293	0.000	96	54494	50.0	63.0	
92 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	96	193907	50.0	51.0	
93 Isopropylbenzene	105	11.451	11.451	0.000	97	620990	50.0	50.6	
96 1,1,2,2-Tetrachloroethane	83	11.755	11.755	0.000	94	161137	50.0	63.0	
95 Bromobenzene	156	11.767	11.767	0.000	97	136521	50.0	45.6	
97 trans-1,4-Dichloro-2-buten	53	11.791	11.791	0.000	70	42524	50.0	50.5	
98 1,2,3-Trichloropropane	110	11.816	11.816	0.000	84	50588	50.0	57.8	
99 N-Propylbenzene	120	11.864	11.864	0.000	99	157712	50.0	44.1	
100 2-Chlorotoluene	126	11.956	11.956	0.000	94	139468	50.0	44.3	
101 3-Chlorotoluene	126	12.022	12.022	0.000	98	158015	50.0	48.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.047	12.047	0.000	92	559253	50.0	48.7	
103 4-Chlorotoluene	126	12.083	12.083	0.000	98	144162	50.0	44.6	
104 tert-Butylbenzene	119	12.363	12.363	0.000	91	391797	50.0	43.8	
106 1,2,4-Trimethylbenzene	105	12.424	12.424	0.000	97	567860	50.0	47.8	
107 1,2-dichloro-4-(trifluorom	214	12.454	12.454	0.000	97	154947	50.0	46.6	
108 sec-Butylbenzene	105	12.588	12.588	0.000	95	636421	50.0	46.0	
109 1,3-Dichlorobenzene	146	12.710	12.710	0.000	96	272903	50.0	46.6	
110 4-Isopropyltoluene	119	12.746	12.746	0.000	96	503338	50.0	44.9	
111 1,4-Dichlorobenzene	146	12.813	12.813	0.000	89	287196	50.0	47.4	
113 2,4-Dichloro-1-(triflourom	214	12.831	12.831	0.000	96	164345	50.0	49.3	
114 2,5-Dichlorobenzotrifluori	214	12.868	12.868	0.000	97	175341	50.0	47.7	
116 n-Butylbenzene	91	13.154	13.154	0.000	97	480736	50.0	44.6	
117 1,2-Dichlorobenzene	146	13.166	13.166	0.000	93	290442	50.0	49.6	
118 1,2-Dibromo-3-Chloropropan	75	13.962	13.968	-0.006	74	25362	50.0	54.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.108	14.108	0.000	98	767815	150.0	139.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.522	14.522	0.000	99	579392	100.0	96.4	
122 1,2,4-Trichlorobenzene	180	14.789	14.789	0.000	94	214397	50.0	47.2	
123 Hexachlorobutadiene	225	14.929	14.929	0.000	95	75577	50.0	42.6	
124 Naphthalene	128	15.057	15.057	0.000	98	490928	50.0	62.9	
125 1,2,3-Trichlorobenzene	180	15.276	15.276	0.000	94	194953	50.0	51.3	
126 2,4,5-Trichlorotoluene	159	16.048	16.048	0.000	0	105400	50.0	37.7	
127 2,3,6-Trichlorotoluene	159	16.146	16.146	0.000	95	108537	50.0	43.6	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	84.2	
S 131 Xylenes, Total	106				0		100.0	101.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	94.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00108	Amount Added:	2.00	Units: uL		
VOAVAPRI_00005	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00004	Amount Added:	2.00	Units: uL		
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL		
VOAACRPRI_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent	

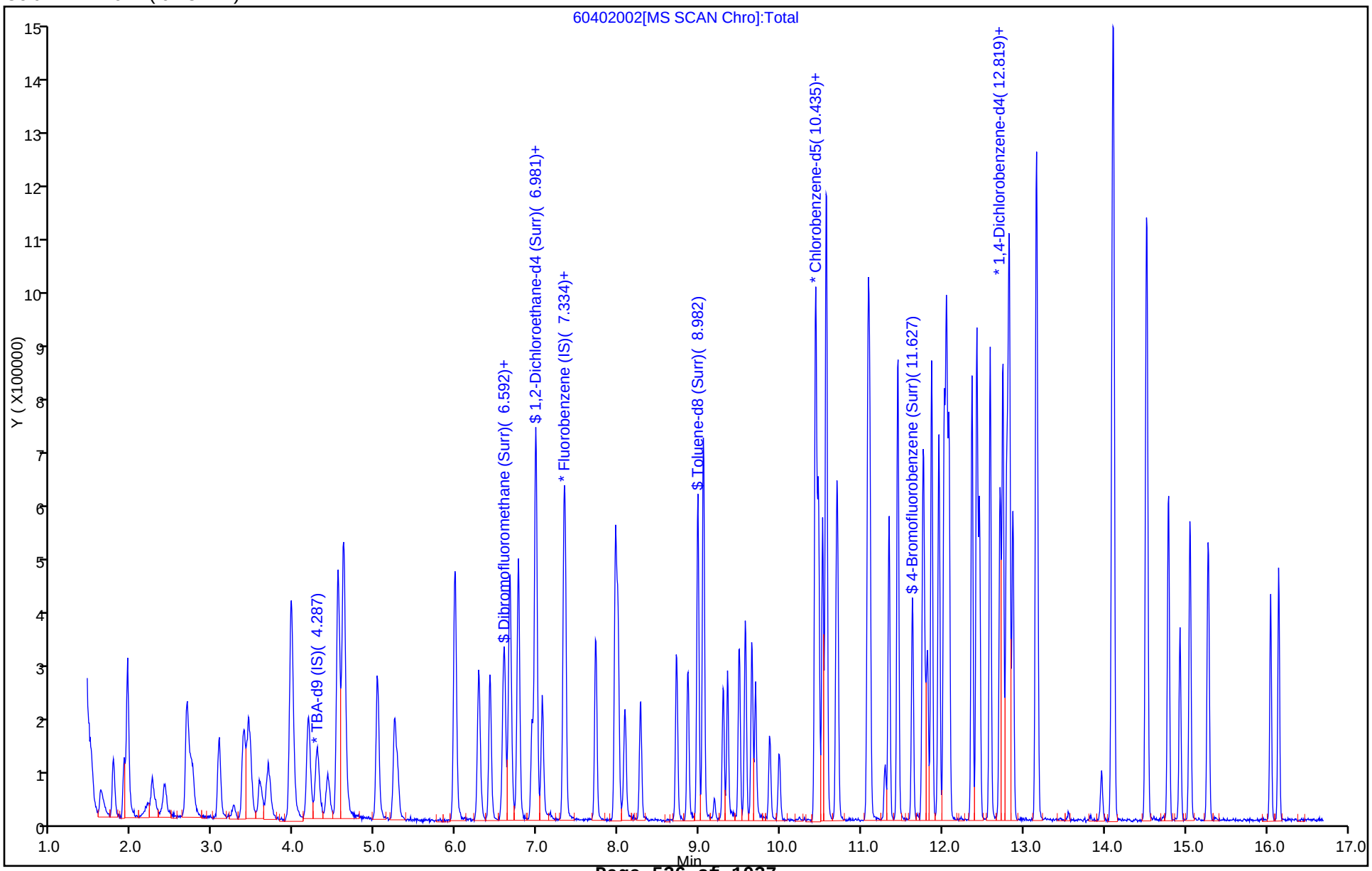
Report Date: 03-Apr-2015 10:23:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402002.D

Injection Date:	02-Apr-2015 12:38:30	Instrument ID:	CHHP6	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_CHHP6	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137356/2 Calibration Date: 04/02/2015 12:38

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60402002.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	0.2650	0.2672	0.1000	10.1	10.0	0.8	20.0
Chloromethane	Ave	0.4075	0.3457	0.1000	8.48	10.0	-15.2	20.0
Vinyl chloride	Ave	0.3611	0.3382	0.1000	9.37	10.0	-6.3	20.0
Bromomethane	Ave	0.1449	0.1643	0.0500	11.3	10.0	13.4	20.0
Chloroethane	Ave	0.2214	0.2048	0.0500	9.25	10.0	-7.5	20.0
Dichlorofluoromethane	Ave	0.5279	0.4795	0.0100	9.08	10.0	-9.2	20.0
Trichlorofluoromethane	Ave	0.4130	0.4218	0.1000	10.2	10.0	2.1	20.0
Ethyl ether	Ave	0.3150	0.2744	0.0100	8.71	10.0	-12.9	20.0
Acrolein	Ave	0.0500	0.0232	0.0100	13.9	30.0	-53.6*	20.0
1,1-Dichloroethene	Ave	0.2807	0.2454	0.1000	8.74	10.0	-12.6	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2839	0.2563	0.1000	9.03	10.0	-9.7	20.0
Acetone	Ave	0.0884	0.0861	0.0500	19.5	20.0	-2.7	20.0
Iodomethane	Ave	0.4159	0.3552	0.0100	8.54	10.0	-14.6	20.0
Carbon disulfide	Ave	0.8315	0.5898	0.1000	7.09	10.0	-29.1*	20.0
Allyl chloride	Ave	0.1823	0.1346	0.0100	7.38	10.0	-26.2*	20.0
Methyl acetate	Ave	0.2165	0.2457	0.1000	56.7	50.0	13.5	20.0
Methylene Chloride	Ave	0.4104	0.3383	0.1000	8.24	10.0	-17.6	20.0
tert-Butyl alcohol	Ave	1.130	1.153	0.0100	102	100	2.0	20.0
Acrylonitrile	Ave	0.1129	0.1290	0.0100	114	100	14.3	20.0
trans-1,2-Dichloroethene	Ave	0.3380	0.2785	0.1000	8.24	10.0	-17.6	20.0
Methyl tert-butyl ether	Ave	0.8884	0.7880	0.1000	8.87	10.0	-11.3	20.0
Hexane	Ave	0.4863	0.3561	0.0100	7.32	10.0	-26.8*	20.0
1,1-Dichloroethane	Ave	0.6538	0.5372	0.2000	8.22	10.0	-17.8	20.0
Vinyl acetate	Ave	0.3399	0.3079	0.0100	9.06	10.0	-9.4	20.0
2-Butanone (MEK)	Ave	0.1134	0.1270	0.0500	22.4	20.0	12.0	20.0
2,2-Dichloropropane	Ave	0.3707	0.2135	0.0100	5.76	10.0	-42.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3585	0.3083	0.1000	8.60	10.0	-14.0	20.0
Bromochloromethane	Ave	0.1427	0.1324	0.0100	9.28	10.0	-7.2	20.0
Tetrahydrofuran	Ave	0.0815	0.0746	0.0100	18.3	20.0	-8.4	20.0
Chloroform	Ave	0.5629	0.5132	0.2000	9.12	10.0	-8.8	20.0
1,1,1-Trichloroethane	Ave	0.4288	0.3468	0.1000	8.09	10.0	-19.1	20.0
Cyclohexane	Ave	0.6908	0.4897	0.1000	7.09	10.0	-29.1*	20.0
Carbon tetrachloride	Ave	0.3357	0.2767	0.1000	8.24	10.0	-17.6	20.0
1,1-Dichloropropene	Ave	0.4279	0.3786	0.0100	8.85	10.0	-11.5	20.0
Isobutyl alcohol	Ave	0.0067	0.0084*	0.0100	315	250	26.0*	20.0
Benzene	Ave	1.242	1.187	0.5000	9.56	10.0	-4.4	20.0
1,2-Dichloroethane	Ave	0.4076	0.4236	0.1000	10.4	10.0	3.9	20.0
n-Heptane	Ave	0.3955	0.2618	0.0100	6.62	10.0	-33.8*	20.0
Trichloroethene	Ave	0.2828	0.2569	0.2000	9.09	10.0	-9.1	20.0
Methylcyclohexane	Ave	0.5572	0.4017	0.1000	7.21	10.0	-27.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137356/2 Calibration Date: 04/02/2015 12:38

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60402002.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	0.3285	0.2939	0.1000	8.95	10.0	-10.5	20.0
1,4-Dioxane	Ave	0.0021	0.0029*	0.0100	277	200	38.5*	20.0
Dibromomethane	Ave	0.1468	0.1688	0.0100	11.5	10.0	15.0	20.0
Bromodichloromethane	Ave	0.3444	0.3204	0.2000	9.30	10.0	-7.0	20.0
cis-1,3-Dichloropropene	Ave	0.3952	0.3406	0.2000	8.62	10.0	-13.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.128	0.9848	0.1000	17.5	20.0	-12.7	20.0
Toluene	Ave	5.112	5.614	0.4000	11.0	10.0	9.8	20.0
trans-1,3-Dichloropropene	Ave	1.402	1.426	0.1000	10.2	10.0	1.7	20.0
Ethyl methacrylate	Ave	1.290	1.458	0.0100	11.3	10.0	13.0	20.0
1,1,2-Trichloroethane	Ave	0.9282	1.150	0.1000	12.4	10.0	23.9*	20.0
Tetrachloroethene	Ave	0.9129	0.9284	0.2000	10.2	10.0	1.7	20.0
1,3-Dichloropropane	Ave	1.726	1.983	0.0100	11.5	10.0	14.9	20.0
2-Hexanone	Ave	0.6436	0.8130	0.1000	25.3	20.0	26.3*	20.0
Dibromochloromethane	Ave	0.7880	0.8852	0.1000	11.2	10.0	12.3	20.0
1,2-Dibromoethane (EDB)	Ave	0.8444	0.9583	0.1000	11.3	10.0	13.5	20.0
3-Chlorobenzotrifluoride	Ave	1.778	1.862	0.0100	10.5	10.0	4.7	20.0
Chlorobenzene	Ave	3.190	3.292	0.5000	10.3	10.0	3.2	20.0
4-Chlorobenzotrifluoride	Ave	1.655	1.736	0.0100	10.5	10.0	4.9	20.0
1,1,1,2-Tetrachloroethane	Ave	1.100	1.056	0.0100	9.60	10.0	-4.0	20.0
Ethylbenzene	Ave	1.914	1.994	0.1000	10.4	10.0	4.2	20.0
m-Xylene & p-Xylene	Ave	2.363	2.435	0.1000	10.3	10.0	3.1	20.0
o-Xylene	Ave	2.428	2.424	0.3000	9.98	10.0	-0.2	20.0
Styrene	Ave	3.575	3.916	0.3000	11.0	10.0	9.5	20.0
Bromoform	Ave	0.4220	0.5316	0.1000	12.6	10.0	26.0*	20.0
2-Chlorobenzotrifluoride	Ave	1.855	1.892	0.0100	10.2	10.0	2.0	20.0
Isopropylbenzene	Ave	5.986	6.058	0.1000	10.1	10.0	1.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.248	1.572	0.3000	12.6	10.0	25.9*	20.0
Bromobenzene	Ave	0.8752	0.7987	0.0100	9.13	10.0	-8.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2461	0.2488	0.0100	10.1	10.0	1.1	20.0
1,2,3-Trichloropropane	Ave	0.2561	0.2960	0.0100	11.6	10.0	15.5	20.0
N-Propylbenzene	Ave	1.046	0.9227	0.0100	8.82	10.0	-11.8	20.0
2-Chlorotoluene	Ave	0.9215	0.8160	0.0100	8.85	10.0	-11.5	20.0
3-Chlorotoluene	Ave	0.9634	0.9245	0.0100	9.60	10.0	-4.0	20.0
1,3,5-Trimethylbenzene	Ave	3.361	3.272	0.0100	9.73	10.0	-2.7	20.0
4-Chlorotoluene	Ave	0.9458	0.8434	0.0100	8.92	10.0	-10.8	20.0
tert-Butylbenzene	Ave	2.616	2.292	0.0100	8.76	10.0	-12.4	20.0
1,2,4-Trimethylbenzene	Ave	3.478	3.322	0.0100	9.55	10.0	-4.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9718	0.9065	0.0100	9.33	10.0	-6.7	20.0
sec-Butylbenzene	Ave	4.045	3.723	0.0100	9.21	10.0	-7.9	20.0
1,3-Dichlorobenzene	Ave	1.715	1.597	0.6000	9.31	10.0	-6.9	20.0
4-Isopropyltoluene	Ave	3.281	2.945	0.0100	8.98	10.0	-10.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137356/2 Calibration Date: 04/02/2015 12:38

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60402002.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	1.774	1.680	0.5000	9.47	10.0	-5.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.9753	0.9615	0.0100	9.86	10.0	-1.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	1.075	1.026	0.0100	9.54	10.0	-4.6	20.0
n-Butylbenzene	Ave	3.155	2.813	0.0100	8.91	10.0	-10.9	20.0
1,2-Dichlorobenzene	Ave	1.714	1.699	0.4000	9.91	10.0	-0.9	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.609	1.497	0.0100	27.9	30.0	-6.9	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.757	1.695	0.0100	19.3	20.0	-3.6	20.0
1,2,4-Trichlorobenzene	Ave	1.328	1.254	0.2000	9.45	10.0	-5.5	20.0
Hexachlorobutadiene	Ave	0.5193	0.4422	0.0100	8.51	10.0	-14.9	20.0
Naphthalene	Ave	2.282	2.872	0.0100	12.6	10.0	25.9*	20.0
1,2,3-Trichlorobenzene	Ave	1.111	1.141	0.0100	10.3	10.0	2.7	20.0
2,4,5-Trichlorotoluene	Ave	0.8175	0.6167	0.0100	7.54	10.0	-24.6*	20.0
2,3,6-Trichlorotoluene	Ave	0.7286	0.6350	0.0100	8.72	10.0	-12.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2262	0.2237		9.89	10.0	-1.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3440		10.6	10.0	6.3	20.0
Toluene-d8 (Surr)	Ave	3.941	4.199		10.7	10.0	6.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.677	1.625		9.69	10.0	-3.1	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Apr-2015 12:38:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006300-002
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:23:39 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 02-Apr-2015 13:16:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.281	0.000	94	209935	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.328	7.328	0.000	97	492629	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.441	10.441	0.000	90	102505	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.795	0.000	96	170924	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.598	6.598	0.000	93	110198	50.0	49.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.975	6.975	0.000	70	169480	50.0	53.1	
$ 7 Toluene-d8 (Surr)	98	8.982	8.982	0.000	93	430407	50.0	53.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	85	166522	50.0	48.4	
11 Dichlorodifluoromethane	85	1.611	1.611	0.000	99	131609	50.0	50.4	
12 Chloromethane	50	1.769	1.769	0.000	98	170312	50.0	42.4	
13 Vinyl chloride	62	1.903	1.903	0.000	98	166610	50.0	46.8	
14 Butadiene	39	1.946	1.946	0.000	90	162165	50.0	42.7	
15 Bromomethane	94	2.244	2.244	0.000	91	80935	50.0	56.7	
16 Chloroethane	64	2.408	2.408	0.000	99	100894	50.0	46.2	
17 Dichlorofluoromethane	67	2.669	2.669	0.000	97	236208	50.0	45.4	
18 Trichlorofluoromethane	101	2.718	2.718	0.000	96	207779	50.0	51.1	
20 Ethyl ether	59	3.077	3.077	0.000	93	135166	50.0	43.6	
21 Acrolein	56	3.247	3.247	0.000	95	34263	150.0	69.6	
22 1,1-Dichloroethene	96	3.375	3.375	0.000	96	120899	50.0	43.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.442	3.442	0.000	95	126273	50.0	45.1	
24 Acetone	43	3.454	3.454	0.000	100	84777	100.0	97.3	
25 Iodomethane	142	3.569	3.569	0.000	96	174964	50.0	42.7	
26 Carbon disulfide	76	3.679	3.679	0.000	99	290563	50.0	35.5	
29 3-Chloro-1-propene	76	3.959	3.959	0.000	57	66287	50.0	36.9	
30 Methyl acetate	43	3.971	3.971	0.000	97	605139	250.0	283.7	
31 Methylene Chloride	84	4.178	4.178	0.000	95	166637	50.0	41.2	
32 2-Methyl-2-propanol	59	4.415	4.415	0.000	93	121049	500.0	510.2	
33 Acrylonitrile	53	4.542	4.542	0.000	100	635560	500.0	571.5	
34 trans-1,2-Dichloroethene	96	4.609	4.609	0.000	69	137196	50.0	41.2	
35 Methyl tert-butyl ether	73	4.615	4.615	0.000	97	388193	50.0	44.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.023	5.023	0.000	92	175438	50.0	36.6	
37 1,1-Dichloroethane	63	5.242	5.242	0.000	97	264635	50.0	41.1	
38 Vinyl acetate	43	5.278	5.278	0.000	97	151676	50.0	45.3	
44 2-Butanone (MEK)	43	5.984	5.984	0.000	62	125108	100.0	112.0	
42 2,2-Dichloropropane	77	5.990	5.990	0.000	60	105170	50.0	28.8	
43 cis-1,2-Dichloroethene	96	5.990	5.990	0.000	83	151853	50.0	43.0	
48 Chlorobromomethane	128	6.276	6.276	0.000	94	65227	50.0	46.4	
49 Tetrahydrofuran	42	6.288	6.288	0.000	85	73527	100.0	91.6	
50 Chloroform	83	6.409	6.409	0.000	93	252793	50.0	45.6	
51 1,1,1-Trichloroethane	97	6.580	6.580	0.000	97	170861	50.0	40.4	
52 Cyclohexane	56	6.665	6.665	0.000	93	241230	50.0	35.4	
53 Carbon tetrachloride	117	6.762	6.762	0.000	73	136331	50.0	41.2	
54 1,1-Dichloropropene	75	6.768	6.768	0.000	96	186520	50.0	44.2	
55 Isobutyl alcohol	41	6.932	6.932	0.000	92	103189	1250.0	1574.6	
56 Benzene	78	6.987	6.987	0.000	97	584761	50.0	47.8	
57 1,2-Dichloroethane	62	7.060	7.060	0.000	98	208683	50.0	52.0	
59 n-Heptane	43	7.346	7.346	0.000	88	128965	50.0	33.1	
61 Trichloroethene	130	7.723	7.723	0.000	95	126566	50.0	45.4	
63 Methylcyclohexane	83	7.966	7.966	0.000	92	197904	50.0	36.1	
64 1,2-Dichloropropane	63	7.997	7.997	0.000	95	144784	50.0	44.7	
65 1,4-Dioxane	88	8.070	8.070	0.000	44	28048	1000.0	1385.2	M
67 Dibromomethane	93	8.082	8.082	0.000	96	83177	50.0	57.5	
68 Dichlorobromomethane	83	8.270	8.270	0.000	98	157853	50.0	46.5	
71 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	93	167789	50.0	43.1	
72 4-Methyl-2-pentanone (MIBK	43	8.854	8.854	0.000	97	201902	100.0	87.3	
73 Toluene	91	9.049	9.049	0.000	99	575496	50.0	54.9	
74 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	94	146188	50.0	50.9	
75 Ethyl methacrylate	69	9.347	9.347	0.000	91	149411	50.0	56.5	
76 1,1,2-Trichloroethane	97	9.493	9.493	0.000	90	117895	50.0	62.0	
77 Tetrachloroethene	164	9.572	9.572	0.000	97	95165	50.0	50.9	
78 1,3-Dichloropropane	76	9.645	9.645	0.000	90	203292	50.0	57.5	
79 2-Hexanone	43	9.693	9.693	0.000	96	166672	100.0	126.3	
81 Chlorodibromomethane	129	9.870	9.870	0.000	91	90735	50.0	56.2	
82 Ethylene Dibromide	107	9.985	9.985	0.000	98	98231	50.0	56.7	
83 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	93	190903	50.0	52.4	
84 Chlorobenzene	112	10.472	10.472	0.000	93	337450	50.0	51.6	
85 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	96	177978	50.0	52.5	
86 1,1,1,2-Tetrachloroethane	131	10.563	10.563	0.000	91	108266	50.0	48.0	
87 Ethylbenzene	106	10.569	10.569	0.000	98	204436	50.0	52.1	
88 m-Xylene & p-Xylene	106	10.697	10.697	0.000	99	249570	50.0	51.5	
89 o-Xylene	106	11.080	11.080	0.000	96	248474	50.0	49.9	
90 Styrene	104	11.104	11.104	0.000	95	401403	50.0	54.8	
91 Bromoform	173	11.293	11.293	0.000	96	54494	50.0	63.0	
92 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	96	193907	50.0	51.0	
93 Isopropylbenzene	105	11.451	11.451	0.000	97	620990	50.0	50.6	
96 1,1,2,2-Tetrachloroethane	83	11.755	11.755	0.000	94	161137	50.0	63.0	
95 Bromobenzene	156	11.767	11.767	0.000	97	136521	50.0	45.6	
97 trans-1,4-Dichloro-2-buten	53	11.791	11.791	0.000	70	42524	50.0	50.5	
98 1,2,3-Trichloropropane	110	11.816	11.816	0.000	84	50588	50.0	57.8	
99 N-Propylbenzene	120	11.864	11.864	0.000	99	157712	50.0	44.1	
100 2-Chlorotoluene	126	11.956	11.956	0.000	94	139468	50.0	44.3	
101 3-Chlorotoluene	126	12.022	12.022	0.000	98	158015	50.0	48.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.047	12.047	0.000	92	559253	50.0	48.7	
103 4-Chlorotoluene	126	12.083	12.083	0.000	98	144162	50.0	44.6	
104 tert-Butylbenzene	119	12.363	12.363	0.000	91	391797	50.0	43.8	
106 1,2,4-Trimethylbenzene	105	12.424	12.424	0.000	97	567860	50.0	47.8	
107 1,2-dichloro-4-(trifluorom	214	12.454	12.454	0.000	97	154947	50.0	46.6	
108 sec-Butylbenzene	105	12.588	12.588	0.000	95	636421	50.0	46.0	
109 1,3-Dichlorobenzene	146	12.710	12.710	0.000	96	272903	50.0	46.6	
110 4-Isopropyltoluene	119	12.746	12.746	0.000	96	503338	50.0	44.9	
111 1,4-Dichlorobenzene	146	12.813	12.813	0.000	89	287196	50.0	47.4	
113 2,4-Dichloro-1-(triflourom	214	12.831	12.831	0.000	96	164345	50.0	49.3	
114 2,5-Dichlorobenzotrifluori	214	12.868	12.868	0.000	97	175341	50.0	47.7	
116 n-Butylbenzene	91	13.154	13.154	0.000	97	480736	50.0	44.6	
117 1,2-Dichlorobenzene	146	13.166	13.166	0.000	93	290442	50.0	49.6	
118 1,2-Dibromo-3-Chloropropan	75	13.962	13.968	-0.006	74	25362	50.0	54.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.108	14.108	0.000	98	767815	150.0	139.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.522	14.522	0.000	99	579392	100.0	96.4	
122 1,2,4-Trichlorobenzene	180	14.789	14.789	0.000	94	214397	50.0	47.2	
123 Hexachlorobutadiene	225	14.929	14.929	0.000	95	75577	50.0	42.6	
124 Naphthalene	128	15.057	15.057	0.000	98	490928	50.0	62.9	
125 1,2,3-Trichlorobenzene	180	15.276	15.276	0.000	94	194953	50.0	51.3	
126 2,4,5-Trichlorotoluene	159	16.048	16.048	0.000	0	105400	50.0	37.7	
127 2,3,6-Trichlorotoluene	159	16.146	16.146	0.000	95	108537	50.0	43.6	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	84.2	
S 131 Xylenes, Total	106				0		100.0	101.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	94.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00108	Amount Added:	2.00	Units: uL		
VOAVAPRI_00005	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00004	Amount Added:	2.00	Units: uL		
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL		
VOAACRPRI_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent	

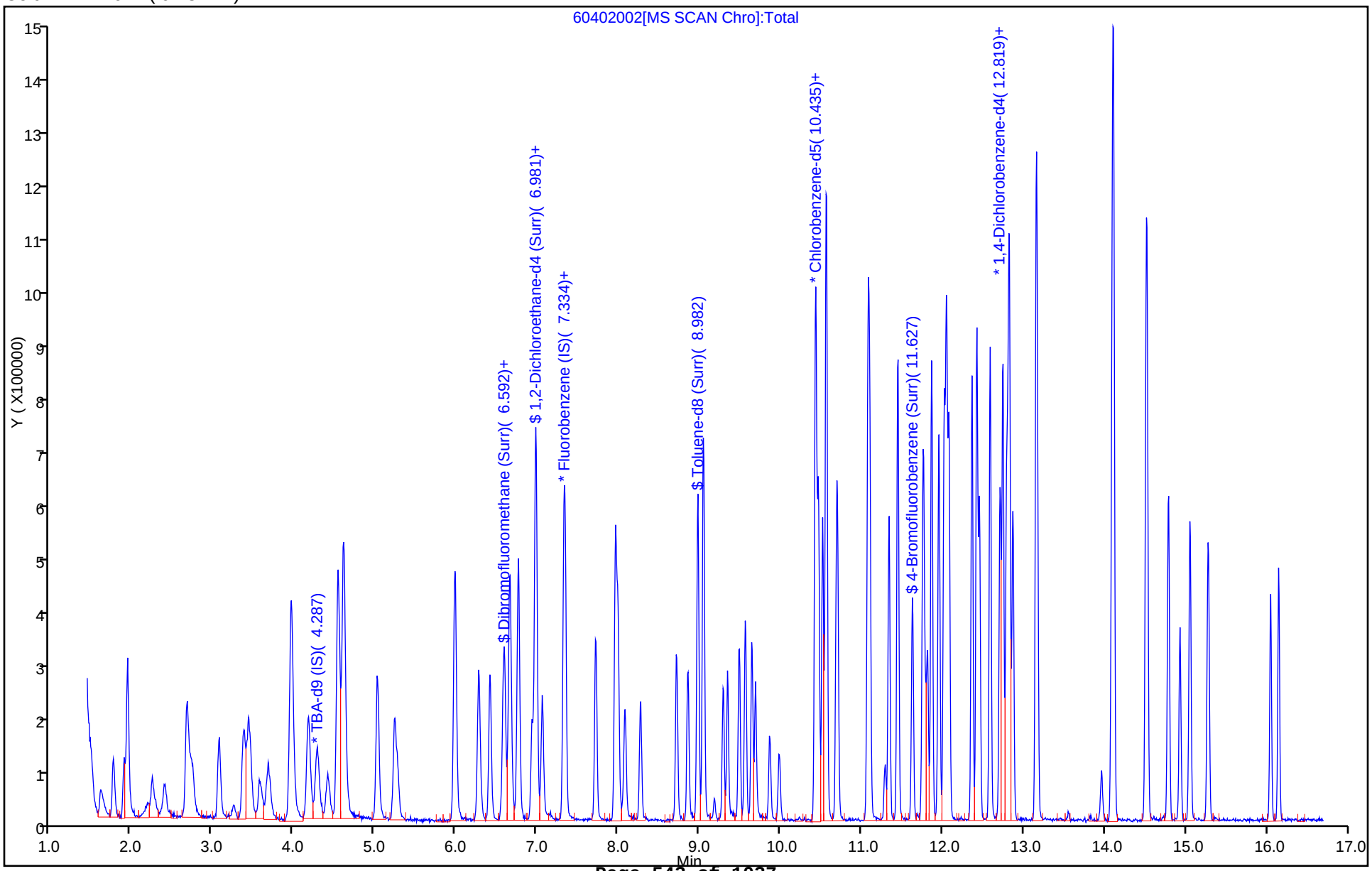
Report Date: 03-Apr-2015 10:23:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402002.D

Injection Date:	02-Apr-2015 12:38:30	Instrument ID:	CHHP6	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_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

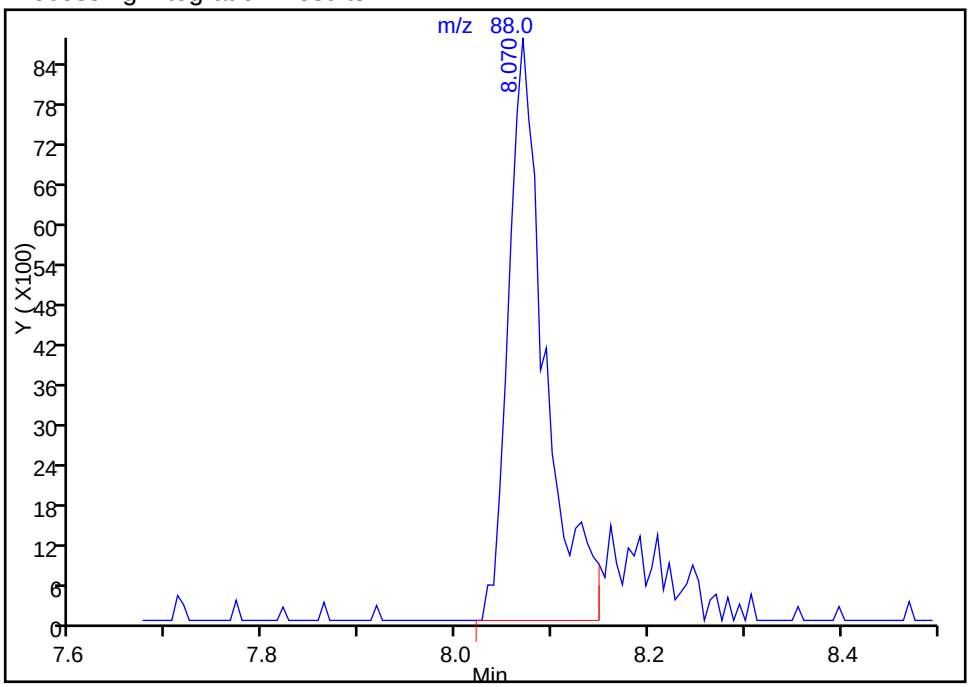
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402002.D				
Injection Date:	02-Apr-2015 12:38:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

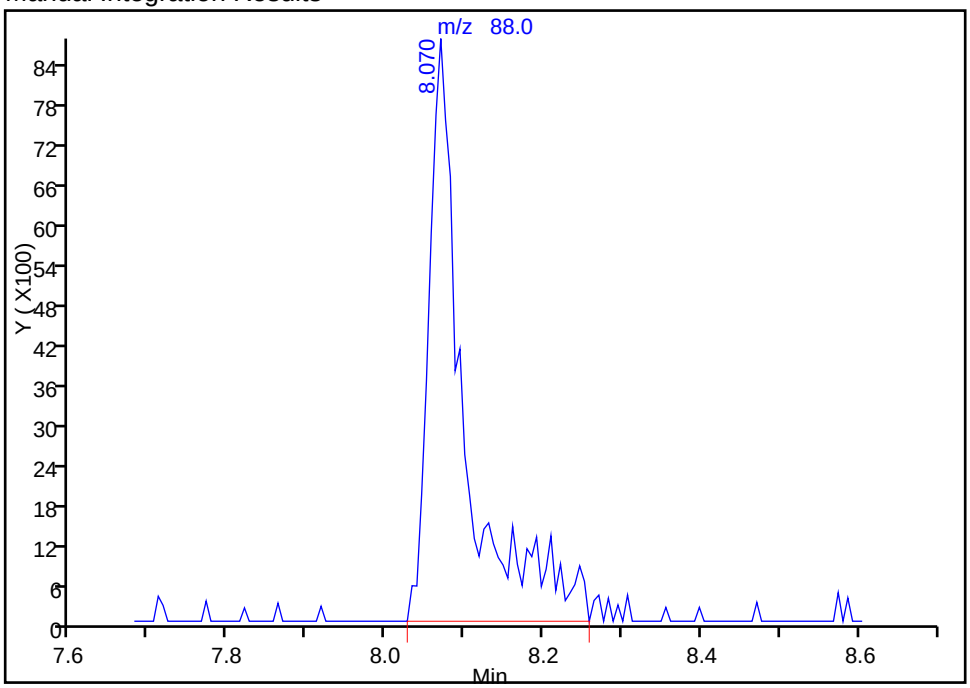
Processing Integration Results

RT: 8.07
Area: 23146
Amount: 1143.1321
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 28048
Amount: 1385.2315
Amount Units: ng



Reviewer: fergusond, 02-Apr-2015 13:16:31
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137472/4 Calibration Date: 04/03/2015 13:52

Instrument ID: CHHP6 Calib Start Date: 09/11/2014 11:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/11/2014 13:46

Lab File ID: 60403004.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-Dibromo-3-Chloropropane	Ave	0.1419	0.1932	0.0500	14.1	10.0	36.1*	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Apr-2015 13:52:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006320-004
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 15:49:56 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 14:31:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.279	0.000	90	185081	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.332	0.000	97	400759	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.439	10.439	0.000	89	83248	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.793	12.793	0.000	96	133734	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.602	6.602	0.000	91	93612	50.0	51.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.979	0.000	53	145798	50.0	56.2	
$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	93	342152	50.0	52.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.625	11.625	0.000	84	130761	50.0	46.8	
11 Dichlorodifluoromethane	85	1.627	1.627	0.000	98	112844	50.0	53.1	
12 Chloromethane	50	1.767	1.767	0.000	99	114830	50.0	35.2	
13 Vinyl chloride	62	1.907	1.907	0.000	98	120538	50.0	41.6	
14 Butadiene	39	1.950	1.950	0.000	90	119060	50.0	38.5	
15 Bromomethane	94	2.260	2.260	0.000	90	62394	50.0	53.7	
16 Chloroethane	64	2.412	2.412	0.000	99	75435	50.0	42.5	M
17 Dichlorofluoromethane	67	2.679	2.679	0.000	97	212214	50.0	50.2	
18 Trichlorofluoromethane	101	2.716	2.716	0.000	96	193145	50.0	58.3	
20 Ethyl ether	59	3.069	3.069	0.000	92	115565	50.0	45.8	
21 Acrolein	56	3.257	3.257	0.000	97	22734	150.0	56.7	
22 1,1-Dichloroethene	96	3.391	3.391	0.000	96	90326	50.0	40.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.452	3.452	0.000	95	101256	50.0	44.5	
24 Acetone	43	3.464	3.464	0.000	100	74063	100.0	104.5	
25 Iodomethane	142	3.585	3.585	0.000	98	136124	50.0	40.8	
26 Carbon disulfide	76	3.689	3.689	0.000	99	213589	50.0	32.0	
29 3-Chloro-1-propene	76	3.956	3.956	0.000	89	51319	50.0	35.1	
30 Methyl acetate	43	3.975	3.975	0.000	98	487540	250.0	281.0	
31 Methylene Chloride	84	4.181	4.181	0.000	95	123852	50.0	37.6	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	95	118002	500.0	564.2	
33 Acrylonitrile	53	4.546	4.546	0.000	100	514278	500.0	568.4	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	97	334849	50.0	47.0	
34 trans-1,2-Dichloroethene	96	4.619	4.619	0.000	67	111046	50.0	41.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.027	5.027	0.000	91	140929	50.0	36.2	
37 1,1-Dichloroethane	63	5.240	5.240	0.000	97	212665	50.0	40.6	
38 Vinyl acetate	43	5.282	5.282	0.000	98	107920	50.0	39.6	
43 cis-1,2-Dichloroethene	96	5.988	5.988	0.000	83	123331	50.0	42.9	
42 2,2-Dichloropropane	77	5.988	5.988	0.000	59	95529	50.0	32.1	
44 2-Butanone (MEK)	43	5.988	5.988	0.000	58	90636	100.0	99.7	
48 Chlorobromomethane	128	6.273	6.273	0.000	95	52667	50.0	46.1	
49 Tetrahydrofuran	42	6.286	6.286	0.000	86	66926	100.0	102.5	
50 Chloroform	83	6.413	6.413	0.000	94	209337	50.0	46.4	
51 1,1,1-Trichloroethane	97	6.584	6.584	0.000	96	152377	50.0	44.3	
52 Cyclohexane	56	6.669	6.669	0.000	95	194339	50.0	35.1	
53 Carbon tetrachloride	117	6.760	6.760	0.000	73	116627	50.0	43.3	
54 1,1-Dichloropropene	75	6.772	6.772	0.000	93	157039	50.0	45.8	
55 Isobutyl alcohol	41	6.936	6.936	0.000	89	103346	1250.0	1938.5	
56 Benzene	78	6.985	6.985	0.000	97	466029	50.0	46.8	
57 1,2-Dichloroethane	62	7.058	7.058	0.000	98	191674	50.0	58.7	
59 n-Heptane	43	7.350	7.350	0.000	89	102199	50.0	32.2	
61 Trichloroethene	130	7.721	7.721	0.000	95	101882	50.0	45.0	
63 Methylcyclohexane	83	7.970	7.970	0.000	92	161468	50.0	36.2	
64 1,2-Dichloropropane	63	7.994	7.994	0.000	93	111927	50.0	42.5	
65 1,4-Dioxane	88	8.067	8.067	0.000	47	24081	1000.0	1461.9	M
67 Dibromomethane	93	8.086	8.086	0.000	96	71564	50.0	60.8	
68 Dichlorobromomethane	83	8.274	8.274	0.000	98	127202	50.0	46.1	
71 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	93	136330	50.0	43.0	
72 4-Methyl-2-pentanone (MIBK	43	8.858	8.858	0.000	95	179533	100.0	95.6	
73 Toluene	91	9.053	9.053	0.000	98	452520	50.0	53.2	
74 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	95	122305	50.0	52.4	
75 Ethyl methacrylate	69	9.351	9.351	0.000	88	134874	50.0	62.8	
76 1,1,2-Trichloroethane	97	9.496	9.496	0.000	92	94946	50.0	61.4	
77 Tetrachloroethene	164	9.569	9.569	0.000	96	81200	50.0	53.4	
78 1,3-Dichloropropane	76	9.649	9.649	0.000	92	169104	50.0	58.9	
79 2-Hexanone	43	9.691	9.691	0.000	94	143154	100.0	133.6	
81 Chlorodibromomethane	129	9.874	9.874	0.000	90	68759	50.0	52.4	
82 Ethylene Dibromide	107	9.983	9.983	0.000	98	86107	50.0	61.3	
83 3-Chlorobenzotrifluoride	180	10.433	10.433	0.000	91	146821	50.0	49.6	
84 Chlorobenzene	112	10.469	10.469	0.000	91	281866	50.0	53.1	
85 4-Chlorobenzotrifluoride	180	10.524	10.524	0.000	96	140430	50.0	51.0	
86 1,1,1,2-Tetrachloroethane	131	10.561	10.561	0.000	88	93908	50.0	51.3	
87 Ethylbenzene	106	10.567	10.567	0.000	99	166075	50.0	52.1	
88 m-Xylene & p-Xylene	106	10.701	10.701	0.000	100	201422	50.0	51.2	
89 o-Xylene	106	11.084	11.084	0.000	97	207925	50.0	51.4	
90 Styrene	104	11.102	11.102	0.000	94	319191	50.0	53.6	
91 Bromoform	173	11.290	11.290	0.000	95	39103	50.0	55.7	
92 2-Chlorobenzotrifluoride	180	11.339	11.339	0.000	96	164172	50.0	53.2	
93 Isopropylbenzene	105	11.449	11.449	0.000	97	522899	50.0	52.5	
96 1,1,2,2-Tetrachloroethane	83	11.753	11.753	0.000	96	127923	50.0	61.6	
95 Bromobenzene	156	11.771	11.771	0.000	96	114770	50.0	49.0	
97 trans-1,4-Dichloro-2-buten	53	11.789	11.789	0.000	62	38345	50.0	58.3	
98 1,2,3-Trichloropropane	110	11.813	11.813	0.000	84	46751	50.0	68.2	
99 N-Propylbenzene	120	11.868	11.868	0.000	99	131902	50.0	47.2	
100 2-Chlorotoluene	126	11.953	11.953	0.000	94	117098	50.0	47.5	
101 3-Chlorotoluene	126	12.020	12.020	0.000	96	121228	50.0	47.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.045	12.045	0.000	92	475565	50.0	52.9	
103 4-Chlorotoluene	126	12.081	12.081	0.000	98	121681	50.0	48.1	
104 tert-Butylbenzene	119	12.367	12.367	0.000	91	331423	50.0	47.4	
106 1,2,4-Trimethylbenzene	105	12.422	12.422	0.000	96	488035	50.0	52.5	
107 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	96	127521	50.0	49.1	
108 sec-Butylbenzene	105	12.586	12.586	0.000	95	529833	50.0	49.0	
109 1,3-Dichlorobenzene	146	12.707	12.707	0.000	95	232877	50.0	50.8	
110 4-Isopropyltoluene	119	12.744	12.744	0.000	96	415610	50.0	47.4	
111 1,4-Dichlorobenzene	146	12.817	12.817	0.000	91	243250	50.0	51.3	
113 2,4-Dichloro-1-(triflourom	214	12.829	12.829	0.000	95	131129	50.0	50.3	
114 2,5-Dichlorobenzotrifluori	214	12.866	12.866	0.000	96	146674	50.0	51.0	
116 n-Butylbenzene	91	13.151	13.151	0.000	98	400276	50.0	47.4	
117 1,2-Dichlorobenzene	146	13.170	13.170	0.000	92	237592	50.0	51.8	
118 1,2-Dibromo-3-Chloropropan	75	13.960	13.966	-0.006	71	25838	50.0	70.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.106	14.106	0.000	99	663926	150.0	154.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.520	14.520	0.000	99	472398	100.0	100.5	
122 1,2,4-Trichlorobenzene	180	14.787	14.787	0.000	93	182625	50.0	51.4	
123 Hexachlorobutadiene	225	14.927	14.927	0.000	96	63475	50.0	45.7	
124 Naphthalene	128	15.055	15.055	0.000	98	417242	50.0	68.4	
125 1,2,3-Trichlorobenzene	180	15.280	15.280	0.000	95	166984	50.0	56.2	
126 2,4,5-Trichlorotoluene	159	16.046	16.046	0.000	0	85690	50.0	39.2	
127 2,3,6-Trichlorotoluene	159	16.149	16.149	0.000	97	92925	50.0	47.7	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	102.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	83.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00108	Amount Added:	2.00	Units: uL		
VOAVAPRI_00005	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00004	Amount Added:	2.00	Units: uL		
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL		
VOAACRPRI_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent	

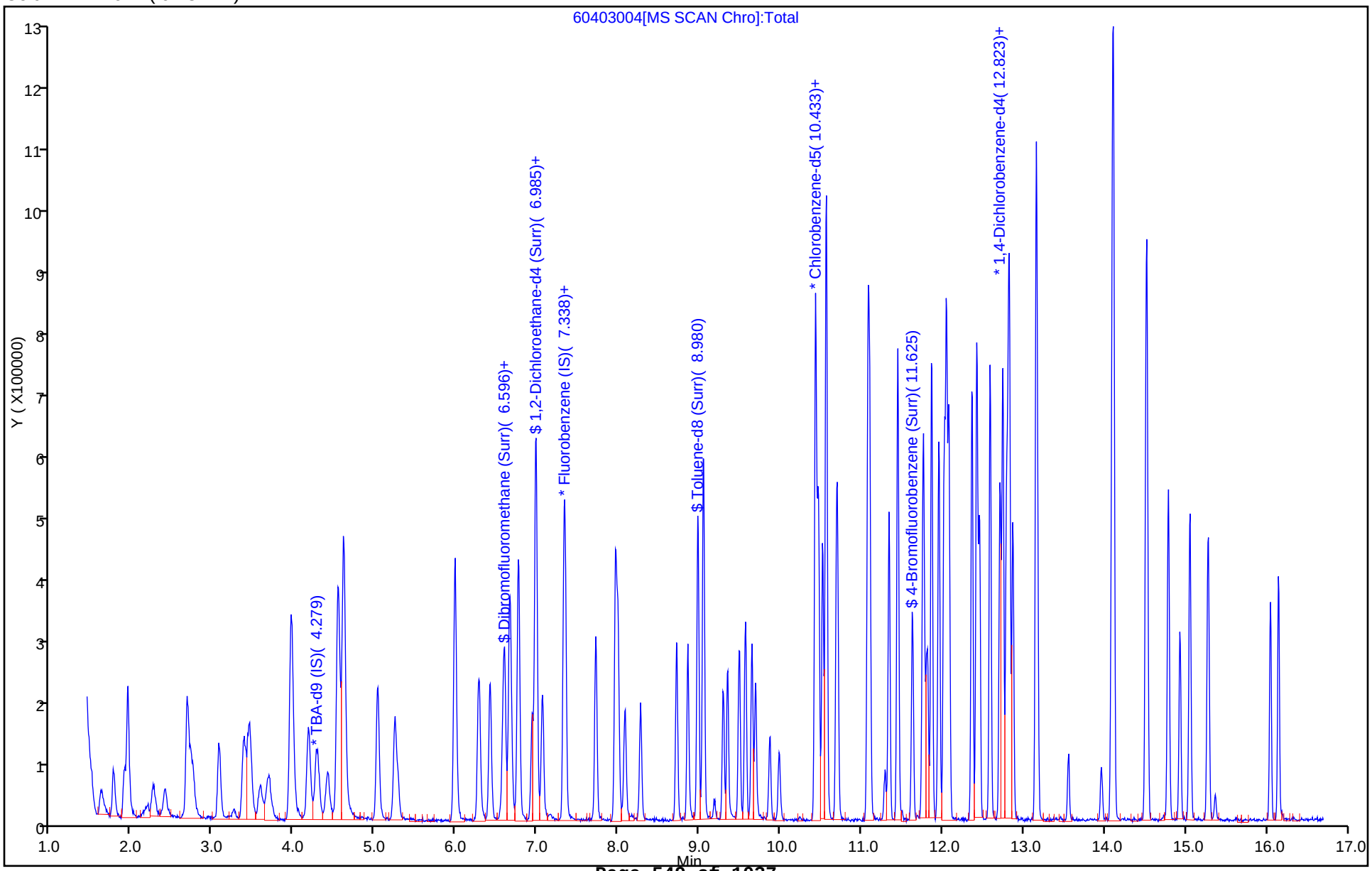
Report Date: 03-Apr-2015 15:49:58 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403004.D

Injection Date:	03-Apr-2015 13:52:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137472/4 Calibration Date: 04/03/2015 13:52

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60403004.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	0.2650	0.2816	0.1000	10.6	10.0	6.3	20.0
Chloromethane	Ave	0.4075	0.2865	0.1000	7.03	10.0	-29.7*	20.0
Vinyl chloride	Ave	0.3611	0.3008	0.1000	8.33	10.0	-16.7	20.0
Bromomethane	Ave	0.1449	0.1557	0.0500	10.7	10.0	7.4	20.0
Chloroethane	Ave	0.2214	0.1882	0.0500	8.50	10.0	-15.0	20.0
Dichlorofluoromethane	Ave	0.5279	0.5295	0.0100	10.0	10.0	0.3	20.0
Trichlorofluoromethane	Ave	0.4130	0.4820	0.1000	11.7	10.0	16.7	20.0
Ethyl ether	Ave	0.3150	0.2884	0.0100	9.16	10.0	-8.4	20.0
Acrolein	Ave	0.0500	0.0189	0.0100	11.3	30.0	-62.2*	20.0
1,1-Dichloroethene	Ave	0.2807	0.2254	0.1000	8.03	10.0	-19.7	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2839	0.2527	0.1000	8.90	10.0	-11.0	20.0
Acetone	Ave	0.0884	0.0924	0.0500	20.9	20.0	4.5	20.0
Iodomethane	Ave	0.4159	0.3397	0.0100	8.17	10.0	-18.3	20.0
Carbon disulfide	Ave	0.8315	0.5330	0.1000	6.41	10.0	-35.9*	20.0
Allyl chloride	Ave	0.1823	0.1281	0.0100	7.02	10.0	-29.8*	20.0
Methyl acetate	Ave	0.2165	0.2433	0.1000	56.2	50.0	12.4	20.0
Methylene Chloride	Ave	0.4104	0.3090	0.1000	7.53	10.0	-24.7*	20.0
tert-Butyl alcohol	Ave	1.130	1.275	0.0100	113	100	12.8	20.0
Acrylonitrile	Ave	0.1129	0.1283	0.0100	114	100	13.7	20.0
Methyl tert-butyl ether	Ave	0.8884	0.8355	0.1000	9.40	10.0	-6.0	20.0
trans-1,2-Dichloroethene	Ave	0.3380	0.2771	0.1000	8.20	10.0	-18.0	20.0
Hexane	Ave	0.4863	0.3517	0.0100	7.23	10.0	-27.7*	20.0
1,1-Dichloroethane	Ave	0.6538	0.5307	0.2000	8.12	10.0	-18.8	20.0
Vinyl acetate	Ave	0.3399	0.2693	0.0100	7.92	10.0	-20.8*	20.0
2,2-Dichloropropane	Ave	0.3707	0.2384	0.0100	6.43	10.0	-35.7*	20.0
2-Butanone (MEK)	Ave	0.1134	0.1131	0.0500	19.9	20.0	-0.3	20.0
cis-1,2-Dichloroethene	Ave	0.3585	0.3077	0.1000	8.59	10.0	-14.1	20.0
Bromochloromethane	Ave	0.1427	0.1314	0.0100	9.21	10.0	-7.9	20.0
Tetrahydrofuran	Ave	0.0815	0.0835	0.0100	20.5	20.0	2.5	20.0
Chloroform	Ave	0.5629	0.5224	0.2000	9.28	10.0	-7.2	20.0
1,1,1-Trichloroethane	Ave	0.4288	0.3802	0.1000	8.87	10.0	-11.3	20.0
Cyclohexane	Ave	0.6908	0.4849	0.1000	7.02	10.0	-29.8*	20.0
Carbon tetrachloride	Ave	0.3357	0.2910	0.1000	8.67	10.0	-13.3	20.0
1,1-Dichloropropene	Ave	0.4279	0.3919	0.0100	9.16	10.0	-8.4	20.0
Isobutyl alcohol	Ave	0.0067	0.0103	0.0100	388	250	55.1*	20.0
Benzene	Ave	1.242	1.163	0.5000	9.37	10.0	-6.3	20.0
1,2-Dichloroethane	Ave	0.4076	0.4783	0.1000	11.7	10.0	17.3	20.0
n-Heptane	Ave	0.3955	0.2550	0.0100	6.45	10.0	-35.5*	20.0
Trichloroethene	Ave	0.2828	0.2542	0.2000	8.99	10.0	-10.1	20.0
Methylcyclohexane	Ave	0.5572	0.4029	0.1000	7.23	10.0	-27.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137472/4 Calibration Date: 04/03/2015 13:52

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60403004.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	0.3285	0.2793	0.1000	8.50	10.0	-15.0	20.0
1,4-Dioxane	Ave	0.0021	0.0030*	0.0100	292	200	46.2*	20.0
Dibromomethane	Ave	0.1468	0.1786	0.0100	12.2	10.0	21.6*	20.0
Bromodichloromethane	Ave	0.3444	0.3174	0.2000	9.22	10.0	-7.8	20.0
cis-1,3-Dichloropropene	Ave	0.3952	0.3402	0.2000	8.61	10.0	-13.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.128	1.078	0.1000	19.1	20.0	-4.4	20.0
Toluene	Ave	5.112	5.436	0.4000	10.6	10.0	6.3	20.0
trans-1,3-Dichloropropene	Ave	1.402	1.469	0.1000	10.5	10.0	4.8	20.0
Ethyl methacrylate	Ave	1.290	1.620	0.0100	12.6	10.0	25.6*	20.0
1,1,2-Trichloroethane	Ave	0.9282	1.141	0.1000	12.3	10.0	22.9*	20.0
Tetrachloroethene	Ave	0.9129	0.9754	0.2000	10.7	10.0	6.8	20.0
1,3-Dichloropropane	Ave	1.726	2.031	0.0100	11.8	10.0	17.7	20.0
2-Hexanone	Ave	0.6436	0.8598	0.1000	26.7	20.0	33.6*	20.0
Dibromochloromethane	Ave	0.7880	0.8260	0.1000	10.5	10.0	4.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.8444	1.034	0.1000	12.3	10.0	22.5*	20.0
3-Chlorobenzotrifluoride	Ave	1.778	1.764	0.0100	9.92	10.0	-0.8	20.0
Chlorobenzene	Ave	3.190	3.386	0.5000	10.6	10.0	6.1	20.0
4-Chlorobenzotrifluoride	Ave	1.655	1.687	0.0100	10.2	10.0	1.9	20.0
1,1,1,2-Tetrachloroethane	Ave	1.100	1.128	0.0100	10.3	10.0	2.5	20.0
Ethylbenzene	Ave	1.914	1.995	0.1000	10.4	10.0	4.2	20.0
m-Xylene & p-Xylene	Ave	2.363	2.420	0.1000	10.2	10.0	2.4	20.0
o-Xylene	Ave	2.428	2.498	0.3000	10.3	10.0	2.9	20.0
Styrene	Ave	3.575	3.834	0.3000	10.7	10.0	7.2	20.0
Bromoform	Ave	0.4220	0.4697	0.1000	11.1	10.0	11.3	20.0
2-Chlorobenzotrifluoride	Ave	1.855	1.972	0.0100	10.6	10.0	6.3	20.0
Isopropylbenzene	Ave	5.986	6.281	0.1000	10.5	10.0	4.9	20.0
1,1,2,2-Tetrachloroethane	Ave	1.248	1.537	0.3000	12.3	10.0	23.1*	20.0
Bromobenzene	Ave	0.8752	0.8582	0.0100	9.81	10.0	-1.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2461	0.2867	0.0100	11.7	10.0	16.5	20.0
1,2,3-Trichloropropane	Ave	0.2561	0.3496	0.0100	13.6	10.0	36.5*	20.0
N-Propylbenzene	Ave	1.046	0.9863	0.0100	9.43	10.0	-5.7	20.0
2-Chlorotoluene	Ave	0.9215	0.8756	0.0100	9.50	10.0	-5.0	20.0
3-Chlorotoluene	Ave	0.9634	0.9065	0.0100	9.41	10.0	-5.9	20.0
1,3,5-Trimethylbenzene	Ave	3.361	3.556	0.0100	10.6	10.0	5.8	20.0
4-Chlorotoluene	Ave	0.9458	0.9099	0.0100	9.62	10.0	-3.8	20.0
tert-Butylbenzene	Ave	2.616	2.478	0.0100	9.47	10.0	-5.3	20.0
1,2,4-Trimethylbenzene	Ave	3.478	3.649	0.0100	10.5	10.0	4.9	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9718	0.9535	0.0100	9.81	10.0	-1.9	20.0
sec-Butylbenzene	Ave	4.045	3.962	0.0100	9.80	10.0	-2.0	20.0
1,3-Dichlorobenzene	Ave	1.715	1.741	0.6000	10.2	10.0	1.6	20.0
4-Isopropyltoluene	Ave	3.281	3.108	0.0100	9.47	10.0	-5.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCVIS 180-137472/4 Calibration Date: 04/03/2015 13:52

Instrument ID: CHHP6 Calib Start Date: 01/28/2015 13:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/28/2015 16:44

Lab File ID: 60403004.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	1.774	1.819	0.5000	10.3	10.0	2.6	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.9753	0.9805	0.0100	10.1	10.0	0.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	1.075	1.097	0.0100	10.2	10.0	2.0	20.0
n-Butylbenzene	Ave	3.155	2.993	0.0100	9.49	10.0	-5.1	20.0
1,2-Dichlorobenzene	Ave	1.714	1.777	0.4000	10.4	10.0	3.7	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.609	1.655	0.0100	30.9	30.0	2.9	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.757	1.766	0.0100	20.1	20.0	0.5	20.0
1,2,4-Trichlorobenzene	Ave	1.328	1.366	0.2000	10.3	10.0	2.8	20.0
Hexachlorobutadiene	Ave	0.5193	0.4746	0.0100	9.14	10.0	-8.6	20.0
Naphthalene	Ave	2.282	3.120	0.0100	13.7	10.0	36.7*	20.0
1,2,3-Trichlorobenzene	Ave	1.111	1.249	0.0100	11.2	10.0	12.4	20.0
2,4,5-Trichlorotoluene	Ave	0.8175	0.6408	0.0100	7.84	10.0	-21.6*	20.0
2,3,6-Trichlorotoluene	Ave	0.7286	0.6949	0.0100	9.54	10.0	-4.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2262	0.2336		10.3	10.0	3.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3638		11.2	10.0	12.4	20.0
Toluene-d8 (Surr)	Ave	3.941	4.110		10.4	10.0	4.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.677	1.571		9.37	10.0	-6.3	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403004.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 03-Apr-2015 13:52:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0006320-004
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 15:49:56 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 14:31:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.279	0.000	90	185081	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.332	0.000	97	400759	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.439	10.439	0.000	89	83248	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.793	12.793	0.000	96	133734	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.602	6.602	0.000	91	93612	50.0	51.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.979	0.000	53	145798	50.0	56.2	
$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	93	342152	50.0	52.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.625	11.625	0.000	84	130761	50.0	46.8	
11 Dichlorodifluoromethane	85	1.627	1.627	0.000	98	112844	50.0	53.1	
12 Chloromethane	50	1.767	1.767	0.000	99	114830	50.0	35.2	
13 Vinyl chloride	62	1.907	1.907	0.000	98	120538	50.0	41.6	
14 Butadiene	39	1.950	1.950	0.000	90	119060	50.0	38.5	
15 Bromomethane	94	2.260	2.260	0.000	90	62394	50.0	53.7	
16 Chloroethane	64	2.412	2.412	0.000	99	75435	50.0	42.5	M
17 Dichlorofluoromethane	67	2.679	2.679	0.000	97	212214	50.0	50.2	
18 Trichlorofluoromethane	101	2.716	2.716	0.000	96	193145	50.0	58.3	
20 Ethyl ether	59	3.069	3.069	0.000	92	115565	50.0	45.8	
21 Acrolein	56	3.257	3.257	0.000	97	22734	150.0	56.7	
22 1,1-Dichloroethene	96	3.391	3.391	0.000	96	90326	50.0	40.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.452	3.452	0.000	95	101256	50.0	44.5	
24 Acetone	43	3.464	3.464	0.000	100	74063	100.0	104.5	
25 Iodomethane	142	3.585	3.585	0.000	98	136124	50.0	40.8	
26 Carbon disulfide	76	3.689	3.689	0.000	99	213589	50.0	32.0	
29 3-Chloro-1-propene	76	3.956	3.956	0.000	89	51319	50.0	35.1	
30 Methyl acetate	43	3.975	3.975	0.000	98	487540	250.0	281.0	
31 Methylene Chloride	84	4.181	4.181	0.000	95	123852	50.0	37.6	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	95	118002	500.0	564.2	
33 Acrylonitrile	53	4.546	4.546	0.000	100	514278	500.0	568.4	
35 Methyl tert-butyl ether	73	4.607	4.607	0.000	97	334849	50.0	47.0	
34 trans-1,2-Dichloroethene	96	4.619	4.619	0.000	67	111046	50.0	41.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.027	5.027	0.000	91	140929	50.0	36.2	
37 1,1-Dichloroethane	63	5.240	5.240	0.000	97	212665	50.0	40.6	
38 Vinyl acetate	43	5.282	5.282	0.000	98	107920	50.0	39.6	
43 cis-1,2-Dichloroethene	96	5.988	5.988	0.000	83	123331	50.0	42.9	
42 2,2-Dichloropropane	77	5.988	5.988	0.000	59	95529	50.0	32.1	
44 2-Butanone (MEK)	43	5.988	5.988	0.000	58	90636	100.0	99.7	
48 Chlorobromomethane	128	6.273	6.273	0.000	95	52667	50.0	46.1	
49 Tetrahydrofuran	42	6.286	6.286	0.000	86	66926	100.0	102.5	
50 Chloroform	83	6.413	6.413	0.000	94	209337	50.0	46.4	
51 1,1,1-Trichloroethane	97	6.584	6.584	0.000	96	152377	50.0	44.3	
52 Cyclohexane	56	6.669	6.669	0.000	95	194339	50.0	35.1	
53 Carbon tetrachloride	117	6.760	6.760	0.000	73	116627	50.0	43.3	
54 1,1-Dichloropropene	75	6.772	6.772	0.000	93	157039	50.0	45.8	
55 Isobutyl alcohol	41	6.936	6.936	0.000	89	103346	1250.0	1938.5	
56 Benzene	78	6.985	6.985	0.000	97	466029	50.0	46.8	
57 1,2-Dichloroethane	62	7.058	7.058	0.000	98	191674	50.0	58.7	
59 n-Heptane	43	7.350	7.350	0.000	89	102199	50.0	32.2	
61 Trichloroethene	130	7.721	7.721	0.000	95	101882	50.0	45.0	
63 Methylcyclohexane	83	7.970	7.970	0.000	92	161468	50.0	36.2	
64 1,2-Dichloropropane	63	7.994	7.994	0.000	93	111927	50.0	42.5	
65 1,4-Dioxane	88	8.067	8.067	0.000	47	24081	1000.0	1461.9	M
67 Dibromomethane	93	8.086	8.086	0.000	96	71564	50.0	60.8	
68 Dichlorobromomethane	83	8.274	8.274	0.000	98	127202	50.0	46.1	
71 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	93	136330	50.0	43.0	
72 4-Methyl-2-pentanone (MIBK	43	8.858	8.858	0.000	95	179533	100.0	95.6	
73 Toluene	91	9.053	9.053	0.000	98	452520	50.0	53.2	
74 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	95	122305	50.0	52.4	
75 Ethyl methacrylate	69	9.351	9.351	0.000	88	134874	50.0	62.8	
76 1,1,2-Trichloroethane	97	9.496	9.496	0.000	92	94946	50.0	61.4	
77 Tetrachloroethene	164	9.569	9.569	0.000	96	81200	50.0	53.4	
78 1,3-Dichloropropane	76	9.649	9.649	0.000	92	169104	50.0	58.9	
79 2-Hexanone	43	9.691	9.691	0.000	94	143154	100.0	133.6	
81 Chlorodibromomethane	129	9.874	9.874	0.000	90	68759	50.0	52.4	
82 Ethylene Dibromide	107	9.983	9.983	0.000	98	86107	50.0	61.3	
83 3-Chlorobenzotrifluoride	180	10.433	10.433	0.000	91	146821	50.0	49.6	
84 Chlorobenzene	112	10.469	10.469	0.000	91	281866	50.0	53.1	
85 4-Chlorobenzotrifluoride	180	10.524	10.524	0.000	96	140430	50.0	51.0	
86 1,1,1,2-Tetrachloroethane	131	10.561	10.561	0.000	88	93908	50.0	51.3	
87 Ethylbenzene	106	10.567	10.567	0.000	99	166075	50.0	52.1	
88 m-Xylene & p-Xylene	106	10.701	10.701	0.000	100	201422	50.0	51.2	
89 o-Xylene	106	11.084	11.084	0.000	97	207925	50.0	51.4	
90 Styrene	104	11.102	11.102	0.000	94	319191	50.0	53.6	
91 Bromoform	173	11.290	11.290	0.000	95	39103	50.0	55.7	
92 2-Chlorobenzotrifluoride	180	11.339	11.339	0.000	96	164172	50.0	53.2	
93 Isopropylbenzene	105	11.449	11.449	0.000	97	522899	50.0	52.5	
96 1,1,2,2-Tetrachloroethane	83	11.753	11.753	0.000	96	127923	50.0	61.6	
95 Bromobenzene	156	11.771	11.771	0.000	96	114770	50.0	49.0	
97 trans-1,4-Dichloro-2-buten	53	11.789	11.789	0.000	62	38345	50.0	58.3	
98 1,2,3-Trichloropropane	110	11.813	11.813	0.000	84	46751	50.0	68.2	
99 N-Propylbenzene	120	11.868	11.868	0.000	99	131902	50.0	47.2	
100 2-Chlorotoluene	126	11.953	11.953	0.000	94	117098	50.0	47.5	
101 3-Chlorotoluene	126	12.020	12.020	0.000	96	121228	50.0	47.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.045	12.045	0.000	92	475565	50.0	52.9	
103 4-Chlorotoluene	126	12.081	12.081	0.000	98	121681	50.0	48.1	
104 tert-Butylbenzene	119	12.367	12.367	0.000	91	331423	50.0	47.4	
106 1,2,4-Trimethylbenzene	105	12.422	12.422	0.000	96	488035	50.0	52.5	
107 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	96	127521	50.0	49.1	
108 sec-Butylbenzene	105	12.586	12.586	0.000	95	529833	50.0	49.0	
109 1,3-Dichlorobenzene	146	12.707	12.707	0.000	95	232877	50.0	50.8	
110 4-Isopropyltoluene	119	12.744	12.744	0.000	96	415610	50.0	47.4	
111 1,4-Dichlorobenzene	146	12.817	12.817	0.000	91	243250	50.0	51.3	
113 2,4-Dichloro-1-(triflourom	214	12.829	12.829	0.000	95	131129	50.0	50.3	
114 2,5-Dichlorobenzotrifluori	214	12.866	12.866	0.000	96	146674	50.0	51.0	
116 n-Butylbenzene	91	13.151	13.151	0.000	98	400276	50.0	47.4	
117 1,2-Dichlorobenzene	146	13.170	13.170	0.000	92	237592	50.0	51.8	
118 1,2-Dibromo-3-Chloropropan	75	13.960	13.966	-0.006	71	25838	50.0	70.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.106	14.106	0.000	99	663926	150.0	154.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.520	14.520	0.000	99	472398	100.0	100.5	
122 1,2,4-Trichlorobenzene	180	14.787	14.787	0.000	93	182625	50.0	51.4	
123 Hexachlorobutadiene	225	14.927	14.927	0.000	96	63475	50.0	45.7	
124 Naphthalene	128	15.055	15.055	0.000	98	417242	50.0	68.4	
125 1,2,3-Trichlorobenzene	180	15.280	15.280	0.000	95	166984	50.0	56.2	
126 2,4,5-Trichlorotoluene	159	16.046	16.046	0.000	0	85690	50.0	39.2	
127 2,3,6-Trichlorotoluene	159	16.149	16.149	0.000	97	92925	50.0	47.7	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	102.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	83.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00108	Amount Added:	2.00	Units: uL		
VOAVAPRI_00005	Amount Added:	2.00	Units: uL		
voaWKetpri Re_00004	Amount Added:	2.00	Units: uL		
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL		
VOAACRPRI_00005	Amount Added:	6.00	Units: uL		
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent	

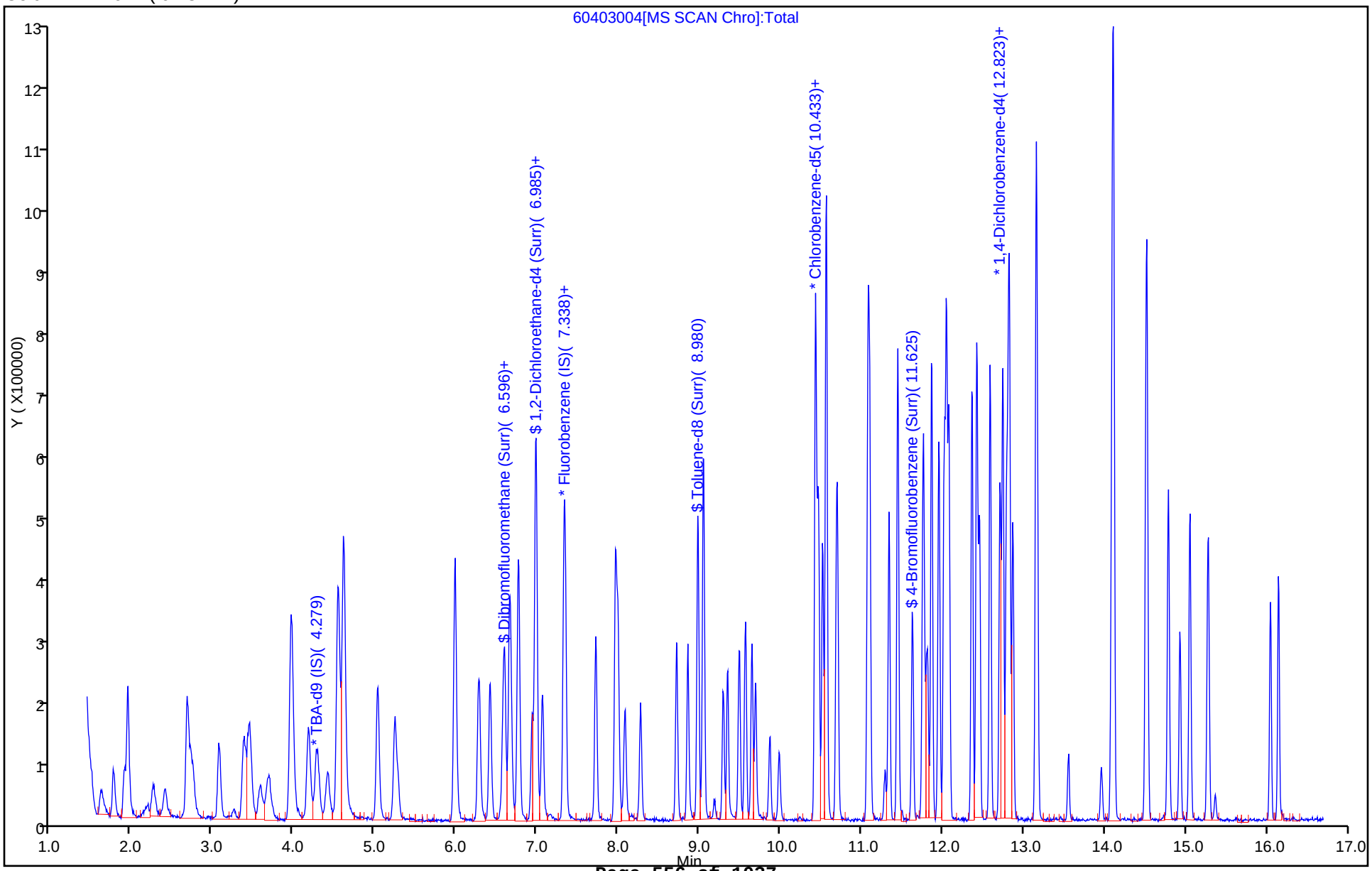
Report Date: 03-Apr-2015 15:49:58 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403004.D

Injection Date:	03-Apr-2015 13:52:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

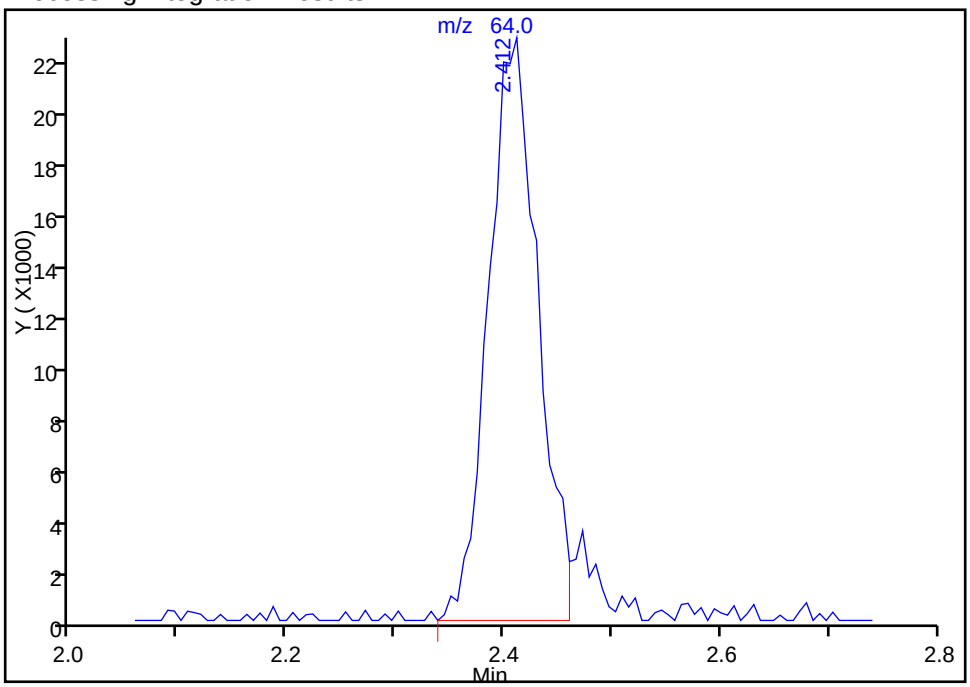
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403004.D				
Injection Date:	03-Apr-2015 13:52:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

16 Chloroethane, CAS: 75-00-3

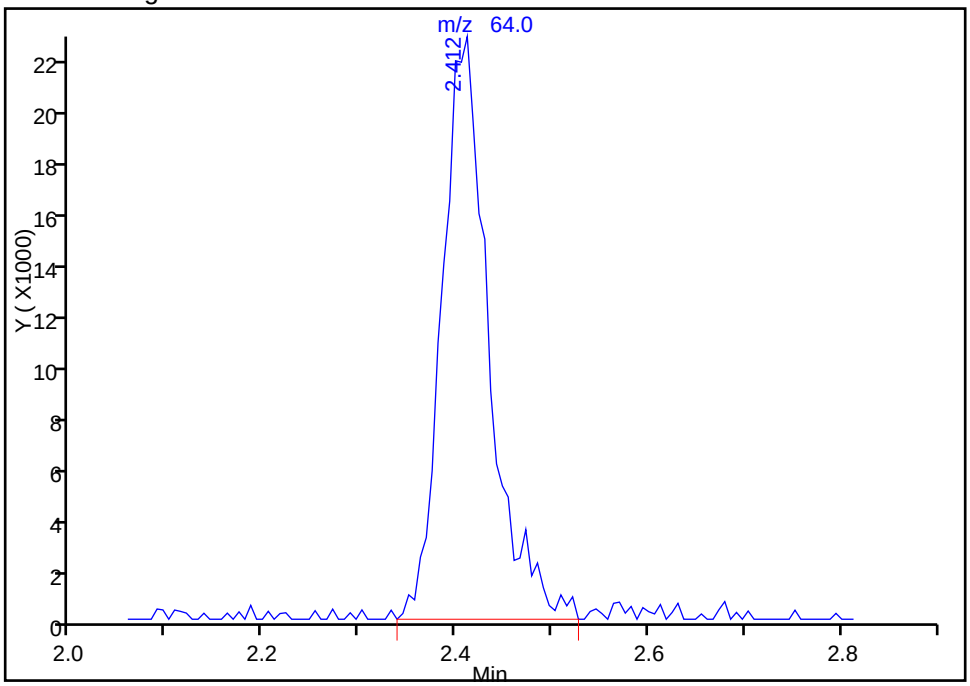
Processing Integration Results

RT: 2.41
Area: 70370
Amount: 39.651250
Amount Units: ng



Manual Integration Results

RT: 2.41
Area: 75435
Amount: 42.505216
Amount Units: ng



Reviewer: fergusond, 03-Apr-2015 14:31:20
Audit Action: Manually Integrated
Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

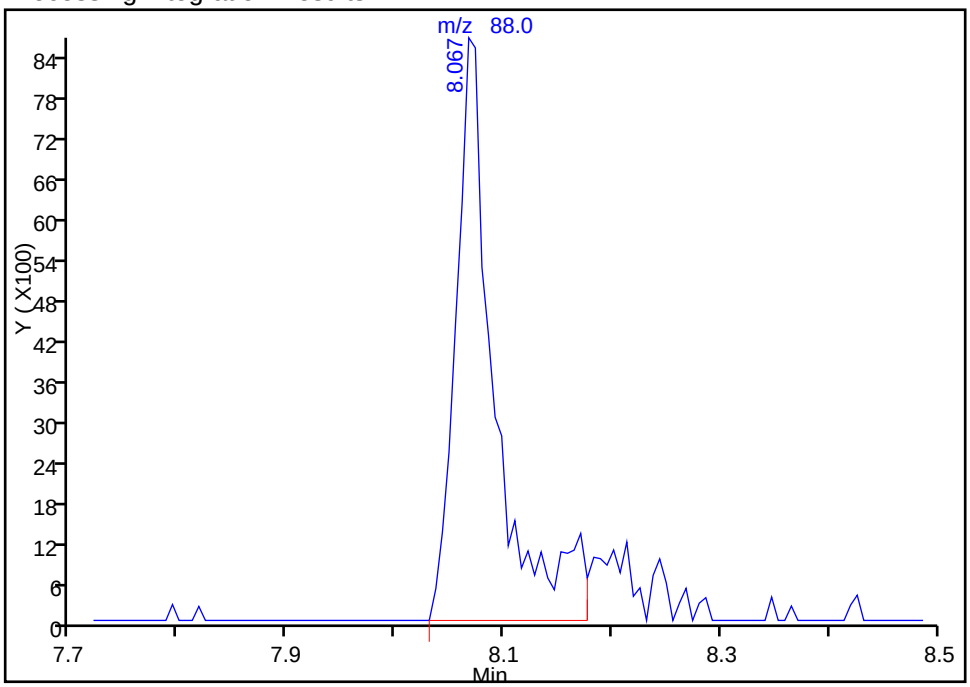
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403004.D				
Injection Date:	03-Apr-2015 13:52:30	Instrument ID:	CHHP6		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

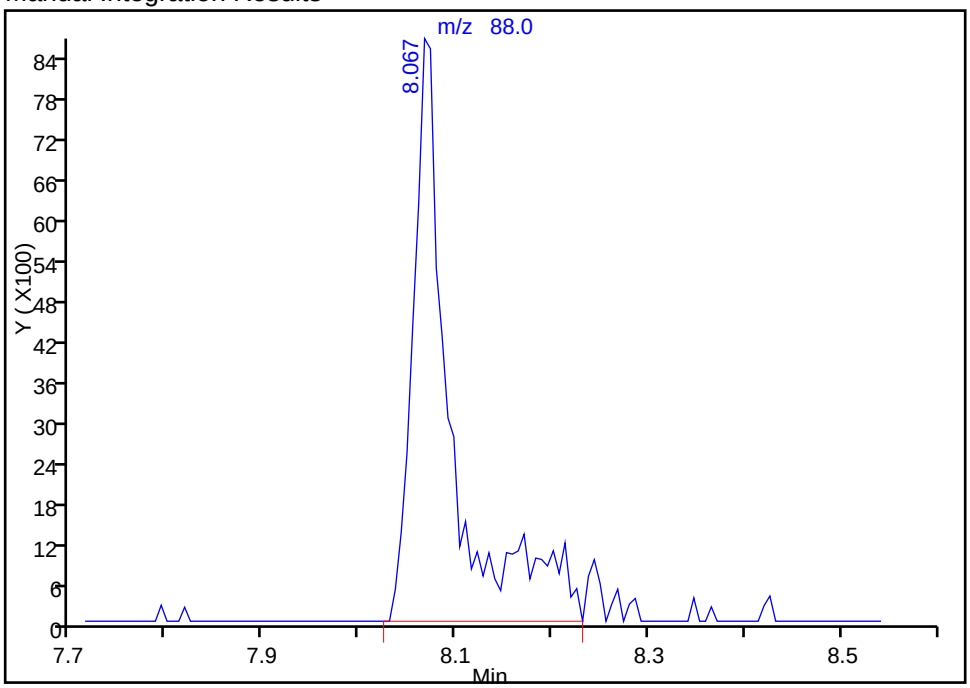
Processing Integration Results

RT: 8.07
Area: 21729
Amount: 1266.9830
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 24081
Amount: 1461.9472
Amount Units: ng



Reviewer: fergusond, 03-Apr-2015 14:31:20
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-Mar-2015 10:49:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006031-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 17-Mar-2015 10:59:24 Calib Date: 16-Mar-2015 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: fergusond Date: 16-Mar-2015 11:15:59

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	133980	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

VOA BFB 25_00001 Amount Added: 1.00 Units: uL

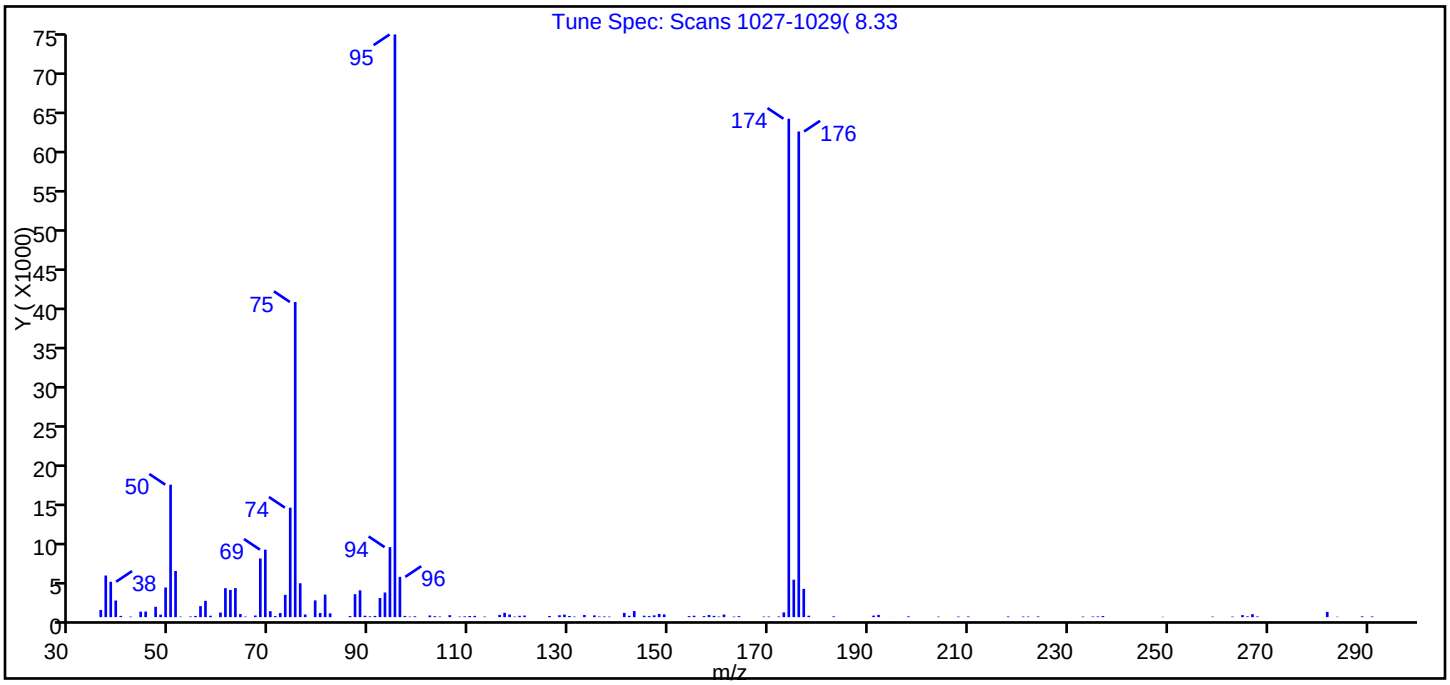
Report Date: 17-Mar-2015 10:59:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D				
Injection Date:	16-Mar-2015 10:49:30	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	22.7
75	30 to 60% of m/z 95	54.1
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	85.5
175	5 to 9% of m/z 174	6.4 (7.5)
176	Greater than 95% but less than 101% of m/z 174	83.4 (97.4)
177	5 to 9% of m/z 176	4.9 (5.8)

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 16-Mar-2015 10:49:30
Spectrum: Tune Spec: Scans 1027-1029(8.33
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 132

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	922	75.00	40336	119.00	71	173.00	604
37.00	5329	76.00	4335	120.00	170	174.00	63792
38.00	4528	77.00	339	121.00	203	175.00	4791
39.00	2130	79.00	2142	126.00	145	176.00	62160
40.00	163	80.00	527	128.00	241	177.00	3622
42.00	71	81.00	2886	129.00	320	178.00	182
44.00	700	82.00	482	130.00	150	183.00	99
45.00	713	86.00	138	131.00	72	191.00	196
47.00	1323	87.00	2939	133.00	273	192.00	286
48.00	310	88.00	3429	135.00	226	195.00	9
49.00	3792	89.00	182	136.00	81	198.00	98
50.00	16960	90.00	101	137.00	87	204.00	68
51.00	5912	91.00	160	138.00	71	208.00	75
52.00	63	92.00	2448	141.00	541	210.00	85
54.00	83	93.00	3152	142.00	172	218.00	87
55.00	155	94.00	8961	143.00	779	221.00	76
56.00	1409	95.00	74576	145.00	182	222.00	70
57.00	2093	96.00	5155	146.00	133	224.00	88
58.00	180	97.00	159	147.00	227	233.00	73
60.00	582	98.00	71	148.00	412	235.00	76
61.00	3707	99.00	112	149.00	352	236.00	88
62.00	3479	102.00	212	154.00	135	237.00	141
63.00	3721	103.00	120	155.00	179	249.00	43
64.00	392	104.00	75	157.00	135	259.00	70
65.00	71	106.00	253	158.00	274	263.00	71
67.00	207	108.00	68	159.00	163	265.00	262
68.00	7510	109.00	97	160.00	73	266.00	100
69.00	8635	110.00	146	161.00	334	267.00	377
70.00	764	111.00	161	163.00	71	268.00	85
71.00	139	113.00	71	164.00	125	282.00	672
72.00	524	116.00	278	169.00	70	284.00	50
73.00	2854	117.00	558	170.00	78	289.00	99
74.00	14015	118.00	332	172.00	82	291.00	87

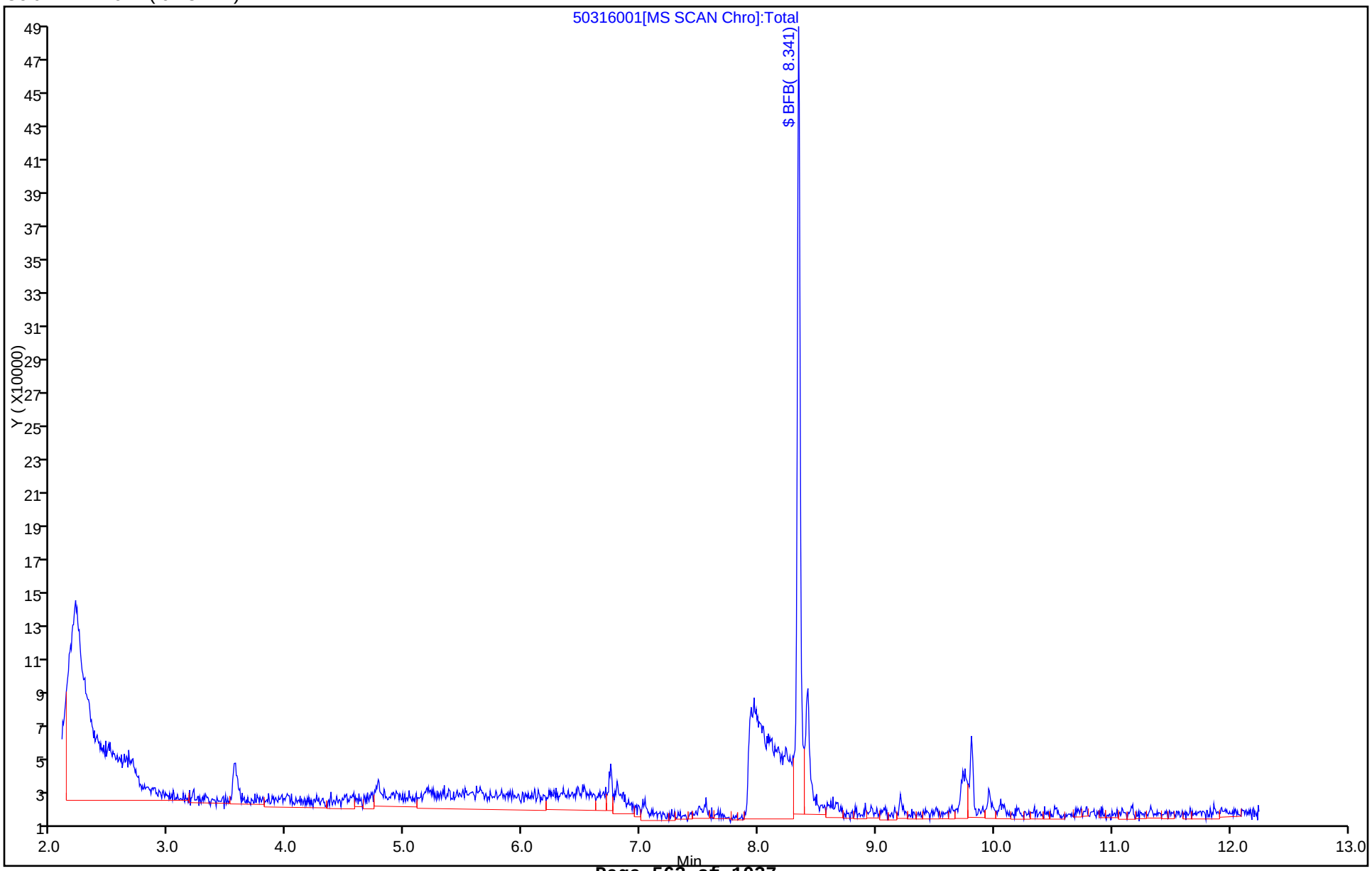
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	922	75.00	40336	119.00	71	173.00	604
37.00	5329	76.00	4335	120.00	170	174.00	63792
38.00	4528	77.00	339	121.00	203	175.00	4791
39.00	2130	79.00	2142	126.00	145	176.00	62160
40.00	163	80.00	527	128.00	241	177.00	3622
42.00	71	81.00	2886	129.00	320	178.00	182
44.00	700	82.00	482	130.00	150	183.00	99
45.00	713	86.00	138	131.00	72	191.00	196
47.00	1323	87.00	2939	133.00	273	192.00	286
48.00	310	88.00	3429	135.00	226	195.00	9
49.00	3792	89.00	182	136.00	81	198.00	98
50.00	16960	90.00	101	137.00	87	204.00	68
51.00	5912	91.00	160	138.00	71	208.00	75
52.00	63	92.00	2448	141.00	541	210.00	85
54.00	83	93.00	3152	142.00	172	218.00	87
55.00	155	94.00	8961	143.00	779	221.00	76
56.00	1409	95.00	74576	145.00	182	222.00	70
57.00	2093	96.00	5155	146.00	133	224.00	88
58.00	180	97.00	159	147.00	227	233.00	73
60.00	582	98.00	71	148.00	412	235.00	76
61.00	3707	99.00	112	149.00	352	236.00	88
62.00	3479	102.00	212	154.00	135	237.00	141
63.00	3721	103.00	120	155.00	179	249.00	43
64.00	392	104.00	75	157.00	135	259.00	70
65.00	71	106.00	253	158.00	274	263.00	71
67.00	207	108.00	68	159.00	163	265.00	262
68.00	7510	109.00	97	160.00	73	266.00	100
69.00	8635	110.00	146	161.00	334	267.00	377
70.00	764	111.00	161	163.00	71	268.00	85
71.00	139	113.00	71	164.00	125	282.00	672
72.00	524	116.00	278	169.00	70	284.00	50
73.00	2854	117.00	558	170.00	78	289.00	99
74.00	14015	118.00	332	172.00	82	291.00	87

Report Date: 17-Mar-2015 10:59:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D				
Injection Date:	16-Mar-2015 10:49:30	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\20150404-6328.b\50404001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 04-Apr-2015 11:14:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006328-001
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 15:01:03 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 11:26:52

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	72072	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

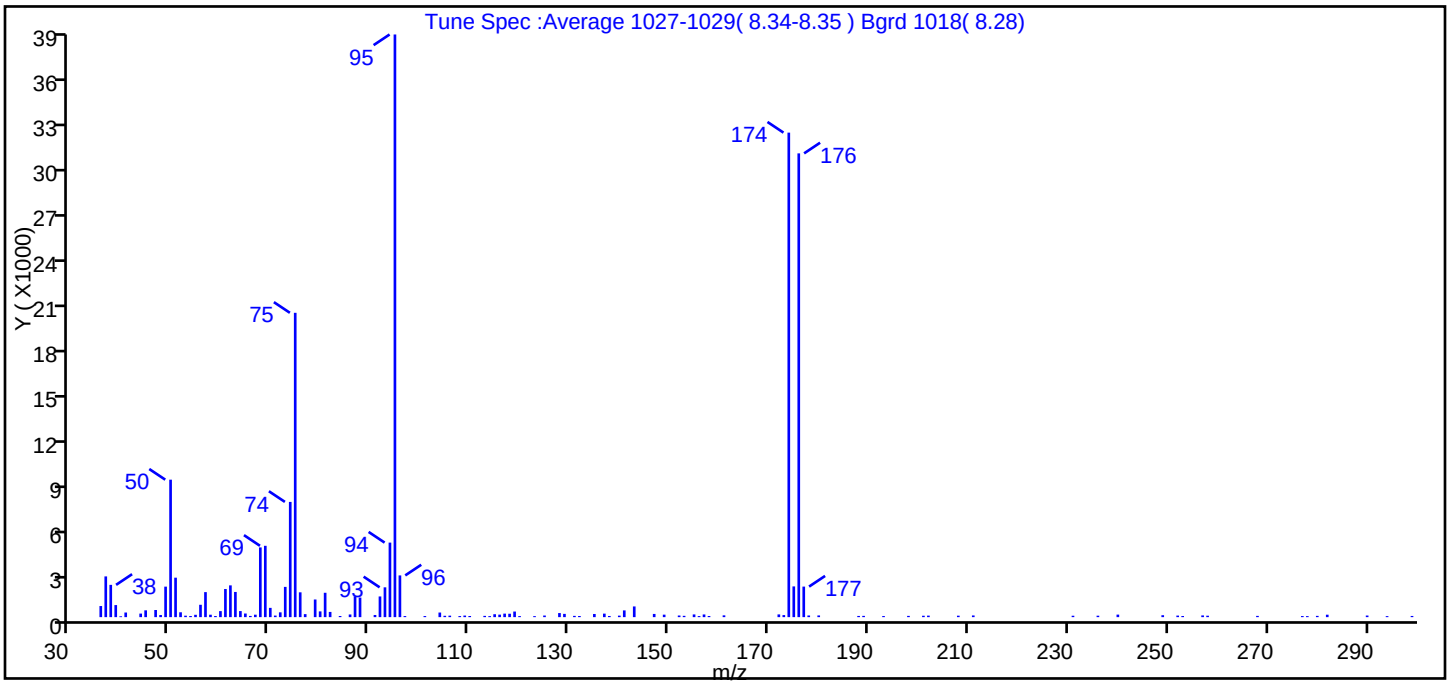
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404001.D				
Injection Date:	04-Apr-2015 11:14:30	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	23.6
75	30 to 60% of m/z 95	52.2
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	83.2
175	5 to 9% of m/z 174	5.3 (6.3)
176	Greater than 95% but less than 101% of m/z 174	79.6 (95.7)
177	5 to 9% of m/z 176	5.2 (6.6)

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 04-Apr-2015 11:14:30
Spectrum: Tune Spec :Average 1027-1029(8.34-8.35) Bgrd 1018(8.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 122

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	729	70.00	608	114.00	67	175.00	2014
37.00	2670	71.00	103	115.00	192	176.00	30392
38.00	2116	72.00	315	116.00	165	177.00	2002
39.00	791	73.00	1983	117.00	230	178.00	109
40.00	55	74.00	7552	118.00	223	180.00	111
41.00	303	75.00	19944	119.00	367	188.00	79
44.00	233	76.00	1627	120.00	68	189.00	83
45.00	446	77.00	198	123.00	66	193.00	71
47.00	468	79.00	1157	125.00	106	198.00	83
48.00	138	80.00	377	128.00	268	201.00	92
49.00	1999	81.00	1597	129.00	214	202.00	100
50.00	9009	82.00	342	131.00	83	208.00	96
51.00	2586	84.00	74	132.00	75	211.00	111
52.00	319	86.00	175	135.00	207	231.00	92
53.00	96	87.00	1360	137.00	230	236.00	95
54.00	74	88.00	1282	138.00	76	240.00	166
55.00	154	91.00	141	140.00	99	249.00	127
56.00	810	92.00	1356	141.00	442	252.00	102
57.00	1640	93.00	1954	143.00	701	253.00	74
58.00	159	94.00	4885	147.00	210	257.00	113
59.00	73	95.00	38184	149.00	163	258.00	94
60.00	395	96.00	2735	152.00	107	268.00	82
61.00	1843	97.00	71	153.00	86	277.00	71
62.00	2082	101.00	71	155.00	178	278.00	67
63.00	1651	104.00	302	156.00	69	280.00	83
64.00	397	105.00	89	157.00	176	282.00	160
65.00	237	106.00	97	158.00	74	290.00	105
66.00	79	108.00	71	161.00	118	294.00	67
67.00	161	109.00	103	172.00	179	299.00	78
68.00	4569	110.00	75	173.00	135		
69.00	4675	113.00	83	174.00	31752		

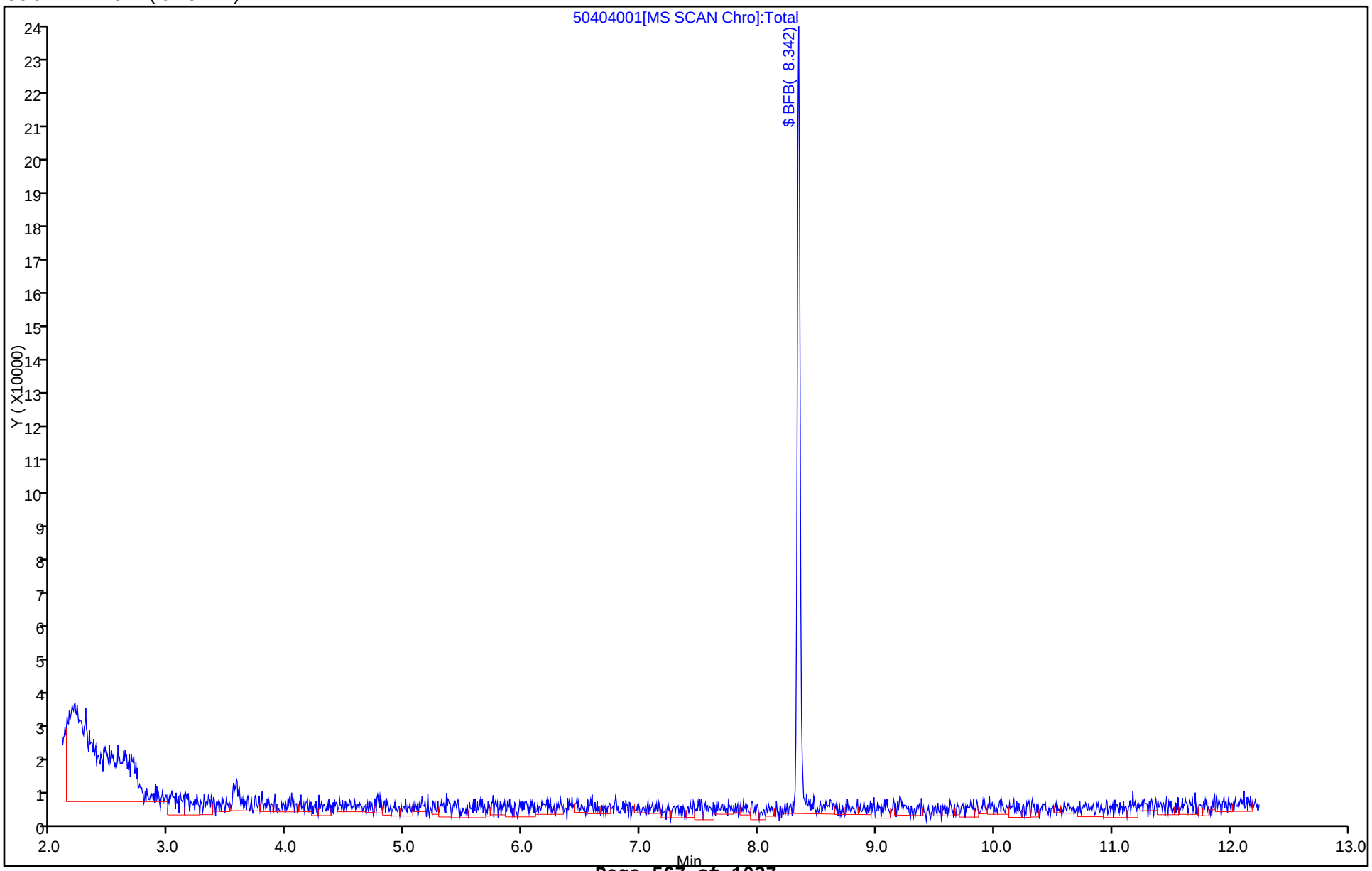
Report Date: 04-Apr-2015 15:01:04 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404001.D

Injection Date:	04-Apr-2015 11:14:30	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\CHHP6\20150128-5450.b\60128004.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 28-Jan-2015 11:55:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0005450-004
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 29-Jan-2015 12:59:04 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: fergusond Date: 28-Jan-2015 12:11:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.412	8.412	0.000	0	199884	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

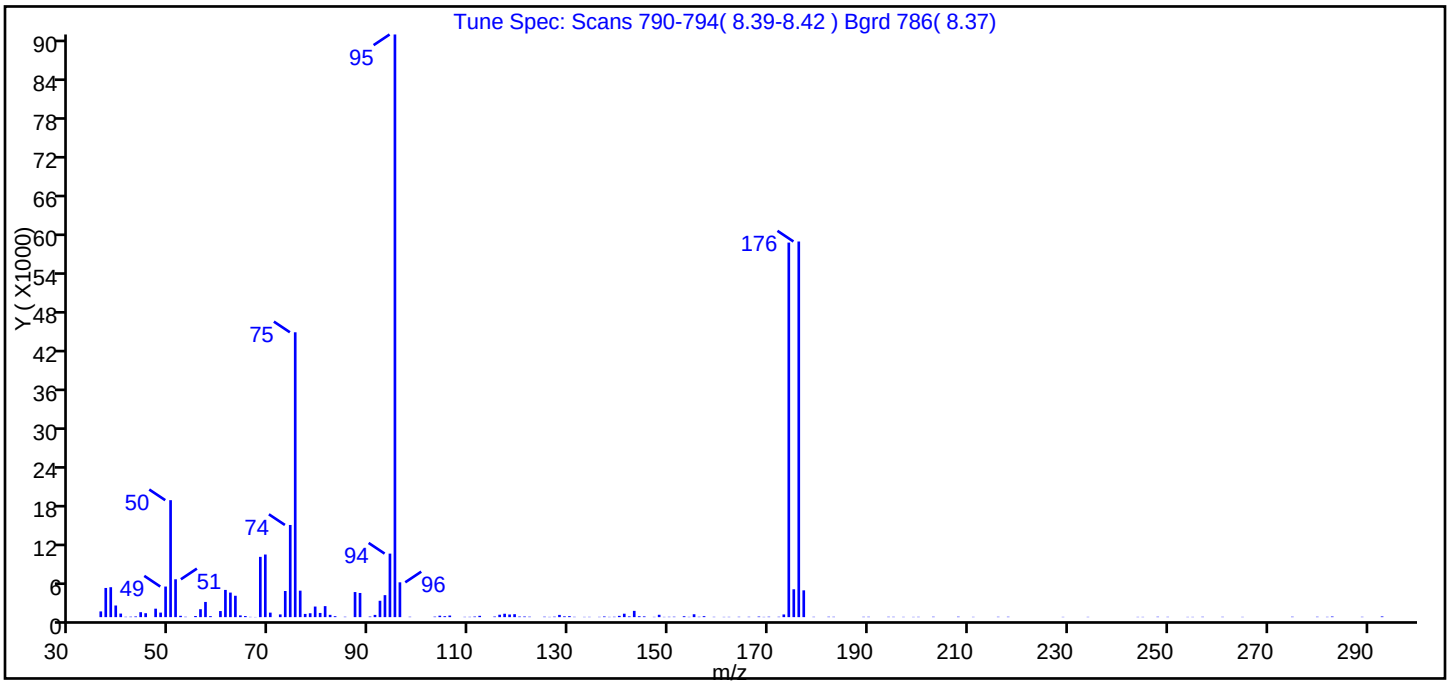
VOABFB25_00058 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D
Injection Date: 28-Jan-2015 11:55:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 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	20.1
75	30 to 60% of m/z 95	48.9
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.5 (0.7)
174	50 to 120% of m/z 95	64.3
175	5 to 9% of m/z 174	4.8 (7.4)
176	Greater than 95% but less than 101% of m/z 174	64.5 (100.3)
177	5 to 9% of m/z 176	4.6 (7.1)

Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 28-Jan-2015 11:55:30
Spectrum: Tune Spec: Scans 790-794(8.39-8.42) Bgrd 786(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 146

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	891	77.00	502	128.00	348	175.00	4324
37.00	4531	78.00	605	129.00	124	176.00	58296
38.00	4646	79.00	1644	130.00	152	177.00	4160
39.00	1807	80.00	651	131.00	50	179.00	52
40.00	555	81.00	1709	133.00	41	182.00	63
41.00	56	82.00	356	134.00	46	183.00	55
42.00	70	83.00	146	136.00	46	189.00	53
43.00	107	85.00	61	137.00	103	190.00	57
44.00	769	87.00	3894	138.00	43	194.00	56
45.00	610	88.00	3751	139.00	61	195.00	52
47.00	1314	90.00	90	140.00	200	197.00	43
48.00	705	91.00	349	141.00	534	199.00	40
49.00	4748	92.00	2541	142.00	114	200.00	48
50.00	18152	93.00	3413	143.00	975	203.00	62
51.00	5876	94.00	9860	144.00	138	208.00	68
52.00	208	95.00	90424	145.00	118	211.00	43
53.00	59	96.00	5404	147.00	46	216.00	55
55.00	176	98.00	59	148.00	368	218.00	59
56.00	1231	103.00	79	149.00	41	229.00	40
57.00	2359	104.00	225	150.00	55	234.00	42
58.00	152	105.00	149	151.00	67	244.00	41
60.00	945	106.00	249	153.00	140	245.00	40
61.00	4225	109.00	47	154.00	45	248.00	60
62.00	3811	110.00	49	155.00	450	250.00	48
63.00	3318	111.00	93	156.00	59	254.00	40
64.00	267	112.00	207	157.00	151	255.00	40
65.00	170	115.00	95	159.00	49	257.00	56
66.00	41	116.00	375	161.00	40	261.00	50
67.00	26	117.00	527	162.00	45	265.00	41
68.00	9355	118.00	409	164.00	56	275.00	63
69.00	9719	119.00	460	166.00	56	280.00	60
70.00	700	120.00	94	168.00	91	282.00	47
72.00	421	121.00	98	169.00	40	283.00	95

Report Date: 29-Jan-2015 12:59:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58
Data File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 28-Jan-2015 11:55:30
Spectrum: Tune Spec: Scans 790-794(8.39-8.42) Bgrd 786(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 146

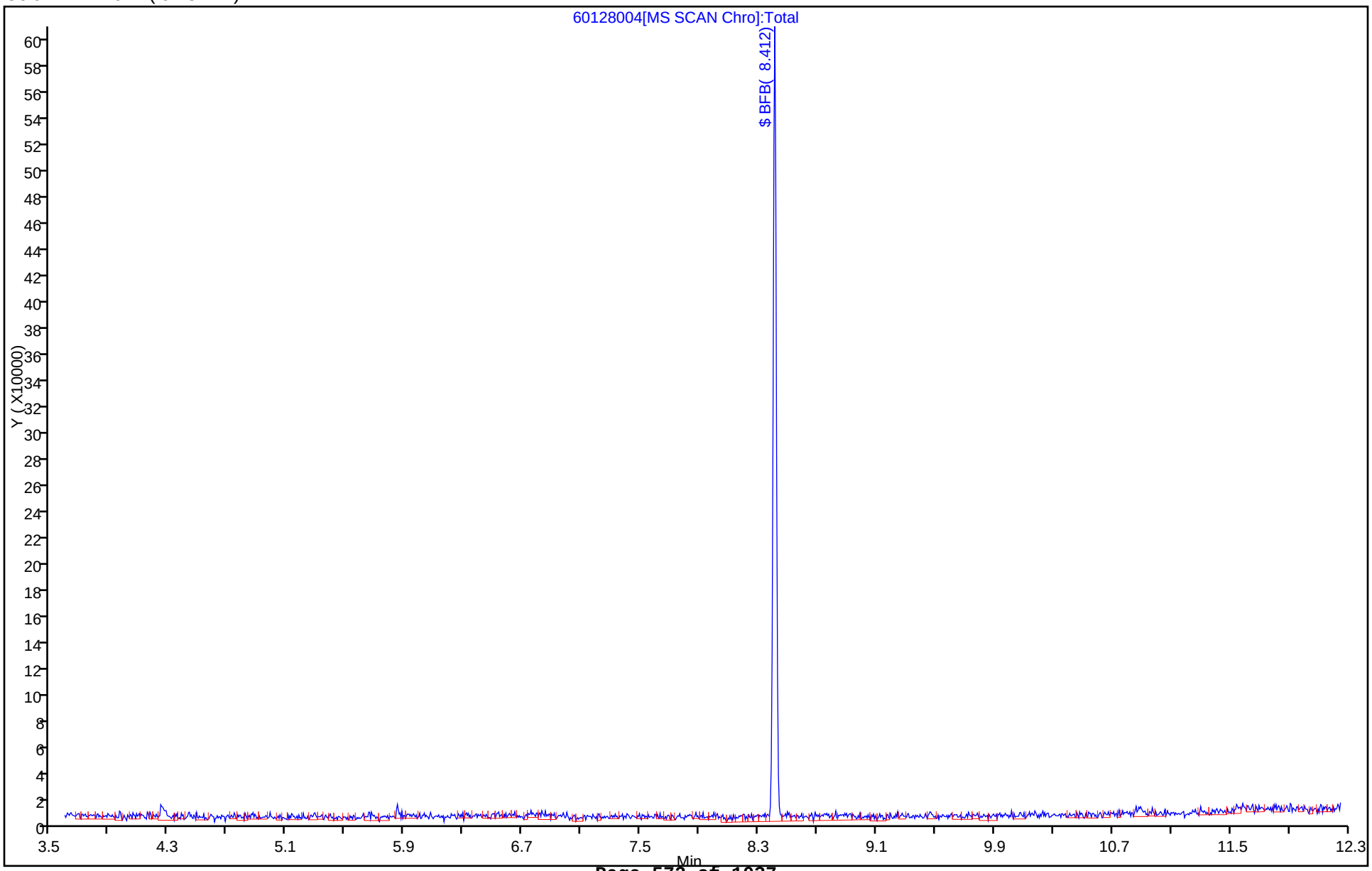
m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	4056	122.00	70	170.00	67	289.00	51
74.00	14305	125.00	68	172.00	59	293.00	109
75.00	44208	126.00	40	173.00	418		
76.00	4109	127.00	76	174.00	58128		

Report Date: 29-Jan-2015 12:59:04 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128004.D				
Injection Date:	28-Jan-2015 11:55:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 02-Apr-2015 11:56:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006300-001
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:23:42 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 02-Apr-2015 12:11:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.416	8.416	0.000	0	94554	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

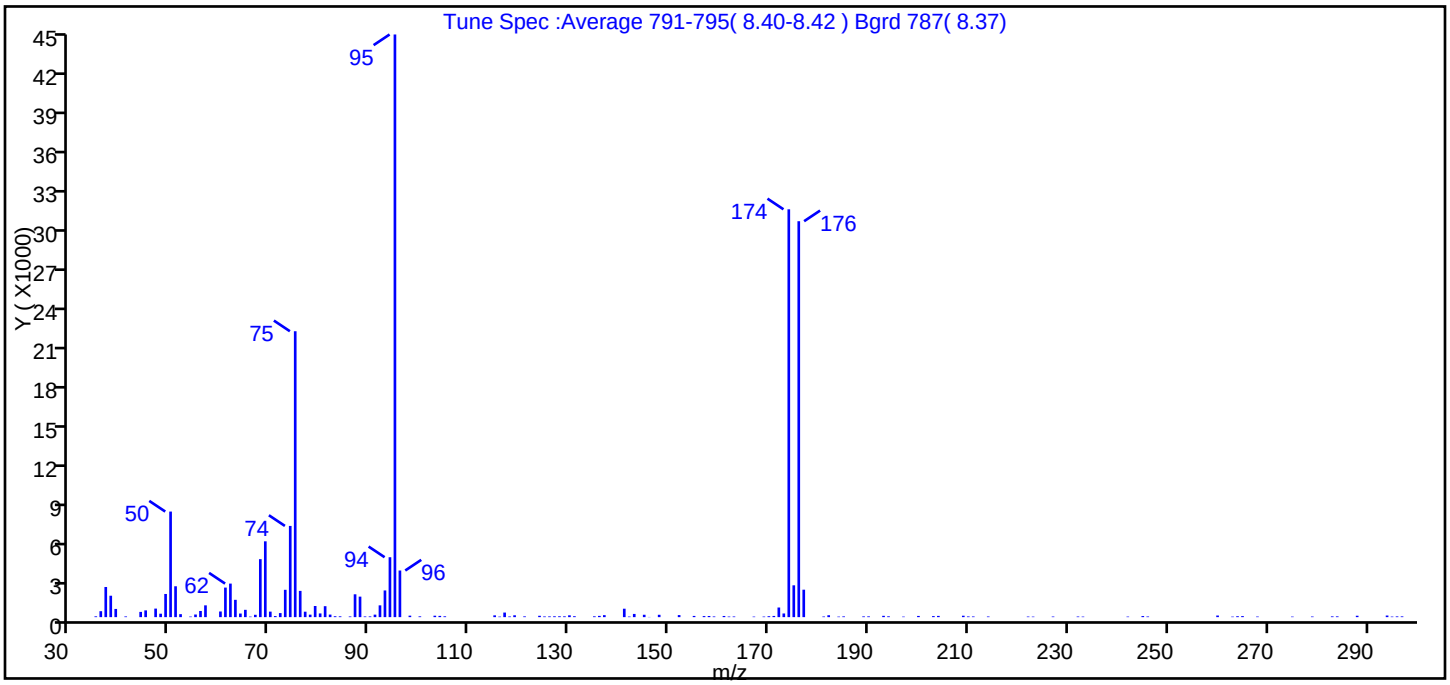
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402001.D				
Injection Date:	02-Apr-2015 11:56:30	Instrument ID:	CHHP6		
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_CHHP6	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.1
75	30 to 60% of m/z 95	49.1
96	5 to 9% of m/z 95	8.0
173	Less than 2% of m/z 174	0.6 (0.9)
174	50 to 120% of m/z 95	70.0
175	5 to 9% of m/z 174	5.5 (7.8)
176	Greater than 95% but less than 101% of m/z 174	68.0 (97.1)
177	5 to 9% of m/z 176	4.7 (6.9)

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 02-Apr-2015 11:56:30
Spectrum: Tune Spec :Average 791-795(8.40-8.42) Bgrd 787(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	61	77.00	414	129.00	61	190.00	58
36.00	452	78.00	189	130.00	139	193.00	100
37.00	2289	79.00	846	131.00	70	194.00	63
38.00	1626	80.00	282	135.00	62	197.00	40
39.00	623	81.00	832	136.00	96	200.00	92
41.00	54	82.00	194	137.00	151	203.00	79
44.00	398	83.00	68	141.00	640	204.00	95
45.00	513	84.00	61	142.00	44	209.00	108
47.00	649	86.00	52	143.00	244	210.00	53
48.00	261	87.00	1735	145.00	181	211.00	51
49.00	1759	88.00	1557	146.00	14	214.00	49
50.00	8015	89.00	52	148.00	179	222.00	45
51.00	2344	90.00	55	152.00	156	223.00	40
52.00	227	91.00	191	155.00	92	227.00	46
54.00	43	92.00	895	157.00	80	232.00	48
55.00	200	93.00	2027	158.00	86	233.00	41
56.00	468	94.00	4549	159.00	52	242.00	42
57.00	895	95.00	44232	161.00	88	245.00	82
60.00	429	96.00	3540	162.00	45	246.00	50
61.00	2244	98.00	113	163.00	50	260.00	122
62.00	2547	100.00	60	167.00	41	263.00	40
63.00	1315	103.00	109	169.00	43	264.00	69
64.00	274	104.00	95	170.00	70	265.00	79
65.00	556	105.00	63	171.00	91	268.00	45
66.00	40	115.00	136	172.00	731	275.00	41
67.00	179	116.00	40	173.00	279	279.00	47
68.00	4402	117.00	348	174.00	30960	283.00	58
69.00	5756	118.00	50	175.00	2416	284.00	59
70.00	419	119.00	141	176.00	30056	288.00	106
71.00	82	121.00	58	177.00	2084	294.00	122
72.00	309	124.00	103	181.00	48	295.00	43
73.00	2075	125.00	52	182.00	144	296.00	57
74.00	6925	126.00	57	184.00	40	297.00	58

Report Date: 03-Apr-2015 10:23:43 Chrom Revision: 2.2 13-Mar-2015 11:20:44
Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 02-Apr-2015 11:56:30
Spectrum: Tune Spec :Average 791-795(8.40-8.42) Bgrd 787(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 138

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	21704	127.00	64	185.00	56		
76.00	1993	128.00	66	189.00	56		

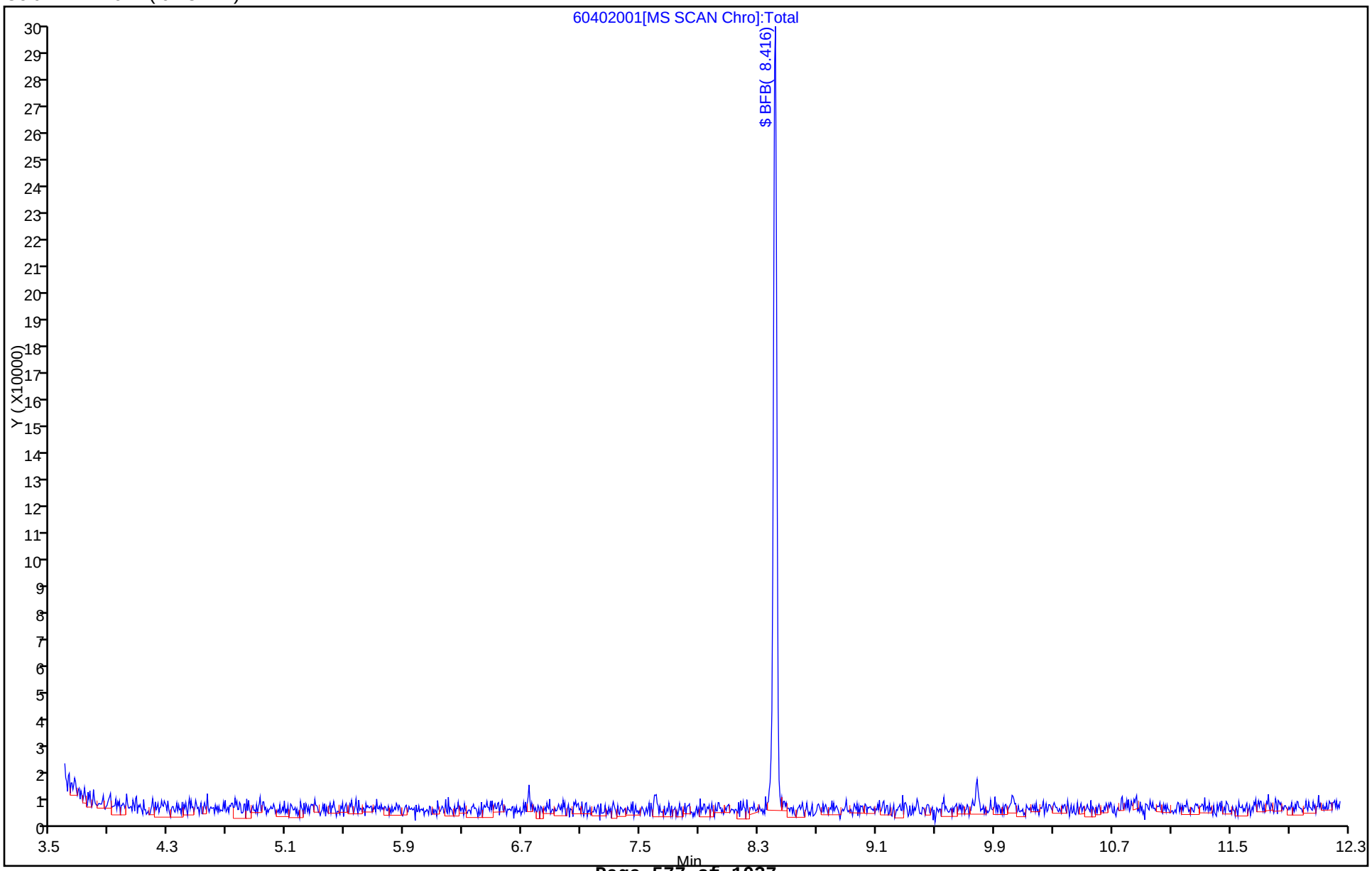
Report Date: 03-Apr-2015 10:23:43 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402001.D

Injection Date:	02-Apr-2015 11:56:30	Instrument ID:	CHHP6	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_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 03-Apr-2015 12:23:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006320-001
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 15:49:52 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 12:35:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.411	8.411	0.000	0	73074	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

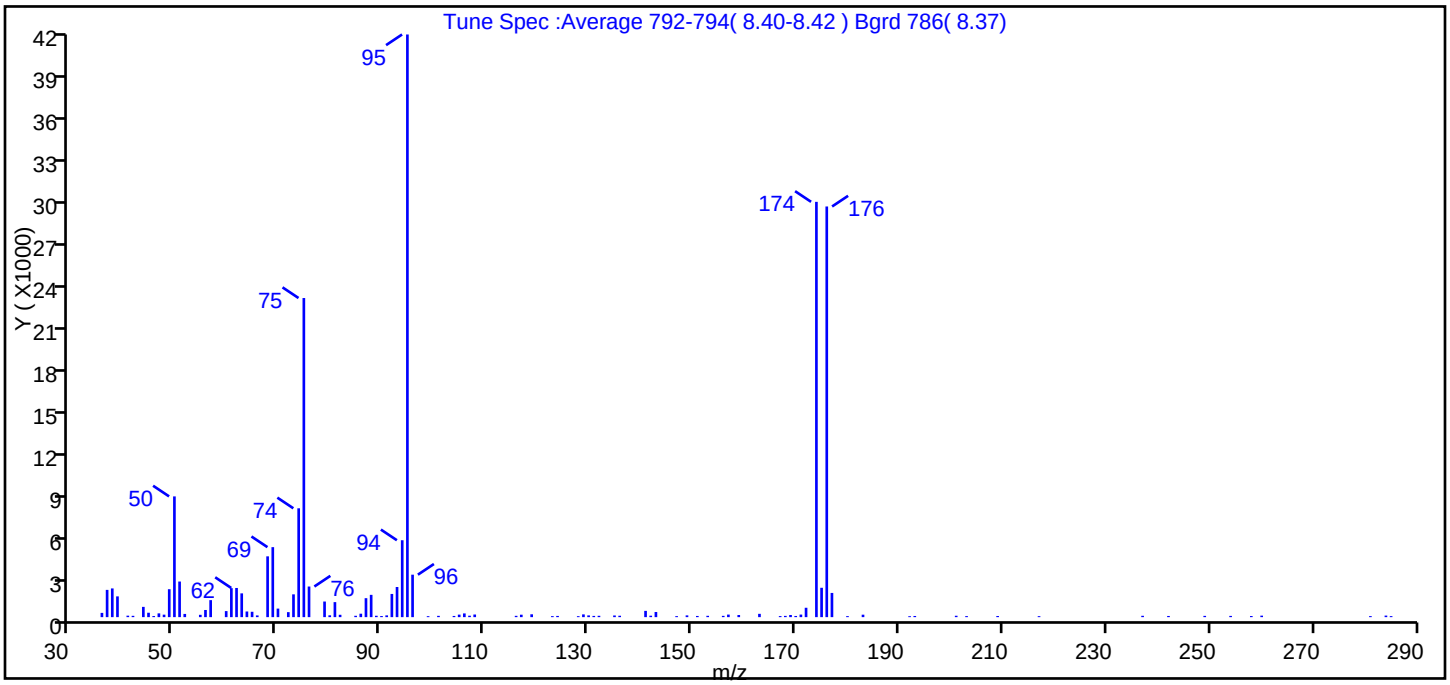
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403001.D				
Injection Date:	03-Apr-2015 12:23:30	Instrument ID:	CHHP6		
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_CHHP6	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	20.7
75	30 to 60% of m/z 95	54.8
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	71.3
175	5 to 9% of m/z 174	5.0 (7.1)
176	Greater than 95% but less than 101% of m/z 174	70.5 (98.9)
177	5 to 9% of m/z 176	4.2 (5.9)

Report Date: 03-Apr-2015 15:49:53 Chrom Revision: 2.2 13-Mar-2015 11:20:44

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 03-Apr-2015 12:23:30
Spectrum: Tune Spec :Average 792-794(8.40-8.42) Bgrd 786(8.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 106

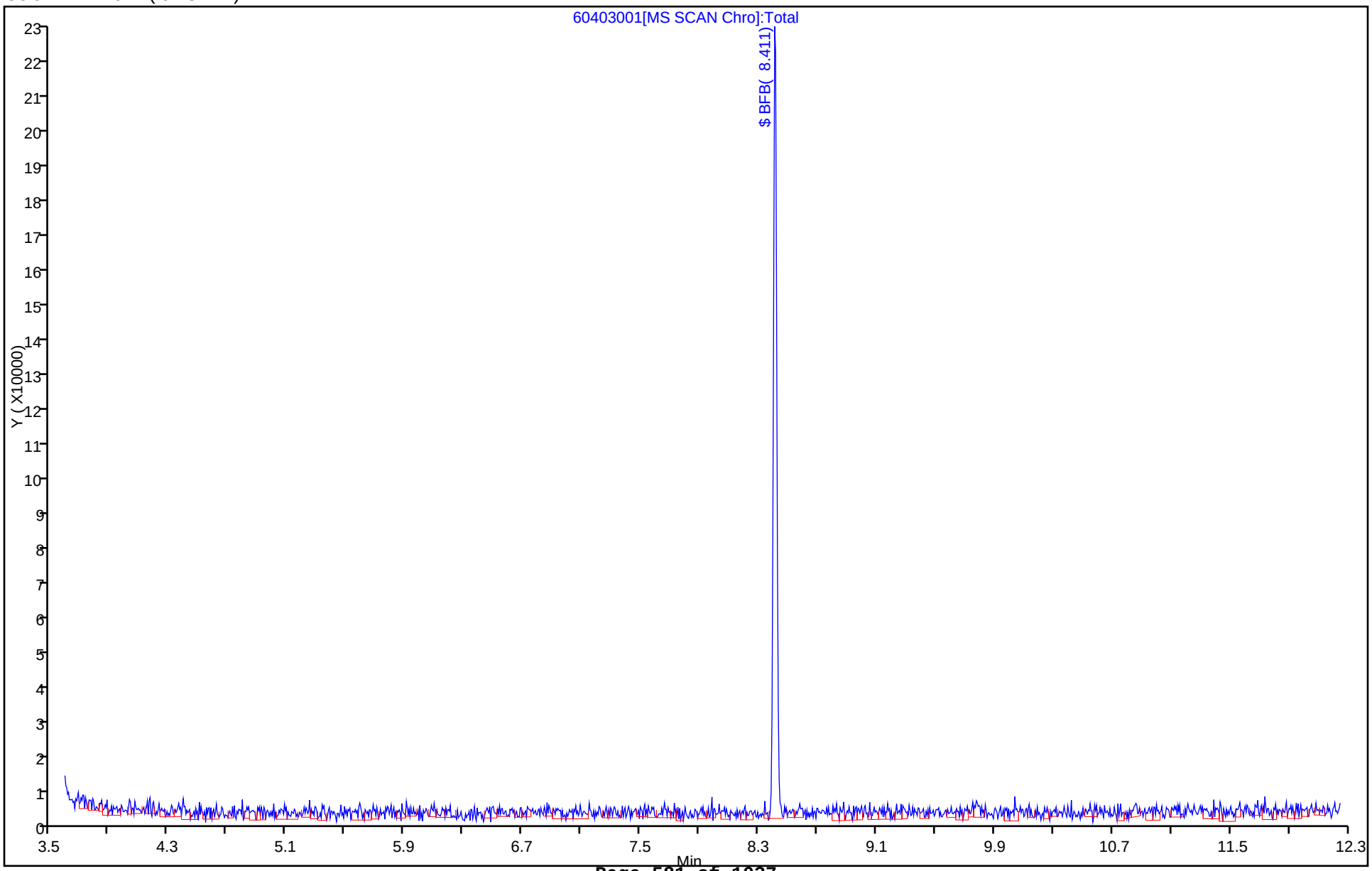
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	301	70.00	604	107.00	102	169.00	152
37.00	1927	72.00	353	108.00	186	170.00	83
38.00	2030	73.00	1612	116.00	93	171.00	181
39.00	1468	74.00	7695	117.00	173	172.00	663
41.00	104	75.00	22560	119.00	202	174.00	29360
42.00	93	76.00	2165	123.00	71	175.00	2076
44.00	726	79.00	1104	124.00	86	176.00	29032
45.00	311	80.00	129	128.00	68	177.00	1711
46.00	78	81.00	1062	129.00	195	180.00	72
47.00	267	82.00	167	130.00	123	183.00	174
48.00	176	85.00	96	131.00	87	192.00	66
49.00	1975	86.00	243	132.00	96	193.00	82
50.00	8536	87.00	1341	135.00	118	201.00	98
51.00	2518	88.00	1576	136.00	99	203.00	74
52.00	227	89.00	98	141.00	443	209.00	80
55.00	164	90.00	77	142.00	102	217.00	69
56.00	506	91.00	125	143.00	364	237.00	95
57.00	1202	92.00	1640	147.00	72	242.00	83
60.00	428	93.00	2131	149.00	124	249.00	90
61.00	2050	94.00	5437	151.00	84	254.00	88
62.00	2062	95.00	41192	153.00	94	258.00	78
63.00	1681	96.00	3002	156.00	91	260.00	106
64.00	400	99.00	68	157.00	181	281.00	72
65.00	380	101.00	92	159.00	150	284.00	110
66.00	121	104.00	84	163.00	234	285.00	72
68.00	4299	105.00	178	167.00	75		
69.00	4948	106.00	263	168.00	89		

Report Date: 03-Apr-2015 15:49:53 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403001.D				
Injection Date:	03-Apr-2015 12:23:30	Instrument ID:	CHHP6	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_CHHP6	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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137356/5

Matrix: Water Lab File ID: 60402005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/02/2015 14:04

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.: 137356 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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137356/5

Matrix: Water Lab File ID: 60402005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/02/2015 14:04

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.: 137356 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)	110		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 02-Apr-2015 14:04:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0006300-005
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:23:42 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 10:24:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.273	0.004	89	223881	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	98	525227	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.443	10.440	0.003	89	109799	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	99	178039	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.600	6.598	0.002	92	124604	50.0	52.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	7.156	-0.179	69	187332	50.0	55.1	
$ 7 Toluene-d8 (Surr)	98	8.984	8.982	0.002	93	466158	50.0	53.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.633	-0.004	84	173635	50.0	47.2	
11 Dichlorodifluoromethane	85		1.611					ND	
12 Chloromethane	50		1.769					ND	
13 Vinyl chloride	62		1.903					ND	
14 Butadiene	39		1.946					ND	
15 Bromomethane	94		2.244					ND	
16 Chloroethane	64		2.408					ND	
17 Dichlorofluoromethane	67		2.669					ND	
18 Trichlorofluoromethane	101		2.718					ND	
19 Ethanol	45		2.941					ND	
20 Ethyl ether	59		3.077					ND	
21 Acrolein	56		3.247					ND	
22 1,1-Dichloroethene	96		3.375					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.442					ND	
24 Acetone	43		3.454					ND	
25 Iodomethane	142		3.569					ND	
26 Carbon disulfide	76		3.679					ND	
27 Isopropyl alcohol	45		3.726					ND	
28 Acetonitrile	40		3.878					ND	
29 3-Chloro-1-propene	76		3.959					ND	
30 Methyl acetate	43		3.971					ND	
31 Methylene Chloride	84		4.178					ND	
32 2-Methyl-2-propanol	59		4.415					ND	
33 Acrylonitrile	53		4.542					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		4.609					ND	
35 Methyl tert-butyl ether	73		4.615					ND	
36 Hexane	57		5.023					ND	
37 1,1-Dichloroethane	63		5.242					ND	
38 Vinyl acetate	43		5.278					ND	
40 Isopropyl ether	45		5.331					ND	
39 2-Chloro-1,3-butadiene	53		5.338					ND	
41 Tert-butyl ethyl ether	59		5.812					ND	
44 2-Butanone (MEK)	43		5.984					ND	
42 2,2-Dichloropropane	77		5.990					ND	
43 cis-1,2-Dichloroethene	96		5.990					ND	
45 Propionitrile	54		6.049					ND	
46 Ethyl acetate	43		6.061					ND	
47 Methacrylonitrile	41		6.238					ND	
48 Chlorobromomethane	128		6.276					ND	
49 Tetrahydrofuran	42		6.288					ND	
50 Chloroform	83		6.409					ND	
51 1,1,1-Trichloroethane	97		6.580					ND	
52 Cyclohexane	56		6.665					ND	
53 Carbon tetrachloride	117		6.762					ND	
54 1,1-Dichloropropene	75		6.768					ND	
55 Isobutyl alcohol	41		6.932					ND	
56 Benzene	78		6.987					ND	
57 1,2-Dichloroethane	62		7.060					ND	
58 Tert-amyl methyl ether	73		7.162					ND	
59 n-Heptane	43		7.346					ND	
60 n-Butanol	56		7.642					ND	
61 Trichloroethene	130		7.723					ND	
62 Ethyl acrylate	55		7.831					ND	
63 Methylcyclohexane	83		7.966					ND	
64 1,2-Dichloropropane	63		7.997					ND	
66 Methyl methacrylate	69		8.068					ND	
65 1,4-Dioxane	88		8.070					ND	
67 Dibromomethane	93		8.082					ND	
68 Dichlorobromomethane	83		8.270					ND	
69 2-Nitropropane	41		8.482					ND	
70 2-Chloroethyl vinyl ether	63		8.567					ND	
71 cis-1,3-Dichloropropene	75		8.720					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.854					ND	
73 Toluene	91	9.051	9.049	0.002	35	4224		0.3763	M
74 trans-1,3-Dichloropropene	75		9.292					ND	
75 Ethyl methacrylate	69		9.347					ND	
76 1,1,2-Trichloroethane	97		9.493					ND	
77 Tetrachloroethene	164		9.572					ND	
78 1,3-Dichloropropane	76		9.645					ND	
79 2-Hexanone	43		9.693					ND	
80 n-Butyl acetate	43		9.819					ND	
81 Chlorodibromomethane	129		9.870					ND	
82 Ethylene Dibromide	107		9.985					ND	
83 3-Chlorobenzotrifluoride	180		10.429					ND	
84 Chlorobenzene	112		10.472					ND	
85 4-Chlorobenzotrifluoride	180		10.520					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 1,1,1,2-Tetrachloroethane	131		10.563					ND	
87 Ethylbenzene	106		10.569					ND	
88 m-Xylene & p-Xylene	106		10.697					ND	
89 o-Xylene	106		11.080					ND	
90 Styrene	104		11.104					ND	
129 Cyclohexanol	57		11.289					ND	
91 Bromoform	173		11.293					ND	
92 2-Chlorobenzotrifluoride	180		11.341					ND	
93 Isopropylbenzene	105		11.451					ND	
94 Cyclohexanone	55		11.534					ND	
96 1,1,2,2-Tetrachloroethane	83		11.755					ND	
95 Bromobenzene	156		11.767					ND	
97 trans-1,4-Dichloro-2-buten	53		11.791					ND	
98 1,2,3-Trichloropropane	110		11.816					ND	
99 N-Propylbenzene	120		11.864					ND	
100 2-Chlorotoluene	126		11.956					ND	
101 3-Chlorotoluene	126		12.022					ND	
102 1,3,5-Trimethylbenzene	105		12.047					ND	
103 4-Chlorotoluene	126		12.083					ND	
104 tert-Butylbenzene	119		12.363					ND	
105 Pentachloroethane	167		12.398					ND	
106 1,2,4-Trimethylbenzene	105		12.424					ND	
107 1,2-dichloro-4-(trifluorom	214		12.454					ND	
108 sec-Butylbenzene	105		12.588					ND	
109 1,3-Dichlorobenzene	146		12.710					ND	
110 4-Isopropyltoluene	119		12.746					ND	
111 1,4-Dichlorobenzene	146		12.813					ND	
113 2,4-Dichloro-1-(triflourom	214		12.831					ND	
112 1,2,3-Trimethylbenzene	105		12.836					ND	
114 2,5-Dichlorobenzotrifluori	214		12.868					ND	
115 Benzyl chloride	91		12.921					ND	
116 n-Butylbenzene	91		13.154					ND	
117 1,2-Dichlorobenzene	146		13.166					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.968					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.108					ND	
120 1,3,5-Trichlorobenzene	180		14.155					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.522					ND	
122 1,2,4-Trichlorobenzene	180		14.789					ND	
123 Hexachlorobutadiene	225		14.929					ND	
124 Naphthalene	128		15.057					ND	
125 1,2,3-Trichlorobenzene	180		15.276					ND	
126 2,4,5-Trichlorotoluene	159		16.048					ND	
127 2,3,6-Trichlorotoluene	159		16.146					ND	
128 2-Methylnaphthalene	142		16.187					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
148 Isooctane	57		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
143 2,5-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

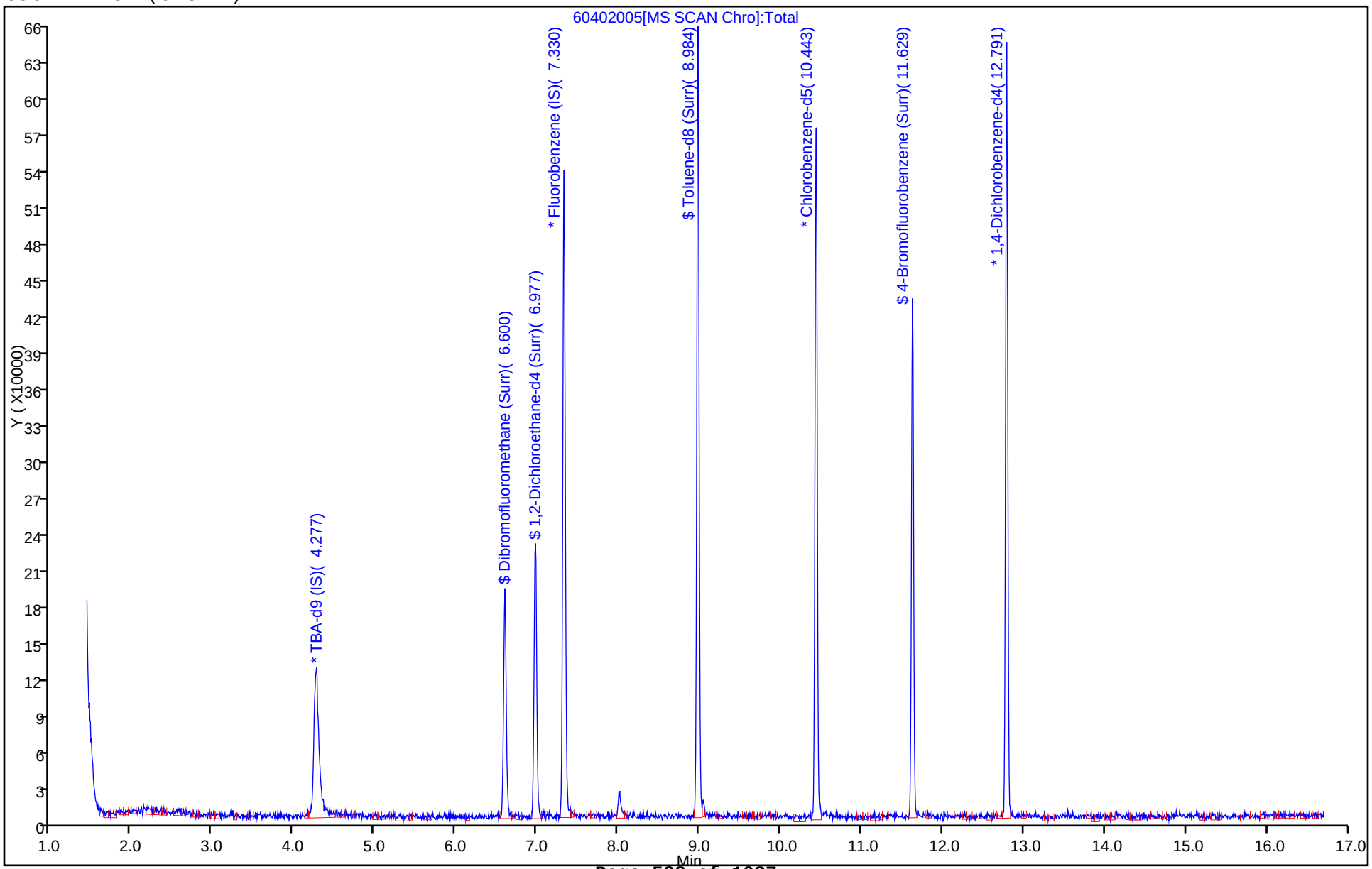
Report Date: 03-Apr-2015 10:24:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402005.D

Injection Date:	02-Apr-2015 14:04:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

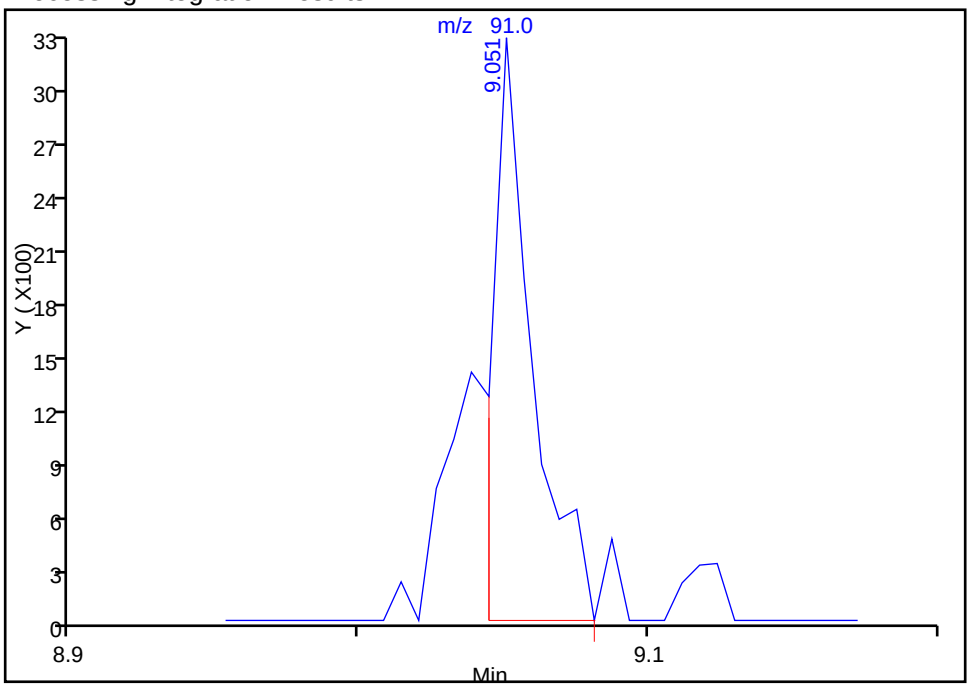
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402005.D
Injection Date: 02-Apr-2015 14:04:30 Instrument ID: CHHP6
Lims ID: MB
Client ID:
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

73 Toluene, CAS: 108-88-3

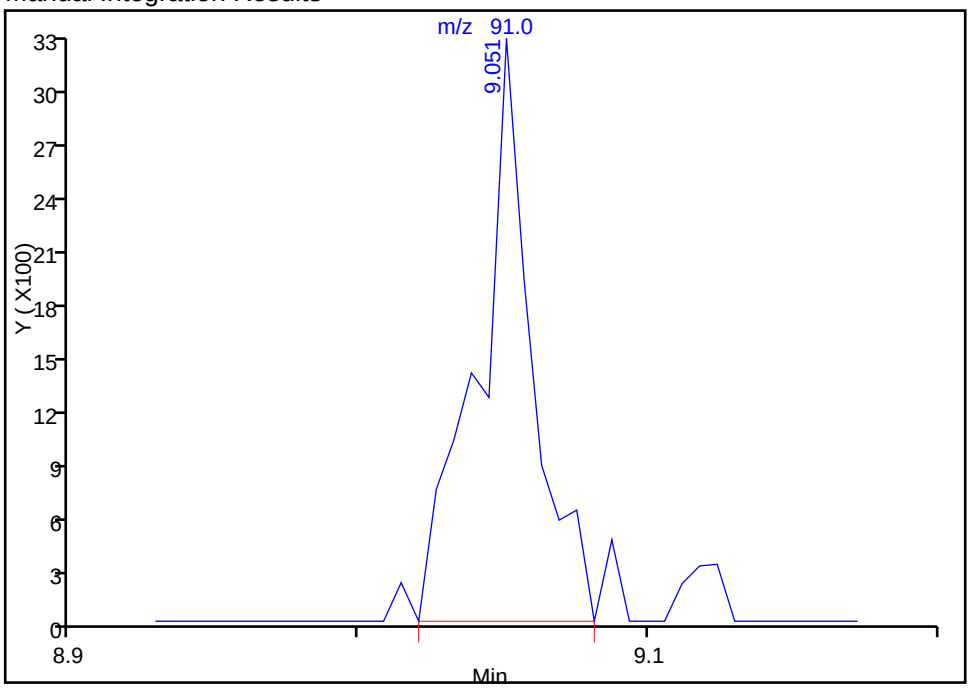
Processing Integration Results

RT: 9.05
Area: 3082
Amount: 0.274559
Amount Units: ng



Manual Integration Results

RT: 9.05
Area: 4224
Amount: 0.376294
Amount Units: ng



Reviewer: fergusond, 02-Apr-2015 14:29:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-137472/6

Matrix: Water | Lab File ID: 60403006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 14:50

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.: 137472 | 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	0.132	J	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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137472/6

Matrix: Water Lab File ID: 60403006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 14:50

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.: 137472 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)	121		64-135
2037-26-5	Toluene-d8 (Surr)	108		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\CHHP6\20150403-6320.b\60403006.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-Apr-2015 14:50:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0006320-006
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 16:44:41 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 17:10:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.279	-0.007	88	190337	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.331	7.332	-0.001	98	423019	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.439	10.439	0.000	90	88325	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.793	-0.001	97	145974	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.601	6.602	-0.001	94	100696	50.0	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.972	6.979	-0.007	70	166145	50.0	60.7	
$ 7 Toluene-d8 (Surr)	98	8.979	8.980	-0.001	93	376460	50.0	54.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.625	0.005	85	140307	50.0	47.4	
11 Dichlorodifluoromethane	85		1.627					ND	
12 Chloromethane	50		1.767					ND	
13 Vinyl chloride	62		1.907					ND	
14 Butadiene	39		1.950					ND	
15 Bromomethane	94		2.260					ND	
16 Chloroethane	64		2.412					ND	
17 Dichlorofluoromethane	67		2.679					ND	
18 Trichlorofluoromethane	101		2.716					ND	
19 Ethanol	45		2.951					ND	
20 Ethyl ether	59		3.069					ND	
21 Acrolein	56		3.257					ND	
22 1,1-Dichloroethene	96		3.391					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.452					ND	
24 Acetone	43		3.464					ND	
25 Iodomethane	142		3.585					ND	
26 Carbon disulfide	76		3.689					ND	
27 Isopropyl alcohol	45		3.730					ND	
28 Acetonitrile	40		3.882					ND	
29 3-Chloro-1-propene	76		3.956					ND	
30 Methyl acetate	43		3.975					ND	
31 Methylene Chloride	84	4.157	4.181	-0.025	1	2294		0.6606	M
32 2-Methyl-2-propanol	59		4.412					ND	
33 Acrylonitrile	53		4.546					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Methyl tert-butyl ether	73		4.607					ND	
34 trans-1,2-Dichloroethene	96		4.619					ND	
36 Hexane	57		5.027					ND	
37 1,1-Dichloroethane	63		5.240					ND	
38 Vinyl acetate	43		5.282					ND	
39 2-Chloro-1,3-butadiene	53		5.335					ND	
40 Isopropyl ether	45		5.335					ND	
41 Tert-butyl ethyl ether	59		5.809					ND	
42 2,2-Dichloropropane	77		5.988					ND	
44 2-Butanone (MEK)	43		5.988					ND	
43 cis-1,2-Dichloroethene	96		5.988					ND	
45 Propionitrile	54		6.053					ND	
46 Ethyl acetate	43		6.065					ND	
47 Methacrylonitrile	41		6.235					ND	
48 Chlorobromomethane	128		6.273					ND	
49 Tetrahydrofuran	42		6.286					ND	
50 Chloroform	83		6.413					ND	
51 1,1,1-Trichloroethane	97		6.584					ND	
52 Cyclohexane	56		6.669					ND	
53 Carbon tetrachloride	117		6.760					ND	
54 1,1-Dichloropropene	75		6.772					ND	
55 Isobutyl alcohol	41		6.936					ND	
56 Benzene	78		6.985					ND	
57 1,2-Dichloroethane	62		7.058					ND	
58 Tert-amyl methyl ether	73		7.159					ND	
59 n-Heptane	43		7.350					ND	
60 n-Butanol	56		7.646					ND	
61 Trichloroethene	130		7.721					ND	
62 Ethyl acrylate	55		7.828					ND	
63 Methylcyclohexane	83		7.970					ND	
64 1,2-Dichloropropane	63		7.994					ND	
66 Methyl methacrylate	69		8.066					ND	
65 1,4-Dioxane	88		8.067					ND	
67 Dibromomethane	93		8.086					ND	
68 Dichlorobromomethane	83		8.274					ND	
69 2-Nitropropane	41		8.485					ND	
70 2-Chloroethyl vinyl ether	63		8.570					ND	
71 cis-1,3-Dichloropropene	75		8.718					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.858					ND	
73 Toluene	91	9.046	9.053	-0.007	38	3442		0.3812	
74 trans-1,3-Dichloropropene	75		9.296					ND	
75 Ethyl methacrylate	69		9.351					ND	
76 1,1,2-Trichloroethane	97		9.496					ND	
77 Tetrachloroethene	164		9.569					ND	
78 1,3-Dichloropropane	76		9.649					ND	
79 2-Hexanone	43		9.691					ND	
80 n-Butyl acetate	43		9.823					ND	
81 Chlorodibromomethane	129		9.874					ND	
82 Ethylene Dibromide	107		9.983					ND	
83 3-Chlorobenzotrifluoride	180		10.433					ND	
84 Chlorobenzene	112		10.469					ND	
85 4-Chlorobenzotrifluoride	180		10.524					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 1,1,1,2-Tetrachloroethane	131		10.561					ND	
87 Ethylbenzene	106		10.567					ND	
88 m-Xylene & p-Xylene	106		10.701					ND	
89 o-Xylene	106		11.084					ND	
90 Styrene	104		11.102					ND	
129 Cyclohexanol	57		11.289					ND	
91 Bromoform	173		11.290					ND	
92 2-Chlorobenzotrifluoride	180		11.339					ND	
93 Isopropylbenzene	105		11.449					ND	
94 Cyclohexanone	55		11.526					ND	
96 1,1,2,2-Tetrachloroethane	83		11.753					ND	
95 Bromobenzene	156		11.771					ND	
97 trans-1,4-Dichloro-2-buten	53		11.789					ND	
98 1,2,3-Trichloropropane	110		11.813					ND	
99 N-Propylbenzene	120		11.868					ND	
100 2-Chlorotoluene	126		11.953					ND	
101 3-Chlorotoluene	126		12.020					ND	
102 1,3,5-Trimethylbenzene	105		12.045					ND	
103 4-Chlorotoluene	126		12.081					ND	
104 tert-Butylbenzene	119		12.367					ND	
105 Pentachloroethane	167		12.402					ND	
106 1,2,4-Trimethylbenzene	105		12.422					ND	
107 1,2-dichloro-4-(trifluorom	214		12.458					ND	
108 sec-Butylbenzene	105		12.586					ND	
109 1,3-Dichlorobenzene	146		12.707					ND	
110 4-Isopropyltoluene	119		12.744					ND	
111 1,4-Dichlorobenzene	146		12.817					ND	
113 2,4-Dichloro-1-(triflourom	214		12.829					ND	
112 1,2,3-Trimethylbenzene	105		12.833					ND	
114 2,5-Dichlorobenzotrifluori	214		12.866					ND	
115 Benzyl chloride	91		12.925					ND	
116 n-Butylbenzene	91		13.151					ND	
117 1,2-Dichlorobenzene	146		13.170					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.966					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.106					ND	
120 1,3,5-Trichlorobenzene	180		14.153					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.520					ND	
122 1,2,4-Trichlorobenzene	180		14.787					ND	
123 Hexachlorobutadiene	225		14.927					ND	
124 Naphthalene	128		15.055					ND	
125 1,2,3-Trichlorobenzene	180		15.280					ND	
126 2,4,5-Trichlorotoluene	159		16.046					ND	
127 2,3,6-Trichlorotoluene	159		16.149					ND	
128 2-Methylnaphthalene	142		16.190					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
148 Isooctane	57		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

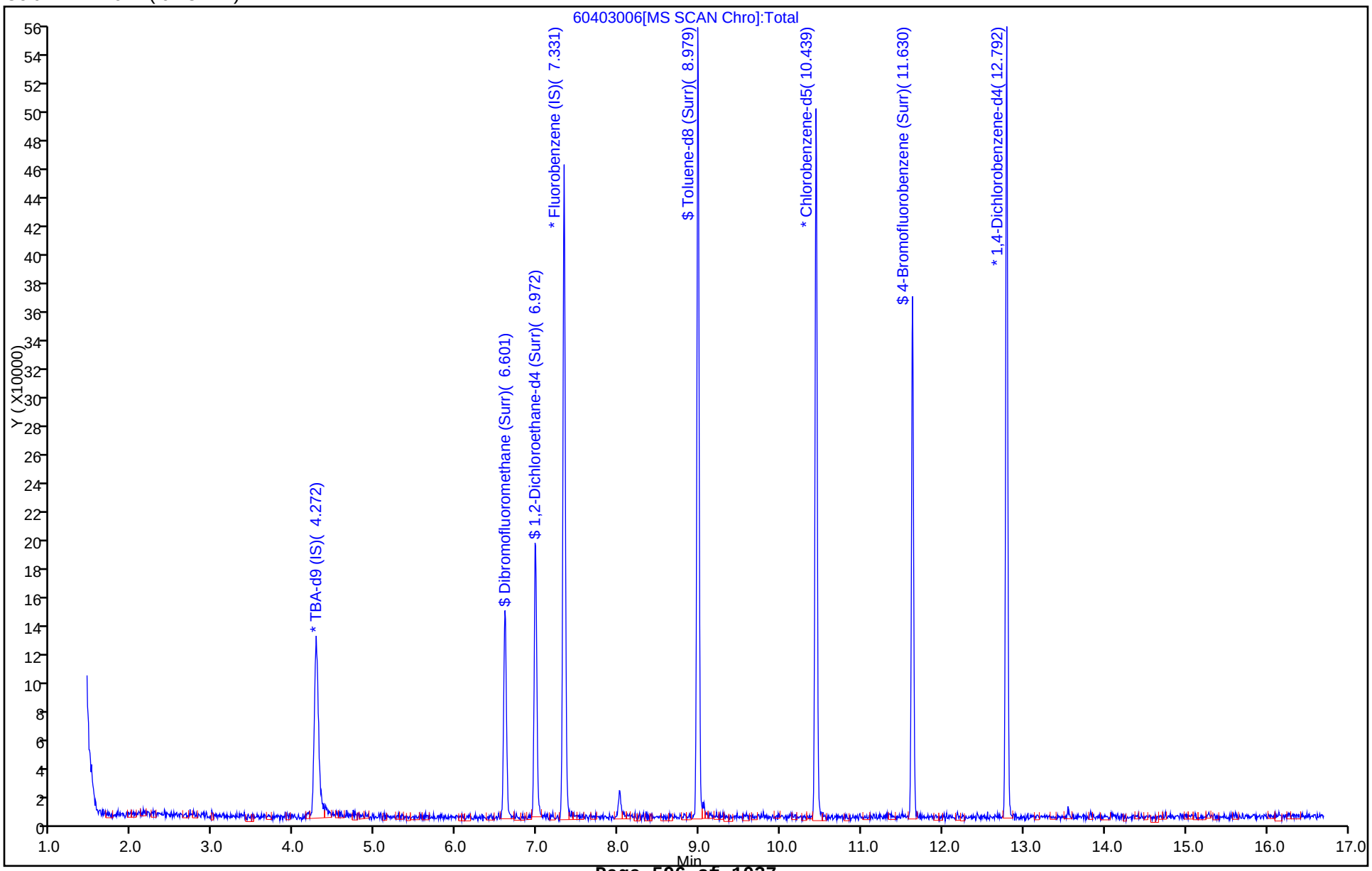
Report Date: 03-Apr-2015 17:10:43 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403006.D

Injection Date:	03-Apr-2015 14:50:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 03-Apr-2015 17:10:43 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403006.D

Injection Date: 03-Apr-2015 14:50:30 Instrument ID: CHHP6

Lims ID: MB

Client ID:

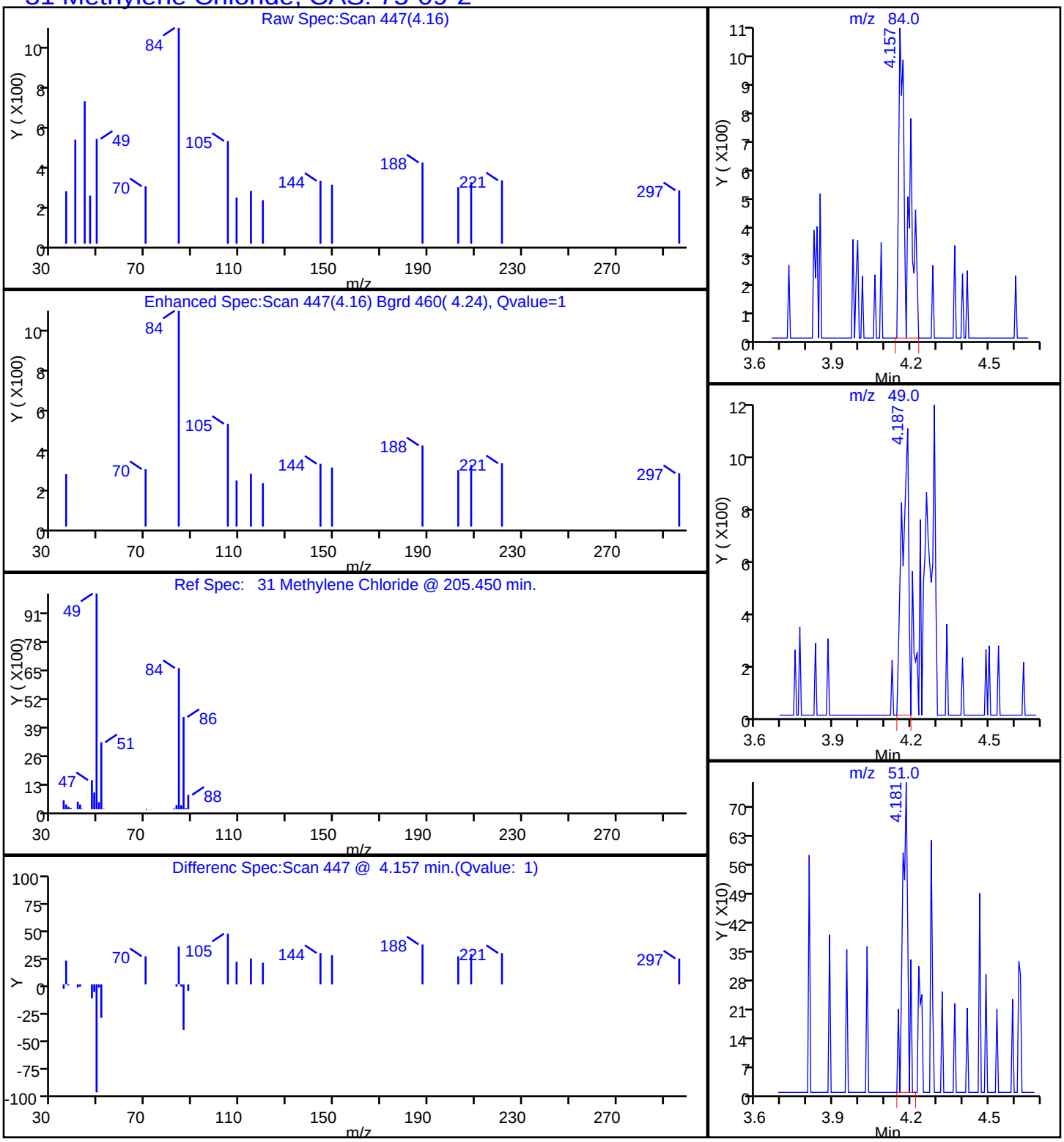
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

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

31 Methylene Chloride, CAS: 75-09-2



Manual Integration/User Assign Peak Report

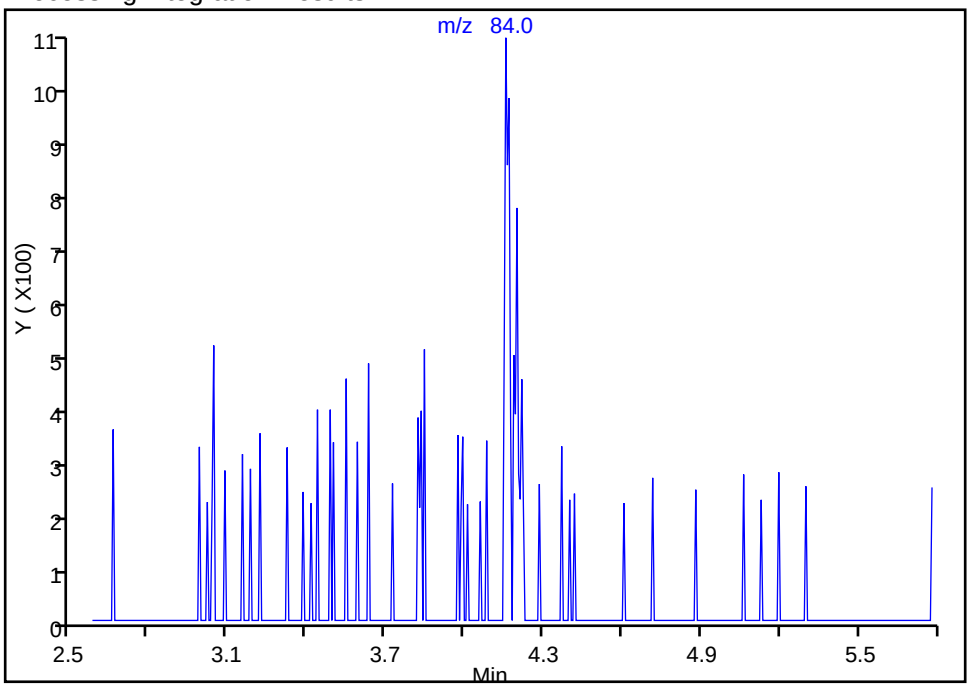
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403006.D				
Injection Date:	03-Apr-2015 14:50:30	Instrument ID:	CHHP6		
Lims ID:	MB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

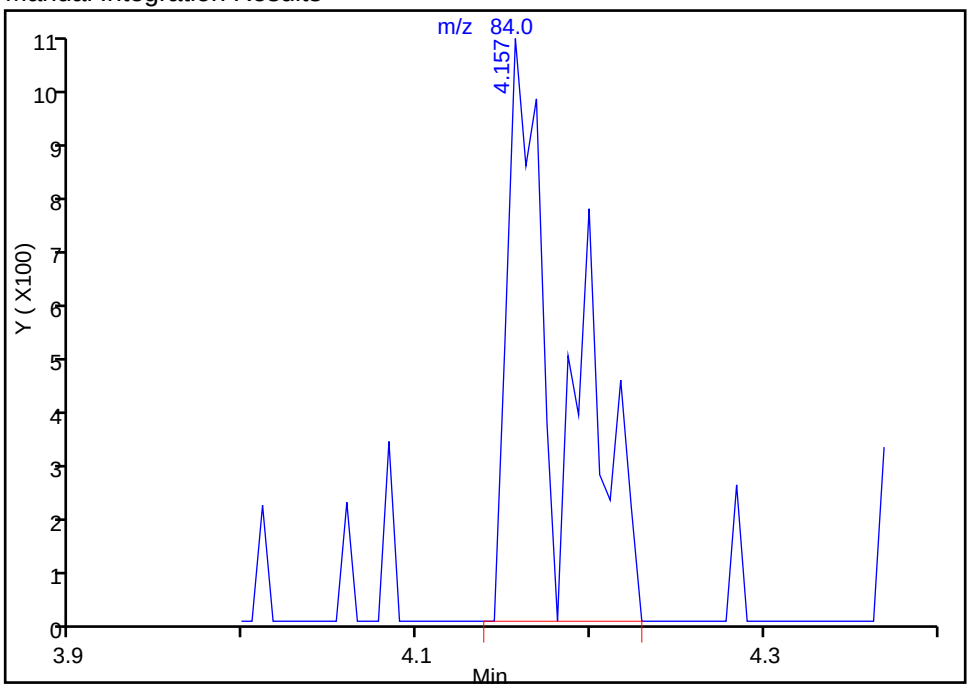
Not Detected
Expected RT: 4.18

Processing Integration Results



Manual Integration Results

RT: 4.16
Area: 2294
Amount: 0.660634
Amount Units: ng



Reviewer: fergusond, 03-Apr-2015 15:53:35
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-137519/5

Matrix: Water | Lab File ID: 50404005.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/04/2015 13:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 137519 | 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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-137519/5

Matrix: Water Lab File ID: 50404005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/04/2015 13:27

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 137519 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)	115		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 04-Apr-2015 13:27:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0006328-005
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 15:04:01 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 15:04:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.306	4.301	0.005	98	125313	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.270	0.004	100	426718	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.360	-0.001	98	94789	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.684	-0.002	93	137268	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.532	6.525	0.007	55	104544	50.0	53.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.902	0.001	97	146651	50.0	57.3	
$ 7 Toluene-d8 (Surr)	98	8.923	8.922	0.001	100	403535	50.0	53.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.527	11.526	0.001	96	135853	50.0	49.9	
11 Dichlorodifluoromethane	85		1.628					ND	
12 Chloromethane	50		1.786					ND	
13 Vinyl chloride	62		1.908					ND	
14 Butadiene	39		1.957					ND	
15 Bromomethane	94		2.273					ND	
16 Chloroethane	64		2.407					ND	
17 Dichlorofluoromethane	67		2.668					ND	
18 Trichlorofluoromethane	101		2.723					ND	
19 Ethanol	45		3.005					ND	
20 Ethyl ether	59		3.094					ND	
21 Acrolein	56		3.252					ND	
22 1,1-Dichloroethene	96		3.386					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.441					ND	
24 Acetone	43		3.502					ND	
25 Iodomethane	142		3.605					ND	
26 Carbon disulfide	76		3.666					ND	
27 Isopropyl alcohol	45		3.772					ND	
29 Acetonitrile	40		3.936					ND	
28 3-Chloro-1-propene	76		3.940					ND	
30 Methyl acetate	43		4.025					ND	
31 Methylene Chloride	84		4.147					ND	
32 2-Methyl-2-propanol	59		4.439					ND	
33 Acrylonitrile	53		4.560					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		4.566					ND	
35 Methyl tert-butyl ether	73		4.597					ND	
36 Hexane	57		4.986					ND	
37 1,1-Dichloroethane	63		5.175					ND	
38 Vinyl acetate	43		5.296					ND	
39 2-Chloro-1,3-butadiene	53		5.305					ND	
41 Isopropyl ether	45		5.323					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.792					ND	
44 2,2-Dichloropropane	77		5.929					ND	
45 cis-1,2-Dichloroethene	96		5.941					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.990					ND	
47 Propionitrile	54		6.065					ND	
48 Ethyl acetate	43		6.084					ND	
49 Chlorobromomethane	128		6.227					ND	
50 Methacrylonitrile	41		6.236					ND	
51 Tetrahydrofuran	42		6.282					ND	
52 Chloroform	83		6.343					ND	
53 1,1,1-Trichloroethane	97		6.531					ND	
54 Cyclohexane	56		6.586					ND	
56 Carbon tetrachloride	117		6.714					ND	
55 1,1-Dichloropropene	75		6.726					ND	
57 Isobutyl alcohol	41		6.939					ND	
58 Benzene	78		6.951					ND	
59 1,2-Dichloroethane	62		6.988					ND	
61 Tert-amyl methyl ether	73		7.106					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.280					ND	
63 n-Butanol	56		7.659					ND	
64 Trichloroethene	130		7.669					ND	
65 Ethyl acrylate	55		7.811					ND	
66 Methylcyclohexane	83		7.857					ND	
67 1,2-Dichloropropane	63		7.900					ND	
68 Dibromomethane	93		8.028					ND	
69 Methyl methacrylate	69		8.049					ND	
70 1,4-Dioxane	88		8.058					ND	
71 Dichlorobromomethane	83		8.198					ND	
72 2-Nitropropane	41		8.432					ND	
73 2-Chloroethyl vinyl ether	63		8.521					ND	
74 cis-1,3-Dichloropropene	75		8.654					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825					ND	
76 Toluene	91		8.989					ND	
77 trans-1,3-Dichloropropene	75		9.220					ND	
78 Ethyl methacrylate	69		9.318					ND	
79 1,1,2-Trichloroethane	97		9.397					ND	
80 Tetrachloroethene	164		9.537					ND	
81 1,3-Dichloropropane	76		9.561					ND	
82 2-Hexanone	43		9.652					ND	
83 n-Butyl acetate	43		9.782					ND	
84 Chlorodibromomethane	129		9.786					ND	
85 Ethylene Dibromide	107		9.902					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.370					ND	
87 Chlorobenzene	112		10.388					ND	
88 4-Chlorobenzotrifluoride	180		10.425					ND	
89 1,1,1,2-Tetrachloroethane	131		10.473					ND	
90 Ethylbenzene	106		10.498					ND	
91 m-Xylene & p-Xylene	106		10.613					ND	
92 o-Xylene	106		11.009					ND	
93 Styrene	104		11.021					ND	
94 Bromoform	173		11.209					ND	
96 2-Chlorobenzotrifluoride	180		11.270					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.380					ND	
98 Cyclohexanone	55		11.474					ND	
99 1,1,2,2-Tetrachloroethane	83		11.672					ND	
100 Bromobenzene	156		11.678					ND	
101 1,2,3-Trichloropropane	110		11.720					ND	
102 trans-1,4-Dichloro-2-buten	53		11.727					ND	
103 N-Propylbenzene	120		11.787					ND	
104 2-Chlorotoluene	126		11.873					ND	
105 3-Chlorotoluene	126		11.933					ND	
106 1,3,5-Trimethylbenzene	105		11.958					ND	
107 4-Chlorotoluene	126		11.982					ND	
108 tert-Butylbenzene	119		12.286					ND	
109 Pentachloroethane	167		12.307					ND	
110 1,2,4-Trimethylbenzene	105		12.335					ND	
111 1,2-dichloro-4-(trifluorom	214		12.396					ND	
112 sec-Butylbenzene	105		12.505					ND	
113 1,3-Dichlorobenzene	146		12.615					ND	
114 4-Isopropyltoluene	119		12.651					ND	
115 1,4-Dichlorobenzene	146		12.706					ND	
116 2,4-Dichloro-1-(triflourom	214		12.755					ND	
117 1,2,3-Trimethylbenzene	105		12.757					ND	
118 2,5-Dichlorobenzotrifluori	214		12.803					ND	
119 Benzyl chloride	91		12.842					ND	
120 n-Butylbenzene	91		13.059					ND	
121 1,2-Dichlorobenzene	146		13.077					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.862					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.002					ND	
124 1,3,5-Trichlorobenzene	180		14.065					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.428					ND	
126 1,2,4-Trichlorobenzene	180		14.689					ND	
127 Hexachlorobutadiene	225		14.860					ND	
128 Naphthalene	128		14.939					ND	
129 1,2,3-Trichlorobenzene	180		15.182					ND	
131 2,4,5-Trichlorotoluene	159		15.961					ND	
130 2,3,6-Trichlorotoluene	159		16.058					ND	
132 2-Methylnaphthalene	142		16.079					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		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
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-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_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

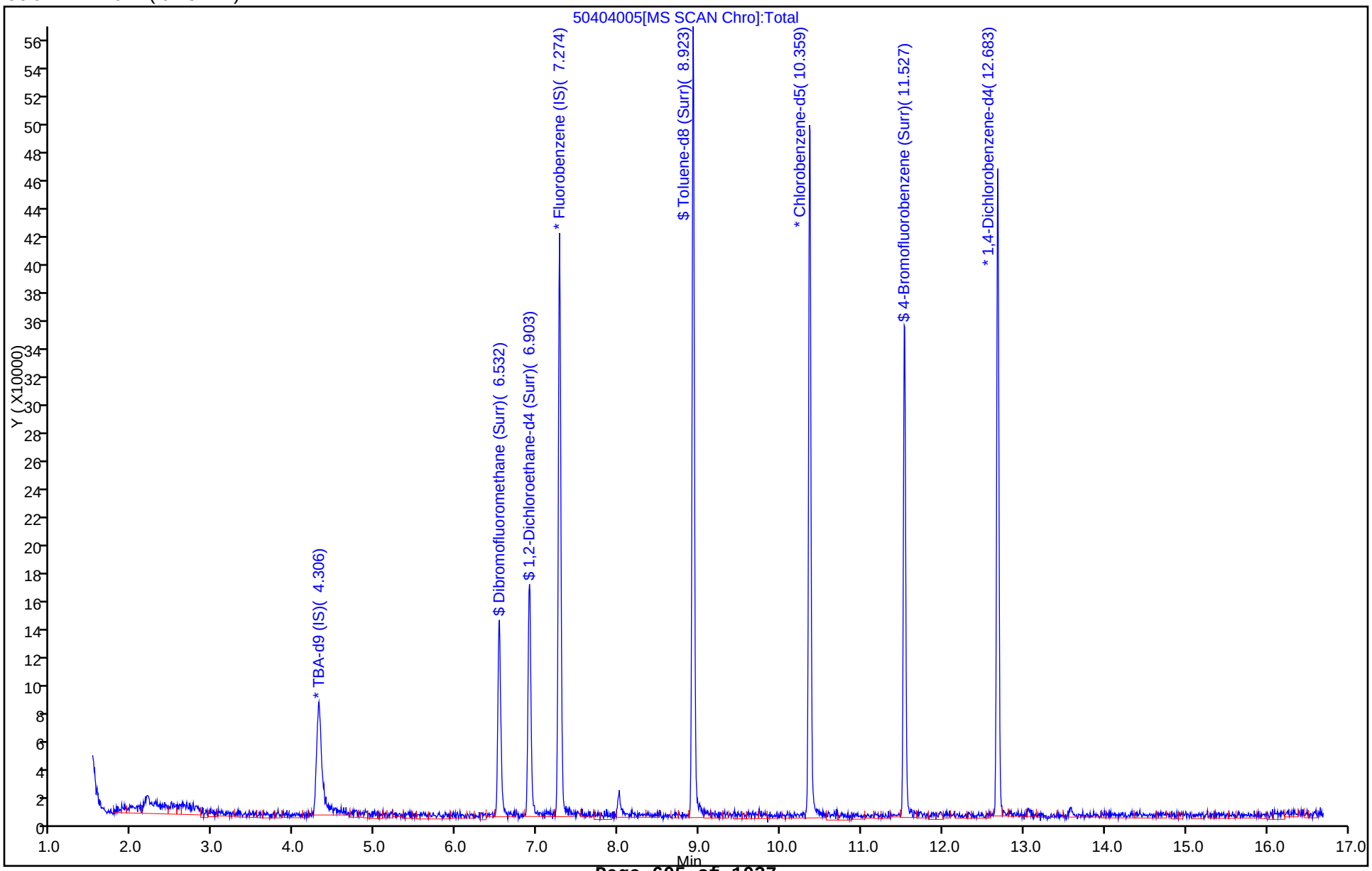
Report Date: 04-Apr-2015 15:04:02 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404005.D

Injection Date:	04-Apr-2015 13:27:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137356/8

Matrix: Water Lab File ID: 60402008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/02/2015 15:38

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.: 137356 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.37		1.0	0.28
75-01-4	Vinyl chloride	8.99		1.0	0.23
74-83-9	Bromomethane	10.1		1.0	0.31
75-00-3	Chloroethane	8.75		1.0	0.21
75-35-4	1,1-Dichloroethene	7.79		1.0	0.30
67-64-1	Acetone	19.5		5.0	2.5
75-15-0	Carbon disulfide	6.24		1.0	0.21
75-09-2	Methylene Chloride	7.61		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	7.72		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.44		1.0	0.18
75-34-3	1,1-Dichloroethane	7.82		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	7.96		1.0	0.24
74-97-5	Bromochloromethane	8.79		1.0	0.18
78-93-3	2-Butanone (MEK)	20.9		5.0	0.55
67-66-3	Chloroform	8.13		1.0	0.17
71-55-6	1,1,1-Trichloroethane	7.23		1.0	0.29
56-23-5	Carbon tetrachloride	7.52		1.0	0.14
71-43-2	Benzene	9.06		1.0	0.11
107-06-2	1,2-Dichloroethane	9.95		1.0	0.21
79-01-6	Trichloroethene	8.41		1.0	0.14
78-87-5	1,2-Dichloropropane	8.52		1.0	0.095
75-27-4	Bromodichloromethane	8.53		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.78		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.7		5.0	0.53
108-88-3	Toluene	10.8		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.87		1.0	0.15
79-00-5	1,1,2-Trichloroethane	12.0		1.0	0.20
127-18-4	Tetrachloroethene	10.2		1.0	0.15
591-78-6	2-Hexanone	21.9		5.0	0.16
124-48-1	Dibromochloromethane	10.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.9		1.0	0.18
108-90-7	Chlorobenzene	10.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.73		1.0	0.28
100-41-4	Ethylbenzene	10.3		1.0	0.23
1330-20-7	Xylenes, Total	20.6		3.0	0.49
100-42-5	Styrene	11.0		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137356/8

Matrix: Water Lab File ID: 60402008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/02/2015 15:38

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.: 137356 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.93		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	13.1		1.0	0.20
107-13-1	Acrylonitrile	110		20	0.55
123-91-1	1,4-Dioxane	237		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)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402008.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 02-Apr-2015 15:38:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0006300-008
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 10:25:50 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 10:25:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.273	0.004	92	200551	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	98	515092	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.443	10.440	0.003	89	98238	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	97	172730	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.606	6.598	0.008	93	110803	50.0	47.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.977	7.156	-0.179	51	165264	50.0	49.6	
$ 7 Toluene-d8 (Surr)	98	8.984	8.982	0.002	93	422092	50.0	54.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.633	-0.004	84	159932	50.0	48.5	
11 Dichlorodifluoromethane	85	1.619	1.611	0.008	98	130559	50.0	47.8	
12 Chloromethane	50	1.771	1.769	0.002	98	154673	50.0	36.8	
13 Vinyl chloride	62	1.899	1.903	-0.004	98	167195	50.0	44.9	
14 Butadiene	39	1.954	1.946	0.008	91	156601	50.0	39.4	
15 Bromomethane	94	2.264	2.244	0.020	91	75241	50.0	50.4	
16 Chloroethane	64	2.404	2.408	-0.004	99	99770	50.0	43.7	
17 Dichlorofluoromethane	67	2.684	2.669	0.015	97	247351	50.0	45.5	
18 Trichlorofluoromethane	101	2.702	2.718	-0.016	76	203642	50.0	47.9	
20 Ethyl ether	59	3.073	3.077	-0.004	96	133374	50.0	41.1	
21 Acrolein	56	3.261	3.247	0.014	97	23567	150.0	45.8	M
22 1,1-Dichloroethene	96	3.377	3.375	0.002	96	112665	50.0	39.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.450	3.442	0.008	95	120490	50.0	41.2	
24 Acetone	43	3.462	3.454	0.008	97	88921	100.0	97.6	
25 Iodomethane	142	3.590	3.569	0.021	98	161342	50.0	37.7	
26 Carbon disulfide	76	3.687	3.679	0.008	99	267419	50.0	31.2	
29 3-Chloro-1-propene	76	3.955	3.959	-0.004	59	64231	50.0	34.2	
30 Methyl acetate	43	3.967	3.971	-0.004	97	608458	250.0	272.8	
31 Methylene Chloride	84	4.186	4.178	0.008	95	160913	50.0	38.1	
32 2-Methyl-2-propanol	59	4.411	4.415	-0.004	93	112896	500.0	498.1	
33 Acrylonitrile	53	4.551	4.542	0.009	100	640856	500.0	551.1	
34 trans-1,2-Dichloroethene	96	4.611	4.609	0.002	67	134376	50.0	38.6	
35 Methyl tert-butyl ether	73	4.611	4.615	-0.004	97	386041	50.0	42.2	
36 Hexane	57	5.031	5.023	0.008	93	175444	50.0	35.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.244	5.242	0.002	97	263259	50.0	39.1	
38 Vinyl acetate	43	5.280	5.278	0.002	97	135090	50.0	38.6	
44 2-Butanone (MEK)	43	5.986	5.984	0.002	62	121947	100.0	104.4	
42 2,2-Dichloropropane	77	5.986	5.990	-0.004	58	106011	50.0	27.8	
43 cis-1,2-Dichloroethene	96	5.986	5.990	-0.004	83	146895	50.0	39.8	
48 Chlorobromomethane	128	6.278	6.276	0.002	96	64585	50.0	43.9	
49 Tetrahydrofuran	42	6.290	6.288	0.002	94	87584	100.0	104.4	
50 Chloroform	83	6.424	6.409	0.015	93	235764	50.0	40.7	
51 1,1,1-Trichloroethane	97	6.588	6.580	0.008	96	159626	50.0	36.1	
52 Cyclohexane	56	6.661	6.665	-0.004	90	230218	50.0	32.4	
53 Carbon tetrachloride	117	6.764	6.762	0.002	68	130087	50.0	37.6	
54 1,1-Dichloropropene	75	6.770	6.768	0.002	96	190934	50.0	43.3	
55 Isobutyl alcohol	41	6.934	6.932	0.002	90	103650	1250.0	1512.7	
56 Benzene	78	6.983	6.987	-0.004	96	579110	50.0	45.3	
57 1,2-Dichloroethane	62	7.062	7.060	0.002	97	208883	50.0	49.7	
59 n-Heptane	43	7.354	7.346	0.008	89	120179	50.0	29.5	
61 Trichloroethene	130	7.725	7.723	0.002	95	122494	50.0	42.1	
63 Methylcyclohexane	83	7.968	7.966	0.002	91	195676	50.0	34.1	
64 1,2-Dichloropropane	63	7.999	7.997	0.002	96	144159	50.0	42.6	
65 1,4-Dioxane	88	8.072	8.070	0.002	32	25114	1000.0	1186.2	M
67 Dibromomethane	93	8.090	8.082	0.008	94	81210	50.0	53.7	
68 Dichlorobromomethane	83	8.272	8.270	0.002	98	151361	50.0	42.7	
71 cis-1,3-Dichloropropene	75	8.716	8.720	-0.004	94	158282	50.0	38.9	
72 4-Methyl-2-pentanone (MIBK	43	8.856	8.854	0.002	97	218694	100.0	98.7	
73 Toluene	91	9.051	9.049	0.002	98	542733	50.0	54.0	
74 trans-1,3-Dichloropropene	75	9.294	9.292	0.002	93	135924	50.0	49.3	
75 Ethyl methacrylate	69	9.349	9.347	0.002	89	148429	50.0	58.6	
76 1,1,2-Trichloroethane	97	9.495	9.493	0.002	91	109836	50.0	60.2	
77 Tetrachloroethene	164	9.568	9.572	-0.004	97	91340	50.0	50.9	
78 1,3-Dichloropropane	76	9.647	9.645	0.002	90	203675	50.0	60.1	
79 2-Hexanone	43	9.695	9.693	0.002	95	138688	100.0	109.7	
81 Chlorodibromomethane	129	9.866	9.870	-0.004	93	78750	50.0	50.9	
82 Ethylene Dibromide	107	9.987	9.985	0.002	94	98876	50.0	59.6	
83 3-Chlorobenzotrifluoride	180	10.431	10.429	0.002	93	201729	50.0	57.7	
84 Chlorobenzene	112	10.474	10.472	0.002	92	326658	50.0	52.1	
85 4-Chlorobenzotrifluoride	180	10.522	10.520	0.002	95	193797	50.0	59.6	
86 1,1,1,2-Tetrachloroethane	131	10.565	10.563	0.002	88	105154	50.0	48.7	
87 Ethylbenzene	106	10.565	10.569	-0.004	98	192816	50.0	51.3	
88 m-Xylene & p-Xylene	106	10.699	10.697	0.002	99	242697	50.0	52.3	
89 o-Xylene	106	11.082	11.080	0.002	97	241579	50.0	50.6	
90 Styrene	104	11.100	11.104	-0.004	94	385858	50.0	54.9	
91 Bromoform	173	11.295	11.293	0.002	93	41177	50.0	49.7	
92 2-Chlorobenzotrifluoride	180	11.343	11.341	0.002	95	211535	50.0	58.0	
93 Isopropylbenzene	105	11.453	11.451	0.002	97	592606	50.0	50.4	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.755	0.002	96	160809	50.0	65.6	
95 Bromobenzene	156	11.769	11.767	0.002	96	126317	50.0	41.8	
97 trans-1,4-Dichloro-2-buten	53	11.793	11.791	0.002	71	40415	50.0	47.5	
98 1,2,3-Trichloropropane	110	11.812	11.816	-0.004	83	51527	50.0	58.2	
99 N-Propylbenzene	120	11.866	11.864	0.002	99	150526	50.0	41.7	
100 2-Chlorotoluene	126	11.952	11.956	-0.004	94	136527	50.0	42.9	
101 3-Chlorotoluene	126	12.025	12.022	0.002	96	175885	50.0	52.8	
102 1,3,5-Trimethylbenzene	105	12.049	12.047	0.002	93	530345	50.0	45.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.079	12.083	-0.004	98	139927	50.0	42.8	
104 tert-Butylbenzene	119	12.365	12.363	0.002	92	375922	50.0	41.6	
106 1,2,4-Trimethylbenzene	105	12.426	12.424	0.002	97	556138	50.0	46.3	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.454	0.002	96	173075	50.0	51.6	
108 sec-Butylbenzene	105	12.590	12.588	0.002	95	612778	50.0	43.9	
109 1,3-Dichlorobenzene	146	12.712	12.710	0.002	96	262272	50.0	44.3	
110 4-Isopropyltoluene	119	12.742	12.746	-0.004	96	478354	50.0	42.2	
111 1,4-Dichlorobenzene	146	12.815	12.813	0.002	88	273115	50.0	44.6	
113 2,4-Dichloro-1-(triflourom	214	12.827	12.831	-0.004	97	190790	50.0	56.6	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.868	0.002	97	183229	50.0	49.3	
116 n-Butylbenzene	91	13.150	13.154	-0.004	98	476389	50.0	43.7	
117 1,2-Dichlorobenzene	146	13.168	13.166	0.002	94	281090	50.0	47.5	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.968	-0.010	70	26210	50.0	55.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.108	-0.004	99	873276	150.0	157.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.522	-0.004	99	638051	100.0	105.1	
122 1,2,4-Trichlorobenzene	180	14.785	14.789	-0.004	94	204525	50.0	44.6	
123 Hexachlorobutadiene	225	14.931	14.929	0.002	95	69616	50.0	38.8	
124 Naphthalene	128	15.053	15.057	-0.004	98	481808	50.0	61.1	
125 1,2,3-Trichlorobenzene	180	15.278	15.276	0.002	93	185250	50.0	48.3	
126 2,4,5-Trichlorotoluene	159	16.044	16.048	-0.004	0	123202	50.0	43.6	
127 2,3,6-Trichlorotoluene	159	16.148	16.146	0.002	93	120156	50.0	47.7	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	78.4	
S 131 Xylenes, Total	106				0		100.0	102.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	88.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00109	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00006	Amount Added:	2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00007	Amount Added:	6.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

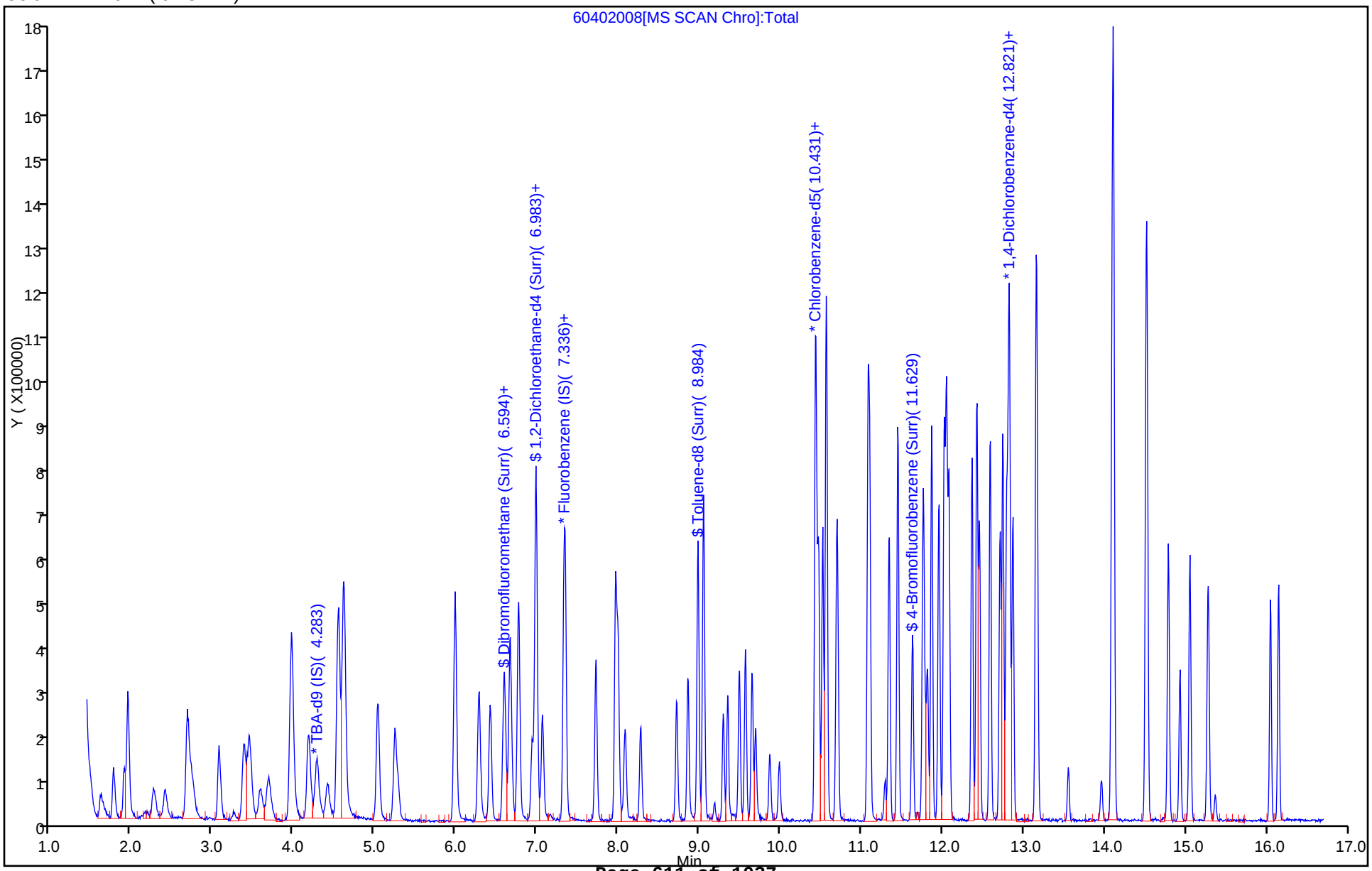
Report Date: 03-Apr-2015 10:25:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402008.D

Injection Date:	02-Apr-2015 15:38:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

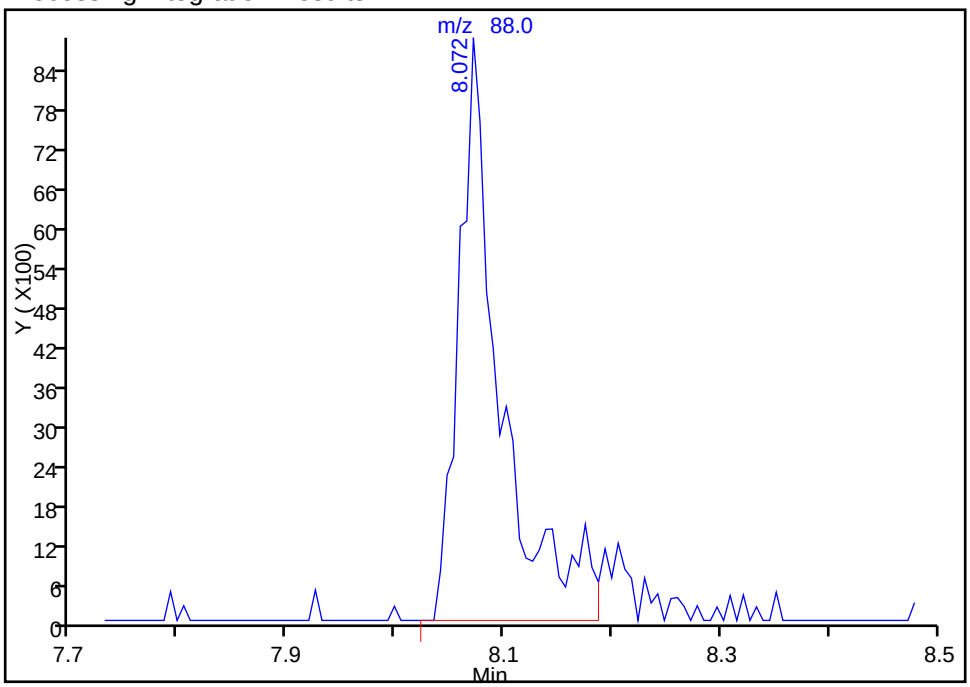
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150402-6300.b\60402008.D				
Injection Date:	02-Apr-2015 15:38:30	Instrument ID:	CHHP6		
Lims ID:	LCS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

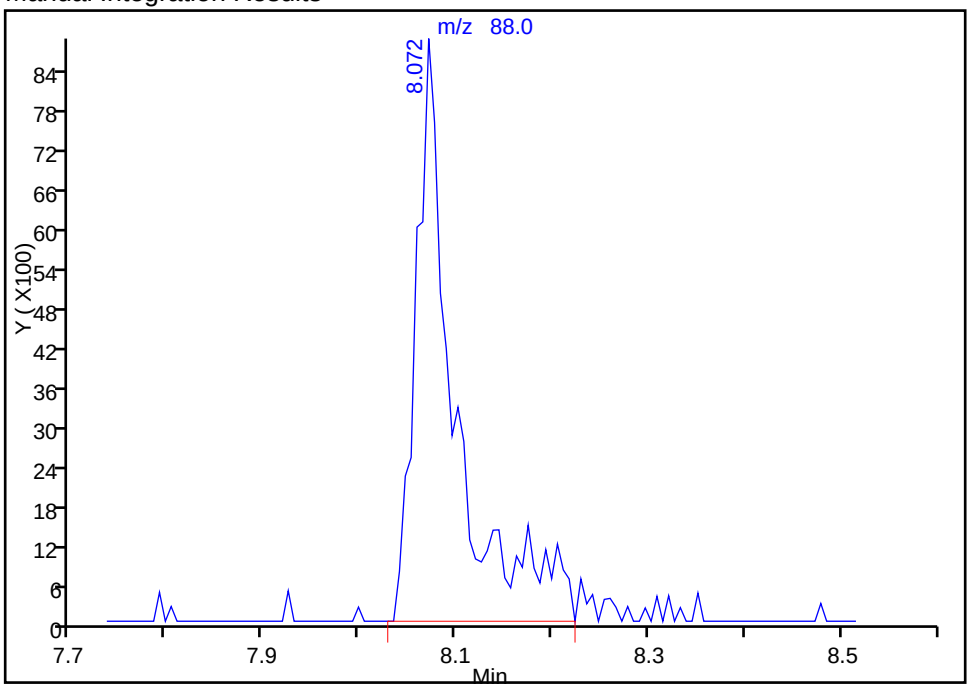
Processing Integration Results

RT: 8.07
Area: 23539
Amount: 1111.8435
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 25114
Amount: 1186.2372
Amount Units: ng



Reviewer: fergusond, 02-Apr-2015 16:24:21
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137472/8

Matrix: Water Lab File ID: 60403008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 16:14

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.: 137472 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.67		1.0	0.28
75-01-4	Vinyl chloride	7.58		1.0	0.23
74-83-9	Bromomethane	10.6		1.0	0.31
75-00-3	Chloroethane	8.03		1.0	0.21
75-35-4	1,1-Dichloroethene	7.34		1.0	0.30
67-64-1	Acetone	17.0		5.0	2.5
75-15-0	Carbon disulfide	5.74		1.0	0.21
75-09-2	Methylene Chloride	7.10		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	7.56		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.26		1.0	0.18
75-34-3	1,1-Dichloroethane	7.48		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	7.74		1.0	0.24
74-97-5	Bromochloromethane	8.82		1.0	0.18
78-93-3	2-Butanone (MEK)	18.2		5.0	0.55
67-66-3	Chloroform	8.54		1.0	0.17
71-55-6	1,1,1-Trichloroethane	7.55		1.0	0.29
56-23-5	Carbon tetrachloride	7.82		1.0	0.14
71-43-2	Benzene	8.63		1.0	0.11
107-06-2	1,2-Dichloroethane	11.0		1.0	0.21
79-01-6	Trichloroethene	8.35		1.0	0.14
78-87-5	1,2-Dichloropropane	8.32		1.0	0.095
75-27-4	Bromodichloromethane	8.88		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.10		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	14.4		5.0	0.53
108-88-3	Toluene	9.61		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.52		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.3		1.0	0.20
127-18-4	Tetrachloroethene	10.1		1.0	0.15
591-78-6	2-Hexanone	16.5		5.0	0.16
124-48-1	Dibromochloromethane	9.53		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.8		1.0	0.18
108-90-7	Chlorobenzene	9.75		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.03		1.0	0.28
100-41-4	Ethylbenzene	9.21		1.0	0.23
1330-20-7	Xylenes, Total	18.3		3.0	0.49
100-42-5	Styrene	9.91		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137472/8

Matrix: Water Lab File ID: 60403008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 16:14

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.: 137472 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.3		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.3		1.0	0.20
107-13-1	Acrylonitrile	100		20	0.55
123-91-1	1,4-Dioxane	233		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		64-135
2037-26-5	Toluene-d8 (Surr)	92		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403008.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-Apr-2015 16:14:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0006320-008
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Apr-2015 16:39:29 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 03-Apr-2015 16:39:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.279	-0.002	90	169260	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.330	7.332	-0.002	97	390258	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.443	10.439	0.004	90	84762	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.791	12.793	-0.002	97	136131	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.600	6.602	-0.002	92	80505	50.0	45.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.971	6.979	-0.008	60	134645	50.0	53.3	
$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	94	306757	50.0	45.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.625	0.004	84	126626	50.0	44.5	
11 Dichlorodifluoromethane	85	1.613	1.627	-0.014	99	103981	50.0	50.3	
12 Chloromethane	50	1.771	1.767	0.004	98	106118	50.0	33.4	
13 Vinyl chloride	62	1.905	1.907	-0.002	98	106839	50.0	37.9	
14 Butadiene	39	1.948	1.950	-0.002	92	106571	50.0	35.4	
15 Bromomethane	94	2.252	2.260	-0.008	92	60101	50.0	53.1	
16 Chloroethane	64	2.404	2.412	-0.008	99	69426	50.0	40.2	
17 Dichlorofluoromethane	67	2.678	2.679	-0.001	97	182494	50.0	44.3	
18 Trichlorofluoromethane	101	2.720	2.716	0.004	97	163122	50.0	50.6	
20 Ethyl ether	59	3.073	3.069	0.005	93	99805	50.0	40.6	
21 Acrolein	56	3.255	3.257	-0.002	97	22042	150.0	56.5	
22 1,1-Dichloroethene	96	3.371	3.391	-0.020	93	80452	50.0	36.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.444	3.452	-0.008	93	85839	50.0	38.7	
24 Acetone	43	3.456	3.464	-0.008	80	58597	100.0	84.9	
25 Iodomethane	142	3.578	3.585	-0.007	99	117342	50.0	36.1	
26 Carbon disulfide	76	3.687	3.689	-0.002	99	186332	50.0	28.7	
29 3-Chloro-1-propene	76	3.967	3.956	0.011	53	44421	50.0	31.2	
30 Methyl acetate	43	3.967	3.975	-0.008	98	444679	250.0	263.2	
31 Methylene Chloride	84	4.180	4.181	-0.001	95	113756	50.0	35.5	
32 2-Methyl-2-propanol	59	4.417	4.412	0.005	95	93770	500.0	490.2	
33 Acrylonitrile	53	4.538	4.546	-0.008	98	442460	500.0	502.2	
35 Methyl tert-butyl ether	73	4.611	4.607	0.004	97	286312	50.0	41.3	
34 trans-1,2-Dichloroethene	96	4.611	4.619	-0.008	67	99662	50.0	37.8	
36 Hexane	57	5.031	5.027	0.004	92	123099	50.0	32.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.244	5.240	0.004	97	190825	50.0	37.4	
38 Vinyl acetate	43	5.274	5.282	-0.008	98	105054	50.0	39.6	
44 2-Butanone (MEK)	43	5.980	5.988	-0.008	57	80355	100.0	90.8	
43 cis-1,2-Dichloroethene	96	5.986	5.988	-0.002	84	108219	50.0	38.7	
42 2,2-Dichloropropane	77	5.986	5.988	-0.002	57	78340	50.0	27.1	
48 Chlorobromomethane	128	6.272	6.273	-0.001	96	49132	50.0	44.1	
49 Tetrahydrofuran	42	6.284	6.286	-0.002	85	53602	100.0	84.3	
50 Chloroform	83	6.418	6.413	0.005	94	187669	50.0	42.7	
51 1,1,1-Trichloroethane	97	6.588	6.584	0.004	95	126343	50.0	37.7	
52 Cyclohexane	56	6.661	6.669	-0.008	91	163260	50.0	30.3	
53 Carbon tetrachloride	117	6.764	6.760	0.004	71	102387	50.0	39.1	
54 1,1-Dichloropropene	75	6.770	6.772	-0.002	92	137505	50.0	41.2	
55 Isobutyl alcohol	41	6.934	6.936	-0.002	89	78414	1250.0	1510.4	
56 Benzene	78	6.983	6.985	-0.002	96	418291	50.0	43.2	
57 1,2-Dichloroethane	62	7.062	7.058	0.004	98	175097	50.0	55.0	
59 n-Heptane	43	7.348	7.350	-0.002	91	91945	50.0	29.8	
61 Trichloroethene	130	7.725	7.721	0.004	96	92107	50.0	41.7	
63 Methylcyclohexane	83	7.962	7.970	-0.008	92	137155	50.0	31.5	
64 1,2-Dichloropropane	63	7.993	7.994	-0.001	94	106641	50.0	41.6	
65 1,4-Dioxane	88	8.078	8.067	0.011	44	18666	1000.0	1163.7	M
67 Dibromomethane	93	8.084	8.086	-0.002	94	61633	50.0	53.8	
68 Dichlorobromomethane	83	8.278	8.274	0.004	99	119343	50.0	44.4	
71 cis-1,3-Dichloropropene	75	8.716	8.718	-0.002	94	124983	50.0	40.5	
72 4-Methyl-2-pentanone (MIBK	43	8.856	8.858	-0.002	96	137334	100.0	71.8	
73 Toluene	91	9.051	9.053	-0.002	98	416185	50.0	48.0	
74 trans-1,3-Dichloropropene	75	9.294	9.296	-0.002	96	113083	50.0	47.6	
75 Ethyl methacrylate	69	9.349	9.351	-0.001	89	114779	50.0	52.5	
76 1,1,2-Trichloroethane	97	9.495	9.496	-0.001	92	88527	50.0	56.3	
77 Tetrachloroethene	164	9.568	9.569	-0.001	97	77935	50.0	50.4	
78 1,3-Dichloropropane	76	9.647	9.649	-0.001	93	163757	50.0	56.0	
79 2-Hexanone	43	9.695	9.691	0.004	94	90098	100.0	82.6	
81 Chlorodibromomethane	129	9.872	9.874	-0.002	91	63666	50.0	47.7	
82 Ethylene Dibromide	107	9.987	9.983	0.004	98	77097	50.0	53.9	
83 3-Chlorobenzotrifluoride	180	10.431	10.433	-0.002	89	154636	50.0	51.3	
84 Chlorobenzene	112	10.468	10.469	-0.001	91	263744	50.0	48.8	
85 4-Chlorobenzotrifluoride	180	10.516	10.524	-0.008	96	146092	50.0	52.1	
86 1,1,1,2-Tetrachloroethane	131	10.565	10.561	0.004	43	84229	50.0	45.2	
87 Ethylbenzene	106	10.565	10.567	-0.002	98	149426	50.0	46.0	
88 m-Xylene & p-Xylene	106	10.699	10.701	-0.002	100	186346	50.0	46.5	
89 o-Xylene	106	11.082	11.084	-0.002	97	185580	50.0	45.1	
90 Styrene	104	11.100	11.102	-0.002	94	300213	50.0	49.5	
91 Bromoform	173	11.289	11.290	-0.001	95	36739	50.0	51.4	
92 2-Chlorobenzotrifluoride	180	11.343	11.339	0.004	96	166084	50.0	52.8	
93 Isopropylbenzene	105	11.447	11.449	-0.002	97	461811	50.0	45.5	
96 1,1,2,2-Tetrachloroethane	83	11.757	11.753	0.004	96	119411	50.0	56.4	
95 Bromobenzene	156	11.769	11.771	-0.002	95	99882	50.0	41.9	
97 trans-1,4-Dichloro-2-buten	53	11.793	11.789	0.004	71	34345	50.0	51.3	
98 1,2,3-Trichloropropane	110	11.812	11.813	-0.001	85	38290	50.0	54.9	
99 N-Propylbenzene	120	11.866	11.868	-0.002	99	116865	50.0	41.0	
100 2-Chlorotoluene	126	11.952	11.953	-0.001	94	108122	50.0	43.1	
101 3-Chlorotoluene	126	12.018	12.020	-0.002	97	133598	50.0	50.9	
102 1,3,5-Trimethylbenzene	105	12.049	12.045	0.004	93	430882	50.0	47.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.079	12.081	-0.002	98	115803	50.0	45.0	
104 tert-Butylbenzene	119	12.365	12.367	-0.002	91	303886	50.0	42.7	
106 1,2,4-Trimethylbenzene	105	12.420	12.422	-0.002	97	432452	50.0	45.7	
107 1,2-dichloro-4-(trifluorom	214	12.456	12.458	-0.002	97	134125	50.0	50.7	
108 sec-Butylbenzene	105	12.590	12.586	0.004	96	486215	50.0	44.2	
109 1,3-Dichlorobenzene	146	12.712	12.707	0.005	96	214001	50.0	45.8	
110 4-Isopropyltoluene	119	12.748	12.744	0.004	95	375127	50.0	42.0	
111 1,4-Dichlorobenzene	146	12.815	12.817	-0.002	89	222625	50.0	46.1	
113 2,4-Dichloro-1-(triflourom	214	12.827	12.829	-0.002	97	128265	50.0	48.3	
114 2,5-Dichlorobenzotrifluori	214	12.870	12.866	0.004	97	155108	50.0	53.0	
116 n-Butylbenzene	91	13.156	13.151	0.005	98	375799	50.0	43.7	
117 1,2-Dichlorobenzene	146	13.168	13.170	-0.002	91	216673	50.0	46.4	
118 1,2-Dibromo-3-Chloropropan	75	13.958	13.966	-0.008	76	18418	50.0	49.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.104	14.106	-0.002	99	665222	150.0	151.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.518	14.520	-0.002	99	503585	100.0	105.3	
122 1,2,4-Trichlorobenzene	180	14.785	14.787	-0.002	93	158327	50.0	43.8	
123 Hexachlorobutadiene	225	14.931	14.927	0.004	96	60123	50.0	42.5	
124 Naphthalene	128	15.053	15.055	-0.002	98	362305	50.0	58.3	
125 1,2,3-Trichlorobenzene	180	15.278	15.280	-0.002	95	148940	50.0	49.3	
126 2,4,5-Trichlorotoluene	159	16.050	16.046	0.004	0	94352	50.0	42.4	
127 2,3,6-Trichlorotoluene	159	16.148	16.149	-0.001	94	95398	50.0	48.1	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	91.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	76.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	88.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRO2ND_00007	Amount Added:	6.00	Units: uL	
voaWVA2nd Res_00006	Amount Added:	2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00109	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

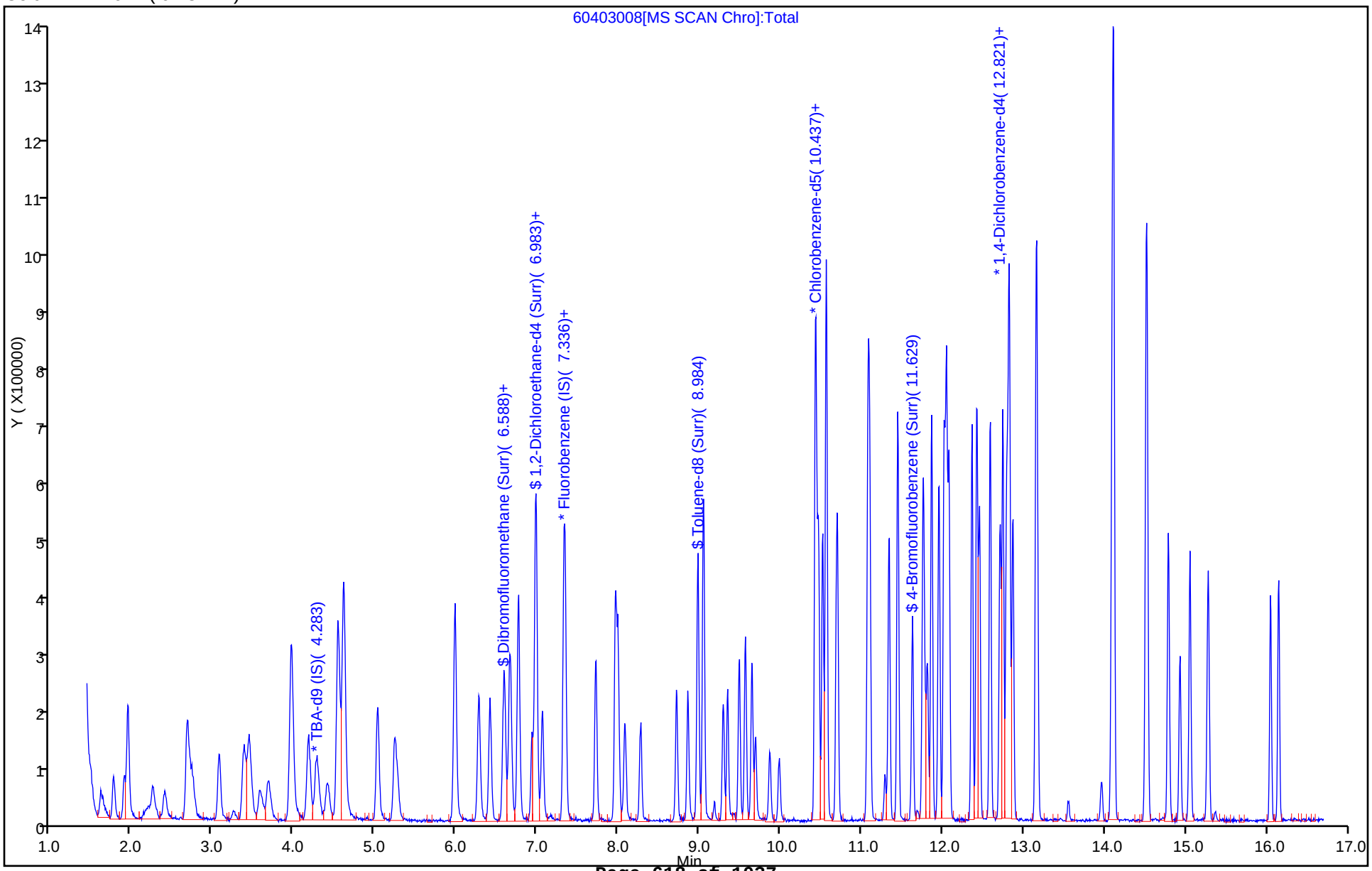
Report Date: 03-Apr-2015 16:39:30 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403008.D

Injection Date:	03-Apr-2015 16:14:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

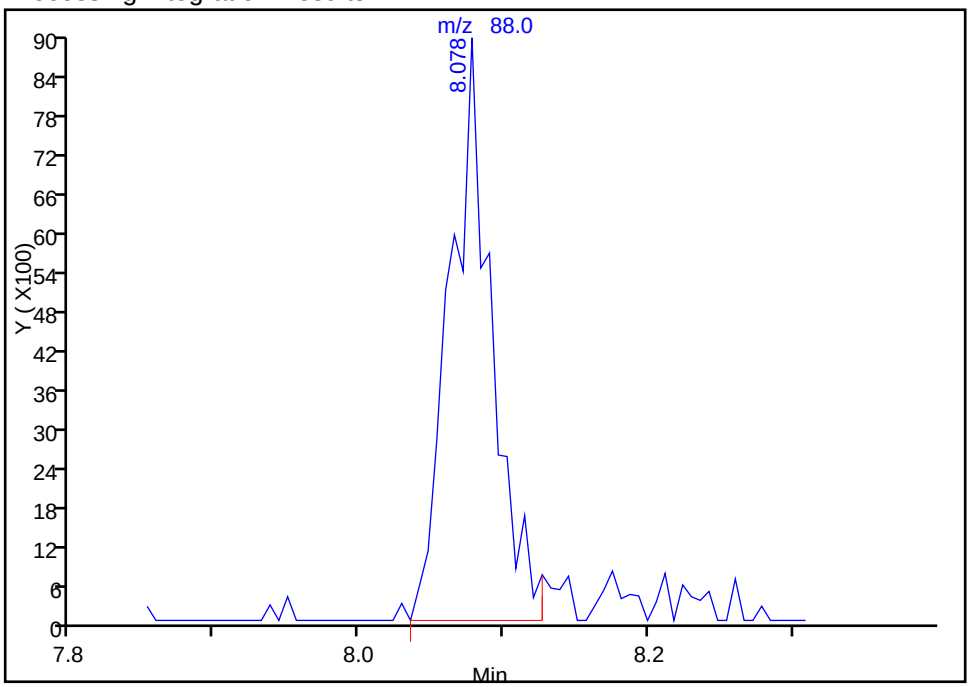
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403008.D				
Injection Date:	03-Apr-2015 16:14:30	Instrument ID:	CHHP6		
Lims ID:	LCS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

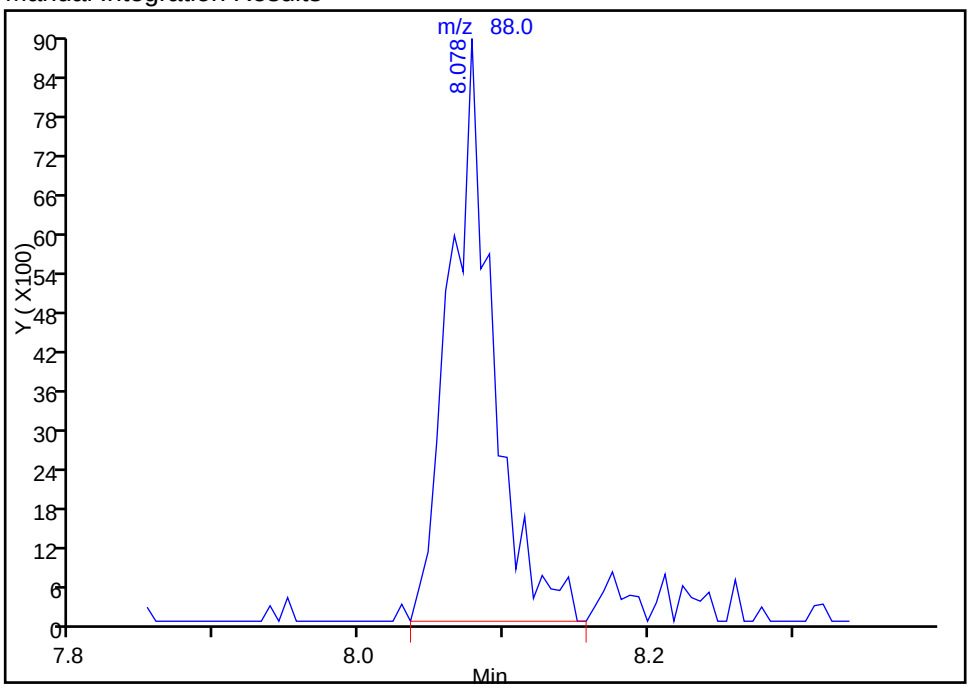
Processing Integration Results

RT: 8.08
Area: 18063
Amount: 1126.1040
Amount Units: ng



Manual Integration Results

RT: 8.08
Area: 18666
Amount: 1163.6969
Amount Units: ng



Reviewer: fergusond, 03-Apr-2015 16:39:29
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137519/8

Matrix: Water Lab File ID: 50404008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/04/2015 14:52

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.: 137519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.02		1.0	0.28
75-01-4	Vinyl chloride	10.3		1.0	0.23
74-83-9	Bromomethane	12.9		1.0	0.31
75-00-3	Chloroethane	11.8		1.0	0.21
75-35-4	1,1-Dichloroethene	10.1		1.0	0.30
67-64-1	Acetone	21.7		5.0	2.5
75-15-0	Carbon disulfide	9.57		1.0	0.21
75-09-2	Methylene Chloride	9.12		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.88		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.68		1.0	0.18
75-34-3	1,1-Dichloroethane	10.1		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.57		1.0	0.24
74-97-5	Bromochloromethane	9.57		1.0	0.18
78-93-3	2-Butanone (MEK)	16.4		5.0	0.55
67-66-3	Chloroform	10.3		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.1		1.0	0.29
56-23-5	Carbon tetrachloride	12.0		1.0	0.14
71-43-2	Benzene	10.1		1.0	0.11
107-06-2	1,2-Dichloroethane	10.2		1.0	0.21
79-01-6	Trichloroethene	9.25		1.0	0.14
78-87-5	1,2-Dichloropropane	9.73		1.0	0.095
75-27-4	Bromodichloromethane	10.1		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.75		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5		5.0	0.53
108-88-3	Toluene	10.6		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.9		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.6		1.0	0.20
127-18-4	Tetrachloroethene	10.3		1.0	0.15
591-78-6	2-Hexanone	16.1		5.0	0.16
124-48-1	Dibromochloromethane	10.7		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.2		1.0	0.28
100-41-4	Ethylbenzene	10.3		1.0	0.23
1330-20-7	Xylenes, Total	19.7		3.0	0.49
100-42-5	Styrene	10.2		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-137519/8

Matrix: Water Lab File ID: 50404008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/04/2015 14:52

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.: 137519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.1		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.0		1.0	0.20
107-13-1	Acrylonitrile	95.2		20	0.55
123-91-1	1,4-Dioxane	152	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

Report Date: 04-Apr-2015 15:10:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404008.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 04-Apr-2015 14:52:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0006328-008
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 15:10:36 Calib Date: 18-Mar-2015 16:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 15:10:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.316	4.301	0.015	98	122095	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.270	0.003	100	448033	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.357	10.360	-0.003	98	101379	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.681	12.684	-0.003	96	160112	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.531	6.525	0.006	97	96509	50.0	47.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.908	6.902	0.006	97	133307	50.0	49.6	
$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	401676	50.0	49.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.526	0.005	98	136630	50.0	46.9	
11 Dichlorodifluoromethane	85	1.615	1.628	-0.013	98	103075	50.0	53.7	
12 Chloromethane	50	1.792	1.786	0.006	99	119501	50.0	45.1	
13 Vinyl chloride	62	1.919	1.908	0.011	100	151916	50.0	51.3	
14 Butadiene	39	1.956	1.957	-0.001	98	171894	50.0	50.8	
15 Bromomethane	94	2.266	2.273	-0.007	97	101681	50.0	64.7	
16 Chloroethane	64	2.418	2.407	0.011	98	121393	50.0	59.2	
17 Dichlorofluoromethane	67	2.674	2.668	0.006	100	280583	50.0	60.0	
18 Trichlorofluoromethane	101	2.735	2.723	0.012	98	189828	50.0	53.4	
20 Ethyl ether	59	3.100	3.094	0.006	97	118426	50.0	50.5	
21 Acrolein	56	3.270	3.252	0.018	99	33446	150.0	117.5	
22 1,1-Dichloroethene	96	3.392	3.386	0.006	97	130008	50.0	50.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.441	-0.001	98	139760	50.0	53.5	
24 Acetone	43	3.501	3.502	-0.001	99	99660	100.0	108.6	
25 Iodomethane	142	3.605	3.605	0.000	100	175117	50.0	48.8	
26 Carbon disulfide	76	3.678	3.666	0.012	100	302300	50.0	47.8	
28 3-Chloro-1-propene	76	3.939	3.940	-0.001	98	60889	50.0	44.6	
30 Methyl acetate	43	4.024	4.025	-0.001	100	557614	250.0	259.7	
31 Methylene Chloride	84	4.146	4.147	-0.001	95	136207	50.0	45.6	
32 2-Methyl-2-propanol	59	4.450	4.439	0.011	98	64570	500.0	449.0	
33 Acrylonitrile	53	4.560	4.560	0.000	99	525804	500.0	476.0	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	62	132074	50.0	49.4	
35 Methyl tert-butyl ether	73	4.602	4.597	0.005	99	285841	50.0	48.4	
36 Hexane	57	4.992	4.986	0.006	98	186616	50.0	43.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.174	5.175	-0.001	100	239790	50.0	50.3	
38 Vinyl acetate	43	5.296	5.296	0.000	100	113282	50.0	33.5	
44 2,2-Dichloropropane	77	5.928	5.929	-0.001	97	73276	50.0	61.4	
45 cis-1,2-Dichloroethene	96	5.935	5.941	-0.006	97	134686	50.0	47.8	
46 2-Butanone (MEK)	43	5.989	5.990	-0.001	99	120220	100.0	81.9	
49 Chlorobromomethane	128	6.227	6.227	0.000	99	58288	50.0	47.8	
51 Tetrahydrofuran	42	6.293	6.282	0.011	98	75505	100.0	82.2	
52 Chloroform	83	6.342	6.343	-0.001	100	222925	50.0	51.4	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	97	153981	50.0	55.7	
54 Cyclohexane	56	6.592	6.586	0.006	97	237721	50.0	44.7	
56 Carbon tetrachloride	117	6.719	6.714	0.005	95	133461	50.0	60.1	
55 1,1-Dichloropropene	75	6.725	6.726	-0.001	95	168284	50.0	46.8	
57 Isobutyl alcohol	41	6.944	6.939	0.005	98	75502	1250.0	1262.5	
58 Benzene	78	6.957	6.951	0.006	99	537374	50.0	50.6	
59 1,2-Dichloroethane	62	6.987	6.988	-0.001	99	176505	50.0	50.8	
62 n-Heptane	43	7.279	7.280	-0.001	78	157090	50.0	43.1	
64 Trichloroethene	130	7.668	7.669	-0.001	99	123010	50.0	46.2	
66 Methylcyclohexane	83	7.863	7.857	0.006	98	219603	50.0	46.3	
67 1,2-Dichloropropane	63	7.900	7.900	0.000	95	127708	50.0	48.6	
68 Dibromomethane	93	8.021	8.028	-0.007	97	68730	50.0	48.6	
70 1,4-Dioxane	88	8.058	8.058	0.000	94	21035	1000.0	760.7	
71 Dichlorobromomethane	83	8.192	8.198	-0.006	99	146195	50.0	50.7	
73 2-Chloroethyl vinyl ether	63	8.520	8.521	-0.001	99	132167	100.0	89.3	
74 cis-1,3-Dichloropropene	75	8.660	8.654	0.006	98	135723	50.0	48.7	
75 4-Methyl-2-pentanone (MIBK	43	8.818	8.825	-0.007	99	240234	100.0	87.6	
76 Toluene	91	8.988	8.989	-0.001	100	549948	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	98	102390	50.0	54.6	
78 Ethyl methacrylate	69	9.311	9.318	-0.007	99	108354	50.0	44.3	
79 1,1,2-Trichloroethane	97	9.402	9.397	0.005	98	103179	50.0	53.0	
80 Tetrachloroethene	164	9.536	9.537	-0.001	97	104479	50.0	51.4	
81 1,3-Dichloropropane	76	9.560	9.561	-0.001	99	182258	50.0	50.3	
82 2-Hexanone	43	9.658	9.652	0.006	99	169233	100.0	80.7	
84 Chlorodibromomethane	129	9.791	9.786	0.005	98	82960	50.0	53.3	
85 Ethylene Dibromide	107	9.901	9.902	-0.001	99	95481	50.0	51.4	
86 3-Chlorobenzotrifluoride	180	10.369	10.370	-0.001	98	203686	50.0	51.4	
87 Chlorobenzene	112	10.388	10.388	0.000	100	332726	50.0	50.5	
88 4-Chlorobenzotrifluoride	180	10.424	10.425	-0.001	99	194461	50.0	50.7	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	94	94796	50.0	55.8	
90 Ethylbenzene	106	10.497	10.498	-0.001	100	193971	50.0	51.4	
91 m-Xylene & p-Xylene	106	10.619	10.613	0.006	100	230178	50.0	49.8	
92 o-Xylene	106	11.008	11.009	-0.001	96	220193	50.0	48.7	
93 Styrene	104	11.020	11.021	-0.001	99	370448	50.0	50.9	
94 Bromoform	173	11.209	11.209	0.000	98	48567	50.0	50.6	
96 2-Chlorobenzotrifluoride	180	11.270	11.270	0.000	99	201320	50.0	50.9	
97 Isopropylbenzene	105	11.379	11.380	-0.001	100	569718	50.0	50.5	
99 1,1,2,2-Tetrachloroethane	83	11.671	11.672	-0.001	97	140025	50.0	50.1	
100 Bromobenzene	156	11.683	11.678	0.005	100	130949	50.0	44.2	
101 1,2,3-Trichloropropane	110	11.714	11.720	-0.006	97	46597	50.0	47.8	
102 trans-1,4-Dichloro-2-buten	53	11.732	11.727	0.005	96	30395	50.0	37.5	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	158827	50.0	43.4	
104 2-Chlorotoluene	126	11.872	11.873	-0.001	100	135846	50.0	44.2	
105 3-Chlorotoluene	126	11.933	11.933	0.000	99	160975	50.0	46.9	

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	11.963	11.958	0.005	100	484675	50.0	47.6	
107 4-Chlorotoluene	126	11.982	11.982	0.000	97	158584	50.0	47.7	
108 tert-Butylbenzene	119	12.286	12.286	0.000	99	374082	50.0	42.4	
110 1,2,4-Trimethylbenzene	105	12.334	12.335	-0.001	97	488080	50.0	46.7	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.396	0.005	98	149565	50.0	45.2	
112 sec-Butylbenzene	105	12.505	12.505	0.000	100	573568	50.0	46.1	
113 1,3-Dichlorobenzene	146	12.614	12.615	-0.001	99	257382	50.0	47.1	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	99	464419	50.0	45.3	
115 1,4-Dichlorobenzene	146	12.705	12.706	-0.001	99	260342	50.0	46.7	
116 2,4-Dichloro-1-(triflourom	214	12.754	12.755	-0.001	97	140230	50.0	45.3	
118 2,5-Dichlorobenzotrifluori	214	12.803	12.803	0.000	99	161112	50.0	46.5	
120 n-Butylbenzene	91	13.058	13.059	-0.001	100	415183	50.0	44.4	
121 1,2-Dichlorobenzene	146	13.077	13.077	0.000	99	235103	50.0	46.5	
122 1,2-Dibromo-3-Chloropropan	75	13.861	13.862	-0.001	94	19287	50.0	46.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.001	14.002	-0.001	100	490299	150.0	128.3	
124 1,3,5-Trichlorobenzene	180	14.074	14.065	0.009	99	139007	50.0	45.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.421	14.428	-0.007	99	292937	100.0	78.8	
126 1,2,4-Trichlorobenzene	180	14.689	14.689	0.000	99	93415	50.0	35.5	
127 Hexachlorobutadiene	225	14.859	14.860	-0.001	97	48193	50.0	38.2	
128 Naphthalene	128	14.938	14.939	-0.001	100	219949	50.0	31.8	
129 1,2,3-Trichlorobenzene	180	15.181	15.182	-0.001	97	76527	50.0	35.5	
131 2,4,5-Trichlorotoluene	159	15.960	15.961	-0.001	96	26730	50.0	23.0	
130 2,3,6-Trichlorotoluene	159	16.064	16.058	0.006	97	27319	50.0	26.1	
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		100.0	98.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	97.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	103.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00109	Amount Added:	2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00006	Amount Added:	2.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added:	2.00	Units: uL	
voaW2-cle pri_00005	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00007	Amount Added:	6.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

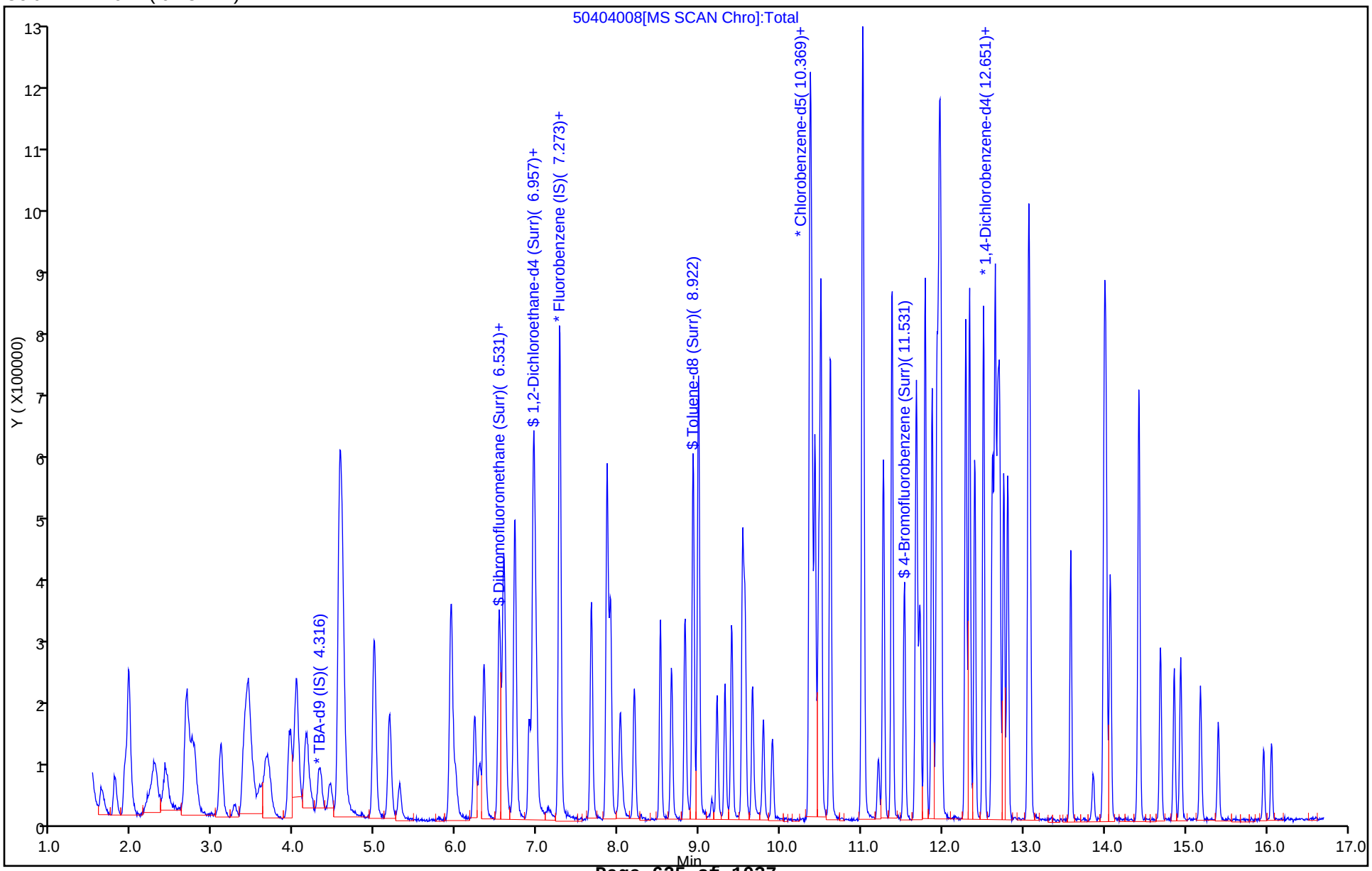
Report Date: 04-Apr-2015 15:10:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150404-6328.b\50404008.D

Injection Date:	04-Apr-2015 14:52:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MS | Lab Sample ID: 180-42445-4 MS

Matrix: Water | Lab File ID: 60403009.D

Analysis Method: 8260C | Date Collected: 03/26/2015 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 16:37

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.: 137472 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.44		1.0	0.28
75-01-4	Vinyl chloride	8.19		1.0	0.23
74-83-9	Bromomethane	11.1		1.0	0.31
75-00-3	Chloroethane	8.00		1.0	0.21
75-35-4	1,1-Dichloroethene	9.07		1.0	0.30
67-64-1	Acetone	18.0		5.0	2.5
75-15-0	Carbon disulfide	6.14		1.0	0.21
75-09-2	Methylene Chloride	7.48		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	7.69		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.34		1.0	0.18
75-34-3	1,1-Dichloroethane	8.15		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	19.9		1.0	0.24
74-97-5	Bromochloromethane	8.77		1.0	0.18
78-93-3	2-Butanone (MEK)	19.7		5.0	0.55
67-66-3	Chloroform	8.97		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.3		1.0	0.29
56-23-5	Carbon tetrachloride	8.77		1.0	0.14
71-43-2	Benzene	9.03		1.0	0.11
107-06-2	1,2-Dichloroethane	11.1		1.0	0.21
79-01-6	Trichloroethene	20.3		1.0	0.14
78-87-5	1,2-Dichloropropane	8.31		1.0	0.095
75-27-4	Bromodichloromethane	8.91		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.06		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.6		5.0	0.53
108-88-3	Toluene	10.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.2		1.0	0.15
79-00-5	1,1,2-Trichloroethane	12.0		1.0	0.20
127-18-4	Tetrachloroethene	24.5		1.0	0.15
591-78-6	2-Hexanone	18.4		5.0	0.16
124-48-1	Dibromochloromethane	10.1		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.5		1.0	0.18
108-90-7	Chlorobenzene	9.93		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.67		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.0		3.0	0.49
100-42-5	Styrene	10.5		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MS Lab Sample ID: 180-42445-4 MS

Matrix: Water Lab File ID: 60403009.D

Analysis Method: 8260C Date Collected: 03/26/2015 14:25

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 16:37

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.: 137472 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.6		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	12.4		1.0	0.20
107-13-1	Acrylonitrile	111		20	0.55
123-91-1	1,4-Dioxane	274		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403009.D
Lims ID: 180-42445-E-4 MS
Client ID: HD-MW-98I-0/1-0
Sample Type: MS
Inject. Date: 03-Apr-2015 16:37:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-E-4 MS
Misc. Info.: 180-0006320-009
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:39:48 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:37:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.279	0.007	91	191756	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.327	7.332	-0.005	97	408396	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.440	10.439	0.001	89	82361	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.794	12.793	0.001	96	138696	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.602	0.001	93	89654	50.0	48.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.974	6.979	-0.005	67	139650	50.0	52.8	
$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	93	329823	50.0	50.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.626	11.625	0.001	84	128842	50.0	46.7	
11 Dichlorodifluoromethane	85	1.629	1.627	0.002	99	112341	50.0	51.9	
12 Chloromethane	50	1.775	1.767	0.008	99	123733	50.0	37.2	
13 Vinyl chloride	62	1.908	1.907	0.001	98	120728	50.0	40.9	
14 Butadiene	39	1.951	1.950	0.001	91	119939	50.0	38.1	
15 Bromomethane	94	2.261	2.260	0.001	91	65427	50.0	55.3	
16 Chloroethane	64	2.425	2.412	0.013	99	72378	50.0	40.0	
17 Dichlorofluoromethane	67	2.687	2.679	0.008	96	199511	50.0	46.3	
18 Trichlorofluoromethane	101	2.723	2.716	0.007	97	170968	50.0	50.7	
20 Ethyl ether	59	3.082	3.069	0.014	93	108106	50.0	42.0	
21 Acrolein	56	3.252	3.257	-0.005	98	22976	150.0	56.3	
22 1,1-Dichloroethene	96	3.380	3.391	-0.011	95	103976	50.0	45.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.453	3.452	0.001	96	103134	50.0	44.5	
24 Acetone	43	3.459	3.464	-0.005	98	65106	100.0	90.1	
25 Iodomethane	142	3.587	3.585	0.002	99	134856	50.0	39.7	
26 Carbon disulfide	76	3.696	3.689	0.007	99	208405	50.0	30.7	
29 3-Chloro-1-propene	76	3.976	3.956	0.020	54	49433	50.0	33.2	
30 Methyl acetate	43	3.976	3.975	0.001	97	489907	250.0	277.1	
31 Methylene Chloride	84	4.183	4.181	0.002	92	125339	50.0	37.4	
32 2-Methyl-2-propanol	59	4.420	4.412	0.008	93	118865	500.0	548.5	
33 Acrylonitrile	53	4.548	4.546	0.002	99	512699	500.0	556.1	
35 Methyl tert-butyl ether	73	4.615	4.607	0.008	98	339012	50.0	46.7	
34 trans-1,2-Dichloroethene	96	4.621	4.619	0.002	66	106180	50.0	38.5	
36 Hexane	57	5.034	5.027	0.007	94	140510	50.0	35.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.247	5.240	0.007	96	217676	50.0	40.8	
38 Vinyl acetate	43	5.284	5.282	0.002	97	127485	50.0	45.9	
44 2-Butanone (MEK)	43	5.989	5.988	0.001	37	91197	100.0	98.5	
43 cis-1,2-Dichloroethene	96	5.989	5.988	0.001	82	291202	50.0	99.5	
42 2,2-Dichloropropane	77	5.983	5.988	-0.005	40	89311	50.0	29.5	
48 Chlorobromomethane	128	6.281	6.273	0.008	94	51126	50.0	43.9	
49 Tetrahydrofuran	42	6.293	6.286	0.007	87	68205	100.0	102.5	
50 Chloroform	83	6.427	6.413	0.014	94	206214	50.0	44.9	
51 1,1,1-Trichloroethane	97	6.585	6.584	0.001	97	181245	50.0	51.7	
52 Cyclohexane	56	6.664	6.669	-0.005	90	185178	50.0	32.8	
53 Carbon tetrachloride	117	6.761	6.760	0.001	78	120157	50.0	43.8	
54 1,1-Dichloropropene	75	6.773	6.772	0.001	94	152037	50.0	43.5	
55 Isobutyl alcohol	41	6.938	6.936	0.002	88	87855	1250.0	1617.1	
56 Benzene	78	6.986	6.985	0.001	97	457851	50.0	45.2	
57 1,2-Dichloroethane	62	7.065	7.058	0.007	98	184531	50.0	55.4	
59 n-Heptane	43	7.351	7.350	0.001	88	99271	50.0	30.7	
61 Trichloroethene	130	7.722	7.721	0.001	95	233878	50.0	101.3	
63 Methylcyclohexane	83	7.965	7.970	-0.005	93	162810	50.0	35.8	
64 1,2-Dichloropropane	63	7.996	7.994	0.002	95	111498	50.0	41.6	
65 1,4-Dioxane	88	8.069	8.067	0.002	91	23007	1000.0	1370.6	M
67 Dibromomethane	93	8.081	8.086	-0.005	93	66846	50.0	55.7	
68 Dichlorobromomethane	83	8.276	8.274	0.002	98	125263	50.0	44.5	
71 cis-1,3-Dichloropropene	75	8.719	8.718	0.001	93	130014	50.0	40.3	
72 4-Methyl-2-pentanone (MIBK	43	8.859	8.858	0.001	97	163429	100.0	88.0	
73 Toluene	91	9.054	9.053	0.001	99	442977	50.0	52.6	
74 trans-1,3-Dichloropropene	75	9.291	9.296	-0.005	94	117411	50.0	50.8	
75 Ethyl methacrylate	69	9.352	9.351	0.002	90	124322	50.0	58.5	
76 1,1,2-Trichloroethane	97	9.492	9.496	-0.004	92	91473	50.0	59.8	
77 Tetrachloroethene	164	9.565	9.569	-0.004	97	183831	50.0	122.3	
78 1,3-Dichloropropane	76	9.650	9.649	0.002	92	166089	50.0	58.4	
79 2-Hexanone	43	9.692	9.691	0.001	93	97293	100.0	91.8	
81 Chlorodibromomethane	129	9.869	9.874	-0.005	91	65600	50.0	50.5	
82 Ethylene Dibromide	107	9.984	9.983	0.001	99	80065	50.0	57.6	
83 3-Chlorobenzotrifluoride	180	10.428	10.433	-0.005	92	155461	50.0	53.1	
84 Chlorobenzene	112	10.471	10.469	0.002	91	260943	50.0	49.7	
85 4-Chlorobenzotrifluoride	180	10.520	10.524	-0.004	96	143692	50.0	52.7	
86 1,1,1,2-Tetrachloroethane	131	10.568	10.561	0.007	42	87597	50.0	48.3	
87 Ethylbenzene	106	10.568	10.567	0.001	99	159692	50.0	50.6	
88 m-Xylene & p-Xylene	106	10.696	10.701	-0.005	100	197581	50.0	50.8	
89 o-Xylene	106	11.079	11.084	-0.005	97	195081	50.0	48.8	
90 Styrene	104	11.103	11.102	0.001	94	308149	50.0	52.3	
91 Bromoform	173	11.286	11.290	-0.004	94	36702	50.0	52.8	
92 2-Chlorobenzotrifluoride	180	11.341	11.339	0.002	94	159987	50.0	52.4	
93 Isopropylbenzene	105	11.450	11.449	0.001	97	506946	50.0	51.4	
96 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	96	127491	50.0	62.0	
95 Bromobenzene	156	11.766	11.771	-0.005	96	103510	50.0	42.6	
97 trans-1,4-Dichloro-2-buten	53	11.791	11.789	0.002	68	33521	50.0	49.1	
98 1,2,3-Trichloropropane	110	11.821	11.813	0.008	85	47186	50.0	66.4	
99 N-Propylbenzene	120	11.864	11.868	-0.004	99	126033	50.0	43.5	
100 2-Chlorotoluene	126	11.961	11.953	0.008	94	110429	50.0	43.2	
101 3-Chlorotoluene	126	12.022	12.020	0.002	97	120804	50.0	45.2	
102 1,3,5-Trimethylbenzene	105	12.046	12.045	0.001	93	462547	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.076	12.081	-0.005	99	118946	50.0	45.3	
104 tert-Butylbenzene	119	12.362	12.367	-0.005	91	318691	50.0	43.9	
106 1,2,4-Trimethylbenzene	105	12.423	12.422	0.001	97	464447	50.0	48.1	
107 1,2-dichloro-4-(trifluorom	214	12.459	12.458	0.001	97	132198	50.0	49.0	
108 sec-Butylbenzene	105	12.587	12.586	0.001	95	520849	50.0	46.4	
109 1,3-Dichlorobenzene	146	12.715	12.707	0.008	96	222393	50.0	46.8	
110 4-Isopropyltoluene	119	12.745	12.744	0.001	96	409352	50.0	45.0	
111 1,4-Dichlorobenzene	146	12.818	12.817	0.001	92	230239	50.0	46.8	
113 2,4-Dichloro-1-(triflourom	214	12.830	12.829	0.001	95	124217	50.0	45.9	
114 2,5-Dichlorobenzotrifluori	214	12.867	12.866	0.001	97	141243	50.0	47.4	
116 n-Butylbenzene	91	13.153	13.151	0.002	98	404151	50.0	46.2	
117 1,2-Dichlorobenzene	146	13.171	13.170	0.001	94	231976	50.0	48.8	
118 1,2-Dibromo-3-Chloropropan	75	13.962	13.966	-0.004	69	21923	50.0	57.8	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.101	14.106	-0.005	99	645031	150.0	144.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.515	14.520	-0.005	98	487129	100.0	99.9	
122 1,2,4-Trichlorobenzene	180	14.789	14.787	0.002	93	166638	50.0	45.2	
123 Hexachlorobutadiene	225	14.929	14.927	0.002	96	62477	50.0	43.4	
124 Naphthalene	128	15.050	15.055	-0.005	98	411720	50.0	65.0	
125 1,2,3-Trichlorobenzene	180	15.275	15.280	-0.005	95	162750	50.0	52.8	
126 2,4,5-Trichlorotoluene	159	16.047	16.046	0.001	0	95073	50.0	41.9	
127 2,3,6-Trichlorotoluene	159	16.145	16.149	-0.004	96	93210	50.0	46.1	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	137.9	
S 131 Xylenes, Total	106				0		100.0	99.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	91.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00109	Amount Added:	2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added:	2.00	Units: uL	
voaWVA2nd Res_00006	Amount Added:	2.00	Units: uL	
VOAACRO2ND_00007	Amount Added:	6.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

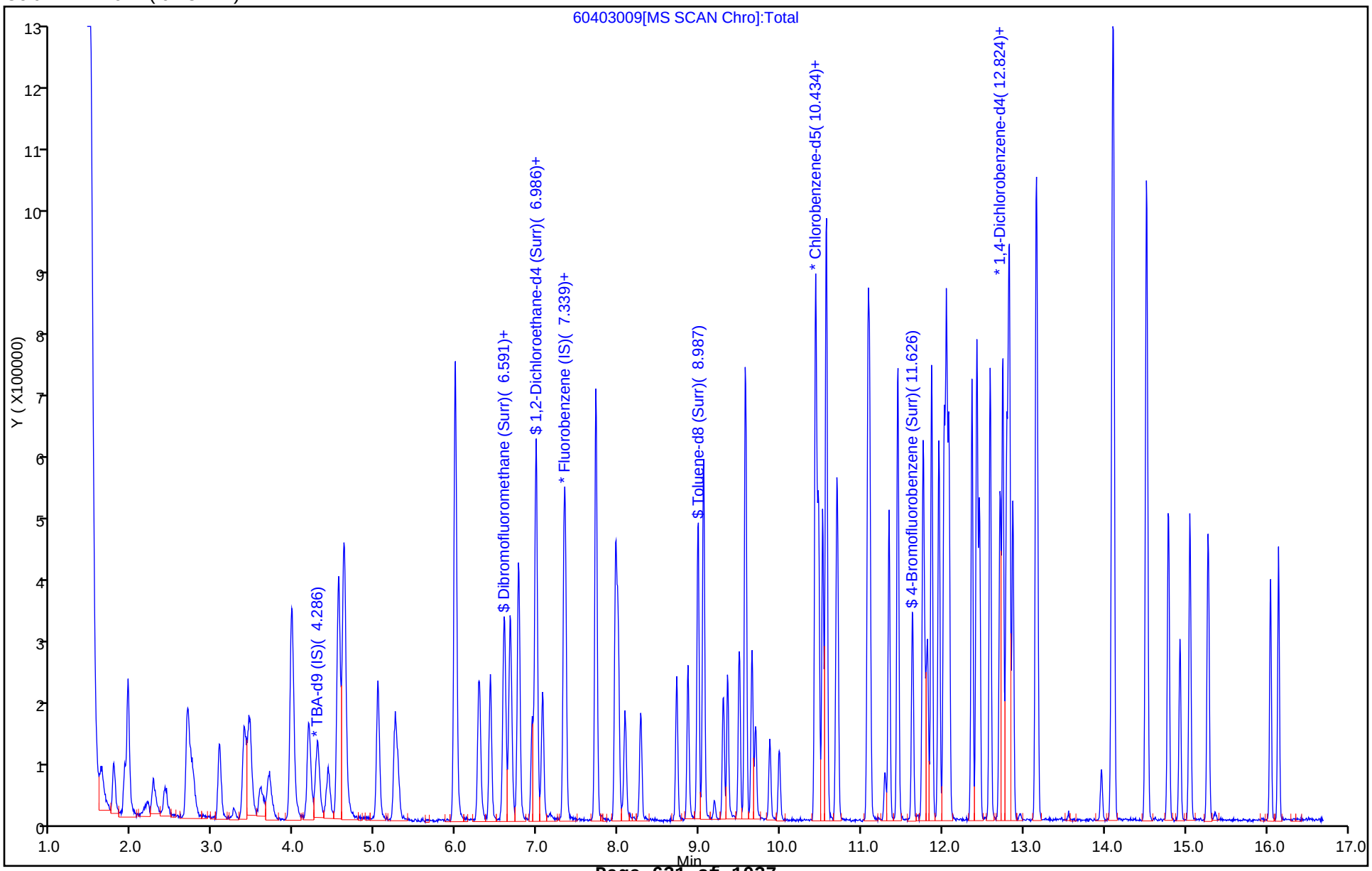
Report Date: 04-Apr-2015 10:39:48 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403009.D

Injection Date:	03-Apr-2015 16:37:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-E-4 MS			Worklist Smp#:	9
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

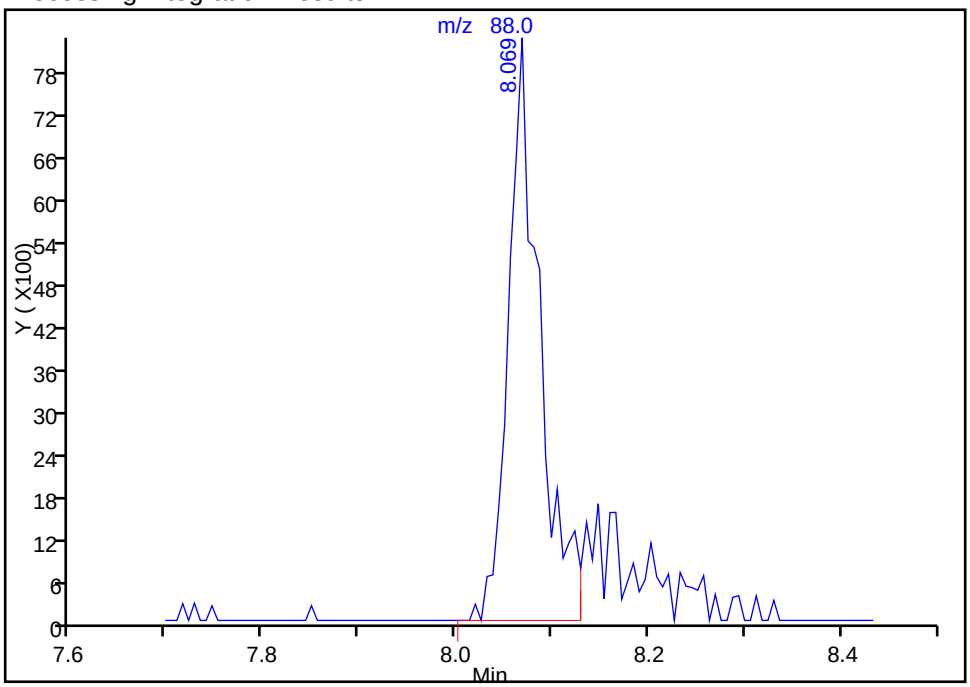
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403009.D				
Injection Date:	03-Apr-2015 16:37:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-4 MS				
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

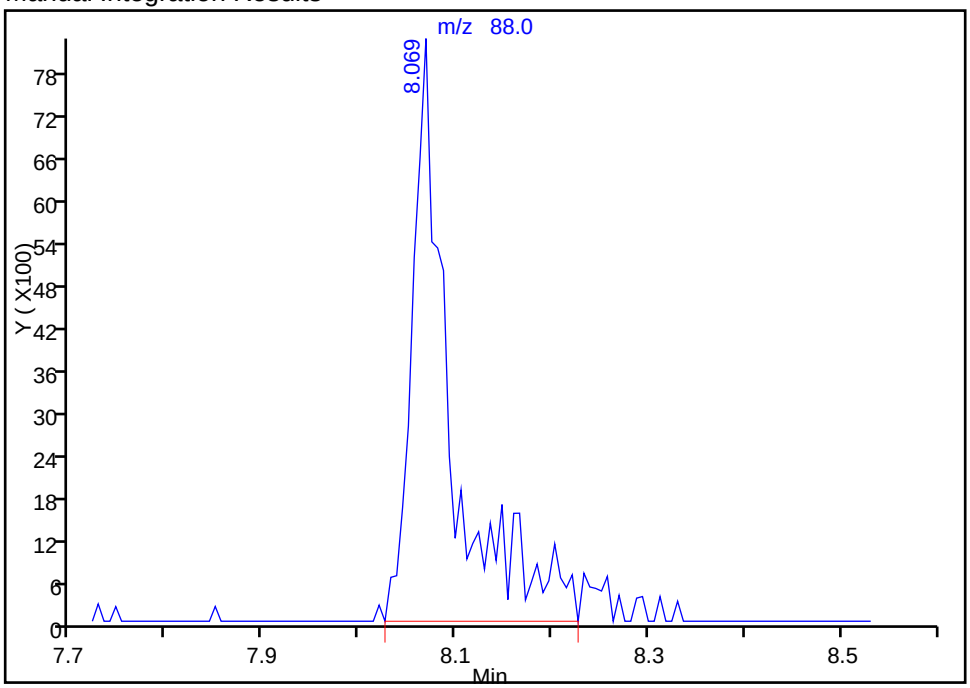
Processing Integration Results

RT: 8.07
Area: 18462
Amount: 1099.8608
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 23007
Amount: 1370.6260
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:39:48
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MSD | Lab Sample ID: 180-42445-4 MSD

Matrix: Water | Lab File ID: 60403010.D

Analysis Method: 8260C | Date Collected: 03/26/2015 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/03/2015 17:01

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.: 137472 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.82		1.0	0.28
75-01-4	Vinyl chloride	8.17		1.0	0.23
74-83-9	Bromomethane	10.2		1.0	0.31
75-00-3	Chloroethane	7.73		1.0	0.21
75-35-4	1,1-Dichloroethene	8.31		1.0	0.30
67-64-1	Acetone	16.7		5.0	2.5
75-15-0	Carbon disulfide	6.07		1.0	0.21
75-09-2	Methylene Chloride	7.32		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.01		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.08		1.0	0.18
75-34-3	1,1-Dichloroethane	8.24		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	19.3		1.0	0.24
74-97-5	Bromochloromethane	9.01		1.0	0.18
78-93-3	2-Butanone (MEK)	20.0		5.0	0.55
67-66-3	Chloroform	8.77		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.1		1.0	0.29
56-23-5	Carbon tetrachloride	7.91		1.0	0.14
71-43-2	Benzene	8.66		1.0	0.11
107-06-2	1,2-Dichloroethane	10.7		1.0	0.21
79-01-6	Trichloroethene	19.8		1.0	0.14
78-87-5	1,2-Dichloropropane	8.06		1.0	0.095
75-27-4	Bromodichloromethane	8.56		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.91		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.4		5.0	0.53
108-88-3	Toluene	9.53		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.07		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.0		1.0	0.20
127-18-4	Tetrachloroethene	22.8		1.0	0.15
591-78-6	2-Hexanone	17.9		5.0	0.16
124-48-1	Dibromochloromethane	9.34		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	9.39		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	8.74		1.0	0.28
100-41-4	Ethylbenzene	9.41		1.0	0.23
1330-20-7	Xylenes, Total	17.9		3.0	0.49
100-42-5	Styrene	9.54		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MSD Lab Sample ID: 180-42445-4 MSD

Matrix: Water Lab File ID: 60403010.D

Analysis Method: 8260C Date Collected: 03/26/2015 14:25

Sample wt/vol: 5(mL) Date Analyzed: 04/03/2015 17:01

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.: 137472 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.4		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.4		1.0	0.20
107-13-1	Acrylonitrile	108		20	0.55
123-91-1	1,4-Dioxane	248		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)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	84		70-118
1868-53-7	Dibromofluoromethane (Surr)	92		70-128

Report Date: 04-Apr-2015 10:39:14 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403010.D
Lims ID: 180-42445-E-4 MSD
Client ID: HD-MW-98I-0/1-0
Sample Type: MSD
Inject. Date: 03-Apr-2015 17:01:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-42445-E-4 MSD
Misc. Info.: 180-0006320-010
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 04-Apr-2015 10:39:14 Calib Date: 28-Jan-2015 16:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150128-5450.b\60128013.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: fergusond Date: 04-Apr-2015 10:39:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.279	-0.005	93	198994	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.332	0.001	97	429943	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.441	10.439	0.002	89	91657	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.793	-0.005	97	139649	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.603	6.602	0.001	93	89590	50.0	46.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.980	6.979	0.001	69	144678	50.0	52.0	
$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	94	327141	50.0	45.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.625	0.002	82	129829	50.0	42.2	
11 Dichlorodifluoromethane	85	1.623	1.627	-0.004	98	116212	50.0	51.0	
12 Chloromethane	50	1.775	1.767	0.008	100	119528	50.0	34.1	
13 Vinyl chloride	62	1.903	1.907	-0.004	97	126796	50.0	40.8	
14 Butadiene	39	1.945	1.950	-0.005	90	126134	50.0	38.0	
15 Bromomethane	94	2.267	2.260	0.007	93	63351	50.0	50.8	
16 Chloroethane	64	2.413	2.412	0.001	99	73561	50.0	38.6	
17 Dichlorofluoromethane	67	2.675	2.679	-0.004	97	204672	50.0	45.1	
18 Trichlorofluoromethane	101	2.717	2.716	0.001	98	177536	50.0	50.0	
20 Ethyl ether	59	3.070	3.069	0.002	94	110938	50.0	41.0	
21 Acrolein	56	3.246	3.257	-0.011	98	25286	150.0	58.8	
22 1,1-Dichloroethene	96	3.374	3.391	-0.017	94	100338	50.0	41.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.447	3.452	-0.005	94	103774	50.0	42.5	
24 Acetone	43	3.459	3.464	-0.005	85	63643	100.0	83.7	
25 Iodomethane	142	3.581	3.585	-0.004	96	142456	50.0	39.8	
26 Carbon disulfide	76	3.678	3.689	-0.011	99	217027	50.0	30.4	
29 3-Chloro-1-propene	76	3.964	3.956	0.008	57	50723	50.0	32.4	
30 Methyl acetate	43	3.970	3.975	-0.005	97	528585	250.0	284.0	
31 Methylene Chloride	84	4.177	4.181	-0.004	94	129158	50.0	36.6	
32 2-Methyl-2-propanol	59	4.408	4.412	-0.004	96	121238	500.0	539.1	
33 Acrylonitrile	53	4.548	4.546	0.002	100	526340	500.0	542.3	
35 Methyl tert-butyl ether	73	4.609	4.607	0.002	97	346855	50.0	45.4	
34 trans-1,2-Dichloroethene	96	4.615	4.619	-0.004	65	116437	50.0	40.1	
36 Hexane	57	5.028	5.027	0.001	94	141918	50.0	33.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.247	5.240	0.007	97	231570	50.0	41.2	
38 Vinyl acetate	43	5.278	5.282	-0.004	98	117027	50.0	40.0	
42 2,2-Dichloropropane	77	5.989	5.988	0.001	40	97894	50.0	30.7	
44 2-Butanone (MEK)	43	5.989	5.988	0.001	36	97429	100.0	99.9	
43 cis-1,2-Dichloroethene	96	5.983	5.988	-0.005	83	296777	50.0	96.3	
48 Chlorobromomethane	128	6.281	6.273	0.008	98	55264	50.0	45.0	
49 Tetrahydrofuran	42	6.287	6.286	0.001	88	71048	100.0	101.4	
50 Chloroform	83	6.421	6.413	0.008	94	212223	50.0	43.8	
51 1,1,1-Trichloroethane	97	6.585	6.584	0.001	97	186540	50.0	50.6	
52 Cyclohexane	56	6.664	6.669	-0.005	91	193078	50.0	32.5	
53 Carbon tetrachloride	117	6.768	6.760	0.008	69	114198	50.0	39.6	
54 1,1-Dichloropropene	75	6.768	6.772	-0.004	95	164962	50.0	44.8	
55 Isobutyl alcohol	41	6.932	6.936	-0.004	93	96863	1250.0	1693.6	
56 Benzene	78	6.987	6.985	0.001	96	462411	50.0	43.3	
57 1,2-Dichloroethane	62	7.066	7.058	0.008	98	188269	50.0	53.7	
59 n-Heptane	43	7.345	7.350	-0.005	90	104192	50.0	30.6	
61 Trichloroethene	130	7.722	7.721	0.001	96	240623	50.0	99.0	
63 Methylcyclohexane	83	7.966	7.970	-0.004	93	165462	50.0	34.5	
64 1,2-Dichloropropane	63	7.996	7.994	0.002	94	113790	50.0	40.3	
65 1,4-Dioxane	88	8.069	8.067	0.002	54	21878	1000.0	1238.0	M
67 Dibromomethane	93	8.081	8.086	-0.005	94	66818	50.0	52.9	
68 Dichlorobromomethane	83	8.270	8.274	-0.004	98	126796	50.0	42.8	
71 cis-1,3-Dichloropropene	75	8.720	8.718	0.002	93	134373	50.0	39.5	
72 4-Methyl-2-pentanone (MIBK	43	8.860	8.858	0.002	96	169425	100.0	81.9	
73 Toluene	91	9.054	9.053	0.001	99	446321	50.0	47.6	
74 trans-1,3-Dichloropropene	75	9.297	9.296	0.001	93	116591	50.0	45.4	
75 Ethyl methacrylate	69	9.346	9.351	-0.004	89	129673	50.0	54.8	
76 1,1,2-Trichloroethane	97	9.492	9.496	-0.004	92	93364	50.0	54.9	
77 Tetrachloroethene	164	9.565	9.569	-0.004	96	190478	50.0	113.8	
78 1,3-Dichloropropane	76	9.650	9.649	0.002	90	168770	50.0	53.3	
79 2-Hexanone	43	9.693	9.691	0.002	98	105884	100.0	89.7	
81 Chlorodibromomethane	129	9.869	9.874	-0.005	90	67482	50.0	46.7	
82 Ethylene Dibromide	107	9.985	9.983	0.002	97	79275	50.0	51.2	
83 3-Chlorobenzotrifluoride	180	10.429	10.433	-0.004	91	153768	50.0	47.2	
84 Chlorobenzene	112	10.471	10.469	0.002	92	274684	50.0	47.0	
85 4-Chlorobenzotrifluoride	180	10.526	10.524	0.002	96	146093	50.0	48.2	
86 1,1,1,2-Tetrachloroethane	131	10.562	10.561	0.001	43	88155	50.0	43.7	
87 Ethylbenzene	106	10.568	10.567	0.001	98	165133	50.0	47.1	
88 m-Xylene & p-Xylene	106	10.690	10.701	-0.011	100	196289	50.0	45.3	
89 o-Xylene	106	11.079	11.084	-0.005	98	196824	50.0	44.2	
90 Styrene	104	11.097	11.102	-0.005	94	312782	50.0	47.7	
91 Bromoform	173	11.286	11.290	-0.004	95	40091	50.0	51.8	
92 2-Chlorobenzotrifluoride	180	11.341	11.339	0.002	95	165912	50.0	48.8	
93 Isopropylbenzene	105	11.450	11.449	0.001	96	522367	50.0	47.6	
96 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	95	130941	50.0	57.2	
95 Bromobenzene	156	11.773	11.771	0.002	97	111596	50.0	45.7	
97 trans-1,4-Dichloro-2-buten	53	11.785	11.789	-0.004	62	34742	50.0	50.5	
98 1,2,3-Trichloropropane	110	11.815	11.813	0.002	84	44888	50.0	62.7	
99 N-Propylbenzene	120	11.870	11.868	0.002	99	127895	50.0	43.8	
100 2-Chlorotoluene	126	11.955	11.953	0.002	95	113041	50.0	43.9	
101 3-Chlorotoluene	126	12.022	12.020	0.002	97	122482	50.0	45.5	
102 1,3,5-Trimethylbenzene	105	12.046	12.045	0.001	92	464159	50.0	49.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.083	12.081	0.002	98	115888	50.0	43.9	
104 tert-Butylbenzene	119	12.362	12.367	-0.005	90	324199	50.0	44.4	
106 1,2,4-Trimethylbenzene	105	12.423	12.422	0.001	97	468726	50.0	48.3	
107 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	97	133833	50.0	49.3	
108 sec-Butylbenzene	105	12.587	12.586	0.001	96	537960	50.0	47.6	
109 1,3-Dichlorobenzene	146	12.709	12.707	0.002	94	221451	50.0	46.2	
110 4-Isopropyltoluene	119	12.746	12.744	0.002	95	417567	50.0	45.6	
111 1,4-Dichlorobenzene	146	12.812	12.817	-0.005	89	229724	50.0	46.4	
113 2,4-Dichloro-1-(triflourom	214	12.831	12.829	0.002	96	131996	50.0	48.5	
114 2,5-Dichlorobenzotrifluori	214	12.867	12.866	0.001	97	139328	50.0	46.4	
116 n-Butylbenzene	91	13.153	13.151	0.002	98	401789	50.0	45.6	
117 1,2-Dichlorobenzene	146	13.171	13.170	0.001	92	233374	50.0	48.7	
118 1,2-Dibromo-3-Chloropropan	75	13.962	13.966	-0.004	69	23229	50.0	60.8	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.108	14.106	0.002	99	636409	150.0	141.6	
121 2,3- & 3,4- Dichlorotoluen	125	14.515	14.520	-0.005	99	483440	100.0	98.5	
122 1,2,4-Trichlorobenzene	180	14.789	14.787	0.002	94	164447	50.0	44.3	
123 Hexachlorobutadiene	225	14.929	14.927	0.002	95	60707	50.0	41.9	
124 Naphthalene	128	15.050	15.055	-0.005	98	412709	50.0	64.8	
125 1,2,3-Trichlorobenzene	180	15.281	15.280	0.001	94	156296	50.0	50.4	
126 2,4,5-Trichlorotoluene	159	16.048	16.046	0.002	0	86574	50.0	37.9	
127 2,3,6-Trichlorotoluene	159	16.145	16.149	-0.004	90	81503	50.0	40.1	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	136.3	
S 131 Xylenes, Total	106				0		100.0	89.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	84.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACRO2ND_00007	Amount Added:	6.00	Units: uL	
voaWVA2nd Res_00006	Amount Added:	2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added:	2.00	Units: uL	
VOA8260VOA2ND_00109	Amount Added:	2.00	Units: uL	
voaWEEpri Res_00004	Amount Added:	2.00	Units: uL	
VOA8260INT_00030	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added:	2.00	Units: uL	Run Reagent

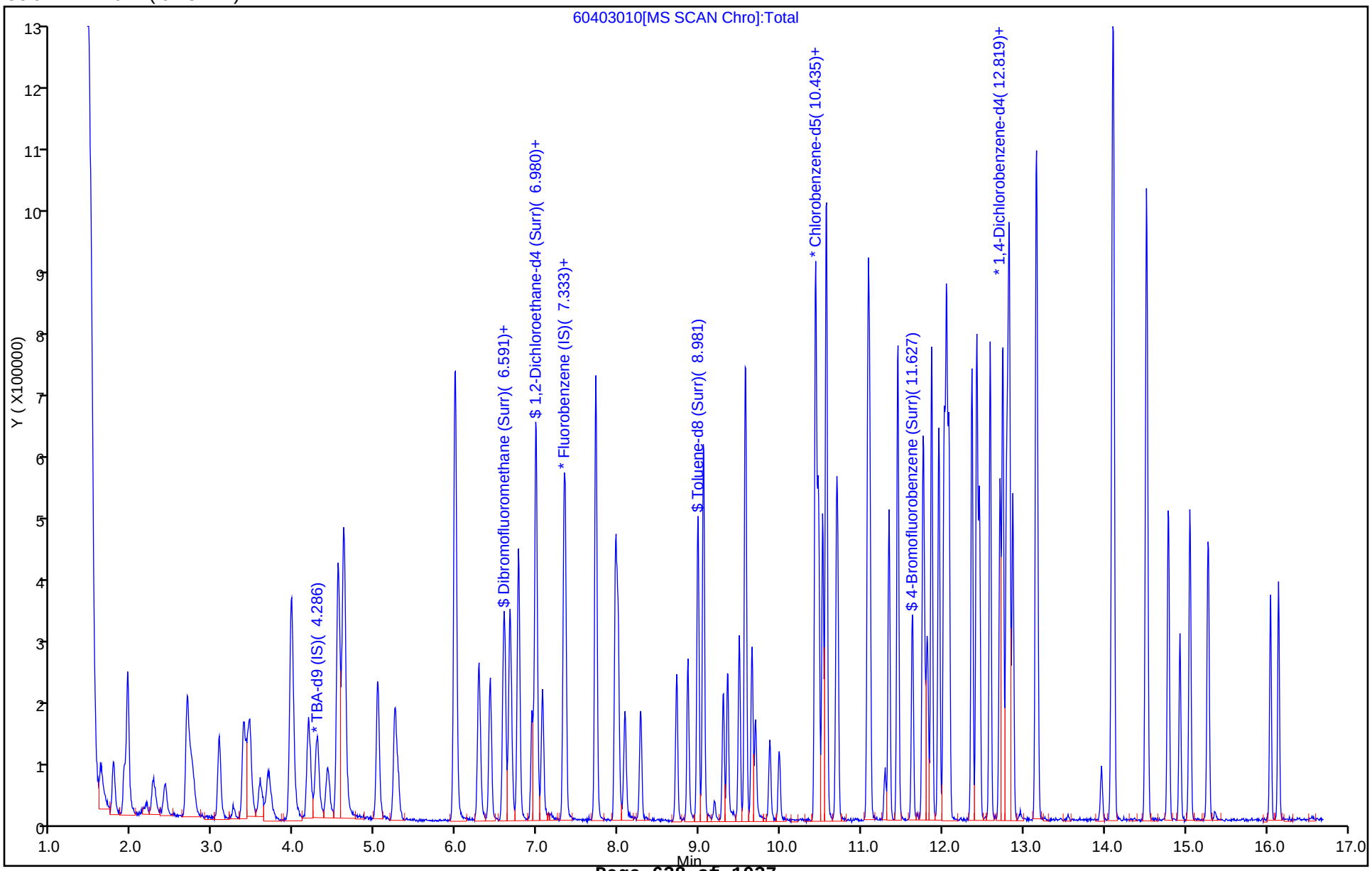
Report Date: 04-Apr-2015 10:39:14 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403010.D

Injection Date:	03-Apr-2015 17:01:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	180-42445-E-4 MSD			Worklist Smp#:	10
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

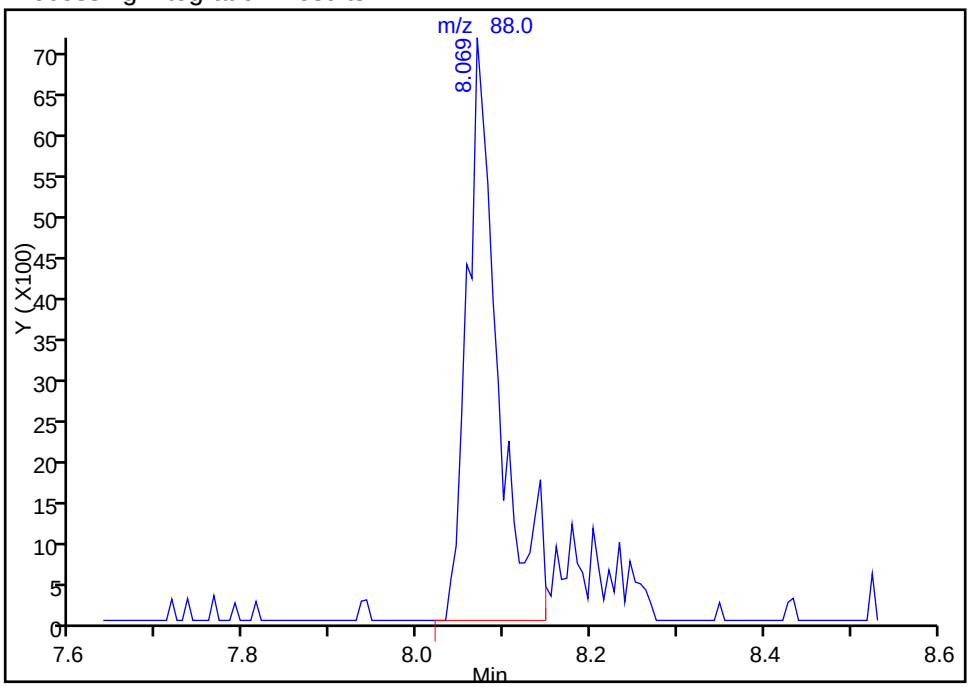
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150403-6320.b\60403010.D				
Injection Date:	03-Apr-2015 17:01:30	Instrument ID:	CHHP6		
Lims ID:	180-42445-E-4 MSD				
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

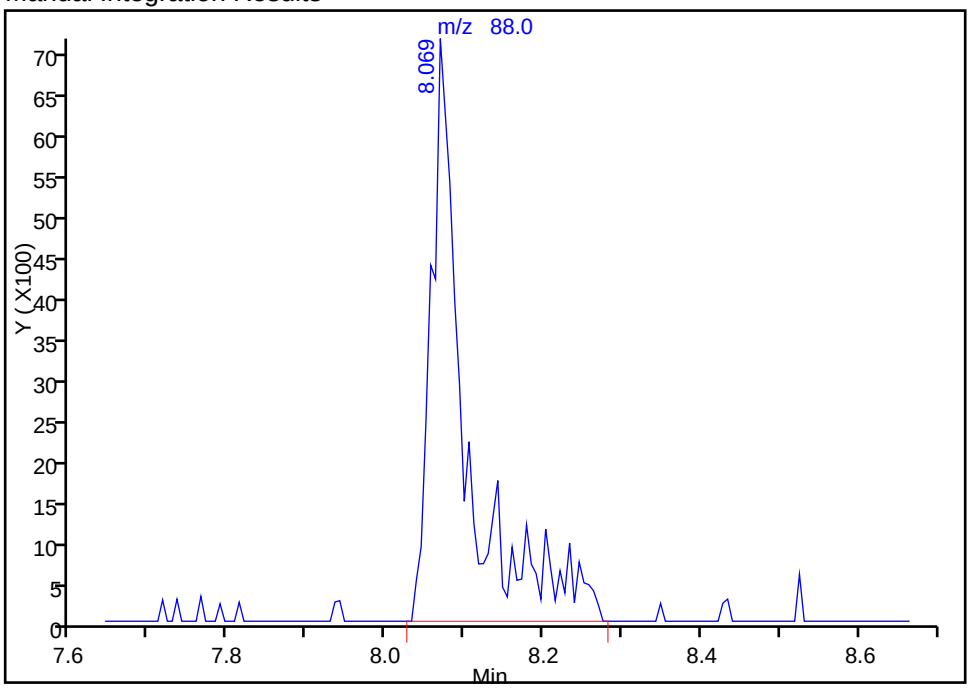
Processing Integration Results

RT: 8.07
Area: 17725
Amount: 1003.0343
Amount Units: ng



Manual Integration Results

RT: 8.07
Area: 21878
Amount: 1238.0471
Amount Units: ng



Reviewer: fergusond, 04-Apr-2015 10:39:14
Audit Action: Manually Integrated
Audit Reason: Peak Tail

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Start Date: 01/28/2015 11:55

Analysis Batch Number: 131929 End Date: 01/28/2015 18:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-131929/4		01/28/2015 11:55	1	60128004.D	DB-624 0.18(mm)
IC 180-131929/6		01/28/2015 13:58	1	60128006.D	DB-624 0.18(mm)
IC 180-131929/7		01/28/2015 14:21	1	60128007.D	DB-624 0.18(mm)
ICIS 180-131929/8		01/28/2015 14:45	1	60128008.D	DB-624 0.18(mm)
IC 180-131929/9		01/28/2015 15:09	1	60128009.D	DB-624 0.18(mm)
IC 180-131929/10		01/28/2015 15:33	1	60128010.D	DB-624 0.18(mm)
IC 180-131929/11		01/28/2015 15:57	1	60128011.D	DB-624 0.18(mm)
IC 180-131929/12		01/28/2015 16:21	1	60128012.D	DB-624 0.18(mm)
IC 180-131929/13		01/28/2015 16:44	1	60128013.D	DB-624 0.18(mm)
ICV 180-131929/18		01/28/2015 18:43	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP5 Start Date: 03/16/2015 10:49

Analysis Batch Number: 135593 End Date: 03/16/2015 17:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-135593/1		03/16/2015 10:49	1	50316001.D	DB-624 0.18(mm)
IC 180-135593/4		03/16/2015 12:41	1	50316004.D	DB-624 0.18(mm)
ICIS 180-135593/5		03/16/2015 13:05	1	50316005.D	DB-624 0.18(mm)
IC 180-135593/6		03/16/2015 13:29	1	50316006.D	DB-624 0.18(mm)
IC 180-135593/7		03/16/2015 13:53	1	50316007.D	DB-624 0.18(mm)
IC 180-135593/8		03/16/2015 14:17	1	50316008.D	DB-624 0.18(mm)
IC 180-135593/9		03/16/2015 14:41	1	50316009.D	DB-624 0.18(mm)
IC 180-135593/10		03/16/2015 15:05	1	50316010.D	DB-624 0.18(mm)
IC 180-135593/13		03/16/2015 16:17	1	50316013.D	DB-624 0.18(mm)
ICV 180-135593/15		03/16/2015 17:05	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Start Date: 04/02/2015 11:56

Analysis Batch Number: 137356 End Date: 04/02/2015 21:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137356/1		04/02/2015 11:56	1	60402001.D	DB-624 0.18(mm)
CCVIS 180-137356/2		04/02/2015 12:38	1	60402002.D	DB-624 0.18(mm)
CCV 180-137356/3		04/02/2015 13:01	1	60402003.D	DB-624 0.18(mm)
MB 180-137356/5		04/02/2015 14:04	1	60402005.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 14:50	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 15:14	1		DB-624 0.18(mm)
LCS 180-137356/8		04/02/2015 15:38	1	60402008.D	DB-624 0.18(mm)
ZZZZZ		04/02/2015 16:02	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 16:26	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 17:16	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 17:40	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 18:04	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 18:28	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 18:52	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 19:16	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 19:40	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 20:04	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 20:28	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 20:52	1		DB-624 0.18(mm)
ZZZZZ		04/02/2015 21:15	1		DB-624 0.18(mm)
180-42445-1	HD-QC5-0/1-2	04/02/2015 21:39	1	60402023.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP6 Start Date: 04/03/2015 12:23

Analysis Batch Number: 137472 End Date: 04/04/2015 00:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137472/1		04/03/2015 12:23	1	60403001.D	DB-624 0.18(mm)
CCV 180-137472/3		04/03/2015 13:25	1	60403003.D	DB-624 0.18(mm)
CCVIS 180-137472/4		04/03/2015 13:52	1	60403004.D	DB-624 0.18(mm)
MB 180-137472/6		04/03/2015 14:50	1	60403006.D	DB-624 0.18(mm)
180-42445-4	HD-MW-98I-0/1-0	04/03/2015 15:35	1	60403007.D	DB-624 0.18(mm)
LCS 180-137472/8		04/03/2015 16:14	1	60403008.D	DB-624 0.18(mm)
180-42445-4 MS	HD-MW-98I-0/1-0 MS	04/03/2015 16:37	1	60403009.D	DB-624 0.18(mm)
180-42445-4 MSD	HD-MW-98I-0/1-0 MSD	04/03/2015 17:01	1	60403010.D	DB-624 0.18(mm)
180-42445-2 DL	HD-MW-96S-0/1-0 DL	04/03/2015 17:49	25	60403012.D	DB-624 0.18(mm)
180-42445-3	HD-MW-96D-0/1-0	04/03/2015 18:13	10	60403013.D	DB-624 0.18(mm)
180-42445-5	HD-MW-98S-0/1-0	04/03/2015 18:37	1	60403014.D	DB-624 0.18(mm)
180-42445-6	HD-MW-39D-0/1-0	04/03/2015 19:01	3	60403015.D	DB-624 0.18(mm)
180-42445-7	HD-MW-74S-0/1-0	04/03/2015 19:25	1	60403016.D	DB-624 0.18(mm)
180-42445-8	HD-MW-50D-0/1-0	04/03/2015 19:49	125	60403017.D	DB-624 0.18(mm)
ZZZZZ		04/03/2015 20:14	1		DB-624 0.18(mm)
180-42445-9	HD-MW-51S-0/1-0	04/03/2015 20:38	50	60403019.D	DB-624 0.18(mm)
180-42445-11	HD-QC1-0/1-3	04/03/2015 21:25	1	60403021.D	DB-624 0.18(mm)
180-42445-12	HD-QC1-0/1-4	04/03/2015 21:49	1	60403022.D	DB-624 0.18(mm)
ZZZZZ		04/03/2015 23:49	1		DB-624 0.18(mm)
ZZZZZ		04/04/2015 00:13	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHHP5 Start Date: 04/04/2015 11:14

Analysis Batch Number: 137519 End Date: 04/04/2015 22:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-137519/1		04/04/2015 11:14	1	50404001.D	DB-624 0.18(mm)
CCVIS 180-137519/2		04/04/2015 11:51	1	50404002.D	DB-624 0.18(mm)
CCV 180-137519/3		04/04/2015 12:39	1	50404003.D	DB-624 0.18(mm)
MB 180-137519/5		04/04/2015 13:27	1	50404005.D	DB-624 0.18(mm)
LCS 180-137519/8		04/04/2015 14:52	1	50404008.D	DB-624 0.18(mm)
180-42445-10	HD-QC2-0/1-1	04/04/2015 17:17	1	50404014.D	DB-624 0.18(mm)
ZZZZZ		04/04/2015 18:29	40		DB-624 0.18(mm)
ZZZZZ		04/04/2015 19:18	1		DB-624 0.18(mm)
ZZZZZ		04/04/2015 19:42	1		DB-624 0.18(mm)
180-42445-2	HD-MW-96S-0/1-0	04/04/2015 22:55	2.5	50404028.D	DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 03-27-2015-9.d

Lab ID: LCS 180-136787/9 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.59	104	90-110	
Chloride	50.0	49.6	99	90-110	
Sulfate	50.0	49.8	100	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 3-27-2015-11.d

Lab ID: LCS 180-136796/11 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.41	96	90-110	
Chloride	50.0	46.1	92	90-110	
Sulfate	50.0	45.9	92	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.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 03-27-2015-30.d

Lab ID: 180-42445-4 MS Client ID: HD-MW-98I-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	3.4	4.67	101	80-120	
Chloride	25.0	56	81.7	101	80-120	
Sulfate	25.0	44	67.9	97	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.: 180-42445-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 03-27-2015-31.d

Lab ID: 180-42445-4 MSD Client ID: HD-MW-98I-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	4.68	102	0	20	80-120	
Chloride	25.0	82.1	103	0	20	80-120	
Sulfate	25.0	68.3	98	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.: 180-42445-1

SDG No.:

Lab File ID: A-ICS2100 A 03-27-2015-10.d Lab Sample ID: MB 180-136787/10

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 03/27/2015 12:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-136787/4	A-ICS2100 A 03-27-2015-4.d	03/27/2015 11:22
	LCS 180-136787/9	A-ICS2100 A 03-27-2015-9.d	03/27/2015 12:41
	CCB 180-136787/16	A-ICS2100 A 03-27-2015-16.d	03/27/2015 14:30
HD-MW-96S-0/1-0	180-42445-2	A-ICS2100 A 03-27-2015-24.d	03/27/2015 16:43
HD-MW-96D-0/1-0	180-42445-3	A-ICS2100 A 03-27-2015-25.d	03/27/2015 17:00
HD-MW-39D-0/1-0	180-42445-6	A-ICS2100 A 03-27-2015-26.d	03/27/2015 17:17
	CCB 180-136787/28	A-ICS2100 A 03-27-2015-28.d	03/27/2015 17:52
HD-MW-98I-0/1-0	180-42445-4	A-ICS2100 A 03-27-2015-29.d	03/27/2015 18:09
HD-MW-98I-0/1-0 MS	180-42445-4 MS	A-ICS2100 A 03-27-2015-30.d	03/27/2015 18:27
HD-MW-98I-0/1-0 MSD	180-42445-4 MSD	A-ICS2100 A 03-27-2015-31.d	03/27/2015 18:44
HD-MW-51S-0/1-0	180-42445-9	A-ICS2100 A 03-27-2015-33.d	03/27/2015 19:19
HD-QC2-0/1-1	180-42445-10	A-ICS2100 A 03-27-2015-34.d	03/27/2015 19:36
HD-MW-74S-0/1-0	180-42445-7	A-ICS2100 A 03-27-2015-35.d	03/27/2015 19:53
	CCB 180-136787/37	A-ICS2100 A 03-27-2015-37.d	03/27/2015 20:28

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab File ID: B-ICS2100 B 3-27-2015-12.d Lab Sample ID: MB 180-136796/12

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 03/27/2015 15:31

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-136796/10	B-ICS2100 B 3-27-2015-10.d	03/27/2015 14:19
	LCS 180-136796/11	B-ICS2100 B 3-27-2015-11.d	03/27/2015 15:05
	CCB 180-136796/22	B-ICS2100 B 3-27-2015-22.d	03/27/2015 18:24
HD-MW-98S-0/1-0	180-42445-5	B-ICS2100 B 3-27-2015-23.d	03/27/2015 18:41
	CCB 180-136796/26	B-ICS2100 B 3-27-2015-26.d	03/27/2015 19:33

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-42445-2

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-24.d

Analysis Method: 300.0 Date Collected: 03/26/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 16:43

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.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.9	B	0.10	0.0062
16887-00-6	Chloride	150	B	1.0	0.20
14808-79-8	Sulfate	53	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

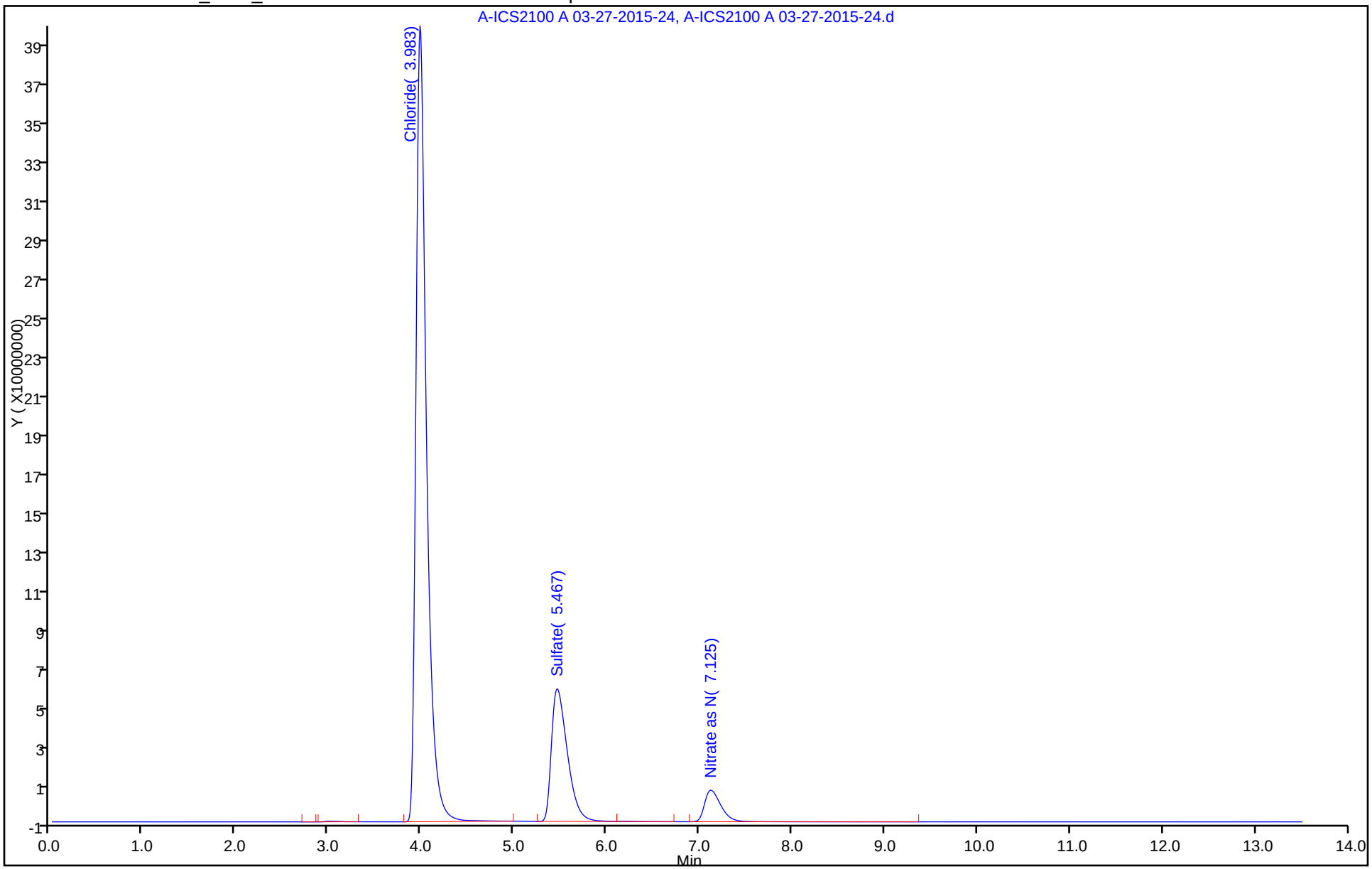
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-24.d				
Lims ID:	180-42445-A-2	Lab Sample ID:	180-42445-2		
Client ID:	HD-MW-96S-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Mar-2015 16:43:00	ALS Bottle#:	0	Worklist Smp#:	24
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006212-024				
Misc. Info.:	24 180-42445-a-2				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	30-Mar-2015 12:35:12	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK050				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.983	4.017	-0.034	3129436841	150.4	
3 Sulfate	5.467	5.467	0.000	788138958	52.8	
5 Nitrate as N	7.125	7.150	-0.025	192018907	3.92	

Report Date: 30-Mar-2015 13:36:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-24.d				
Injection Date:	27-Mar-2015 16:43:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-2	Lab Sample ID:	180-42445-2	Worklist Smp#:	24
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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-42445-3

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-25.d

Analysis Method: 300.0 Date Collected: 03/26/2015 08:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 17:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.0	B	0.10	0.0062
16887-00-6	Chloride	130	B	1.0	0.20
14808-79-8	Sulfate	47	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

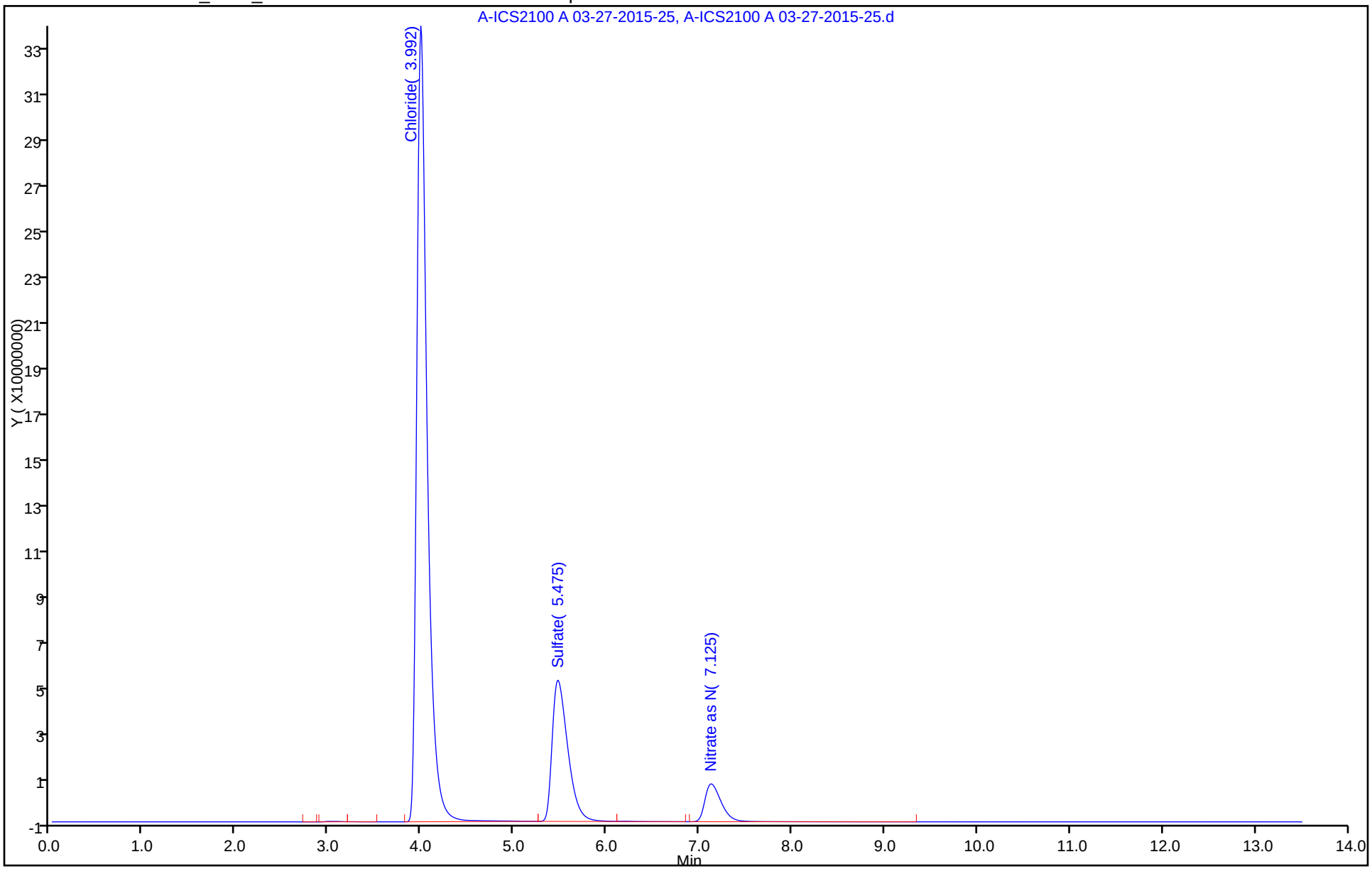
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-25.d				
Lims ID:	180-42445-A-3	Lab Sample ID:	180-42445-3		
Client ID:	HD-MW-96D-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Mar-2015 17:00:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006212-025				
Misc. Info.:	25 180-42445-a-3				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	30-Mar-2015 12:35:03	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK050				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	2650850366	127.5	
3 Sulfate	5.475	5.467	0.008	699764218	46.9	
5 Nitrate as N	7.125	7.142	-0.017	196003950	4.00	

Report Date: 30-Mar-2015 12:35:08 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-25.d				
Injection Date:	27-Mar-2015 17:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-3	Lab Sample ID:	180-42445-3	Worklist Smp#:	25
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 I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-42445-4

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-29.d

Analysis Method: 300.0 Date Collected: 03/26/2015 14:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 18:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.4	B	0.10	0.0062
16887-00-6	Chloride	56	B	1.0	0.20
14808-79-8	Sulfate	44	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-29.d
Lims ID: 180-42445-A-4 Lab Sample ID: 180-42445-4
Client ID: HD-MW-98I-0/1-0
Sample Type: Client
Inject. Date: 27-Mar-2015 18:09:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-029
Misc. Info.: 29 180-42445-a-4
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:09 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

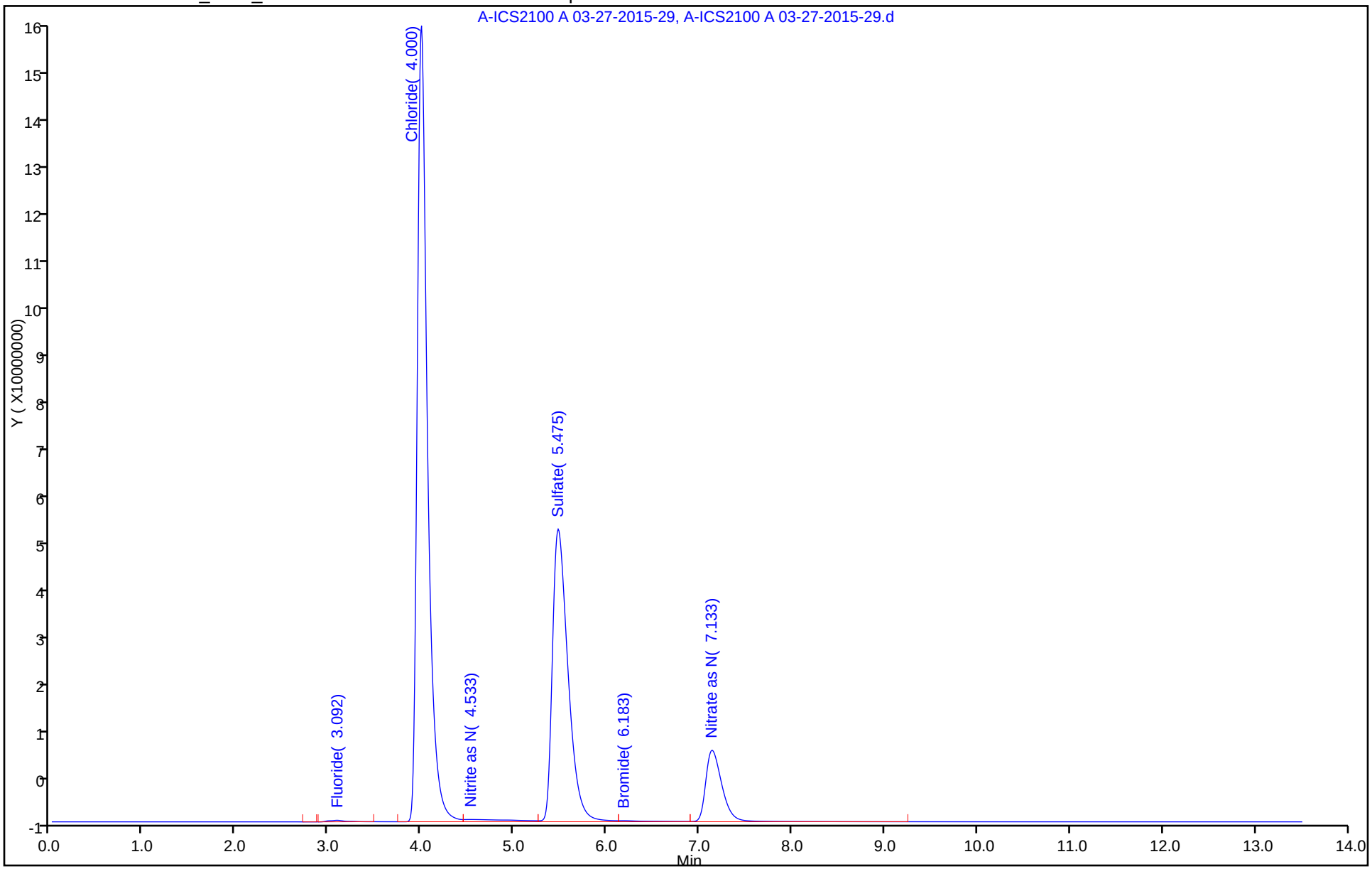
Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.008	0.084	3541965	0.1093	
2 Chloride	4.000	4.000	0.000	1170454473	56.4	
7 Nitrite as N	4.533	4.675	-0.142	15689223	0.3491	
3 Sulfate	5.475	5.483	-0.008	652821673	43.7	
4 Bromide	6.183	6.200	-0.017	4813636	0.5083	
5 Nitrate as N	7.133	7.150	-0.017	166501741	3.40	
6 Orthophosphate as P		10.233			ND	

Report Date: 30-Mar-2015 12:35:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-29.d				
Injection Date:	27-Mar-2015 18:09:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-4	Lab Sample ID:	180-42445-4	Worklist Smp#:	29
Client ID:	HD-MW-98I-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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-42445-5

Matrix: Water Lab File ID: B-ICS2100 B 3-27-2015-23.d

Analysis Method: 300.0 Date Collected: 03/26/2015 13:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 18:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136796 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.2	B	0.10	0.0062
16887-00-6	Chloride	57		1.0	0.20
14808-79-8	Sulfate	48		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-23.d
Lims ID: 180-42445-A-5 Lab Sample ID: 180-42445-5
Client ID: HD-MW-98S-0/1-0
Sample Type: Client
Inject. Date: 27-Mar-2015 18:41:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-023
Misc. Info.: 21038 180-42445-a-5
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:54 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

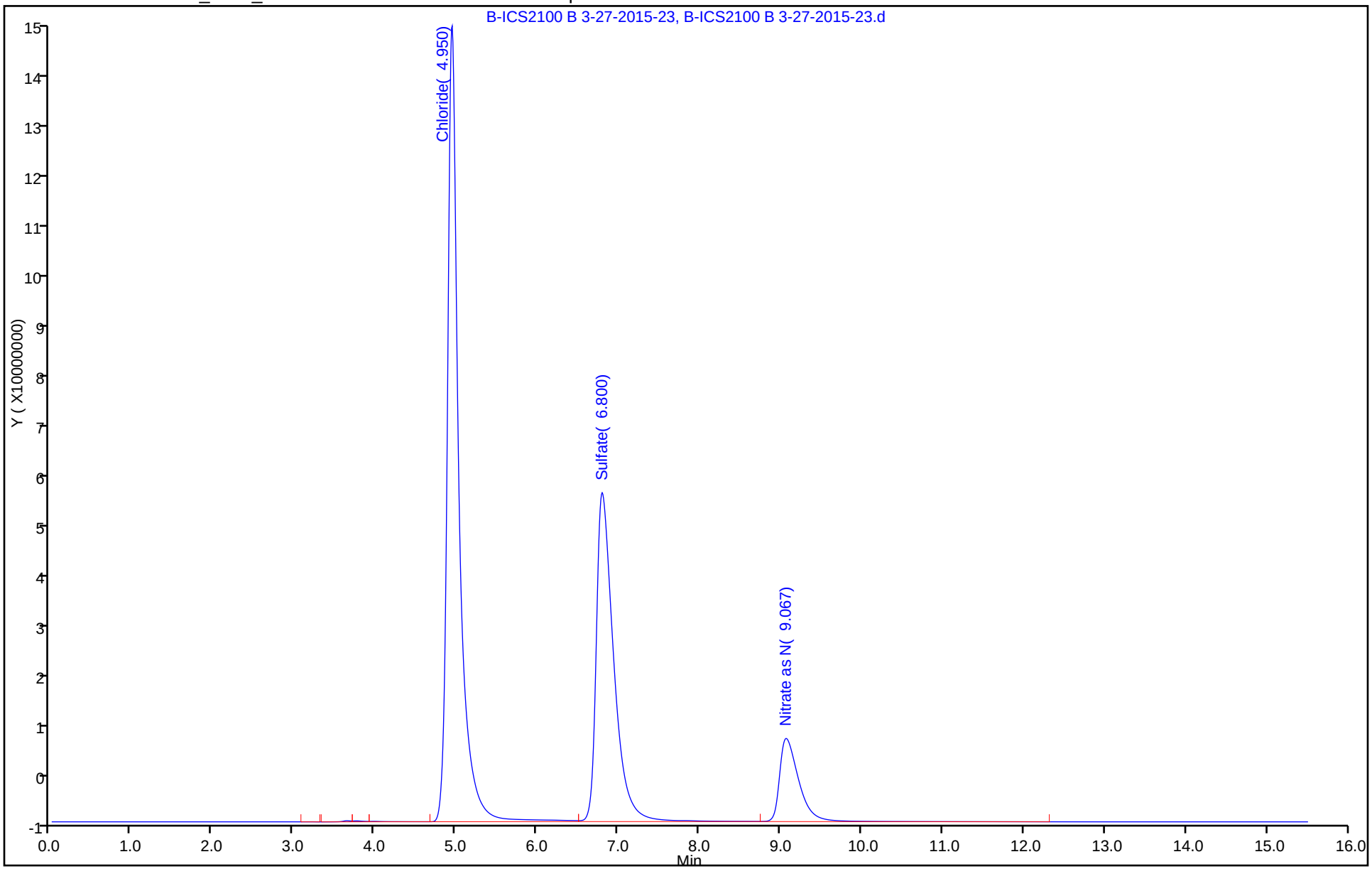
Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.950	4.942	0.008	1446359013	56.7	
3 Sulfate	6.800	6.808	-0.008	901107870	48.5	
5 Nitrate as N	9.067	9.100	-0.033	250654414	4.17	

Report Date: 28-Mar-2015 11:07:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-23.d				
Injection Date:	27-Mar-2015 18:41:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-42445-A-5	Lab Sample ID:	180-42445-5	Worklist Smp#:	23
Client ID:	HD-MW-98S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-39D-0/1-0 Lab Sample ID: 180-42445-6

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-26.d

Analysis Method: 300.0 Date Collected: 03/26/2015 12:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 17:17

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.5	B	0.10	0.0062
16887-00-6	Chloride	99	B	1.0	0.20
14808-79-8	Sulfate	35	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

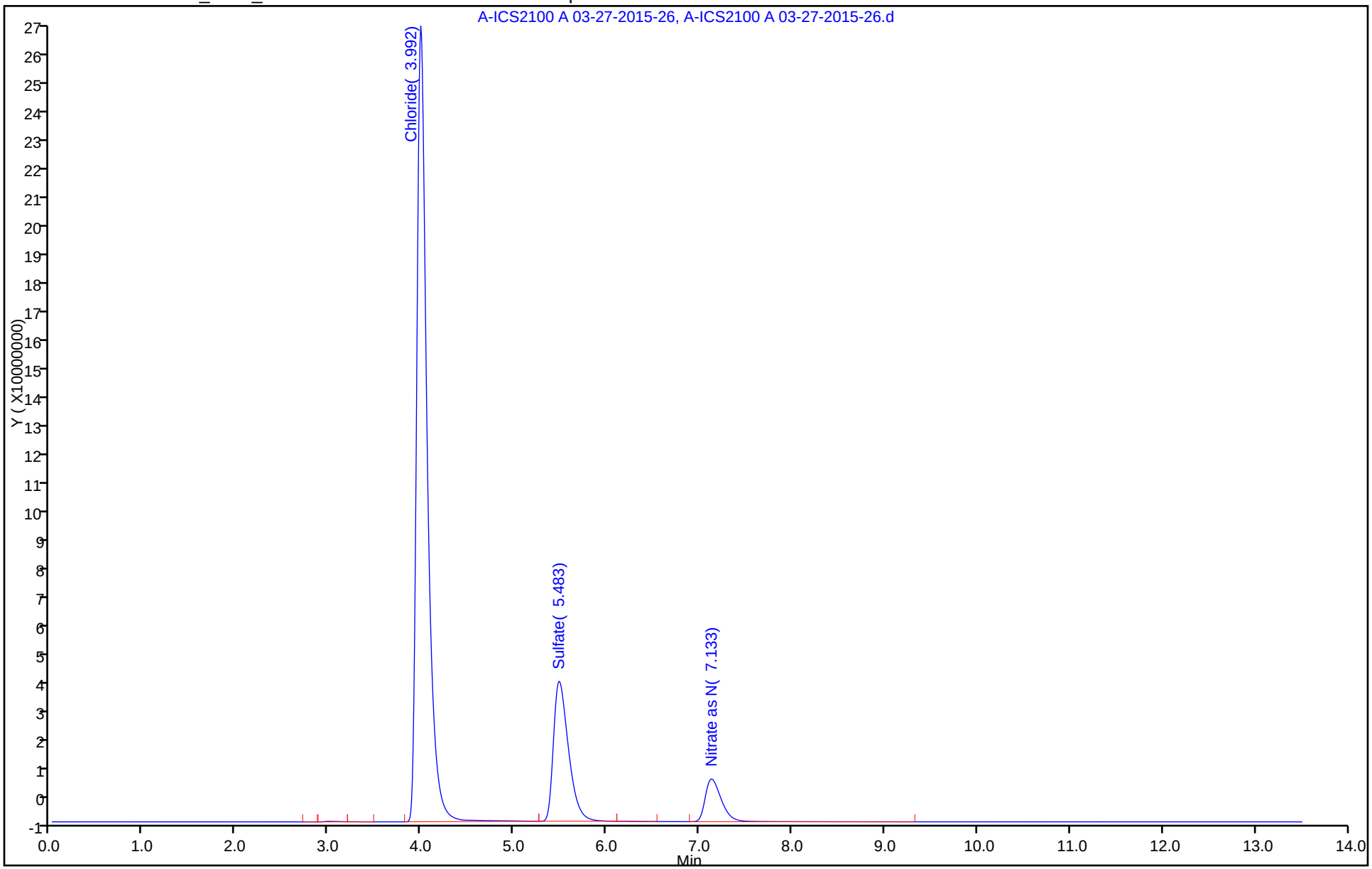
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-26.d				
Lims ID:	180-42445-A-6	Lab Sample ID:	180-42445-6		
Client ID:	HD-MW-39D-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Mar-2015 17:17:00	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006212-026				
Misc. Info.:	26 180-42445-a-6				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	30-Mar-2015 12:35:03	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK050				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.992	4.000	-0.008	2053296792	98.8	
3 Sulfate	5.483	5.467	0.016	519151065	34.8	
5 Nitrate as N	7.133	7.142	-0.009	169775658	3.47	

Report Date: 30-Mar-2015 12:35:09 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-26.d				
Injection Date:	27-Mar-2015 17:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-6	Lab Sample ID:	180-42445-6	Worklist Smp#:	26
Client ID:	HD-MW-39D-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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-42445-7

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-35.d

Analysis Method: 300.0 Date Collected: 03/26/2015 10:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 19:53

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.9	B	0.10	0.0062
16887-00-6	Chloride	65	B	1.0	0.20
14808-79-8	Sulfate	18	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-35.d
Lims ID: 180-42445-A-7 Lab Sample ID: 180-42445-7
Client ID: HD-MW-74S-0/1-0
Sample Type: Client
Inject. Date: 27-Mar-2015 19:53:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-035
Misc. Info.: 35 180-42445-a-7
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:09 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

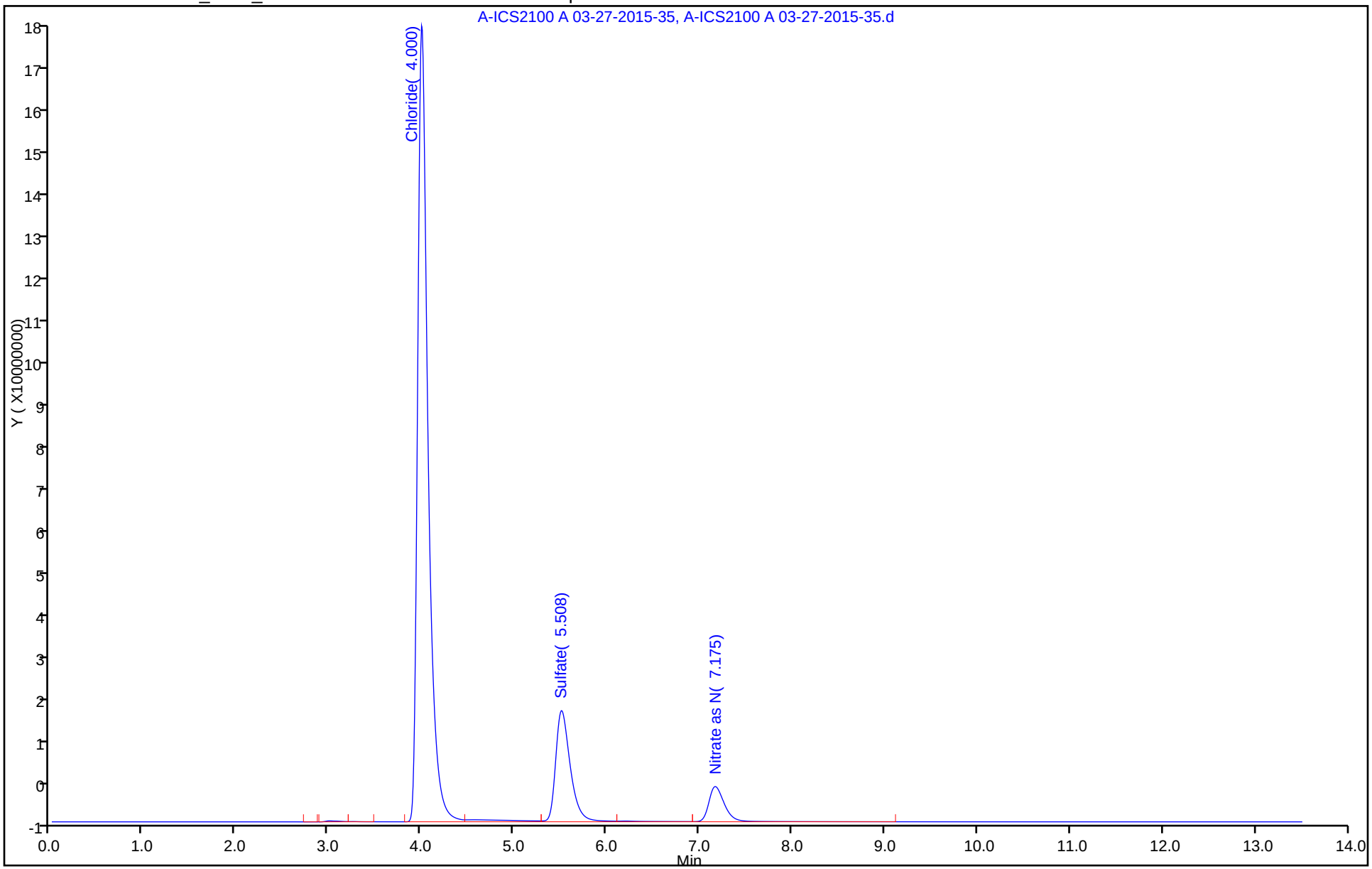
Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	1356479488	65.4	
3 Sulfate	5.508	5.483	0.025	266323767	17.8	
5 Nitrate as N	7.175	7.150	0.025	91400053	1.88	

Report Date: 30-Mar-2015 12:35:12 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-35.d				
Injection Date:	27-Mar-2015 19:53:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-7	Lab Sample ID:	180-42445-7	Worklist Smp#:	35
Client ID:	HD-MW-74S-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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-42445-8

Matrix: Water Lab File ID: 03-27-201524.0000.d

Analysis Method: 300.0 Date Collected: 03/26/2015 10:32

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 19:57

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 25(uL) GC Column: AS-14 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136809 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201524.0000.d
Lims ID: 180-42445-A-8 Lab Sample ID: 180-42445-8
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 27-Mar-2015 19:57:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-024
Misc. Info.: 24 180-42445-A-8
Operator ID: Instrument ID: CHIC25

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:37 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

First Level Reviewer: reaglec Date: 28-Mar-2015 11:26:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.525	3.367	0.158	2467082377	102.5	E
8 Nitrate as N		5.075			ND	
3 Sulfate	7.467	7.592	-0.125	179420443H	285.2	E

QC Flag Legend

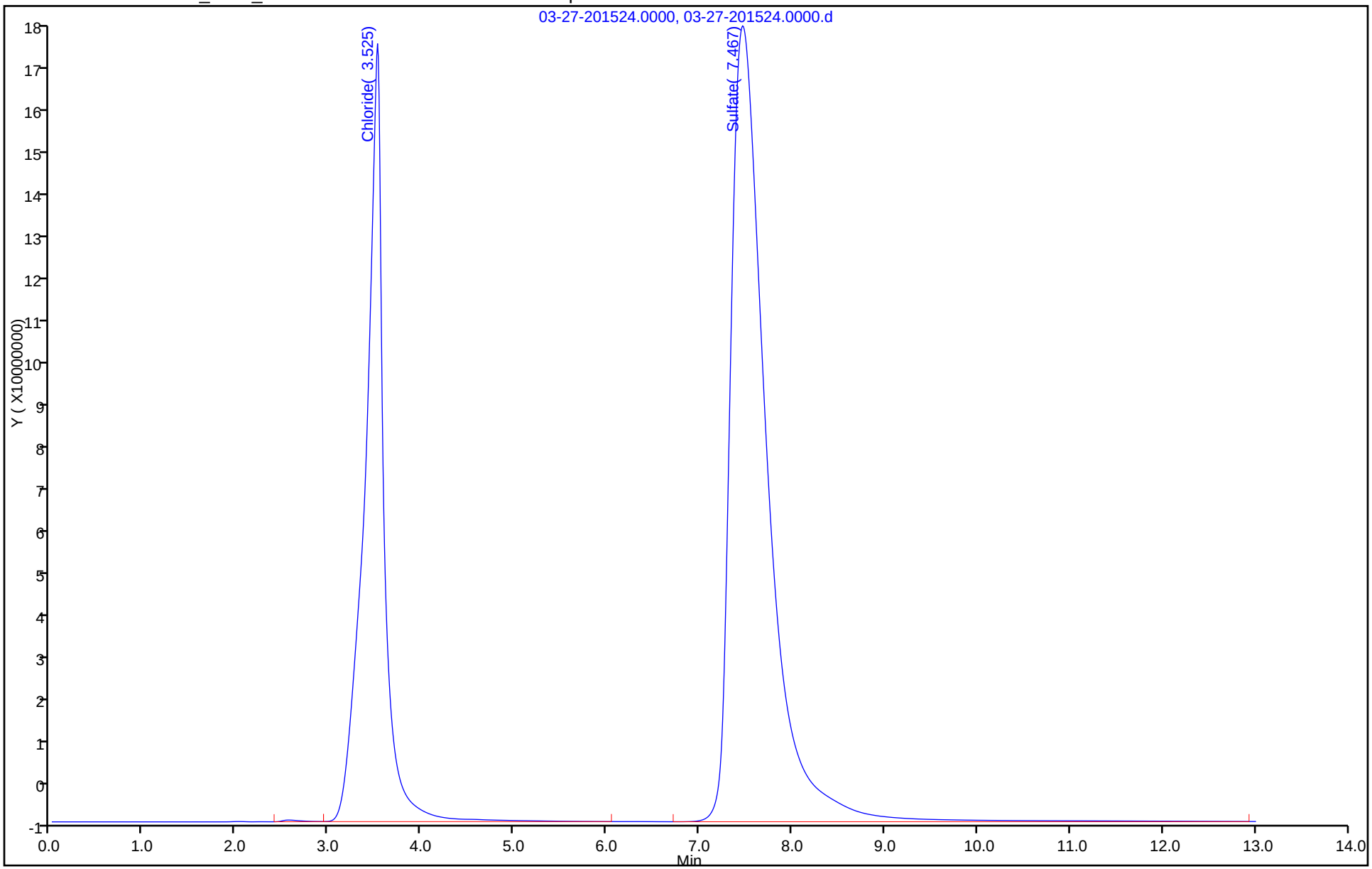
Processing Flags

E - Exceeded Maximum Amount
H - Response Measured by Height

Report Date: 28-Mar-2015 11:27:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201524.0000.d				
Injection Date:	27-Mar-2015 19:57:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	180-42445-A-8	Lab Sample ID:	180-42445-8	Worklist Smp#:	24
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-42445-8

Matrix: Water Lab File ID: 03-27-201525.0000.d

Analysis Method: 300.0 Date Collected: 03/26/2015 10:32

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 20:12

Con. Extract Vol.: Dilution Factor: 10

Injection Volume: 25(uL) GC Column: AS-14 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136809 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	88		10	2.0
14808-79-8	Sulfate	230		10	2.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

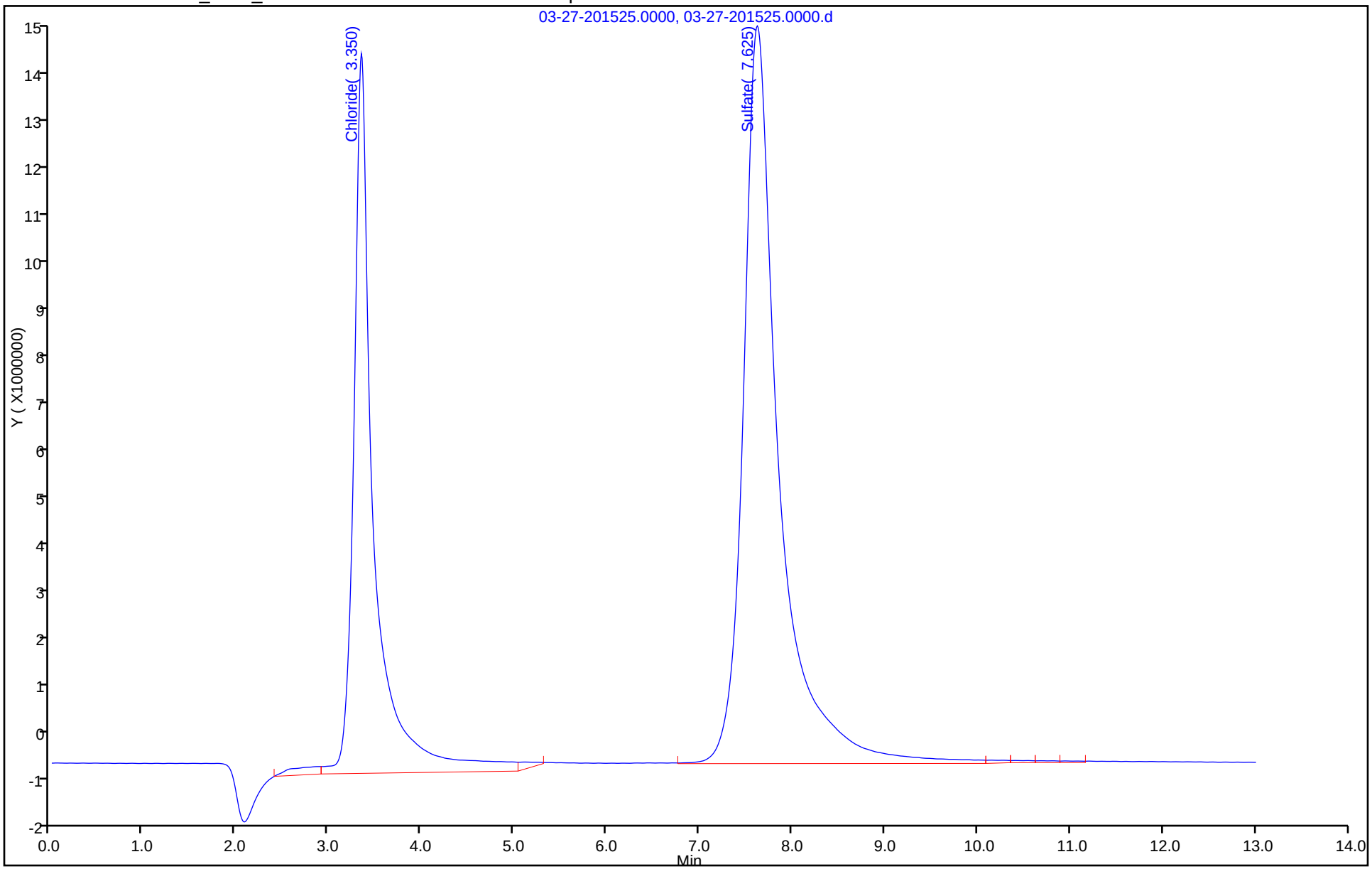
Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201525.0000.d				
Lims ID:	180-42445-A-8	Lab Sample ID:	180-42445-8		
Client ID:	HD-MW-50D-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Mar-2015 20:12:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	25.0 ul	Dil. Factor:	10.0000		
Sample Info:	180-0006217-025				
Misc. Info.:	25 180-42445-A-8				
Operator ID:		Instrument ID:	CHIC25		
Method:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m				
Limit Group:	GC Anions ICAL				
Last Update:	28-Mar-2015 11:27:37	Calib Date:	24-Mar-2015 21:35:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK050				
First Level Reviewer: reaglec		Date:	28-Mar-2015 11:26:56		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	3.350	3.367	-0.017	211111220	8.77	
8 Nitrate as N		5.075			ND	
3 Sulfate	7.625	7.592	0.033	14378153	22.9	H

Report Date: 28-Mar-2015 11:27:39 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201525.0000.d				
Injection Date:	27-Mar-2015 20:12:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	180-42445-A-8	Lab Sample ID:	180-42445-8	Worklist Smp#:	25
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	25.0 ul	Dil. Factor:	10.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-42445-9

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-33.d

Analysis Method: 300.0 Date Collected: 03/26/2015 14:42

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 19:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.8	B	0.10	0.0062
16887-00-6	Chloride	150	B	1.0	0.20
14808-79-8	Sulfate	54	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

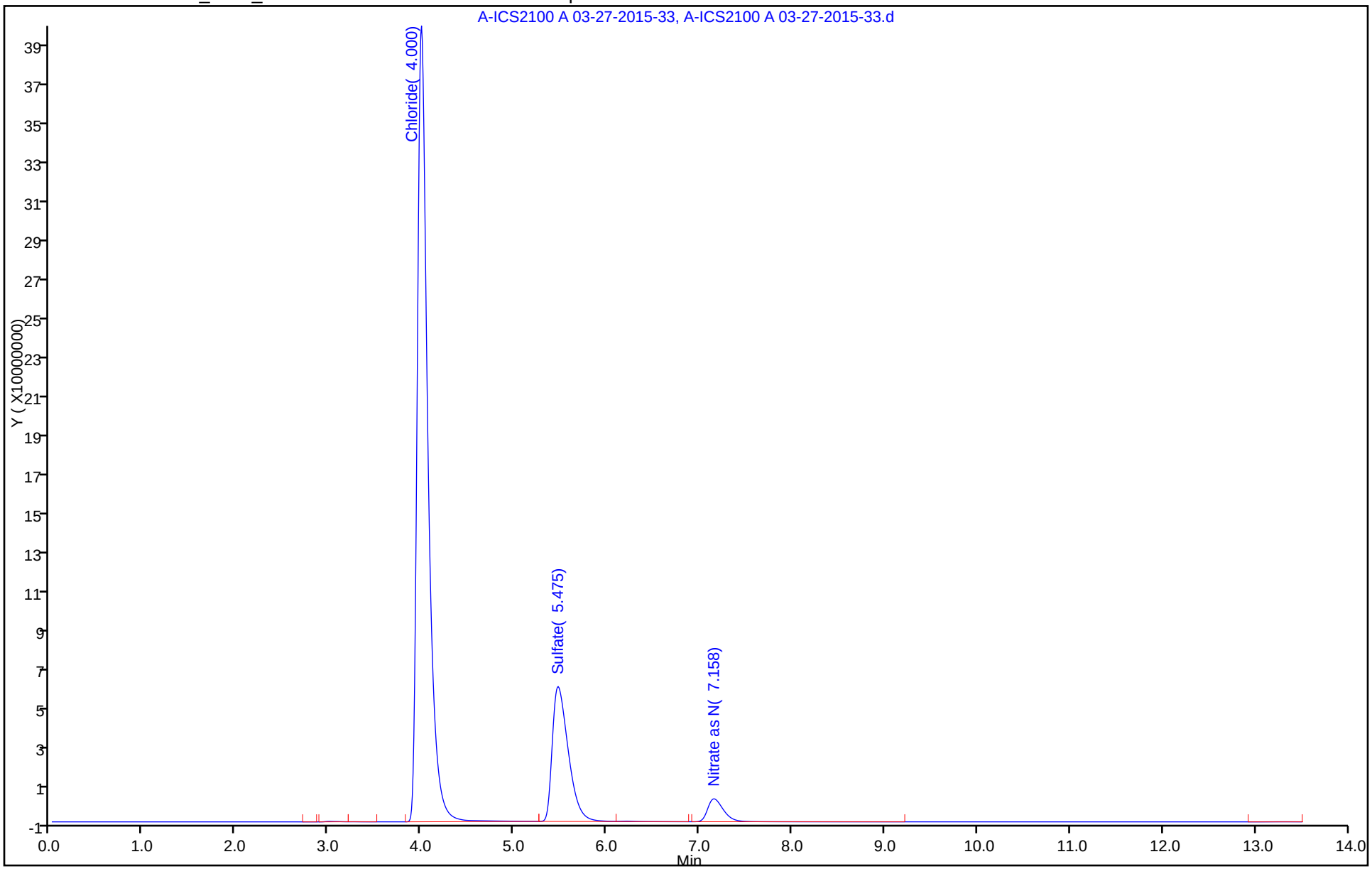
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-33.d				
Lims ID:	180-42445-A-9	Lab Sample ID:	180-42445-9		
Client ID:	HD-MW-51S-0/1-0				
Sample Type:	Client				
Inject. Date:	27-Mar-2015 19:19:00	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006212-033				
Misc. Info.:	33 180-42445-a-9				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	30-Mar-2015 12:35:09	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK050				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.000	4.000	0.000	3182506683	153.0	
3 Sulfate	5.475	5.483	-0.008	812481335	54.4	
5 Nitrate as N	7.158	7.150	0.008	136617971	2.80	

Report Date: 30-Mar-2015 12:35:11 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-33.d				
Injection Date:	27-Mar-2015 19:19:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-9	Lab Sample ID:	180-42445-9	Worklist Smp#:	33
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.: 180-42445-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-42445-10

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-34.d

Analysis Method: 300.0 Date Collected: 03/26/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 19:36

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.1	B	0.10	0.0062
16887-00-6	Chloride	54	B	1.0	0.20
14808-79-8	Sulfate	47	B	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

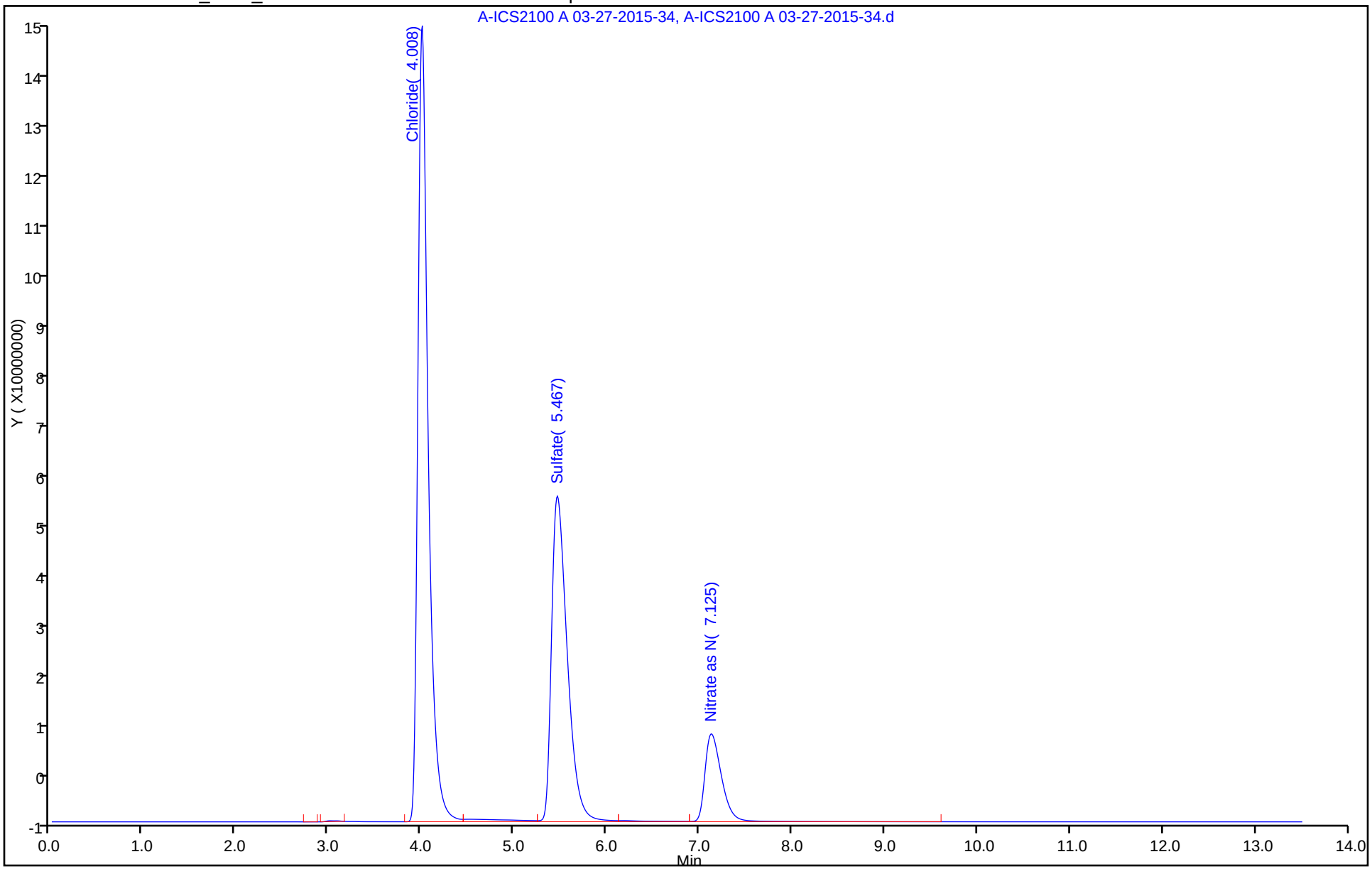
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-34.d				
Lims ID:	180-42445-A-10	Lab Sample ID:	180-42445-10		
Client ID:	HD-QC2-0/1-1				
Sample Type:	Client				
Inject. Date:	27-Mar-2015 19:36:00	ALS Bottle#:	0	Worklist Smp#:	34
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006212-034				
Misc. Info.:	34 180-42445-a-10				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	30-Mar-2015 12:35:09	Calib Date:	18-Mar-2015 13:15:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK050				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.008	4.000	0.008	1114636851	53.8	
3 Sulfate	5.467	5.483	-0.016	695202896	46.6	
5 Nitrate as N	7.125	7.150	-0.025	198848367	4.06	

Report Date: 30-Mar-2015 12:35:12 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-34.d				
Injection Date:	27-Mar-2015 19:36:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-10	Lab Sample ID:	180-42445-10	Worklist Smp#:	34
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 VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 135876

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2015 11:27 Calibration End Date: 03/18/2015 13:15 Calibration ID: 22466

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135876/2	A-ICS2100 A 03-18-2015-2.d
Level 2	IC 180-135876/3	A-ICS2100 A 03-18-2015-3.d
Level 3	ICRT 180-135876/4	A-ICS2100 A 03-18-2015-4.d
Level 4	IC 180-135876/5	A-ICS2100 A 03-18-2015-5.d
Level 5	IC 180-135876/6	A-ICS2100 A 03-18-2015-6.d
Level 6	IC 180-135876/7	A-ICS2100 A 03-18-2015-7.d
Level 7	IC 180-135876/8	A-ICS2100 A 03-18-2015-8.d
Level 8	IC 180-135876/9	A-ICS2100 A 03-18-2015-9.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	2.992	3.017	3.017	3.008	3.000	3.000	3.000			2.667 - 3.367	3.005
Chloride	4.025	4.008	4.008	4.017	4.008	4.000	3.992	3.992			3.658 - 4.358	4.006
Nitrite as N	4.692	4.683	4.692	4.692	4.683	4.675	4.667	4.667			4.442 - 4.942	4.681
Sulfate	5.558	5.550	5.550	5.525	5.483	5.425	5.383	5.350			5.200 - 5.900	5.478
Bromide	6.225	6.225	6.233	6.233	6.217	6.192	6.167	6.158			5.883 - 6.583	6.206
Nitrate as N	7.217	7.233	7.225	7.217	7.175	7.125	7.092	7.067			6.975 - 7.475	7.169
Orthophosphate as P	+++++		10.283	10.233	10.150	10.008	9.917	9.825			10.033 - 10.533	10.069

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 135876

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2015 11:27 Calibration End Date: 03/18/2015 13:15 Calibration ID: 22466

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135876/2	A-ICS2100 A 03-18-2015-2.d
Level 2	IC 180-135876/3	A-ICS2100 A 03-18-2015-3.d
Level 3	ICRT 180-135876/4	A-ICS2100 A 03-18-2015-4.d
Level 4	IC 180-135876/5	A-ICS2100 A 03-18-2015-5.d
Level 5	IC 180-135876/6	A-ICS2100 A 03-18-2015-6.d
Level 6	IC 180-135876/7	A-ICS2100 A 03-18-2015-7.d
Level 7	IC 180-135876/8	A-ICS2100 A 03-18-2015-8.d
Level 8	IC 180-135876/9	A-ICS2100 A 03-18-2015-9.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	16004240 30863838	16267240 33530807	24060914 32036807	28839713 32501482	LinF		32408968.8							0.9990		0.9900
Chloride	14881940 19901089	20047781 21252356	19916375 20661843	20520642 21294820	Lin2	-5924255.0	20840179.2							0.9990		0.9900
Nitrite as N	63542880 41119787	46070376 41105911	45721532 38406569	43482294 39110343	Lin2	1094129.86	41807466.0							0.9990		0.9900
Sulfate	15082609 14386476	14869728 15483002	14612347 14835660	14862208 15411414	Lin2	103384.444	14924946.0							0.9990		0.9900
Bromide	9197380 8636410	8475818 9449189	8696617 9236390	8449051 9671968	LinF		9470258.87							0.9990		0.9900
Nitrate as N	2179760 47995192	36876120 4133386	43393238 51666882	46463120 53600763	Lin2	-1371660.0	49313078.5							0.9930		0.9900
Orthophosphate as P	+++++ 13980382	 17216210	7663188 17125842	10946796 18463603	Lin2	-5441456.9	17709156.5							0.9930		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.: 180-42445-1 Analy Batch No.: 135876

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2015 11:27 Calibration End Date: 03/18/2015 13:15 Calibration ID: 22466

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135876/2	A-ICS2100 A 03-18-2015-2.d
Level 2	IC 180-135876/3	A-ICS2100 A 03-18-2015-3.d
Level 3	ICRT 180-135876/4	A-ICS2100 A 03-18-2015-4.d
Level 4	IC 180-135876/5	A-ICS2100 A 03-18-2015-5.d
Level 5	IC 180-135876/6	A-ICS2100 A 03-18-2015-6.d
Level 6	IC 180-135876/7	A-ICS2100 A 03-18-2015-7.d
Level 7	IC 180-135876/8	A-ICS2100 A 03-18-2015-8.d
Level 8	IC 180-135876/9	A-ICS2100 A 03-18-2015-9.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	LinF	800212 167654034	4066810 240276056	12030457 325014820	28839713	77159596	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	14881940 2125235619	100238904 3099276402	199163746 4258964050	410412845	995054428	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3177144 205529554	11517594 288049270	22860766 391103425	43482294	102799468	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Sulfate	Lin2	15082609 1548300187	74348642 2225349056	146123470 3082282736	297244169	719323783	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	LinF	1839476 188983772	8475818 277091709	17393233 386878705	33796204	86364096	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	108988 20666930	9219030 387501618	21696619 536007632	46463120	119987980	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	+++++ 86081052	 128443816	3831594 184636030	10946796	34950954	+++++ 5.00	 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:

Lin2 = Linear 1/conc^2
LinF = Linear forced zero

Report Date: 18-Mar-2015 18:15:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Mar-2015 11:27:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:15:51 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:48:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.017	-0.009	800212	0.0500	0.0247	M
2 Chloride	4.025	4.008	0.017	14881940	1.00	1.00	M
7 Nitrite as N	4.692	4.692	0.000	3177144	0.0500	0.0498	M
3 Sulfate	5.558	5.550	0.008	15082609	1.00	1.00	M
4 Bromide	6.225	6.233	-0.008	1839476	0.2000	0.1942	M
5 Nitrate as N	7.217	7.225	-0.008	108988H	0.0500	0.0288	M
6 Orthophosphate as P	10.317	10.283	0.034	21158	0.0500	0.3085	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

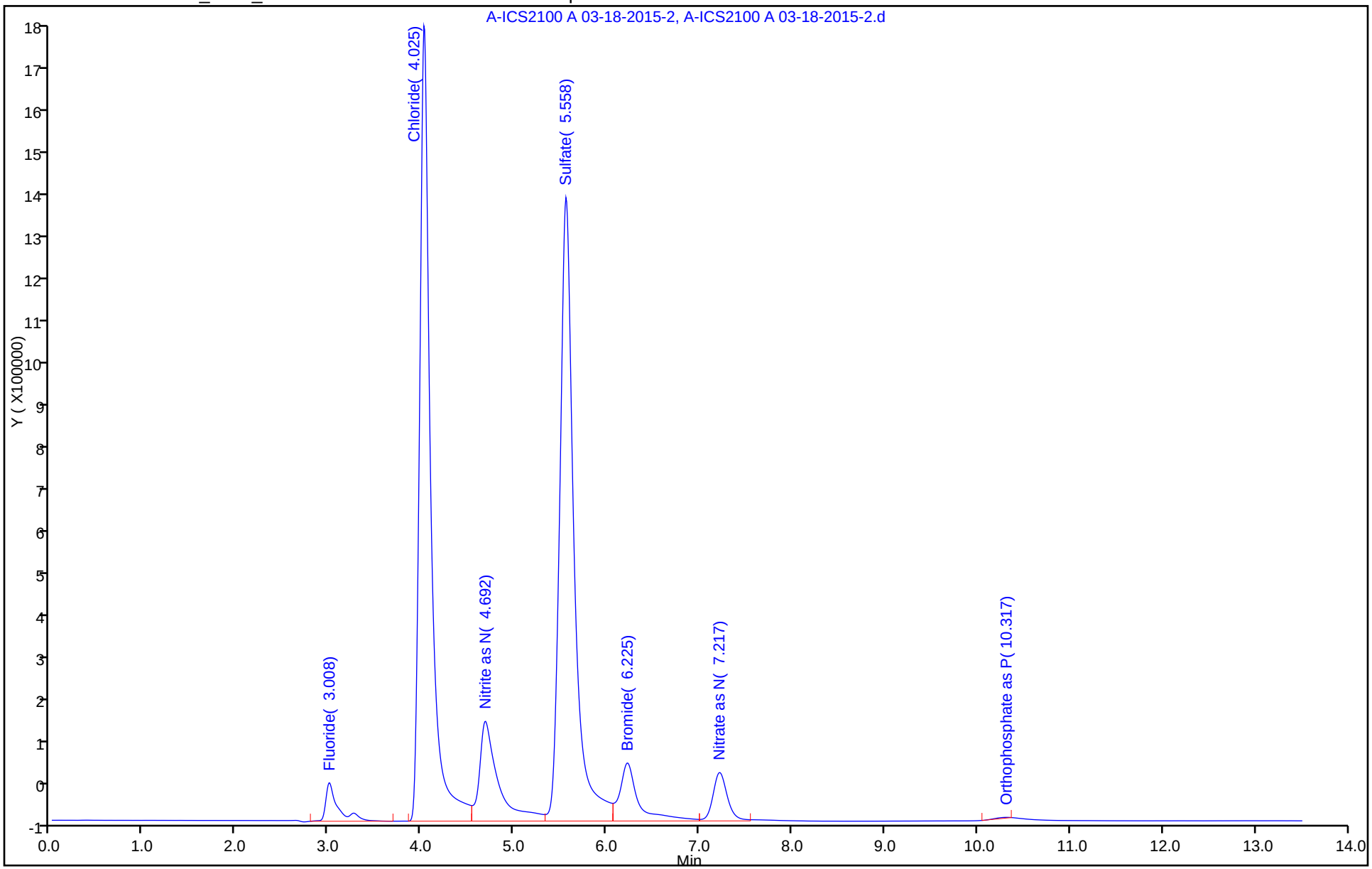
ICSTDL2_00160 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:15:51 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d

Injection Date:	18-Mar-2015 11:27:00	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		



Manual Integration/User Assign Peak Report

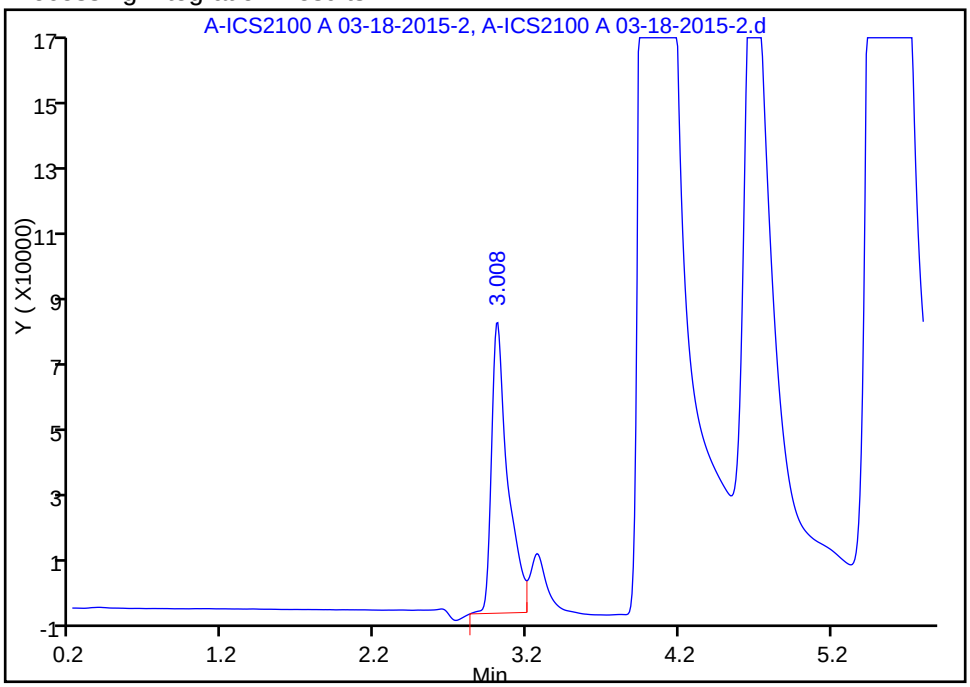
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

1 Fluoride, CAS: 16984-48-8

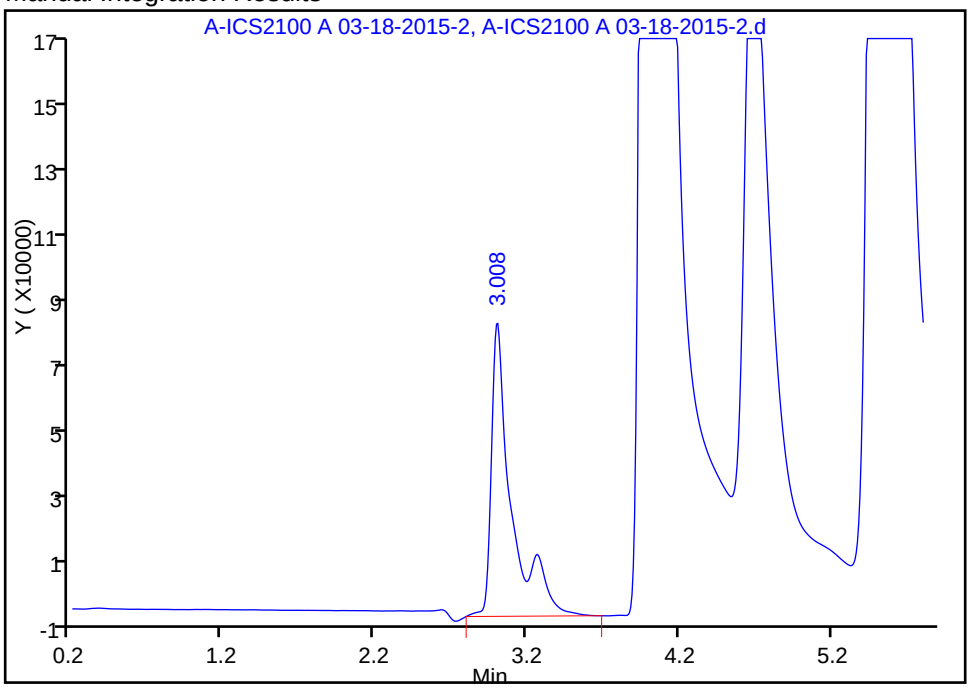
Processing Integration Results

RT: 3.01
Area: 637528
Amount: 0.055286
Amount Units: ug/ml



Manual Integration Results

RT: 3.01
Area: 800212
Amount: 0.024691
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 13:48:30
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

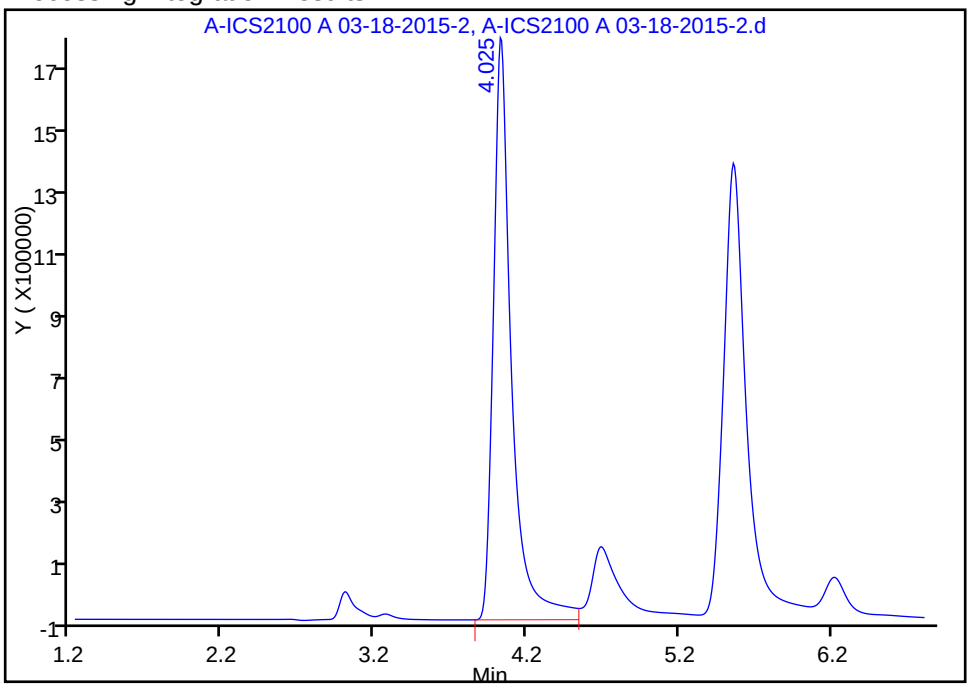
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

2 Chloride, CAS: 16887-00-6

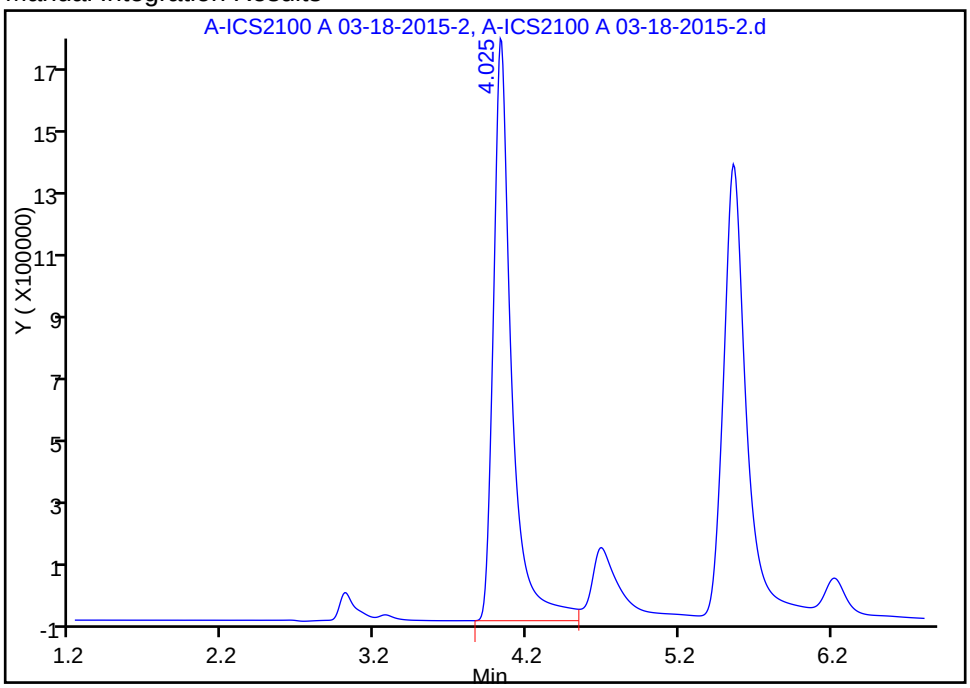
Processing Integration Results

RT: 4.03
Area: 14867118
Amount: 0.998345
Amount Units: ug/ml



Manual Integration Results

RT: 4.03
Area: 14881940
Amount: 0.998369
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

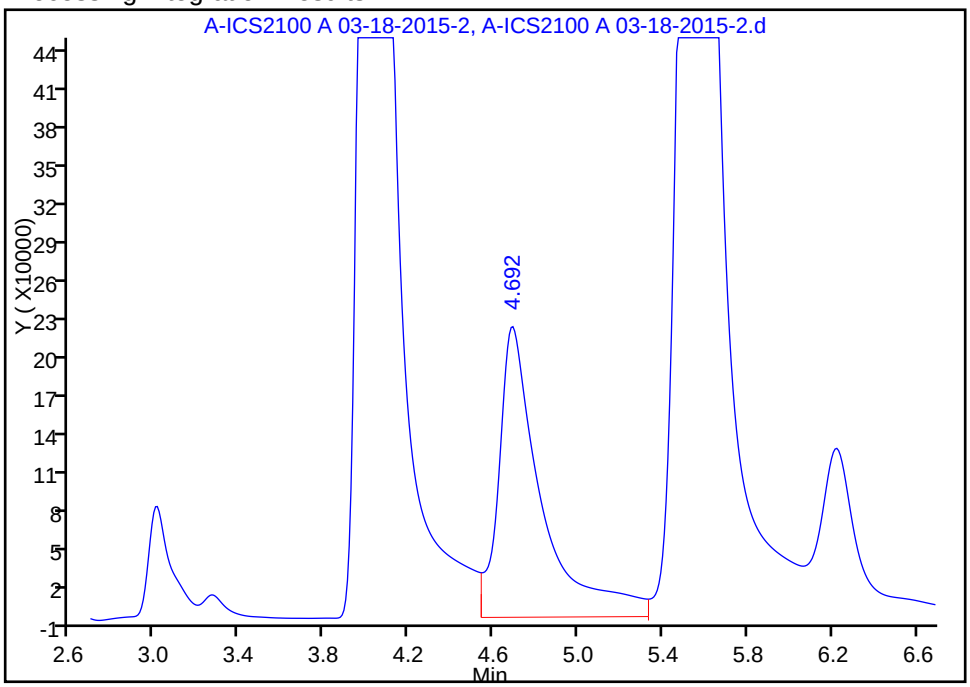
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

7 Nitrite as N, CAS: 14797-65-0

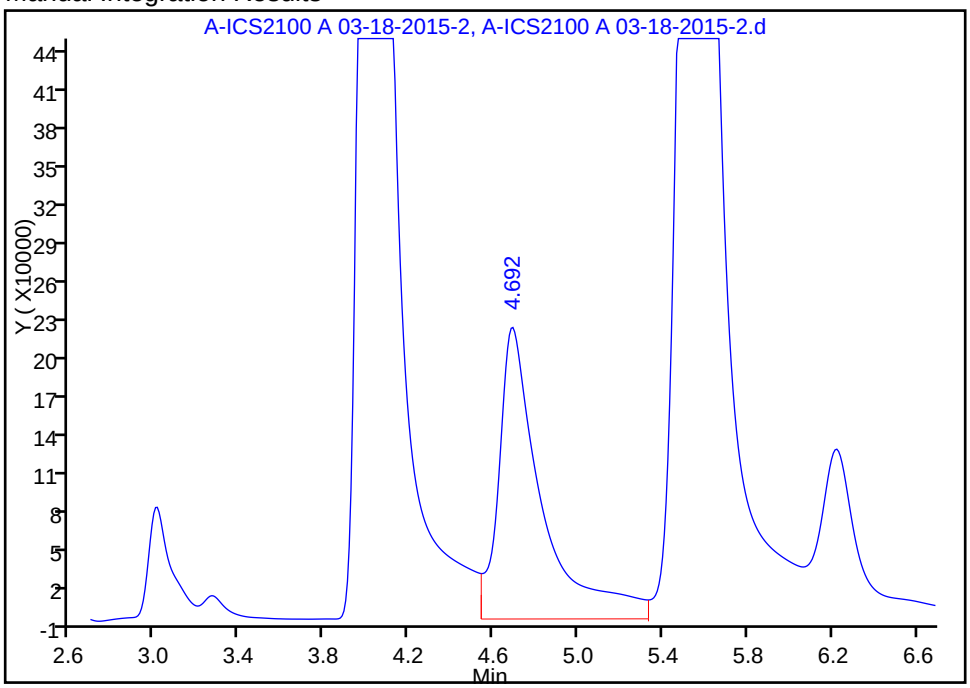
Processing Integration Results

RT: 4.69
Area: 3136128
Amount: 0.049797
Amount Units: ug/ml



Manual Integration Results

RT: 4.69
Area: 3177144
Amount: 0.049824
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

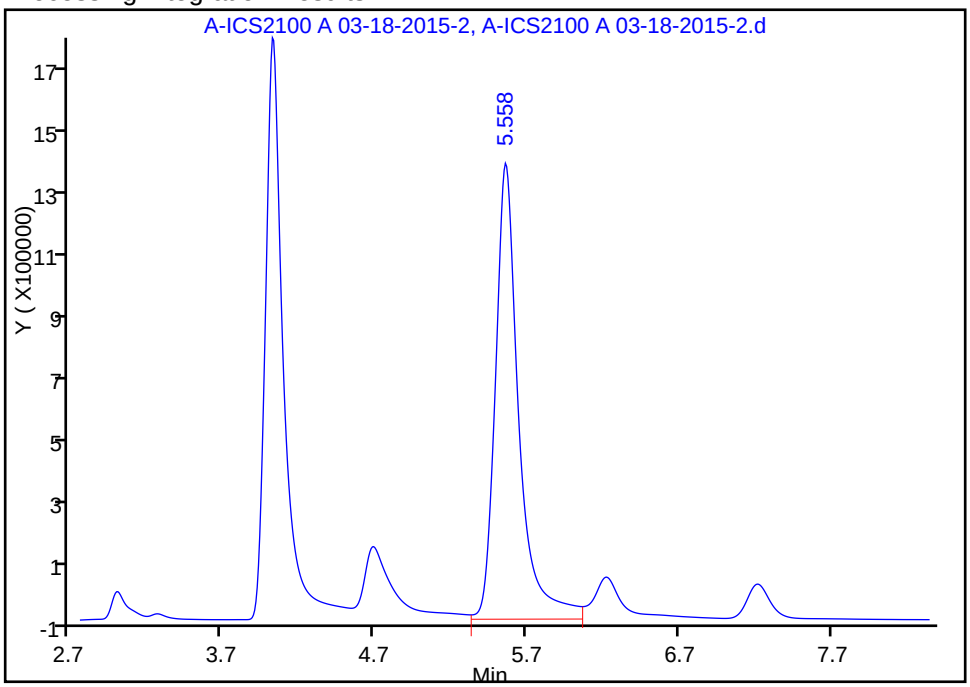
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

3 Sulfate, CAS: 14808-79-8

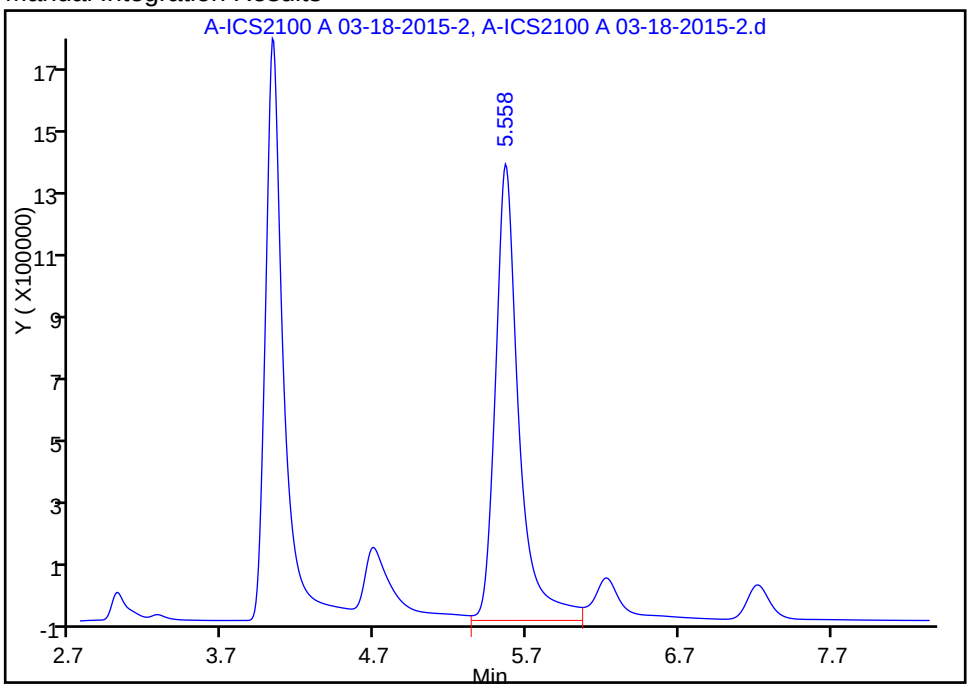
Processing Integration Results

RT: 5.56
Area: 15021977
Amount: 1.003499
Amount Units: ug/ml



Manual Integration Results

RT: 5.56
Area: 15082609
Amount: 1.003637
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

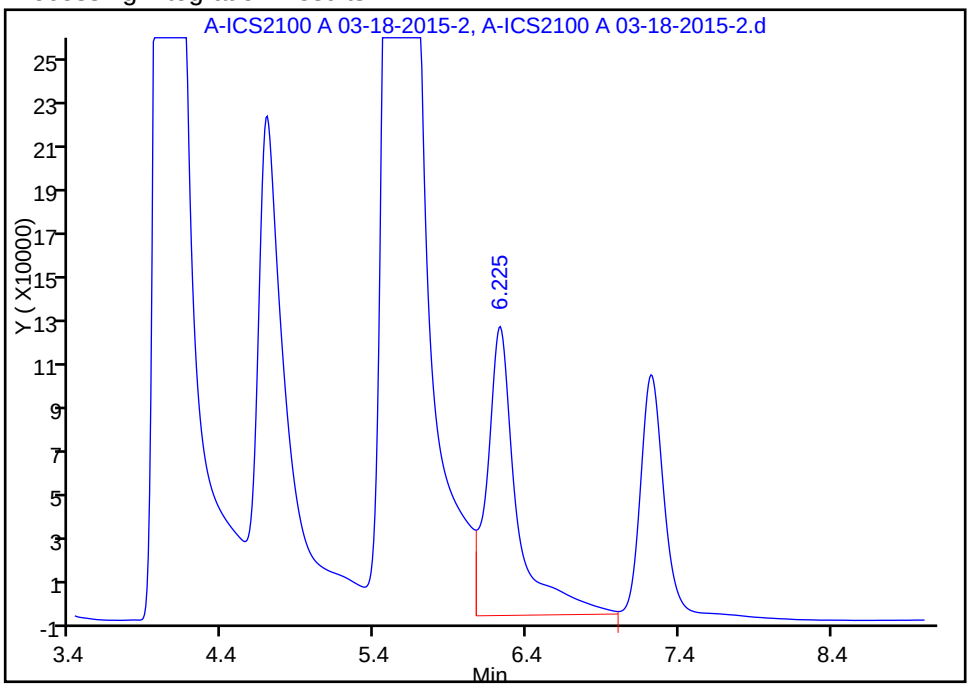
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

4 Bromide, CAS: 24959-67-9

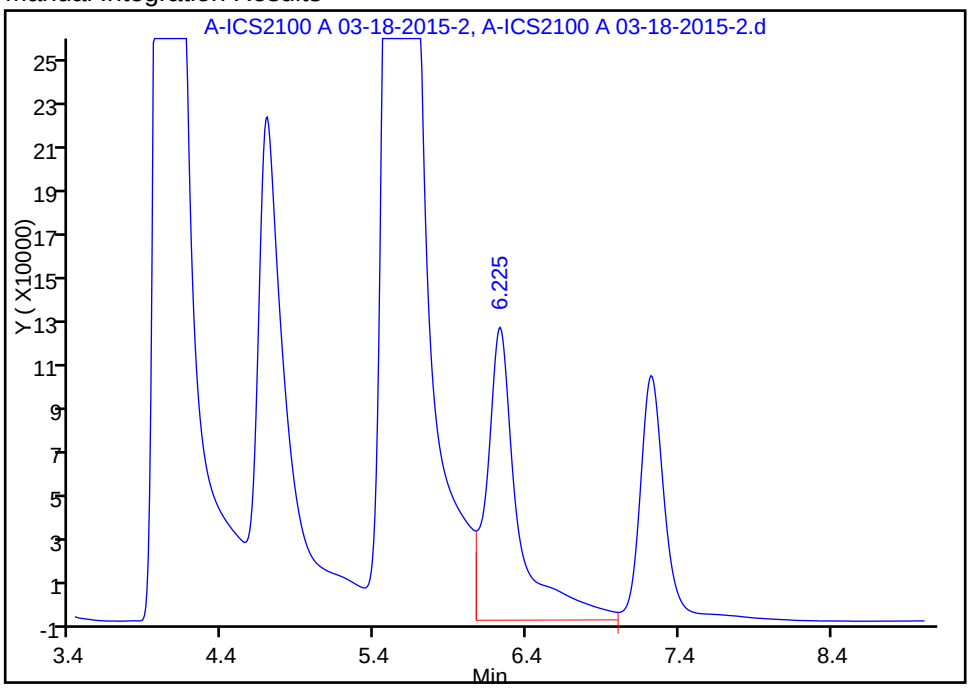
Processing Integration Results

RT: 6.23
Area: 1730864
Amount: 0.182769
Amount Units: ug/ml



Manual Integration Results

RT: 6.23
Area: 1839476
Amount: 0.194237
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

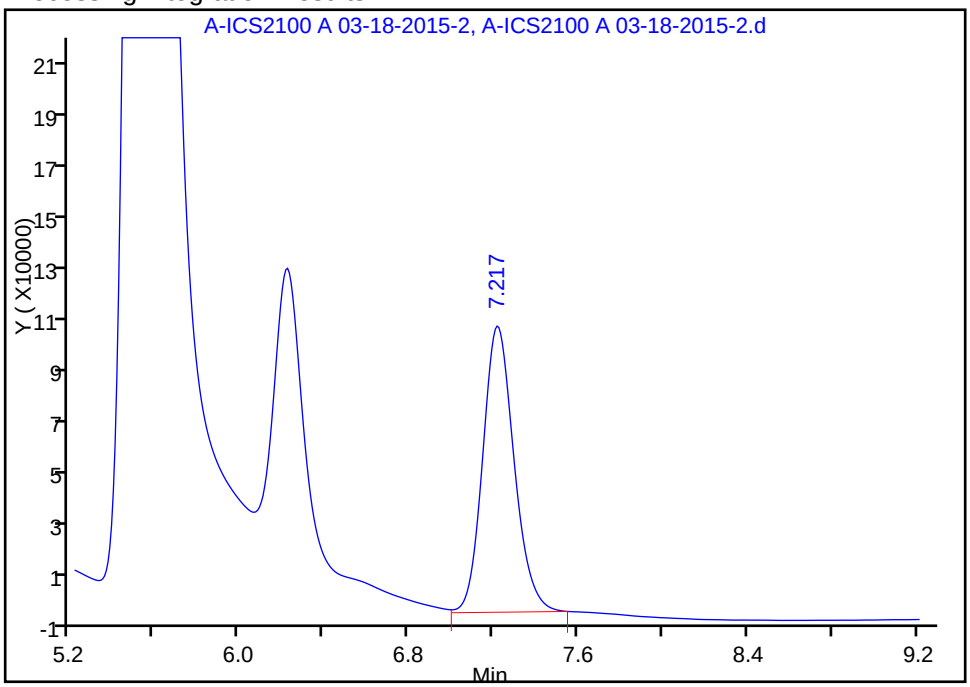
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-2.d				
Injection Date:	18-Mar-2015 11:27:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

5 Nitrate as N, CAS: 14797-55-8

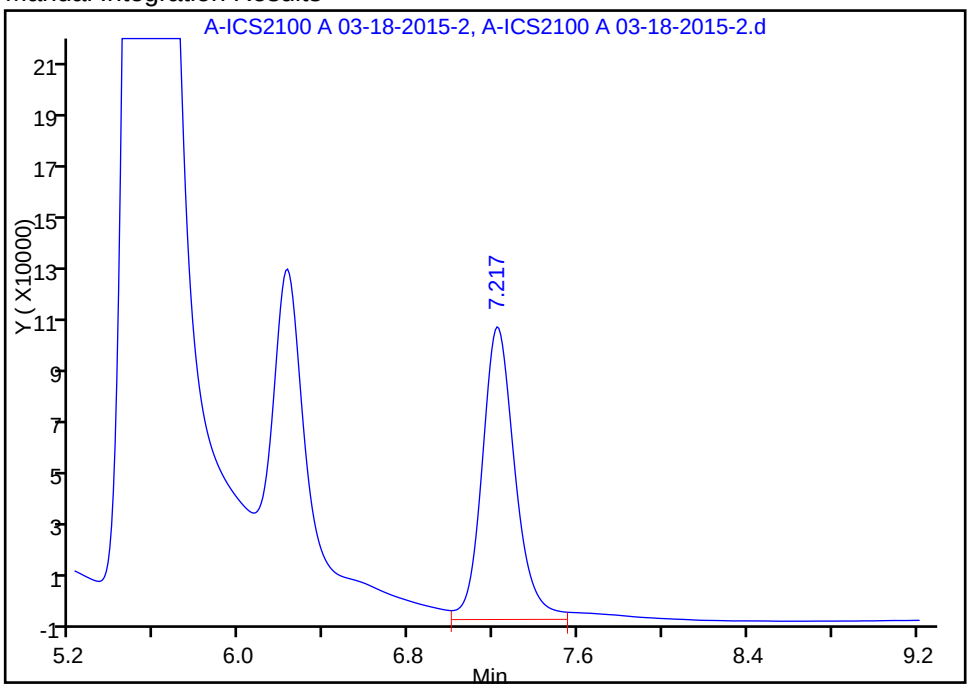
Processing Integration Results

RT: 7.22
Height: 106589
Amount: 0.028142
Amount Units: ug/ml



Manual Integration Results

RT: 7.22
Height: 108988
Amount: 0.028776
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 18:15:51
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Report Date: 18-Mar-2015 15:00:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Mar-2015 11:43:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 15:00:56 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:44:27

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.017	-0.025	4066810	0.2500	0.1255	M
2 Chloride	4.008	4.008	0.000	100238904	5.00	5.09	
7 Nitrite as N	4.683	4.692	-0.009	11517594	0.2500	0.2547	
3 Sulfate	5.550	5.550	0.000	74348642	5.00	4.98	
4 Bromide	6.225	6.233	-0.008	8475818	1.00	0.8950	
5 Nitrate as N	7.233	7.225	0.008	9219030	0.2500	0.2161	
6 Orthophosphate as P	10.292	10.283	0.009	1266213	0.2500	0.3788	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

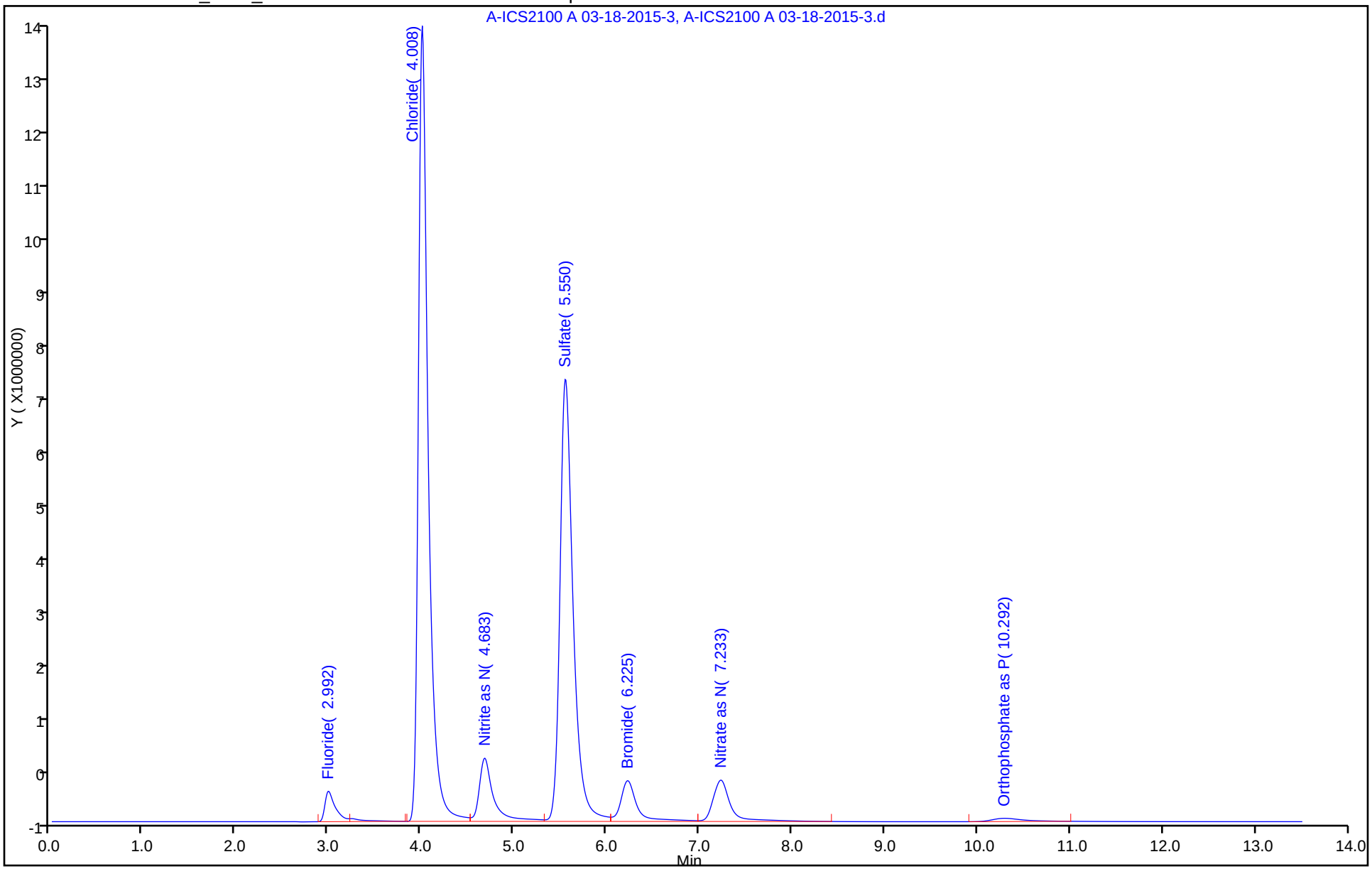
ICSTDL3_00200 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 15:00:56 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-3.d

Injection Date:	18-Mar-2015 11:43:00	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		



Manual Integration/User Assign Peak Report

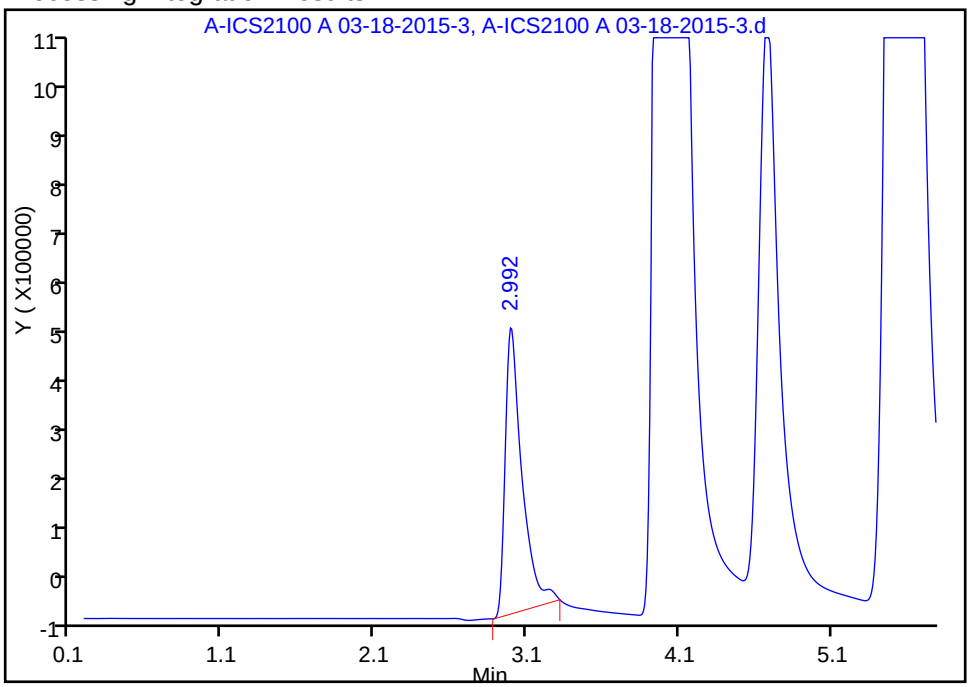
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-3.d				
Injection Date:	18-Mar-2015 11:43:00	Instrument ID:	CHIC2100A		
Lims ID:	ic L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

1 Fluoride, CAS: 16984-48-8

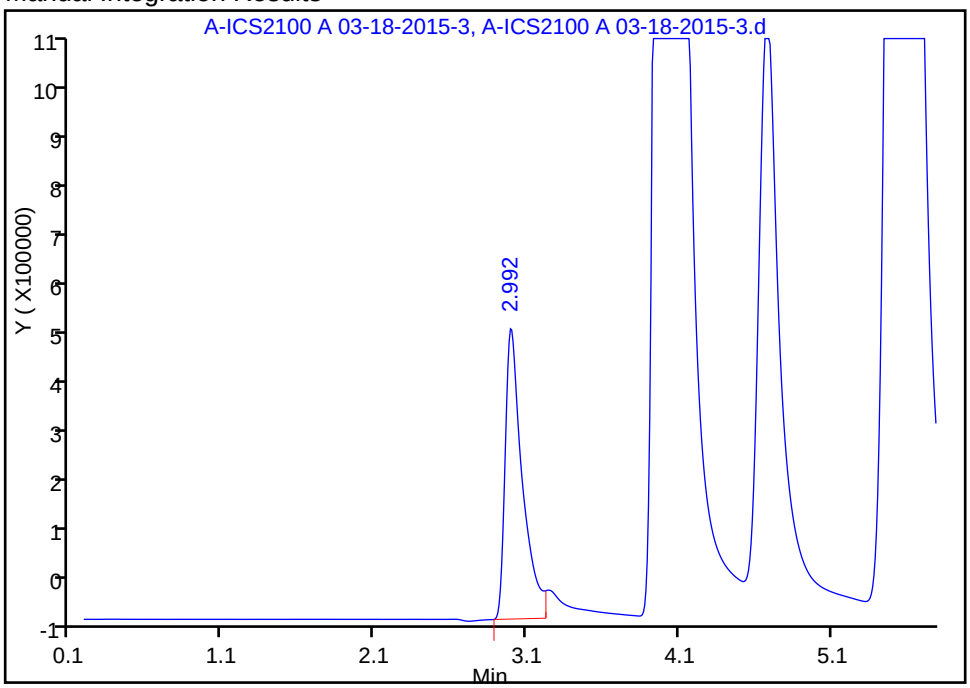
Processing Integration Results

RT: 2.99
Area: 3912395
Amount: 0.156660
Amount Units: ug/ml



Manual Integration Results

RT: 2.99
Area: 4066810
Amount: 0.125484
Amount Units: ug/ml



Reviewer: hartmanm, 18-Mar-2015 13:51:41
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

Report Date: 18-Mar-2015 18:07:28 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 18-Mar-2015 11:58:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:07:27 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 12:45:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.017	3.017	0.000	12030457	0.5000	0.3712	
2 Chloride	4.008	4.008	0.000	199163746	10.0	9.84	
7 Nitrite as N	4.692	4.692	0.000	22860766	0.5000	0.5209	
3 Sulfate	5.550	5.550	0.000	146123470	10.0	9.79	
4 Bromide	6.233	6.233	0.000	17393233	2.00	1.84	
5 Nitrate as N	7.225	7.225	0.000	21696619	0.5000	0.4120	
6 Orthophosphate as P	10.283	10.283	0.000	3831594	0.5000	0.5236	

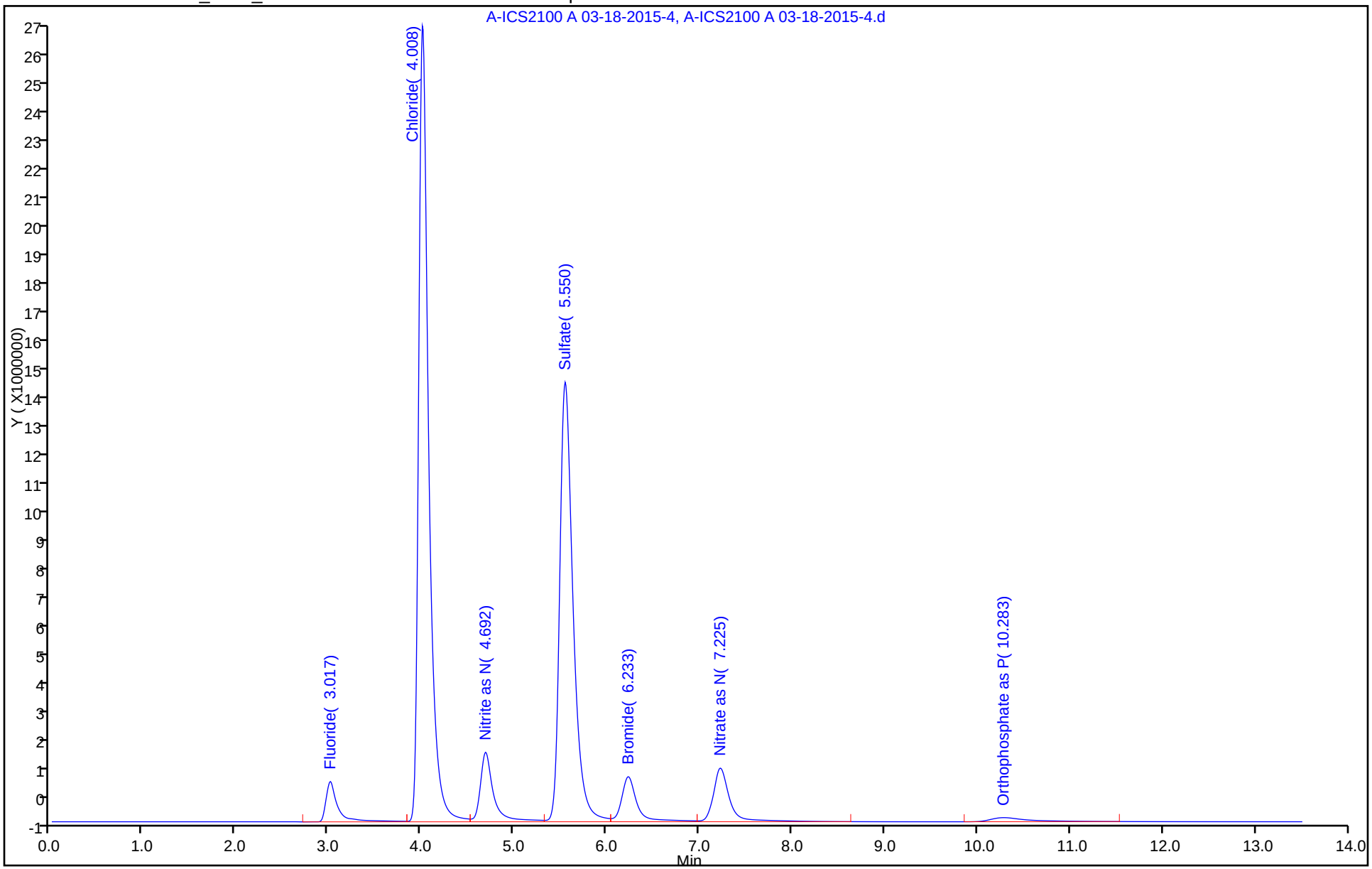
Reagents:

ICSTDL4_00135 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:07:28 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-4.d				
Injection Date:	18-Mar-2015 11:58:00	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		



Report Date: 18-Mar-2015 18:08:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Mar-2015 12:13:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:08:48 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 18:08:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.017	3.017	0.000	28839713	1.00	0.8899	
2 Chloride	4.017	4.008	0.009	410412845	20.0	20.0	
7 Nitrite as N	4.692	4.692	0.000	43482294	1.00	1.01	
3 Sulfate	5.525	5.550	-0.025	297244169	20.0	19.9	
4 Bromide	6.233	6.233	0.000	33796204	4.00	3.57	
5 Nitrate as N	7.217	7.225	-0.008	46463120	1.00	0.8822	
6 Orthophosphate as P	10.233	10.283	-0.050	10946796	1.00	0.9254	

Reagents:

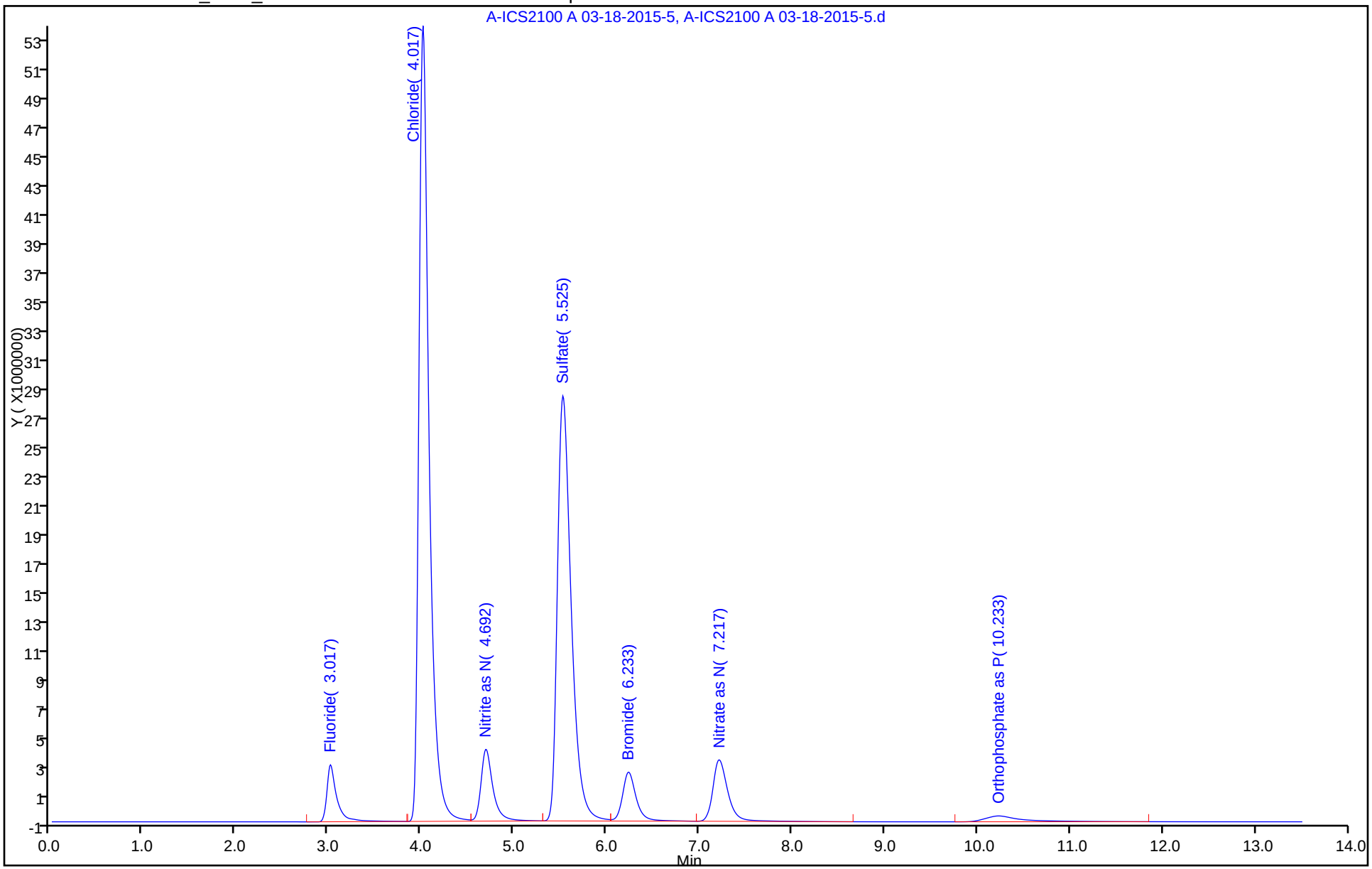
ICSTDL5_00136 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:08:48 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-5.d

Injection Date:	18-Mar-2015 12:13:00	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: 18-Mar-2015 18:20:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Mar-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006053-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:20:14 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 18:18:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.017	-0.009	77159596	2.50	2.38	
2 Chloride	4.008	4.008	0.000	995054428	50.0	48.0	
7 Nitrite as N	4.683	4.692	-0.009	102799468	2.50	2.43	
3 Sulfate	5.483	5.550	-0.067	719323783	50.0	48.2	
4 Bromide	6.217	6.233	-0.016	86364096	10.0	9.12	
5 Nitrate as N	7.175	7.225	-0.050	119987980	2.50	2.46	
6 Orthophosphate as P	10.150	10.283	-0.133	34950954	2.50	2.28	

Reagents:

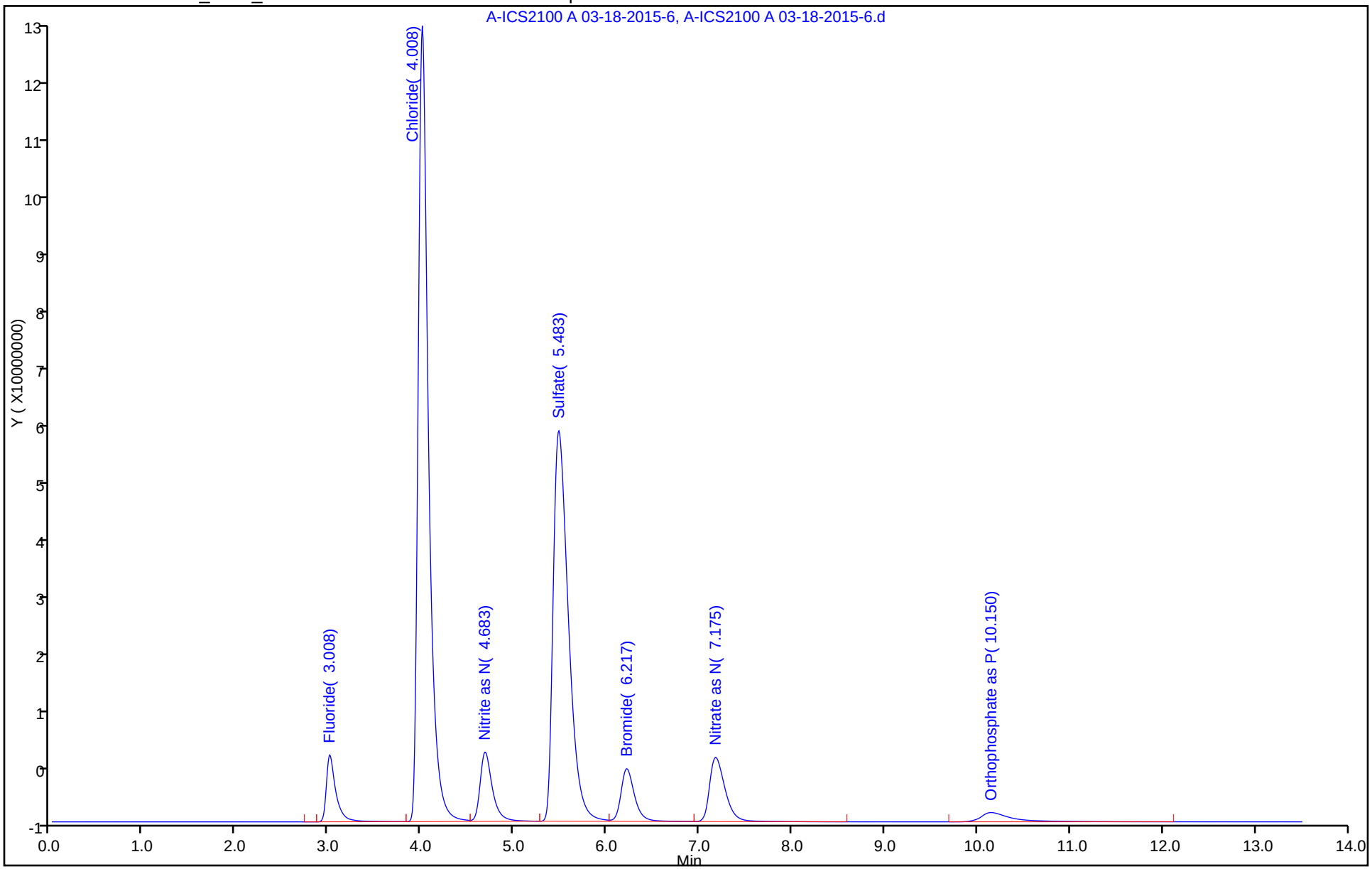
ICSTDL6_00201 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:20:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-6.d

Injection Date:	18-Mar-2015 12:29:00	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: 18-Mar-2015 18:17:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Mar-2015 12:44:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-007
Misc. Info.: 7 IC L7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 18:17:31 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 18:17:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.017	-0.017	167654034	5.00	5.17	
2 Chloride	4.000	4.008	-0.008	2125235619	100.0	102.3	
7 Nitrite as N	4.675	4.692	-0.017	205529554	5.00	4.89	
3 Sulfate	5.425	5.550	-0.125	1548300187	100.0	103.7	
4 Bromide	6.192	6.233	-0.041	188983772	20.0	20.0	
5 Nitrate as N	7.125	7.225	-0.100	20666930H	5.00	5.46	
6 Orthophosphate as P	10.008	10.283	-0.275	86081052	5.00	5.17	

Reagents:

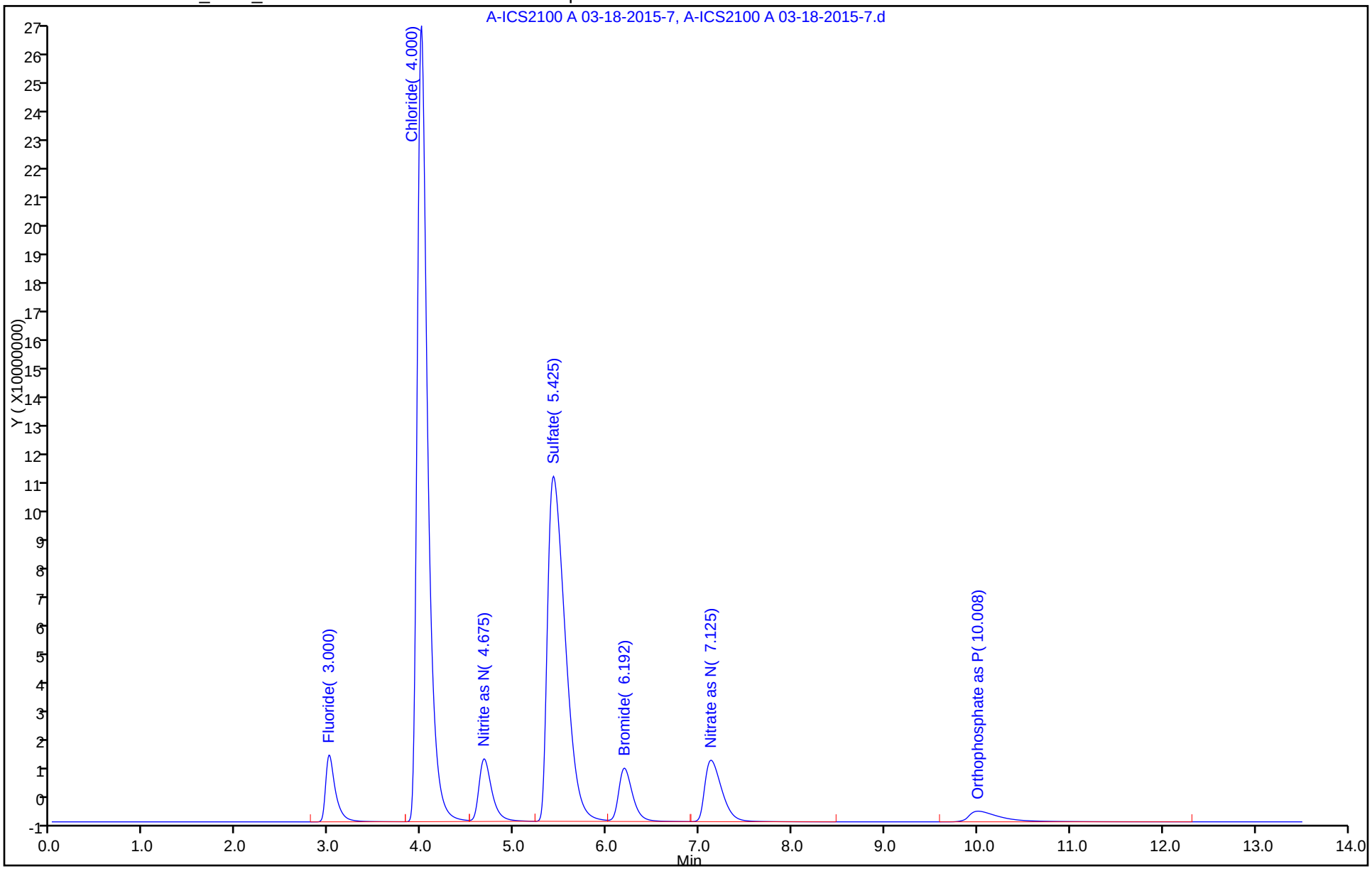
ICSTDL7_00132 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 18:17:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-7.d

Injection Date:	18-Mar-2015 12:44:00	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: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Mar-2015 12:59:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 15:00:54 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:17:19

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	240276056	7.50	7.41	
2 Chloride	3.992	4.000	-0.008	3099276402	150.0	149.0	
7 Nitrite as N	4.667	4.675	-0.008	288049270	7.50	7.03	
3 Sulfate	5.383	5.483	-0.100	2225349056	150.0	149.1	
4 Bromide	6.167	6.208	-0.041	277091709	30.0	29.3	
5 Nitrate as N	7.092	7.167	-0.075	387501618	7.50	7.87	
6 Orthophosphate as P	9.917	10.150	-0.233	128443816	7.50	7.56	

Reagents:

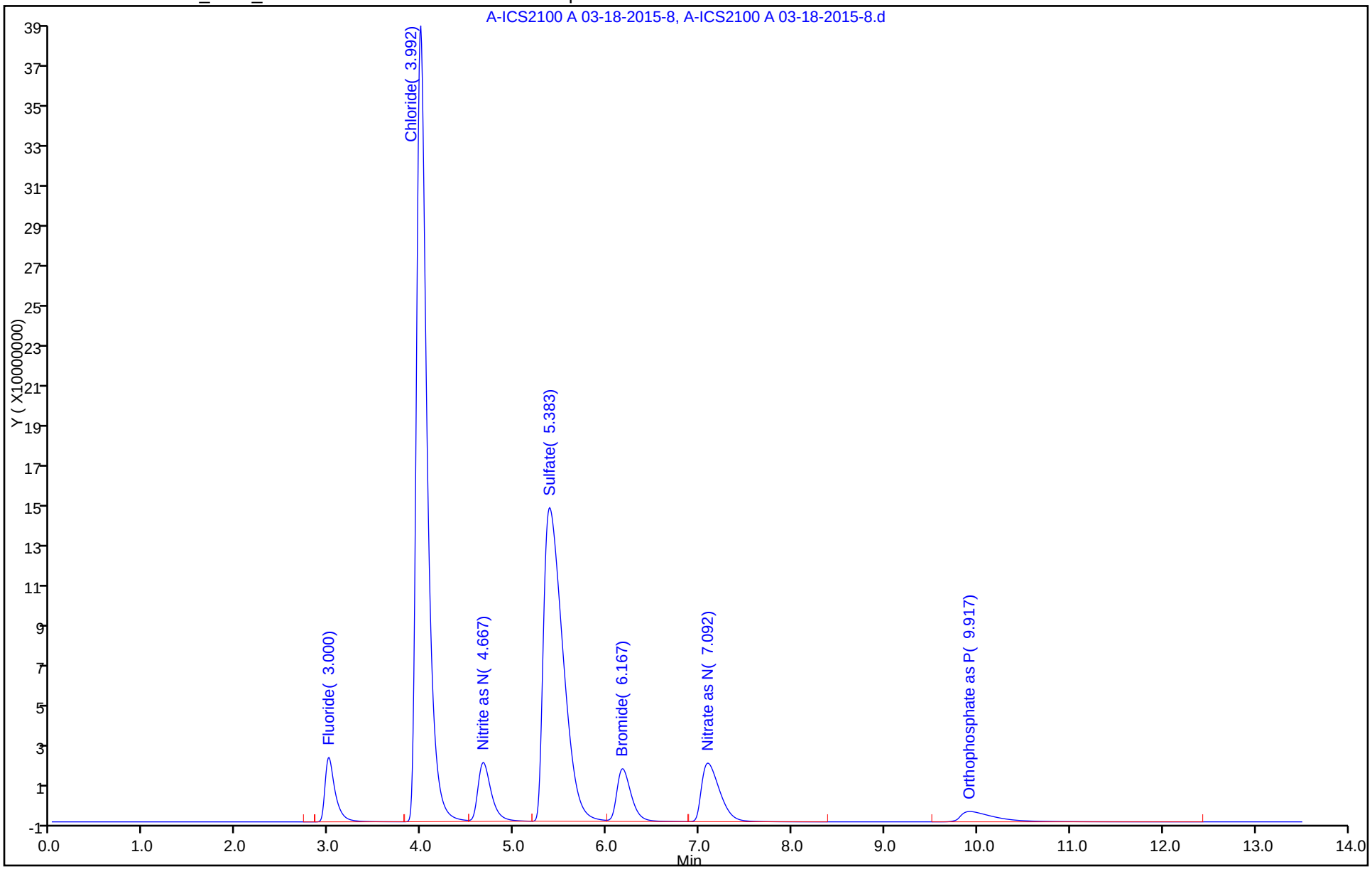
ICSTDL8_00102 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-8.d

Injection Date:	18-Mar-2015 12:59:00	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: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 18-Mar-2015 13:15:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006073-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 18-Mar-2015 15:00:54 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK033

First Level Reviewer: hartmanm Date: 18-Mar-2015 13:41:13

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	325014820	10.0	10.0	
2 Chloride	3.992	4.000	-0.008	4258964050	200.0	204.6	
7 Nitrite as N	4.667	4.675	-0.008	391103425	10.0	9.55	
3 Sulfate	5.350	5.483	-0.133	3082282736	200.0	206.5	
4 Bromide	6.158	6.208	-0.050	386878705	40.0	40.9	
5 Nitrate as N	7.067	7.167	-0.100	536007632	10.0	10.9	
6 Orthophosphate as P	9.825	10.150	-0.325	184636030	10.0	10.7	

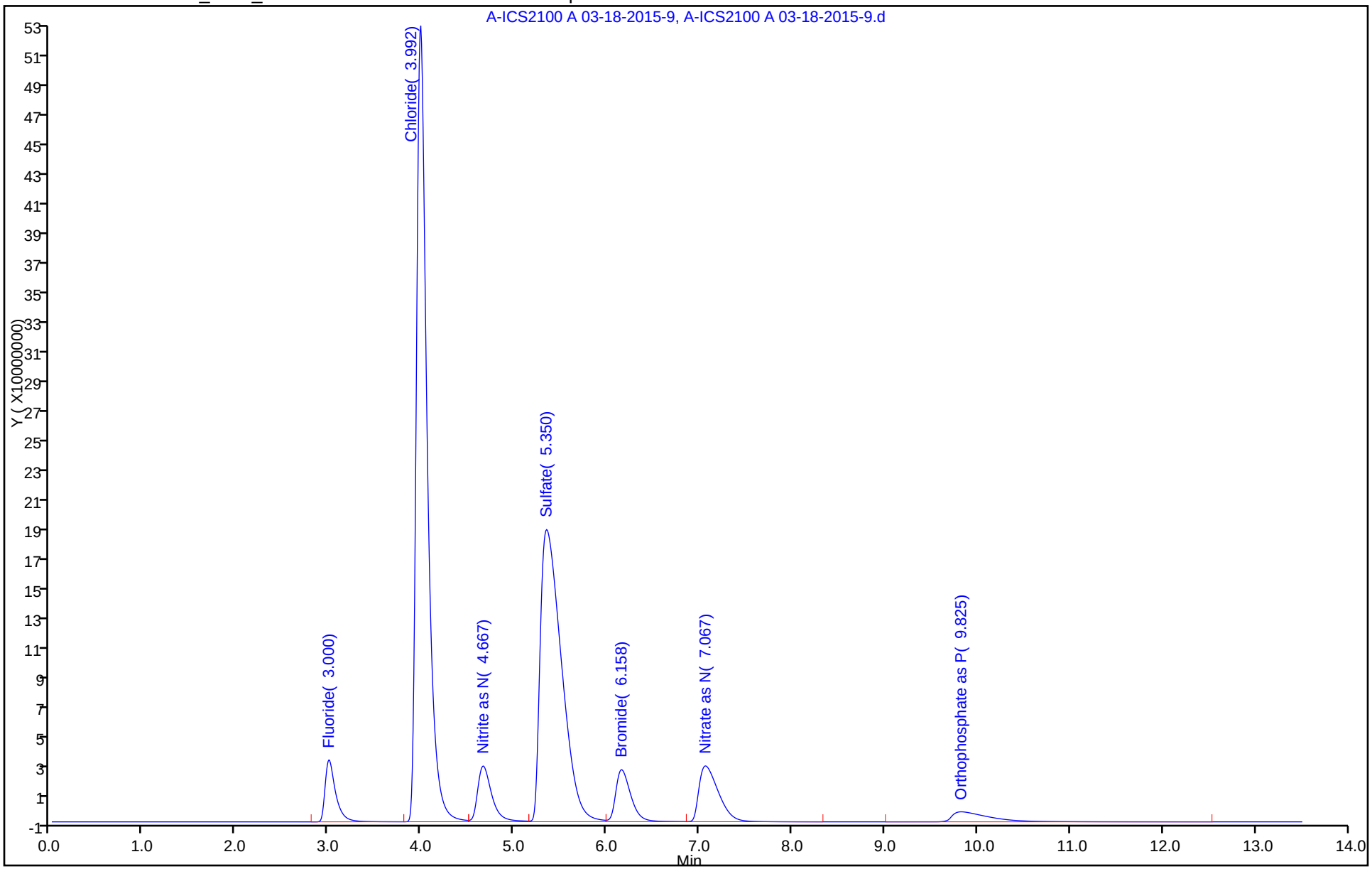
Reagents:

ICSTDL9_00107 Amount Added: 1.00 Units: mL

Report Date: 18-Mar-2015 15:00:54 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d				
Injection Date:	18-Mar-2015 13:15:00	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 VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 136436

SDG No.:

Instrument ID: CHIC25 GC Column: AS-14 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/24/2015 20:18 Calibration End Date: 03/24/2015 21:35 Calibration ID: 22699

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136436/2	03-24a-201502.0000.d
Level 2	IC 180-136436/3	03-24a-201503.0000.d
Level 3	ICRT 180-136436/4	03-24a-201504.0000.d
Level 4	IC 180-136436/5	03-24a-201505.0000.d
Level 5	IC 180-136436/6	03-24a-201506.0000.d
Level 6	IC 180-136436/7	03-24a-201507.0000.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Fluoride	2.583	2.567	2.558	2.567	2.567	2.558					2.208 - 2.908	2.567
Chloride	3.325	3.325	3.325	3.342	3.375	3.417					2.975 - 3.675	3.352
Nitrite as N	3.767	3.767	3.758	3.775	3.792	3.792					3.658 - 3.858	3.775
Bromide	4.542	4.542	4.533	4.542	4.542	4.542					4.183 - 4.883	4.541
Nitrate as N	5.108	5.100	5.092	5.100	5.092	5.067					4.992 - 5.192	5.093
Orthophosphate as P		6.358	6.358	6.367	6.358	6.342					6.258 - 6.458	6.357
Sulfate	7.650	7.650	7.642	7.650	7.625	7.575					7.292 - 7.992	7.632

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 136436

SDG No.:

Instrument ID: CHIC25 GC Column: AS-14 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/24/2015 20:18 Calibration End Date: 03/24/2015 21:35 Calibration ID: 22699

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136436/2	03-24a-201502.0000.d
Level 2	IC 180-136436/3	03-24a-201503.0000.d
Level 3	ICRT 180-136436/4	03-24a-201504.0000.d
Level 4	IC 180-136436/5	03-24a-201505.0000.d
Level 5	IC 180-136436/6	03-24a-201506.0000.d
Level 6	IC 180-136436/7	03-24a-201507.0000.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 4		B	M1	M2								
Fluoride	1470880 1967436	2161720 1980872	1991784	1992333	Lin2	-27105.719	2052190.54							0.9970		0.9900
Chloride	17912565 22317038	17166737 24753058	17915687	19787104	LinF		24065459.1							0.9950		0.9900
Nitrite as N	91861160 50771511	60205964 48782851	50500282	48600517	Lin	2034337.47	48616367.3							1.0000		0.9900
Bromide	401190 413626	404088 458883	392302	398346	Lin2	-3731.2501	415696.721							0.9960		0.9900
Nitrate as N	43684720 39097084	39533576 42454852	38066936	38609036	Lin2	204081.289	39302260.0							0.9980		0.9900
Orthophosphate as P	 565672	486504 615072	495342	539044	Lin2	-29172.493	584668.950							0.9960		0.9900
Sulfate	498551 573402	448154 649980	469441	504210	LinF		629021.230							0.9930		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.: 180-42445-1 Analy Batch No.: 136436

SDG No.:

Instrument ID: CHIC25 GC Column: AS-14 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/24/2015 20:18 Calibration End Date: 03/24/2015 21:35 Calibration ID: 22699

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136436/2	03-24a-201502.0000.d
Level 2	IC 180-136436/3	03-24a-201503.0000.d
Level 3	ICRT 180-136436/4	03-24a-201504.0000.d
Level 4	IC 180-136436/5	03-24a-201505.0000.d
Level 5	IC 180-136436/6	03-24a-201506.0000.d
Level 6	IC 180-136436/7	03-24a-201507.0000.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Fluoride	Lin2	73544 9904360	540430	995892	1992333	4918591	0.0500 5.00	0.250	0.500	1.00	2.50
Chloride	LinF	17912565 2475305828	85833686	179156868	395742080	1115851921	1.00 100	5.00	10.0	20.0	50.0
Nitrite as N	Lin	4593058 243914257	15051491	25250141	48600517	126928777	0.0500 5.00	0.250	0.500	1.00	2.50
Bromide	Lin2	80238 9177662	404088	784604	1593384	4136256	0.200 20.0	1.00	2.00	4.00	10.0
Nitrate as N	Lin2	2184236 212274261	9883394	19033468	38609036	97742709	0.0500 5.00	0.250	0.500	1.00	2.50
Orthophosphate as P	Lin2	 3075359	121626	247671	539044	1414180	 5.00	0.250	0.500	1.00	2.50
Sulfate	LinF	498551 64997957	2240771	4694409	10084190	28670091	1.00 100	5.00	10.0	20.0	50.0

Curve Type Legend:

Lin = Linear
Lin2 = Linear 1/conc^2 by height
LinF = Linear Forced Zero by Height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d
Lims ID: ic l2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Mar-2015 20:18:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006155-002
Misc. Info.: 29947 ic l2
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 11:55:13 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: reaglec Date: 25-Mar-2015 10:11:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.583	2.558	0.025	73544H	0.0500	0.0490	M
2 Chloride	3.325	3.325	0.000	17912565	1.00	0.7443	M
10 Nitrite as N	3.767	3.758	0.009	4593058	0.0500	0.0526	M
4 Bromide	4.542	4.533	0.009	80238H	0.2000	0.2020	M
8 Nitrate as N	5.108	5.092	0.016	2184236	0.0500	0.0504	M
9 Orthophosphate as P	6.317	6.358	-0.041	26971H	0.0500	0.0960	M
3 Sulfate	7.650	7.642	0.008	498551H	1.00	0.7926	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

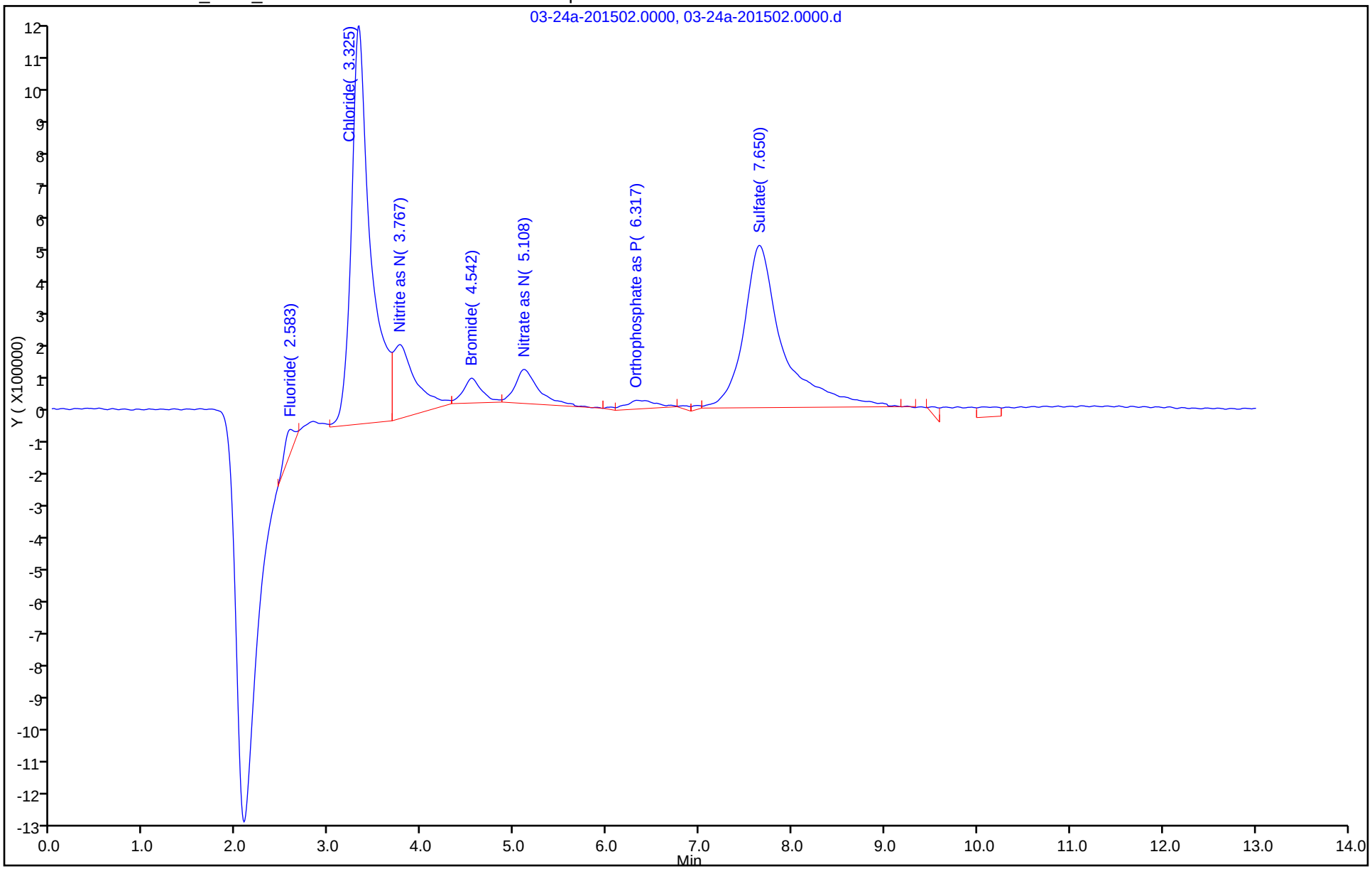
ICSTDL2_00161 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 11:55:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d

Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ic l2			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



Manual Integration/User Assign Peak Report

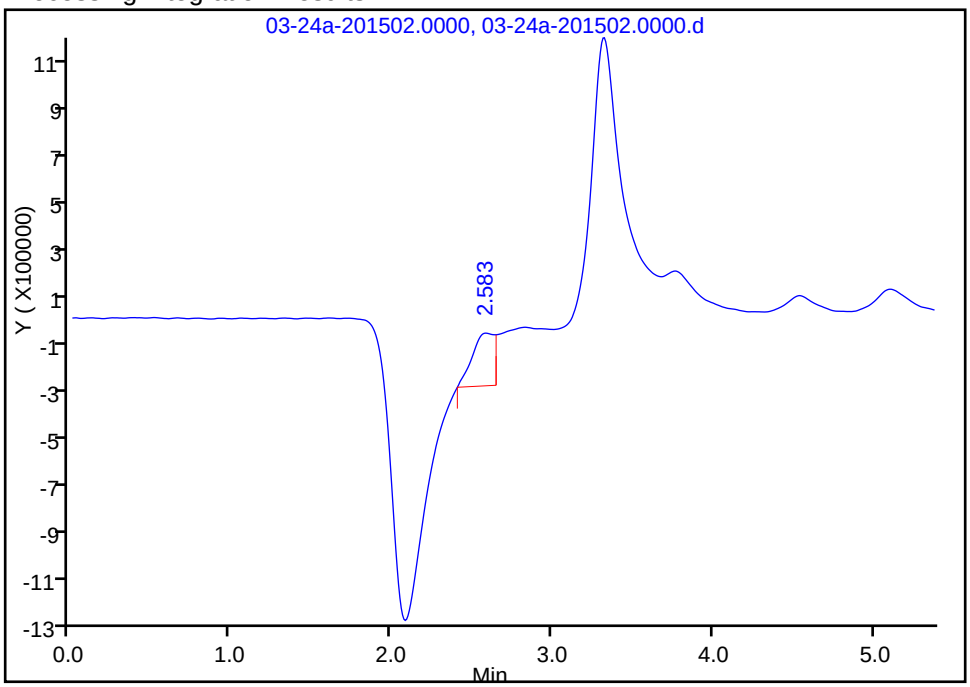
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d				
Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25		
Lims ID:	ic l2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

1 Fluoride, CAS: 16984-48-8

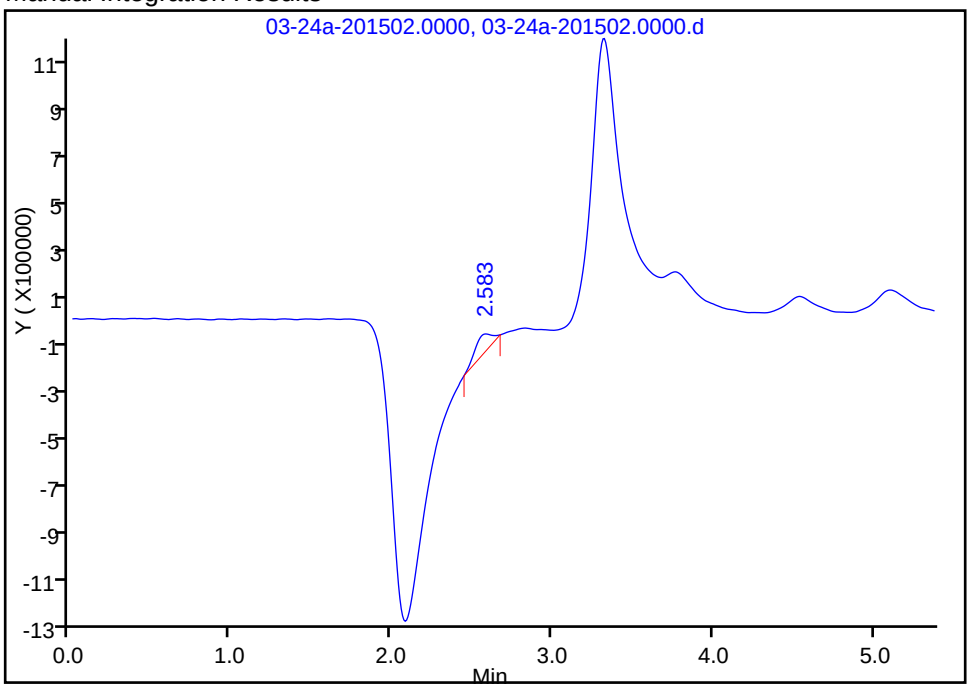
Processing Integration Results

RT: 2.58
Height: 221123
Amount: 0.051130
Amount Units: ug/ml



Manual Integration Results

RT: 2.58
Height: 73544
Amount: 0.049045
Amount Units: ug/ml



Reviewer: reaglec, 25-Mar-2015 10:11:02
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

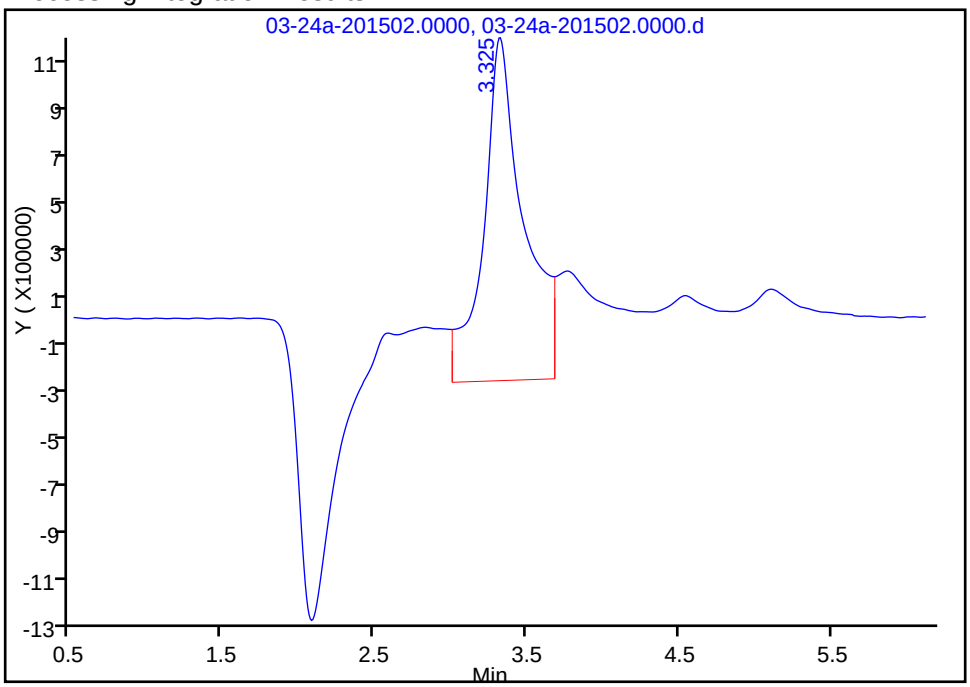
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d				
Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25		
Lims ID:	ic l2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

2 Chloride, CAS: 16887-00-6

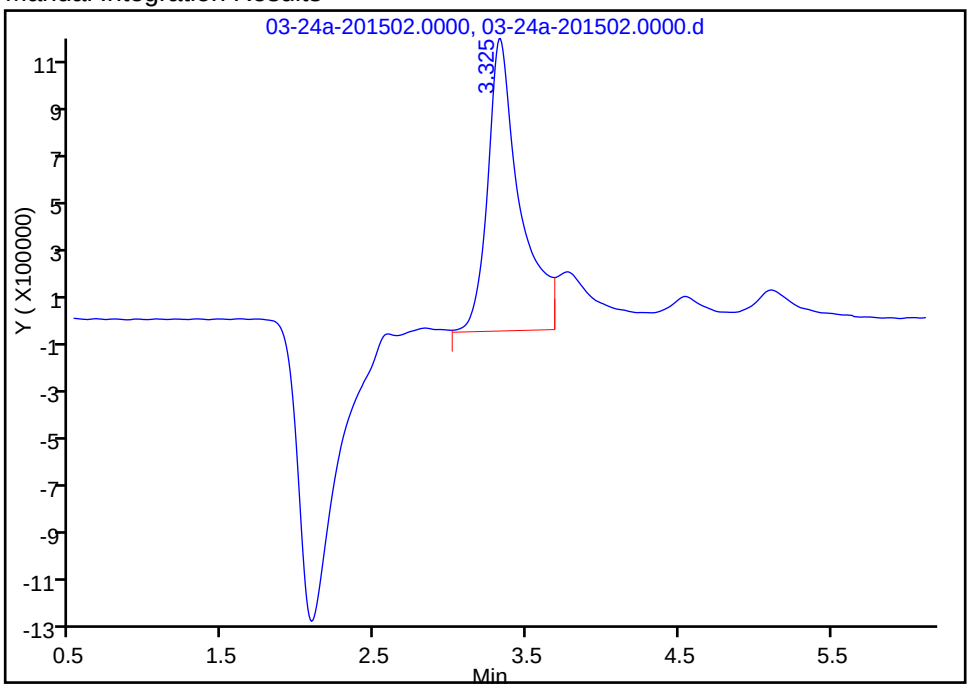
Processing Integration Results

RT: 3.33
Area: 26487346
Amount: 1.031920
Amount Units: ug/ml



Manual Integration Results

RT: 3.33
Area: 17912565
Amount: 0.744327
Amount Units: ug/ml



Reviewer: reaglec, 25-Mar-2015 10:11:02
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

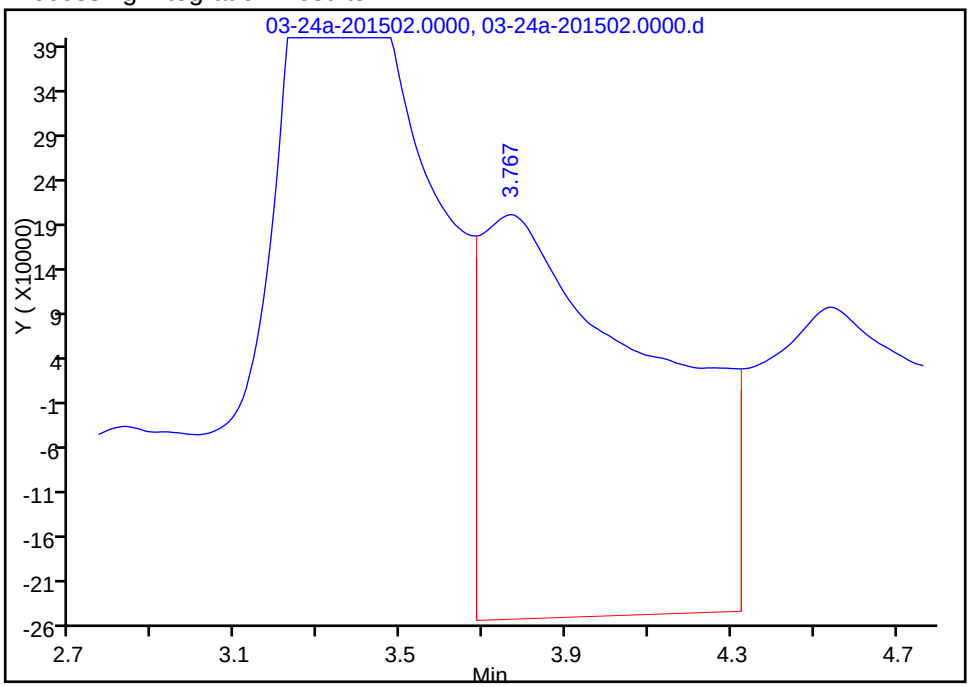
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d				
Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25		
Lims ID:	ic l2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

10 Nitrite as N, CAS: 14797-65-0

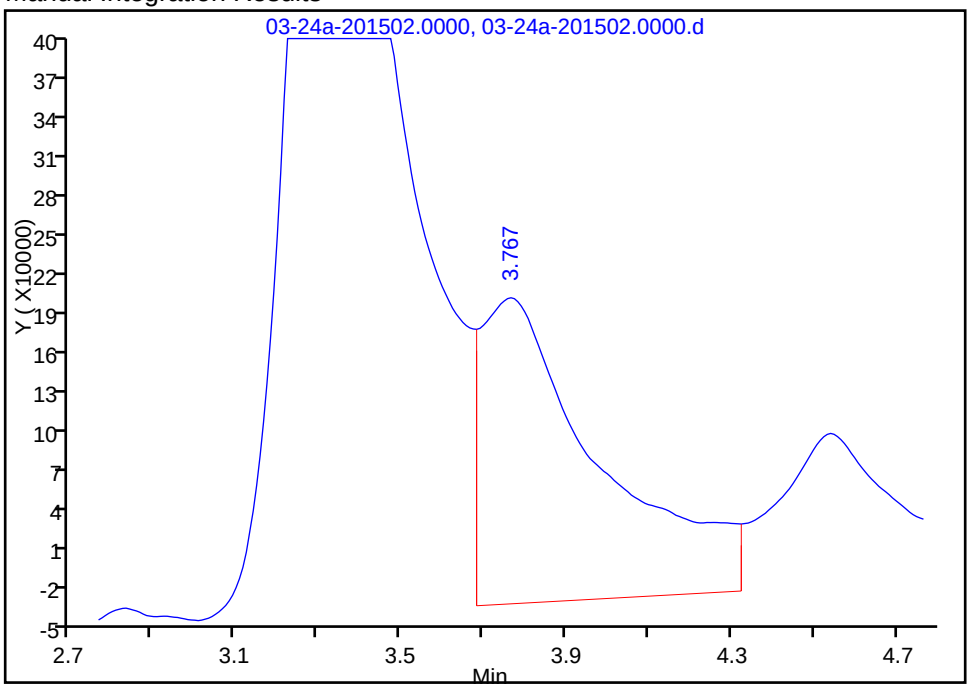
Processing Integration Results

RT: 3.77
Area: 13010062
Amount: 0.051930
Amount Units: ug/ml



Manual Integration Results

RT: 3.77
Area: 4593058
Amount: 0.052631
Amount Units: ug/ml



Reviewer: hartmanm, 25-Mar-2015 11:44:08
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

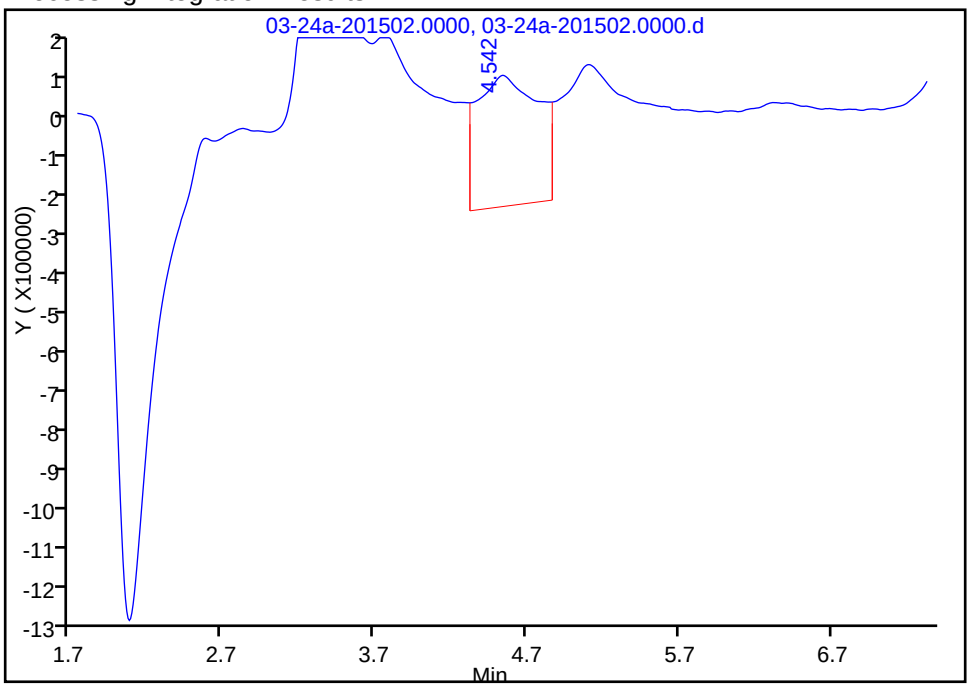
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d				
Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25		
Lims ID:	ic l2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

4 Bromide, CAS: 24959-67-9

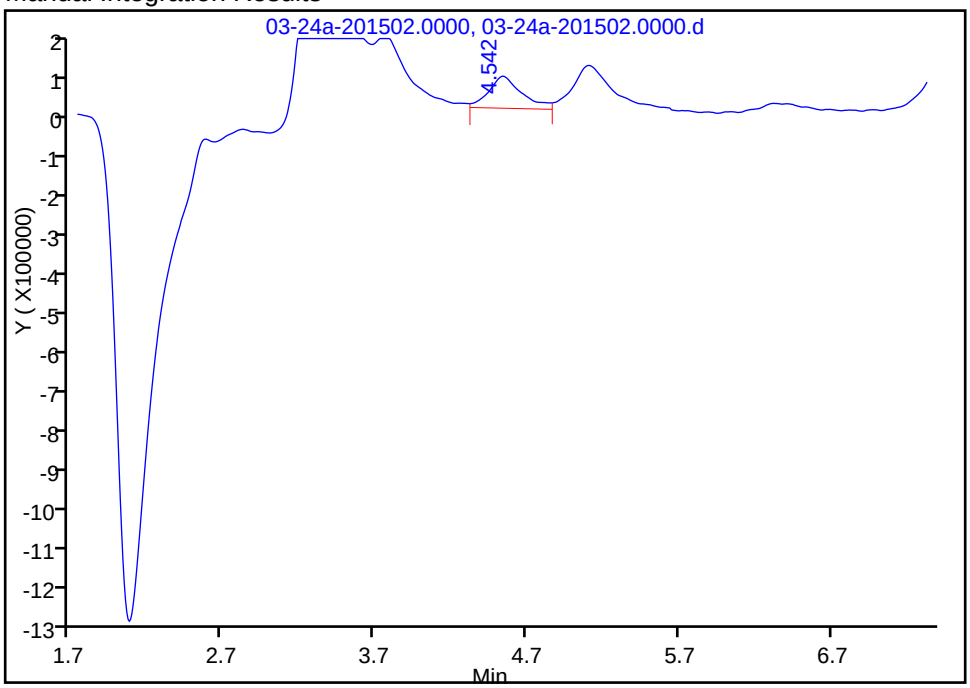
Processing Integration Results

RT: 4.54
Height: 328209
Amount: 0.223486
Amount Units: ug/ml



Manual Integration Results

RT: 4.54
Height: 80238
Amount: 0.201996
Amount Units: ug/ml



Reviewer: hartmanm, 25-Mar-2015 11:44:08
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

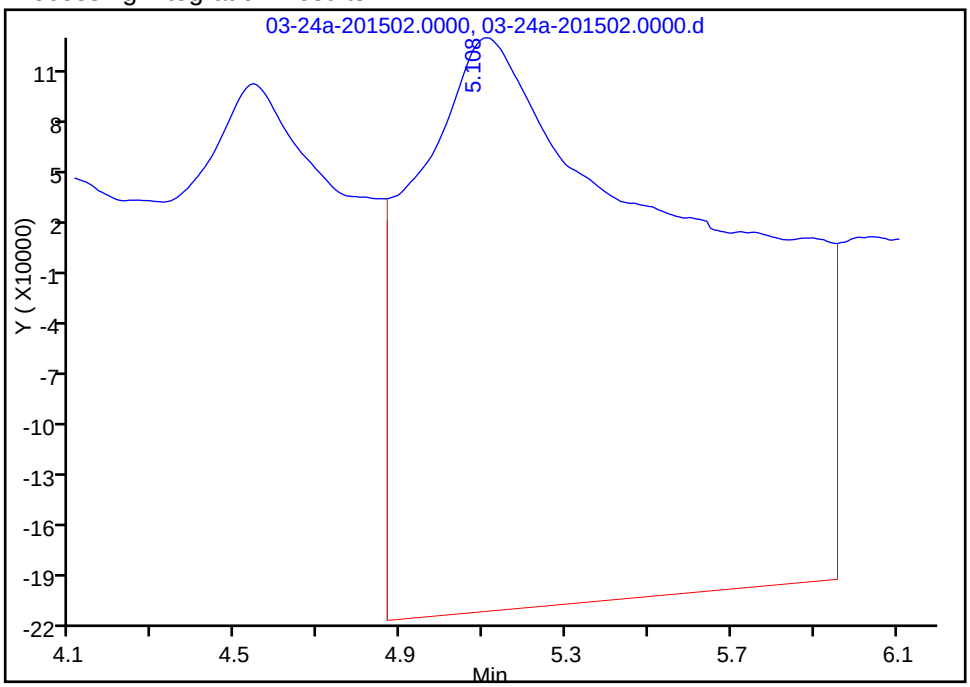
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d				
Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25		
Lims ID:	ic l2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

8 Nitrate as N, CAS: 14797-55-8

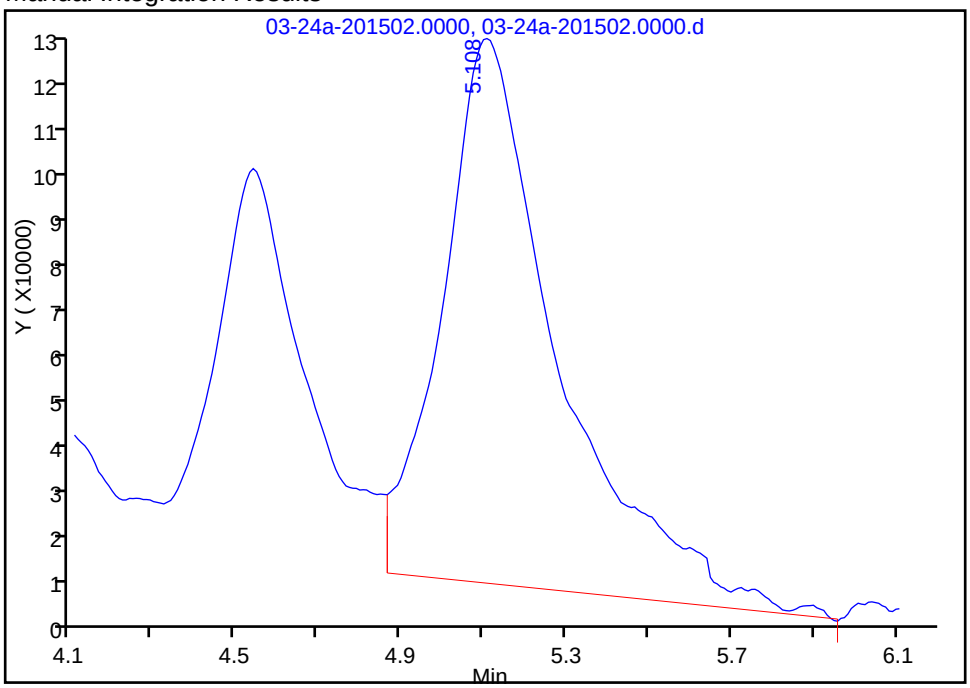
Processing Integration Results

RT: 5.11
Area: 16093881
Amount: 0.135807
Amount Units: ug/ml



Manual Integration Results

RT: 5.11
Area: 2184236
Amount: 0.050383
Amount Units: ug/ml



Reviewer: hartmanm, 25-Mar-2015 11:44:08
Audit Action: Assigned New Baseline
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

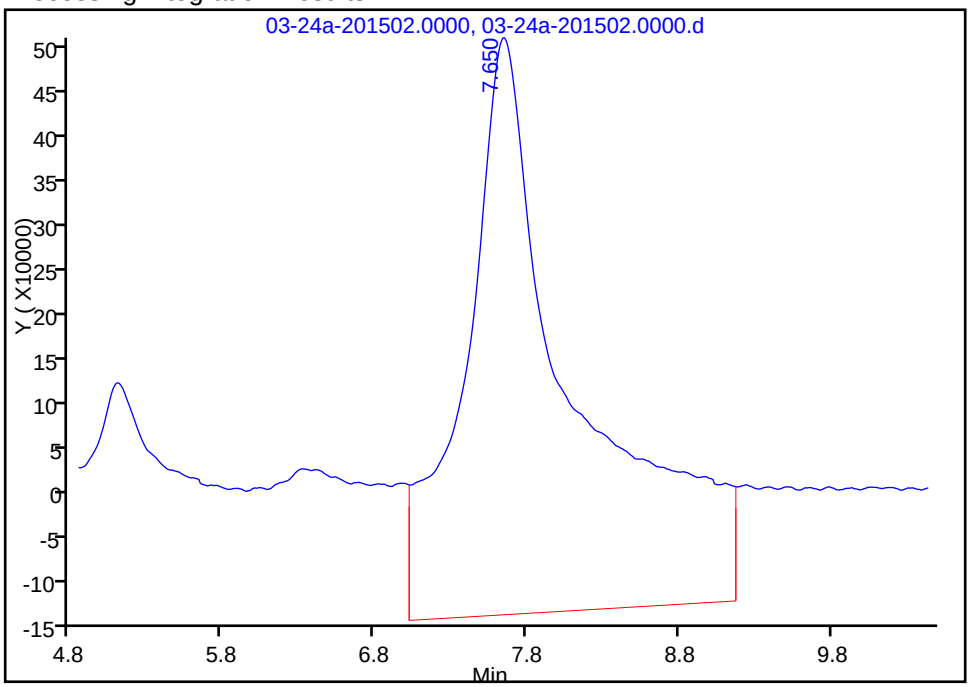
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201502.0000.d				
Injection Date:	24-Mar-2015 20:18:00	Instrument ID:	CHIC25		
Lims ID:	ic l2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

3 Sulfate, CAS: 14808-79-8

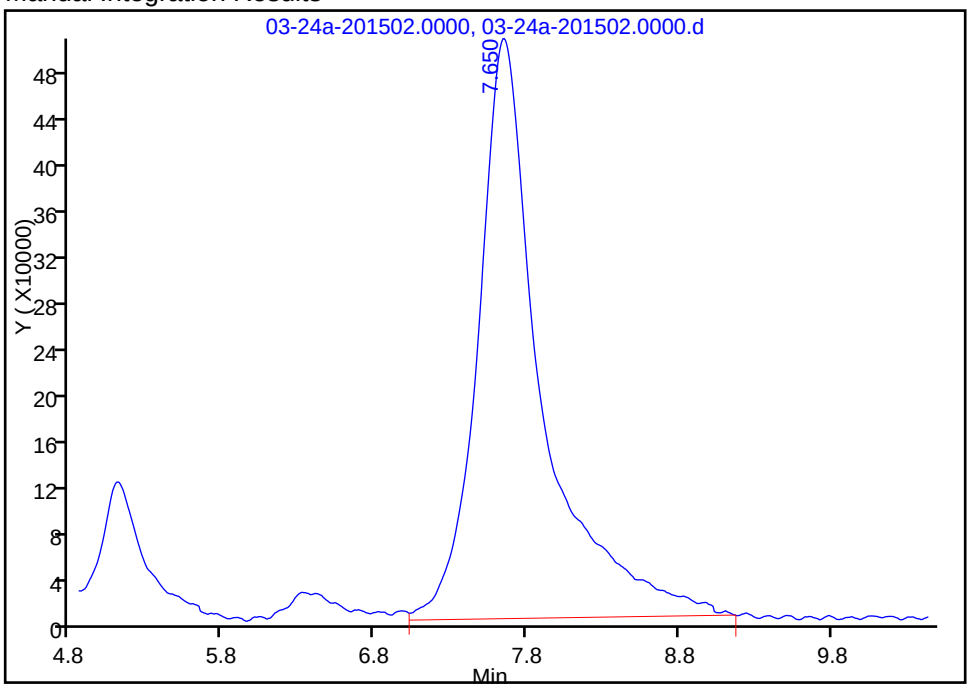
Processing Integration Results

RT: 7.65
Height: 637115
Amount: 1.986020
Amount Units: ug/ml



Manual Integration Results

RT: 7.65
Height: 498551
Amount: 0.792582
Amount Units: ug/ml



Reviewer: reaglec, 25-Mar-2015 10:11:02
Audit Action: Assigned New Baseline
Audit Reason: Baseline

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201503.0000.d
Lims ID: ic l3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Mar-2015 20:33:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006155-003
Misc. Info.: 364 ic l3
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 11:55:13 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK013

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.567	2.558	0.009	540430H	0.2500	0.2766	
2 Chloride	3.325	3.325	0.000	85833686	5.00	3.57	
10 Nitrite as N	3.767	3.758	0.009	15051491	0.2500	0.2678	
4 Bromide	4.542	4.533	0.009	404088H	1.00	0.9810	
8 Nitrate as N	5.100	5.092	0.008	9883394	0.2500	0.2463	
9 Orthophosphate as P	6.358	6.358	0.000	121626H	0.2500	0.2579	
3 Sulfate	7.650	7.642	0.008	2240771H	5.00	3.56	

Reagents:

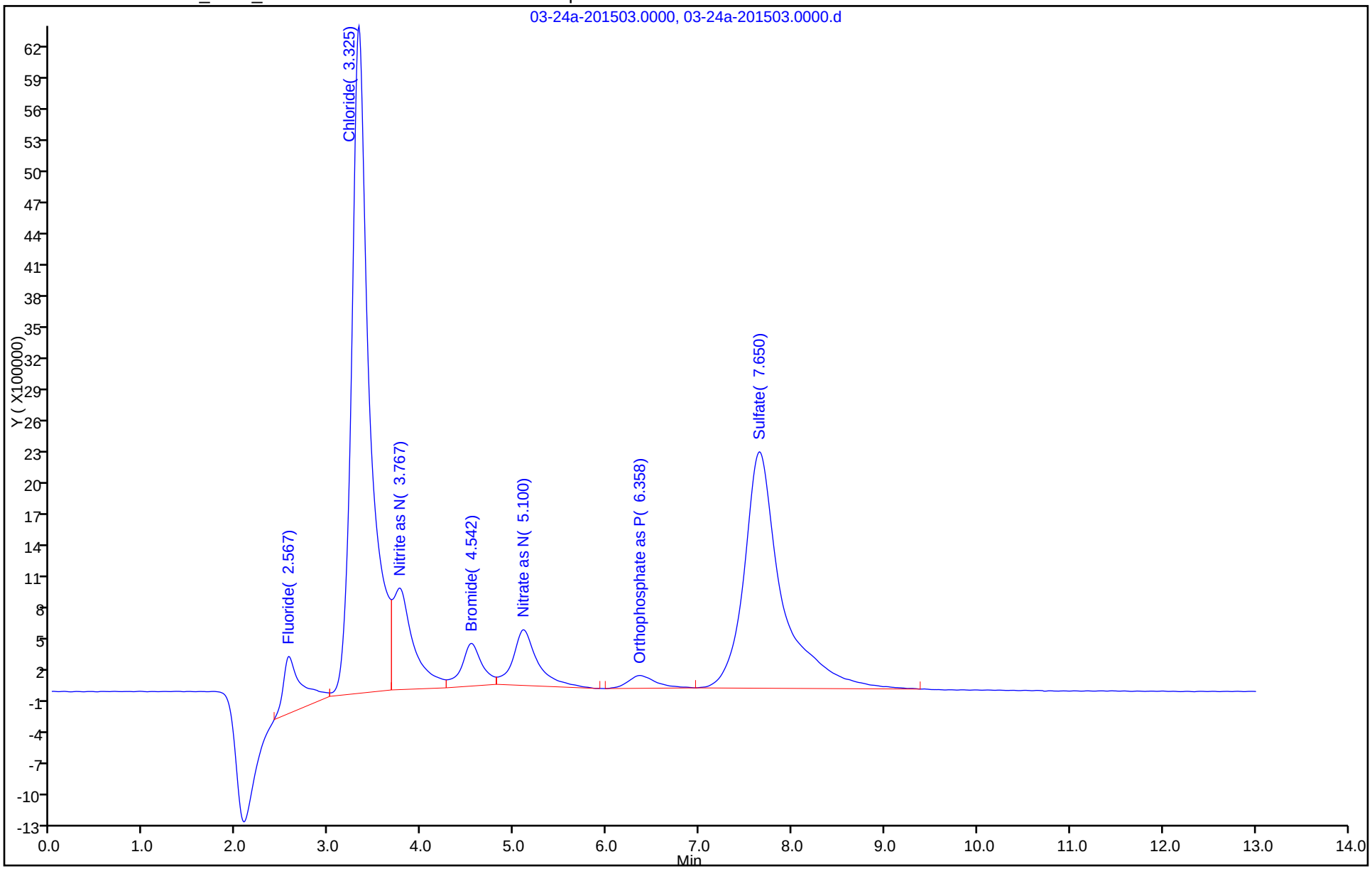
ICSTDL3_00201 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 11:55:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201503.0000.d

Injection Date:	24-Mar-2015 20:33:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ic l3			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201504.0000.d
Lims ID: icrt l4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 24-Mar-2015 20:49:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006155-004
Misc. Info.: 29645 icrt l4
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 11:55:13 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: hartmanm Date: 25-Mar-2015 11:29:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	995892H	0.5000	0.4985	
2 Chloride	3.325	3.325	0.000	179156868	10.0	7.44	
10 Nitrite as N	3.758	3.758	0.000	25250141	0.5000	0.4775	
4 Bromide	4.533	4.533	0.000	784604H	2.00	1.90	
8 Nitrate as N	5.092	5.092	0.000	19033468	0.5000	0.4791	
9 Orthophosphate as P	6.358	6.358	0.000	247671H	0.5000	0.4735	
3 Sulfate	7.642	7.642	0.000	4694409H	10.0	7.46	

Reagents:

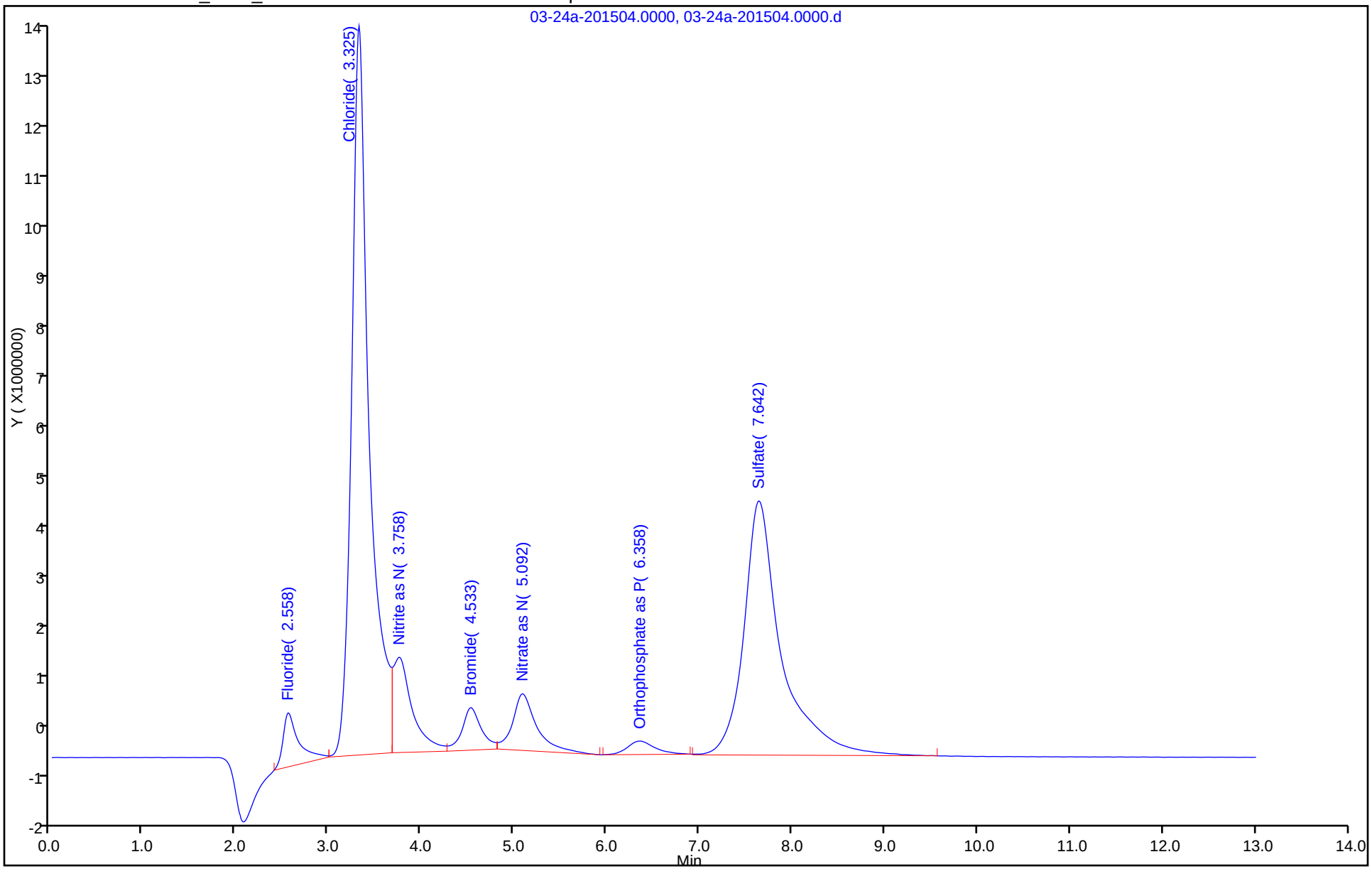
ICSTDL4_00136 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 11:55:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201504.0000.d

Injection Date:	24-Mar-2015 20:49:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	icrt l4			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201505.0000.d
Lims ID: ic l5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Mar-2015 21:04:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006155-005
Misc. Info.: 22332 ic l5
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 11:55:12 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: hartmanm Date: 25-Mar-2015 11:40:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.567	2.558	0.009	1992333H	1.00	0.9840	
2 Chloride	3.342	3.367	-0.025	395742080	20.0	16.4	
10 Nitrite as N	3.775	3.783	-0.008	48600517	1.00	0.9578	
4 Bromide	4.542	4.533	0.009	1593384H	4.00	3.84	
8 Nitrate as N	5.100	5.083	0.017	38609036	1.00	0.9772	
9 Orthophosphate as P	6.367	6.342	0.025	539044H	1.00	0.9719	
3 Sulfate	7.650	7.617	0.033	10084190H	20.0	16.0	

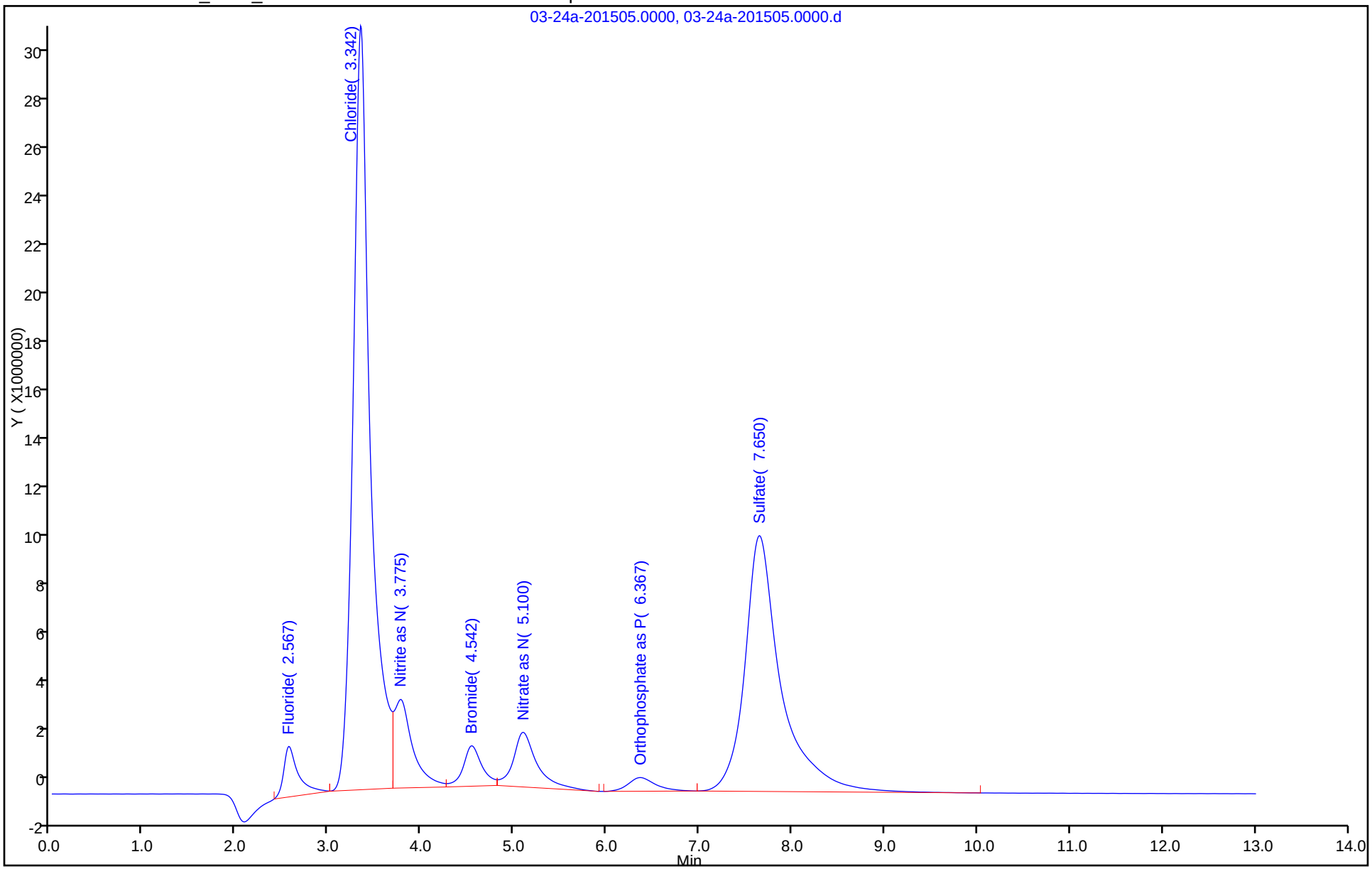
Reagents:

ICSTDL5_00137 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 11:55:12 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201505.0000.d				
Injection Date:	24-Mar-2015 21:04:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ic l5			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



Report Date: 25-Mar-2015 11:55:12 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201506.0000.d
Lims ID: ic l6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Mar-2015 21:20:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006155-006
Misc. Info.: 14378 ic l6
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 11:55:12 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: hartmanm Date: 25-Mar-2015 11:32:21

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.567	2.558	0.009	4918591H	2.50	2.41	
2 Chloride	3.375	3.367	0.008	1115851921	50.0	46.4	
10 Nitrite as N	3.792	3.783	0.009	126928777	2.50	2.57	
4 Bromide	4.542	4.533	0.009	4136256H	10.0	9.96	
8 Nitrate as N	5.092	5.083	0.009	97742709	2.50	2.48	
9 Orthophosphate as P	6.358	6.342	0.016	1414180H	2.50	2.47	
3 Sulfate	7.625	7.617	0.008	28670091H	50.0	45.6	

Reagents:

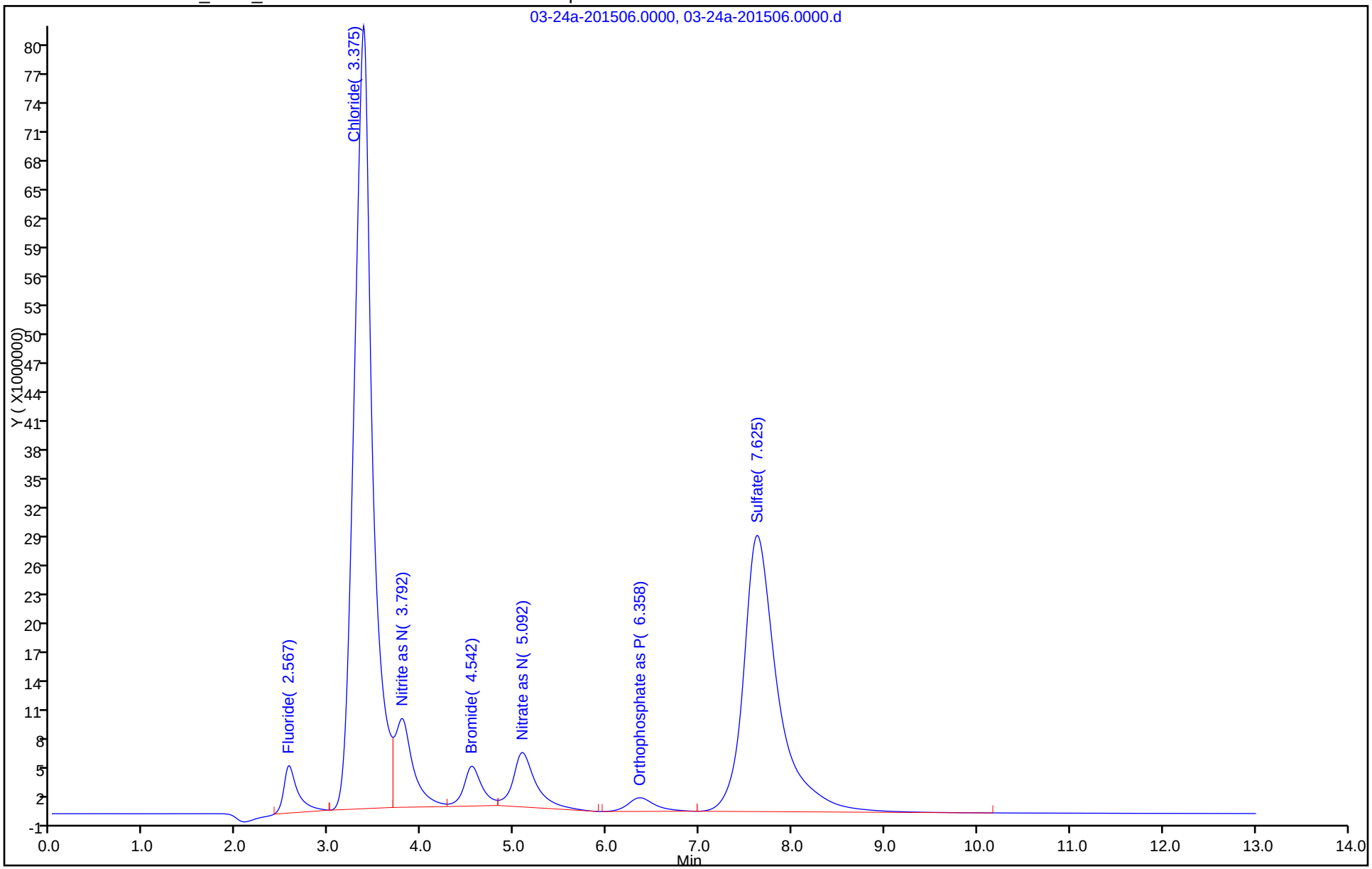
ICSTDL6_00207 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 11:55:12 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201506.0000.d

Injection Date:	24-Mar-2015 21:20:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ic l6			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d
Lims ID: ic l7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Mar-2015 21:35:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006155-007
Misc. Info.: 737 ic l7
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 11:55:12 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: reaglec Date: 25-Mar-2015 10:15:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	9904360H	5.00	4.84	
2 Chloride	3.417	3.367	0.050	2475305828	100.0	102.9	
10 Nitrite as N	3.792	3.783	0.009	243914257	5.00	4.98	
4 Bromide	4.542	4.533	0.009	9177662H	20.0	22.1	
8 Nitrate as N	5.067	5.083	-0.016	212274261	5.00	5.40	
9 Orthophosphate as P	6.342	6.342	0.000	3075359H	5.00	5.31	
3 Sulfate	7.575	7.617	-0.042	64997957H	100.0	103.3	

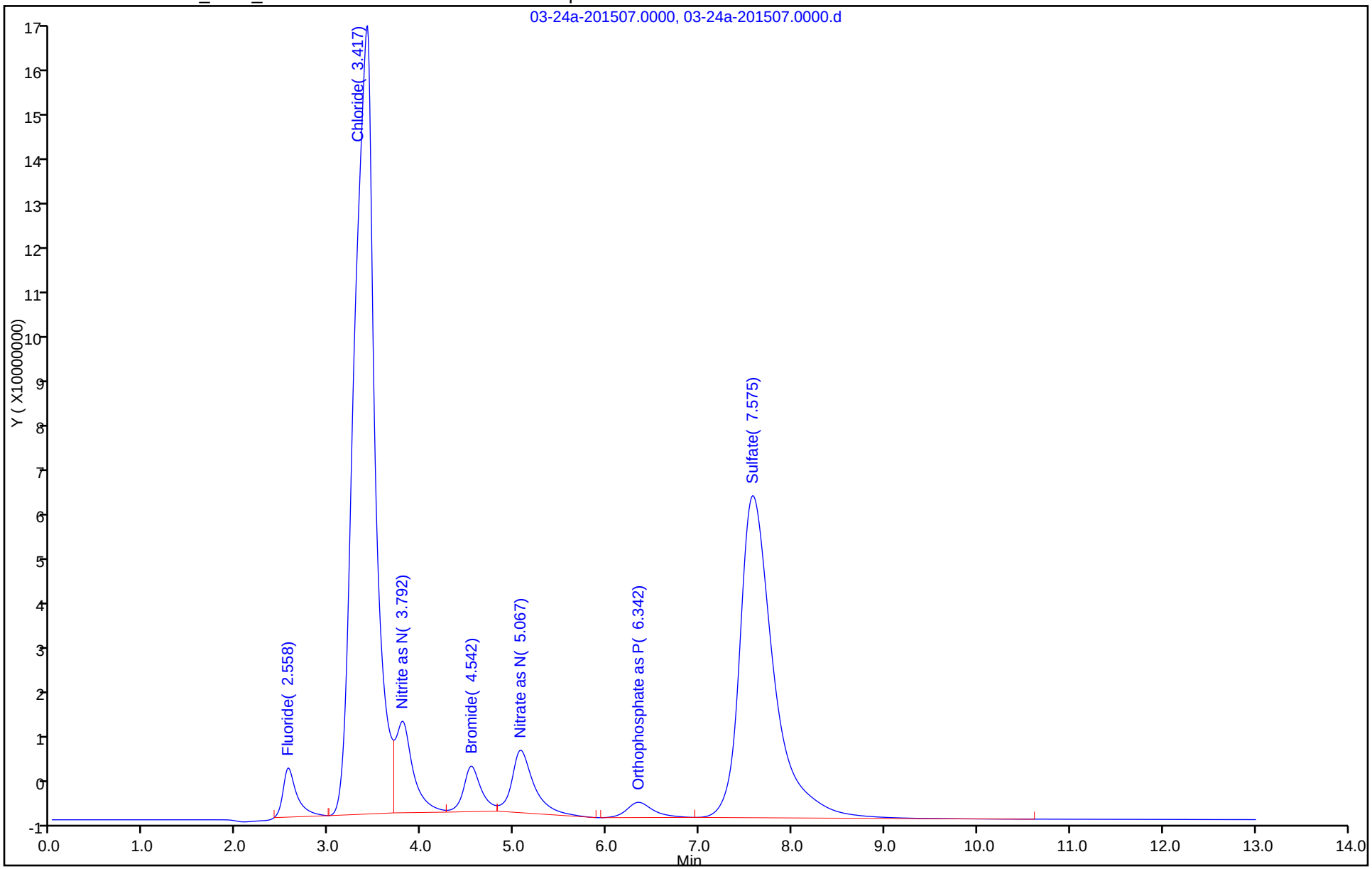
Reagents:

ICSTDL7_00136 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 11:55:12 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d				
Injection Date:	24-Mar-2015 21:35:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ic l7			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 136512

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 10:19 Calibration End Date: 03/25/2015 12:20 Calibration ID: 22781

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136512/2	B-ICS2100 B 3-25-2015-2.d
Level 2	IC 180-136512/3	B-ICS2100 B 3-25-2015-3.d
Level 3	ICRT 180-136512/4	B-ICS2100 B 3-25-2015-4.d
Level 4	IC 180-136512/5	B-ICS2100 B 3-25-2015-5.d
Level 5	IC 180-136512/6	B-ICS2100 B 3-25-2015-6.d
Level 6	IC 180-136512/7	B-ICS2100 B 3-25-2015-7.d
Level 7	IC 180-136512/8	B-ICS2100 B 3-25-2015-8.d
Level 8	IC 180-136512/9	B-ICS2100 B 3-25-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.642	3.650	3.658	3.650	3.650	3.650	3.658	3.658			3.300 - 4.000	3.652
Chloride	4.967	4.950	4.950	4.950	4.942	4.933	4.925	4.925			4.592 - 5.292	4.943
Nitrite as N	5.833	5.842	5.842	5.842	5.842	5.833	5.825	5.825			5.583 - 6.083	5.836
Sulfate	6.925	6.892	6.892	6.858	6.808	6.742	6.683	6.633			6.458 - 7.158	6.804
Bromide	7.858	7.875	7.875	7.858	7.842	7.808	7.783	7.767			7.492 - 8.192	7.833
Nitrate as N	9.175	9.192	9.167	9.142	9.092	9.042	8.992	8.950			8.850 - 9.350	9.094
Orthophosphate as P	+++++	+++++	12.908	12.842	12.708	12.558	12.433	12.342			12.217 - 13.217	12.632

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1 Analy Batch No.: 136512

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 10:19 Calibration End Date: 03/25/2015 12:20 Calibration ID: 22781

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136512/2	B-ICS2100 B 3-25-2015-2.d
Level 2	IC 180-136512/3	B-ICS2100 B 3-25-2015-3.d
Level 3	ICRT 180-136512/4	B-ICS2100 B 3-25-2015-4.d
Level 4	IC 180-136512/5	B-ICS2100 B 3-25-2015-5.d
Level 5	IC 180-136512/6	B-ICS2100 B 3-25-2015-6.d
Level 6	IC 180-136512/7	B-ICS2100 B 3-25-2015-7.d
Level 7	IC 180-136512/8	B-ICS2100 B 3-25-2015-8.d
Level 8	IC 180-136512/9	B-ICS2100 B 3-25-2015-9.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	22137820 42074291	28360828 40298034	34156814 39857191	38727787 39665939	Lin2	-909768.91	38825075.6							0.9920		0.9900
Chloride	22009351 26162350	24891197 25266873	24687922 25377164	25319324 25740636	Lin2	-3576768.6	25554060.8							1.0000		0.9900
Nitrite as N	57413260 55649112	50248492 50839670	52797248 48860770	55195332 47277626	Lin2	303485.694	51229311.5							0.9960		0.9900
Sulfate	19370974 19208446	19147382 18260256	18306847 18410710	18597020 18517116	Lin2	839556.006	18581296.1							1.0000		0.9900
Bromide	519035 869807	597649 821459	713267 810304	823203 799425	Lin2	-61583.039	797832.978							0.9920		0.9900
Nitrate as N	28516240 63255734	45163472 62133785	52229880 63090649	58007012 64276638	Lin2	-1705489.2	60517857.7							0.9940		0.9900
Orthophosphate as P	+++++ 21737117	+++++ 22055262	14293070 22979373	17979167 23503010	Lin2	-4753472.8	23461440.7							0.9990		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.: 180-42445-1 Analy Batch No.: 136512

SDG No.:

Instrument ID: CHICS2100B GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 10:19 Calibration End Date: 03/25/2015 12:20 Calibration ID: 22781

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136512/2	B-ICS2100 B 3-25-2015-2.d
Level 2	IC 180-136512/3	B-ICS2100 B 3-25-2015-3.d
Level 3	ICRT 180-136512/4	B-ICS2100 B 3-25-2015-4.d
Level 4	IC 180-136512/5	B-ICS2100 B 3-25-2015-5.d
Level 5	IC 180-136512/6	B-ICS2100 B 3-25-2015-6.d
Level 6	IC 180-136512/7	B-ICS2100 B 3-25-2015-7.d
Level 7	IC 180-136512/8	B-ICS2100 B 3-25-2015-8.d
Level 8	IC 180-136512/9	B-ICS2100 B 3-25-2015-9.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	1106891 201490171	7090207 298928931	17078407 396659390	38727787	105185727	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	22009351 2526687262	124455986 3806574646	246879220 5148127103	506386477	1308117505	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	2870663 254198348	12562123 366455775	26398624 472776262	55195332	139122781	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Sulfate	Lin2	19370974 1826025604	95736911 2761606535	183068467 3703423248	371940398	960422294	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	103807 16429185	597649 24309109	1426533 31976999	3292811	8698074	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	1425812 310668927	11290868 473179868	26114940 642766382	58007012	158139336	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	+++++ 110276309	+++++ 172345298	7146535 235030101	17979167	54342792	+++++ 5.00	+++++ 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:
Lin2 = Linear 1/conc^2 by height

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Mar-2015 10:19:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-002
Misc. Info.: 7 ic l2
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:21 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

First Level Reviewer: reaglec Date: 25-Mar-2015 13:16:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.650	-0.008	1106891	0.0500	0.0519	
2 Chloride	4.967	4.942	0.025	22009351	1.00	1.00	
7 Nitrite as N	5.833	5.833	0.000	2870663	0.0500	0.0501	
3 Sulfate	6.925	6.808	0.117	19370974	1.00	1.00	
4 Bromide	7.858	7.842	0.016	103807H	0.2000	0.2073	
5 Nitrate as N	9.175	9.100	0.075	1425812	0.0500	0.0517	
6 Orthophosphate as P	12.883	12.717	0.166	504406	0.0500	0.2241	

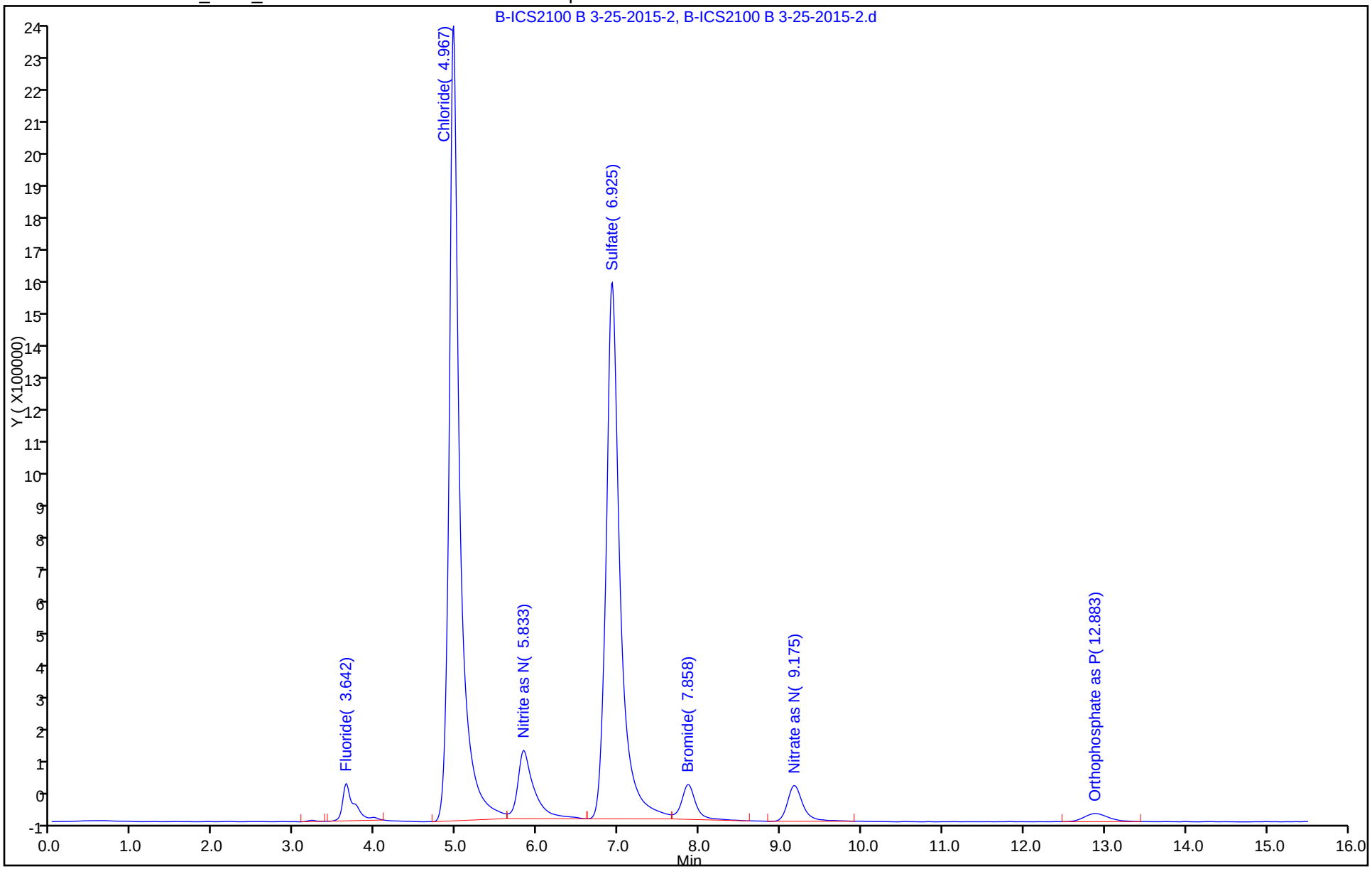
Reagents:

ICSTDL2_00162 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:21 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-2.d				
Injection Date:	25-Mar-2015 10:19:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-3.d				
Lims ID:	ic L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	25-Mar-2015 10:36:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0006174-003				
Misc. Info.:	8 ic l3				
Operator ID:		Instrument ID:	CHICS2100B		
Sublist:	chrom-300_9056_CHIC2100B*sub1				
Method:	\\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-Mar-2015 14:49:21	Calib Date:	25-Mar-2015 12:20:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK028				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.650	0.000	7090207	0.2500	0.2061	
2 Chloride	4.950	4.942	0.008	124455986	5.00	5.01	
7 Nitrite as N	5.842	5.833	0.009	12562123	0.2500	0.2393	
3 Sulfate	6.892	6.808	0.084	95736911	5.00	5.11	
4 Bromide	7.875	7.842	0.033	597649H	1.00	0.8263	
5 Nitrate as N	9.192	9.100	0.092	11290868	0.2500	0.2148	
6 Orthophosphate as P	12.875	12.717	0.158	2985305	0.2500	0.3299	

Reagents:

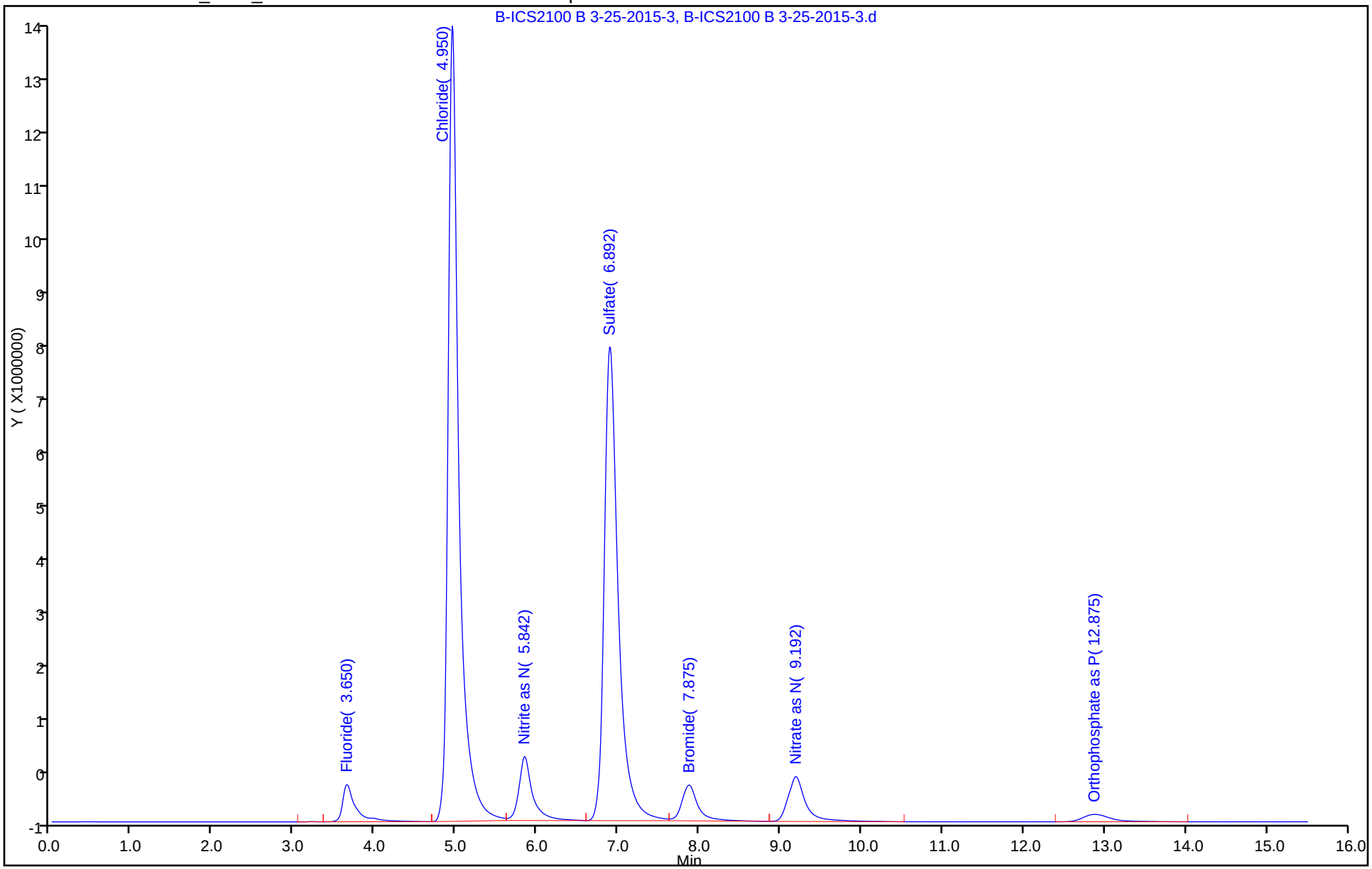
ICSTDL3_00202 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:22 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-3.d

Injection Date:	25-Mar-2015 10:36:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



Report Date: 25-Mar-2015 14:49:22 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 25-Mar-2015 10:54:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-004
Misc. Info.: 9 icrt l4
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:22 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

First Level Reviewer: reaglec Date: 25-Mar-2015 13:17:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	17078407	0.5000	0.4633	
2 Chloride	4.950	4.950	0.000	246879220	10.0	9.80	
7 Nitrite as N	5.842	5.842	0.000	26398624	0.5000	0.5094	
3 Sulfate	6.892	6.892	0.000	183068467	10.0	9.81	
4 Bromide	7.875	7.875	0.000	1426533H	2.00	1.87	
5 Nitrate as N	9.167	9.167	0.000	26114940	0.5000	0.4597	
6 Orthophosphate as P	12.908	12.908	0.000	7146535	0.5000	0.5072	

Reagents:

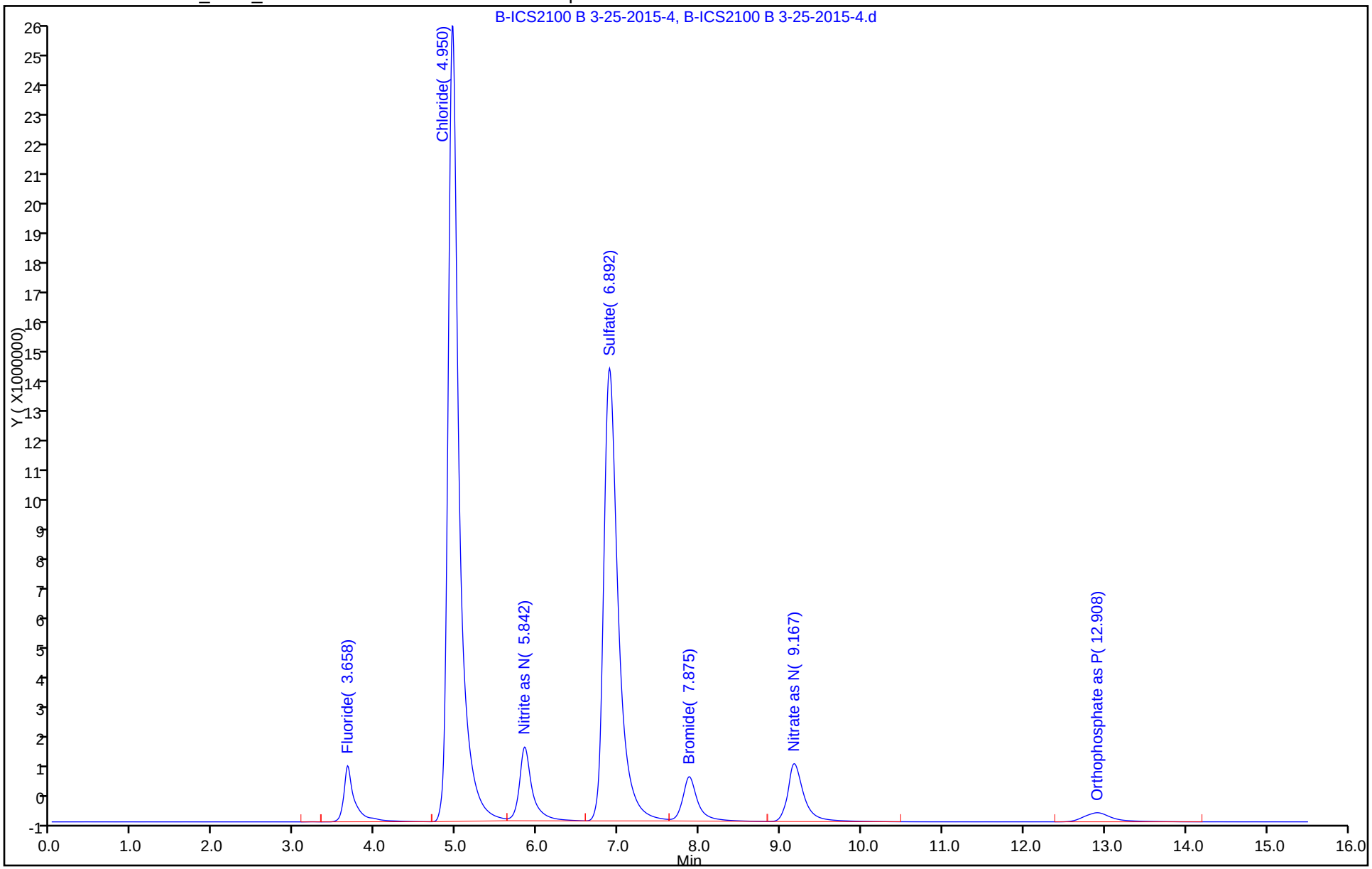
ICSTDL4_00137 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:22 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-4.d

Injection Date:	25-Mar-2015 10:54:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 25-Mar-2015 11:11:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-005
Misc. Info.: 10 ic l5
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:22 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	38727787	1.00	1.02	
2 Chloride	4.950	4.950	0.000	506386477	20.0	20.0	
7 Nitrite as N	5.842	5.842	0.000	55195332	1.00	1.07	
3 Sulfate	6.858	6.892	-0.034	371940398	20.0	20.0	
4 Bromide	7.858	7.875	-0.017	3292811	4.00	4.20	H
5 Nitrate as N	9.142	9.167	-0.025	58007012	1.00	0.9867	
6 Orthophosphate as P	12.842	12.908	-0.066	17979167	1.00	0.9689	

Reagents:

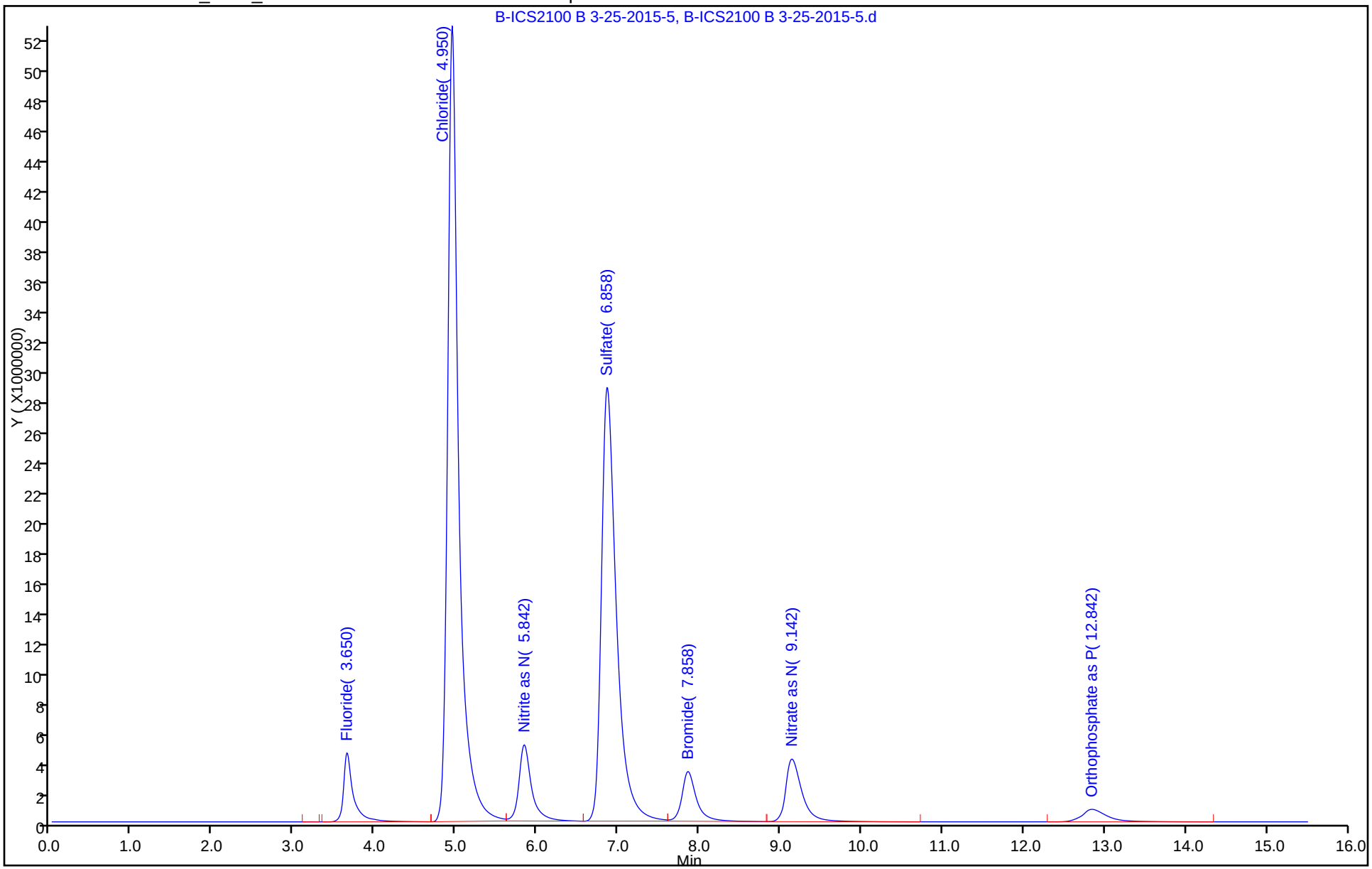
ICSTDL5_00138 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:22 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-5.d

Injection Date:	25-Mar-2015 11:11:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Mar-2015 11:28:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-006
Misc. Info.: 11 ic l6
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:23 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	105185727	2.50	2.73	
2 Chloride	4.942	4.950	-0.008	1308117505	50.0	51.3	
7 Nitrite as N	5.842	5.842	0.000	139122781	2.50	2.71	
3 Sulfate	6.808	6.892	-0.084	960422294	50.0	51.6	
4 Bromide	7.842	7.875	-0.033	8698074	10.0	11.0	H
5 Nitrate as N	9.092	9.167	-0.075	158139336	2.50	2.64	
6 Orthophosphate as P	12.708	12.908	-0.200	54342792	2.50	2.52	

Reagents:

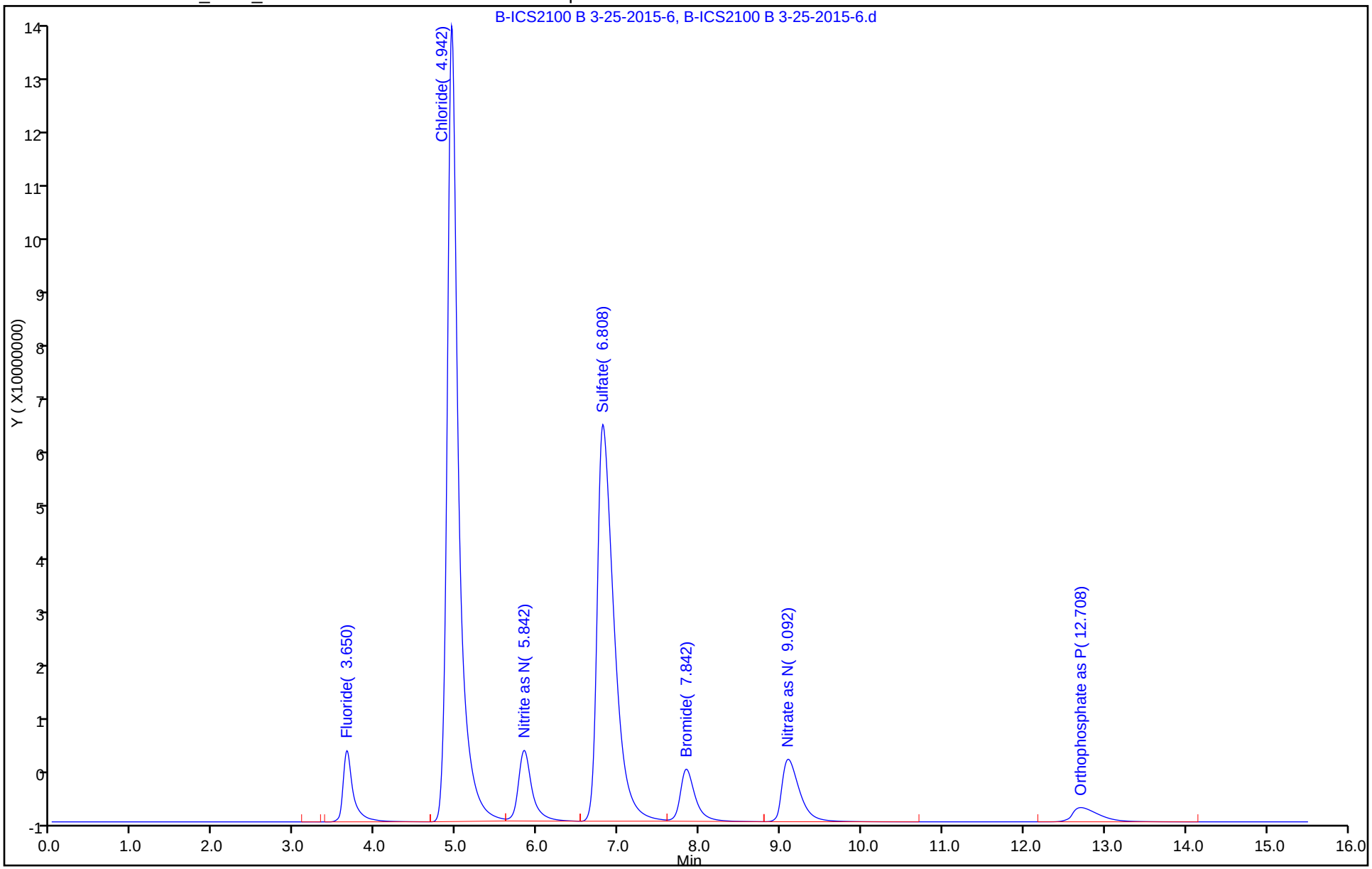
ICSTDL6_00208 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-6.d

Injection Date:	25-Mar-2015 11:28:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 25-Mar-2015 11:46:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-007
Misc. Info.: 12 ic l7
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:23 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	201490171	5.00	5.21	
2 Chloride	4.933	4.950	-0.017	2526687262	100.0	99.0	
7 Nitrite as N	5.833	5.842	-0.009	254198348	5.00	4.96	
3 Sulfate	6.742	6.892	-0.150	1826025604	100.0	98.2	
4 Bromide	7.808	7.875	-0.067	16429185H	20.0	20.7	
5 Nitrate as N	9.042	9.167	-0.125	310668927	5.00	5.16	
6 Orthophosphate as P	12.558	12.908	-0.350	110276309	5.00	4.90	

Reagents:

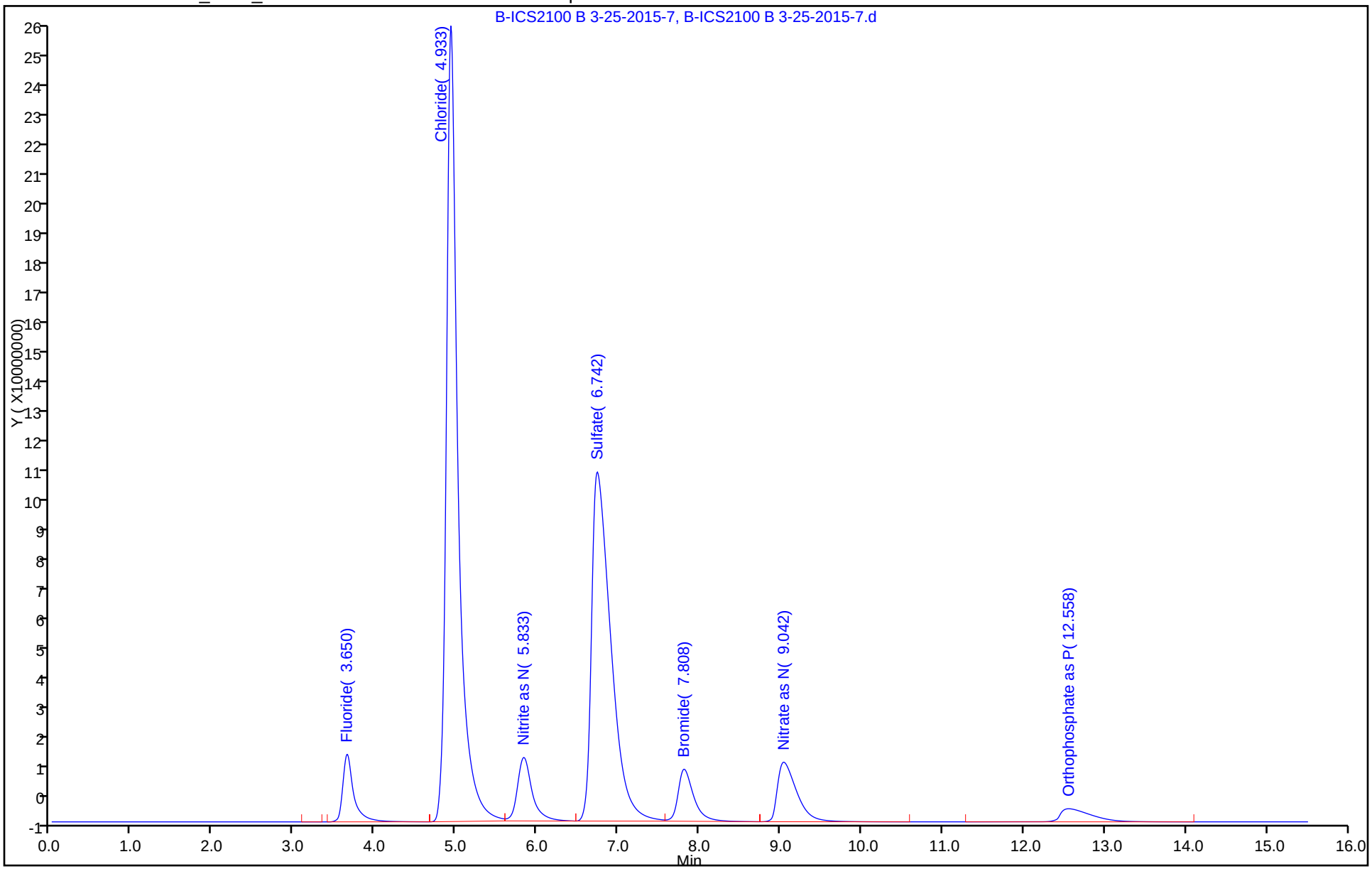
ICSTDL7_00137 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-7.d

Injection Date:	25-Mar-2015 11:46:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 25-Mar-2015 12:03:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-008
Misc. Info.: 13 ic l8
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:23 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	298928931	7.50	7.72	
2 Chloride	4.925	4.950	-0.025	3806574646	150.0	149.1	
7 Nitrite as N	5.825	5.842	-0.017	366455775	7.50	7.15	
3 Sulfate	6.683	6.892	-0.209	2761606535	150.0	148.6	
4 Bromide	7.783	7.875	-0.092	24309109H	30.0	30.5	
5 Nitrate as N	8.992	9.167	-0.175	473179868	7.50	7.85	
6 Orthophosphate as P	12.433	12.908	-0.475	172345298	7.50	7.55	

Reagents:

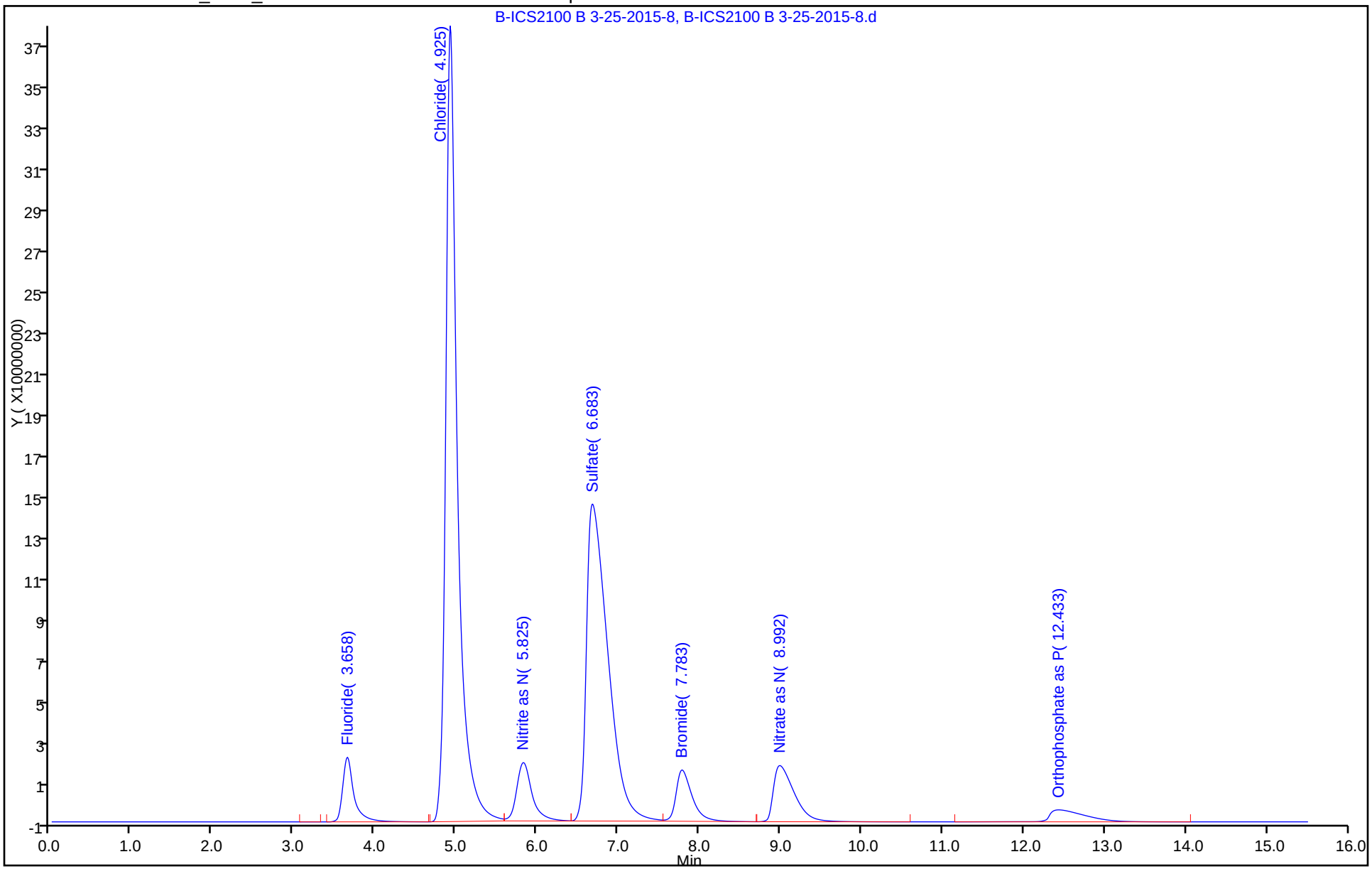
ICSTDL8_00106 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:23 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-8.d

Injection Date:	25-Mar-2015 12:03:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



Report Date: 25-Mar-2015 14:49:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 25-Mar-2015 12:20:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006174-009
Misc. Info.: 14 ic l9
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 25-Mar-2015 14:49:24 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK028

First Level Reviewer: reaglec Date: 25-Mar-2015 13:18:49

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	396659390	10.0	10.2	
2 Chloride	4.925	4.950	-0.025	5148127103	200.0	201.6	
7 Nitrite as N	5.825	5.842	-0.017	472776262	10.0	9.22	
3 Sulfate	6.633	6.892	-0.259	3703423248	200.0	199.3	
4 Bromide	7.767	7.875	-0.108	31976999	40.0	40.2	H
5 Nitrate as N	8.950	9.167	-0.217	642766382	10.0	10.6	
6 Orthophosphate as P	12.342	12.908	-0.566	235030101	10.0	10.2	

Reagents:

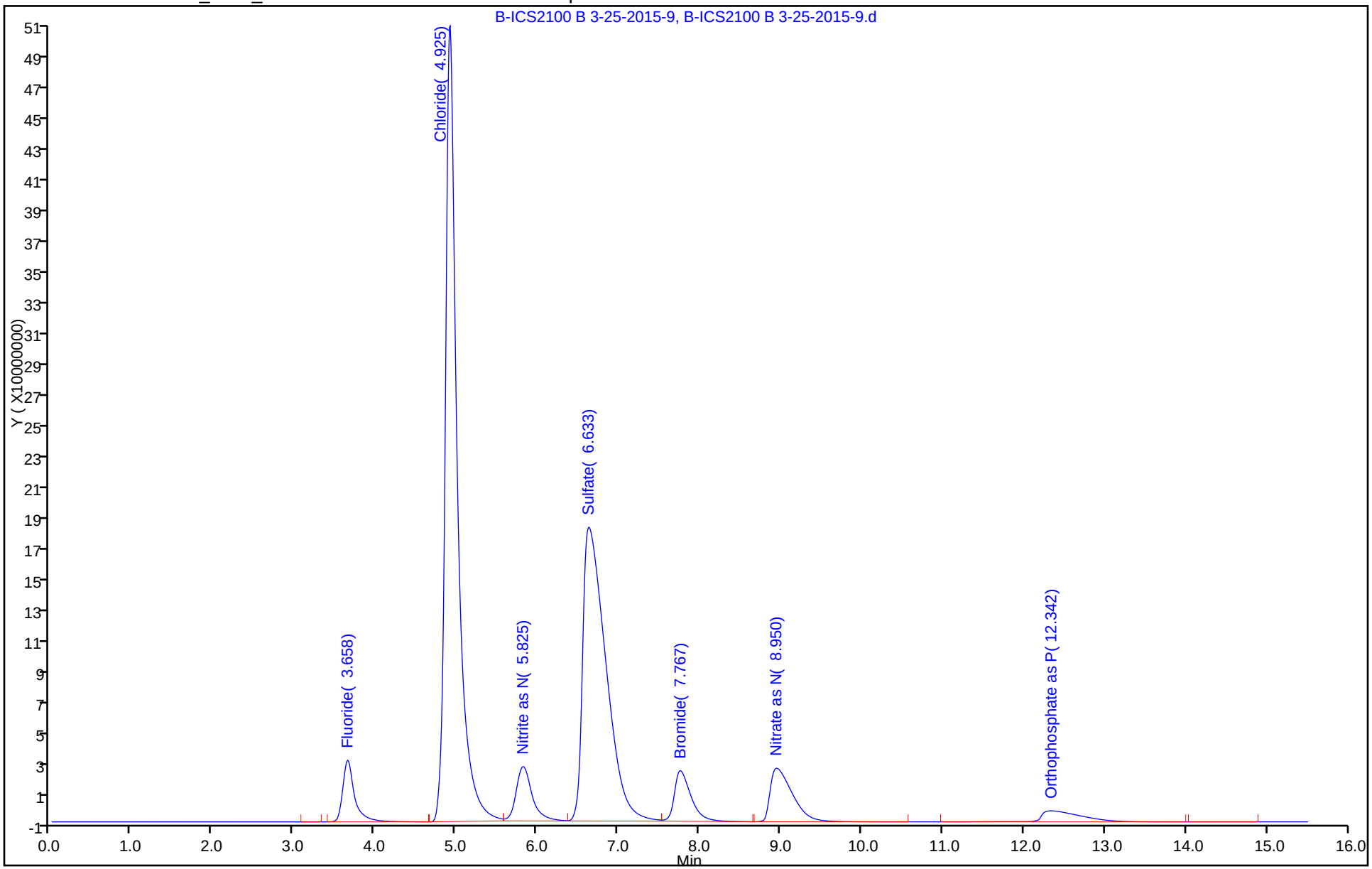
ICSTDL9_00111 Amount Added: 1.00 Units: mL

Report Date: 25-Mar-2015 14:49:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Injection Date:	25-Mar-2015 12:20:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: ICV 180-136787/2 Calibration Date: 03/27/2015 09:45

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		35704971		3.31	3.00	10.2*	10.0
Chloride	Lin2		21824649		63.1	60.0	5.2	10.0
Nitrite as N	Lin2		45676729		3.25	3.00	8.4	10.0
Sulfate	Lin2		16009417		64.4	60.0	7.3	10.0
Bromide	LinF		9647755		12.2	12.0	1.9	10.0
Nitrate as N	Lin2		53019083		3.25	3.00	8.4	10.0
Orthophosphate as P	Lin2		15458194		2.93	3.00	-2.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: ICV 180-136787/2 Calibration Date: 03/27/2015 09:45

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.01	2.68	3.38
Chloride	4.00	3.67	4.37
Nitrite as N	4.67	4.43	4.93
Sulfate	5.46	5.12	5.82
Bromide	6.19	5.86	6.56
Nitrate as N	7.13	6.90	7.40
Orthophosphate as P	10.18	9.89	10.39

Report Date: 30-Mar-2015 12:34:57 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Mar-2015 09:45:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 09:57:29 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

First Level Reviewer: hartmanm Date: 27-Mar-2015 11:02:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.025	-0.017	107114913	3.00	3.31	
2 Chloride	4.000	4.017	-0.017	1309478920	60.0	63.1	
7 Nitrite as N	4.667	4.683	-0.016	137084998	3.00	3.25	
3 Sulfate	5.458	5.467	-0.009	960564997	60.0	64.4	
4 Bromide	6.192	6.208	-0.016	115773059	12.0	12.2	
5 Nitrate as N	7.133	7.150	-0.017	159057249	3.00	3.25	
6 Orthophosphate as P	10.175	10.142	0.033	46374581	3.00	2.93	

Reagents:

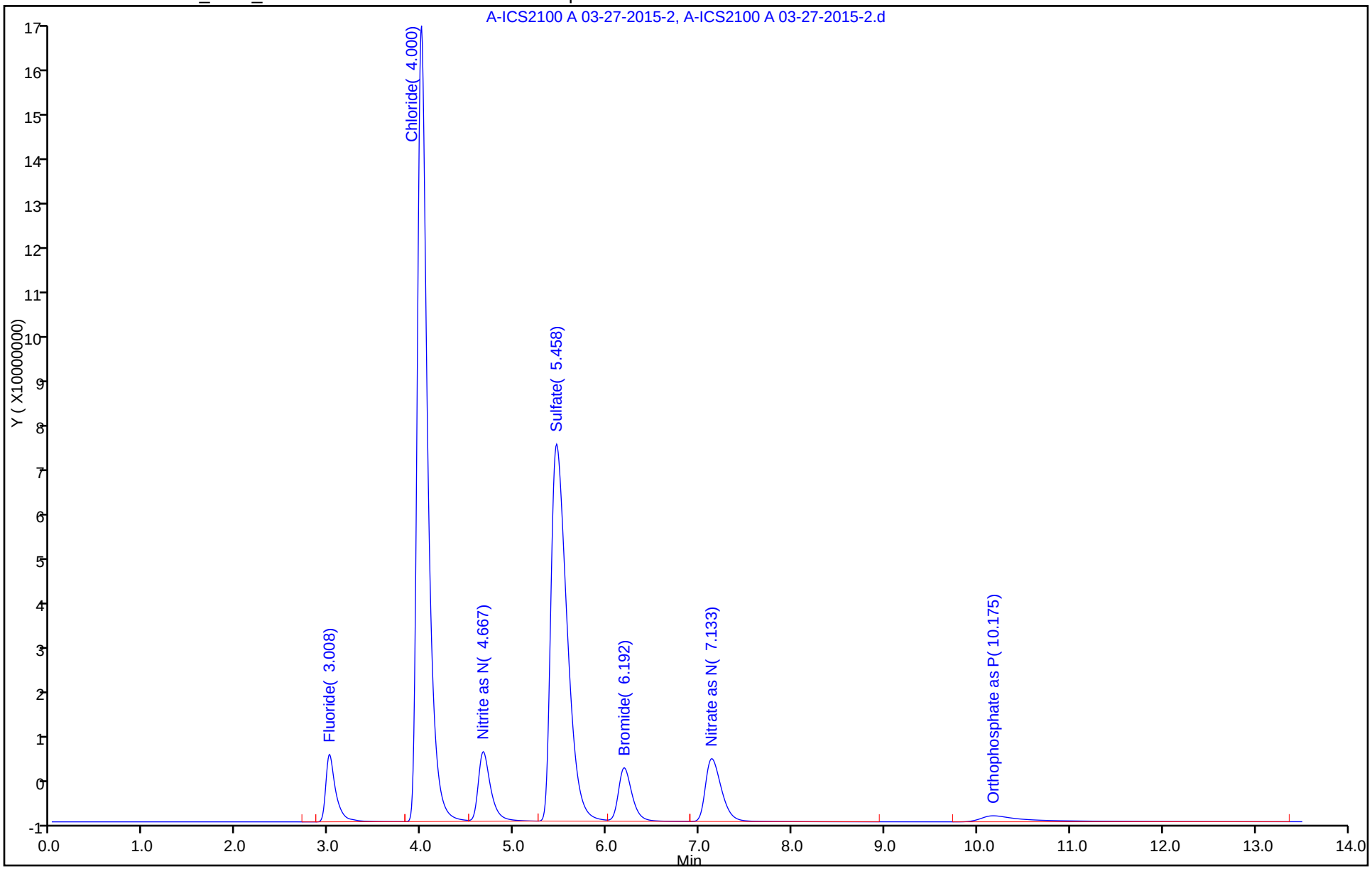
icicv_01232 Amount Added: 1.00 Units: mL

Report Date: 30-Mar-2015 12:34:57 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-2.d

Injection Date:	27-Mar-2015 09:45:00	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/3 Calibration Date: 03/27/2015 11:03

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		33977721		2.62	2.50	4.8	10.0
Chloride	Lin2		21241976		51.2	50.0	2.5	10.0
Nitrite as N	Lin2		45304208		2.68	2.50	7.3	10.0
Sulfate	Lin2		15373515		51.5	50.0	3.0	10.0
Bromide	LinF		9343832		9.87	10.0	-1.3	10.0
Nitrate as N	Lin2		52375973		2.68	2.50	7.3	10.0
Orthophosphate as P	Lin2		14972573		2.42	2.50	-3.2	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/3 Calibration Date: 03/27/2015 11:03

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	4.02	3.67	4.37
Nitrite as N	4.69	4.44	4.94
Sulfate	5.48	5.13	5.83
Bromide	6.22	5.87	6.57
Nitrate as N	7.17	6.92	7.42
Orthophosphate as P	10.14	9.89	10.39

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 11:03:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:34:57 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.025	0.000	84944303	2.50	2.62	
2 Chloride	4.017	4.017	0.000	1062098799	50.0	51.2	
7 Nitrite as N	4.692	4.692	0.000	113260520	2.50	2.68	
3 Sulfate	5.483	5.483	0.000	768675744	50.0	51.5	
4 Bromide	6.217	6.217	0.000	93438322	10.0	9.87	
5 Nitrate as N	7.167	7.167	0.000	130939933	2.50	2.68	
6 Orthophosphate as P	10.142	10.142	0.000	37431432	2.50	2.42	

Reagents:

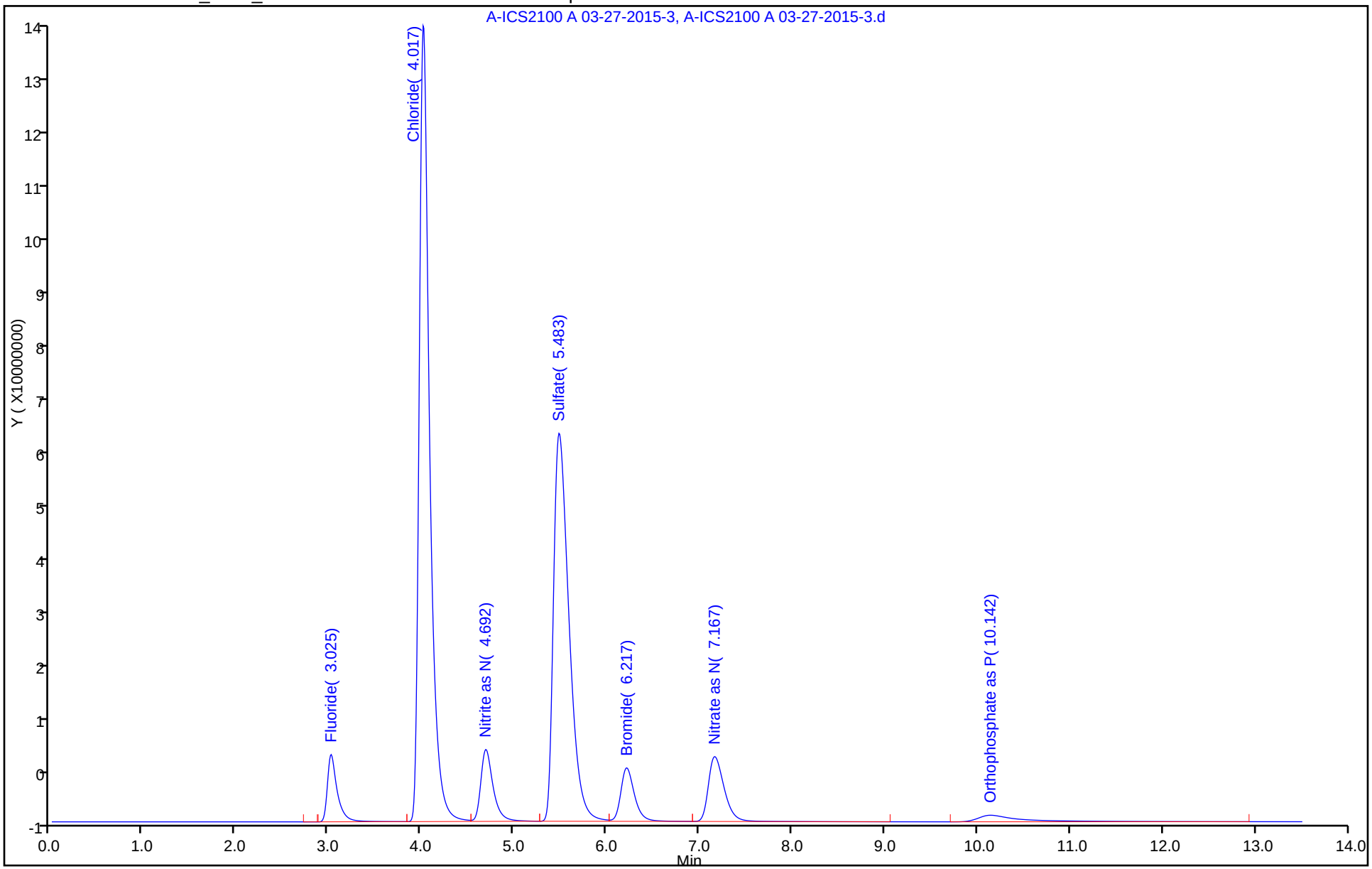
icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 30-Mar-2015 12:34:57 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-3.d

Injection Date:	27-Mar-2015 11:03:00	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/15 Calibration Date: 03/27/2015 14:15

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		34894283		2.69	2.50	7.7	10.0
Chloride	Lin2		21727236		52.4	50.0	4.8	10.0
Nitrite as N	Lin2		46071617		2.73	2.50	9.2	10.0
Sulfate	Lin2		15848751		53.1	50.0	6.2	10.0
Bromide	LinF		9534971		10.1	10.0	0.7	10.0
Nitrate as N	Lin2		53486078		2.74	2.50	9.6	10.0
Orthophosphate as P	Lin2		13511145		2.21	2.50	-11.4*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/15 Calibration Date: 03/27/2015 14:15

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.01	2.66	3.36
Chloride	4.00	3.65	4.35
Nitrite as N	4.68	4.43	4.93
Sulfate	5.47	5.12	5.82
Bromide	6.19	5.84	6.54
Nitrate as N	7.14	6.89	7.39
Orthophosphate as P	10.26	10.01	10.51

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 14:15:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:03 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.008	0.000	87235707	2.50	2.69	
2 Chloride	4.000	4.000	0.000	1086361803	50.0	52.4	
7 Nitrite as N	4.675	4.675	0.000	115179043	2.50	2.73	
3 Sulfate	5.467	5.467	0.000	792437544	50.0	53.1	
4 Bromide	6.192	6.192	0.000	95349709	10.0	10.1	
5 Nitrate as N	7.142	7.142	0.000	133715195	2.50	2.74	
6 Orthophosphate as P	10.258	10.258	0.000	33777863	2.50	2.21	

Reagents:

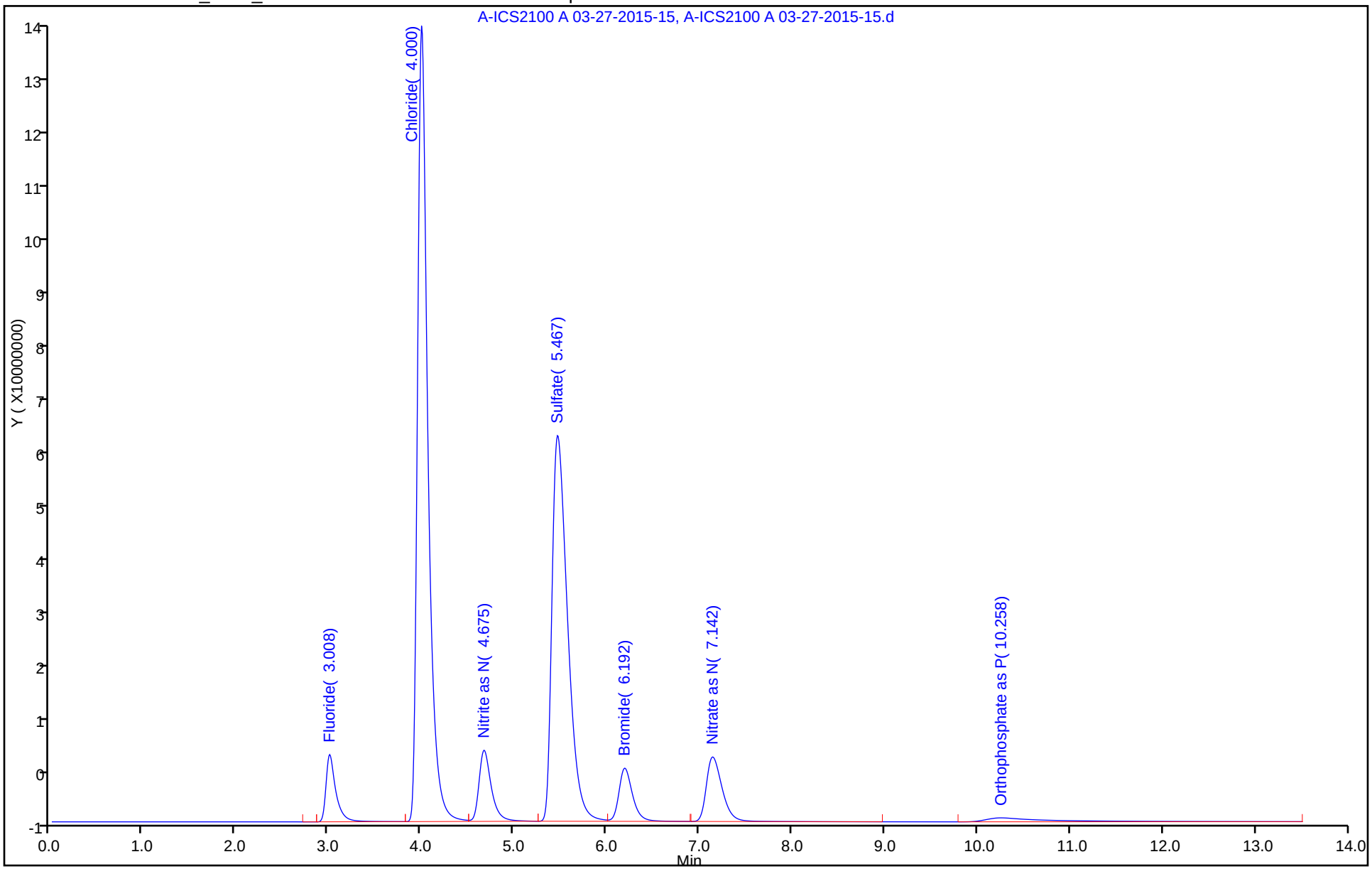
icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 30-Mar-2015 12:35:04 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-15.d

Injection Date:	27-Mar-2015 14:15:00	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.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/27 Calibration Date: 03/27/2015 17:35

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		33304152		2.57	2.50	2.8	10.0
Chloride	Lin2		20909778		50.5	50.0	0.9	10.0
Nitrite as N	Lin2		44267113		2.62	2.50	4.8	10.0
Sulfate	Lin2		15036010		50.4	50.0	0.7	10.0
Bromide	LinF		9135893		9.65	10.0	-3.5	10.0
Nitrate as N	Lin2		51282832		2.63	2.50	5.1	10.0
Orthophosphate as P	Lin2		12727648		2.10	2.50	-15.8*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/27 Calibration Date: 03/27/2015 17:35

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.01	2.66	3.36
Chloride	4.00	3.65	4.35
Nitrite as N	4.68	4.43	4.93
Sulfate	5.48	5.13	5.83
Bromide	6.20	5.85	6.55
Nitrate as N	7.15	6.90	7.40
Orthophosphate as P	10.23	9.98	10.48

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 17:35:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:09 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.008	0.000	83260380	2.50	2.57	
2 Chloride	4.000	4.000	0.000	1045488920	50.0	50.5	
7 Nitrite as N	4.675	4.675	0.000	110667782	2.50	2.62	
3 Sulfate	5.483	5.483	0.000	751800500	50.0	50.4	
4 Bromide	6.200	6.200	0.000	91358930	10.0	9.65	
5 Nitrate as N	7.150	7.150	0.000	128207081	2.50	2.63	
6 Orthophosphate as P	10.233	10.233	0.000	31819120	2.50	2.10	

Reagents:

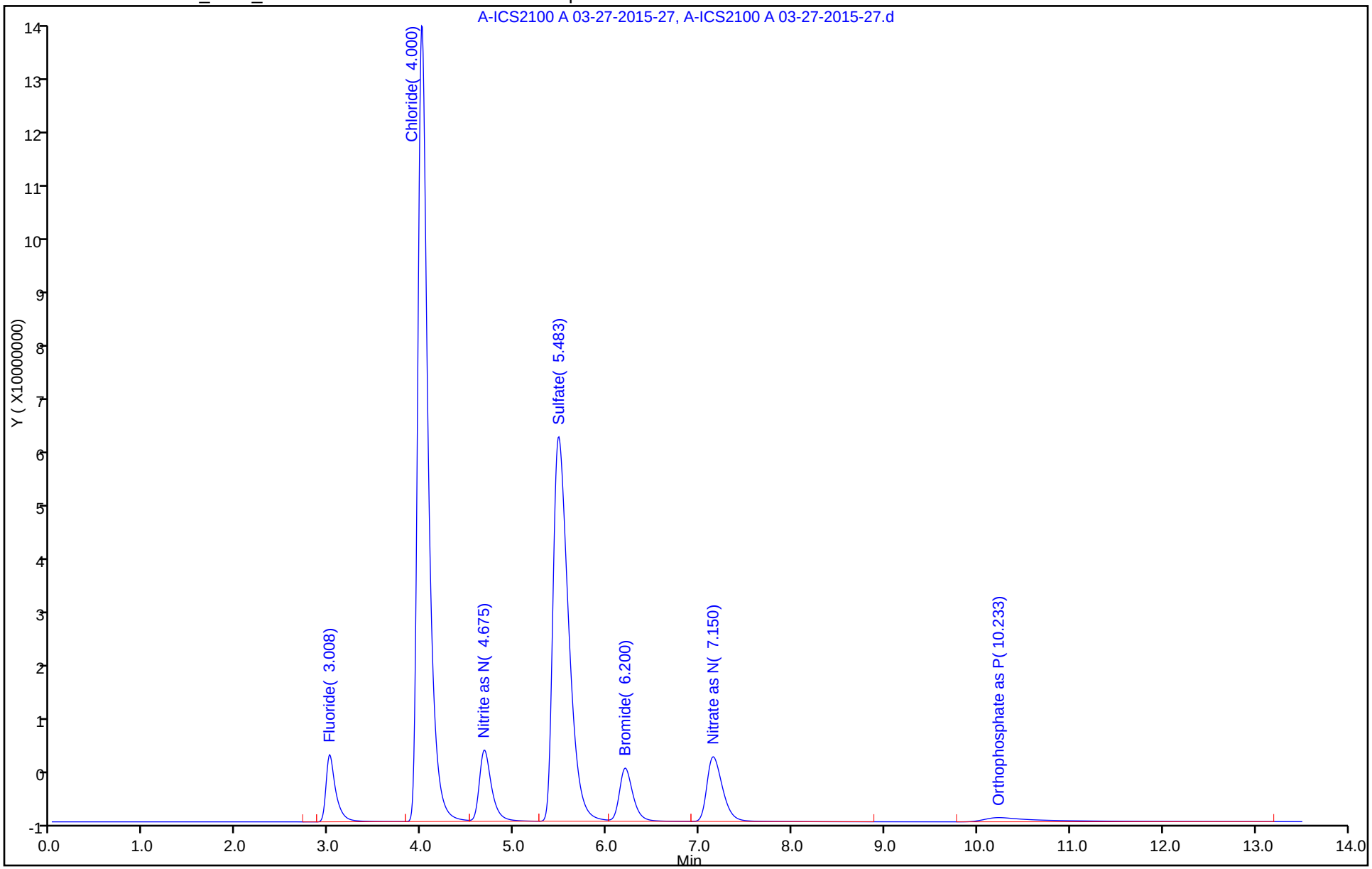
icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 30-Mar-2015 12:35:09 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-27.d

Injection Date:	27-Mar-2015 17:35:00	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 VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/36 Calibration Date: 03/27/2015 20:11

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-36.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	LinF		33114658		2.55	2.50	2.2	10.0
Chloride	Lin2		20822043		50.2	50.0	0.5	10.0
Nitrite as N	Lin2		44301002		2.62	2.50	4.9	10.0
Sulfate	Lin2		14964293		50.1	50.0	0.2	10.0
Bromide	LinF		9092278		9.60	10.0	-4.0	10.0
Nitrate as N	Lin2		51180970		2.62	2.50	4.9	10.0
Orthophosphate as P	Lin2		12678629		2.10	2.50	-16.1*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136787/36 Calibration Date: 03/27/2015 20:11

Instrument ID: CHIC2100A Calib Start Date: 03/18/2015 11:27

GC Column: AS-18 ID: Calib End Date: 03/18/2015 13:15

Lab File ID: A-ICS2100 A 03-27-2015-36.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.03	2.68	3.38
Chloride	4.02	3.67	4.37
Nitrite as N	4.68	4.43	4.93
Sulfate	5.47	5.12	5.82
Bromide	6.21	5.86	6.56
Nitrate as N	7.15	6.90	7.40
Orthophosphate as P	10.14	9.89	10.39

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-36.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 20:11:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-036
Misc. Info.: 39 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:12 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.025	0.000	82786644	2.50	2.55	
2 Chloride	4.017	4.017	0.000	1041102153	50.0	50.2	
7 Nitrite as N	4.683	4.683	0.000	110752506	2.50	2.62	
3 Sulfate	5.467	5.467	0.000	748214637	50.0	50.1	
4 Bromide	6.208	6.208	0.000	90922782	10.0	9.60	
5 Nitrate as N	7.150	7.150	0.000	127952426	2.50	2.62	
6 Orthophosphate as P	10.142	10.142	0.000	31696573	2.50	2.10	

Reagents:

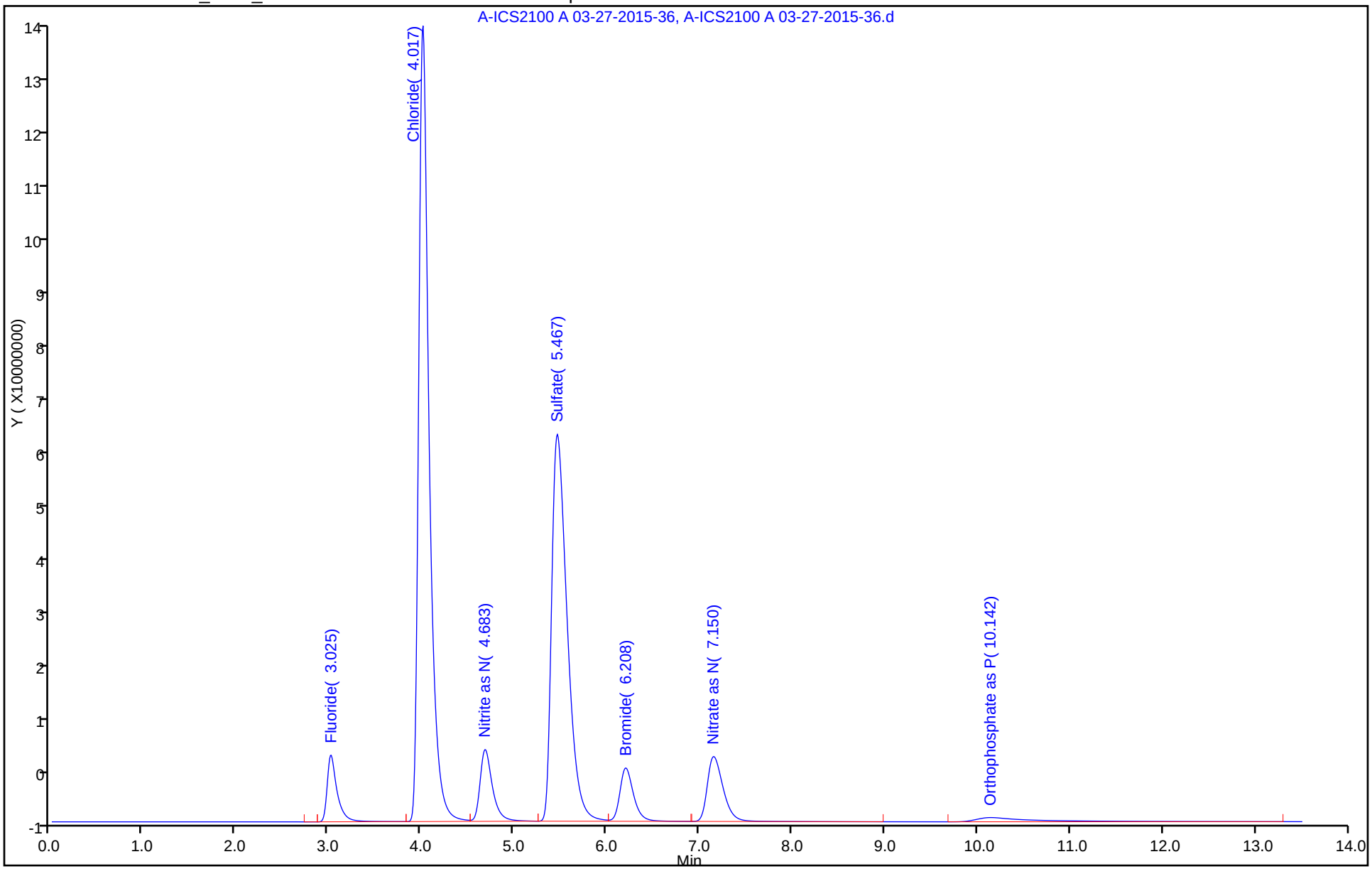
icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 30-Mar-2015 12:35:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-36.d

Injection Date:	27-Mar-2015 20:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	36
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.: 180-42445-1

SDG No.:

Lab Sample ID: ICV 180-136809/2 Calibration Date: 03/27/2015 12:08

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201502.0000.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		2103729		3.09	3.00	3.0	10.0
Chloride	LinF		23483680		58.5	60.0	-2.4	10.0
Nitrite as N	Lin		48973156		2.98	3.00	-0.7	10.0
Bromide	Lin2		468931		13.5	12.0	12.9*	10.0
Nitrate as N	Lin2		40276269		3.07	3.00	2.3	10.0
Orthophosphate as P	Lin2		595513		3.11	3.00	3.5	10.0
Sulfate	LinF		642569		61.3	60.0	2.2	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: ICV 180-136809/2 Calibration Date: 03/27/2015 12:08

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201502.0000.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.57	2.21	2.91
Chloride	3.43	3.01	3.71
Nitrite as N	3.81	3.68	3.88
Bromide	4.54	4.17	4.87
Nitrate as N	5.08	4.96	5.16
Orthophosphate as P	6.33	6.22	6.42
Sulfate	7.59	7.23	7.93

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201502.0000.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 27-Mar-2015 12:08:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHIC25
Sublist:

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 12:32:51 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK010

First Level Reviewer: reaglec Date: 27-Mar-2015 13:45:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.567	2.558	0.009	6311188H	3.00	3.09	
2 Chloride	3.425	3.358	0.067	1409020777	60.0	58.5	
10 Nitrite as N	3.808	3.775	0.033	146978235	3.00	2.98	
4 Bromide	4.542	4.517	0.025	5627177H	12.0	13.5	
8 Nitrate as N	5.075	5.058	0.017	120828808	3.00	3.07	
9 Orthophosphate as P	6.333	6.317	0.016	1786539H	3.00	3.11	
3 Sulfate	7.592	7.583	0.009	38554146H	60.0	61.3	

Reagents:

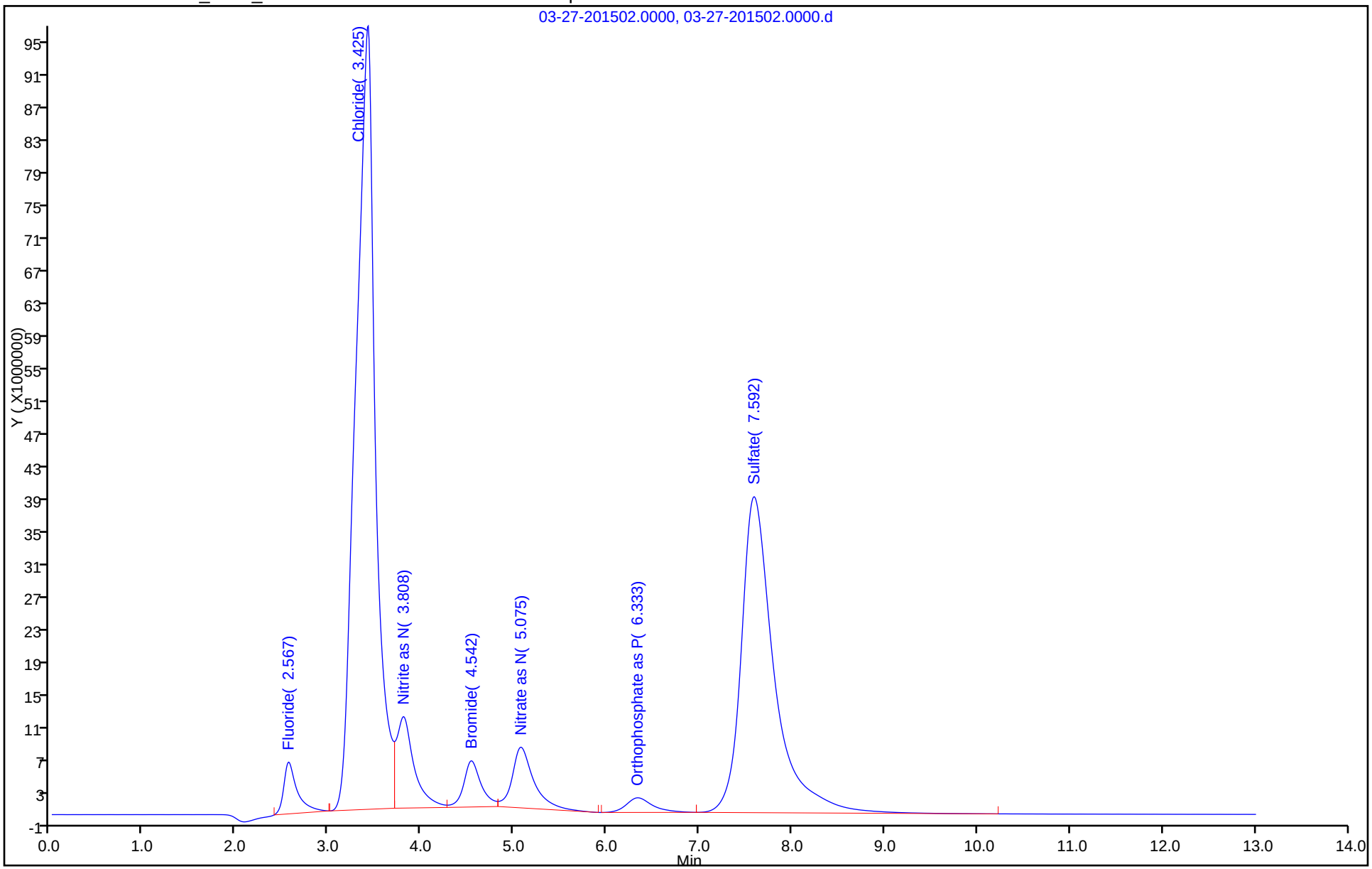
icicv_01231 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 14:34:25 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201502.0000.d

Injection Date:	27-Mar-2015 12:08:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136809/8 Calibration Date: 03/27/2015 14:31

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201508.0000.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		1648374		2.02	2.50	-19.1*	10.0
Chloride	LinF		22715696		47.2	50.0	-5.6	10.0
Nitrite as N	Lin		50223898		2.54	2.50	1.6	10.0
Bromide	Lin2		447777		10.8	10.0	7.8	10.0
Nitrate as N	Lin2		40079513		2.54	2.50	1.8	10.0
Orthophosphate as P	Lin2		556859		2.43	2.50	-2.8	10.0
Sulfate	LinF		597887		47.5	50.0	-4.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136809/8 Calibration Date: 03/27/2015 14:31

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201508.0000.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.57	2.22	2.92
Chloride	3.37	3.02	3.72
Nitrite as N	3.78	3.68	3.88
Bromide	4.53	4.18	4.88
Nitrate as N	5.07	4.97	5.17
Orthophosphate as P	6.34	6.24	6.44
Sulfate	7.61	7.26	7.96

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201508.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 14:31:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-008
Misc. Info.: 8 CCV
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:34 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.567	2.567	0.000	4120936H	2.50	2.02	
2 Chloride	3.367	3.367	0.000	1135784794	50.0	47.2	
10 Nitrite as N	3.783	3.783	0.000	125559746	2.50	2.54	
4 Bromide	4.525	4.525	0.000	4477770H	10.0	10.8	
8 Nitrate as N	5.067	5.067	0.000	100198783	2.50	2.54	
9 Orthophosphate as P	6.342	6.342	0.000	1392147H	2.50	2.43	
3 Sulfate	7.608	7.608	0.000	29894344H	50.0	47.5	

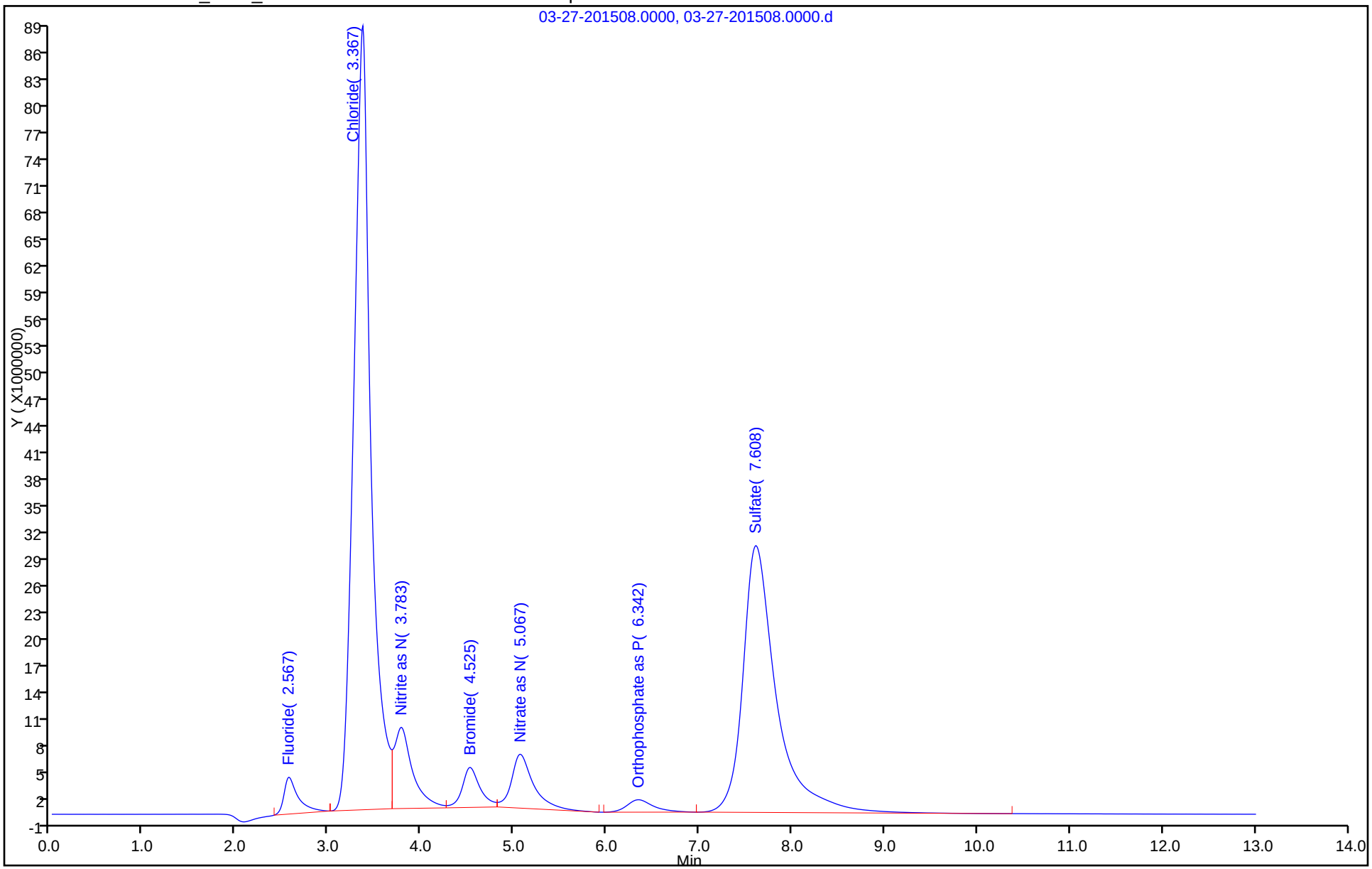
Reagents:

icccv_01201 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:27:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201508.0000.d				
Injection Date:	27-Mar-2015 14:31:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136809/20 Calibration Date: 03/27/2015 18:55

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201520.0000.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		1988960		2.44	2.50	-2.6	10.0
Chloride	LinF		22289213		46.3	50.0	-7.4	10.0
Nitrite as N	Lin		48028925		2.43	2.50	-2.9	10.0
Bromide	Lin2		440733		10.6	10.0	6.1	10.0
Nitrate as N	Lin2		39374033		2.50	2.50	-0.0	10.0
Orthophosphate as P	Lin2		573403		2.50	2.50	0.0	10.0
Sulfate	LinF		592875		47.1	50.0	-5.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136809/20 Calibration Date: 03/27/2015 18:55

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201520.0000.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.57	2.22	2.92
Chloride	3.37	3.02	3.72
Nitrite as N	3.78	3.68	3.88
Bromide	4.53	4.18	4.88
Nitrate as N	5.08	4.98	5.18
Orthophosphate as P	6.33	6.23	6.43
Sulfate	7.59	7.24	7.94

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201520.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 18:55:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-020
Misc. Info.: 20 CCV
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:37 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.567	2.567	0.000	4972401H	2.50	2.44	
2 Chloride	3.367	3.367	0.000	1114460659	50.0	46.3	
10 Nitrite as N	3.783	3.783	0.000	120072313	2.50	2.43	
4 Bromide	4.525	4.525	0.000	4407329H	10.0	10.6	
8 Nitrate as N	5.075	5.075	0.000	98435082	2.50	2.50	
9 Orthophosphate as P	6.325	6.325	0.000	1433508H	2.50	2.50	
3 Sulfate	7.592	7.592	0.000	29643730H	50.0	47.1	

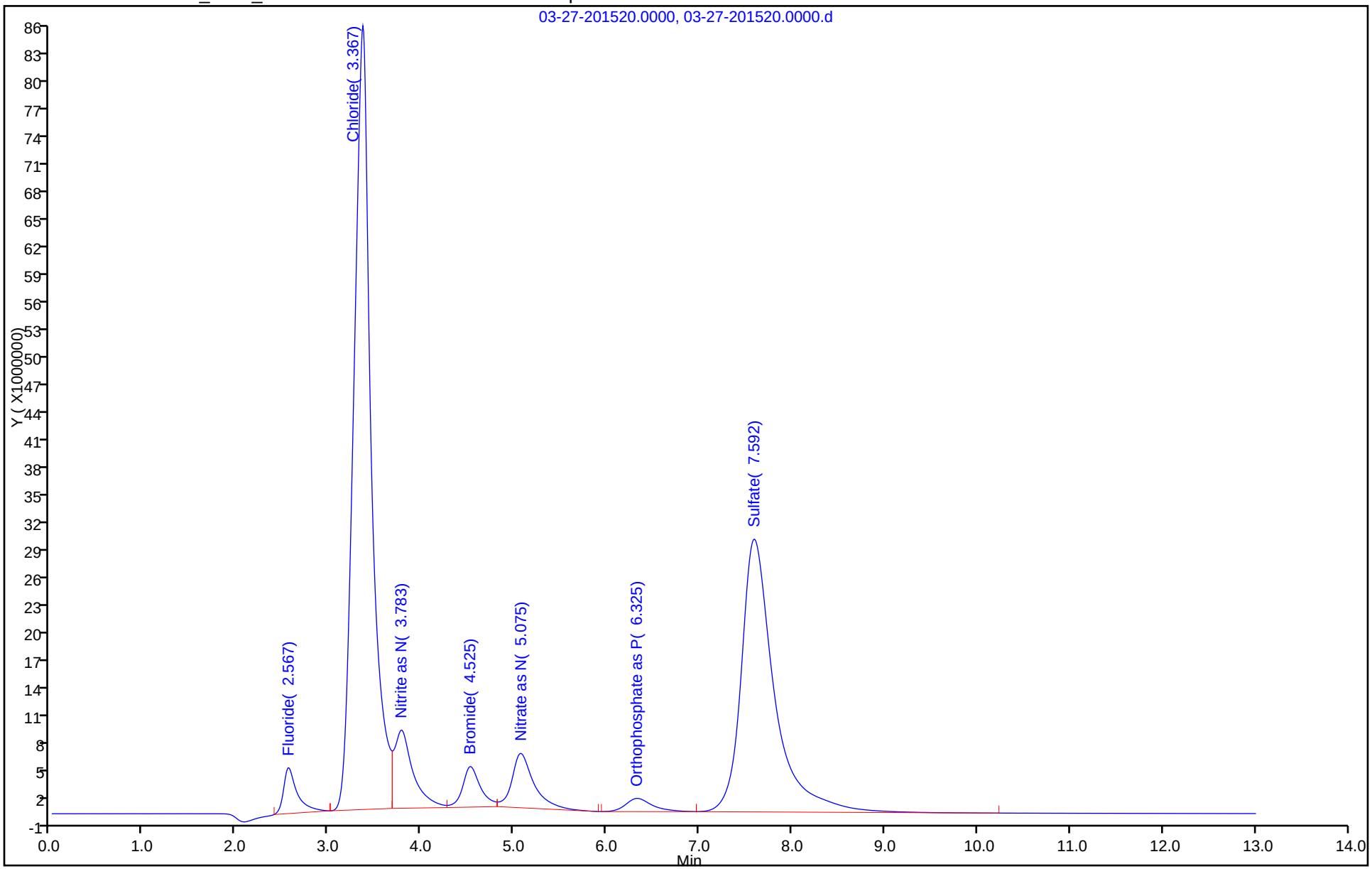
Reagents:

icccv_01201 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:27:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201520.0000.d				
Injection Date:	27-Mar-2015 18:55:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	20
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136809/28 Calibration Date: 03/27/2015 20:59

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201528.0000.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		2033008		2.49	2.50	-0.4	10.0
Chloride	LinF		22390377		46.5	50.0	-7.0	10.0
Nitrite as N	Lin		48481227		2.45	2.50	-2.0	10.0
Bromide	Lin2		442559		10.7	10.0	6.6	10.0
Nitrate as N	Lin2		39395134		2.50	2.50	0.0	10.0
Orthophosphate as P	Lin2		581601		2.54	2.50	1.5	10.0
Sulfate	LinF		595860		47.4	50.0	-5.3	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136809/28 Calibration Date: 03/27/2015 20:59

Instrument ID: CHIC25 Calib Start Date: 03/24/2015 20:18

GC Column: AS-14 ID: Calib End Date: 03/24/2015 21:35

Lab File ID: 03-27-201528.0000.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.56	2.21	2.91
Chloride	3.37	3.02	3.72
Nitrite as N	3.78	3.68	3.88
Bromide	4.53	4.18	4.88
Nitrate as N	5.08	4.98	5.18
Orthophosphate as P	6.32	6.22	6.42
Sulfate	7.58	7.23	7.93

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201528.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 20:59:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-028
Misc. Info.: 28 CCV
Operator ID: Instrument ID: CHIC25
Sublist: chrom-300_9056_CHIC25*sub1

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:39 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	5082520H	2.50	2.49	
2 Chloride	3.367	3.367	0.000	1119518828	50.0	46.5	
10 Nitrite as N	3.783	3.783	0.000	121203067	2.50	2.45	
4 Bromide	4.533	4.533	0.000	4425589H	10.0	10.7	
8 Nitrate as N	5.075	5.075	0.000	98487835	2.50	2.50	
9 Orthophosphate as P	6.317	6.317	0.000	1454003H	2.50	2.54	
3 Sulfate	7.583	7.583	0.000	29793021H	50.0	47.4	

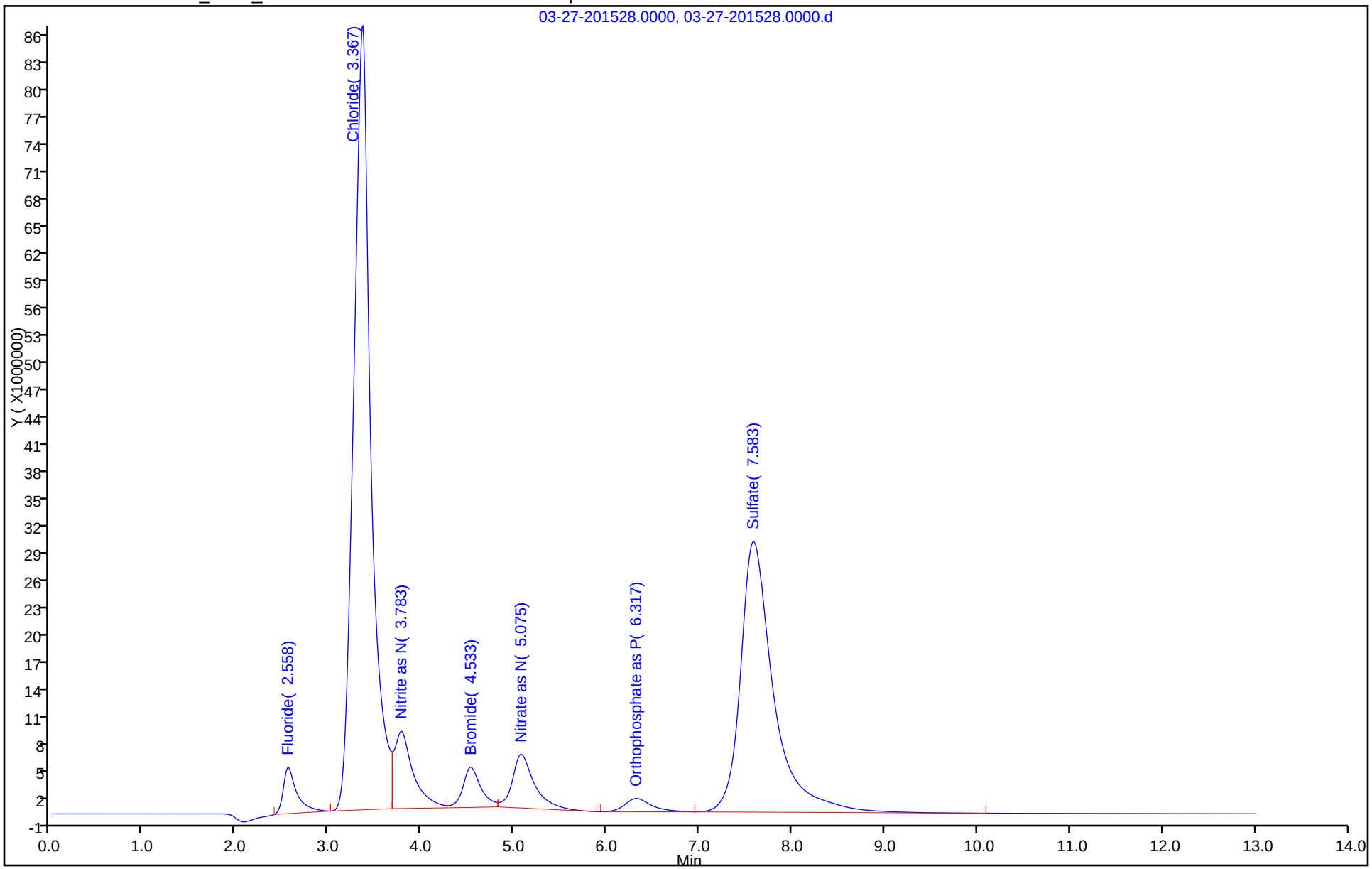
Reagents:

icccv_01201 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:27:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201528.0000.d				
Injection Date:	27-Mar-2015 20:59:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: ICV 180-136796/2 Calibration Date: 03/27/2015 11:12

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		44787242		3.48	3.00	16.1*	10.0
Chloride	Lin2		26643110		62.7	60.0	4.5	10.0
Nitrite as N	Lin2		57523285		3.36	3.00	12.1*	10.0
Sulfate	Lin2		19640229		63.4	60.0	5.6	10.0
Bromide	Lin2		891538		13.5	12.0	12.4*	10.0
Nitrate as N	Lin2		64816917		3.24	3.00	8.0	10.0
Orthophosphate as P	Lin2		25135614		3.42	3.00	13.9*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: ICV 180-136796/2 Calibration Date: 03/27/2015 11:12

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.65	3.30	4.00
Chloride	4.94	4.58	5.28
Nitrite as N	5.83	5.58	6.08
Sulfate	6.78	6.44	7.14
Bromide	7.83	7.48	8.18
Nitrate as N	9.08	8.83	9.33
Orthophosphate as P	12.66	12.19	13.19

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 27-Mar-2015 11:12:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 27-Mar-2015 12:31:08 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.650	0.000	134361726	3.00	3.48	
2 Chloride	4.942	4.933	0.009	1598586624	60.0	62.7	
7 Nitrite as N	5.825	5.825	0.000	172638883	3.00	3.36	
3 Sulfate	6.783	6.792	-0.009	1178413713	60.0	63.4	
4 Bromide	7.825	7.825	0.000	10698455H	12.0	13.5	
5 Nitrate as N	9.075	9.083	-0.008	194450752	3.00	3.24	
6 Orthophosphate as P	12.658	12.692	-0.034	75406841	3.00	3.42	

Reagents:

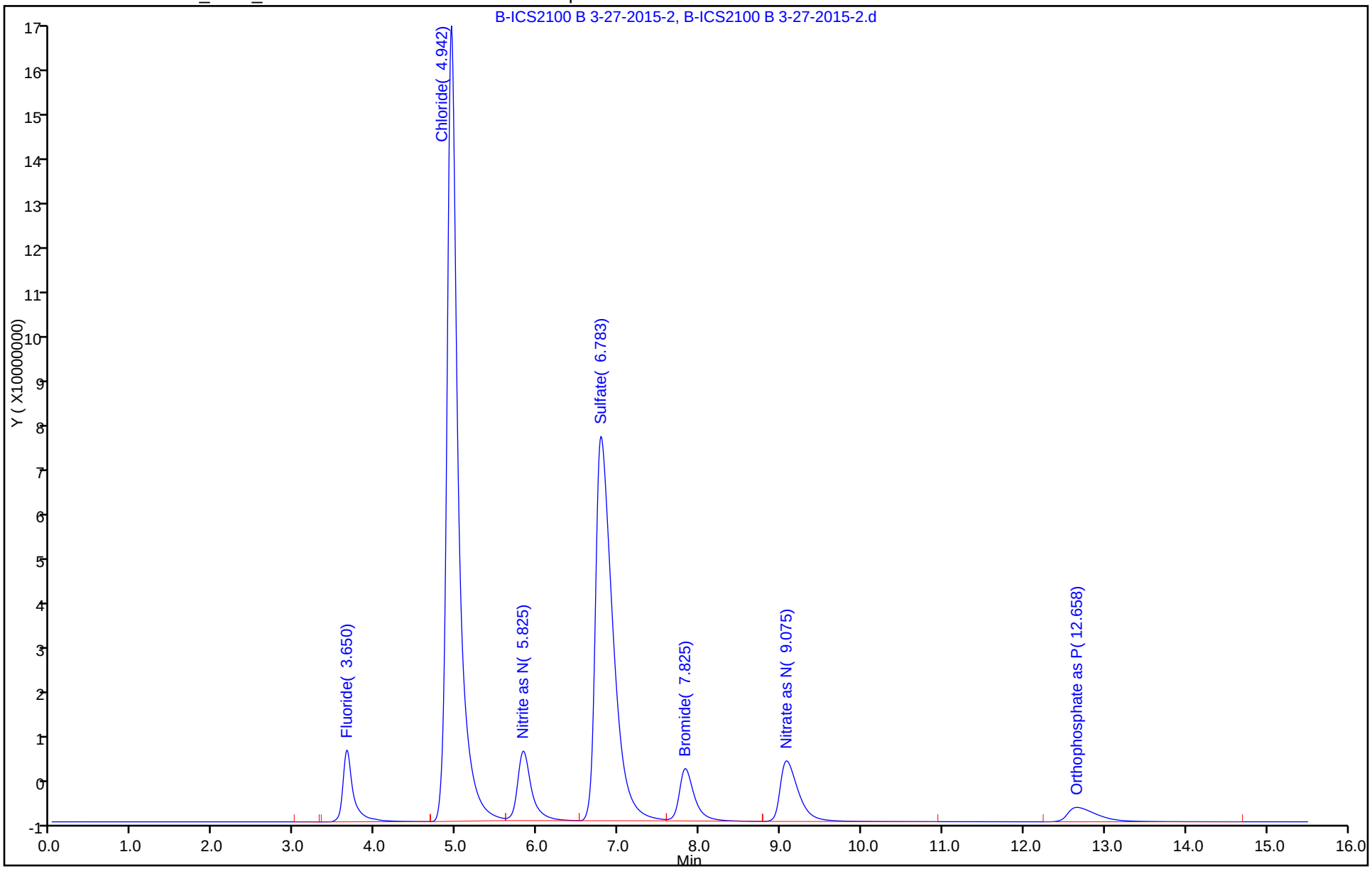
icicv_01232 Amount Added: 1.00 Units: mL

Report Date: 27-Mar-2015 12:31:43 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-2.d

Injection Date:	27-Mar-2015 11:12:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136796/9 Calibration Date: 03/27/2015 13:37

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-9.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43958627		2.85	2.50	14.2*	10.0
Chloride	Lin2		26699749		52.4	50.0	4.8	10.0
Nitrite as N	Lin2		58275855		2.84	2.50	13.5*	10.0
Sulfate	Lin2		19486022		52.4	50.0	4.8	10.0
Bromide	Lin2		892505		11.3	10.0	12.6*	10.0
Nitrate as N	Lin2		65832237		2.75	2.50	9.9	10.0
Orthophosphate as P	Lin2		24094958		2.77	2.50	10.8*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136796/9 Calibration Date: 03/27/2015 13:37

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-9.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.94	4.59	5.29
Nitrite as N	5.84	5.59	6.09
Sulfate	6.81	6.46	7.16
Bromide	7.83	7.48	8.18
Nitrate as N	9.09	8.84	9.34
Orthophosphate as P	12.68	12.18	13.18

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-9.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 13:37:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-009
Misc. Info.: 8 CCV
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:50 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	109896567	2.50	2.85	
2 Chloride	4.942	4.942	0.000	1334987433	50.0	52.4	
7 Nitrite as N	5.842	5.842	0.000	145689638	2.50	2.84	
3 Sulfate	6.808	6.808	0.000	974301077	50.0	52.4	
4 Bromide	7.833	7.833	0.000	8925051	10.0	11.3	H
5 Nitrate as N	9.092	9.092	0.000	164580593	2.50	2.75	
6 Orthophosphate as P	12.683	12.683	0.000	60237394	2.50	2.77	

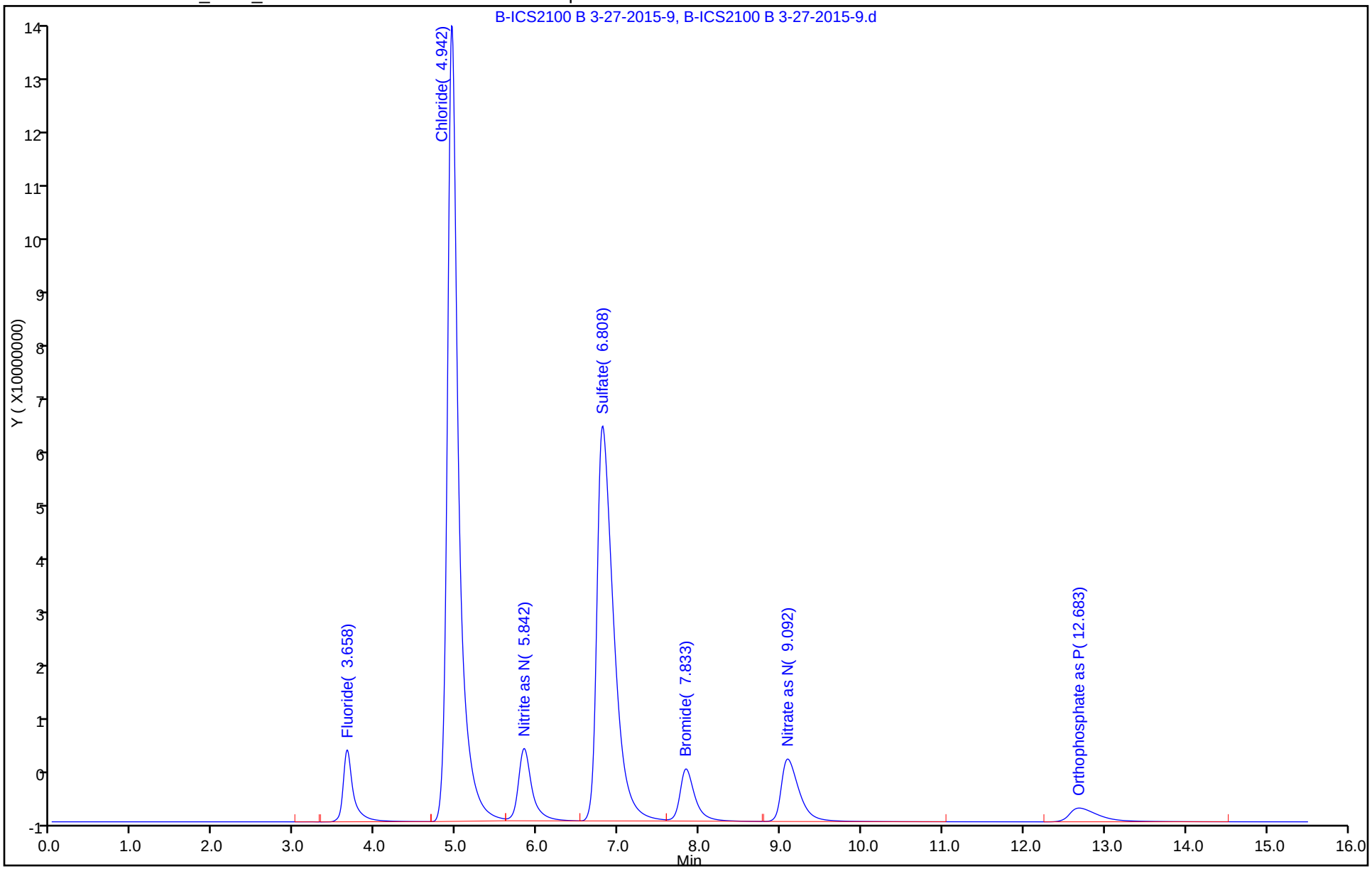
Reagents:

icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:07:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-9.d				
Injection Date:	27-Mar-2015 13:37:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136796/21 Calibration Date: 03/27/2015 18:07

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-21.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		38819481		2.52	2.50	0.9	10.0
Chloride	Lin2		23676368		46.5	50.0	-7.1	10.0
Nitrite as N	Lin2		52044096		2.53	2.50	1.4	10.0
Sulfate	Lin2		17298614		46.5	50.0	-7.0	10.0
Bromide	Lin2		782657		9.89	10.0	-1.1	10.0
Nitrate as N	Lin2		58072634		2.43	2.50	-2.9	10.0
Orthophosphate as P	Lin2		21178367		2.46	2.50	-1.6	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136796/21 Calibration Date: 03/27/2015 18:07

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-21.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.65	3.30	4.00
Chloride	4.94	4.59	5.29
Nitrite as N	5.83	5.58	6.08
Sulfate	6.81	6.46	7.16
Bromide	7.84	7.49	8.19
Nitrate as N	9.10	8.85	9.35
Orthophosphate as P	12.68	12.18	13.18

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-21.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 18:07:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-021
Misc. Info.: 20 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:54 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.650	0.000	97048702	2.50	2.52	
2 Chloride	4.942	4.942	0.000	1183818398	50.0	46.5	
7 Nitrite as N	5.833	5.833	0.000	130110241	2.50	2.53	
3 Sulfate	6.808	6.808	0.000	864930705	50.0	46.5	
4 Bromide	7.842	7.842	0.000	7826572H	10.0	9.89	
5 Nitrate as N	9.100	9.100	0.000	145181584	2.50	2.43	
6 Orthophosphate as P	12.675	12.675	0.000	52945918	2.50	2.46	

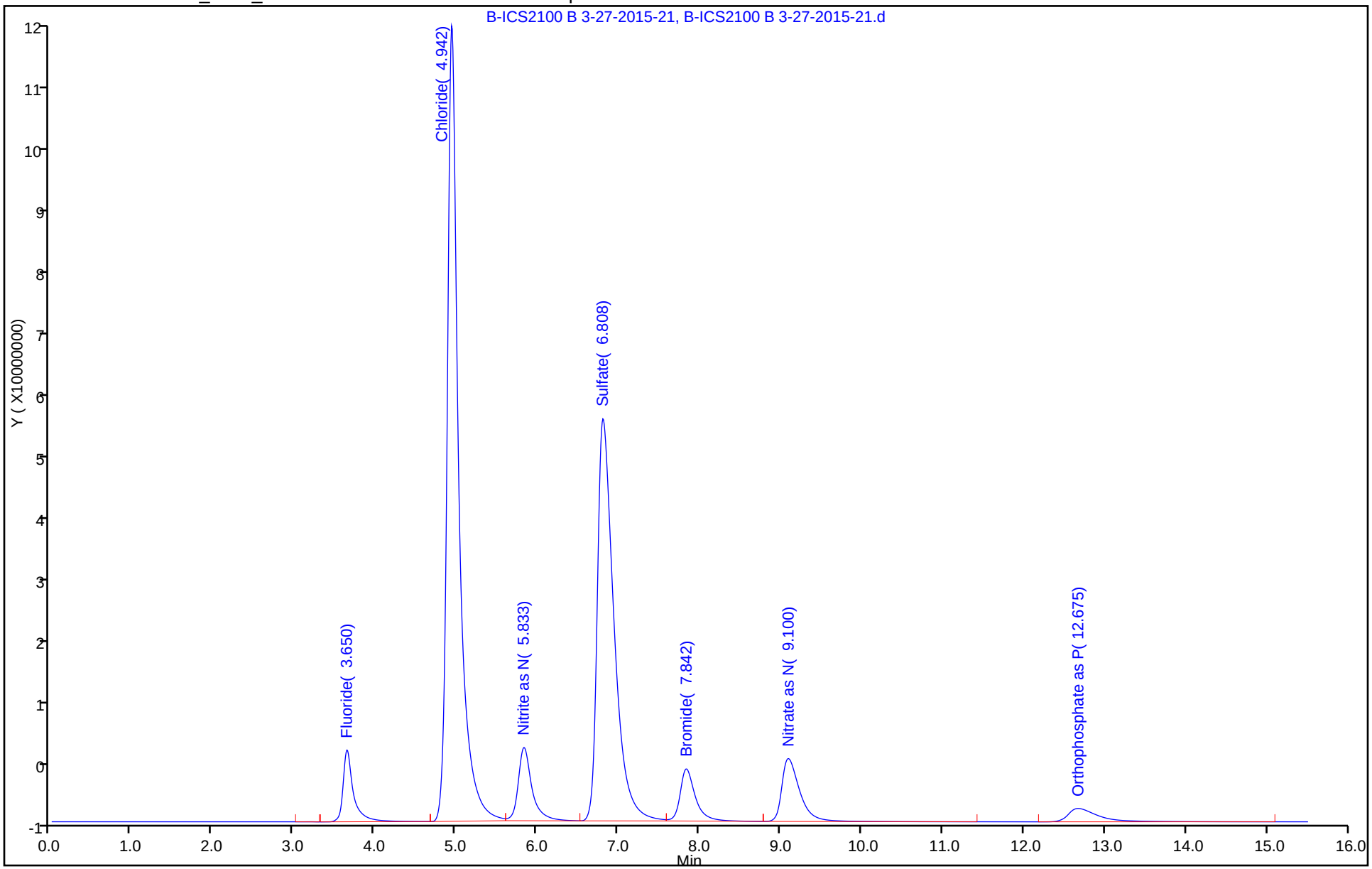
Reagents:

icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:07:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-21.d				
Injection Date:	27-Mar-2015 18:07:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	21
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136796/25 Calibration Date: 03/27/2015 19:16

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-25.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		38902468		2.53	2.50	1.1	10.0
Chloride	Lin2		23762188		46.6	50.0	-6.7	10.0
Nitrite as N	Lin2		52163987		2.54	2.50	1.6	10.0
Sulfate	Lin2		17390580		46.8	50.0	-6.5	10.0
Bromide	Lin2		785273		9.92	10.0	-0.8	10.0
Nitrate as N	Lin2		58296785		2.44	2.50	-2.5	10.0
Orthophosphate as P	Lin2		21280879		2.47	2.50	-1.2	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: CCV 180-136796/25 Calibration Date: 03/27/2015 19:16

Instrument ID: CHICS2100B Calib Start Date: 03/25/2015 10:19

GC Column: AS-18 ID: Calib End Date: 03/25/2015 12:20

Lab File ID: B-ICS2100 B 3-27-2015-25.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.95	4.60	5.30
Nitrite as N	5.84	5.59	6.09
Sulfate	6.81	6.46	7.16
Bromide	7.84	7.49	8.19
Nitrate as N	9.10	8.85	9.35
Orthophosphate as P	12.66	12.16	13.16

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-25.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 27-Mar-2015 19:16:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-025
Misc. Info.: 15105 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:55 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	97256171	2.50	2.53	
2 Chloride	4.950	4.950	0.000	1188109414	50.0	46.6	
7 Nitrite as N	5.842	5.842	0.000	130409968	2.50	2.54	
3 Sulfate	6.808	6.808	0.000	869528983	50.0	46.8	
4 Bromide	7.842	7.842	0.000	7852725H	10.0	9.92	
5 Nitrate as N	9.100	9.100	0.000	145741962	2.50	2.44	
6 Orthophosphate as P	12.658	12.658	0.000	53202198	2.50	2.47	

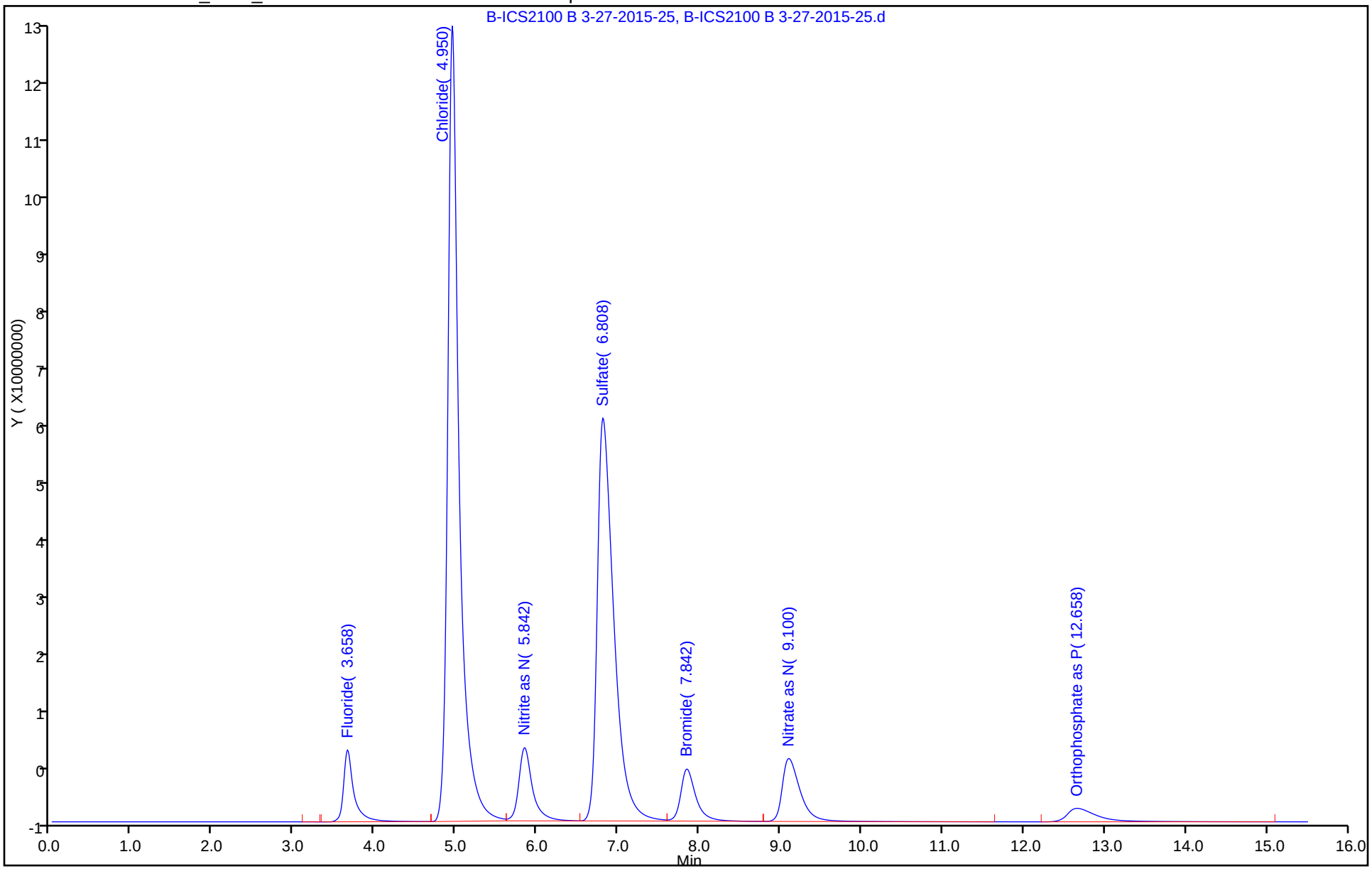
Reagents:

icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:07:55 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-25.d				
Injection Date:	27-Mar-2015 19:16:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-136787/10

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-10.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 12:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0302	J	0.10	0.0062
16887-00-6	Chloride	0.445	J	1.0	0.20
14808-79-8	Sulfate	0.354	J	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-10.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 27-Mar-2015 12:58:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-010
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:34:57 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

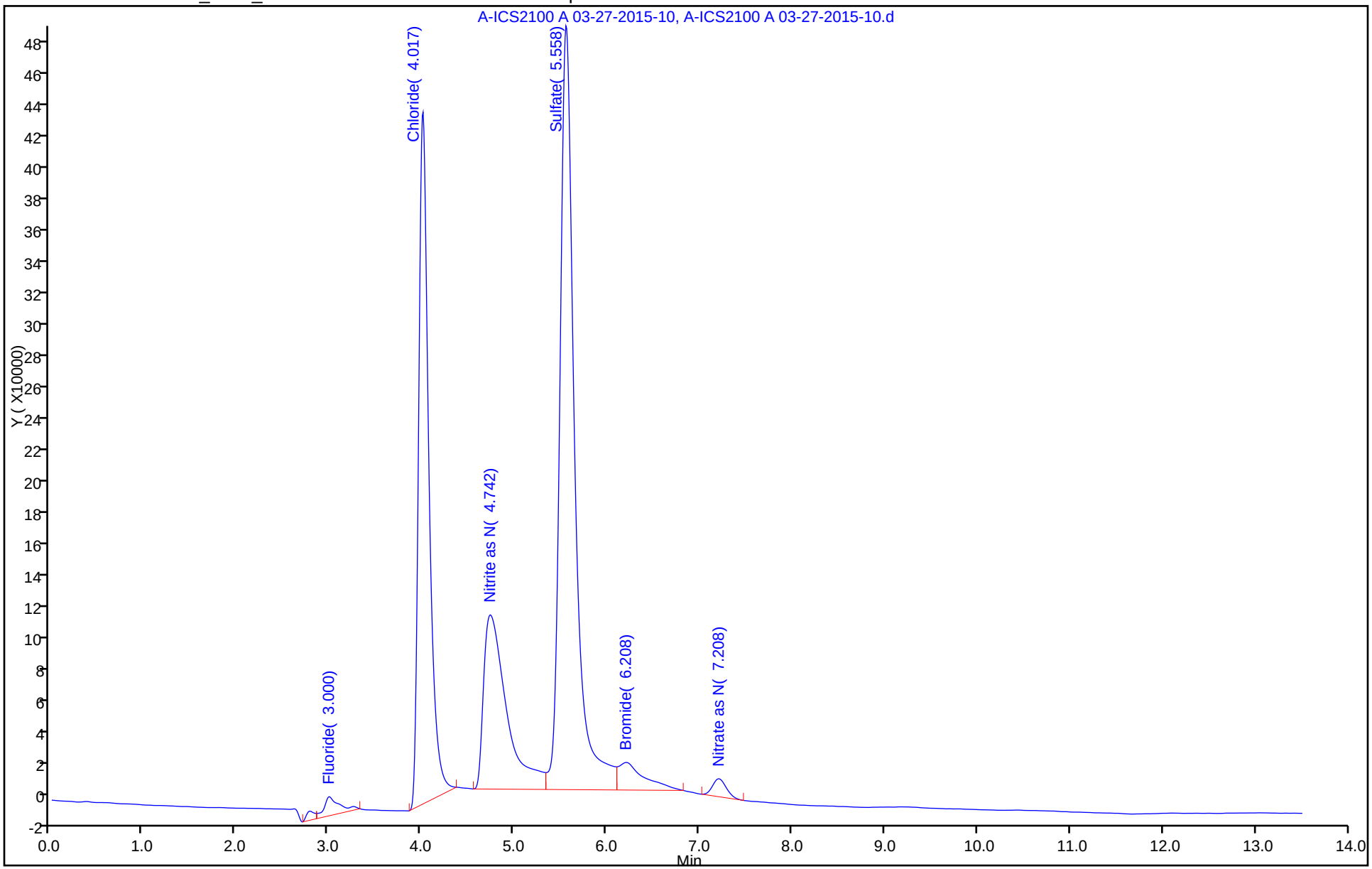
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.025	-0.025	138351		0.004269	
2 Chloride	4.017	4.017	0.000	3354588		0.4452	
7 Nitrite as N	4.742	4.692	0.050	1907708		0.0195	
3 Sulfate	5.558	5.483	0.075	5382954		0.3537	
4 Bromide	6.208	6.217	-0.009	337982		0.0357	
5 Nitrate as N	7.208	7.167	0.041	117491		0.0302	
6 Orthophosphate as P		10.142				ND	

Report Date: 30-Mar-2015 12:35:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-10.d

Injection Date:	27-Mar-2015 12:58:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	10
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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-136796/12

Matrix: Water Lab File ID: B-ICS2100 B 3-27-2015-12.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 15:31

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136796 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0287	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-12.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 27-Mar-2015 15:31:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-012
Misc. Info.: 11 mb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:50 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

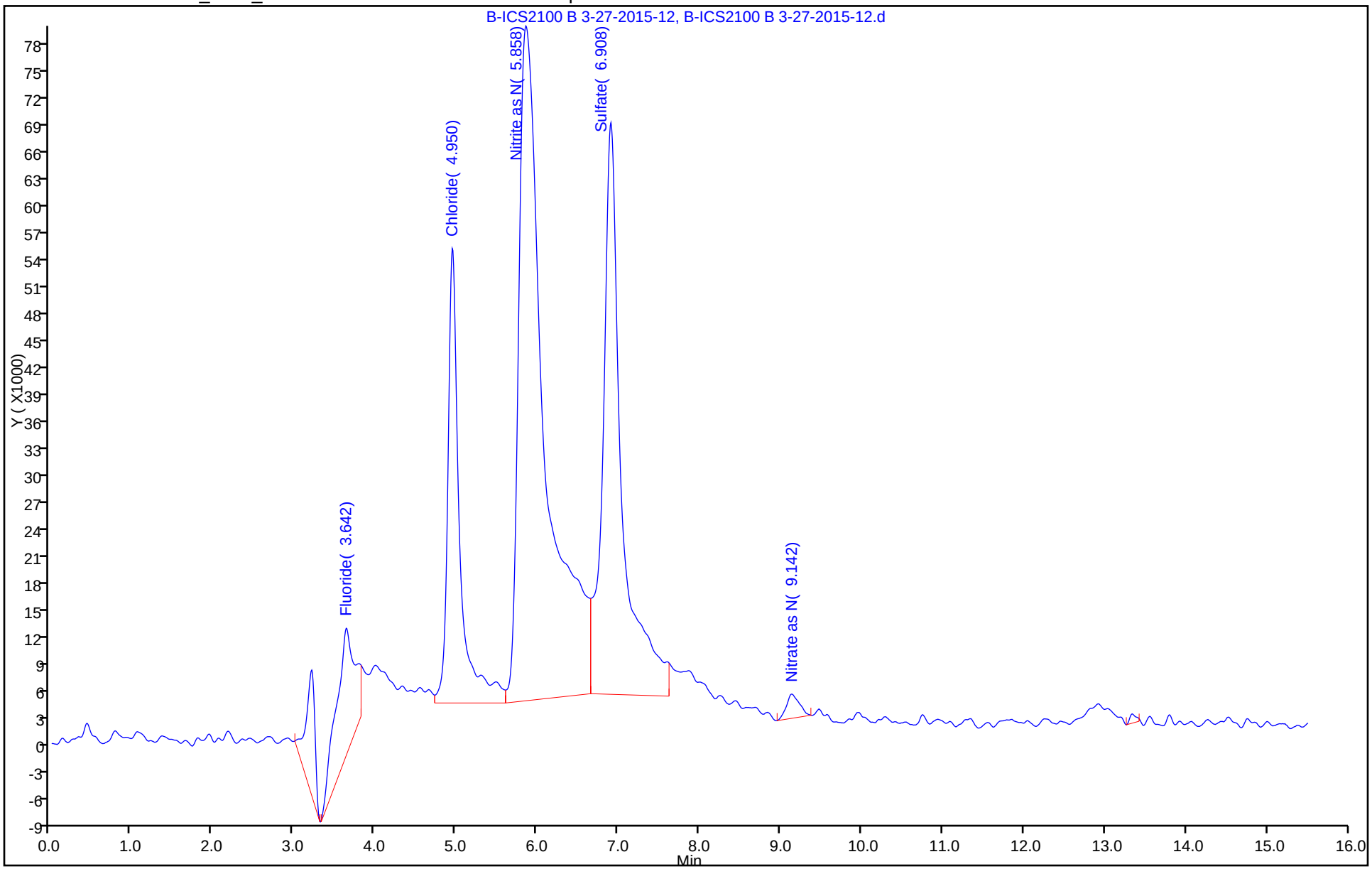
First Level Reviewer: reaglec Date: 28-Mar-2015 11:05:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	227930		0.0293	
2 Chloride	4.950	4.942	0.008	517653		0.1602	
7 Nitrite as N	5.858	5.842	0.016	1711930		0.0275	
3 Sulfate	6.908	6.808	0.100	1034025		0.0105	
4 Bromide		7.833				ND	
5 Nitrate as N	9.142	9.092	0.050	29851		0.0287	
6 Orthophosphate as P		12.683				ND	

Report Date: 28-Mar-2015 11:07:51 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-12.d				
Injection Date:	27-Mar-2015 15:31:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	mb			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136787/4

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 11:22

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0303	J	0.10	0.0062
16887-00-6	Chloride	0.431	J	1.0	0.20
14808-79-8	Sulfate	0.220	J	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 11:22:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:34:57 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

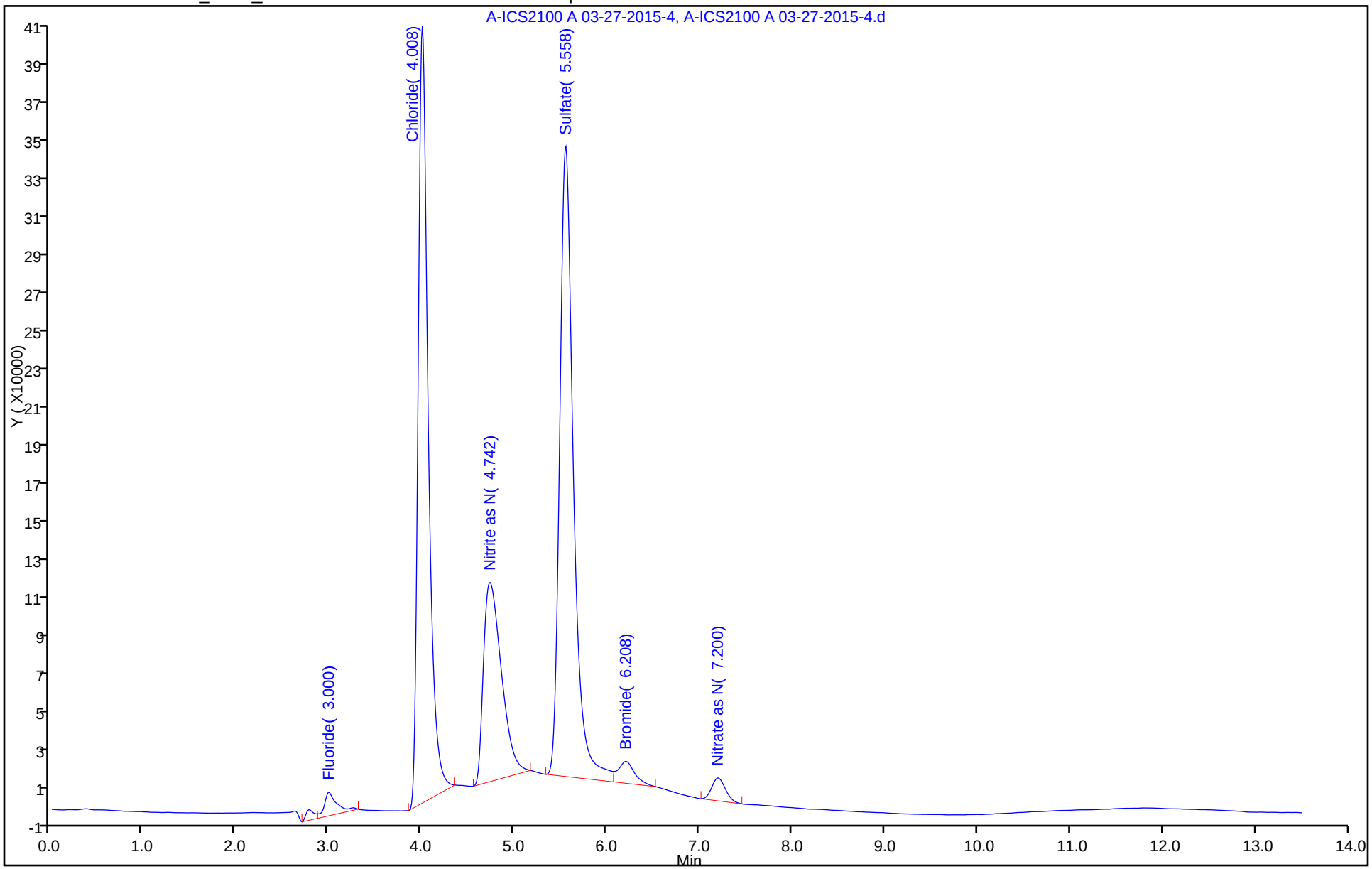
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.025	-0.025	115141		0.003553	
2 Chloride	4.008	4.017	-0.009	3058460		0.4310	
7 Nitrite as N	4.742	4.692	0.050	1394339		0.007181	
3 Sulfate	5.558	5.483	0.075	3385318		0.2199	
4 Bromide	6.208	6.217	-0.009	140323		0.0148	
5 Nitrate as N	7.200	7.167	0.033	122526		0.0303	
6 Orthophosphate as P		10.142				ND	

Report Date: 30-Mar-2015 12:34:58 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-4.d

Injection Date:	27-Mar-2015 11:22:00	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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136787/16

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 14:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0302	J	0.10	0.0062
16887-00-6	Chloride	0.448	J	1.0	0.20
14808-79-8	Sulfate	0.317	J	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 14:30:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:03 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

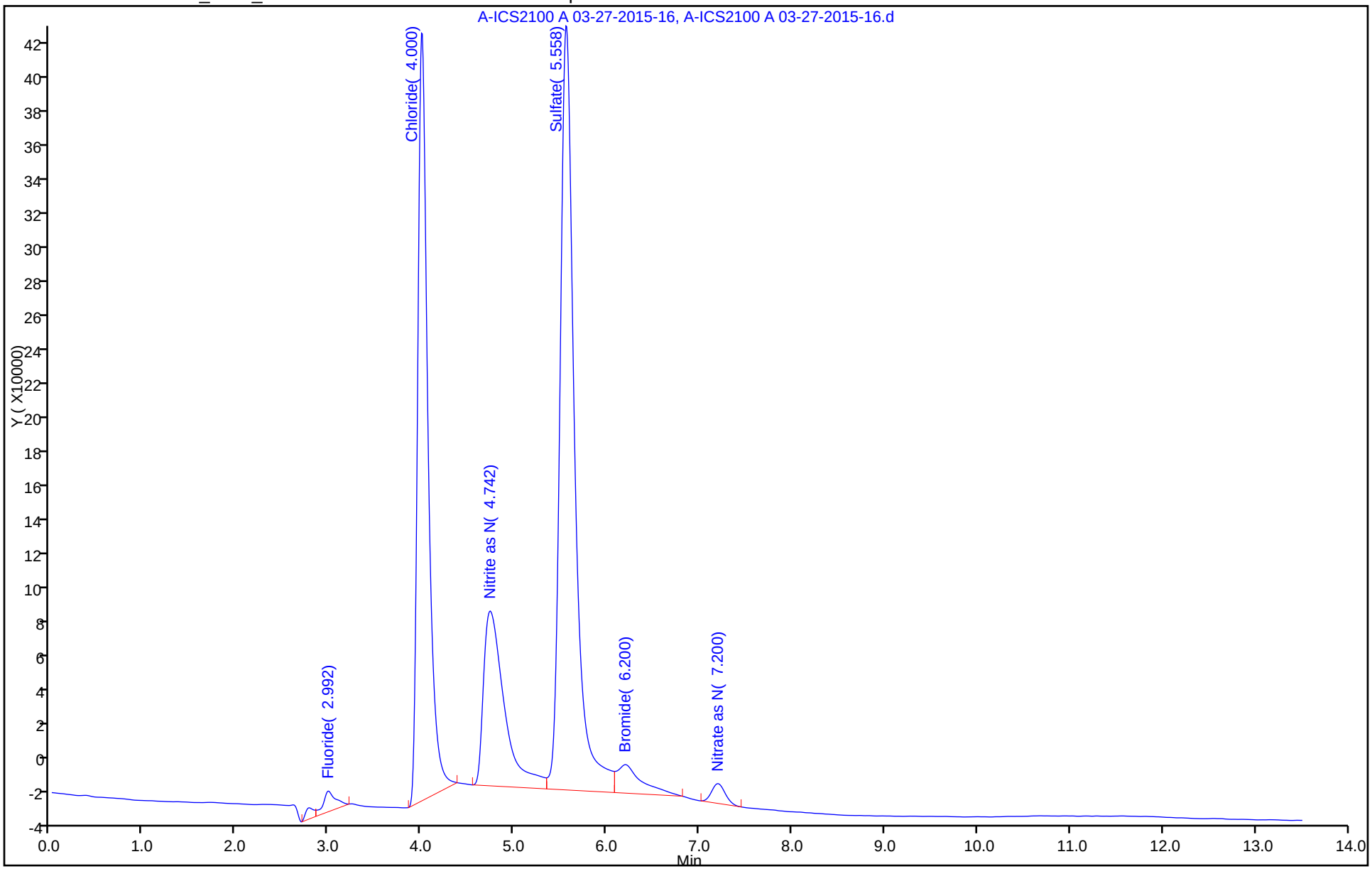
Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.992	3.008	-0.016	112184		0.003462	
2 Chloride	4.000	4.000	0.000	3402987		0.4476	
7 Nitrite as N	4.742	4.675	0.067	1583638		0.0117	
3 Sulfate	5.558	5.467	0.091	4830766		0.3167	
4 Bromide	6.200	6.192	0.008	307607		0.0325	
5 Nitrate as N	7.200	7.142	0.058	116065		0.0302	
6 Orthophosphate as P		10.258				ND	

Report Date: 30-Mar-2015 12:35:04 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-16.d				
Injection Date:	27-Mar-2015 14:30:00	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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136787/28

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 17:52

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0311	J	0.10	0.0062
16887-00-6	Chloride	0.511	J	1.0	0.20
14808-79-8	Sulfate	0.301	J	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 17:52:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:09 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

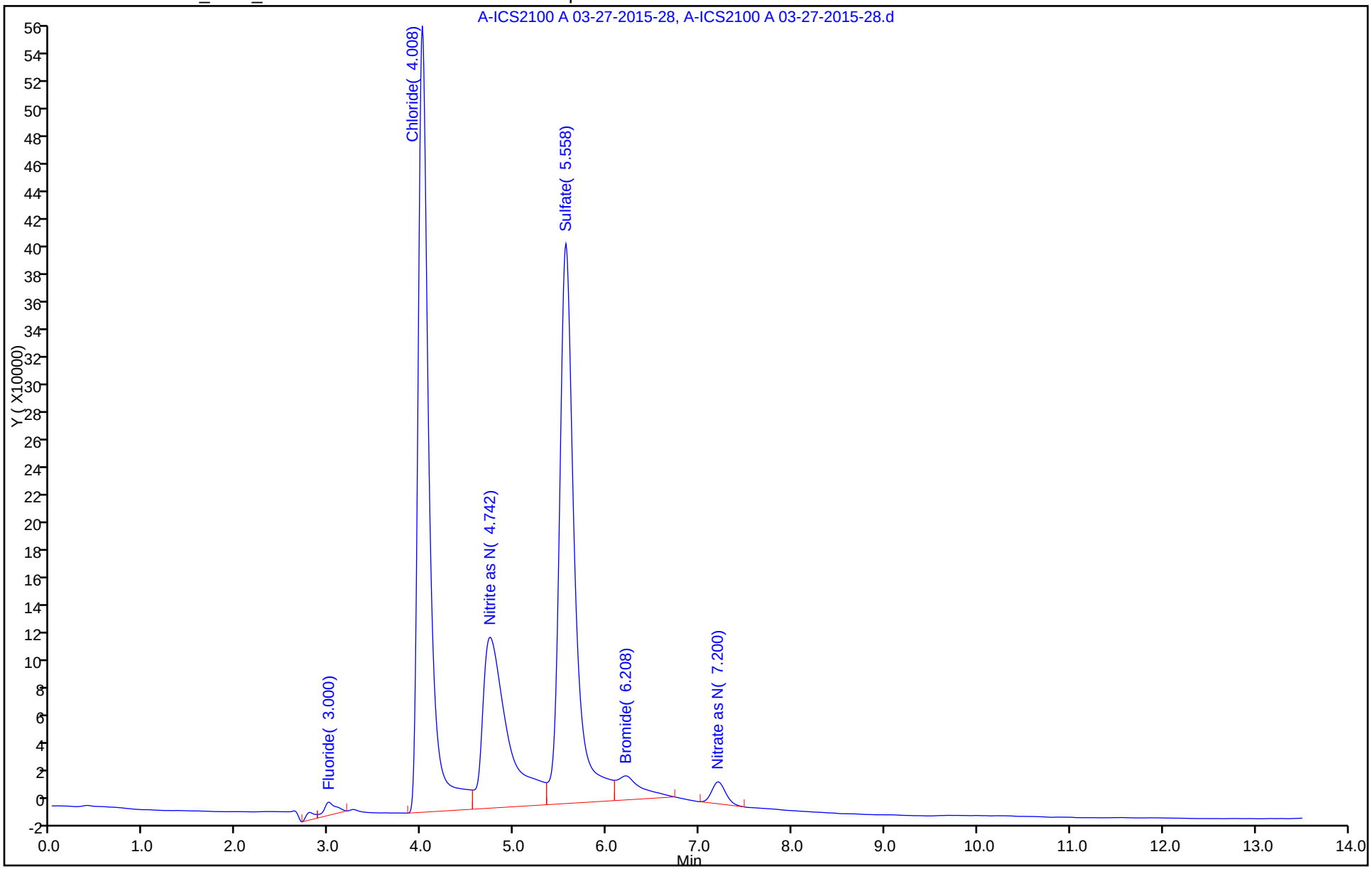
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.008	-0.008	85040		0.002624	
2 Chloride	4.008	4.000	0.008	4722417		0.5109	
7 Nitrite as N	4.742	4.675	0.067	2331281		0.0296	
3 Sulfate	5.558	5.483	0.075	4591382		0.3007	
4 Bromide	6.208	6.200	0.008	321336		0.0339	
5 Nitrate as N	7.200	7.150	0.050	163682		0.0311	
6 Orthophosphate as P		10.233				ND	

Report Date: 30-Mar-2015 12:35:09 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-28.d

Injection Date:	27-Mar-2015 17:52:00	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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136787/37

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-37.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 20:28

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0313	J	0.10	0.0062
16887-00-6	Chloride	0.445	J	1.0	0.20
14808-79-8	Sulfate	0.243	J	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-37.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 20:28:00 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-037
Misc. Info.: 40 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:12 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

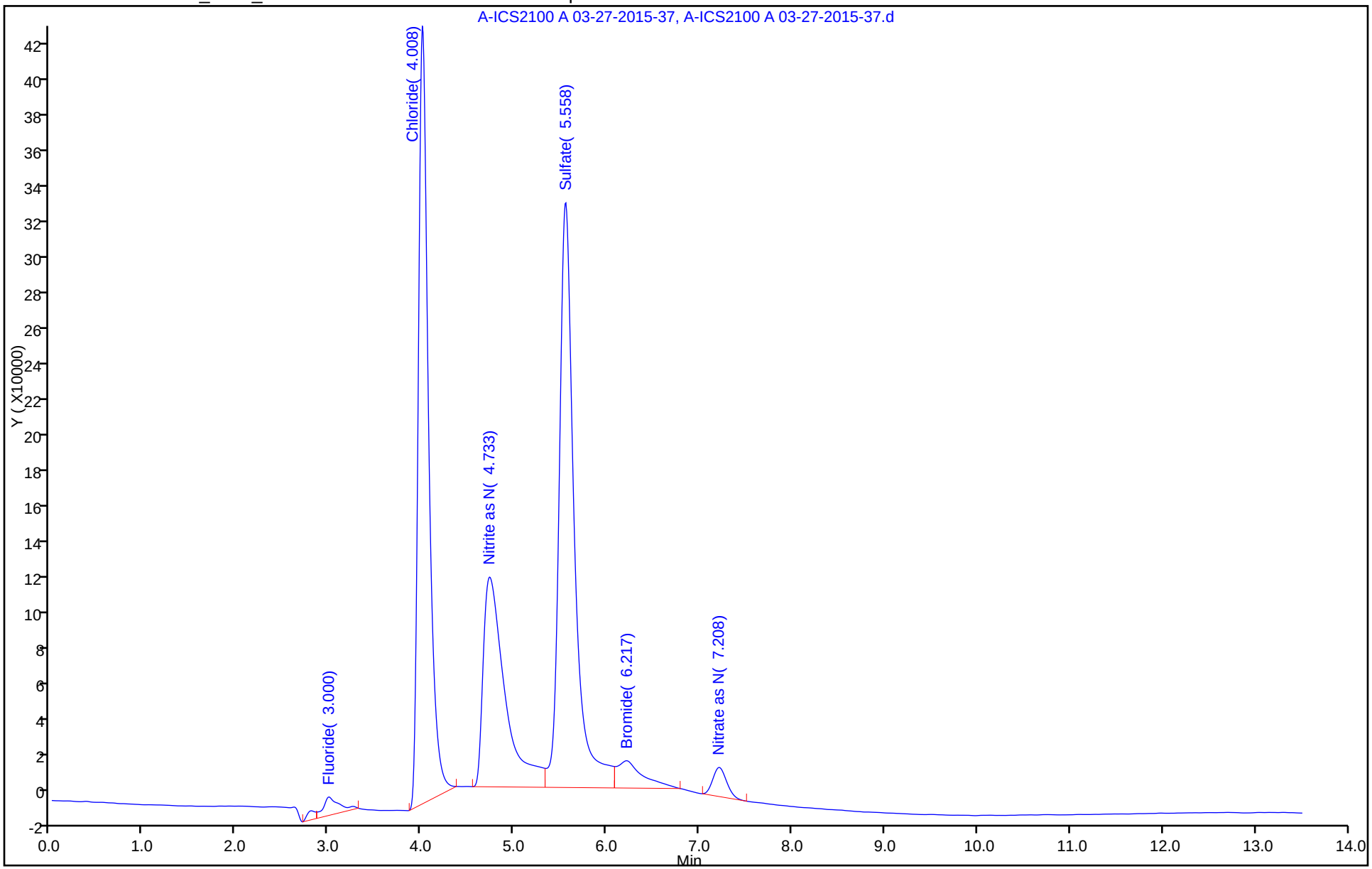
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.025	-0.025	121492		0.003749	
2 Chloride	4.008	4.017	-0.009	3341790		0.4446	
7 Nitrite as N	4.733	4.683	0.050	1919430		0.0197	
3 Sulfate	5.558	5.467	0.091	3732214		0.2431	
4 Bromide	6.217	6.208	0.009	296576		0.0313	
5 Nitrate as N	7.208	7.150	0.058	169650		0.0313	
6 Orthophosphate as P		10.142				ND	

Report Date: 30-Mar-2015 12:35:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-37.d

Injection Date:	27-Mar-2015 20:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	37
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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136796/10

Matrix: Water Lab File ID: B-ICS2100 B 3-27-2015-10.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 14:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136796 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0294	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-10.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 14:19:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-010
Misc. Info.: 9 CCB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:50 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

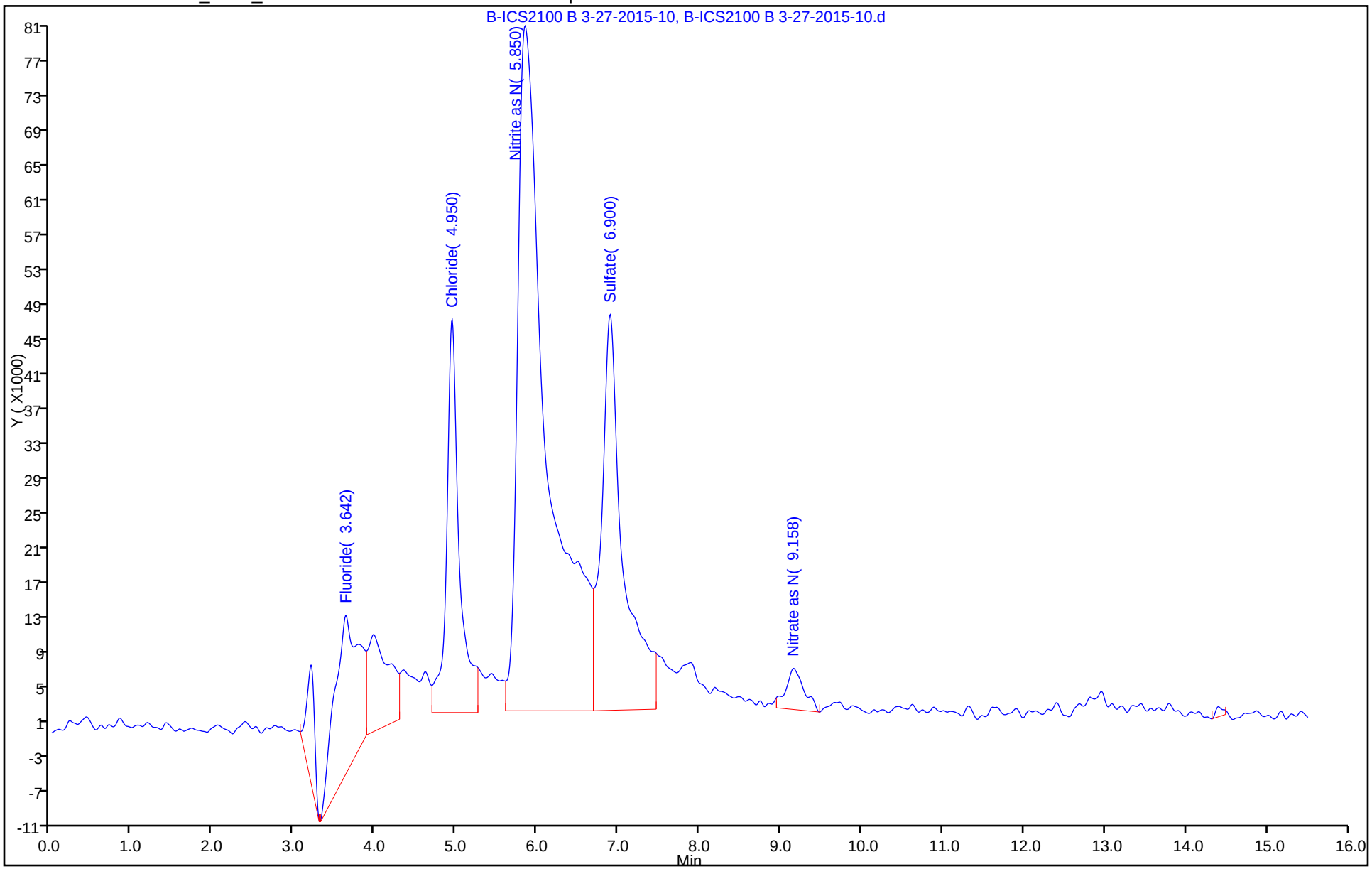
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	379362		0.0332	
2 Chloride	4.950	4.942	0.008	487576		0.1590	
7 Nitrite as N	5.850	5.842	0.008	1993567		0.0330	
3 Sulfate	6.900	6.808	0.092	837472		-0.000112	
4 Bromide		7.833				ND	
5 Nitrate as N	9.158	9.092	0.066	72900		0.0294	
6 Orthophosphate as P		12.683				ND	

Report Date: 28-Mar-2015 11:07:50 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-10.d

Injection Date:	27-Mar-2015 14:19:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136796/22

Matrix: Water Lab File ID: B-ICS2100 B 3-27-2015-22.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 18:24

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136796 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0287	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-22.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 18:24:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-022
Misc. Info.: 21 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:54 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

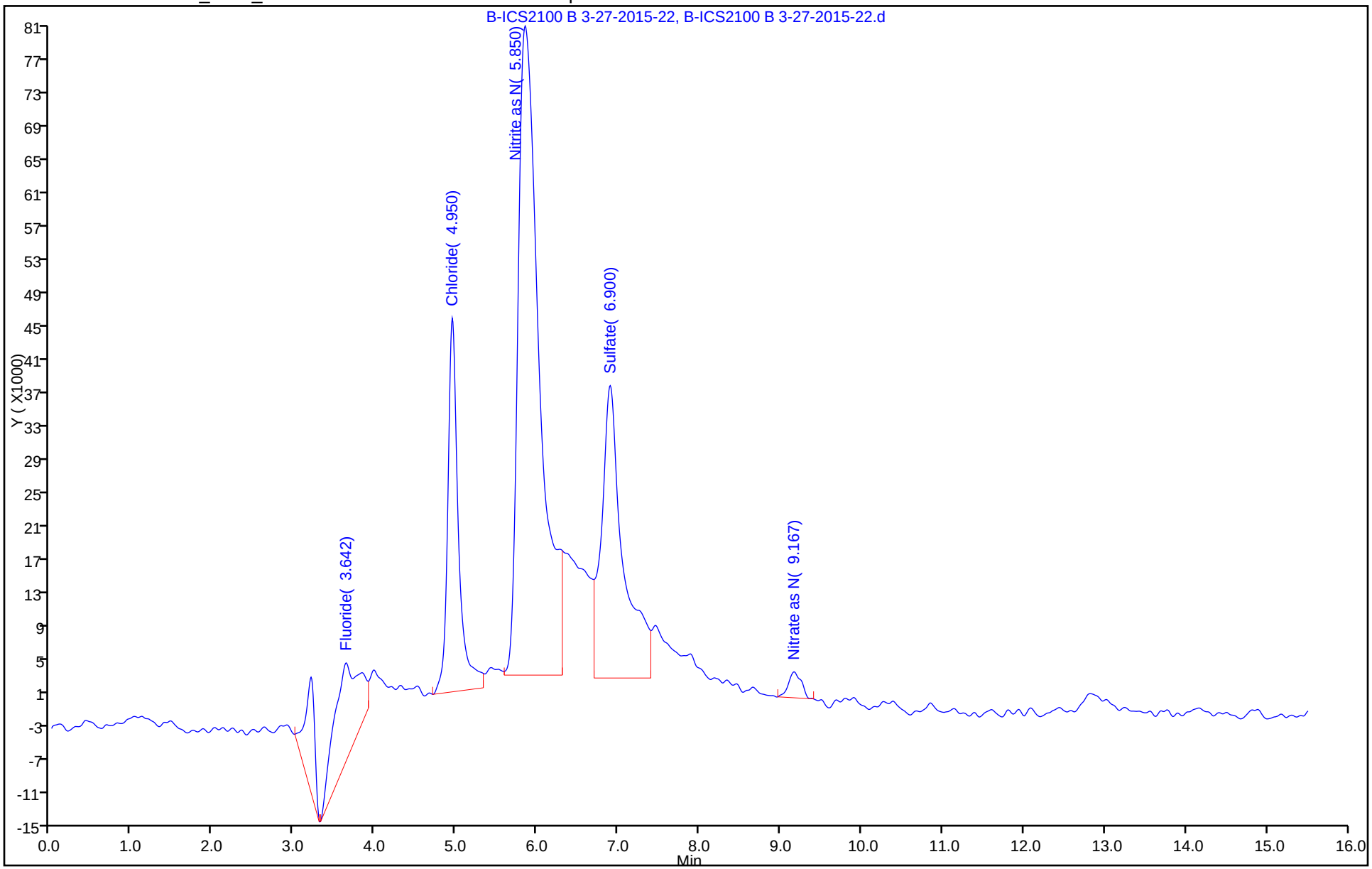
Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.650	-0.008	251134		0.0299	
2 Chloride	4.950	4.942	0.008	409566		0.1560	
7 Nitrite as N	5.850	5.833	0.017	1438704		0.0222	
3 Sulfate	6.900	6.808	0.092	653375		-0.0100	
4 Bromide		7.842				ND	
5 Nitrate as N	9.167	9.100	0.067	34070		0.0287	
6 Orthophosphate as P		12.675				ND	

Report Date: 28-Mar-2015 11:07:54 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-22.d				
Injection Date:	27-Mar-2015 18:24:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	22
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136796/26

Matrix: Water Lab File ID: B-ICS2100 B 3-27-2015-26.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 19:33

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136796 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0288	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-26.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 19:33:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-026
Misc. Info.: 25782 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:55 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

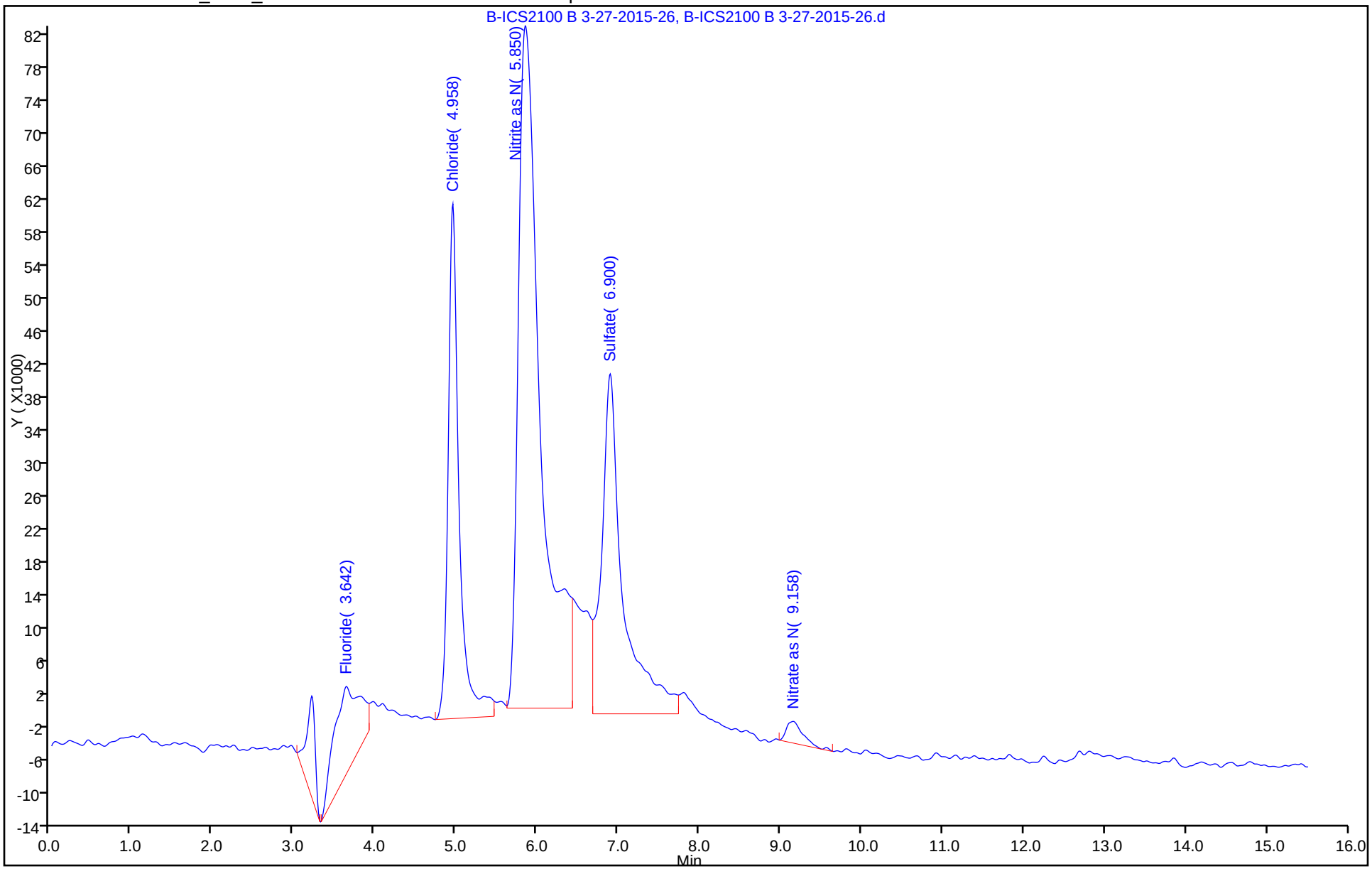
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	234977		0.0295	
2 Chloride	4.958	4.950	0.008	588042		0.1630	
7 Nitrite as N	5.850	5.842	0.008	1581344		0.0249	
3 Sulfate	6.900	6.808	0.092	757558		-0.004413	
4 Bromide		7.842				ND	
5 Nitrate as N	9.158	9.100	0.058	38117		0.0288	
6 Orthophosphate as P		12.658				ND	

Report Date: 28-Mar-2015 11:07:55 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-26.d

Injection Date:	27-Mar-2015 19:33:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	26
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136809/9

Matrix: Water Lab File ID: 03-27-201509.0000.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 14:47

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 25(uL) GC Column: AS-14 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136809 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201509.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 14:47:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-009
Misc. Info.: 9 CCB
Operator ID: Instrument ID: CHIC25

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:34 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

First Level Reviewer: reaglec Date: 28-Mar-2015 11:22:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.567				ND	
2 Chloride	3.442	3.367	0.075	2221202		0.0923	M
10 Nitrite as N		3.783				ND	
4 Bromide		4.525				ND	
8 Nitrate as N		5.067				ND	
9 Orthophosphate as P		6.342				ND	
3 Sulfate	7.633	7.608	0.025	75308H		0.1197	

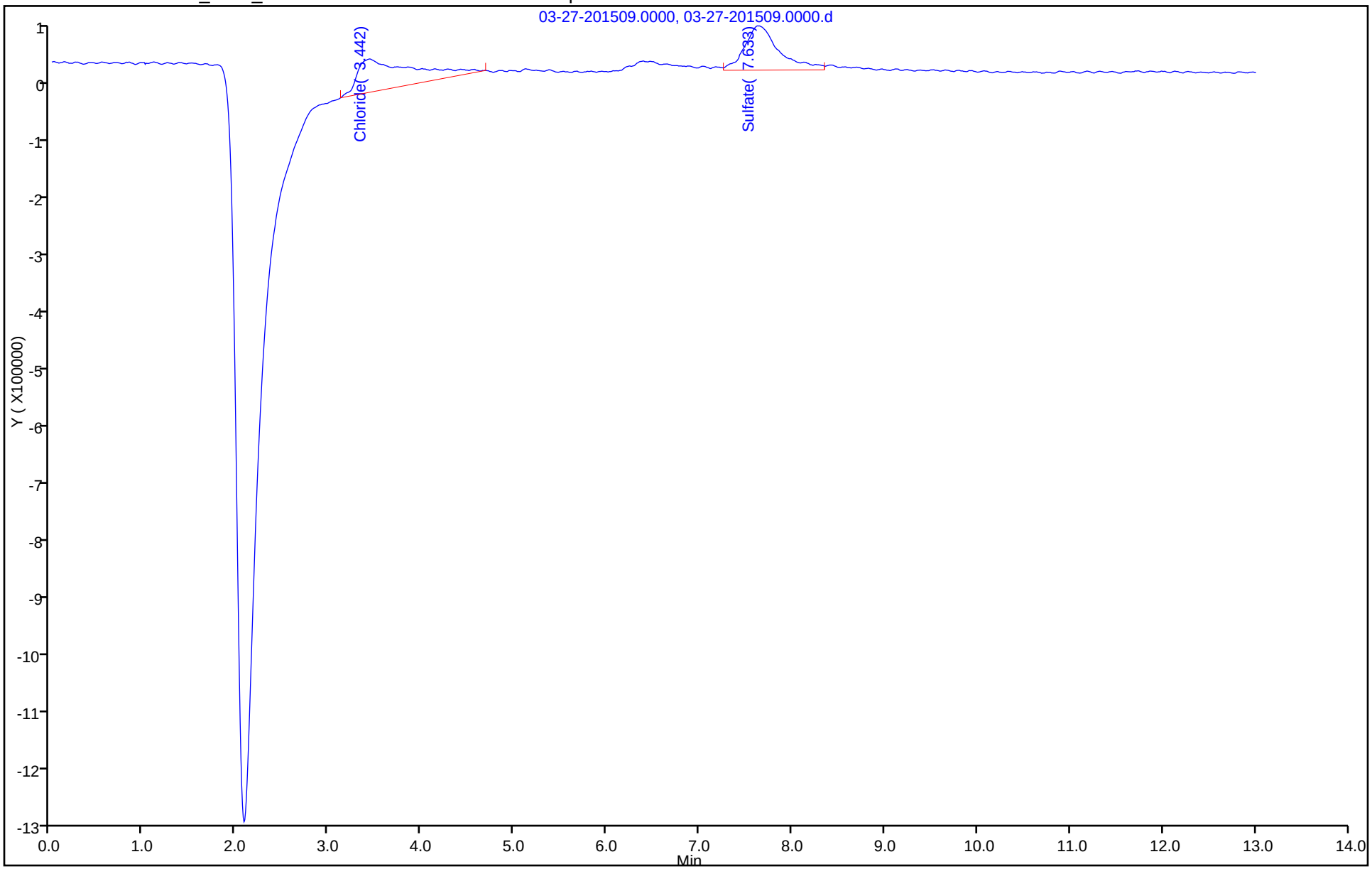
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 28-Mar-2015 11:27:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201509.0000.d				
Injection Date:	27-Mar-2015 14:47:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



Manual Integration/User Assign Peak Report

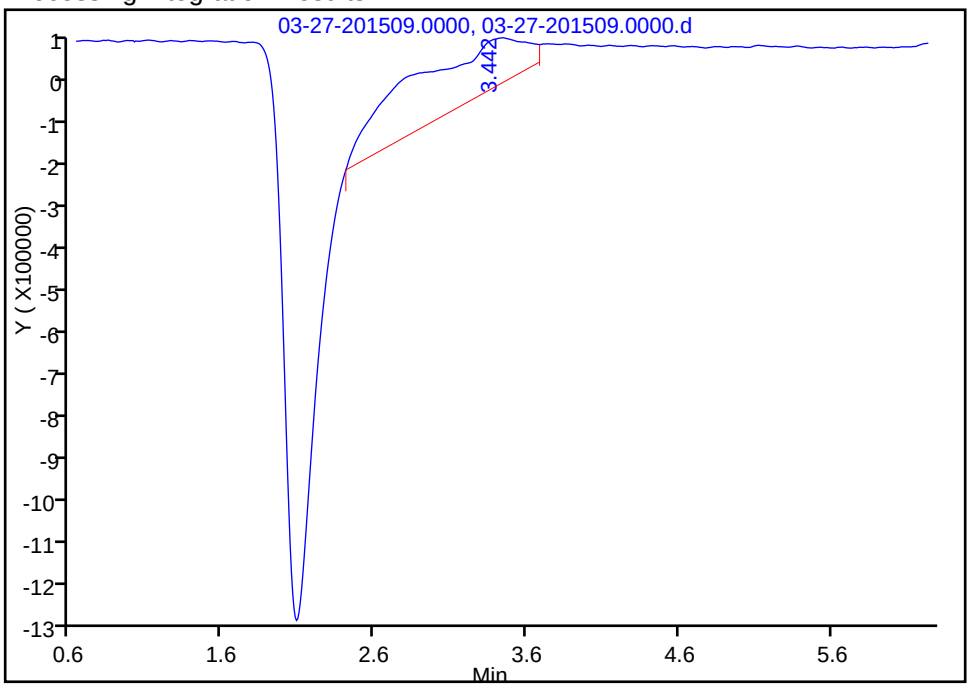
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201509.0000.d
Injection Date: 27-Mar-2015 14:47:00 Instrument ID: CHIC25
Lims ID: ccb
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Method: 300_9056_CHIC25 Limit Group: GC Anions ICAL
Column: Detector 0008

2 Chloride, CAS: 16887-00-6

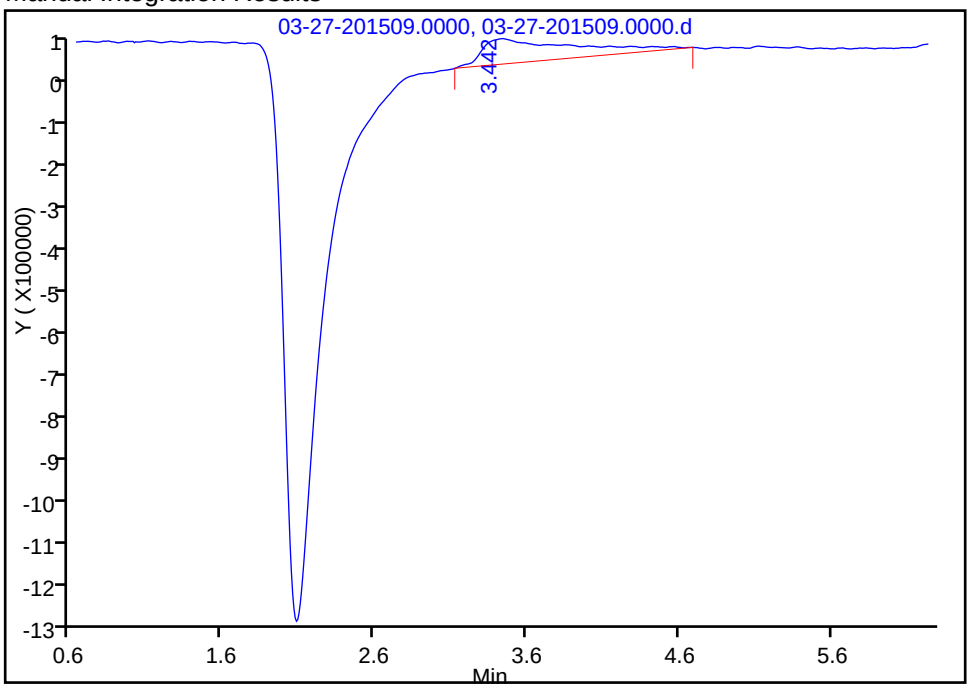
Processing Integration Results

RT: 3.44
Area: 7112338
Amount: 0.295541
Amount Units: ug/ml



Manual Integration Results

RT: 3.44
Area: 2221202
Amount: 0.092298
Amount Units: ug/ml



Reviewer: reaglec, 28-Mar-2015 11:22:53
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136809/21

Matrix: Water Lab File ID: 03-27-201521.0000.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 19:10

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 25(uL) GC Column: AS-14 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136809 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201521.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 19:10:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-021
Misc. Info.: 21 CCB
Operator ID: Instrument ID: CHIC25

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:37 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

First Level Reviewer: reaglec Date: 28-Mar-2015 11:26:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.567				ND	
2 Chloride	3.400	3.367	0.033	812554		0.0338	M
10 Nitrite as N		3.783				ND	
4 Bromide		4.525				ND	
8 Nitrate as N		5.075				ND	
9 Orthophosphate as P		6.325				ND	
3 Sulfate	7.650	7.592	0.058	111315H		0.1770	

QC Flag Legend

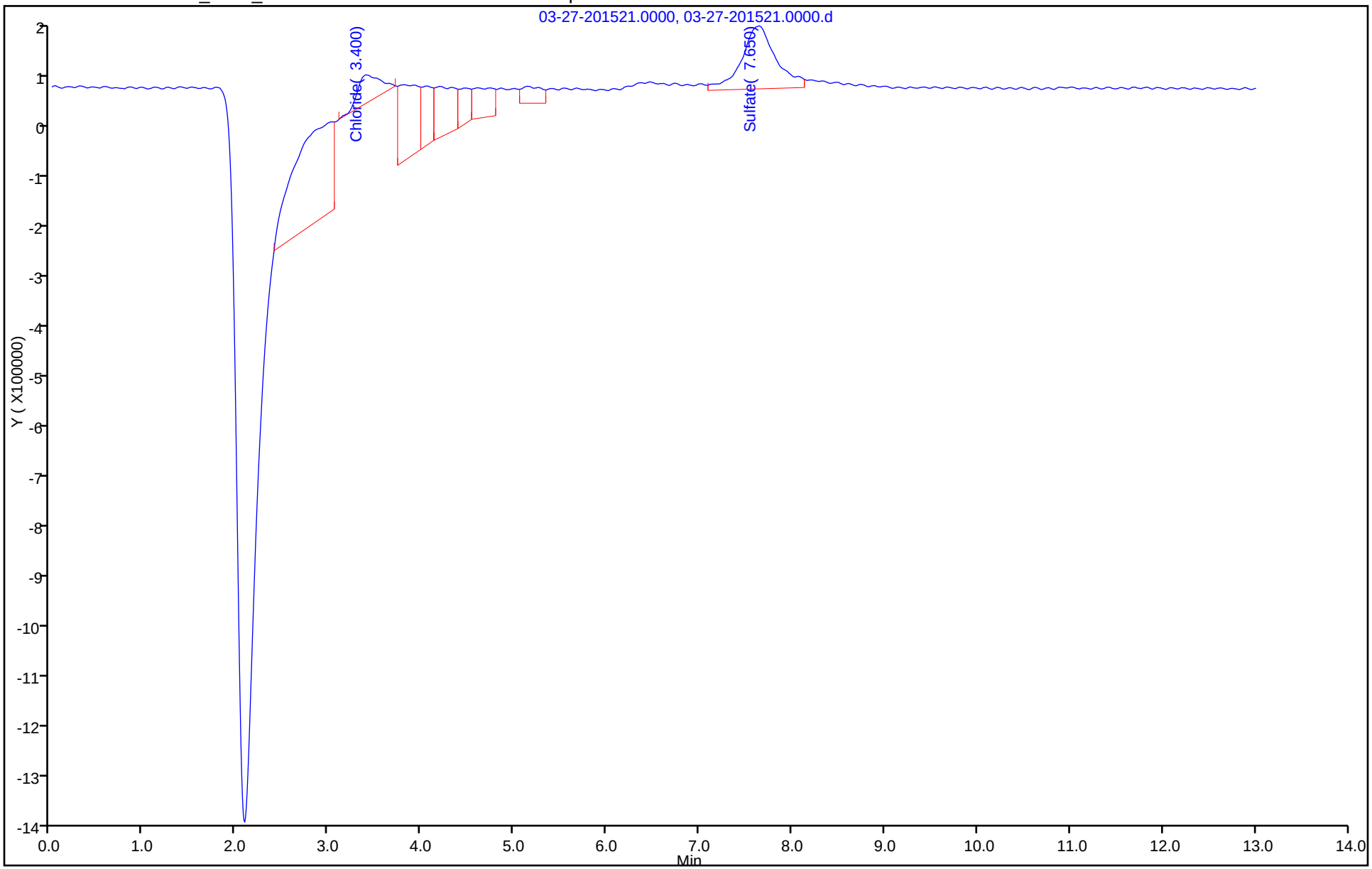
Review Flags
M - Manually Integrated

Report Date: 28-Mar-2015 11:27:38 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201521.0000.d

Injection Date:	27-Mar-2015 19:10:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	21
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



Manual Integration/User Assign Peak Report

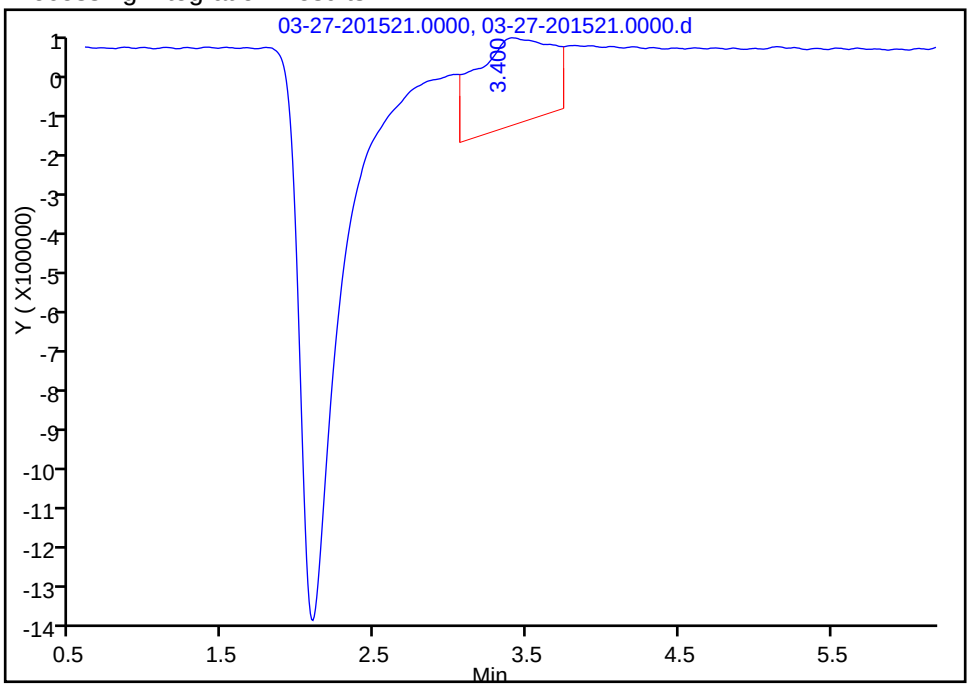
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201521.0000.d				
Injection Date:	27-Mar-2015 19:10:00	Instrument ID:	CHIC25		
Lims ID:	ccb				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

2 Chloride, CAS: 16887-00-6

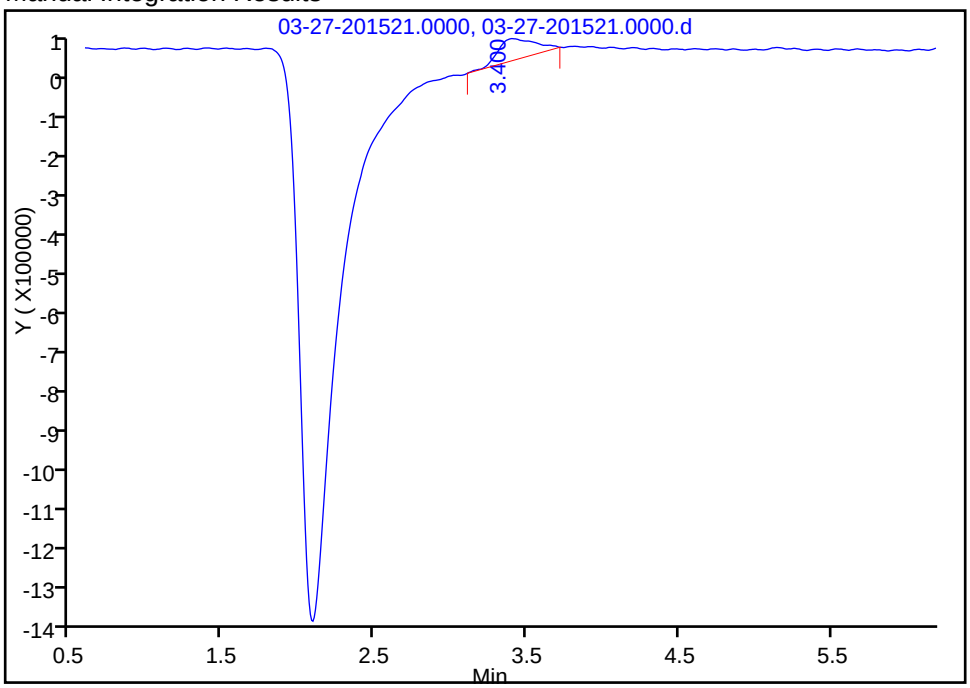
Processing Integration Results

RT: 3.40
Area: 6891022
Amount: 0.286345
Amount Units: ug/ml



Manual Integration Results

RT: 3.40
Area: 812554
Amount: 0.033764
Amount Units: ug/ml



Reviewer: reaglec, 28-Mar-2015 11:26:14
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-136809/29

Matrix: Water Lab File ID: 03-27-201529.0000.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 21:15

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 25(uL) GC Column: AS-14 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136809 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.10	U	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201529.0000.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 27-Mar-2015 21:15:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006217-029
Misc. Info.: 29 CCB
Operator ID: Instrument ID: CHIC25

Method: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\300_9056_CHIC25.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:27:39 Calib Date: 24-Mar-2015 21:35:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC25\20150324-6155.b\03-24a-201507.0000.d

Column 1 : Det: 0008
Process Host: XAWRK050

First Level Reviewer: reaglec Date: 28-Mar-2015 11:27:23

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.558				ND	
2 Chloride	3.392	3.367	0.025	677184		0.0281	M
10 Nitrite as N		3.783				ND	
4 Bromide		4.533				ND	
8 Nitrate as N		5.075				ND	
9 Orthophosphate as P		6.317				ND	
3 Sulfate	7.633	7.583	0.050	120176H		0.1911	

QC Flag Legend

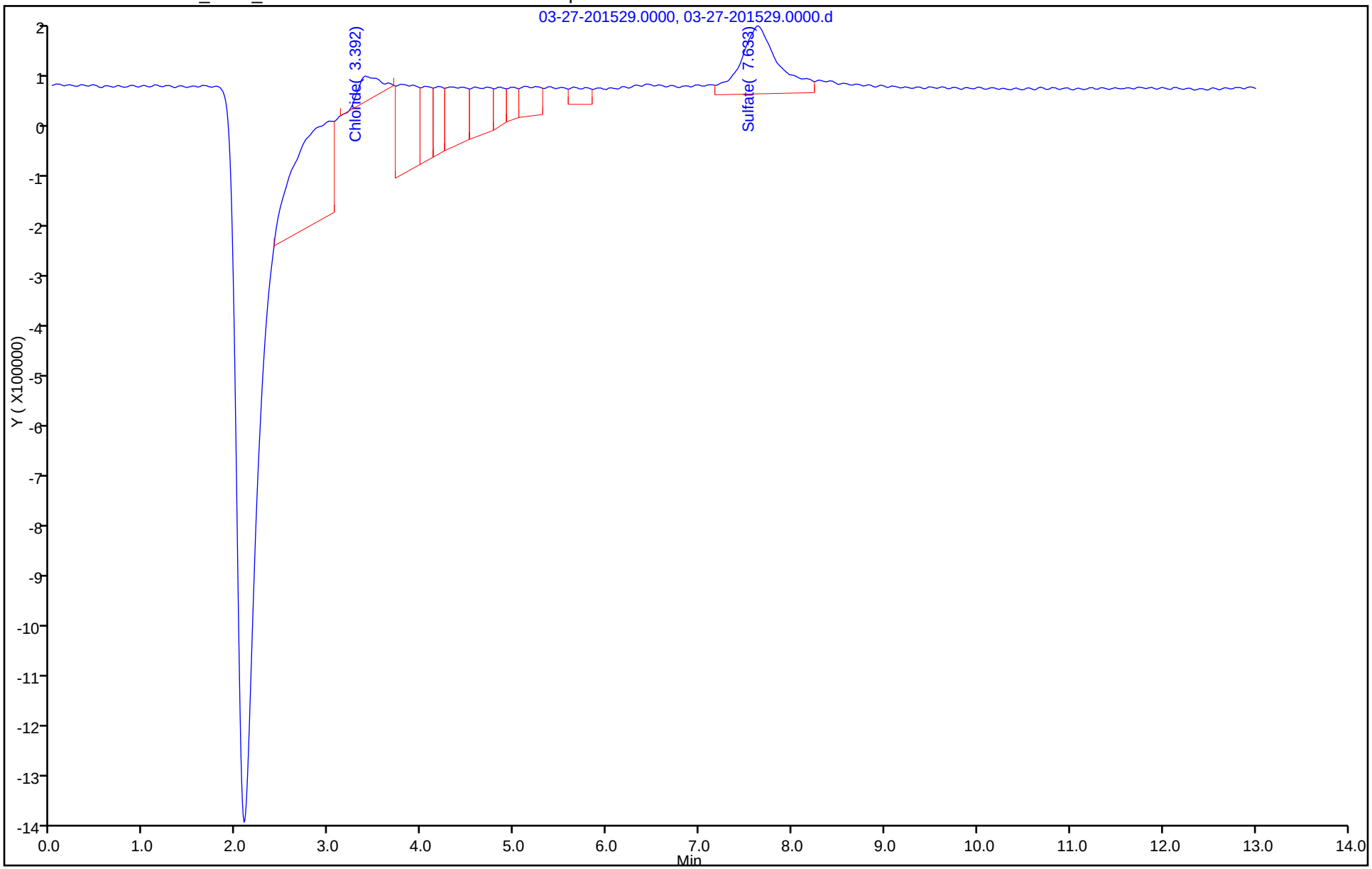
Review Flags
M - Manually Integrated

Report Date: 28-Mar-2015 11:27:40 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201529.0000.d

Injection Date:	27-Mar-2015 21:15:00	Instrument ID:	CHIC25	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		



Manual Integration/User Assign Peak Report

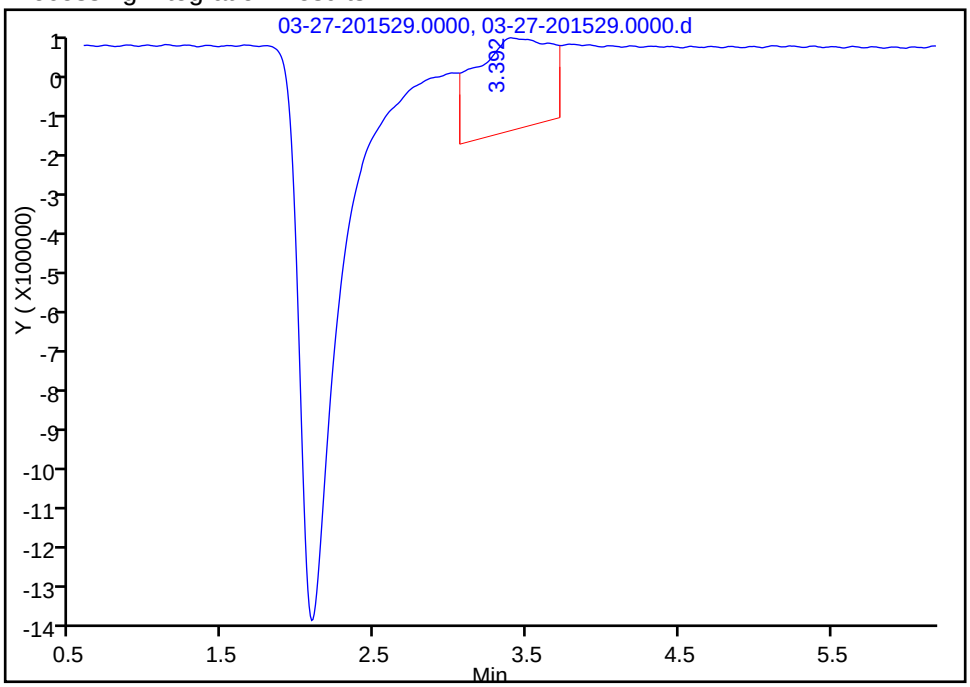
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC25\20150327-6217.b\03-27-201529.0000.d				
Injection Date:	27-Mar-2015 21:15:00	Instrument ID:	CHIC25		
Lims ID:	ccb				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	300_9056_CHIC25	Limit Group:	GC Anions ICAL		
Column:		Detector	0008		

2 Chloride, CAS: 16887-00-6

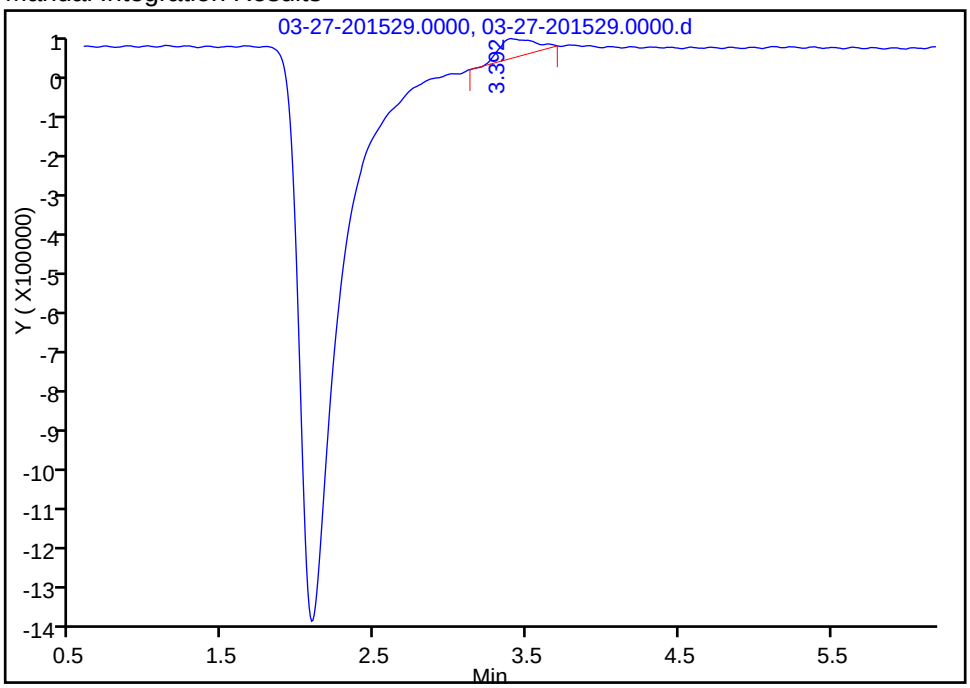
Processing Integration Results

RT: 3.39
Area: 7186101
Amount: 0.298606
Amount Units: ug/ml



Manual Integration Results

RT: 3.39
Area: 677184
Amount: 0.028139
Amount Units: ug/ml



Reviewer: reaglec, 28-Mar-2015 11:27:23
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-136787/9

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-9.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 12:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.59		0.10	0.0062
16887-00-6	Chloride	49.6		1.0	0.20
14808-79-8	Sulfate	49.8		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-9.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 27-Mar-2015 12:41:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-009
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:34:57 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.025	-0.017	82047903	2.50	2.53	
2 Chloride	4.008	4.017	-0.009	1028000339	50.0	49.6	
7 Nitrite as N	4.683	4.692	-0.009	109474781	2.50	2.59	
3 Sulfate	5.475	5.483	-0.008	743841088	50.0	49.8	
4 Bromide	6.208	6.217	-0.009	90019956	10.0	9.51	
5 Nitrate as N	7.158	7.167	-0.009	126288118	2.50	2.59	
6 Orthophosphate as P	10.225	10.142	0.083	32621054	2.50	2.15	

Reagents:

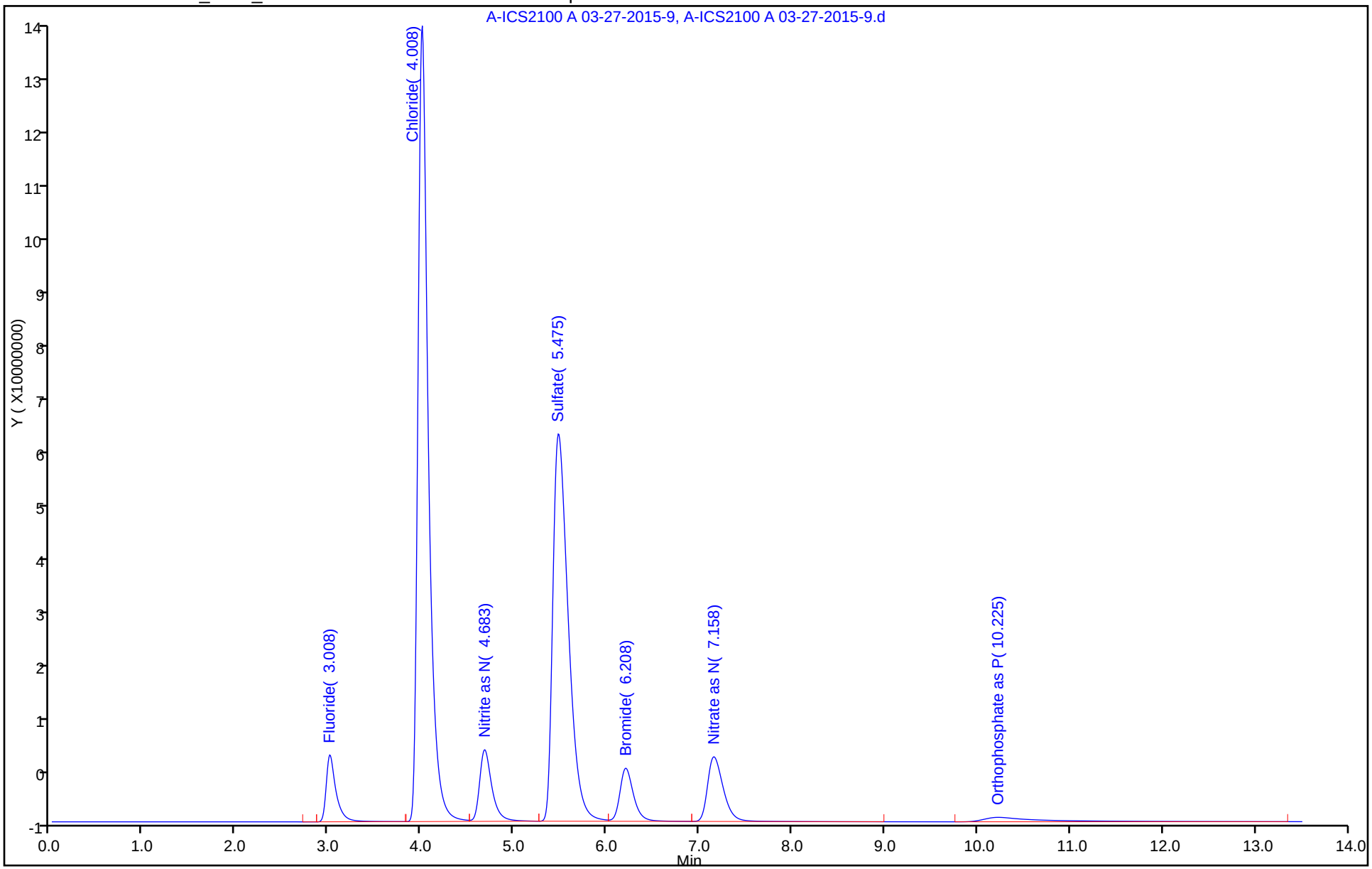
icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 30-Mar-2015 12:35:00 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-9.d

Injection Date:	27-Mar-2015 12:41:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			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.: 180-42445-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-136796/11

Matrix: Water Lab File ID: B-ICS2100 B 3-27-2015-11.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 15:05

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136796 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.41		0.10	0.0062
16887-00-6	Chloride	46.1		1.0	0.20
14808-79-8	Sulfate	45.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-11.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 27-Mar-2015 15:05:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006214-011
Misc. Info.: 10 lcs
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 28-Mar-2015 11:07:50 Calib Date: 25-Mar-2015 12:20:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150325-6174.b\B-ICS2100 B 3-25-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	96271044	2.50	2.50	
2 Chloride	4.942	4.942	0.000	1173190957	50.0	46.1	
7 Nitrite as N	5.833	5.842	-0.009	128510400	2.50	2.50	
3 Sulfate	6.808	6.808	0.000	853969415	50.0	45.9	
4 Bromide	7.833	7.833	0.000	7857973H	10.0	9.93	
5 Nitrate as N	9.092	9.092	0.000	143996481	2.50	2.41	
6 Orthophosphate as P	12.708	12.683	0.025	53866301	2.50	2.50	

Reagents:

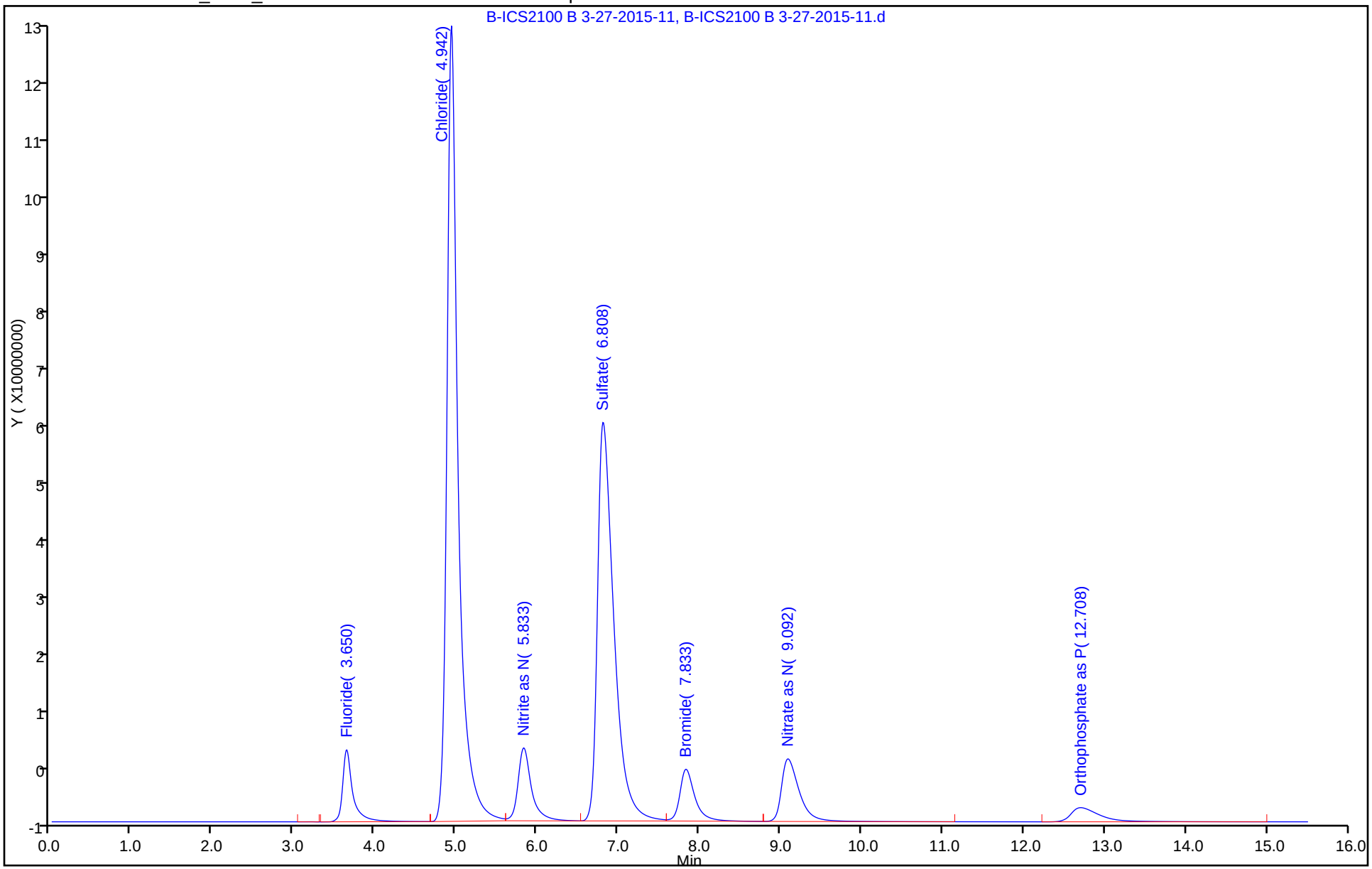
icccv_01202 Amount Added: 1.00 Units: mL

Report Date: 28-Mar-2015 11:07:51 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150327-6214.b\B-ICS2100 B 3-27-2015-11.d

Injection Date:	27-Mar-2015 15:05:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MS Lab Sample ID: 180-42445-4 MS

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-30.d

Analysis Method: 300.0 Date Collected: 03/26/2015 14:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 18:27

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.67		0.10	0.0062
16887-00-6	Chloride	81.7		1.0	0.20
14808-79-8	Sulfate	67.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-30.d
Lims ID: 180-42445-A-4 MS
Client ID: HD-MW-98I-0/1-0
Sample Type: MS
Inject. Date: 27-Mar-2015 18:27:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-030
Misc. Info.: 30 180-42445-a-4 ms
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:09 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.008	0.000	43745430	1.25	1.35	
2 Chloride	3.992	4.000	-0.008	1697581557	25.0	81.7	
7 Nitrite as N		4.675				ND	
3 Sulfate	5.450	5.483	-0.033	1013426687	25.0	67.9	
4 Bromide	6.200	6.200	0.000	45767507	5.00	4.83	
5 Nitrate as N	7.117	7.150	-0.033	228751455	1.25	4.67	
6 Orthophosphate as P		10.233			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

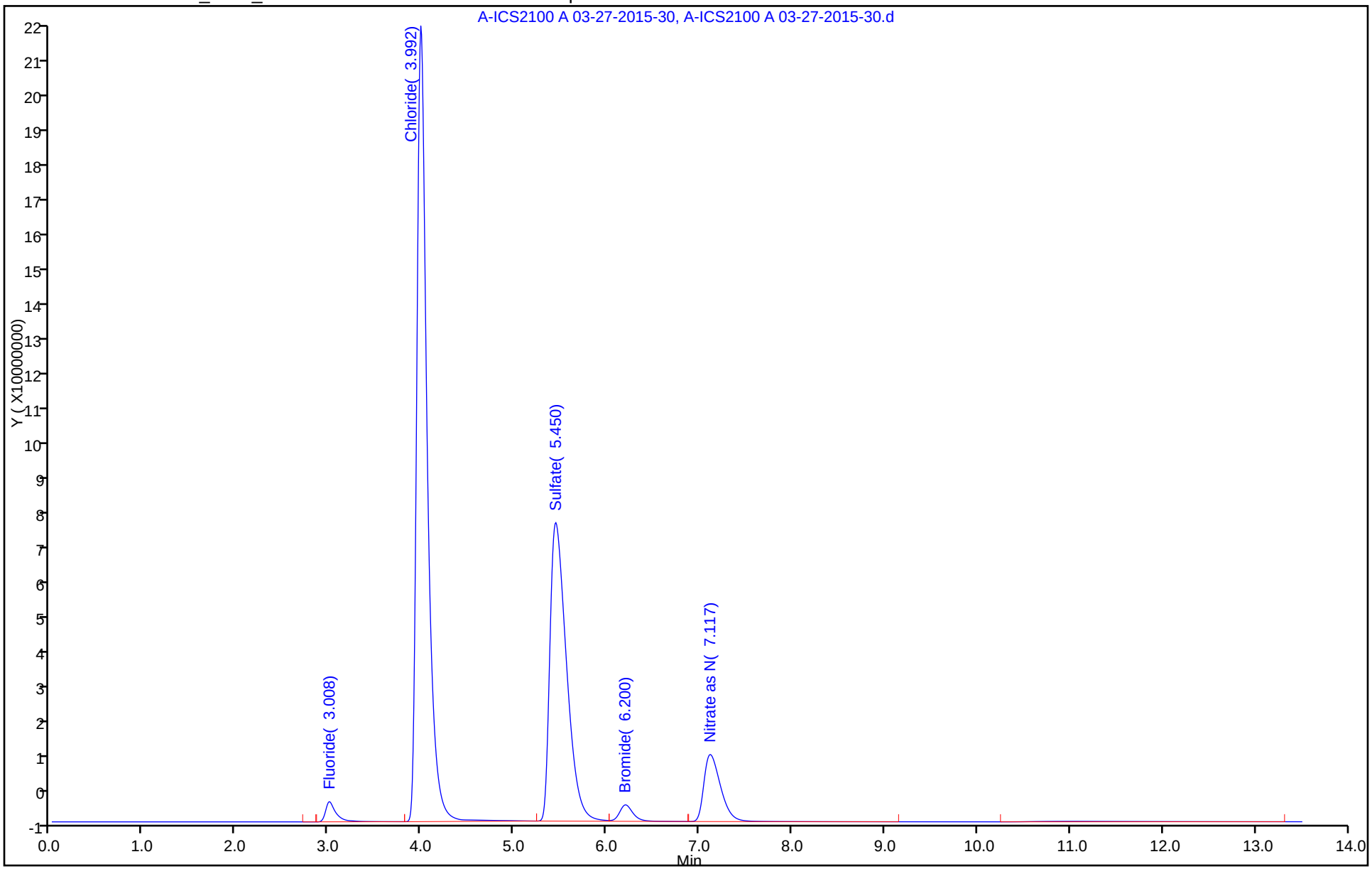
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 30-Mar-2015 12:35:10 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-30.d				
Injection Date:	27-Mar-2015 18:27:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-4 MS			Worklist Smp#:	30
Client ID:	HD-MW-98I-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.: 180-42445-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 MSD Lab Sample ID: 180-42445-4 MSD

Matrix: Water Lab File ID: A-ICS2100 A 03-27-2015-31.d

Analysis Method: 300.0 Date Collected: 03/26/2015 14:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/27/2015 18:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 136787 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.68		0.10	0.0062
16887-00-6	Chloride	82.1		1.0	0.20
14808-79-8	Sulfate	68.3		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-31.d
Lims ID: 180-42445-A-4 MSD
Client ID: HD-MW-98I-0/1-0
Sample Type: MSD
Inject. Date: 27-Mar-2015 18:44:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006212-031
Misc. Info.: 31 180-42445-a-4 msd
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 30-Mar-2015 12:35:09 Calib Date: 18-Mar-2015 13:15:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150318-6073.b\A-ICS2100 A 03-18-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK050

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.008	0.000	44899138	1.25	1.39	
2 Chloride	3.992	4.000	-0.008	1704945100	25.0	82.1	
7 Nitrite as N		4.675				ND	
3 Sulfate	5.442	5.483	-0.041	1019128706	25.0	68.3	
4 Bromide	6.200	6.200	0.000	46044919	5.00	4.86	
5 Nitrate as N	7.117	7.150	-0.033	229390102	1.25	4.68	
6 Orthophosphate as P		10.233			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

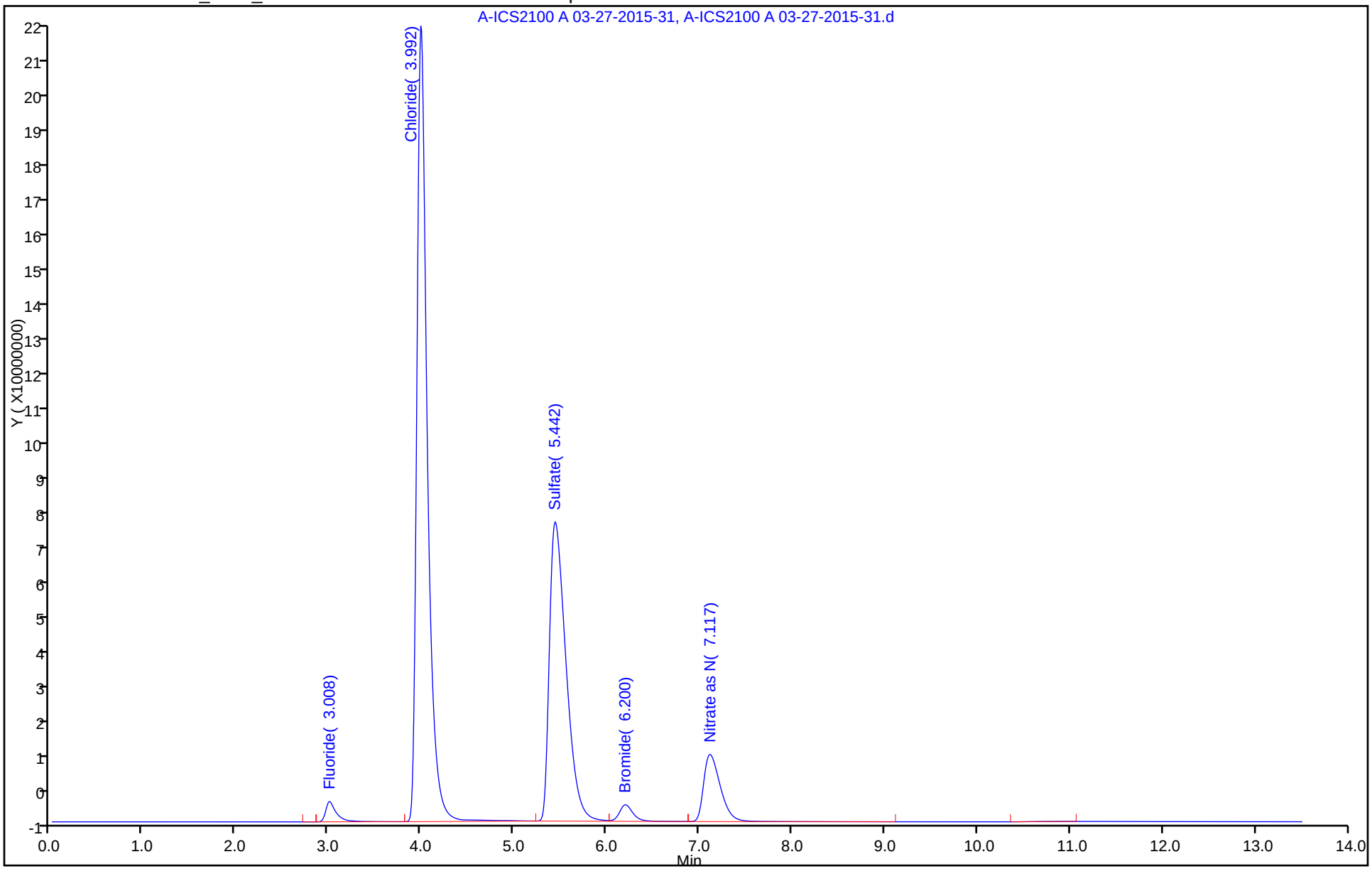
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 30-Mar-2015 12:35:11 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150327-6212.b\A-ICS2100 A 03-27-2015-31.d				
Injection Date:	27-Mar-2015 18:44:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-42445-A-4 MSD			Worklist Smp#:	31
Client ID:	HD-MW-98I-0/1-0				
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.: 180-42445-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/18/2015 11:12

Analysis Batch Number: 135876 End Date: 03/19/2015 03:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/18/2015 11:12	1		AS-18
IC 180-135876/2		03/18/2015 11:27	1	A-ICS2100 A 03-18-2015-2.d	AS-18
IC 180-135876/3		03/18/2015 11:43	1	A-ICS2100 A 03-18-2015-3.d	AS-18
ICRT 180-135876/4		03/18/2015 11:58	1	A-ICS2100 A 03-18-2015-4.d	AS-18
IC 180-135876/5		03/18/2015 12:13	1	A-ICS2100 A 03-18-2015-5.d	AS-18
IC 180-135876/6		03/18/2015 12:29	1	A-ICS2100 A 03-18-2015-6.d	AS-18
IC 180-135876/7		03/18/2015 12:44	1	A-ICS2100 A 03-18-2015-7.d	AS-18
IC 180-135876/8		03/18/2015 12:59	1	A-ICS2100 A 03-18-2015-8.d	AS-18
IC 180-135876/9		03/18/2015 13:15	1	A-ICS2100 A 03-18-2015-9.d	AS-18
ZZZZZ		03/18/2015 13:30	1		AS-18
ZZZZZ		03/18/2015 13:45	1		AS-18
ZZZZZ		03/18/2015 14:01	1		AS-18
ICV 180-135876/13		03/18/2015 14:16	1		AS-18
CCV 180-135876/14		03/18/2015 14:31	1		AS-18
CCB 180-135876/15		03/18/2015 14:46	1		AS-18
ZZZZZ		03/18/2015 15:02	1		AS-18
ZZZZZ		03/18/2015 15:17	1		AS-18
ZZZZZ		03/18/2015 15:32	100		AS-18
ZZZZZ		03/18/2015 15:48	1		AS-18
ZZZZZ		03/18/2015 16:03	5		AS-18
ZZZZZ		03/18/2015 16:18	1		AS-18
ZZZZZ		03/18/2015 16:34	5		AS-18
ZZZZZ		03/18/2015 16:49	1		AS-18
ZZZZZ		03/18/2015 17:04	10		AS-18
ZZZZZ		03/18/2015 17:20	1000		AS-18
CCV 180-135876/26		03/18/2015 18:20	1		AS-18
CCB 180-135876/27		03/18/2015 18:46	1		AS-18
ZZZZZ		03/18/2015 19:01	1		AS-18
ZZZZZ		03/18/2015 19:17	1		AS-18
ZZZZZ		03/18/2015 19:32	1		AS-18
ZZZZZ		03/18/2015 19:47	10		AS-18
ZZZZZ		03/18/2015 20:03	10		AS-18
ZZZZZ		03/18/2015 20:18	10		AS-18
ZZZZZ		03/18/2015 20:33	5		AS-18
ZZZZZ		03/18/2015 20:49	50		AS-18
ZZZZZ		03/18/2015 21:04	5		AS-18
ZZZZZ		03/18/2015 21:19	50		AS-18
CCV 180-135876/38		03/18/2015 21:35	1		AS-18
CCB 180-135876/39		03/18/2015 21:50	1		AS-18
ZZZZZ		03/18/2015 22:05	1		AS-18
ZZZZZ		03/18/2015 22:21	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/18/2015 11:12

Analysis Batch Number: 135876 End Date: 03/19/2015 03:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/18/2015 22:36	100		AS-18
ZZZZZ		03/18/2015 22:51	1000		AS-18
ZZZZZ		03/18/2015 23:06	5		AS-18
ZZZZZ		03/18/2015 23:22	5		AS-18
ZZZZZ		03/18/2015 23:37	5		AS-18
ZZZZZ		03/18/2015 23:52	50		AS-18
ZZZZZ		03/19/2015 00:08	50		AS-18
ZZZZZ		03/19/2015 00:23	50		AS-18
CCV 180-135876/50		03/19/2015 00:38	1		AS-18
CCB 180-135876/51		03/19/2015 00:54	1		AS-18
ZZZZZ		03/19/2015 01:09	1		AS-18
ZZZZZ		03/19/2015 01:24	5		AS-18
ZZZZZ		03/19/2015 01:39	5		AS-18
ZZZZZ		03/19/2015 01:55	5		AS-18
ZZZZZ		03/19/2015 02:10	50		AS-18
ZZZZZ		03/19/2015 02:25	50		AS-18
ZZZZZ		03/19/2015 02:41	50		AS-18
ZZZZZ		03/19/2015 02:56	1		AS-18
ZZZZZ		03/19/2015 03:11	1		AS-18
CCV 180-135876/61		03/19/2015 03:27	1		AS-18
CCB 180-135876/62		03/19/2015 03:42	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC25 Start Date: 03/24/2015 20:18

Analysis Batch Number: 136436 End Date: 03/25/2015 06:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-136436/2		03/24/2015 20:18	1	03-24a-201502.0000.d	AS-14
IC 180-136436/3		03/24/2015 20:33	1	03-24a-201503.0000.d	AS-14
ICRT 180-136436/4		03/24/2015 20:49	1	03-24a-201504.0000.d	AS-14
IC 180-136436/5		03/24/2015 21:04	1	03-24a-201505.0000.d	AS-14
IC 180-136436/6		03/24/2015 21:20	1	03-24a-201506.0000.d	AS-14
IC 180-136436/7		03/24/2015 21:35	1	03-24a-201507.0000.d	AS-14
ZZZZZ		03/24/2015 21:51	1		AS-14
ZZZZZ		03/24/2015 22:06	1		AS-14
ZZZZZ		03/24/2015 22:22	1		AS-14
ICV 180-136436/11		03/24/2015 22:38	1		AS-14
CCV 180-136436/12		03/24/2015 22:53	1		AS-14
CCB 180-136436/13		03/24/2015 23:09	1		AS-14
ZZZZZ		03/24/2015 23:24	1		AS-14
ZZZZZ		03/24/2015 23:40	1		AS-14
ZZZZZ		03/24/2015 23:55	1		AS-14
ZZZZZ		03/25/2015 00:11	1		AS-14
ZZZZZ		03/25/2015 00:26	1		AS-14
ZZZZZ		03/25/2015 00:42	1		AS-14
ZZZZZ		03/25/2015 00:58	1		AS-14
ZZZZZ		03/25/2015 01:13	5		AS-14
ZZZZZ		03/25/2015 01:29	1		AS-14
ZZZZZ		03/25/2015 01:44	10		AS-14
CCV 180-136436/24		03/25/2015 02:00	1		AS-14
CCB 180-136436/25		03/25/2015 02:15	1		AS-14
ZZZZZ		03/25/2015 02:31	2.5		AS-14
ZZZZZ		03/25/2015 02:47	25		AS-14
ZZZZZ		03/25/2015 03:02	10		AS-14
ZZZZZ		03/25/2015 03:18	100		AS-14
ZZZZZ		03/25/2015 03:33	5		AS-14
ZZZZZ		03/25/2015 03:49	50		AS-14
ZZZZZ		03/25/2015 04:04	1		AS-14
ZZZZZ		03/25/2015 04:20	1		AS-14
ZZZZZ		03/25/2015 04:35	1		AS-14
ZZZZZ		03/25/2015 04:51	1		AS-14
CCV 180-136436/38		03/25/2015 05:07	1		AS-14
CCB 180-136436/39		03/25/2015 05:22	1		AS-14
ZZZZZ		03/25/2015 05:38	1		AS-14
ZZZZZ		03/25/2015 05:53	5		AS-14
ZZZZZ		03/25/2015 06:09	1		AS-14
ZZZZZ		03/25/2015 06:24	5		AS-14
CCV 180-136436/44		03/25/2015 06:40	1		AS-14
CCB 180-136436/45		03/25/2015 06:55	1		AS-14

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 03/25/2015 10:19

Analysis Batch Number: 136512 End Date: 03/26/2015 12:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-136512/2		03/25/2015 10:19	1	B-ICS2100 B 3-25-2015-2.d	AS-18
IC 180-136512/3		03/25/2015 10:36	1	B-ICS2100 B 3-25-2015-3.d	AS-18
ICRT 180-136512/4		03/25/2015 10:54	1	B-ICS2100 B 3-25-2015-4.d	AS-18
IC 180-136512/5		03/25/2015 11:11	1	B-ICS2100 B 3-25-2015-5.d	AS-18
IC 180-136512/6		03/25/2015 11:28	1	B-ICS2100 B 3-25-2015-6.d	AS-18
IC 180-136512/7		03/25/2015 11:46	1	B-ICS2100 B 3-25-2015-7.d	AS-18
IC 180-136512/8		03/25/2015 12:03	1	B-ICS2100 B 3-25-2015-8.d	AS-18
IC 180-136512/9		03/25/2015 12:20	1	B-ICS2100 B 3-25-2015-9.d	AS-18
ZZZZZ		03/25/2015 12:38	1		AS-18
ZZZZZ		03/25/2015 12:55	1		AS-18
ZZZZZ		03/25/2015 13:12	1		AS-18
ICV 180-136512/13		03/25/2015 13:30	1		AS-18
CCV 180-136512/14		03/25/2015 14:06	1		AS-18
CCB 180-136512/15		03/25/2015 14:46	1		AS-18
ZZZZZ		03/25/2015 15:04	1		AS-18
ZZZZZ		03/25/2015 15:21	1		AS-18
ZZZZZ		03/25/2015 15:48	1		AS-18
ZZZZZ		03/25/2015 16:05	1		AS-18
ZZZZZ		03/25/2015 16:22	10		AS-18
ZZZZZ		03/25/2015 16:40	1		AS-18
ZZZZZ		03/25/2015 16:57	10		AS-18
ZZZZZ		03/25/2015 17:15	1		AS-18
ZZZZZ		03/25/2015 17:32	10		AS-18
ZZZZZ		03/25/2015 17:49	10		AS-18
CCV 180-136512/26		03/25/2015 18:07	1		AS-18
CCB 180-136512/27		03/25/2015 18:24	1		AS-18
ZZZZZ		03/25/2015 18:41	1		AS-18
ZZZZZ		03/25/2015 18:59	1		AS-18
ZZZZZ		03/25/2015 19:16	10		AS-18
ZZZZZ		03/25/2015 19:33	1		AS-18
ZZZZZ		03/25/2015 19:51	10		AS-18
ZZZZZ		03/25/2015 20:08	1		AS-18
ZZZZZ		03/25/2015 20:25	10		AS-18
ZZZZZ		03/25/2015 20:43	1		AS-18
ZZZZZ		03/25/2015 21:00	10		AS-18
ZZZZZ		03/25/2015 21:17	10		AS-18
CCV 180-136512/38		03/25/2015 21:35	1		AS-18
CCB 180-136512/39		03/25/2015 21:52	1		AS-18
ZZZZZ		03/25/2015 22:09	1		AS-18
ZZZZZ		03/25/2015 22:27	1		AS-18
ZZZZZ		03/25/2015 22:44	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 03/25/2015 10:19

Analysis Batch Number: 136512 End Date: 03/26/2015 12:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/25/2015 23:01	1		AS-18
ZZZZZ		03/25/2015 23:18	10		AS-18
ZZZZZ		03/25/2015 23:36	10		AS-18
ZZZZZ		03/25/2015 23:53	10		AS-18
ZZZZZ		03/26/2015 00:10	1		AS-18
ZZZZZ		03/26/2015 00:28	10		AS-18
ZZZZZ		03/26/2015 00:45	50		AS-18
CCV 180-136512/50		03/26/2015 01:02	1		AS-18
CCB 180-136512/51		03/26/2015 01:20	1		AS-18
ZZZZZ		03/26/2015 01:37	5		AS-18
ZZZZZ		03/26/2015 01:54	1		AS-18
ZZZZZ		03/26/2015 02:12	1		AS-18
ZZZZZ		03/26/2015 02:29	1		AS-18
ZZZZZ		03/26/2015 02:46	10		AS-18
ZZZZZ		03/26/2015 03:04	10		AS-18
ZZZZZ		03/26/2015 03:21	10		AS-18
CCV 180-136512/59		03/26/2015 03:38	1		AS-18
CCB 180-136512/60		03/26/2015 03:56	1		AS-18
ZZZZZ		03/26/2015 04:13	1		AS-18
ZZZZZ		03/26/2015 04:30	1		AS-18
ZZZZZ		03/26/2015 04:48	1		AS-18
ZZZZZ		03/26/2015 05:05	1		AS-18
ZZZZZ		03/26/2015 05:22	1		AS-18
ZZZZZ		03/26/2015 05:39	1		AS-18
ZZZZZ		03/26/2015 05:57	1		AS-18
CCV 180-136512/68		03/26/2015 06:14	1		AS-18
CCB 180-136512/69		03/26/2015 06:31	1		AS-18
ZZZZZ		03/26/2015 07:19	1		AS-18
ZZZZZ		03/26/2015 07:36	1		AS-18
ZZZZZ		03/26/2015 07:54	1		AS-18
ZZZZZ		03/26/2015 08:11	1		AS-18
ZZZZZ		03/26/2015 08:28	1		AS-18
ZZZZZ		03/26/2015 08:46	1		AS-18
ZZZZZ		03/26/2015 09:03	1		AS-18
ZZZZZ		03/26/2015 09:20	1		AS-18
ZZZZZ		03/26/2015 09:38	1		AS-18
ZZZZZ		03/26/2015 09:55	1		AS-18
CCV 180-136512/80		03/26/2015 10:12	1		AS-18
CCB 180-136512/81		03/26/2015 10:30	1		AS-18
ZZZZZ		03/26/2015 10:48	1		AS-18
ZZZZZ		03/26/2015 11:05	1		AS-18
ZZZZZ		03/26/2015 11:22	1		AS-18
ZZZZZ		03/26/2015 11:40	1		AS-18
CCV 180-136512/86		03/26/2015 11:57	1		AS-18
CCB 180-136512/87		03/26/2015 12:14	1		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/27/2015 09:30

Analysis Batch Number: 136787 End Date: 03/27/2015 20:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/27/2015 09:30	1		AS-18
ICV 180-136787/2		03/27/2015 09:45	1	A-ICS2100 A 03-27-2015-2.d	AS-18
CCV 180-136787/3		03/27/2015 11:03	1	A-ICS2100 A 03-27-2015-3.d	AS-18
CCB 180-136787/4		03/27/2015 11:22	1	A-ICS2100 A 03-27-2015-4.d	AS-18
ZZZZZ		03/27/2015 11:37	1		AS-18
ZZZZZ		03/27/2015 11:52	1		AS-18
ZZZZZ		03/27/2015 12:08	1		AS-18
ZZZZZ		03/27/2015 12:24	1		AS-18
LCS 180-136787/9		03/27/2015 12:41	1	A-ICS2100 A 03-27-2015-9.d	AS-18
MB 180-136787/10		03/27/2015 12:58	1	A-ICS2100 A 03-27-2015-10.d	AS-18
ZZZZZ		03/27/2015 13:14	1		AS-18
ZZZZZ		03/27/2015 13:29	1		AS-18
ZZZZZ		03/27/2015 13:44	1		AS-18
ZZZZZ		03/27/2015 14:00	1		AS-18
CCV 180-136787/15		03/27/2015 14:15	1	A-ICS2100 A 03-27-2015-15.d	AS-18
CCB 180-136787/16		03/27/2015 14:30	1	A-ICS2100 A 03-27-2015-16.d	AS-18
ZZZZZ		03/27/2015 14:46	1		AS-18
ZZZZZ		03/27/2015 15:01	1		AS-18
ZZZZZ		03/27/2015 15:16	1		AS-18
ZZZZZ		03/27/2015 15:33	1		AS-18
ZZZZZ		03/27/2015 15:51	1		AS-18
ZZZZZ		03/27/2015 16:08	1		AS-18
ZZZZZ		03/27/2015 16:25	5		AS-18
180-42445-2	HD-MW-96S-0/1-0	03/27/2015 16:43	1	A-ICS2100 A 03-27-2015-24.d	AS-18
180-42445-3	HD-MW-96D-0/1-0	03/27/2015 17:00	1	A-ICS2100 A 03-27-2015-25.d	AS-18
180-42445-6	HD-MW-39D-0/1-0	03/27/2015 17:17	1	A-ICS2100 A 03-27-2015-26.d	AS-18
CCV 180-136787/27		03/27/2015 17:35	1	A-ICS2100 A 03-27-2015-27.d	AS-18
CCB 180-136787/28		03/27/2015 17:52	1	A-ICS2100 A 03-27-2015-28.d	AS-18
180-42445-4	HD-MW-98I-0/1-0	03/27/2015 18:09	1	A-ICS2100 A 03-27-2015-29.d	AS-18
180-42445-4 MS	HD-MW-98I-0/1-0 MS	03/27/2015 18:27	1	A-ICS2100 A 03-27-2015-30.d	AS-18
180-42445-4 MSD	HD-MW-98I-0/1-0 MSD	03/27/2015 18:44	1	A-ICS2100 A 03-27-2015-31.d	AS-18
ZZZZZ		03/27/2015 19:01	1		AS-18
180-42445-9	HD-MW-51S-0/1-0	03/27/2015 19:19	1	A-ICS2100 A 03-27-2015-33.d	AS-18
180-42445-10	HD-QC2-0/1-1	03/27/2015 19:36	1	A-ICS2100 A 03-27-2015-34.d	AS-18
180-42445-7	HD-MW-74S-0/1-0	03/27/2015 19:53	1	A-ICS2100 A 03-27-2015-35.d	AS-18
CCV 180-136787/36		03/27/2015 20:11	1	A-ICS2100 A 03-27-2015-36.d	AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 03/27/2015 09:30

Analysis Batch Number: 136787 End Date: 03/27/2015 20:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 180-136787/37		03/27/2015 20:28	1	A-ICS2100 A 03-27-2015-37.d	AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 03/27/2015 10:54

Analysis Batch Number: 136796 End Date: 03/27/2015 19:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/27/2015 10:54	1		AS-18
ICV 180-136796/2		03/27/2015 11:12	1	B-ICS2100 B 3-27-2015-2.d	AS-18
CCV 180-136796/3		03/27/2015 11:29	1		AS-18
CCB 180-136796/4		03/27/2015 11:46	1		AS-18
ZZZZZ		03/27/2015 12:04	1		AS-18
ZZZZZ		03/27/2015 12:21	1		AS-18
ZZZZZ		03/27/2015 12:38	10		AS-18
ZZZZZ		03/27/2015 12:56	1		AS-18
CCV 180-136796/9		03/27/2015 13:37	1	B-ICS2100 B 3-27-2015-9.d	AS-18
CCB 180-136796/10		03/27/2015 14:19	1	B-ICS2100 B 3-27-2015-10.d	AS-18
LCS 180-136796/11		03/27/2015 15:05	1	B-ICS2100 B 3-27-2015-11.d	AS-18
MB 180-136796/12		03/27/2015 15:31	1	B-ICS2100 B 3-27-2015-12.d	AS-18
ZZZZZ		03/27/2015 15:48	1		AS-18
ZZZZZ		03/27/2015 16:05	5		AS-18
ZZZZZ		03/27/2015 16:23	1		AS-18
ZZZZZ		03/27/2015 16:40	1		AS-18
ZZZZZ		03/27/2015 16:57	1		AS-18
ZZZZZ		03/27/2015 17:15	5		AS-18
ZZZZZ		03/27/2015 17:32	5		AS-18
ZZZZZ		03/27/2015 17:49	5		AS-18
CCV 180-136796/21		03/27/2015 18:07	1	B-ICS2100 B 3-27-2015-21.d	AS-18
CCB 180-136796/22		03/27/2015 18:24	1	B-ICS2100 B 3-27-2015-22.d	AS-18
180-42445-5	HD-MW-98S-0/1-0	03/27/2015 18:41	1	B-ICS2100 B 3-27-2015-23.d	AS-18
ZZZZZ		03/27/2015 18:59	5		AS-18
CCV 180-136796/25		03/27/2015 19:16	1	B-ICS2100 B 3-27-2015-25.d	AS-18
CCB 180-136796/26		03/27/2015 19:33	1	B-ICS2100 B 3-27-2015-26.d	AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: CHIC25 Start Date: 03/27/2015 11:53

Analysis Batch Number: 136809 End Date: 03/27/2015 21:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/27/2015 11:53	1		AS-14
ICV 180-136809/2		03/27/2015 12:08	1	03-27-201502.0000.d	AS-14
CCV 180-136809/3		03/27/2015 12:24	1		AS-14
CCB 180-136809/4		03/27/2015 12:39	1		AS-14
ZZZZZ		03/27/2015 13:44	1		AS-14
ZZZZZ		03/27/2015 14:00	1		AS-14
ZZZZZ		03/27/2015 14:16	1		AS-14
CCV 180-136809/8		03/27/2015 14:31	1	03-27-201508.0000.d	AS-14
CCB 180-136809/9		03/27/2015 14:47	1	03-27-201509.0000.d	AS-14
ZZZZZ		03/27/2015 15:02	2.5		AS-14
ZZZZZ		03/27/2015 15:18	25		AS-14
ZZZZZ		03/27/2015 15:33	1		AS-14
ZZZZZ		03/27/2015 17:06	1		AS-14
ZZZZZ		03/27/2015 17:21	1		AS-14
ZZZZZ		03/27/2015 17:37	1		AS-14
ZZZZZ		03/27/2015 17:52	1		AS-14
ZZZZZ		03/27/2015 18:08	1		AS-14
ZZZZZ		03/27/2015 18:23	1		AS-14
ZZZZZ		03/27/2015 18:39	1		AS-14
CCV 180-136809/20		03/27/2015 18:55	1	03-27-201520.0000.d	AS-14
CCB 180-136809/21		03/27/2015 19:10	1	03-27-201521.0000.d	AS-14
ZZZZZ		03/27/2015 19:26	1		AS-14
ZZZZZ		03/27/2015 19:41	10		AS-14
180-42445-8	HD-MW-50D-0/1-0	03/27/2015 19:57	1	03-27-201524.0000.d	AS-14
180-42445-8	HD-MW-50D-0/1-0	03/27/2015 20:12	10	03-27-201525.0000.d	AS-14
ZZZZZ		03/27/2015 20:28	1		AS-14
ZZZZZ		03/27/2015 20:43	10		AS-14
CCV 180-136809/28		03/27/2015 20:59	1	03-27-201528.0000.d	AS-14
CCB 180-136809/29		03/27/2015 21:15	1	03-27-201529.0000.d	AS-14

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-42445-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-96S-0/1-0	180-42445-2
HD-MW-96D-0/1-0	180-42445-3
HD-MW-98I-0/1-0	180-42445-4
HD-MW-98S-0/1-0	180-42445-5
HD-MW-39D-0/1-0	180-42445-6
HD-MW-74S-0/1-0	180-42445-7
HD-MW-50D-0/1-0	180-42445-8
HD-MW-51S-0/1-0	180-42445-9
HD-QC2-0/1-1	180-42445-10

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-42445-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 09:35

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	12000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	64000	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: 180-42445-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 08:55

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	48000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-42445-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 14:25

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3200	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	12000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	26000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-42445-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 13:45

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3300	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	12000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	25000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-39D-0/1-0 Lab Sample ID: 180-42445-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 12:20

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7700	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-42445-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 10:50

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	91000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3200	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	9600	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	27000	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: 180-42445-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 10:32

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	160000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2500	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	47000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	19000	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: 180-42445-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 14:42

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8000	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	48000	100	3.8	ug/L		B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-42445-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 08:00

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	100	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3200	100	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	100	1.2	ug/L			1	6020A
7440-23-5	Sodium	24000	100	3.8	ug/L		B	1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

ICV Source: MICVX_00030 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	ICV 180-137679/5 04/06/2015 12:09				CCV 180-137679/10 04/06/2015 12:34				CCV 180-137679/22 04/06/2015 13:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	37100		40000	93	49000		50000	98	49400		50000	99
Magnesium	36400		40000	91	46200		50000	92	46200		50000	92
Potassium	37300		40000	93	48200		50000	96	48500		50000	97
Sodium	37100		40000	93	48700		50000	97	47500		50000	95

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.: 180-42445-1

SDG No.:

ICV Source: MICVX_00030 Concentration Units: ug/L

CCV Source: MCCV1X_00073

Analyte	CCV 180-137679/34 04/06/2015 14:26				CCV 180-137679/46 04/06/2015 15:20				CCV 180-137679/58 04/06/2015 16:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49400		50000	99	50800		50000	102	49500		50000	99
Magnesium	46100		50000	92	47100		50000	94	46700		50000	93
Potassium	49000		50000	98	51200		50000	102	49500		50000	99
Sodium	48100		50000	96	50300		50000	101	49300		50000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-137679/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00063

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	101		101	70-130
Potassium	100	98.9	J	99	70-130
Magnesium	100	100		100	70-130
Sodium	100	115		115	70-130

Lab Sample ID: CRI 180-137679/80 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00063

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	100	110		110	70-130
Potassium	100	95.3	J	95	70-130
Magnesium	100	101		101	70-130
Sodium	100	119		119	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.: 180-42445-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-137679/6 04/06/2015 12:13		CCB1 180-137679/11 04/06/2015 12:41		CCB2 180-137679/23 04/06/2015 13:35		CCB3 180-137679/35 04/06/2015 14:33	
		Found	C	Found	C	Found	C	Found	C
Calcium	100	3.86	J	5.89	J	7.93	J	10.6	J
Magnesium	100	4.36	J	7.56	J	8.01	J	9.14	J
Potassium	100	13.7	J	24.9	J	100	U	100	U
Sodium	100	22.2	J	50.1	J	26.2	J	22.7	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB4 180-137679/47 04/06/2015 15:28		CCB5 180-137679/59 04/06/2015 16:22					
		Found	C	Found	C	Found	C	Found	C
Calcium	100	10.8	J	9.85	J				
Magnesium	100	6.77	J	7.92	J				
Potassium	100	100	U	100	U				
Sodium	100	13.9	J	64.4	J				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-137340/1-A

Instrument Code: X Batch No.: 137679

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	6.29	J		6020A
7440-09-7	Potassium	100	U		6020A
7439-95-4	Magnesium	100	U		6020A
7440-23-5	Sodium	12.7	J		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Lab Sample ID: ICSA 180-137679/8 Instrument ID: X

Lab File ID: X50406A.xml ICS Source: MICSAX_00064

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**97310**	**97**
Magnesium	**100000**	**93320**	**93**
Potassium	**100000**	**97070**	**97**
Sodium	**100000**	**97870**	**98**
Aluminum	*100000*	*90760*	*91*
Antimony		*0.0820*	
Arsenic		*0.0430*	
Barium		*0.202*	
Beryllium		*0.0470*	
Boron		*1.21*	
Cadmium		*2.41*	
Chromium		*0.442*	
Cobalt		*0.145*	
Copper		*2.38*	
Iron	*100000*	*94890*	*95*
Lead		*0.709*	
Manganese		*1.26*	
Molybdenum	*2000*	*2105*	*105*
Nickel		*-0.160*	
Selenium		*0.391*	
Silicon		*24.6*	
Silver		*0.0580*	
Strontium		*0.694*	
Thallium		*0.0310*	
Tin		*0.283*	
Titanium	*2000*	*2092*	*105*
Vanadium		*-0.341*	
Zinc		*4.07*	

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.: 180-42445-1

SDG No.:

Lab Sample ID: ICSAB 180-137679/9 Instrument ID: X

Lab File ID: X50406A.xml ICS Source: MICSABX_00068

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**99620**	**100**
Magnesium	**100000**	**95173**	**95**
Potassium	**100000**	**100077**	**100**
Sodium	**100000**	**102133**	**102**
Aluminum	*100000*	*92350*	*92*
Antimony	*20.0*	*20.0*	*100*
Arsenic	*20.0*	*20.6*	*103*
Barium	*20.0*	*19.4*	*97*
Beryllium	*20.0*	*19.9*	*99*
Boron	*50.0*	*48.2*	*96*
Cadmium	*20.0*	*21.4*	*107*
Chromium	*20.0*	*19.4*	*97*
Cobalt	*20.0*	*19.2*	*96*
Copper	*20.0*	*21.8*	*109*
Iron	*100000*	*98770*	*99*
Lead	*20.0*	*20.4*	*102*
Manganese	*22.5*	*20.5*	*91*
Molybdenum	*2000*	*2250*	*113*
Nickel	*20.0*	*19.0*	*95*
Selenium	*50.0*	*54.4*	*109*
Silicon	*500*	*517*	*103*
Silver	*20.0*	*17.7*	*89*
Strontium	*25.0*	*20.8*	*83*
Thallium	*20.0*	*19.1*	*95*
Tin	*100*	*99.6*	*100*
Titanium	*2000*	*2140*	*107*
Vanadium	*20.0*	*18.3*	*92*
Zinc	*25.0*	*22.4*	*90*

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-MW-98I-0/1-0 MS
Lab ID: 180-42445-4 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-42445-1
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	162000		120000		50000	90	75-125		6020A
Potassium	49900		3200		50000	93	75-125		6020A
Magnesium	50300		12000		50000	77	75-125		6020A
Sodium	70800		26000		50000	90	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-MW-98I-0/1-0 MSD Lab ID: 180-42445-4 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

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	160000		50000	86	75-125	1	20		6020A
Potassium	50800		50000	95	75-125	2	20		6020A
Magnesium	51100		50000	78	75-125	1	20		6020A
Sodium	71300		50000	91	75-125	1	20		6020A

SDR = Sample Duplicate Result

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

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-98I-0/1-0 PDS Lab ID: 180-42445-4 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

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	162000		120000		50000	90	75-125		6020A
Potassium	52900		3200		50000	99	75-125		6020A
Magnesium	53100		12000		50000	82	75-125		6020A
Sodium	74000		26000		50000	96	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 180-137340/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00023

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	48300		97	80	120		6020A
Potassium	50000	47900		96	80	120		6020A
Magnesium	50000	40400		81	80	120		6020A
Sodium	50000	46100		92	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: 180-42445-4

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-42445-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	120000		109000		6.9		6020A
Potassium	3200		3050		3.7		6020A
Magnesium	12000		11700		1.5		6020A
Sodium	26000		25600		0.79		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: 180-42445-1

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: 180-42445-1

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: 180-42445-1

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.: 180-42445-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-137340/1-A	04/02/2015 10:32	137340		50	50
LCS 180-137340/2-A	04/02/2015 10:32	137340		50	50
180-42445-2	04/02/2015 10:32	137340		50	50
180-42445-3	04/02/2015 10:32	137340		50	50
180-42445-4	04/02/2015 10:32	137340		50	50
180-42445-4 MS	04/02/2015 10:32	137340		50	50
180-42445-4 MSD	04/02/2015 10:32	137340		50	50
180-42445-5	04/02/2015 10:32	137340		50	50
180-42445-6	04/02/2015 10:32	137340		50	50
180-42445-7	04/02/2015 10:32	137340		50	50
180-42445-8	04/02/2015 10:32	137340		50	50
180-42445-9	04/02/2015 10:32	137340		50	50
180-42445-10	04/02/2015 10:32	137340		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 04/06/2015 09:55 End Date: 04/06/2015 20:26

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-137679/1			09:55																										
STD1 180-137679/2 IC	1		11:55	X	X	X	X																						
STD2 180-137679/3 IC	1		12:00	X	X	X	X																						
STD3 180-137679/4 IC	1		12:05	X	X	X	X																						
ICV 180-137679/5	1		12:09	X	X	X	X																						
ICB 180-137679/6	1		12:13	X	X	X	X																						
CRI 180-137679/7	1		12:17	X	X	X	X																						
ICSA 180-137679/8	1		12:22	X	X	X	X																						
ICSAB 180-137679/9	1		12:26	X	X	X	X																						
CCV 180-137679/10	1		12:34	X	X	X	X																						
CCB1 180-137679/11	1		12:41	X	X	X	X																						
ZZZZZZ			12:45																										
ZZZZZZ			12:49																										
ZZZZZZ			12:54																										
ZZZZZZ			12:58																										
ZZZZZZ			13:02																										
ZZZZZZ			13:07																										
ZZZZZZ			13:11																										
ZZZZZZ			13:15																										
ZZZZZZ			13:19																										
ZZZZZZ			13:24																										
CCV 180-137679/22	1		13:28	X	X	X	X																						
CCB2 180-137679/23	1		13:35	X	X	X	X																						
ZZZZZZ			13:40																										
ZZZZZZ			13:44																										
ZZZZZZ			13:48																										
ZZZZZZ			13:53																										
ZZZZZZ			13:57																										
ZZZZZZ			14:01																										
ZZZZZZ			14:05																										
MB 180-137340/1-A	1	R	14:13	X	X	X	X																						
ZZZZZZ			14:17																										
LCS 180-137340/2-A	1	R	14:21	X	X	X	X																						
CCV 180-137679/34	1		14:26	X	X	X	X																						
CCB3 180-137679/35	1		14:33	X	X	X	X																						
ZZZZZZ			14:38																										
180-42445-2	1	T	14:42	X	X	X	X																						
180-42445-3	1	T	14:46	X	X	X	X																						
180-42445-4	1	T	14:50	X	X	X	X																						
180-42445-4 SD	5	T	14:55	X	X	X	X																						
180-42445-4 MS	1	T	14:59	X	X	X	X																						
180-42445-4 MSD	1	T	15:03	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 04/06/2015 09:55 End Date: 04/06/2015 20:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					
180-42445-4 PDS	1	T	15:08	X	X	X	X																					
180-42445-5	1	T	15:12	X	X	X	X																					
180-42445-6	1	T	15:16	X	X	X	X																					
CCV 180-137679/46	1		15:20	X	X	X	X																					
CCB4 180-137679/47	1		15:28	X	X	X	X																					
180-42445-7	1	T	15:32	X	X	X	X																					
180-42445-8	1	T	15:36	X	X	X	X																					
180-42445-9	1	T	15:41	X	X	X	X																					
180-42445-10	1	T	15:45	X	X	X	X																					
ZZZZZZ			15:49																									
ZZZZZZ			15:53																									
ZZZZZZ			15:58																									
ZZZZZZ			16:02																									
ZZZZZZ			16:06																									
ZZZZZZ			16:11																									
CCV 180-137679/58	1		16:15	X	X	X	X																					
CCB5 180-137679/59	1		16:22	X	X	X	X																					
ZZZZZZ			16:27																									
ZZZZZZ			16:31																									
ZZZZZZ			16:35																									
ZZZZZZ			16:39																									
ZZZZZZ			16:44																									
ZZZZZZ			16:48																									
ZZZZZZ			16:52																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									
ZZZZZZ			17:05																									
CCV 180-137679/70			17:10																									
CCB6 180-137679/71			17:17																									
ZZZZZZ			17:21																									
ZZZZZZ			17:26																									
ZZZZZZ			17:30																									
ZZZZZZ			17:34																									
ZZZZZZ			17:39																									
ZZZZZZ			17:43																									
CCV 180-137679/78			17:47																									
CCB7 180-137679/79			17:55																									
CRI 180-137679/80	1		18:03	X	X	X	X																					
ZZZZZZ			18:08																									
ZZZZZZ			18:12																									
ZZZZZZ			18:16																									
ZZZZZZ			18:21																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: X Analysis Method: 6020A

Start Date: 04/06/2015 09:55 End Date: 04/06/2015 20:26

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na																							
ZZZZZZ			18:25																											
ZZZZZZ			18:29																											
ZZZZZZ			18:33																											
CCV 180-137679/88			18:38																											
CCB8 180-137679/89			18:45																											
ZZZZZZ			18:50																											
ZZZZZZ			18:54																											
ZZZZZZ			18:58																											
ZZZZZZ			19:02																											
ZZZZZZ			19:07																											
ZZZZZZ			19:11																											
ZZZZZZ			19:15																											
ZZZZZZ			19:20																											
ZZZZZZ			19:24																											
ZZZZZZ			19:28																											
CCV 180-137679/100			19:32																											
CCB9 180-137679/101			19:40																											
ZZZZZZ			19:44																											
ZZZZZZ			19:48																											
ZZZZZZ			19:53																											
ZZZZZZ			19:57																											
ZZZZZZ			20:01																											
ZZZZZZ			20:06																											
ZZZZZZ			20:10																											
ZZZZZZ			20:14																											
CCV 180-137679/110			20:18																											
CCB10 180-137679/111			20:26																											

Prep Types:
R = Total Recoverable
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 04/06/2015 End Date: 04/06/2015

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 180-137679/2 IC	11:55	100		100		100		100		100	
STD2 180-137679/3 IC	12:00	94		98		97		91		94	
STD3 180-137679/4 IC	12:05	94		96		96		94		95	
ICV 180-137679/5	12:09	94		100		95		92		92	
ICB 180-137679/6	12:13	95		100		100		98		99	
CRI 180-137679/7	12:17	95		99		98		95		97	
ICSA 180-137679/8	12:22	79		86		90		88		86	
ICSAB 180-137679/9	12:26	79		90		87		92		92	
CCV 180-137679/10	12:34	88		97		98		90		96	
CCB1 180-137679/11	12:41	93		102		102		99		101	
CCV 180-137679/22	13:28	83		81		83		83		82	
CCB2 180-137679/23	13:35	88		89		90		90		90	
MB 180-137340/1-A	14:13	83		81		82		86		83	
LCS 180-137340/2-A	14:21	81		75		80		79		78	
CCV 180-137679/34	14:26	78		76		80		79		79	
CCB3 180-137679/35	14:33	85		84		83		86		83	
180-42445-2	14:42	80		81		86		85		84	
180-42445-3	14:46	81		81		86		85		85	
180-42445-4	14:50	79		79		84		84		85	
180-42445-4 SD	14:55	78		77		79		82		80	
180-42445-4 MS	14:59	76		77		83		82		80	
180-42445-4 MSD	15:03	75		77		82		81		80	
180-42445-4 PDS	15:08	73		74		80		77		77	
180-42445-5	15:12	76		75		81		80		81	
180-42445-6	15:16	76		75		80		79		79	
CCV 180-137679/46	15:20	69		66		72		70		76	
CCB4 180-137679/47	15:28	80		76		77		80		77	
180-42445-7	15:32	73		71		76		76		76	
180-42445-8	15:36	77		75		79		77		78	
180-42445-9	15:41	76		76		79		79		80	
180-42445-10	15:45	75		74		79		78		79	
CCV 180-137679/58	16:15	69		70		76		71		76	
CCB5 180-137679/59	16:22	78		76		77		80		76	
CRI 180-137679/80	18:03	77		72		73		75		73	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

ICP-MS Instrument ID: X Start Date: 04/06/2015 End Date: 04/06/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-137679/2 IC	11:55	100		100		100					
STD2 180-137679/3 IC	12:00	98		97		93					
STD3 180-137679/4 IC	12:05	99		99		99					
ICV 180-137679/5	12:09	99		97		91					
ICB 180-137679/6	12:13	102		101		99					
CRI 180-137679/7	12:17	100		99		96					
ICSA 180-137679/8	12:22	95		95		88					
ICSAB 180-137679/9	12:26	100		100		90					
CCV 180-137679/10	12:34	101		100		94					
CCB1 180-137679/11	12:41	103		102		99					
CCV 180-137679/22	13:28	89		88		83					
CCB2 180-137679/23	13:35	94		93		93					
MB 180-137340/1-A	14:13	89		88		88					
LCS 180-137340/2-A	14:21	89		90		80					
CCV 180-137679/34	14:26	87		87		81					
CCB3 180-137679/35	14:33	90		89		88					
180-42445-2	14:42	95		95		83					
180-42445-3	14:46	94		94		83					
180-42445-4	14:50	93		94		86					
180-42445-4 SD	14:55	87		87		83					
180-42445-4 MS	14:59	92		93		81					
180-42445-4 MSD	15:03	92		92		80					
180-42445-4 PDS	15:08	89		89		79					
180-42445-5	15:12	90		90		82					
180-42445-6	15:16	89		90		81					
CCV 180-137679/46	15:20	83		83		79					
CCB4 180-137679/47	15:28	83		83		85					
180-42445-7	15:32	87		88		80					
180-42445-8	15:36	88		87		79					
180-42445-9	15:41	89		88		80					
180-42445-10	15:45	88		87		80					
CCV 180-137679/58	16:15	85		85		80					
CCB5 180-137679/59	16:22	84		84		85					
CRI 180-137679/80	18:03	79		78		79					

Dilution Corrected Concentrations

STD1 1501659 4/6/2015 11:55:34 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:01	99.005%	-0.042	-0.504	-0.112	0.000	-0.338	0.480	-0.116
2	11:56:28	100.808%	0.054	0.731	0.003	0.000	-0.595	0.418	0.257
3	11:56:54	100.187%	-0.012	-0.227	0.109	0.000	0.934	-0.899	-0.142
x		100.000%	-0.000	0.000	0.000	0.000	0.000	-0.000	0.000
σ		0.916%	0.049	0.648	0.111	0.000	0.819	0.779	0.223
%RSD		0.916	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:01	0.065	0.334	0.000	0.574	2.636	0.272	98.964%	0.016
2	11:56:28	-0.072	-0.918	0.000	0.258	10.530	0.681	100.108%	0.085
3	11:56:54	0.008	0.583	0.000	-0.832	-13.160	-0.953	100.928%	-0.102
x		0.000	0.000	0.000	-0.000	0.000	0.000	100.000%	-0.000
σ		0.069	0.804	0.000	0.737	12.060	0.850	0.986%	0.095
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.986	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:01	-0.043	-0.010	0.015	0.737	-0.176	-0.006	0.003	-0.012
2	11:56:28	0.068	-0.003	-0.025	0.518	0.197	-0.004	0.085	-0.021
3	11:56:54	-0.026	0.013	0.010	-1.255	-0.021	0.010	-0.088	0.032
x		0.000	0.000	0.000	0.000	0.000	-0.000	-0.000	0.000
σ		0.060	0.012	0.022	1.093	0.187	0.009	0.086	0.028
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:01	0.024	-0.010	-0.077	-0.237	-0.226	-0.754	0.000	0.002
2	11:56:28	-0.081	-0.040	0.010	0.089	-0.507	0.483	0.000	0.001
3	11:56:54	0.058	0.050	0.067	0.148	0.733	0.271	0.000	-0.003
x		0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ		0.073	0.046	0.073	0.207	0.650	0.662	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	11:56:01	99.069%	0.002	-0.003	99.775%	0.001	0.008	-0.004	0.024
2	11:56:28	100.133%	0.015	0.003	99.454%	0.004	-0.013	-0.000	0.029
3	11:56:54	100.798%	-0.017	0.000	100.771%	-0.006	0.005	0.004	-0.053
x		100.000%	-0.000	0.000	100.000%	-0.000	-0.000	0.000	-0.000
σ		0.872%	0.016	0.003	0.687%	0.005	0.011	0.004	0.046
%RSD		0.872	0.000	0.000	0.687	0.000	0.000	0.000	0.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:01	98.225%	-0.019	0.009	-0.005	-0.049	0.013	98.821%	98.392%
2	11:56:28	100.515%	0.007	-0.003	0.003	0.016	-0.000	100.357%	100.578%
3	11:56:54	101.260%	0.012	-0.006	0.002	0.032	-0.013	100.821%	101.030%
x		100.000%	0.000	-0.000	0.000	-0.000	-0.000	100.000%	100.000%
σ		1.581%	0.017	0.008	0.004	0.043	0.013	1.047%	1.411%
%RSD		1.581	0.000	0.000	0.000	0.000	0.000	1.047	1.411

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:01	0.006	-0.000	-0.005	-0.004	-0.005	100.036%
2	11:56:28	-0.004	-0.000	-0.011	-0.005	-0.004	100.637%
3	11:56:54	-0.002	0.001	0.016	0.009	0.009	99.327%
x		0.000	-0.000	-0.000	-0.000	0.000	100.000%
σ		0.006	0.001	0.014	0.008	0.008	0.656%
%RSD		0.000	0.000	0.000	0.000	0.000	0.656

STD2 1487947 4/6/2015 12:00:50 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	92.839%	200.800	1.126	0.409	0.000	101000.000	100900.000	100600.000
2	12:01:44	94.814%	199.900	0.765	0.519	0.000	100200.000	99730.000	99800.000
3	12:02:10	95.188%	199.300	0.654	0.797	0.000	98860.000	99320.000	99570.000
x		94.280%	200.000	0.848	0.575	0.000	100000.000	100000.000	100000.000
σ		1.262%	0.740	0.247	0.200	0.000	1060.000	847.200	560.400
%RSD		1.339	0.370	29.130	34.800	0.000	1.060	0.847	0.560

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	1000.000	3.261	0.000	101100.000	100000.000	99680.000	96.431%	0.124
2	12:01:44	997.100	2.739	0.000	99750.000	100300.000	100900.000	98.098%	0.020
3	12:02:10	1003.000	2.127	0.000	99150.000	99650.000	99460.000	98.521%	0.244
x		1000.000	2.709	0.000	100000.000	100000.000	100000.000	97.683%	0.130
σ		2.818	0.568	0.000	997.400	347.900	745.200	1.105%	0.112
%RSD		0.282	20.950	0.000	0.997	0.348	0.745	1.131	86.420

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	199.300	199.400	1005.000	50150.000	49940.000	200.500	200.300	200.400
2	12:01:44	199.600	199.800	997.400	49640.000	49950.000	198.600	200.300	199.500
3	12:02:10	201.100	200.700	997.900	50210.000	50110.000	200.900	199.300	200.100
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		0.963	0.672	4.117	313.300	96.470	1.212	0.566	0.440
%RSD		0.482	0.336	0.412	0.627	0.193	0.606	0.283	0.220

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	199.900	199.800	198.900	202.400	201.700	204.200	0.000	199.600
2	12:01:44	199.200	200.600	200.900	198.900	198.900	196.300	0.000	200.600
3	12:02:10	200.900	199.700	200.200	198.700	199.400	199.500	0.000	199.800
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		0.841	0.491	0.995	2.109	1.453	4.001	0.000	0.495
%RSD		0.421	0.246	0.498	1.054	0.727	2.000	0.000	0.247

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	95.207%	0.192	0.133	90.349%	199.800	201.800	200.000	201.800
2	12:01:44	97.329%	0.244	0.184	90.661%	199.900	197.700	199.500	198.800
3	12:02:10	97.966%	0.270	0.153	91.349%	200.400	200.500	200.500	199.300
x		96.834%	0.235	0.157	90.786%	200.000	200.000	200.000	200.000
σ		1.444%	0.040	0.025	0.512%	0.327	2.066	0.478	1.606
%RSD		1.492	16.890	16.290	0.564	0.163	1.033	0.239	0.803

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	91.664%	0.142	0.185	0.248	202.300	201.200	96.395%	96.153%
2	12:01:44	94.984%	0.112	0.200	0.200	199.100	198.900	98.290%	97.569%
3	12:02:10	94.184%	0.147	0.191	0.177	198.600	199.900	100.041%	98.203%
x		93.611%	0.134	0.192	0.208	200.000	200.000	98.242%	97.308%
σ		1.732%	0.019	0.007	0.036	2.000	1.115	1.823%	1.049%
%RSD		1.851	14.220	3.844	17.420	1.000	0.557	1.856	1.078

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:17	198.200	196.800	196.800	195.400	195.900	93.137%
2	12:01:44	197.700	198.500	197.100	200.100	198.900	93.386%
3	12:02:10	204.000	204.700	206.200	204.500	205.200	91.503%
x		200.000	200.000	200.000	200.000	200.000	92.675%
σ		3.507	4.160	5.362	4.549	4.727	1.022%
%RSD		1.754	2.080	2.681	2.274	2.363	1.103

STD3 1487948 4/6/2015 12:05:05 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:32	92.910%	0.170	205.600	200.100	0.000	162.300	135.200	136.200
2	12:05:58	95.250%	0.300	195.300	196.700	0.000	161.200	134.200	135.100
3	12:06:25	92.789%	0.242	199.100	203.200	0.000	166.500	139.800	136.800
x		93.650%	0.238	200.000	200.000	0.000	163.300	136.400	136.000
σ		1.388%	0.065	5.212	3.262	0.000	2.818	3.022	0.871
%RSD		1.482	27.490	2.606	1.631	0.000	1.725	2.215	0.641
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:32	13.170	10060.000	0.000	153.100	194.800	232.000	94.859%	199.400
2	12:05:58	13.040	9947.000	0.000	136.000	158.700	232.200	96.393%	197.700
3	12:06:25	13.070	9994.000	0.000	133.300	161.800	223.000	96.029%	202.900
x		13.100	10000.000	0.000	140.800	171.800	229.100	95.761%	200.000
σ		0.069	55.750	0.000	10.740	19.990	5.279	0.802%	2.646
%RSD		0.524	0.558	0.000	7.631	11.640	2.305	0.837	1.323
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:32	0.307	0.311	1.941	113.900	112.100	0.354	0.411	0.600
2	12:05:58	0.250	0.308	1.964	103.000	90.840	0.293	0.280	0.541
3	12:06:25	0.162	0.362	1.933	100.400	85.380	0.315	0.420	0.562
x		0.239	0.327	1.946	105.800	96.100	0.321	0.370	0.568
σ		0.073	0.031	0.016	7.127	14.110	0.031	0.079	0.030
%RSD		30.430	9.322	0.817	6.739	14.680	9.597	21.280	5.300
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:32	0.706	1.552	1.387	0.260	0.898	0.968	0.000	0.548
2	12:05:58	0.618	1.354	1.474	0.951	0.618	1.298	0.000	0.579
3	12:06:25	0.592	1.510	1.142	0.025	-0.211	0.322	0.000	0.623
x		0.639	1.472	1.334	0.412	0.435	0.862	0.000	0.584
σ		0.060	0.105	0.172	0.482	0.577	0.497	0.000	0.038
%RSD		9.369	7.111	12.880	116.900	132.600	57.580	0.000	6.463
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:32	94.180%	195.100	194.200	93.602%	0.588	0.607	0.623	-0.264
2	12:05:58	97.049%	201.000	201.600	94.677%	0.565	0.590	0.481	-0.240
3	12:06:25	96.252%	203.900	204.300	94.254%	0.578	0.593	0.531	-3.063
x		95.827%	200.000	200.000	94.178%	0.577	0.597	0.545	-1.189
σ		1.481%	4.490	5.243	0.542%	0.012	0.009	0.072	1.623
%RSD		1.545	2.245	2.622	0.575	2.019	1.524	13.200	136.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:32	94.808%	194.200	196.000	196.000	0.433	0.882	97.306%	97.851%
2	12:05:58	95.930%	200.000	201.700	200.300	0.523	0.797	100.647%	99.174%
3	12:06:25	94.474%	205.800	202.200	203.700	0.666	0.847	100.299%	99.012%
x		95.071%	200.000	200.000	200.000	0.541	0.842	99.418%	98.679%
σ		0.762%	5.781	3.436	3.891	0.118	0.043	1.837%	0.722%
%RSD		0.802	2.891	1.718	1.945	21.810	5.068	1.848	0.732
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:05:32	0.240	0.221	0.307	0.302	0.313	100.848%		
2	12:05:58	0.269	0.236	0.370	0.324	0.347	98.739%		
3	12:06:25	0.254	0.256	0.350	0.379	0.355	96.841%		
x		0.255	0.238	0.342	0.335	0.339	98.809%		
σ		0.014	0.018	0.032	0.040	0.022	2.005%		
%RSD		5.645	7.398	9.425	11.790	6.575	2.029		

ICV 1495536 4/6/2015 12:09:20 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:46	91.890%	75.720	81.770	83.480	0.000	37050.000	36200.000	36210.000
2	12:10:13	95.085%	75.560	83.590	83.520	0.000	37040.000	36410.000	36480.000
3	12:10:40	95.648%	74.550	81.660	82.700	0.000	37260.000	36720.000	36440.000
x		94.208%	94.097%	102.925%	104.044%	0.000	92.791%	91.115%	90.947%
σ		2.027%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.152	0.848	1.318	0.554	0.000	0.331	0.723	0.395
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:46	363.800	4298.000	0.000	37270.000	36270.000	36260.000	98.179%	77.480
2	12:10:13	369.000	4393.000	0.000	37290.000	37020.000	37650.000	100.887%	77.210
3	12:10:40	369.000	4480.000	0.000	37410.000	37790.000	37310.000	101.713%	76.590
x		91.812%	109.761%	0.000	93.308%	92.559%	92.690%	100.260%	96.367%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.849%	n/a
%RSD		0.810	2.071	0.000	0.192	2.052	1.962	1.844	0.596
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:46	73.180	73.570	379.900	18300.000	19120.000	74.040	76.990	76.030
2	12:10:13	74.440	75.250	389.800	18520.000	19380.000	74.480	74.170	77.010
3	12:10:40	73.590	74.930	387.100	18660.000	19510.000	75.550	75.620	76.570
x		92.170%	93.231%	96.401%	92.470%	96.687%	93.361%	94.490%	95.670%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.874	1.199	1.325	0.992	1.009	1.038	1.872	0.642
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:46	75.660	75.950	75.540	74.780	77.720	78.310	0.000	74.980
2	12:10:13	77.650	77.440	77.620	78.060	79.130	79.050	0.000	75.830
3	12:10:40	77.890	76.280	77.240	77.980	79.370	78.730	0.000	75.940
x		96.333%	95.696%	95.999%	96.176%	98.424%	98.370%	0.000	94.477%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.592	1.024	1.440	2.429	1.137	0.474	0.000	0.696
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:46	92.688%	75.850	75.570	96.196%	71.510	73.420	74.910	75.000
2	12:10:13	95.012%	81.130	82.410	89.461%	77.000	77.760	77.160	76.640
3	12:10:40	96.965%	79.540	82.130	91.313%	77.250	77.690	78.650	77.590
x		94.888%	98.547%	100.048%	92.323%	94.066%	95.360%	96.134%	95.514%
σ		2.141%	n/a	n/a	3.479%	n/a	n/a	n/a	n/a
%RSD		2.257	3.438	4.838	3.768	4.309	3.259	2.446	1.711
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:46	89.671%	78.320	78.270	78.620	75.330	76.660	96.924%	95.777%
2	12:10:13	92.997%	79.230	80.420	80.040	78.940	78.740	99.369%	97.678%
3	12:10:40	92.567%	81.270	80.140	79.540	77.380	79.740	99.325%	98.561%
x		91.745%	99.509%	99.514%	99.249%	96.522%	97.976%	98.539%	97.339%
σ		1.809%	n/a	n/a	n/a	n/a	n/a	1.399%	1.423%
%RSD		1.972	1.900	1.470	0.908	2.341	2.006	1.420	1.461
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:09:46	77.970	75.290	75.990	73.030	73.870	91.575%		
2	12:10:13	78.210	77.240	77.350	76.760	76.580	92.729%		
3	12:10:40	82.570	79.730	81.650	79.480	80.170	89.556%		
x		99.480%	96.778%	97.913%	95.531%	96.095%	91.287%		
σ		n/a	n/a	n/a	n/a	n/a	1.606%		
%RSD		3.253	2.876	3.774	4.239	4.113	1.759		

ICB 4/6/2015 12:13:38 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	93.763%	0.076	1.094	0.902	0.000	21.390	5.067	4.425
2	12:14:31	95.072%	0.107	-0.059	0.948	0.000	23.570	3.214	4.332
3	12:14:57	96.714%	0.135	0.119	0.625	0.000	21.590	3.952	4.307
x		95.183%	0.106	0.385	0.825	0.000	22.180	4.078	4.355
σ		1.479%	0.030	0.621	0.175	0.000	1.204	0.933	0.062
%RSD		1.554	28.080	161.400	21.160	0.000	5.428	22.880	1.421

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	0.306	6.662	0.000	15.230	2.589	3.187	99.321%	0.090
2	12:14:31	0.316	3.336	0.000	16.380	7.174	3.215	100.187%	-0.118
3	12:14:57	0.315	1.766	0.000	9.477	1.965	5.179	99.908%	0.012
x		0.312	3.921	0.000	13.700	3.909	3.860	99.805%	-0.006
σ		0.005	2.500	0.000	3.698	2.845	1.142	0.442%	0.105
%RSD		1.654	63.740	0.000	27.010	72.770	29.590	0.443	1891.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	0.003	0.041	0.090	23.590	14.890	0.016	0.002	0.012
2	12:14:31	-0.026	0.017	0.085	19.300	12.060	0.016	0.025	0.061
3	12:14:57	0.017	0.036	0.098	16.040	7.542	0.023	-0.022	0.083
x		-0.002	0.031	0.091	19.640	11.500	0.018	0.002	0.052
σ		0.022	0.013	0.007	3.789	3.708	0.004	0.024	0.036
%RSD		1042.000	40.420	7.336	19.290	32.250	21.580	1538.000	69.340

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	-0.020	0.056	0.024	0.174	-0.322	0.424	0.000	0.013
2	12:14:31	-0.076	0.124	0.034	0.334	0.763	0.516	0.000	0.009
3	12:14:57	0.037	0.054	-0.021	0.127	-0.152	-0.568	0.000	0.016
x		-0.019	0.078	0.012	0.212	0.096	0.124	0.000	0.013
σ		0.057	0.040	0.029	0.109	0.584	0.601	0.000	0.004
%RSD		292.500	50.980	240.100	51.380	605.600	485.600	0.000	29.680

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	98.947%	0.570	0.525	96.918%	0.008	-0.000	0.016	-1.585
2	12:14:31	99.702%	0.527	0.488	97.446%	0.030	0.008	0.056	-0.050
3	12:14:57	102.663%	0.391	0.432	98.389%	0.015	-0.003	0.028	0.015
x		100.437%	0.496	0.482	97.584%	0.017	0.001	0.033	-0.540
σ		1.964%	0.093	0.047	0.745%	0.011	0.006	0.021	0.906
%RSD		1.956	18.780	9.724	0.763	63.970	411.000	62.200	167.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	96.752%	0.114	0.020	0.028	0.103	0.099	101.381%	99.417%
2	12:14:31	99.875%	0.098	0.017	0.028	0.011	0.109	101.991%	101.353%
3	12:14:57	100.155%	0.093	0.024	0.011	0.026	0.058	103.846%	103.106%
x		98.927%	0.102	0.021	0.022	0.046	0.089	102.406%	101.292%
σ		1.889%	0.011	0.003	0.010	0.049	0.027	1.284%	1.845%
%RSD		1.910	11.100	16.520	44.340	106.700	30.590	1.254	1.821

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:04	0.018	0.010	-0.002	-0.017	-0.003	97.211%
2	12:14:31	0.015	0.013	0.021	0.006	0.014	99.629%
3	12:14:57	0.003	0.007	-0.011	0.009	0.008	98.720%
x		0.012	0.010	0.003	-0.001	0.006	98.520%
σ		0.008	0.003	0.016	0.014	0.009	1.221%
%RSD		63.660	30.010	638.500	1465.000	136.100	1.240

CRI 1519288 4/6/2015 12:17:56 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	12:18:22	94.678%	0.991	5.767	5.823	0.000	113.100	94.380	97.810
2	12:18:48	95.087%	0.952	6.361	5.767	0.000	115.700	100.500	103.000
3	12:19:14	94.701%	0.867	4.846	4.860	0.000	116.800	102.300	99.340
x		94.822%	93.664%	113.156%	109.662%	0.000	143.975%	99.067%	100.068%
σ		0.230%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.243	6.771	13.490	9.858	0.000	1.657	4.190	2.691
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:22	27.870	478.100	0.000	94.810	89.400	98.690	99.071%	5.160
2	12:18:48	29.320	486.600	0.000	101.100	112.000	102.100	97.572%	4.990
3	12:19:14	28.610	482.500	0.000	100.800	74.680	103.500	99.255%	4.268
x		95.330%	96.483%	0.000	98.903%	92.035%	101.406%	98.633%	96.120%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.923%	n/a
%RSD		2.540	0.875	0.000	3.591	20.440	2.422	0.936	9.852
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:22	1.018	1.937	4.903	57.230	49.680	0.502	1.156	1.970
2	12:18:48	0.849	1.897	5.017	59.660	54.370	0.562	0.742	2.072
3	12:19:14	0.928	2.066	5.031	58.490	53.130	0.505	1.044	2.229
x		93.189%	98.339%	99.668%	116.916%	104.784%	104.557%	98.094%	104.513%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		9.064	4.485	1.413	2.079	4.643	6.428	21.830	6.228
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:22	2.132	4.811	5.247	1.487	4.469	5.517	0.000	4.813
2	12:18:48	2.162	5.160	4.991	0.869	4.775	5.164	0.000	4.849
3	12:19:14	2.053	5.194	5.028	1.297	5.245	4.282	0.000	4.863
x		105.792%	101.104%	101.770%	121.774%	96.586%	99.753%	0.000	96.830%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.665	4.203	2.723	25.990	8.094	12.750	0.000	0.527
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:22	96.489%	4.495	4.844	94.606%	0.939	0.889	0.966	-1.083
2	12:18:48	98.143%	4.793	4.976	95.183%	1.042	0.966	0.840	0.913
3	12:19:14	98.370%	4.691	4.922	96.127%	0.946	0.940	0.999	1.419
x		97.667%	93.198%	98.276%	95.305%	97.545%	93.159%	93.488%	41.596%
σ		1.027%	n/a	n/a	0.768%	n/a	n/a	n/a	n/a
%RSD		1.051	3.249	1.351	0.806	5.881	4.214	8.948	318.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:22	96.555%	4.803	1.884	1.847	9.650	9.461	97.956%	96.940%
2	12:18:48	96.515%	5.229	1.968	1.937	10.010	9.472	100.507%	99.275%
3	12:19:14	98.505%	5.763	1.946	1.952	10.050	10.010	101.232%	100.552%
x		97.192%	105.302%	96.624%	95.621%	99.024%	96.467%	99.898%	98.922%
σ		1.138%	n/a	n/a	n/a	n/a	n/a	1.720%	1.831%
%RSD		1.170	9.133	2.261	2.969	2.214	3.238	1.722	1.851
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:18:22	0.920	0.905	1.047	0.935	0.964	95.775%		
2	12:18:48	1.017	0.897	1.031	0.970	1.020	95.658%		
3	12:19:14	0.910	0.915	1.012	0.977	0.994	96.324%		
x		94.906%	90.547%	102.999%	96.072%	99.271%	95.919%		
σ		n/a	n/a	n/a	n/a	n/a	0.355%		
%RSD		6.269	0.971	1.684	2.382	2.789	0.370		

ICSA 1501693 4/6/2015 12:22:13 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	12:22:40	78.148%	-0.070	1.377	1.333	0.000	96290.000	92980.000	92450.000
2	12:23:07	79.760%	0.072	0.110	1.114	0.000	98480.000	95300.000	93630.000
3	12:23:33	78.794%	0.139	1.346	1.181	0.000	98840.000	95840.000	93880.000
x		78.901%	0.047	0.944	1.210	0.000	97870.000	94710.000	93320.000
σ		0.811%	0.107	0.723	0.112	0.000	1379.000	1517.000	762.100
%RSD		1.028	228.100	76.580	9.282	0.000	1.409	1.601	0.817

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:40	89390.000	25.770	0.000	96970.000	96370.000	95300.000	84.341%	2053.000
2	12:23:07	91060.000	23.330	0.000	96770.000	98300.000	97940.000	85.727%	2092.000
3	12:23:33	91820.000	24.670	0.000	97490.000	98800.000	98710.000	87.126%	2130.000
x		90760.000	24.590	0.000	97070.000	97820.000	97310.000	85.731%	2092.000
σ		1243.000	1.220	0.000	373.100	1281.000	1788.000	1.392%	38.870
%RSD		1.369	4.963	0.000	0.384	1.310	1.837	1.624	1.858

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:40	-0.269	0.391	1.287	93040.000	93070.000	0.131	-0.000	1.531
2	12:23:07	-0.613	0.440	1.272	95470.000	96030.000	0.158	-0.173	1.538
3	12:23:33	-0.143	0.495	1.218	96150.000	96260.000	0.146	-0.305	1.632
x		-0.341	0.442	1.259	94890.000	95120.000	0.145	-0.160	1.567
σ		0.243	0.052	0.036	1637.000	1781.000	0.013	0.153	0.056
%RSD		71.240	11.780	2.877	1.725	1.872	9.057	95.950	3.599

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:40	2.414	4.084	2.882	0.080	0.390	0.117	0.000	0.693
2	12:23:07	2.399	3.772	2.770	-0.003	-0.468	-0.041	0.000	0.698
3	12:23:33	2.319	4.358	3.110	0.053	1.251	-0.451	0.000	0.693
x		2.378	4.071	2.920	0.043	0.391	-0.125	0.000	0.694
σ		0.051	0.293	0.174	0.042	0.860	0.293	0.000	0.003
%RSD		2.144	7.207	5.945	97.490	220.000	234.800	0.000	0.386

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:40	87.290%	1924.000	2026.000	86.006%	0.061	0.047	2.280	0.466
2	12:23:07	90.706%	2011.000	2121.000	87.461%	0.051	0.038	2.532	0.292
3	12:23:33	91.423%	2053.000	2167.000	89.455%	0.062	0.031	2.407	0.285
x		89.806%	1996.000	2105.000	87.641%	0.058	0.039	2.406	0.348
σ		2.209%	65.810	71.640	1.732%	0.006	0.008	0.126	0.103
%RSD		2.459	3.298	3.404	1.976	10.390	20.370	5.252	29.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:40	82.784%	0.279	0.074	0.080	0.214	0.248	92.646%	93.417%
2	12:23:07	86.994%	0.297	0.065	0.081	0.183	0.146	95.356%	95.206%
3	12:23:33	87.911%	0.273	0.108	0.075	0.208	0.211	97.703%	96.741%
x		85.896%	0.283	0.082	0.079	0.202	0.202	95.235%	95.121%
σ		2.734%	0.012	0.023	0.003	0.017	0.051	2.531%	1.664%
%RSD		3.183	4.307	27.810	4.070	8.213	25.470	2.657	1.749

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:40	0.039	0.040	0.825	0.797	0.792	88.810%
2	12:23:07	0.035	0.030	0.737	0.687	0.710	86.458%
3	12:23:33	0.039	0.025	0.668	0.566	0.625	87.760%
x		0.038	0.031	0.743	0.683	0.709	87.676%
σ		0.002	0.008	0.078	0.116	0.083	1.179%
%RSD		5.631	25.020	10.540	16.900	11.740	1.344

ICSAB 1501694 4/6/2015 12:26:33 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	12:27:00	78.752%	18.920	48.950	48.500	0.000	100300.000	95610.000	94030.000
2	12:27:27	77.770%	20.440	52.700	48.120	0.000	104100.000	98530.000	96640.000
3	12:27:53	80.224%	20.260	50.810	48.060	0.000	102000.000	97110.000	94850.000
x		78.915%	99.355%	101.635%	96.458%	0.000	102.142%	97.086%	95.173%
σ		1.235%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.565	4.176	3.690	0.498	0.000	1.828	1.502	1.402

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:00	90880.000	516.000	0.000	99730.000	99450.000	98060.000	89.606%	2093.000
2	12:27:27	93680.000	523.700	0.000	100500.000	102500.000	100400.000	90.190%	2162.000
3	12:27:53	92490.000	511.100	0.000	100000.000	101100.000	100400.000	90.503%	2165.000
x		92.352%	103.381%	0.000	100.092%	101.013%	99.623%	90.100%	106.999%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.455%	n/a
%RSD		1.518	1.229	0.000	0.394	1.516	1.359	0.505	1.903

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:00	18.170	18.970	20.190	97070.000	97460.000	19.160	18.820	20.380
2	12:27:27	17.900	19.570	20.700	99140.000	99810.000	19.210	19.540	21.420
3	12:27:53	18.970	19.650	20.560	100100.000	100500.000	19.320	18.490	20.860
x		91.726%	96.982%	102.426%	98.783%	99.256%	96.140%	94.736%	104.426%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.060	1.936	1.292	1.582	1.610	0.427	2.838	2.498

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:00	21.380	22.040	20.710	20.510	53.670	54.210	0.000	20.900
2	12:27:27	22.100	22.570	21.460	20.760	55.170	53.790	0.000	20.770
3	12:27:53	22.050	22.620	22.360	20.520	54.310	54.430	0.000	20.820
x		109.222%	89.645%	86.047%	102.979%	108.771%	108.286%	0.000	104.140%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.834	1.436	3.849	0.688	1.386	0.602	0.000	0.311

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:00	85.164%	2128.000	2187.000	90.835%	17.630	17.660	21.100	19.100
2	12:27:27	86.905%	2208.000	2277.000	92.640%	17.770	17.870	21.400	19.420
3	12:27:53	87.912%	2217.000	2286.000	92.839%	17.800	18.100	21.660	19.400
x		86.660%	109.218%	112.503%	92.105%	88.665%	89.380%	106.937%	96.552%
σ		1.390%	n/a	n/a	1.104%	n/a	n/a	n/a	n/a
%RSD		1.604	2.236	2.441	1.199	0.502	1.236	1.292	0.924

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:00	90.778%	96.950	19.730	19.600	18.880	19.310	98.838%	97.867%
2	12:27:27	92.086%	100.600	20.120	20.160	19.440	19.200	100.433%	100.667%
3	12:27:53	93.505%	101.300	20.020	20.140	19.800	19.600	100.436%	100.028%
x		92.123%	99.615%	99.796%	99.833%	96.861%	96.863%	99.902%	99.521%
σ		1.364%	n/a	n/a	n/a	n/a	n/a	0.922%	1.467%
%RSD		1.481	2.350	1.016	1.602	2.390	1.078	0.923	1.475

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:27:00	18.850	18.440	19.990	19.930	19.730	90.624%
2	12:27:27	19.850	19.260	20.870	20.740	20.510	90.119%
3	12:27:53	20.070	19.460	21.460	20.900	20.940	89.402%
x		97.962%	95.266%	103.879%	102.619%	101.964%	90.048%
σ		n/a	n/a	n/a	n/a	n/a	0.614%
%RSD		3.329	2.834	3.564	2.533	2.991	0.682

CCV 1487954 4/6/2015 12:34:00 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	12:34:26	86.339%	92.450	96.530	102.600	0.000	48760.000	46650.000	46120.000
2	12:34:53	87.399%	95.550	98.090	100.600	0.000	48810.000	47270.000	46560.000
3	12:35:19	89.285%	94.440	95.040	100.600	0.000	48530.000	46710.000	46060.000
x		87.674%	94.143%	96.553%	101.289%	0.000	97.402%	93.756%	92.491%
σ		1.492%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.702	1.669	1.583	1.155	0.000	0.303	0.733	0.590
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	451.800	5412.000	0.000	47620.000	46380.000	47900.000	95.500%	94.290
2	12:34:53	459.000	4860.000	0.000	48580.000	48680.000	49650.000	96.593%	98.400
3	12:35:19	455.700	5386.000	0.000	48280.000	48080.000	49370.000	97.321%	98.300
x		91.100%	104.384%	0.000	96.323%	95.428%	97.941%	96.471%	96.995%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.917%	n/a
%RSD		0.794	5.970	0.000	1.016	2.494	1.916	0.950	2.415
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	90.670	91.180	491.300	23130.000	24450.000	92.260	93.540	93.000
2	12:34:53	92.010	93.060	498.800	23580.000	25130.000	93.730	95.670	95.040
3	12:35:19	93.110	94.340	501.600	23600.000	25180.000	93.390	92.850	93.750
x		91.931%	92.858%	99.447%	93.757%	99.674%	93.128%	94.019%	93.931%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.330	1.711	1.066	1.129	1.641	0.825	1.563	1.100
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	92.410	92.120	93.660	94.350	96.210	94.480	0.000	92.560
2	12:34:53	93.840	96.840	95.520	94.400	95.150	94.250	0.000	94.550
3	12:35:19	93.010	95.780	97.250	93.710	96.570	92.680	0.000	93.230
x		93.084%	94.912%	95.477%	94.154%	95.975%	93.803%	0.000	93.450%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.772	2.610	1.878	0.406	0.768	1.044	0.000	1.083
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	95.504%	92.840	93.530	88.756%	91.740	92.310	93.210	91.900
2	12:34:53	98.421%	97.500	99.170	91.478%	93.530	93.520	96.590	92.330
3	12:35:19	100.607%	98.650	101.600	90.963%	93.910	94.150	97.020	93.060
x		98.177%	96.330%	98.113%	90.399%	93.064%	93.327%	95.608%	92.433%
σ		2.560%	n/a	n/a	1.446%	n/a	n/a	n/a	n/a
%RSD		2.608	3.197	4.236	1.600	1.246	1.002	2.180	0.635
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:34:26	94.750%	94.090	94.340	94.180	93.100	92.470	98.747%	98.730%
2	12:34:53	95.078%	98.030	98.390	98.030	94.340	95.370	100.487%	100.317%
3	12:35:19	98.091%	96.230	96.660	95.820	93.900	95.010	102.148%	101.594%
x		95.973%	96.118%	96.464%	96.012%	93.778%	94.285%	100.461%	100.214%
σ		1.842%	n/a	n/a	n/a	n/a	n/a	1.701%	1.435%
%RSD		1.919	2.051	2.110	2.009	0.672	1.673	1.693	1.431
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:34:26	91.580	89.430	91.690	91.410	90.200	94.683%		
2	12:34:53	95.570	94.020	96.020	95.950	95.040	93.730%		
3	12:35:19	96.250	94.220	97.050	97.600	97.140	94.252%		
x		94.469%	92.553%	94.919%	94.987%	94.127%	94.222%		
σ		n/a	n/a	n/a	n/a	n/a	0.477%		
%RSD		2.671	2.929	3.000	3.373	3.779	0.506		

CCB1 4/6/2015 12:41:23 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	92.356%	0.044	0.604	0.473	0.000	48.870	8.088	8.062
2	12:42:17	93.950%	0.092	0.160	0.544	0.000	50.710	8.564	7.272
3	12:42:43	93.310%	0.059	0.272	0.198	0.000	50.690	7.191	7.346
x		93.205%	0.065	0.345	0.405	0.000	50.090	7.948	7.560
σ		0.802%	0.025	0.231	0.183	0.000	1.057	0.697	0.437
%RSD		0.861	38.140	66.900	45.190	0.000	2.111	8.773	5.775

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	0.541	-1.215	0.000	24.110	-4.644	2.918	101.836%	0.041
2	12:42:17	0.513	-1.865	0.000	25.550	5.653	5.740	102.058%	0.058
3	12:42:43	0.419	-2.360	0.000	25.100	-21.380	9.006	103.307%	0.142
x		0.491	-1.813	0.000	24.920	-6.792	5.888	102.400%	0.080
σ		0.064	0.575	0.000	0.738	13.650	3.047	0.793%	0.054
%RSD		12.980	31.680	0.000	2.961	200.900	51.750	0.774	67.190

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	-0.002	0.107	0.058	18.710	7.284	0.018	-0.116	0.134
2	12:42:17	-0.043	0.065	0.058	18.980	6.226	0.005	-0.135	0.122
3	12:42:43	-0.000	0.048	0.069	17.050	1.641	0.017	-0.113	0.020
x		-0.015	0.073	0.061	18.250	5.050	0.013	-0.121	0.092
σ		0.024	0.030	0.007	1.047	3.000	0.007	0.012	0.062
%RSD		158.800	40.910	10.700	5.741	59.390	52.370	10.060	67.720

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	0.034	0.131	0.057	0.021	0.274	-0.260	0.000	0.017
2	12:42:17	0.027	0.143	0.020	0.176	0.497	0.337	0.000	0.022
3	12:42:43	0.171	0.158	0.061	0.201	-0.274	-0.367	0.000	0.024
x		0.077	0.144	0.046	0.133	0.166	-0.097	0.000	0.021
σ		0.081	0.014	0.023	0.098	0.397	0.379	0.000	0.004
%RSD		105.000	9.467	49.160	73.500	239.200	391.400	0.000	17.430

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	99.797%	0.484	0.622	97.628%	0.020	0.011	0.070	-0.037
2	12:42:17	102.042%	0.497	0.583	99.513%	0.007	0.007	0.014	-0.015
3	12:42:43	103.510%	0.549	0.548	98.658%	0.011	-0.002	0.054	0.022
x		101.783%	0.510	0.584	98.600%	0.012	0.005	0.046	-0.010
σ		1.870%	0.034	0.037	0.944%	0.007	0.006	0.029	0.030
%RSD		1.837	6.719	6.330	0.958	53.380	118.200	63.520	299.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	99.357%	0.077	0.038	0.030	-0.000	0.097	101.790%	100.007%
2	12:42:17	100.733%	0.059	0.037	0.050	0.074	0.110	103.935%	102.416%
3	12:42:43	102.684%	0.114	0.064	0.051	0.029	0.072	104.333%	103.533%
x		100.925%	0.083	0.046	0.044	0.034	0.093	103.353%	101.985%
σ		1.671%	0.028	0.015	0.012	0.037	0.019	1.368%	1.802%
%RSD		1.656	33.850	33.220	26.630	108.800	21.020	1.323	1.767

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:41:50	0.012	0.020	-0.013	-0.001	-0.006	99.490%
2	12:42:17	0.021	0.018	0.010	-0.010	0.007	99.372%
3	12:42:43	0.020	0.014	-0.002	0.008	0.007	98.563%
x		0.018	0.017	-0.002	-0.001	0.003	99.142%
σ		0.005	0.003	0.012	0.009	0.008	0.505%
%RSD		27.580	16.960	743.200	921.400	286.400	0.509

MB 180-137208/1-A 4/6/2015 12:45:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	93.931%	0.004	0.777	0.524	0.000	37.660	2.788	1.465
2	12:46:34	92.812%	-0.047	-0.235	0.336	0.000	39.300	2.693	1.449
3	12:47:01	91.467%	-0.062	-0.742	0.371	0.000	41.840	2.474	1.381
x		92.737%	-0.035	-0.066	0.410	0.000	39.600	2.652	1.432
σ		1.234%	0.035	0.773	0.100	0.000	2.103	0.161	0.045
%RSD		1.330	98.530	1165.000	24.340	0.000	5.311	6.082	3.134
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	0.229	-2.245	0.000	19.510	-14.830	2.640	101.134%	0.007
2	12:46:34	0.241	-3.243	0.000	17.020	-13.370	2.644	101.689%	-0.086
3	12:47:01	0.217	-1.908	0.000	25.720	4.708	1.038	101.229%	-0.067
x		0.229	-2.465	0.000	20.750	-7.831	2.108	101.351%	-0.049
σ		0.012	0.694	0.000	4.479	10.880	0.926	0.297%	0.049
%RSD		5.094	28.150	0.000	21.590	139.000	43.930	0.293	101.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	0.007	0.043	0.002	11.320	-0.041	-0.005	-0.055	0.008
2	12:46:34	-0.041	0.085	0.006	9.929	-1.575	0.003	-0.077	0.095
3	12:47:01	0.005	0.023	0.019	9.816	2.347	-0.001	-0.087	0.076
x		-0.010	0.050	0.009	10.360	0.244	-0.001	-0.073	0.060
σ		0.027	0.031	0.009	0.838	1.977	0.004	0.017	0.046
%RSD		282.500	62.850	97.030	8.093	810.400	336.600	22.610	76.310
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	0.118	0.169	0.078	-0.301	0.346	-0.663	0.000	0.009
2	12:46:34	0.001	0.120	0.116	0.014	0.014	-0.381	0.000	0.009
3	12:47:01	-0.049	0.061	0.121	0.160	0.329	-0.356	0.000	0.006
x		0.024	0.117	0.105	-0.042	0.230	-0.467	0.000	0.008
σ		0.086	0.054	0.024	0.236	0.187	0.170	0.000	0.001
%RSD		363.000	46.490	22.580	555.700	81.410	36.500	0.000	15.590
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	100.368%	0.251	0.257	96.467%	-0.008	-0.003	0.006	-0.005
2	12:46:34	103.396%	0.283	0.272	98.627%	-0.010	0.013	-0.018	-0.081
3	12:47:01	103.962%	0.214	0.240	98.891%	0.005	-0.006	0.023	-0.015
x		102.575%	0.249	0.256	97.995%	-0.004	0.001	0.003	-0.034
σ		1.932%	0.035	0.016	1.330%	0.008	0.010	0.021	0.041
%RSD		1.884	13.930	6.370	1.357	176.000	718.200	618.700	122.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:46:08	98.806%	0.005	0.009	-0.000	0.017	0.009	101.470%	100.663%
2	12:46:34	101.410%	-0.007	0.003	0.013	0.036	0.014	103.989%	102.734%
3	12:47:01	100.785%	-0.033	0.027	-0.002	-0.002	-0.001	104.029%	102.942%
x		100.334%	-0.012	0.013	0.003	0.017	0.007	103.162%	102.113%
σ		1.360%	0.020	0.012	0.008	0.019	0.008	1.466%	1.260%
%RSD		1.355	168.100	96.650	236.100	111.000	105.000	1.421	1.234
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:46:08	0.008	-0.001	0.004	0.002	0.011	98.647%		
2	12:46:34	0.010	0.005	0.010	0.005	0.015	98.796%		
3	12:47:01	0.011	0.001	0.005	0.013	0.009	97.828%		
x		0.010	0.002	0.006	0.007	0.011	98.424%		
σ		0.001	0.003	0.004	0.005	0.003	0.521%		
%RSD		13.300	183.100	56.350	82.280	25.200	0.530		

LCS 180-137208/2-A 4/6/2015 12:49:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:22	87.593%	42.120	922.000	888.700	0.000	45770.000	41100.000	40170.000
2	12:50:49	89.414%	44.680	931.000	906.100	0.000	46010.000	41240.000	40410.000
3	12:51:16	90.880%	43.100	902.800	886.400	0.000	46300.000	41260.000	40220.000
x		89.296%	43.300	918.600	893.700	0.000	46030.000	41200.000	40270.000
σ		1.647%	1.289	14.420	10.760	0.000	265.500	89.580	123.900
%RSD		1.844	2.977	1.570	1.203	0.000	0.577	0.217	0.308
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:22	1701.000	8504.000	0.000	46780.000	46670.000	47570.000	87.800%	944.200
2	12:50:49	1738.000	8532.000	0.000	47370.000	48250.000	48180.000	90.550%	954.600
3	12:51:16	1737.000	8469.000	0.000	47210.000	48010.000	49200.000	90.988%	959.400
x		1725.000	8502.000	0.000	47120.000	47640.000	48320.000	89.779%	952.700
σ		21.530	31.590	0.000	303.500	854.300	820.000	1.728%	7.777
%RSD		1.248	0.372	0.000	0.644	1.793	1.697	1.925	0.816
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:22	475.200	185.000	475.700	989.800	1069.000	452.200	444.400	223.700
2	12:50:49	487.100	189.300	487.400	1019.000	1098.000	459.900	448.300	227.800
3	12:51:16	487.600	191.100	487.700	1023.000	1085.000	460.000	449.000	225.500
x		483.300	188.400	483.600	1011.000	1084.000	457.300	447.200	225.700
σ		7.044	3.137	6.847	18.310	14.470	4.456	2.469	2.061
%RSD		1.458	1.665	1.416	1.812	1.335	0.974	0.552	0.913
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:22	224.000	447.900	452.500	38.790	9.837	9.744	0.000	900.900
2	12:50:49	230.900	458.800	459.300	38.460	9.966	10.180	0.000	923.700
3	12:51:16	227.600	462.700	466.000	38.080	9.800	9.621	0.000	930.400
x		227.500	456.500	459.300	38.440	9.868	9.848	0.000	918.300
σ		3.445	7.662	6.722	0.352	0.087	0.294	0.000	15.450
%RSD		1.514	1.678	1.464	0.916	0.881	2.985	0.000	1.682
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:22	93.254%	960.400	1013.000	85.819%	46.340	46.670	48.710	41.900
2	12:50:49	95.602%	996.600	1037.000	88.766%	46.420	46.220	48.660	41.580
3	12:51:16	97.323%	986.600	1034.000	89.718%	46.720	46.180	48.630	39.170
x		95.393%	981.200	1028.000	88.101%	46.490	46.350	48.670	40.890
σ		2.043%	18.670	13.220	2.033%	0.199	0.270	0.040	1.493
%RSD		2.141	1.902	1.286	2.307	0.427	0.583	0.082	3.651
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:50:22	89.424%	1903.000	489.200	483.900	1841.000	1895.000	100.229%	99.666%
2	12:50:49	92.009%	1948.000	507.600	499.700	1907.000	1981.000	102.341%	101.134%
3	12:51:16	95.093%	1916.000	485.500	486.100	1894.000	1958.000	103.067%	104.128%
x		92.176%	1922.000	494.100	489.900	1881.000	1945.000	101.879%	101.643%
σ		2.838%	23.470	11.870	8.555	35.160	44.870	1.474%	2.274%
%RSD		3.079	1.221	2.402	1.746	1.870	2.307	1.447	2.237
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:50:22	47.500	46.850	19.960	19.910	19.860	86.800%		
2	12:50:49	48.600	47.820	20.270	20.310	19.990	89.675%		
3	12:51:16	49.740	48.450	19.930	20.690	19.980	90.100%		
x		48.610	47.710	20.050	20.300	19.940	88.859%		
σ		1.118	0.807	0.187	0.392	0.073	1.795%		
%RSD		2.300	1.691	0.933	1.931	0.364	2.020		

LCSD 180-137208/3-A 4/6/2015 12:54:11 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:38	89.594%	42.790	928.700	896.400	0.000	46090.000	40800.000	39980.000
2	12:55:04	89.898%	44.460	933.800	899.100	0.000	46370.000	41260.000	40390.000
3	12:55:31	92.516%	42.860	896.800	887.700	0.000	46050.000	40850.000	40090.000
x		90.669%	43.370	919.700	894.400	0.000	46170.000	40970.000	40150.000
σ		1.607%	0.943	20.040	5.969	0.000	175.900	250.700	211.500
%RSD		1.772	2.175	2.179	0.667	0.000	0.381	0.612	0.527
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:38	1674.000	8561.000	0.000	47190.000	46890.000	47650.000	88.228%	939.700
2	12:55:04	1713.000	8555.000	0.000	47480.000	48290.000	48610.000	89.921%	955.800
3	12:55:31	1692.000	8480.000	0.000	47160.000	48370.000	49290.000	90.648%	968.600
x		1693.000	8532.000	0.000	47280.000	47850.000	48520.000	89.599%	954.700
σ		19.790	45.150	0.000	174.500	830.600	821.700	1.242%	14.480
%RSD		1.169	0.529	0.000	0.369	1.736	1.694	1.386	1.516
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:38	468.000	185.300	470.200	984.900	1059.000	447.100	440.100	219.900
2	12:55:04	479.400	188.100	479.900	1006.000	1084.000	454.300	444.600	223.800
3	12:55:31	488.700	189.300	477.100	996.000	1074.000	454.900	442.900	224.400
x		478.700	187.600	475.700	995.600	1072.000	452.100	442.500	222.700
σ		10.370	2.042	4.995	10.440	12.820	4.332	2.235	2.444
%RSD		2.166	1.088	1.050	1.048	1.196	0.958	0.505	1.097
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:38	222.300	446.900	450.800	39.260	8.871	10.310	0.000	894.100
2	12:55:04	224.500	449.200	454.100	34.970	8.599	8.952	0.000	895.200
3	12:55:31	223.600	453.100	459.600	37.240	7.733	10.580	0.000	904.400
x		223.500	449.700	454.800	37.160	8.401	9.945	0.000	897.900
σ		1.066	3.134	4.435	2.145	0.594	0.870	0.000	5.669
%RSD		0.477	0.697	0.975	5.772	7.070	8.747	0.000	0.631
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:38	92.054%	965.100	1000.000	85.919%	45.060	45.640	47.470	39.200
2	12:55:04	95.439%	989.900	1042.000	87.165%	45.540	45.120	47.730	40.350
3	12:55:31	95.842%	993.800	1055.000	87.415%	45.260	45.660	48.550	39.560
x		94.445%	983.000	1033.000	86.833%	45.290	45.470	47.920	39.700
σ		2.081%	15.570	28.730	0.801%	0.240	0.305	0.566	0.588
%RSD		2.203	1.584	2.783	0.923	0.531	0.671	1.182	1.480
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:38	90.038%	1878.000	483.800	480.900	1829.000	1894.000	97.045%	97.974%
2	12:55:04	92.439%	1894.000	491.100	479.100	1829.000	1905.000	100.699%	100.660%
3	12:55:31	92.560%	1910.000	498.400	493.500	1867.000	1921.000	102.638%	101.258%
x		91.679%	1894.000	491.100	484.500	1842.000	1907.000	100.127%	99.964%
σ		1.423%	16.430	7.295	7.863	21.740	13.180	2.840%	1.749%
%RSD		1.552	0.868	1.485	1.623	1.180	0.691	2.836	1.750
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:54:38	48.100	46.650	19.900	20.120	20.010	83.340%		
2	12:55:04	48.300	47.260	19.960	19.910	19.700	87.409%		
3	12:55:31	48.750	47.620	19.980	19.880	19.730	87.544%		
x		48.380	47.180	19.950	19.970	19.810	86.098%		
σ		0.333	0.492	0.037	0.130	0.169	2.389%		
%RSD		0.689	1.042	0.187	0.651	0.854	2.775		

180-417855-B-1-A 4/6/2015 12:58:29 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:56	80.921%	0.171	104.900	105.800	0.000	144800.000	13290.000	13110.000
2	12:59:22	79.177%	0.496	106.900	109.800	0.000	147900.000	13620.000	13270.000
3	12:59:49	79.308%	0.370	112.400	106.600	0.000	148300.000	13560.000	13290.000
x		79.802%	0.346	108.000	107.400	0.000	147000.000	13490.000	13220.000
σ		0.971%	0.164	3.877	2.119	0.000	1922.000	174.000	101.500
%RSD		1.217	47.380	3.588	1.973	0.000	1.308	1.290	0.768
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:56	1328.000	5553.000	0.000	7781.000	75640.000	75380.000	84.467%	27.670
2	12:59:22	1368.000	5622.000	0.000	7866.000	77360.000	76710.000	84.510%	30.170
3	12:59:49	1364.000	5603.000	0.000	7921.000	77370.000	77790.000	83.123%	30.720
x		1353.000	5593.000	0.000	7856.000	76790.000	76630.000	84.034%	29.520
σ		22.040	35.560	0.000	70.620	997.200	1209.000	0.789%	1.623
%RSD		1.629	0.636	0.000	0.899	1.299	1.578	0.939	5.497
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:56	6.621	10.620	364.300	2741.000	2951.000	1.294	6.872	105.900
2	12:59:22	6.851	10.660	371.900	2797.000	3048.000	1.490	7.448	109.300
3	12:59:49	6.589	11.160	378.800	2842.000	3075.000	1.497	6.804	108.400
x		6.687	10.810	371.700	2793.000	3025.000	1.427	7.041	107.900
σ		0.143	0.305	7.245	50.900	64.930	0.115	0.354	1.750
%RSD		2.134	2.817	1.949	1.822	2.146	8.073	5.024	1.623
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:56	107.100	601.300	605.300	2.290	-0.867	0.542	0.000	248.700
2	12:59:22	107.900	617.000	619.900	1.099	0.559	0.970	0.000	257.200
3	12:59:49	108.600	618.300	624.000	2.238	1.138	1.168	0.000	258.900
x		107.800	612.200	616.400	1.875	0.277	0.894	0.000	255.000
σ		0.728	9.455	9.836	0.673	1.032	0.320	0.000	5.485
%RSD		0.675	1.544	1.596	35.900	372.900	35.780	0.000	2.151
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:56	87.876%	6.259	6.203	87.206%	0.724	0.783	0.430	0.322
2	12:59:22	86.945%	6.177	6.075	88.033%	0.707	0.769	0.351	0.291
3	12:59:49	87.140%	6.040	6.129	88.125%	0.720	0.693	0.353	0.337
x		87.320%	6.159	6.135	87.788%	0.717	0.748	0.378	0.317
σ		0.491%	0.111	0.064	0.506%	0.009	0.048	0.045	0.024
%RSD		0.562	1.798	1.043	0.577	1.206	6.458	11.940	7.499
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:58:56	84.879%	2.997	0.933	0.984	121.900	120.200	93.025%	91.782%
2	12:59:22	85.869%	2.863	1.017	1.061	125.300	126.100	93.694%	93.690%
3	12:59:49	86.860%	2.631	1.046	1.032	124.300	122.500	94.646%	95.102%
x		85.869%	2.830	0.999	1.026	123.800	122.900	93.788%	93.525%
σ		0.991%	0.185	0.059	0.039	1.777	3.003	0.815%	1.666%
%RSD		1.154	6.543	5.867	3.778	1.435	2.443	0.868	1.782
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:58:56	0.141	0.120	14.750	14.150	14.210	86.688%		
2	12:59:22	0.126	0.126	15.840	14.620	15.000	84.433%		
3	12:59:49	0.097	0.100	16.090	15.130	15.240	85.460%		
x		0.121	0.115	15.560	14.630	14.810	85.527%		
σ		0.022	0.014	0.711	0.488	0.539	1.129%		
%RSD		18.250	11.790	4.568	3.335	3.638	1.320		

680-110988-G-1-A @10 4/6/2015 1:02:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:13	83.096%	0.202	15.820	14.510	0.000	6075.000	5123.000	5031.000
2	13:03:40	82.468%	-0.100	11.810	13.940	0.000	6177.000	5265.000	5141.000
3	13:04:06	80.750%	0.131	16.860	14.600	0.000	6305.000	5349.000	5211.000
x		82.105%	0.078	14.830	14.350	0.000	6186.000	5246.000	5128.000
σ		1.214%	0.158	2.665	0.355	0.000	115.400	114.500	91.130
%RSD		1.479	203.500	17.970	2.474	0.000	1.866	2.182	1.777
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:13	8.438	524.600	0.000	210.100	13880.000	13050.000	83.399%	0.385
2	13:03:40	8.869	528.200	0.000	217.600	14310.000	13580.000	83.910%	0.401
3	13:04:06	8.921	536.700	0.000	218.700	13930.000	13450.000	83.905%	0.445
x		8.743	529.800	0.000	215.500	14040.000	13360.000	83.738%	0.410
σ		0.266	6.231	0.000	4.667	230.300	275.200	0.293%	0.031
%RSD		3.037	1.176	0.000	2.166	1.640	2.059	0.350	7.644
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:13	2.129	0.975	11.010	1876.000	1877.000	0.030	-0.060	0.193
2	13:03:40	0.995	0.913	11.230	1922.000	1915.000	0.034	-0.143	0.217
3	13:04:06	-0.318	0.824	11.460	1935.000	1958.000	0.017	0.069	0.179
x		0.935	0.904	11.230	1911.000	1917.000	0.027	-0.044	0.196
σ		1.225	0.076	0.226	30.820	40.550	0.009	0.107	0.019
%RSD		131.000	8.390	2.012	1.613	2.115	33.080	240.700	9.591
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:13	0.139	1.450	1.592	0.312	-0.727	0.028	0.000	53.020
2	13:03:40	-0.006	1.483	1.157	0.845	-0.442	-0.213	0.000	52.760
3	13:04:06	0.226	1.572	1.428	1.896	-0.586	-0.180	0.000	54.550
x		0.120	1.502	1.392	1.018	-0.585	-0.122	0.000	53.440
σ		0.117	0.063	0.220	0.806	0.143	0.131	0.000	0.966
%RSD		98.020	4.195	15.770	79.210	24.410	107.700	0.000	1.807
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:13	84.503%	0.524	0.589	87.651%	0.010	0.002	0.012	-0.027
2	13:03:40	87.217%	0.676	0.605	89.908%	0.011	0.003	0.065	-0.061
3	13:04:06	86.619%	0.615	0.610	90.120%	0.009	-0.011	0.057	-0.072
x		86.113%	0.605	0.601	89.226%	0.010	-0.002	0.045	-0.053
σ		1.426%	0.076	0.011	1.368%	0.001	0.008	0.029	0.024
%RSD		1.656	12.570	1.851	1.533	10.320	345.200	63.860	44.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:03:13	86.659%	0.391	0.029	0.030	27.300	26.850	91.906%	90.838%
2	13:03:40	84.841%	0.511	0.021	0.022	27.410	28.370	93.510%	92.052%
3	13:04:06	88.970%	0.386	0.032	0.033	27.980	27.800	94.534%	93.567%
x		86.824%	0.429	0.027	0.028	27.570	27.670	93.317%	92.153%
σ		2.069%	0.071	0.006	0.006	0.363	0.771	1.325%	1.367%
%RSD		2.383	16.500	20.330	21.040	1.317	2.787	1.420	1.483
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:03:13	0.034	0.028	0.109	0.068	0.097	90.135%		
2	13:03:40	0.033	0.024	0.086	0.099	0.080	87.635%		
3	13:04:06	0.033	0.021	0.083	0.107	0.078	88.672%		
x		0.033	0.025	0.093	0.091	0.085	88.814%		
σ		0.000	0.003	0.014	0.021	0.010	1.256%		
%RSD		1.122	13.140	15.080	22.680	12.060	1.414		

680-110988-F-1-A @10 4/6/2015 1:07:01 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	83.699%	-0.102	12.130	13.620	0.000	6193.000	5297.000	5222.000
2	13:07:54	84.375%	0.036	11.110	13.470	0.000	6309.000	5415.000	5312.000
3	13:08:21	82.582%	0.083	12.290	13.500	0.000	6345.000	5485.000	5362.000
x		83.552%	0.006	11.840	13.530	0.000	6283.000	5399.000	5299.000
σ		0.906%	0.096	0.642	0.077	0.000	79.240	94.850	70.870
%RSD		1.084	1698.000	5.421	0.571	0.000	1.261	1.757	1.337

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	0.320	527.300	0.000	216.800	13990.000	13410.000	82.442%	0.507
2	13:07:54	0.352	531.600	0.000	220.000	14320.000	14020.000	82.418%	0.125
3	13:08:21	0.433	535.900	0.000	227.800	14700.000	14040.000	82.575%	0.392
x		0.368	531.600	0.000	221.500	14340.000	13820.000	82.479%	0.341
σ		0.058	4.296	0.000	5.616	356.400	358.800	0.085%	0.196
%RSD		15.800	0.808	0.000	2.535	2.486	2.595	0.103	57.480

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	0.878	0.678	11.260	1907.000	1896.000	0.025	-0.013	0.142
2	13:07:54	-0.032	0.718	11.730	1960.000	1976.000	0.030	-0.093	0.301
3	13:08:21	1.080	0.786	11.600	1967.000	1990.000	0.030	-0.007	0.271
x		0.642	0.728	11.530	1945.000	1954.000	0.029	-0.038	0.238
σ		0.592	0.054	0.241	32.630	50.560	0.003	0.048	0.084
%RSD		92.260	7.488	2.093	1.678	2.587	9.888	127.000	35.520

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	0.209	0.384	0.680	0.606	-0.676	0.790	0.000	55.170
2	13:07:54	0.255	0.579	0.371	1.411	-1.699	0.440	0.000	55.470
3	13:08:21	0.146	0.426	0.368	0.387	-0.304	-0.020	0.000	56.070
x		0.203	0.463	0.473	0.801	-0.893	0.403	0.000	55.570
σ		0.055	0.102	0.179	0.539	0.723	0.406	0.000	0.458
%RSD		27.040	22.120	37.840	67.300	80.900	100.800	0.000	0.825

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	82.465%	0.278	0.287	86.483%	0.008	-0.007	0.063	-0.064
2	13:07:54	84.644%	0.258	0.327	87.915%	0.002	-0.002	-0.008	-0.008
3	13:08:21	85.218%	0.304	0.298	88.331%	0.012	-0.009	0.049	-0.031
x		84.109%	0.280	0.304	87.576%	0.008	-0.006	0.035	-0.034
σ		1.453%	0.023	0.021	0.969%	0.005	0.004	0.038	0.028
%RSD		1.727	8.245	6.752	1.107	64.120	60.520	109.700	82.830

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	82.911%	0.096	-0.003	0.026	27.900	28.330	88.409%	88.335%
2	13:07:54	84.833%	0.129	0.015	0.033	28.150	29.100	91.097%	91.042%
3	13:08:21	86.529%	0.100	0.023	0.013	27.590	28.710	92.636%	91.692%
x		84.758%	0.108	0.012	0.024	27.880	28.710	90.714%	90.357%
σ		1.810%	0.018	0.013	0.010	0.278	0.386	2.139%	1.780%
%RSD		2.135	16.600	111.700	41.860	0.995	1.345	2.358	1.970

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:07:28	0.017	0.014	0.062	0.046	0.051	87.509%
2	13:07:54	0.024	0.012	0.029	0.062	0.050	86.084%
3	13:08:21	0.028	0.014	0.025	0.038	0.040	87.287%
x		0.023	0.013	0.039	0.049	0.047	86.960%
σ		0.006	0.001	0.020	0.012	0.006	0.767%
%RSD		24.460	6.741	52.060	25.630	12.900	0.882

680-110988-G-2-A @10 4/6/2015 1:11:19 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	13:11:45	80.197%	-0.054	5.909	5.046	0.000	541.900	3315.000	3253.000
2	13:12:12	80.574%	0.091	7.804	5.101	0.000	544.000	3378.000	3280.000
3	13:12:39	81.333%	0.067	7.007	5.256	0.000	543.100	3335.000	3244.000
x		80.701%	0.035	6.907	5.134	0.000	543.000	3343.000	3259.000
σ		0.578%	0.078	0.952	0.109	0.000	1.070	32.610	19.140
%RSD		0.717	222.400	13.780	2.126	0.000	0.197	0.976	0.587

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:45	18.600	1436.000	0.000	48.390	8177.000	7919.000	81.707%	0.492
2	13:12:12	19.140	1457.000	0.000	47.550	8416.000	8158.000	81.560%	0.583
3	13:12:39	18.660	1432.000	0.000	46.940	8902.000	8128.000	81.847%	0.647
x		18.800	1442.000	0.000	47.630	8498.000	8068.000	81.705%	0.574
σ		0.295	13.760	0.000	0.724	369.400	130.200	0.143%	0.078
%RSD		1.571	0.954	0.000	1.520	4.346	1.614	0.176	13.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:45	0.970	1.065	2.041	43.020	53.510	0.030	0.184	0.366
2	13:12:12	1.276	1.134	1.963	40.360	54.020	0.007	0.136	0.274
3	13:12:39	0.380	1.202	2.079	39.680	54.910	0.022	0.212	0.220
x		0.875	1.134	2.028	41.020	54.150	0.020	0.177	0.287
σ		0.455	0.069	0.059	1.761	0.708	0.011	0.039	0.074
%RSD		52.020	6.051	2.912	4.294	1.308	57.660	21.810	25.680

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:45	0.242	0.786	0.917	1.184	-0.496	-0.147	0.000	12.020
2	13:12:12	0.293	0.852	0.907	0.163	-0.892	-0.052	0.000	11.890
3	13:12:39	0.400	1.028	0.951	-0.167	-1.324	0.055	0.000	11.940
x		0.312	0.889	0.925	0.394	-0.904	-0.048	0.000	11.950
σ		0.080	0.125	0.023	0.704	0.414	0.101	0.000	0.062
%RSD		25.800	14.060	2.526	179.000	45.810	210.300	0.000	0.520

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:45	82.376%	0.362	0.421	87.392%	-0.004	-0.003	0.079	-0.077
2	13:12:12	84.778%	0.364	0.398	89.090%	-0.005	-0.005	0.060	-0.034
3	13:12:39	85.513%	0.499	0.367	89.477%	-0.000	-0.016	0.056	-0.007
x		84.222%	0.408	0.395	88.653%	-0.003	-0.008	0.065	-0.039
σ		1.641%	0.079	0.027	1.109%	0.003	0.007	0.013	0.035
%RSD		1.948	19.290	6.853	1.251	82.050	91.300	19.440	89.450

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:45	82.807%	0.054	0.035	0.032	7.419	7.815	89.553%	89.831%
2	13:12:12	85.677%	0.093	-0.001	0.025	7.127	7.469	91.436%	90.570%
3	13:12:39	84.163%	0.064	0.011	0.046	7.886	7.321	92.801%	92.898%
x		84.216%	0.070	0.015	0.034	7.477	7.535	91.263%	91.100%
σ		1.436%	0.020	0.018	0.011	0.383	0.254	1.631%	1.600%
%RSD		1.705	28.880	122.700	31.490	5.120	3.369	1.787	1.757

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:45	0.013	0.008	0.048	0.048	0.059	90.408%
2	13:12:12	0.013	0.006	0.052	0.068	0.058	88.971%
3	13:12:39	0.010	0.011	0.069	0.070	0.064	87.933%
x		0.012	0.008	0.056	0.062	0.060	89.104%
σ		0.002	0.003	0.011	0.012	0.003	1.243%
%RSD		15.680	33.110	20.020	19.640	5.439	1.395

680-110988-F-2-A @10 4/6/2015 1:15:36 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	13:16:03	80.768%	0.028	4.426	5.017	0.000	542.100	3120.000	3043.000
2	13:16:30	81.619%	-0.016	3.654	4.684	0.000	550.600	3152.000	3075.000
3	13:16:56	82.206%	-0.140	5.638	4.581	0.000	562.400	3188.000	3112.000
x		81.531%	-0.043	4.572	4.760	0.000	551.700	3153.000	3077.000
σ		0.723%	0.087	1.000	0.228	0.000	10.200	33.700	34.730
%RSD		0.887	205.000	21.870	4.787	0.000	1.849	1.069	1.129

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:03	0.557	1319.000	0.000	47.860	7903.000	7498.000	81.018%	0.271
2	13:16:30	0.575	1326.000	0.000	46.900	8034.000	7690.000	81.212%	0.042
3	13:16:56	0.646	1333.000	0.000	47.520	8378.000	7737.000	80.471%	0.390
x		0.593	1326.000	0.000	47.420	8105.000	7642.000	80.900%	0.234
σ		0.047	6.767	0.000	0.488	245.400	126.400	0.384%	0.177
%RSD		7.951	0.510	0.000	1.028	3.028	1.654	0.475	75.560

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:03	1.187	0.981	0.116	15.730	27.110	0.029	0.051	0.135
2	13:16:30	0.135	0.948	0.077	14.850	25.860	-0.005	-0.061	0.178
3	13:16:56	0.076	1.109	0.075	14.480	26.660	0.014	0.038	0.224
x		0.466	1.013	0.089	15.020	26.540	0.013	0.010	0.179
σ		0.625	0.085	0.023	0.645	0.632	0.017	0.061	0.044
%RSD		134.000	8.412	25.550	4.293	2.381	133.800	642.600	24.790

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:03	0.116	0.880	0.899	0.551	-0.454	0.440	0.000	11.340
2	13:16:30	0.123	0.814	0.701	-0.264	-1.017	0.602	0.000	11.210
3	13:16:56	0.147	0.768	0.865	0.278	-0.696	-0.003	0.000	11.600
x		0.129	0.821	0.821	0.188	-0.722	0.346	0.000	11.380
σ		0.016	0.056	0.106	0.415	0.282	0.313	0.000	0.202
%RSD		12.700	6.829	12.910	220.700	39.050	90.410	0.000	1.774

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:03	82.040%	0.367	0.398	85.394%	-0.008	-0.009	0.031	-0.003
2	13:16:30	82.781%	0.401	0.389	87.759%	0.001	-0.006	0.035	-0.027
3	13:16:56	83.430%	0.412	0.386	87.552%	0.010	-0.002	0.003	-0.055
x		82.750%	0.393	0.391	86.902%	0.001	-0.005	0.023	-0.028
σ		0.696%	0.023	0.006	1.310%	0.009	0.004	0.018	0.026
%RSD		0.841	5.840	1.602	1.507	819.300	66.990	76.760	92.380

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:03	82.382%	0.016	0.010	0.034	6.474	7.111	88.143%	88.663%
2	13:16:30	83.981%	0.016	0.023	0.035	6.751	7.039	90.457%	90.435%
3	13:16:56	83.801%	0.055	0.008	0.043	6.620	6.773	90.832%	90.057%
x		83.388%	0.029	0.014	0.037	6.615	6.974	89.811%	89.718%
σ		0.876%	0.022	0.008	0.005	0.139	0.179	1.456%	0.933%
%RSD		1.051	77.250	62.220	13.300	2.100	2.559	1.621	1.040

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:16:03	0.017	0.003	0.042	0.025	0.032	88.716%
2	13:16:30	0.010	0.004	0.036	0.035	0.038	87.649%
3	13:16:56	0.016	0.008	0.015	0.048	0.027	86.646%
x		0.014	0.005	0.031	0.036	0.032	87.670%
σ		0.004	0.003	0.015	0.011	0.005	1.035%
%RSD		26.230	59.700	46.780	30.990	16.560	1.181

680-110988-G-3-A @10 4/6/2015 1:19:54 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	13:20:21	81.115%	0.131	182.500	184.100	0.000	5393.000	2629.000	2596.000
2	13:20:47	80.471%	0.071	193.500	185.400	0.000	5457.000	2709.000	2634.000
3	13:21:14	78.817%	0.184	187.500	186.000	0.000	5595.000	2763.000	2676.000
x		80.134%	0.129	187.800	185.200	0.000	5482.000	2700.000	2635.000
σ		1.186%	0.057	5.513	0.964	0.000	103.200	67.830	40.120
%RSD		1.479	44.050	2.935	0.520	0.000	1.882	2.512	1.522
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:21	14.650	812.000	0.000	706.300	21340.000	19920.000	79.487%	0.378
2	13:20:47	14.990	810.700	0.000	710.500	21200.000	20180.000	81.331%	0.359
3	13:21:14	15.660	822.000	0.000	729.500	21480.000	20640.000	80.071%	0.301
x		15.100	814.900	0.000	715.500	21340.000	20250.000	80.297%	0.346
σ		0.516	6.165	0.000	12.370	136.600	365.000	0.942%	0.040
%RSD		3.414	0.757	0.000	1.728	0.640	1.803	1.173	11.490
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:21	0.189	0.681	289.000	566.900	611.300	0.119	0.566	0.270
2	13:20:47	-0.181	0.731	291.900	575.100	614.200	0.115	0.583	0.265
3	13:21:14	0.752	0.615	295.100	585.100	631.200	0.109	0.510	0.176
x		0.254	0.676	292.000	575.700	618.900	0.114	0.553	0.237
σ		0.470	0.058	3.068	9.141	10.740	0.005	0.038	0.053
%RSD		185.200	8.565	1.051	1.588	1.735	4.300	6.936	22.330
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:21	0.156	0.890	0.596	0.975	-0.872	0.111	0.000	62.140
2	13:20:47	0.265	0.820	1.023	1.083	-1.944	0.714	0.000	62.800
3	13:21:14	0.206	0.537	0.608	0.848	-1.895	-0.338	0.000	63.510
x		0.209	0.749	0.743	0.968	-1.570	0.162	0.000	62.820
σ		0.055	0.187	0.243	0.118	0.605	0.528	0.000	0.686
%RSD		26.320	25.000	32.760	12.150	38.530	325.300	0.000	1.092
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:21	80.182%	1.013	0.928	84.332%	0.005	-0.007	0.004	-0.061
2	13:20:47	82.713%	0.958	1.069	86.478%	-0.003	-0.003	0.052	-0.000
3	13:21:14	83.649%	0.867	0.991	88.024%	0.004	-0.010	0.066	0.018
x		82.181%	0.946	0.996	86.278%	0.002	-0.007	0.041	-0.015
σ		1.794%	0.074	0.070	1.854%	0.005	0.004	0.032	0.041
%RSD		2.182	7.810	7.052	2.149	254.500	54.910	79.950	280.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:21	81.970%	0.026	0.004	0.011	10.470	10.810	87.078%	87.929%
2	13:20:47	83.478%	0.001	0.003	0.043	10.780	10.830	91.214%	89.658%
3	13:21:14	84.922%	0.033	0.009	0.016	10.710	11.170	92.179%	91.271%
x		83.457%	0.020	0.005	0.023	10.660	10.930	90.157%	89.619%
σ		1.476%	0.017	0.003	0.018	0.161	0.204	2.709%	1.671%
%RSD		1.769	85.580	61.650	75.970	1.514	1.869	3.005	1.865
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:20:21	-0.000	0.004	0.047	0.050	0.041	89.122%		
2	13:20:47	0.005	0.007	0.039	0.051	0.046	86.530%		
3	13:21:14	0.014	0.005	0.031	0.052	0.043	87.177%		
x		0.006	0.005	0.039	0.051	0.043	87.610%		
σ		0.007	0.002	0.008	0.001	0.003	1.349%		
%RSD		114.500	34.860	20.540	2.419	6.063	1.539		

680-110988-F-3-A @10 4/6/2015 1:24:12 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:38	81.431%	0.047	185.300	180.800	0.000	5395.000	2621.000	2543.000
2	13:25:04	79.270%	0.224	187.800	188.200	0.000	5588.000	2745.000	2637.000
3	13:25:31	79.813%	-0.158	186.800	181.000	0.000	5545.000	2679.000	2609.000
x		80.171%	0.038	186.600	183.300	0.000	5509.000	2682.000	2596.000
σ		1.124%	0.191	1.226	4.186	0.000	100.800	62.440	48.480
%RSD		1.402	505.900	0.657	2.283	0.000	1.830	2.329	1.867
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:38	3.385	776.100	0.000	702.100	21200.000	19890.000	79.886%	0.026
2	13:25:04	3.451	795.500	0.000	726.200	21390.000	20440.000	80.075%	0.186
3	13:25:31	3.372	783.300	0.000	716.900	20770.000	20490.000	80.798%	0.067
x		3.403	785.000	0.000	715.100	21120.000	20270.000	80.253%	0.093
σ		0.043	9.810	0.000	12.170	320.700	332.300	0.482%	0.083
%RSD		1.251	1.250	0.000	1.702	1.519	1.639	0.600	89.530
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:38	0.301	0.679	280.800	397.500	445.400	0.122	0.523	0.202
2	13:25:04	1.151	0.659	285.700	402.800	453.900	0.117	0.468	0.197
3	13:25:31	0.699	0.643	285.300	403.500	459.400	0.089	0.505	0.251
x		0.717	0.660	283.900	401.300	452.900	0.109	0.499	0.217
σ		0.425	0.018	2.748	3.253	7.036	0.018	0.028	0.030
%RSD		59.280	2.759	0.968	0.811	1.553	16.200	5.693	13.670
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:38	0.281	0.568	0.558	1.306	-0.896	-0.348	0.000	61.720
2	13:25:04	0.251	0.636	0.653	1.062	-0.189	0.001	0.000	62.610
3	13:25:31	0.125	0.609	0.580	1.588	0.058	-0.695	0.000	63.010
x		0.219	0.604	0.597	1.319	-0.342	-0.347	0.000	62.450
σ		0.083	0.034	0.050	0.264	0.495	0.348	0.000	0.661
%RSD		37.900	5.681	8.342	19.990	144.800	100.100	0.000	1.059
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:38	81.495%	0.927	0.939	85.265%	-0.000	0.000	0.053	-0.052
2	13:25:04	82.461%	1.153	1.037	87.121%	-0.005	-0.011	0.024	-0.032
3	13:25:31	83.035%	0.948	1.013	87.056%	0.003	-0.000	0.008	0.011
x		82.330%	1.009	0.996	86.481%	-0.001	-0.004	0.028	-0.024
σ		0.778%	0.125	0.051	1.054%	0.004	0.006	0.023	0.032
%RSD		0.945	12.350	5.165	1.218	440.700	175.000	80.250	132.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:38	82.641%	-0.009	0.006	0.027	10.170	10.230	89.479%	88.396%
2	13:25:04	83.908%	0.053	0.011	0.038	10.430	10.680	90.186%	90.331%
3	13:25:31	84.435%	-0.002	0.005	0.013	10.440	10.380	91.031%	91.829%
x		83.661%	0.014	0.007	0.026	10.350	10.430	90.232%	90.185%
σ		0.922%	0.034	0.003	0.013	0.152	0.229	0.777%	1.721%
%RSD		1.102	243.300	47.190	48.320	1.467	2.198	0.861	1.909
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:24:38	0.008	0.001	0.025	0.024	0.024	89.964%		
2	13:25:04	0.009	0.002	0.030	0.017	0.030	86.442%		
3	13:25:31	0.009	-0.000	0.026	0.037	0.022	87.465%		
x		0.009	0.001	0.027	0.026	0.025	87.957%		
σ		0.001	0.001	0.003	0.010	0.004	1.812%		
%RSD		7.835	138.900	9.312	39.430	16.740	2.060		

CCV 1487954 4/6/2015 1:28:30 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:56	83.933%	92.000	93.050	97.870	0.000	46310.000	45330.000	45180.000
2	13:29:23	80.552%	100.200	104.300	101.000	0.000	48280.000	47560.000	47140.000
3	13:29:49	83.933%	95.700	101.700	97.640	0.000	47920.000	46820.000	46350.000
x		82.806%	95.967%	99.673%	98.833%	0.000	95.008%	93.137%	92.442%
σ		1.952%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.357	4.275	5.910	1.898	0.000	2.214	2.440	2.133
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:56	441.500	5275.000	0.000	48090.000	47100.000	48320.000	80.136%	98.040
2	13:29:23	465.000	5431.000	0.000	49000.000	49560.000	49870.000	81.024%	101.700
3	13:29:49	455.700	5346.000	0.000	48500.000	48950.000	49880.000	80.940%	103.000
x		90.810%	107.017%	0.000	97.055%	97.073%	98.714%	80.700%	100.920%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.490%	n/a
%RSD		2.608	1.459	0.000	0.944	2.648	1.825	0.607	2.551
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:56	92.640	94.850	503.100	23940.000	24840.000	93.680	95.900	96.530
2	13:29:23	94.270	96.130	508.600	24360.000	25390.000	95.630	96.010	97.360
3	13:29:49	96.720	96.920	512.600	24680.000	25870.000	97.450	97.990	98.400
x		94.544%	95.964%	101.624%	97.299%	101.458%	95.585%	96.634%	97.428%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.171	1.088	0.935	1.511	2.027	1.970	1.221	0.961
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:56	95.190	96.370	96.190	95.610	95.000	92.640	0.000	92.700
2	13:29:23	97.680	97.580	97.000	95.510	95.140	93.550	0.000	92.610
3	13:29:49	98.330	96.230	99.210	96.300	97.380	95.150	0.000	94.570
x		97.066%	96.724%	97.465%	95.807%	95.842%	93.778%	0.000	93.292%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.704	0.766	1.601	0.445	1.393	1.351	0.000	1.184
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:56	80.869%	90.030	90.620	80.509%	91.610	91.630	94.390	92.300
2	13:29:23	84.271%	92.980	94.590	83.126%	90.170	91.730	94.520	93.430
3	13:29:49	83.790%	97.340	97.310	83.880%	89.620	90.700	94.170	93.140
x		82.977%	93.451%	94.171%	82.505%	90.467%	91.355%	94.359%	92.955%
σ		1.841%	n/a	n/a	1.769%	n/a	n/a	n/a	n/a
%RSD		2.219	3.936	3.575	2.145	1.140	0.622	0.188	0.632
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:28:56	80.039%	95.140	96.800	95.850	92.040	93.110	86.523%	86.108%
2	13:29:23	81.789%	96.610	97.540	96.840	94.910	93.660	89.648%	88.574%
3	13:29:49	82.966%	96.640	97.950	96.950	94.870	94.900	90.629%	89.772%
x		81.598%	96.129%	97.429%	96.547%	93.939%	93.893%	88.933%	88.151%
σ		1.473%	n/a	n/a	n/a	n/a	n/a	2.144%	1.868%
%RSD		1.805	0.894	0.600	0.628	1.747	0.976	2.411	2.119
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:28:56	94.210	92.400	93.930	94.420	93.320	82.386%		
2	13:29:23	96.800	94.910	98.420	98.770	97.670	82.277%		
3	13:29:49	96.180	94.700	96.350	98.270	96.970	83.183%		
x		95.728%	94.000%	96.233%	97.154%	95.985%	82.615%		
σ		n/a	n/a	n/a	n/a	n/a	0.495%		
%RSD		1.412	1.478	2.334	2.449	2.434	0.599		

CCB2 4/6/2015 1:35:56 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	13:36:22	87.673%	0.082	-0.145	0.686	0.000	24.670	7.777	8.421
2	13:36:49	88.963%	0.039	0.817	0.668	0.000	26.360	9.705	7.647
3	13:37:15	86.875%	0.026	-0.023	0.814	0.000	27.430	7.602	7.949
x		87.837%	0.049	0.217	0.722	0.000	26.150	8.361	8.006
σ		1.054%	0.029	0.524	0.079	0.000	1.389	1.167	0.390
%RSD		1.200	58.920	241.900	11.000	0.000	5.313	13.960	4.872

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	0.877	-2.106	0.000	-0.021	8.612	8.928	88.772%	-0.059
2	13:36:49	0.742	-2.200	0.000	-2.902	-7.980	10.570	89.322%	-0.082
3	13:37:15	0.667	-3.027	0.000	-4.886	13.800	4.302	89.630%	-0.145
x		0.762	-2.444	0.000	-2.603	4.810	7.934	89.241%	-0.096
σ		0.107	0.507	0.000	2.446	11.380	3.251	0.435%	0.045
%RSD		14.020	20.730	0.000	93.970	236.500	40.970	0.487	46.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	0.165	0.056	0.090	14.300	4.897	0.040	-0.059	0.071
2	13:36:49	0.035	0.073	0.116	13.460	5.389	0.021	0.035	0.133
3	13:37:15	0.001	0.091	0.169	13.580	2.003	0.030	-0.021	0.059
x		0.067	0.073	0.125	13.780	4.096	0.030	-0.015	0.088
σ		0.087	0.017	0.040	0.457	1.829	0.010	0.047	0.040
%RSD		129.500	23.720	32.170	3.313	44.660	32.740	311.000	45.580

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	-0.056	0.050	0.106	0.511	-0.657	0.949	0.000	0.035
2	13:36:49	0.025	0.155	0.010	0.400	-0.217	0.038	0.000	0.025
3	13:37:15	0.155	0.077	0.136	0.106	-1.071	-0.134	0.000	0.027
x		0.041	0.094	0.084	0.339	-0.648	0.285	0.000	0.029
σ		0.107	0.055	0.066	0.210	0.427	0.582	0.000	0.006
%RSD		259.400	58.180	78.840	61.780	65.910	204.500	0.000	19.460

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	88.695%	0.157	0.225	93.794%	0.016	0.003	0.070	-0.056
2	13:36:49	90.427%	0.295	0.264	88.533%	0.030	-0.006	0.042	0.027
3	13:37:15	89.841%	0.207	0.231	88.921%	0.020	0.000	0.060	0.050
x		89.654%	0.220	0.240	90.416%	0.022	-0.001	0.057	0.007
σ		0.881%	0.070	0.021	2.932%	0.007	0.004	0.014	0.056
%RSD		0.982	31.850	8.765	3.243	33.870	602.100	25.250	790.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	89.482%	0.040	0.047	0.067	0.041	0.077	92.947%	91.795%
2	13:36:49	89.363%	0.073	0.039	0.039	0.010	0.164	95.265%	94.051%
3	13:37:15	91.544%	0.035	0.062	0.065	0.075	0.113	93.551%	94.458%
x		90.130%	0.049	0.049	0.057	0.042	0.118	93.921%	93.435%
σ		1.227%	0.021	0.012	0.016	0.033	0.044	1.203%	1.435%
%RSD		1.361	41.840	23.460	27.480	77.950	37.350	1.280	1.536

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:36:22	0.021	0.014	0.017	0.048	0.038	93.988%
2	13:36:49	0.022	0.018	0.034	0.038	0.042	92.584%
3	13:37:15	0.023	0.018	0.055	0.047	0.050	93.102%
x		0.022	0.017	0.035	0.044	0.043	93.225%
σ		0.001	0.002	0.019	0.006	0.006	0.710%
%RSD		4.372	12.910	52.880	12.510	14.650	0.762

680-110988-G-4-A @10 4/6/2015 1:40:16 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	13:40:42	80.161%	-0.032	344.400	353.500	0.000	9902.000	41210.000	40810.000
2	13:41:09	84.283%	0.017	328.700	348.100	0.000	9745.000	40860.000	40390.000
3	13:41:35	81.429%	0.129	361.400	364.700	0.000	10050.000	42130.000	41210.000
x		81.958%	0.038	344.900	355.500	0.000	9900.000	41400.000	40810.000
σ		2.111%	0.082	16.390	8.474	0.000	153.600	658.300	408.200
%RSD		2.576	218.400	4.753	2.384	0.000	1.552	1.590	1.000

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:42	1.001	488.400	0.000	2863.000	159000.000	156400.000	79.570%	0.167
2	13:41:09	0.955	482.200	0.000	2864.000	162100.000	158900.000	81.453%	0.176
3	13:41:35	0.955	495.200	0.000	2873.000	162900.000	161600.000	82.286%	0.260
x		0.970	488.600	0.000	2867.000	161300.000	159000.000	81.103%	0.201
σ		0.026	6.514	0.000	5.609	2083.000	2629.000	1.392%	0.051
%RSD		2.725	1.333	0.000	0.196	1.291	1.654	1.716	25.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:42	0.562	0.736	1099.000	39.940	672.400	1.496	4.641	0.177
2	13:41:09	0.711	0.743	1100.000	66.840	662.500	1.568	4.531	0.123
3	13:41:35	0.735	0.900	1102.000	43.370	657.700	1.561	5.312	0.177
x		0.669	0.793	1100.000	50.050	664.200	1.542	4.828	0.159
σ		0.094	0.093	1.750	14.640	7.507	0.040	0.423	0.031
%RSD		13.970	11.670	0.159	29.250	1.130	2.566	8.752	19.640

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:42	0.388	1.430	1.134	0.424	0.578	-0.075	0.000	387.000
2	13:41:09	0.502	1.339	1.323	0.901	-0.563	0.293	0.000	394.400
3	13:41:35	0.350	1.303	1.153	0.667	-0.800	-0.265	0.000	395.200
x		0.413	1.357	1.203	0.664	-0.262	-0.016	0.000	392.200
σ		0.079	0.066	0.104	0.239	0.737	0.283	0.000	4.516
%RSD		19.120	4.838	8.639	35.930	281.600	1817.000	0.000	1.151

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:42	81.372%	0.215	0.208	82.697%	0.017	0.003	0.017	0.025
2	13:41:09	83.925%	0.237	0.221	83.858%	0.004	-0.000	0.082	0.050
3	13:41:35	84.844%	0.248	0.213	86.300%	0.007	-0.003	0.107	0.011
x		83.380%	0.234	0.214	84.285%	0.009	0.000	0.069	0.029
σ		1.799%	0.017	0.006	1.839%	0.007	0.003	0.046	0.020
%RSD		2.158	7.133	3.003	2.182	72.750	1768.000	67.570	68.740

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:42	78.943%	0.018	0.027	0.050	12.470	12.280	87.151%	87.625%
2	13:41:09	81.944%	0.078	0.026	0.031	12.640	12.610	89.530%	89.692%
3	13:41:35	82.861%	0.033	0.022	0.033	12.280	12.380	92.043%	91.341%
x		81.249%	0.043	0.025	0.038	12.460	12.420	89.574%	89.553%
σ		2.050%	0.031	0.003	0.011	0.183	0.170	2.446%	1.862%
%RSD		2.523	73.140	11.570	28.210	1.466	1.366	2.731	2.079

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:42	0.010	0.012	0.076	0.059	0.060	87.761%
2	13:41:09	0.005	0.007	0.037	0.055	0.044	84.482%
3	13:41:35	0.013	0.011	0.020	0.046	0.044	83.115%
x		0.010	0.010	0.045	0.053	0.049	85.119%
σ		0.004	0.003	0.029	0.007	0.009	2.388%
%RSD		41.980	29.720	64.490	12.230	18.870	2.806

680-110988-F-4-A @10 4/6/2015 1:44:34 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	13:45:01	80.169%	0.050	339.900	349.200	0.000	9594.000	39590.000	38990.000
2	13:45:27	81.437%	-0.016	344.000	352.400	0.000	9707.000	39940.000	39610.000
3	13:45:54	83.025%	-0.000	346.400	341.800	0.000	9745.000	40410.000	39920.000
x		81.544%	0.011	343.400	347.800	0.000	9682.000	39980.000	39500.000
σ		1.431%	0.035	3.286	5.452	0.000	78.600	411.100	476.700
%RSD		1.755	302.600	0.957	1.568	0.000	0.812	1.028	1.207

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:01	0.845	465.600	0.000	2750.000	149500.000	147800.000	83.393%	0.118
2	13:45:27	0.668	471.600	0.000	2769.000	155100.000	153200.000	84.013%	0.070
3	13:45:54	0.735	471.200	0.000	2802.000	155800.000	153600.000	83.972%	0.026
x		0.749	469.500	0.000	2774.000	153500.000	151500.000	83.793%	0.072
σ		0.090	3.315	0.000	26.610	3483.000	3217.000	0.347%	0.046
%RSD		11.950	0.706	0.000	0.959	2.270	2.123	0.414	64.400

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:01	0.759	0.980	1130.000	45.240	617.400	1.456	4.846	0.267
2	13:45:27	1.240	1.076	1073.000	44.220	631.600	1.459	4.950	0.216
3	13:45:54	0.967	1.169	1069.000	44.390	644.600	1.479	5.021	0.248
x		0.989	1.075	1090.000	44.610	631.200	1.464	4.939	0.243
σ		0.242	0.094	34.030	0.547	13.620	0.012	0.088	0.026
%RSD		24.420	8.788	3.120	1.225	2.158	0.849	1.781	10.690

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:01	0.524	1.571	1.279	1.300	-0.647	0.658	0.000	372.800
2	13:45:27	0.504	1.456	1.439	0.360	-0.889	-0.239	0.000	381.600
3	13:45:54	0.597	1.572	1.713	0.914	0.672	0.800	0.000	380.900
x		0.541	1.533	1.477	0.858	-0.288	0.406	0.000	378.400
σ		0.049	0.067	0.219	0.473	0.840	0.563	0.000	4.927
%RSD		9.022	4.368	14.850	55.060	291.900	138.500	0.000	1.302

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:01	86.069%	0.116	0.147	86.973%	0.015	-0.019	0.058	0.021
2	13:45:27	86.675%	0.162	0.204	88.369%	0.012	-0.014	0.034	0.053
3	13:45:54	88.522%	0.178	0.166	88.603%	0.006	-0.005	0.044	-0.037
x		87.089%	0.152	0.172	87.982%	0.011	-0.012	0.045	0.013
σ		1.278%	0.032	0.029	0.882%	0.005	0.007	0.012	0.046
%RSD		1.467	21.060	17.040	1.002	41.350	55.630	26.240	362.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:01	82.695%	-0.007	0.026	0.019	11.970	12.210	89.831%	90.513%
2	13:45:27	84.913%	0.001	0.027	0.020	11.980	11.930	91.464%	91.487%
3	13:45:54	85.830%	0.011	0.013	0.041	12.050	12.360	93.330%	93.632%
x		84.479%	0.001	0.022	0.027	12.000	12.160	91.542%	91.877%
σ		1.612%	0.009	0.008	0.012	0.045	0.220	1.751%	1.596%
%RSD		1.908	631.100	35.010	45.220	0.375	1.806	1.912	1.737

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:45:01	0.014	0.007	0.041	0.014	0.035	88.232%
2	13:45:27	0.013	0.007	0.026	-0.004	0.021	85.797%
3	13:45:54	0.014	0.006	0.048	0.033	0.034	84.828%
x		0.014	0.007	0.038	0.014	0.030	86.285%
σ		0.001	0.000	0.011	0.019	0.008	1.754%
%RSD		4.238	6.485	29.580	134.000	26.270	2.033

680-110988-G-5-A @10 4/6/2015 1:48:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:18	82.805%	-0.060	136.900	137.500	0.000	6380.000	3266.000	3208.000
2	13:49:44	83.611%	-0.082	141.400	134.400	0.000	6377.000	3282.000	3215.000
3	13:50:11	82.134%	0.145	139.100	137.900	0.000	6522.000	3356.000	3255.000
x		82.850%	0.001	139.100	136.600	0.000	6426.000	3301.000	3226.000
σ		0.739%	0.126	2.215	1.918	0.000	82.800	48.310	25.360
%RSD		0.892	11560.000	1.592	1.404	0.000	1.289	1.463	0.786
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:18	4.444	480.500	0.000	662.900	19840.000	19290.000	84.116%	0.224
2	13:49:44	4.223	477.100	0.000	681.700	20570.000	19700.000	83.786%	0.116
3	13:50:11	4.546	484.300	0.000	691.200	20800.000	19920.000	83.390%	0.296
x		4.404	480.600	0.000	678.600	20400.000	19630.000	83.764%	0.212
σ		0.165	3.618	0.000	14.440	502.200	319.400	0.363%	0.090
%RSD		3.744	0.753	0.000	2.128	2.461	1.627	0.434	42.580
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:18	1.052	1.180	228.900	64.470	108.100	0.089	0.356	0.141
2	13:49:44	2.085	1.143	235.200	64.160	117.100	0.100	0.204	0.215
3	13:50:11	2.030	1.240	236.000	61.830	111.300	0.099	0.377	0.148
x		1.722	1.188	233.400	63.490	112.200	0.096	0.312	0.168
σ		0.581	0.049	3.873	1.443	4.575	0.006	0.095	0.041
%RSD		33.730	4.091	1.660	2.273	4.080	6.657	30.310	24.260
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:18	0.220	0.773	0.637	1.967	-0.378	0.623	0.000	41.860
2	13:49:44	0.223	0.828	0.738	0.832	-0.276	0.218	0.000	43.490
3	13:50:11	0.269	0.882	0.815	2.079	-0.774	0.250	0.000	44.000
x		0.237	0.828	0.730	1.626	-0.476	0.364	0.000	43.110
σ		0.027	0.054	0.089	0.690	0.263	0.225	0.000	1.118
%RSD		11.520	6.537	12.230	42.410	55.220	61.970	0.000	2.592
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:18	85.176%	1.743	1.750	87.776%	0.003	-0.003	0.035	-0.007
2	13:49:44	83.900%	1.715	1.939	88.748%	-0.004	0.001	0.022	0.016
3	13:50:11	85.177%	1.882	1.783	89.710%	0.005	0.004	0.079	0.017
x		84.751%	1.780	1.824	88.745%	0.001	0.001	0.046	0.009
σ		0.737%	0.089	0.101	0.967%	0.005	0.003	0.030	0.013
%RSD		0.869	5.017	5.548	1.090	402.500	540.600	65.410	150.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:49:18	83.351%	-0.034	0.014	0.025	8.830	9.070	89.971%	89.626%
2	13:49:44	86.914%	-0.013	0.019	0.031	9.291	9.332	90.477%	91.376%
3	13:50:11	87.173%	0.002	0.010	0.021	8.879	9.588	90.396%	91.056%
x		85.813%	-0.015	0.014	0.026	9.000	9.330	90.281%	90.686%
σ		2.136%	0.018	0.004	0.005	0.253	0.259	0.272%	0.932%
%RSD		2.489	118.500	29.560	21.090	2.816	2.780	0.301	1.027
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:49:18	-0.000	-0.001	0.049	0.047	0.056	90.172%		
2	13:49:44	-0.003	-0.006	0.045	0.047	0.049	88.116%		
3	13:50:11	0.005	-0.003	0.064	0.048	0.051	87.431%		
x		0.001	-0.003	0.053	0.047	0.052	88.573%		
σ		0.004	0.002	0.010	0.001	0.003	1.426%		
%RSD		732.700	75.850	19.160	1.210	6.282	1.610		

680-110988-F-5-A @10 4/6/2015 1:53:06 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	13:53:33	79.557%	-0.031	128.000	128.000	0.000	6714.000	3692.000	3617.000
2	13:53:59	78.894%	0.204	131.200	129.200	0.000	6935.000	3820.000	3706.000
3	13:54:26	79.494%	-0.073	129.200	127.700	0.000	6938.000	3795.000	3713.000
x		79.315%	0.034	129.500	128.300	0.000	6862.000	3769.000	3679.000
σ		0.366%	0.149	1.596	0.781	0.000	128.800	67.990	53.890
%RSD		0.461	445.500	1.233	0.608	0.000	1.877	1.804	1.465

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:33	0.642	477.200	0.000	613.700	22740.000	21840.000	80.683%	0.045
2	13:53:59	0.569	483.600	0.000	632.200	22620.000	22310.000	80.804%	-0.162
3	13:54:26	0.602	483.500	0.000	642.900	23660.000	22700.000	81.012%	0.088
x		0.604	481.400	0.000	629.600	23010.000	22280.000	80.833%	-0.010
σ		0.037	3.641	0.000	14.780	566.300	432.000	0.166%	0.134
%RSD		6.085	0.756	0.000	2.347	2.461	1.938	0.205	1380.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:33	2.149	1.347	204.700	32.430	94.740	0.071	0.238	0.241
2	13:53:59	-1.469	1.425	208.700	32.610	100.800	0.065	0.246	0.319
3	13:54:26	2.753	1.364	211.200	30.820	93.660	0.084	0.351	0.246
x		1.144	1.379	208.200	31.950	96.390	0.073	0.278	0.269
σ		2.283	0.041	3.241	0.983	3.834	0.010	0.063	0.044
%RSD		199.500	2.945	1.557	3.076	3.977	13.330	22.780	16.210

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:33	0.384	0.818	0.794	2.322	-1.548	0.142	0.000	46.410
2	13:53:59	0.281	0.937	0.739	1.968	0.122	0.611	0.000	47.150
3	13:54:26	0.313	0.690	0.702	1.473	-0.119	0.333	0.000	47.210
x		0.326	0.815	0.745	1.921	-0.515	0.362	0.000	46.920
σ		0.053	0.124	0.046	0.426	0.903	0.236	0.000	0.444
%RSD		16.230	15.150	6.197	22.190	175.300	65.040	0.000	0.947

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:33	81.587%	1.536	1.585	85.492%	0.009	-0.004	0.053	-0.031
2	13:53:59	83.709%	1.683	1.568	86.081%	-0.005	-0.007	-0.008	-0.072
3	13:54:26	83.766%	1.693	1.697	88.152%	0.002	-0.009	0.013	-0.046
x		83.021%	1.637	1.617	86.575%	0.002	-0.006	0.019	-0.050
σ		1.242%	0.088	0.070	1.397%	0.007	0.002	0.031	0.021
%RSD		1.496	5.377	4.344	1.614	321.100	39.520	161.100	41.890

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:33	82.579%	-0.026	0.001	0.043	9.321	9.240	88.758%	87.545%
2	13:53:59	84.669%	-0.018	-0.000	0.002	9.102	9.600	90.123%	91.246%
3	13:54:26	84.752%	-0.017	0.013	0.019	9.468	9.363	92.441%	91.704%
x		84.000%	-0.020	0.005	0.021	9.297	9.401	90.441%	90.165%
σ		1.231%	0.005	0.007	0.021	0.184	0.183	1.862%	2.281%
%RSD		1.466	23.690	156.400	95.690	1.982	1.943	2.059	2.529

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:33	0.003	-0.001	0.070	0.066	0.056	89.787%
2	13:53:59	0.005	-0.005	0.043	0.033	0.040	88.050%
3	13:54:26	-0.001	-0.004	0.027	0.054	0.041	88.154%
x		0.002	-0.004	0.046	0.051	0.046	88.663%
σ		0.003	0.002	0.022	0.016	0.009	0.974%
%RSD		125.600	56.880	47.160	32.010	19.590	1.099

680-110988-G-6-A @10 4/6/2015 1:57:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	80.115%	0.093	140.000	138.900	0.000	6524.000	3286.000	3211.000
2	13:58:17	81.305%	0.089	140.200	137.600	0.000	6566.000	3337.000	3259.000
3	13:58:44	80.021%	0.073	145.600	141.700	0.000	6680.000	3351.000	3280.000
x		80.480%	0.085	141.900	139.400	0.000	6590.000	3325.000	3250.000
σ		0.716%	0.011	3.148	2.105	0.000	80.830	34.520	35.300
%RSD		0.890	12.520	2.218	1.510	0.000	1.227	1.038	1.086

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	5.254	488.900	0.000	675.800	20210.000	19580.000	80.599%	0.206
2	13:58:17	5.536	493.500	0.000	698.100	21100.000	20350.000	80.082%	0.140
3	13:58:44	5.551	498.200	0.000	712.000	21380.000	20680.000	79.756%	0.072
x		5.447	493.500	0.000	695.300	20900.000	20210.000	80.146%	0.140
σ		0.167	4.679	0.000	18.240	613.200	563.600	0.425%	0.067
%RSD		3.065	0.948	0.000	2.623	2.934	2.789	0.530	47.810

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	0.713	1.050	240.200	53.030	108.700	0.088	0.053	0.158
2	13:58:17	2.060	1.169	244.300	53.510	106.900	0.091	0.248	0.237
3	13:58:44	0.749	1.143	248.700	52.230	106.800	0.087	0.134	0.262
x		1.174	1.121	244.400	52.920	107.500	0.089	0.145	0.219
σ		0.767	0.062	4.239	0.646	1.039	0.002	0.098	0.054
%RSD		65.350	5.566	1.735	1.220	0.967	2.720	67.770	24.620

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	0.235	1.644	1.624	1.476	0.054	-0.558	0.000	43.890
2	13:58:17	0.230	1.746	1.497	1.269	-0.791	-0.192	0.000	45.070
3	13:58:44	0.326	1.662	1.432	1.098	-0.955	-0.068	0.000	44.130
x		0.263	1.684	1.518	1.281	-0.564	-0.272	0.000	44.360
σ		0.054	0.054	0.098	0.189	0.542	0.255	0.000	0.624
%RSD		20.440	3.228	6.425	14.770	96.010	93.560	0.000	1.406

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	81.664%	1.767	1.667	84.141%	0.005	0.001	0.048	-0.074
2	13:58:17	82.168%	1.975	1.927	86.860%	-0.003	-0.012	0.041	-0.058
3	13:58:44	84.110%	1.824	1.790	86.622%	-0.007	-0.000	0.079	0.022
x		82.647%	1.855	1.795	85.874%	-0.002	-0.004	0.056	-0.037
σ		1.291%	0.107	0.130	1.506%	0.006	0.007	0.020	0.051
%RSD		1.563	5.785	7.247	1.754	339.700	188.200	35.670	139.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	82.498%	-0.023	0.006	0.031	9.189	9.718	88.330%	89.207%
2	13:58:17	82.977%	-0.066	0.003	0.028	9.762	9.624	91.341%	90.978%
3	13:58:44	83.680%	-0.034	-0.006	0.011	9.420	9.300	90.391%	90.598%
x		83.052%	-0.041	0.001	0.023	9.457	9.547	90.021%	90.261%
σ		0.594%	0.022	0.006	0.011	0.288	0.220	1.540%	0.932%
%RSD		0.716	53.620	522.400	47.170	3.048	2.300	1.710	1.033

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:57:50	0.003	-0.003	0.020	0.033	0.025	89.628%
2	13:58:17	0.000	-0.000	0.052	0.031	0.032	86.942%
3	13:58:44	0.002	-0.004	0.009	0.040	0.029	86.766%
x		0.002	-0.002	0.027	0.035	0.029	87.778%
σ		0.002	0.002	0.023	0.005	0.003	1.604%
%RSD		89.900	78.520	84.310	13.690	11.840	1.827

680-110988-F-6-A @10 4/6/2015 2:01:39 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:06	78.143%	0.124	133.300	127.000	0.000	6649.000	3618.000	3525.000
2	14:02:32	79.547%	0.054	126.000	124.800	0.000	6686.000	3673.000	3590.000
3	14:02:59	79.396%	0.034	128.500	122.200	0.000	6769.000	3699.000	3622.000
x		79.029%	0.070	129.300	124.700	0.000	6701.000	3663.000	3579.000
σ		0.771%	0.047	3.712	2.414	0.000	61.320	41.030	49.400
%RSD		0.975	67.190	2.871	1.936	0.000	0.915	1.120	1.380
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:06	2.818	469.200	0.000	619.800	21680.000	21110.000	78.367%	0.082
2	14:02:32	2.926	469.900	0.000	623.800	22730.000	21680.000	79.248%	0.264
3	14:02:59	3.124	474.200	0.000	631.900	22890.000	22040.000	78.199%	0.035
x		2.956	471.100	0.000	625.200	22430.000	21610.000	78.605%	0.127
σ		0.155	2.706	0.000	6.138	660.100	465.100	0.563%	0.121
%RSD		5.237	0.574	0.000	0.982	2.943	2.152	0.717	94.910
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:06	0.914	1.098	200.700	27.800	90.220	0.066	0.312	0.340
2	14:02:32	0.579	0.985	204.000	26.300	93.710	0.056	0.237	0.277
3	14:02:59	-0.322	1.169	206.400	26.500	89.320	0.081	0.163	0.439
x		0.390	1.084	203.700	26.870	91.080	0.068	0.237	0.352
σ		0.639	0.092	2.856	0.813	2.316	0.012	0.075	0.081
%RSD		163.700	8.520	1.402	3.025	2.543	18.150	31.570	23.130
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:06	0.428	0.803	1.042	0.614	-1.131	-0.209	0.000	45.720
2	14:02:32	0.266	0.917	0.879	1.786	-0.777	1.192	0.000	46.400
3	14:02:59	0.373	1.000	0.878	1.341	-1.535	0.606	0.000	46.320
x		0.356	0.907	0.933	1.247	-1.148	0.529	0.000	46.150
σ		0.083	0.099	0.095	0.592	0.379	0.704	0.000	0.373
%RSD		23.260	10.900	10.150	47.430	33.030	132.900	0.000	0.808
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:06	77.982%	1.546	1.533	82.665%	0.009	-0.006	-0.005	-0.056
2	14:02:32	79.507%	1.777	1.614	84.814%	-0.008	-0.002	0.043	-0.051
3	14:02:59	81.641%	1.438	1.577	84.075%	0.014	0.007	0.042	-0.030
x		79.710%	1.587	1.575	83.852%	0.005	-0.000	0.027	-0.046
σ		1.838%	0.173	0.041	1.092%	0.012	0.007	0.028	0.013
%RSD		2.306	10.930	2.574	1.302	228.600	4274.000	103.700	29.240
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:02:06	77.436%	-0.020	0.014	0.000	8.921	9.472	86.650%	86.285%
2	14:02:32	81.840%	-0.043	0.007	0.031	8.944	9.142	87.876%	88.354%
3	14:02:59	82.711%	-0.032	0.009	0.002	8.641	8.994	90.633%	89.225%
x		80.662%	-0.032	0.010	0.011	8.835	9.203	88.387%	87.955%
σ		2.828%	0.011	0.004	0.017	0.169	0.245	2.040%	1.510%
%RSD		3.506	36.110	36.000	157.300	1.909	2.657	2.308	1.717
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:02:06	-0.000	0.003	0.030	-0.000	0.022	84.247%		
2	14:02:32	0.006	0.002	0.007	0.021	0.003	85.995%		
3	14:02:59	0.005	-0.004	0.024	0.001	0.012	85.046%		
x		0.004	0.000	0.021	0.007	0.012	85.096%		
σ		0.003	0.004	0.012	0.012	0.009	0.875%		
%RSD		96.020	1050.000	58.180	163.700	77.080	1.028		

680-110988-F-6-A SD@50 4/6/2015 2:05:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:06:23	79.450%	0.074	29.360	25.450	0.000	1350.000	711.500	680.400
2	14:06:49	81.639%	-0.016	26.140	23.840	0.000	1373.000	710.400	703.400
3	14:07:16	81.470%	0.088	25.130	25.830	0.000	1369.000	724.400	693.400
x		80.853%	0.049	26.880	25.040	0.000	1364.000	715.400	692.400
σ		1.218%	0.056	2.212	1.055	0.000	12.220	7.814	11.510
%RSD		1.507	115.600	8.229	4.214	0.000	0.896	1.092	1.663
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:06:23	3.024	87.700	0.000	108.600	4382.000	4007.000	81.871%	-0.030
2	14:06:49	3.148	88.800	0.000	114.300	4598.000	4178.000	81.182%	-0.163
3	14:07:16	3.407	90.700	0.000	107.000	4401.000	4143.000	81.042%	0.156
x		3.193	89.070	0.000	110.000	4460.000	4109.000	81.365%	-0.012
σ		0.196	1.519	0.000	3.862	119.800	90.540	0.443%	0.160
%RSD		6.131	1.705	0.000	3.512	2.686	2.203	0.545	1311.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:06:23	0.333	0.292	38.580	21.740	20.770	0.024	-0.006	0.196
2	14:06:49	0.541	0.288	39.530	20.240	18.440	0.010	-0.034	0.283
3	14:07:16	-0.040	0.259	39.830	18.970	18.770	0.024	0.034	0.158
x		0.278	0.280	39.320	20.320	19.320	0.020	-0.002	0.212
σ		0.295	0.018	0.651	1.389	1.262	0.008	0.034	0.064
%RSD		105.800	6.380	1.655	6.837	6.528	40.520	1926.000	30.270
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:06:23	0.154	0.637	0.491	0.296	-0.918	-0.423	0.000	8.769
2	14:06:49	0.147	0.735	0.583	0.670	-0.705	0.321	0.000	8.895
3	14:07:16	0.150	0.652	0.685	-0.082	-0.835	-0.549	0.000	9.011
x		0.151	0.674	0.586	0.295	-0.819	-0.217	0.000	8.891
σ		0.003	0.053	0.097	0.376	0.107	0.470	0.000	0.121
%RSD		2.154	7.803	16.490	127.600	13.090	216.800	0.000	1.360
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:06:23	82.808%	0.296	0.359	86.978%	-0.006	-0.021	0.047	0.031
2	14:06:49	83.861%	0.267	0.353	88.684%	0.006	-0.013	0.034	0.050
3	14:07:16	84.690%	0.349	0.330	88.644%	0.006	0.000	0.039	-0.103
x		83.786%	0.304	0.347	88.102%	0.002	-0.011	0.040	-0.007
σ		0.943%	0.042	0.016	0.973%	0.007	0.011	0.007	0.083
%RSD		1.126	13.690	4.515	1.105	352.800	96.470	16.410	1186.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:06:23	82.613%	-0.053	-0.001	-0.001	1.760	1.860	89.547%	88.691%
2	14:06:49	84.946%	-0.039	0.010	0.017	1.826	1.912	90.983%	90.596%
3	14:07:16	85.829%	-0.053	-0.008	-0.005	1.812	1.898	91.256%	90.916%
x		84.463%	-0.048	0.000	0.004	1.800	1.890	90.596%	90.068%
σ		1.661%	0.008	0.009	0.012	0.035	0.027	0.918%	1.203%
%RSD		1.967	16.390	3209.000	303.700	1.932	1.421	1.013	1.336
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:06:23	0.003	-0.001	0.079	0.076	0.070	89.999%		
2	14:06:49	0.012	-0.002	0.038	0.052	0.056	89.835%		
3	14:07:16	0.008	-0.001	0.053	0.062	0.068	89.645%		
x		0.008	-0.001	0.057	0.064	0.065	89.826%		
σ		0.004	0.001	0.021	0.012	0.007	0.177%		
%RSD		57.200	46.040	36.690	19.150	11.220	0.197		

MB 180-137340/1-A 4/6/2015 2:13:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	82.221%	0.003	0.546	0.752	0.000	11.110	1.613	0.216
2	14:14:16	82.036%	0.085	0.077	0.805	0.000	12.490	0.672	0.369
3	14:14:43	84.352%	0.097	0.385	0.252	0.000	14.550	1.385	0.995
x		82.869%	0.062	0.336	0.603	0.000	12.720	1.223	0.527
σ		1.287%	0.051	0.238	0.305	0.000	1.729	0.491	0.413
%RSD		1.553	82.910	70.920	50.580	0.000	13.590	40.140	78.380

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	0.169	-4.298	0.000	-3.958	-0.227	5.645	80.965%	0.089
2	14:14:16	0.256	-3.916	0.000	-9.739	-33.110	7.456	80.737%	-0.093
3	14:14:43	0.161	-3.973	0.000	-7.427	-10.530	5.756	80.038%	0.140
x		0.196	-4.062	0.000	-7.041	-14.620	6.285	80.580%	0.045
σ		0.053	0.206	0.000	2.910	16.820	1.015	0.483%	0.123
%RSD		26.980	5.071	0.000	41.320	115.000	16.150	0.599	269.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	0.052	0.094	0.158	13.260	-0.763	0.007	0.007	0.081
2	14:14:16	-0.024	0.094	0.122	14.400	-2.280	0.015	-0.006	0.064
3	14:14:43	-0.021	0.152	0.137	12.140	-0.661	0.012	-0.107	0.073
x		0.003	0.113	0.139	13.270	-1.235	0.011	-0.035	0.073
σ		0.043	0.033	0.018	1.129	0.907	0.004	0.062	0.009
%RSD		1713.000	29.260	13.000	8.509	73.460	37.770	175.300	11.830

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	0.106	0.621	0.264	-0.172	-0.825	0.100	0.000	0.009
2	14:14:16	0.059	0.379	0.380	0.193	-0.194	1.020	0.000	0.007
3	14:14:43	0.043	0.566	0.329	0.132	-1.161	-0.340	0.000	0.011
x		0.069	0.522	0.324	0.051	-0.727	0.260	0.000	0.009
σ		0.033	0.127	0.058	0.196	0.491	0.694	0.000	0.002
%RSD		47.440	24.320	17.890	384.000	67.550	266.700	0.000	25.050

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	81.790%	0.024	0.022	85.159%	-0.009	-0.013	0.071	-0.026
2	14:14:16	82.302%	0.039	0.031	86.754%	-0.014	-0.012	0.052	0.021
3	14:14:43	83.046%	0.030	0.023	87.227%	0.001	0.001	0.051	0.003
x		82.380%	0.031	0.025	86.380%	-0.007	-0.008	0.058	-0.001
σ		0.632%	0.008	0.005	1.084%	0.008	0.008	0.011	0.024
%RSD		0.767	24.640	19.530	1.255	108.400	97.380	19.630	3048.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	80.952%	-0.066	-0.000	0.008	0.001	0.050	87.290%	85.923%
2	14:14:16	83.603%	-0.061	0.002	-0.002	0.049	0.047	89.578%	89.053%
3	14:14:43	84.054%	-0.088	0.009	0.012	0.043	0.032	89.558%	89.379%
x		82.870%	-0.072	0.003	0.006	0.031	0.043	88.809%	88.118%
σ		1.676%	0.014	0.005	0.007	0.026	0.009	1.315%	1.908%
%RSD		2.023	20.150	140.100	116.200	84.520	21.960	1.481	2.165

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:50	0.013	0.000	0.028	0.034	0.033	88.055%
2	14:14:16	0.006	0.004	0.042	0.033	0.024	88.991%
3	14:14:43	0.015	0.007	0.045	0.047	0.037	88.302%
x		0.011	0.004	0.038	0.038	0.031	88.450%
σ		0.004	0.003	0.009	0.008	0.007	0.485%
%RSD		39.340	95.690	22.850	21.120	21.000	0.549

PB 180-137194/1-C 4/6/2015 2:17:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:07	80.802%	0.070	0.820	0.412	0.000	12.210	0.844	0.536
2	14:18:34	82.567%	-0.039	1.128	0.545	0.000	12.090	0.035	0.715
3	14:19:00	81.660%	-0.037	0.674	0.451	0.000	12.210	0.303	0.430
x		81.676%	-0.002	0.874	0.470	0.000	12.170	0.394	0.560
σ		0.883%	0.062	0.232	0.068	0.000	0.069	0.412	0.144
%RSD		1.081	3153.000	26.500	14.490	0.000	0.567	104.600	25.650
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:07	0.230	-3.531	0.000	-8.692	-28.810	2.039	80.974%	-0.140
2	14:18:34	0.415	-4.160	0.000	-14.520	-0.183	3.416	80.902%	-0.071
3	14:19:00	0.083	-4.917	0.000	-15.410	-27.680	4.127	82.565%	-0.033
x		0.243	-4.203	0.000	-12.870	-18.890	3.194	81.480%	-0.081
σ		0.166	0.694	0.000	3.650	16.210	1.062	0.940%	0.054
%RSD		68.480	16.520	0.000	28.350	85.810	33.230	1.154	66.570
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:07	-0.156	0.066	0.021	10.540	-1.087	0.012	-0.088	0.072
2	14:18:34	0.075	0.071	0.010	9.100	-2.373	0.015	0.010	0.154
3	14:19:00	0.007	0.115	-0.020	7.424	0.669	0.003	-0.056	0.049
x		-0.025	0.084	0.004	9.021	-0.930	0.010	-0.045	0.092
σ		0.119	0.027	0.021	1.558	1.527	0.006	0.050	0.055
%RSD		478.300	32.390	594.400	17.280	164.200	61.370	111.700	60.340
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:07	0.036	0.365	0.178	0.009	-0.334	-0.138	0.000	0.008
2	14:18:34	-0.066	0.174	0.202	0.174	0.271	0.267	0.000	0.014
3	14:19:00	-0.129	0.273	0.149	0.451	-0.025	0.158	0.000	0.003
x		-0.053	0.271	0.176	0.211	-0.029	0.096	0.000	0.009
σ		0.084	0.096	0.026	0.223	0.302	0.210	0.000	0.006
%RSD		157.700	35.310	14.790	105.500	1037.000	218.900	0.000	64.930
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:07	82.005%	0.007	0.014	85.782%	-0.000	-0.009	0.042	0.030
2	14:18:34	83.731%	-0.003	-0.010	88.651%	0.007	-0.016	0.024	0.019
3	14:19:00	84.004%	-0.011	0.056	88.328%	0.001	-0.021	0.040	-0.024
x		83.247%	-0.002	0.020	87.587%	0.003	-0.016	0.036	0.008
σ		1.084%	0.009	0.033	1.571%	0.004	0.006	0.010	0.028
%RSD		1.302	391.800	165.300	1.794	151.200	40.620	28.000	338.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:07	81.869%	-0.074	-0.005	-0.007	0.026	0.011	88.499%	87.779%
2	14:18:34	83.429%	-0.089	-0.010	0.022	-0.002	0.050	89.867%	89.637%
3	14:19:00	83.396%	-0.073	-0.007	-0.005	0.043	0.018	89.650%	90.162%
x		82.898%	-0.079	-0.007	0.003	0.022	0.027	89.339%	89.193%
σ		0.892%	0.009	0.003	0.016	0.023	0.021	0.735%	1.252%
%RSD		1.076	11.590	40.400	484.600	102.300	79.080	0.823	1.404
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:18:07	0.012	-0.000	0.008	-0.009	0.007	91.151%		
2	14:18:34	-0.001	-0.000	0.002	0.004	-0.000	90.928%		
3	14:19:00	0.003	0.003	-0.004	-0.007	0.003	91.099%		
x		0.005	0.001	0.002	-0.004	0.003	91.060%		
σ		0.007	0.002	0.006	0.007	0.004	0.117%		
%RSD		146.600	261.400	295.400	166.700	110.100	0.128		

LCS 180-137340/2-A 4/6/2015 2:21:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	79.397%	41.740	884.600	849.200	0.000	45630.000	40480.000	39900.000
2	14:22:52	81.808%	42.620	900.400	859.200	0.000	46240.000	41130.000	40770.000
3	14:23:19	81.932%	43.020	896.200	859.200	0.000	46420.000	41190.000	40500.000
x		81.046%	42.460	893.700	855.900	0.000	46100.000	40930.000	40390.000
σ		1.429%	0.657	8.219	5.795	0.000	413.100	393.400	445.700
%RSD		1.763	1.548	0.920	0.677	0.000	0.896	0.961	1.104

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	1639.000	8409.000	0.000	47730.000	47460.000	47310.000	72.500%	939.500
2	14:22:52	1685.000	8485.000	0.000	47830.000	48860.000	48310.000	75.313%	978.000
3	14:23:19	1700.000	8475.000	0.000	48270.000	49290.000	49140.000	76.921%	963.200
x		1675.000	8456.000	0.000	47940.000	48540.000	48250.000	74.912%	960.200
σ		31.390	40.980	0.000	287.600	956.000	915.200	2.238%	19.420
%RSD		1.874	0.485	0.000	0.600	1.970	1.897	2.987	2.023

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	473.200	186.100	482.100	989.600	1067.000	456.700	449.800	224.100
2	14:22:52	495.400	191.700	495.700	1012.000	1098.000	463.000	453.700	228.800
3	14:23:19	481.200	192.800	496.700	1017.000	1095.000	468.100	451.200	229.800
x		483.300	190.200	491.500	1006.000	1087.000	462.600	451.600	227.500
σ		11.260	3.600	8.175	14.520	17.100	5.718	1.985	3.017
%RSD		2.331	1.893	1.663	1.443	1.574	1.236	0.440	1.326

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	228.500	460.600	465.200	41.550	8.831	10.020	0.000	950.200
2	14:22:52	232.100	470.900	478.000	40.180	8.403	8.570	0.000	957.400
3	14:23:19	232.100	478.400	479.500	33.580	8.200	8.373	0.000	961.400
x		230.900	469.900	474.200	38.440	8.478	8.987	0.000	956.300
σ		2.060	8.947	7.872	4.262	0.322	0.898	0.000	5.703
%RSD		0.892	1.904	1.660	11.090	3.798	9.990	0.000	0.596

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	76.820%	958.800	966.000	76.484%	44.820	45.480	50.030	36.500
2	14:22:52	80.455%	985.000	1005.000	79.514%	45.490	46.170	49.180	40.370
3	14:23:19	81.952%	994.300	1026.000	80.866%	45.390	45.410	49.660	42.730
x		79.743%	979.400	999.100	78.955%	45.230	45.690	49.620	39.870
σ		2.639%	18.390	30.560	2.244%	0.357	0.421	0.429	3.148
%RSD		3.309	1.878	3.059	2.842	0.789	0.920	0.865	7.897

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	75.426%	2127.000	505.400	498.800	1878.000	1926.000	85.686%	87.104%
2	14:22:52	78.477%	2043.000	516.000	508.500	1926.000	2006.000	89.449%	90.118%
3	14:23:19	80.804%	2029.000	521.500	511.100	1913.000	1983.000	90.864%	91.881%
x		78.235%	2066.000	514.300	506.100	1906.000	1972.000	88.666%	89.701%
σ		2.697%	52.750	8.180	6.505	24.970	41.170	2.676%	2.416%
%RSD		3.447	2.553	1.591	1.285	1.310	2.088	3.018	2.693

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:25	48.340	47.260	20.300	20.510	20.080	78.078%
2	14:22:52	51.620	49.880	20.810	20.820	20.620	78.874%
3	14:23:19	49.640	48.610	20.580	20.550	20.460	82.073%
x		49.870	48.590	20.570	20.630	20.390	79.675%
σ		1.649	1.310	0.257	0.170	0.278	2.115%
%RSD		3.307	2.696	1.247	0.823	1.362	2.654

CCV 1487954 4/6/2015 2:26:18 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:45	77.745%	92.250	98.790	101.500	0.000	47760.000	46140.000	45860.000
2	14:27:11	77.479%	95.480	101.100	100.700	0.000	48390.000	46960.000	46360.000
3	14:27:38	79.176%	93.720	101.100	98.460	0.000	48110.000	46990.000	46140.000
x		78.134%	93.817%	100.329%	100.222%	0.000	96.176%	93.393%	92.232%
σ		0.913%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.168	1.724	1.329	1.566	0.000	0.658	1.029	0.545
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:45	444.400	5222.000	0.000	49100.000	48550.000	48250.000	74.449%	96.920
2	14:27:11	454.700	5270.000	0.000	48900.000	49920.000	50320.000	76.398%	101.700
3	14:27:38	452.800	5208.000	0.000	49070.000	49710.000	49630.000	77.033%	101.800
x		90.123%	104.670%	0.000	98.044%	98.792%	98.797%	75.960%	100.142%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.346%	n/a
%RSD		1.214	0.616	0.000	0.220	1.495	2.136	1.773	2.788
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:45	93.450	94.310	500.000	24270.000	24880.000	94.970	94.200	94.640
2	14:27:11	95.290	95.450	508.600	24360.000	25430.000	95.230	95.990	96.650
3	14:27:38	95.260	96.190	510.100	24600.000	25580.000	95.510	97.370	95.550
x		94.667%	95.319%	101.249%	97.632%	101.201%	95.236%	95.853%	95.614%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.112	0.993	1.082	0.689	1.457	0.282	1.656	1.054
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:45	95.940	96.690	95.010	95.870	97.090	97.730	0.000	94.290
2	14:27:11	97.540	97.380	97.480	96.470	95.740	96.950	0.000	93.980
3	14:27:38	96.070	98.120	98.330	94.850	96.430	94.300	0.000	94.090
x		96.516%	97.396%	96.937%	95.729%	96.420%	96.326%	0.000	94.118%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.918	0.735	1.777	0.858	0.700	1.863	0.000	0.166
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:45	78.226%	91.930	92.870	76.815%	90.490	91.000	93.040	92.250
2	14:27:11	80.297%	96.190	97.350	78.457%	91.870	92.260	95.380	94.640
3	14:27:38	81.602%	99.550	97.910	80.096%	90.640	90.660	92.760	94.160
x		80.042%	95.887%	96.046%	78.456%	91.000%	91.303%	93.727%	93.684%
σ		1.702%	n/a	n/a	1.640%	n/a	n/a	n/a	n/a
%RSD		2.127	3.981	2.877	2.091	0.829	0.924	1.533	1.347
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:45	77.492%	98.020	96.180	97.000	92.400	93.110	84.831%	85.548%
2	14:27:11	79.244%	97.040	98.100	97.650	95.090	94.580	88.246%	87.264%
3	14:27:38	80.380%	98.180	97.400	96.700	93.490	94.800	88.357%	87.997%
x		79.039%	97.746%	97.226%	97.118%	93.661%	94.165%	87.145%	86.936%
σ		1.455%	n/a	n/a	n/a	n/a	n/a	2.005%	1.257%
%RSD		1.841	0.629	0.996	0.503	1.442	0.974	2.300	1.446
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:26:45	96.730	93.370	96.320	96.430	95.740	80.054%		
2	14:27:11	97.800	95.740	98.350	99.020	98.070	81.183%		
3	14:27:38	97.380	95.860	97.480	98.890	97.420	82.818%		
x		97.304%	94.992%	97.383%	98.113%	97.077%	81.352%		
σ		n/a	n/a	n/a	n/a	n/a	1.389%		
%RSD		0.558	1.481	1.048	1.484	1.241	1.708		

CCB3 4/6/2015 2:33:45 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:11	85.782%	0.032	1.484	1.331	0.000	22.700	12.030	9.776
2	14:34:37	85.250%	0.151	1.040	1.215	0.000	22.260	9.020	8.904
3	14:35:04	85.210%	0.151	2.754	0.875	0.000	23.190	8.912	8.741
x		85.414%	0.111	1.759	1.140	0.000	22.720	9.987	9.140
σ		0.320%	0.069	0.890	0.237	0.000	0.468	1.769	0.557
%RSD		0.374	62.050	50.560	20.790	0.000	2.060	17.710	6.091
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:11	0.806	-1.707	0.000	-2.707	1.999	8.871	82.941%	-0.257
2	14:34:37	0.875	-4.459	0.000	-1.237	21.860	10.270	84.299%	-0.128
3	14:35:04	0.816	-3.804	0.000	4.847	-15.930	12.670	83.931%	0.115
x		0.832	-3.323	0.000	0.301	2.645	10.600	83.724%	-0.090
σ		0.037	1.438	0.000	4.005	18.900	1.920	0.702%	0.189
%RSD		4.481	43.260	0.000	1330.000	714.700	18.110	0.839	210.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:11	0.119	0.122	0.276	13.040	8.630	0.036	-0.008	0.082
2	14:34:37	0.184	0.102	0.169	11.730	2.053	0.013	-0.016	0.080
3	14:35:04	-0.040	0.101	0.206	10.620	0.425	0.040	-0.003	0.152
x		0.088	0.108	0.217	11.800	3.703	0.030	-0.009	0.105
σ		0.116	0.012	0.054	1.212	4.344	0.014	0.006	0.041
%RSD		131.800	10.960	25.080	10.280	117.300	48.210	69.720	39.220
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:11	-0.040	0.213	0.070	0.430	-0.372	0.949	0.000	0.046
2	14:34:37	0.178	0.075	0.153	0.025	-1.653	0.358	0.000	0.048
3	14:35:04	0.113	0.248	0.074	0.482	-0.260	0.887	0.000	0.029
x		0.084	0.178	0.099	0.313	-0.762	0.731	0.000	0.041
σ		0.112	0.091	0.047	0.251	0.774	0.325	0.000	0.010
%RSD		133.500	51.170	47.310	80.130	101.600	44.450	0.000	25.200
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:11	81.864%	0.389	0.407	85.221%	0.013	0.006	0.048	-0.025
2	14:34:37	83.251%	0.333	0.444	88.645%	0.027	0.002	0.041	0.015
3	14:35:04	84.656%	0.321	0.405	84.166%	0.022	0.013	0.053	-0.056
x		83.257%	0.348	0.418	86.010%	0.020	0.007	0.047	-0.022
σ		1.396%	0.036	0.022	2.342%	0.007	0.005	0.006	0.036
%RSD		1.677	10.440	5.299	2.723	34.720	75.100	12.770	160.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:11	82.104%	0.232	0.037	0.042	0.169	0.129	89.146%	86.891%
2	14:34:37	82.715%	0.210	0.061	0.043	0.122	0.136	88.743%	89.253%
3	14:35:04	83.319%	0.219	0.031	0.045	0.170	0.170	90.990%	89.647%
x		82.713%	0.220	0.043	0.043	0.154	0.145	89.626%	88.597%
σ		0.608%	0.011	0.016	0.002	0.027	0.022	1.198%	1.490%
%RSD		0.735	4.944	37.090	3.765	17.640	14.920	1.337	1.682
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:34:11	0.033	0.024	0.025	0.052	0.028	89.265%		
2	14:34:37	0.034	0.028	0.024	0.040	0.032	88.682%		
3	14:35:04	0.042	0.028	0.036	0.045	0.048	86.892%		
x		0.037	0.027	0.028	0.046	0.036	88.279%		
σ		0.005	0.003	0.007	0.006	0.010	1.236%		
%RSD		12.400	10.170	24.330	12.860	28.470	1.400		

480-77306-C-1-E 4/6/2015 2:38:05 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:32	78.924%	0.186	22.460	22.800	0.000	73770.000	1393.000	1367.000
2	14:38:58	77.858%	0.061	22.160	25.800	0.000	75240.000	1447.000	1400.000
3	14:39:25	80.784%	0.134	24.040	22.980	0.000	74740.000	1418.000	1386.000
x		79.189%	0.127	22.890	23.860	0.000	74580.000	1419.000	1384.000
σ		1.481%	0.063	1.008	1.682	0.000	747.300	26.910	16.370
%RSD		1.870	49.470	4.405	7.048	0.000	1.002	1.896	1.182
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:32	10.750	8594.000	0.000	1880.000	3519.000	3372.000	73.583%	3.375
2	14:38:58	11.360	8731.000	0.000	1907.000	3649.000	3421.000	76.313%	3.334
3	14:39:25	11.180	8555.000	0.000	1924.000	3595.000	3498.000	76.674%	3.410
x		11.100	8627.000	0.000	1903.000	3587.000	3431.000	75.523%	3.373
σ		0.311	92.420	0.000	22.260	65.280	63.610	1.690%	0.038
%RSD		2.804	1.071	0.000	1.169	1.820	1.854	2.238	1.134
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:32	6.727	4.629	94.580	446.000	429.700	0.163	2.113	1.018
2	14:38:58	5.602	4.561	95.810	450.200	420.400	0.180	1.986	1.060
3	14:39:25	5.017	4.410	96.790	457.300	445.700	0.171	2.034	1.197
x		5.782	4.533	95.730	451.200	431.900	0.172	2.045	1.092
σ		0.869	0.112	1.105	5.729	12.790	0.009	0.064	0.093
%RSD		15.030	2.470	1.154	1.270	2.961	4.987	3.122	8.556
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:32	0.765	2.645	2.489	0.648	-2.197	0.428	0.000	9.858
2	14:38:58	0.874	2.643	2.654	-0.596	-1.444	0.063	0.000	10.300
3	14:39:25	0.793	2.694	2.842	1.140	-1.979	-0.132	0.000	10.250
x		0.811	2.661	2.661	0.397	-1.873	0.120	0.000	10.140
σ		0.056	0.029	0.177	0.895	0.387	0.284	0.000	0.243
%RSD		6.958	1.083	6.642	225.300	20.680	237.500	0.000	2.399
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:32	77.705%	6.127	5.944	78.848%	0.011	-0.004	0.041	-0.063
2	14:38:58	81.542%	6.106	5.888	83.362%	0.005	-0.007	0.032	-0.056
3	14:39:25	83.036%	6.058	5.942	84.164%	-0.004	0.008	0.052	-0.039
x		80.761%	6.097	5.925	82.124%	0.004	-0.001	0.042	-0.053
σ		2.750%	0.035	0.032	2.866%	0.008	0.008	0.010	0.013
%RSD		3.405	0.573	0.535	3.490	187.800	843.500	24.320	24.010
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:32	79.470%	1.314	0.143	0.144	2.584	2.574	88.956%	89.327%
2	14:38:58	81.954%	1.164	0.101	0.159	2.789	2.672	91.561%	92.593%
3	14:39:25	84.044%	1.212	0.107	0.149	2.569	2.569	94.170%	93.301%
x		81.822%	1.230	0.117	0.150	2.647	2.605	91.562%	91.740%
σ		2.290%	0.077	0.023	0.007	0.123	0.058	2.607%	2.120%
%RSD		2.798	6.248	19.350	4.973	4.633	2.231	2.847	2.311
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:38:32	0.015	0.012	0.008	-0.001	-0.003	85.243%		
2	14:38:58	0.023	0.007	-0.016	0.016	0.007	87.727%		
3	14:39:25	0.011	0.011	-0.008	0.007	0.001	89.009%		
x		0.016	0.010	-0.005	0.007	0.001	87.326%		
σ		0.006	0.003	0.012	0.009	0.005	1.915%		
%RSD		37.760	24.540	222.800	124.500	330.900	2.192		

180-42445-B-2-A 4/6/2015 2:42:22 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:49	78.426%	0.165	47.810	51.500	0.000	63960.000	18000.000	17760.000
2	14:43:15	79.687%	0.011	52.410	48.780	0.000	64060.000	18360.000	18290.000
3	14:43:42	82.027%	0.289	56.870	50.970	0.000	63840.000	18460.000	18250.000
x		80.047%	0.155	52.360	50.410	0.000	63950.000	18270.000	18100.000
σ		1.827%	0.140	4.529	1.443	0.000	109.200	239.700	294.400
%RSD		2.282	90.020	8.649	2.863	0.000	0.171	1.312	1.626
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:49	89.190	5328.000	0.000	11370.000	117600.000	120400.000	78.449%	3.562
2	14:43:15	92.450	5408.000	0.000	11570.000	123800.000	123300.000	81.308%	4.807
3	14:43:42	92.680	5408.000	0.000	11580.000	124500.000	124100.000	82.328%	4.293
x		91.440	5381.000	0.000	11510.000	122000.000	122600.000	80.695%	4.221
σ		1.954	45.780	0.000	118.800	3775.000	1923.000	2.011%	0.625
%RSD		2.137	0.851	0.000	1.032	3.095	1.568	2.492	14.820
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:49	2.323	9.506	74.140	212.500	627.500	0.639	1.228	1.408
2	14:43:15	3.391	9.757	74.550	215.500	638.100	0.634	1.249	1.299
3	14:43:42	3.661	9.978	75.920	222.000	614.800	0.672	1.040	1.592
x		3.125	9.747	74.870	216.700	626.800	0.648	1.173	1.433
σ		0.707	0.236	0.931	4.824	11.660	0.021	0.115	0.148
%RSD		22.640	2.423	1.243	2.227	1.861	3.174	9.800	10.330
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:49	1.265	211.100	212.900	4.667	-1.058	1.570	0.000	280.600
2	14:43:15	1.336	214.300	216.000	3.288	-0.809	-0.330	0.000	286.200
3	14:43:42	1.317	214.600	221.700	2.235	-0.314	-0.189	0.000	286.600
x		1.306	213.300	216.900	3.397	-0.727	0.350	0.000	284.400
σ		0.037	1.913	4.444	1.219	0.378	1.059	0.000	3.351
%RSD		2.795	0.897	2.049	35.890	52.030	302.300	0.000	1.178
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:49	83.234%	1.365	1.463	82.069%	0.011	-0.008	0.060	-0.025
2	14:43:15	86.460%	1.265	1.575	84.979%	0.014	0.000	0.107	0.006
3	14:43:42	88.094%	1.413	1.437	87.341%	0.009	-0.006	0.119	-0.013
x		85.929%	1.348	1.491	84.796%	0.011	-0.005	0.095	-0.011
σ		2.473%	0.075	0.073	2.641%	0.002	0.004	0.031	0.016
%RSD		2.878	5.585	4.917	3.114	22.200	95.200	32.710	147.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:49	82.377%	0.676	0.218	0.265	55.760	55.930	91.255%	92.181%
2	14:43:15	83.631%	0.691	0.214	0.240	57.280	57.380	96.365%	94.877%
3	14:43:42	85.554%	0.888	0.228	0.215	57.730	59.240	95.755%	96.509%
x		83.854%	0.751	0.220	0.240	56.920	57.510	94.458%	94.522%
σ		1.600%	0.118	0.007	0.025	1.032	1.659	2.791%	2.186%
%RSD		1.908	15.730	3.231	10.470	1.812	2.884	2.955	2.313
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:42:49	0.055	0.033	0.272	0.278	0.262	83.376%		
2	14:43:15	0.037	0.031	0.304	0.237	0.272	82.721%		
3	14:43:42	0.057	0.034	0.328	0.308	0.292	83.979%		
x		0.050	0.032	0.301	0.274	0.275	83.359%		
σ		0.011	0.002	0.028	0.035	0.016	0.629%		
%RSD		22.140	5.171	9.293	12.890	5.650	0.755		

180-42445-B-3-A 4/6/2015 2:46:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:07	81.133%	0.090	52.450	49.900	0.000	47320.000	16000.000	15810.000
2	14:47:33	80.501%	0.071	48.080	48.260	0.000	48140.000	16490.000	16250.000
3	14:48:00	82.108%	0.024	50.700	47.150	0.000	47880.000	16370.000	16180.000
x		81.247%	0.061	50.410	48.440	0.000	47780.000	16290.000	16080.000
σ		0.809%	0.034	2.202	1.381	0.000	416.000	257.600	238.500
%RSD		0.996	55.620	4.368	2.852	0.000	0.871	1.582	1.483
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:07	36.630	4647.000	0.000	4936.000	111600.000	112200.000	78.559%	2.616
2	14:47:33	37.220	4706.000	0.000	4981.000	113000.000	113700.000	81.029%	2.661
3	14:48:00	38.840	4713.000	0.000	4947.000	115200.000	115800.000	81.922%	2.740
x		37.560	4689.000	0.000	4955.000	113300.000	113900.000	80.503%	2.672
σ		1.147	36.050	0.000	23.540	1847.000	1797.000	1.742%	0.063
%RSD		3.054	0.769	0.000	0.475	1.630	1.578	2.164	2.365
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:07	6.114	12.150	25.580	113.200	493.600	0.454	0.797	1.131
2	14:47:33	5.580	12.360	25.860	112.200	492.100	0.486	0.678	1.243
3	14:48:00	4.924	12.450	26.240	115.400	494.300	0.494	0.481	1.095
x		5.539	12.320	25.890	113.600	493.300	0.478	0.652	1.156
σ		0.596	0.153	0.330	1.647	1.121	0.021	0.160	0.077
%RSD		10.760	1.238	1.274	1.450	0.227	4.406	24.480	6.660
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:07	1.143	25.840	26.800	2.737	-0.633	-0.298	0.000	222.600
2	14:47:33	1.137	27.900	27.960	0.384	-0.246	0.729	0.000	225.700
3	14:48:00	1.056	27.190	28.300	2.284	-1.010	0.150	0.000	227.900
x		1.112	26.970	27.680	1.802	-0.629	0.194	0.000	225.400
σ		0.049	1.046	0.786	1.248	0.382	0.515	0.000	2.692
%RSD		4.398	3.879	2.838	69.300	60.680	265.900	0.000	1.194
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:07	84.341%	0.878	0.981	82.060%	0.025	0.009	0.064	-0.069
2	14:47:33	86.545%	0.985	0.983	86.036%	0.008	0.001	0.019	-0.022
3	14:48:00	87.014%	0.961	1.012	87.053%	0.009	0.018	0.085	-0.055
x		85.967%	0.941	0.992	85.050%	0.014	0.010	0.056	-0.049
σ		1.428%	0.056	0.017	2.639%	0.010	0.008	0.034	0.024
%RSD		1.661	5.977	1.749	3.103	70.200	88.650	59.950	49.080
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:47:07	83.580%	0.852	0.085	0.117	54.380	54.570	91.156%	91.081%
2	14:47:33	83.894%	0.889	0.096	0.132	54.780	57.080	94.804%	94.614%
3	14:48:00	87.624%	0.894	0.084	0.097	55.840	57.490	95.543%	95.579%
x		85.033%	0.878	0.088	0.115	55.000	56.380	93.834%	93.758%
σ		2.250%	0.023	0.007	0.018	0.755	1.582	2.349%	2.368%
%RSD		2.646	2.608	7.802	15.270	1.372	2.805	2.503	2.526
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:47:07	0.012	0.013	0.437	0.456	0.447	81.646%		
2	14:47:33	0.017	0.008	0.463	0.477	0.453	83.586%		
3	14:48:00	0.010	0.009	0.505	0.456	0.484	84.274%		
x		0.013	0.010	0.468	0.463	0.461	83.169%		
σ		0.004	0.003	0.034	0.012	0.020	1.363%		
%RSD		27.980	26.360	7.236	2.652	4.359	1.639		

180-42445-B-4-A 4/6/2015 2:50:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	77.971%	-0.004	36.680	29.040	0.000	25660.000	11900.000	11720.000
2	14:51:51	78.973%	0.035	33.960	30.490	0.000	26080.000	12240.000	11990.000
3	14:52:18	78.631%	0.121	31.440	30.760	0.000	25810.000	12210.000	12050.000
x		78.525%	0.051	34.030	30.100	0.000	25850.000	12120.000	11920.000
σ		0.509%	0.064	2.620	0.928	0.000	213.200	189.900	175.800
%RSD		0.649	126.600	7.699	3.084	0.000	0.825	1.567	1.475

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	53.750	4866.000	0.000	3138.000	113800.000	114000.000	77.297%	2.572
2	14:51:51	55.070	4953.000	0.000	3188.000	117400.000	117900.000	78.604%	3.435
3	14:52:18	55.790	4939.000	0.000	3191.000	117200.000	118100.000	80.220%	2.854
x		54.870	4919.000	0.000	3172.000	116200.000	116600.000	78.707%	2.954
σ		1.033	46.300	0.000	29.430	2022.000	2293.000	1.464%	0.440
%RSD		1.883	0.941	0.000	0.928	1.741	1.966	1.860	14.910

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	5.313	5.646	14.930	222.600	606.900	0.284	0.132	1.155
2	14:51:51	4.265	5.882	15.430	230.300	612.700	0.239	-0.125	1.194
3	14:52:18	2.955	5.972	15.240	233.400	614.900	0.268	0.134	1.222
x		4.178	5.833	15.200	228.800	611.500	0.264	0.047	1.191
σ		1.181	0.169	0.253	5.519	4.146	0.023	0.149	0.034
%RSD		28.280	2.888	1.665	2.413	0.678	8.669	316.900	2.830

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	1.027	3.688	3.425	1.292	-0.321	1.460	0.000	224.500
2	14:51:51	1.234	3.370	3.599	2.901	-0.676	1.643	0.000	232.200
3	14:52:18	1.231	3.685	3.373	4.967	-0.484	1.400	0.000	234.100
x		1.164	3.581	3.466	3.053	-0.494	1.501	0.000	230.300
σ		0.119	0.183	0.119	1.842	0.178	0.127	0.000	5.085
%RSD		10.180	5.102	3.426	60.330	36.040	8.434	0.000	2.208

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	81.571%	1.112	1.147	81.944%	0.004	-0.000	0.064	-0.036
2	14:51:51	84.401%	1.124	1.155	84.466%	0.011	0.000	0.030	-0.058
3	14:52:18	84.866%	1.175	1.078	86.175%	0.015	0.011	0.023	-0.018
x		83.613%	1.137	1.127	84.195%	0.010	0.004	0.039	-0.037
σ		1.783%	0.033	0.042	2.129%	0.006	0.006	0.022	0.020
%RSD		2.133	2.911	3.749	2.528	54.210	174.300	56.180	54.140

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	83.683%	0.328	0.093	0.073	44.010	44.190	90.698%	91.374%
2	14:51:51	83.924%	0.355	0.079	0.119	46.020	46.700	94.726%	94.020%
3	14:52:18	86.731%	0.364	0.083	0.090	47.450	46.400	93.676%	95.275%
x		84.779%	0.349	0.085	0.094	45.830	45.760	93.033%	93.556%
σ		1.695%	0.019	0.007	0.024	1.729	1.369	2.089%	1.991%
%RSD		1.999	5.413	8.086	25.130	3.773	2.991	2.246	2.128

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:25	-0.001	-0.000	0.261	0.269	0.242	85.096%
2	14:51:51	0.012	0.007	0.259	0.210	0.242	85.065%
3	14:52:18	0.010	0.010	0.234	0.240	0.241	88.800%
x		0.007	0.005	0.251	0.240	0.242	86.320%
σ		0.007	0.005	0.015	0.030	0.000	2.147%
%RSD		94.830	91.270	5.880	12.350	0.194	2.488

180-42445-B-4-A SD@5 4/6/2015 2:55:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:42	78.947%	0.014	6.185	6.172	0.000	5094.000	2399.000	2317.000
2	14:56:09	78.682%	0.080	8.574	5.779	0.000	5170.000	2423.000	2360.000
3	14:56:35	77.625%	-0.025	4.552	5.764	0.000	5122.000	2423.000	2366.000
x		78.418%	0.023	6.437	5.905	0.000	5129.000	2415.000	2348.000
σ		0.699%	0.053	2.022	0.231	0.000	38.460	14.300	27.000
%RSD		0.892	228.500	31.420	3.912	0.000	0.750	0.592	1.150
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:42	10.610	917.100	0.000	603.100	22110.000	21130.000	76.968%	0.332
2	14:56:09	10.830	931.600	0.000	611.500	22550.000	22060.000	75.894%	0.535
3	14:56:35	12.040	926.700	0.000	617.900	22670.000	21940.000	76.848%	0.284
x		11.160	925.100	0.000	610.900	22450.000	21710.000	76.570%	0.384
σ		0.772	7.341	0.000	7.416	297.400	507.300	0.588%	0.134
%RSD		6.914	0.793	0.000	1.214	1.325	2.337	0.768	34.830
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:42	0.574	1.632	2.995	56.630	129.200	0.049	0.096	0.390
2	14:56:09	0.960	1.629	3.127	56.870	123.200	0.053	-0.006	0.416
3	14:56:35	2.308	1.676	2.972	55.070	122.100	0.083	-0.021	0.372
x		1.281	1.645	3.031	56.190	124.800	0.062	0.023	0.392
σ		0.911	0.026	0.084	0.974	3.832	0.019	0.064	0.022
%RSD		71.080	1.589	2.765	1.733	3.070	30.430	280.700	5.667
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:42	0.305	0.974	1.138	1.232	-0.002	0.012	0.000	44.140
2	14:56:09	0.466	1.195	0.931	1.654	-2.010	-0.053	0.000	44.370
3	14:56:35	0.424	1.187	1.046	0.319	-1.008	-0.069	0.000	45.270
x		0.398	1.118	1.039	1.069	-1.007	-0.037	0.000	44.590
σ		0.083	0.125	0.104	0.682	1.004	0.043	0.000	0.594
%RSD		20.930	11.180	10.000	63.850	99.730	117.700	0.000	1.332
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:42	77.129%	0.244	0.203	81.201%	0.019	-0.013	0.023	-0.040
2	14:56:09	79.850%	0.315	0.252	81.331%	0.002	-0.008	0.017	-0.074
3	14:56:35	79.624%	0.284	0.266	82.169%	-0.010	0.007	0.044	0.003
x		78.867%	0.281	0.240	81.567%	0.004	-0.005	0.028	-0.037
σ		1.510%	0.035	0.033	0.525%	0.014	0.011	0.014	0.039
%RSD		1.915	12.630	13.760	0.644	395.900	230.000	51.480	104.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:42	79.295%	-0.063	0.013	0.011	9.482	9.096	84.380%	85.250%
2	14:56:09	80.122%	-0.041	-0.004	0.049	8.677	9.033	87.965%	86.477%
3	14:56:35	80.945%	-0.033	-0.000	0.021	9.269	9.369	88.786%	88.453%
x		80.121%	-0.046	0.003	0.027	9.142	9.166	87.044%	86.727%
σ		0.825%	0.016	0.009	0.020	0.417	0.179	2.343%	1.616%
%RSD		1.030	34.180	300.800	73.410	4.563	1.951	2.692	1.864
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:55:42	0.012	-0.003	0.040	0.036	0.040	81.154%		
2	14:56:09	0.001	-0.003	0.039	0.043	0.034	83.363%		
3	14:56:35	-0.000	0.004	0.030	0.058	0.045	83.432%		
x		0.004	-0.001	0.036	0.046	0.040	82.650%		
σ		0.007	0.004	0.006	0.011	0.006	1.296%		
%RSD		164.700	454.100	15.370	24.210	14.770	1.568		

180-42445-B-4-B MS 4/6/2015 2:59:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:57	75.527%	41.870	922.300	879.900	0.000	69860.000	50670.000	49510.000
2	15:00:23	74.960%	43.710	944.800	911.000	0.000	71630.000	51850.000	51120.000
3	15:00:50	77.786%	43.180	938.000	900.500	0.000	70920.000	51110.000	50330.000
x		76.091%	42.920	935.000	897.100	0.000	70800.000	51210.000	50320.000
σ		1.495%	0.945	11.520	15.810	0.000	892.700	599.300	807.800
%RSD		1.965	2.202	1.233	1.762	0.000	1.261	1.170	1.605
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:57	1747.000	12790.000	0.000	50170.000	160800.000	158100.000	75.154%	919.400
2	15:00:23	1814.000	13080.000	0.000	50040.000	164700.000	163200.000	77.760%	936.900
3	15:00:50	1799.000	12850.000	0.000	49480.000	164100.000	163100.000	79.368%	941.800
x		1786.000	12910.000	0.000	49900.000	163200.000	161500.000	77.427%	932.700
σ		35.350	152.500	0.000	364.700	2089.000	2940.000	2.127%	11.810
%RSD		1.979	1.182	0.000	0.731	1.280	1.821	2.747	1.266
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:57	453.200	181.000	479.100	1211.000	1651.000	438.700	425.700	214.400
2	15:00:23	472.100	185.900	492.700	1249.000	1673.000	445.700	429.600	217.300
3	15:00:50	470.100	185.200	488.800	1169.000	1834.000	442.200	426.000	217.300
x		465.100	184.000	486.900	1210.000	1719.000	442.200	427.100	216.300
σ		10.360	2.626	6.977	39.790	99.690	3.530	2.144	1.636
%RSD		2.228	1.427	1.433	3.290	5.798	0.798	0.502	0.756
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:57	213.400	442.000	450.500	35.640	8.983	10.560	0.000	1152.000
2	15:00:23	219.100	455.100	453.300	40.460	8.117	8.781	0.000	1185.000
3	15:00:50	221.900	449.000	454.600	37.590	9.517	10.370	0.000	1182.000
x		218.100	448.700	452.800	37.890	8.873	9.904	0.000	1173.000
σ		4.333	6.565	2.101	2.422	0.706	0.977	0.000	18.700
%RSD		1.987	1.463	0.464	6.392	7.962	9.867	0.000	1.594
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:57	80.168%	931.900	956.400	79.816%	43.810	44.280	46.880	35.290
2	15:00:23	82.978%	964.400	984.700	81.588%	43.840	44.090	48.940	38.090
3	15:00:50	85.326%	968.400	992.000	83.816%	43.480	44.170	48.530	39.310
x		82.824%	954.900	977.700	81.740%	43.710	44.180	48.120	37.570
σ		2.582%	19.980	18.790	2.004%	0.197	0.091	1.089	2.061
%RSD		3.118	2.093	1.922	2.452	0.452	0.206	2.263	5.485
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:57	77.529%	2113.000	490.900	495.600	1897.000	1961.000	89.796%	89.966%
2	15:00:23	80.500%	2002.000	508.500	499.000	1942.000	2019.000	92.849%	93.670%
3	15:00:50	83.250%	1991.000	499.000	493.800	1933.000	2005.000	94.280%	94.917%
x		80.426%	2035.000	499.400	496.100	1924.000	1995.000	92.308%	92.851%
σ		2.861%	67.520	8.788	2.642	23.890	30.370	2.291%	2.575%
%RSD		3.558	3.317	1.760	0.532	1.241	1.523	2.481	2.774
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:59:57	49.330	47.710	21.060	20.810	20.900	77.328%		
2	15:00:23	49.110	47.520	20.370	20.440	20.180	82.665%		
3	15:00:50	49.160	48.100	20.500	20.500	20.300	84.254%		
x		49.200	47.780	20.640	20.580	20.460	81.415%		
σ		0.118	0.295	0.365	0.201	0.386	3.628%		
%RSD		0.239	0.617	1.768	0.974	1.884	4.456		

180-42445-B-4-C MSD 4/6/2015 3:03:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:11	74.247%	43.630	934.900	904.800	0.000	70720.000	51480.000	50500.000
2	15:04:38	75.061%	45.890	957.200	913.100	0.000	71440.000	52280.000	51360.000
3	15:05:05	75.570%	45.320	963.700	906.300	0.000	71700.000	52280.000	51340.000
x		74.959%	44.950	951.900	908.100	0.000	71290.000	52010.000	51070.000
σ		0.667%	1.177	15.140	4.416	0.000	509.600	461.300	490.500
%RSD		0.890	2.618	1.591	0.486	0.000	0.715	0.887	0.961
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:11	1755.000	12900.000	0.000	50410.000	158800.000	156800.000	75.098%	925.800
2	15:04:38	1809.000	13030.000	0.000	51190.000	163400.000	161300.000	77.111%	951.700
3	15:05:05	1840.000	13000.000	0.000	50800.000	163700.000	160700.000	79.058%	944.300
x		1801.000	12970.000	0.000	50800.000	162000.000	159600.000	77.089%	940.600
σ		42.840	69.070	0.000	387.800	2732.000	2435.000	1.980%	13.340
%RSD		2.378	0.532	0.000	0.764	1.687	1.525	2.569	1.419
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:11	464.700	181.700	484.200	1244.000	1675.000	440.500	429.800	217.700
2	15:04:38	471.600	186.900	494.200	1269.000	1679.000	444.100	430.900	221.100
3	15:05:05	462.400	184.900	492.300	1278.000	1685.000	442.400	428.900	217.700
x		466.200	184.500	490.300	1264.000	1680.000	442.400	429.900	218.800
σ		4.802	2.601	5.291	17.680	5.253	1.836	0.978	1.960
%RSD		1.030	1.410	1.079	1.399	0.313	0.415	0.228	0.896
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:11	219.600	439.300	446.000	38.220	10.210	9.593	0.000	1144.000
2	15:04:38	220.500	449.000	453.500	39.140	8.414	11.250	0.000	1158.000
3	15:05:05	218.200	442.100	447.200	39.230	9.484	10.030	0.000	1159.000
x		219.500	443.500	448.900	38.860	9.369	10.290	0.000	1154.000
σ		1.153	4.957	4.035	0.559	0.902	0.861	0.000	8.470
%RSD		0.525	1.118	0.899	1.439	9.631	8.366	0.000	0.734
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:11	79.656%	946.000	966.200	78.716%	43.540	44.250	47.280	35.100
2	15:04:38	82.552%	961.100	992.700	81.085%	43.840	44.310	47.670	39.570
3	15:05:05	84.436%	979.400	1006.000	82.659%	43.720	43.960	48.180	37.940
x		82.215%	962.200	988.200	80.820%	43.700	44.170	47.710	37.540
σ		2.408%	16.750	20.160	1.984%	0.155	0.190	0.448	2.260
%RSD		2.929	1.740	2.040	2.455	0.355	0.430	0.940	6.020
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:11	77.392%	2095.000	495.400	492.400	1903.000	1951.000	89.094%	89.295%
2	15:04:38	79.959%	2008.000	499.800	503.100	1949.000	1984.000	92.653%	92.534%
3	15:05:05	81.825%	2003.000	517.000	502.200	1959.000	2004.000	93.032%	93.310%
x		79.726%	2035.000	504.100	499.200	1937.000	1980.000	91.593%	91.713%
σ		2.226%	52.120	11.400	5.922	29.790	26.990	2.172%	2.129%
%RSD		2.792	2.561	2.261	1.186	1.538	1.363	2.372	2.322
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:04:11	48.160	47.530	20.380	20.600	20.370	77.869%		
2	15:04:38	49.070	48.190	20.790	20.490	20.540	80.274%		
3	15:05:05	49.180	48.140	20.250	20.870	20.290	81.484%		
x		48.800	47.950	20.470	20.650	20.400	79.876%		
σ		0.562	0.368	0.283	0.194	0.127	1.840%		
%RSD		1.151	0.768	1.380	0.937	0.622	2.303		

180-42445-B-4-A PDS 4/6/2015 3:08:00 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	71.283%	44.240	996.400	975.700	0.000	74570.000	54530.000	53190.000
2	15:08:53	73.802%	43.950	982.500	946.100	0.000	74050.000	54420.000	53690.000
3	15:09:20	75.255%	46.370	980.200	932.500	0.000	73210.000	53830.000	52520.000
x		73.447%	44.860	986.400	951.400	0.000	73950.000	54260.000	53130.000
σ		2.010%	1.323	8.775	22.100	0.000	684.700	377.500	584.600
%RSD		2.737	2.949	0.890	2.323	0.000	0.926	0.696	1.100

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	1846.000	13720.000	0.000	52880.000	160200.000	159100.000	72.430%	1010.000
2	15:08:53	1889.000	13750.000	0.000	53190.000	166200.000	163000.000	74.326%	1035.000
3	15:09:20	1839.000	13390.000	0.000	52620.000	165500.000	163000.000	76.344%	1018.000
x		1858.000	13620.000	0.000	52900.000	164000.000	161700.000	74.366%	1021.000
σ		27.090	199.700	0.000	283.500	3268.000	2255.000	1.957%	13.050
%RSD		1.458	1.467	0.000	0.536	1.993	1.394	2.632	1.278

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	484.200	189.300	508.400	1256.000	1700.000	457.700	440.500	223.900
2	15:08:53	494.200	194.600	518.500	1284.000	1728.000	467.200	450.800	226.100
3	15:09:20	479.000	192.700	509.900	1262.000	1699.000	462.500	446.000	227.200
x		485.800	192.200	512.300	1268.000	1709.000	462.500	445.800	225.700
σ		7.700	2.679	5.475	14.660	16.670	4.730	5.158	1.657
%RSD		1.585	1.394	1.069	1.157	0.975	1.023	1.157	0.734

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	227.100	459.300	472.800	37.070	9.722	11.320	0.000	1188.000
2	15:08:53	228.400	468.200	472.800	38.960	9.606	10.170	0.000	1188.000
3	15:09:20	226.500	467.200	463.700	38.380	9.152	10.670	0.000	1186.000
x		227.300	464.900	469.800	38.140	9.493	10.720	0.000	1187.000
σ		0.998	4.858	5.249	0.970	0.301	0.578	0.000	1.002
%RSD		0.439	1.045	1.117	2.543	3.173	5.387	0.000	0.084

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	76.333%	1033.000	1066.000	74.214%	44.190	43.910	49.660	39.110
2	15:08:53	80.632%	1050.000	1094.000	78.076%	42.550	43.090	50.630	40.770
3	15:09:20	81.410%	1061.000	1105.000	78.960%	43.880	44.260	50.220	42.140
x		79.458%	1048.000	1088.000	77.083%	43.540	43.750	50.170	40.670
σ		2.734%	13.850	20.010	2.524%	0.871	0.602	0.486	1.518
%RSD		3.441	1.322	1.838	3.274	2.001	1.376	0.968	3.732

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	75.294%	2178.000	540.600	539.300	1955.000	2012.000	87.215%	86.928%
2	15:08:53	78.897%	2166.000	546.300	542.900	1996.000	2033.000	89.423%	90.225%
3	15:09:20	77.989%	2216.000	557.800	548.100	2007.000	2069.000	91.571%	90.863%
x		77.393%	2186.000	548.300	543.400	1986.000	2038.000	89.403%	89.339%
σ		1.874%	26.060	8.746	4.413	27.760	28.790	2.178%	2.112%
%RSD		2.421	1.192	1.595	0.812	1.398	1.412	2.436	2.364

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:27	50.500	49.520	20.990	20.860	20.660	76.951%
2	15:08:53	51.370	50.350	21.220	21.400	21.070	79.282%
3	15:09:20	50.850	49.750	21.390	21.450	21.220	80.530%
x		50.910	49.870	21.200	21.230	20.980	78.921%
σ		0.438	0.431	0.203	0.329	0.292	1.817%
%RSD		0.860	0.864	0.960	1.550	1.391	2.302

180-42445-B-5-A 4/6/2015 3:12:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:42	75.568%	0.071	35.270	35.500	0.000	25130.000	11800.000	11530.000
2	15:13:09	75.650%	-0.019	40.520	38.030	0.000	25650.000	12110.000	11950.000
3	15:13:35	76.252%	0.177	36.090	35.430	0.000	25550.000	12120.000	11990.000
x		75.823%	0.077	37.290	36.320	0.000	25440.000	12010.000	11820.000
σ		0.374%	0.098	2.824	1.480	0.000	277.200	182.700	254.600
%RSD		0.493	128.000	7.571	4.075	0.000	1.090	1.521	2.153
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:42	65.890	4534.000	0.000	3321.000	121400.000	121600.000	73.415%	3.406
2	15:13:09	68.890	4648.000	0.000	3314.000	123600.000	124400.000	75.534%	3.224
3	15:13:35	69.090	4630.000	0.000	3316.000	125500.000	125000.000	76.624%	3.436
x		67.960	4604.000	0.000	3317.000	123500.000	123600.000	75.191%	3.355
σ		1.795	61.110	0.000	3.523	2032.000	1822.000	1.632%	0.114
%RSD		2.641	1.327	0.000	0.106	1.645	1.474	2.170	3.410
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:42	5.523	6.221	23.220	331.500	736.000	0.532	0.184	1.199
2	15:13:09	3.153	6.160	23.840	339.600	750.200	0.479	0.234	1.244
3	15:13:35	2.162	6.151	23.680	338.600	749.100	0.467	0.296	1.261
x		3.613	6.177	23.580	336.600	745.100	0.493	0.238	1.234
σ		1.727	0.038	0.323	4.437	7.909	0.035	0.056	0.032
%RSD		47.790	0.617	1.368	1.318	1.061	7.084	23.650	2.567
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:42	1.497	4.756	4.723	1.240	0.627	0.996	0.000	229.100
2	15:13:09	1.293	4.467	4.101	0.827	-0.315	1.883	0.000	233.700
3	15:13:35	1.363	4.446	4.588	5.032	-0.960	0.684	0.000	234.100
x		1.384	4.556	4.470	2.366	-0.216	1.188	0.000	232.300
σ		0.104	0.173	0.327	2.318	0.798	0.622	0.000	2.782
%RSD		7.481	3.796	7.320	97.950	369.400	52.370	0.000	1.198
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:42	78.773%	4.372	4.594	78.650%	0.010	0.000	0.036	-0.064
2	15:13:09	81.627%	3.509	3.869	79.935%	0.014	0.001	0.034	-0.043
3	15:13:35	83.642%	2.789	2.796	81.358%	0.009	0.026	0.027	-0.029
x		81.347%	3.557	3.753	79.981%	0.011	0.009	0.032	-0.045
σ		2.446%	0.793	0.905	1.355%	0.003	0.015	0.005	0.018
%RSD		3.007	22.290	24.110	1.694	23.220	161.100	15.450	39.340
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:42	78.278%	3.688	1.895	1.868	40.970	41.830	87.414%	88.448%
2	15:13:09	80.601%	2.799	1.375	1.321	41.980	42.480	91.034%	90.212%
3	15:13:35	82.783%	2.167	0.953	0.936	42.060	41.630	92.885%	91.780%
x		80.554%	2.884	1.408	1.375	41.670	41.980	90.444%	90.147%
σ		2.253%	0.764	0.472	0.469	0.610	0.442	2.783%	1.667%
%RSD		2.797	26.480	33.530	34.080	1.464	1.053	3.077	1.849
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:12:42	0.050	0.037	0.481	0.418	0.449	80.491%		
2	15:13:09	0.029	0.038	0.541	0.422	0.496	80.981%		
3	15:13:35	0.031	0.025	0.481	0.454	0.447	83.501%		
x		0.036	0.034	0.501	0.431	0.464	81.658%		
σ		0.012	0.007	0.035	0.020	0.028	1.615%		
%RSD		31.610	21.680	6.905	4.568	6.006	1.978		

180-42445-B-6-A 4/6/2015 3:16:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:57	75.422%	0.094	33.900	32.550	0.000	34630.000	13220.000	13050.000
2	15:17:23	74.304%	0.053	33.670	31.270	0.000	36230.000	14000.000	13820.000
3	15:17:50	77.954%	0.233	29.990	29.990	0.000	34880.000	13530.000	13360.000
x		75.893%	0.127	32.520	31.270	0.000	35250.000	13590.000	13410.000
σ		1.870%	0.094	2.195	1.281	0.000	862.300	395.800	387.400
%RSD		2.464	74.350	6.751	4.098	0.000	2.446	2.914	2.889
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:57	15.090	5000.000	0.000	7546.000	112600.000	113900.000	73.792%	2.064
2	15:17:23	16.460	5232.000	0.000	7739.000	117900.000	115100.000	74.826%	2.446
3	15:17:50	16.830	5123.000	0.000	7667.000	116600.000	115900.000	76.542%	2.166
x		16.130	5119.000	0.000	7651.000	115700.000	115000.000	75.053%	2.225
σ		0.912	116.200	0.000	97.610	2763.000	986.600	1.389%	0.198
%RSD		5.655	2.269	0.000	1.276	2.388	0.858	1.851	8.895
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:57	5.238	6.651	13.800	47.730	434.100	0.298	-0.036	1.028
2	15:17:23	-1.099	6.803	14.220	49.510	452.300	0.296	-0.169	0.793
3	15:17:50	3.499	6.572	14.340	46.400	436.300	0.276	0.052	0.890
x		2.546	6.675	14.120	47.880	440.900	0.290	-0.051	0.903
σ		3.274	0.117	0.284	1.564	9.921	0.012	0.111	0.118
%RSD		128.600	1.756	2.012	3.266	2.250	4.238	216.800	13.070
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:57	0.716	22.010	21.200	1.689	-0.552	0.326	0.000	228.800
2	15:17:23	0.960	22.180	23.420	1.355	-1.535	-0.252	0.000	239.200
3	15:17:50	0.982	21.850	23.910	2.716	-1.622	-0.181	0.000	236.900
x		0.886	22.020	22.850	1.920	-1.236	-0.036	0.000	235.000
σ		0.147	0.162	1.443	0.709	0.594	0.315	0.000	5.462
%RSD		16.640	0.736	6.315	36.930	48.070	881.200	0.000	2.325
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:57	77.324%	1.127	1.120	76.556%	-0.002	0.005	0.090	-0.054
2	15:17:23	80.409%	1.239	1.218	78.596%	-0.002	-0.018	0.059	-0.034
3	15:17:50	81.753%	1.056	1.190	80.596%	0.012	-0.002	0.079	-0.041
x		79.829%	1.141	1.176	78.583%	0.003	-0.005	0.076	-0.043
σ		2.270%	0.093	0.051	2.020%	0.008	0.012	0.016	0.010
%RSD		2.844	8.119	4.300	2.570	298.700	241.200	21.140	23.850
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:57	77.729%	0.818	0.416	0.479	47.260	46.620	88.205%	87.850%
2	15:17:23	79.090%	0.838	0.442	0.441	47.850	49.380	87.931%	88.928%
3	15:17:50	81.181%	0.849	0.392	0.378	47.780	48.580	90.118%	91.895%
x		79.333%	0.835	0.416	0.433	47.630	48.190	88.751%	89.558%
σ		1.739%	0.016	0.025	0.051	0.319	1.416	1.191%	2.095%
%RSD		2.192	1.877	6.032	11.750	0.671	2.939	1.342	2.339
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:16:57	0.025	0.021	0.334	0.332	0.320	79.671%		
2	15:17:23	0.020	0.017	0.359	0.304	0.336	79.440%		
3	15:17:50	0.027	0.011	0.316	0.309	0.299	82.580%		
x		0.024	0.017	0.336	0.315	0.318	80.564%		
σ		0.003	0.005	0.022	0.015	0.018	1.750%		
%RSD		13.990	29.900	6.398	4.685	5.786	2.173		

CCV 1487954 4/6/2015 3:20:45 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	69.402%	97.200	102.500	102.000	0.000	49810.000	47020.000	46590.000
2	15:21:39	67.554%	101.100	100.600	106.200	0.000	51140.000	48600.000	47650.000
3	15:22:05	70.062%	95.620	98.030	98.360	0.000	49980.000	47870.000	47150.000
x		69.006%	97.971%	100.371%	102.194%	0.000	100.619%	95.659%	94.260%
σ		1.300%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.884	2.876	2.247	3.858	0.000	1.444	1.645	1.126

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	442.300	5243.000	0.000	51010.000	50320.000	49880.000	65.833%	101.800
2	15:21:39	456.400	5322.000	0.000	51270.000	51650.000	50800.000	66.091%	104.700
3	15:22:05	454.400	5236.000	0.000	51210.000	51110.000	51660.000	65.806%	105.700
x		90.207%	105.339%	0.000	102.325%	102.057%	101.557%	65.910%	104.040%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.157%	n/a
%RSD		1.696	0.915	0.000	0.268	1.315	1.755	0.239	1.955

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	94.940	96.410	512.000	24900.000	25290.000	96.020	95.710	96.940
2	15:21:39	99.200	100.200	525.200	25620.000	26320.000	97.810	98.690	99.520
3	15:22:05	101.100	101.500	526.800	25450.000	26410.000	97.340	98.440	99.300
x		98.414%	99.364%	104.268%	101.291%	104.032%	97.054%	97.614%	98.587%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.205	2.653	1.561	1.480	2.387	0.957	1.692	1.450

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	95.870	97.260	97.230	95.160	97.210	96.400	0.000	93.370
2	15:21:39	98.960	101.700	102.700	98.340	100.600	97.500	0.000	96.760
3	15:22:05	99.110	98.800	102.300	96.820	101.500	98.770	0.000	94.870
x		97.981%	99.243%	100.734%	96.773%	99.767%	97.557%	0.000	95.000%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.871	2.252	3.015	1.646	2.258	1.214	0.000	1.787

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	71.434%	91.360	91.550	69.032%	91.050	91.740	93.020	90.720
2	15:21:39	70.911%	95.290	95.870	69.794%	91.670	91.360	93.810	91.360
3	15:22:05	72.357%	96.880	99.530	70.377%	91.200	90.550	91.900	90.700
x		71.567%	94.510%	95.648%	69.735%	91.303%	91.216%	92.909%	90.925%
σ		0.732%	n/a	n/a	0.674%	n/a	n/a	n/a	n/a
%RSD		1.023	3.009	4.175	0.967	0.355	0.665	1.033	0.412

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	74.615%	91.720	92.520	93.160	88.490	87.900	82.921%	82.546%
2	15:21:39	75.720%	93.860	93.240	93.550	90.110	90.470	82.082%	83.570%
3	15:22:05	76.548%	93.800	93.750	94.620	90.000	91.720	85.156%	84.166%
x		75.628%	93.129%	93.169%	93.777%	89.534%	90.028%	83.386%	83.428%
σ		0.970%	n/a	n/a	n/a	n/a	n/a	1.589%	0.819%
%RSD		1.282	1.307	0.661	0.807	1.011	2.161	1.905	0.982

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:12	92.970	90.640	92.600	93.310	91.990	78.145%
2	15:21:39	93.180	92.200	95.830	95.830	94.300	79.352%
3	15:22:05	93.770	92.610	95.450	95.790	95.190	78.674%
x		93.307%	91.817%	94.624%	94.975%	93.827%	78.723%
σ		n/a	n/a	n/a	n/a	n/a	0.605%
%RSD		0.445	1.135	1.862	1.521	1.758	0.769

CCB4 4/6/2015 3:28:09 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:35	79.283%	0.077	2.729	1.312	0.000	14.370	7.263	7.080
2	15:29:02	79.357%	0.225	0.875	1.122	0.000	13.890	7.477	6.842
3	15:29:28	80.034%	0.032	1.100	1.188	0.000	13.530	7.678	6.396
x		79.558%	0.112	1.568	1.207	0.000	13.930	7.473	6.773
σ		0.414%	0.101	1.011	0.096	0.000	0.423	0.207	0.347
%RSD		0.521	90.510	64.500	7.983	0.000	3.038	2.773	5.130
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:35	0.668	-3.342	0.000	-12.430	-7.946	11.710	74.958%	0.129
2	15:29:02	0.719	-5.661	0.000	-12.810	-25.400	10.770	76.084%	0.121
3	15:29:28	0.669	-5.519	0.000	-15.000	2.643	9.834	76.087%	0.048
x		0.686	-4.841	0.000	-13.410	-10.230	10.770	75.710%	0.100
σ		0.029	1.300	0.000	1.386	14.160	0.937	0.651%	0.045
%RSD		4.254	26.850	0.000	10.330	138.400	8.698	0.860	44.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:35	-0.000	0.115	0.141	6.072	5.122	0.054	-0.070	0.153
2	15:29:02	0.255	0.140	0.128	5.100	2.789	0.028	-0.084	0.132
3	15:29:28	0.154	0.173	0.144	3.736	2.807	0.031	-0.221	0.140
x		0.136	0.143	0.138	4.969	3.573	0.038	-0.125	0.142
σ		0.129	0.029	0.009	1.174	1.341	0.014	0.083	0.010
%RSD		94.520	20.450	6.455	23.620	37.550	36.570	66.720	7.277
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:35	0.069	0.114	0.125	0.405	-0.549	0.097	0.000	0.037
2	15:29:02	0.190	0.093	0.053	0.525	-0.265	-0.162	0.000	0.027
3	15:29:28	0.067	0.099	0.033	0.522	-0.568	-0.274	0.000	0.029
x		0.109	0.102	0.070	0.484	-0.461	-0.113	0.000	0.031
σ		0.070	0.011	0.049	0.068	0.170	0.190	0.000	0.005
%RSD		64.640	10.730	69.040	14.130	36.890	168.200	0.000	17.030
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:35	75.265%	0.332	0.284	77.711%	0.004	-0.003	0.075	0.035
2	15:29:02	77.093%	0.316	0.250	80.465%	0.010	0.014	0.065	0.008
3	15:29:28	77.261%	0.283	0.287	81.351%	0.016	-0.006	0.018	-0.012
x		76.540%	0.310	0.273	79.842%	0.010	0.002	0.053	0.010
σ		1.107%	0.025	0.021	1.898%	0.006	0.011	0.030	0.024
%RSD		1.446	8.000	7.562	2.377	59.990	568.000	57.510	231.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:35	75.000%	0.099	0.065	0.084	0.153	0.126	80.714%	81.656%
2	15:29:02	77.318%	0.087	0.045	0.078	0.110	0.074	83.001%	84.078%
3	15:29:28	77.542%	0.170	0.074	0.053	0.158	0.105	83.822%	84.412%
x		76.620%	0.119	0.061	0.072	0.140	0.102	82.512%	83.382%
σ		1.408%	0.045	0.015	0.017	0.026	0.026	1.611%	1.504%
%RSD		1.837	37.750	24.900	23.390	18.470	25.830	1.952	1.804
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:28:35	0.031	0.018	0.009	0.014	0.013	84.221%		
2	15:29:02	0.021	0.012	0.034	-0.003	0.011	85.451%		
3	15:29:28	0.021	0.026	0.007	0.045	0.021	84.298%		
x		0.024	0.019	0.017	0.019	0.015	84.657%		
σ		0.006	0.007	0.015	0.024	0.005	0.689%		
%RSD		22.770	39.010	90.230	128.700	35.720	0.814		

180-42445-B-7-A 4/6/2015 3:32:26 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	71.269%	0.068	18.260	19.320	0.000	26860.000	9689.000	9457.000
2	15:33:19	73.403%	0.310	20.700	18.020	0.000	27160.000	9827.000	9720.000
3	15:33:46	72.887%	0.221	20.410	18.670	0.000	27430.000	9980.000	9755.000
x		72.520%	0.200	19.790	18.670	0.000	27150.000	9832.000	9644.000
σ		1.113%	0.122	1.335	0.649	0.000	285.100	145.400	163.200
%RSD		1.535	61.290	6.748	3.476	0.000	1.050	1.479	1.692

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	35.440	5244.000	0.000	3209.000	89290.000	90570.000	68.396%	2.877
2	15:33:19	35.820	5323.000	0.000	3238.000	91080.000	91430.000	71.459%	3.200
3	15:33:46	36.090	5370.000	0.000	3277.000	91050.000	92140.000	72.491%	2.920
x		35.780	5313.000	0.000	3241.000	90470.000	91380.000	70.782%	2.999
σ		0.326	63.680	0.000	33.960	1028.000	787.700	2.130%	0.175
%RSD		0.910	1.199	0.000	1.048	1.136	0.862	3.009	5.845

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	2.942	6.523	11.010	99.890	399.100	0.218	-0.042	0.833
2	15:33:19	2.937	6.343	11.250	100.700	410.700	0.222	0.231	0.964
3	15:33:46	0.014	6.537	11.240	104.000	415.200	0.220	0.104	1.072
x		1.964	6.468	11.170	101.500	408.300	0.220	0.098	0.956
σ		1.689	0.109	0.138	2.156	8.340	0.002	0.136	0.120
%RSD		86.000	1.678	1.239	2.124	2.043	0.973	139.900	12.520

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	0.948	10.820	10.420	3.230	-1.126	0.845	0.000	152.700
2	15:33:19	0.749	11.010	10.990	0.769	-1.693	0.158	0.000	158.300
3	15:33:46	0.886	11.180	11.470	2.144	-1.157	0.083	0.000	160.300
x		0.861	11.000	10.960	2.048	-1.325	0.362	0.000	157.100
σ		0.102	0.183	0.525	1.234	0.319	0.420	0.000	3.928
%RSD		11.840	1.664	4.792	60.250	24.070	116.000	0.000	2.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	73.320%	1.702	1.581	72.337%	-0.001	0.011	0.093	-0.042
2	15:33:19	77.159%	1.705	1.771	76.463%	0.002	0.010	0.050	-0.132
3	15:33:46	78.106%	1.755	1.846	78.211%	0.015	0.011	0.107	-0.057
x		76.195%	1.720	1.733	75.670%	0.005	0.011	0.083	-0.077
σ		2.534%	0.030	0.136	3.016%	0.009	0.001	0.030	0.048
%RSD		3.326	1.739	7.870	3.986	168.600	5.167	35.430	62.350

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	72.698%	0.584	0.176	0.170	34.150	34.640	84.021%	84.388%
2	15:33:19	76.243%	0.678	0.190	0.163	35.400	35.380	88.891%	87.968%
3	15:33:46	77.846%	0.728	0.164	0.184	34.790	35.510	89.035%	90.109%
x		75.596%	0.663	0.177	0.172	34.780	35.180	87.316%	87.489%
σ		2.634%	0.073	0.013	0.011	0.620	0.468	2.854%	2.891%
%RSD		3.484	11.060	7.521	6.215	1.784	1.330	3.269	3.304

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:52	0.013	0.011	0.123	0.108	0.111	77.884%
2	15:33:19	0.028	0.007	0.074	0.109	0.096	79.763%
3	15:33:46	0.023	0.010	0.089	0.076	0.093	82.385%
x		0.021	0.009	0.095	0.097	0.100	80.011%
σ		0.008	0.002	0.025	0.018	0.010	2.261%
%RSD		36.350	22.060	26.100	18.780	9.615	2.826

180-42445-B-8-A 4/6/2015 3:36:44 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	74.521%	0.098	20.740	18.430	0.000	19240.000	47380.000	46560.000
2	15:37:37	77.071%	0.152	19.390	19.140	0.000	19410.000	48230.000	47260.000
3	15:38:03	78.667%	0.164	16.090	18.020	0.000	19280.000	47930.000	47030.000
x		76.753%	0.138	18.740	18.530	0.000	19310.000	47850.000	46950.000
σ		2.091%	0.035	2.393	0.569	0.000	89.380	433.100	354.600
%RSD		2.724	25.460	12.770	3.071	0.000	0.463	0.905	0.755

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	69.040	5616.000	0.000	2489.000	158500.000	158500.000	73.003%	3.557
2	15:37:37	70.780	5703.000	0.000	2501.000	181600.000	162600.000	74.939%	3.970
3	15:38:03	69.750	5709.000	0.000	2474.000	177200.000	160500.000	77.564%	3.993
x		69.860	5676.000	0.000	2488.000	172500.000	160500.000	75.168%	3.840
σ		0.877	51.850	0.000	13.490	12240.000	2057.000	2.289%	0.245
%RSD		1.255	0.913	0.000	0.542	7.096	1.281	3.045	6.386

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	4.719	7.106	176.800	628.800	1138.000	1.103	1.583	1.867
2	15:37:37	3.414	7.865	184.900	657.000	1173.000	1.104	1.145	1.803
3	15:38:03	11.730	8.361	183.100	647.700	1147.000	1.039	1.382	1.826
x		6.622	7.777	181.600	644.500	1153.000	1.082	1.370	1.832
σ		4.475	0.632	4.235	14.400	18.080	0.037	0.219	0.032
%RSD		67.570	8.126	2.332	2.234	1.569	3.433	16.010	1.750

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	2.501	9.181	9.882	4.171	-1.457	0.120	0.000	1140.000
2	15:37:37	2.448	9.598	9.531	3.986	-1.410	0.093	0.000	1155.000
3	15:38:03	2.210	9.573	9.393	4.894	-1.447	0.507	0.000	1168.000
x		2.387	9.451	9.602	4.350	-1.438	0.240	0.000	1154.000
σ		0.155	0.234	0.252	0.480	0.024	0.232	0.000	13.970
%RSD		6.495	2.476	2.625	11.030	1.700	96.490	0.000	1.210

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	76.812%	0.418	0.496	75.483%	0.011	0.010	0.065	-0.005
2	15:37:37	79.695%	0.438	0.447	77.543%	0.008	-0.001	0.117	-0.072
3	15:38:03	80.503%	0.488	0.486	78.656%	0.002	-0.004	0.051	-0.048
x		79.003%	0.448	0.477	77.227%	0.007	0.001	0.078	-0.041
σ		1.940%	0.036	0.026	1.610%	0.005	0.007	0.034	0.034
%RSD		2.456	8.042	5.398	2.084	69.790	529.200	44.390	82.310

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	74.269%	0.558	0.234	0.278	46.340	46.820	85.950%	85.612%
2	15:37:37	79.693%	0.596	0.233	0.328	45.530	46.420	88.579%	86.810%
3	15:38:03	80.754%	0.493	0.240	0.291	48.430	46.360	89.561%	89.847%
x		78.239%	0.549	0.236	0.299	46.760	46.530	88.030%	87.423%
σ		3.479%	0.052	0.004	0.026	1.499	0.252	1.867%	2.183%
%RSD		4.446	9.551	1.490	8.613	3.206	0.540	2.121	2.497

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:37:10	0.015	0.005	0.769	0.646	0.719	76.639%
2	15:37:37	0.015	0.006	0.713	0.689	0.704	79.331%
3	15:38:03	0.008	0.008	0.724	0.716	0.708	81.758%
x		0.013	0.006	0.736	0.684	0.710	79.243%
σ		0.004	0.001	0.030	0.035	0.008	2.560%
%RSD		34.480	16.940	4.056	5.168	1.087	3.231

180-42445-B-9-A 4/6/2015 3:41:01 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:28	75.201%	0.139	244.200	237.500	0.000	47630.000	13330.000	13040.000
2	15:41:54	76.113%	0.156	242.200	241.200	0.000	47800.000	13490.000	13340.000
3	15:42:21	75.414%	0.026	248.300	236.500	0.000	48130.000	13460.000	13370.000
x		75.576%	0.107	244.900	238.400	0.000	47850.000	13430.000	13250.000
σ		0.477%	0.071	3.127	2.509	0.000	250.700	83.490	182.100
%RSD		0.632	66.080	1.277	1.052	0.000	0.524	0.622	1.375
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:28	8.258	4567.000	0.000	7992.000	113200.000	114900.000	74.092%	1.556
2	15:41:54	9.235	4558.000	0.000	8067.000	116500.000	116600.000	76.029%	1.846
3	15:42:21	8.545	4562.000	0.000	8064.000	116100.000	116300.000	77.631%	1.917
x		8.679	4563.000	0.000	8041.000	115300.000	115900.000	75.918%	1.773
σ		0.502	4.599	0.000	42.430	1775.000	886.900	1.772%	0.191
%RSD		5.783	0.101	0.000	0.528	1.540	0.765	2.335	10.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:28	4.456	89.690	17.490	40.100	447.000	1.773	11.750	0.979
2	15:41:54	7.835	90.970	17.940	38.480	431.000	1.828	12.060	1.109
3	15:42:21	1.760	90.930	18.240	35.090	426.100	1.708	11.470	1.169
x		4.684	90.530	17.890	37.890	434.700	1.770	11.760	1.085
σ		3.044	0.730	0.376	2.555	10.930	0.060	0.294	0.097
%RSD		64.990	0.807	2.102	6.742	2.514	3.403	2.501	8.950
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:28	1.201	3.484	3.386	3.986	-0.185	0.088	0.000	227.400
2	15:41:54	0.958	3.359	3.276	1.978	0.640	0.700	0.000	234.000
3	15:42:21	0.981	3.312	3.693	6.155	-0.264	0.516	0.000	231.500
x		1.046	3.385	3.452	4.040	0.064	0.434	0.000	230.900
σ		0.134	0.089	0.216	2.089	0.501	0.314	0.000	3.349
%RSD		12.830	2.626	6.263	51.710	785.700	72.320	0.000	1.450
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:28	77.320%	0.675	0.625	77.376%	0.038	0.021	0.189	0.138
2	15:41:54	79.069%	0.709	0.635	79.547%	0.015	0.022	0.183	0.132
3	15:42:21	81.745%	0.591	0.628	80.869%	0.034	0.033	0.239	0.184
x		79.378%	0.658	0.629	79.264%	0.029	0.025	0.204	0.151
σ		2.228%	0.061	0.005	1.764%	0.012	0.007	0.031	0.028
%RSD		2.807	9.205	0.795	2.225	41.550	25.950	15.070	18.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:28	78.388%	0.334	0.091	0.114	57.440	57.840	85.927%	85.396%
2	15:41:54	80.223%	0.359	0.091	0.138	59.720	59.390	88.903%	89.517%
3	15:42:21	80.176%	0.478	0.124	0.110	61.410	61.310	90.617%	89.847%
x		79.596%	0.390	0.102	0.121	59.530	59.510	88.482%	88.253%
σ		1.046%	0.077	0.019	0.015	1.991	1.740	2.373%	2.480%
%RSD		1.314	19.740	18.520	12.430	3.345	2.924	2.682	2.810
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:41:28	0.030	0.015	0.130	0.163	0.152	77.108%		
2	15:41:54	0.027	0.015	0.163	0.160	0.144	80.427%		
3	15:42:21	0.029	0.011	0.150	0.135	0.144	82.639%		
x		0.028	0.014	0.148	0.153	0.147	80.058%		
σ		0.001	0.002	0.017	0.015	0.004	2.784%		
%RSD		5.050	15.110	11.400	9.902	3.000	3.477		

180-42445-B-10-A 4/6/2015 3:45:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:45	75.384%	0.251	29.080	29.550	0.000	24240.000	11480.000	11270.000
2	15:46:12	74.776%	0.007	33.370	33.720	0.000	24370.000	11630.000	11450.000
3	15:46:38	75.897%	0.136	32.980	29.950	0.000	24280.000	11560.000	11450.000
x		75.352%	0.131	31.810	31.070	0.000	24300.000	11560.000	11390.000
σ		0.561%	0.122	2.374	2.300	0.000	67.660	76.390	104.200
%RSD		0.745	93.180	7.463	7.402	0.000	0.278	0.661	0.915
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:45	237.800	4729.000	0.000	3229.000	117100.000	116900.000	72.275%	6.502
2	15:46:12	241.100	4772.000	0.000	3221.000	119300.000	120300.000	74.293%	6.937
3	15:46:38	244.000	4711.000	0.000	3232.000	119500.000	120200.000	75.417%	5.657
x		241.000	4737.000	0.000	3227.000	118600.000	119100.000	73.995%	6.365
σ		3.127	31.520	0.000	5.478	1351.000	1913.000	1.592%	0.651
%RSD		1.298	0.665	0.000	0.170	1.139	1.606	2.152	10.230
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:45	1.343	6.656	35.850	1561.000	1902.000	0.697	0.897	1.716
2	15:46:12	3.985	6.429	36.260	1573.000	1923.000	0.686	0.871	1.595
3	15:46:38	3.118	6.477	36.710	1583.000	1950.000	0.800	0.669	1.630
x		2.815	6.521	36.270	1572.000	1925.000	0.728	0.812	1.647
σ		1.347	0.120	0.431	10.770	23.960	0.063	0.125	0.062
%RSD		47.840	1.837	1.189	0.685	1.245	8.625	15.330	3.784
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:45	1.893	3.840	3.629	4.159	0.567	1.145	0.000	217.600
2	15:46:12	1.830	4.341	4.023	3.659	-0.908	0.387	0.000	221.200
3	15:46:38	1.779	3.782	3.698	0.415	0.113	0.774	0.000	225.000
x		1.834	3.988	3.783	2.744	-0.076	0.769	0.000	221.300
σ		0.057	0.308	0.211	2.032	0.755	0.379	0.000	3.697
%RSD		3.133	7.711	5.568	74.060	997.200	49.320	0.000	1.670
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:45	77.977%	0.783	0.797	76.325%	0.020	-0.010	0.032	0.031
2	15:46:12	79.726%	0.744	0.897	77.615%	0.020	0.008	0.053	-0.067
3	15:46:38	79.774%	0.768	0.837	79.985%	0.016	0.018	0.062	-0.027
x		79.159%	0.765	0.844	77.975%	0.019	0.005	0.049	-0.021
σ		1.024%	0.020	0.051	1.857%	0.002	0.014	0.016	0.049
%RSD		1.294	2.552	5.993	2.381	12.200	282.400	31.520	238.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:45:45	76.379%	0.233	0.127	0.140	39.800	40.660	86.605%	85.266%
2	15:46:12	79.028%	0.322	0.116	0.152	40.530	41.270	89.103%	88.369%
3	15:46:38	80.507%	0.287	0.124	0.150	42.020	40.730	88.099%	88.165%
x		78.638%	0.281	0.122	0.147	40.780	40.890	87.936%	87.267%
σ		2.091%	0.045	0.006	0.006	1.134	0.335	1.257%	1.736%
%RSD		2.659	15.930	4.647	4.391	2.779	0.818	1.430	1.989
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:45:45	0.016	0.007	0.836	0.729	0.752	77.463%		
2	15:46:12	0.012	0.007	0.813	0.713	0.755	79.987%		
3	15:46:38	0.013	0.002	0.821	0.676	0.720	83.135%		
x		0.014	0.005	0.823	0.706	0.742	80.195%		
σ		0.002	0.003	0.012	0.027	0.020	2.842%		
%RSD		14.730	51.560	1.401	3.798	2.649	3.544		

180-42507-F-6-B 4/6/2015 3:49:39 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	72.368%	0.063	19.530	18.050	0.000	26430.000	10280.000	10100.000
2	15:50:33	72.033%	0.203	22.510	18.340	0.000	26290.000	10310.000	10110.000
3	15:50:59	72.133%	0.086	16.560	17.390	0.000	26360.000	10280.000	10240.000
x		72.178%	0.117	19.540	17.930	0.000	26360.000	10290.000	10150.000
σ		0.172%	0.075	2.975	0.488	0.000	69.840	15.770	78.510
%RSD		0.238	64.140	15.230	2.723	0.000	0.265	0.153	0.773

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	1.973	14230.000	0.000	1005.000	35760.000	34260.000	70.600%	2.828
2	15:50:33	2.113	14040.000	0.000	1028.000	35880.000	35020.000	72.996%	2.799
3	15:50:59	2.091	14120.000	0.000	1019.000	36520.000	35820.000	73.214%	2.763
x		2.059	14130.000	0.000	1018.000	36050.000	35040.000	72.270%	2.797
σ		0.075	94.500	0.000	11.570	407.000	779.500	1.450%	0.033
%RSD		3.652	0.669	0.000	1.137	1.129	2.225	2.007	1.177

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	7.081	4.716	35.280	100.600	214.600	0.179	5.116	0.943
2	15:50:33	6.487	4.481	35.600	99.120	208.700	0.159	5.344	0.994
3	15:50:59	4.522	4.611	35.690	98.540	199.700	0.191	4.645	1.091
x		6.030	4.603	35.530	99.410	207.700	0.177	5.035	1.009
σ		1.339	0.118	0.214	1.046	7.473	0.016	0.356	0.075
%RSD		22.210	2.558	0.603	1.053	3.598	9.192	7.074	7.473

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	0.944	3.416	3.302	3.931	-0.995	-0.092	0.000	103.500
2	15:50:33	1.118	3.693	3.494	1.393	-0.721	0.618	0.000	106.200
3	15:50:59	0.923	3.757	3.834	2.219	-1.614	0.444	0.000	104.900
x		0.995	3.622	3.543	2.514	-1.110	0.323	0.000	104.800
σ		0.107	0.181	0.270	1.294	0.457	0.370	0.000	1.372
%RSD		10.770	5.005	7.611	51.480	41.190	114.600	0.000	1.309

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	74.827%	1.688	1.563	74.428%	-0.002	-0.001	0.027	-0.053
2	15:50:33	76.536%	1.509	1.577	77.536%	0.005	0.001	0.037	-0.018
3	15:50:59	77.820%	1.404	1.654	77.172%	0.014	-0.015	0.061	-0.016
x		76.395%	1.533	1.598	76.379%	0.006	-0.005	0.041	-0.029
σ		1.502%	0.144	0.049	1.699%	0.008	0.009	0.018	0.021
%RSD		1.966	9.357	3.077	2.225	144.000	170.500	42.400	72.450

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	76.443%	0.689	0.259	0.249	293.500	301.900	85.029%	85.589%
2	15:50:33	77.897%	0.586	0.257	0.316	306.200	308.700	87.338%	87.438%
3	15:50:59	77.290%	0.615	0.247	0.265	307.800	308.100	89.860%	88.910%
x		77.210%	0.630	0.254	0.277	302.500	306.200	87.409%	87.312%
σ		0.731%	0.053	0.006	0.035	7.828	3.749	2.416%	1.664%
%RSD		0.946	8.427	2.429	12.670	2.588	1.224	2.764	1.905

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:06	0.000	-0.002	0.139	0.151	0.140	78.894%
2	15:50:33	0.005	-0.003	0.122	0.133	0.137	80.895%
3	15:50:59	0.008	-0.000	0.160	0.162	0.151	80.800%
x		0.004	-0.001	0.140	0.148	0.143	80.196%
σ		0.004	0.001	0.019	0.014	0.007	1.129%
%RSD		84.720	80.620	13.620	9.659	4.999	1.408

180-42507-E-8-B 4/6/2015 3:53:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:26	75.313%	0.072	-0.035	0.792	0.000	20.050	4.813	3.400
2	15:54:52	75.281%	0.250	0.479	0.735	0.000	23.530	4.083	3.409
3	15:55:19	76.685%	0.175	0.821	0.548	0.000	20.250	4.408	3.010
x		75.760%	0.165	0.422	0.692	0.000	21.280	4.435	3.273
σ		0.801%	0.089	0.431	0.128	0.000	1.953	0.366	0.228
%RSD		1.058	54.010	102.200	18.440	0.000	9.179	8.251	6.953
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:26	5.658	10.390	0.000	-16.860	11.320	49.990	74.930%	1.162
2	15:54:52	5.795	9.491	0.000	-12.140	31.030	51.230	76.114%	1.331
3	15:55:19	5.715	9.039	0.000	-9.733	29.310	55.580	77.255%	0.947
x		5.723	9.639	0.000	-12.910	23.880	52.270	76.100%	1.147
σ		0.069	0.686	0.000	3.627	10.910	2.936	1.163%	0.193
%RSD		1.205	7.121	0.000	28.100	45.700	5.617	1.528	16.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:26	3.466	4.956	0.207	7.891	-9.328	0.016	0.728	4.397
2	15:54:52	0.517	5.079	0.238	7.459	-11.040	0.013	0.617	4.497
3	15:55:19	3.172	5.054	0.206	6.828	-10.070	0.008	0.709	4.693
x		2.385	5.030	0.217	7.393	-10.150	0.012	0.685	4.529
σ		1.624	0.065	0.018	0.535	0.857	0.004	0.059	0.150
%RSD		68.100	1.287	8.434	7.231	8.445	35.890	8.669	3.316
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:26	4.508	5.958	5.975	3.022	-1.747	-0.078	0.000	0.135
2	15:54:52	4.827	5.760	6.039	2.368	-1.781	0.806	0.000	0.129
3	15:55:19	5.005	6.210	5.474	1.634	-0.826	-0.725	0.000	0.144
x		4.780	5.976	5.829	2.341	-1.451	0.001	0.000	0.136
σ		0.252	0.226	0.309	0.694	0.542	0.768	0.000	0.008
%RSD		5.270	3.773	5.306	29.660	37.340	83150.000	0.000	5.586
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:26	80.531%	0.115	0.078	82.516%	0.001	-0.009	0.044	-0.051
2	15:54:52	81.925%	0.079	0.135	83.472%	0.003	0.003	0.026	-0.020
3	15:55:19	83.714%	0.092	0.149	86.193%	0.003	-0.009	0.009	-0.020
x		82.056%	0.095	0.121	84.060%	0.002	-0.005	0.026	-0.030
σ		1.596%	0.018	0.038	1.908%	0.001	0.007	0.018	0.018
%RSD		1.945	19.290	31.420	2.269	66.430	144.100	67.390	59.410
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:26	80.777%	0.489	0.217	0.200	0.166	0.161	88.388%	88.323%
2	15:54:52	83.520%	0.417	0.196	0.171	0.170	0.206	90.871%	89.417%
3	15:55:19	82.531%	0.561	0.202	0.183	0.213	0.232	93.927%	93.064%
x		82.276%	0.489	0.205	0.185	0.183	0.200	91.062%	90.268%
σ		1.389%	0.072	0.011	0.014	0.026	0.036	2.774%	2.482%
%RSD		1.688	14.770	5.311	7.703	14.190	17.950	3.046	2.750
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:54:26	0.004	-0.004	1.431	1.273	1.372	85.429%		
2	15:54:52	-0.002	-0.001	1.513	1.426	1.441	86.477%		
3	15:55:19	0.005	0.003	1.463	1.514	1.422	87.277%		
x		0.002	-0.001	1.469	1.404	1.412	86.395%		
σ		0.003	0.003	0.042	0.122	0.036	0.927%		
%RSD		147.400	451.000	2.826	8.682	2.550	1.073		

180-42560-U-20-A 4/6/2015 3:58:17 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	76.897%	0.043	9.678	8.083	0.000	103.200	6.590	5.001
2	15:59:10	78.490%	0.016	9.698	6.579	0.000	104.200	5.280	4.841
3	15:59:37	77.177%	0.107	8.103	7.758	0.000	106.400	5.390	4.937
x		77.521%	0.055	9.160	7.473	0.000	104.600	5.754	4.926
σ		0.850%	0.047	0.915	0.792	0.000	1.659	0.727	0.080
%RSD		1.097	84.510	9.987	10.590	0.000	1.586	12.630	1.628

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	1.302	5.499	0.000	37.700	219.000	226.300	75.317%	0.959
2	15:59:10	1.499	4.772	0.000	29.580	254.500	235.400	76.893%	1.340
3	15:59:37	1.526	6.264	0.000	33.240	198.100	242.100	77.205%	1.045
x		1.442	5.512	0.000	33.510	223.900	234.600	76.472%	1.114
σ		0.123	0.746	0.000	4.068	28.550	7.918	1.012%	0.200
%RSD		8.496	13.540	0.000	12.140	12.750	3.375	1.324	17.920

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	4.921	5.047	0.131	10.400	-3.424	0.005	-0.103	0.573
2	15:59:10	6.334	5.113	0.184	8.729	-7.611	0.008	-0.068	0.422
3	15:59:37	5.788	5.073	0.193	8.771	-9.152	0.009	-0.126	0.552
x		5.681	5.077	0.170	9.300	-6.729	0.007	-0.099	0.516
σ		0.713	0.033	0.033	0.953	2.964	0.003	0.029	0.082
%RSD		12.540	0.655	19.660	10.250	44.050	34.390	29.750	15.880

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	0.538	21.090	21.870	3.328	-1.255	-0.269	0.000	0.178
2	15:59:10	0.597	22.040	22.440	2.223	-1.823	-0.568	0.000	0.164
3	15:59:37	0.497	22.130	20.900	1.019	-1.359	0.029	0.000	0.161
x		0.544	21.760	21.740	2.190	-1.479	-0.270	0.000	0.168
σ		0.050	0.579	0.778	1.155	0.303	0.299	0.000	0.009
%RSD		9.255	2.661	3.581	52.740	20.470	110.800	0.000	5.285

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	79.656%	0.023	0.042	82.222%	0.009	-0.019	0.064	-0.013
2	15:59:10	80.375%	0.047	0.046	83.318%	0.004	-0.022	0.043	-0.012
3	15:59:37	81.728%	0.066	0.082	84.897%	-0.006	-0.004	0.058	0.041
x		80.586%	0.045	0.057	83.479%	0.003	-0.015	0.055	0.006
σ		1.052%	0.022	0.022	1.345%	0.008	0.010	0.011	0.031
%RSD		1.305	47.850	39.010	1.611	296.400	65.720	19.250	560.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	78.014%	0.290	0.039	0.035	0.064	0.074	87.518%	86.998%
2	15:59:10	81.824%	0.311	0.025	0.037	0.025	0.074	89.356%	89.599%
3	15:59:37	83.779%	0.311	0.025	0.040	0.055	0.061	90.532%	90.179%
x		81.205%	0.303	0.030	0.037	0.048	0.070	89.135%	88.925%
σ		2.932%	0.012	0.008	0.003	0.020	0.008	1.519%	1.694%
%RSD		3.610	4.009	27.940	7.154	41.970	10.970	1.704	1.905

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:44	-0.001	-0.004	0.003	-0.003	0.001	82.962%
2	15:59:10	-0.000	-0.007	-0.003	0.004	-0.000	84.414%
3	15:59:37	0.002	-0.003	0.008	-0.008	0.001	86.547%
x		0.000	-0.005	0.002	-0.002	0.000	84.641%
σ		0.002	0.002	0.005	0.006	0.001	1.803%
%RSD		1191.000	48.430	222.100	281.200	130.400	2.130

180-42592-G-23-A 4/6/2015 4:02:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	77.168%	-0.066	6.370	7.767	0.000	21.770	2.621	2.150
2	16:03:25	76.400%	0.089	7.190	8.203	0.000	23.100	4.283	2.451
3	16:03:52	77.333%	-0.111	9.097	6.997	0.000	23.170	3.692	3.198
x		76.967%	-0.029	7.552	7.656	0.000	22.680	3.532	2.600
σ		0.498%	0.105	1.399	0.611	0.000	0.791	0.842	0.539
%RSD		0.647	356.700	18.530	7.980	0.000	3.487	23.850	20.750
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	1.749	5.699	0.000	-11.270	13.790	39.710	74.758%	1.019
2	16:03:25	1.763	6.050	0.000	-14.170	5.250	34.430	76.031%	1.212
3	16:03:52	1.688	5.572	0.000	-14.020	-18.840	35.650	76.758%	1.341
x		1.733	5.774	0.000	-13.150	0.068	36.600	75.849%	1.191
σ		0.040	0.247	0.000	1.633	16.920	2.767	1.012%	0.162
%RSD		2.310	4.285	0.000	12.420	24980.000	7.560	1.335	13.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	1.994	5.018	0.330	35.700	19.660	0.006	0.055	0.524
2	16:03:25	2.961	5.167	0.338	35.370	21.000	-0.008	-0.127	0.492
3	16:03:52	0.367	5.175	0.342	34.850	16.630	0.007	-0.067	0.481
x		1.774	5.120	0.337	35.300	19.090	0.002	-0.046	0.499
σ		1.311	0.089	0.006	0.430	2.241	0.008	0.093	0.023
%RSD		73.900	1.732	1.818	1.219	11.740	462.200	199.300	4.544
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	0.411	1.888	1.746	3.286	-1.117	0.560	0.000	0.064
2	16:03:25	0.431	1.671	2.053	1.785	-0.840	0.328	0.000	0.059
3	16:03:52	0.461	1.624	1.586	2.839	-0.925	-0.488	0.000	0.062
x		0.434	1.728	1.795	2.637	-0.961	0.133	0.000	0.062
σ		0.025	0.141	0.237	0.771	0.142	0.550	0.000	0.002
%RSD		5.798	8.150	13.220	29.230	14.760	412.500	0.000	3.885
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	78.453%	0.033	0.038	80.836%	0.005	0.015	0.040	-0.081
2	16:03:25	81.533%	0.042	0.074	83.573%	0.001	0.001	0.026	0.015
3	16:03:52	82.490%	0.040	0.045	84.633%	0.003	-0.009	0.036	-0.001
x		80.826%	0.038	0.052	83.014%	0.003	0.002	0.034	-0.023
σ		2.109%	0.005	0.019	1.960%	0.002	0.012	0.007	0.051
%RSD		2.610	12.440	36.250	2.361	58.590	528.500	21.110	226.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:02:59	79.166%	0.950	0.051	0.057	0.096	0.157	87.452%	87.248%
2	16:03:25	82.213%	0.991	0.025	0.034	0.090	0.140	88.925%	90.046%
3	16:03:52	84.352%	0.952	0.027	0.023	0.119	0.061	89.972%	91.243%
x		81.910%	0.964	0.034	0.038	0.102	0.119	88.783%	89.512%
σ		2.606%	0.023	0.015	0.017	0.015	0.051	1.266%	2.050%
%RSD		3.182	2.434	42.580	45.910	14.640	43.050	1.426	2.290
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:02:59	-0.001	0.001	0.043	0.013	0.026	82.824%		
2	16:03:25	0.001	-0.002	0.020	0.007	0.019	85.455%		
3	16:03:52	0.001	0.001	0.053	0.061	0.037	87.033%		
x		0.000	-0.000	0.039	0.027	0.027	85.104%		
σ		0.001	0.002	0.017	0.030	0.009	2.126%		
%RSD		350.200	14370.000	43.080	109.800	32.850	2.499		

180-42050-H-5-A @10 4/6/2015 4:06:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:13	72.152%	0.107	364.600	357.600	0.000	874100.000	96590.000	94670.000
2	16:07:40	72.537%	0.197	377.600	359.600	0.000	882800.000	99000.000	97240.000
3	16:08:07	72.274%	0.198	356.400	363.700	0.000	883900.000	99550.000	98040.000
x		72.321%	0.167	366.200	360.300	0.000	880200.000	98380.000	96650.000
σ		0.197%	0.052	10.670	3.097	0.000	5341.000	1574.000	1764.000
%RSD		0.272	31.370	2.915	0.860	0.000	0.607	1.600	1.826
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:13	15.510	133.800	0.000	31720.000	33300.000	33160.000	79.803%	0.235
2	16:07:40	15.810	136.700	0.000	32320.000	35070.000	34170.000	79.596%	0.446
3	16:08:07	16.290	133.700	0.000	32120.000	34990.000	34550.000	79.696%	0.537
x		15.870	134.700	0.000	32050.000	34450.000	33960.000	79.698%	0.406
σ		0.396	1.717	0.000	308.200	1001.000	721.400	0.104%	0.155
%RSD		2.495	1.274	0.000	0.962	2.905	2.124	0.130	38.170
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:13	1.538	1.740	1.350	35.970	138.500	0.061	1.637	4.168
2	16:07:40	1.416	1.742	1.395	41.040	138.000	0.060	1.527	3.972
3	16:08:07	1.100	1.843	1.379	43.470	136.600	0.060	1.664	4.180
x		1.351	1.775	1.375	40.160	137.700	0.060	1.609	4.107
σ		0.226	0.059	0.023	3.827	0.978	0.001	0.072	0.117
%RSD		16.710	3.317	1.660	9.528	0.710	1.352	4.503	2.838
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:13	0.850	1.740	1.434	2.955	-1.153	8.447	0.000	644.000
2	16:07:40	0.820	1.785	1.562	2.179	0.828	7.465	0.000	661.400
3	16:08:07	0.699	1.955	1.608	2.658	0.880	7.952	0.000	666.000
x		0.790	1.827	1.535	2.597	0.185	7.955	0.000	657.200
σ		0.080	0.114	0.090	0.392	1.159	0.491	0.000	11.600
%RSD		10.140	6.212	5.878	15.080	625.900	6.174	0.000	1.765
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:13	81.252%	1.237	1.163	79.044%	-0.005	-0.009	0.046	-0.016
2	16:07:40	81.665%	1.307	1.308	80.598%	-0.002	-0.009	0.040	-0.076
3	16:08:07	81.478%	1.236	1.405	80.673%	-0.002	-0.016	0.094	-0.008
x		81.465%	1.260	1.292	80.105%	-0.003	-0.011	0.060	-0.033
σ		0.207%	0.041	0.122	0.919%	0.002	0.004	0.030	0.037
%RSD		0.254	3.243	9.403	1.148	70.580	38.030	49.700	110.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:13	80.321%	-0.057	0.065	0.081	4.106	4.176	87.671%	87.209%
2	16:07:40	80.343%	-0.061	0.059	0.063	4.406	4.497	88.212%	89.259%
3	16:08:07	82.496%	-0.051	0.033	0.074	4.329	4.400	91.094%	90.836%
x		81.053%	-0.056	0.052	0.073	4.280	4.358	88.992%	89.101%
σ		1.250%	0.005	0.017	0.009	0.156	0.165	1.840%	1.819%
%RSD		1.542	9.199	32.420	12.430	3.634	3.774	2.068	2.041
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:07:13	-0.004	-0.000	0.024	0.015	0.017	80.451%		
2	16:07:40	0.009	0.001	0.032	0.004	0.016	78.063%		
3	16:08:07	0.002	-0.003	0.019	0.032	0.020	80.442%		
x		0.002	-0.001	0.025	0.017	0.018	79.652%		
σ		0.006	0.002	0.007	0.015	0.002	1.376%		
%RSD		270.600	273.200	26.520	85.330	11.230	1.727		

180-42050-I-5-A @10 4/6/2015 4:11:02 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	74.557%	0.118	355.500	365.200	0.000	870300.000	97930.000	96600.000
2	16:11:54	72.627%	0.150	383.300	382.100	0.000	901300.000	102200.000	100200.000
3	16:12:21	75.099%	-0.107	375.800	376.700	0.000	887600.000	100200.000	98240.000
x		74.094%	0.053	371.500	374.600	0.000	886400.000	100100.000	98360.000
σ		1.299%	0.140	14.380	8.629	0.000	15580.000	2118.000	1818.000
%RSD		1.754	262.400	3.871	2.303	0.000	1.757	2.116	1.849

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	0.555	90.860	0.000	31500.000	33660.000	33230.000	80.097%	0.048
2	16:11:54	0.585	93.750	0.000	32100.000	35070.000	33870.000	81.864%	0.083
3	16:12:21	0.796	91.610	0.000	31970.000	35040.000	34150.000	83.103%	-0.013
x		0.645	92.070	0.000	31860.000	34590.000	33750.000	81.688%	0.040
σ		0.131	1.500	0.000	319.000	806.600	471.900	1.511%	0.049
%RSD		20.320	1.629	0.000	1.001	2.332	1.398	1.849	123.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	-0.028	1.650	0.299	41.940	137.000	0.069	1.505	3.881
2	16:11:54	1.499	1.748	0.282	39.960	141.100	0.062	2.854	4.001
3	16:12:21	0.617	1.768	0.327	41.600	138.100	0.063	1.462	3.790
x		0.696	1.722	0.303	41.160	138.700	0.065	1.940	3.891
σ		0.767	0.063	0.023	1.060	2.100	0.004	0.792	0.105
%RSD		110.200	3.654	7.566	2.575	1.514	6.388	40.790	2.709

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	0.647	1.876	1.914	3.032	0.367	9.462	0.000	645.500
2	16:11:54	0.711	1.877	1.698	2.551	-1.059	8.680	0.000	674.400
3	16:12:21	0.629	2.106	1.748	4.413	0.693	10.030	0.000	674.400
x		0.662	1.953	1.787	3.332	0.000	9.391	0.000	664.800
σ		0.043	0.132	0.113	0.967	0.932	0.678	0.000	16.720
%RSD		6.481	6.776	6.312	29.010	214900.000	7.225	0.000	2.516

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	80.883%	1.083	1.237	78.000%	-0.006	-0.007	0.076	-0.023
2	16:11:54	82.611%	1.276	1.364	80.191%	-0.014	-0.013	0.051	0.019
3	16:12:21	83.894%	1.311	1.245	82.400%	-0.012	-0.003	0.026	0.009
x		82.463%	1.223	1.282	80.197%	-0.011	-0.008	0.051	0.002
σ		1.511%	0.123	0.071	2.200%	0.004	0.005	0.025	0.022
%RSD		1.832	10.030	5.538	2.743	36.220	65.100	49.680	1291.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	79.329%	-0.072	0.089	0.065	4.487	4.234	86.073%	86.098%
2	16:11:54	80.891%	-0.070	0.100	0.071	4.484	4.317	88.058%	90.874%
3	16:12:21	83.889%	-0.035	0.064	0.074	4.154	4.334	91.337%	91.386%
x		81.370%	-0.059	0.085	0.070	4.375	4.295	88.490%	89.453%
σ		2.317%	0.021	0.018	0.005	0.191	0.053	2.658%	2.917%
%RSD		2.848	35.280	21.720	6.533	4.371	1.243	3.004	3.261

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:28	0.007	-0.004	-0.006	-0.006	-0.002	77.845%
2	16:11:54	0.001	-0.001	-0.018	-0.014	-0.010	78.555%
3	16:12:21	0.001	-0.005	-0.007	0.006	-0.002	79.687%
x		0.003	-0.004	-0.010	-0.004	-0.005	78.696%
σ		0.003	0.002	0.007	0.010	0.005	0.929%
%RSD		101.000	57.900	65.980	223.600	97.270	1.181

CCV 1487954 4/6/2015 4:15:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:43	70.609%	94.160	107.100	102.500	0.000	48580.000	46260.000	45950.000
2	16:16:10	69.355%	101.800	102.000	103.400	0.000	49700.000	47650.000	47170.000
3	16:16:37	68.296%	99.100	107.800	103.700	0.000	49730.000	47840.000	47090.000
x		69.420%	98.359%	105.645%	103.200%	0.000	98.676%	94.496%	93.470%
σ		1.158%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.668	3.951	3.029	0.619	0.000	1.334	1.819	1.463
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:43	443.300	5201.000	0.000	48930.000	48330.000	48550.000	70.224%	97.720
2	16:16:10	455.900	5328.000	0.000	50170.000	50990.000	49940.000	69.659%	101.100
3	16:16:37	454.800	5285.000	0.000	49440.000	50470.000	50130.000	69.487%	98.050
x		90.268%	105.429%	0.000	99.024%	99.858%	99.079%	69.790%	98.951%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.386%	n/a
%RSD		1.545	1.228	0.000	1.265	2.824	1.737	0.552	1.871
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:43	91.820	93.920	495.700	23870.000	24440.000	92.100	93.040	93.790
2	16:16:10	94.890	95.960	509.000	24610.000	25280.000	95.030	95.690	96.130
3	16:16:37	94.520	96.910	509.200	24540.000	25470.000	95.440	96.850	95.650
x		93.744%	95.599%	100.928%	97.357%	100.250%	94.191%	95.194%	95.190%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.786	1.597	1.542	1.673	2.166	1.935	2.052	1.299
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:43	93.750	93.370	92.410	94.160	91.970	93.580	0.000	89.380
2	16:16:10	95.740	96.590	97.040	94.910	94.440	96.000	0.000	91.570
3	16:16:37	94.000	97.160	98.020	95.130	90.990	95.670	0.000	92.310
x		94.496%	95.706%	95.824%	94.737%	92.464%	95.082%	0.000	91.085%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.147	2.132	3.129	0.536	1.924	1.380	0.000	1.671
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:43	75.582%	88.070	90.120	70.495%	90.850	91.490	90.810	88.490
2	16:16:10	76.087%	93.430	95.430	70.856%	93.880	93.950	96.230	94.600
3	16:16:37	76.132%	94.980	97.890	70.453%	91.340	91.320	95.120	92.010
x		75.934%	92.163%	94.479%	70.601%	92.024%	92.251%	94.055%	91.700%
σ		0.305%	n/a	n/a	0.221%	n/a	n/a	n/a	n/a
%RSD		0.402	3.934	4.203	0.313	1.763	1.594	3.043	3.343
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:43	75.959%	92.110	92.190	91.150	89.770	90.330	84.513%	83.949%
2	16:16:10	74.240%	96.650	96.080	96.840	92.110	91.560	85.375%	85.065%
3	16:16:37	76.914%	94.860	94.920	94.810	92.170	90.420	84.899%	84.699%
x		75.705%	94.539%	94.395%	94.266%	91.347%	90.770%	84.929%	84.571%
σ		1.355%	n/a	n/a	n/a	n/a	n/a	0.432%	0.569%
%RSD		1.790	2.417	2.118	3.062	1.500	0.756	0.508	0.673
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:15:43	93.100	90.400	92.050	91.810	91.300	79.668%		
2	16:16:10	95.870	93.490	97.300	97.000	96.440	78.420%		
3	16:16:37	93.440	91.800	94.300	95.860	94.250	80.557%		
x		94.137%	91.896%	94.549%	94.890%	93.998%	79.548%		
σ		n/a	n/a	n/a	n/a	n/a	1.074%		
%RSD		1.603	1.684	2.785	2.875	2.742	1.350		

CCB5 4/6/2015 4:22:43 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	77.779%	0.105	1.424	1.558	0.000	64.930	7.613	9.007
2	16:23:36	77.818%	0.061	1.295	0.965	0.000	64.560	8.730	7.789
3	16:24:02	79.646%	0.012	1.603	1.196	0.000	63.630	9.468	6.964
x		78.414%	0.060	1.441	1.240	0.000	64.370	8.604	7.920
σ		1.067%	0.046	0.155	0.299	0.000	0.670	0.934	1.028
%RSD		1.360	77.860	10.720	24.110	0.000	1.041	10.850	12.980

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	0.449	-4.984	0.000	-15.450	-10.380	10.730	75.097%	0.005
2	16:23:36	0.690	-5.468	0.000	-11.890	19.660	11.580	75.697%	0.026
3	16:24:02	0.450	-6.295	0.000	-18.280	-25.280	7.245	75.903%	-0.146
x		0.529	-5.583	0.000	-15.210	-5.331	9.852	75.566%	-0.038
σ		0.139	0.663	0.000	3.201	22.890	2.298	0.419%	0.094
%RSD		26.210	11.880	0.000	21.050	429.400	23.330	0.554	245.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	0.191	0.145	0.074	6.974	6.865	0.043	-0.186	0.125
2	16:23:36	0.008	0.105	0.081	6.381	2.430	0.054	-0.163	0.051
3	16:24:02	0.030	0.104	0.100	4.810	3.603	0.034	-0.179	0.067
x		0.077	0.118	0.085	6.055	4.299	0.044	-0.176	0.081
σ		0.100	0.023	0.014	1.118	2.298	0.010	0.012	0.039
%RSD		130.600	19.430	16.070	18.470	53.450	22.580	6.724	48.090

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	0.196	0.195	0.047	0.872	-0.669	1.240	0.000	0.035
2	16:23:36	0.026	0.214	0.080	0.113	-1.026	0.047	0.000	0.051
3	16:24:02	0.003	0.203	-0.033	0.021	-0.116	-0.107	0.000	0.042
x		0.075	0.204	0.032	0.335	-0.604	0.393	0.000	0.043
σ		0.105	0.009	0.058	0.467	0.458	0.737	0.000	0.008
%RSD		140.900	4.557	183.700	139.400	75.920	187.600	0.000	18.830

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	74.589%	0.232	0.200	78.606%	0.024	0.003	0.014	0.008
2	16:23:36	77.420%	0.172	0.193	79.255%	0.022	0.020	0.043	0.037
3	16:24:02	78.388%	0.172	0.139	80.886%	0.012	0.016	0.030	0.010
x		76.799%	0.192	0.177	79.582%	0.019	0.013	0.029	0.018
σ		1.974%	0.035	0.034	1.175%	0.006	0.009	0.015	0.016
%RSD		2.571	18.130	18.980	1.476	31.180	70.270	49.950	87.780

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	75.355%	-0.007	0.032	0.038	0.129	0.181	81.995%	82.380%
2	16:23:36	76.254%	0.068	0.044	0.045	0.137	0.124	85.442%	83.832%
3	16:24:02	77.675%	0.028	0.037	0.055	0.107	0.138	85.755%	84.672%
x		76.428%	0.030	0.038	0.046	0.124	0.147	84.397%	83.628%
σ		1.170%	0.038	0.006	0.009	0.016	0.030	2.086%	1.160%
%RSD		1.531	127.100	15.860	18.570	12.590	20.050	2.472	1.387

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:23:10	0.014	0.014	0.022	-0.012	0.000	84.659%
2	16:23:36	0.026	0.011	0.003	0.017	0.012	83.568%
3	16:24:02	0.017	0.013	-0.015	0.021	0.009	85.222%
x		0.019	0.012	0.003	0.008	0.007	84.483%
σ		0.006	0.002	0.019	0.018	0.006	0.841%
%RSD		33.040	13.050	614.900	213.100	84.950	0.996

180-42293-C-1-B 4/6/2015 4:27:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	69.016%	0.029	40.310	35.460	0.000	45520.000	10550.000	10340.000
2	16:27:57	70.959%	0.209	42.510	38.090	0.000	45380.000	10630.000	10460.000
3	16:28:24	71.392%	-0.028	34.360	37.000	0.000	45700.000	10630.000	10470.000
x		70.456%	0.070	39.060	36.850	0.000	45540.000	10600.000	10430.000
σ		1.265%	0.124	4.215	1.322	0.000	163.200	50.680	71.620
%RSD		1.796	176.800	10.790	3.588	0.000	0.359	0.478	0.687

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	45.620	4763.000	0.000	1975.000	39300.000	38830.000	69.573%	2.238
2	16:27:57	44.980	4790.000	0.000	1983.000	39820.000	39200.000	72.544%	2.436
3	16:28:24	45.360	4781.000	0.000	1985.000	40580.000	39620.000	73.206%	2.409
x		45.320	4778.000	0.000	1981.000	39900.000	39220.000	71.774%	2.361
σ		0.323	13.700	0.000	5.384	641.900	395.100	1.935%	0.107
%RSD		0.713	0.287	0.000	0.272	1.609	1.007	2.695	4.535

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	0.191	3.616	19.970	91.500	223.500	0.116	0.205	1.276
2	16:27:57	4.803	3.804	20.160	92.090	218.400	0.109	0.213	1.430
3	16:28:24	3.808	3.999	20.390	91.690	221.900	0.135	0.088	1.438
x		2.934	3.806	20.170	91.760	221.300	0.120	0.169	1.381
σ		2.427	0.192	0.212	0.303	2.604	0.013	0.070	0.091
%RSD		82.730	5.032	1.050	0.330	1.177	10.980	41.460	6.610

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	1.157	11.310	10.540	0.782	-0.580	-0.428	0.000	171.200
2	16:27:57	1.396	10.760	11.350	3.542	-0.738	0.412	0.000	176.000
3	16:28:24	1.046	10.430	10.910	1.183	-1.907	1.142	0.000	174.600
x		1.200	10.830	10.940	1.835	-1.075	0.375	0.000	173.900
σ		0.179	0.442	0.406	1.491	0.725	0.785	0.000	2.500
%RSD		14.890	4.079	3.713	81.240	67.450	209.200	0.000	1.437

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	74.334%	0.514	0.496	73.104%	0.004	0.001	0.065	-0.005
2	16:27:57	76.925%	0.573	0.511	76.339%	0.011	0.007	0.037	-0.064
3	16:28:24	78.527%	0.494	0.593	77.766%	0.005	-0.006	0.076	0.012
x		76.595%	0.527	0.533	75.737%	0.007	0.001	0.059	-0.019
σ		2.116%	0.041	0.052	2.389%	0.004	0.006	0.020	0.040
%RSD		2.762	7.790	9.710	3.154	57.070	719.500	34.000	208.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	74.862%	0.415	0.104	0.140	35.510	35.330	86.196%	84.635%
2	16:27:57	78.383%	0.338	0.102	0.122	36.380	36.300	86.492%	87.200%
3	16:28:24	79.944%	0.399	0.104	0.135	37.940	35.940	88.723%	89.384%
x		77.730%	0.384	0.103	0.132	36.610	35.850	87.137%	87.073%
σ		2.603%	0.041	0.001	0.009	1.229	0.490	1.381%	2.377%
%RSD		3.349	10.620	0.918	6.767	3.356	1.365	1.585	2.730

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:27:30	0.012	0.006	0.131	0.103	0.121	76.797%
2	16:27:57	0.009	0.005	0.138	0.122	0.121	80.323%
3	16:28:24	0.012	0.006	0.132	0.124	0.134	82.266%
x		0.011	0.006	0.134	0.117	0.125	79.795%
σ		0.002	0.000	0.004	0.012	0.007	2.773%
%RSD		14.730	6.590	2.938	10.170	5.875	3.475

180-42293-C-2-B 4/6/2015 4:31:21 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	16:31:48	70.773%	-0.026	365.200	356.500	0.000	268600.000	5188.000	5067.000
2	16:32:15	72.078%	0.132	387.500	354.800	0.000	268400.000	5203.000	5104.000
3	16:32:41	72.986%	0.012	375.700	352.800	0.000	267900.000	5173.000	5083.000
x		71.946%	0.039	376.200	354.700	0.000	268300.000	5188.000	5084.000
σ		1.112%	0.082	11.150	1.856	0.000	356.600	14.650	18.510
%RSD		1.546	208.900	2.964	0.523	0.000	0.133	0.282	0.364
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:48	410.100	28780.000	0.000	4173.000	10720.000	10010.000	72.764%	15.710
2	16:32:15	415.500	28560.000	0.000	4155.000	10750.000	10300.000	74.855%	16.640
3	16:32:41	410.200	28160.000	0.000	4147.000	10700.000	10140.000	76.243%	15.800
x		411.900	28500.000	0.000	4158.000	10720.000	10150.000	74.621%	16.050
σ		3.124	312.000	0.000	13.190	26.750	145.700	1.751%	0.513
%RSD		0.758	1.095	0.000	0.317	0.250	1.436	2.347	3.198
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:48	611.900	29.460	52.430	531.400	548.200	0.493	2.365	14.800
2	16:32:15	622.400	30.620	52.810	538.600	534.100	0.450	2.697	14.890
3	16:32:41	619.900	29.930	53.720	536.800	549.900	0.452	2.279	15.080
x		618.100	30.000	52.990	535.600	544.100	0.465	2.447	14.920
σ		5.489	0.582	0.662	3.775	8.665	0.025	0.221	0.143
%RSD		0.888	1.940	1.249	0.705	1.593	5.299	9.026	0.959
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:48	14.060	8.132	7.876	20.070	8.859	10.410	0.000	26.940
2	16:32:15	13.880	8.028	8.371	14.400	8.705	10.310	0.000	27.100
3	16:32:41	14.130	8.808	8.647	23.240	8.593	10.820	0.000	26.630
x		14.020	8.323	8.298	19.240	8.719	10.510	0.000	26.890
σ		0.128	0.424	0.391	4.476	0.134	0.271	0.000	0.241
%RSD		0.910	5.089	4.707	23.270	1.534	2.575	0.000	0.896
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:48	75.805%	31120.000	31530.000	73.959%	0.088	0.085	31.820	5.792
2	16:32:15	78.226%	31250.000	32000.000	76.237%	0.076	0.086	31.010	5.170
3	16:32:41	79.421%	31170.000	32490.000	76.489%	0.060	0.083	30.460	4.945
x		77.818%	31180.000	32010.000	75.562%	0.075	0.085	31.100	5.302
σ		1.842%	66.160	479.700	1.393%	0.014	0.002	0.684	0.439
%RSD		2.367	0.212	1.499	1.844	18.860	1.891	2.198	8.277
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:31:48	75.708%	0.410	4.640	4.728	5.125	5.174	83.368%	85.190%
2	16:32:15	76.037%	0.555	4.832	4.938	5.282	5.315	88.239%	87.383%
3	16:32:41	77.789%	0.464	4.836	4.914	5.414	5.317	89.231%	87.415%
x		76.512%	0.476	4.770	4.860	5.274	5.269	86.946%	86.663%
σ		1.119%	0.074	0.112	0.115	0.145	0.082	3.138%	1.275%
%RSD		1.462	15.450	2.347	2.366	2.748	1.557	3.609	1.471
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:31:48	0.044	0.011	1.447	1.334	1.395	77.412%		
2	16:32:15	0.042	0.002	1.456	1.352	1.388	76.570%		
3	16:32:41	0.062	0.009	1.461	1.408	1.396	79.121%		
x		0.049	0.008	1.455	1.365	1.393	77.701%		
σ		0.011	0.005	0.007	0.039	0.004	1.300%		
%RSD		21.970	64.090	0.507	2.832	0.292	1.673		

180-14755-B-1 RAW 4/6/2015 4:35:42 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:08	68.676%	0.125	110.900	103.400	0.000	147700.000	12890.000	12630.000
2	16:36:34	71.985%	0.272	103.600	101.500	0.000	148800.000	13110.000	13010.000
3	16:37:01	70.484%	0.495	108.700	104.100	0.000	149700.000	13160.000	12980.000
x		70.382%	0.297	107.700	103.000	0.000	148700.000	13050.000	12870.000
σ		1.657%	0.186	3.724	1.384	0.000	999.400	140.400	212.300
%RSD		2.354	62.700	3.456	1.344	0.000	0.672	1.076	1.649
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:08	929.100	4568.000	0.000	7081.000	73470.000	73030.000	77.529%	7.299
2	16:36:34	957.500	4695.000	0.000	7395.000	79100.000	78320.000	74.775%	8.428
3	16:37:01	960.100	4694.000	0.000	7351.000	77640.000	77490.000	75.756%	8.048
x		948.900	4652.000	0.000	7276.000	76740.000	76280.000	76.020%	7.925
σ		17.180	72.920	0.000	169.700	2923.000	2846.000	1.396%	0.575
%RSD		1.810	1.567	0.000	2.332	3.810	3.731	1.836	7.250
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:08	4.791	5.411	332.600	1873.000	2110.000	1.056	5.183	63.120
2	16:36:34	5.622	6.085	353.900	1972.000	2226.000	1.154	5.708	66.060
3	16:37:01	4.884	5.793	356.700	1966.000	2200.000	1.109	5.817	65.410
x		5.099	5.763	347.700	1937.000	2179.000	1.107	5.570	64.860
σ		0.456	0.338	13.160	55.640	60.550	0.049	0.339	1.546
%RSD		8.937	5.862	3.784	2.872	2.779	4.413	6.092	2.384
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:08	63.500	578.300	587.600	0.947	0.496	0.835	0.000	247.800
2	16:36:34	65.080	613.500	613.500	1.825	-0.983	0.958	0.000	253.800
3	16:37:01	66.030	613.700	610.200	1.889	0.825	0.398	0.000	259.100
x		64.870	601.800	603.800	1.554	0.113	0.730	0.000	253.600
σ		1.280	20.360	14.080	0.527	0.963	0.294	0.000	5.635
%RSD		1.973	3.383	2.333	33.890	854.200	40.310	0.000	2.222
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:08	76.921%	65.380	66.310	75.560%	0.027	-0.020	0.392	0.384
2	16:36:34	78.305%	56.100	56.030	77.834%	0.011	-0.005	0.497	0.306
3	16:37:01	78.918%	47.690	47.910	78.836%	0.006	0.002	0.439	0.348
x		78.048%	56.390	56.750	77.410%	0.015	-0.008	0.443	0.346
σ		1.023%	8.848	9.220	1.679%	0.011	0.011	0.053	0.039
%RSD		1.310	15.690	16.250	2.169	74.030	144.700	11.910	11.290
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:08	75.107%	0.186	0.119	0.136	92.740	92.970	85.678%	84.547%
2	16:36:34	77.381%	0.181	0.119	0.125	92.130	94.240	88.409%	87.902%
3	16:37:01	78.191%	0.214	0.109	0.108	93.110	94.640	87.485%	88.274%
x		76.893%	0.194	0.116	0.123	92.660	93.950	87.191%	86.907%
σ		1.599%	0.018	0.006	0.014	0.494	0.873	1.389%	2.053%
%RSD		2.079	9.291	5.187	11.690	0.533	0.929	1.593	2.362
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:36:08	0.031	0.022	13.420	12.390	12.760	73.822%		
2	16:36:34	0.028	0.020	13.740	12.450	12.790	76.709%		
3	16:37:01	0.034	0.018	13.420	12.570	12.810	77.550%		
x		0.031	0.020	13.530	12.470	12.790	76.027%		
σ		0.003	0.002	0.186	0.090	0.023	1.955%		
%RSD		10.860	11.340	1.372	0.721	0.178	2.572		

680-110988-G-1-A 4/6/2015 4:39:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:26	73.363%	0.149	122.500	121.500	0.000	61280.000	48450.000	47600.000
2	16:40:52	72.785%	-0.010	123.400	125.700	0.000	62520.000	49350.000	48610.000
3	16:41:19	75.185%	-0.040	114.500	123.100	0.000	62100.000	48760.000	47780.000
x		73.778%	0.033	120.100	123.400	0.000	61970.000	48850.000	47990.000
σ		1.253%	0.102	4.913	2.082	0.000	628.500	458.100	543.500
%RSD		1.698	305.700	4.090	1.687	0.000	1.014	0.938	1.132
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:26	83.260	5527.000	0.000	2357.000	157200.000	142900.000	73.048%	5.523
2	16:40:52	86.890	5684.000	0.000	2423.000	161100.000	145000.000	75.248%	5.648
3	16:41:19	85.730	5615.000	0.000	2374.000	159200.000	147600.000	77.169%	5.569
x		85.290	5609.000	0.000	2385.000	159200.000	145200.000	75.155%	5.580
σ		1.856	78.800	0.000	33.930	1955.000	2370.000	2.062%	0.063
%RSD		2.176	1.405	0.000	1.423	1.228	1.633	2.744	1.132
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:26	4.416	5.945	110.100	18430.000	18790.000	0.204	-0.461	1.264
2	16:40:52	7.806	6.094	112.700	18870.000	19280.000	0.278	-0.281	1.202
3	16:41:19	8.400	6.081	112.800	18730.000	19320.000	0.278	-0.438	1.231
x		6.874	6.040	111.900	18680.000	19130.000	0.253	-0.393	1.232
σ		2.149	0.083	1.552	222.400	294.500	0.043	0.098	0.031
%RSD		31.270	1.369	1.387	1.191	1.540	16.940	24.910	2.497
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:26	1.259	12.180	12.440	9.718	-0.535	0.573	0.000	559.700
2	16:40:52	1.319	12.420	13.250	12.090	-1.371	1.351	0.000	574.100
3	16:41:19	1.377	13.230	12.940	11.810	-0.989	0.934	0.000	584.900
x		1.319	12.610	12.880	11.210	-0.965	0.953	0.000	572.900
σ		0.059	0.546	0.412	1.296	0.419	0.390	0.000	12.630
%RSD		4.494	4.333	3.195	11.560	43.390	40.890	0.000	2.205
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:26	77.921%	12.780	12.660	74.504%	0.002	-0.005	0.046	-0.079
2	16:40:52	78.992%	10.550	10.880	77.024%	0.010	-0.003	0.073	0.023
3	16:41:19	80.964%	8.269	8.472	78.462%	0.002	0.000	0.036	-0.100
x		79.292%	10.540	10.670	76.663%	0.005	-0.003	0.052	-0.052
σ		1.544%	2.257	2.103	2.004%	0.004	0.003	0.019	0.066
%RSD		1.947	21.430	19.710	2.614	94.660	104.100	37.720	126.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:26	75.242%	0.478	0.048	0.091	275.900	280.600	86.072%	86.255%
2	16:40:52	76.741%	0.517	0.084	0.073	279.100	282.900	88.872%	88.019%
3	16:41:19	78.698%	0.510	0.052	0.101	279.400	279.200	90.583%	89.865%
x		76.894%	0.501	0.061	0.088	278.100	280.900	88.509%	88.046%
σ		1.733%	0.021	0.020	0.014	1.955	1.839	2.277%	1.805%
%RSD		2.254	4.157	32.040	16.190	0.703	0.655	2.573	2.050
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:40:26	-0.003	-0.003	0.151	0.173	0.169	76.545%		
2	16:40:52	0.003	-0.001	0.181	0.141	0.169	77.661%		
3	16:41:19	0.008	-0.003	0.189	0.169	0.177	78.181%		
x		0.002	-0.002	0.173	0.161	0.171	77.462%		
σ		0.005	0.001	0.020	0.017	0.005	0.836%		
%RSD		239.400	48.570	11.580	10.700	2.629	1.079		

680-110988-F-1-A 4/6/2015 4:44:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	72.328%	0.062	128.000	122.800	0.000	64290.000	51000.000	50150.000
2	16:45:13	74.349%	0.279	130.100	124.500	0.000	64890.000	51370.000	50710.000
3	16:45:39	73.324%	0.034	130.000	124.600	0.000	65510.000	51870.000	50880.000
x		73.334%	0.125	129.400	123.900	0.000	64900.000	51410.000	50580.000
σ		1.011%	0.134	1.183	1.030	0.000	611.200	439.200	380.400
%RSD		1.378	107.200	0.915	0.831	0.000	0.942	0.854	0.752
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	3.227	5679.000	0.000	2475.000	164200.000	149500.000	72.751%	4.614
2	16:45:13	2.943	5754.000	0.000	2502.000	167500.000	152400.000	73.970%	5.376
3	16:45:39	3.034	5792.000	0.000	2482.000	167500.000	153700.000	75.764%	5.094
x		3.068	5742.000	0.000	2486.000	166400.000	151900.000	74.161%	5.028
σ		0.145	57.630	0.000	14.280	1869.000	2173.000	1.515%	0.385
%RSD		4.729	1.004	0.000	0.574	1.124	1.431	2.043	7.661
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	6.843	4.927	114.900	19270.000	19670.000	0.241	-0.864	1.135
2	16:45:13	3.094	5.007	118.300	19790.000	20470.000	0.221	-0.834	1.011
3	16:45:39	4.518	5.297	117.100	19600.000	20460.000	0.261	-1.105	1.010
x		4.818	5.077	116.700	19550.000	20200.000	0.241	-0.934	1.052
σ		1.893	0.195	1.720	264.200	458.500	0.020	0.148	0.072
%RSD		39.280	3.837	1.473	1.351	2.270	8.328	15.860	6.868
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	1.030	14.690	14.930	6.497	-1.967	2.932	0.000	585.900
2	16:45:13	1.088	14.530	15.050	9.192	-0.880	2.281	0.000	604.200
3	16:45:39	1.177	15.210	15.200	6.472	-1.115	2.024	0.000	600.800
x		1.098	14.810	15.060	7.387	-1.321	2.412	0.000	597.000
σ		0.074	0.352	0.136	1.563	0.572	0.469	0.000	9.728
%RSD		6.736	2.375	0.906	21.160	43.340	19.420	0.000	1.629
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	75.677%	2.210	2.154	73.750%	0.003	-0.011	0.060	-0.020
2	16:45:13	78.310%	2.255	2.099	76.173%	-0.006	-0.003	0.008	-0.034
3	16:45:39	79.816%	1.921	1.887	77.385%	0.001	-0.004	0.060	0.028
x		77.934%	2.129	2.047	75.769%	-0.001	-0.006	0.043	-0.009
σ		2.095%	0.182	0.141	1.851%	0.004	0.004	0.030	0.033
%RSD		2.688	8.526	6.873	2.443	719.400	76.530	69.560	378.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	73.733%	0.305	0.058	0.104	287.100	286.700	84.203%	84.604%
2	16:45:13	76.036%	0.352	0.038	0.103	292.000	289.900	86.293%	86.137%
3	16:45:39	78.237%	0.351	0.038	0.092	288.400	290.200	88.232%	87.413%
x		76.002%	0.336	0.044	0.100	289.100	288.900	86.243%	86.051%
σ		2.252%	0.027	0.012	0.007	2.552	1.909	2.015%	1.406%
%RSD		2.963	8.051	26.830	6.652	0.883	0.661	2.337	1.634
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:44:46	0.018	-0.003	0.040	0.029	0.034	73.353%		
2	16:45:13	-0.005	-0.004	0.010	0.044	0.026	76.558%		
3	16:45:39	0.005	-0.001	0.023	0.026	0.026	78.111%		
x		0.006	-0.003	0.024	0.033	0.029	76.007%		
σ		0.012	0.002	0.015	0.009	0.005	2.427%		
%RSD		206.500	56.800	60.520	28.410	16.060	3.193		

680-110988-G-2-A 4/6/2015 4:48:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	69.795%	0.002	39.880	39.780	0.000	5314.000	31500.000	31030.000
2	16:49:30	70.352%	0.190	43.430	40.180	0.000	5398.000	31950.000	31550.000
3	16:49:57	71.979%	0.110	41.660	39.700	0.000	5317.000	31750.000	31320.000
x		70.709%	0.101	41.660	39.890	0.000	5343.000	31740.000	31300.000
σ		1.135%	0.094	1.778	0.260	0.000	47.870	226.100	257.900
%RSD		1.605	93.780	4.269	0.653	0.000	0.896	0.712	0.824

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	169.900	13860.000	0.000	695.200	87180.000	88250.000	69.690%	8.240
2	16:49:30	173.800	13960.000	0.000	704.400	89890.000	89860.000	72.081%	8.007
3	16:49:57	172.400	13840.000	0.000	675.600	88900.000	89990.000	72.869%	7.569
x		172.000	13890.000	0.000	691.700	88660.000	89370.000	71.547%	7.939
σ		1.977	64.440	0.000	14.730	1371.000	967.200	1.656%	0.341
%RSD		1.149	0.464	0.000	2.129	1.546	1.082	2.314	4.294

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	6.999	8.646	19.770	251.500	540.400	0.189	2.051	1.999
2	16:49:30	-1.908	8.967	20.270	250.800	532.100	0.187	1.995	1.870
3	16:49:57	2.345	9.026	19.810	248.400	546.600	0.221	2.608	2.140
x		2.478	8.880	19.950	250.200	539.700	0.199	2.218	2.003
σ		4.455	0.204	0.276	1.639	7.309	0.019	0.339	0.135
%RSD		179.800	2.300	1.385	0.655	1.354	9.691	15.290	6.749

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	2.154	7.195	7.369	4.198	-0.873	1.988	0.000	118.200
2	16:49:30	2.232	7.100	8.084	4.274	0.081	1.878	0.000	123.600
3	16:49:57	2.204	7.667	7.373	5.622	-0.755	2.335	0.000	124.700
x		2.197	7.321	7.609	4.698	-0.516	2.067	0.000	122.200
σ		0.039	0.303	0.412	0.801	0.520	0.239	0.000	3.434
%RSD		1.788	4.144	5.414	17.050	100.900	11.550	0.000	2.811

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	75.274%	3.408	3.485	73.253%	0.009	0.002	0.086	0.025
2	16:49:30	77.367%	3.472	3.542	75.102%	0.002	-0.013	0.057	-0.067
3	16:49:57	76.478%	3.775	3.593	75.825%	0.006	-0.003	0.061	-0.005
x		76.373%	3.552	3.540	74.727%	0.006	-0.005	0.068	-0.016
σ		1.050%	0.196	0.054	1.326%	0.004	0.008	0.015	0.047
%RSD		1.375	5.520	1.533	1.775	63.200	156.700	22.780	293.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	73.185%	0.292	0.125	0.135	73.870	73.200	85.092%	83.652%
2	16:49:30	76.225%	0.335	0.104	0.133	74.780	75.080	86.627%	85.986%
3	16:49:57	77.618%	0.276	0.093	0.137	74.760	74.350	88.509%	88.319%
x		75.676%	0.301	0.107	0.135	74.470	74.210	86.743%	85.986%
σ		2.267%	0.030	0.016	0.002	0.516	0.948	1.712%	2.334%
%RSD		2.995	10.060	15.230	1.191	0.693	1.277	1.973	2.714

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:04	0.007	0.002	0.214	0.193	0.202	77.073%
2	16:49:30	0.005	0.005	0.216	0.199	0.210	79.006%
3	16:49:57	0.015	0.007	0.209	0.179	0.198	80.911%
x		0.009	0.005	0.213	0.190	0.203	78.997%
σ		0.005	0.002	0.004	0.010	0.006	1.919%
%RSD		55.410	49.000	1.700	5.389	2.944	2.430

680-110988-F-2-A 4/6/2015 4:52:57 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	71.046%	0.115	42.010	37.530	0.000	5446.000	30000.000	29620.000
2	16:53:50	72.766%	0.060	41.000	38.570	0.000	5448.000	30320.000	29840.000
3	16:54:17	72.390%	0.131	37.820	38.150	0.000	5461.000	30310.000	30010.000
x		72.067%	0.102	40.280	38.080	0.000	5452.000	30210.000	29830.000
σ		0.905%	0.037	2.183	0.523	0.000	8.354	180.700	196.900
%RSD		1.255	36.370	5.421	1.374	0.000	0.153	0.598	0.660

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	6.429	12970.000	0.000	630.400	82530.000	83060.000	71.144%	1.976
2	16:53:50	6.372	12980.000	0.000	634.600	85570.000	85350.000	72.451%	2.568
3	16:54:17	6.391	13020.000	0.000	639.000	87030.000	85970.000	72.858%	3.057
x		6.397	12990.000	0.000	634.600	85040.000	84790.000	72.151%	2.534
σ		0.029	25.150	0.000	4.295	2297.000	1535.000	0.896%	0.541
%RSD		0.461	0.194	0.000	0.677	2.701	1.811	1.242	21.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	4.229	8.593	0.615	17.030	294.300	0.113	0.065	1.121
2	16:53:50	6.730	9.031	0.600	15.940	304.300	0.127	0.005	1.073
3	16:54:17	6.602	8.682	0.633	16.240	288.200	0.113	-0.096	1.251
x		5.854	8.769	0.616	16.400	295.600	0.118	-0.009	1.148
σ		1.408	0.231	0.017	0.562	8.138	0.008	0.082	0.092
%RSD		24.060	2.637	2.690	3.429	2.753	6.728	927.100	8.019

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	1.377	7.113	6.756	1.653	-0.733	1.640	0.000	118.400
2	16:53:50	1.125	7.551	7.573	3.740	-0.498	2.084	0.000	119.900
3	16:54:17	1.087	7.181	7.184	0.648	-0.781	1.313	0.000	120.500
x		1.196	7.282	7.171	2.014	-0.670	1.679	0.000	119.600
σ		0.158	0.236	0.409	1.577	0.152	0.387	0.000	1.127
%RSD		13.170	3.239	5.704	78.320	22.590	23.070	0.000	0.942

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	73.485%	3.268	3.279	72.540%	0.011	-0.008	0.079	0.029
2	16:53:50	76.034%	3.523	3.713	74.752%	0.006	-0.010	0.045	0.024
3	16:54:17	77.378%	3.658	3.558	75.486%	-0.001	-0.009	0.080	-0.013
x		75.632%	3.483	3.517	74.259%	0.005	-0.009	0.068	0.013
σ		1.977%	0.198	0.220	1.533%	0.006	0.001	0.020	0.023
%RSD		2.614	5.690	6.252	2.065	111.800	13.660	29.180	173.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	74.000%	0.246	0.106	0.150	66.370	67.760	83.214%	83.063%
2	16:53:50	75.909%	0.268	0.115	0.148	70.320	70.310	85.298%	85.441%
3	16:54:17	76.621%	0.288	0.134	0.140	68.520	70.370	85.886%	87.117%
x		75.510%	0.267	0.118	0.146	68.400	69.480	84.799%	85.207%
σ		1.355%	0.021	0.014	0.005	1.976	1.487	1.404%	2.037%
%RSD		1.794	7.891	11.880	3.762	2.888	2.141	1.655	2.391

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:24	0.005	0.005	0.060	0.072	0.059	76.106%
2	16:53:50	0.011	-0.002	0.042	0.053	0.060	78.720%
3	16:54:17	0.002	0.004	0.074	0.071	0.066	79.476%
x		0.006	0.003	0.059	0.065	0.062	78.101%
σ		0.004	0.004	0.016	0.011	0.004	1.768%
%RSD		69.940	138.000	26.790	16.220	6.565	2.264

680-110988-G-3-A 4/6/2015 4:57:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:45	71.321%	0.019	1917.000	1836.000	0.000	56650.000	25400.000	25080.000
2	16:58:11	71.242%	0.137	1924.000	1849.000	0.000	57670.000	25700.000	25480.000
3	16:58:38	72.952%	0.150	1886.000	1812.000	0.000	56720.000	25530.000	25330.000
x		71.838%	0.102	1909.000	1832.000	0.000	57010.000	25550.000	25290.000
σ		0.965%	0.072	20.600	18.770	0.000	570.900	151.400	201.600
%RSD		1.344	70.560	1.079	1.025	0.000	1.001	0.593	0.797
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:45	77.140	7950.000	0.000	7411.000	216000.000	215900.000	72.774%	4.281
2	16:58:11	79.710	8026.000	0.000	7463.000	221200.000	222600.000	74.025%	4.748
3	16:58:38	79.030	7956.000	0.000	7504.000	223100.000	222700.000	75.646%	4.077
x		78.630	7977.000	0.000	7459.000	220100.000	220400.000	74.148%	4.369
σ		1.333	42.250	0.000	46.660	3650.000	3921.000	1.440%	0.344
%RSD		1.696	0.530	0.000	0.626	1.659	1.779	1.942	7.870
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:45	2.474	5.672	2945.000	5497.000	6070.000	1.170	5.209	1.362
2	16:58:11	2.520	5.682	2989.000	5622.000	6213.000	1.121	5.528	1.338
3	16:58:38	4.972	5.403	2969.000	5588.000	6209.000	1.150	5.240	1.432
x		3.322	5.586	2968.000	5569.000	6164.000	1.147	5.326	1.377
σ		1.429	0.158	21.820	64.500	81.580	0.025	0.176	0.049
%RSD		43.020	2.835	0.735	1.158	1.323	2.182	3.303	3.539
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:45	1.549	5.913	6.325	18.330	-1.040	2.154	0.000	670.800
2	16:58:11	1.601	6.603	7.512	15.650	-0.813	0.608	0.000	685.500
3	16:58:38	1.613	6.358	6.350	18.100	-0.453	0.855	0.000	699.800
x		1.588	6.291	6.729	17.360	-0.769	1.206	0.000	685.400
σ		0.034	0.350	0.678	1.487	0.296	0.831	0.000	14.460
%RSD		2.127	5.555	10.080	8.567	38.490	68.900	0.000	2.109
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:45	76.367%	10.070	9.820	75.213%	0.009	-0.010	0.082	-0.004
2	16:58:11	78.505%	10.080	9.683	76.109%	-0.003	-0.013	0.156	0.027
3	16:58:38	79.672%	9.884	10.360	77.741%	0.008	-0.007	0.112	0.034
x		78.181%	10.010	9.954	76.355%	0.005	-0.010	0.117	0.019
σ		1.676%	0.109	0.357	1.282%	0.007	0.003	0.037	0.021
%RSD		2.144	1.092	3.587	1.679	140.200	34.040	31.900	107.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:45	75.518%	0.170	0.050	0.101	107.500	108.100	85.608%	85.428%
2	16:58:11	77.869%	0.141	0.056	0.090	110.300	112.200	87.403%	86.939%
3	16:58:38	78.545%	0.218	0.078	0.174	111.000	112.300	88.950%	88.723%
x		77.311%	0.177	0.062	0.122	109.600	110.900	87.320%	87.030%
σ		1.589%	0.039	0.015	0.046	1.852	2.383	1.672%	1.650%
%RSD		2.055	22.040	24.040	37.640	1.690	2.150	1.915	1.895
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:57:45	0.005	0.001	0.148	0.182	0.164	76.530%		
2	16:58:11	0.010	0.010	0.211	0.145	0.163	78.043%		
3	16:58:38	0.016	0.001	0.155	0.131	0.151	78.890%		
x		0.010	0.004	0.172	0.152	0.159	77.821%		
σ		0.005	0.005	0.035	0.026	0.007	1.196%		
%RSD		52.270	135.400	20.180	17.150	4.356	1.536		

680-110988-F-3-A 4/6/2015 5:01:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	70.663%	-0.049	1903.000	1811.000	0.000	56850.000	27830.000	24990.000
2	17:02:29	69.333%	0.075	1995.000	1904.000	0.000	59160.000	26340.000	26080.000
3	17:02:55	70.206%	0.047	1992.000	1862.000	0.000	57980.000	28850.000	25840.000
x		70.067%	0.024	1963.000	1859.000	0.000	57990.000	27670.000	25640.000
σ		0.676%	0.065	52.360	46.320	0.000	1152.000	1264.000	568.100
%RSD		0.964	268.800	2.667	2.492	0.000	1.986	4.569	2.216

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	2.946	7820.000	0.000	7528.000	218000.000	217500.000	71.830%	2.596
2	17:02:29	3.082	8027.000	0.000	7679.000	226500.000	225500.000	72.725%	2.708
3	17:02:55	3.215	7988.000	0.000	7593.000	222500.000	223700.000	74.165%	2.701
x		3.081	7945.000	0.000	7600.000	222300.000	222300.000	72.907%	2.668
σ		0.135	109.800	0.000	75.750	4286.000	4169.000	1.178%	0.063
%RSD		4.370	1.382	0.000	0.997	1.928	1.876	1.616	2.364

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	2.554	4.895	2817.000	3840.000	4502.000	1.058	4.057	1.074
2	17:02:29	4.545	4.750	2901.000	3968.000	4595.000	1.033	4.123	1.276
3	17:02:55	3.699	4.821	2956.000	4007.000	4665.000	1.027	4.492	1.215
x		3.599	4.822	2891.000	3938.000	4587.000	1.039	4.224	1.188
σ		0.999	0.073	70.220	87.210	81.950	0.016	0.235	0.104
%RSD		27.760	1.507	2.429	2.215	1.786	1.569	5.556	8.723

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	1.322	4.515	4.278	15.810	-1.220	1.544	0.000	664.400
2	17:02:29	1.675	4.634	4.244	14.020	0.103	0.942	0.000	682.200
3	17:02:55	1.438	4.724	5.348	16.040	-0.583	0.930	0.000	699.200
x		1.478	4.625	4.623	15.290	-0.567	1.139	0.000	681.900
σ		0.180	0.105	0.628	1.102	0.662	0.351	0.000	17.420
%RSD		12.190	2.266	13.580	7.208	116.800	30.840	0.000	2.554

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	74.499%	9.635	9.915	72.397%	-0.001	0.005	0.086	0.019
2	17:02:29	76.862%	10.110	9.960	75.276%	0.010	-0.004	0.102	0.040
3	17:02:55	76.501%	10.010	10.180	75.525%	0.015	0.003	0.129	0.140
x		75.954%	9.919	10.020	74.399%	0.008	0.002	0.106	0.066
σ		1.273%	0.251	0.144	1.738%	0.008	0.005	0.022	0.064
%RSD		1.676	2.532	1.435	2.337	106.700	294.400	20.920	97.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	73.443%	0.272	0.083	0.135	105.100	104.700	83.609%	82.341%
2	17:02:29	74.233%	0.317	0.098	0.157	108.200	110.400	86.042%	84.712%
3	17:02:55	75.928%	0.243	0.104	0.122	109.000	109.200	86.096%	85.806%
x		74.535%	0.277	0.095	0.138	107.400	108.100	85.249%	84.286%
σ		1.270%	0.037	0.011	0.018	2.101	2.981	1.421%	1.771%
%RSD		1.703	13.500	11.220	12.680	1.956	2.758	1.667	2.101

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:02	0.002	0.002	0.066	0.074	0.067	73.926%
2	17:02:29	0.007	0.009	0.085	0.085	0.073	75.232%
3	17:02:55	0.014	0.002	0.073	0.070	0.073	76.377%
x		0.008	0.004	0.075	0.076	0.071	75.178%
σ		0.006	0.004	0.009	0.008	0.003	1.227%
%RSD		74.480	103.300	12.560	10.190	4.855	1.632

680-110988-G-4-A 4/6/2015 5:05:53 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	17:06:20	63.723%	0.129	3567.000	3584.000	0.000	106100.000	407100.000	396700.000
2	17:06:46	64.828%	0.122	3597.000	3597.000	0.000	107800.000	411500.000	402900.000
3	17:07:13	64.973%	0.300	3662.000	3631.000	0.000	108500.000	415000.000	407600.000
x		64.508%	0.184	3609.000	3604.000	0.000	107500.000	411200.000	402400.000
σ		0.684%	0.101	48.800	23.890	0.000	1264.000	3949.000	5504.000
%RSD		1.060	54.920	1.352	0.663	0.000	1.176	0.960	1.368

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:20	8.698	5299.000	0.000	30500.000	1791000.000	1647000.000	71.018%	1.405
2	17:06:46	9.045	5385.000	0.000	30540.000	1802000.000	1670000.000	73.952%	1.956
3	17:07:13	8.965	5418.000	0.000	31140.000	1844000.000	1696000.000	73.645%	1.766
x		8.902	5367.000	0.000	30730.000	1812000.000	1671000.000	72.872%	1.709
σ		0.182	61.530	0.000	358.900	28060.000	24870.000	1.613%	0.280
%RSD		2.043	1.146	0.000	1.168	1.548	1.488	2.213	16.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:20	6.719	5.368	11080.000	117.000	6137.000	14.880	41.710	0.961
2	17:06:46	4.044	5.396	11340.000	117.700	6086.000	15.020	43.040	1.010
3	17:07:13	3.949	5.362	11440.000	122.100	6192.000	15.430	41.700	1.020
x		4.904	5.375	11290.000	118.900	6138.000	15.110	42.150	0.997
σ		1.573	0.018	189.200	2.750	53.300	0.288	0.772	0.031
%RSD		32.070	0.334	1.676	2.312	0.868	1.908	1.833	3.157

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:20	3.383	9.308	8.742	1.050	-0.468	1.491	0.000	4015.000
2	17:06:46	3.534	9.082	8.893	5.280	-0.300	1.832	0.000	4060.000
3	17:07:13	3.759	8.953	8.635	4.511	0.739	2.936	0.000	4109.000
x		3.559	9.114	8.757	3.614	-0.010	2.086	0.000	4061.000
σ		0.190	0.179	0.129	2.253	0.654	0.755	0.000	47.030
%RSD		5.325	1.968	1.476	62.350	6806.000	36.200	0.000	1.158

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:20	75.649%	1.524	1.501	70.618%	0.009	-0.011	0.302	0.231
2	17:06:46	79.895%	1.355	1.343	74.032%	0.008	-0.008	0.347	0.235
3	17:07:13	78.819%	1.531	1.406	73.741%	0.014	-0.002	0.330	0.228
x		78.121%	1.470	1.417	72.797%	0.010	-0.007	0.327	0.231
σ		2.208%	0.100	0.080	1.893%	0.003	0.005	0.023	0.004
%RSD		2.826	6.779	5.625	2.600	30.210	63.120	6.981	1.552

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:20	71.246%	0.162	0.097	0.265	122.600	123.200	82.032%	80.753%
2	17:06:46	74.761%	0.248	0.156	0.286	125.000	124.800	83.981%	82.340%
3	17:07:13	76.391%	0.241	0.121	0.321	125.800	123.200	84.043%	82.711%
x		74.133%	0.217	0.125	0.291	124.500	123.700	83.352%	81.935%
σ		2.630%	0.047	0.029	0.028	1.675	0.882	1.144%	1.040%
%RSD		3.547	21.830	23.480	9.661	1.346	0.713	1.372	1.269

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:20	0.088	0.066	0.059	0.034	0.033	68.034%
2	17:06:46	0.074	0.063	0.058	0.056	0.050	69.973%
3	17:07:13	0.077	0.072	0.008	0.021	0.034	71.462%
x		0.080	0.067	0.042	0.037	0.039	69.823%
σ		0.007	0.004	0.029	0.017	0.009	1.719%
%RSD		9.288	6.439	69.610	47.030	23.910	2.462

CCV 1487954 4/6/2015 5:10:11 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:38	69.276%	104.000	116.800	120.900	0.000	50760.000	47760.000	46940.000
2	17:11:04	71.091%	98.340	119.000	120.400	0.000	50250.000	47670.000	46860.000
3	17:11:31	69.468%	99.910	122.000	119.100	0.000	51030.000	48480.000	47530.000
x		69.945%	100.751%	119.285%	120.117%	0.000	101.356%	95.934%	94.220%
σ		0.997%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.426	2.897	2.191	0.741	0.000	0.779	0.924	0.775
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:38	444.900	5349.000	0.000	51420.000	50040.000	49930.000	71.109%	102.400
2	17:11:04	449.600	5342.000	0.000	51150.000	51340.000	50980.000	70.462%	102.800
3	17:11:31	456.400	5375.000	0.000	51290.000	51420.000	50920.000	69.992%	102.000
x		90.060%	107.104%	0.000	102.578%	101.872%	101.222%	70.521%	102.394%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.561%	n/a
%RSD		1.290	0.331	0.000	0.266	1.519	1.171	0.795	0.387
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:38	93.380	94.450	503.300	24320.000	24770.000	93.930	93.230	95.490
2	17:11:04	97.510	96.870	508.600	24800.000	25570.000	95.890	95.410	96.360
3	17:11:31	97.500	99.360	519.800	25280.000	25830.000	97.400	96.840	98.120
x		96.127%	96.894%	102.112%	99.191%	101.554%	95.742%	95.158%	96.656%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.478	2.534	1.654	1.938	2.179	1.815	1.910	1.388
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:38	95.890	94.160	93.540	94.840	95.780	94.470	0.000	89.430
2	17:11:04	98.290	97.410	98.410	97.100	99.780	95.620	0.000	92.340
3	17:11:31	97.870	95.870	97.390	97.370	96.360	96.220	0.000	91.790
x		97.348%	95.811%	96.446%	96.438%	97.308%	95.436%	0.000	91.186%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.318	1.697	2.665	1.439	2.224	0.928	0.000	1.697
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:38	76.444%	89.480	89.850	70.218%	90.130	90.730	92.680	89.590
2	17:11:04	75.545%	94.490	96.180	70.498%	92.460	91.520	94.070	93.030
3	17:11:31	75.542%	94.990	98.550	69.402%	92.060	92.900	95.520	92.480
x		75.844%	92.987%	94.861%	70.039%	91.549%	91.718%	94.092%	91.700%
σ		0.520%	n/a	n/a	0.569%	n/a	n/a	n/a	n/a
%RSD		0.685	3.276	4.740	0.813	1.364	1.196	1.510	2.018
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:38	74.814%	93.430	94.060	94.690	91.750	91.020	82.464%	81.586%
2	17:11:04	74.087%	94.580	95.630	95.330	93.470	92.640	83.332%	82.283%
3	17:11:31	74.808%	95.240	95.920	94.700	90.720	92.190	82.542%	81.770%
x		74.570%	94.418%	95.205%	94.907%	91.980%	91.950%	82.779%	81.880%
σ		0.418%	n/a	n/a	n/a	n/a	n/a	0.480%	0.361%
%RSD		0.561	0.972	1.050	0.388	1.511	0.910	0.580	0.441
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:10:38	91.490	90.100	91.980	91.670	91.370	76.237%		
2	17:11:04	93.890	92.870	94.220	94.570	93.510	75.596%		
3	17:11:31	95.340	92.840	96.540	96.240	95.760	74.761%		
x		93.573%	91.938%	94.247%	94.160%	93.547%	75.532%		
σ		n/a	n/a	n/a	n/a	n/a	0.740%		
%RSD		2.075	1.730	2.420	2.455	2.348	0.980		

CCB6 4/6/2015 5:17:40 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	17:18:06	78.370%	0.081	5.998	6.279	0.000	35.150	13.080	11.040
2	17:18:32	80.454%	0.344	5.695	6.169	0.000	34.580	10.420	10.890
3	17:18:59	78.509%	-0.027	7.468	5.332	0.000	34.240	12.710	11.220
x		79.111%	0.133	6.387	5.927	0.000	34.660	12.070	11.050
σ		1.165%	0.191	0.949	0.518	0.000	0.463	1.440	0.165
%RSD		1.472	144.000	14.850	8.733	0.000	1.336	11.930	1.494

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:06	0.670	-3.691	0.000	-9.811	26.170	13.560	76.068%	0.122
2	17:18:32	0.530	-5.915	0.000	-10.120	-21.220	12.390	76.673%	-0.076
3	17:18:59	0.455	-4.927	0.000	-9.016	9.143	14.280	76.608%	0.141
x		0.552	-4.844	0.000	-9.648	4.698	13.410	76.450%	0.062
σ		0.109	1.114	0.000	0.568	24.010	0.951	0.332%	0.120
%RSD		19.780	23.000	0.000	5.884	511.100	7.092	0.434	192.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:06	0.343	0.169	0.227	12.950	3.200	0.032	-0.270	0.101
2	17:18:32	0.411	0.189	0.213	10.020	4.589	0.022	-0.244	0.128
3	17:18:59	-0.220	0.233	0.226	9.553	3.177	0.049	-0.160	0.206
x		0.178	0.197	0.222	10.840	3.655	0.034	-0.225	0.145
σ		0.347	0.033	0.008	1.841	0.808	0.013	0.058	0.054
%RSD		194.600	16.520	3.476	16.980	22.110	39.210	25.710	37.550

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:06	-0.036	0.118	-0.018	0.671	-1.389	0.933	0.000	0.061
2	17:18:32	0.007	0.082	-0.007	-0.151	-0.273	0.947	0.000	0.045
3	17:18:59	0.114	0.117	0.222	0.773	-1.070	0.366	0.000	0.063
x		0.028	0.106	0.066	0.431	-0.911	0.749	0.000	0.056
σ		0.077	0.020	0.135	0.507	0.575	0.332	0.000	0.010
%RSD		271.500	19.330	205.500	117.600	63.120	44.280	0.000	17.890

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:06	75.376%	0.311	0.305	78.687%	0.005	0.019	0.051	0.058
2	17:18:32	78.027%	0.258	0.293	79.830%	0.013	-0.001	0.042	-0.019
3	17:18:59	78.296%	0.356	0.294	80.308%	0.018	0.001	0.047	-0.030
x		77.233%	0.308	0.297	79.608%	0.012	0.006	0.047	0.003
σ		1.613%	0.050	0.007	0.833%	0.006	0.011	0.004	0.047
%RSD		2.089	16.060	2.409	1.046	52.830	170.400	9.234	1544.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:06	74.803%	0.049	0.040	0.039	0.039	0.118	80.463%	80.930%
2	17:18:32	77.471%	0.042	0.034	0.053	0.137	0.116	84.198%	83.156%
3	17:18:59	78.129%	0.036	0.043	0.032	0.053	0.166	84.482%	84.545%
x		76.801%	0.042	0.039	0.041	0.076	0.133	83.048%	82.877%
σ		1.761%	0.007	0.005	0.011	0.053	0.028	2.243%	1.824%
%RSD		2.294	16.230	12.620	25.620	69.730	20.940	2.701	2.201

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:06	0.029	0.012	0.035	0.014	0.031	82.955%
2	17:18:32	0.037	0.007	0.027	0.048	0.034	83.045%
3	17:18:59	0.022	0.012	0.038	0.031	0.027	82.804%
x		0.029	0.010	0.033	0.031	0.031	82.935%
σ		0.007	0.003	0.006	0.017	0.003	0.122%
%RSD		24.760	31.310	16.890	54.740	10.450	0.147

680-110988-F-4-A 4/6/2015 5:21:57 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:24	62.601%	0.031	3504.000	3579.000	0.000	103700.000	410000.000	397100.000
2	17:22:50	64.349%	0.023	3558.000	3567.000	0.000	103700.000	409600.000	400800.000
3	17:23:17	64.489%	0.203	3538.000	3554.000	0.000	104400.000	411000.000	400000.000
x		63.813%	0.085	3533.000	3567.000	0.000	103900.000	410200.000	399300.000
σ		1.052%	0.102	27.240	12.580	0.000	432.500	725.000	1941.000
%RSD		1.649	119.100	0.771	0.353	0.000	0.416	0.177	0.486
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:24	4.842	5203.000	0.000	29580.000	1737000.000	1634000.000	67.013%	1.075
2	17:22:50	5.044	5275.000	0.000	29870.000	1761000.000	1638000.000	69.134%	1.190
3	17:23:17	5.344	5244.000	0.000	29530.000	1755000.000	1627000.000	69.960%	1.408
x		5.077	5241.000	0.000	29660.000	1751000.000	1633000.000	68.702%	1.225
σ		0.253	35.860	0.000	184.900	12260.000	5312.000	1.520%	0.169
%RSD		4.976	0.684	0.000	0.623	0.700	0.325	2.213	13.810
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:24	-0.181	5.653	10990.000	99.490	6352.000	15.370	44.120	1.496
2	17:22:50	3.540	5.441	11180.000	103.400	6384.000	15.310	45.330	1.422
3	17:23:17	6.184	5.431	11190.000	105.100	6399.000	15.570	44.920	1.759
x		3.181	5.509	11120.000	102.700	6378.000	15.420	44.790	1.559
σ		3.198	0.126	110.800	2.894	24.400	0.137	0.619	0.178
%RSD		100.500	2.278	0.997	2.818	0.383	0.890	1.383	11.390
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:24	4.143	9.021	9.710	7.373	0.498	3.379	0.000	3870.000
2	17:22:50	3.944	8.779	9.364	1.489	2.585	2.851	0.000	4005.000
3	17:23:17	3.951	9.864	9.146	3.977	0.505	2.204	0.000	3979.000
x		4.013	9.221	9.406	4.280	1.196	2.811	0.000	3952.000
σ		0.113	0.570	0.284	2.954	1.203	0.589	0.000	71.800
%RSD		2.819	6.176	3.021	69.020	100.600	20.940	0.000	1.817
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:24	69.156%	1.283	1.217	65.677%	0.016	0.008	0.297	0.182
2	17:22:50	71.538%	1.286	1.275	67.491%	0.004	0.003	0.301	0.244
3	17:23:17	72.809%	1.283	1.315	68.017%	0.012	0.008	0.379	0.168
x		71.168%	1.284	1.269	67.062%	0.011	0.007	0.326	0.198
σ		1.854%	0.002	0.049	1.228%	0.006	0.003	0.046	0.040
%RSD		2.605	0.147	3.900	1.831	55.260	46.400	14.150	20.240
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:22:24	65.248%	0.488	0.139	0.261	120.300	121.000	74.994%	73.466%
2	17:22:50	69.195%	0.474	0.134	0.271	125.100	123.500	75.089%	75.353%
3	17:23:17	67.843%	0.438	0.144	0.309	122.200	122.300	77.466%	75.982%
x		67.429%	0.467	0.139	0.280	122.500	122.200	75.850%	74.934%
σ		2.006%	0.026	0.005	0.025	2.407	1.262	1.401%	1.309%
%RSD		2.975	5.483	3.600	8.946	1.964	1.033	1.847	1.747
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:22:24	0.085	0.071	0.039	0.044	0.039	63.424%		
2	17:22:50	0.071	0.067	0.034	0.015	0.029	65.358%		
3	17:23:17	0.075	0.071	0.057	0.015	0.034	64.472%		
x		0.077	0.070	0.044	0.025	0.034	64.418%		
σ		0.007	0.002	0.012	0.017	0.005	0.968%		
%RSD		9.339	3.467	27.640	67.030	14.110	1.503		

680-110988-G-5-A 4/6/2015 5:26:12 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:39	68.460%	-0.018	1487.000	1441.000	0.000	66880.000	32550.000	32080.000
2	17:27:06	69.004%	-0.020	1462.000	1418.000	0.000	67750.000	33090.000	32600.000
3	17:27:32	70.364%	0.214	1447.000	1399.000	0.000	66920.000	32930.000	32010.000
x		69.276%	0.059	1465.000	1419.000	0.000	67190.000	32850.000	32230.000
σ		0.981%	0.134	19.920	20.980	0.000	493.600	278.300	321.800
%RSD		1.415	229.100	1.359	1.478	0.000	0.735	0.847	0.999
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:39	32.110	5293.000	0.000	6974.000	209800.000	212000.000	70.140%	3.439
2	17:27:06	32.680	5401.000	0.000	7117.000	218800.000	218100.000	70.723%	3.091
3	17:27:32	32.740	5298.000	0.000	7044.000	219100.000	217300.000	71.043%	3.046
x		32.510	5331.000	0.000	7045.000	215900.000	215800.000	70.635%	3.192
σ		0.347	60.660	0.000	71.680	5289.000	3320.000	0.458%	0.215
%RSD		1.068	1.138	0.000	1.017	2.450	1.538	0.649	6.742
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:39	7.995	6.545	2366.000	279.900	1133.000	0.882	2.586	1.307
2	17:27:06	10.430	6.320	2401.000	282.300	1113.000	0.890	1.728	1.436
3	17:27:32	4.241	6.208	2436.000	284.100	1093.000	0.909	2.218	1.526
x		7.555	6.358	2401.000	282.100	1113.000	0.894	2.177	1.423
σ		3.117	0.171	35.400	2.123	20.200	0.014	0.431	0.110
%RSD		41.260	2.694	1.474	0.753	1.815	1.566	19.780	7.724
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:39	1.645	4.910	4.798	14.170	0.413	2.413	0.000	450.700
2	17:27:06	1.803	5.179	4.669	10.910	-0.601	2.672	0.000	465.700
3	17:27:32	2.032	4.931	4.926	12.510	-1.033	2.057	0.000	461.000
x		1.827	5.007	4.798	12.530	-0.407	2.381	0.000	459.100
σ		0.195	0.150	0.129	1.628	0.742	0.309	0.000	7.633
%RSD		10.650	2.991	2.683	12.990	182.500	12.980	0.000	1.663
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:39	69.911%	18.720	18.780	69.462%	0.011	0.004	0.139	0.040
2	17:27:06	71.459%	18.930	19.180	71.232%	-0.003	0.010	0.118	0.066
3	17:27:32	73.433%	18.900	19.150	71.188%	0.013	-0.008	0.096	0.029
x		71.601%	18.850	19.040	70.628%	0.007	0.002	0.118	0.045
σ		1.765%	0.118	0.224	1.010%	0.009	0.009	0.022	0.019
%RSD		2.465	0.627	1.179	1.430	128.200	461.100	18.380	42.020
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:26:39	69.055%	0.178	0.078	0.099	94.710	92.360	76.981%	77.342%
2	17:27:06	69.012%	0.219	0.096	0.129	96.590	96.670	80.798%	79.038%
3	17:27:32	70.882%	0.225	0.076	0.115	94.580	95.050	80.064%	79.220%
x		69.649%	0.207	0.083	0.114	95.290	94.690	79.281%	78.533%
σ		1.068%	0.026	0.011	0.015	1.124	2.179	2.025%	1.036%
%RSD		1.533	12.390	13.500	13.380	1.180	2.301	2.555	1.319
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:26:39	0.005	-0.002	0.087	0.085	0.091	68.792%		
2	17:27:06	0.008	0.002	0.080	0.090	0.087	69.336%		
3	17:27:32	-0.003	0.003	0.097	0.080	0.098	71.022%		
x		0.003	0.001	0.088	0.085	0.092	69.717%		
σ		0.005	0.003	0.009	0.005	0.005	1.162%		
%RSD		158.000	374.200	10.020	5.798	5.909	1.667		

680-110988-F-5-A 4/6/2015 5:30:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:54	68.171%	0.032	1361.000	1318.000	0.000	70860.000	36940.000	36100.000
2	17:31:20	68.878%	0.029	1394.000	1336.000	0.000	72060.000	37630.000	37070.000
3	17:31:47	68.078%	0.081	1424.000	1355.000	0.000	72060.000	37990.000	37170.000
x		68.376%	0.048	1393.000	1336.000	0.000	71660.000	37520.000	36780.000
σ		0.438%	0.029	31.350	18.560	0.000	690.500	534.400	589.700
%RSD		0.640	61.320	2.250	1.389	0.000	0.964	1.424	1.603
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:54	6.769	5290.000	0.000	6674.000	238600.000	237600.000	68.969%	2.187
2	17:31:20	6.881	5404.000	0.000	6747.000	243500.000	244700.000	70.370%	2.478
3	17:31:47	7.138	5445.000	0.000	6827.000	245600.000	245500.000	70.614%	2.413
x		6.929	5380.000	0.000	6749.000	242600.000	242600.000	69.984%	2.359
σ		0.189	80.160	0.000	76.770	3590.000	4344.000	0.888%	0.153
%RSD		2.729	1.490	0.000	1.137	1.480	1.790	1.269	6.477
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:54	5.947	5.780	2081.000	49.150	952.200	0.713	1.793	1.545
2	17:31:20	4.664	5.783	2146.000	47.730	967.600	0.783	1.786	1.691
3	17:31:47	1.611	5.920	2155.000	47.610	960.600	0.798	1.669	1.609
x		4.074	5.828	2127.000	48.170	960.100	0.765	1.749	1.615
σ		2.228	0.080	40.660	0.856	7.680	0.045	0.070	0.073
%RSD		54.680	1.374	1.911	1.778	0.800	5.893	3.973	4.538
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:54	2.287	4.368	4.069	9.008	-0.483	2.413	0.000	495.400
2	17:31:20	2.234	5.106	3.893	7.822	-0.318	2.254	0.000	507.200
3	17:31:47	2.077	4.135	4.825	9.519	-0.855	2.111	0.000	509.600
x		2.199	4.536	4.262	8.783	-0.552	2.259	0.000	504.100
σ		0.109	0.507	0.495	0.870	0.275	0.151	0.000	7.599
%RSD		4.968	11.180	11.620	9.910	49.840	6.684	0.000	1.507
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:54	70.136%	15.970	16.850	67.880%	-0.001	0.012	0.116	0.020
2	17:31:20	70.893%	17.450	17.100	69.400%	-0.006	-0.004	0.078	-0.019
3	17:31:47	72.437%	16.970	16.810	70.103%	-0.008	-0.004	0.143	-0.026
x		71.156%	16.800	16.920	69.128%	-0.005	0.001	0.113	-0.008
σ		1.173%	0.757	0.154	1.136%	0.004	0.009	0.033	0.025
%RSD		1.648	4.509	0.911	1.643	78.260	975.200	28.900	304.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:30:54	67.712%	0.296	0.110	0.115	92.240	93.950	76.398%	76.861%
2	17:31:20	70.311%	0.316	0.119	0.157	95.770	95.600	78.948%	79.110%
3	17:31:47	70.249%	0.387	0.141	0.111	96.400	96.430	78.670%	78.939%
x		69.424%	0.333	0.123	0.128	94.800	95.330	78.005%	78.303%
σ		1.483%	0.048	0.016	0.025	2.243	1.265	1.399%	1.252%
%RSD		2.136	14.350	12.660	19.900	2.366	1.327	1.793	1.599
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:30:54	0.002	0.003	0.032	0.038	0.022	67.625%		
2	17:31:20	0.006	-0.004	0.025	0.023	0.025	69.344%		
3	17:31:47	-0.002	0.001	0.022	0.028	0.028	70.287%		
x		0.002	-0.000	0.027	0.030	0.025	69.085%		
σ		0.004	0.004	0.005	0.008	0.003	1.349%		
%RSD		252.600	2467.000	18.810	26.470	11.840	1.953		

680-110988-G-6-A 4/6/2015 5:34:45 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	17:35:11	66.080%	0.016	1528.000	1476.000	0.000	68610.000	33340.000	32570.000
2	17:35:38	68.340%	0.155	1501.000	1420.000	0.000	67710.000	32960.000	32480.000
3	17:36:04	69.152%	0.271	1452.000	1402.000	0.000	68090.000	33230.000	32650.000
x		67.857%	0.147	1494.000	1433.000	0.000	68140.000	33180.000	32570.000
σ		1.592%	0.128	38.430	38.750	0.000	451.800	194.900	86.940
%RSD		2.346	86.620	2.572	2.705	0.000	0.663	0.587	0.267

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:11	58.330	5237.000	0.000	7159.000	212700.000	214600.000	67.625%	3.306
2	17:35:38	59.130	5195.000	0.000	7326.000	225000.000	221400.000	68.591%	3.764
3	17:36:04	60.950	5480.000	0.000	7258.000	221500.000	219400.000	69.195%	4.394
x		59.470	5304.000	0.000	7248.000	219700.000	218500.000	68.470%	3.821
σ		1.342	153.700	0.000	83.910	6360.000	3474.000	0.792%	0.546
%RSD		2.256	2.897	0.000	1.158	2.894	1.590	1.157	14.300

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:11	3.762	5.021	2456.000	290.000	1098.000	0.841	2.266	1.290
2	17:35:38	7.284	5.275	2493.000	294.800	1117.000	0.863	1.958	1.468
3	17:36:04	5.359	5.087	2489.000	294.400	1113.000	0.871	1.690	1.462
x		5.468	5.128	2480.000	293.100	1109.000	0.858	1.971	1.407
σ		1.764	0.132	20.150	2.634	9.934	0.015	0.288	0.101
%RSD		32.260	2.579	0.813	0.899	0.895	1.788	14.620	7.179

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:11	1.863	9.111	8.813	12.200	-0.676	0.838	0.000	458.600
2	17:35:38	2.242	9.461	9.432	9.730	-1.064	0.997	0.000	468.800
3	17:36:04	2.041	9.164	9.460	12.050	-0.225	1.228	0.000	472.300
x		2.049	9.245	9.235	11.330	-0.655	1.021	0.000	466.600
σ		0.190	0.189	0.366	1.384	0.420	0.196	0.000	7.099
%RSD		9.265	2.043	3.961	12.220	64.160	19.200	0.000	1.521

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:11	68.551%	18.870	19.760	66.222%	0.002	-0.008	0.186	0.049
2	17:35:38	70.114%	19.840	19.450	68.706%	-0.009	-0.012	0.096	0.064
3	17:36:04	71.261%	20.300	19.710	69.350%	0.002	-0.007	0.132	-0.030
x		69.976%	19.670	19.640	68.093%	-0.002	-0.009	0.138	0.028
σ		1.360%	0.727	0.167	1.651%	0.006	0.002	0.046	0.051
%RSD		1.944	3.698	0.851	2.425	338.100	26.550	33.140	181.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:11	67.443%	0.303	0.081	0.108	94.400	93.570	76.451%	75.922%
2	17:35:38	67.633%	0.283	0.076	0.141	96.070	98.230	79.133%	77.895%
3	17:36:04	69.760%	0.217	0.058	0.132	98.060	97.180	79.010%	79.116%
x		68.279%	0.268	0.071	0.127	96.180	96.320	78.198%	77.644%
σ		1.287%	0.045	0.012	0.017	1.830	2.444	1.514%	1.612%
%RSD		1.884	16.770	17.170	13.470	1.902	2.537	1.936	2.076

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:35:11	0.005	-0.004	0.160	0.202	0.177	69.352%
2	17:35:38	0.003	0.002	0.195	0.190	0.191	69.213%
3	17:36:04	0.001	-0.003	0.203	0.157	0.166	72.184%
x		0.003	-0.002	0.186	0.183	0.178	70.250%
σ		0.002	0.003	0.023	0.024	0.013	1.677%
%RSD		70.850	169.200	12.250	12.900	7.158	2.387

680-110988-F-6-A 4/6/2015 5:39:02 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	17:39:29	67.752%	-0.040	1326.000	1262.000	0.000	68300.000	35640.000	34950.000
2	17:39:55	67.337%	0.111	1317.000	1289.000	0.000	69870.000	36620.000	35720.000
3	17:40:22	68.663%	0.250	1325.000	1267.000	0.000	69470.000	36180.000	35560.000
x		67.917%	0.107	1323.000	1273.000	0.000	69220.000	36140.000	35410.000
σ		0.678%	0.145	4.903	14.100	0.000	818.100	491.100	407.000
%RSD		0.998	135.200	0.371	1.108	0.000	1.182	1.359	1.149

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:29	3.217	5115.000	0.000	6444.000	229200.000	231600.000	67.124%	1.624
2	17:39:55	3.365	5193.000	0.000	6540.000	237500.000	235400.000	68.017%	1.977
3	17:40:22	3.155	5153.000	0.000	6500.000	237100.000	237200.000	68.991%	2.132
x		3.246	5154.000	0.000	6495.000	234600.000	234700.000	68.044%	1.911
σ		0.108	39.040	0.000	48.380	4674.000	2859.000	0.934%	0.260
%RSD		3.323	0.758	0.000	0.745	1.992	1.218	1.373	13.620

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:29	4.775	4.752	2038.000	46.530	919.100	0.810	1.949	1.900
2	17:39:55	1.807	5.230	2081.000	46.660	925.300	0.855	1.538	2.212
3	17:40:22	-0.487	5.024	2108.000	47.170	906.500	0.802	2.057	2.004
x		2.032	5.002	2075.000	46.790	917.000	0.822	1.848	2.038
σ		2.638	0.240	35.280	0.335	9.614	0.029	0.274	0.159
%RSD		129.800	4.795	1.700	0.716	1.048	3.496	14.830	7.792

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:29	2.421	3.678	4.138	9.682	0.369	0.774	0.000	475.100
2	17:39:55	2.554	4.300	3.834	10.710	0.391	2.382	0.000	488.400
3	17:40:22	2.620	3.588	3.892	8.495	0.525	1.317	0.000	493.100
x		2.532	3.855	3.954	9.630	0.428	1.491	0.000	485.500
σ		0.101	0.387	0.161	1.110	0.084	0.818	0.000	9.353
%RSD		3.993	10.050	4.076	11.520	19.720	54.870	0.000	1.926

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:29	69.011%	15.980	16.600	66.103%	0.008	-0.006	0.131	0.052
2	17:39:55	70.397%	16.960	16.630	67.408%	0.007	-0.008	0.142	0.002
3	17:40:22	70.557%	16.410	16.810	68.732%	0.002	0.006	0.120	0.026
x		69.988%	16.450	16.680	67.415%	0.006	-0.003	0.131	0.027
σ		0.850%	0.491	0.114	1.315%	0.003	0.008	0.011	0.025
%RSD		1.215	2.984	0.681	1.950	55.860	269.200	8.240	94.820

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:29	67.996%	0.149	0.079	0.122	91.370	91.240	76.154%	75.973%
2	17:39:55	68.802%	0.154	0.072	0.112	94.080	92.520	78.225%	77.336%
3	17:40:22	69.054%	0.271	0.082	0.096	91.290	93.340	79.275%	77.861%
x		68.617%	0.191	0.078	0.110	92.250	92.370	77.885%	77.057%
σ		0.552%	0.069	0.005	0.013	1.590	1.059	1.588%	0.975%
%RSD		0.805	36.160	6.293	11.820	1.723	1.147	2.039	1.265

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:29	0.003	-0.003	0.063	0.049	0.059	68.693%
2	17:39:55	0.002	-0.003	0.045	0.071	0.068	70.286%
3	17:40:22	0.014	-0.001	0.066	0.066	0.071	70.682%
x		0.006	-0.002	0.058	0.062	0.066	69.887%
σ		0.007	0.001	0.011	0.011	0.006	1.053%
%RSD		110.000	53.950	19.010	18.460	9.324	1.507

680-110988-F-6-A SD@5 4/6/2015 5:43:20 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	17:43:46	72.971%	-0.078	258.800	252.600	0.000	13420.000	7174.000	7039.000
2	17:44:12	71.620%	0.160	284.100	263.800	0.000	13930.000	7406.000	7258.000
3	17:44:39	71.161%	0.021	265.700	256.000	0.000	13940.000	7545.000	7335.000
x		71.917%	0.034	269.500	257.500	0.000	13760.000	7375.000	7211.000
σ		0.941%	0.120	13.080	5.712	0.000	296.000	187.300	153.800
%RSD		1.308	349.000	4.853	2.219	0.000	2.151	2.539	2.132
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:46	1.722	949.500	0.000	1274.000	45150.000	44640.000	69.874%	0.487
2	17:44:12	2.029	963.400	0.000	1310.000	46520.000	46180.000	69.613%	0.250
3	17:44:39	1.831	976.900	0.000	1336.000	46660.000	45380.000	69.691%	0.356
x		1.861	963.300	0.000	1307.000	46110.000	45400.000	69.726%	0.364
σ		0.156	13.660	0.000	30.850	837.700	772.600	0.134%	0.119
%RSD		8.376	1.418	0.000	2.360	1.817	1.702	0.192	32.590
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:46	1.795	1.983	409.100	32.260	207.200	0.229	0.302	0.501
2	17:44:12	0.874	2.199	423.300	32.740	196.200	0.159	0.188	0.673
3	17:44:39	-0.341	2.022	420.200	31.480	193.500	0.204	0.176	0.454
x		0.776	2.068	417.600	32.160	199.000	0.197	0.222	0.543
σ		1.072	0.115	7.437	0.635	7.223	0.035	0.070	0.115
%RSD		138.100	5.551	1.781	1.974	3.630	17.960	31.300	21.170
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:46	0.859	1.447	1.313	2.971	-1.099	1.320	0.000	91.270
2	17:44:12	0.729	1.465	1.708	2.330	-0.714	1.119	0.000	93.690
3	17:44:39	0.764	1.505	1.027	2.469	-1.023	0.790	0.000	94.740
x		0.784	1.472	1.349	2.590	-0.945	1.076	0.000	93.230
σ		0.067	0.030	0.342	0.337	0.204	0.268	0.000	1.780
%RSD		8.570	2.023	25.350	13.020	21.580	24.850	0.000	1.909
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:46	68.969%	3.136	2.963	70.477%	-0.003	-0.009	0.067	0.006
2	17:44:12	71.034%	3.437	3.268	70.996%	0.021	0.009	0.031	0.021
3	17:44:39	71.499%	3.190	3.341	72.557%	0.001	-0.005	0.012	0.059
x		70.501%	3.255	3.191	71.343%	0.006	-0.002	0.037	0.029
σ		1.346%	0.161	0.201	1.082%	0.013	0.010	0.028	0.027
%RSD		1.910	4.936	6.288	1.517	210.300	548.400	76.800	94.490
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:46	68.178%	-0.070	0.008	0.019	18.540	18.690	77.190%	76.209%
2	17:44:12	71.925%	-0.092	0.001	0.021	18.650	18.230	77.534%	77.189%
3	17:44:39	71.195%	-0.038	0.020	0.058	19.230	18.730	78.631%	78.090%
x		70.433%	-0.067	0.010	0.033	18.810	18.550	77.785%	77.163%
σ		1.987%	0.027	0.010	0.022	0.370	0.278	0.753%	0.941%
%RSD		2.820	40.580	98.290	67.410	1.970	1.496	0.968	1.219
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:43:46	0.002	-0.002	0.041	0.012	0.023	72.110%		
2	17:44:12	-0.004	-0.005	0.034	0.027	0.037	72.864%		
3	17:44:39	0.006	-0.004	0.053	0.045	0.040	72.392%		
x		0.001	-0.004	0.043	0.028	0.033	72.455%		
σ		0.005	0.002	0.009	0.016	0.009	0.381%		
%RSD		363.800	44.420	21.860	58.580	26.290	0.526		

CCV 1487954 4/6/2015 5:47:38 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:48:04	65.000%	99.710	110.100	112.700	0.000	50550.000	47660.000	47010.000
2	17:48:31	65.286%	102.000	114.800	107.700	0.000	50890.000	48800.000	47890.000
3	17:48:57	66.378%	100.300	110.000	111.300	0.000	51000.000	48760.000	48060.000
x		65.555%	100.691%	111.635%	110.550%	0.000	101.631%	96.818%	95.305%
σ		0.727%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.109	1.191	2.463	2.368	0.000	0.461	1.341	1.187
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:48:04	444.500	5322.000	0.000	50310.000	50360.000	49070.000	64.740%	99.160
2	17:48:31	457.200	5376.000	0.000	50850.000	50590.000	49700.000	65.637%	96.560
3	17:48:57	452.800	5315.000	0.000	51060.000	49700.000	50440.000	66.337%	99.090
x		90.305%	106.755%	0.000	101.482%	100.434%	99.471%	65.571%	98.271%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.801%	n/a
%RSD		1.432	0.630	0.000	0.762	0.915	1.380	1.221	1.509
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:48:04	95.470	95.300	497.400	24420.000	24750.000	94.160	93.850	95.210
2	17:48:31	95.550	96.870	508.200	24900.000	25330.000	95.440	95.100	97.330
3	17:48:57	95.780	98.020	506.200	24950.000	25380.000	95.010	95.540	94.630
x		95.602%	96.729%	100.792%	99.023%	100.621%	94.869%	94.829%	95.721%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.171	1.410	1.143	1.186	1.391	0.682	0.926	1.488
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:48:04	93.610	94.650	96.910	95.930	97.400	95.040	0.000	89.840
2	17:48:31	96.760	95.960	98.880	94.440	96.140	96.150	0.000	91.890
3	17:48:57	96.470	96.970	96.820	95.870	96.740	96.270	0.000	92.340
x		95.612%	95.858%	97.535%	95.415%	96.761%	95.819%	0.000	91.357%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.823	1.216	1.193	0.881	0.656	0.705	0.000	1.461
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:48:04	68.725%	87.190	89.910	64.000%	91.440	91.630	93.790	90.220
2	17:48:31	70.608%	92.620	93.370	65.072%	92.130	92.170	93.500	91.790
3	17:48:57	70.999%	94.880	97.250	66.037%	91.370	92.010	95.590	91.940
x		70.111%	91.564%	93.508%	65.036%	91.649%	91.935%	94.295%	91.317%
σ		1.216%	n/a	n/a	1.019%	n/a	n/a	n/a	n/a
%RSD		1.734	4.316	3.927	1.566	0.459	0.298	1.201	1.045
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:48:04	68.363%	92.440	93.260	92.810	90.220	89.730	76.040%	75.194%
2	17:48:31	69.790%	93.520	94.440	94.980	91.440	91.300	77.132%	77.020%
3	17:48:57	69.527%	96.960	97.600	96.690	92.780	92.960	77.578%	78.245%
x		69.227%	94.308%	95.100%	94.827%	91.478%	91.332%	76.917%	76.820%
σ		0.760%	n/a	n/a	n/a	n/a	n/a	0.791%	1.536%
%RSD		1.097	2.506	2.359	2.047	1.398	1.770	1.029	1.999
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:48:04	90.610	88.700	90.310	89.650	88.740	72.953%		
2	17:48:31	93.370	91.090	93.720	93.360	93.220	72.301%		
3	17:48:57	93.980	91.330	94.640	95.390	94.060	72.339%		
x		92.656%	90.373%	92.890%	92.801%	92.004%	72.531%		
σ		n/a	n/a	n/a	n/a	n/a	0.366%		
%RSD		1.942	1.607	2.454	3.135	3.110	0.504		

CCB7 4/6/2015 5:55:07 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	17:55:33	74.290%	0.349	4.716	5.120	0.000	40.250	18.040	15.130
2	17:56:00	73.735%	0.239	5.938	3.820	0.000	40.530	16.070	16.140
3	17:56:26	76.061%	0.291	3.806	4.416	0.000	39.190	15.590	15.760
x		74.695%	0.293	4.820	4.452	0.000	39.990	16.560	15.670
σ		1.215%	0.055	1.070	0.651	0.000	0.707	1.297	0.509
%RSD		1.626	18.840	22.190	14.620	0.000	1.768	7.828	3.244

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:33	0.539	-2.514	0.000	5.244	45.750	25.120	71.421%	-0.051
2	17:56:00	0.531	-4.020	0.000	0.030	-5.042	25.170	72.330%	-0.004
3	17:56:26	0.688	-5.235	0.000	0.752	7.022	27.310	72.428%	-0.005
x		0.586	-3.923	0.000	2.009	15.910	25.870	72.059%	-0.020
σ		0.089	1.363	0.000	2.825	26.530	1.250	0.555%	0.027
%RSD		15.110	34.740	0.000	140.600	166.800	4.834	0.770	133.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:33	-0.106	0.256	0.258	11.900	7.353	0.042	-0.266	-0.004
2	17:56:00	-0.088	0.181	0.300	10.210	9.909	0.038	-0.275	0.170
3	17:56:26	0.284	0.161	0.282	9.882	6.409	0.033	-0.283	0.051
x		0.030	0.199	0.280	10.660	7.890	0.038	-0.274	0.072
σ		0.220	0.050	0.021	1.084	1.810	0.004	0.009	0.089
%RSD		733.300	25.220	7.491	10.170	22.950	11.810	3.229	123.100

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:33	-0.041	0.116	0.086	0.461	-0.324	1.899	0.000	0.088
2	17:56:00	0.141	0.121	0.026	0.202	-0.286	0.895	0.000	0.071
3	17:56:26	-0.082	0.073	0.007	0.107	-0.188	0.959	0.000	0.085
x		0.006	0.104	0.040	0.257	-0.266	1.251	0.000	0.081
σ		0.118	0.026	0.042	0.183	0.070	0.562	0.000	0.009
%RSD		1887.000	25.280	104.300	71.460	26.400	44.930	0.000	10.930

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:33	72.154%	0.175	0.210	73.815%	0.015	0.010	0.024	0.005
2	17:56:00	72.440%	0.257	0.204	75.273%	0.017	0.023	0.060	0.036
3	17:56:26	73.308%	0.180	0.222	75.534%	0.031	0.012	0.065	0.045
x		72.634%	0.204	0.212	74.874%	0.021	0.015	0.050	0.029
σ		0.601%	0.046	0.009	0.927%	0.009	0.007	0.022	0.021
%RSD		0.827	22.540	4.349	1.238	41.560	47.040	44.730	73.490

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:33	70.982%	0.023	0.043	0.057	0.120	0.151	77.693%	77.453%
2	17:56:00	72.529%	0.020	0.040	0.054	0.114	0.146	80.236%	79.407%
3	17:56:26	73.668%	0.044	0.049	0.056	0.112	0.115	80.715%	79.058%
x		72.393%	0.029	0.044	0.056	0.116	0.138	79.548%	78.639%
σ		1.348%	0.013	0.005	0.001	0.004	0.019	1.624%	1.042%
%RSD		1.863	45.910	11.110	2.415	3.690	14.100	2.042	1.325

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:55:33	0.031	0.013	0.013	0.016	0.017	79.821%
2	17:56:00	0.024	0.013	0.046	0.021	0.026	81.183%
3	17:56:26	0.031	0.016	0.017	0.020	0.023	79.554%
x		0.029	0.014	0.025	0.019	0.022	80.186%
σ		0.004	0.002	0.018	0.003	0.004	0.874%
%RSD		13.650	12.630	71.940	14.390	19.530	1.090

CRI 1519288 4/6/2015 6:03:45 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:11	77.076%	1.334	9.581	7.953	0.000	116.500	103.600	98.900
2	18:04:37	76.143%	0.954	7.007	7.848	0.000	120.900	105.100	104.700
3	18:05:04	76.385%	0.730	8.136	8.294	0.000	120.500	106.100	97.980
x		76.535%	100.610%	164.828%	160.634%	0.000	149.122%	104.961%	100.542%
σ		0.484%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.633	30.370	15.660	2.903	0.000	2.029	1.204	3.645
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:11	27.010	465.600	0.000	91.630	98.700	111.700	72.066%	4.902
2	18:04:37	28.550	476.200	0.000	98.620	137.600	105.200	72.301%	4.909
3	18:05:04	28.440	472.700	0.000	95.770	66.630	112.800	72.092%	5.611
x		93.344%	94.303%	0.000	95.339%	100.983%	109.866%	72.153%	102.815%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.129%	n/a
%RSD		3.066	1.144	0.000	3.683	35.200	3.741	0.179	7.920
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:11	0.659	2.080	4.991	53.720	54.960	0.540	0.662	2.345
2	18:04:37	0.978	2.148	5.214	55.690	54.660	0.548	0.951	2.088
3	18:05:04	0.731	2.059	5.098	53.150	56.570	0.538	0.786	2.124
x		78.944%	104.778%	102.023%	108.371%	110.793%	108.416%	79.943%	109.281%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		21.220	2.228	2.189	2.467	1.854	1.011	18.100	6.372
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:11	2.050	4.793	5.128	1.227	3.494	5.214	0.000	4.780
2	18:04:37	2.257	5.151	5.551	1.077	4.796	5.823	0.000	4.887
3	18:05:04	2.075	5.529	5.323	1.278	5.287	6.860	0.000	4.824
x		106.365%	103.153%	106.680%	119.431%	90.511%	119.306%	0.000	96.602%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.333	7.138	3.972	8.751	20.480	13.950	0.000	1.112
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:11	71.873%	4.378	4.386	73.479%	0.920	0.909	1.059	0.897
2	18:04:37	72.626%	4.762	4.553	74.884%	0.915	0.892	1.042	0.912
3	18:05:04	74.195%	4.452	4.908	75.443%	0.894	0.930	1.082	0.966
x		72.898%	90.618%	92.311%	74.602%	90.961%	91.046%	106.099%	92.494%
σ		1.184%	n/a	n/a	1.012%	n/a	n/a	n/a	n/a
%RSD		1.625	4.501	5.773	1.356	1.556	2.117	1.912	3.922
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:11	71.348%	4.954	1.981	1.970	9.701	9.612	77.841%	76.609%
2	18:04:37	72.418%	5.169	2.085	1.899	10.500	9.784	79.057%	78.157%
3	18:05:04	73.661%	5.412	2.027	1.956	10.000	9.786	80.406%	79.215%
x		72.476%	103.570%	101.557%	97.076%	100.661%	97.272%	79.102%	77.994%
σ		1.158%	n/a	n/a	n/a	n/a	n/a	1.283%	1.311%
%RSD		1.597	4.426	2.580	1.948	3.994	1.029	1.622	1.681
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:04:11	0.930	0.899	0.961	0.907	0.940	79.060%		
2	18:04:37	0.912	0.919	0.923	0.935	0.924	78.817%		
3	18:05:04	0.936	0.931	1.057	0.967	0.956	79.308%		
x		92.608%	91.627%	98.021%	93.610%	93.997%	79.062%		
σ		n/a	n/a	n/a	n/a	n/a	0.245%		
%RSD		1.356	1.770	7.091	3.229	1.666	0.310		

MB 180-137314/1-A 4/6/2015 6:08:02 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	18:08:29	74.977%	0.096	1.798	2.587	0.000	15.420	2.881	0.932
2	18:08:55	76.309%	0.069	2.129	2.265	0.000	14.610	1.309	0.539
3	18:09:22	76.596%	0.068	1.991	2.094	0.000	17.600	2.884	0.878
x		75.961%	0.078	1.973	2.315	0.000	15.880	2.358	0.783
σ		0.864%	0.016	0.167	0.251	0.000	1.546	0.909	0.213
%RSD		1.137	21.060	8.449	10.830	0.000	9.735	38.530	27.170
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:29	10.320	-4.984	0.000	-7.391	-7.403	4.858	72.163%	-0.106
2	18:08:55	10.740	-6.513	0.000	-3.540	17.330	7.956	72.052%	-0.003
3	18:09:22	10.710	-6.611	0.000	-10.380	-29.330	0.489	71.694%	0.128
x		10.590	-6.036	0.000	-7.102	-6.466	4.434	71.970%	0.006
σ		0.235	0.912	0.000	3.427	23.350	3.752	0.245%	0.117
%RSD		2.222	15.110	0.000	48.250	361.100	84.600	0.341	1839.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:29	-0.057	0.061	0.038	1.779	0.257	0.012	-0.303	0.100
2	18:08:55	0.041	0.093	0.057	1.674	0.743	0.008	-0.283	0.050
3	18:09:22	0.079	0.122	0.021	1.082	-0.706	0.016	-0.206	-0.002
x		0.021	0.092	0.039	1.512	0.098	0.012	-0.264	0.049
σ		0.070	0.031	0.018	0.376	0.738	0.004	0.051	0.051
%RSD		332.300	33.320	46.690	24.840	752.300	32.920	19.430	102.700
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:29	0.065	0.254	0.196	0.729	-1.178	1.074	0.000	0.014
2	18:08:55	0.061	0.284	0.216	0.310	-0.485	0.434	0.000	0.010
3	18:09:22	0.177	0.495	0.184	0.296	-0.806	0.611	0.000	0.012
x		0.101	0.344	0.199	0.445	-0.823	0.706	0.000	0.012
σ		0.066	0.131	0.016	0.246	0.347	0.331	0.000	0.002
%RSD		65.290	38.000	8.125	55.310	42.140	46.840	0.000	16.070
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:29	70.927%	0.111	0.102	73.684%	0.005	0.002	0.043	-0.104
2	18:08:55	73.341%	0.106	0.132	75.351%	-0.003	-0.006	0.048	-0.023
3	18:09:22	73.657%	0.045	0.095	75.305%	-0.002	0.001	0.066	0.033
x		72.642%	0.087	0.110	74.780%	-0.000	-0.001	0.052	-0.031
σ		1.494%	0.037	0.020	0.949%	0.004	0.005	0.012	0.068
%RSD		2.056	42.190	17.970	1.269	1939.000	499.700	22.930	218.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:29	71.177%	0.020	0.000	0.007	0.023	0.015	76.841%	77.472%
2	18:08:55	72.152%	0.045	0.004	0.010	0.087	0.065	78.709%	78.556%
3	18:09:22	72.885%	-0.003	0.022	0.004	-0.003	-0.011	80.710%	79.737%
x		72.071%	0.021	0.009	0.007	0.036	0.023	78.753%	78.589%
σ		0.857%	0.024	0.012	0.003	0.047	0.039	1.935%	1.133%
%RSD		1.189	114.400	137.400	44.380	130.300	168.000	2.457	1.442
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:08:29	0.005	0.001	-0.019	-0.010	-0.011	82.327%		
2	18:08:55	0.001	-0.001	0.010	-0.015	-0.006	80.812%		
3	18:09:22	0.013	-0.002	-0.007	0.009	0.001	80.475%		
x		0.007	-0.001	-0.005	-0.006	-0.005	81.204%		
σ		0.006	0.002	0.015	0.012	0.006	0.986%		
%RSD		93.880	212.400	288.200	222.900	118.900	1.215		

PB 180-137194/1-B 4/6/2015 6:12:22 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	18:12:49	75.783%	-0.129	1.901	2.012	0.000	14.440	1.790	1.469
2	18:13:16	74.279%	-0.149	1.963	1.748	0.000	15.260	1.358	1.014
3	18:13:42	73.784%	0.102	2.377	2.353	0.000	16.340	1.732	0.921
x		74.615%	-0.059	2.080	2.038	0.000	15.340	1.627	1.135
σ		1.041%	0.140	0.259	0.303	0.000	0.952	0.234	0.294
%RSD		1.395	237.800	12.460	14.890	0.000	6.206	14.390	25.870
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:49	1.964	-4.923	0.000	-9.984	-6.182	1.099	70.933%	-0.101
2	18:13:16	2.161	-5.198	0.000	-6.915	-11.270	3.907	71.080%	-0.049
3	18:13:42	2.286	-4.931	0.000	-9.903	-16.710	1.656	71.588%	0.103
x		2.137	-5.017	0.000	-8.934	-11.390	2.220	71.200%	-0.016
σ		0.162	0.157	0.000	1.749	5.266	1.487	0.344%	0.106
%RSD		7.590	3.121	0.000	19.580	46.240	66.950	0.483	675.400
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:49	0.335	0.132	0.061	1.355	2.150	0.011	-0.309	0.049
2	18:13:16	0.092	0.081	0.072	0.438	1.775	0.025	-0.217	0.104
3	18:13:42	0.037	0.108	0.033	0.056	-0.288	0.026	-0.182	0.041
x		0.155	0.107	0.056	0.616	1.212	0.020	-0.236	0.065
σ		0.159	0.026	0.020	0.668	1.313	0.009	0.066	0.035
%RSD		102.300	23.940	36.470	108.300	108.300	41.550	27.750	53.420
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:49	0.044	0.273	0.242	0.197	-0.324	0.034	0.000	0.020
2	18:13:16	0.062	0.257	0.273	0.795	-0.114	1.147	0.000	0.001
3	18:13:42	0.116	0.279	0.438	0.952	-0.022	0.908	0.000	0.012
x		0.074	0.270	0.318	0.648	-0.154	0.696	0.000	0.011
σ		0.038	0.011	0.106	0.399	0.155	0.586	0.000	0.009
%RSD		50.810	4.247	33.230	61.490	100.700	84.180	0.000	84.270
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:49	71.289%	0.068	0.044	72.396%	0.005	0.001	0.045	-0.109
2	18:13:16	71.400%	0.072	0.047	73.182%	-0.010	-0.001	-0.001	0.024
3	18:13:42	73.200%	0.051	0.031	73.762%	0.006	-0.021	0.030	0.043
x		71.963%	0.064	0.041	73.113%	0.000	-0.007	0.025	-0.014
σ		1.072%	0.011	0.008	0.686%	0.009	0.012	0.023	0.082
%RSD		1.490	17.780	20.750	0.938	2296.000	181.200	95.440	592.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:12:49	69.946%	-0.069	-0.003	0.001	0.033	0.016	75.781%	76.017%
2	18:13:16	71.081%	-0.064	0.022	0.022	0.038	0.020	76.507%	76.600%
3	18:13:42	72.026%	-0.052	-0.001	0.024	-0.009	0.035	79.716%	78.560%
x		71.018%	-0.062	0.006	0.016	0.021	0.024	77.335%	77.059%
σ		1.042%	0.009	0.014	0.013	0.026	0.010	2.094%	1.333%
%RSD		1.467	13.990	231.000	82.710	126.300	41.340	2.708	1.729
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:12:49	-0.001	-0.004	-0.016	-0.002	-0.008	80.027%		
2	18:13:16	-0.000	0.002	0.003	-0.011	-0.004	79.380%		
3	18:13:42	0.004	-0.002	0.009	-0.010	-0.009	78.623%		
x		0.001	-0.002	-0.001	-0.008	-0.007	79.343%		
σ		0.002	0.003	0.013	0.005	0.002	0.703%		
%RSD		265.000	219.700	942.100	66.530	33.830	0.886		

LCS 180-137314/2-A 4/6/2015 6:16:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	64.084%	46.300	937.800	919.800	0.000	46970.000	43950.000	43260.000
2	18:17:33	63.502%	45.240	955.600	929.900	0.000	47990.000	44920.000	44550.000
3	18:18:00	63.615%	46.660	964.400	945.100	0.000	47730.000	45080.000	44620.000
x		63.734%	46.070	952.600	931.600	0.000	47560.000	44650.000	44140.000
σ		0.309%	0.736	13.550	12.730	0.000	531.400	612.600	761.500
%RSD		0.485	1.598	1.422	1.367	0.000	1.117	1.372	1.725

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	1721.000	9235.000	0.000	47410.000	46600.000	45490.000	61.171%	932.000
2	18:17:33	1783.000	9382.000	0.000	48210.000	47500.000	47570.000	61.950%	974.700
3	18:18:00	1789.000	9367.000	0.000	48310.000	47960.000	46780.000	62.689%	975.800
x		1764.000	9328.000	0.000	47970.000	47350.000	46620.000	61.937%	960.800
σ		37.470	80.970	0.000	489.800	692.300	1046.000	0.759%	24.970
%RSD		2.124	0.868	0.000	1.021	1.462	2.244	1.226	2.599

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	453.000	178.600	464.800	943.300	1099.000	449.800	452.200	224.600
2	18:17:33	467.700	187.600	477.500	983.300	1121.000	463.000	465.500	233.900
3	18:18:00	468.200	185.800	479.300	992.600	1107.000	465.400	461.700	231.800
x		463.000	184.000	473.900	973.100	1109.000	459.400	459.800	230.100
σ		8.593	4.723	7.892	26.200	11.320	8.425	6.848	4.866
%RSD		1.856	2.567	1.665	2.693	1.021	1.834	1.489	2.115

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	227.600	453.100	458.600	35.460	10.310	10.620	0.000	955.200
2	18:17:33	231.800	471.300	467.600	36.570	10.310	10.210	0.000	975.000
3	18:18:00	235.600	471.700	469.500	36.370	12.100	10.890	0.000	945.400
x		231.700	465.400	465.300	36.130	10.910	10.580	0.000	958.500
σ		3.978	10.670	5.812	0.592	1.034	0.342	0.000	15.090
%RSD		1.717	2.292	1.249	1.638	9.484	3.235	0.000	1.574

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	63.416%	846.100	864.100	60.739%	44.520	44.200	48.190	36.540
2	18:17:33	65.438%	901.500	933.700	61.504%	44.720	45.720	48.840	39.860
3	18:18:00	65.321%	934.800	954.000	63.558%	44.920	45.060	50.500	37.340
x		64.725%	894.200	917.200	61.934%	44.720	44.990	49.180	37.910
σ		1.135%	44.780	47.160	1.458%	0.199	0.763	1.191	1.734
%RSD		1.754	5.008	5.141	2.353	0.446	1.696	2.421	4.574

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	60.906%	2050.000	495.500	488.800	1845.000	1875.000	70.595%	69.924%
2	18:17:33	61.302%	2103.000	501.200	500.600	1889.000	1938.000	72.216%	71.699%
3	18:18:00	61.547%	2173.000	513.700	512.600	1954.000	1995.000	71.358%	72.051%
x		61.252%	2109.000	503.500	500.700	1896.000	1936.000	71.389%	71.225%
σ		0.324%	61.710	9.316	11.880	55.100	59.980	0.811%	1.140%
%RSD		0.528	2.927	1.850	2.374	2.906	3.098	1.136	1.600

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:17:07	41.600	40.470	16.530	16.780	16.420	73.379%
2	18:17:33	45.170	44.150	18.470	18.590	18.360	69.511%
3	18:18:00	47.390	45.700	19.350	19.330	19.060	67.105%
x		44.720	43.440	18.110	18.230	17.950	69.998%
σ		2.921	2.690	1.441	1.315	1.370	3.165%
%RSD		6.531	6.193	7.955	7.210	7.633	4.522

LCSD 180-137314/3-A 4/6/2015 6:21:00 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:27	64.547%	45.040	903.500	894.000	0.000	45780.000	42790.000	42250.000
2	18:21:53	63.271%	47.930	928.500	927.300	0.000	46820.000	44000.000	43370.000
3	18:22:20	63.600%	46.180	920.800	918.400	0.000	46660.000	43820.000	43350.000
x		63.806%	46.380	917.600	913.200	0.000	46420.000	43540.000	42990.000
σ		0.662%	1.453	12.810	17.260	0.000	560.300	657.100	638.500
%RSD		1.038	3.132	1.396	1.890	0.000	1.207	1.509	1.485
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:27	1671.000	8872.000	0.000	46520.000	45390.000	44890.000	61.328%	921.700
2	18:21:53	1716.000	9111.000	0.000	47230.000	46160.000	45720.000	61.379%	934.900
3	18:22:20	1730.000	9040.000	0.000	47260.000	46770.000	45570.000	61.090%	951.300
x		1706.000	9007.000	0.000	47000.000	46110.000	45390.000	61.266%	936.000
σ		30.850	122.900	0.000	419.200	691.100	443.700	0.154%	14.860
%RSD		1.809	1.364	0.000	0.892	1.499	0.977	0.252	1.588
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:27	442.600	175.900	457.800	943.900	1078.000	447.700	442.300	223.200
2	18:21:53	458.900	182.700	471.900	982.100	1089.000	459.000	455.900	229.000
3	18:22:20	461.900	183.900	477.200	997.800	1136.000	464.500	455.300	230.800
x		454.400	180.900	469.000	974.600	1101.000	457.100	451.200	227.700
σ		10.410	4.296	10.040	27.680	30.550	8.549	7.661	3.968
%RSD		2.292	2.376	2.141	2.841	2.775	1.870	1.698	1.743
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:27	227.000	455.400	457.000	36.770	9.866	12.510	0.000	955.800
2	18:21:53	230.900	462.100	468.600	36.710	9.947	11.260	0.000	981.300
3	18:22:20	232.300	462.200	468.000	37.950	9.826	13.130	0.000	1002.000
x		230.100	459.900	464.500	37.140	9.880	12.300	0.000	979.800
σ		2.718	3.929	6.543	0.699	0.062	0.957	0.000	23.220
%RSD		1.181	0.854	1.409	1.881	0.623	7.780	0.000	2.370
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:27	61.204%	841.600	859.700	60.333%	43.170	43.700	45.100	38.040
2	18:21:53	61.521%	900.400	911.000	61.801%	43.910	44.180	47.000	36.710
3	18:22:20	61.695%	944.000	947.700	61.208%	43.130	43.710	47.120	36.110
x		61.473%	895.300	906.100	61.114%	43.400	43.860	46.410	36.950
σ		0.249%	51.350	44.220	0.738%	0.439	0.272	1.136	0.985
%RSD		0.405	5.736	4.880	1.208	1.010	0.619	2.449	2.665
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:21:27	60.160%	1986.000	478.900	479.000	1824.000	1868.000	69.267%	69.079%
2	18:21:53	60.351%	2078.000	492.800	492.300	1886.000	1912.000	69.678%	69.454%
3	18:22:20	62.515%	2041.000	481.800	482.900	1865.000	1896.000	68.775%	70.396%
x		61.009%	2035.000	484.500	484.700	1858.000	1892.000	69.240%	69.643%
σ		1.308%	46.360	7.307	6.828	31.560	22.330	0.452%	0.678%
%RSD		2.144	2.278	1.508	1.409	1.699	1.180	0.653	0.974
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:21:27	43.090	41.840	17.080	17.090	17.050	69.609%		
2	18:21:53	45.410	43.710	18.570	18.500	18.280	67.237%		
3	18:22:20	45.530	44.580	18.920	18.750	18.570	66.498%		
x		44.680	43.380	18.190	18.110	17.970	67.781%		
σ		1.376	1.401	0.976	0.896	0.807	1.625%		
%RSD		3.081	3.229	5.367	4.948	4.493	2.398		

180-42570-A-1-A @10 4/6/2015 6:25:21 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	18:25:47	69.498%	0.124	40.540	36.820	0.000	164600.000	252.000	246.800
2	18:26:14	68.651%	0.104	37.320	37.550	0.000	168000.000	264.100	257.500
3	18:26:41	70.822%	0.283	30.860	34.730	0.000	166800.000	255.200	252.800
x		69.657%	0.171	36.240	36.370	0.000	166500.000	257.100	252.400
σ		1.094%	0.098	4.926	1.464	0.000	1722.000	6.242	5.370
%RSD		1.571	57.620	13.590	4.024	0.000	1.034	2.428	2.127
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:47	20.250	245.200	0.000	373.300	2844.000	2618.000	68.421%	1.101
2	18:26:14	20.850	252.000	0.000	394.300	2986.000	2741.000	68.434%	1.153
3	18:26:41	21.430	249.200	0.000	385.000	2865.000	2761.000	68.903%	0.847
x		20.840	248.800	0.000	384.200	2898.000	2707.000	68.586%	1.034
σ		0.590	3.418	0.000	10.550	76.580	77.620	0.274%	0.163
%RSD		2.830	1.374	0.000	2.747	2.642	2.868	0.400	15.810
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:47	0.322	3.506	9.125	256.300	242.800	0.174	2.376	3.128
2	18:26:14	0.447	3.727	9.408	263.800	253.600	0.208	2.731	3.344
3	18:26:41	0.137	3.428	9.216	263.000	256.200	0.172	2.346	3.393
x		0.302	3.553	9.250	261.000	250.900	0.185	2.484	3.289
σ		0.156	0.155	0.145	4.070	7.121	0.020	0.214	0.141
%RSD		51.600	4.362	1.562	1.559	2.839	10.880	8.606	4.283
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:47	2.250	10.720	10.480	6.748	11.540	14.990	0.000	9.470
2	18:26:14	2.274	10.510	10.530	6.653	9.993	14.630	0.000	9.541
3	18:26:41	2.304	10.900	11.120	6.512	11.150	14.740	0.000	9.453
x		2.276	10.710	10.710	6.638	10.890	14.790	0.000	9.488
σ		0.027	0.194	0.357	0.118	0.804	0.185	0.000	0.047
%RSD		1.188	1.811	3.330	1.783	7.381	1.248	0.000	0.492
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:47	68.127%	8.669	8.733	67.249%	0.022	-0.003	0.171	0.034
2	18:26:14	70.435%	7.737	7.559	69.213%	0.002	-0.020	0.053	-0.020
3	18:26:41	70.384%	6.685	6.509	69.474%	0.011	-0.003	0.092	-0.016
x		69.648%	7.697	7.600	68.645%	0.012	-0.009	0.105	-0.001
σ		1.318%	0.993	1.112	1.216%	0.010	0.010	0.060	0.030
%RSD		1.893	12.900	14.640	1.772	86.910	116.000	57.050	3914.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:25:47	67.620%	4.250	0.743	0.698	1.753	1.881	75.630%	75.853%
2	18:26:14	69.422%	3.991	0.761	0.729	1.583	1.888	77.610%	77.504%
3	18:26:41	70.036%	3.482	0.723	0.759	1.894	1.763	79.577%	78.180%
x		69.026%	3.908	0.742	0.729	1.743	1.844	77.606%	77.179%
σ		1.256%	0.391	0.019	0.030	0.156	0.070	1.973%	1.197%
%RSD		1.819	9.999	2.539	4.173	8.921	3.805	2.543	1.551
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:25:47	0.414	0.372	6.811	6.319	6.464	75.463%		
2	18:26:14	0.464	0.381	7.142	6.850	6.801	75.698%		
3	18:26:41	0.441	0.383	7.437	6.957	6.967	75.399%		
x		0.440	0.379	7.130	6.708	6.744	75.520%		
σ		0.025	0.006	0.313	0.342	0.256	0.158%		
%RSD		5.662	1.509	4.394	5.095	3.800	0.209		

180-42570-B-1-B @10 4/6/2015 6:29:41 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	18:30:07	67.702%	0.208	34.520	33.850	0.000	166100.000	163.500	165.000
2	18:30:34	69.008%	-0.068	34.300	34.100	0.000	166900.000	167.400	164.800
3	18:31:01	68.149%	0.106	35.140	34.900	0.000	169400.000	161.300	162.400
x		68.286%	0.082	34.650	34.280	0.000	167500.000	164.100	164.000
σ		0.664%	0.140	0.431	0.551	0.000	1696.000	3.092	1.405
%RSD		0.972	170.000	1.245	1.607	0.000	1.013	1.885	0.857
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:07	10.300	218.900	0.000	382.600	2662.000	2560.000	68.414%	0.317
2	18:30:34	10.650	219.400	0.000	383.400	2873.000	2582.000	68.810%	0.393
3	18:31:01	10.920	223.600	0.000	368.700	2665.000	2603.000	68.856%	0.258
x		10.620	220.600	0.000	378.200	2734.000	2582.000	68.693%	0.322
σ		0.309	2.563	0.000	8.233	120.800	21.430	0.243%	0.068
%RSD		2.908	1.162	0.000	2.177	4.418	0.830	0.354	21.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:07	0.415	0.742	2.155	135.300	126.300	0.187	1.732	3.312
2	18:30:34	-0.270	0.802	2.242	138.600	137.900	0.152	1.822	3.746
3	18:31:01	0.236	0.748	2.271	138.600	129.500	0.158	2.149	3.896
x		0.127	0.764	2.223	137.500	131.200	0.166	1.901	3.651
σ		0.355	0.033	0.060	1.890	6.038	0.019	0.219	0.303
%RSD		278.900	4.324	2.710	1.374	4.601	11.230	11.540	8.308
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:07	2.516	1.735	1.678	6.025	1.079	6.164	0.000	9.242
2	18:30:34	2.460	2.071	1.778	6.141	-0.136	7.187	0.000	9.259
3	18:31:01	2.513	1.652	1.630	6.905	-0.061	6.203	0.000	9.379
x		2.497	1.819	1.695	6.357	0.294	6.518	0.000	9.294
σ		0.031	0.222	0.076	0.478	0.681	0.579	0.000	0.075
%RSD		1.259	12.210	4.454	7.517	231.600	8.888	0.000	0.804
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:07	68.455%	2.023	2.080	68.142%	0.011	-0.003	0.076	0.009
2	18:30:34	69.378%	2.215	2.063	68.314%	-0.003	-0.012	0.048	-0.072
3	18:31:01	70.045%	2.254	2.048	68.894%	0.010	-0.011	0.040	-0.056
x		69.293%	2.164	2.064	68.450%	0.006	-0.009	0.055	-0.040
σ		0.798%	0.124	0.016	0.394%	0.007	0.005	0.019	0.042
%RSD		1.152	5.727	0.777	0.575	122.800	54.400	34.820	107.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:07	67.384%	1.059	0.425	0.487	1.507	1.660	73.886%	75.686%
2	18:30:34	68.892%	1.186	0.458	0.474	1.582	1.422	76.961%	77.754%
3	18:31:01	69.553%	1.134	0.501	0.503	1.445	1.538	76.712%	77.026%
x		68.610%	1.126	0.461	0.488	1.511	1.540	75.853%	76.822%
σ		1.112%	0.064	0.038	0.015	0.068	0.119	1.708%	1.049%
%RSD		1.621	5.663	8.172	3.050	4.529	7.746	2.252	1.366
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:30:07	0.153	0.163	0.488	0.443	0.431	76.391%		
2	18:30:34	0.153	0.173	0.505	0.451	0.458	75.629%		
3	18:31:01	0.181	0.175	0.511	0.470	0.474	74.266%		
x		0.162	0.170	0.501	0.455	0.455	75.429%		
σ		0.016	0.007	0.012	0.014	0.022	1.077%		
%RSD		10.030	3.920	2.457	3.025	4.750	1.427		

180-42570-A-2-A @10 4/6/2015 6:33:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:25	68.473%	0.203	23.250	24.090	0.000	116300.000	360.200	358.300
2	18:34:52	68.683%	0.128	24.710	23.110	0.000	117500.000	378.000	363.200
3	18:35:18	68.331%	0.057	25.400	22.800	0.000	118100.000	374.600	368.800
x		68.496%	0.129	24.460	23.330	0.000	117300.000	371.000	363.400
σ		0.177%	0.073	1.098	0.675	0.000	892.300	9.481	5.259
%RSD		0.258	56.730	4.490	2.894	0.000	0.761	2.556	1.447
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:25	14.160	189.400	0.000	294.900	2647.000	2449.000	67.871%	0.486
2	18:34:52	13.940	191.200	0.000	298.900	2790.000	2517.000	68.642%	0.179
3	18:35:18	14.850	190.800	0.000	307.000	2851.000	2500.000	68.552%	0.368
x		14.320	190.500	0.000	300.300	2763.000	2489.000	68.355%	0.344
σ		0.475	0.950	0.000	6.135	104.500	35.330	0.422%	0.155
%RSD		3.315	0.499	0.000	2.043	3.784	1.420	0.617	44.930
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:25	-0.269	0.305	26.680	585.900	564.500	0.347	2.526	2.479
2	18:34:52	-0.112	0.267	27.010	602.000	579.400	0.392	2.757	2.583
3	18:35:18	0.052	0.346	27.380	606.400	583.300	0.308	2.342	2.862
x		-0.110	0.306	27.020	598.100	575.700	0.349	2.542	2.642
σ		0.161	0.039	0.350	10.790	9.936	0.042	0.208	0.198
%RSD		146.100	12.890	1.295	1.804	1.726	12.060	8.194	7.496
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:25	1.906	3.943	3.811	1.257	0.070	4.595	0.000	9.531
2	18:34:52	1.914	3.992	3.877	1.313	-0.549	4.326	0.000	9.777
3	18:35:18	1.984	4.197	3.877	0.746	-0.348	5.105	0.000	9.810
x		1.935	4.044	3.855	1.105	-0.276	4.675	0.000	9.706
σ		0.043	0.135	0.038	0.312	0.316	0.396	0.000	0.152
%RSD		2.233	3.338	0.994	28.240	114.600	8.464	0.000	1.571
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:25	68.966%	0.494	0.533	67.651%	0.008	-0.001	0.043	0.025
2	18:34:52	69.956%	0.538	0.539	69.434%	-0.006	-0.012	0.093	0.017
3	18:35:18	70.296%	0.678	0.569	69.858%	-0.005	0.005	0.112	0.009
x		69.739%	0.570	0.547	68.981%	-0.001	-0.003	0.083	0.017
σ		0.691%	0.096	0.019	1.171%	0.008	0.009	0.036	0.008
%RSD		0.991	16.800	3.499	1.698	758.200	323.000	43.360	46.230
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:25	67.273%	0.531	0.130	0.151	2.153	2.044	75.410%	74.987%
2	18:34:52	68.827%	0.556	0.131	0.133	2.085	2.112	77.287%	76.667%
3	18:35:18	69.839%	0.437	0.121	0.110	2.175	2.112	78.365%	77.631%
x		68.646%	0.508	0.127	0.131	2.137	2.089	77.021%	76.428%
σ		1.292%	0.063	0.005	0.021	0.047	0.039	1.495%	1.338%
%RSD		1.883	12.330	4.179	15.630	2.190	1.873	1.941	1.750
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:34:25	0.029	0.022	0.101	0.092	0.089	77.450%		
2	18:34:52	0.028	0.019	0.118	0.077	0.101	76.703%		
3	18:35:18	0.032	0.024	0.103	0.082	0.097	75.544%		
x		0.030	0.022	0.108	0.084	0.096	76.566%		
σ		0.002	0.003	0.009	0.008	0.006	0.961%		
%RSD		6.466	12.870	8.555	9.606	6.280	1.255		

CCV 1487954 4/6/2015 6:38:16 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	66.627%	96.580	101.800	100.700	0.000	49480.000	47510.000	46850.000
2	18:39:09	67.471%	97.640	100.300	103.400	0.000	50340.000	48320.000	47780.000
3	18:39:35	66.372%	101.100	112.600	109.200	0.000	50710.000	49260.000	48450.000
x		66.823%	98.441%	104.921%	104.434%	0.000	100.351%	96.732%	95.383%
σ		0.575%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.861	2.399	6.406	4.186	0.000	1.263	1.811	1.684

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	441.100	5211.000	0.000	49840.000	48270.000	48030.000	65.272%	98.850
2	18:39:09	456.700	5261.000	0.000	49360.000	49430.000	48810.000	66.538%	96.810
3	18:39:35	460.800	5342.000	0.000	51120.000	50230.000	49680.000	66.623%	98.690
x		90.572%	105.426%	0.000	100.214%	98.618%	97.683%	66.144%	98.116%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.756%	n/a
%RSD		2.285	1.252	0.000	1.819	2.002	1.694	1.143	1.156

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	92.250	92.580	494.500	24370.000	24680.000	94.270	95.530	94.430
2	18:39:09	93.990	94.900	510.100	25070.000	25520.000	96.180	96.260	96.320
3	18:39:35	95.380	96.450	511.300	25220.000	25650.000	97.080	97.100	98.380
x		93.873%	94.645%	101.065%	99.545%	101.141%	95.845%	96.298%	96.379%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.670	2.055	1.858	1.826	2.077	1.495	0.819	2.049

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	96.250	96.820	95.850	97.730	97.520	97.650	0.000	94.380
2	18:39:09	97.220	97.010	97.000	98.930	100.600	100.200	0.000	97.950
3	18:39:35	97.510	100.900	99.880	99.900	103.700	101.500	0.000	97.150
x		96.991%	98.230%	97.578%	98.855%	100.591%	99.781%	0.000	96.492%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.681	2.325	2.126	1.098	3.058	1.970	0.000	1.943

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	65.941%	91.750	90.940	64.420%	92.190	92.630	93.800	92.610
2	18:39:09	66.925%	96.420	96.110	64.942%	92.880	94.290	97.370	94.820
3	18:39:35	67.775%	97.950	97.510	65.631%	91.930	94.240	96.830	95.050
x		66.880%	95.375%	94.851%	64.998%	92.335%	93.722%	95.997%	94.159%
σ		0.918%	n/a	n/a	0.607%	n/a	n/a	n/a	n/a
%RSD		1.372	3.385	3.648	0.934	0.533	1.008	2.006	1.433

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	64.810%	97.190	99.080	98.390	95.550	94.890	72.199%	72.651%
2	18:39:09	66.633%	98.790	101.800	100.100	96.320	96.920	73.352%	74.134%
3	18:39:35	66.405%	102.400	102.200	102.000	97.870	98.050	74.747%	74.774%
x		65.949%	99.468%	101.023%	100.149%	96.580%	96.618%	73.433%	73.853%
σ		0.993%	n/a	n/a	n/a	n/a	n/a	1.276%	1.089%
%RSD		1.506	2.700	1.681	1.795	1.225	1.659	1.737	1.475

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:43	90.370	89.440	89.170	88.770	87.940	73.622%
2	18:39:09	92.590	91.380	92.850	93.150	92.370	73.265%
3	18:39:35	95.650	92.780	96.040	95.670	95.110	72.017%
x		92.867%	91.199%	92.688%	92.531%	91.809%	72.968%
σ		n/a	n/a	n/a	n/a	n/a	0.843%
%RSD		2.855	1.839	3.708	3.776	3.941	1.155

CCB8 4/6/2015 6:45:45 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:11	72.570%	0.132	0.838	2.035	0.000	74.880	13.710	14.570
2	18:46:38	71.830%	0.205	2.211	1.357	0.000	79.010	14.780	14.090
3	18:47:04	71.560%	0.043	1.818	1.919	0.000	74.780	16.680	15.990
x		71.987%	0.127	1.622	1.770	0.000	76.230	15.060	14.880
σ		0.523%	0.081	0.707	0.362	0.000	2.411	1.502	0.991
%RSD		0.726	64.260	43.600	20.470	0.000	3.163	9.976	6.660
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:11	0.782	-3.508	0.000	5.930	13.890	18.750	69.167%	-0.146
2	18:46:38	0.807	-4.426	0.000	3.576	-12.750	21.010	70.130%	0.088
3	18:47:04	0.903	-3.065	0.000	5.827	38.730	28.300	69.747%	0.143
x		0.831	-3.666	0.000	5.111	13.290	22.690	69.681%	0.028
σ		0.064	0.694	0.000	1.330	25.740	4.992	0.485%	0.154
%RSD		7.722	18.930	0.000	26.030	193.800	22.000	0.695	544.500
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:11	0.007	0.118	0.278	10.250	5.913	0.038	-0.179	0.064
2	18:46:38	0.020	0.103	0.235	8.973	6.251	0.034	-0.197	0.065
3	18:47:04	0.046	0.108	0.246	8.385	6.383	0.037	-0.152	0.038
x		0.024	0.110	0.253	9.202	6.182	0.036	-0.176	0.056
σ		0.020	0.007	0.023	0.952	0.242	0.002	0.023	0.016
%RSD		81.880	6.844	8.963	10.350	3.920	5.718	13.130	28.120
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:11	0.025	0.207	0.160	0.507	-0.025	1.311	0.000	0.101
2	18:46:38	0.067	0.195	0.081	0.514	-0.372	1.418	0.000	0.094
3	18:47:04	-0.075	0.217	0.262	0.459	-1.305	1.029	0.000	0.080
x		0.006	0.206	0.168	0.493	-0.567	1.253	0.000	0.092
σ		0.073	0.011	0.091	0.030	0.662	0.201	0.000	0.011
%RSD		1259.000	5.186	54.140	6.133	116.700	16.040	0.000	11.850
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:11	70.048%	0.267	0.364	70.770%	0.008	0.012	0.086	0.006
2	18:46:38	70.034%	0.323	0.252	72.326%	0.033	0.011	0.046	-0.018
3	18:47:04	71.055%	0.353	0.329	72.515%	0.021	0.003	0.071	0.019
x		70.379%	0.314	0.315	71.870%	0.021	0.009	0.067	0.002
σ		0.585%	0.043	0.057	0.958%	0.013	0.005	0.020	0.019
%RSD		0.832	13.780	18.200	1.333	62.350	57.830	30.040	836.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:46:11	69.098%	0.319	0.044	0.048	0.194	0.077	76.640%	75.704%
2	18:46:38	69.048%	0.257	0.050	0.050	0.123	0.222	78.162%	77.174%
3	18:47:04	70.052%	0.260	0.031	0.004	0.046	0.127	78.047%	77.352%
x		69.399%	0.278	0.042	0.034	0.121	0.142	77.616%	76.743%
σ		0.566%	0.035	0.010	0.026	0.074	0.074	0.847%	0.904%
%RSD		0.815	12.550	22.910	76.130	61.160	51.950	1.092	1.179
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:46:11	0.016	0.016	-0.022	0.003	-0.005	79.011%		
2	18:46:38	0.026	0.015	-0.017	0.009	-0.003	78.872%		
3	18:47:04	0.009	0.020	-0.029	-0.010	-0.015	77.962%		
x		0.017	0.017	-0.023	0.001	-0.008	78.615%		
σ		0.009	0.003	0.006	0.010	0.007	0.570%		
%RSD		50.530	16.650	27.260	1249.000	83.060	0.725		

180-42570-B-2-B @10 4/6/2015 6:50:03 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	18:50:30	68.840%	0.128	21.330	22.620	0.000	114800.000	363.800	354.900
2	18:50:56	68.378%	0.228	24.990	23.390	0.000	117300.000	377.500	374.000
3	18:51:22	69.459%	-0.093	25.300	22.330	0.000	117900.000	383.000	363.400
x		68.892%	0.088	23.870	22.780	0.000	116700.000	374.800	364.100
σ		0.543%	0.165	2.212	0.550	0.000	1644.000	9.918	9.577
%RSD		0.788	187.500	9.265	2.413	0.000	1.409	2.646	2.630
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:30	12.140	189.700	0.000	307.900	2833.000	2453.000	67.096%	0.193
2	18:50:56	13.030	194.100	0.000	311.300	2757.000	2560.000	67.838%	-0.032
3	18:51:22	12.960	191.600	0.000	310.500	2671.000	2552.000	68.237%	0.210
x		12.710	191.800	0.000	309.900	2754.000	2521.000	67.724%	0.124
σ		0.496	2.167	0.000	1.806	81.380	59.780	0.579%	0.135
%RSD		3.906	1.130	0.000	0.583	2.955	2.371	0.855	109.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:30	0.036	0.147	26.820	82.090	90.980	0.321	2.391	1.566
2	18:50:56	-0.050	0.066	26.810	84.050	94.110	0.363	2.331	2.625
3	18:51:22	-0.200	0.253	27.000	82.460	92.950	0.326	2.442	2.903
x		-0.071	0.155	26.880	82.870	92.680	0.336	2.388	2.365
σ		0.120	0.094	0.107	1.042	1.586	0.023	0.055	0.706
%RSD		167.900	60.560	0.398	1.257	1.711	6.777	2.318	29.840
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:30	0.554	5.310	5.288	1.593	0.383	3.970	0.000	9.657
2	18:50:56	0.680	5.539	5.331	1.201	0.731	4.502	0.000	9.916
3	18:51:22	0.524	5.444	5.669	0.972	0.280	5.626	0.000	10.020
x		0.586	5.431	5.429	1.255	0.465	4.699	0.000	9.865
σ		0.083	0.115	0.209	0.314	0.236	0.846	0.000	0.188
%RSD		14.170	2.119	3.841	25.050	50.820	17.990	0.000	1.902
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:30	67.440%	0.183	0.200	65.205%	-0.003	0.010	0.065	0.016
2	18:50:56	67.950%	0.219	0.203	67.462%	-0.005	-0.015	0.057	0.008
3	18:51:22	69.070%	0.226	0.222	67.982%	0.023	0.006	0.028	0.004
x		68.153%	0.209	0.208	66.883%	0.005	0.001	0.050	0.009
σ		0.834%	0.023	0.012	1.476%	0.016	0.013	0.020	0.006
%RSD		1.223	10.920	5.800	2.207	307.500	2306.000	39.140	63.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:50:30	66.473%	0.152	0.092	0.083	2.303	2.070	74.808%	73.309%
2	18:50:56	66.064%	0.146	0.091	0.097	2.112	2.086	76.124%	75.656%
3	18:51:22	68.508%	0.213	0.101	0.085	2.253	2.008	76.025%	76.271%
x		67.015%	0.170	0.095	0.088	2.223	2.055	75.652%	75.078%
σ		1.309%	0.037	0.006	0.008	0.099	0.042	0.733%	1.563%
%RSD		1.954	21.950	5.931	8.571	4.448	2.023	0.969	2.082
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:50:30	0.015	0.014	0.006	0.023	0.019	76.687%		
2	18:50:56	0.019	0.020	0.013	0.019	0.014	74.720%		
3	18:51:22	0.024	0.017	0.028	0.017	0.026	75.634%		
x		0.019	0.017	0.016	0.020	0.020	75.680%		
σ		0.004	0.003	0.011	0.003	0.006	0.984%		
%RSD		22.970	18.510	71.190	15.710	30.460	1.301		

180-42570-A-3-A @10 4/6/2015 6:54:18 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	18:54:44	68.518%	0.252	23.550	23.080	0.000	140800.000	345.100	342.400
2	18:55:11	66.387%	0.065	23.370	24.480	0.000	145900.000	369.700	370.800
3	18:55:37	69.327%	-0.020	22.400	23.350	0.000	144000.000	372.400	357.500
x		68.077%	0.099	23.110	23.640	0.000	143600.000	362.400	356.900
σ		1.519%	0.139	0.619	0.743	0.000	2549.000	15.050	14.230
%RSD		2.231	140.600	2.678	3.143	0.000	1.776	4.154	3.988
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:44	284.800	240.500	0.000	353.900	3161.000	3003.000	67.053%	0.442
2	18:55:11	300.100	246.700	0.000	360.700	3415.000	3172.000	67.946%	0.376
3	18:55:37	293.200	246.900	0.000	359.500	3303.000	3181.000	68.323%	0.804
x		292.700	244.700	0.000	358.000	3293.000	3119.000	67.774%	0.540
σ		7.660	3.661	0.000	3.659	127.400	100.400	0.652%	0.231
%RSD		2.617	1.496	0.000	1.022	3.870	3.221	0.962	42.650
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:44	0.117	0.341	17.290	294.500	304.200	0.374	1.446	2.392
2	18:55:11	-0.179	0.228	17.840	303.700	308.200	0.309	1.086	3.073
3	18:55:37	-0.339	0.369	17.870	304.300	311.200	0.386	1.258	3.183
x		-0.134	0.313	17.670	300.800	307.900	0.356	1.263	2.883
σ		0.231	0.075	0.326	5.498	3.526	0.041	0.180	0.429
%RSD		172.900	23.970	1.845	1.828	1.145	11.630	14.260	14.870
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:44	0.461	3.582	3.357	2.497	28.220	34.540	0.000	9.031
2	18:55:11	0.453	3.806	3.708	1.437	31.870	34.930	0.000	9.233
3	18:55:37	0.470	3.857	3.758	2.489	30.890	35.980	0.000	9.341
x		0.461	3.748	3.608	2.141	30.320	35.150	0.000	9.201
σ		0.009	0.147	0.218	0.610	1.889	0.746	0.000	0.157
%RSD		1.904	3.911	6.055	28.480	6.230	2.121	0.000	1.711
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:44	66.985%	0.270	0.222	66.618%	0.007	-0.003	0.030	-0.066
2	18:55:11	68.928%	0.278	0.217	67.479%	-0.009	-0.003	0.048	-0.015
3	18:55:37	69.796%	0.252	0.161	68.925%	0.005	-0.004	0.042	-0.018
x		68.570%	0.267	0.200	67.674%	0.001	-0.003	0.040	-0.033
σ		1.439%	0.013	0.034	1.166%	0.009	0.001	0.009	0.029
%RSD		2.099	4.911	17.060	1.723	746.000	17.360	23.010	87.250
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:44	66.346%	0.076	0.087	0.092	0.720	0.798	73.162%	74.115%
2	18:55:11	68.579%	0.138	0.080	0.109	0.727	0.749	76.585%	76.228%
3	18:55:37	67.822%	0.164	0.096	0.103	0.745	0.872	77.253%	77.397%
x		67.582%	0.126	0.088	0.101	0.730	0.807	75.667%	75.913%
σ		1.135%	0.046	0.008	0.009	0.013	0.062	2.195%	1.663%
%RSD		1.680	36.110	9.230	8.838	1.764	7.715	2.900	2.191
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:54:44	0.013	0.005	0.086	0.093	0.099	76.564%		
2	18:55:11	0.014	0.007	0.116	0.095	0.103	75.981%		
3	18:55:37	0.009	0.011	0.096	0.111	0.110	75.519%		
x		0.012	0.007	0.099	0.100	0.104	76.021%		
σ		0.003	0.003	0.015	0.010	0.005	0.524%		
%RSD		23.440	38.800	15.360	9.668	5.166	0.689		

180-42570-B-3-B @10 4/6/2015 6:58:33 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	18:58:59	68.354%	0.057	25.420	22.930	0.000	135900.000	353.700	339.600
2	18:59:25	68.113%	0.279	20.350	23.350	0.000	140000.000	363.100	351.300
3	18:59:52	68.016%	0.082	21.930	21.430	0.000	140000.000	356.200	358.700
x		68.161%	0.139	22.570	22.570	0.000	138700.000	357.700	349.800
σ		0.174%	0.122	2.590	1.007	0.000	2378.000	4.820	9.659
%RSD		0.255	87.330	11.480	4.463	0.000	1.715	1.348	2.761

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:59	276.100	233.100	0.000	315.100	3194.000	2937.000	68.068%	0.375
2	18:59:25	287.900	240.400	0.000	336.800	3306.000	3001.000	68.533%	0.423
3	18:59:52	290.100	236.400	0.000	341.400	3395.000	3022.000	69.079%	0.336
x		284.700	236.600	0.000	331.100	3298.000	2986.000	68.560%	0.378
σ		7.522	3.653	0.000	14.050	100.800	43.960	0.506%	0.043
%RSD		2.642	1.544	0.000	4.244	3.057	1.472	0.738	11.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:59	0.198	0.275	16.210	238.600	260.700	0.267	1.070	2.415
2	18:59:25	0.364	0.255	17.370	249.200	263.900	0.296	1.088	2.781
3	18:59:52	-0.206	0.198	17.010	248.500	266.900	0.291	1.141	3.008
x		0.119	0.243	16.860	245.500	263.900	0.284	1.100	2.735
σ		0.293	0.040	0.590	5.963	3.110	0.016	0.036	0.299
%RSD		247.400	16.640	3.499	2.430	1.179	5.457	3.317	10.940

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:59	0.288	3.256	3.144	1.382	25.660	28.640	0.000	8.622
2	18:59:25	0.314	3.231	2.915	2.390	23.460	27.850	0.000	8.877
3	18:59:52	0.363	3.527	3.296	1.662	27.110	30.340	0.000	9.009
x		0.322	3.338	3.118	1.811	25.410	28.940	0.000	8.836
σ		0.038	0.164	0.192	0.520	1.836	1.268	0.000	0.197
%RSD		11.790	4.921	6.148	28.720	7.223	4.383	0.000	2.226

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:59	67.846%	0.149	0.155	66.557%	0.003	-0.016	0.118	0.009
2	18:59:25	69.672%	0.164	0.160	67.996%	0.002	-0.005	0.081	-0.023
3	18:59:52	69.807%	0.112	0.136	69.308%	-0.003	0.003	0.088	0.023
x		69.108%	0.142	0.150	67.954%	0.001	-0.006	0.095	0.003
σ		1.095%	0.027	0.013	1.376%	0.003	0.010	0.020	0.024
%RSD		1.584	18.830	8.443	2.025	343.100	152.000	20.640	758.900

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:59	67.556%	0.126	0.071	0.110	0.765	0.577	74.931%	74.666%
2	18:59:25	69.206%	0.073	0.085	0.112	0.634	0.775	75.853%	75.534%
3	18:59:52	68.316%	0.092	0.100	0.100	0.839	0.732	77.693%	77.210%
x		68.359%	0.097	0.085	0.107	0.746	0.695	76.159%	75.804%
σ		0.826%	0.027	0.015	0.006	0.104	0.104	1.406%	1.293%
%RSD		1.208	27.490	17.190	6.036	13.930	14.980	1.846	1.706

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:59	0.014	0.002	0.108	0.113	0.094	76.486%
2	18:59:25	0.005	0.001	0.094	0.103	0.098	76.002%
3	18:59:52	0.011	0.001	0.096	0.072	0.088	75.180%
x		0.010	0.001	0.099	0.096	0.094	75.889%
σ		0.004	0.001	0.008	0.021	0.005	0.660%
%RSD		42.520	78.240	7.946	22.050	5.268	0.870

180-42570-A-4-A @10 4/6/2015 7:02:48 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	19:03:14	68.367%	0.105	22.410	23.280	0.000	130300.000	333.900	330.200
2	19:03:41	69.811%	0.026	19.040	22.400	0.000	131500.000	344.900	345.300
3	19:04:07	71.290%	0.115	23.990	21.240	0.000	131700.000	341.400	336.100
x		69.823%	0.082	21.810	22.310	0.000	131100.000	340.100	337.200
σ		1.461%	0.049	2.526	1.020	0.000	772.100	5.618	7.600
%RSD		2.093	59.250	11.580	4.572	0.000	0.589	1.652	2.254
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:14	102.500	220.000	0.000	321.400	2939.000	2829.000	68.445%	0.317
2	19:03:41	105.200	221.300	0.000	336.500	3130.000	3016.000	68.422%	0.452
3	19:04:07	103.900	221.300	0.000	333.300	3157.000	2990.000	68.600%	0.234
x		103.900	220.900	0.000	330.400	3075.000	2945.000	68.489%	0.334
σ		1.334	0.783	0.000	7.956	118.900	101.100	0.097%	0.110
%RSD		1.284	0.355	0.000	2.408	3.867	3.433	0.142	32.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:14	-0.015	0.269	17.820	280.000	261.500	0.352	1.196	1.990
2	19:03:41	-0.115	0.255	18.380	256.300	274.300	0.332	0.962	2.689
3	19:04:07	0.156	0.249	18.540	261.300	278.100	0.312	1.136	2.740
x		0.009	0.258	18.250	265.900	271.300	0.332	1.098	2.473
σ		0.137	0.010	0.376	12.520	8.665	0.020	0.121	0.419
%RSD		1544.000	4.025	2.058	4.711	3.194	6.036	11.060	16.930
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:14	0.318	4.023	3.367	2.214	26.790	31.060	0.000	8.713
2	19:03:41	0.469	3.388	4.116	1.874	25.750	31.650	0.000	8.989
3	19:04:07	0.347	3.840	3.746	2.107	27.830	30.090	0.000	9.062
x		0.378	3.750	3.743	2.065	26.790	30.930	0.000	8.921
σ		0.080	0.327	0.375	0.173	1.042	0.788	0.000	0.184
%RSD		21.250	8.712	10.010	8.400	3.891	2.546	0.000	2.067
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:14	67.003%	0.146	0.147	66.486%	0.003	-0.008	0.092	0.039
2	19:03:41	68.869%	0.212	0.183	67.684%	0.011	-0.010	0.042	0.003
3	19:04:07	68.696%	0.125	0.178	68.632%	-0.006	-0.005	0.042	0.020
x		68.189%	0.161	0.169	67.601%	0.003	-0.008	0.059	0.021
σ		1.031%	0.045	0.020	1.076%	0.008	0.002	0.029	0.018
%RSD		1.512	28.180	11.660	1.591	288.700	31.590	49.680	86.470
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:14	66.195%	0.012	0.045	0.086	0.643	0.816	74.381%	74.456%
2	19:03:41	67.832%	0.011	0.058	0.078	0.764	0.640	76.483%	75.688%
3	19:04:07	67.804%	0.066	0.068	0.097	0.705	0.732	77.436%	77.310%
x		67.277%	0.030	0.057	0.087	0.704	0.729	76.100%	75.818%
σ		0.937%	0.032	0.011	0.009	0.060	0.088	1.563%	1.431%
%RSD		1.392	107.400	19.950	10.900	8.558	12.050	2.054	1.888
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:03:14	0.022	0.003	0.082	0.080	0.072	75.018%		
2	19:03:41	0.009	0.005	0.069	0.072	0.078	75.584%		
3	19:04:07	0.017	0.005	0.074	0.069	0.066	75.149%		
x		0.016	0.004	0.075	0.074	0.072	75.251%		
σ		0.007	0.001	0.007	0.006	0.006	0.296%		
%RSD		41.840	19.710	8.926	7.641	8.393	0.393		

180-42570-B-4-B @10 4/6/2015 7:07:05 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	19:07:33	69.418%	-0.117	22.920	22.890	0.000	135400.000	352.700	341.400
2	19:07:59	69.529%	0.099	23.430	23.970	0.000	138300.000	350.900	352.100
3	19:08:26	67.861%	-0.090	24.840	22.300	0.000	141500.000	361.800	356.700
x		68.936%	-0.036	23.730	23.050	0.000	138400.000	355.100	350.100
σ		0.933%	0.118	0.996	0.848	0.000	3066.000	5.881	7.831
%RSD		1.353	329.000	4.196	3.677	0.000	2.216	1.656	2.237

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:33	5.713	228.000	0.000	311.700	3148.000	2963.000	68.793%	0.125
2	19:07:59	5.746	226.200	0.000	309.800	3116.000	3057.000	69.159%	0.308
3	19:08:26	5.752	228.700	0.000	318.100	3406.000	3040.000	69.072%	0.095
x		5.737	227.600	0.000	313.200	3223.000	3020.000	69.008%	0.176
σ		0.021	1.293	0.000	4.328	159.000	50.070	0.192%	0.116
%RSD		0.363	0.568	0.000	1.382	4.933	1.658	0.278	65.620

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:33	0.209	0.216	16.420	20.420	34.440	0.298	0.675	2.283
2	19:07:59	-0.181	0.239	16.930	21.080	35.490	0.292	0.715	2.777
3	19:08:26	0.154	0.197	17.200	19.810	37.620	0.345	0.800	2.859
x		0.061	0.217	16.850	20.440	35.850	0.311	0.730	2.640
σ		0.211	0.021	0.396	0.633	1.622	0.029	0.064	0.312
%RSD		348.400	9.654	2.348	3.097	4.523	9.321	8.767	11.800

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:33	0.364	1.171	1.105	1.867	23.580	27.490	0.000	8.620
2	19:07:59	0.549	1.453	1.451	-0.787	25.490	28.580	0.000	8.915
3	19:08:26	0.517	1.549	1.257	1.631	24.720	28.410	0.000	8.876
x		0.477	1.391	1.271	0.904	24.600	28.160	0.000	8.804
σ		0.099	0.197	0.173	1.469	0.961	0.586	0.000	0.160
%RSD		20.750	14.130	13.610	162.600	3.907	2.082	0.000	1.821

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:33	67.916%	0.112	0.132	67.345%	0.005	-0.016	0.091	-0.083
2	19:07:59	69.938%	0.144	0.107	67.886%	0.014	0.003	0.068	-0.008
3	19:08:26	69.813%	0.132	0.118	69.119%	0.004	0.004	0.061	-0.039
x		69.222%	0.130	0.119	68.117%	0.007	-0.003	0.073	-0.043
σ		1.133%	0.016	0.012	0.910%	0.006	0.012	0.016	0.038
%RSD		1.637	12.270	10.240	1.335	75.880	382.900	21.600	86.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:33	66.962%	0.009	0.058	0.086	0.296	0.293	75.511%	75.251%
2	19:07:59	68.999%	0.049	0.106	0.088	0.278	0.281	77.023%	76.977%
3	19:08:26	68.780%	0.077	0.088	0.099	0.260	0.226	78.897%	78.060%
x		68.247%	0.045	0.084	0.091	0.278	0.267	77.144%	76.763%
σ		1.118%	0.034	0.024	0.007	0.018	0.036	1.696%	1.417%
%RSD		1.639	76.100	29.020	7.666	6.514	13.410	2.199	1.846

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:33	0.005	-0.001	0.003	0.030	0.017	76.668%
2	19:07:59	0.004	0.002	0.027	0.026	0.029	75.336%
3	19:08:26	-0.002	0.002	0.019	-0.016	0.013	75.152%
x		0.003	0.001	0.017	0.013	0.020	75.718%
σ		0.004	0.002	0.012	0.026	0.008	0.827%
%RSD		154.000	199.100	73.320	195.100	42.400	1.093

180-42570-A-5-A @10 4/6/2015 7:11:23 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	19:11:49	68.709%	0.055	22.170	25.060	0.000	140400.000	374.900	362.900
2	19:12:16	70.730%	0.023	23.900	22.840	0.000	140400.000	367.400	360.400
3	19:12:43	67.933%	0.132	18.550	24.350	0.000	145900.000	386.900	377.700
x		69.124%	0.070	21.540	24.080	0.000	142200.000	376.400	367.000
σ		1.444%	0.056	2.731	1.130	0.000	3170.000	9.828	9.342
%RSD		2.089	80.360	12.680	4.692	0.000	2.229	2.611	2.545
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:49	94.180	234.800	0.000	344.300	3226.000	3185.000	68.320%	0.399
2	19:12:16	95.450	239.700	0.000	335.800	3477.000	3195.000	68.521%	0.423
3	19:12:43	97.990	245.400	0.000	338.100	3502.000	3221.000	68.704%	0.340
x		95.870	240.000	0.000	339.400	3402.000	3200.000	68.515%	0.388
σ		1.942	5.313	0.000	4.399	152.700	18.600	0.192%	0.043
%RSD		2.026	2.214	0.000	1.296	4.488	0.581	0.280	11.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:49	0.278	0.204	19.720	237.600	247.000	0.348	1.155	2.341
2	19:12:16	0.034	0.223	20.640	247.600	257.600	0.331	1.310	2.565
3	19:12:43	-0.280	0.225	21.040	250.500	262.400	0.375	1.188	2.781
x		0.011	0.217	20.470	245.200	255.700	0.351	1.218	2.562
σ		0.280	0.011	0.678	6.804	7.861	0.022	0.081	0.220
%RSD		2634.000	5.171	3.311	2.774	3.074	6.331	6.683	8.592
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:49	0.417	4.652	4.516	2.132	27.820	28.080	0.000	9.550
2	19:12:16	0.572	4.237	4.497	1.068	27.010	29.950	0.000	9.617
3	19:12:43	0.591	4.748	4.682	1.543	25.700	31.380	0.000	9.784
x		0.527	4.546	4.565	1.581	26.840	29.800	0.000	9.650
σ		0.096	0.272	0.102	0.533	1.072	1.653	0.000	0.120
%RSD		18.150	5.974	2.223	33.720	3.994	5.545	0.000	1.245
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:49	67.763%	0.082	0.079	67.135%	0.006	-0.001	0.091	-0.010
2	19:12:16	69.540%	0.124	0.080	67.987%	-0.004	-0.015	0.062	-0.068
3	19:12:43	69.405%	0.108	0.085	69.076%	0.004	0.001	0.021	-0.035
x		68.903%	0.105	0.081	68.066%	0.002	-0.005	0.058	-0.037
σ		0.990%	0.021	0.003	0.973%	0.005	0.009	0.035	0.029
%RSD		1.436	20.260	3.915	1.429	255.800	173.900	61.000	78.540
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:49	66.657%	0.020	0.084	0.096	0.733	0.716	74.790%	74.449%
2	19:12:16	67.538%	0.032	0.060	0.068	0.670	0.647	75.238%	75.790%
3	19:12:43	68.767%	0.033	0.067	0.073	0.716	0.759	76.925%	76.790%
x		67.654%	0.028	0.070	0.079	0.707	0.707	75.651%	75.677%
σ		1.059%	0.007	0.013	0.015	0.033	0.057	1.126%	1.175%
%RSD		1.566	25.060	17.790	19.300	4.629	8.008	1.488	1.552
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:11:49	0.010	0.002	0.087	0.069	0.067	76.487%		
2	19:12:16	0.015	0.004	0.054	0.079	0.071	75.749%		
3	19:12:43	0.008	0.007	0.083	0.075	0.071	74.034%		
x		0.011	0.004	0.075	0.074	0.070	75.423%		
σ		0.004	0.002	0.018	0.005	0.002	1.258%		
%RSD		34.130	55.410	23.900	6.706	3.191	1.668		

180-42570-B-5-B @10 4/6/2015 7:15:41 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	19:16:07	68.112%	0.106	23.890	23.310	0.000	136700.000	347.900	342.200
2	19:16:34	68.526%	0.300	24.310	23.270	0.000	139800.000	363.100	353.300
3	19:17:00	68.437%	-0.091	22.640	24.210	0.000	140400.000	365.200	358.200
x		68.358%	0.105	23.610	23.600	0.000	139000.000	358.700	351.200
σ		0.218%	0.196	0.870	0.527	0.000	2031.000	9.428	8.211
%RSD		0.319	186.200	3.684	2.233	0.000	1.462	2.628	2.338

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:16:07	2.581	225.200	0.000	315.500	3506.000	2964.000	69.337%	0.094
2	19:16:34	2.792	228.000	0.000	318.200	3426.000	3078.000	69.475%	0.146
3	19:17:00	2.680	230.000	0.000	321.300	3443.000	3127.000	69.559%	0.410
x		2.684	227.800	0.000	318.400	3458.000	3056.000	69.457%	0.217
σ		0.106	2.402	0.000	2.901	42.150	83.820	0.112%	0.170
%RSD		3.934	1.055	0.000	0.911	1.219	2.742	0.161	78.350

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:16:07	0.373	0.204	17.120	16.730	31.850	0.347	0.835	2.067
2	19:16:34	0.253	0.213	17.770	17.190	26.890	0.351	0.880	2.426
3	19:17:00	-0.022	0.123	18.060	16.370	32.640	0.329	0.818	2.481
x		0.201	0.180	17.650	16.770	30.460	0.343	0.844	2.325
σ		0.202	0.050	0.481	0.409	3.119	0.012	0.032	0.225
%RSD		100.500	27.750	2.723	2.440	10.240	3.396	3.827	9.659

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:16:07	0.395	1.434	1.159	1.262	21.160	28.990	0.000	8.896
2	19:16:34	0.406	1.320	1.521	1.945	26.360	29.760	0.000	9.085
3	19:17:00	0.477	1.513	1.228	2.078	24.070	27.550	0.000	9.081
x		0.426	1.422	1.302	1.762	23.870	28.770	0.000	9.021
σ		0.045	0.097	0.192	0.438	2.606	1.124	0.000	0.108
%RSD		10.470	6.828	14.750	24.870	10.920	3.908	0.000	1.201

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:16:07	68.686%	0.120	0.129	68.237%	0.011	-0.002	0.029	0.036
2	19:16:34	68.848%	0.054	0.136	69.503%	0.011	0.001	0.053	-0.035
3	19:17:00	71.002%	0.130	0.098	69.394%	0.000	-0.012	0.026	0.008
x		69.512%	0.101	0.121	69.045%	0.007	-0.004	0.036	0.003
σ		1.293%	0.042	0.020	0.702%	0.006	0.007	0.015	0.036
%RSD		1.860	41.140	16.690	1.017	85.150	160.100	41.280	1137.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:16:07	67.181%	-0.038	0.082	0.078	0.210	0.308	74.698%	75.605%
2	19:16:34	69.284%	0.026	0.056	0.091	0.293	0.259	76.824%	76.670%
3	19:17:00	70.216%	0.025	0.090	0.063	0.317	0.198	78.339%	77.560%
x		68.894%	0.005	0.076	0.077	0.273	0.255	76.620%	76.612%
σ		1.555%	0.036	0.018	0.014	0.056	0.055	1.829%	0.979%
%RSD		2.257	800.500	23.720	18.060	20.440	21.490	2.387	1.278

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:16:07	0.007	0.000	0.035	0.019	0.023	77.285%
2	19:16:34	-0.002	0.002	0.029	0.018	0.020	76.661%
3	19:17:00	0.007	-0.001	0.013	0.006	0.012	76.048%
x		0.004	0.000	0.026	0.015	0.018	76.665%
σ		0.005	0.001	0.012	0.007	0.005	0.619%
%RSD		131.300	426.400	44.610	50.440	29.520	0.807

180-42595-A-2-A 4/6/2015 7:20:01 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	19:20:28	64.867%	-0.004	123.300	131.700	0.000	89730.000	14360.000	14160.000
2	19:20:54	64.579%	0.153	136.600	130.000	0.000	91160.000	14720.000	14560.000
3	19:21:21	66.895%	0.165	125.300	130.900	0.000	89680.000	14450.000	14250.000
x		65.447%	0.105	128.400	130.800	0.000	90190.000	14510.000	14320.000
σ		1.262%	0.094	7.186	0.854	0.000	844.500	185.400	211.200
%RSD		1.928	90.020	5.597	0.652	0.000	0.936	1.278	1.474
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:28	19.500	4364.000	0.000	9616.000	75120.000	76590.000	64.764%	2.958
2	19:20:54	20.170	4490.000	0.000	9637.000	76750.000	78500.000	65.247%	2.479
3	19:21:21	19.230	4360.000	0.000	9582.000	76840.000	79910.000	64.747%	3.868
x		19.630	4404.000	0.000	9612.000	76240.000	78340.000	64.919%	3.102
σ		0.483	73.970	0.000	28.180	966.500	1667.000	0.284%	0.706
%RSD		2.458	1.679	0.000	0.293	1.268	2.128	0.437	22.760
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:28	0.923	1.315	194.100	85.300	385.900	0.391	3.350	5.370
2	19:20:54	0.737	1.315	198.300	89.450	385.300	0.472	2.785	5.536
3	19:21:21	0.864	1.460	200.800	92.700	391.400	0.437	3.007	5.283
x		0.842	1.363	197.800	89.150	387.500	0.433	3.047	5.396
σ		0.095	0.084	3.385	3.708	3.341	0.041	0.285	0.129
%RSD		11.280	6.144	1.712	4.160	0.862	9.425	9.348	2.381
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:28	4.607	84.380	84.380	0.506	-0.431	2.596	0.000	246.300
2	19:20:54	5.497	85.460	89.390	1.228	0.158	1.684	0.000	248.500
3	19:21:21	4.899	85.970	84.910	0.735	0.078	2.984	0.000	248.000
x		5.001	85.270	86.220	0.823	-0.065	2.421	0.000	247.600
σ		0.454	0.813	2.751	0.369	0.319	0.667	0.000	1.142
%RSD		9.071	0.953	3.191	44.810	492.200	27.570	0.000	0.461
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:28	64.658%	1.671	1.545	64.185%	0.017	0.033	0.120	0.033
2	19:20:54	65.503%	1.535	1.612	65.256%	0.036	0.012	0.065	0.046
3	19:21:21	66.481%	1.709	1.579	65.778%	0.042	0.005	0.052	0.004
x		65.547%	1.638	1.579	65.073%	0.032	0.016	0.079	0.028
σ		0.913%	0.092	0.033	0.812%	0.013	0.014	0.036	0.022
%RSD		1.392	5.591	2.105	1.247	41.720	88.820	45.410	77.450
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:20:28	63.421%	0.202	0.212	0.220	42.910	44.430	72.496%	72.139%
2	19:20:54	66.231%	0.298	0.226	0.209	43.460	44.830	73.601%	73.984%
3	19:21:21	65.601%	0.261	0.247	0.244	43.920	43.810	74.383%	74.700%
x		65.084%	0.254	0.228	0.224	43.430	44.360	73.493%	73.608%
σ		1.475%	0.049	0.017	0.018	0.504	0.511	0.948%	1.321%
%RSD		2.266	19.160	7.609	8.050	1.160	1.152	1.291	1.795
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:20:28	-0.002	-0.005	0.128	0.126	0.139	76.184%		
2	19:20:54	0.005	-0.000	0.169	0.184	0.149	74.104%		
3	19:21:21	0.006	-0.001	0.158	0.155	0.160	72.851%		
x		0.003	-0.002	0.152	0.155	0.149	74.380%		
σ		0.004	0.003	0.021	0.029	0.011	1.684%		
%RSD		146.100	126.600	14.110	18.810	7.103	2.264		

180-42595-A-3-A 4/6/2015 7:24:19 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	19:24:45	66.093%	-0.034	130.400	130.800	0.000	83020.000	15440.000	15300.000
2	19:25:11	64.993%	0.020	131.600	132.500	0.000	83560.000	15510.000	15270.000
3	19:25:37	64.925%	0.098	133.500	134.800	0.000	83830.000	15540.000	15410.000
x		65.337%	0.028	131.800	132.700	0.000	83470.000	15500.000	15330.000
σ		0.656%	0.066	1.595	1.977	0.000	414.700	50.900	76.600
%RSD		1.004	235.000	1.210	1.490	0.000	0.497	0.329	0.500
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:45	84.820	4652.000	0.000	7051.000	80590.000	82110.000	64.677%	5.480
2	19:25:11	84.850	4602.000	0.000	6949.000	80370.000	80580.000	68.297%	5.261
3	19:25:37	85.960	4579.000	0.000	6938.000	79260.000	80260.000	68.351%	5.985
x		85.210	4611.000	0.000	6979.000	80080.000	80980.000	67.108%	5.576
σ		0.649	37.230	0.000	62.290	710.500	990.500	2.106%	0.372
%RSD		0.762	0.807	0.000	0.893	0.887	1.223	3.138	6.662
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:45	0.351	1.544	290.000	296.000	593.200	0.654	1.555	24.680
2	19:25:11	0.287	1.290	288.500	296.100	595.000	0.633	2.035	24.950
3	19:25:37	1.140	1.498	286.500	296.500	599.600	0.598	1.621	24.280
x		0.593	1.444	288.300	296.200	595.900	0.628	1.737	24.640
σ		0.475	0.135	1.745	0.270	3.310	0.029	0.260	0.337
%RSD		80.200	9.363	0.605	0.091	0.555	4.557	14.970	1.367
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:45	25.010	135.300	133.800	0.238	0.793	2.421	0.000	258.900
2	19:25:11	24.790	132.900	139.700	0.280	-1.367	1.978	0.000	264.600
3	19:25:37	24.150	131.900	138.000	1.547	-0.915	1.989	0.000	265.900
x		24.650	133.400	137.200	0.688	-0.497	2.129	0.000	263.100
σ		0.451	1.766	3.049	0.744	1.139	0.253	0.000	3.743
%RSD		1.830	1.324	2.223	108.100	229.500	11.880	0.000	1.422
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:45	64.765%	1.836	1.773	63.730%	0.148	0.107	0.145	0.064
2	19:25:11	65.289%	2.131	2.166	64.554%	0.104	0.111	0.165	0.067
3	19:25:37	66.168%	2.193	1.967	64.895%	0.135	0.105	0.115	0.060
x		65.407%	2.053	1.969	64.393%	0.129	0.108	0.142	0.063
σ		0.709%	0.191	0.197	0.599%	0.023	0.003	0.025	0.003
%RSD		1.084	9.291	10.000	0.931	17.570	2.834	17.810	5.381
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:45	65.132%	0.635	0.296	0.317	57.910	56.390	72.309%	72.855%
2	19:25:11	65.489%	0.723	0.232	0.310	57.140	57.500	73.852%	73.977%
3	19:25:37	65.889%	0.719	0.224	0.270	57.000	57.260	75.359%	74.709%
x		65.503%	0.692	0.251	0.299	57.350	57.050	73.840%	73.847%
σ		0.379%	0.050	0.040	0.025	0.491	0.586	1.525%	0.934%
%RSD		0.578	7.211	15.900	8.518	0.855	1.027	2.065	1.264
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:24:45	0.001	-0.004	0.662	0.565	0.610	75.557%		
2	19:25:11	0.005	0.004	0.717	0.650	0.667	72.290%		
3	19:25:37	0.004	0.001	0.719	0.692	0.686	70.598%		
x		0.004	0.000	0.700	0.636	0.654	72.815%		
σ		0.002	0.004	0.032	0.065	0.040	2.521%		
%RSD		56.640	3112.000	4.622	10.180	6.085	3.462		

180-42580-L-1-A 4/6/2015 7:28:36 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	19:29:03	69.697%	0.165	138.700	141.000	0.000	742000.000	733.800	704.700
2	19:29:30	71.722%	0.129	150.000	142.200	0.000	757200.000	733.200	725.100
3	19:29:56	73.124%	0.076	144.400	147.200	0.000	760500.000	755.000	729.400
x		71.514%	0.123	144.400	143.500	0.000	753300.000	740.700	719.700
σ		1.723%	0.045	5.664	3.288	0.000	9896.000	12.410	13.150
%RSD		2.410	36.240	3.923	2.292	0.000	1.314	1.676	1.828
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:03	544.400	354300.000	0.000	1287.000	1070.000	3221.000	84.077%	42.440
2	19:29:30	560.900	374200.000	0.000	1282.000	1100.000	3216.000	89.298%	39.280
3	19:29:56	568.800	396900.000	0.000	1318.000	1177.000	3249.000	92.078%	44.760
x		558.100	375100.000	0.000	1296.000	1116.000	3229.000	88.484%	42.160
σ		12.450	21340.000	0.000	19.430	55.140	18.050	4.062%	2.748
%RSD		2.230	5.690	0.000	1.500	4.942	0.559	4.591	6.518
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:03	7.737	3.771	73.710	1301.000	1242.000	0.891	5.997	20.850
2	19:29:30	9.592	3.921	75.440	1316.000	1255.000	0.891	6.017	21.560
3	19:29:56	8.771	3.857	74.750	1338.000	1280.000	0.915	5.861	21.350
x		8.700	3.850	74.630	1318.000	1259.000	0.899	5.958	21.250
σ		0.929	0.075	0.873	18.380	19.500	0.014	0.085	0.365
%RSD		10.680	1.961	1.170	1.395	1.549	1.526	1.426	1.720
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:03	19.360	10.770	11.230	73.700	2.132	3.537	0.000	3.179
2	19:29:30	18.940	10.950	11.150	75.080	1.590	3.016	0.000	3.297
3	19:29:56	19.970	10.820	11.600	77.150	2.936	3.795	0.000	3.385
x		19.430	10.850	11.330	75.310	2.219	3.450	0.000	3.287
σ		0.516	0.094	0.241	1.736	0.678	0.397	0.000	0.104
%RSD		2.657	0.870	2.124	2.305	30.530	11.500	0.000	3.154
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:03	73.653%	15.000	15.430	69.458%	0.116	0.096	1.122	0.902
2	19:29:30	77.800%	15.920	15.910	72.504%	0.116	0.085	1.271	1.021
3	19:29:56	79.879%	16.350	16.510	76.221%	0.115	0.110	1.093	1.189
x		77.111%	15.760	15.950	72.728%	0.116	0.097	1.162	1.037
σ		3.170%	0.692	0.545	3.387%	0.000	0.012	0.096	0.144
%RSD		4.111	4.389	3.417	4.657	0.400	12.690	8.237	13.890
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:03	71.061%	0.060	25.150	25.850	10.830	10.610	80.154%	79.098%
2	19:29:30	75.296%	0.093	27.090	27.260	10.930	11.060	82.598%	83.204%
3	19:29:56	75.813%	0.111	28.770	28.570	10.880	11.130	84.192%	84.072%
x		74.057%	0.088	27.000	27.230	10.880	10.930	82.314%	82.125%
σ		2.607%	0.025	1.810	1.359	0.048	0.282	2.034%	2.657%
%RSD		3.521	28.940	6.704	4.991	0.441	2.578	2.470	3.235
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:29:03	0.011	0.016	18.190	16.970	17.350	77.374%		
2	19:29:30	0.023	0.015	19.340	18.090	18.300	77.201%		
3	19:29:56	0.030	0.017	19.910	18.420	18.920	76.669%		
x		0.021	0.016	19.140	17.830	18.190	77.081%		
σ		0.009	0.001	0.876	0.758	0.792	0.368%		
%RSD		44.400	5.876	4.575	4.249	4.355	0.477		

CCV 1487954 4/6/2015 7:32:54 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	19:33:20	73.559%	102.000	100.900	103.200	0.000	50760.000	48780.000	48150.000
2	19:33:47	75.467%	101.100	96.560	100.800	0.000	50370.000	48500.000	47880.000
3	19:34:13	73.276%	102.900	102.400	103.900	0.000	51700.000	49470.000	48610.000
x		74.101%	102.010%	99.955%	102.609%	0.000	101.888%	97.836%	96.425%
σ		1.192%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.608	0.871	3.028	1.594	0.000	1.348	1.015	0.770
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:20	455.100	7071.000	0.000	50500.000	48260.000	48560.000	78.777%	95.950
2	19:33:47	454.500	6826.000	0.000	49100.000	49080.000	50050.000	79.777%	97.020
3	19:34:13	464.300	6871.000	0.000	50660.000	49840.000	49910.000	77.675%	102.500
x		91.594%	138.454%	0.000	100.166%	98.124%	99.015%	78.743%	98.502%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.051%	n/a
%RSD		1.189	1.882	0.000	1.711	1.608	1.659	1.335	3.593
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:20	92.550	92.450	495.500	24210.000	24520.000	93.070	94.660	93.830
2	19:33:47	94.360	93.980	502.500	24270.000	25120.000	94.290	94.660	94.690
3	19:34:13	94.670	96.580	512.100	25060.000	25590.000	95.660	95.350	96.060
x		93.863%	94.336%	100.672%	98.050%	100.314%	94.340%	94.894%	94.861%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.218	2.214	1.651	1.922	2.133	1.370	0.420	1.182
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:20	92.540	95.330	94.210	97.030	97.590	96.530	0.000	93.750
2	19:33:47	94.350	96.150	96.000	98.090	101.100	99.190	0.000	96.180
3	19:34:13	95.300	98.510	100.300	98.720	103.400	101.500	0.000	97.650
x		94.065%	96.665%	96.845%	97.946%	100.708%	99.069%	0.000	95.860%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.486	1.708	3.238	0.873	2.914	2.508	0.000	2.051
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:20	76.155%	88.910	90.510	74.471%	92.700	93.390	95.730	95.820
2	19:33:47	77.218%	95.850	97.120	74.569%	91.510	93.000	97.810	95.090
3	19:34:13	75.970%	98.250	97.030	74.712%	93.100	94.270	96.340	96.690
x		76.447%	94.336%	94.885%	74.584%	92.437%	93.552%	96.626%	95.868%
σ		0.673%	n/a	n/a	0.122%	n/a	n/a	n/a	n/a
%RSD		0.881	5.142	3.994	0.163	0.898	0.695	1.104	0.838
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:20	72.151%	97.230	101.600	101.100	96.740	97.170	80.942%	79.702%
2	19:33:47	75.357%	98.560	100.000	99.790	98.990	97.600	81.398%	80.315%
3	19:34:13	74.387%	100.000	100.300	101.100	97.310	99.340	81.096%	80.294%
x		73.965%	98.607%	100.640%	100.668%	97.681%	98.037%	81.145%	80.104%
σ		1.644%	n/a	n/a	n/a	n/a	n/a	0.232%	0.348%
%RSD		2.223	1.418	0.846	0.757	1.197	1.171	0.286	0.434
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:33:20	95.900	93.210	96.250	93.920	94.660	73.463%		
2	19:33:47	96.100	94.090	95.930	97.340	95.930	74.554%		
3	19:34:13	99.650	96.280	101.000	99.390	99.400	72.554%		
x		97.215%	94.531%	97.712%	96.880%	96.663%	73.524%		
σ		n/a	n/a	n/a	n/a	n/a	1.001%		
%RSD		2.169	1.672	2.882	2.854	2.540	1.361		

CCB9 4/6/2015 7:40:20 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:47	79.088%	0.055	1.850	1.220	0.000	146.000	15.620	15.790
2	19:41:13	81.213%	-0.056	1.407	1.124	0.000	142.600	17.060	17.000
3	19:41:40	81.698%	0.292	0.915	1.014	0.000	143.200	18.730	15.450
x		80.666%	0.097	1.391	1.119	0.000	143.900	17.130	16.080
σ		1.388%	0.178	0.468	0.103	0.000	1.810	1.555	0.817
%RSD		1.721	183.000	33.630	9.240	0.000	1.258	9.077	5.078
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:47	0.941	274.500	0.000	5.494	36.490	26.070	80.079%	-0.113
2	19:41:13	0.966	321.400	0.000	11.030	28.320	27.770	81.076%	0.249
3	19:41:40	0.907	347.000	0.000	5.533	26.170	26.800	81.012%	0.112
x		0.938	314.300	0.000	7.351	30.330	26.880	80.722%	0.083
σ		0.030	36.740	0.000	3.182	5.444	0.852	0.558%	0.183
%RSD		3.194	11.690	0.000	43.290	17.950	3.171	0.691	221.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:47	0.172	0.192	0.269	28.080	8.880	0.035	-0.280	0.021
2	19:41:13	0.211	0.224	0.291	26.000	6.367	0.040	-0.302	0.026
3	19:41:40	0.052	0.166	0.290	25.670	3.515	0.043	-0.296	0.036
x		0.145	0.194	0.283	26.580	6.254	0.039	-0.293	0.028
σ		0.083	0.029	0.012	1.306	2.684	0.004	0.012	0.008
%RSD		57.250	14.780	4.344	4.914	42.920	11.360	3.954	27.100
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:47	0.095	0.224	0.168	0.349	-0.082	1.087	0.000	0.118
2	19:41:13	-0.045	0.186	0.161	0.460	-0.382	1.718	0.000	0.078
3	19:41:40	-0.113	0.217	0.107	0.501	0.872	0.933	0.000	0.095
x		-0.021	0.209	0.145	0.437	0.136	1.246	0.000	0.097
σ		0.106	0.020	0.034	0.079	0.655	0.416	0.000	0.020
%RSD		501.900	9.710	23.250	18.020	481.900	33.410	0.000	20.750
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:47	78.573%	0.271	0.297	78.708%	0.037	0.029	0.025	-0.037
2	19:41:13	78.989%	0.312	0.288	82.076%	0.015	0.025	0.007	-0.005
3	19:41:40	80.223%	0.297	0.275	81.110%	0.017	0.008	-0.011	-0.016
x		79.262%	0.293	0.287	80.631%	0.023	0.021	0.007	-0.020
σ		0.858%	0.020	0.011	1.734%	0.012	0.012	0.018	0.016
%RSD		1.082	6.961	3.857	2.151	52.830	55.110	273.600	83.110
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:40:47	77.355%	0.201	0.080	0.089	0.175	0.095	81.604%	80.503%
2	19:41:13	77.177%	0.259	0.071	0.075	0.161	0.174	82.127%	82.353%
3	19:41:40	79.752%	0.162	0.073	0.096	0.127	0.176	83.584%	82.428%
x		78.095%	0.207	0.075	0.087	0.154	0.148	82.438%	81.761%
σ		1.438%	0.049	0.005	0.011	0.025	0.046	1.026%	1.091%
%RSD		1.842	23.520	6.589	12.150	16.160	31.240	1.245	1.334
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:40:47	0.027	0.018	-0.010	-0.007	-0.011	82.384%		
2	19:41:13	0.018	0.033	-0.012	0.004	-0.003	81.822%		
3	19:41:40	0.015	0.018	-0.016	-0.003	-0.012	81.724%		
x		0.020	0.023	-0.013	-0.002	-0.009	81.977%		
σ		0.006	0.009	0.004	0.006	0.005	0.356%		
%RSD		30.790	37.270	28.380	301.200	54.750	0.435		

180-42580-M-1-A 4/6/2015 7:44:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:05	74.177%	0.116	160.100	154.100	0.000	794700.000	363.100	355.000
2	19:45:31	79.256%	0.050	149.400	148.900	0.000	782700.000	363.900	355.200
3	19:45:58	78.428%	0.074	149.800	151.400	0.000	807700.000	377.500	363.700
x		77.287%	0.080	153.100	151.500	0.000	795100.000	368.200	358.000
σ		2.725%	0.033	6.099	2.620	0.000	12520.000	8.087	4.999
%RSD		3.526	41.540	3.984	1.729	0.000	1.574	2.197	1.397
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:05	93.740	408200.000	0.000	1302.000	1048.000	3271.000	93.486%	38.330
2	19:45:31	93.360	411900.000	0.000	1359.000	1035.000	3276.000	98.146%	36.390
3	19:45:58	95.960	426700.000	0.000	1363.000	1104.000	3225.000	101.073%	36.730
x		94.350	415600.000	0.000	1341.000	1062.000	3257.000	97.568%	37.150
σ		1.407	9757.000	0.000	34.430	36.720	28.270	3.826%	1.038
%RSD		1.491	2.348	0.000	2.567	3.457	0.868	3.922	2.795
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:05	7.422	2.887	43.610	433.200	402.300	0.621	5.383	19.230
2	19:45:31	8.393	3.072	44.230	441.500	420.300	0.620	5.283	19.720
3	19:45:58	8.265	3.071	45.210	450.200	414.900	0.574	5.274	19.240
x		8.026	3.010	44.350	441.600	412.500	0.605	5.314	19.390
σ		0.528	0.107	0.806	8.456	9.227	0.027	0.060	0.282
%RSD		6.572	3.551	1.819	1.915	2.237	4.421	1.136	1.452
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:05	17.190	10.410	10.410	78.300	3.282	2.852	0.000	3.378
2	19:45:31	17.850	10.330	11.160	78.710	0.933	3.353	0.000	3.465
3	19:45:58	17.330	10.670	11.280	79.310	4.073	3.877	0.000	3.348
x		17.450	10.470	10.950	78.780	2.763	3.361	0.000	3.397
σ		0.346	0.179	0.471	0.507	1.633	0.512	0.000	0.061
%RSD		1.984	1.709	4.302	0.644	59.110	15.240	0.000	1.784
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:05	80.210%	16.740	16.680	74.050%	0.061	0.059	0.707	0.683
2	19:45:31	84.600%	17.050	17.220	79.352%	0.052	0.052	0.838	0.684
3	19:45:58	87.859%	17.500	17.620	80.473%	0.044	0.067	0.815	0.640
x		84.223%	17.100	17.170	77.958%	0.052	0.059	0.787	0.669
σ		3.838%	0.383	0.471	3.431%	0.009	0.007	0.070	0.025
%RSD		4.557	2.239	2.744	4.401	16.300	12.530	8.909	3.738
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:45:05	76.996%	0.184	30.280	30.090	6.365	7.272	84.317%	83.464%
2	19:45:31	79.896%	0.233	32.130	31.990	6.898	7.166	89.230%	87.574%
3	19:45:58	84.184%	0.225	33.040	32.510	7.309	7.193	90.835%	90.997%
x		80.359%	0.214	31.810	31.530	6.857	7.210	88.127%	87.345%
σ		3.616%	0.026	1.404	1.275	0.474	0.055	3.396%	3.772%
%RSD		4.500	12.310	4.412	4.042	6.907	0.766	3.853	4.318
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:45:05	0.006	0.005	7.891	7.476	7.622	83.475%		
2	19:45:31	0.019	0.009	8.388	8.009	8.049	83.352%		
3	19:45:58	0.013	0.008	8.745	8.056	8.223	83.381%		
x		0.013	0.007	8.341	7.847	7.965	83.403%		
σ		0.007	0.002	0.429	0.322	0.310	0.065%		
%RSD		53.380	33.460	5.145	4.104	3.887	0.077		

180-42580-L-2-A 4/6/2015 7:48:55 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	79.887%	-0.016	196.600	188.800	0.000	956600.000	586.400	566.700
2	19:49:48	81.630%	-0.002	202.300	182.800	0.000	967600.000	593.700	572.000
3	19:50:15	81.791%	-0.062	199.400	183.100	0.000	978000.000	588.000	583.500
x		81.103%	-0.027	199.400	184.900	0.000	967400.000	589.400	574.100
σ		1.056%	0.032	2.841	3.374	0.000	10710.000	3.843	8.550
%RSD		1.302	117.500	1.425	1.825	0.000	1.107	0.652	1.489

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	433.000	690300.000	0.000	1130.000	2962.000	5947.000	115.120%	52.130
2	19:49:48	434.100	696200.000	0.000	1134.000	3051.000	6027.000	118.536%	53.310
3	19:50:15	442.200	704400.000	0.000	1135.000	3163.000	5893.000	119.105%	52.090
x		436.400	697000.000	0.000	1133.000	3059.000	5955.000	117.587%	52.510
σ		5.049	7104.000	0.000	2.619	100.900	67.300	2.155%	0.692
%RSD		1.157	1.019	0.000	0.231	3.298	1.130	1.833	1.317

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	3.417	2.274	94.090	969.200	897.000	1.158	15.210	23.530
2	19:49:48	4.974	2.309	96.960	988.300	945.300	1.057	15.550	24.500
3	19:50:15	5.516	2.352	96.660	994.200	938.400	1.072	15.410	24.520
x		4.636	2.312	95.900	983.900	926.900	1.095	15.390	24.180
σ		1.090	0.039	1.578	13.080	26.140	0.055	0.175	0.566
%RSD		23.500	1.682	1.646	1.329	2.820	4.986	1.136	2.341

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	21.100	6.865	7.556	16.860	0.294	0.104	0.000	10.130
2	19:49:48	22.100	6.892	7.707	15.810	1.914	1.888	0.000	10.250
3	19:50:15	21.530	6.503	7.586	17.530	1.403	1.101	0.000	10.300
x		21.580	6.754	7.616	16.730	1.204	1.031	0.000	10.230
σ		0.503	0.218	0.080	0.871	0.829	0.894	0.000	0.090
%RSD		2.332	3.221	1.047	5.203	68.840	86.730	0.000	0.878

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	93.703%	17.010	17.350	85.425%	0.038	0.050	1.810	1.767
2	19:49:48	96.281%	18.320	18.500	86.536%	0.081	0.057	1.870	1.731
3	19:50:15	98.954%	18.070	18.520	88.494%	0.070	0.066	1.997	1.666
x		96.312%	17.800	18.120	86.818%	0.063	0.058	1.892	1.722
σ		2.625%	0.696	0.672	1.554%	0.022	0.008	0.096	0.051
%RSD		2.726	3.909	3.708	1.790	35.160	14.180	5.060	2.959

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	87.515%	0.212	8.971	9.156	10.390	10.300	93.734%	93.874%
2	19:49:48	92.321%	0.247	9.180	8.887	10.100	10.300	100.250%	98.040%
3	19:50:15	93.951%	0.222	9.311	9.330	10.280	10.550	102.010%	102.431%
x		91.262%	0.227	9.154	9.125	10.260	10.380	98.665%	98.115%
σ		3.346%	0.018	0.171	0.223	0.145	0.144	4.360%	4.279%
%RSD		3.667	7.844	1.870	2.446	1.411	1.387	4.419	4.361

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:22	0.033	0.034	157.800	146.600	150.900	87.410%
2	19:49:48	0.037	0.041	161.500	153.800	156.500	89.403%
3	19:50:15	0.053	0.047	165.000	156.400	159.300	88.590%
x		0.041	0.040	161.400	152.300	155.500	88.468%
σ		0.011	0.007	3.581	5.109	4.287	1.002%
%RSD		26.230	16.400	2.219	3.355	2.757	1.133

180-42580-M-2-A 4/6/2015 7:53:10 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	19:53:37	80.050%	-0.078	203.000	196.900	0.000	996800.000	289.900	277.900
2	19:54:03	80.151%	0.064	204.600	194.900	0.000	1019000.000	292.200	287.300
3	19:54:30	81.622%	0.018	206.600	191.100	0.000	1001000.000	301.200	291.000
x		80.608%	0.001	204.700	194.300	0.000	1006000.000	294.400	285.400
σ		0.880%	0.073	1.793	2.918	0.000	11990.000	5.961	6.778
%RSD		1.092	5640.000	0.876	1.502	0.000	1.192	2.025	2.375

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:37	195.000	715200.000	0.000	1146.000	2613.000	5478.000	116.085%	47.360
2	19:54:03	202.500	741100.000	0.000	1173.000	2827.000	5525.000	117.727%	47.820
3	19:54:30	204.400	752000.000	0.000	1172.000	2791.000	5421.000	119.063%	45.780
x		200.600	736100.000	0.000	1164.000	2744.000	5475.000	117.625%	46.990
σ		4.971	18950.000	0.000	15.180	114.400	52.140	1.492%	1.067
%RSD		2.478	2.574	0.000	1.305	4.170	0.952	1.268	2.270

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:37	3.115	1.764	49.180	280.000	252.800	0.601	14.430	8.985
2	19:54:03	5.626	1.734	51.170	288.200	261.300	0.581	14.680	9.164
3	19:54:30	5.714	1.786	50.540	289.200	254.700	0.588	14.850	9.240
x		4.818	1.761	50.300	285.800	256.300	0.590	14.650	9.130
σ		1.476	0.026	1.014	5.037	4.476	0.010	0.214	0.131
%RSD		30.630	1.476	2.017	1.762	1.746	1.768	1.460	1.435

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:37	6.647	7.318	7.993	16.880	0.075	0.596	0.000	9.800
2	19:54:03	6.689	7.549	8.540	17.430	0.093	1.831	0.000	9.983
3	19:54:30	6.647	7.226	7.998	17.250	0.830	1.003	0.000	10.110
x		6.661	7.364	8.177	17.190	0.333	1.143	0.000	9.965
σ		0.025	0.166	0.314	0.284	0.431	0.629	0.000	0.156
%RSD		0.369	2.258	3.846	1.651	129.500	55.000	0.000	1.564

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:37	96.065%	18.080	18.760	83.476%	0.019	-0.013	0.634	0.419
2	19:54:03	99.486%	18.860	19.110	89.273%	0.012	0.010	0.542	0.453
3	19:54:30	101.288%	19.230	19.270	91.080%	0.013	-0.004	0.554	0.521
x		98.946%	18.720	19.050	87.943%	0.015	-0.002	0.577	0.464
σ		2.653%	0.589	0.260	3.973%	0.004	0.011	0.050	0.052
%RSD		2.681	3.145	1.366	4.517	26.860	489.800	8.689	11.190

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:37	91.741%	0.201	8.066	8.140	7.928	8.118	100.272%	99.269%
2	19:54:03	93.176%	0.157	8.483	8.694	8.267	8.329	102.847%	101.883%
3	19:54:30	96.442%	0.199	8.746	8.630	8.534	8.647	103.215%	104.744%
x		93.787%	0.186	8.432	8.488	8.243	8.364	102.111%	101.965%
σ		2.409%	0.024	0.343	0.303	0.303	0.267	1.604%	2.738%
%RSD		2.568	13.180	4.066	3.568	3.681	3.186	1.570	2.685

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:37	0.000	0.000	17.510	16.560	16.750	93.005%
2	19:54:03	-0.002	0.000	18.810	17.690	18.120	91.758%
3	19:54:30	0.003	0.003	19.150	18.110	18.240	91.840%
x		0.000	0.001	18.490	17.450	17.700	92.201%
σ		0.003	0.002	0.862	0.799	0.831	0.698%
%RSD		2842.000	136.900	4.661	4.579	4.694	0.757

180-42580-N-3-A 4/6/2015 7:57:28 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	19:57:54	83.618%	-0.024	40.840	40.420	0.000	235800.000	548.700	545.000
2	19:58:21	83.711%	-0.044	44.290	41.590	0.000	239900.000	574.600	556.700
3	19:58:48	84.236%	0.112	42.450	39.180	0.000	237300.000	560.400	551.000
x		83.855%	0.015	42.530	40.400	0.000	237700.000	561.200	550.900
σ		0.333%	0.085	1.728	1.204	0.000	2042.000	12.970	5.820
%RSD		0.397	584.200	4.063	2.981	0.000	0.859	2.311	1.056
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:54	174.100	76290.000	0.000	932.800	3045.000	3122.000	95.306%	13.490
2	19:58:21	176.600	78090.000	0.000	950.600	3117.000	3248.000	96.583%	12.490
3	19:58:48	178.700	77290.000	0.000	937.000	3009.000	3247.000	96.356%	13.680
x		176.500	77220.000	0.000	940.100	3057.000	3206.000	96.082%	13.220
σ		2.312	904.300	0.000	9.307	55.080	72.660	0.681%	0.641
%RSD		1.310	1.171	0.000	0.990	1.802	2.266	0.709	4.850
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:54	2.741	2.492	32.910	523.900	483.300	0.611	6.310	7.072
2	19:58:21	7.471	2.499	33.610	534.800	498.000	0.658	6.636	7.373
3	19:58:48	6.113	2.578	34.170	541.000	497.600	0.662	6.724	7.359
x		5.442	2.523	33.570	533.200	492.900	0.644	6.557	7.268
σ		2.435	0.048	0.630	8.637	8.359	0.028	0.218	0.170
%RSD		44.750	1.905	1.876	1.620	1.696	4.410	3.326	2.334
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:54	6.316	8.647	9.398	6.306	0.154	0.548	0.000	9.665
2	19:58:21	6.834	9.021	9.590	7.544	0.671	1.392	0.000	9.573
3	19:58:48	6.849	9.322	8.740	8.865	0.303	0.115	0.000	9.909
x		6.666	8.996	9.242	7.571	0.376	0.685	0.000	9.716
σ		0.303	0.338	0.446	1.280	0.266	0.649	0.000	0.173
%RSD		4.553	3.760	4.821	16.900	70.800	94.780	0.000	1.784
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:54	95.516%	5.102	5.427	85.319%	0.033	0.023	0.373	0.259
2	19:58:21	95.785%	5.243	5.611	86.233%	0.026	0.011	0.325	0.271
3	19:58:48	96.849%	5.506	5.638	91.715%	0.016	0.023	0.496	0.283
x		96.050%	5.284	5.559	87.756%	0.025	0.019	0.398	0.271
σ		0.705%	0.205	0.115	3.459%	0.009	0.007	0.088	0.012
%RSD		0.734	3.876	2.062	3.942	36.170	37.000	22.200	4.501
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:54	92.066%	0.012	2.180	1.952	6.798	7.293	97.961%	96.015%
2	19:58:21	92.187%	0.011	2.098	2.330	6.895	7.518	100.744%	100.097%
3	19:58:48	94.785%	0.045	2.176	2.122	7.405	7.295	101.333%	100.601%
x		93.013%	0.023	2.152	2.134	7.032	7.369	100.012%	98.904%
σ		1.536%	0.019	0.046	0.189	0.326	0.129	1.801%	2.515%
%RSD		1.651	84.550	2.154	8.871	4.633	1.752	1.801	2.543
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:57:54	0.015	0.013	18.610	17.490	17.870	94.032%		
2	19:58:21	0.016	0.009	20.100	18.630	19.070	90.478%		
3	19:58:48	0.010	0.010	20.050	18.950	19.230	91.381%		
x		0.014	0.011	19.590	18.360	18.730	91.964%		
σ		0.003	0.002	0.847	0.766	0.741	1.847%		
%RSD		25.150	18.150	4.324	4.173	3.957	2.008		

180-42580-O-3-A 4/6/2015 8:01:43 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:10	81.732%	0.043	40.130	35.310	0.000	199900.000	392.500	378.100
2	20:02:36	80.777%	-0.016	33.680	35.340	0.000	205300.000	401.100	393.700
3	20:03:03	82.374%	0.182	34.570	34.440	0.000	203500.000	394.000	389.300
x		81.628%	0.070	36.120	35.030	0.000	202900.000	395.900	387.000
σ		0.804%	0.101	3.495	0.508	0.000	2754.000	4.582	8.017
%RSD		0.985	145.600	9.675	1.451	0.000	1.358	1.157	2.071
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:10	41.610	65630.000	0.000	808.900	2535.000	2538.000	91.507%	7.417
2	20:02:36	43.730	67460.000	0.000	824.700	2371.000	2614.000	91.751%	8.081
3	20:03:03	43.030	66320.000	0.000	797.600	2596.000	2669.000	91.887%	8.206
x		42.790	66470.000	0.000	810.400	2500.000	2607.000	91.715%	7.901
σ		1.081	923.800	0.000	13.640	116.100	65.870	0.192%	0.424
%RSD		2.526	1.390	0.000	1.683	4.645	2.526	0.210	5.370
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:10	4.742	1.742	14.590	162.000	142.900	0.361	4.747	4.078
2	20:02:36	5.228	1.689	15.080	169.200	147.200	0.370	5.250	3.958
3	20:03:03	4.076	1.821	15.290	169.200	149.900	0.343	4.592	4.195
x		4.682	1.751	14.990	166.800	146.700	0.358	4.863	4.077
σ		0.578	0.066	0.360	4.151	3.539	0.013	0.344	0.119
%RSD		12.350	3.770	2.401	2.489	2.413	3.741	7.072	2.906
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:10	3.538	4.685	5.216	7.486	0.391	0.388	0.000	7.527
2	20:02:36	3.571	5.527	5.680	5.049	0.238	1.314	0.000	7.870
3	20:03:03	3.856	5.357	6.078	6.406	0.907	1.595	0.000	8.012
x		3.655	5.190	5.658	6.314	0.512	1.099	0.000	7.803
σ		0.175	0.445	0.431	1.221	0.350	0.632	0.000	0.250
%RSD		4.778	8.579	7.621	19.340	68.420	57.500	0.000	3.200
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:10	90.555%	3.967	4.111	82.935%	-0.008	-0.009	0.195	0.066
2	20:02:36	91.132%	4.239	4.111	88.115%	-0.009	-0.002	0.169	0.149
3	20:03:03	91.916%	3.960	4.153	88.183%	-0.013	-0.017	0.214	0.146
x		91.201%	4.055	4.125	86.411%	-0.010	-0.009	0.193	0.120
σ		0.683%	0.159	0.024	3.010%	0.003	0.008	0.022	0.047
%RSD		0.749	3.919	0.591	3.484	25.470	81.090	11.490	39.040
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:10	87.089%	0.013	1.875	1.768	4.450	4.896	95.782%	93.089%
2	20:02:36	89.948%	-0.013	1.883	1.830	5.171	5.104	96.273%	95.836%
3	20:03:03	90.964%	-0.027	1.779	1.790	5.155	5.009	98.316%	97.752%
x		89.334%	-0.009	1.846	1.796	4.925	5.003	96.790%	95.559%
σ		2.009%	0.020	0.058	0.031	0.412	0.104	1.344%	2.344%
%RSD		2.249	225.900	3.149	1.753	8.361	2.078	1.389	2.453
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:02:10	0.004	0.001	8.514	7.725	7.977	92.174%		
2	20:02:36	0.010	0.002	8.765	8.442	8.484	89.302%		
3	20:03:03	0.004	0.004	8.917	8.485	8.633	89.687%		
x		0.006	0.002	8.732	8.218	8.365	90.388%		
σ		0.004	0.002	0.203	0.427	0.344	1.559%		
%RSD		61.990	76.760	2.329	5.195	4.112	1.725		

180-42580-N-4-A 4/6/2015 8:06:03 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	20:06:30	80.108%	0.091	45.920	43.140	0.000	211500.000	2322.000	2263.000
2	20:06:56	77.991%	0.164	47.470	44.650	0.000	218000.000	2404.000	2376.000
3	20:07:23	78.004%	-0.071	45.730	44.340	0.000	219000.000	2411.000	2356.000
x		78.701%	0.061	46.370	44.040	0.000	216200.000	2379.000	2332.000
σ		1.219%	0.120	0.956	0.797	0.000	4073.000	49.230	60.480
%RSD		1.548	196.200	2.061	1.810	0.000	1.884	2.069	2.594

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:30	349.100	89950.000	0.000	1686.000	10450.000	10130.000	89.019%	13.790
2	20:06:56	367.200	92860.000	0.000	1718.000	10560.000	10520.000	88.755%	14.330
3	20:07:23	371.000	92330.000	0.000	1738.000	10460.000	10520.000	89.065%	13.800
x		362.400	91710.000	0.000	1714.000	10490.000	10390.000	88.946%	13.970
σ		11.700	1551.000	0.000	26.310	59.450	222.500	0.167%	0.308
%RSD		3.227	1.691	0.000	1.535	0.567	2.142	0.188	2.203

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:30	1.967	2.787	25.360	1106.000	1024.000	0.344	3.685	9.321
2	20:06:56	3.251	2.857	26.320	1156.000	1064.000	0.363	3.650	9.504
3	20:07:23	3.289	2.922	26.210	1160.000	1069.000	0.372	3.860	9.736
x		2.835	2.855	25.960	1141.000	1052.000	0.360	3.732	9.520
σ		0.753	0.067	0.526	30.070	24.830	0.014	0.113	0.208
%RSD		26.540	2.363	2.026	2.636	2.360	3.909	3.021	2.188

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:30	8.482	13.450	12.740	6.311	0.324	1.145	0.000	36.890
2	20:06:56	8.667	12.630	13.260	5.151	-0.229	0.894	0.000	37.950
3	20:07:23	8.650	12.620	13.330	6.528	0.977	0.756	0.000	38.080
x		8.600	12.900	13.110	5.997	0.357	0.932	0.000	37.640
σ		0.102	0.479	0.320	0.740	0.604	0.197	0.000	0.649
%RSD		1.187	3.712	2.439	12.350	168.900	21.160	0.000	1.725

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:30	87.999%	6.003	6.032	82.945%	0.023	0.010	0.338	0.178
2	20:06:56	88.749%	6.196	6.377	84.621%	0.003	-0.013	0.287	0.226
3	20:07:23	89.277%	6.255	6.187	85.303%	0.007	-0.000	0.285	0.133
x		88.675%	6.151	6.199	84.290%	0.011	-0.001	0.303	0.179
σ		0.642%	0.132	0.173	1.213%	0.011	0.012	0.030	0.047
%RSD		0.724	2.145	2.794	1.439	96.390	1574.000	9.985	26.130

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:30	87.343%	0.056	2.674	2.766	15.140	14.900	94.997%	93.504%
2	20:06:56	89.937%	0.078	2.812	2.789	15.380	15.100	95.971%	95.240%
3	20:07:23	90.368%	0.122	2.703	2.757	15.870	15.330	96.959%	96.626%
x		89.216%	0.085	2.730	2.771	15.460	15.110	95.975%	95.123%
σ		1.636%	0.034	0.073	0.017	0.374	0.215	0.981%	1.564%
%RSD		1.834	39.720	2.679	0.601	2.418	1.419	1.022	1.645

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:06:30	0.000	0.003	27.070	25.370	25.830	91.114%
2	20:06:56	0.012	0.002	28.460	27.240	27.360	89.200%
3	20:07:23	0.015	0.006	28.750	27.500	27.630	89.089%
x		0.009	0.004	28.100	26.710	26.940	89.801%
σ		0.008	0.002	0.896	1.162	0.969	1.139%
%RSD		84.160	53.680	3.190	4.351	3.597	1.268

180-42580-N-4-A SD@5 4/6/2015 8:10:21 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	20:10:47	81.490%	0.229	9.304	8.967	0.000	43080.000	468.800	455.300
2	20:11:14	81.981%	-0.059	7.600	8.997	0.000	43740.000	480.300	479.100
3	20:11:41	82.454%	0.021	8.482	9.614	0.000	43470.000	478.800	462.100
x		81.975%	0.064	8.462	9.193	0.000	43430.000	475.900	465.500
σ		0.482%	0.149	0.852	0.365	0.000	329.000	6.241	12.260
%RSD		0.588	233.200	10.070	3.974	0.000	0.758	1.311	2.634

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:47	70.430	18260.000	0.000	278.000	2145.000	2032.000	87.285%	3.000
2	20:11:14	73.660	18710.000	0.000	285.200	2061.000	2023.000	86.990%	2.670
3	20:11:41	73.060	18520.000	0.000	282.100	2122.000	2109.000	87.680%	2.962
x		72.380	18500.000	0.000	281.700	2109.000	2054.000	87.318%	2.877
σ		1.714	223.400	0.000	3.627	43.490	47.180	0.346%	0.180
%RSD		2.368	1.208	0.000	1.287	2.062	2.297	0.397	6.263

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:47	0.199	0.690	5.101	214.500	191.400	0.070	0.525	1.825
2	20:11:14	1.839	0.747	5.227	221.800	202.300	0.094	0.497	1.803
3	20:11:41	1.507	0.655	5.200	220.000	201.100	0.080	0.474	1.857
x		1.182	0.698	5.176	218.800	198.200	0.081	0.498	1.828
σ		0.867	0.046	0.066	3.799	5.975	0.012	0.026	0.027
%RSD		73.360	6.637	1.282	1.736	3.014	14.640	5.165	1.498

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:47	1.823	2.995	3.098	1.521	-0.562	0.121	0.000	7.340
2	20:11:14	1.784	3.068	3.229	1.996	-0.525	0.989	0.000	7.350
3	20:11:41	1.748	3.145	2.888	1.934	-1.090	1.793	0.000	7.575
x		1.785	3.069	3.072	1.817	-0.726	0.968	0.000	7.422
σ		0.038	0.075	0.172	0.258	0.317	0.836	0.000	0.133
%RSD		2.106	2.433	5.604	14.210	43.610	86.370	0.000	1.791

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:47	87.259%	1.134	1.243	85.612%	-0.009	-0.010	0.098	0.013
2	20:11:14	87.345%	1.388	1.338	86.364%	-0.004	-0.009	0.092	-0.040
3	20:11:41	88.533%	1.328	1.264	87.061%	0.002	-0.010	0.063	-0.035
x		87.712%	1.283	1.282	86.346%	-0.003	-0.010	0.084	-0.021
σ		0.712%	0.132	0.050	0.725%	0.005	0.001	0.019	0.029
%RSD		0.812	10.320	3.883	0.839	157.400	9.323	21.950	142.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:47	86.123%	-0.042	0.570	0.559	3.148	2.917	93.955%	91.854%
2	20:11:14	86.714%	-0.045	0.539	0.536	2.952	3.115	93.836%	93.214%
3	20:11:41	88.730%	-0.047	0.534	0.565	2.940	3.188	94.461%	93.210%
x		87.189%	-0.045	0.548	0.553	3.013	3.074	94.084%	92.759%
σ		1.367%	0.003	0.019	0.015	0.117	0.140	0.332%	0.784%
%RSD		1.568	5.649	3.546	2.796	3.872	4.561	0.353	0.845

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:10:47	-0.001	-0.003	5.393	5.031	5.090	89.803%
2	20:11:14	0.007	-0.006	5.543	5.176	5.316	88.429%
3	20:11:41	0.001	-0.004	5.693	5.413	5.494	88.330%
x		0.002	-0.004	5.543	5.207	5.300	88.854%
σ		0.004	0.002	0.150	0.193	0.203	0.823%
%RSD		193.800	38.310	2.711	3.697	3.825	0.927

180-42580-O-4-A 4/6/2015 8:14:41 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	20:15:07	76.619%	0.107	40.540	37.790	0.000	215800.000	2193.000	2138.000
2	20:15:34	76.520%	0.150	40.950	37.020	0.000	219000.000	2235.000	2182.000
3	20:16:01	77.310%	-0.026	39.910	38.210	0.000	216300.000	2222.000	2163.000
x		76.816%	0.077	40.460	37.680	0.000	217000.000	2217.000	2161.000
σ		0.430%	0.092	0.526	0.605	0.000	1700.000	21.520	22.310
%RSD		0.560	119.000	1.300	1.606	0.000	0.783	0.971	1.032

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	41.910	93530.000	0.000	1679.000	9723.000	9743.000	85.605%	8.847
2	20:15:34	43.550	94090.000	0.000	1728.000	10440.000	10100.000	85.848%	10.210
3	20:16:01	43.860	93660.000	0.000	1741.000	10380.000	10070.000	86.488%	9.275
x		43.110	93760.000	0.000	1716.000	10180.000	9973.000	85.980%	9.444
σ		1.051	288.600	0.000	32.400	400.600	199.700	0.456%	0.697
%RSD		2.439	0.308	0.000	1.888	3.934	2.003	0.531	7.382

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	4.347	1.901	10.550	402.500	406.100	0.168	3.201	5.350
2	20:15:34	5.192	1.927	10.990	420.400	413.800	0.162	3.242	5.653
3	20:16:01	3.774	1.933	11.120	420.800	418.200	0.193	3.375	5.308
x		4.438	1.920	10.890	414.500	412.700	0.174	3.273	5.437
σ		0.713	0.017	0.300	10.440	6.145	0.016	0.091	0.188
%RSD		16.070	0.897	2.754	2.518	1.489	9.448	2.778	3.461

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	4.901	7.506	7.758	6.999	-0.813	0.751	0.000	36.460
2	20:15:34	5.120	7.724	7.937	5.855	0.114	0.556	0.000	36.380
3	20:16:01	4.822	7.872	8.080	5.772	0.102	0.699	0.000	36.790
x		4.948	7.700	7.925	6.209	-0.199	0.669	0.000	36.540
σ		0.154	0.184	0.161	0.685	0.532	0.101	0.000	0.217
%RSD		3.120	2.392	2.037	11.040	267.400	15.110	0.000	0.595

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	83.921%	5.872	5.893	81.654%	0.007	0.004	0.152	-0.018
2	20:15:34	86.506%	5.982	6.072	83.264%	0.005	-0.013	0.107	0.036
3	20:16:01	87.440%	6.179	6.182	84.141%	0.007	0.000	0.105	0.037
x		85.956%	6.011	6.049	83.020%	0.006	-0.003	0.121	0.019
σ		1.823%	0.156	0.146	1.261%	0.001	0.009	0.026	0.031
%RSD		2.120	2.590	2.406	1.519	17.450	282.800	21.600	168.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	84.433%	-0.024	2.695	2.626	11.310	11.540	91.700%	91.733%
2	20:15:34	83.890%	-0.007	2.719	2.733	11.300	11.790	95.151%	93.389%
3	20:16:01	85.387%	-0.010	2.732	2.732	11.650	11.330	94.543%	95.215%
x		84.570%	-0.014	2.715	2.697	11.420	11.550	93.798%	93.445%
σ		0.758%	0.009	0.019	0.062	0.199	0.229	1.842%	1.742%
%RSD		0.896	65.050	0.704	2.285	1.743	1.984	1.964	1.864

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:15:07	-0.002	-0.002	5.675	5.333	5.397	91.649%
2	20:15:34	0.005	-0.002	6.108	5.734	5.809	88.747%
3	20:16:01	0.007	-0.004	6.126	5.654	5.814	89.324%
x		0.003	-0.003	5.970	5.574	5.673	89.906%
σ		0.005	0.001	0.255	0.212	0.239	1.536%
%RSD		149.000	32.280	4.277	3.808	4.212	1.709

CCV 1487954 4/6/2015 8:18:59 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	20:19:26	74.246%	96.880	99.070	94.200	0.000	51890.000	47250.000	46170.000
2	20:19:52	76.578%	94.890	104.500	96.330	0.000	51930.000	47840.000	46710.000
3	20:20:19	75.214%	99.910	109.600	102.300	0.000	52900.000	48610.000	47660.000
x		75.346%	97.227%	104.391%	97.618%	0.000	104.479%	95.798%	93.691%
σ		1.172%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.555	2.601	5.041	4.317	0.000	1.089	1.427	1.621

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:19:26	442.200	5829.000	0.000	51850.000	49540.000	50110.000	78.610%	99.520
2	20:19:52	451.300	5957.000	0.000	52350.000	51400.000	51950.000	79.584%	102.800
3	20:20:19	463.200	6115.000	0.000	51860.000	51110.000	52020.000	79.585%	102.200
x		90.451%	119.338%	0.000	104.039%	101.370%	102.714%	79.260%	101.531%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.563%	n/a
%RSD		2.326	2.396	0.000	0.548	1.978	2.111	0.710	1.739

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:19:26	92.250	92.290	499.900	24270.000	24640.000	91.990	91.440	93.480
2	20:19:52	96.300	95.610	514.500	25040.000	25780.000	94.360	95.500	94.680
3	20:20:19	96.500	96.370	519.400	25250.000	25790.000	94.620	95.750	95.400
x		95.017%	94.759%	102.254%	99.421%	101.621%	93.659%	94.232%	94.520%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.523	2.291	1.977	2.082	2.617	1.548	2.570	1.025

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:19:26	92.680	95.740	96.620	96.460	102.900	99.380	0.000	94.890
2	20:19:52	95.550	97.070	97.440	96.640	100.100	100.400	0.000	96.910
3	20:20:19	95.700	96.270	97.770	98.250	98.160	102.000	0.000	97.450
x		94.644%	96.359%	97.279%	97.117%	100.389%	100.610%	0.000	96.415%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.799	0.691	0.610	1.014	2.354	1.305	0.000	1.396

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:19:26	80.209%	90.050	89.870	77.784%	91.730	92.540	95.270	93.430
2	20:19:52	81.289%	93.770	94.720	78.590%	91.700	91.650	95.180	95.170
3	20:20:19	82.239%	97.050	96.690	78.388%	91.860	93.450	97.460	96.190
x		81.246%	93.623%	93.763%	78.254%	91.766%	92.548%	95.971%	94.929%
σ		1.016%	n/a	n/a	0.419%	n/a	n/a	n/a	n/a
%RSD		1.250	3.740	3.745	0.535	0.090	0.971	1.349	1.470

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:19:26	78.661%	96.770	100.100	98.470	97.600	97.940	86.417%	85.439%
2	20:19:52	81.263%	98.560	100.100	99.910	98.920	98.140	87.696%	86.581%
3	20:20:19	80.721%	98.650	100.700	100.900	98.940	97.660	88.336%	87.237%
x		80.215%	97.992%	100.277%	99.747%	98.488%	97.914%	87.483%	86.419%
σ		1.373%	n/a	n/a	n/a	n/a	n/a	0.977%	0.910%
%RSD		1.711	1.080	0.326	1.208	0.782	0.243	1.117	1.053

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:19:26	95.010	92.010	93.150	93.440	92.610	81.324%
2	20:19:52	96.150	93.840	95.600	96.780	95.630	81.140%
3	20:20:19	97.890	96.260	97.920	98.080	97.090	79.818%
x		96.350%	94.036%	95.556%	96.101%	95.109%	80.761%
σ		n/a	n/a	n/a	n/a	n/a	0.822%
%RSD		1.506	2.264	2.498	2.488	2.398	1.017

CCB10 4/6/2015 8:26:25 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	20:26:52	81.654%	0.024	0.901	0.547	0.000	185.300	20.910	19.820
2	20:27:18	82.585%	-0.060	1.226	0.785	0.000	181.700	19.780	18.520
3	20:27:45	82.178%	0.103	0.767	0.664	0.000	190.800	18.760	19.060
x		82.139%	0.022	0.964	0.665	0.000	186.000	19.820	19.130
σ		0.467%	0.082	0.236	0.119	0.000	4.583	1.075	0.655
%RSD		0.568	365.600	24.470	17.880	0.000	2.465	5.427	3.424

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:52	1.122	76.520	0.000	-19.230	19.950	25.920	86.143%	-0.070
2	20:27:18	1.211	88.330	0.000	-24.350	27.670	32.470	86.567%	-0.178
3	20:27:45	1.221	100.600	0.000	-28.590	-7.929	26.940	87.165%	0.053
x		1.185	88.490	0.000	-24.050	13.230	28.440	86.625%	-0.065
σ		0.054	12.040	0.000	4.687	18.730	3.527	0.513%	0.116
%RSD		4.585	13.610	0.000	19.480	141.500	12.400	0.593	178.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:52	-0.581	0.286	0.272	27.830	-2.751	0.024	-0.294	-0.006
2	20:27:18	0.144	0.327	0.247	26.060	-6.258	0.028	-0.238	-0.047
3	20:27:45	0.463	0.318	0.329	27.030	-4.725	0.011	-0.284	0.020
x		0.008	0.310	0.283	26.970	-4.578	0.021	-0.272	-0.011
σ		0.535	0.022	0.042	0.886	1.758	0.009	0.030	0.034
%RSD		6396.000	6.985	14.810	3.284	38.410	44.020	10.930	300.400

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:52	-0.090	0.093	0.135	0.004	1.280	0.332	0.000	0.102
2	20:27:18	-0.116	0.267	0.012	0.281	0.759	0.758	0.000	0.075
3	20:27:45	-0.169	0.275	0.125	0.467	0.439	0.257	0.000	0.096
x		-0.125	0.211	0.091	0.251	0.826	0.449	0.000	0.091
σ		0.040	0.103	0.068	0.233	0.424	0.270	0.000	0.014
%RSD		32.010	48.670	74.980	92.920	51.370	60.220	0.000	15.160

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:52	85.296%	0.212	0.239	85.303%	0.006	0.013	0.068	0.017
2	20:27:18	86.057%	0.229	0.276	83.801%	0.050	0.015	0.035	0.007
3	20:27:45	87.103%	0.227	0.229	84.027%	0.029	0.021	0.097	-0.044
x		86.152%	0.223	0.248	84.377%	0.028	0.016	0.067	-0.007
σ		0.907%	0.009	0.025	0.810%	0.022	0.004	0.031	0.033
%RSD		1.053	4.132	9.944	0.960	78.480	23.860	46.790	472.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:52	84.262%	0.125	0.070	0.066	0.131	0.147	90.660%	88.222%
2	20:27:18	85.774%	0.171	0.049	0.053	0.140	0.155	91.886%	90.025%
3	20:27:45	87.604%	0.200	0.062	0.084	0.193	0.128	91.848%	90.511%
x		85.880%	0.165	0.060	0.068	0.154	0.143	91.465%	89.586%
σ		1.673%	0.038	0.011	0.016	0.033	0.014	0.697%	1.206%
%RSD		1.949	23.010	17.700	23.020	21.660	9.602	0.763	1.346

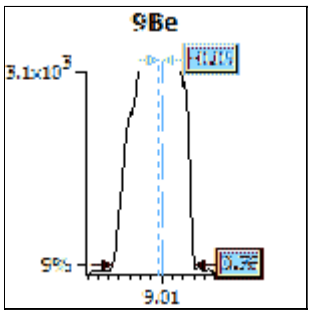
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:26:52	0.025	0.020	-0.021	-0.024	-0.020	90.383%
2	20:27:18	0.028	0.022	-0.003	0.000	-0.008	89.451%
3	20:27:45	0.029	0.023	-0.010	-0.004	-0.010	89.788%
x		0.027	0.021	-0.011	-0.009	-0.013	89.874%
σ		0.002	0.001	0.009	0.013	0.006	0.472%
%RSD		8.490	5.351	83.640	140.300	49.560	0.525

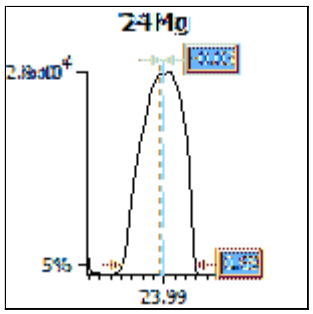
Performance Report

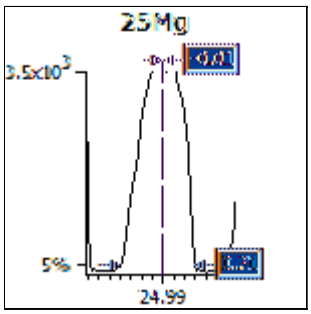
Sample details
Sample name : ITUNE
Acquired at : 4/6/2015 9:55:13 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

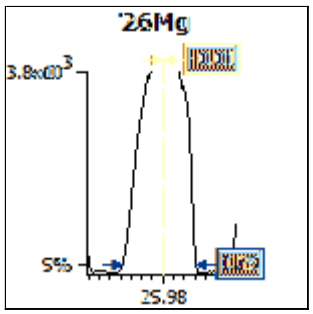
Mass Calibration verification

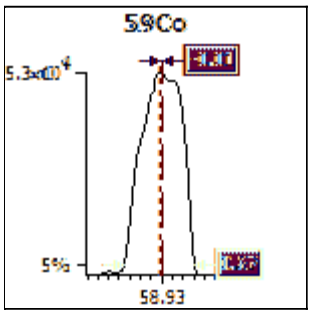
Acquisition parameters
Sweeps : 50
Dwell : 1.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

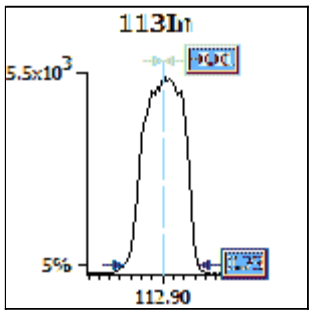


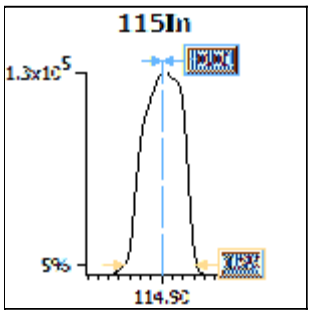


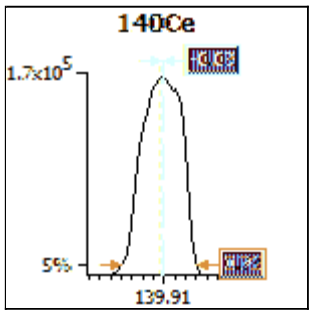


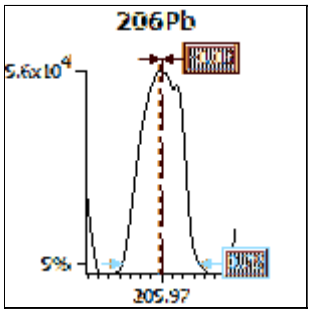


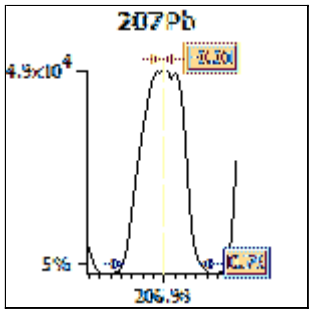


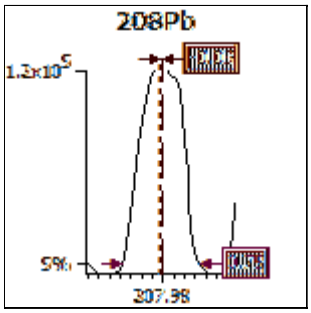












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.40	0.10	0.76	-0.05
24Mg	0.90	0.40	0.10	0.69	-0.03
25Mg	0.90	0.40	0.10	0.71	-0.01
26Mg	0.90	0.40	0.10	0.69	-0.01
59Co	0.90	0.40	0.10	0.67	-0.01
113In	0.90	0.40	0.10	0.73	-0.01
115In	0.90	0.40	0.10	0.69	-0.01
140Ce	0.90	0.40	0.10	0.73	-0.03
206Pb	0.90	0.40	0.10	0.75	-0.03
207Pb	0.90	0.40	0.10	0.75	-0.01
208Pb	0.90	0.40	0.10	0.75	-0.03

Sample details
Sample name : ITUNE
Acquired at : 4/6/2015 9:55:13 AM
Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

Tune conditions

Major	
Extraction	-184
Lens 1	-3.2
Focus	23.1
D1	-27.5
Pole Bias	0.0
Hexapole Bias	-3.4
Nebuliser	0.84
Sampling Depth	200

Minor	
Lens 2	-32.9
Lens 3	-179.6
Forward power	1400
Horizontal	49
Vertical	500
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	9:56:00 AM	39	3405	28121	3825	4429	54774	5742	131099
2	9:57:12 AM	43	3574	28320	3891	4594	54830	5686	130655
3	9:58:24 AM	41	3436	28353	3852	4436	55067	5527	130686
4	9:59:36 AM	41	3446	28452	4017	4576	54990	5713	131276
5	10:00:48 AM	45	3488	28828	3970	4588	55398	5687	130895
x		42	3470	28415	3911	4524	55012	5671	130922
σ		2.53	65.07	260.49	80.57	84.37	246.42	83.63	266.56
%RSD		6.042	1.875	0.917	2.060	1.865	0.448	1.475	0.204

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	9:56:00 AM	167113	2975	55992	50628	121797	36
2	9:57:12 AM	167268	2986	56975	51157	121801	39
3	9:58:24 AM	168695	2971	56047	50738	120983	37
4	9:59:36 AM	167796	2988	56148	51145	121313	41
5	10:00:48 AM	168028	2958	56214	51201	120854	43
x		167780	2976	56275	50974	121349	39
σ		633.74	12.20	400.60	269.01	443.12	2.92
%RSD		0.378	0.410	0.712	0.528	0.365	7.421

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	9:56:00 AM	0
2	9:57:12 AM	0
3	9:58:24 AM	0
4	9:59:36 AM	0
5	10:00:48 AM	0
x		0.0177
σ		0.00
%RSD		0.6694

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Batch Number: 137340 Batch Start Date: 04/02/15 11:05 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 04/02/15 15:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00023	MTAPITTMSC 00029	
MB 180-137340/1		3005A, 6020A		50 mL	50 mL				
LCS 180-137340/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-42445-B-2	HD-MW-96S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-3	HD-MW-96D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-4	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-4 MS	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-42445-B-4 MSD	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-42445-B-5	HD-MW-98S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-6	HD-MW-39D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-7	HD-MW-74S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-8	HD-MW-50D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-9	HD-MW-51S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-42445-B-10	HD-QC2-0/1-1	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals A7
First End time	15:05
Lot # of hydrochloric acid	2.5 ml 1452464
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	11:05
ID number of the thermometer	IP1-14 CF=0.0 H6
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.: 180-42445-1

SDG No.:

Batch Number: 137340 Batch Start Date: 04/02/15 11:05 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 04/02/15 15:05

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: 180-42445-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-96S-0/1-0	180-42445-2
HD-MW-96D-0/1-0	180-42445-3
HD-MW-98I-0/1-0	180-42445-4
HD-MW-98S-0/1-0	180-42445-5
HD-MW-39D-0/1-0	180-42445-6
HD-MW-74S-0/1-0	180-42445-7
HD-MW-50D-0/1-0	180-42445-8
HD-MW-51S-0/1-0	180-42445-9
HD-QC2-0/1-1	180-42445-10

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-42445-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 09:35

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	270	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	270	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: 180-42445-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 08:55

Reporting Basis: WET Date Received: 03/27/2015 09:30

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-98I-0/1-0 Lab Sample ID: 180-42445-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 14:25

Reporting Basis: WET Date Received: 03/27/2015 09:30

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-98S-0/1-0 Lab Sample ID: 180-42445-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 13:45

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	290	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	290	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-39D-0/1-0 Lab Sample ID: 180-42445-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 12:20

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	250	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	250	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-74S-0/1-0 Lab Sample ID: 180-42445-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 10:50

Reporting Basis: WET Date Received: 03/27/2015 09:30

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-MW-50D-0/1-0 Lab Sample ID: 180-42445-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 10:32

Reporting Basis: WET Date Received: 03/27/2015 09:30

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-51S-0/1-0 Lab Sample ID: 180-42445-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 14:42

Reporting Basis: WET Date Received: 03/27/2015 09:30

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-QC2-0/1-1 Lab Sample ID: 180-42445-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2015 08:00

Reporting Basis: WET Date Received: 03/27/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	330	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	330	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.: 180-42445-1

SDG No.:

Analyst: CLL Batch Start Date: 04/02/2015

Reporting Units: mg/L Analytical Batch No.: 137271

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
25	CCV	05:00	Total Alkalinity as CaCO3 to pH 4.5	134	125	107	80-120		WALK125PPMCCV_00083
26	CCB	05:00	Total Alkalinity as CaCO3 to pH 4.5	2.06				J	
			Bicarbonate Alkalinity as CaCO3	2.06				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
36	CCV	05:00	Total Alkalinity as CaCO3 to pH 4.5	134	125	107	80-120		WALK125PPMCCV_00083
37	CCB	05:00	Total Alkalinity as CaCO3 to pH 4.5	2.06				J	
			Bicarbonate Alkalinity as CaCO3	2.06				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
43	CCV	05:00	Total Alkalinity as CaCO3 to pH 4.5	132	125	105	80-120		WALK125PPMCCV_00083
44	CCB	05:00	Total Alkalinity as CaCO3 to pH 4.5	2.06				J	
			Bicarbonate Alkalinity as CaCO3	2.06				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.: 180-42445-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 137271 Date: 04/02/2015 05:00							
SM 2320B	MB 180-137271/28	Total Alkalinity as CaCO3 to pH 4.5	2.06	J	mg/L	5.0	1
SM 2320B	MB 180-137271/28	Bicarbonate Alkalinity as CaCO3	2.06	J	mg/L	5.0	1
SM 2320B	MB 180-137271/28	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.: 180-42445-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 137271 Date: 04/02/2015 05:00								
SM 2320B	HD-MW-98I-0/1-0	180-42445-4	Total Alkalinity as CaCO3 to pH 4.5	280	mg/L			
SM 2320B	HD-MW-98I-0/1-0	180-42445-4 DU	Total Alkalinity as CaCO3 to pH 4.5	284	mg/L	2	20	
SM 2320B	HD-MW-98I-0/1-0	180-42445-4	Bicarbonate Alkalinity as CaCO3	280	mg/L			
SM 2320B	HD-MW-98I-0/1-0	180-42445-4 DU	Bicarbonate Alkalinity as CaCO3	284	mg/L	2	20	
SM 2320B	HD-MW-98I-0/1-0	180-42445-4	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-98I-0/1-0	180-42445-4 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 137271 Date: 04/02/2015 05:00								
SM 2320B	HD-MW-50D-0/1-0	180-42445-8	Total Alkalinity as CaCO3 to pH 4.5	300	mg/L			
SM 2320B	HD-MW-50D-0/1-0	180-42445-8 DU	Total Alkalinity as CaCO3 to pH 4.5	297	mg/L	0.7	20	
SM 2320B	HD-MW-50D-0/1-0	180-42445-8	Bicarbonate Alkalinity as CaCO3	300	mg/L			
SM 2320B	HD-MW-50D-0/1-0	180-42445-8 DU	Bicarbonate Alkalinity as CaCO3	297	mg/L	0.7	20	
SM 2320B	HD-MW-50D-0/1-0	180-42445-8	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-50D-0/1-0	180-42445-8 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.: 180-42445-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 137271 Date: 04/02/2015 05:00											
						LCS Source: WALK250PPMPi_00092					
SM 2320B	LCS 180-137271/27	Total Alkalinity as CaCO3 to pH 4.5	266		mg/L	250	106	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: 180-42445-1

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: 180-42445-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B XMDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh   Job No.: 180-42445-1

SDG No.:

Instrument ID: NOEQUIP   Analysis Method: SM 2320B

Start Date: 04/02/2015 05:00   End Date: 04/02/2015 05:00

Lab Sample Id	D/F	Type	Time	Analytes: Alk	BALKCC	CarAlk
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
CCV 180-137271/13			05:00			
CCB 180-137271/14			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
ZZZZZZ			05:00			
CCV 180-137271/25	1		05:00	X		
CCB 180-137271/26	1		05:00	X	X	X
LCS 180-137271/27	1	T	05:00	X		
MB 180-137271/28	1	T	05:00	X	X	X
ZZZZZZ			05:00			
180-42445-2	1	T	05:00	X	X	X
180-42445-3	1	T	05:00	X	X	X
180-42445-4	1	T	05:00	X	X	X
180-42445-4 DU	1	T	05:00	X	X	X
180-42445-5	1	T	05:00	X	X	X
180-42445-6	1	T	05:00	X	X	X
CCV 180-137271/36	1		05:00	X		
CCB 180-137271/37	1		05:00	X	X	X
180-42445-7	1	T	05:00	X	X	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 04/02/2015 05:00 End Date: 04/02/2015 05:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				Alk	BALKCC	CarAlk																							
180-42445-8	1	T	05:00	X	X	X																							
180-42445-8 DU	1	T	05:00	X	X	X																							
180-42445-9	1	T	05:00	X	X	X																							
180-42445-10	1	T	05:00	X	X	X																							
CCV 180-137271/43	1		05:00	X																									
CCB 180-137271/44	1		05:00	X	X	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Alk#040215ALK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-018

Analyst: CLahuyb **Date:** 4-2-15
Reviewed By: SeeDRC **Date:** ~~CM~~ 4-2-15
pH Meter ID: AccumetXL 5/V93110 2132 **AD Batch:** 137221
pH 4 Start: 4.03 **pH 4 End:** 4.05

Job Number(s): 42417-42422-42423-42443-42508-42445
460-92249

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-2015-018

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	10.82	50	6.6	13.0	.0206	267.8				
MB	5.03		0	0.1		2.06				
180-42417-1	8.44		0.2	13.4		276.04				
180-42443-1	4.12		0	0		ND				
-1X	4.10		0	0		ND				
2	6.66		0	26.1		537.66				
3	6.03		0	1.8		37.08				
4	7.65		0	11.6		238.96				
~~5~~	~~5.30~~		~~0~~				~~CW4-2-15~~			
6	6.96		0	6.4		131.84				
~~7~~	~~4.67~~		~~0~~				~~CW4-2-15~~			
~~180-42508-9~~	~~5.54~~		~~0~~				~~CW4-2-15~~			
CCV	10.59		3.1	6.5		133.9				
CCB	5.00		0	0.1		2.06				
460-92249-1	8.09		0	6.9		142.14				
180-42422-1	7.57		0	14.1		290.46				
2	8.57		0.7	22.5		463.5				
180-42423-1	6.89		0	7.3		150.38				
2	7.42		0	5.5		113.3				
2X	7.39		0	5.4		111.24				
3	7.67		0	1.5		30.9				
4	7.77		0	12.9		265.74				
5	7.38		0	4.2		86.52				
6	7.17		0	12.7		261.62				
CCV	10.64		3.2	6.5		133.9				
CCB	5.06		0	0.1		2.06				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-018

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.87	50	6.5	12.9	.0206	265.74				
MB	5.01		0	0.1		2.06				
180-42423-7	7.28		0	10.5		216.3				
180-42445-2	7.17		0	13.0		267.8				
-3	7.23		0	12.5		257.5				
-4	7.01		0	13.5		278.1				
4X	7.05		0	13.8		284.28				
5	6.96		0	14.2		292.52				
6	7.16		0	12.0		247.2				
CCV	10.47		3.1	6.5		133.9				
CCB	5.11		0	0.1		2.06				
180-42445-7	7.21		0	10.8		222.48				
8	7.17		0	14.5		298.7				
8X	7.20		0	14.4		296.64				
9	7.11		0	10.9		224.54				
10	6.85		0	15.8		325.48				
CCV	10.59		3.2	6.4		131.84				
CCB	5.15		0	0.1		2.06				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42445-1

SDG No.:

Batch Number: 137271 Batch Start Date: 04/02/15 05:00 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
CCV 180-137271/25		SM 2320B		50 mL	10.64 SU	0 mL	3.2 mL	3.2 mL	0 mL
CCB 180-137271/26		SM 2320B		50 mL	5.06 SU	0 mL	0 mL	0 mL	0 mL
LCS 180-137271/27		SM 2320B		50 mL	10.87 SU	0 mL	6.5 mL	6.5 mL	0 mL
MB 180-137271/28		SM 2320B		50 mL	5.01 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-2	HD-MW-96S-0/1-0	SM 2320B	T	50 mL	7.17 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-3	HD-MW-96D-0/1-0	SM 2320B	T	50 mL	7.23 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-4	HD-MW-98I-0/1-0	SM 2320B	T	50 mL	7.01 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-4 DU	HD-MW-98I-0/1-0	SM 2320B	T	50 mL	7.05 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-5	HD-MW-98S-0/1-0	SM 2320B	T	50 mL	6.96 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-6	HD-MW-39D-0/1-0	SM 2320B	T	50 mL	7.16 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-137271/36		SM 2320B		50 mL	10.47 SU	0 mL	3.1 mL	3.1 mL	0 mL
CCB 180-137271/37		SM 2320B		50 mL	5.11 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-7	HD-MW-74S-0/1-0	SM 2320B	T	50 mL	7.21 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-8	HD-MW-50D-0/1-0	SM 2320B	T	50 mL	7.17 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-8 DU	HD-MW-50D-0/1-0	SM 2320B	T	50 mL	7.20 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-9	HD-MW-51S-0/1-0	SM 2320B	T	50 mL	7.11 SU	0 mL	0 mL	0 mL	0 mL
180-42445-A-10	HD-QC2-0/1-1	SM 2320B	T	50 mL	6.95 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-137271/43		SM 2320B		50 mL	10.59 SU	0 mL	3.2 mL	3.2 mL	0 mL
CCB 180-137271/44		SM 2320B		50 mL	5.15 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
CCV 180-137271/25		SM 2320B		3.3 mL	3.3 mL	Case 2	131.84 mg/L	0 mg/L	2.06 mg/L
CCB 180-137271/26		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.06 mg/L
LCS 180-137271/27		SM 2320B		6.4 mL	6.4 mL	Case 4	263.68 mg/L	2.06 mg/L	0 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.: 180-42445-1

SDG No.:

Batch Number: 137271 Batch Start Date: 04/02/15 05:00 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
MB 180-137271/28		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.06 mg/L
180-42445-A-2	HD-MW-96S-0/1-0	SM 2320B	T	13.0 mL	13 mL	Case 1	0 mg/L	0 mg/L	267.8 mg/L
180-42445-A-3	HD-MW-96D-0/1-0	SM 2320B	T	12.5 mL	12.5 mL	Case 1	0 mg/L	0 mg/L	257.5 mg/L
180-42445-A-4	HD-MW-98I-0/1-0	SM 2320B	T	13.5 mL	13.5 mL	Case 1	0 mg/L	0 mg/L	278.1 mg/L
180-42445-A-4 DU	HD-MW-98I-0/1-0	SM 2320B	T	13.8 mL	13.8 mL	Case 1	0 mg/L	0 mg/L	284.28 mg/L
180-42445-A-5	HD-MW-98S-0/1-0	SM 2320B	T	14.2 mL	14.2 mL	Case 1	0 mg/L	0 mg/L	292.52 mg/L
180-42445-A-6	HD-MW-39D-0/1-0	SM 2320B	T	12.0 mL	12 mL	Case 1	0 mg/L	0 mg/L	247.2 mg/L
CCV 180-137271/36		SM 2320B		3.4 mL	3.4 mL	Case 2	127.72 mg/L	0 mg/L	6.18000000000001 mg/L
CCB 180-137271/37		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.06 mg/L
180-42445-A-7	HD-MW-74S-0/1-0	SM 2320B	T	10.8 mL	10.8 mL	Case 1	0 mg/L	0 mg/L	222.48 mg/L
180-42445-A-8	HD-MW-50D-0/1-0	SM 2320B	T	14.5 mL	14.5 mL	Case 1	0 mg/L	0 mg/L	298.7 mg/L
180-42445-A-8 DU	HD-MW-50D-0/1-0	SM 2320B	T	14.4 mL	14.4 mL	Case 1	0 mg/L	0 mg/L	296.64 mg/L
180-42445-A-9	HD-MW-51S-0/1-0	SM 2320B	T	10.9 mL	10.9 mL	Case 1	0 mg/L	0 mg/L	224.54 mg/L
180-42445-A-10	HD-QC2-0/1-1	SM 2320B	T	15.8 mL	15.8 mL	Case 1	0 mg/L	0 mg/L	325.48 mg/L
CCV 180-137271/43		SM 2320B		3.2 mL	3.2 mL	Case 3	131.84 mg/L	0 mg/L	0 mg/L
CCB 180-137271/44		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.06 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00083	WALK250PPMPi 00092	
CCV 180-137271/25		SM 2320B		65.92 mg/L	133.9 mg/L	50 mL	50 mL		
CCB 180-137271/26		SM 2320B		0 mg/L	2.06 mg/L	50 mL			
LCS 180-137271/27		SM 2320B		133.9 mg/L	265.74 mg/L	50 mL		50 mL	
MB 180-137271/28		SM 2320B		0 mg/L	2.06 mg/L	50 mL			
180-42445-A-2	HD-MW-96S-0/1-0	SM 2320B	T	0 mg/L	267.8 mg/L	50 mL			
180-42445-A-3	HD-MW-96D-0/1-0	SM 2320B	T	0 mg/L	257.5 mg/L	50 mL			
180-42445-A-4	HD-MW-98I-0/1-0	SM 2320B	T	0 mg/L	278.1 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.: 180-42445-1

SDG No.:

Batch Number: 137271 Batch Start Date: 04/02/15 05:00 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00083	WALK250PPMPi 00092	
180-42445-A-4 DU	HD-MW-98I-0/1-0	SM 2320B	T	0 mg/L	284.28 mg/L	50 mL			
180-42445-A-5	HD-MW-98S-0/1-0	SM 2320B	T	0 mg/L	292.52 mg/L	50 mL			
180-42445-A-6	HD-MW-39D-0/1-0	SM 2320B	T	0 mg/L	247.2 mg/L	50 mL			
CCV 180-137271/36		SM 2320B		63.86 mg/L	133.9 mg/L	50 mL	50 mL		
CCB 180-137271/37		SM 2320B		0 mg/L	2.06 mg/L	50 mL			
180-42445-A-7	HD-MW-74S-0/1-0	SM 2320B	T	0 mg/L	222.48 mg/L	50 mL			
180-42445-A-8	HD-MW-50D-0/1-0	SM 2320B	T	0 mg/L	298.7 mg/L	50 mL			
180-42445-A-8 DU	HD-MW-50D-0/1-0	SM 2320B	T	0 mg/L	296.64 mg/L	50 mL			
180-42445-A-9	HD-MW-51S-0/1-0	SM 2320B	T	0 mg/L	224.54 mg/L	50 mL			
180-42445-A-10	HD-QC2-0/1-1	SM 2320B	T	0 mg/L	325.48 mg/L	50 mL			
CCV 180-137271/43		SM 2320B		65.92 mg/L	131.84 mg/L	50 mL	50 mL		
CCB 180-137271/44		SM 2320B		0 mg/L	2.06 mg/L	50 mL			

Batch Notes	
Batch Comment	PH 4 START: 4.03 PH 4 END: 4.05
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1282792
pH Buffer 3 ID	1393069
pH Buffer 4 ID	1500550
pH Buffer 5 ID	1511948
Sulfuric Acid Lot Number	1504514
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0206 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: 3/26/2015	COC No: TAP2015032602
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			10012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			r No. 2
(717) 657-1611 FAX	■ 2 weeks			
Project Name: Start Up Sampling Event 11	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

180-42445 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-QC5-0/1-2	3/26/15	12:00	Trip Blank	Water	2	X			
HD-MW-96S-0/1-0	3/26/15	9:35	Groundwater	Water	5	X	X	X	
HD-MW-96D-0/1-0	3/26/15	8:55	Groundwater	Water	5	X	X	X	
HD-MW-98I-0/1-0	3/26/15	14:25	Groundwater	Water	5	X	X	X	
HD-MW-98I-0/1-0 MS	3/26/15	14:25	Groundwater	Water	5	X	X	X	
HD-MW-98I-0/1-0 MSD	3/26/15	14:25	Groundwater	Water	5	X	X	X	
HD-MW-98S-0/1-0	3/26/15	13:45	Groundwater	Water	5	X	X	X	
HD-MW-39D-0/1-0	3/26/15	12:20	Groundwater	Water	5	X	X	X	
HD-MW-74S-0/1-0	3/26/15	10:50	Groundwater	Water	5	X	X	X	
HD-MW-50D-0/1-0	3/26/15	10:32	Groundwater	Water	5	X	X	X	
HD-MW-51S-0/1-0	3/26/15	14:42	Groundwater	Water	5	X	X	X	
HD-QC2-0/1-1	3/26/15	8:00	Groundwater	Water	5	X	X	X	
HD-QC1-0/1-3	3/26/15	15:05	Rinse Blank	Water	5	X	X	X	
HD-QC1-0/1-4	3/26/15	15:10	Field Blank	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=Zinc Acetate & NaOH	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: 3/26/15 15:20	Received by:	Company: TA	Date/Time: 3/26/15 15:20
Relinquished by:	Company: TA	Date/Time: 3/26/15 1655	Received by: Dellmie Watson	Company: TAP	Date/Time: 3-27-15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 0:20

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: 3/26/2015	COC No: TAP2015032601
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.: 10012.26.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			Container No. 1
(717) 901-8180 Phone	TAT if different from Below: Standard			SDG No.
(717) 657-1611 FAX	☐ 2 weeks			
Project Name: SPBA Sampling	☐ 1 week			
Site: Harley-Davidson, York PA	■ 5 days			
Quote # 18000557	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Sample Specific Notes:
HD-QC6-0/1-2	3/26/15	12:01	Trip Blank	Water	2	X	
HD-MW-167-0/1-0	3/26/15	10:10	Groundwater	Water	3	X	5 Day TAT
Number of Containers						3	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved 7=Zinc Acetate & NaOH						2	
Field Filter						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: 3/26/15 15:20	Received by: Barbara Watson	Company: TAP	Date/Time: 3-27-15
Relinquished by:	Company: TA	Date/Time: 3/26/15 1655	Received by:	Company:	Date/Time: 9:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

180-42445 Waybill

D:KPDA (610) 337-9992
ECEIPT
ERICA
1008 WEST 9TH AVE

KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 26MAR15
ACTWGT: 54.0 LB
CAD: 8490299/INET3610

BILL RECIPIENT

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

537J1/879A/EE4B

FedEx
Express

J151211F022301uv

3 of 3
MPS# 0263 7732 2673 2325
Mstr# 7732 2673 1031 0201

FRI - 27 MAR 3:00P
STANDARD OVERNIGHT

EV AGCA

15238
PA-US PIT

Uncorrected temp 1.9 °C
Thermometer ID 6
CF 0 Initials RGB
PT-WI-SR-001 effective 7/26/13


ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US
SHIP DATE: 26MAR15
ACTWGT: 38.0 LB
CAD: 8490299/INET3610
BILL RECIPIENT
SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:
Uncorrected temp 2.1 °C
Thermometer ID 2
CF 0.0 Initials KB
PT-WI-SR-001 effective 7/26/13
FedEx Express
1 of 3
TRK# 0201 7732 2673 1031
MASTER
FRI - 27 MAR 3:00P
STANDARD OVERNIGHT
EV AGCA
15238
PA-US PIT
King of Prussia
450
2 of 3
7732 2673 2141
7732 2673 1031
FRI - 27 MAR 3:
STANDARD OVERNI
0201
AGCA
152
PA-US P
Uncorrected temp 1.3 °C
Thermometer ID 2
CF 0.0 Initials KB
WI-SR-001 effective 7/26/13

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-42445-1

Login Number: 42445

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	see job narrative
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	